passion
for precision

fraisa

Utensili per foratura e filettatura

Punte in metallo duro Supradrill® U

- Lavorazione universale di acciai. Foratura affidabile di acciai e acciai inox
- Assortimento completo per una vasta gamma di componenti e applicazioni. L'assortimento di base comprende 3 x D e 5 x D con raffreddamento interno centralizzato e la variante 5xD senza raffreddamento interno centralizzato
- Strato ad alte prestazioni Nano-U^2: il rivestimento più efficiente per la foratura universale in acciaio
- Maggiore sicurezza del processo, maggiore durata e riduzione dei costi di produzione. Grazie al sistema a strati di sviluppo FRAISA e alla conformazione del tagliente adattata alle dimensioni

SUPRADRILL® U

Frese a filettare

- Grande sicurezza di processo nella realizzazione di filettature interne con profondità di foro fino a 3 x D
- Vasto assortimento di frese a filettare e frese a forare e filettare per un'efficiente realizzazione di filettature M, MF, G, UNC, UNF, NPT e NPTF
- Costi utensile ridotti grazie ad un impiego universale in svariati materiali e passo uguale
- Essendo corti, i trucioli non restano incastrati nella filettatura. Velocità di taglio e di avanzamento selezionabili indipendentemente l'una dall'altra

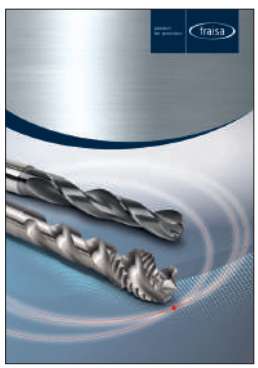
FRESE A FILETTARE

Maschi x-tap

- Maschi per la lavorazione ad alte prestazioni di acciaio e acciaio inox
- Elevata sicurezza del processo a coppia ridotta e durate elevate
- Disponibile ampia varietà di tipi di filettatura per una vasta gamma di applicazioni. Con un sistema di codificazione per garantire la giusta scelta degli utensili e dati d'impiego
- Strato in materiale duro TRIBO: per la lavorazione affidabile di acciaio inox

X-TAP

Sostituisce l'edizione 2019/20



www.fraisa.com

La maggiorazione sulle materie prime (MMP) è compresa nel prezzo.

Utensili per foratura

Punte per acciaio, alluminio, acciaio inox, titanio

Punte da centro, Svasatori

11 – 137

Utensili per filettatura

Frese a filettare / Thread Milling
M / MF / G / UNC / UNF / UN / NPT / NPTF
139 – 199 — TM

Filettatura metrica
M / MJ
201 – 307 — M

Filettatura metrica fina
MF
309 – 333 — MF

Filettatura gas Whitworth
cilindrica G
335 – 365 — G

Filettatura americana
UNC / UNJC / UNF / UNJF
367 – 399 — UN

Filettatura americana gas
conica NPT / NPTF
401– 405 — NPT NPTF

Filettatura metrica per inserti
EG M
407 – 411 — EG

Maschi a rullare / Cold Forming
M / MF / EG M
413 – 447 — CF

Informazioni
Simboli / Formule / Abbreviazioni
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Punte per acciaio, alluminio, acciaio inox e titanio

Punte elicoidali

5xd

N° B62015 / B63015	**Supradrill® U**	**HM MG10**		**Rm** <850-1100	**Inox** Stainless		17
N° B62014 / B63014	**Supradrill® U**	**HM MG10**		**Rm** <850-1100			35
N° B72015	**XDrill®**	**HM MGX**		**Rm** <850-1500			45

3xd

N° B62011 / B63011	**Supradrill® U**	**HM MG10**		**Rm** <850-1100	**Inox** Stainless		61
N° B72011	**XDrill®**	**HM MGX**		**Rm** <850-1500			65
N° B52112	**Supradrill® H** **new!**	**HM XA**		**HRC** 48 - >60			75
N° B52111 / B53111 ToolSchool	**Supradrill® HX**	**HM XA**		**HRC** 48 - >60			87

8xd

N° B72020	**XDrill®**	**HM MGX**		**Rm** <850-1300			93
N° B52020 / B53020	**Supradrill® N**	**HM MG10**		**Rm** <850-1100			103

Punte per acciaio, alluminio, acciaio inox e titanio

Punte per foratura profonda

15xd

N° B52915

HM MGD²

Rm <850-1100

107

20xd

N° B52920

HM MGD²

Rm <850-1100

109

25xd

N° B52925

HM MGD²

Rm <850-1100

111

30xd

N° B52930

HM MGD²

Rm <850-1100

113

Punte per acciaio, alluminio, acciaio inox e titanio

Micropunte

5xd

N° B57014

Microdrill NX

HM MG10		Rm <850-1100			115

N° B57015

Microdrill NX

HM MG10		Rm <850-1100	Inox Stainless		121

8xd

N° B57020

Microdrill NX

HM MG10		Rm <850-1100			125

Punte a gradini

3xd, per prefori di maschiatura

N° B52801

HM		Rm <850-1100			129

passion
for precision
fraisa

Punte da centro, Svasatori

Punte da centro

N° B92040

HM MG10	**90°**	**Rm** <850-1100			131

N° B92020

HM MG10	**120°**	**Rm** <850-1100			133

N° B92008

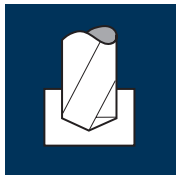
HM MG10	**144°**	**Rm** <850-1100			135

Svasatori

N° B92310

HSS	**90°**	**Rm** <850-1100			137

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	2.50	140	0.060	17825	1070	5.5	1.2
	2.60	140	0.060	17140	1030	5.5	1.2
	2.80	140	0.065	15915	1035	6.5	1.2
	2.90	140	0.070	15365	1075	7.0	1.1
	3.00	170	0.080	18040	1445	10.0	0.8
	3.30	170	0.085	16400	1395	12.0	0.9
	3.50	170	0.090	15460	1390	13.5	0.9
	3.70	170	0.095	14625	1390	15.0	0.8
	3.80	170	0.100	14240	1425	16.0	1.2
Acciaio 500 - 850 N/mm²	2.50	110	0.060	14005	840	4.0	1.5
	2.60	110	0.060	13465	810	4.5	1.5
	2.80	110	0.065	12505	815	5.0	1.5
	2.90	110	0.070	12075	845	5.5	1.4
	3.00	130	0.080	13795	1105	8.0	1.1
	3.30	130	0.085	12540	1065	9.0	1.1
	3.50	130	0.090	11825	1065	10.0	1.1
	3.70	130	0.095	11185	1065	11.5	1.1
	3.80	130	0.100	10890	1090	12.5	1.5
Acciaio 850 - 1100 N/mm²	2.50	80	0.045	10185	460	2.5	2.7
	2.60	80	0.045	9795	440	2.5	2.8
	2.80	80	0.050	9095	455	3.0	2.7
	2.90	80	0.050	8780	440	3.0	2.8
	3.00	110	0.060	11670	700	5.0	1.7
	3.30	110	0.065	10610	690	6.0	1.7
	3.50	110	0.070	10005	700	6.5	1.7
	3.70	110	0.075	9465	710	7.5	1.7
	3.80	110	0.075	9215	690	8.0	2.4
Acciaio 1100 - 1300 N/mm²	2.50	55	0.040	7005	280	1.5	4.4
	2.60	55	0.040	6735	270	1.5	4.6
	2.80	55	0.040	6255	250	1.5	4.9
	2.90	55	0.045	6035	270	2.0	4.5
	3.00	70	0.050	7425	370	2.5	3.3
	3.30	70	0.055	6750	370	3.0	3.2
	3.50	70	0.060	6365	380	3.5	3.1
	3.70	70	0.060	6020	360	4.0	3.3
	3.80	70	0.065	5865	380	4.5	4.3

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	2.50	25	0.025	3185	80	0.5	15.6
	2.60	25	0.025	3060	75	0.5	16.5
	2.80	25	0.030	2840	85	0.5	14.4
	2.90	25	0.030	2745	80	0.5	15.3
	3.00	40	0.040	4245	170	1.0	7.1
	3.30	40	0.045	3860	175	1.5	6.8
	3.50	40	0.045	3640	165	1.5	7.2
	3.70	40	0.050	3440	170	2.0	6.9
	3.80	40	0.050	3350	170	2.0	9.7
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379] Acciaio inossidabile [Cr-Ni/1.4301]	2.50	50	0.030	6365	190	1.0	6.6
	2.60	50	0.035	6120	215	1.0	5.7
	2.80	50	0.035	5685	200	1.0	6.1
	2.90	50	0.035	5490	190	1.5	6.4
	3.00	60	0.045	6365	285	2.0	4.3
	3.30	60	0.050	5785	290	2.5	4.1
	3.50	60	0.055	5455	300	3.0	3.9
	3.70	60	0.055	5160	285	3.0	4.1
	3.80	60	0.060	5025	300	3.5	5.5
Ghisa (grigia / sferoidale)	2.50	160	0.065	20370	1325	6.5	0.9
	2.60	160	0.065	19590	1275	7.0	1.0
	2.80	160	0.070	18190	1275	8.0	1.0
	2.90	160	0.075	17560	1315	8.5	0.9
	3.00	220	0.085	23345	1985	14.0	0.6
	3.30	220	0.095	21220	2015	17.0	0.6
	3.50	220	0.100	20010	2000	19.0	0.6
	3.70	220	0.105	18925	1985	21.5	0.6
	3.80	220	0.110	18430	2025	23.0	0.8
Alluminio malleabile Si < 6%	2.50	220	0.050	28010	1400	7.0	0.9
	2.60	220	0.050	26935	1345	7.0	0.9
	2.80	220	0.055	25010	1375	8.5	0.9
	2.90	220	0.060	24150	1450	9.5	0.8
	3.00	250	0.065	26525	1725	12.0	0.7
	3.30	250	0.075	24115	1810	15.5	0.7
	3.50	250	0.080	22735	1820	17.5	0.7
	3.70	250	0.080	21505	1720	18.5	0.7
	3.80	250	0.085	20940	1780	20.0	0.9

Punte elicoidali Supradrill® U

5xd

HM MG10

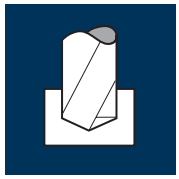
Rm < 850	**Rm** 850-1100	**Rm** 1100-1300	**Rm** 1300-1500				**Inox** Stainless		**GG(G) Aluminium**

Esempio: **N° Ordine** — Articolo **B62015** Codice-ø **0250**

ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	NANO-U² B62015	B63015 €
0250*	2.50	6	66	28	36	20.8		51.30
0255*	2.55	6	66	28	36	20.7		51.30
0260*	2.60	6	66	28	36	20.6		51.30
0265*	2.65	6	66	28	36	20.6		51.30
0270*	2.70	6	66	28	36	20.6		51.30
0280*	2.80	6	66	28	36	20.4		51.30
0285*	2.85	6	66	28	36	20.4		51.30
0290*	2.90	6	66	28	36	20.4		51.30
0295*	2.95	6	66	28	36	20.3		51.30
0300	3.00	6	66	28	36	20.2		78.00
0305	3.05	6	66	28	36	20.2		78.00
0310	3.10	6	66	28	36	20.2		78.00
0315	3.15	6	66	28	36	20.1		78.00
0320	3.20	6	66	28	36	20.0		78.00
0330	3.30	6	66	28	36	20.0		78.00
0340	3.40	6	66	28	36	19.8		78.00
0350	3.50	6	66	28	36	19.8		78.00
0360	3.60	6	66	28	36	19.6		78.00
0370	3.70	6	66	28	36	19.6		78.00
0375	3.75	6	66	28	36	19.5		78.00
0380	3.80	6	74	36	36	27.4		78.00
0385	3.85	6	74	36	36	27.3		78.00

* senza adduzione interna refrigerante

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	4.00	170	0.105	13530	1420	18.0	1.1
	4.20	170	0.110	12885	1415	19.5	1.1
	4.40	170	0.115	12300	1415	21.5	1.1
	4.50	170	0.120	12025	1445	23.0	1.1
	4.80	170	0.125	11275	1410	25.5	1.5
	5.00	170	0.130	10825	1405	27.5	1.5
	5.20	170	0.135	10405	1405	30.0	1.5
	5.30	170	0.140	10210	1430	31.5	1.4
	5.50	170	0.145	9840	1425	34.0	1.5
Acciaio 500 - 850 N/mm²	4.00	130	0.105	10345	1085	13.5	1.5
	4.20	130	0.110	9850	1085	15.0	1.5
	4.40	130	0.115	9405	1080	16.5	1.5
	4.50	130	0.120	9195	1105	17.5	1.4
	4.80	130	0.125	8620	1080	19.5	1.9
	5.00	130	0.130	8275	1075	21.0	1.9
	5.20	130	0.135	7960	1075	23.0	1.9
	5.30	130	0.140	7810	1095	24.0	1.9
	5.50	130	0.145	7525	1090	26.0	1.9
Acciaio 850 - 1100 N/mm²	4.00	110	0.080	8755	700	9.0	2.3
	4.20	110	0.085	8335	710	10.0	2.3
	4.40	110	0.090	7960	715	11.0	2.2
	4.50	110	0.090	7780	700	11.0	2.3
	4.80	110	0.095	7295	695	12.5	3.0
	5.00	110	0.100	7005	700	13.5	3.0
	5.20	110	0.105	6735	705	15.0	2.9
	5.30	110	0.105	6605	695	15.5	3.0
	5.50	110	0.110	6365	700	16.5	3.0
Acciaio 1100 - 1300 N/mm²	4.00	70	0.065	5570	360	4.5	4.5
	4.20	70	0.070	5305	370	5.0	4.3
	4.40	70	0.075	5065	380	6.0	4.2
	4.50	70	0.075	4950	370	6.0	4.3
	4.80	70	0.080	4640	370	6.5	5.6
	5.00	70	0.085	4455	380	7.5	5.5
	5.20	70	0.085	4285	365	8.0	5.7
	5.30	70	0.090	4205	380	8.5	5.5
	5.50	70	0.090	4050	365	8.5	5.7

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	4.00	40	0.055	3185	175	2.0	9.2
	4.20	40	0.055	3030	165	2.5	9.7
	4.40	40	0.060	2895	175	2.5	9.1
	4.50	40	0.060	2830	170	2.5	9.4
	4.80	40	0.065	2655	175	3.0	11.8
	5.00	40	0.065	2545	165	3.0	12.7
	5.20	40	0.070	2450	170	3.5	12.2
	5.30	40	0.070	2400	170	4.0	12.2
	5.50	40	0.075	2315	175	4.0	11.8
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379] Acciaio inossidabile [Cr-Ni/1.4301]	4.00	60	0.060	4775	285	3.5	5.7
	4.20	60	0.065	4545	295	4.0	5.5
	4.40	60	0.070	4340	305	4.5	5.2
	4.50	60	0.070	4245	295	4.5	5.4
	4.80	60	0.075	3980	300	5.5	6.9
	5.00	60	0.075	3820	285	5.5	7.3
	5.20	60	0.080	3675	295	6.5	7.0
	5.30	60	0.080	3605	290	6.5	7.1
	5.50	60	0.085	3470	295	7.0	7.0
Ghisa (grigia / sferoidale)	4.00	220	0.115	17505	2015	25.5	0.8
	4.20	220	0.120	16675	2000	27.5	0.8
	4.40	220	0.125	15915	1990	30.5	0.8
	4.50	220	0.130	15560	2025	32.0	0.8
	4.80	220	0.135	14590	1970	35.5	1.0
	5.00	220	0.145	14005	2030	40.0	1.0
	5.20	220	0.150	13465	2020	43.0	1.0
	5.30	220	0.150	13215	1980	43.5	1.0
	5.50	220	0.155	12730	1975	47.0	1.0
Alluminio malleabile Si < 6%	4.00	250	0.090	19895	1790	22.5	0.9
	4.20	250	0.095	18945	1800	25.0	0.9
	4.40	250	0.100	18085	1810	27.5	0.9
	4.50	250	0.100	17685	1770	28.0	0.9
	4.80	250	0.105	16580	1740	31.5	1.2
	5.00	250	0.110	15915	1750	34.5	1.2
	5.20	250	0.115	15305	1760	37.5	1.2
	5.30	250	0.120	15015	1800	39.5	1.2
	5.50	250	0.120	14470	1735	41.0	1.2

Punte elicoidali Supradrill® U

5xd

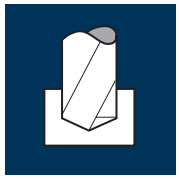
HM MG10

Rm < 850	**Rm** 850-1100	**Rm** 1100-1300	**Rm** 1300-1500				**Inox** Stainless		**GG(G) Aluminium**

Esempio: **N° Ordine** — Articolo **B62015** Codice-ø **0390**

ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}		NANO-U² B62015 B63015 €
0390	3.90	6	74	36	36	27.4		78.00
0400	4.00	6	74	36	36	26.9		78.00
0410	4.10	6	74	36	36	26.9		78.00
0420	4.20	6	74	36	36	26.8		78.00
0430	4.30	6	74	36	36	26.8		78.00
0440	4.40	6	74	36	36	26.6		78.00
0445	4.45	6	74	36	36	26.6		78.00
0450	4.50	6	74	36	36	26.6		78.00
0460	4.60	6	74	36	36	26.5		78.00
0465	4.65	6	74	36	36	26.5		78.00
0470	4.70	6	74	36	36	26.5		78.00
0480	4.80	6	82	44	36	34.4		78.00
0490	4.90	6	82	44	36	34.4		78.00
0495	4.95	6	82	44	36	34.3		78.00
0500	5.00	6	82	44	36	34.8		78.00
0505	5.05	6	82	44	36	34.7		78.00
0510	5.10	6	82	44	36	34.7		78.00
0520	5.20	6	82	44	36	34.6		78.00
0525	5.25	6	82	44	36	34.6		78.00
0530	5.30	6	82	44	36	34.6		78.00
0540	5.40	6	82	44	36	34.5		78.00
0550	5.50	6	82	44	36	34.5		78.00
0555	5.55	6	82	44	36	34.4		78.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	5.80	170	0.155	9330	1445	38.0	1.4
	6.00	170	0.160	9020	1445	41.0	1.4
	6.20	170	0.165	8730	1440	43.5	1.7
	6.50	170	0.170	8325	1415	47.0	1.7
	6.80	170	0.180	7960	1435	52.0	1.7
	7.00	170	0.185	7730	1430	55.0	1.7
	7.20	170	0.190	7515	1430	58.0	1.7
	7.40	170	0.195	7315	1425	61.5	1.7
	7.50	170	0.195	7215	1405	62.0	1.7
Acciaio 500 - 850 N/mm²	5.80	130	0.155	7135	1105	29.0	1.9
	6.00	130	0.160	6895	1105	31.0	1.9
	6.20	130	0.165	6675	1100	33.0	2.2
	6.50	130	0.170	6365	1080	36.0	2.3
	6.80	130	0.180	6085	1095	40.0	2.2
	7.00	130	0.185	5910	1095	42.0	2.2
	7.20	130	0.190	5745	1090	44.5	2.2
	7.40	130	0.195	5590	1090	47.0	2.2
	7.50	130	0.195	5515	1075	47.5	2.3
Acciaio 850 - 1100 N/mm²	5.80	110	0.115	6035	695	18.5	3.0
	6.00	110	0.120	5835	700	20.0	3.0
	6.20	110	0.125	5645	705	21.5	3.5
	6.50	110	0.130	5385	700	23.0	3.5
	6.80	110	0.135	5150	695	25.0	3.5
	7.00	110	0.140	5000	700	27.0	3.5
	7.20	110	0.145	4865	705	28.5	3.5
	7.40	110	0.150	4730	710	30.5	3.4
	7.50	110	0.150	4670	700	31.0	3.5
Acciaio 1100 - 1300 N/mm²	5.80	70	0.095	3840	365	9.5	5.7
	6.00	70	0.100	3715	370	10.5	5.6
	6.20	70	0.105	3595	375	11.5	6.6
	6.50	70	0.110	3430	375	12.5	6.6
	6.80	70	0.115	3275	375	13.5	6.5
	7.00	70	0.115	3185	365	14.0	6.7
	7.20	70	0.120	3095	370	15.0	6.6
	7.40	70	0.125	3010	375	16.0	6.5
	7.50	70	0.125	2970	370	16.5	6.6

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	5.80	40	0.075	2195	165	4.5	12.5
	6.00	40	0.080	2120	170	5.0	12.2
	6.20	40	0.085	2055	175	5.5	14.1
	6.50	40	0.085	1960	165	5.5	14.9
	6.80	40	0.090	1870	170	6.0	14.4
	7.00	40	0.095	1820	175	6.5	14.0
	7.20	40	0.095	1770	170	7.0	14.3
	7.40	40	0.100	1720	170	7.5	14.3
	7.50	40	0.100	1700	170	7.5	14.3
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379] Acciaio inossidabile [Cr-Ni/1.4301]	5.80	60	0.090	3295	295	8.0	7.0
	6.00	60	0.090	3185	285	8.0	7.3
	6.20	60	0.095	3080	295	9.0	8.4
	6.50	60	0.100	2940	295	10.0	8.3
	6.80	60	0.105	2810	295	10.5	8.3
	7.00	60	0.110	2730	300	11.5	8.1
	7.20	60	0.110	2655	290	12.0	8.4
	7.40	60	0.115	2580	295	12.5	8.2
	7.50	60	0.115	2545	295	13.0	8.2
Ghisa (grigia / sferoidale)	5.80	220	0.165	12075	1990	52.5	1.0
	6.00	220	0.170	11670	1985	56.0	1.0
	6.20	220	0.175	11295	1975	59.5	1.3
	6.50	220	0.185	10775	1995	66.0	1.2
	6.80	220	0.195	10300	2010	73.0	1.2
	7.00	220	0.200	10005	2000	77.0	1.2
	7.20	220	0.205	9725	1995	81.0	1.2
	7.40	220	0.210	9465	1990	85.5	1.2
	7.50	220	0.215	9335	2005	88.5	1.2
Alluminio malleabile Si < 6%	5.80	250	0.130	13720	1785	47.0	1.2
	6.00	250	0.135	13265	1790	50.5	1.2
	6.20	250	0.140	12835	1795	54.0	1.4
	6.50	250	0.145	12245	1775	59.0	1.4
	6.80	250	0.150	11705	1755	63.5	1.4
	7.00	250	0.155	11370	1760	67.5	1.4
	7.20	250	0.160	11050	1770	72.0	1.4
	7.40	250	0.165	10755	1775	76.5	1.4
	7.50	250	0.165	10610	1750	77.5	1.4

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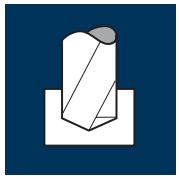
HM MG10

Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless		GG(G) Aluminium

Esempio: **N° Ordine** — Articolo **B62015** Codice-ø **0560**

ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	NANO-U² B62015	B63015 €
0560	5.60	6	82	44	36	34.4		78.00
0565	5.65	6	82	44	36	34.4		78.00
0570	5.70	6	82	44	36	34.4		78.00
0575	5.75	6	82	44	36	34.5		78.00
0580	5.80	6	82	44	36	34.5		78.00
0590	5.90	6	82	44	36	34.5		78.00
0600	6.00	6	82	44	36	34.5		78.00
0610	6.10	8	91	53	36	41.4		86.00
0620	6.20	8	91	53	36	41.2		86.00
0630	6.30	8	91	53	36	41.2		86.00
0640	6.40	8	91	53	36	41.1		86.00
0650	6.50	8	91	53	36	41.1		86.00
0660	6.60	8	91	53	36	41.0		86.00
0670	6.70	8	91	53	36	41.0		86.00
0680	6.80	8	91	53	36	40.9		86.00
0690	6.90	8	91	53	36	40.9		86.00
0700	7.00	8	91	53	36	40.7		86.00
0710	7.10	8	91	53	36	40.7		86.00
0720	7.20	8	91	53	36	40.6		86.00
0725	7.25	8	91	53	36	40.6		86.00
0730	7.30	8	91	53	36	40.6		86.00
0740	7.40	8	91	53	36	40.5		86.00
0745	7.45	8	91	53	36	40.4		86.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	7.60	170	0.200	7120	1425	64.5	1.7
	7.80	170	0.205	6940	1425	68.0	1.7
	8.00	170	0.210	6765	1420	71.5	1.7
	8.20	170	0.215	6600	1420	75.0	2.0
	8.50	170	0.225	6365	1430	81.0	1.9
	8.80	170	0.230	6150	1415	86.0	1.9
	9.00	170	0.235	6015	1415	90.0	1.9
	9.20	170	0.240	5880	1410	93.5	1.9
	9.40	170	0.245	5755	1410	98.0	1.9
Acciaio 500 - 850 N/mm²	7.60	130	0.200	5445	1090	49.5	2.2
	7.80	130	0.205	5305	1090	52.0	2.2
	8.00	130	0.210	5175	1085	54.5	2.2
	8.20	130	0.215	5045	1085	57.5	2.6
	8.50	130	0.225	4870	1095	62.0	2.5
	8.80	130	0.230	4700	1080	65.5	2.6
	9.00	130	0.235	4600	1080	68.5	2.5
	9.20	130	0.240	4500	1080	72.0	2.5
	9.40	130	0.245	4400	1080	75.0	2.5
Acciaio 850 - 1100 N/mm²	7.60	110	0.150	4605	690	31.5	3.5
	7.80	110	0.155	4490	695	33.0	3.5
	8.00	110	0.160	4375	700	35.0	3.5
	8.20	110	0.165	4270	705	37.0	3.9
	8.50	110	0.170	4120	700	39.5	3.9
	8.80	110	0.175	3980	695	42.5	4.0
	9.00	110	0.180	3890	700	44.5	3.9
	9.20	110	0.185	3805	705	47.0	3.9
	9.40	110	0.190	3725	710	49.5	3.8
Acciaio 1100 - 1300 N/mm²	7.60	70	0.125	2930	365	16.5	6.6
	7.80	70	0.130	2855	370	17.5	6.6
	8.00	70	0.135	2785	375	19.0	6.5
	8.20	70	0.135	2715	365	19.5	7.6
	8.50	70	0.140	2620	365	20.5	7.6
	8.80	70	0.145	2530	365	22.0	7.5
	9.00	70	0.150	2475	370	23.5	7.4
	9.20	70	0.155	2420	375	25.0	7.3
	9.40	70	0.155	2370	365	25.5	7.5

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	7.60	40	0.100	1675	170	7.5	14.3
	7.80	40	0.105	1630	170	8.0	14.3
	8.00	40	0.105	1590	165	8.5	14.7
	8.20	40	0.110	1555	170	9.0	16.3
	8.50	40	0.115	1500	175	10.0	15.8
	8.80	40	0.115	1445	165	10.0	16.7
	9.00	40	0.120	1415	170	11.0	16.1
	9.20	40	0.125	1385	175	11.5	15.6
	9.40	40	0.125	1355	170	12.0	16.1
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379] Acciaio inossidabile [Cr-Ni/1.4301]	7.60	60	0.115	2515	290	13.0	8.4
	7.80	60	0.120	2450	295	14.0	8.2
	8.00	60	0.125	2385	300	15.0	8.1
	8.20	60	0.125	2330	290	15.5	9.6
	8.50	60	0.130	2245	290	16.5	9.5
	8.80	60	0.135	2170	295	18.0	9.3
	9.00	60	0.140	2120	295	19.0	9.3
	9.20	60	0.140	2075	290	19.5	9.4
	9.40	60	0.145	2030	295	20.5	9.3
Ghisa (grigia / sferoidale)	7.60	220	0.215	9215	1980	90.0	1.2
	7.80	220	0.225	8980	2020	96.5	1.2
	8.00	220	0.230	8755	2015	101.5	1.2
	8.20	220	0.235	8540	2005	106.0	1.4
	8.50	220	0.245	8240	2020	114.5	1.4
	8.80	220	0.250	7960	1990	121.0	1.4
	9.00	220	0.255	7780	1985	126.5	1.4
	9.20	220	0.265	7610	2015	134.0	1.4
	9.40	220	0.270	7450	2010	139.5	1.4
Alluminio malleabile Si < 6%	7.60	250	0.170	10470	1780	80.5	1.4
	7.80	250	0.175	10200	1785	85.5	1.4
	8.00	250	0.180	9945	1790	90.0	1.4
	8.20	250	0.180	9705	1745	92.0	1.6
	8.50	250	0.190	9360	1780	101.0	1.6
	8.80	250	0.195	9045	1765	107.5	1.6
	9.00	250	0.200	8840	1770	112.5	1.5
	9.20	250	0.205	8650	1775	118.0	1.5
	9.40	250	0.210	8465	1780	123.5	1.5

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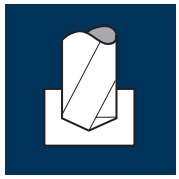
HM MG10

Rm < 850	**Rm** 850-1100	**Rm** 1100-1300	**Rm** 1300-1500				**Inox** Stainless		**GG(G) Aluminium**

Esempio: **N° Ordine** — Articolo **B62015** Codice-ø **0750**

ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}		NANO-U² B62015 B63015 €
0750	7.50	8	91	53	36	40.5		86.00
0755	7.55	8	91	53	36	40.4		86.00
0760	7.60	8	91	53	36	40.4		86.00
0765	7.65	8	91	53	36	40.4		86.00
0770	7.70	8	91	53	36	40.4		86.00
0780	7.80	8	91	53	36	40.4		86.00
0790	7.90	8	91	53	36	40.4		86.00
0800	8.00	8	91	53	36	40.4		86.00
0810	8.10	10	103	61	40	46.3		99.00
0820	8.20	10	103	61	40	46.2		99.00
0830	8.30	10	103	61	40	46.2		99.00
0840	8.40	10	103	61	40	46.1		99.00
0850	8.50	10	103	61	40	46.1		99.00
0860	8.60	10	103	61	40	46.0		99.00
0870	8.70	10	103	61	40	46.0		99.00
0875	8.75	10	103	61	40	45.9		99.00
0880	8.80	10	103	61	40	45.9		99.00
0885	8.85	10	103	61	40	45.8		99.00
0890	8.90	10	103	61	40	45.8		99.00
0900	9.00	10	103	61	40	45.7		99.00
0910	9.10	10	103	61	40	45.7		99.00
0920	9.20	10	103	61	40	45.6		99.00
0925	9.25	10	103	61	40	45.5		99.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	9.50	170	0.250	5695	1425	101.0	1.9
	9.60	170	0.255	5635	1435	104.0	1.9
	9.80	170	0.260	5520	1435	108.0	1.9
	10.00	170	0.265	5410	1435	112.5	1.9
	10.20	170	0.270	5305	1430	117.0	2.2
	10.50	170	0.275	5155	1420	123.0	2.2
	10.80	170	0.285	5010	1430	131.0	2.2
	11.00	170	0.290	4920	1425	135.5	2.2
	11.50	170	0.305	4705	1435	149.0	2.2
Acciaio 500 - 850 N/mm²	9.50	130	0.250	4355	1090	77.5	2.5
	9.60	130	0.255	4310	1100	79.5	2.5
	9.80	130	0.260	4220	1095	82.5	2.5
	10.00	130	0.265	4140	1095	86.0	2.5
	10.20	130	0.270	4055	1095	89.5	2.9
	10.50	130	0.275	3940	1085	94.0	2.9
	10.80	130	0.285	3830	1090	100.0	2.9
	11.00	130	0.290	3760	1090	103.5	2.9
	11.50	130	0.305	3600	1100	114.5	2.9
Acciaio 850 - 1100 N/mm²	9.50	110	0.190	3685	700	49.5	3.9
	9.60	110	0.190	3645	695	50.5	3.9
	9.80	110	0.195	3575	695	52.5	3.9
	10.00	110	0.200	3500	700	55.0	3.9
	10.20	110	0.205	3435	705	57.5	4.5
	10.50	110	0.210	3335	700	60.5	4.5
	10.80	110	0.215	3240	695	63.5	4.6
	11.00	110	0.220	3185	700	66.5	4.5
	11.50	110	0.230	3045	700	72.5	4.5
Acciaio 1100 - 1300 N/mm²	9.50	70	0.160	2345	375	26.5	7.3
	9.60	70	0.160	2320	370	27.0	7.4
	9.80	70	0.165	2275	375	28.5	7.2
	10.00	70	0.165	2230	370	29.0	7.4
	10.20	70	0.170	2185	370	30.0	8.6
	10.50	70	0.175	2120	370	32.0	8.6
	10.80	70	0.180	2065	370	34.0	8.6
	11.00	70	0.185	2025	375	35.5	8.4
	11.50	70	0.190	1940	370	38.5	8.5

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	9.50	40	0.125	1340	170	12.0	16.0
	9.60	40	0.130	1325	170	12.5	16.0
	9.80	40	0.130	1300	170	13.0	16.0
	10.00	40	0.135	1275	170	13.5	16.0
	10.20	40	0.135	1250	170	14.0	18.8
	10.50	40	0.140	1215	170	14.5	18.7
	10.80	40	0.145	1180	170	15.5	18.6
	11.00	40	0.145	1155	165	15.5	19.2
	11.50	40	0.155	1105	170	17.5	18.5
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379] Acciaio inossidabile [Cr-Ni/1.4301]	9.50	60	0.145	2010	290	20.5	9.4
	9.60	60	0.150	1990	300	21.5	9.1
	9.80	60	0.150	1950	295	22.5	9.2
	10.00	60	0.155	1910	295	23.0	9.2
	10.20	60	0.155	1870	290	23.5	11.0
	10.50	60	0.160	1820	290	25.0	11.0
	10.80	60	0.165	1770	290	26.5	10.9
	11.00	60	0.170	1735	295	28.0	10.7
	11.50	60	0.175	1660	290	30.0	10.8
Ghisa (grigia / sferoidale)	9.50	220	0.270	7370	1990	141.0	1.4
	9.60	220	0.275	7295	2005	145.0	1.4
	9.80	220	0.280	7145	2000	151.0	1.4
	10.00	220	0.285	7005	1995	156.5	1.4
	10.20	220	0.290	6865	1990	162.5	1.6
	10.50	220	0.300	6670	2000	173.0	1.6
	10.80	220	0.310	6485	2010	184.0	1.6
	11.00	220	0.315	6365	2005	190.5	1.6
	11.50	220	0.330	6090	2010	209.0	1.6
Alluminio malleabile Si < 6%	9.50	250	0.210	8375	1760	125.0	1.5
	9.60	250	0.215	8290	1780	129.0	1.5
	9.80	250	0.220	8120	1785	134.5	1.5
	10.00	250	0.220	7960	1750	137.5	1.6
	10.20	250	0.225	7800	1755	143.5	1.8
	10.50	250	0.235	7580	1780	154.0	1.8
	10.80	250	0.240	7370	1770	162.0	1.8
	11.00	250	0.245	7235	1775	168.5	1.8
	11.50	250	0.255	6920	1765	183.5	1.8

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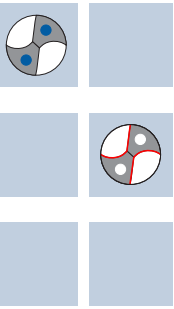
HM MG10

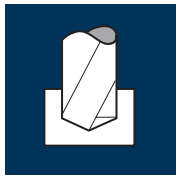


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless		GG(G) Aluminium

Esempio: **N° Ordine** — Articolo **B62015** Codice-ø **0930**

ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}		NANO-U² B62015 B63015 €
0930	9.30	10	103	61	40	45.6		99.00
0940	9.40	10	103	61	40	45.5		99.00
0950	9.50	10	103	61	40	45.5		99.00
0955	9.55	10	103	61	40	45.4		99.00
0960	9.60	10	103	61	40	45.4		99.00
0965	9.65	10	103	61	40	45.3		99.00
0970	9.70	10	103	61	40	45.4		99.00
0980	9.80	10	103	61	40	45.3		99.00
0990	9.90	10	103	61	40	45.4		99.00
1000	10.00	10	103	61	40	45.4		99.00
1010	10.10	12	118	71	45	53.3		142.00
1020	10.20	12	118	71	45	53.2		142.00
1030	10.30	12	118	71	45	53.2		142.00
1040	10.40	12	118	71	45	53.1		142.00
1050	10.50	12	118	71	45	53.1		142.00
1060	10.60	12	118	71	45	53.0		142.00
1070	10.70	12	118	71	45	52.9		142.00
1080	10.80	12	118	71	45	52.8		142.00
1090	10.90	12	118	71	45	52.8		142.00
1100	11.00	12	118	71	45	52.7		142.00
1110	11.10	12	118	71	45	52.7		142.00
1120	11.20	12	118	71	45	52.6		142.00
1130	11.30	12	118	71	45	52.6		142.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	11.80	170	0.310	4585	1420	155.5	2.2
	12.00	170	0.315	4510	1420	160.5	2.2
	12.20	170	0.320	4435	1420	166.0	2.4
	12.50	170	0.330	4330	1430	175.5	2.4
	12.80	170	0.335	4230	1415	182.0	2.4
	13.00	170	0.340	4165	1415	188.0	2.4
	13.20	170	0.345	4100	1415	193.5	2.4
	13.50	170	0.355	4010	1425	204.0	2.3
	13.80	170	0.365	3920	1430	214.0	2.3
Acciaio 500 - 850 N/mm²	11.80	130	0.310	3505	1085	118.5	2.9
	12.00	130	0.315	3450	1085	122.5	2.9
	12.20	130	0.320	3390	1085	127.0	3.1
	12.50	130	0.330	3310	1090	134.0	3.1
	12.80	130	0.335	3235	1085	139.5	3.1
	13.00	130	0.340	3185	1085	144.0	3.1
	13.20	130	0.345	3135	1080	148.0	3.1
	13.50	130	0.355	3065	1090	156.0	3.0
	13.80	130	0.365	3000	1095	164.0	3.0
Acciaio 850 - 1100 N/mm²	11.80	110	0.235	2965	695	76.0	4.5
	12.00	110	0.240	2920	700	79.0	4.5
	12.20	110	0.245	2870	705	82.5	4.8
	12.50	110	0.250	2800	700	86.0	4.8
	12.80	110	0.255	2735	695	89.5	4.8
	13.00	110	0.260	2695	700	93.0	4.8
	13.20	110	0.265	2655	705	96.5	4.7
	13.50	110	0.270	2595	700	100.0	4.7
	13.80	110	0.275	2535	695	104.0	4.8
Acciaio 1100 - 1300 N/mm²	11.80	70	0.195	1890	370	40.5	8.5
	12.00	70	0.200	1855	370	42.0	8.5
	12.20	70	0.205	1825	375	44.0	9.0
	12.50	70	0.210	1785	375	46.0	9.0
	12.80	70	0.215	1740	375	48.5	8.9
	13.00	70	0.215	1715	370	49.0	9.0
	13.20	70	0.220	1690	370	50.5	9.0
	13.50	70	0.225	1650	370	53.0	9.0
	13.80	70	0.230	1615	370	55.5	9.0

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	11.80	40	0.155	1080	165	18.0	19.0
	12.00	40	0.160	1060	170	19.0	18.5
	12.20	40	0.165	1045	170	20.0	19.8
	12.50	40	0.165	1020	170	21.0	19.8
	12.80	40	0.170	995	170	22.0	19.7
	13.00	40	0.175	980	170	22.5	19.7
	13.20	40	0.175	965	170	23.5	19.6
	13.50	40	0.180	945	170	24.5	19.5
	13.80	40	0.185	925	170	25.5	19.5
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379] Acciaio inossidabile [Cr-Ni/1.4301]	11.80	60	0.180	1620	290	31.5	10.8
	12.00	60	0.185	1590	295	33.5	10.6
	12.20	60	0.190	1565	295	34.5	11.4
	12.50	60	0.190	1530	290	35.5	11.6
	12.80	60	0.195	1490	290	37.5	11.5
	13.00	60	0.200	1470	295	39.0	11.3
	13.20	60	0.205	1445	295	40.5	11.3
	13.50	60	0.210	1415	295	42.0	11.3
	13.80	60	0.210	1385	290	43.5	11.4
Ghisa (grigia / sferoidale)	11.80	220	0.335	5935	1990	217.5	1.6
	12.00	220	0.345	5835	2015	228.0	1.6
	12.20	220	0.350	5740	2010	235.0	1.7
	12.50	220	0.355	5600	1990	244.0	1.7
	12.80	220	0.365	5470	1995	256.5	1.7
	13.00	220	0.370	5385	1990	264.0	1.7
	13.20	220	0.375	5305	1990	272.5	1.7
	13.50	220	0.385	5185	1995	285.5	1.7
	13.80	220	0.395	5075	2005	300.0	1.7
Alluminio malleabile Si < 6%	11.80	250	0.260	6745	1755	192.0	1.8
	12.00	250	0.265	6630	1755	198.5	1.8
	12.20	250	0.270	6525	1760	205.5	1.9
	12.50	250	0.280	6365	1780	218.5	1.9
	12.80	250	0.285	6215	1770	228.0	1.9
	13.00	250	0.290	6120	1775	235.5	1.9
	13.20	250	0.295	6030	1780	243.5	1.9
	13.50	250	0.300	5895	1770	253.5	1.9
	13.80	250	0.305	5765	1760	263.0	1.9

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5xd

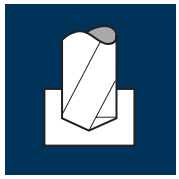
HM MG10

Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Rm** 1300-1500 | **Inox** Stainless | **GG(G) Aluminium**

Esempio: **N° Ordine** — Articolo **B62015** Codice-ø **1140**

ø Code	d1 m7	d2 h5	l1	l2	l4	Lmax	NANO-U² B62015	NANO-U² B63015
								€
1140	11.40	12	118	71	45	52.5		142.00
1150	11.50	12	118	71	45	52.4		142.00
1160	11.60	12	118	71	45	52.4		142.00
1170	11.70	12	118	71	45	52.4		142.00
1180	11.80	12	118	71	45	52.3		142.00
1190	11.90	12	118	71	45	52.4		142.00
1200	12.00	12	118	71	45	52.3		142.00
1210	12.10	14	124	77	45	56.3		192.00
1220	12.20	14	124	77	45	56.2		192.00
1230	12.30	14	124	77	45	56.2		192.00
1240	12.40	14	124	77	45	56.1		192.00
1250	12.50	14	124	77	45	56.1		192.00
1260	12.60	14	124	77	45	56.0		192.00
1270	12.70	14	124	77	45	55.9		192.00
1280	12.80	14	124	77	45	55.8		192.00
1290	12.90	14	124	77	45	55.8		192.00
1300	13.00	14	124	77	45	55.7		192.00
1310	13.10	14	124	77	45	55.7		192.00
1320	13.20	14	124	77	45	55.6		192.00
1330	13.30	14	124	77	45	55.6		192.00
1340	13.40	14	124	77	45	55.4		192.00
1350	13.50	14	124	77	45	55.4		192.00
1360	13.60	14	124	77	45	55.3		192.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	14.00	170	0.370	3865	1430	220.0	2.3
	14.20	170	0.375	3810	1430	226.5	2.5
	14.50	170	0.380	3730	1415	233.5	2.5
	14.80	170	0.390	3655	1425	245.0	2.5
	15.00	170	0.395	3610	1425	252.0	2.5
	15.20	170	0.400	3560	1425	258.5	2.5
	15.50	170	0.410	3490	1430	270.0	2.4
	15.80	170	0.415	3425	1420	278.5	2.5
	16.00	170	0.420	3380	1420	285.5	2.5
Acciaio 500 - 850 N/mm²	14.00	130	0.370	2955	1095	168.5	3.0
	14.20	130	0.375	2915	1095	173.5	3.2
	14.50	130	0.380	2855	1085	179.0	3.3
	14.80	130	0.390	2795	1090	187.5	3.2
	15.00	130	0.395	2760	1090	192.5	3.2
	15.20	130	0.400	2720	1090	198.0	3.2
	15.50	130	0.410	2670	1095	206.5	3.2
	15.80	130	0.415	2620	1085	212.5	3.2
	16.00	130	0.420	2585	1085	218.0	3.2
Acciaio 850 - 1100 N/mm²	14.00	110	0.280	2500	700	108.0	4.7
	14.20	110	0.285	2465	705	111.5	5.0
	14.50	110	0.290	2415	700	115.5	5.1
	14.80	110	0.295	2365	700	120.5	5.0
	15.00	110	0.300	2335	700	123.5	5.0
	15.20	110	0.305	2305	705	128.0	5.0
	15.50	110	0.310	2260	700	132.0	5.0
	15.80	110	0.315	2215	700	137.0	5.0
	16.00	110	0.320	2190	700	140.5	5.0
Acciaio 1100 - 1300 N/mm²	14.00	70	0.235	1590	375	57.5	8.8
	14.20	70	0.235	1570	370	58.5	9.6
	14.50	70	0.240	1535	370	61.0	9.6
	14.80	70	0.245	1505	370	63.5	9.5
	15.00	70	0.250	1485	370	65.5	9.5
	15.20	70	0.255	1465	375	68.0	9.4
	15.50	70	0.260	1440	375	71.0	9.3
	15.80	70	0.265	1410	375	73.5	9.3
	16.00	70	0.265	1395	370	74.5	9.5

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	14.00	40	0.185	910	170	26.0	19.5
	14.20	40	0.190	895	170	27.0	20.9
	14.50	40	0.195	880	170	28.0	20.8
	14.80	40	0.195	860	170	29.0	20.8
	15.00	40	0.200	850	170	30.0	20.7
	15.20	40	0.205	840	170	31.0	20.7
	15.50	40	0.205	820	170	32.0	20.6
	15.80	40	0.210	805	170	33.5	20.6
	16.00	40	0.215	795	170	34.0	20.6
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379] Acciaio inossidabile [Cr-Ni/1.4301]	14.00	60	0.215	1365	295	45.5	11.2
	14.20	60	0.220	1345	295	46.5	12.0
	14.50	60	0.225	1315	295	48.5	12.0
	14.80	60	0.230	1290	295	50.5	12.0
	15.00	60	0.230	1275	295	52.0	11.9
	15.20	60	0.235	1255	295	53.5	11.9
	15.50	60	0.240	1230	295	55.5	11.9
	15.80	60	0.245	1210	295	58.0	11.9
	16.00	60	0.245	1195	295	59.5	11.9
Ghisa (grigia / sferoidale)	14.00	220	0.400	5000	2000	308.0	1.7
	14.20	220	0.405	4930	1995	316.0	1.8
	14.50	220	0.415	4830	2005	331.0	1.8
	14.80	220	0.425	4730	2010	346.0	1.8
	15.00	220	0.430	4670	2010	355.0	1.8
	15.20	220	0.435	4605	2005	364.0	1.8
	15.50	220	0.445	4520	2010	379.5	1.7
	15.80	220	0.450	4430	1995	391.0	1.8
	16.00	220	0.455	4375	1990	400.0	1.8
Alluminio malleabile Si < 6%	14.00	250	0.310	5685	1760	271.0	1.9
	14.20	250	0.315	5605	1765	279.5	2.0
	14.50	250	0.320	5490	1755	290.0	2.0
	14.80	250	0.330	5375	1775	305.5	2.0
	15.00	250	0.335	5305	1775	313.5	2.0
	15.20	250	0.340	5235	1780	323.0	2.0
	15.50	250	0.345	5135	1770	334.0	2.0
	15.80	250	0.350	5035	1760	345.0	2.0
	16.00	250	0.355	4975	1765	355.0	2.0

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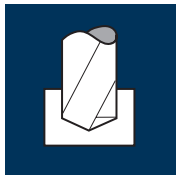
HM MG10

Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Rm** 1300-1500 | **Inox** Stainless | **GG(G) Aluminium**

Esempio: **N° Ordine** — Articolo **B62015** Codice-ø **1370**

ø Code	d1 m7	d2 h5	l1	l2	l4	Lmax	NANO-U² B62015	NANO-U² B63015
								€
1370	13.70	14	124	77	45	55.4		192.00
1380	13.80	14	124	77	45	55.3		192.00
1390	13.90	14	124	77	45	55.3		192.00
1400	14.00	14	124	77	45	55.3		192.00
1410	14.10	16	133	83	48	59.3		231.00
1420	14.20	16	133	83	48	59.2		231.00
1430	14.30	16	133	83	48	59.2		231.00
1440	14.40	16	133	83	48	59.1		231.00
1450	14.50	16	133	83	48	59.1		231.00
1460	14.60	16	133	83	48	58.9		231.00
1470	14.70	16	133	83	48	58.9		231.00
1480	14.80	16	133	83	48	58.8		231.00
1490	14.90	16	133	83	48	58.8		231.00
1500	15.00	16	133	83	48	58.7		231.00
1510	15.10	16	133	83	48	58.7		231.00
1520	15.20	16	133	83	48	58.6		231.00
1530	15.30	16	133	83	48	58.5		231.00
1540	15.40	16	133	83	48	58.4		231.00
1550	15.50	16	133	83	48	58.4		231.00
1560	15.60	16	133	83	48	58.3		231.00
1570	15.70	16	133	83	48	58.3		231.00
1580	15.80	16	133	83	48	58.3		231.00
1590	15.90	16	133	83	48	58.3		231.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	16.20	170	0.425	3340	1420	292.5	2.8
	16.50	170	0.435	3280	1425	304.5	2.8
	16.60	170	0.435	3260	1420	307.5	2.8
	16.80	170	0.440	3220	1415	313.5	2.8
	17.00	170	0.445	3185	1415	321.0	2.8
	17.20	170	0.455	3145	1430	332.5	2.7
	17.50	170	0.460	3090	1420	341.5	2.8
	17.80	170	0.470	3040	1430	356.0	2.7
	18.00	170	0.475	3005	1425	362.5	2.7
Acciaio 500 - 850 N/mm²	16.20	130	0.425	2555	1085	223.5	3.7
	16.50	130	0.435	2510	1090	233.0	3.6
	16.60	130	0.435	2495	1085	235.0	3.6
	16.80	130	0.440	2465	1085	240.5	3.6
	17.00	130	0.445	2435	1085	246.5	3.6
	17.20	130	0.455	2405	1095	254.5	3.6
	17.50	130	0.460	2365	1090	262.0	3.6
	17.80	130	0.470	2325	1095	272.5	3.6
	18.00	130	0.475	2300	1095	278.5	3.6
Acciaio 850 - 1100 N/mm²	16.20	110	0.325	2160	700	144.5	5.7
	16.50	110	0.330	2120	700	149.5	5.7
	16.60	110	0.330	2110	695	150.5	5.7
	16.80	110	0.335	2085	700	155.0	5.6
	17.00	110	0.340	2060	700	159.0	5.6
	17.20	110	0.345	2035	700	162.5	5.6
	17.50	110	0.350	2000	700	168.5	5.6
	17.80	110	0.355	1965	700	174.0	5.6
	18.00	110	0.360	1945	700	178.0	5.6
Acciaio 1100 - 1300 N/mm²	16.20	70	0.270	1375	370	76.5	10.7
	16.50	70	0.275	1350	370	79.0	10.7
	16.60	70	0.275	1340	370	80.0	10.7
	16.80	70	0.280	1325	370	82.0	10.7
	17.00	70	0.285	1310	375	85.0	10.5
	17.20	70	0.285	1295	370	86.0	10.6
	17.50	70	0.290	1275	370	89.0	10.6
	17.80	70	0.295	1250	370	92.0	10.6
	18.00	70	0.300	1240	370	94.0	10.6

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	16.20	40	0.215	785	170	35.0	23.4
	16.50	40	0.220	770	170	36.5	23.3
	16.60	40	0.220	765	170	37.0	23.3
	16.80	40	0.225	760	170	37.5	23.2
	17.00	40	0.225	750	170	38.5	23.2
	17.20	40	0.230	740	170	39.5	23.1
	17.50	40	0.235	730	170	41.0	23.1
	17.80	40	0.235	715	170	42.5	23.0
	18.00	40	0.240	705	170	43.5	23.0
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379] Acciaio inossidabile [Cr-Ni/1.4301]	16.20	60	0.250	1180	295	61.0	13.5
	16.50	60	0.255	1155	295	63.0	13.4
	16.60	60	0.255	1150	295	64.0	13.4
	16.80	60	0.260	1135	295	65.5	13.4
	17.00	60	0.260	1125	295	67.0	13.4
	17.20	60	0.265	1110	295	68.5	13.3
	17.50	60	0.270	1090	295	71.0	13.3
	17.80	60	0.275	1075	295	73.5	13.3
	18.00	60	0.275	1060	290	74.0	13.5
Ghisa (grigia / sferoidale)	16.20	220	0.465	4325	2010	414.5	2.0
	16.50	220	0.470	4245	1995	426.5	2.0
	16.60	220	0.475	4220	2005	434.0	2.0
	16.80	220	0.480	4170	2000	443.5	2.0
	17.00	220	0.485	4120	2000	454.0	2.0
	17.20	220	0.490	4070	1995	463.5	2.0
	17.50	220	0.500	4000	2000	481.0	2.0
	17.80	220	0.510	3935	2005	499.0	2.0
	18.00	220	0.515	3890	2005	510.0	2.0
Alluminio malleabile Si < 6%	16.20	250	0.360	4910	1770	365.0	2.2
	16.50	250	0.365	4825	1760	376.5	2.2
	16.60	250	0.370	4795	1775	384.0	2.2
	16.80	250	0.375	4735	1775	393.5	2.2
	17.00	250	0.380	4680	1780	404.0	2.2
	17.20	250	0.380	4625	1760	409.0	2.2
	17.50	250	0.390	4545	1775	427.0	2.2
	17.80	250	0.395	4470	1765	439.0	2.2
	18.00	250	0.400	4420	1770	450.5	2.2

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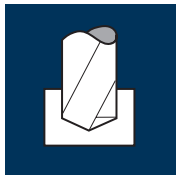
HM MG10

Rm < 850	**Rm** 850-1100	**Rm** 1100-1300	**Rm** 1300-1500				**Inox** Stainless		**GG(G) Aluminium**

Esempio: **N° Ordine** — Articolo **B62015** — Codice-ø **1600**

ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	NANO-U² B62015	B63015 €
1600	16.00	16	133	83	48	58.3		231.00
1610	16.10	18	143	93	48	66.3		310.00
1620	16.20	18	143	93	48	66.2		310.00
1630	16.30	18	143	93	48	66.2		310.00
1640	16.40	18	143	93	48	66.1		310.00
1650	16.50	18	143	93	48	66.0		310.00
1660	16.60	18	143	93	48	65.9		310.00
1670	16.70	18	143	93	48	65.9		310.00
1680	16.80	18	143	93	48	65.8		310.00
1690	16.90	18	143	93	48	65.8		310.00
1700	17.00	18	143	93	48	65.7		310.00
1710	17.10	18	143	93	48	65.7		310.00
1720	17.20	18	143	93	48	65.5		310.00
1730	17.30	18	143	93	48	65.5		310.00
1740	17.40	18	143	93	48	65.4		310.00
1750	17.50	18	143	93	48	65.4		310.00
1760	17.60	18	143	93	48	65.3		310.00
1770	17.70	18	143	93	48	65.3		310.00
1780	17.80	18	143	93	48	65.2		310.00
1790	17.90	18	143	93	48	65.3		310.00
1800	18.00	18	143	93	48	65.3		310.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	18.50	170	0.485	2925	1420	381.5	3.0
	18.70	170	0.490	2895	1420	390.0	3.0
	19.00	170	0.500	2850	1425	404.0	3.0
	19.20	170	0.505	2820	1425	412.5	3.0
	19.30	170	0.510	2805	1430	418.5	3.0
	19.50	170	0.515	2775	1430	427.0	3.0
	19.70	170	0.520	2745	1425	434.5	3.0
	19.80	170	0.520	2735	1420	437.0	3.0
	20.00	170	0.525	2705	1420	446.0	3.0
Acciaio 500 - 850 N/mm²	18.50	130	0.485	2235	1085	291.5	3.9
	18.70	130	0.490	2215	1085	298.0	3.9
	19.00	130	0.500	2180	1090	309.0	3.9
	19.20	130	0.505	2155	1090	315.5	3.9
	19.30	130	0.510	2145	1095	320.5	3.9
	19.50	130	0.515	2120	1090	325.5	3.9
	19.70	130	0.520	2100	1090	332.0	3.9
	19.80	130	0.520	2090	1085	334.0	3.9
	20.00	130	0.525	2070	1085	341.0	3.9
Acciaio 850 - 1100 N/mm²	18.50	110	0.370	1895	700	188.0	6.1
	18.70	110	0.375	1870	700	192.5	6.1
	19.00	110	0.380	1845	700	198.5	6.1
	19.20	110	0.385	1825	705	204.0	6.0
	19.30	110	0.385	1815	700	205.0	6.0
	19.50	110	0.390	1795	700	209.0	6.0
	19.70	110	0.395	1775	700	213.5	6.0
	19.80	110	0.395	1770	700	215.5	6.0
	20.00	110	0.400	1750	700	220.0	6.0
Acciaio 1100 - 1300 N/mm²	18.50	70	0.310	1205	375	101.0	11.4
	18.70	70	0.310	1190	370	101.5	11.5
	19.00	70	0.315	1175	370	105.0	11.5
	19.20	70	0.320	1160	370	107.0	11.4
	19.30	70	0.320	1155	370	108.0	11.4
	19.50	70	0.325	1145	370	110.5	11.4
	19.70	70	0.330	1130	375	114.5	11.2
	19.80	70	0.330	1125	370	114.0	11.4
	20.00	70	0.335	1115	375	118.0	11.2

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	18.50	40	0.245	690	170	45.5	25.0
	18.70	40	0.250	680	170	46.5	25.0
	19.00	40	0.255	670	170	48.0	25.0
	19.20	40	0.255	665	170	49.0	24.9
	19.30	40	0.255	660	170	49.5	24.9
	19.50	40	0.260	655	170	51.0	24.8
	19.70	40	0.265	645	170	52.0	24.8
	19.80	40	0.265	645	170	52.5	24.8
	20.00	40	0.265	635	170	53.5	24.8
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379] Acciaio inossidabile [Cr-Ni/1.4301]	18.50	60	0.285	1030	295	79.5	14.4
	18.70	60	0.290	1020	295	81.0	14.4
	19.00	60	0.290	1005	290	82.0	14.6
	19.20	60	0.295	995	295	85.5	14.3
	19.30	60	0.295	990	290	85.0	14.6
	19.50	60	0.300	980	295	88.0	14.3
	19.70	60	0.305	970	295	90.0	14.3
	19.80	60	0.305	965	295	91.0	14.3
	20.00	60	0.310	955	295	92.5	14.3
Ghisa (grigia / sferoidale)	18.50	220	0.530	3785	2005	539.0	2.1
	18.70	220	0.535	3745	2005	550.5	2.1
	19.00	220	0.545	3685	2010	570.0	2.1
	19.20	220	0.550	3645	2005	580.5	2.1
	19.30	220	0.550	3630	1995	583.5	2.1
	19.50	220	0.555	3590	1990	594.5	2.1
	19.70	220	0.565	3555	2010	612.5	2.1
	19.80	220	0.565	3535	1995	614.5	2.1
	20.00	220	0.570	3500	1995	626.5	2.1
Alluminio malleabile Si < 6%	18.50	250	0.410	4300	1765	474.5	2.4
	18.70	250	0.415	4255	1765	484.5	2.4
	19.00	250	0.420	4190	1760	499.0	2.4
	19.20	250	0.425	4145	1760	509.5	2.4
	19.30	250	0.430	4125	1775	519.5	2.4
	19.50	250	0.435	4080	1775	530.0	2.4
	19.70	250	0.440	4040	1780	542.5	2.4
	19.80	250	0.440	4020	1770	545.0	2.4
	20.00	250	0.445	3980	1770	556.0	2.4

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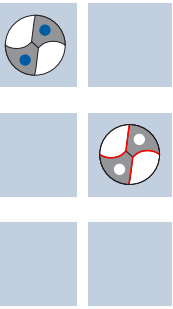
HM MG10

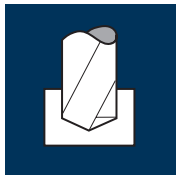


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless		GG(G) Aluminium

Esempio: **N° Ordine** — Articolo **B62015** Codice-ø **1850**

ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}		NANO-U² B62015 B63015 €
1850	18.50	20	153	101	50	71.0		364.00
1870	18.70	20	153	101	50	70.9		364.00
1900	19.00	20	153	101	50	70.7		364.00
1910	19.10	20	153	101	50	70.6		364.00
1920	19.20	20	153	101	50	70.5		364.00
1930	19.30	20	153	101	50	70.5		364.00
1950	19.50	20	153	101	50	70.4		364.00
1970	19.70	20	153	101	50	70.3		364.00
1980	19.80	20	153	101	50	70.2		364.00
2000	20.00	20	153	101	50	70.2		364.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	2.50	140	0.060	17825	1070	5.5	1.2
	2.70	140	0.065	16505	1075	6.0	1.1
	2.90	140	0.070	15365	1075	7.0	1.1
	3.00	140	0.070	14855	1040	7.5	1.2
	3.30	140	0.080	13505	1080	9.0	1.1
	3.50	140	0.085	12730	1080	10.5	1.1
	3.80	140	0.090	11725	1055	12.0	1.6
	4.00	140	0.095	11140	1060	13.5	1.5
	4.20	140	0.100	10610	1060	14.5	1.5
Acciaio 500 - 850 N/mm²	2.50	110	0.060	14005	840	4.0	1.5
	2.70	110	0.065	12970	845	5.0	1.5
	2.90	110	0.070	12075	845	5.5	1.4
	3.00	110	0.070	11670	815	6.0	1.5
	3.30	110	0.080	10610	850	7.5	1.4
	3.50	110	0.085	10005	850	8.0	1.4
	3.80	110	0.090	9215	830	9.5	2.0
	4.00	110	0.095	8755	830	10.5	1.9
	4.20	110	0.100	8335	835	11.5	1.9
Acciaio 850 - 1100 N/mm²	2.50	80	0.045	10185	460	2.5	2.7
	2.70	80	0.050	9430	470	2.5	2.6
	2.90	80	0.050	8780	440	3.0	2.8
	3.00	80	0.055	8490	465	3.5	2.6
	3.30	80	0.060	7715	465	4.0	2.6
	3.50	80	0.065	7275	475	4.5	2.5
	3.80	80	0.070	6700	470	5.5	3.5
	4.00	80	0.070	6365	445	5.5	3.6
	4.20	80	0.075	6065	455	6.5	3.5
Acciaio 1100 - 1300 N/mm²	2.50	55	0.040	7005	280	1.5	4.4
	2.70	55	0.040	6485	260	1.5	4.7
	2.90	55	0.045	6035	270	2.0	4.5
	3.00	55	0.045	5835	265	2.0	4.6
	3.30	55	0.050	5305	265	2.5	4.5
	3.50	55	0.055	5000	275	2.5	4.3
	3.80	55	0.055	4605	255	3.0	6.4
	4.00	55	0.060	4375	265	3.5	6.1
	4.20	55	0.065	4170	270	3.5	6.0

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	2.50	25	0.025	3185	80	0.5	15.6
	2.70	25	0.025	2945	75	0.5	16.4
	2.90	25	0.030	2745	80	0.5	15.3
	3.00	25	0.030	2655	80	0.5	15.2
	3.30	25	0.035	2410	85	0.5	14.1
	3.50	25	0.035	2275	80	1.0	14.8
	3.80	25	0.040	2095	85	1.0	19.3
	4.00	25	0.040	1990	80	1.0	20.2
	4.20	25	0.040	1895	75	1.0	21.4
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379]	2.50	50	0.030	6365	190	1.0	6.6
	2.70	50	0.035	5895	205	1.0	6.0
	2.90	50	0.035	5490	190	1.5	6.4
	3.00	50	0.040	5305	210	1.5	5.8
	3.30	50	0.040	4825	195	1.5	6.1
	3.50	50	0.045	4545	205	2.0	5.8
	3.80	50	0.050	4190	210	2.5	7.8
	4.00	50	0.050	3980	200	2.5	8.1
	4.20	50	0.055	3790	210	3.0	7.7
Ghisa (grigia / sferoidale)	2.50	160	0.065	20370	1325	6.5	0.9
	2.70	160	0.070	18865	1320	7.5	0.9
	2.90	160	0.075	17560	1315	8.5	0.9
	3.00	160	0.075	16975	1275	9.0	1.0
	3.30	160	0.085	15435	1310	11.0	0.9
	3.50	160	0.090	14550	1310	12.5	0.9
	3.80	160	0.100	13405	1340	15.0	1.2
	4.00	160	0.105	12730	1335	17.0	1.2
	4.20	160	0.110	12125	1335	18.5	1.2
Alluminio malleabile Si < 6%	2.50	220	0.050	28010	1400	7.0	0.9
	2.70	220	0.055	25935	1425	8.0	0.9
	2.90	220	0.060	24150	1450	9.5	0.8
	3.00	220	0.060	23345	1400	10.0	0.9
	3.30	220	0.065	21220	1380	12.0	0.9
	3.50	220	0.070	20010	1400	13.5	0.8
	3.80	220	0.075	18430	1380	15.5	1.2
	4.00	220	0.080	17505	1400	17.5	1.2
	4.20	220	0.085	16675	1415	19.5	1.1

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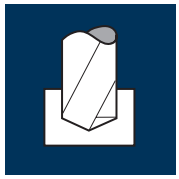
HM MG10

Rm < 850	**Rm** 850-1100	**Rm** 1100-1300	**Rm** 1300-1500						**GG(G) Aluminium**

Esempio: **N° Ordine** — Articolo **B62014** — Codice-ø **0250**

ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	NANO-U² B62014	B63014 €
0250	2.50	6	66	28	36	20.8		51.30
0255	2.55	6	66	28	36	20.7		51.30
0260	2.60	6	66	28	36	20.6		51.30
0265	2.65	6	66	28	36	20.6		51.30
0270	2.70	6	66	28	36	20.6		51.30
0280	2.80	6	66	28	36	20.4		51.30
0285	2.85	6	66	28	36	20.4		51.30
0290	2.90	6	66	28	36	20.4		51.30
0295	2.95	6	66	28	36	20.3		51.30
0300	3.00	6	66	28	36	20.2		57.60
0310	3.10	6	66	28	36	20.2		57.60
0320	3.20	6	66	28	36	20.0		57.60
0330	3.30	6	66	28	36	20.0		57.60
0340	3.40	6	66	28	36	19.8		57.60
0350	3.50	6	66	28	36	19.8		57.60
0360	3.60	6	66	28	36	19.6		57.60
0370	3.70	6	66	28	36	19.6		57.60
0380	3.80	6	74	36	36	27.4		57.60
0390	3.90	6	74	36	36	27.4		57.60
0400	4.00	6	74	36	36	26.9		57.60
0410	4.10	6	74	36	36	26.9		57.60
0420	4.20	6	74	36	36	26.8		57.60
0430	4.30	6	74	36	36	26.8		57.60

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	4.50	140	0.105	9905	1040	16.5	1.5
	4.80	140	0.115	9285	1070	19.5	1.9
	5.00	140	0.120	8915	1070	21.0	2.0
	5.10	140	0.120	8740	1050	21.5	2.0
	5.50	140	0.130	8100	1055	25.0	2.0
	5.80	140	0.135	7685	1035	27.5	2.0
	6.00	140	0.140	7425	1040	29.5	2.0
	6.10	140	0.145	7305	1060	31.0	2.3
	6.50	140	0.155	6855	1065	35.5	2.3
Acciaio 500 - 850 N/mm²	4.50	110	0.105	7780	815	13.0	2.0
	4.80	110	0.115	7295	840	15.0	2.5
	5.00	110	0.120	7005	840	16.5	2.5
	5.10	110	0.120	6865	825	17.0	2.5
	5.50	110	0.130	6365	825	19.5	2.5
	5.80	110	0.135	6035	815	21.5	2.5
	6.00	110	0.140	5835	815	23.0	2.5
	6.10	110	0.145	5740	830	24.5	3.0
	6.50	110	0.155	5385	835	27.5	2.9
Acciaio 850 - 1100 N/mm²	4.50	80	0.080	5660	455	7.0	3.5
	4.80	80	0.085	5305	450	8.0	4.6
	5.00	80	0.090	5095	460	9.0	4.5
	5.10	80	0.090	4995	450	9.0	4.6
	5.50	80	0.100	4630	465	11.0	4.4
	5.80	80	0.105	4390	460	12.0	4.5
	6.00	80	0.110	4245	465	13.0	4.5
	6.10	80	0.110	4175	460	13.5	5.4
	6.50	80	0.115	3920	450	15.0	5.5
Acciaio 1100 - 1300 N/mm²	4.50	55	0.070	3890	270	4.5	5.9
	4.80	55	0.070	3645	255	4.5	8.1
	5.00	55	0.075	3500	265	5.0	7.9
	5.10	55	0.075	3435	260	5.5	8.0
	5.50	55	0.085	3185	270	6.5	7.7
	5.80	55	0.085	3020	255	6.5	8.1
	6.00	55	0.090	2920	265	7.5	7.8
	6.10	55	0.090	2870	260	7.5	9.5
	6.50	55	0.100	2695	270	9.0	9.1

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	4.50	25	0.045	1770	80	1.5	19.9
	4.80	25	0.050	1660	85	1.5	24.3
	5.00	25	0.050	1590	80	1.5	26.1
	5.10	25	0.050	1560	80	1.5	26.0
	5.50	25	0.055	1445	80	2.0	25.8
	5.80	25	0.060	1370	80	2.0	25.8
	6.00	25	0.060	1325	80	2.5	25.9
	6.10	25	0.060	1305	80	2.5	31.0
	6.50	25	0.065	1225	80	2.5	30.8
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379]	4.50	50	0.060	3535	210	3.5	7.6
	4.80	50	0.060	3315	200	3.5	10.3
	5.00	50	0.065	3185	205	4.0	10.2
	5.10	50	0.065	3120	205	4.0	10.1
	5.50	50	0.070	2895	205	5.0	10.1
	5.80	50	0.075	2745	205	5.5	10.1
	6.00	50	0.075	2655	200	5.5	10.3
	6.10	50	0.080	2610	210	6.0	11.8
	6.50	50	0.085	2450	210	7.0	11.7
Ghisa (grigia / sferoidale)	4.50	160	0.115	11320	1300	20.5	1.2
	4.80	160	0.125	10610	1325	24.0	1.6
	5.00	160	0.130	10185	1325	26.0	1.6
	5.10	160	0.130	9985	1300	26.5	1.6
	5.50	160	0.140	9260	1295	31.0	1.6
	5.80	160	0.150	8780	1315	34.5	1.6
	6.00	160	0.155	8490	1315	37.0	1.6
	6.10	160	0.155	8350	1295	38.0	1.9
	6.50	160	0.165	7835	1295	43.0	1.9
Alluminio malleabile Si < 6%	4.50	220	0.090	15560	1400	22.5	1.1
	4.80	220	0.095	14590	1385	25.0	1.5
	5.00	220	0.100	14005	1400	27.5	1.5
	5.10	220	0.100	13730	1375	28.0	1.5
	5.50	220	0.110	12730	1400	33.5	1.5
	5.80	220	0.115	12075	1390	36.5	1.5
	6.00	220	0.120	11670	1400	39.5	1.5
	6.10	220	0.120	11480	1380	40.5	1.8
	6.50	220	0.130	10775	1400	46.5	1.8

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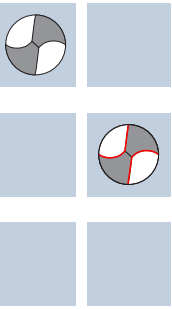
HM MG10

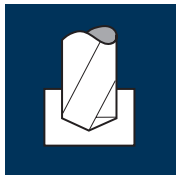


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500						GG(G) Aluminium

Esempio: **N° Ordine** — Articolo **B62014** Codice-ø **0440**

ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	NANO-U² B62014 B63014 €
0440	4.40	6	74	36	36	26.6	57.60
0450	4.50	6	74	36	36	26.6	57.60
0460	4.60	6	74	36	36	26.5	57.60
0470	4.70	6	74	36	36	26.5	57.60
0480	4.80	6	82	44	36	34.4	57.60
0490	4.90	6	82	44	36	34.4	57.60
0500	5.00	6	82	44	36	34.8	57.60
0510	5.10	6	82	44	36	34.7	57.60
0520	5.20	6	82	44	36	34.6	57.60
0530	5.30	6	82	44	36	34.6	57.60
0540	5.40	6	82	44	36	34.5	57.60
0550	5.50	6	82	44	36	34.5	57.60
0560	5.60	6	82	44	36	34.4	57.60
0570	5.70	6	82	44	36	34.4	57.60
0580	5.80	6	82	44	36	34.4	57.60
0590	5.90	6	82	44	36	34.5	57.60
0600	6.00	6	82	44	36	34.5	57.60
0610	6.10	8	91	53	36	41.4	64.00
0620	6.20	8	91	53	36	41.2	64.00
0630	6.30	8	91	53	36	41.2	64.00
0640	6.40	8	91	53	36	41.1	64.00
0650	6.50	8	91	53	36	41.1	64.00
0660	6.60	8	91	53	36	41.0	64.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	6.80	140	0.160	6555	1050	38.0	2.3
	6.90	140	0.165	6460	1065	40.0	2.3
	7.00	140	0.165	6365	1050	40.5	2.3
	7.50	140	0.180	5940	1070	47.5	2.3
	7.80	140	0.185	5715	1055	50.5	2.3
	8.00	140	0.190	5570	1060	53.5	2.3
	8.20	140	0.195	5435	1060	56.0	2.6
	8.50	140	0.200	5245	1050	59.5	2.6
	8.60	140	0.205	5180	1060	61.5	2.6
Acciaio 500 - 850 N/mm²	6.80	110	0.160	5150	825	30.0	3.0
	6.90	110	0.165	5075	835	31.0	2.9
	7.00	110	0.165	5000	825	31.5	3.0
	7.50	110	0.180	4670	840	37.0	2.9
	7.80	110	0.185	4490	830	39.5	2.9
	8.00	110	0.190	4375	830	41.5	2.9
	8.20	110	0.195	4270	835	44.0	3.3
	8.50	110	0.200	4120	825	47.0	3.3
	8.60	110	0.205	4070	835	48.5	3.3
Acciaio 850 - 1100 N/mm²	6.80	80	0.120	3745	450	16.5	5.5
	6.90	80	0.125	3690	460	17.0	5.3
	7.00	80	0.125	3640	455	17.5	5.4
	7.50	80	0.135	3395	460	20.5	5.3
	7.80	80	0.140	3265	455	21.5	5.3
	8.00	80	0.145	3185	460	23.0	5.3
	8.20	80	0.150	3105	465	24.5	6.0
	8.50	80	0.155	2995	465	26.5	5.9
	8.60	80	0.155	2960	460	26.5	6.0
Acciaio 1100 - 1300 N/mm²	6.80	55	0.100	2575	260	9.5	9.4
	6.90	55	0.105	2535	265	10.0	9.2
	7.00	55	0.105	2500	265	10.0	9.2
	7.50	55	0.115	2335	270	12.0	9.0
	7.80	55	0.115	2245	260	12.5	9.3
	8.00	55	0.120	2190	265	13.5	9.1
	8.20	55	0.125	2135	265	14.0	10.5
	8.50	55	0.130	2060	270	15.5	10.2
	8.60	55	0.130	2035	265	15.5	10.4

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	6.80	25	0.070	1170	80	3.0	30.7
	6.90	25	0.070	1155	80	3.0	30.6
	7.00	25	0.070	1135	80	3.0	30.5
	7.50	25	0.075	1060	80	3.5	30.3
	7.80	25	0.080	1020	80	4.0	30.3
	8.00	25	0.080	995	80	4.0	30.3
	8.20	25	0.080	970	80	4.0	34.6
	8.50	25	0.085	935	80	4.5	34.5
	8.60	25	0.085	925	80	4.5	34.5
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379]	6.80	50	0.085	2340	200	7.5	12.3
	6.90	50	0.090	2305	205	7.5	12.0
	7.00	50	0.090	2275	205	8.0	11.9
	7.50	50	0.095	2120	200	9.0	12.1
	7.80	50	0.100	2040	205	10.0	11.8
	8.00	50	0.105	1990	210	10.5	11.5
	8.20	50	0.105	1940	205	11.0	13.5
	8.50	50	0.110	1870	205	11.5	13.5
	8.60	50	0.110	1850	205	12.0	13.5
Ghisa (grigia / sferoidale)	6.80	160	0.175	7490	1310	47.5	1.9
	6.90	160	0.175	7380	1290	48.0	1.9
	7.00	160	0.180	7275	1310	50.5	1.9
	7.50	160	0.195	6790	1325	58.5	1.8
	7.80	160	0.200	6530	1305	62.5	1.9
	8.00	160	0.205	6365	1305	65.5	1.9
	8.20	160	0.210	6210	1305	69.0	2.1
	8.50	160	0.220	5990	1320	75.0	2.1
	8.60	160	0.220	5920	1300	75.5	2.1
Alluminio malleabile Si < 6%	6.80	220	0.135	10300	1390	50.5	1.8
	6.90	220	0.140	10150	1420	53.0	1.7
	7.00	220	0.140	10005	1400	54.0	1.7
	7.50	220	0.150	9335	1400	62.0	1.7
	7.80	220	0.155	8980	1390	66.5	1.7
	8.00	220	0.160	8755	1400	70.5	1.7
	8.20	220	0.165	8540	1410	74.5	2.0
	8.50	220	0.170	8240	1400	79.5	2.0
	8.60	220	0.170	8145	1385	80.5	2.0

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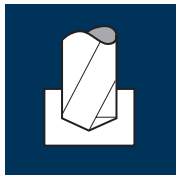
HM MG10

Rm < 850	**Rm** 850-1100	**Rm** 1100-1300	**Rm** 1300-1500						**GG(G) Aluminium**

Esempio: **N° Ordine** — Articolo **B62014** — Codice-ø **0670**

ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	NANO-U² **B62014**	**B63014**
								€
0670	6.70	8	91	53	36	41.0		64.00
0680	6.80	8	91	53	36	40.9		64.00
0690	6.90	8	91	53	36	40.9		64.00
0700	7.00	8	91	53	36	40.7		64.00
0710	7.10	8	91	53	36	40.7		64.00
0720	7.20	8	91	53	36	40.6		64.00
0730	7.30	8	91	53	36	40.6		64.00
0740	7.40	8	91	53	36	40.5		64.00
0750	7.50	8	91	53	36	40.5		64.00
0760	7.60	8	91	53	36	40.4		64.00
0770	7.70	8	91	53	36	40.4		64.00
0780	7.80	8	91	53	36	40.4		64.00
0790	7.90	8	91	53	36	40.4		64.00
0800	8.00	8	91	53	36	40.4		64.00
0810	8.10	10	103	61	40	46.3		73.00
0820	8.20	10	103	61	40	46.2		73.00
0830	8.30	10	103	61	40	46.2		73.00
0840	8.40	10	103	61	40	46.1		73.00
0850	8.50	10	103	61	40	46.1		73.00
0860	8.60	10	103	61	40	46.0		73.00
0870	8.70	10	103	61	40	46.0		73.00
0880	8.80	10	103	61	40	45.9		73.00
0890	8.90	10	103	61	40	45.8		73.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	9.00	140	0.215	4950	1065	68.0	2.6
	9.50	140	0.225	4690	1055	75.0	2.6
	9.80	140	0.230	4545	1045	79.0	2.6
	10.00	140	0.235	4455	1045	82.0	2.6
	10.20	140	0.240	4370	1050	86.0	3.0
	10.40	140	0.245	4285	1050	89.0	3.0
	10.50	140	0.250	4245	1060	92.0	3.0
	10.80	140	0.255	4125	1050	96.0	3.0
	11.00	140	0.260	4050	1055	100.5	3.0
Acciaio 500 - 850 N/mm²	9.00	110	0.215	3890	835	53.0	3.3
	9.50	110	0.225	3685	830	59.0	3.3
	9.80	110	0.230	3575	820	62.0	3.3
	10.00	110	0.235	3500	825	65.0	3.3
	10.20	110	0.240	3435	825	67.5	3.9
	10.40	110	0.245	3365	825	70.0	3.9
	10.50	110	0.250	3335	835	72.5	3.8
	10.80	110	0.255	3240	825	75.5	3.8
	11.00	110	0.260	3185	830	79.0	3.8
Acciaio 850 - 1100 N/mm²	9.00	80	0.160	2830	455	29.0	6.0
	9.50	80	0.170	2680	455	32.5	6.0
	9.80	80	0.175	2600	455	34.5	6.0
	10.00	80	0.180	2545	460	36.0	5.9
	10.20	80	0.185	2495	460	37.5	6.9
	10.40	80	0.185	2450	455	38.5	7.0
	10.50	80	0.190	2425	460	40.0	6.9
	10.80	80	0.195	2360	460	42.0	6.9
	11.00	80	0.200	2315	465	44.0	6.8
Acciaio 1100 - 1300 N/mm²	9.00	55	0.135	1945	265	17.0	10.3
	9.50	55	0.145	1845	270	19.0	10.1
	9.80	55	0.145	1785	260	19.5	10.5
	10.00	55	0.150	1750	265	21.0	10.3
	10.20	55	0.155	1715	265	21.5	12.0
	10.40	55	0.155	1685	260	22.0	12.3
	10.50	55	0.160	1665	265	23.0	12.0
	10.80	55	0.160	1620	260	24.0	12.2
	11.00	55	0.165	1590	260	24.5	12.2

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	9.00	25	0.090	885	80	5.0	34.3
	9.50	25	0.095	840	80	5.5	34.1
	9.80	25	0.100	810	80	6.0	34.0
	10.00	25	0.100	795	80	6.5	34.0
	10.20	25	0.100	780	80	6.5	39.9
	10.40	25	0.105	765	80	7.0	39.8
	10.50	25	0.105	760	80	7.0	39.8
	10.80	25	0.110	735	80	7.5	39.6
	11.00	25	0.110	725	80	7.5	39.5
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379]	9.00	50	0.115	1770	205	13.0	13.4
	9.50	50	0.120	1675	200	14.0	13.6
	9.80	50	0.125	1625	205	15.5	13.3
	10.00	50	0.130	1590	205	16.0	13.3
	10.20	50	0.130	1560	205	17.0	15.6
	10.40	50	0.135	1530	205	17.5	15.5
	10.50	50	0.135	1515	205	18.0	15.5
	10.80	50	0.140	1475	205	19.0	15.5
	11.00	50	0.140	1445	200	19.0	15.8
Ghisa (grigia / sferoidale)	9.00	160	0.230	5660	1300	82.5	2.1
	9.50	160	0.245	5360	1315	93.0	2.1
	9.80	160	0.250	5195	1300	98.0	2.1
	10.00	160	0.255	5095	1300	102.0	2.1
	10.20	160	0.260	4995	1300	106.0	2.5
	10.40	160	0.265	4895	1295	110.0	2.5
	10.50	160	0.270	4850	1310	113.5	2.4
	10.80	160	0.280	4715	1320	121.0	2.4
	11.00	160	0.285	4630	1320	125.5	2.4
Alluminio malleabile Si < 6%	9.00	220	0.180	7780	1400	89.0	2.0
	9.50	220	0.190	7370	1400	99.0	1.9
	9.80	220	0.195	7145	1395	105.0	1.9
	10.00	220	0.200	7005	1400	110.0	1.9
	10.20	220	0.205	6865	1405	115.0	2.3
	10.40	220	0.210	6735	1415	120.0	2.3
	10.50	220	0.210	6670	1400	121.0	2.3
	10.80	220	0.215	6485	1395	128.0	2.3
	11.00	220	0.220	6365	1400	133.0	2.3

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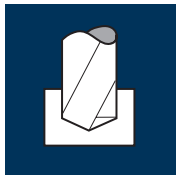
HM MG10

Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Rm** 1300-1500 | **GG(G) Aluminium**

Esempio: **N° Ordine** — Articolo **B62014** Codice-ø **0900**

ø Code	d1 m7	d2 h5	l1	l2	l4	Lmax	NANO-U² B62014 €	B63014 €
0900	9.00	10	103	61	40	45.7		73.00
0910	9.10	10	103	61	40	45.7		73.00
0920	9.20	10	103	61	40	45.6		73.00
0930	9.30	10	103	61	40	45.6		73.00
0940	9.40	10	103	61	40	45.5		73.00
0950	9.50	10	103	61	40	45.5		73.00
0960	9.60	10	103	61	40	45.4		73.00
0970	9.70	10	103	61	40	45.4		73.00
0980	9.80	10	103	61	40	45.3		73.00
0990	9.90	10	103	61	40	45.4		73.00
1000	10.00	10	103	61	40	45.4		73.00
1010	10.10	12	118	71	45	53.3		105.00
1020	10.20	12	118	71	45	53.2		105.00
1030	10.30	12	118	71	45	53.2		105.00
1040	10.40	12	118	71	45	53.1		105.00
1050	10.50	12	118	71	45	53.1		105.00
1060	10.60	12	118	71	45	53.0		105.00
1070	10.70	12	118	71	45	52.9		105.00
1080	10.80	12	118	71	45	52.8		105.00
1090	10.90	12	118	71	45	52.8		105.00
1100	11.00	12	118	71	45	52.7		105.00
1110	11.10	12	118	71	45	52.7		105.00
1120	11.20	12	118	71	45	52.6		105.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	11.50	140	0.270	3875	1045	108.5	3.0
	11.70	140	0.275	3810	1050	113.0	3.0
	12.00	140	0.285	3715	1060	120.0	3.0
	12.50	140	0.295	3565	1050	129.0	3.2
	13.00	140	0.310	3430	1065	141.5	3.1
	14.00	140	0.330	3185	1050	161.5	3.2
	15.00	140	0.355	2970	1055	186.5	3.3
	15.50	140	0.365	2875	1050	198.0	3.3
	16.00	140	0.380	2785	1060	213.0	3.3
Acciaio 500 - 850 N/mm²	11.50	110	0.270	3045	820	85.0	3.8
	11.70	110	0.275	2995	825	88.5	3.8
	12.00	110	0.285	2920	830	94.0	3.8
	12.50	110	0.295	2800	825	101.0	4.1
	13.00	110	0.310	2695	835	111.0	4.0
	14.00	110	0.330	2500	825	127.0	4.0
	15.00	110	0.355	2335	830	146.5	4.2
	15.50	110	0.365	2260	825	155.5	4.2
	16.00	110	0.380	2190	830	167.0	4.2
Acciaio 850 - 1100 N/mm²	11.50	80	0.205	2215	455	47.5	6.9
	11.70	80	0.210	2175	455	49.0	6.9
	12.00	80	0.215	2120	455	51.5	6.9
	12.50	80	0.225	2035	460	56.5	7.3
	13.00	80	0.235	1960	460	61.0	7.3
	14.00	80	0.250	1820	455	70.0	7.3
	15.00	80	0.270	1700	460	81.5	7.7
	15.50	80	0.280	1645	460	87.0	7.6
	16.00	80	0.290	1590	460	92.5	7.6
Acciaio 1100 - 1300 N/mm²	11.50	55	0.175	1520	265	27.5	11.9
	11.70	55	0.175	1495	260	28.0	12.1
	12.00	55	0.180	1460	265	30.0	11.8
	12.50	55	0.190	1400	265	32.5	12.7
	13.00	55	0.195	1345	260	34.5	12.9
	14.00	55	0.210	1250	265	41.0	12.5
	15.00	55	0.225	1165	260	46.0	13.5
	15.50	55	0.235	1130	265	50.0	13.2
	16.00	55	0.240	1095	265	53.5	13.2

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	11.50	25	0.115	690	80	8.5	39.3
	11.70	25	0.115	680	80	8.5	39.3
	12.00	25	0.120	665	80	9.0	39.2
	12.50	25	0.125	635	80	10.0	42.0
	13.00	25	0.130	610	80	10.5	41.8
	14.00	25	0.140	570	80	12.5	41.5
	15.00	25	0.150	530	80	14.0	44.0
	15.50	25	0.155	515	80	15.0	43.8
	16.00	25	0.160	495	80	16.0	43.7
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379]	11.50	50	0.150	1385	210	22.0	15.0
	11.70	50	0.150	1360	205	22.0	15.3
	12.00	50	0.155	1325	205	23.0	15.3
	12.50	50	0.160	1275	205	25.0	16.4
	13.00	50	0.165	1225	200	26.5	16.7
	14.00	50	0.180	1135	205	31.5	16.2
	15.00	50	0.195	1060	205	36.0	17.2
	15.50	50	0.200	1025	205	38.5	17.1
	16.00	50	0.205	995	205	41.0	17.1
Ghisa (grigia / sferoidale)	11.50	160	0.295	4430	1305	135.5	2.4
	11.70	160	0.300	4355	1305	140.5	2.4
	12.00	160	0.310	4245	1315	148.5	2.4
	12.50	160	0.320	4075	1305	160.0	2.6
	13.00	160	0.335	3920	1315	174.5	2.5
	14.00	160	0.360	3640	1310	201.5	2.5
	15.00	160	0.385	3395	1305	230.5	2.7
	15.50	160	0.400	3285	1315	248.0	2.7
	16.00	160	0.410	3185	1305	262.5	2.7
Alluminio malleabile Si < 6%	11.50	220	0.230	6090	1400	145.5	2.2
	11.70	220	0.235	5985	1405	151.0	2.2
	12.00	220	0.240	5835	1400	158.5	2.2
	12.50	220	0.250	5600	1400	172.0	2.4
	13.00	220	0.260	5385	1400	186.0	2.4
	14.00	220	0.280	5000	1400	215.5	2.4
	15.00	220	0.300	4670	1400	247.5	2.5
	15.50	220	0.310	4520	1400	264.0	2.5
	16.00	220	0.320	4375	1400	281.5	2.5

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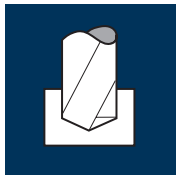
HM MG10

Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Rm** 1300-1500 | **GG(G) Aluminium**

Esempio: **N° Ordine** — Articolo **B62014** Codice-ø **1130**

ø Code	d1 m7	d2 h5	l1	l2	l4	Lmax	NANO-U² B62014	B63014
								€
1130	11.30	12	118	71	45	52.6		105.00
1140	11.40	12	118	71	45	52.5		105.00
1150	11.50	12	118	71	45	52.4		105.00
1160	11.60	12	118	71	45	52.4		105.00
1170	11.70	12	118	71	45	52.4		105.00
1180	11.80	12	118	71	45	52.3		105.00
1190	11.90	12	118	71	45	52.4		105.00
1200	12.00	12	118	71	45	52.3		105.00
1250	12.50	14	124	77	45	56.1		141.00
1280	12.80	14	124	77	45	55.8		141.00
1300	13.00	14	124	77	45	55.7		141.00
1350	13.50	14	124	77	45	55.4		141.00
1380	13.80	14	124	77	45	55.3		141.00
1400	14.00	14	124	77	45	55.3		141.00
1450	14.50	16	133	83	48	59.1		170.00
1480	14.80	16	133	83	48	58.8		170.00
1500	15.00	16	133	83	48	58.7		170.00
1550	15.50	16	133	83	48	58.4		170.00
1580	15.80	16	133	83	48	58.3		170.00
1600	16.00	16	133	83	48	58.3		170.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	3.00	180	0.135	19100	2580	18.0	0.5
	3.30	180	0.145	17360	2515	21.5	0.5
	3.50	180	0.155	16370	2535	24.5	0.5
	3.80	180	0.170	15080	2565	29.0	0.6
	4.00	180	0.185	14325	2650	33.5	0.6
	4.20	180	0.200	13640	2730	38.0	0.6
	4.50	180	0.230	12730	2930	46.5	0.5
	4.80	180	0.245	11935	2925	53.0	0.7
	5.00	180	0.255	11460	2920	57.5	0.7
Acciaio 500 - 850 N/mm²	3.00	160	0.115	16975	1950	14.0	0.6
	3.30	160	0.125	15435	1930	16.5	0.6
	3.50	160	0.135	14550	1965	19.0	0.6
	3.80	160	0.145	13405	1945	22.0	0.8
	4.00	160	0.160	12730	2035	25.5	0.8
	4.20	160	0.170	12125	2060	28.5	0.8
	4.50	160	0.195	11320	2205	35.0	0.7
	4.80	160	0.210	10610	2230	40.5	0.9
	5.00	160	0.215	10185	2190	43.0	1.0
Acciaio 850 - 1100 N/mm²	3.00	140	0.105	14855	1560	11.0	0.8
	3.30	140	0.115	13505	1555	13.5	0.8
	3.50	140	0.125	12730	1590	15.5	0.7
	3.80	140	0.135	11725	1585	18.0	1.0
	4.00	140	0.145	11140	1615	20.5	1.0
	4.20	140	0.155	10610	1645	23.0	1.0
	4.50	140	0.180	9905	1785	28.5	0.9
	4.80	140	0.190	9285	1765	32.0	1.2
	5.00	140	0.200	8915	1785	35.0	1.2
Acciaio 1100 - 1300 N/mm²	3.00	100	0.080	10610	850	6.0	1.4
	3.30	100	0.090	9645	870	7.5	1.4
	3.50	100	0.095	9095	865	8.5	1.4
	3.80	100	0.100	8375	840	9.5	2.0
	4.00	100	0.110	7960	875	11.0	1.8
	4.20	100	0.120	7580	910	12.5	1.8
	4.50	100	0.135	7075	955	15.0	1.7
	4.80	100	0.145	6630	960	17.5	2.1
	5.00	100	0.150	6365	955	19.0	2.2

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	3.00	55	0.060	5835	350	2.5	3.5
	3.30	55	0.070	5305	370	3.0	3.2
	3.50	55	0.070	5000	350	3.5	3.4
	3.80	55	0.080	4605	370	4.0	4.4
	4.00	55	0.085	4375	370	4.5	4.4
	4.20	55	0.090	4170	375	5.0	4.3
	4.50	55	0.105	3890	410	6.5	3.9
	4.80	55	0.110	3645	400	7.0	5.1
	5.00	55	0.115	3500	405	8.0	5.1
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379] Acciaio inossidabile [Cr-Ni/1.4301]	3.00	70	0.060	7425	445	3.0	2.7
	3.30	70	0.070	6750	475	4.0	2.5
	3.50	70	0.070	6365	445	4.5	2.7
	3.80	70	0.080	5865	470	5.5	3.5
	4.00	70	0.085	5570	475	6.0	3.4
	4.20	70	0.090	5305	475	6.5	3.4
	4.50	70	0.105	4950	520	8.5	3.1
	4.80	70	0.110	4640	510	9.0	4.0
	5.00	70	0.115	4455	510	10.0	4.1
Leghe di titanio indurite >300 HB [Ti6Al4V]	3.00	40	0.060	4245	255	2.0	4.8
	3.30	40	0.070	3860	270	2.5	4.4
	3.50	40	0.070	3640	255	2.5	4.6
	3.80	40	0.080	3350	270	3.0	6.1
	4.00	40	0.085	3185	270	3.5	6.0
	4.20	40	0.090	3030	275	4.0	5.8
	4.50	40	0.105	2830	295	4.5	5.4
	4.80	40	0.110	2655	290	5.0	7.1
	5.00	40	0.115	2545	295	6.0	7.1
Ghisa (grigia / sferoidale)	3.00	240	0.120	25465	3055	21.5	0.4
	3.30	240	0.135	23150	3125	26.5	0.4
	3.50	240	0.140	21825	3055	29.5	0.4
	3.80	240	0.155	20105	3115	35.5	0.5
	4.00	240	0.165	19100	3150	39.5	0.5
	4.20	240	0.180	18190	3275	45.5	0.5
	4.50	240	0.205	16975	3480	55.5	0.5
	4.80	240	0.220	15915	3500	63.5	0.6
	5.00	240	0.230	15280	3515	69.0	0.6

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HM MGX

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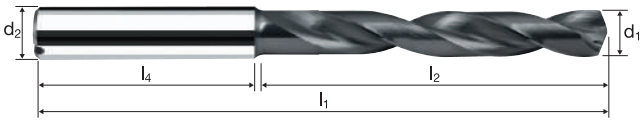
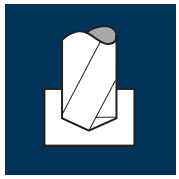


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	GG(G)

Esempio: **N° Ordine** — Articolo **B72015** Codice-ø **0300**

ø Code	d1 m7	d2 h5	l1	l2	l4	Lmax		DURO-X B72015 €
0300	3.0	6	66	28	36	20.2		98.00
0310	3.1	6	66	28	36	20.2		98.00
0320	3.2	6	66	28	36	20.0		98.00
0330	3.3	6	66	28	36	20.0		98.00
0340	3.4	6	66	28	36	19.8		98.00
0350	3.5	6	66	28	36	19.8		98.00
0360	3.6	6	66	28	36	19.6		98.00
0370	3.7	6	66	28	36	19.6		98.00
0380	3.8	6	74	36	36	27.4		98.00
0390	3.9	6	74	36	36	27.3		98.00
0400	4.0	6	74	36	36	26.9		98.00
0410	4.1	6	74	36	36	26.8		98.00
0420	4.2	6	74	36	36	26.7		98.00
0430	4.3	6	74	36	36	26.7		98.00
0440	4.4	6	74	36	36	26.6		98.00
0450	4.5	6	74	36	36	26.6		98.00
0460	4.6	6	74	36	36	26.5		98.00
0470	4.7	6	74	36	36	26.5		98.00
0480	4.8	6	82	44	36	34.3		98.00
0490	4.9	6	82	44	36	34.3		98.00
0500	5.0	6	82	44	36	34.7		98.00
0510	5.1	6	82	44	36	34.7		98.00
0520	5.2	6	82	44	36	34.6		98.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	5.50	180	0.280	10415	2915	69.5	0.7
	5.80	180	0.295	9880	2915	77.0	0.7
	6.00	180	0.315	9550	3010	85.0	0.7
	6.20	180	0.335	9240	3095	93.5	0.8
	6.50	180	0.350	8815	3085	102.5	0.8
	6.80	180	0.365	8425	3075	111.5	0.8
	7.00	180	0.380	8185	3110	119.5	0.8
	7.20	180	0.390	7960	3105	126.5	0.8
	7.50	180	0.405	7640	3095	136.5	0.8
Acciaio 500 - 850 N/mm²	5.50	160	0.240	9260	2220	52.5	0.9
	5.80	160	0.250	8780	2195	58.0	0.9
	6.00	160	0.270	8490	2290	64.5	0.9
	6.20	160	0.285	8215	2340	70.5	1.1
	6.50	160	0.300	7835	2350	78.0	1.0
	6.80	160	0.315	7490	2360	85.5	1.0
	7.00	160	0.325	7275	2365	91.0	1.0
	7.20	160	0.335	7075	2370	96.5	1.0
	7.50	160	0.345	6790	2345	103.5	1.0
Acciaio 850 - 1100 N/mm²	5.50	140	0.220	8100	1780	42.5	1.2
	5.80	140	0.230	7685	1770	47.0	1.2
	6.00	140	0.250	7425	1855	52.5	1.1
	6.20	140	0.265	7190	1905	57.5	1.3
	6.50	140	0.275	6855	1885	62.5	1.3
	6.80	140	0.290	6555	1900	69.0	1.3
	7.00	140	0.300	6365	1910	73.5	1.3
	7.20	140	0.305	6190	1890	77.0	1.3
	7.50	140	0.320	5940	1900	84.0	1.3
Acciaio 1100 - 1300 N/mm²	5.50	100	0.165	5785	955	22.5	2.2
	5.80	100	0.175	5490	960	25.5	2.1
	6.00	100	0.190	5305	1010	28.5	2.0
	6.20	100	0.200	5135	1025	31.0	2.4
	6.50	100	0.210	4895	1030	34.0	2.4
	6.80	100	0.220	4680	1030	37.5	2.4
	7.00	100	0.225	4545	1025	39.5	2.4
	7.20	100	0.235	4420	1040	42.5	2.3
	7.50	100	0.245	4245	1040	46.0	2.3

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	5.50	55	0.130	3185	415	10.0	5.0
	5.80	55	0.135	3020	410	11.0	5.0
	6.00	55	0.145	2920	425	12.0	4.8
	6.20	55	0.155	2825	440	13.5	5.6
	6.50	55	0.160	2695	430	14.5	5.7
	6.80	55	0.170	2575	440	16.0	5.6
	7.00	55	0.175	2500	440	17.0	5.6
	7.20	55	0.180	2430	435	17.5	5.6
	7.50	55	0.185	2335	430	19.0	5.6
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379] Acciaio inossidabile [Cr-Ni/1.4301]	5.50	70	0.130	4050	525	12.5	3.9
	5.80	70	0.135	3840	520	13.5	4.0
	6.00	70	0.145	3715	540	15.5	3.8
	6.20	70	0.155	3595	555	17.0	4.5
	6.50	70	0.160	3430	550	18.5	4.5
	6.80	70	0.170	3275	555	20.0	4.4
	7.00	70	0.175	3185	555	21.5	4.4
	7.20	70	0.180	3095	555	22.5	4.4
	7.50	70	0.185	2970	550	24.5	4.4
Leghe di titanio indurite >300 HB [Ti6Al4V]	5.50	40	0.130	2315	300	7.0	6.9
	5.80	40	0.135	2195	295	8.0	7.0
	6.00	40	0.145	2120	305	8.5	6.7
	6.20	40	0.155	2055	320	9.5	7.7
	6.50	40	0.160	1960	315	10.5	7.8
	6.80	40	0.170	1870	320	11.5	7.7
	7.00	40	0.175	1820	320	12.5	7.6
	7.20	40	0.180	1770	320	13.0	7.6
	7.50	40	0.185	1700	315	14.0	7.7
Ghisa (grigia / sferoidale)	5.50	240	0.255	13890	3540	84.0	0.6
	5.80	240	0.265	13170	3490	92.0	0.6
	6.00	240	0.285	12730	3630	102.5	0.6
	6.20	240	0.305	12320	3760	113.5	0.7
	6.50	240	0.320	11755	3760	125.0	0.7
	6.80	240	0.335	11235	3765	136.5	0.7
	7.00	240	0.345	10915	3765	145.0	0.6
	7.20	240	0.355	10610	3765	153.5	0.6
	7.50	240	0.370	10185	3770	166.5	0.6

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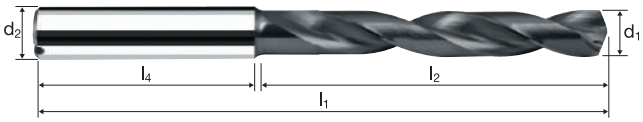
HM MGX

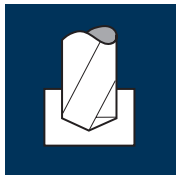


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	GG(G)

Esempio: **N° Ordine** — Articolo **B72015** Codice-ø **0530**

ø Code	d1 m7	d2 h5	l1	l2	l4	Lmax		DURO-X B72015 €
0530	5.3	6	82	44	36	34.6		98.00
0540	5.4	6	82	44	36	34.5		98.00
0550	5.5	6	82	44	36	34.4		98.00
0560	5.6	6	82	44	36	34.3		98.00
0570	5.7	6	82	44	36	34.4		98.00
0580	5.8	6	82	44	36	34.3		98.00
0590	5.9	6	82	44	36	34.3		98.00
0600	6.0	6	82	44	36	34.3		98.00
0610	6.1	8	91	53	36	41.3		108.00
0620	6.2	8	91	53	36	41.2		108.00
0630	6.3	8	91	53	36	41.2		108.00
0640	6.4	8	91	53	36	41.1		108.00
0650	6.5	8	91	53	36	41.0		108.00
0660	6.6	8	91	53	36	40.9		108.00
0670	6.7	8	91	53	36	40.9		108.00
0680	6.8	8	91	53	36	40.8		108.00
0690	6.9	8	91	53	36	40.8		108.00
0700	7.0	8	91	53	36	40.7		108.00
0710	7.1	8	91	53	36	40.7		108.00
0720	7.2	8	91	53	36	40.6		108.00
0730	7.3	8	91	53	36	40.5		108.00
0740	7.4	8	91	53	36	40.4		108.00
0750	7.5	8	91	53	36	40.4		108.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	7.60	180	0.410	7540	3090	140.0	0.8
	8.00	180	0.430	7160	3080	155.0	0.8
	8.20	180	0.445	6985	3110	164.0	0.9
	8.50	180	0.460	6740	3100	176.0	0.9
	8.80	180	0.475	6510	3090	188.0	0.9
	9.00	180	0.485	6365	3085	196.5	0.9
	9.20	180	0.495	6230	3085	205.0	0.9
	9.50	180	0.515	6030	3105	220.0	0.9
	9.80	180	0.530	5845	3100	234.0	0.9
Acciaio 500 - 850 N/mm²	7.60	160	0.350	6700	2345	106.5	1.0
	8.00	160	0.370	6365	2355	118.5	1.0
	8.20	160	0.380	6210	2360	124.5	1.2
	8.50	160	0.395	5990	2365	134.0	1.2
	8.80	160	0.405	5785	2345	142.5	1.2
	9.00	160	0.415	5660	2350	149.5	1.2
	9.20	160	0.425	5535	2350	156.0	1.2
	9.50	160	0.440	5360	2360	167.5	1.2
	9.80	160	0.455	5195	2365	178.5	1.1
Acciaio 850 - 1100 N/mm²	7.60	140	0.325	5865	1905	86.5	1.3
	8.00	140	0.340	5570	1895	95.5	1.3
	8.20	140	0.350	5435	1900	100.5	1.5
	8.50	140	0.360	5245	1890	107.0	1.5
	8.80	140	0.375	5065	1900	115.5	1.4
	9.00	140	0.385	4950	1905	121.0	1.4
	9.20	140	0.390	4845	1890	125.5	1.4
	9.50	140	0.405	4690	1900	134.5	1.4
	9.80	140	0.420	4545	1910	144.0	1.4
Acciaio 1100 - 1300 N/mm²	7.60	100	0.245	4190	1025	46.5	2.4
	8.00	100	0.260	3980	1035	52.0	2.3
	8.20	100	0.265	3880	1030	54.5	2.7
	8.50	100	0.275	3745	1030	58.5	2.7
	8.80	100	0.285	3615	1030	62.5	2.7
	9.00	100	0.290	3535	1025	65.0	2.7
	9.20	100	0.300	3460	1040	69.0	2.6
	9.50	100	0.310	3350	1040	73.5	2.6
	9.80	100	0.320	3250	1040	78.5	2.6

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	7.60	55	0.190	2305	440	20.0	5.5
	8.00	55	0.200	2190	440	22.0	5.5
	8.20	55	0.205	2135	440	23.0	6.3
	8.50	55	0.210	2060	435	24.5	6.3
	8.80	55	0.220	1990	440	27.0	6.2
	9.00	55	0.225	1945	440	28.0	6.2
	9.20	55	0.230	1905	440	29.0	6.2
	9.50	55	0.235	1845	435	31.0	6.3
	9.80	55	0.245	1785	435	33.0	6.2
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379] Acciaio inossidabile [Cr-Ni/1.4301]	7.60	70	0.190	2930	555	25.0	4.4
	8.00	70	0.200	2785	555	28.0	4.4
	8.20	70	0.205	2715	555	29.5	5.0
	8.50	70	0.210	2620	550	31.0	5.0
	8.80	70	0.220	2530	555	34.0	5.0
	9.00	70	0.225	2475	555	35.5	4.9
	9.20	70	0.230	2420	555	37.0	4.9
	9.50	70	0.235	2345	550	39.0	4.9
	9.80	70	0.245	2275	555	42.0	4.9
Leghe di titanio indurite >300 HB [Ti6Al4V]	7.60	40	0.190	1675	320	14.5	7.6
	8.00	40	0.200	1590	320	16.0	7.6
	8.20	40	0.205	1555	320	17.0	8.7
	8.50	40	0.210	1500	315	18.0	8.8
	8.80	40	0.220	1445	320	19.5	8.6
	9.00	40	0.225	1415	320	20.5	8.6
	9.20	40	0.230	1385	320	21.5	8.5
	9.50	40	0.235	1340	315	22.5	8.6
	9.80	40	0.245	1300	320	24.0	8.5
Ghisa (grigia / sferoidale)	7.60	240	0.375	10050	3770	171.0	0.6
	8.00	240	0.395	9550	3770	189.5	0.6
	8.20	240	0.405	9315	3775	199.5	0.7
	8.50	240	0.415	8990	3730	211.5	0.7
	8.80	240	0.430	8680	3730	227.0	0.7
	9.00	240	0.440	8490	3735	237.5	0.7
	9.20	240	0.450	8305	3735	248.5	0.7
	9.50	240	0.465	8040	3740	265.0	0.7
	9.80	240	0.480	7795	3740	282.0	0.7

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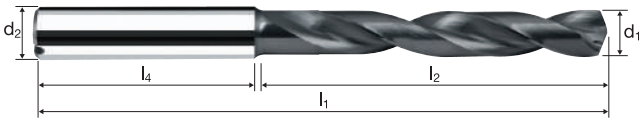
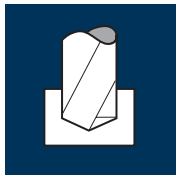


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	GG(G)

Esempio: **N° Ordine** — Articolo **B72015** Codice-ø **0760**

ø Code	d1 m7	d2 h5	l1	l2	l4	Lmax		DURO-X B72015 €
0760	7.6	8	91	53	36	40.3		108.00
0770	7.7	8	91	53	36	40.3		108.00
0780	7.8	8	91	53	36	40.3		108.00
0790	7.9	8	91	53	36	40.3		108.00
0800	8.0	8	91	53	36	40.3		108.00
0810	8.1	10	103	61	40	46.3		124.00
0820	8.2	10	103	61	40	46.2		124.00
0830	8.3	10	103	61	40	46.2		124.00
0840	8.4	10	103	61	40	46.0		124.00
0850	8.5	10	103	61	40	46.0		124.00
0860	8.6	10	103	61	40	45.9		124.00
0870	8.7	10	103	61	40	45.9		124.00
0880	8.8	10	103	61	40	45.8		124.00
0890	8.9	10	103	61	40	45.8		124.00
0900	9.0	10	103	61	40	45.7		124.00
0910	9.1	10	103	61	40	45.6		124.00
0920	9.2	10	103	61	40	45.5		124.00
0930	9.3	10	103	61	40	45.5		124.00
0940	9.4	10	103	61	40	45.4		124.00
0950	9.5	10	103	61	40	45.4		124.00
0960	9.6	10	103	61	40	45.3		124.00
0970	9.7	10	103	61	40	45.3		124.00
0980	9.8	10	103	61	40	45.2		124.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	10.00	180	0.540	5730	3095	243.0	0.9
	10.20	180	0.545	5615	3060	250.0	1.0
	10.50	180	0.565	5455	3080	266.5	1.0
	10.80	180	0.575	5305	3050	279.5	1.0
	11.00	180	0.585	5210	3050	290.0	1.0
	11.20	180	0.585	5115	2990	294.5	1.1
	11.50	180	0.590	4980	2940	305.5	1.1
	11.80	180	0.600	4855	2915	319.0	1.1
	12.00	180	0.610	4775	2915	329.5	1.1
Acciaio 500 - 850 N/mm²	10.00	160	0.465	5095	2370	186.0	1.1
	10.20	160	0.470	4995	2350	192.0	1.4
	10.50	160	0.485	4850	2350	203.5	1.4
	10.80	160	0.495	4715	2335	214.0	1.4
	11.00	160	0.500	4630	2315	220.0	1.4
	11.20	160	0.500	4545	2275	224.0	1.4
	11.50	160	0.505	4430	2235	232.0	1.4
	11.80	160	0.510	4315	2200	240.5	1.4
	12.00	160	0.520	4245	2205	249.5	1.4
Acciaio 850 - 1100 N/mm²	10.00	140	0.425	4455	1895	149.0	1.4
	10.20	140	0.430	4370	1880	153.5	1.7
	10.50	140	0.445	4245	1890	163.5	1.7
	10.80	140	0.455	4125	1875	172.0	1.7
	11.00	140	0.460	4050	1865	177.0	1.7
	11.20	140	0.465	3980	1850	182.5	1.7
	11.50	140	0.465	3875	1800	187.0	1.7
	11.80	140	0.470	3775	1775	194.0	1.8
	12.00	140	0.480	3715	1785	202.0	1.8
Acciaio 1100 - 1300 N/mm²	10.00	100	0.325	3185	1035	81.5	2.6
	10.20	100	0.330	3120	1030	84.0	3.1
	10.50	100	0.340	3030	1030	89.0	3.1
	10.80	100	0.345	2945	1015	93.0	3.1
	11.00	100	0.350	2895	1015	96.5	3.1
	11.20	100	0.350	2840	995	98.0	3.2
	11.50	100	0.355	2770	985	102.5	3.2
	11.80	100	0.360	2700	970	106.0	3.2
	12.00	100	0.365	2655	970	109.5	3.2

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	10.00	55	0.250	1750	440	34.5	6.2
	10.20	55	0.255	1715	435	35.5	7.3
	10.50	55	0.260	1665	435	37.5	7.3
	10.80	55	0.265	1620	430	39.5	7.4
	11.00	55	0.270	1590	430	41.0	7.3
	11.20	55	0.270	1565	425	42.0	7.4
	11.50	55	0.270	1520	410	42.5	7.7
	11.80	55	0.275	1485	410	45.0	7.6
	12.00	55	0.280	1460	410	46.5	7.6
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379] Acciaio inossidabile [Cr-Ni/1.4301]	10.00	70	0.250	2230	560	44.0	4.8
	10.20	70	0.255	2185	555	45.5	5.7
	10.50	70	0.260	2120	550	47.5	5.8
	10.80	70	0.265	2065	545	50.0	5.8
	11.00	70	0.270	2025	545	52.0	5.8
	11.20	70	0.270	1990	535	52.5	5.9
	11.50	70	0.270	1940	525	54.5	6.0
	11.80	70	0.275	1890	520	57.0	6.0
	12.00	70	0.280	1855	520	59.0	6.0
Leghe di titanio indurite >300 HB [Ti6Al4V]	10.00	40	0.250	1275	320	25.0	8.5
	10.20	40	0.255	1250	320	26.0	10.0
	10.50	40	0.260	1215	315	27.5	10.1
	10.80	40	0.265	1180	315	29.0	10.1
	11.00	40	0.270	1155	310	29.5	10.2
	11.20	40	0.270	1135	305	30.0	10.3
	11.50	40	0.270	1105	300	31.0	10.5
	11.80	40	0.275	1080	295	32.5	10.6
	12.00	40	0.280	1060	295	33.5	10.6
Ghisa (grigia / sferoidale)	10.00	240	0.490	7640	3745	294.0	0.7
	10.20	240	0.500	7490	3745	306.0	0.9
	10.50	240	0.510	7275	3710	321.0	0.9
	10.80	240	0.525	7075	3715	340.5	0.9
	11.00	240	0.530	6945	3680	349.5	0.9
	11.20	240	0.535	6820	3650	359.5	0.9
	11.50	240	0.535	6645	3555	369.5	0.9
	11.80	240	0.545	6475	3530	386.0	0.9
	12.00	240	0.555	6365	3535	400.0	0.9

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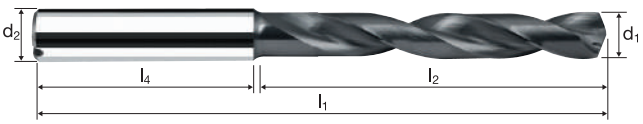
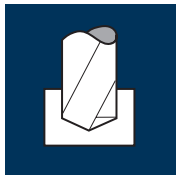


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	GG(G)

Esempio: **N° Ordine** — Articolo **B72015** Codice-ø **0990**

ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}		DURO-X B72015 €
0990	9.9	10	103	61	40	45.3		124.00
1000	10.0	10	103	61	40	45.2		124.00
1010	10.1	12	118	71	45	53.2		178.00
1020	10.2	12	118	71	45	53.1		178.00
1030	10.3	12	118	71	45	53.1		178.00
1040	10.4	12	118	71	45	53.0		178.00
1050	10.5	12	118	71	45	53.0		178.00
1060	10.6	12	118	71	45	52.9		178.00
1070	10.7	12	118	71	45	52.9		178.00
1080	10.8	12	118	71	45	52.8		178.00
1090	10.9	12	118	71	45	52.7		178.00
1100	11.0	12	118	71	45	52.6		178.00
1110	11.1	12	118	71	45	52.6		178.00
1120	11.2	12	118	71	45	52.5		178.00
1130	11.3	12	118	71	45	52.5		178.00
1140	11.4	12	118	71	45	52.4		178.00
1150	11.5	12	118	71	45	52.4		178.00
1160	11.6	12	118	71	45	52.3		178.00
1170	11.7	12	118	71	45	52.3		178.00
1180	11.8	12	118	71	45	52.2		178.00
1190	11.9	12	118	71	45	52.2		178.00
1200	12.0	12	118	71	45	52.2		178.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	12.20	180	0.620	4695	2910	340.0	1.2
	12.50	180	0.635	4585	2910	357.0	1.2
	12.60	180	0.640	4545	2910	363.0	1.2
	12.80	180	0.650	4475	2910	374.5	1.1
	13.00	180	0.660	4405	2905	385.5	1.1
	13.20	180	0.670	4340	2910	398.0	1.1
	13.50	180	0.675	4245	2865	410.0	1.2
	13.80	180	0.675	4150	2800	419.0	1.2
	14.00	180	0.680	4095	2785	428.5	1.2
Acciaio 500 - 850 N/mm²	12.20	160	0.530	4175	2215	259.0	1.5
	12.50	160	0.545	4075	2220	272.5	1.5
	12.60	160	0.545	4040	2200	274.5	1.5
	12.80	160	0.555	3980	2210	284.5	1.5
	13.00	160	0.565	3920	2215	294.0	1.5
	13.20	160	0.575	3860	2220	304.0	1.5
	13.50	160	0.580	3775	2190	313.5	1.5
	13.80	160	0.580	3690	2140	320.0	1.5
	14.00	160	0.585	3640	2130	328.0	1.6
Acciaio 850 - 1100 N/mm²	12.20	140	0.490	3655	1790	209.0	1.9
	12.50	140	0.500	3565	1785	219.0	1.9
	12.60	140	0.505	3535	1785	222.5	1.9
	12.80	140	0.510	3480	1775	228.5	1.9
	13.00	140	0.520	3430	1785	237.0	1.9
	13.20	140	0.530	3375	1790	245.0	1.9
	13.50	140	0.535	3300	1765	252.5	1.9
	13.80	140	0.535	3230	1730	259.0	1.9
	14.00	140	0.540	3185	1720	265.0	1.9
Acciaio 1100 - 1300 N/mm²	12.20	100	0.370	2610	965	113.0	3.5
	12.50	100	0.380	2545	965	118.5	3.5
	12.60	100	0.385	2525	970	121.0	3.5
	12.80	100	0.390	2485	970	125.0	3.4
	13.00	100	0.395	2450	970	129.0	3.4
	13.20	100	0.400	2410	965	132.0	3.5
	13.50	100	0.405	2360	955	136.5	3.5
	13.80	100	0.405	2305	935	140.0	3.5
	14.00	100	0.410	2275	935	144.0	3.5

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	12.20	55	0.285	1435	410	48.0	8.2
	12.50	55	0.290	1400	405	49.5	8.3
	12.60	55	0.295	1390	410	51.0	8.2
	12.80	55	0.300	1370	410	53.0	8.2
	13.00	55	0.305	1345	410	54.5	8.1
	13.20	55	0.310	1325	410	56.0	8.1
	13.50	55	0.310	1295	400	57.5	8.3
	13.80	55	0.310	1270	395	59.0	8.4
	14.00	55	0.315	1250	395	61.0	8.4
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379] Acciaio inossidabile [Cr-Ni/1.4301]	12.20	70	0.285	1825	520	61.0	6.5
	12.50	70	0.290	1785	520	64.0	6.5
	12.60	70	0.295	1770	520	65.0	6.5
	12.80	70	0.300	1740	520	67.0	6.4
	13.00	70	0.305	1715	525	69.5	6.4
	13.20	70	0.310	1690	525	72.0	6.3
	13.50	70	0.310	1650	510	73.0	6.5
	13.80	70	0.310	1615	500	75.0	6.6
	14.00	70	0.315	1590	500	77.0	6.6
Leghe di titanio indurite >300 HB [Ti6Al4V]	12.20	40	0.285	1045	300	35.0	11.2
	12.50	40	0.290	1020	295	36.0	11.4
	12.60	40	0.295	1010	300	37.5	11.2
	12.80	40	0.300	995	300	38.5	11.1
	13.00	40	0.305	980	300	40.0	11.1
	13.20	40	0.310	965	300	41.0	11.1
	13.50	40	0.310	945	295	42.0	11.2
	13.80	40	0.310	925	285	42.5	11.6
	14.00	40	0.315	910	285	44.0	11.6
Ghisa (grigia / sferoidale)	12.20	240	0.560	6260	3505	409.5	1.0
	12.50	240	0.575	6110	3515	431.5	1.0
	12.60	240	0.580	6065	3520	439.0	1.0
	12.80	240	0.590	5970	3520	453.0	0.9
	13.00	240	0.600	5875	3525	468.0	0.9
	13.20	240	0.610	5785	3530	483.0	0.9
	13.50	240	0.615	5660	3480	498.0	1.0
	13.80	240	0.615	5535	3405	509.5	1.0
	14.00	240	0.620	5455	3380	520.5	1.0

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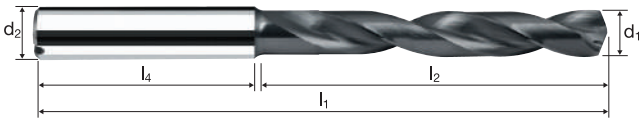
HM MGX

h5

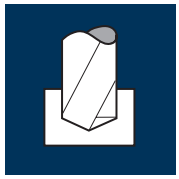


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	GG(G)

Esempio: **N° Ordine** — Articolo **B72015** Codice-ø **1210**

ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}		DURO-X B72015 €
1210	12.1	14	124	77	45	56.2		241.00
1220	12.2	14	124	77	45	56.1		241.00
1230	12.3	14	124	77	45	56.1		241.00
1240	12.4	14	124	77	45	56.0		241.00
1250	12.5	14	124	77	45	56.0		241.00
1260	12.6	14	124	77	45	55.9		241.00
1270	12.7	14	124	77	45	55.8		241.00
1280	12.8	14	124	77	45	55.7		241.00
1290	12.9	14	124	77	45	55.7		241.00
1300	13.0	14	124	77	45	55.6		241.00
1310	13.1	14	124	77	45	55.6		241.00
1320	13.2	14	124	77	45	55.5		241.00
1330	13.3	14	124	77	45	55.5		241.00
1340	13.4	14	124	77	45	55.4		241.00
1350	13.5	14	124	77	45	55.3		241.00
1360	13.6	14	124	77	45	55.2		241.00
1370	13.7	14	124	77	45	55.2		241.00
1380	13.8	14	124	77	45	55.1		241.00
1390	13.9	14	124	77	45	55.2		241.00
1400	14.0	14	124	77	45	55.1		241.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	14.20	180	0.685	4035	2765	438.0	1.3
	14.50	180	0.690	3950	2725	450.0	1.3
	14.80	180	0.700	3870	2710	466.0	1.3
	15.00	180	0.710	3820	2710	479.0	1.3
	15.20	180	0.720	3770	2715	492.5	1.3
	15.50	180	0.725	3695	2680	505.5	1.3
	15.70	180	0.725	3650	2645	512.0	1.3
	15.80	180	0.730	3625	2645	518.5	1.3
	16.00	180	0.735	3580	2630	529.0	1.3
Acciaio 500 - 850 N/mm²	14.20	160	0.590	3585	2115	335.0	1.7
	14.50	160	0.590	3510	2070	342.0	1.7
	14.80	160	0.600	3440	2065	355.0	1.7
	15.00	160	0.610	3395	2070	366.0	1.7
	15.20	160	0.615	3350	2060	374.0	1.7
	15.50	160	0.620	3285	2035	384.0	1.7
	15.70	160	0.625	3245	2030	393.0	1.7
	15.80	160	0.625	3225	2015	395.0	1.7
	16.00	160	0.630	3185	2005	403.0	1.7
Acciaio 850 - 1100 N/mm²	14.20	140	0.540	3140	1695	268.5	2.1
	14.50	140	0.545	3075	1675	276.5	2.1
	14.80	140	0.555	3010	1670	287.5	2.1
	15.00	140	0.560	2970	1665	294.0	2.1
	15.20	140	0.570	2930	1670	303.0	2.1
	15.50	140	0.570	2875	1640	309.5	2.1
	15.70	140	0.575	2840	1635	316.5	2.1
	15.80	140	0.580	2820	1635	320.5	2.1
	16.00	140	0.580	2785	1615	324.5	2.2
Acciaio 1100 - 1300 N/mm²	14.20	100	0.410	2240	920	145.5	3.9
	14.50	100	0.415	2195	910	150.5	3.9
	14.80	100	0.420	2150	905	155.5	3.9
	15.00	100	0.425	2120	900	159.0	3.9
	15.20	100	0.430	2095	900	163.5	3.9
	15.50	100	0.435	2055	895	169.0	3.9
	15.70	100	0.435	2025	880	170.5	4.0
	15.80	100	0.440	2015	885	173.5	3.9
	16.00	100	0.440	1990	875	176.0	4.0

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	14.20	55	0.315	1235	390	62.0	9.1
	14.50	55	0.320	1205	385	63.5	9.2
	14.80	55	0.325	1185	385	66.0	9.1
	15.00	55	0.330	1165	385	68.0	9.1
	15.20	55	0.330	1150	380	69.0	9.2
	15.50	55	0.335	1130	380	71.5	9.2
	15.70	55	0.335	1115	375	72.5	9.3
	15.80	55	0.340	1110	375	73.5	9.3
	16.00	55	0.340	1095	370	74.5	9.4
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379] Acciaio inossidabile [Cr-Ni/1.4301]	14.20	70	0.315	1570	495	78.5	7.2
	14.50	70	0.320	1535	490	81.0	7.2
	14.80	70	0.325	1505	490	84.5	7.2
	15.00	70	0.330	1485	490	86.5	7.2
	15.20	70	0.330	1465	485	88.0	7.2
	15.50	70	0.335	1440	480	90.5	7.3
	15.70	70	0.335	1420	475	92.0	7.3
	15.80	70	0.340	1410	480	94.0	7.3
	16.00	70	0.340	1395	475	95.5	7.3
Leghe di titanio indurite >300 HB [Ti6Al4V]	14.20	40	0.315	895	280	44.5	12.7
	14.50	40	0.320	880	280	46.0	12.6
	14.80	40	0.325	860	280	48.0	12.6
	15.00	40	0.330	850	280	49.5	12.6
	15.20	40	0.330	840	275	50.0	12.8
	15.50	40	0.335	820	275	52.0	12.7
	15.70	40	0.335	810	270	52.5	12.9
	15.80	40	0.340	805	275	54.0	12.7
	16.00	40	0.340	795	270	54.5	12.9
Ghisa (grigia / sferoidale)	14.20	240	0.625	5380	3365	533.0	1.1
	14.50	240	0.630	5270	3320	548.0	1.1
	14.80	240	0.635	5160	3275	563.5	1.1
	15.00	240	0.645	5095	3285	580.5	1.1
	15.20	240	0.655	5025	3290	597.0	1.1
	15.50	240	0.660	4930	3255	614.0	1.1
	15.70	240	0.660	4865	3210	621.5	1.1
	15.80	240	0.665	4835	3215	630.5	1.1
	16.00	240	0.670	4775	3200	643.5	1.1

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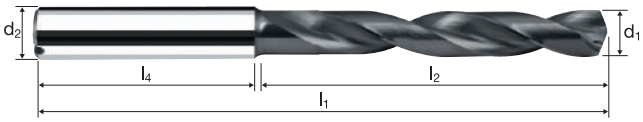
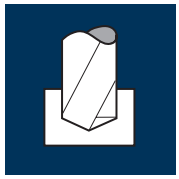


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	GG(G)

Esempio: **N° Ordine** — Articolo **B72015** Codice-ø **1410**

ø Code	d1 m7	d2 h5	l1	l2	l4	Lmax		DURO-X B72015 €
1410	14.1	16	133	83	48	59.2		290.00
1420	14.2	16	133	83	48	59.1		290.00
1430	14.3	16	133	83	48	59.1		290.00
1440	14.4	16	133	83	48	59.0		290.00
1450	14.5	16	133	83	48	59.0		290.00
1460	14.6	16	133	83	48	58.8		290.00
1470	14.7	16	133	83	48	58.8		290.00
1480	14.8	16	133	83	48	58.7		290.00
1490	14.9	16	133	83	48	58.7		290.00
1500	15.0	16	133	83	48	58.6		290.00
1510	15.1	16	133	83	48	58.6		290.00
1520	15.2	16	133	83	48	58.5		290.00
1530	15.3	16	133	83	48	58.5		290.00
1540	15.4	16	133	83	48	58.3		290.00
1550	15.5	16	133	83	48	58.3		290.00
1560	15.6	16	133	83	48	58.2		290.00
1570	15.7	16	133	83	48	58.2		290.00
1580	15.8	16	133	83	48	58.1		290.00
1590	15.9	16	133	83	48	58.1		290.00
1600	16.0	16	133	83	48	58.1		290.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	16.20	180	0.740	3535	2615	539.0	1.5
	16.40	180	0.750	3495	2620	553.5	1.5
	16.50	180	0.755	3470	2620	560.0	1.5
	16.80	180	0.755	3410	2575	571.0	1.5
	17.00	180	0.760	3370	2560	581.0	1.5
	17.20	180	0.765	3330	2545	591.5	1.5
	17.50	180	0.770	3275	2520	606.0	1.6
	17.70	180	0.775	3235	2505	616.5	1.6
	18.00	180	0.780	3185	2485	632.5	1.6
Acciaio 500 - 850 N/mm²	16.20	160	0.635	3145	1995	411.0	2.0
	16.40	160	0.640	3105	1985	419.5	2.0
	16.50	160	0.645	3085	1990	425.5	2.0
	16.80	160	0.650	3030	1970	436.5	2.0
	17.00	160	0.650	2995	1945	441.5	2.0
	17.20	160	0.655	2960	1940	451.0	2.0
	17.50	160	0.660	2910	1920	462.0	2.0
	17.70	160	0.660	2875	1900	467.5	2.1
	18.00	160	0.670	2830	1895	482.0	2.1
Acciaio 850 - 1100 N/mm²	16.20	140	0.585	2750	1610	332.0	2.5
	16.40	140	0.590	2715	1600	338.0	2.5
	16.50	140	0.595	2700	1605	343.0	2.5
	16.80	140	0.595	2655	1580	350.0	2.5
	17.00	140	0.600	2620	1570	356.5	2.5
	17.20	140	0.600	2590	1555	361.5	2.5
	17.50	140	0.610	2545	1550	373.0	2.5
	17.70	140	0.610	2520	1535	377.5	2.5
	18.00	140	0.615	2475	1520	387.0	2.6
Acciaio 1100 - 1300 N/mm²	16.20	100	0.445	1965	875	180.5	4.5
	16.40	100	0.450	1940	875	185.0	4.5
	16.50	100	0.450	1930	870	186.0	4.5
	16.80	100	0.455	1895	860	190.5	4.6
	17.00	100	0.455	1870	850	193.0	4.6
	17.20	100	0.460	1850	850	197.5	4.6
	17.50	100	0.460	1820	835	201.0	4.7
	17.70	100	0.465	1800	835	205.5	4.7
	18.00	100	0.470	1770	830	211.0	4.7

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	16.20	55	0.340	1080	365	75.0	10.9
	16.40	55	0.345	1070	370	78.0	10.7
	16.50	55	0.350	1060	370	79.0	10.7
	16.80	55	0.350	1040	365	81.0	10.8
	17.00	55	0.350	1030	360	81.5	10.9
	17.20	55	0.350	1020	355	82.5	11.1
	17.50	55	0.355	1000	355	85.5	11.0
	17.70	55	0.355	990	350	86.0	11.2
	18.00	55	0.360	975	350	89.0	11.1
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379] Acciaio inossidabile [Cr-Ni/1.4301]	16.20	70	0.340	1375	470	97.0	8.4
	16.40	70	0.345	1360	470	99.5	8.4
	16.50	70	0.350	1350	475	101.5	8.3
	16.80	70	0.350	1325	465	103.0	8.5
	17.00	70	0.350	1310	460	104.5	8.6
	17.20	70	0.350	1295	455	105.5	8.6
	17.50	70	0.355	1275	455	109.5	8.6
	17.70	70	0.355	1260	445	109.5	8.8
	18.00	70	0.360	1240	445	113.0	8.8
Leghe di titanio indurite >300 HB [Ti6Al4V]	16.20	40	0.340	785	265	54.5	15.0
	16.40	40	0.345	775	265	56.0	14.9
	16.50	40	0.350	770	270	57.5	14.6
	16.80	40	0.350	760	265	58.5	14.9
	17.00	40	0.350	750	265	60.0	14.9
	17.20	40	0.350	740	260	60.5	15.1
	17.50	40	0.355	730	260	62.5	15.1
	17.70	40	0.355	720	255	62.5	15.3
	18.00	40	0.360	705	255	65.0	15.3
Ghisa (grigia / sferoidale)	16.20	240	0.675	4715	3185	656.5	1.2
	16.40	240	0.680	4660	3170	669.5	1.2
	16.50	240	0.685	4630	3170	678.0	1.2
	16.80	240	0.685	4545	3115	690.5	1.3
	17.00	240	0.690	4495	3100	703.5	1.3
	17.20	240	0.695	4440	3085	717.0	1.3
	17.50	240	0.700	4365	3055	735.0	1.3
	17.70	240	0.705	4315	3040	748.0	1.3
	18.00	240	0.710	4245	3015	767.0	1.3

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HM MGX

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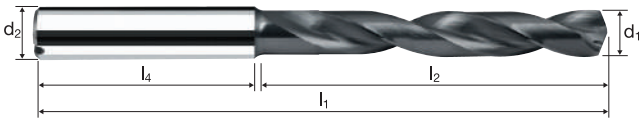
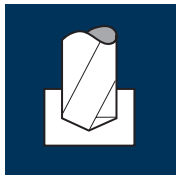


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	GG(G)

Esempio: **N° Ordine** — Articolo **B72015** Codice-ø **1610**

ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}		DURO-X B72015 €
1610	16.1	18	143	93	48	66.2		390.00
1620	16.2	18	143	93	48	66.1		390.00
1630	16.3	18	143	93	48	66.1		390.00
1640	16.4	18	143	93	48	65.9		390.00
1650	16.5	18	143	93	48	65.9		390.00
1660	16.6	18	143	93	48	65.8		390.00
1670	16.7	18	143	93	48	65.8		390.00
1680	16.8	18	143	93	48	65.7		390.00
1690	16.9	18	143	93	48	65.7		390.00
1700	17.0	18	143	93	48	65.6		390.00
1710	17.1	18	143	93	48	65.5		390.00
1720	17.2	18	143	93	48	65.4		390.00
1730	17.3	18	143	93	48	65.4		390.00
1740	17.4	18	143	93	48	65.3		390.00
1750	17.5	18	143	93	48	65.3		390.00
1760	17.6	18	143	93	48	65.2		390.00
1770	17.7	18	143	93	48	65.2		390.00
1780	17.8	18	143	93	48	65.1		390.00
1790	17.9	18	143	93	48	65.1		390.00
1800	18.0	18	143	93	48	65.0		390.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	18.50	180	0.785	3095	2430	653.0	1.7
	18.70	180	0.785	3065	2405	660.5	1.8
	19.00	180	0.790	3015	2380	675.0	1.8
	19.20	180	0.795	2985	2375	687.5	1.8
	19.30	180	0.800	2970	2375	695.0	1.8
	19.50	180	0.805	2940	2365	706.5	1.8
	19.70	180	0.810	2910	2355	718.0	1.8
	19.80	180	0.810	2895	2345	722.0	1.8
	20.00	180	0.820	2865	2350	738.5	1.8
Acciaio 500 - 850 N/mm²	18.50	160	0.670	2755	1845	496.0	2.3
	18.70	160	0.675	2725	1840	505.5	2.3
	19.00	160	0.680	2680	1820	516.0	2.3
	19.20	160	0.680	2655	1805	522.5	2.3
	19.30	160	0.685	2640	1810	529.5	2.3
	19.50	160	0.690	2610	1800	537.5	2.3
	19.70	160	0.690	2585	1785	544.0	2.4
	19.80	160	0.695	2570	1785	549.5	2.4
	20.00	160	0.705	2545	1795	564.0	2.3
Acciaio 850 - 1100 N/mm²	18.50	140	0.620	2410	1495	402.0	2.8
	18.70	140	0.620	2385	1480	406.5	2.9
	19.00	140	0.625	2345	1465	415.5	2.9
	19.20	140	0.625	2320	1450	420.0	2.9
	19.30	140	0.630	2310	1455	425.5	2.9
	19.50	140	0.635	2285	1450	433.0	2.9
	19.70	140	0.640	2260	1445	440.5	2.9
	19.80	140	0.640	2250	1440	443.5	2.9
	20.00	140	0.645	2230	1440	452.5	2.9
Acciaio 1100 - 1300 N/mm²	18.50	100	0.470	1720	810	217.5	5.2
	18.70	100	0.470	1700	800	219.5	5.3
	19.00	100	0.475	1675	795	225.5	5.3
	19.20	100	0.475	1660	790	228.5	5.3
	19.30	100	0.480	1650	790	231.0	5.3
	19.50	100	0.485	1630	790	236.0	5.3
	19.70	100	0.485	1615	785	239.5	5.4
	19.80	100	0.485	1610	780	240.0	5.4
	20.00	100	0.490	1590	780	245.0	5.4

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	18.50	55	0.360	945	340	91.5	12.5
	18.70	55	0.360	935	335	92.0	12.7
	19.00	55	0.365	920	335	95.0	12.6
	19.20	55	0.365	910	330	95.5	12.8
	19.30	55	0.370	905	335	98.0	12.6
	19.50	55	0.370	900	335	100.0	12.6
	19.70	55	0.375	890	335	102.0	12.6
	19.80	55	0.375	885	330	101.5	12.7
	20.00	55	0.380	875	335	105.0	12.5
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379] Acciaio inossidabile [Cr-Ni/1.4301]	18.50	70	0.360	1205	435	117.0	9.8
	18.70	70	0.360	1190	430	118.0	9.9
	19.00	70	0.365	1175	430	122.0	9.8
	19.20	70	0.365	1160	425	123.0	9.9
	19.30	70	0.370	1155	425	124.5	9.9
	19.50	70	0.370	1145	425	127.0	9.9
	19.70	70	0.375	1130	425	129.5	9.9
	19.80	70	0.375	1125	420	129.5	10.0
	20.00	70	0.380	1115	425	133.5	9.9
Leghe di titanio indurite >300 HB [Ti6Al4V]	18.50	40	0.360	690	250	67.0	17.0
	18.70	40	0.360	680	245	67.5	17.3
	19.00	40	0.365	670	245	69.5	17.3
	19.20	40	0.365	665	245	71.0	17.2
	19.30	40	0.370	660	245	71.5	17.2
	19.50	40	0.370	655	240	71.5	17.6
	19.70	40	0.375	645	240	73.0	17.5
	19.80	40	0.375	645	240	74.0	17.5
	20.00	40	0.380	635	240	75.5	17.5
Ghisa (grigia / sferoidale)	18.50	240	0.710	4130	2930	787.5	1.5
	18.70	240	0.715	4085	2920	802.0	1.5
	19.00	240	0.720	4020	2895	821.0	1.5
	19.20	240	0.720	3980	2865	829.5	1.5
	19.30	240	0.725	3960	2870	839.5	1.5
	19.50	240	0.735	3920	2880	860.0	1.5
	19.70	240	0.735	3880	2850	868.5	1.5
	19.80	240	0.740	3860	2855	879.0	1.5
	20.00	240	0.745	3820	2845	894.0	1.5

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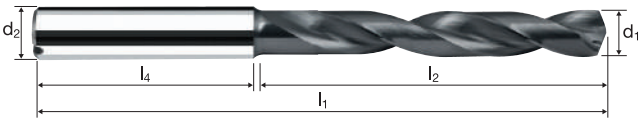
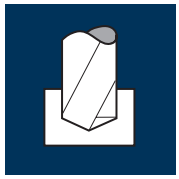


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	GG(G)

Esempio: **N° Ordine** — Articolo **B72015** Codice-ø **1850**

ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	DURO-X B72015 €
1850	18.5	20	153	101	50	70.9	458.00
1870	18.7	20	153	101	50	70.8	458.00
1900	19.0	20	153	101	50	70.5	458.00
1910	19.1	20	153	101	50	70.5	458.00
1920	19.2	20	153	101	50	70.4	458.00
1930	19.3	20	153	101	50	70.4	458.00
1950	19.5	20	153	101	50	70.3	458.00
1970	19.7	20	153	101	50	70.2	458.00
1980	19.8	20	153	101	50	70.1	458.00
2000	20.0	20	153	101	50	70.0	458.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	3.00	170	0.085	18040	1535	11.0	0.6
	3.30	170	0.095	16400	1560	13.5	0.6
	3.50	170	0.100	15460	1545	15.0	0.6
	4.00	170	0.115	13530	1555	19.5	0.7
	4.20	170	0.120	12885	1545	21.5	0.7
	5.00	170	0.145	10825	1570	31.0	0.7
	6.00	170	0.170	9020	1535	43.5	0.7
	6.80	170	0.195	7960	1550	56.5	1.1
	8.50	170	0.245	6365	1560	88.5	1.2
Acciaio 500 - 850 N/mm²	3.00	130	0.085	13795	1175	8.5	0.8
	3.30	130	0.095	12540	1190	10.0	0.8
	3.50	130	0.100	11825	1185	11.5	0.8
	4.00	130	0.115	10345	1190	15.0	1.0
	4.20	130	0.120	9850	1180	16.5	1.0
	5.00	130	0.145	8275	1200	23.5	0.9
	6.00	130	0.170	6895	1170	33.0	1.0
	6.80	130	0.195	6085	1185	43.0	1.5
	8.50	130	0.245	4870	1195	68.0	1.6
Acciaio 850 - 1100 N/mm²	3.00	110	0.065	11670	760	5.5	1.3
	3.30	110	0.075	10610	795	7.0	1.2
	3.50	110	0.080	10005	800	7.5	1.2
	4.00	110	0.090	8755	790	10.0	1.4
	4.20	110	0.095	8335	790	11.0	1.4
	5.00	110	0.110	7005	770	15.0	1.5
	6.00	110	0.135	5835	790	22.5	1.4
	6.80	110	0.150	5150	775	28.0	2.2
	8.50	110	0.190	4120	785	44.5	2.4
Acciaio 1100 - 1300 N/mm²	3.00	70	0.055	7425	410	3.0	2.4
	3.30	70	0.060	6750	405	3.5	2.4
	3.50	70	0.060	6365	380	3.5	2.5
	4.00	70	0.070	5570	390	5.0	2.9
	4.20	70	0.075	5305	400	5.5	2.8
	5.00	70	0.090	4455	400	8.0	2.8
	6.00	70	0.105	3715	390	11.0	2.9
	6.80	70	0.120	3275	395	14.5	4.4
	8.50	70	0.150	2620	395	22.5	4.9

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	3.00	40	0.045	4245	190	1.5	5.1
	3.30	40	0.045	3860	175	1.5	5.5
	3.50	40	0.050	3640	180	1.5	5.3
	4.00	40	0.055	3185	175	2.0	6.5
	4.20	40	0.060	3030	180	2.5	6.3
	5.00	40	0.070	2545	180	3.5	6.3
	6.00	40	0.085	2120	180	5.0	6.2
	6.80	40	0.095	1870	180	6.5	9.6
	8.50	40	0.120	1500	180	10.0	10.7
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379] Acciaio inossidabile [Cr-Ni/1.4301]	3.00	60	0.045	6365	285	2.0	3.4
	3.30	60	0.050	5785	290	2.5	3.3
	3.50	60	0.050	5455	275	2.5	3.4
	4.00	60	0.060	4775	285	3.5	4.0
	4.20	60	0.065	4545	295	4.0	3.8
	5.00	60	0.075	3820	285	5.5	4.0
	6.00	60	0.090	3185	285	8.0	3.9
	6.80	60	0.100	2810	280	10.0	6.2
	8.50	60	0.125	2245	280	16.0	6.9
Ghisa (grigia / sferoidale)	3.00	220	0.095	23345	2220	15.5	0.4
	3.30	220	0.105	21220	2230	19.0	0.4
	3.50	220	0.110	20010	2200	21.0	0.4
	4.00	220	0.125	17505	2190	27.5	0.5
	4.20	220	0.130	16675	2170	30.0	0.5
	5.00	220	0.155	14005	2170	42.5	0.5
	6.00	220	0.190	11670	2215	62.5	0.5
	6.80	220	0.215	10300	2215	80.5	0.8
	8.50	220	0.265	8240	2185	124.0	0.9
Alluminio malleabile Si < 6%	3.00	250	0.085	26525	2255	16.0	0.4
	3.30	250	0.095	24115	2290	19.5	0.4
	3.50	250	0.100	22735	2275	22.0	0.4
	4.00	250	0.115	19895	2290	29.0	0.5
	4.20	250	0.120	18945	2275	31.5	0.5
	5.00	250	0.145	15915	2310	45.5	0.5
	6.00	250	0.170	13265	2255	64.0	0.5
	6.80	250	0.195	11705	2280	83.0	0.8
	8.50	250	0.245	9360	2295	130.0	0.8

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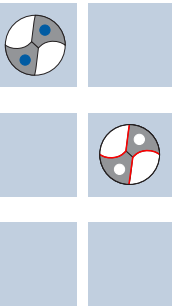
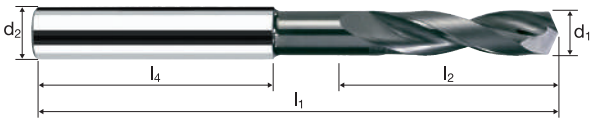


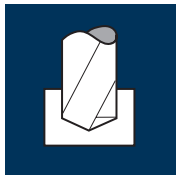


Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Rm** 1300-1500 | **Inox** Stainless | **GG(G) Aluminium**

Esempio: **N° Ordine** — Articolo **B62011** Codice-ø **0300**

ø Code	d1 m7	d2 h5	l1	l2	l4	Lmax	NANO-U² B62011	B63011 €
0300	3.0	6	62	20	36	16.2		74.00
0330	3.3	6	62	20	36	16.0		74.00
0340	3.4	6	62	20	36	15.8		74.00
0350	3.5	6	62	20	36	15.8		74.00
0370	3.7	6	62	20	36	15.6		74.00
0380	3.8	6	66	24	36	19.4		74.00
0400	4.0	6	66	24	36	18.9		74.00
0420	4.2	6	66	24	36	18.8		74.00
0450	4.5	6	66	24	36	18.6		74.00
0480	4.8	6	66	28	36	18.4		74.00
0500	5.0	6	66	28	36	18.8		74.00
0550	5.5	6	66	28	36	18.5		74.00
0580	5.8	6	66	28	36	18.4		74.00
0600	6.0	6	66	28	36	18.6		74.00
0650	6.5	8	79	34	36	29.1		82.00
0680	6.8	8	79	34	36	28.9		82.00
0700	7.0	8	79	34	36	28.8		82.00
0750	7.5	8	79	41	36	28.5		82.00
0780	7.8	8	79	41	36	28.4		82.00
0800	8.0	8	79	41	36	28.5		82.00
0850	8.5	10	89	47	40	32.1		94.00
0880	8.8	10	89	47	40	31.9		94.00
0900	9.0	10	89	47	40	31.7		94.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	10.00	170	0.285	5410	1540	121.0	1.2
	10.20	170	0.290	5305	1540	126.0	1.4
	11.00	170	0.315	4920	1550	147.5	1.4
	12.00	170	0.345	4510	1555	176.0	1.4
	13.00	170	0.370	4165	1540	204.5	1.5
	14.00	170	0.400	3865	1545	238.0	1.5
	15.00	170	0.430	3610	1550	274.0	1.6
	15.50	170	0.445	3490	1555	293.5	1.6
	16.00	170	0.455	3380	1540	309.5	1.6
Acciaio 500 - 850 N/mm²	10.00	130	0.285	4140	1180	92.5	1.6
	10.20	130	0.290	4055	1175	96.0	1.9
	11.00	130	0.315	3760	1185	112.5	1.9
	12.00	130	0.345	3450	1190	134.5	1.8
	13.00	130	0.370	3185	1180	156.5	2.0
	14.00	130	0.400	2955	1180	181.5	2.0
	15.00	130	0.430	2760	1185	209.5	2.1
	15.50	130	0.445	2670	1190	224.5	2.0
	16.00	130	0.455	2585	1175	236.0	2.1
Acciaio 850 - 1100 N/mm²	10.00	110	0.220	3500	770	60.5	2.5
	10.20	110	0.225	3435	775	63.5	2.9
	11.00	110	0.245	3185	780	74.0	2.8
	12.00	110	0.265	2920	775	87.5	2.8
	13.00	110	0.290	2695	780	103.5	3.0
	14.00	110	0.310	2500	775	119.5	3.0
	15.00	110	0.335	2335	780	138.0	3.1
	15.50	110	0.345	2260	780	147.0	3.1
	16.00	110	0.355	2190	775	156.0	3.1
Acciaio 1100 - 1300 N/mm²	10.00	70	0.175	2230	390	30.5	4.8
	10.20	70	0.180	2185	395	32.5	5.7
	11.00	70	0.195	2025	395	37.5	5.6
	12.00	70	0.210	1855	390	44.0	5.6
	13.00	70	0.230	1715	395	52.5	5.9
	14.00	70	0.245	1590	390	60.0	5.9
	15.00	70	0.265	1485	395	70.0	6.2
	15.50	70	0.270	1440	390	73.5	6.2
	16.00	70	0.280	1395	390	78.5	6.2

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	10.00	40	0.145	1275	185	14.5	10.2
	10.20	40	0.145	1250	180	14.5	12.4
	11.00	40	0.155	1155	180	17.0	12.2
	12.00	40	0.170	1060	180	20.5	12.1
	13.00	40	0.185	980	180	24.0	12.9
	14.00	40	0.200	910	180	27.5	12.8
	15.00	40	0.215	850	185	32.5	13.2
	15.50	40	0.220	820	180	34.0	13.5
	16.00	40	0.230	795	185	37.0	13.1
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379] Acciaio inossidabile [Cr-Ni/1.4301]	10.00	60	0.150	1910	285	22.5	6.6
	10.20	60	0.150	1870	280	23.0	8.0
	11.00	60	0.165	1735	285	27.0	7.7
	12.00	60	0.180	1590	285	32.0	7.7
	13.00	60	0.195	1470	285	38.0	8.1
	14.00	60	0.210	1365	285	44.0	8.1
	15.00	60	0.225	1275	285	50.5	8.6
	15.50	60	0.230	1230	285	54.0	8.5
	16.00	60	0.240	1195	285	57.5	8.5
Ghisa (grigia / sferoidale)	10.00	220	0.315	7005	2205	173.0	0.9
	10.20	220	0.320	6865	2195	179.5	1.0
	11.00	220	0.345	6365	2195	208.5	1.0
	12.00	220	0.375	5835	2190	247.5	1.0
	13.00	220	0.405	5385	2180	289.5	1.1
	14.00	220	0.440	5000	2200	338.5	1.0
	15.00	220	0.470	4670	2195	388.0	1.1
	15.50	220	0.485	4520	2190	413.0	1.1
	16.00	220	0.500	4375	2190	440.5	1.1
Alluminio malleabile Si < 6%	10.00	250	0.285	7960	2270	178.5	0.8
	10.20	250	0.290	7800	2260	184.5	1.0
	11.00	250	0.315	7235	2280	216.5	1.0
	12.00	250	0.345	6630	2285	258.5	1.0
	13.00	250	0.370	6120	2265	300.5	1.0
	14.00	250	0.400	5685	2275	350.0	1.0
	15.00	250	0.430	5305	2280	403.0	1.1
	15.50	250	0.445	5135	2285	431.0	1.1
	16.00	250	0.455	4975	2265	455.5	1.1

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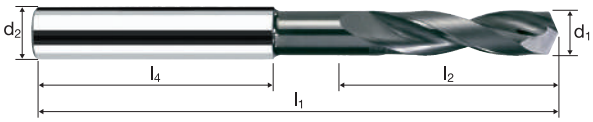
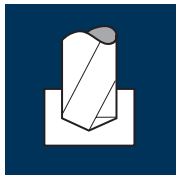


Rm < 850	**Rm** 850-1100	**Rm** 1100-1300	**Rm** 1300-1500				**Inox** Stainless		**GG(G) Aluminium**

Esempio: **N° Ordine** — Articolo **B62011** — Codice-ø **0950**

ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	NANO-U² B62011	B63011 €
0950	9.5	10	89	47	40	31.5		94.00
0980	9.8	10	89	47	40	31.4		94.00
1000	10.0	10	89	47	40	31.5		94.00
1020	10.2	12	102	55	45	37.2		135.00
1050	10.5	12	102	55	45	37.1		135.00
1080	10.8	12	102	55	45	36.9		135.00
1100	11.0	12	102	55	45	36.7		135.00
1150	11.5	12	102	55	45	36.5		135.00
1180	11.8	12	102	55	45	36.3		135.00
1200	12.0	12	102	55	45	36.4		135.00
1250	12.5	14	107	60	45	39.1		182.00
1280	12.8	14	107	60	45	38.9		182.00
1300	13.0	14	107	60	45	38.7		182.00
1350	13.5	14	107	60	45	38.5		182.00
1380	13.8	14	107	60	45	38.3		182.00
1400	14.0	14	107	60	45	38.4		182.00
1450	14.5	16	115	65	48	41.1		219.00
1480	14.8	16	115	65	48	40.8		219.00
1500	15.0	16	115	65	48	40.7		219.00
1550	15.5	16	115	65	48	40.5		219.00
1580	15.8	16	115	65	48	40.3		219.00
1600	16.0	16	115	65	48	40.4		219.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	3.00	180	0.140	19100	2675	19.0	0.4
	3.30	180	0.155	17360	2690	23.0	0.4
	3.50	180	0.165	16370	2700	26.0	0.4
	3.80	180	0.175	15080	2640	30.0	0.4
	4.00	180	0.195	14325	2795	35.0	0.4
	4.20	180	0.210	13640	2865	39.5	0.4
	4.50	180	0.240	12730	3055	48.5	0.4
	4.80	180	0.255	11935	3045	55.0	0.4
	5.00	180	0.265	11460	3035	59.5	0.4
Acciaio 500 - 850 N/mm²	3.00	160	0.120	16975	2035	14.5	0.5
	3.30	160	0.130	15435	2005	17.0	0.5
	3.50	160	0.140	14550	2035	19.5	0.5
	3.80	160	0.150	13405	2010	23.0	0.6
	4.00	160	0.165	12730	2100	26.5	0.5
	4.20	160	0.180	12125	2185	30.5	0.5
	4.50	160	0.205	11320	2320	37.0	0.5
	4.80	160	0.220	10610	2335	42.5	0.5
	5.00	160	0.230	10185	2345	46.0	0.5
Acciaio 850 - 1100 N/mm²	3.00	140	0.110	14855	1635	11.5	0.6
	3.30	140	0.120	13505	1620	14.0	0.6
	3.50	140	0.130	12730	1655	16.0	0.6
	3.80	140	0.140	11725	1640	18.5	0.7
	4.00	140	0.155	11140	1725	21.5	0.7
	4.20	140	0.165	10610	1750	24.0	0.6
	4.50	140	0.190	9905	1880	30.0	0.6
	4.80	140	0.200	9285	1855	33.5	0.6
	5.00	140	0.210	8915	1870	36.5	0.6
Acciaio 1100 - 1300 N/mm²	3.00	100	0.085	10610	900	6.5	1.1
	3.30	100	0.090	9645	870	7.5	1.1
	3.50	100	0.100	9095	910	9.0	1.0
	3.80	100	0.105	8375	880	10.0	1.3
	4.00	100	0.115	7960	915	11.5	1.2
	4.20	100	0.125	7580	950	13.0	1.2
	4.50	100	0.145	7075	1025	16.5	1.1
	4.80	100	0.155	6630	1030	18.5	1.1
	5.00	100	0.160	6365	1020	20.0	1.1

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	3.00	55	0.065	5835	380	2.5	2.6
	3.30	55	0.070	5305	370	3.0	2.6
	3.50	55	0.075	5000	375	3.5	2.5
	3.80	55	0.080	4605	370	4.0	3.1
	4.00	55	0.090	4375	395	5.0	2.9
	4.20	55	0.095	4170	395	5.5	2.9
	4.50	55	0.110	3890	430	7.0	2.6
	4.80	55	0.120	3645	435	8.0	2.5
	5.00	55	0.125	3500	440	8.5	2.6
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379] Acciaio inossidabile [Cr-Ni/1.4301]	3.00	70	0.065	7425	485	3.5	2.0
	3.30	70	0.070	6750	475	4.0	2.0
	3.50	70	0.075	6365	475	4.5	2.0
	3.80	70	0.080	5865	470	5.5	2.5
	4.00	70	0.090	5570	500	6.5	2.3
	4.20	70	0.095	5305	505	7.0	2.2
	4.50	70	0.110	4950	545	8.5	2.0
	4.80	70	0.120	4640	555	10.0	2.0
	5.00	70	0.125	4455	555	11.0	2.0
Leghe di titanio indurite >300 HB [Ti6Al4V]	3.00	40	0.065	4245	275	2.0	3.5
	3.30	40	0.070	3860	270	2.5	3.5
	3.50	40	0.075	3640	275	2.5	3.4
	3.80	40	0.080	3350	270	3.0	4.3
	4.00	40	0.090	3185	285	3.5	4.0
	4.20	40	0.095	3030	290	4.0	3.9
	4.50	40	0.110	2830	310	5.0	3.6
	4.80	40	0.120	2655	320	6.0	3.5
	5.00	40	0.125	2545	320	6.5	3.5
Ghisa (grigia / sferoidale)	3.00	240	0.125	25465	3185	22.5	0.3
	3.30	240	0.140	23150	3240	27.5	0.3
	3.50	240	0.150	21825	3275	31.5	0.3
	3.80	240	0.160	20105	3215	36.5	0.4
	4.00	240	0.175	19100	3345	42.0	0.3
	4.20	240	0.190	18190	3455	48.0	0.3
	4.50	240	0.220	16975	3735	59.5	0.3
	4.80	240	0.235	15915	3740	67.5	0.3
	5.00	240	0.240	15280	3665	72.0	0.3

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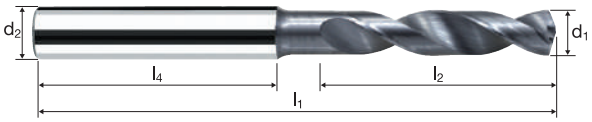
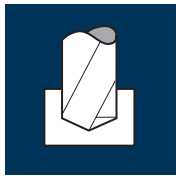


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	GG(G)

Esempio: **N° Ordine** — Articolo **B72011** Codice-ø **0300**

ø Code	d1 m7	d2 h5	l1	l2	l4	Lmax		DURO-X B72011 €
0300	3.0	6	62	20	36	16.2		84.00
0310	3.1	6	62	20	36	16.2		84.00
0320	3.2	6	62	20	36	16.0		84.00
0330	3.3	6	62	20	36	16.0		84.00
0340	3.4	6	62	20	36	15.8		84.00
0350	3.5	6	62	20	36	15.8		84.00
0360	3.6	6	62	20	36	15.6		84.00
0370	3.7	6	62	20	36	15.6		84.00
0380	3.8	6	66	24	36	19.4		84.00
0390	3.9	6	66	24	36	19.4		84.00
0400	4.0	6	66	24	36	18.9		84.00
0410	4.1	6	66	24	36	18.9		84.00
0420	4.2	6	66	24	36	18.8		84.00
0430	4.3	6	66	24	36	18.7		84.00
0440	4.4	6	66	24	36	18.6		84.00
0450	4.5	6	66	24	36	18.6		84.00
0460	4.6	6	66	24	36	18.5		84.00
0470	4.7	6	66	24	36	18.5		84.00
0480	4.8	6	66	28	36	18.4		84.00
0490	4.9	6	66	28	36	18.4		84.00
0500	5.0	6	66	28	36	18.7		84.00
0510	5.1	6	66	28	36	18.7		84.00
0520	5.2	6	66	28	36	18.6		84.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	5.50	180	0.295	10415	3070	73.0	0.4
	5.80	180	0.310	9880	3065	81.0	0.4
	6.00	180	0.330	9550	3150	89.0	0.4
	6.20	180	0.350	9240	3235	97.5	0.5
	6.50	180	0.370	8815	3260	108.0	0.5
	6.80	180	0.385	8425	3245	118.0	0.5
	7.00	180	0.395	8185	3235	124.5	0.5
	7.20	180	0.410	7960	3265	133.0	0.5
	7.50	180	0.425	7640	3245	143.5	0.5
Acciaio 500 - 850 N/mm²	5.50	160	0.250	9260	2315	55.0	0.5
	5.80	160	0.265	8780	2325	61.5	0.5
	6.00	160	0.285	8490	2420	68.5	0.5
	6.20	160	0.300	8215	2465	74.5	0.7
	6.50	160	0.315	7835	2470	82.0	0.7
	6.80	160	0.330	7490	2470	89.5	0.7
	7.00	160	0.340	7275	2475	95.0	0.7
	7.20	160	0.350	7075	2475	101.0	0.7
	7.50	160	0.365	6790	2480	109.5	0.7
Acciaio 850 - 1100 N/mm²	5.50	140	0.230	8100	1865	44.5	0.6
	5.80	140	0.245	7685	1885	50.0	0.6
	6.00	140	0.260	7425	1930	54.5	0.6
	6.20	140	0.275	7190	1975	59.5	0.9
	6.50	140	0.290	6855	1990	66.0	0.9
	6.80	140	0.305	6555	2000	72.5	0.9
	7.00	140	0.315	6365	2005	77.0	0.9
	7.20	140	0.320	6190	1980	80.5	0.9
	7.50	140	0.335	5940	1990	88.0	0.9
Acciaio 1100 - 1300 N/mm²	5.50	100	0.175	5785	1010	24.0	1.1
	5.80	100	0.185	5490	1015	27.0	1.1
	6.00	100	0.200	5305	1060	30.0	1.0
	6.20	100	0.210	5135	1080	32.5	1.6
	6.50	100	0.220	4895	1075	35.5	1.6
	6.80	100	0.230	4680	1075	39.0	1.6
	7.00	100	0.240	4545	1090	42.0	1.6
	7.20	100	0.245	4420	1085	44.0	1.6
	7.50	100	0.255	4245	1080	47.5	1.6

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	5.50	55	0.135	3185	430	10.0	2.6
	5.80	55	0.145	3020	440	11.5	2.5
	6.00	55	0.150	2920	440	12.5	2.5
	6.20	55	0.160	2825	450	13.5	3.9
	6.50	55	0.170	2695	460	15.5	3.8
	6.80	55	0.180	2575	465	17.0	3.7
	7.00	55	0.185	2500	465	18.0	3.7
	7.20	55	0.190	2430	460	18.5	3.7
	7.50	55	0.195	2335	455	20.0	3.8
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379] Acciaio inossidabile [Cr-Ni/1.4301]	5.50	70	0.135	4050	545	13.0	2.0
	5.80	70	0.145	3840	555	14.5	2.0
	6.00	70	0.150	3715	555	15.5	2.0
	6.20	70	0.160	3595	575	17.5	3.0
	6.50	70	0.170	3430	585	19.5	3.0
	6.80	70	0.180	3275	590	21.5	2.9
	7.00	70	0.185	3185	590	22.5	2.9
	7.20	70	0.190	3095	590	24.0	2.9
	7.50	70	0.195	2970	580	25.5	2.9
Leghe di titanio indurite >300 HB [Ti6Al4V]	5.50	40	0.135	2315	315	7.5	3.5
	5.80	40	0.145	2195	320	8.5	3.5
	6.00	40	0.150	2120	320	9.0	3.5
	6.20	40	0.160	2055	330	10.0	5.3
	6.50	40	0.170	1960	335	11.0	5.2
	6.80	40	0.180	1870	335	12.0	5.2
	7.00	40	0.185	1820	335	13.0	5.1
	7.20	40	0.190	1770	335	13.5	5.1
	7.50	40	0.195	1700	330	14.5	5.2
Ghisa (grigia / sferoidale)	5.50	240	0.265	13890	3680	87.5	0.3
	5.80	240	0.280	13170	3690	97.5	0.3
	6.00	240	0.300	12730	3820	108.0	0.3
	6.20	240	0.320	12320	3940	119.0	0.4
	6.50	240	0.335	11755	3940	130.5	0.4
	6.80	240	0.350	11235	3930	142.5	0.4
	7.00	240	0.360	10915	3930	151.0	0.4
	7.20	240	0.370	10610	3925	160.0	0.4
	7.50	240	0.385	10185	3920	173.0	0.4

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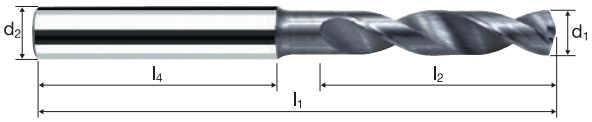
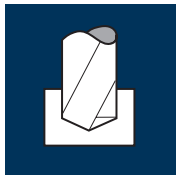


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	GG(G)

Esempio: **N° Ordine** — Articolo **B72011** Codice-ø **0530**

ø Code	d1 m7	d2 h5	l1	l2	l4	Lmax		DURO-X B72011 €
0530	5.3	6	66	28	36	18.6		84.00
0540	5.4	6	66	28	36	18.5		84.00
0550	5.5	6	66	28	36	18.5		84.00
0560	5.6	6	66	28	36	18.4		84.00
0570	5.7	6	66	28	36	18.4		84.00
0580	5.8	6	66	28	36	18.4		84.00
0590	5.9	6	66	28	36	18.4		84.00
0600	6.0	6	66	28	36	18.5		84.00
0610	6.1	8	79	34	36	29.3		92.00
0620	6.2	8	79	34	36	29.2		92.00
0630	6.3	8	79	34	36	29.2		92.00
0640	6.4	8	79	34	36	29.1		92.00
0650	6.5	8	79	34	36	29.1		92.00
0660	6.6	8	79	34	36	29.0		92.00
0670	6.7	8	79	34	36	29.0		92.00
0680	6.8	8	79	34	36	28.8		92.00
0690	6.9	8	79	34	36	28.8		92.00
0700	7.0	8	79	34	36	28.7		92.00
0710	7.1	8	79	41	36	28.7		92.00
0720	7.2	8	79	41	36	28.6		92.00
0730	7.3	8	79	41	36	28.6		92.00
0740	7.4	8	79	41	36	28.5		92.00
0750	7.5	8	79	41	36	28.5		92.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	7.60	180	0.430	7540	3240	147.0	0.5
	8.00	180	0.455	7160	3260	164.0	0.5
	8.20	180	0.465	6985	3250	171.5	0.6
	8.50	180	0.480	6740	3235	183.5	0.6
	8.80	180	0.500	6510	3255	198.0	0.6
	9.00	180	0.510	6365	3245	206.5	0.6
	9.20	180	0.520	6230	3240	215.5	0.6
	9.50	180	0.540	6030	3255	230.5	0.6
	9.80	180	0.555	5845	3245	245.0	0.6
Acciaio 500 - 850 N/mm²	7.60	160	0.370	6700	2480	112.5	0.7
	8.00	160	0.390	6365	2480	124.5	0.7
	8.20	160	0.400	6210	2485	131.0	0.8
	8.50	160	0.415	5990	2485	141.0	0.8
	8.80	160	0.425	5785	2460	149.5	0.8
	9.00	160	0.435	5660	2460	156.5	0.8
	9.20	160	0.445	5535	2465	164.0	0.8
	9.50	160	0.460	5360	2465	174.5	0.8
	9.80	160	0.475	5195	2470	186.5	0.8
Acciaio 850 - 1100 N/mm²	7.60	140	0.340	5865	1995	90.5	0.9
	8.00	140	0.360	5570	2005	101.0	0.8
	8.20	140	0.365	5435	1985	105.0	1.0
	8.50	140	0.380	5245	1995	113.0	1.0
	8.80	140	0.395	5065	2000	121.5	1.0
	9.00	140	0.405	4950	2005	127.5	0.9
	9.20	140	0.410	4845	1985	132.0	1.0
	9.50	140	0.425	4690	1995	141.5	0.9
	9.80	140	0.440	4545	2000	151.0	0.9
Acciaio 1100 - 1300 N/mm²	7.60	100	0.260	4190	1090	49.5	1.6
	8.00	100	0.270	3980	1075	54.0	1.6
	8.20	100	0.280	3880	1085	57.5	1.8
	8.50	100	0.290	3745	1085	61.5	1.8
	8.80	100	0.300	3615	1085	66.0	1.8
	9.00	100	0.305	3535	1080	68.5	1.8
	9.20	100	0.315	3460	1090	72.5	1.7
	9.50	100	0.325	3350	1090	77.5	1.7
	9.80	100	0.335	3250	1090	82.0	1.7

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	7.60	55	0.200	2305	460	21.0	3.7
	8.00	55	0.210	2190	460	23.0	3.7
	8.20	55	0.215	2135	460	24.5	4.2
	8.50	55	0.220	2060	455	26.0	4.2
	8.80	55	0.230	1990	460	28.0	4.1
	9.00	55	0.235	1945	455	29.0	4.2
	9.20	55	0.240	1905	455	30.0	4.2
	9.50	55	0.250	1845	460	32.5	4.1
	9.80	55	0.255	1785	455	34.5	4.1
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379] Acciaio inossidabile [Cr-Ni/1.4301]	7.60	70	0.200	2930	585	26.5	2.9
	8.00	70	0.210	2785	585	29.5	2.9
	8.20	70	0.215	2715	585	31.0	3.3
	8.50	70	0.220	2620	575	32.5	3.3
	8.80	70	0.230	2530	580	35.5	3.3
	9.00	70	0.235	2475	580	37.0	3.3
	9.20	70	0.240	2420	580	38.5	3.3
	9.50	70	0.250	2345	585	41.5	3.2
	9.80	70	0.255	2275	580	43.5	3.2
Leghe di titanio indurite >300 HB [Ti6Al4V]	7.60	40	0.200	1675	335	15.0	5.1
	8.00	40	0.210	1590	335	17.0	5.1
	8.20	40	0.215	1555	335	17.5	5.8
	8.50	40	0.220	1500	330	18.5	5.8
	8.80	40	0.230	1445	330	20.0	5.8
	9.00	40	0.235	1415	335	21.5	5.7
	9.20	40	0.240	1385	330	22.0	5.7
	9.50	40	0.250	1340	335	23.5	5.6
	9.80	40	0.255	1300	330	25.0	5.7
Ghisa (grigia / sferoidale)	7.60	240	0.390	10050	3920	178.0	0.4
	8.00	240	0.410	9550	3915	197.0	0.4
	8.20	240	0.420	9315	3910	206.5	0.5
	8.50	240	0.440	8990	3955	224.5	0.5
	8.80	240	0.455	8680	3950	240.0	0.5
	9.00	240	0.465	8490	3950	251.5	0.5
	9.20	240	0.475	8305	3945	262.0	0.5
	9.50	240	0.490	8040	3940	279.5	0.5
	9.80	240	0.505	7795	3935	297.0	0.5

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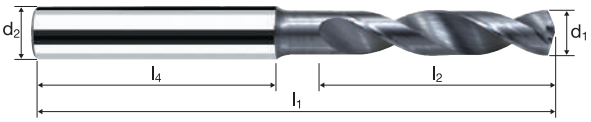
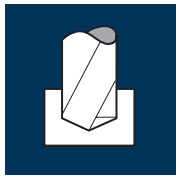


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	GG(G)

Esempio: **N° Ordine** — Articolo **B72011** Codice-ø **0760**

ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}		DURO-X B72011 €
0760	7.6	8	79	41	36	28.4		92.00
0770	7.7	8	79	41	36	28.4		92.00
0780	7.8	8	79	41	36	28.3		92.00
0790	7.9	8	79	41	36	28.4		92.00
0800	8.0	8	79	41	36	28.4		92.00
0810	8.1	10	89	47	40	32.3		106.00
0820	8.2	10	89	47	40	32.2		106.00
0830	8.3	10	89	47	40	32.2		106.00
0840	8.4	10	89	47	40	32.1		106.00
0850	8.5	10	89	47	40	32.1		106.00
0860	8.6	10	89	47	40	31.9		106.00
0870	8.7	10	89	47	40	31.9		106.00
0880	8.8	10	89	47	40	31.8		106.00
0890	8.9	10	89	47	40	31.8		106.00
0900	9.0	10	89	47	40	31.7		106.00
0910	9.1	10	89	47	40	31.7		106.00
0920	9.2	10	89	47	40	31.6		106.00
0930	9.3	10	89	47	40	31.6		106.00
0940	9.4	10	89	47	40	31.4		106.00
0950	9.5	10	89	47	40	31.4		106.00
0960	9.6	10	89	47	40	31.3		106.00
0970	9.7	10	89	47	40	31.3		106.00
0980	9.8	10	89	47	40	31.3		106.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	10.00	180	0.565	5730	3235	254.0	0.6
	10.20	180	0.575	5615	3230	264.0	0.7
	10.50	180	0.590	5455	3220	279.0	0.7
	10.80	180	0.605	5305	3210	294.0	0.7
	11.00	180	0.610	5210	3180	302.0	0.7
	11.20	180	0.615	5115	3145	310.0	0.7
	11.50	180	0.620	4980	3090	321.0	0.7
	11.80	180	0.630	4855	3060	334.5	0.7
	12.00	180	0.640	4775	3055	345.5	0.7
Acciaio 500 - 850 N/mm²	10.00	160	0.485	5095	2470	194.0	0.8
	10.20	160	0.495	4995	2475	202.0	0.9
	10.50	160	0.505	4850	2450	212.0	0.9
	10.80	160	0.520	4715	2450	224.5	0.9
	11.00	160	0.525	4630	2430	231.0	0.9
	11.20	160	0.530	4545	2410	237.5	0.9
	11.50	160	0.530	4430	2350	244.0	0.9
	11.80	160	0.540	4315	2330	255.0	0.9
	12.00	160	0.550	4245	2335	264.0	0.9
Acciaio 850 - 1100 N/mm²	10.00	140	0.445	4455	1980	155.5	0.9
	10.20	140	0.455	4370	1990	162.5	1.1
	10.50	140	0.465	4245	1975	171.0	1.1
	10.80	140	0.475	4125	1960	179.5	1.1
	11.00	140	0.485	4050	1965	186.5	1.1
	11.20	140	0.485	3980	1930	190.0	1.1
	11.50	140	0.490	3875	1900	197.5	1.1
	11.80	140	0.495	3775	1870	204.5	1.2
	12.00	140	0.505	3715	1875	212.0	1.2
Acciaio 1100 - 1300 N/mm²	10.00	100	0.340	3185	1085	85.0	1.7
	10.20	100	0.345	3120	1075	88.0	2.1
	10.50	100	0.355	3030	1075	93.0	2.1
	10.80	100	0.365	2945	1075	98.5	2.1
	11.00	100	0.365	2895	1055	100.5	2.1
	11.20	100	0.370	2840	1050	103.5	2.1
	11.50	100	0.375	2770	1040	108.0	2.1
	11.80	100	0.380	2700	1025	112.0	2.1
	12.00	100	0.385	2655	1020	115.5	2.1

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	10.00	55	0.260	1750	455	35.5	4.1
	10.20	55	0.265	1715	455	37.0	4.9
	10.50	55	0.275	1665	460	40.0	4.8
	10.80	55	0.280	1620	455	41.5	4.9
	11.00	55	0.285	1590	455	43.0	4.8
	11.20	55	0.285	1565	445	44.0	4.9
	11.50	55	0.285	1520	435	45.0	5.0
	11.80	55	0.290	1485	430	47.0	5.1
	12.00	55	0.295	1460	430	48.5	5.1
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379] Acciaio inossidabile [Cr-Ni/1.4301]	10.00	70	0.260	2230	580	45.5	3.2
	10.20	70	0.265	2185	580	47.5	3.8
	10.50	70	0.275	2120	585	50.5	3.8
	10.80	70	0.280	2065	580	53.0	3.8
	11.00	70	0.285	2025	575	54.5	3.8
	11.20	70	0.285	1990	565	55.5	3.9
	11.50	70	0.285	1940	555	57.5	3.9
	11.80	70	0.290	1890	550	60.0	3.9
	12.00	70	0.295	1855	545	61.5	4.0
Leghe di titanio indurite >300 HB [Ti6Al4V]	10.00	40	0.260	1275	330	26.0	5.7
	10.20	40	0.265	1250	330	27.0	6.8
	10.50	40	0.275	1215	335	29.0	6.6
	10.80	40	0.280	1180	330	30.0	6.7
	11.00	40	0.285	1155	330	31.5	6.7
	11.20	40	0.285	1135	325	32.0	6.7
	11.50	40	0.285	1105	315	32.5	6.9
	11.80	40	0.290	1080	315	34.5	6.9
	12.00	40	0.295	1060	315	35.5	6.9
Ghisa (grigia / sferoidale)	10.00	240	0.515	7640	3935	309.0	0.5
	10.20	240	0.520	7490	3895	318.5	0.6
	10.50	240	0.540	7275	3930	340.5	0.6
	10.80	240	0.550	7075	3890	356.5	0.6
	11.00	240	0.555	6945	3855	366.5	0.6
	11.20	240	0.560	6820	3820	376.5	0.6
	11.50	240	0.565	6645	3755	390.0	0.6
	11.80	240	0.570	6475	3690	403.5	0.6
	12.00	240	0.580	6365	3690	417.5	0.6

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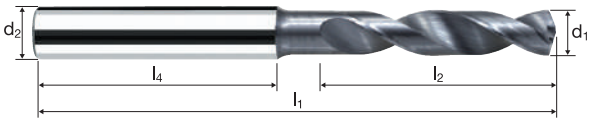
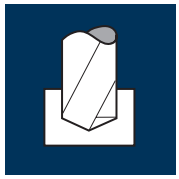


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	GG(G)

Esempio: **N° Ordine** — Articolo **B72011** Codice-ø **0990**

ø Code	d1 m7	d2 h5	l1	l2	l4	Lmax		DURO-X B72011 €
0990	9.9	10	89	47	40	31.3		106.00
1000	10.0	10	89	47	40	31.3		106.00
1010	10.1	12	102	55	45	37.3		152.00
1020	10.2	12	102	55	45	37.2		152.00
1030	10.3	12	102	55	45	37.2		152.00
1040	10.4	12	102	55	45	37.1		152.00
1050	10.5	12	102	55	45	37.0		152.00
1060	10.6	12	102	55	45	36.9		152.00
1070	10.7	12	102	55	45	36.9		152.00
1080	10.8	12	102	55	45	36.8		152.00
1090	10.9	12	102	55	45	36.8		152.00
1100	11.0	12	102	55	45	36.7		152.00
1110	11.1	12	102	55	45	36.7		152.00
1120	11.2	12	102	55	45	36.5		152.00
1130	11.3	12	102	55	45	36.5		152.00
1140	11.4	12	102	55	45	36.4		152.00
1150	11.5	12	102	55	45	36.4		152.00
1160	11.6	12	102	55	45	36.3		152.00
1170	11.7	12	102	55	45	36.3		152.00
1180	11.8	12	102	55	45	36.2		152.00
1190	11.9	12	102	55	45	36.3		152.00
1200	12.0	12	102	55	45	36.3		152.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	12.50	180	0.665	4585	3050	374.5	0.8
	13.00	180	0.695	4405	3060	406.0	0.8
	13.50	180	0.705	4340	3060	419.0	0.8
	14.00	180	0.715	4095	2930	451.0	0.8
	14.50	180	0.725	3950	2865	473.0	0.9
	15.00	180	0.745	3820	2845	503.0	0.9
	15.50	180	0.760	3695	2810	530.0	0.9
	15.80	180	0.770	3625	2790	547.0	0.9
	16.00	180	0.775	3580	2775	558.0	0.9
Acciaio 500 - 850 N/mm²	12.50	160	0.570	4075	2325	285.5	1.0
	13.00	160	0.595	3920	2330	309.5	1.0
	13.50	160	0.605	3860	2335	319.5	1.0
	14.00	160	0.610	3640	2220	341.5	1.0
	14.50	160	0.620	3510	2175	359.0	1.1
	15.00	160	0.640	3395	2175	384.5	1.1
	15.50	160	0.650	3285	2135	403.0	1.1
	15.80	160	0.660	3225	2130	417.5	1.1
	16.00	160	0.665	3185	2120	426.5	1.1
Acciaio 850 - 1100 N/mm²	12.50	140	0.525	3565	1870	229.5	1.2
	13.00	140	0.545	3430	1870	248.0	1.2
	13.50	140	0.555	3375	1875	256.5	1.2
	14.00	140	0.565	3185	1800	277.0	1.3
	14.50	140	0.570	3075	1755	290.0	1.4
	15.00	140	0.590	2970	1750	309.5	1.4
	15.50	140	0.600	2875	1725	325.5	1.4
	15.80	140	0.605	2820	1705	334.5	1.4
	16.00	140	0.610	2785	1700	342.0	1.4
Acciaio 1100 - 1300 N/mm²	12.50	100	0.400	2545	1020	125.0	2.3
	13.00	100	0.415	2450	1015	134.5	2.3
	13.50	100	0.420	2410	1010	138.0	2.3
	14.00	100	0.430	2275	980	151.0	2.3
	14.50	100	0.435	2195	955	157.5	2.6
	15.00	100	0.445	2120	945	167.0	2.6
	15.50	100	0.455	2055	935	176.5	2.6
	15.80	100	0.460	2015	925	181.5	2.6
	16.00	100	0.465	1990	925	186.0	2.6

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	12.50	55	0.310	1400	435	53.5	5.4
	13.00	55	0.320	1345	430	57.0	5.4
	13.50	55	0.325	1325	430	59.0	5.4
	14.00	55	0.330	1250	415	64.0	5.5
	14.50	55	0.335	1205	405	67.0	6.1
	15.00	55	0.345	1165	400	70.5	6.1
	15.50	55	0.350	1130	395	74.5	6.1
	15.80	55	0.355	1110	395	77.5	6.1
	16.00	55	0.355	1095	390	78.5	6.2
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379] Acciaio inossidabile [Cr-Ni/1.4301]	12.50	70	0.310	1785	555	68.0	4.2
	13.00	70	0.320	1715	550	73.0	4.2
	13.50	70	0.325	1690	550	75.5	4.2
	14.00	70	0.330	1590	525	81.0	4.4
	14.50	70	0.335	1535	515	85.0	4.8
	15.00	70	0.345	1485	510	90.0	4.8
	15.50	70	0.350	1440	505	95.5	4.8
	15.80	70	0.355	1410	500	98.0	4.8
	16.00	70	0.355	1395	495	99.5	4.9
Leghe di titanio indurite >300 HB [Ti6Al4V]	12.50	40	0.310	1020	315	38.5	7.4
	13.00	40	0.320	980	315	42.0	7.4
	13.50	40	0.325	965	315	43.0	7.3
	14.00	40	0.330	910	300	46.0	7.6
	14.50	40	0.335	880	295	48.5	8.3
	15.00	40	0.345	850	295	52.0	8.3
	15.50	40	0.350	820	285	54.0	8.5
	15.80	40	0.355	805	285	56.0	8.5
	16.00	40	0.355	795	280	56.5	8.6
Ghisa (grigia / sferoidale)	12.50	240	0.605	6110	3695	453.5	0.6
	13.00	240	0.630	5875	3700	491.0	0.6
	13.50	240	0.640	5785	3700	506.5	0.6
	14.00	240	0.650	5455	3545	545.5	0.6
	14.50	240	0.660	5270	3480	574.5	0.7
	15.00	240	0.675	5095	3440	608.0	0.7
	15.50	240	0.690	4930	3400	641.5	0.7
	15.80	240	0.700	4835	3385	663.5	0.7
	16.00	240	0.705	4775	3365	676.5	0.7

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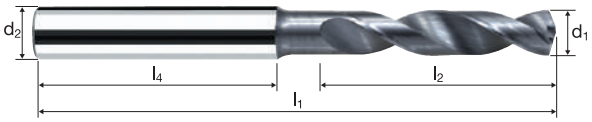
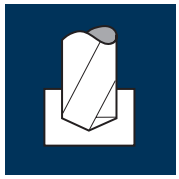


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	GG(G)

Esempio: **N° Ordine** — Articolo **B72011** — Codice-ø **1250**

ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	DURO-X B72011 €
1250	12.5	14	107	60	45	39.0	205.00
1280	12.8	14	107	60	45	38.8	205.00
1300	13.0	14	107	60	45	38.7	205.00
1350	13.5	14	107	60	45	38.4	205.00
1380	13.8	14	107	60	45	38.2	205.00
1400	14.0	14	107	60	45	38.2	205.00
1450	14.5	16	115	65	48	41.0	247.00
1480	14.8	16	115	65	48	40.8	247.00
1500	15.0	16	115	65	48	40.6	247.00
1550	15.5	16	115	65	48	40.4	247.00
1580	15.8	16	115	65	48	40.2	247.00
1600	16.0	16	115	65	48	40.2	247.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio da utensile temprato 42 - 48 HRC	2.55	35	0.049	4370	215	1.0	3.9
	2.80	35	0.052	3980	205	1.5	4.1
	3.00	35	0.054	3715	200	1.5	4.2
	3.30	35	0.058	3375	195	1.5	4.3
	3.60	35	0.061	3095	190	2.0	4.4
	4.00	35	0.065	2785	180	2.5	5.7
	4.30	35	0.069	2590	180	2.5	5.7
	4.50	35	0.071	2475	175	3.0	5.8
	4.65	35	0.072	2395	175	3.0	5.8
Acciaio da utensile temprato 48 - 52 HRC	2.55	30	0.049	3745	185	1.0	4.5
	2.80	30	0.052	3410	175	1.0	4.8
	3.00	30	0.054	3185	175	1.0	4.8
	3.30	30	0.058	2895	165	1.5	5.1
	3.60	30	0.061	2655	160	1.5	5.3
	4.00	30	0.065	2385	155	2.0	6.6
	4.30	30	0.069	2220	150	2.0	6.8
	4.50	30	0.071	2120	150	2.5	6.8
	4.65	30	0.072	2055	150	2.5	6.8
Acciaio da utensile temprato 52 - 56 HRC	2.55	30	0.049	3745	185	1.0	4.5
	2.80	30	0.052	3410	175	1.0	4.8
	3.00	30	0.054	3185	175	1.0	4.8
	3.30	30	0.058	2895	165	1.5	5.1
	3.60	30	0.061	2655	160	1.5	5.3
	4.00	30	0.065	2385	155	2.0	6.6
	4.30	30	0.069	2220	150	2.0	6.8
	4.50	30	0.071	2120	150	2.5	6.8
	4.65	30	0.072	2055	150	2.5	6.8
Acciaio da utensile temprato 56 - 60 HRC	2.55	25	0.032	3120	100	0.5	8.4
	2.80	25	0.034	2840	95	0.5	8.8
	3.00	25	0.035	2655	95	0.5	8.8
	3.30	25	0.037	2410	90	1.0	9.3
	3.60	25	0.040	2210	90	1.0	9.3
	4.00	25	0.043	1990	85	1.0	12.0
	4.30	25	0.045	1850	85	1.0	12.0
	4.50	25	0.046	1770	80	1.5	12.8
	4.65	25	0.047	1710	80	1.5	12.8

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio da utensile temprato > 60 HRC	2.55	20	0.027	2495	65	0.5	12.9
	2.80	20	0.029	2275	65	0.5	12.9
	3.00	20	0.030	2120	65	0.5	12.9
	3.30	20	0.032	1930	60	0.5	14.0
	3.60	20	0.034	1770	60	0.5	14.0
	4.00	20	0.036	1590	55	0.5	18.5
	4.30	20	0.038	1480	55	1.0	18.5
	4.50	20	0.039	1415	55	1.0	18.5
	4.65	20	0.040	1370	55	1.0	18.5

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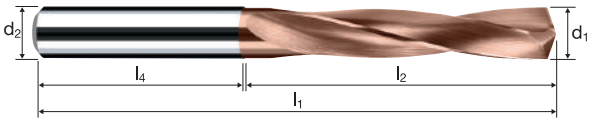
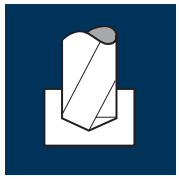


HRC 48-56 | HRC 56-60 | HRC > 60

Esempio: **N° Ordine** — Articolo **B52112** Codice-ø **0255**

ø Code	d1 h7	d2 h6	l1	l2	l4	Lmax	DURO-VD B52112 €
0255	2.55	6	62	20	36	14	84.00
0260	2.60	6	62	20	36	14	84.00
0270	2.70	6	62	20	36	14	84.00
0280	2.80	6	62	20	36	14	84.00
0290	2.90	6	62	20	36	14	84.00
0300	3.00	6	62	20	36	14	84.00
0310	3.10	6	62	20	36	14	84.00
0320	3.20	6	62	20	36	14	84.00
0330	3.30	6	62	20	36	14	84.00
0340	3.40	6	62	20	36	14	84.00
0350	3.50	6	62	20	36	14	84.00
0360	3.60	6	62	20	36	14	84.00
0370	3.70	6	62	20	36	14	84.00
0380	3.80	6	66	24	36	17	84.00
0390	3.90	6	66	24	36	17	84.00
0400	4.00	6	66	24	36	17	84.00
0410	4.10	6	66	24	36	17	84.00
0420	4.20	6	66	24	36	17	84.00
0430	4.30	6	66	24	36	17	84.00
0440	4.40	6	66	24	36	17	84.00
0450	4.50	6	66	24	36	17	84.00
0460	4.60	6	66	24	36	17	84.00
0465	4.65	6	66	24	36	17	84.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio da utensile temprato 42 - 48 HRC	4.80	35	0.074	2320	170	3.0	7.1
	5.00	35	0.076	2230	170	3.5	7.1
	5.20	35	0.078	2140	170	3.5	7.1
	5.50	35	0.081	2025	165	4.0	7.3
	5.70	35	0.084	1955	165	4.0	7.3
	6.00	35	0.087	1855	160	4.5	7.5
	6.30	35	0.090	1770	160	5.0	9.0
	6.50	35	0.092	1715	155	5.0	9.3
	6.80	35	0.095	1640	155	5.5	9.3
Acciaio da utensile temprato 48 - 52 HRC	4.80	30	0.074	1990	145	2.5	8.3
	5.00	30	0.076	1910	145	3.0	8.3
	5.20	30	0.078	1835	145	3.0	8.3
	5.50	30	0.081	1735	140	3.5	8.6
	5.70	30	0.084	1675	140	3.5	8.6
	6.00	30	0.087	1590	140	4.0	8.6
	6.30	30	0.090	1515	135	4.0	10.7
	6.50	30	0.092	1470	135	4.5	10.7
	6.80	30	0.095	1405	135	5.0	10.7
Acciaio da utensile temprato 52 - 56 HRC	4.80	30	0.074	1990	145	2.5	8.3
	5.00	30	0.076	1910	145	3.0	8.3
	5.20	30	0.078	1835	145	3.0	8.3
	5.50	30	0.081	1735	140	3.5	8.6
	5.70	30	0.084	1675	140	3.5	8.6
	6.00	30	0.087	1590	140	4.0	8.6
	6.30	30	0.090	1515	135	4.0	10.7
	6.50	30	0.092	1470	135	4.5	10.7
	6.80	30	0.095	1405	135	5.0	10.7
Acciaio da utensile temprato 56 - 60 HRC	4.80	25	0.048	1660	80	1.5	15.0
	5.00	25	0.050	1590	80	1.5	15.0
	5.20	25	0.051	1530	80	1.5	15.0
	5.50	25	0.053	1445	75	2.0	16.0
	5.70	25	0.054	1395	75	2.0	16.0
	6.00	25	0.056	1325	75	2.0	16.0
	6.30	25	0.058	1265	75	2.5	19.2
	6.50	25	0.060	1225	75	2.5	19.2
	6.80	25	0.062	1170	70	2.5	20.6

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio da utensile temprato > 60 HRC	4.80	20	0.041	1325	55	1.0	21.8
	5.00	20	0.042	1275	55	1.0	21.8
	5.20	20	0.043	1225	55	1.0	21.8
	5.50	20	0.045	1155	50	1.0	24.0
	5.70	20	0.046	1115	50	1.5	24.0
	6.00	20	0.048	1060	50	1.5	24.0
	6.30	20	0.049	1010	50	1.5	28.8
	6.50	20	0.050	980	50	1.5	28.8
	6.80	20	0.052	935	50	2.0	28.8

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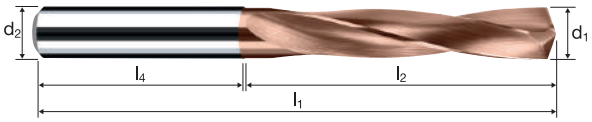
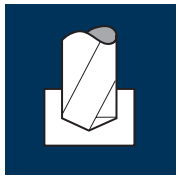


HRC 48-56 | HRC 56-60 | HRC > 60

Esempio: **N° Ordine** — Articolo **B52112** Codice-ø **0470**

ø Code	d1 h7	d2 h6	l1	l2	l4	Lmax	DURO-VD B52112 €
0470	4.70	6	66	24	36	17	84.00
0480	4.80	6	66	28	36	20	84.00
0490	4.90	6	66	28	36	20	84.00
0500	5.00	6	66	28	36	20	84.00
0510	5.10	6	66	28	36	20	84.00
0520	5.20	6	66	28	36	20	84.00
0530	5.30	6	66	28	36	20	84.00
0540	5.40	6	66	28	36	20	84.00
0550	5.50	6	66	28	36	20	84.00
0555	5.55	6	66	28	36	20	84.00
0560	5.60	6	66	28	36	20	84.00
0570	5.70	6	66	28	36	20	84.00
0580	5.80	6	66	28	36	20	84.00
0590	5.90	6	66	28	36	20	84.00
0600	6.00	6	66	28	36	20	84.00
0610	6.10	8	79	34	36	24	92.00
0620	6.20	8	79	34	36	24	92.00
0630	6.30	8	79	34	36	24	92.00
0640	6.40	8	79	34	36	24	92.00
0650	6.50	8	79	34	36	24	92.00
0660	6.60	8	79	34	36	24	92.00
0670	6.70	8	79	34	36	24	92.00
0680	6.80	8	79	34	36	24	92.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio da utensile temprato 42 - 48 HRC	6.90	35	0.096	1615	155	6.0	9.3
	7.10	35	0.098	1570	155	6.0	11.2
	7.40	35	0.100	1505	150	6.5	11.6
	7.70	35	0.103	1445	150	7.0	11.6
	8.00	35	0.106	1395	150	7.5	11.6
	8.30	35	0.109	1340	145	8.0	14.5
	8.60	35	0.112	1295	145	8.5	14.5
	8.90	35	0.114	1250	145	9.0	14.5
	9.10	35	0.116	1225	140	9.0	15.0
Acciaio da utensile temprato 48 - 52 HRC	6.90	30	0.096	1385	130	5.0	11.1
	7.10	30	0.098	1345	130	5.0	13.4
	7.40	30	0.100	1290	130	5.5	13.4
	7.70	30	0.103	1240	130	6.0	13.4
	8.00	30	0.106	1195	125	6.5	13.9
	8.30	30	0.109	1150	125	7.0	16.8
	8.60	30	0.112	1110	125	7.5	16.8
	8.90	30	0.114	1075	125	8.0	16.8
	9.10	30	0.116	1050	120	8.0	17.5
Acciaio da utensile temprato 52 - 56 HRC	6.90	30	0.096	1385	130	5.0	11.1
	7.10	30	0.098	1345	130	5.0	13.4
	7.40	30	0.100	1290	130	5.5	13.4
	7.70	30	0.103	1240	130	6.0	13.4
	8.00	30	0.106	1195	125	6.5	13.9
	8.30	30	0.109	1150	125	7.0	16.8
	8.60	30	0.112	1110	125	7.5	16.8
	8.90	30	0.114	1075	125	8.0	16.8
	9.10	30	0.116	1050	120	8.0	17.5
Acciaio da utensile temprato 56 - 60 HRC	6.90	25	0.062	1155	70	2.5	20.6
	7.10	25	0.063	1120	70	3.0	24.9
	7.40	25	0.065	1075	70	3.0	24.9
	7.70	25	0.067	1035	70	3.5	24.9
	8.00	25	0.069	995	70	3.5	24.9
	8.30	25	0.071	960	70	4.0	30.0
	8.60	25	0.073	925	65	4.0	32.3
	8.90	25	0.074	895	65	4.0	32.3
	9.10	25	0.076	875	65	4.0	32.3

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio da utensile temprato > 60 HRC	6.90	20	0.053	925	50	2.0	28.8
	7.10	20	0.054	895	50	2.0	34.8
	7.40	20	0.055	860	50	2.0	34.8
	7.70	20	0.057	825	45	2.0	38.7
	8.00	20	0.058	795	45	2.5	38.7
	8.30	20	0.060	765	45	2.5	46.7
	8.60	20	0.061	740	45	2.5	46.7
	8.90	20	0.063	715	45	3.0	46.7
	9.10	20	0.064	700	45	3.0	46.7

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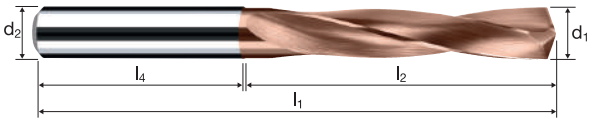
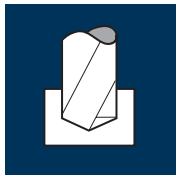


HRC 48-56 | HRC 56-60 | HRC > 60

Esempio: **N° Ordine** — Articolo **B52112** Codice-ø **0690**

ø Code	d1 h7	d2 h6	l1	l2	l4	Lmax	DURO-VD B52112 €
0690	6.90	8	79	34	36	24	92.00
0700	7.00	8	79	34	36	24	92.00
0710	7.10	8	79	41	36	29	92.00
0720	7.20	8	79	41	36	29	92.00
0730	7.30	8	79	41	36	29	92.00
0740	7.40	8	79	41	36	29	92.00
0750	7.50	8	79	41	36	29	92.00
0760	7.60	8	79	41	36	29	92.00
0770	7.70	8	79	41	36	29	92.00
0780	7.80	8	79	41	36	29	92.00
0790	7.90	8	79	41	36	29	92.00
0800	8.00	8	79	41	36	29	92.00
0810	8.10	10	89	47	40	35	106.00
0820	8.20	10	89	47	40	35	106.00
0830	8.30	10	89	47	40	35	106.00
0840	8.40	10	89	47	40	35	106.00
0850	8.50	10	89	47	40	35	106.00
0860	8.60	10	89	47	40	35	106.00
0870	8.70	10	89	47	40	35	106.00
0880	8.80	10	89	47	40	35	106.00
0890	8.90	10	89	47	40	35	106.00
0900	9.00	10	89	47	40	35	106.00
0910	9.10	10	89	47	40	35	106.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio da utensile temprato 42 - 48 HRC	9.20	35	0.117	1210	140	9.5	15.0
	9.50	35	0.120	1175	140	10.0	15.0
	9.70	35	0.122	1150	140	10.5	15.0
	10.00	35	0.124	1115	140	11.0	15.0
	10.20	35	0.126	1090	135	11.0	17.8
	10.40	35	0.128	1070	135	11.5	17.8
	10.70	35	0.130	1040	135	12.0	17.8
	11.00	35	0.133	1015	135	13.0	17.8
	11.30	35	0.135	985	135	13.5	17.8
Acciaio da utensile temprato 48 - 52 HRC	9.20	30	0.117	1040	120	8.0	17.5
	9.50	30	0.120	1005	120	8.5	17.5
	9.70	30	0.122	985	120	9.0	17.5
	10.00	30	0.124	955	120	9.5	17.5
	10.20	30	0.126	935	120	10.0	20.0
	10.40	30	0.128	920	115	10.0	20.9
	10.70	30	0.130	890	115	10.5	20.9
	11.00	30	0.133	870	115	11.0	20.9
	11.30	30	0.135	845	115	11.5	20.9
Acciaio da utensile temprato 52 - 56 HRC	9.20	30	0.117	1040	120	8.0	17.5
	9.50	30	0.120	1005	120	8.5	17.5
	9.70	30	0.122	985	120	9.0	17.5
	10.00	30	0.124	955	120	9.5	17.5
	10.20	30	0.126	935	120	10.0	20.0
	10.40	30	0.128	920	115	10.0	20.9
	10.70	30	0.130	890	115	10.5	20.9
	11.00	30	0.133	870	115	11.0	20.9
	11.30	30	0.135	845	115	11.5	20.9
Acciaio da utensile temprato 56 - 60 HRC	9.20	25	0.076	865	65	4.5	32.3
	9.50	25	0.078	840	65	4.5	32.3
	9.70	25	0.079	820	65	5.0	32.3
	10.00	25	0.081	795	65	5.0	32.3
	10.20	25	0.082	780	65	5.5	36.9
	10.40	25	0.083	765	65	5.5	36.9
	10.70	25	0.085	745	65	6.0	36.9
	11.00	25	0.086	725	60	5.5	40.0
	11.30	25	0.088	705	60	6.0	40.0

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio da utensile temprato > 60 HRC	9.20	15	0.064	520	35	2.5	60.0
	9.50	15	0.066	505	35	2.5	60.0
	9.70	15	0.067	490	35	2.5	60.0
	10.00	15	0.068	475	30	2.5	70.0
	10.20	15	0.069	470	35	3.0	68.6
	10.40	15	0.070	460	30	2.5	80.0
	10.70	15	0.072	445	30	2.5	80.0
	11.00	15	0.073	435	30	3.0	80.0
	11.30	15	0.074	425	30	3.0	80.0

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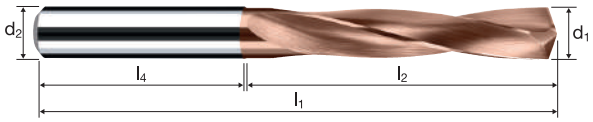
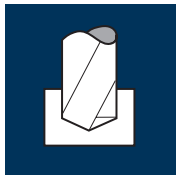


HRC 48-56 | HRC 56-60 | HRC > 60

Esempio: **N° Ordine** — Articolo **B52112** Codice-ø **0920**

ø Code	d1 h7	d2 h6	l1	l2	l4	Lmax	DURO-VD B52112 €
0920	9.20	10	89	47	40	35	106.00
0930	9.30	10	89	47	40	35	106.00
0940	9.40	10	89	47	40	35	106.00
0950	9.50	10	89	47	40	35	106.00
0960	9.60	10	89	47	40	35	106.00
0970	9.70	10	89	47	40	35	106.00
0980	9.80	10	89	47	40	35	106.00
0990	9.90	10	89	47	40	35	106.00
1000	10.00	10	89	47	40	35	106.00
1010	10.10	12	102	55	45	40	152.00
1020	10.20	12	102	55	45	40	152.00
1030	10.30	12	102	55	45	40	152.00
1040	10.40	12	102	55	45	40	152.00
1050	10.50	12	102	55	45	40	152.00
1060	10.60	12	102	55	45	40	152.00
1070	10.70	12	102	55	45	40	152.00
1080	10.80	12	102	55	45	40	152.00
1090	10.90	12	102	55	45	40	152.00
1100	11.00	12	102	55	45	40	152.00
1110	11.10	12	102	55	45	40	152.00
1120	11.20	12	102	55	45	40	152.00
1130	11.30	12	102	55	45	40	152.00
1140	11.40	12	102	55	45	40	152.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio da utensile temprato 42 - 48 HRC	11.50	35	0.137	970	135	14.0	17.8
	11.80	35	0.139	945	130	14.0	18.5
	12.00	35	0.141	930	130	14.5	18.5
	12.50	35	0.144	890	130	16.0	19.8
	13.00	35	0.148	855	125	16.5	20.6
	14.00	35	0.155	795	125	19.0	20.6
	14.80	35	0.161	755	120	20.5	22.5
	15.50	35	0.165	720	120	22.5	22.5
	16.50	35	0.172	675	115	24.5	26.6
Acciaio da utensile temprato 48 - 52 HRC	11.50	30	0.137	830	115	12.0	20.9
	11.80	30	0.139	810	115	12.5	20.9
	12.00	30	0.141	795	110	12.5	21.8
	12.50	30	0.144	765	110	13.5	23.5
	13.00	30	0.148	735	110	14.5	23.5
	14.00	30	0.155	680	105	16.0	24.6
	14.80	30	0.161	645	105	18.0	25.7
	15.50	30	0.165	615	100	19.0	27.0
	16.50	30	0.172	580	100	21.5	30.6
Acciaio da utensile temprato 52 - 56 HRC	11.50	30	0.137	830	115	12.0	20.9
	11.80	30	0.139	810	115	12.5	20.9
	12.00	30	0.141	795	110	12.5	21.8
	12.50	30	0.144	765	110	13.5	23.5
	13.00	30	0.148	735	110	14.5	23.5
	14.00	30	0.155	680	105	16.0	24.6
	14.80	30	0.161	645	105	18.0	25.7
	15.50	30	0.165	615	100	19.0	27.0
	16.50	30	0.172	580	100	21.5	30.6
Acciaio da utensile temprato 56 - 60 HRC	11.50	25	0.089	690	60	6.0	40.0
	11.80	25	0.090	675	60	6.5	40.0
	12.00	25	0.091	665	60	7.0	40.0
	12.50	25	0.094	635	60	7.5	43.0
	13.00	25	0.096	610	60	8.0	43.0
	14.00	25	0.101	570	60	9.0	43.0
	14.80	25	0.105	540	55	9.5	49.1
	15.50	25	0.108	515	55	10.5	49.1
	16.50	25	0.112	480	55	12.0	55.6

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio da utensile temprato > 60 HRC	11.50	10	0.075	275	20	2.0	120.0
	11.80	10	0.076	270	20	2.0	120.0
	12.00	10	0.077	265	20	2.5	120.0
	12.50	10	0.079	255	20	2.5	129.0
	13.00	10	0.082	245	20	2.5	129.0
	14.00	10	0.085	225	20	3.0	129.0
	14.80	10	0.088	215	20	3.5	135.0
	15.50	10	0.091	205	20	4.0	135.0
	16.50	10	0.094	195	20	4.5	153.0

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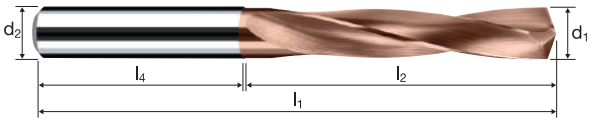
HM
XA



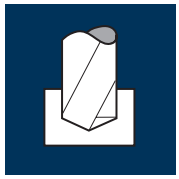
new!

HRC 48-56 | **HRC** 56-60 | **HRC** > 60

Esempio: **N° Ordine** — Articolo **B52112** Codice-ø **1150**

ø Code	d_1 h7	d_2 h6	l_1	l_2	l_4	L_{max}	DURO-VD B52112 €
1150	11.50	12	102	55	45	40	152.00
1160	11.60	12	102	55	45	40	152.00
1170	11.70	12	102	55	45	40	152.00
1180	11.80	12	102	55	45	40	152.00
1190	11.90	12	102	55	45	40	152.00
1200	12.00	12	102	55	45	40	152.00
1220	12.20	14	107	60	45	43	205.00
1250	12.50	14	107	60	45	43	205.00
1280	12.80	14	107	60	45	43	205.00
1300	13.00	14	107	60	45	43	205.00
1350	13.50	14	107	60	45	43	205.00
1380	13.80	14	107	60	45	43	205.00
1400	14.00	14	107	60	45	43	205.00
1420	14.20	16	115	65	48	45	247.00
1450	14.50	16	115	65	48	45	247.00
1480	14.80	16	115	65	48	45	247.00
1500	15.00	16	115	65	48	45	247.00
1520	15.20	16	115	65	48	45	247.00
1550	15.50	16	115	65	48	45	247.00
1580	15.80	16	115	65	48	45	247.00
1600	16.00	16	115	65	48	45	247.00
1650	16.50	18	123	73	48	51	332.00
1680	16.80	18	123	73	48	51	332.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio da utensile temprato 42 - 48 HRC	17.00	35	0.175	655	115	26.0	26.6
	17.50	35	0.177	635	115	27.5	26.6
	17.80	35	0.179	625	110	27.5	27.8
	18.00	35	0.180	620	110	28.0	27.8
	18.50	35	0.183	600	110	29.5	30.0
	18.80	35	0.184	595	110	30.5	30.0
	19.00	35	0.185	585	110	31.0	30.0
	19.50	35	0.188	570	105	31.5	31.4
	20.00	35	0.190	555	105	33.0	31.4
Acciaio da utensile temprato 48 - 52 HRC	17.00	30	0.175	560	100	22.5	30.6
	17.50	30	0.177	545	95	23.0	32.2
	17.80	30	0.179	535	95	23.5	32.2
	18.00	30	0.180	530	95	24.0	32.2
	18.50	30	0.183	515	95	25.5	34.7
	18.80	30	0.184	510	95	26.5	34.7
	19.00	30	0.185	505	95	27.0	34.7
	19.50	30	0.188	490	90	27.0	36.7
	20.00	30	0.190	475	90	28.5	36.7
Acciaio da utensile temprato 52 - 56 HRC	17.00	30	0.175	560	100	22.5	30.6
	17.50	30	0.177	545	95	23.0	32.2
	17.80	30	0.179	535	95	23.5	32.2
	18.00	30	0.180	530	95	24.0	32.2
	18.50	30	0.183	515	95	25.5	34.7
	18.80	30	0.184	510	95	26.5	34.7
	19.00	30	0.185	505	95	27.0	34.7
	19.50	30	0.188	490	90	27.0	36.7
	20.00	30	0.190	475	90	28.5	36.7
Acciaio da utensile temprato 56 - 60 HRC	17.00	25	0.113	470	55	12.5	55.6
	17.50	25	0.115	455	50	12.0	61.2
	17.80	25	0.116	445	50	12.5	61.2
	18.00	25	0.117	440	50	12.5	61.2
	18.50	25	0.119	430	50	13.5	66.0
	18.80	25	0.120	425	50	14.0	66.0
	19.00	25	0.121	420	50	14.0	66.0
	19.50	25	0.122	410	50	15.0	66.0
	20.00	25	0.124	400	50	15.5	66.0

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio da utensile temprato > 60 HRC	17.00	10	0.096	185	20	4.5	153.0
	17.50	10	0.098	180	20	5.0	153.0
	17.80	10	0.099	180	20	5.0	153.0
	18.00	10	0.099	175	15	4.0	204.0
	18.50	10	0.101	170	15	4.0	220.0
	18.80	10	0.101	170	15	4.0	220.0
	19.00	10	0.102	170	15	4.5	220.0
	19.50	10	0.103	165	15	4.5	220.0
	20.00	10	0.105	160	15	4.5	220.0

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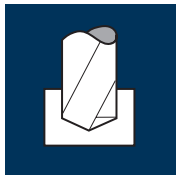
new!

HRC 48-56 | **HRC** 56-60 | **HRC** > 60

Esempio: **N° Ordine** — Articolo **B52112** Codice-ø **1700**

ø Code	d1 h7	d2 h6	l1	l2	l4	Lmax	DURO-VD B52112 €
1700	17.00	18	123	73	48	51	332.00
1750	17.50	18	123	73	48	51	332.00
1780	17.80	18	123	73	48	51	332.00
1800	18.00	18	123	73	48	51	332.00
1850	18.50	20	131	79	50	55	390.00
1880	18.80	20	131	79	50	55	390.00
1900	19.00	20	131	79	50	55	390.00
1950	19.50	20	131	79	50	55	390.00
1980	19.80	20	131	79	50	55	390.00
2000	20.00	20	131	79	50	55	390.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio da utensile temprato 42 - 48 HRC	3.00	35	0.060	3715	225	1.5	4.3
	4.00	35	0.080	2785	225	3.0	5.0
	4.30	35	0.085	2590	220	3.0	5.1
	5.00	35	0.100	2230	225	4.5	5.0
	5.50	35	0.110	2025	225	5.5	4.9
	6.00	35	0.120	1855	225	6.5	5.0
	6.50	35	0.130	1715	225	7.5	7.7
	6.90	35	0.135	1615	220	8.0	7.9
	8.00	35	0.155	1395	215	11.0	8.0
Acciaio da utensile temprato 48 - 52 HRC	3.00	30	0.050	3185	160	1.0	6.1
	4.00	30	0.065	2385	155	2.0	7.3
	4.30	30	0.070	2220	155	2.5	7.3
	5.00	30	0.085	1910	160	3.0	7.1
	5.50	30	0.090	1735	155	3.5	7.1
	6.00	30	0.100	1590	160	4.5	7.0
	6.50	30	0.110	1470	160	5.5	10.9
	6.90	30	0.115	1385	160	6.0	10.8
	8.00	30	0.130	1195	155	8.0	11.0
Acciaio da utensile temprato 52 - 56 HRC	3.00	20	0.045	2120	95	0.5	10.2
	4.00	20	0.055	1590	85	1.0	13.3
	4.30	20	0.060	1480	90	1.5	12.5
	5.00	20	0.070	1275	90	2.0	12.5
	5.50	20	0.080	1155	90	2.0	12.3
	6.00	20	0.085	1060	90	2.5	12.4
	6.50	20	0.095	980	95	3.0	18.3
	6.90	20	0.080	925	75	3.0	23.1
	8.00	20	0.085	795	70	3.5	24.4
Acciaio da utensile temprato 56 - 60 HRC	3.00	15	0.020	1590	30	0.0	32.4
	4.00	15	0.025	1195	30	0.5	37.8
	4.30	15	0.025	1110	30	0.5	37.5
	5.00	15	0.030	955	30	0.5	37.6
	5.50	15	0.035	870	30	0.5	36.9
	6.00	15	0.040	795	30	1.0	37.2
	6.50	15	0.040	735	30	1.0	58.1
	6.90	15	0.040	690	30	1.0	57.7
	8.00	15	0.050	595	30	1.5	57.0

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio da utensile temprato > 60 HRC	3.00	10	0.015	1060	15	0.0	64.8
	4.00	10	0.020	795	15	0.0	75.6
	4.30	10	0.025	740	20	0.5	56.3
	5.00	10	0.030	635	20	0.5	56.4
	5.50	10	0.030	580	15	0.5	73.8
	6.00	10	0.035	530	20	0.5	55.8
	6.50	10	0.035	490	15	0.5	116.2
	6.90	10	0.040	460	20	0.5	86.6
	8.00	10	0.045	400	20	1.0	85.5

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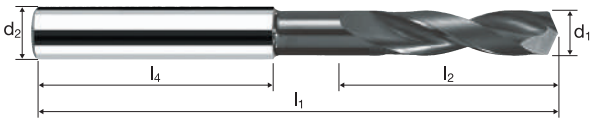


ToolSchool

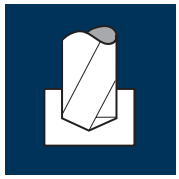
			Rm 1300-1500	HRC 48-56	HRC 56-60	HRC > 60			HSS GG(G)

Esempio:
N° Ordine

Articolo **B52111** Codice-ø **0260**

ø Code	d1 m7	d2 h6	l1	l2	l4	Lmax		DURO-SD B52111 B53111 €
0260	2.60	6	62	20	36	14.8		84.00
0300	3.00	6	62	20	36	16.2		84.00
0340	3.40	6	62	20	36	15.8		84.00
0350	3.50	6	62	20	36	15.8		84.00
0400	4.00	6	66	24	36	18.9		84.00
0420	4.20	6	66	24	36	18.8		84.00
0430	4.30	6	66	24	36	18.8		84.00
0450	4.50	6	66	24	36	18.6		84.00
0500	5.00	6	66	28	36	18.8		84.00
0510	5.10	6	66	28	36	18.8		84.00
0520	5.20	6	66	28	36	18.7		84.00
0550	5.50	6	66	28	36	18.5		84.00
0560	5.60	6	66	28	36	18.5		84.00
0600	6.00	6	66	28	36	18.6		84.00
0650	6.50	8	79	34	36	29.1		92.00
0670	6.70	8	79	34	36	29.0		92.00
0690	6.90	8	79	34	36	28.9		92.00
0700	7.00	8	79	34	36	28.8		92.00
0710	7.10	8	79	41	36	28.7		92.00
0750	7.50	8	79	41	36	28.5		92.00
0800	8.00	8	79	41	36	28.5		92.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio da utensile temprato 42 - 48 HRC	8.60	35	0.160	1295	205	12.0	9.4
	9.00	35	0.170	1240	210	13.5	9.1
	10.00	35	0.185	1115	205	16.0	9.2
	10.40	35	0.190	1070	205	17.5	10.9
	11.00	35	0.195	1015	200	19.0	11.0
	12.00	35	0.210	930	195	22.0	11.2
	12.20	35	0.210	915	190	22.0	12.4
	13.00	35	0.220	855	190	25.0	12.2
	14.00	35	0.235	795	185	28.5	12.5
Acciaio da utensile temprato 48 - 52 HRC	8.60	30	0.135	1110	150	8.5	12.8
	9.00	30	0.140	1060	150	9.5	12.7
	10.00	30	0.155	955	150	12.0	12.6
	10.40	30	0.155	920	145	12.5	15.4
	11.00	30	0.165	870	145	14.0	15.2
	12.00	30	0.175	795	140	16.0	15.6
	12.20	30	0.175	785	135	16.0	17.4
	13.00	30	0.185	735	135	18.0	17.2
	14.00	30	0.195	680	135	21.0	17.1
Acciaio da utensile temprato 52 - 56 HRC	8.60	20	0.090	740	65	4.0	29.5
	9.00	20	0.095	705	65	4.0	29.3
	10.00	20	0.100	635	65	5.0	29.1
	10.40	20	0.100	610	60	5.0	37.1
	11.00	20	0.105	580	60	5.5	36.7
	12.00	20	0.110	530	60	7.0	36.4
	12.20	20	0.110	520	55	6.5	42.8
	13.00	20	0.115	490	55	7.5	42.2
	14.00	20	0.125	455	55	8.5	41.9
Acciaio da utensile temprato 56 - 60 HRC	8.60	15	0.050	555	30	1.5	64.0
	9.00	15	0.050	530	25	1.5	76.1
	10.00	15	0.055	475	25	2.0	75.6
	10.40	15	0.060	460	30	2.5	74.2
	11.00	15	0.060	435	25	2.5	88.1
	12.00	15	0.065	400	25	3.0	87.4
	12.20	15	0.065	390	25	3.0	94.1
	13.00	15	0.070	365	25	3.5	92.9
	14.00	15	0.075	340	25	4.0	92.2

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio da utensile temprato > 60 HRC	8.60	10	0.045	370	15	1.0	128.0
	9.00	10	0.045	355	15	1.0	126.8
	10.00	10	0.050	320	15	1.0	126.0
	10.40	10	0.050	305	15	1.5	148.4
	11.00	10	0.055	290	15	1.5	146.8
	12.00	10	0.060	265	15	1.5	145.6
	12.20	10	0.060	260	15	2.0	156.8
	13.00	10	0.060	245	15	2.0	154.8
	14.00	10	0.065	225	15	2.5	153.6

Punte elicoidali Supradrill® HX

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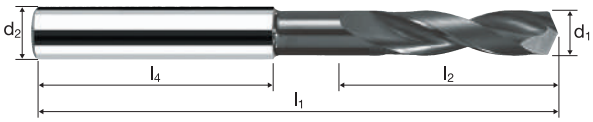


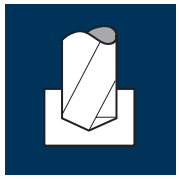
ToolSchool

			Rm 1300-1500	HRC 48-56	HRC 56-60	HRC > 60			HSS GG(G)

Esempio: **N° Ordine** — Articolo **B52111** Codice-ø **0810**

ø Code	d1 m7	d2 h6	l1	l2	l4	Lmax		DURO-SD B52111 B53111 €
0810	8.10	10	89	47	40	32.4		106.00
0850	8.50	10	89	47	40	32.1		106.00
0860	8.60	10	89	47	40	32.0		106.00
0885	8.85	10	89	47	40	31.8		106.00
0900	9.00	10	89	47	40	31.7		106.00
0910	9.10	10	89	47	40	31.7		106.00
0950	9.50	10	89	47	40	31.5		106.00
1000	10.00	10	89	47	40	31.5		106.00
1030	10.30	12	102	55	45	37.2		152.00
1040	10.40	12	102	55	45	37.1		152.00
1050	10.50	12	102	55	45	37.1		152.00
1070	10.70	12	102	55	45	37.0		152.00
1100	11.00	12	102	55	45	36.7		152.00
1150	11.50	12	102	55	45	36.5		152.00
1160	11.60	12	102	55	45	36.4		152.00
1190	11.90	12	102	55	45	36.4		152.00
1200	12.00	12	102	55	45	36.4		152.00
1210	12.10	14	107	60	45	39.3		205.00
1220	12.20	14	107	60	45	39.2		205.00
1250	12.50	14	107	60	45	39.1		205.00
1270	12.70	14	107	60	45	39.0		205.00
1300	13.00	14	107	60	45	38.7		205.00
1400	14.00	14	107	60	45	38.4		205.00

Application



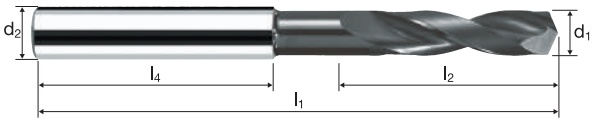
Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio da utensile temprato 42 - 48 HRC	14.10	35	0.235	790	185	29.0	13.4
	14.20	35	0.235	785	185	29.5	13.4
	14.70	35	0.245	760	185	31.5	13.3
	15.00	35	0.245	745	185	32.5	13.2
	15.40	35	0.250	725	180	33.5	13.5
	16.00	35	0.260	695	180	36.0	13.5
	19.20	35	0.310	580	180	52.0	16.2
Acciaio da utensile temprato 48 - 52 HRC	14.10	30	0.195	675	130	20.5	19.0
	14.20	30	0.195	670	130	20.5	19.0
	14.70	30	0.205	650	135	23.0	18.2
	15.00	30	0.205	635	130	23.0	18.8
	15.40	30	0.210	620	130	24.0	18.7
	16.00	30	0.215	595	130	26.0	18.6
	19.20	30	0.260	495	130	37.5	22.4
Acciaio da utensile temprato 52 - 56 HRC	14.10	20	0.125	450	55	8.5	45.0
	14.20	20	0.125	450	55	8.5	44.9
	14.70	20	0.130	435	55	9.5	44.7
	15.00	20	0.130	425	55	9.5	44.4
	15.40	20	0.135	415	55	10.0	44.2
	16.00	20	0.135	400	55	11.0	44.1
	19.20	20	0.165	330	55	16.0	53.0
Acciaio da utensile temprato 56 - 60 HRC	14.10	15	0.075	340	25	4.0	99.0
	14.20	15	0.075	335	25	4.0	98.9
	14.70	15	0.075	325	25	4.0	98.3
	15.00	15	0.075	320	25	4.5	97.7
	15.40	15	0.080	310	25	4.5	97.2
	16.00	15	0.080	300	25	5.0	97.0
	19.20	15	0.095	250	25	7.0	116.6

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio da utensile temprato > 60 HRC	14.10	10	0.065	225	15	2.5	165.0
	14.20	10	0.065	225	15	2.5	164.8
	14.70	10	0.070	215	15	2.5	163.8
	15.00	10	0.070	210	15	2.5	162.8
	15.40	10	0.070	205	15	3.0	162.0
	16.00	10	0.070	200	15	3.0	161.6
	19.20	10	0.085	165	15	4.5	194.4

Punte elicoidali Supradrill® HX

3xd

HM
XA



ToolSchool

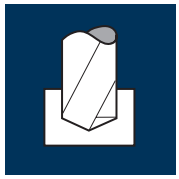
			Rm 1300-1500	HRC 48-56	HRC 56-60	HRC > 60			HSS GG(G)

Esempio:
N° Ordine

Articolo **B52111** Codice-ø **1410**

ø Code	d1 m7	d2 h6	l1	l2	l4	Lmax		DURO-SD B52111	DURO-SD B53111
									€
1410	14.10	16	115	65	48	41.3			247.00
1420	14.20	16	115	65	48	41.2			247.00
1470	14.70	16	115	65	48	41.0			247.00
1500	15.00	16	115	65	48	40.7			247.00
1540	15.40	16	115	65	48	40.5			247.00
1600	16.00	16	115	65	48	40.4			247.00
1920	19.20	20	131	79	50	48.6			390.00

Application



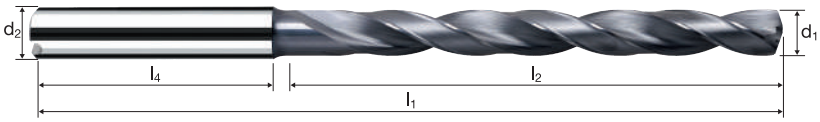
Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	3.00	150	0.080	15915	1275	9.0	1.3
	3.30	150	0.090	14470	1300	11.0	1.2
	3.50	150	0.095	13640	1295	12.5	1.2
	3.80	150	0.105	12565	1320	15.0	1.6
	4.00	150	0.110	11935	1315	16.5	1.6
	4.20	150	0.120	11370	1365	19.0	1.5
	4.50	150	0.140	10610	1485	23.5	1.4
	4.80	150	0.145	9945	1440	26.0	2.0
	5.00	150	0.155	9550	1480	29.0	1.9
Acciaio 500 - 850 N/mm²	3.00	120	0.070	12730	890	6.5	1.8
	3.30	120	0.075	11575	870	7.5	1.9
	3.50	120	0.080	10915	875	8.5	1.8
	3.80	120	0.090	10050	905	10.5	2.3
	4.00	120	0.095	9550	905	11.5	2.3
	4.20	120	0.105	9095	955	13.0	2.2
	4.50	120	0.120	8490	1020	16.0	2.0
	4.80	120	0.125	7960	995	18.0	2.9
	5.00	120	0.130	7640	995	19.5	2.9
Acciaio 850 - 1100 N/mm²	3.00	100	0.065	10610	690	5.0	2.4
	3.30	100	0.070	9645	675	6.0	2.4
	3.50	100	0.075	9095	680	6.5	2.4
	3.80	100	0.080	8375	670	7.5	3.2
	4.00	100	0.090	7960	715	9.0	2.9
	4.20	100	0.095	7580	720	10.0	2.9
	4.50	100	0.110	7075	780	12.5	2.7
	4.80	100	0.115	6630	760	14.0	3.7
	5.00	100	0.120	6365	765	15.0	3.7
Acciaio 1100 - 1300 N/mm²	3.00	70	0.050	7425	370	2.5	4.4
	3.30	70	0.055	6750	370	3.0	4.4
	3.50	70	0.055	6365	350	3.5	4.6
	3.80	70	0.060	5865	350	4.0	6.1
	4.00	70	0.065	5570	360	4.5	5.8
	4.20	70	0.070	5305	370	5.0	5.6
	4.50	70	0.085	4950	420	6.5	4.9
	4.80	70	0.090	4640	420	7.5	6.8
	5.00	70	0.090	4455	400	8.0	7.2

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	3.00	40	0.035	4245	150	1.0	10.9
	3.30	40	0.040	3860	155	1.5	10.4
	3.50	40	0.045	3640	165	1.5	9.7
	3.80	40	0.045	3350	150	1.5	14.2
	4.00	40	0.050	3185	160	2.0	13.1
	4.20	40	0.055	3030	165	2.5	12.7
	4.50	40	0.065	2830	185	3.0	11.2
	4.80	40	0.070	2655	185	3.5	15.4
	5.00	40	0.070	2545	180	3.5	15.9
Acciaio inossidabile [Cr-Ni/1.4301]	3.00	60	0.035	6365	225	1.5	7.3
	3.30	60	0.040	5785	230	2.0	7.0
	3.50	60	0.045	5455	245	2.5	6.6
	3.80	60	0.045	5025	225	2.5	9.4
	4.00	60	0.050	4775	240	3.0	8.7
	4.20	60	0.055	4545	250	3.5	8.4
	4.50	60	0.065	4245	275	4.5	7.5
	4.80	60	0.070	3980	280	5.0	10.2
	5.00	60	0.070	3820	265	5.0	10.8
Leghe di titanio indurite >300 HB [Ti6Al4V]	3.00	35	0.035	3715	130	1.0	12.6
	3.30	35	0.040	3375	135	1.0	12.0
	3.50	35	0.045	3185	145	1.5	11.1
	3.80	35	0.045	2930	130	1.5	16.3
	4.00	35	0.050	2785	140	2.0	15.0
	4.20	35	0.055	2655	145	2.0	14.4
	4.50	35	0.065	2475	160	2.5	13.0
	4.80	35	0.070	2320	160	3.0	17.8
	5.00	35	0.070	2230	155	3.0	18.5
Ghisa (grigia / sferoidale)	3.00	220	0.075	23345	1750	12.5	0.9
	3.30	220	0.080	21220	1700	14.5	1.0
	3.50	220	0.085	20010	1700	16.5	0.9
	3.80	220	0.095	18430	1750	20.0	1.2
	4.00	220	0.100	17505	1750	22.0	1.2
	4.20	220	0.110	16675	1835	25.5	1.1
	4.50	220	0.125	15560	1945	31.0	1.1
	4.80	220	0.135	14590	1970	35.5	1.4
	5.00	220	0.140	14005	1960	38.5	1.5

Punte elicoidali XDrill®

8xd

HM MGX

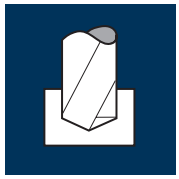


Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Rm** 1300-1500 | **Inox** Stainless | **Ti** Titanium | **GG(G)**

Esempio: **N° Ordine** — Articolo **B72020** Codice-ø **0300**

ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	DURO-X B72020 €
0300	3.0	6	73	34	36	27.2	183.00
0310	3.1	6	73	34	36	27.2	183.00
0320	3.2	6	73	34	36	27.0	183.00
0330	3.3	6	73	34	36	27.0	183.00
0340	3.4	6	73	34	36	26.8	183.00
0350	3.5	6	73	34	36	26.8	183.00
0360	3.6	6	73	34	36	26.6	183.00
0370	3.7	6	73	34	36	26.6	183.00
0380	3.8	6	82	43	36	35.4	183.00
0390	3.9	6	82	43	36	35.4	183.00
0400	4.0	6	82	43	36	34.9	183.00
0410	4.1	6	82	43	36	34.9	183.00
0420	4.2	6	82	43	36	34.8	183.00
0430	4.3	6	82	43	36	34.7	183.00
0440	4.4	6	82	43	36	34.6	183.00
0450	4.5	6	82	43	36	34.6	183.00
0460	4.6	6	82	43	36	34.5	183.00
0470	4.7	6	82	43	36	34.5	183.00
0480	4.8	6	95	56	36	47.4	183.00
0490	4.9	6	95	56	36	47.3	183.00
0500	5.0	6	95	56	36	47.7	183.00
0510	5.1	6	95	56	36	47.7	183.00
0520	5.2	6	95	56	36	47.6	183.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	5.50	150	0.170	8680	1475	35.0	1.9
	5.80	150	0.180	8230	1480	39.0	1.9
	6.00	150	0.190	7960	1510	42.5	1.9
	6.20	150	0.205	7700	1580	47.5	2.1
	6.50	150	0.210	7345	1540	51.0	2.1
	6.80	150	0.220	7020	1545	56.0	2.1
	7.00	150	0.230	6820	1570	60.5	2.1
	7.20	150	0.235	6630	1560	63.5	2.5
	7.50	150	0.245	6365	1560	69.0	2.5
Acciaio 500 - 850 N/mm²	5.50	120	0.145	6945	1005	24.0	2.8
	5.80	120	0.150	6585	990	26.0	2.9
	6.00	120	0.165	6365	1050	29.5	2.7
	6.20	120	0.175	6160	1080	32.5	3.1
	6.50	120	0.180	5875	1060	35.0	3.1
	6.80	120	0.190	5615	1065	38.5	3.1
	7.00	120	0.195	5455	1065	41.0	3.1
	7.20	120	0.200	5305	1060	43.0	3.7
	7.50	120	0.210	5095	1070	47.5	3.6
Acciaio 850 - 1100 N/mm²	5.50	100	0.135	5785	780	18.5	3.7
	5.80	100	0.140	5490	770	20.5	3.7
	6.00	100	0.150	5305	795	22.5	3.6
	6.20	100	0.160	5135	820	25.0	4.0
	6.50	100	0.170	4895	830	27.5	4.0
	6.80	100	0.175	4680	820	30.0	4.0
	7.00	100	0.180	4545	820	31.5	4.0
	7.20	100	0.185	4420	820	33.5	4.7
	7.50	100	0.195	4245	830	36.5	4.7
Acciaio 1100 - 1300 N/mm²	5.50	70	0.100	4050	405	9.5	7.0
	5.80	70	0.105	3840	405	10.5	7.0
	6.00	70	0.115	3715	425	12.0	6.7
	6.20	70	0.120	3595	430	13.0	7.7
	6.50	70	0.125	3430	430	14.5	7.7
	6.80	70	0.135	3275	440	16.0	7.5
	7.00	70	0.135	3185	430	16.5	7.6
	7.20	70	0.140	3095	435	17.5	8.9
	7.50	70	0.145	2970	430	19.0	9.0

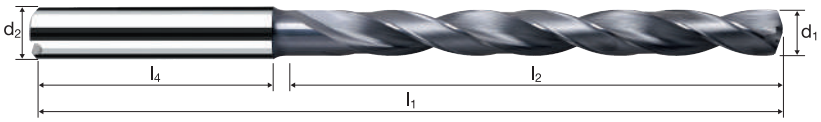
Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	5.50	40	0.080	2315	185	4.5	15.4
	5.80	40	0.080	2195	175	4.5	16.2
	6.00	40	0.090	2120	190	5.5	14.9
	6.20	40	0.095	2055	195	6.0	17.0
	6.50	40	0.100	1960	195	6.5	16.9
	6.80	40	0.105	1870	195	7.0	16.9
	7.00	40	0.105	1820	190	7.5	17.3
	7.20	40	0.110	1770	195	8.0	19.9
	7.50	40	0.115	1700	195	8.5	19.8
Acciaio inossidabile [Cr-Ni/1.4301]	5.50	60	0.080	3470	280	6.5	10.2
	5.80	60	0.080	3295	265	7.0	10.7
	6.00	60	0.090	3185	285	8.0	9.9
	6.20	60	0.095	3080	295	9.0	11.2
	6.50	60	0.100	2940	295	10.0	11.2
	6.80	60	0.105	2810	295	10.5	11.1
	7.00	60	0.105	2730	285	11.0	11.5
	7.20	60	0.110	2655	290	12.0	13.4
	7.50	60	0.115	2545	295	13.0	13.1
Leghe di titanio indurite >300 HB [Ti6Al4V]	5.50	35	0.080	2025	160	4.0	17.8
	5.80	35	0.080	1920	155	4.0	18.3
	6.00	35	0.090	1855	165	4.5	17.2
	6.20	35	0.095	1795	170	5.0	19.5
	6.50	35	0.100	1715	170	5.5	19.4
	6.80	35	0.105	1640	170	6.0	19.3
	7.00	35	0.105	1590	165	6.5	19.9
	7.20	35	0.110	1545	170	7.0	22.8
	7.50	35	0.115	1485	170	7.5	22.7
Ghisa (grigia / sferoidale)	5.50	220	0.155	12730	1975	47.0	1.4
	5.80	220	0.160	12075	1930	51.0	1.5
	6.00	220	0.175	11670	2040	57.5	1.4
	6.20	220	0.185	11295	2090	63.0	1.6
	6.50	220	0.195	10775	2100	69.5	1.6
	6.80	220	0.200	10300	2060	75.0	1.6
	7.00	220	0.210	10005	2100	81.0	1.6
	7.20	220	0.215	9725	2090	85.0	1.9
	7.50	220	0.225	9335	2100	93.0	1.8

Punte elicoidali XDrill®

8xd

HM MGX

h5

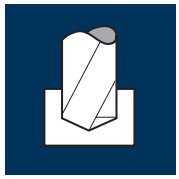


Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Rm** 1300-1500 | **Inox** Stainless | **Ti** Titanium | **GG(G)**

Esempio: **N° Ordine** — Articolo **B72020** Codice-ø **0530**

ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	DURO-X B72020 €
0530	5.3	6	95	56	36	47.6	183.00
0540	5.4	6	95	56	36	47.5	183.00
0550	5.5	6	95	56	36	47.5	183.00
0560	5.6	6	95	56	36	47.4	183.00
0570	5.7	6	95	56	36	47.4	183.00
0580	5.8	6	95	56	36	47.3	183.00
0590	5.9	6	95	56	36	47.4	183.00
0600	6.0	6	95	56	36	47.2	183.00
0610	6.1	8	105	66	36	55.3	202.00
0620	6.2	8	105	66	36	55.2	202.00
0630	6.3	8	105	66	36	55.2	202.00
0640	6.4	8	105	66	36	55.1	202.00
0650	6.5	8	105	66	36	55.1	202.00
0660	6.6	8	105	66	36	55.0	202.00
0670	6.7	8	105	66	36	55.0	202.00
0680	6.8	8	105	66	36	54.8	202.00
0690	6.9	8	105	66	36	54.8	202.00
0700	7.0	8	105	66	36	54.7	202.00
0710	7.1	8	115	76	36	64.7	202.00
0720	7.2	8	115	76	36	64.6	202.00
0730	7.3	8	115	76	36	64.6	202.00
0740	7.4	8	115	76	36	64.4	202.00
0750	7.5	8	115	76	36	64.4	202.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	7.60	150	0.250	6280	1570	71.0	2.5
	8.00	150	0.260	5970	1550	78.0	2.5
	8.20	150	0.270	5825	1575	83.0	2.8
	8.50	150	0.280	5615	1570	89.0	2.7
	8.80	150	0.285	5425	1545	94.0	2.8
	9.00	150	0.295	5305	1565	99.5	2.7
	9.20	150	0.300	5190	1555	103.5	3.1
	9.50	150	0.310	5025	1560	110.5	3.1
	9.80	150	0.320	4870	1560	117.5	3.1
Acciaio 500 - 850 N/mm²	7.60	120	0.215	5025	1080	49.0	3.6
	8.00	120	0.225	4775	1075	54.0	3.6
	8.20	120	0.230	4660	1070	56.5	4.0
	8.50	120	0.240	4495	1080	61.5	4.0
	8.80	120	0.245	4340	1065	65.0	4.0
	9.00	120	0.250	4245	1060	67.5	4.1
	9.20	120	0.260	4150	1080	72.0	4.5
	9.50	120	0.265	4020	1065	75.5	4.5
	9.80	120	0.275	3900	1075	81.0	4.5
Acciaio 850 - 1100 N/mm²	7.60	100	0.195	4190	815	37.0	4.7
	8.00	100	0.205	3980	815	41.0	4.7
	8.20	100	0.210	3880	815	43.0	5.3
	8.50	100	0.220	3745	825	47.0	5.2
	8.80	100	0.225	3615	815	49.5	5.3
	9.00	100	0.230	3535	815	52.0	5.3
	9.20	100	0.235	3460	815	54.0	5.9
	9.50	100	0.245	3350	820	58.0	5.9
	9.80	100	0.255	3250	830	62.5	5.8
Acciaio 1100 - 1300 N/mm²	7.60	70	0.150	2930	440	20.0	8.8
	8.00	70	0.155	2785	430	21.5	8.9
	8.20	70	0.160	2715	435	23.0	10.0
	8.50	70	0.165	2620	430	24.5	10.0
	8.80	70	0.170	2530	430	26.0	10.0
	9.00	70	0.175	2475	435	27.5	9.9
	9.20	70	0.180	2420	435	29.0	11.1
	9.50	70	0.185	2345	435	31.0	11.1
	9.80	70	0.190	2275	430	32.5	11.2

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	7.60	40	0.115	1675	195	9.0	19.8
	8.00	40	0.120	1590	190	9.5	20.2
	8.20	40	0.125	1555	195	10.5	22.2
	8.50	40	0.130	1500	195	11.0	22.1
	8.80	40	0.135	1445	195	12.0	22.1
	9.00	40	0.135	1415	190	12.0	22.6
	9.20	40	0.140	1385	195	13.0	24.8
	9.50	40	0.145	1340	195	14.0	24.7
	9.80	40	0.150	1300	195	14.5	24.7
Acciaio inossidabile [Cr-Ni/1.4301]	7.60	60	0.115	2515	290	13.0	13.3
	8.00	60	0.120	2385	285	14.5	13.5
	8.20	60	0.125	2330	290	15.5	14.9
	8.50	60	0.130	2245	290	16.5	14.9
	8.80	60	0.135	2170	295	18.0	14.6
	9.00	60	0.135	2120	285	18.0	15.1
	9.20	60	0.140	2075	290	19.5	16.7
	9.50	60	0.145	2010	290	20.5	16.6
	9.80	60	0.150	1950	295	22.5	16.3
Leghe di titanio indurite >300 HB [Ti6Al4V]	7.60	35	0.115	1465	170	7.5	22.7
	8.00	35	0.120	1395	165	8.5	23.3
	8.20	35	0.125	1360	170	9.0	25.5
	8.50	35	0.130	1310	170	9.5	25.4
	8.80	35	0.135	1265	170	10.5	25.3
	9.00	35	0.135	1240	165	10.5	26.1
	9.20	35	0.140	1210	170	11.5	28.4
	9.50	35	0.145	1175	170	12.0	28.4
	9.80	35	0.150	1135	170	13.0	28.3
Ghisa (grigia / sferoidale)	7.60	220	0.225	9215	2075	94.0	1.9
	8.00	220	0.240	8755	2100	105.5	1.8
	8.20	220	0.245	8540	2090	110.5	2.1
	8.50	220	0.250	8240	2060	117.0	2.1
	8.80	220	0.260	7960	2070	126.0	2.1
	9.00	220	0.265	7780	2060	131.0	2.1
	9.20	220	0.275	7610	2095	139.5	2.3
	9.50	220	0.280	7370	2065	146.5	2.3
	9.80	220	0.290	7145	2070	156.0	2.3

Punte elicoidali XDrill®

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HM MGX

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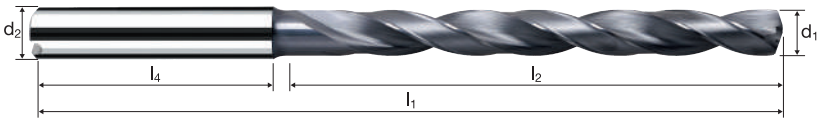
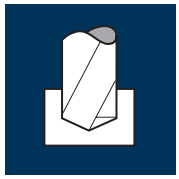


Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Rm** 1300-1500 | **Inox** Stainless | **Ti** Titanium | **GG(G)**

Esempio: **N° Ordine** — Articolo **B72020** Codice-ø **0760**

ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	DURO-X B72020 €
0760	7.6	8	115	76	36	64.3	202.00
0770	7.7	8	115	76	36	64.4	202.00
0780	7.8	8	115	76	36	64.3	202.00
0790	7.9	8	115	76	36	64.3	202.00
0800	8.0	8	115	76	36	64.1	202.00
0810	8.1	10	129	86	40	72.3	231.00
0820	8.2	10	129	86	40	72.2	231.00
0830	8.3	10	129	86	40	72.2	231.00
0840	8.4	10	129	86	40	72.1	231.00
0850	8.5	10	129	86	40	72.0	231.00
0860	8.6	10	129	86	40	71.9	231.00
0870	8.7	10	129	86	40	71.9	231.00
0880	8.8	10	129	86	40	71.8	231.00
0890	8.9	10	129	86	40	71.8	231.00
0900	9.0	10	129	86	40	71.7	231.00
0910	9.1	10	138	95	40	80.7	231.00
0920	9.2	10	138	95	40	80.5	231.00
0930	9.3	10	138	95	40	80.5	231.00
0940	9.4	10	138	95	40	80.4	231.00
0950	9.5	10	138	95	40	80.4	231.00
0960	9.6	10	138	95	40	80.3	231.00
0970	9.7	10	138	95	40	80.3	231.00
0980	9.8	10	138	95	40	80.2	231.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	10.00	150	0.325	4775	1550	121.5	3.1
	10.20	150	0.335	4680	1570	128.5	3.4
	10.50	150	0.345	4545	1570	136.0	3.4
	10.80	150	0.350	4420	1545	141.5	3.4
	11.00	150	0.355	4340	1540	146.5	3.4
	11.50	150	0.360	4150	1495	155.5	3.9
	11.80	150	0.360	4045	1455	159.0	4.0
	12.00	150	0.370	3980	1475	167.0	3.9
	12.50	150	0.385	3820	1470	180.5	4.6
Acciaio 500 - 850 N/mm²	10.00	120	0.280	3820	1070	84.0	4.5
	10.20	120	0.285	3745	1065	87.0	5.0
	10.50	120	0.295	3640	1075	93.0	4.9
	10.80	120	0.300	3535	1060	97.0	5.0
	11.00	120	0.305	3470	1060	100.5	5.0
	11.50	120	0.310	3320	1030	107.0	5.6
	11.80	120	0.310	3235	1005	110.0	5.7
	12.00	120	0.315	3185	1005	113.5	5.7
	12.50	120	0.330	3055	1010	124.0	6.7
Acciaio 850 - 1100 N/mm²	10.00	100	0.260	3185	830	65.0	5.8
	10.20	100	0.265	3120	825	67.5	6.4
	10.50	100	0.270	3030	820	71.0	6.4
	10.80	100	0.275	2945	810	74.0	6.5
	11.00	100	0.280	2895	810	77.0	6.5
	11.50	100	0.285	2770	790	82.0	7.3
	11.80	100	0.285	2700	770	84.0	7.5
	12.00	100	0.290	2655	770	87.0	7.5
	12.50	100	0.305	2545	775	95.0	8.7
Acciaio 1100 - 1300 N/mm²	10.00	70	0.195	2230	435	34.0	11.0
	10.20	70	0.200	2185	435	35.5	12.2
	10.50	70	0.205	2120	435	37.5	12.1
	10.80	70	0.210	2065	435	40.0	12.1
	11.00	70	0.215	2025	435	41.5	12.1
	11.50	70	0.215	1940	415	43.0	13.9
	11.80	70	0.215	1890	405	44.5	14.3
	12.00	70	0.220	1855	410	46.5	14.0
	12.50	70	0.230	1785	410	50.5	16.5

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	10.00	40	0.150	1275	190	15.0	25.3
	10.20	40	0.155	1250	195	16.0	27.1
	10.50	40	0.160	1215	195	17.0	27.1
	10.80	40	0.160	1180	190	17.5	27.7
	11.00	40	0.165	1155	190	18.0	27.7
	11.50	40	0.165	1105	180	18.5	32.1
	11.80	40	0.165	1080	180	19.5	32.1
	12.00	40	0.170	1060	180	20.5	32.0
	12.50	40	0.175	1020	180	22.0	37.6
Acciaio inossidabile [Cr-Ni/1.4301]	10.00	60	0.150	1910	285	22.5	16.8
	10.20	60	0.155	1870	290	23.5	18.2
	10.50	60	0.160	1820	290	25.0	18.2
	10.80	60	0.160	1770	285	26.0	18.5
	11.00	60	0.165	1735	285	27.0	18.4
	11.50	60	0.165	1660	275	28.5	21.0
	11.80	60	0.165	1620	265	29.0	21.8
	12.00	60	0.170	1590	270	30.5	21.3
	12.50	60	0.175	1530	270	33.0	25.1
Leghe di titanio indurite >300 HB [Ti6Al4V]	10.00	35	0.150	1115	165	13.0	29.1
	10.20	35	0.155	1090	170	14.0	31.1
	10.50	35	0.160	1060	170	14.5	31.0
	10.80	35	0.160	1030	165	15.0	31.9
	11.00	35	0.165	1015	165	15.5	31.9
	11.50	35	0.165	970	160	16.5	36.1
	11.80	35	0.165	945	155	17.0	37.2
	12.00	35	0.170	930	160	18.0	36.0
	12.50	35	0.175	890	155	19.0	43.7
Ghisa (grigia / sferoidale)	10.00	220	0.295	7005	2065	162.0	2.3
	10.20	220	0.305	6865	2095	171.0	2.5
	10.50	220	0.310	6670	2070	179.0	2.5
	10.80	220	0.315	6485	2045	187.5	2.6
	11.00	220	0.325	6365	2070	196.5	2.5
	11.50	220	0.330	6090	2010	209.0	2.9
	11.80	220	0.330	5935	1960	214.5	2.9
	12.00	220	0.335	5835	1955	221.0	2.9
	12.50	220	0.350	5600	1960	240.5	3.5

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HM MGX

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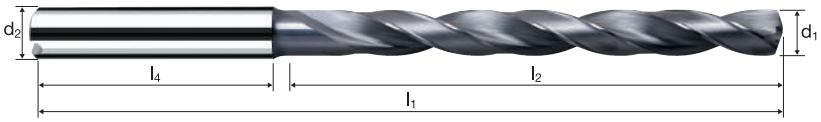
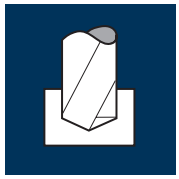


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless	Ti Titanium	GG(G)

Esempio: **N° Ordine** — Articolo **B72020** Codice-ø **0990**

ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	DURO-X B72020 €
0990	9.9	10	138	95	40	80.3	231.00
1000	10.0	10	138	95	40	80.0	231.00
1010	10.1	12	153	105	45	88.3	332.00
1020	10.2	12	153	105	45	88.2	332.00
1030	10.3	12	153	105	45	88.1	332.00
1040	10.4	12	153	105	45	88.0	332.00
1050	10.5	12	153	105	45	88.0	332.00
1060	10.6	12	153	105	45	87.9	332.00
1070	10.7	12	153	105	45	87.9	332.00
1080	10.8	12	153	105	45	87.8	332.00
1090	10.9	12	153	105	45	87.8	332.00
1100	11.0	12	153	105	45	87.6	332.00
1110	11.1	12	162	114	45	96.6	332.00
1120	11.2	12	162	114	45	96.5	332.00
1130	11.3	12	162	114	45	96.5	332.00
1140	11.4	12	162	114	45	96.4	332.00
1150	11.5	12	162	114	45	96.4	332.00
1160	11.6	12	162	114	45	96.3	332.00
1170	11.7	12	162	114	45	96.3	332.00
1180	11.8	12	162	114	45	96.2	332.00
1190	11.9	12	162	114	45	96.2	332.00
1200	12.0	12	162	114	45	95.9	332.00
1250	12.5	14	181	133	45	113.0	449.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	12.80	150	0.395	3730	1475	190.0	4.6
	13.00	150	0.400	3675	1470	195.0	4.6
	13.50	150	0.405	3615	1465	200.5	4.6
	14.00	150	0.410	3410	1400	215.5	4.8
	14.50	150	0.420	3295	1385	228.5	5.6
	14.80	150	0.425	3225	1370	235.5	5.6
	15.00	150	0.430	3185	1370	242.0	5.6
	15.50	150	0.440	3080	1355	255.5	5.7
	16.00	150	0.450	2985	1345	270.5	5.7
Acciaio 500 - 850 N/mm²	12.80	120	0.335	2985	1000	128.5	6.8
	13.00	120	0.340	2940	1000	132.5	6.8
	13.50	120	0.345	2895	1000	137.0	6.7
	14.00	120	0.350	2730	955	147.0	7.0
	14.50	120	0.360	2635	950	157.0	8.1
	14.80	120	0.365	2580	940	161.5	8.2
	15.00	120	0.370	2545	940	166.0	8.2
	15.50	120	0.375	2465	925	174.5	8.3
	16.00	120	0.385	2385	920	185.0	8.3
Acciaio 850 - 1100 N/mm²	12.80	100	0.310	2485	770	99.0	8.8
	13.00	100	0.315	2450	770	102.0	8.8
	13.50	100	0.320	2410	770	105.5	8.7
	14.00	100	0.325	2275	740	114.0	9.1
	14.50	100	0.330	2195	725	119.5	10.7
	14.80	100	0.335	2150	720	124.0	10.7
	15.00	100	0.340	2120	720	127.0	10.7
	15.50	100	0.345	2055	710	134.0	10.8
	16.00	100	0.355	1990	705	141.5	10.9
Acciaio 1100 - 1300 N/mm²	12.80	70	0.235	1740	410	53.0	16.5
	13.00	70	0.240	1715	410	54.5	16.5
	13.50	70	0.245	1690	415	57.0	16.2
	14.00	70	0.245	1590	390	60.0	17.2
	14.50	70	0.250	1535	385	63.5	20.1
	14.80	70	0.255	1505	385	66.0	20.1
	15.00	70	0.260	1485	385	68.0	20.0
	15.50	70	0.265	1440	380	71.5	20.3
	16.00	70	0.270	1395	375	75.5	20.4

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio 1300 - 1500 N/mm²	12.80	40	0.180	995	180	23.0	37.6
	13.00	40	0.185	980	180	24.0	37.5
	13.50	40	0.185	965	180	24.5	37.4
	14.00	40	0.190	910	175	27.0	38.4
	14.50	40	0.195	880	170	28.0	45.5
	14.80	40	0.195	860	170	29.0	45.4
	15.00	40	0.200	850	170	30.0	45.4
	15.50	40	0.205	820	170	32.0	45.3
	16.00	40	0.205	795	165	33.0	46.5
Acciaio inossidabile [Cr-Ni/1.4301]	12.80	60	0.180	1490	270	34.5	25.0
	13.00	60	0.185	1470	270	36.0	25.0
	13.50	60	0.185	1445	265	36.5	25.4
	14.00	60	0.190	1365	260	40.0	25.8
	14.50	60	0.195	1315	255	42.0	30.3
	14.80	60	0.195	1290	250	43.0	30.9
	15.00	60	0.200	1275	255	45.0	30.3
	15.50	60	0.205	1230	250	47.0	30.8
	16.00	60	0.205	1195	245	49.5	31.3
Leghe di titanio indurite >300 HB [Ti6Al4V]	12.80	35	0.180	870	155	20.0	43.6
	13.00	35	0.185	855	160	21.0	42.2
	13.50	35	0.185	845	155	21.0	43.5
	14.00	35	0.190	795	150	23.0	44.8
	14.50	35	0.195	770	150	25.0	51.5
	14.80	35	0.195	755	145	25.0	53.3
	15.00	35	0.200	745	150	26.5	51.4
	15.50	35	0.205	720	150	28.5	51.3
	16.00	35	0.205	695	140	28.0	54.8
Ghisa (grigia / sferoidale)	12.80	220	0.355	5470	1940	249.5	3.5
	13.00	220	0.360	5385	1940	257.5	3.5
	13.50	220	0.370	5305	1965	269.0	3.4
	14.00	220	0.375	5000	1875	288.5	3.6
	14.50	220	0.380	4830	1835	303.0	4.2
	14.80	220	0.385	4730	1820	313.0	4.2
	15.00	220	0.390	4670	1820	321.5	4.2
	15.50	220	0.400	4520	1810	341.5	4.3
	16.00	220	0.405	4375	1770	356.0	4.3

Punte elicoidali XDrill®

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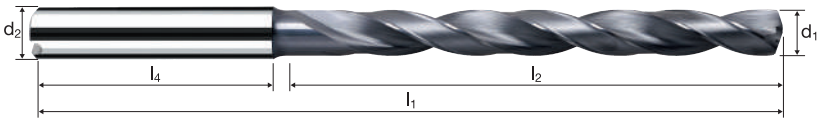
HM MGX

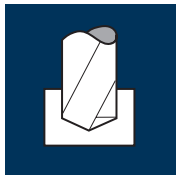


Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Rm** 1300-1500 | **Inox** Stainless | **Ti** Titanium | **GG(G)**

Esempio: **N° Ordine** — Articolo **B72020** — Codice-ø **1280**

ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	DURO-X B72020 €
1280	12.8	14	181	133	45	112.7	449.00
1300	13.0	14	181	133	45	112.6	449.00
1350	13.5	14	181	133	45	112.3	449.00
1380	13.8	14	181	133	45	112.1	449.00
1400	14.0	14	181	133	45	111.9	449.00
1450	14.5	16	203	152	48	128.9	540.00
1480	14.8	16	203	152	48	128.7	540.00
1500	15.0	16	203	152	48	128.6	540.00
1550	15.5	16	203	152	48	128.3	540.00
1580	15.8	16	203	152	48	128.1	540.00
1600	16.0	16	203	152	48	127.8	540.00

Application



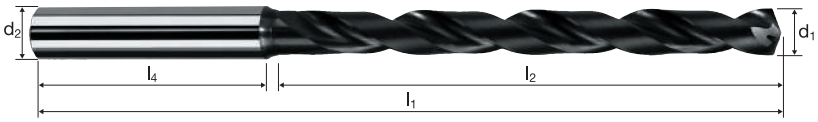
Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	4.00	130	0.085	10345	880	11.0	2.4
	5.00	130	0.105	8275	870	17.0	3.3
	6.00	130	0.125	6895	860	24.5	3.3
	7.00	130	0.145	5910	855	33.0	4.5
	8.00	130	0.170	5175	880	44.0	4.3
	9.00	130	0.190	4600	875	55.5	5.5
	10.00	130	0.210	4140	870	68.5	5.5
	11.00	130	0.230	3760	865	82.0	6.7
	12.00	130	0.255	3450	880	99.5	6.6
Acciaio 500 - 850 N/mm²	4.00	100	0.085	7960	675	8.5	3.1
	5.00	100	0.105	6365	670	13.0	4.3
	6.00	100	0.125	5305	665	19.0	4.3
	7.00	100	0.145	4545	660	25.5	5.8
	8.00	100	0.170	3980	675	34.0	5.6
	9.00	100	0.190	3535	670	42.5	7.2
	10.00	100	0.210	3185	670	52.5	7.2
	11.00	100	0.230	2895	665	63.0	8.7
	12.00	100	0.255	2655	675	76.5	8.6
Acciaio 850 - 1100 N/mm²	4.00	70	0.065	5570	360	4.5	5.8
	5.00	70	0.080	4455	355	7.0	8.1
	6.00	70	0.095	3715	355	10.0	8.0
	7.00	70	0.110	3185	350	13.5	10.9
	8.00	70	0.130	2785	360	18.0	10.5
	9.00	70	0.145	2475	360	23.0	13.5
	10.00	70	0.160	2230	355	28.0	13.6
	11.00	70	0.175	2025	355	33.5	16.3
	12.00	70	0.190	1855	350	39.5	16.5
Acciaio 1100 - 1300 N/mm²	4.00	50	0.055	3980	220	3.0	9.5
	5.00	50	0.065	3185	205	4.0	14.0
	6.00	50	0.080	2655	210	6.0	13.5
	7.00	50	0.095	2275	215	8.5	17.8
	8.00	50	0.105	1990	210	10.5	18.1
	9.00	50	0.120	1770	210	13.5	23.1
	10.00	50	0.135	1590	215	17.0	22.4
	11.00	50	0.145	1445	210	20.0	27.6
	12.00	50	0.160	1325	210	24.0	27.5

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379] Acciaio inossidabile [Cr-Ni/1.4301]	4.00	50	0.045	3980	180	2.5	11.6
	5.00	50	0.055	3185	175	3.5	16.4
	6.00	50	0.070	2655	185	5.0	15.4
	7.00	50	0.080	2275	180	7.0	21.2
	8.00	50	0.090	1990	180	9.0	21.1
	9.00	50	0.105	1770	185	12.0	26.2
	10.00	50	0.115	1590	185	14.5	26.0
	11.00	50	0.125	1445	180	17.0	32.2
	12.00	50	0.135	1325	180	20.5	32.1
Ghisa (grigia / sferoidale)	4.00	150	0.090	11935	1075	13.5	1.9
	5.00	150	0.115	9550	1100	21.5	2.6
	6.00	150	0.135	7960	1075	30.5	2.6
	7.00	150	0.160	6820	1090	42.0	3.5
	8.00	150	0.185	5970	1105	55.5	3.4
	9.00	150	0.205	5305	1090	69.5	4.4
	10.00	150	0.230	4775	1100	86.5	4.4
	11.00	150	0.250	4340	1085	103.0	5.3
	12.00	150	0.275	3980	1095	124.0	5.3
Alluminio malleabile Si < 6%	4.00	200	0.080	15915	1275	16.0	1.6
	5.00	200	0.100	12730	1275	25.0	2.2
	6.00	200	0.120	10610	1275	36.0	2.2
	7.00	200	0.140	9095	1275	49.0	3.0
	8.00	200	0.160	7960	1275	64.0	3.0
	9.00	200	0.180	7075	1275	81.0	3.8
	10.00	200	0.200	6365	1275	100.0	3.8
	11.00	200	0.220	5785	1275	121.0	4.5
	12.00	200	0.240	5305	1275	144.0	4.5

Punte elicoidali Supradrill® N

8xd

HM MG10

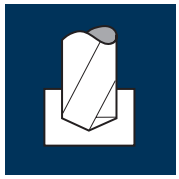


Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Inox** Stainless | **GG(G) Aluminium**

Esempio: **N° Ordine** — Articolo **B52020** Codice-ø **0400**

ø Code	d1 m7	d2 h6	l1	l2	l4	Lmax	DURO-SD B52020	DURO-SD B53020
								€
0400	4.0	6	82	44	36	34.9		147.00
0420	4.2	6	82	44	36	34.8		147.00
0450	4.5	6	82	44	36	34.6		147.00
0480	4.8	6	82	44	36	34.4		147.00
0500	5.0	6	95	57	36	47.7		147.00
0550	5.5	6	95	57	36	47.5		147.00
0580	5.8	6	95	57	36	47.3		147.00
0600	6.0	6	95	57	36	47.4		147.00
0650	6.5	8	115	76	36	65.0		162.00
0680	6.8	8	115	76	36	64.8		162.00
0700	7.0	8	115	76	36	64.7		162.00
0750	7.5	8	115	76	36	64.4		162.00
0780	7.8	8	115	76	36	64.3		162.00
0800	8.0	8	115	76	36	64.3		162.00
0850	8.5	10	138	95	40	81.0		186.00
0900	9.0	10	138	95	40	80.7		186.00
0950	9.5	10	138	95	40	80.4		186.00
1000	10.0	10	138	95	40	80.2		186.00
1050	10.5	12	162	114	45	97.0		267.00
1100	11.0	12	162	114	45	96.6		267.00
1150	11.5	12	162	114	45	96.4		267.00
1200	12.0	12	162	114	45	96.2		267.00

Application



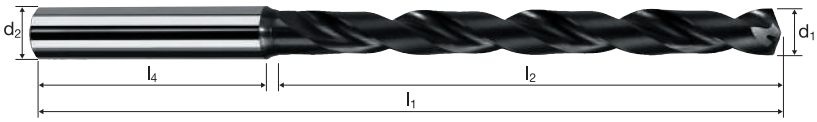
Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	12.50	130	0.265	3310	875	107.5	7.7
	13.00	130	0.275	3185	875	116.0	7.7
	13.50	130	0.285	3065	875	125.0	7.7
	14.00	130	0.295	2955	870	134.0	7.7
	14.50	130	0.305	2855	870	143.5	8.9
	15.00	130	0.315	2760	870	153.5	8.9
	16.00	130	0.335	2585	865	174.0	8.9
Acciaio 500 - 850 N/mm²	12.50	100	0.265	2545	675	83.0	10.0
	13.00	100	0.275	2450	675	89.5	10.0
	13.50	100	0.285	2360	675	96.5	10.0
	14.00	100	0.295	2275	670	103.0	10.0
	14.50	100	0.305	2195	670	110.5	11.5
	15.00	100	0.315	2120	670	118.5	11.5
	16.00	100	0.335	1990	665	133.5	11.5
Acciaio 850 - 1100 N/mm²	12.50	70	0.200	1785	355	43.5	19.1
	13.00	70	0.210	1715	360	48.0	18.8
	13.50	70	0.215	1650	355	51.0	19.0
	14.00	70	0.225	1590	360	55.5	18.7
	14.50	70	0.230	1535	355	58.5	21.8
	15.00	70	0.240	1485	355	62.5	21.7
	16.00	70	0.255	1395	355	71.5	21.6
Acciaio 1100 - 1300 N/mm²	12.50	50	0.165	1275	210	26.0	32.3
	13.00	50	0.175	1225	215	28.5	31.4
	13.50	50	0.180	1180	210	30.0	32.1
	14.00	50	0.185	1135	210	32.5	32.0
	14.50	50	0.195	1100	215	35.5	36.0
	15.00	50	0.200	1060	210	37.0	36.7
	16.00	50	0.215	995	215	43.0	35.7

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379] Acciaio inossidabile [Cr-Ni/1.4301]	12.50	50	0.145	1275	185	22.5	36.6
	13.00	50	0.150	1225	185	24.5	36.5
	13.50	50	0.155	1180	185	26.5	36.4
	14.00	50	0.160	1135	180	27.5	37.4
	14.50	50	0.165	1100	180	29.5	43.0
	15.00	50	0.170	1060	180	32.0	42.9
	16.00	50	0.185	995	185	37.0	41.5
Ghisa (grigia / sferoidale)	12.50	150	0.285	3820	1090	134.0	6.2
	13.00	150	0.295	3675	1085	144.0	6.2
	13.50	150	0.310	3535	1095	156.5	6.2
	14.00	150	0.320	3410	1090	168.0	6.2
	14.50	150	0.330	3295	1085	179.0	7.1
	15.00	150	0.345	3185	1100	194.5	7.0
	16.00	150	0.365	2985	1090	219.0	7.0
Alluminio malleabile Si < 6%	12.50	200	0.250	5095	1275	156.5	5.3
	13.00	200	0.260	4895	1275	169.0	5.3
	13.50	200	0.270	4715	1275	182.5	5.3
	14.00	200	0.280	4545	1275	196.5	5.3
	14.50	200	0.290	4390	1275	210.5	6.1
	15.00	200	0.300	4245	1275	225.5	6.1
	16.00	200	0.320	3980	1275	256.5	6.0

Punte elicoidali Supradrill® N

8xd

HM MG10

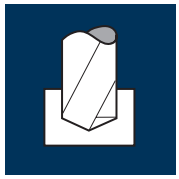


Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless		GG(G) Aluminium

Esempio: **N° Ordine** — Articolo **B52020** — Codice-ø **1250**

ø Code	d_1 m7	d_2 h6	l_1	l_2	l_4	L_{max}		DURO-SD B52020 B53020 €
1250	12.5	14	181	133	45	113.0		361.00
1300	13.0	14	181	133	45	112.6		361.00
1350	13.5	14	181	133	45	112.3		361.00
1400	14.0	14	181	133	45	112.1		361.00
1450	14.5	16	203	152	48	128.9		435.00
1500	15.0	16	203	152	48	128.6		435.00
1600	16.0	16	203	152	48	128.0		435.00

Application



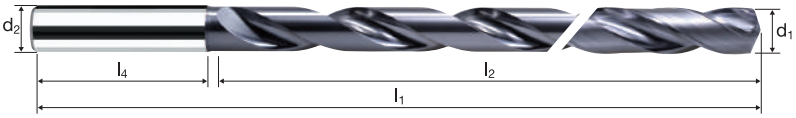
Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	3.00	100	0.120	10610	1275	9.0	2.4
	4.00	100	0.120	7960	955	12.0	3.8
	5.00	100	0.120	6365	765	15.0	6.0
	6.00	100	0.150	5305	795	22.5	7.0
	8.00	100	0.150	3980	595	30.0	12.2
	10.00	100	0.200	3185	635	50.0	14.5
	12.00	100	0.200	2655	530	60.0	20.9
	14.00	100	0.240	2275	545	84.0	23.3
	16.00	100	0.240	1990	480	96.5	30.5
Acciaio 500 - 850 N/mm²	3.00	75	0.115	7960	915	6.5	3.4
	4.00	75	0.115	5970	685	8.5	5.3
	5.00	75	0.115	4775	550	11.0	8.3
	6.00	75	0.145	3980	575	16.5	9.7
	8.00	75	0.145	2985	435	22.0	16.7
	10.00	75	0.190	2385	455	35.5	20.2
	12.00	75	0.190	1990	380	43.0	29.2
	14.00	75	0.230	1705	390	60.0	32.6
	16.00	75	0.230	1490	345	69.5	42.4
Acciaio 850 - 1100 N/mm²	3.00	50	0.100	5305	530	3.5	5.8
	4.00	50	0.100	3980	400	5.0	9.0
	5.00	50	0.100	3185	320	6.5	14.3
	6.00	50	0.140	2655	370	10.5	15.1
	8.00	50	0.140	1990	280	14.0	25.9
	10.00	50	0.180	1590	285	22.5	32.2
	12.00	50	0.180	1325	240	27.0	46.3
	14.00	50	0.220	1135	250	38.5	50.9
	16.00	50	0.220	995	220	44.0	66.5
Acciaio 1100 - 1300 N/mm²	3.00	35	0.090	3715	335	2.5	9.2
	4.00	35	0.090	2785	250	3.0	14.4
	5.00	35	0.090	2230	200	4.0	22.9
	6.00	35	0.125	1855	230	6.5	24.3
	8.00	35	0.125	1395	175	9.0	41.5
	10.00	35	0.160	1115	180	14.0	51.0
	12.00	35	0.160	930	150	17.0	74.0
	14.00	35	0.200	795	160	24.5	79.5
	16.00	35	0.200	695	140	28.0	104.6

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379]	3.00	40	0.100	4245	425	3.0	7.3
	4.00	40	0.100	3185	320	4.0	11.3
	5.00	40	0.100	2545	255	5.0	18.0
	6.00	40	0.140	2120	295	8.5	18.9
	8.00	40	0.140	1590	225	11.5	32.3
	10.00	40	0.180	1275	230	18.0	39.9
	12.00	40	0.180	1060	190	21.5	58.4
	14.00	40	0.220	910	200	31.0	63.6
	16.00	40	0.220	795	175	35.0	83.7
Ghisa (grigia / sferoidale)	3.00	80	0.160	8490	1360	9.5	2.3
	4.00	80	0.160	6365	1020	13.0	3.5
	5.00	80	0.160	5095	815	16.0	5.6
	6.00	80	0.210	4245	890	25.0	6.3
	8.00	80	0.210	3185	670	33.5	10.8
	10.00	80	0.260	2545	660	52.0	13.9
	12.00	80	0.260	2120	550	62.0	20.2
	14.00	80	0.320	1820	580	89.5	21.9
	16.00	80	0.320	1590	510	102.5	28.7

Punte per foratura profonda

15xd

HM
MGD²



Rm < 850	**Rm** 850-1100	**Rm** 1100-1300							**GG(G)**

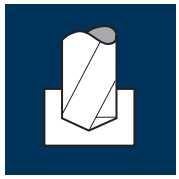
Esempio: **N° Ordine** — Articolo **B52915** Codice-ø **0300**

								DURO-D²
								B52915
ø Code	d_1 h7	d_2 h6	l_1	l_2	l_4	L_{max}		€
0300	3.0	4	90	56	32	51.5		257.00
0350	3.5	4	100	66	32	61.0		257.00
0400	4.0	4	100	66	32	60.0		257.00
0450	4.5	5	110	74	34	67.5		266.00
0500	5.0	5	120	84	34	76.5		266.00
0550	5.5	6	130	92	36	84.0		279.00
0600	6.0	6	140	102	36	93.0		279.00
0700	7.0	7	155	115	38	104.5		293.00
0800	8.0	8	175	133	40	121.0		309.00
0900	9.0	9	190	148	40	134.5		343.00
1000	10.0	10	210	168	40	153.0		381.00
1100	11.0	11	230	183	45	166.5		422.00
1200	12.0	12	250	203	45	185.0		495.00
1300	13.0	13	265	218	45	198.5		576.00
1400	14.0	14	285	233	50	212.0		677.00
1500	15.0	15	305	253	50	230.5		780.00
1600	16.0	16	320	268	50	244.0		887.00

Istruzioni tecniche, pagina 456

E' richiesto il foro pilota!

Application



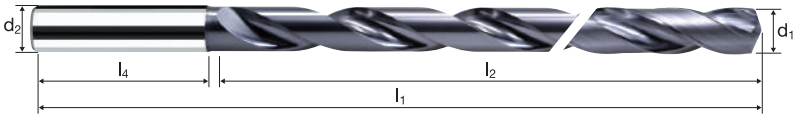
Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	3.00	100	0.120	10610	1275	9.0	3.3
	4.00	100	0.120	7960	955	12.0	5.0
	5.00	100	0.120	6365	765	15.0	8.0
	6.00	100	0.150	5305	795	22.5	9.1
	8.00	100	0.150	3980	595	30.0	16.2
	10.00	100	0.200	3185	635	50.0	19.2
	12.00	100	0.200	2655	530	60.0	27.2
	14.00	100	0.240	2275	545	84.0	31.0
	16.00	100	0.240	1990	480	96.5	40.5
Acciaio 500 - 850 N/mm²	3.00	75	0.115	7960	915	6.5	4.6
	4.00	75	0.115	5970	685	8.5	7.0
	5.00	75	0.115	4775	550	11.0	11.1
	6.00	75	0.145	3980	575	16.5	12.6
	8.00	75	0.145	2985	435	22.0	22.2
	10.00	75	0.190	2385	455	35.5	26.8
	12.00	75	0.190	1990	380	43.0	37.9
	14.00	75	0.230	1705	390	60.0	43.4
	16.00	75	0.230	1490	345	69.5	56.3
Acciaio 850 - 1100 N/mm²	3.00	50	0.100	5305	530	3.5	7.9
	4.00	50	0.100	3980	400	5.0	12.0
	5.00	50	0.100	3185	320	6.5	19.0
	6.00	50	0.140	2655	370	10.5	19.6
	8.00	50	0.140	1990	280	14.0	34.5
	10.00	50	0.180	1590	285	22.5	42.7
	12.00	50	0.180	1325	240	27.0	60.0
	14.00	50	0.220	1135	250	38.5	67.7
	16.00	50	0.220	995	220	44.0	88.4
Acciaio 1100 - 1300 N/mm²	3.00	35	0.090	3715	335	2.5	12.4
	4.00	35	0.090	2785	250	3.0	19.2
	5.00	35	0.090	2230	200	4.0	30.4
	6.00	35	0.125	1855	230	6.5	31.6
	8.00	35	0.125	1395	175	9.0	55.2
	10.00	35	0.160	1115	180	14.0	67.7
	12.00	35	0.160	930	150	17.0	96.0
	14.00	35	0.200	795	160	24.5	105.8
	16.00	35	0.200	695	140	28.0	138.9

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379]	3.00	40	0.100	4245	425	3.0	9.8
	4.00	40	0.100	3185	320	4.0	15.0
	5.00	40	0.100	2545	255	5.0	23.9
	6.00	40	0.140	2120	295	8.5	24.6
	8.00	40	0.140	1590	225	11.5	42.9
	10.00	40	0.180	1275	230	18.0	53.0
	12.00	40	0.180	1060	190	21.5	75.8
	14.00	40	0.220	910	200	31.0	84.6
	16.00	40	0.220	795	175	35.0	111.1
Ghisa (grigia / sferoidale)	3.00	80	0.160	8490	1360	9.5	3.1
	4.00	80	0.160	6365	1020	13.0	4.7
	5.00	80	0.160	5095	815	16.0	7.5
	6.00	80	0.210	4245	890	25.0	8.2
	8.00	80	0.210	3185	670	33.5	14.4
	10.00	80	0.260	2545	660	52.0	18.5
	12.00	80	0.260	2120	550	62.0	26.2
	14.00	80	0.320	1820	580	89.5	29.2
	16.00	80	0.320	1590	510	102.5	38.1

Punte per foratura profonda

20xd

HM
MGD²



Rm < 850	Rm 850-1100	Rm 1100-1300							GG(G)

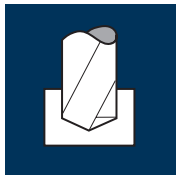
Esempio: **N° Ordine** — Articolo **B52920** Codice-ø **0300**

ø Code	d_1 h7	d_2 h6	l_1	l_2	l_4	L_{max}	DURO-D² B52920 €
0300	3.0	4	110	74	32	69.5	298.00
0350	3.5	4	120	86	32	81.0	298.00
0400	4.0	4	120	86	32	80.0	298.00
0450	4.5	5	135	98	34	91.5	309.00
0500	5.0	5	145	109	34	101.5	309.00
0550	5.5	6	160	120	36	112.0	324.00
0600	6.0	6	170	130	36	121.0	324.00
0700	7.0	7	190	150	38	139.5	339.00
0800	8.0	8	215	173	40	161.0	359.00
0900	9.0	9	240	196	40	182.5	398.00
1000	10.0	10	260	218	40	203.0	442.00
1100	11.0	11	285	238	45	221.5	489.00
1200	12.0	12	305	258	45	240.0	574.00
1300	13.0	13	330	283	45	263.5	668.00
1400	14.0	14	355	303	50	282.0	785.00
1500	15.0	15	375	323	50	300.5	905.00
1600	16.0	16	400	348	50	324.0	1029.00

Istruzioni tecniche, pagina 456

E' richiesto il foro pilota!

Application



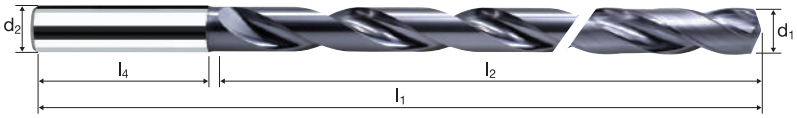
Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	3.00	90	0.120	9550	1145	8.0	4.5
	4.00	90	0.120	7160	860	11.0	7.0
	5.00	90	0.120	5730	690	13.5	11.0
	6.00	90	0.150	4775	715	20.0	12.7
	8.00	90	0.150	3580	535	27.0	22.5
	9.00	90	0.200	3185	635	40.5	21.2
	10.00	90	0.200	2865	575	45.0	26.4
	12.00	90	0.200	2385	475	53.5	37.9
	14.00	90	0.240	2045	490	75.5	43.1
Acciaio 500 - 850 N/mm²	3.00	70	0.115	7425	855	6.0	6.1
	4.00	70	0.115	5570	640	8.0	9.4
	5.00	70	0.115	4455	510	10.0	14.9
	6.00	70	0.145	3715	540	15.5	16.8
	8.00	70	0.145	2785	405	20.5	29.8
	9.00	70	0.190	2475	470	30.0	28.7
	10.00	70	0.190	2230	425	33.5	35.7
	12.00	70	0.190	1855	350	39.5	51.4
	14.00	70	0.230	1590	365	56.0	57.9
Acciaio 850 - 1100 N/mm²	3.00	45	0.100	4775	480	3.5	10.8
	4.00	45	0.100	3580	360	4.5	16.7
	5.00	45	0.100	2865	285	5.5	26.6
	6.00	45	0.140	2385	335	9.5	27.0
	8.00	45	0.140	1790	250	12.5	48.2
	9.00	45	0.180	1590	285	18.0	47.3
	10.00	45	0.180	1430	255	20.0	59.5
	12.00	45	0.180	1195	215	24.5	83.7
	14.00	45	0.220	1025	225	34.5	93.9
Acciaio 1100 - 1300 N/mm²	3.00	30	0.090	3185	285	2.0	18.2
	4.00	30	0.090	2385	215	2.5	27.9
	5.00	30	0.090	1910	170	3.5	44.6
	6.00	30	0.125	1590	200	5.5	45.3
	8.00	30	0.125	1195	150	7.5	80.4
	9.00	30	0.160	1060	170	11.0	79.2
	10.00	30	0.160	955	155	12.0	97.9
	12.00	30	0.160	795	125	14.0	144.0
	14.00	30	0.200	680	135	21.0	156.4

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379]	3.00	35	0.100	3715	370	2.5	14.0
	4.00	35	0.100	2785	280	3.5	21.4
	5.00	35	0.100	2230	225	4.5	33.7
	6.00	35	0.140	1855	260	7.5	34.8
	8.00	35	0.140	1395	195	10.0	61.8
	9.00	35	0.180	1240	225	14.5	59.9
	10.00	35	0.180	1115	200	15.5	75.9
	12.00	35	0.180	930	165	18.5	109.1
	14.00	35	0.220	795	175	27.0	120.7
Ghisa (grigia / sferoidale)	3.00	70	0.160	7425	1190	8.5	4.4
	4.00	70	0.160	5570	890	11.0	6.7
	5.00	70	0.160	4455	715	14.0	10.6
	6.00	70	0.210	3715	780	22.0	11.6
	8.00	70	0.210	2785	585	29.5	20.6
	9.00	70	0.260	2475	645	41.0	20.9
	10.00	70	0.260	2230	580	45.5	26.2
	12.00	70	0.260	1855	480	54.5	37.5
	14.00	70	0.320	1590	510	78.5	41.4

Punte per foratura profonda

25xd

HM
MGD²



Rm < 850	Rm 850-1100	Rm 1100-1300							GG(G)

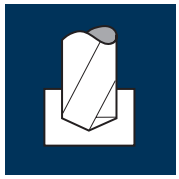
Esempio: **N° Ordine** — Articolo **B52925** Codice-ø **0300**

ø Code	d_1 h7	d_2 h6	l_1	l_2	l_4	L_{max}	DURO-D² B52925 €
0300	3.0	4	125	91	32	86.5	349.00
0350	3.5	4	140	106	32	101.0	349.00
0400	4.0	4	140	106	32	100.0	349.00
0450	4.5	5	155	119	34	112.5	362.00
0500	5.0	5	170	134	34	126.5	362.00
0550	5.5	6	185	147	36	139.0	380.00
0600	6.0	6	200	160	36	151.0	380.00
0700	7.0	7	225	185	38	174.5	398.00
0800	8.0	8	255	213	40	201.0	421.00
0900	9.0	9	280	238	40	224.5	467.00
1000	10.0	10	310	268	40	253.0	518.00
1100	11.0	11	340	293	45	276.5	574.00
1200	12.0	12	365	318	45	300.0	673.00
1300	13.0	13	390	343	45	323.5	783.00
1400	14.0	14	425	373	50	352.0	921.00

Istruzioni tecniche, pagina 456

E' richiesto il foro pilota!

Application



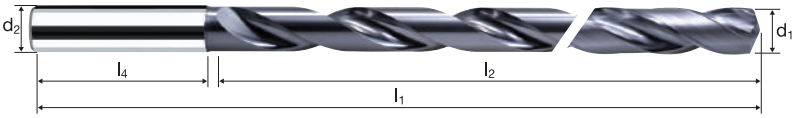
Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	3.00	90	0.120	9550	1145	8.0	5.5
	4.00	90	0.120	7160	860	11.0	8.4
	5.00	90	0.120	5730	690	13.5	13.2
	6.00	90	0.150	4775	715	20.0	15.4
	7.00	90	0.150	4095	615	23.5	20.4
	8.00	90	0.150	3580	535	27.0	27.0
	9.00	90	0.200	3185	635	40.5	25.5
	10.00	90	0.200	2865	575	45.0	31.6
	12.00	90	0.200	2385	475	53.5	46.1
Acciaio 500 - 850 N/mm²	3.00	70	0.115	7425	855	6.0	7.4
	4.00	70	0.115	5570	640	8.0	11.3
	5.00	70	0.115	4455	510	10.0	17.8
	6.00	70	0.145	3715	540	15.5	20.3
	7.00	70	0.145	3185	460	17.5	27.3
	8.00	70	0.145	2785	405	20.5	35.7
	9.00	70	0.190	2475	470	30.0	34.4
	10.00	70	0.190	2230	425	33.5	42.8
	12.00	70	0.190	1855	350	39.5	62.6
Acciaio 850 - 1100 N/mm²	3.00	45	0.100	4775	480	3.5	13.2
	4.00	45	0.100	3580	360	4.5	20.0
	5.00	45	0.100	2865	285	5.5	31.9
	6.00	45	0.140	2385	335	9.5	32.8
	7.00	45	0.140	2045	285	11.0	44.1
	8.00	45	0.140	1790	250	12.5	57.8
	9.00	45	0.180	1590	285	18.0	56.7
	10.00	45	0.180	1430	255	20.0	71.3
	12.00	45	0.180	1195	215	24.5	101.9
Acciaio 1100 - 1300 N/mm²	3.00	30	0.090	3185	285	2.0	22.2
	4.00	30	0.090	2385	215	2.5	33.5
	5.00	30	0.090	1910	170	3.5	53.5
	6.00	30	0.125	1590	200	5.5	54.9
	7.00	30	0.125	1365	170	6.5	73.9
	8.00	30	0.125	1195	150	7.5	96.4
	9.00	30	0.160	1060	170	11.0	95.1
	10.00	30	0.160	955	155	12.0	117.3
	12.00	30	0.160	795	125	14.0	175.2

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379]	3.00	35	0.100	3715	370	2.5	17.1
	4.00	35	0.100	2785	280	3.5	25.7
	5.00	35	0.100	2230	225	4.5	40.4
	6.00	35	0.140	1855	260	7.5	42.2
	7.00	35	0.140	1590	225	8.5	55.9
	8.00	35	0.140	1395	195	10.0	74.2
	9.00	35	0.180	1240	225	14.5	71.9
	10.00	35	0.180	1115	200	15.5	90.9
	12.00	35	0.180	930	165	18.5	132.7
Ghisa (grigia / sferoidale)	3.00	70	0.160	7425	1190	8.5	5.3
	4.00	70	0.160	5570	890	11.0	8.1
	5.00	70	0.160	4455	715	14.0	12.7
	6.00	70	0.210	3715	780	22.0	14.1
	7.00	70	0.210	3185	670	26.0	18.8
	8.00	70	0.210	2785	585	29.5	24.7
	9.00	70	0.260	2475	645	41.0	25.1
	10.00	70	0.260	2230	580	45.5	31.3
	12.00	70	0.260	1855	480	54.5	45.6

Punte per foratura profonda

30xd

HM
MGD²



Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **GG(G)**

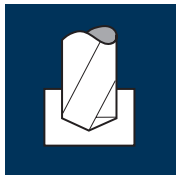
Esempio: **N° Ordine** — Articolo **B52930** Codice-ø **0300**

ø Code	d_1 h7	d_2 h6	l_1	l_2	l_4	L_{max}	DURO-D² B52930 €
0300	3.0	4	145	110	32	105.5	424.00
0350	3.5	4	160	126	32	121.0	424.00
0400	4.0	4	160	126	32	120.0	424.00
0450	4.5	5	180	144	34	137.5	439.00
0500	5.0	5	195	159	34	151.5	439.00
0550	5.5	6	210	172	36	164.0	461.00
0600	6.0	6	230	192	36	183.0	461.00
0700	7.0	7	260	220	38	209.5	483.00
0800	8.0	8	295	253	40	241.0	511.00
0900	9.0	9	325	283	40	269.5	566.00
1000	10.0	10	360	318	40	303.0	628.00
1100	11.0	11	400	353	45	336.5	696.00
1200	12.0	12	430	383	45	365.0	817.00

Istruzioni tecniche, pagina 456

E' richiesto il foro pilota!

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	0.20	100	0.004	60000	240	0.0	0.3
	0.30	100	0.006	60000	360	0.0	0.3
	0.40	100	0.008	60000	480	0.0	0.3
	0.50	100	0.010	60000	600	0.0	0.3
	0.60	100	0.012	53050	635	0.0	0.3
	0.70	100	0.014	45475	635	0.0	0.3
	0.80	100	0.016	39790	635	0.5	0.4
	0.90	100	0.018	35370	635	0.5	0.4
	1.00	100	0.020	31830	635	0.5	0.5
Acciaio 500 - 850 N/mm²	0.20	80	0.004	60000	240	0.0	0.3
	0.30	80	0.007	60000	420	0.0	0.2
	0.40	80	0.009	60000	540	0.0	0.2
	0.50	80	0.011	50930	560	0.0	0.3
	0.60	80	0.013	42440	550	0.0	0.3
	0.70	80	0.016	36380	580	0.0	0.4
	0.80	80	0.018	31830	575	0.5	0.4
	0.90	80	0.020	28295	565	0.5	0.5
	1.00	80	0.022	25465	560	0.5	0.5
Acciaio 850 - 1100 N/mm²	0.20	40	0.003	60000	180	0.0	0.3
	0.30	40	0.005	42440	210	0.0	0.5
	0.40	40	0.006	31830	190	0.0	0.6
	0.50	40	0.008	25465	205	0.0	0.8
	0.60	40	0.009	21220	190	0.0	0.9
	0.70	40	0.011	18190	200	0.0	1.1
	0.80	40	0.012	15915	190	0.0	1.3
	0.90	40	0.014	14145	200	0.0	1.4
	1.00	40	0.015	12730	190	0.0	1.6
Acciaio 1100 - 1300 N/mm²	0.20	50	0.004	60000	240	0.0	0.3
	0.30	50	0.005	53050	265	0.0	0.4
	0.40	50	0.007	39790	280	0.0	0.4
	0.50	50	0.009	31830	285	0.0	0.5
	0.60	50	0.011	26525	290	0.0	0.6
	0.70	50	0.013	22735	295	0.0	0.7
	0.80	50	0.015	19895	300	0.0	0.8
	0.90	50	0.016	17685	285	0.0	1.0
	1.00	50	0.018	15915	285	0.0	1.1

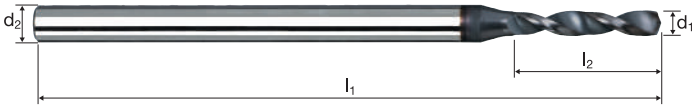
Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Ghisa (grigia / sferoidale)	0.20	130	0.004	60000	240	0.0	0.3
	0.30	130	0.007	60000	420	0.0	0.2
	0.40	130	0.009	60000	540	0.0	0.2
	0.50	130	0.011	60000	660	0.0	0.2
	0.60	130	0.013	60000	780	0.0	0.2
	0.70	130	0.016	59115	945	0.5	0.2
	0.80	130	0.018	51725	930	0.5	0.3
	0.90	130	0.020	45980	920	0.5	0.3
	1.00	130	0.022	41380	910	0.5	0.3
Alluminio malleabile Si < 6%	0.20	160	0.004	60000	240	0.0	0.3
	0.30	160	0.007	60000	420	0.0	0.2
	0.40	160	0.009	60000	540	0.0	0.2
	0.50	160	0.011	60000	660	0.0	0.2
	0.60	160	0.013	60000	780	0.0	0.2
	0.70	160	0.016	60000	960	0.5	0.2
	0.80	160	0.018	60000	1080	0.5	0.2
	0.90	160	0.020	56590	1130	0.5	0.2
	1.00	160	0.022	50930	1120	1.0	0.3

Micropunte Microdrill NX

5xd

HM MG10

h5

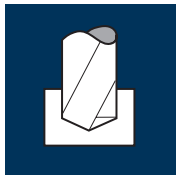


Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless		GG(G) Aluminium

Esempio: **N° Ordine** — Articolo **B57014** Codice-ø **0020**

ø Code	d1 m7	d2 h5	l1	l2	Lmax		DURO-SD B57014 €
0020	0.20	3	42	1.3	1.0		61.00
0025	0.25	3	42	1.6	1.2		61.00
0030	0.30	3	42	2.0	1.6		54.20
0035	0.35	3	42	2.3	1.8		54.20
0040	0.40	3	42	2.6	2.0		54.20
0045	0.45	3	42	2.9	2.2		54.20
0050	0.50	3	42	3.3	2.6		54.20
0055	0.55	3	42	3.6	2.8		54.20
0060	0.60	3	42	3.9	3.0		54.20
0065	0.65	3	42	4.2	3.2		54.20
0070	0.70	3	42	4.6	3.6		54.20
0075	0.75	3	42	4.9	3.8		54.20
0080	0.80	3	42	5.2	4.0		54.20
0085	0.85	3	42	5.5	4.2		54.20
0087	0.87	3	42	5.7	4.4		54.20
0090	0.90	3	42	5.9	4.6		54.20
0095	0.95	3	42	6.2	4.8		54.20
0100	1.00	3	42	6.5	5.0		54.20
0105	1.05	3	42	6.8	5.2		52.00
0107	1.07	3	42	7.0	5.4		52.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	1.10	100	0.022	28935	635	0.5	0.5
	1.20	100	0.024	26525	635	0.5	0.6
	1.30	100	0.026	24485	635	1.0	0.6
	1.40	100	0.028	22735	635	1.0	0.7
	1.50	100	0.030	21220	635	1.0	0.7
	1.60	100	0.032	19895	635	1.5	0.8
	1.70	100	0.034	18725	635	1.5	0.8
	1.80	100	0.036	17685	635	1.5	0.9
	1.90	100	0.038	16755	635	2.0	0.9
Acciaio 500 - 850 N/mm²	1.10	80	0.024	23150	555	0.5	0.6
	1.20	80	0.027	21220	575	0.5	0.6
	1.30	80	0.029	19590	570	1.0	0.7
	1.40	80	0.031	18190	565	1.0	0.7
	1.50	80	0.033	16975	560	1.0	0.8
	1.60	80	0.036	15915	575	1.0	0.8
	1.70	80	0.038	14980	570	1.5	0.9
	1.80	80	0.040	14145	565	1.5	1.0
	1.90	80	0.042	13405	565	1.5	1.0
Acciaio 850 - 1100 N/mm²	1.10	40	0.017	11575	195	0.0	1.7
	1.20	40	0.018	10610	190	0.0	1.9
	1.30	40	0.020	9795	195	0.5	2.0
	1.40	40	0.022	9095	200	0.5	2.1
	1.50	40	0.023	8490	195	0.5	2.3
	1.60	40	0.025	7960	200	0.5	2.4
	1.70	40	0.026	7490	195	0.5	2.6
	1.80	40	0.028	7075	200	0.5	2.7
	1.90	40	0.029	6700	195	0.5	3.0
Acciaio inossidabile [Cr-Ni/1.4301]	1.10	30	0.017	8680	150	0.0	2.2
	1.20	30	0.018	7960	145	0.0	2.5
	1.30	30	0.020	7345	145	0.0	2.7
	1.40	30	0.022	6820	150	0.0	2.8
	1.50	30	0.023	6365	145	0.5	3.1
	1.60	30	0.025	5970	150	0.5	3.2
	1.70	30	0.026	5615	145	0.5	3.6
	1.80	30	0.028	5305	150	0.5	3.6
	1.90	30	0.029	5025	145	0.5	4.0

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Ghisa (grigia / sferoidale)	1.10	130	0.024	37620	905	1.0	0.4
	1.20	130	0.027	34485	930	1.0	0.4
	1.30	130	0.029	31830	925	1.0	0.4
	1.40	130	0.031	29555	915	1.5	0.5
	1.50	130	0.033	27585	910	1.5	0.5
	1.60	130	0.036	25865	930	2.0	0.5
	1.70	130	0.038	24340	925	2.0	0.6
	1.80	130	0.040	22990	920	2.5	0.6
	1.90	130	0.042	21780	915	2.5	0.6
Alluminio malleabile Si < 6%	1.10	160	0.024	46300	1110	1.0	0.3
	1.20	160	0.027	42440	1145	1.5	0.3
	1.30	160	0.029	39175	1135	1.5	0.3
	1.40	160	0.031	36380	1130	1.5	0.4
	1.50	160	0.033	33955	1120	2.0	0.4
	1.60	160	0.036	31830	1145	2.5	0.4
	1.70	160	0.038	29960	1140	2.5	0.5
	1.80	160	0.040	28295	1130	3.0	0.5
	1.90	160	0.042	26805	1125	3.0	0.5

Micropunte Microdrill NX

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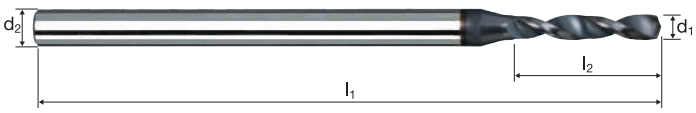
HM MG10

h5

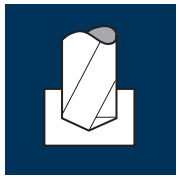


Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Inox** Stainless | **GG(G) Aluminium**

Esempio: **N° Ordine** — Articolo **B57014** Codice-ø **0110**

ø Code	d1 m7	d2 h5	l1	l2	Lmax	DURO-SD B57014 €
0110	1.10	3	42	7.2	5.6	52.00
0115	1.15	3	42	7.5	5.8	52.00
0120	1.20	3	42	7.8	6.0	52.00
0125	1.25	3	42	8.1	6.2	52.00
0130	1.30	3	42	8.5	6.6	52.00
0135	1.35	3	42	8.8	6.8	52.00
0140	1.40	3	42	9.1	7.0	52.00
0142	1.42	3	42	9.2	7.1	52.00
0145	1.45	3	42	9.4	7.2	52.00
0150	1.50	3	42	9.8	7.6	52.00
0155	1.55	3	42	10.1	7.8	52.00
0160	1.60	3	42	10.4	8.0	52.00
0162	1.62	3	42	10.5	8.1	52.00
0165	1.65	3	42	10.7	8.2	52.00
0170	1.70	3	42	11.1	8.6	52.00
0175	1.75	3	42	11.4	8.8	52.00
0180	1.80	3	42	11.7	9.0	52.00
0185	1.85	3	50	12.0	9.2	52.00
0190	1.90	3	50	12.4	9.6	52.00
0195	1.95	3	50	12.7	9.8	52.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	2.00	100	0.040	15915	635	2.0	0.9
	2.10	100	0.042	15160	635	2.0	1.0
	2.20	100	0.044	14470	635	2.5	1.0
	2.35	100	0.047	13545	635	3.0	1.1
	2.50	100	0.050	12730	635	3.0	1.2
	2.60	100	0.052	12245	635	3.5	1.2
	2.75	100	0.055	11575	635	4.0	1.3
	2.85	100	0.057	11170	635	4.0	1.3
	2.95	100	0.059	10790	635	4.5	1.4
Acciaio 500 - 850 N/mm²	2.00	80	0.044	12730	560	2.0	1.1
	2.10	80	0.047	12125	570	2.0	1.1
	2.20	80	0.049	11575	565	2.0	1.2
	2.35	80	0.052	10835	565	2.5	1.3
	2.50	80	0.056	10185	570	3.0	1.3
	2.60	80	0.058	9795	570	3.0	1.4
	2.75	80	0.061	9260	565	3.5	1.5
	2.85	80	0.063	8935	565	3.5	1.5
	2.95	80	0.066	8630	570	4.0	1.6
Acciaio 850 - 1100 N/mm²	2.00	40	0.031	6365	195	0.5	3.1
	2.10	40	0.032	6065	195	0.5	3.2
	2.20	40	0.034	5785	195	0.5	3.4
	2.35	40	0.036	5420	195	1.0	3.6
	2.50	40	0.038	5095	195	1.0	3.9
	2.60	40	0.040	4895	195	1.0	4.0
	2.75	40	0.042	4630	195	1.0	4.2
	2.85	40	0.044	4470	195	1.0	4.4
	2.95	40	0.045	4315	195	1.5	4.6
Acciaio inossidabile [Cr-Ni/1.4301]	2.00	30	0.031	4775	150	0.5	4.0
	2.10	30	0.032	4545	145	0.5	4.3
	2.20	30	0.034	4340	150	0.5	4.4
	2.35	30	0.036	4065	145	0.5	4.9
	2.50	30	0.038	3820	145	0.5	5.2
	2.60	30	0.040	3675	145	1.0	5.4
	2.75	30	0.042	3470	145	1.0	5.7
	2.85	30	0.044	3350	145	1.0	5.9
	2.95	30	0.045	3235	145	1.0	6.1

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Ghisa (grigia / sferoidale)	2.00	130	0.044	20690	910	3.0	0.7
	2.10	130	0.047	19705	925	3.0	0.7
	2.20	130	0.049	18810	920	3.5	0.7
	2.35	130	0.052	17610	915	4.0	0.8
	2.50	130	0.056	16550	925	4.5	0.8
	2.60	130	0.058	15915	925	5.0	0.8
	2.75	130	0.061	15045	920	5.5	0.9
	2.85	130	0.063	14520	915	6.0	0.9
	2.95	130	0.066	14025	925	6.5	1.0
Alluminio malleabile Si < 6%	2.00	160	0.044	25465	1120	3.5	0.5
	2.10	160	0.047	24250	1140	4.0	0.6
	2.20	160	0.049	23150	1135	4.5	0.6
	2.35	160	0.052	21670	1125	5.0	0.6
	2.50	160	0.056	20370	1140	5.5	0.7
	2.60	160	0.058	19590	1135	6.0	0.7
	2.75	160	0.061	18520	1130	6.5	0.7
	2.85	160	0.063	17870	1125	7.0	0.8
	2.95	160	0.066	17265	1140	8.0	0.8

Micropunte Microdrill NX

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HM MG10

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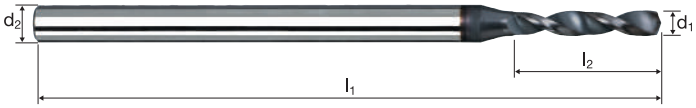
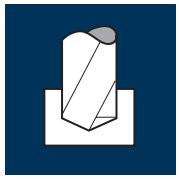


Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless		GG(G) Aluminium

Esempio: **N° Ordine** — Articolo **B57014** Codice-ø **0200**

ø Code	d_1 m7	d_2 h5	l_1	l_2	L_{max}	DURO-SD B57014 €
0200	2.00	3	50	13.0	10.0	52.00
0205	2.05	3	50	13.3	10.2	50.10
0210	2.10	3	50	13.7	10.6	50.10
0215	2.15	3	50	14.0	10.8	50.10
0220	2.20	3	50	14.3	11.0	50.10
0225	2.25	3	50	14.6	11.2	50.10
0230	2.30	3	50	15.0	11.6	50.10
0235	2.35	3	50	15.3	11.8	50.10
0240	2.40	3	50	15.6	12.0	50.10
0245	2.45	3	50	15.9	12.2	50.10
0250	2.50	3	50	16.3	12.6	50.10
0255	2.55	3	50	16.6	12.8	50.10
0260	2.60	3	50	16.9	13.0	50.10
0265	2.65	3	50	17.2	13.2	50.10
0270	2.70	3	50	17.6	13.6	50.10
0275	2.75	3	50	17.9	13.8	50.10
0280	2.80	3	50	18.2	14.0	50.10
0285	2.85	3	50	18.5	14.2	50.10
0290	2.90	3	50	18.9	14.6	50.10
0295	2.95	3	50	19.2	14.8	50.10

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	0.80	160	0.018	60000	1080	0.5	0.2
	0.90	160	0.020	56590	1130	0.5	0.2
	1.00	160	0.022	50930	1120	1.0	0.3
	1.10	160	0.024	46300	1110	1.0	0.3
	1.25	160	0.028	40745	1140	1.5	0.3
	1.40	160	0.032	36380	1165	2.0	0.4
	1.50	160	0.034	33955	1155	2.0	0.4
	1.65	160	0.039	30865	1205	2.5	0.4
	1.80	160	0.044	28295	1245	3.0	0.4
Acciaio 500 - 850 N/mm²	0.80	120	0.018	47745	860	0.5	0.3
	0.90	120	0.020	42440	850	0.5	0.3
	1.00	120	0.022	38195	840	0.5	0.4
	1.10	120	0.024	34725	835	1.0	0.4
	1.25	120	0.028	30560	855	1.0	0.4
	1.40	120	0.032	27285	875	1.5	0.5
	1.50	120	0.034	25465	865	1.5	0.5
	1.65	120	0.039	23150	905	2.0	0.5
	1.80	120	0.044	21220	935	2.5	0.6
Acciaio 850 - 1100 N/mm²	0.80	100	0.018	39790	715	0.5	0.3
	0.90	100	0.020	35370	705	0.5	0.4
	1.00	100	0.022	31830	700	0.5	0.4
	1.10	100	0.024	28935	695	0.5	0.5
	1.25	100	0.028	25465	715	1.0	0.5
	1.40	100	0.032	22735	730	1.0	0.6
	1.50	100	0.034	21220	720	1.5	0.6
	1.65	100	0.039	19290	750	1.5	0.7
	1.80	100	0.044	17685	780	2.0	0.7
Acciaio inossidabile [Cr-Ni-Mo/1.4571]	0.80	70	0.014	27850	390	0.0	0.6
	0.90	70	0.016	24755	395	0.5	0.7
	1.00	70	0.018	22280	400	0.5	0.8
	1.10	70	0.020	20255	405	0.5	0.8
	1.25	70	0.023	17825	410	0.5	0.9
	1.40	70	0.026	15915	415	0.5	1.0
	1.50	70	0.029	14855	430	1.0	1.1
	1.65	70	0.032	13505	430	1.0	1.1
	1.80	70	0.036	12380	445	1.0	1.2

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Ghisa (grigia / sferoidale)	0.80	200	0.021	60000	1260	0.5	0.2
	0.90	200	0.023	60000	1380	1.0	0.2
	1.00	200	0.026	60000	1560	1.0	0.2
	1.10	200	0.028	57875	1620	1.5	0.2
	1.25	200	0.033	50930	1680	2.0	0.2
	1.40	200	0.037	45475	1685	2.5	0.2
	1.50	200	0.041	42440	1740	3.0	0.3
	1.65	200	0.045	38585	1735	3.5	0.3
	1.80	200	0.050	35370	1770	4.5	0.3
Alluminio malleabile Si < 6%	0.80	250	0.021	60000	1260	0.5	0.2
	0.90	250	0.023	60000	1380	1.0	0.2
	1.00	250	0.026	60000	1560	1.0	0.2
	1.10	250	0.028	60000	1680	1.5	0.2
	1.25	250	0.033	60000	1980	2.5	0.2
	1.40	250	0.037	56840	2105	3.0	0.2
	1.50	250	0.041	53050	2175	4.0	0.2
	1.65	250	0.045	48230	2170	4.5	0.2
	1.80	250	0.050	44210	2210	5.5	0.2

Micropunte Microdrill NX

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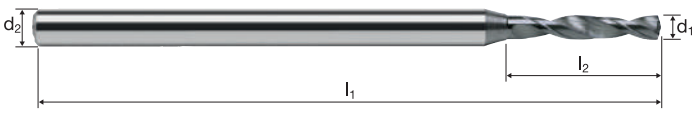
HM MG10

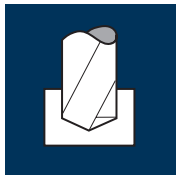


Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Inox** Stainless | **GG(G) Aluminium**

Esempio: **N° Ordine** — Articolo **B57015** Codice-ø **0080**

ø Code	d1 m7	d2 h5	l1	l2	Lmax	DURO-SD B57015 €
0080	0.80	3	46	5.2	4.0	87.00
0085	0.85	3	46	5.5	4.2	87.00
0090	0.90	3	46	5.9	4.6	87.00
0095	0.95	3	46	6.2	4.8	87.00
0100	1.00	3	48	6.5	5.0	87.00
0105	1.05	3	48	6.8	5.2	84.00
0110	1.10	3	48	7.2	5.6	84.00
0115	1.15	3	48	7.5	5.8	84.00
0120	1.20	3	48	7.8	6.0	84.00
0125	1.25	3	48	8.1	6.2	84.00
0130	1.30	3	48	8.5	6.6	84.00
0135	1.35	3	48	8.8	6.8	84.00
0140	1.40	3	50	9.1	7.0	84.00
0145	1.45	3	50	9.4	7.2	84.00
0150	1.50	3	50	9.8	7.6	84.00
0155	1.55	3	50	10.1	7.8	84.00
0160	1.60	3	50	10.4	8.0	84.00
0165	1.65	3	50	10.7	8.2	84.00
0170	1.70	3	52	11.1	8.6	84.00
0175	1.75	3	52	11.4	8.8	84.00
0180	1.80	3	52	11.7	9.0	84.00
0185	1.85	3	52	12.0	9.2	84.00

Application



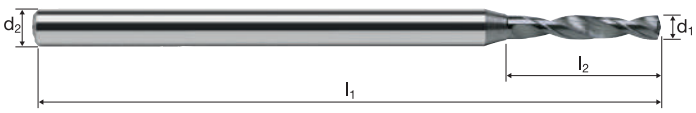
Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	2.00	160	0.049	25465	1250	4.0	0.5
	2.10	160	0.051	24250	1235	4.5	0.5
	2.20	160	0.054	23150	1250	5.0	0.5
	2.35	160	0.059	21670	1280	5.5	0.6
	2.50	160	0.064	20370	1305	6.5	0.6
	2.60	160	0.067	19590	1315	7.0	0.6
	2.75	160	0.072	18520	1335	8.0	0.6
	2.85	160	0.075	17870	1340	8.5	0.6
	2.95	160	0.080	17265	1380	9.5	0.6
Acciaio 500 - 850 N/mm²	2.00	120	0.049	19100	935	3.0	0.6
	2.10	120	0.051	18190	930	3.0	0.7
	2.20	120	0.054	17360	935	3.5	0.7
	2.35	120	0.059	16255	960	4.0	0.7
	2.50	120	0.064	15280	980	5.0	0.8
	2.60	120	0.067	14690	985	5.0	0.8
	2.75	120	0.072	13890	1000	6.0	0.8
	2.85	120	0.075	13405	1005	6.5	0.8
	2.95	120	0.080	12950	1035	7.0	0.9
Acciaio 850 - 1100 N/mm²	2.00	100	0.049	15915	780	2.5	0.8
	2.10	100	0.051	15160	775	2.5	0.8
	2.20	100	0.054	14470	780	3.0	0.8
	2.35	100	0.059	13545	800	3.5	0.9
	2.50	100	0.064	12730	815	4.0	0.9
	2.60	100	0.067	12245	820	4.5	1.0
	2.75	100	0.072	11575	835	5.0	1.0
	2.85	100	0.075	11170	840	5.5	1.0
	2.95	100	0.080	10790	865	6.0	1.0
Acciaio inossidabile [Cr-Ni-Mo/1.4571]	2.00	70	0.045	11140	500	1.5	1.2
	2.10	70	0.048	10610	510	2.0	1.2
	2.20	70	0.050	10130	505	2.0	1.3
	2.35	70	0.055	9480	520	2.5	1.4
	2.50	70	0.058	8915	515	2.5	1.5
	2.60	70	0.062	8570	530	3.0	1.5
	2.75	70	0.067	8100	545	3.0	1.5
	2.85	70	0.071	7820	555	3.5	1.5
	2.95	70	0.074	7555	560	4.0	1.6

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Ghisa (grigia / sferoidale)	2.00	200	0.057	31830	1815	5.5	0.3
	2.10	200	0.060	30315	1820	6.5	0.3
	2.20	200	0.063	28935	1825	7.0	0.4
	2.35	200	0.069	27090	1870	8.0	0.4
	2.50	200	0.074	25465	1885	9.5	0.4
	2.60	200	0.079	24485	1935	10.5	0.4
	2.75	200	0.083	23150	1920	11.5	0.4
	2.85	200	0.086	22340	1920	12.0	0.4
	2.95	200	0.089	21580	1920	13.0	0.5
Alluminio malleabile Si < 6%	2.00	250	0.057	39790	2270	7.0	0.3
	2.10	250	0.060	37895	2275	8.0	0.3
	2.20	250	0.063	36170	2280	8.5	0.3
	2.35	250	0.069	33865	2335	10.0	0.3
	2.50	250	0.074	31830	2355	11.5	0.3
	2.60	250	0.079	30605	2420	13.0	0.3
	2.75	250	0.083	28935	2400	14.5	0.3
	2.85	250	0.086	27920	2400	15.5	0.4
	2.95	250	0.089	26975	2400	16.5	0.4

Micropunte Microdrill NX

5xd

HM MG10

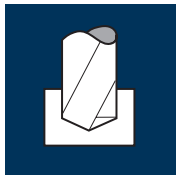


Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Inox** Stainless | **GG(G) Aluminium**

Esempio: **N° Ordine** — Articolo **B57015** Codice-ø **0190**

ø Code	d1 m7	d2 h5	l1	l2	Lmax	DURO-SD B57015 €
0190	1.90	3	52	12.4	9.6	84.00
0195	1.95	3	52	12.7	9.8	84.00
0200	2.00	3	56	13.0	10.0	84.00
0205	2.05	3	56	13.3	10.2	84.00
0210	2.10	3	56	13.7	10.6	84.00
0215	2.15	3	56	14.0	10.8	84.00
0220	2.20	3	56	14.3	11.0	84.00
0225	2.25	3	56	14.6	11.2	84.00
0230	2.30	3	56	15.0	11.6	84.00
0235	2.35	3	56	15.3	11.8	84.00
0240	2.40	3	56	15.6	12.0	84.00
0245	2.45	3	56	15.9	12.2	84.00
0250	2.50	3	56	16.3	12.6	84.00
0255	2.55	3	60	16.6	12.8	84.00
0260	2.60	3	60	16.9	13.0	84.00
0265	2.65	3	60	17.2	13.2	84.00
0270	2.70	3	60	17.6	13.6	84.00
0275	2.75	3	60	17.9	13.8	84.00
0280	2.80	3	60	18.2	14.0	84.00
0285	2.85	3	60	18.5	14.2	84.00
0290	2.90	3	60	18.9	14.6	84.00
0295	2.95	3	60	19.2	14.8	84.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	0.80	140	0.014	55705	780	0.5	0.5
	0.90	140	0.016	49515	790	0.5	0.5
	1.00	140	0.018	44565	800	0.5	0.6
	1.10	140	0.019	40510	770	0.5	0.7
	1.25	140	0.023	35650	820	1.0	0.7
	1.40	140	0.026	31830	830	1.5	0.8
	1.50	140	0.028	29710	830	1.5	0.9
	1.65	140	0.032	27010	865	2.0	0.9
	1.80	140	0.035	24755	865	2.0	1.0
Acciaio 500 - 850 N/mm²	0.80	100	0.014	39790	555	0.5	0.7
	0.90	100	0.016	35370	565	0.5	0.8
	1.00	100	0.018	31830	575	0.5	0.8
	1.10	100	0.019	28935	550	0.5	1.0
	1.25	100	0.023	25465	585	0.5	1.0
	1.40	100	0.026	22735	590	1.0	1.1
	1.50	100	0.028	21220	595	1.0	1.2
	1.65	100	0.032	19290	615	1.5	1.3
	1.80	100	0.035	17685	620	1.5	1.4
Acciaio 850 - 1100 N/mm²	0.80	80	0.014	31830	445	0.0	0.9
	0.90	80	0.016	28295	455	0.5	0.9
	1.00	80	0.018	25465	460	0.5	1.0
	1.10	80	0.019	23150	440	0.5	1.2
	1.25	80	0.023	20370	470	0.5	1.3
	1.40	80	0.026	18190	475	0.5	1.4
	1.50	80	0.028	16975	475	1.0	1.5
	1.65	80	0.032	15435	495	1.0	1.6
	1.80	80	0.035	14145	495	1.5	1.7
Acciaio inossidabile [Cr-Ni-Mo/1.4571]	0.80	60	0.012	23875	285	0.0	1.3
	0.90	60	0.013	21220	275	0.0	1.6
	1.00	60	0.014	19100	265	0.0	1.8
	1.10	60	0.016	17360	280	0.5	1.9
	1.25	60	0.018	15280	275	0.5	2.2
	1.40	60	0.021	13640	285	0.5	2.4
	1.50	60	0.023	12730	295	0.5	2.4
	1.65	60	0.026	11575	300	0.5	2.6
	1.80	60	0.029	10610	310	1.0	2.8

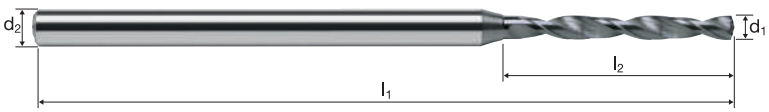
Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Ghisa (grigia / sferoidale)	0.80	150	0.016	59685	955	0.5	0.4
	0.90	150	0.019	53050	1010	0.5	0.4
	1.00	150	0.021	47745	1005	1.0	0.5
	1.10	150	0.023	43405	1000	1.0	0.5
	1.25	150	0.026	38195	995	1.0	0.6
	1.40	150	0.030	34105	1025	1.5	0.7
	1.50	150	0.032	31830	1020	2.0	0.7
	1.65	150	0.036	28935	1040	2.0	0.8
	1.80	150	0.040	26525	1060	2.5	0.8
Alluminio malleabile Si < 6%	0.80	200	0.016	60000	960	0.5	0.4
	0.90	200	0.019	60000	1140	0.5	0.4
	1.00	200	0.021	60000	1260	1.0	0.4
	1.10	200	0.023	57875	1330	1.5	0.4
	1.25	200	0.026	50930	1325	1.5	0.5
	1.40	200	0.030	45475	1365	2.0	0.5
	1.50	200	0.032	42440	1360	2.5	0.5
	1.65	200	0.036	38585	1390	3.0	0.6
	1.80	200	0.040	35370	1415	3.5	0.6

Micropunte Microdrill NX

8xd

HM MG10

h5

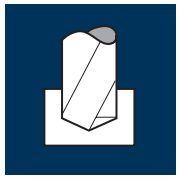


Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Inox** Stainless | **GG(G) Aluminium**

Esempio: **N° Ordine** — Articolo **B57020** Codice-ø **0080**

ø Code	d1 m7	d2 h5	l1	l2	Lmax	DURO-SD B57020 €
0080	0.80	3	46	7.6	6.4	114.00
0085	0.85	3	46	8.1	6.8	114.00
0090	0.90	3	46	8.5	7.2	114.00
0095	0.95	3	46	9.0	7.6	114.00
0100	1.00	3	48	9.5	8.0	114.00
0105	1.05	3	48	10.0	8.4	109.00
0110	1.10	3	48	10.4	8.8	109.00
0115	1.15	3	48	10.9	9.2	109.00
0120	1.20	3	48	11.4	9.6	109.00
0125	1.25	3	48	11.9	10.0	109.00
0130	1.30	3	48	12.3	10.4	109.00
0135	1.35	3	48	12.8	10.8	109.00
0140	1.40	3	50	13.3	11.2	109.00
0145	1.45	3	50	13.8	11.6	109.00
0150	1.50	3	50	14.2	12.0	109.00
0155	1.55	3	50	14.7	12.4	109.00
0160	1.60	3	50	15.2	12.8	109.00
0165	1.65	3	50	15.7	13.2	109.00
0170	1.70	3	52	16.1	13.6	109.00
0175	1.75	3	52	16.6	14.0	109.00
0180	1.80	3	52	17.1	14.4	109.00
0185	1.85	3	52	17.6	14.8	109.00

Application



Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Acciaio < 500 N/mm²	2.00	140	0.039	22280	870	2.5	1.1
	2.10	140	0.041	21220	870	3.0	1.2
	2.20	140	0.043	20255	870	3.5	1.2
	2.35	140	0.047	18965	890	4.0	1.3
	2.50	140	0.051	17825	910	4.5	1.3
	2.60	140	0.053	17140	910	5.0	1.4
	2.75	140	0.058	16205	940	5.5	1.4
	2.85	140	0.060	15635	940	6.0	1.5
	2.95	140	0.064	15105	965	6.5	1.5
Acciaio 500 - 850 N/mm²	2.00	100	0.039	15915	620	2.0	1.5
	2.10	100	0.041	15160	620	2.0	1.6
	2.20	100	0.043	14470	620	2.5	1.7
	2.35	100	0.047	13545	635	3.0	1.8
	2.50	100	0.051	12730	650	3.0	1.9
	2.60	100	0.053	12245	650	3.5	1.9
	2.75	100	0.058	11575	670	4.0	2.0
	2.85	100	0.060	11170	670	4.5	2.0
	2.95	100	0.064	10790	690	4.5	2.1
Acciaio 850 - 1100 N/mm²	2.00	80	0.039	12730	495	1.5	1.9
	2.10	80	0.041	12125	495	1.5	2.0
	2.20	80	0.043	11575	500	2.0	2.1
	2.35	80	0.047	10835	510	2.0	2.2
	2.50	80	0.051	10185	520	2.5	2.3
	2.60	80	0.053	9795	520	3.0	2.4
	2.75	80	0.058	9260	535	3.0	2.5
	2.85	80	0.060	8935	535	3.5	2.6
	2.95	80	0.064	8630	550	4.0	2.6
Acciaio inossidabile [Cr-Ni-Mo/1.4571]	2.00	60	0.036	9550	345	1.0	2.8
	2.10	60	0.038	9095	345	1.0	2.9
	2.20	60	0.040	8680	345	1.5	3.1
	2.35	60	0.044	8125	360	1.5	3.1
	2.50	60	0.047	7640	360	2.0	3.4
	2.60	60	0.050	7345	365	2.0	3.4
	2.75	60	0.054	6945	375	2.0	3.5
	2.85	60	0.057	6700	380	2.5	3.6
	2.95	60	0.059	6475	380	2.5	3.7

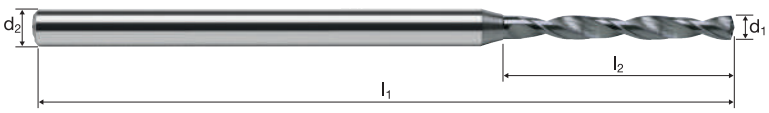
Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]	T [sek]
Ghisa (grigia / sferoidale)	2.00	150	0.046	23875	1100	3.5	0.9
	2.10	150	0.048	22735	1090	4.0	0.9
	2.20	150	0.050	21705	1085	4.0	1.0
	2.35	150	0.055	20320	1120	5.0	1.0
	2.50	150	0.059	19100	1125	5.5	1.1
	2.60	150	0.063	18365	1155	6.0	1.1
	2.75	150	0.067	17360	1165	7.0	1.1
	2.85	150	0.069	16755	1155	7.5	1.2
	2.95	150	0.072	16185	1165	8.0	1.2
Alluminio malleabile Si < 6%	2.00	200	0.046	31830	1465	4.5	0.7
	2.10	200	0.048	30315	1455	5.0	0.7
	2.20	200	0.050	28935	1445	5.5	0.7
	2.35	200	0.055	27090	1490	6.5	0.8
	2.50	200	0.059	25465	1500	7.5	0.8
	2.60	200	0.063	24485	1545	8.0	0.8
	2.75	200	0.067	23150	1550	9.0	0.9
	2.85	200	0.069	22340	1540	10.0	0.9
	2.95	200	0.072	21580	1555	10.5	0.9

Micropunte Microdrill NX

8xd

HM MG10

h5

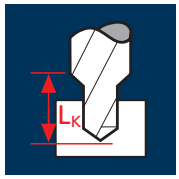


Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless		GG(G) Aluminium

Esempio: **N° Ordine** — Articolo **B57020** Codice-ø **0190**

ø Code	d_1 m7	d_2 h5	l_1	l_2	L_{max}		DURO-SD B57020 €
0190	1.90	3	52	18.0	15.2		109.00
0195	1.95	3	52	18.5	15.6		109.00
0200	2.00	3	56	19.0	16.0		109.00
0205	2.05	3	56	19.5	16.4		109.00
0210	2.10	3	56	20.0	16.9		109.00
0215	2.15	3	56	20.4	17.2		109.00
0220	2.20	3	56	20.9	17.6		109.00
0225	2.25	3	56	21.4	18.0		109.00
0230	2.30	3	56	21.9	18.5		109.00
0235	2.35	3	56	22.3	18.8		109.00
0240	2.40	3	56	22.8	19.2		109.00
0245	2.45	3	56	23.3	19.6		109.00
0250	2.50	3	56	23.8	20.1		109.00
0255	2.55	3	60	24.2	20.4		109.00
0260	2.60	3	60	24.7	20.8		109.00
0265	2.65	3	60	25.2	21.2		109.00
0270	2.70	3	60	25.7	21.7		109.00
0275	2.75	3	60	26.1	22.0		109.00
0280	2.80	3	60	26.6	22.4		109.00
0285	2.85	3	60	27.1	22.8		109.00
0290	2.90	3	60	27.6	23.3		109.00
0295	2.95	3	60	28.0	23.6		109.00

Application



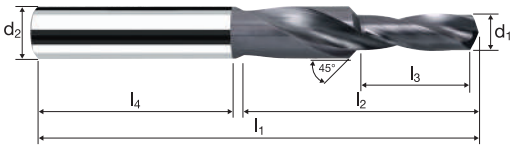
Materiale	d1 [mm]	für	v_c [m/min]	f [mm]	L_K [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
Acciaio < 500 N/mm²	2.50	M3	110	0.045	9.6	11670	525	3.5
	3.30	M4	110	0.055	12.5	8755	480	6.0
	4.20	M5	110	0.070	14.9	7005	490	9.5
	5.00	M6	110	0.085	18.1	5835	495	14.0
	6.80	M8	110	0.115	23.0	4375	505	25.5
	8.50	M10	110	0.145	28.0	3500	505	39.5
	10.20	M12	110	0.170	33.1	2920	495	56.0
	14.00	M16	110	0.230	42.4	2190	505	101.5
Acciaio 500 - 850 N/mm²	2.50	M3	80	0.045	9.6	8490	380	2.5
	3.30	M4	80	0.055	12.5	6365	350	4.5
	4.20	M5	80	0.070	14.9	5095	355	7.0
	5.00	M6	80	0.085	18.1	4245	360	10.0
	6.80	M8	80	0.115	23.0	3185	365	18.5
	8.50	M10	80	0.145	28.0	2545	370	29.0
	10.20	M12	80	0.170	33.1	2120	360	40.5
	14.00	M16	80	0.230	42.4	1590	365	73.5
Acciaio 850 - 1100 N/mm²	2.50	M3	55	0.040	9.6	5835	235	1.5
	3.30	M4	55	0.050	12.5	4375	220	3.0
	4.20	M5	55	0.065	14.9	3500	230	4.5
	5.00	M6	55	0.075	18.1	2920	220	6.0
	6.80	M8	55	0.100	23.0	2190	220	11.0
	8.50	M10	55	0.125	28.0	1750	220	17.5
	10.20	M12	55	0.150	33.1	1460	220	25.0
	14.00	M16	55	0.200	42.4	1095	220	44.0
Ghisa (grigia / sferoidale)	2.50	M3	160	0.080	9.6	16975	1360	9.5
	3.30	M4	160	0.105	12.5	12730	1335	17.0
	4.20	M5	160	0.130	14.9	10185	1325	26.0
	5.00	M6	160	0.160	18.1	8490	1360	38.5
	6.80	M8	160	0.210	23.0	6365	1335	67.0
	8.50	M10	160	0.265	28.0	5095	1350	106.0
	10.20	M12	160	0.315	33.1	4245	1335	151.0
	14.00	M16	160	0.420	42.4	3185	1340	269.5

Materiale	d1 [mm]	für	v_c [m/min]	f [mm]	L_K [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
Alluminio malleabile Si < 6%	2.50	M3	200	0.080	9.6	21220	1700	12.0
	3.30	M4	200	0.105	12.5	15915	1670	21.0
	4.20	M5	200	0.130	14.9	12730	1655	32.5
	5.00	M6	200	0.160	18.1	10610	1700	48.0
	6.80	M8	200	0.210	23.0	7960	1670	84.0
	8.50	M10	200	0.265	28.0	6365	1685	132.5
	10.20	M12	200	0.315	33.1	5305	1670	189.0
	14.00	M16	200	0.420	42.4	3980	1670	336.0

Punte a gradini

3xd, per prefori di maschiatura

HM



Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **GG(G) Aluminium**

Esempio: **N° Ordine** — Articolo **B52801** Codice-ø **0250**

ø Code	für	d_1 m7	d_2 h6	l_1	l_2	l_3	l_4	DURO-D² B52801 €
0250	M 3	2.5	6	62	20	8.8	36	38.20
0330	M 4	3.3	6	62	24	11.4	36	46.50
0420	M 5	4.2	6	66	28	13.6	36	53.30
0500	M 6	5.0	8	79	34	16.5	36	67.00
0680	M 8	6.8	10	89	47	21.0	40	109.00
0850	M10	8.5	12	102	55	25.5	45	133.00
1020	M12	10.2	14	107	60	30.0	45	188.00
1400	M16	14.0	18	123	73	38.5	48	237.00

Application

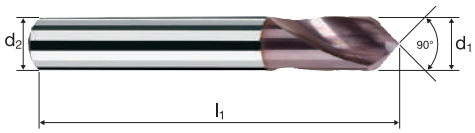
Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]
Acciaio < 500 N/mm²	3	160	0.070	16975	1190
	4	160	0.095	12730	1210
	5	160	0.120	10185	1220
	6	160	0.145	8490	1230
	8	160	0.190	6365	1210
	10	160	0.240	5095	1225
	12	160	0.285	4245	1210
	16	160	0.380	3185	1210
Acciaio 500 - 850 N/mm²	3	120	0.070	12730	890
	4	120	0.095	9550	905
	5	120	0.120	7640	915
	6	120	0.145	6365	925
	8	120	0.190	4775	905
	10	120	0.240	3820	915
	12	120	0.285	3185	910
	16	120	0.380	2385	905
Acciaio 850 - 1100 N/mm²	3	90	0.030	9550	285
	4	90	0.040	7160	285
	5	90	0.050	5730	285
	6	90	0.060	4775	285
	8	90	0.080	3580	285
	10	90	0.095	2865	270
	12	90	0.115	2385	275
	16	90	0.155	1790	275
Acciaio 1100 - 1300 N/mm²	3	60	0.025	6365	160
	4	60	0.035	4775	165
	5	60	0.040	3820	155
	6	60	0.050	3185	160
	8	60	0.065	2385	155
	10	60	0.080	1910	155
	12	60	0.095	1590	150
	16	60	0.130	1195	155

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]
Acciaio 1300 - 1500 N/mm²	3	30	0.025	3185	80
	4	30	0.035	2385	85
	5	30	0.040	1910	75
	6	30	0.050	1590	80
	8	30	0.065	1195	80
	10	30	0.080	955	75
	12	30	0.095	795	75
	16	30	0.130	595	75
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379] Acciaio inossidabile [Cr-Ni/1.4301]	3	40	0.015	4245	65
	4	40	0.020	3185	65
	5	40	0.025	2545	65
	6	40	0.030	2120	65
	8	40	0.040	1590	65
	10	40	0.045	1275	55
	12	40	0.060	1060	65
	16	40	0.075	795	60
Ghisa (grigia / sferoidale)	3	180	0.075	19100	1435
	4	180	0.105	14325	1505
	5	180	0.130	11460	1490
	6	180	0.160	9550	1530
	8	180	0.210	7160	1505
	10	180	0.265	5730	1520
	12	180	0.315	4775	1505
	16	180	0.420	3580	1505
Alluminio malleabile Si < 6%	3	220	0.075	23345	1750
	4	220	0.105	17505	1840
	5	220	0.130	14005	1820
	6	220	0.160	11670	1865
	8	220	0.210	8755	1840
	10	220	0.265	7005	1855
	12	220	0.315	5835	1840
	16	220	0.420	4375	1840

Punte da centro

90°

HM
MG10



Rm < 850	**Rm** 850-1100	**Rm** 1100-1300					**Inox** Stainless		**GG(G) Aluminium**

Esempio: **N° Ordine** — Articolo **B92040** Codice-ø **0300**

ø Code	d_1 h6	d_2 h6	l_1		U-4XD **B92040** €
0300	3	3	50		43.70
0400	4	4	50		48.80
0500	5	5	50		54.10
0600	6	6	57		55.10
0800	8	8	63		70.00
1000	10	10	72		92.00
1200	12	12	83		117.00
1600	16	16	92		204.00

Application

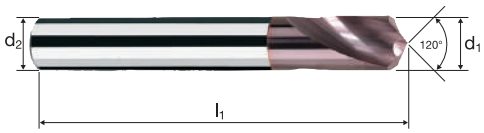
Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]
Acciaio < 500 N/mm²	3	160	0.070	16975	1190
	4	160	0.095	12730	1210
	5	160	0.120	10185	1220
	6	160	0.145	8490	1230
	8	160	0.190	6365	1210
	10	160	0.240	5095	1225
	12	160	0.285	4245	1210
	16	160	0.380	3185	1210
Acciaio 500 - 850 N/mm²	3	120	0.070	12730	890
	4	120	0.095	9550	905
	5	120	0.120	7640	915
	6	120	0.145	6365	925
	8	120	0.190	4775	905
	10	120	0.240	3820	915
	12	120	0.285	3185	910
	16	120	0.380	2385	905
Acciaio 850 - 1100 N/mm²	3	90	0.060	9550	575
	4	90	0.075	7160	535
	5	90	0.095	5730	545
	6	90	0.115	4775	550
	8	90	0.155	3580	555
	10	90	0.190	2865	545
	12	90	0.230	2385	550
	16	90	0.310	1790	555
Acciaio 1100 - 1300 N/mm²	3	60	0.050	6365	320
	4	60	0.065	4775	310
	5	60	0.080	3820	305
	6	60	0.095	3185	305
	8	60	0.125	2385	300
	10	60	0.160	1910	305
	12	60	0.190	1590	300
	16	60	0.255	1195	305

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]
Acciaio 1300 - 1500 N/mm²	3	30	0.050	3185	160
	4	30	0.065	2385	155
	5	30	0.080	1910	155
	6	30	0.095	1590	150
	8	30	0.125	1195	150
	10	30	0.160	955	155
	12	30	0.190	795	150
	16	30	0.255	595	150
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379] Acciaio inossidabile [Cr-Ni/1.4301]	3	60	0.040	6365	255
	4	60	0.055	4775	265
	5	60	0.070	3820	265
	6	60	0.080	3185	255
	8	60	0.110	2385	260
	10	60	0.135	1910	260
	12	60	0.165	1590	260
	16	60	0.220	1195	265
Ghisa (grigia / sferoidale)	3	180	0.080	19100	1530
	4	180	0.105	14325	1505
	5	180	0.130	11460	1490
	6	180	0.160	9550	1530
	8	180	0.210	7160	1505
	10	180	0.265	5730	1520
	12	180	0.315	4775	1505
	16	180	0.420	3580	1505
Alluminio malleabile Si < 6%	3	220	0.080	23345	1870
	4	220	0.105	17505	1840
	5	220	0.130	14005	1820
	6	220	0.160	11670	1865
	8	220	0.210	8755	1840
	10	220	0.265	7005	1855
	12	220	0.315	5835	1840
	16	220	0.420	4375	1840

Punte da centro

120°

HM
MG10



Rm < 850	**Rm** 850-1100	**Rm** 1100-1300					**Inox** Stainless		**GG(G) Aluminium**

Esempio: **N° Ordine** — Articolo **B92020** — Codice-ø **0300**

ø Code	d_1 h6	d_2 h6	l_1		**U-4XD** **B92020** €
0300	3	3	50		43.70
0400	4	4	50		48.80
0500	5	5	50		54.10
0600	6	6	57		55.10
0800	8	8	63		70.00
1000	10	10	72		92.00
1200	12	12	83		117.00
1600	16	16	92		204.00

Application

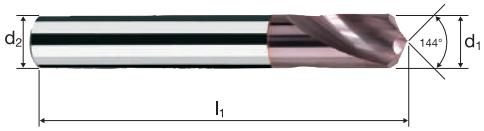
Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]
Acciaio < 500 N/mm²	3	160	0.070	16975	1190
	4	160	0.095	12730	1210
	5	160	0.120	10185	1220
	6	160	0.145	8490	1230
	8	160	0.190	6365	1210
	10	160	0.240	5095	1225
	12	160	0.285	4245	1210
	16	160	0.380	3185	1210
Acciaio 500 - 850 N/mm²	3	120	0.070	12730	890
	4	120	0.095	9550	905
	5	120	0.120	7640	915
	6	120	0.145	6365	925
	8	120	0.190	4775	905
	10	120	0.240	3820	915
	12	120	0.285	3185	910
	16	120	0.380	2385	905
Acciaio 850 - 1100 N/mm²	3	90	0.060	9550	575
	4	90	0.075	7160	535
	5	90	0.095	5730	545
	6	90	0.115	4775	550
	8	90	0.155	3580	555
	10	90	0.190	2865	545
	12	90	0.230	2385	550
	16	90	0.310	1790	555
Acciaio 1100 - 1300 N/mm²	3	60	0.050	6365	320
	4	60	0.065	4775	310
	5	60	0.080	3820	305
	6	60	0.095	3185	305
	8	60	0.125	2385	300
	10	60	0.160	1910	305
	12	60	0.190	1590	300
	16	60	0.255	1195	305

Materiale	d1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]
Acciaio 1300 - 1500 N/mm²	3	30	0.050	3185	160
	4	30	0.065	2385	155
	5	30	0.080	1910	155
	6	30	0.095	1590	150
	8	30	0.125	1195	150
	10	30	0.160	955	155
	12	30	0.190	795	150
	16	30	0.255	595	150
Acciaio per lavorazione a freddo (12% Cr) fortemente legati [1.2379] Acciaio inossidabile [Cr-Ni/1.4301]	3	60	0.040	6365	255
	4	60	0.055	4775	265
	5	60	0.070	3820	265
	6	60	0.080	3185	255
	8	60	0.110	2385	260
	10	60	0.135	1910	260
	12	60	0.165	1590	260
	16	60	0.220	1195	265
Ghisa (grigia / sferoidale)	3	180	0.080	19100	1530
	4	180	0.105	14325	1505
	5	180	0.130	11460	1490
	6	180	0.160	9550	1530
	8	180	0.210	7160	1505
	10	180	0.265	5730	1520
	12	180	0.315	4775	1505
	16	180	0.420	3580	1505
Alluminio malleabile Si < 6%	3	220	0.080	23345	1870
	4	220	0.105	17505	1840
	5	220	0.130	14005	1820
	6	220	0.160	11670	1865
	8	220	0.210	8755	1840
	10	220	0.265	7005	1855
	12	220	0.315	5835	1840
	16	220	0.420	4375	1840

Punte da centro

144°

HM
MG10



Rm < 850	**Rm** 850-1100	**Rm** 1100-1300					**Inox** Stainless		**GG(G) Aluminium**

Esempio: **N° Ordine** — Articolo **B92008** Codice-ø **0300**

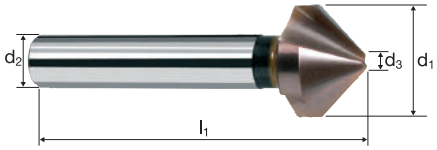
ø Code	d_1 h6	d_2 h6	l_1		U-4XD **B92008** €
0300	3	3	50		43.70
0400	4	4	50		48.80
0500	5	5	50		54.10
0600	6	6	57		55.10
0800	8	8	63		70.00
1000	10	10	72		92.00
1200	12	12	83		117.00
1600	16	16	92		204.00

passion
for precision
fraisa

Svasatori

90°

HSS



Rm < 850	**Rm** 850-1100						**Inox** Stainless		**GG(G) Aluminium**

Esempio: **N° Ordine** — Articolo **B92310** — Codice-ø **0530**

ø Code	d_1 z9	d_2 h9	d_3	l_1	z		U-4XD **B92310** €
0530	5.3	4	1.5	40	3		26.50
0580	5.8	5	1.5	45	3		27.80
0630	6.3	5	1.5	45	3		27.80
0730	7.3	6	1.8	50	3		27.80
0830	8.3	6	2.0	50	3		31.00
0940	9.4	6	2.2	50	3		31.40
1040	10.4	6	2.5	50	3		35.70
1150	11.5	8	2.8	56	3		35.70
1240	12.4	8	2.8	56	3		41.20
1340	13.4	8	2.9	56	3		41.20
1500	15.0	10	3.2	60	3		41.20
1650	16.5	10	3.2	60	3		48.80
1900	19.0	10	3.5	63	3		55.70
2050	20.5	10	3.5	63	3		66.00
2500	25.0	10	3.8	67	3		83.00
3100	31.0	12	4.2	71	3		122.00
9999	Assortimento di frese a svasare a contenente:						253.00
	1 Stk. ø 6.3 / 8.3 / 10.4 / 12.4 / 16.5 / 20.5						

passion
for precision
fraisa

Turbofilettatrici

N° EH27500	new!	**M**	**3xd**		**Rm** <850-1500	**Inox Ti Ni**	145
N° EH27502	new!	**M**	**3xd**		**Rm** <850-1500	**Inox Ti Ni**	147
N° EI27504	new!	**M**	**3xd**		**HRC** 48- >60		149
N° E28500		**M**	**3xd**		**Rm** <850-1500	**Inox Ti Ni**	151
N° EH27540	new!	**G**	**3xd**		**Rm** <850-1500	**Inox Ti Ni**	153
N° EH27560	new!	**UN**	**3xd**		**Rm** <850-1500	**Inox** Stainless	155

Frese a filettare M / MF / G / UNC / UNF / UN / NPT / NPTF

Frese a filettare

N° EH20300 / EH20306	new!	M	2xd		Rm <850-1500	Al / Cu GG(G)	157
N° EH20320 / EH20326	new!	MF	2xd		Rm <850-1500	Al / Cu GG(G)	159
N° EH20340	new!	G	2xd		Rm <850-1500	Al / Cu GG(G)	161
N° EH20360	new!	UNC	2xd		Rm <850-1500	Al / Cu GG(G)	163
N° EH20370	new!	UNF	2xd		Rm <850-1500	Al / Cu GG(G)	165
N° EH20380	new!	NPT			Rm <850-1500	Al / Cu GG(G)	167
N° EH20390	new!	NPTF			Rm <850-1500	Al / Cu GG(G)	169
N° EU2010 ToolSchool		M	1.5xd		Rm <850-1500	GG(G) Cast iron	171
N° EU2060 ToolSchool		G	1.5xd		Rm <850-1300	GG(G) Cast iron	173
N° EU2110 ToolSchool		UN	1.5xd		Rm <850-1300	GG(G) Cast iron	175
N° EU2200 / EU2210 ToolSchool		NPT NPTF			Rm <850-1300	GG(G) Cast iron	177

Frese a filettare con smusso a 45°

N° EH24300	M	2xd		Rm <850-1500	Al / Cu GG(G)	179
N° EH24320	MF	2xd		Rm <850-1500	Al / Cu GG(G)	181
N° EH24340	G	2xd		Rm <850-1500	Al / Cu GG(G)	183
N° EH24360	UNC	2xd		Rm <850-1500	Al / Cu GG(G)	185
N° EH24370	UNF	2xd		Rm <850-1500	Al / Cu GG(G)	187
N° EH24200	M	1.5xd		HRC < 56	Al / Cu GG(G)	189
N° EH24220	MF	1.5xd		Rm <850-1500	Al / Cu GG(G)	191

Frese a forare e filettare con smusso a 45°

N° E22300

N° E22200

M	**2xd**		**Al** Aluminium Cast	**GG(G)** Cast iron	193
M	**1.5xd**		**Al** Aluminium Cast	**GG(G)** Cast iron	195

Frese a filettare multirange

N° EH26020

N° EH26040

M			Rm <850-1500	Al / Cu GG(G)	197
G			Rm <850-1500	Al / Cu GG(G)	199

TM

Application

Materiale	M	D1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Acciaio 850 - 1100 N/mm²	M 1.6	1.05	0.35	3	80	0.010	24250	250	728
	M 2.0	1.50	0.40	3	80	0.010	16975	127	509
	M 3.0	2.00	0.50	4	80	0.020	12730	339	1018
	M 4.5	2.80	0.75	4	80	0.020	9095	275	728
	M 6.0	4.00	1.00	4	80	0.025	6365	212	637
	M 10.0	6.40	1.50	5	80	0.035	3980	251	697
Acciaio 1300 - 1500 N/mm²	M 1.6	1.05	0.35	3	45	0.010	13640	141	409
	M 2.0	1.50	0.40	3	45	0.010	9550	72	287
	M 3.0	2.00	0.50	4	45	0.020	7160	191	573
	M 4.5	2.80	0.75	4	45	0.020	5115	155	409
	M 6.0	4.00	1.00	4	45	0.030	3580	143	430
	M 10.0	6.40	1.50	5	45	0.030	2240	121	336
Acciaio inossidabile [Cr-Ni/1.4301]	M 1.6	1.05	0.35	3	55	0.010	16675	172	500
	M 2.0	1.50	0.40	3	55	0.010	11670	88	350
	M 3.0	2.00	0.50	4	55	0.020	8755	233	700
	M 4.5	2.80	0.75	4	55	0.025	6255	236	626
	M 6.0	4.00	1.00	4	55	0.030	4375	175	525
	M 10.0	6.40	1.50	5	55	0.030	2735	148	410
Leg. a base di nichel	M 1.6	1.05	0.35	3	30	0.010	9095	94	273
	M 2.0	1.50	0.40	3	30	0.010	6365	48	191
	M 3.0	2.00	0.50	4	30	0.010	4775	64	191
	M 4.5	2.80	0.75	4	30	0.015	3410	77	205
	M 6.0	4.00	1.00	4	30	0.020	2385	64	191
	M 10.0	6.40	1.50	5	30	0.030	1490	81	224

Materiale	M	D1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Alluminio malleabile Si < 6%	M 1.6	1.05	0.35	3	150	0.020	45475	938	2729
	M 2.0	1.50	0.40	3	150	0.020	31830	478	1910
	M 3.0	2.00	0.50	4	150	0.030	23875	955	2865
	M 4.5	2.80	0.75	4	150	0.035	17050	902	2387
	M 6.0	4.00	1.00	4	150	0.040	11935	637	1910
	M 10.0	6.40	1.50	5	150	0.050	7460	671	1865
Ghisa GG(G)	M 1.6	1.05	0.35	3	120	0.010	36380	375	1091
	M 2.0	1.50	0.40	3	120	0.010	25465	191	764
	M 3.0	2.00	0.50	4	120	0.020	19100	509	1528
	M 4.5	2.80	0.75	4	120	0.025	13640	515	1364
	M 6.0	4.00	1.00	4	120	0.030	9550	382	1146
	M 10.0	6.40	1.50	5	120	0.040	5970	430	1194
Rame non legato	M 1.6	1.05	0.35	3	130	0.010	39410	406	1182
	M 2.0	1.50	0.40	3	130	0.010	27585	207	828
	M 3.0	2.00	0.50	4	130	0.020	20690	552	1655
	M 4.5	2.80	0.75	4	130	0.025	14780	558	1478
	M 6.0	4.00	1.00	4	130	0.030	10345	414	1241
	M 10.0	6.40	1.50	5	130	0.040	6465	465	1293
Leghe di titanio indurite > 300 HB [Ti6Al4V]	M 1.6	1.05	0.35	3	40	0.010	12125	125	364
	M 2.0	1.50	0.40	3	40	0.010	8490	64	255
	M 3.0	2.00	0.50	4	40	0.010	6365	85	255
	M 4.5	2.80	0.75	4	40	0.015	4545	103	273
	M 6.0	4.00	1.00	4	40	0.020	3185	85	255
	M 10.0	6.40	1.50	5	40	0.030	1990	108	299

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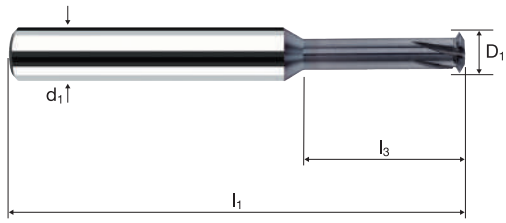

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Rm < 850	**Rm** 850-1100	**Rm** 1100-1300	**Rm** 1300-1500				**Inox** Stainless	**Ti** Titanium	**Aluminium/Copper GG(G) Nickel-Alloys**

Esempio: **N° Ordine** — Articolo **EH27500** — Codice-ø **020**

ø Code	d	P max.	l1	l3	d1 h6	D1	Rk 6H			TiCN	€
										EH27500	
020	**M 1.4 - M 1.8**	**0.35**	39	3.8	3	1.05	0.500	3	1		141.00
034	**M 2 - M 2.4**	**0.40**	39	7.0	3	1.50	0.720	3	1		141.00
040	**M 2.5 - M 3**	**0.50**	39	9.0	3	2.00	0.970	4	1		141.00
056	**M 3.5 - M 4.5**	**0.75**	58	14.0	6	2.80	1.370	4	1		141.00
084	**M 5 - M 7**	**1.00**	58	19.0	6	4.00	1.970	4	1		180.00
160	**M 8 - M 10**	**1.50**	64	24.0	8	6.40	3.140	5	1		180.00

Application

Materiale	M	D1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Acciaio 850 - 1100 N/mm²	M 2	1.55	0.40	4	80	0.010	16430	148	657
	M 3	2.40	0.50	4	80	0.020	10610	170	849
	M 4	3.20	0.70	4	80	0.020	7960	127	637
	M 5	4.00	0.80	4	80	0.025	6365	127	637
	M 6	4.80	1.00	4	80	0.030	5305	127	637
	M 8	5.95	1.25	4	80	0.035	4280	153	599
	M 10	7.80	1.50	4	80	0.050	3265	144	653
	M 12	9.00	1.75	4	80	0.055	2830	156	623
	M 16	11.80	2.00	5	80	0.060	2160	170	648
Acciaio 1300 - 1500 N/mm²	M 2	1.55	0.40	4	45	0.010	9240	83	370
	M 3	2.40	0.50	4	45	0.020	5970	96	478
	M 4	3.20	0.70	4	45	0.025	4475	90	448
	M 5	4.00	0.80	4	45	0.030	3580	86	430
	M 6	4.80	1.00	4	45	0.030	2985	72	358
	M 8	5.95	1.25	4	45	0.030	2405	74	289
	M 10	7.80	1.50	4	45	0.040	1835	65	294
	M 12	9.00	1.75	4	45	0.050	1590	80	318
	M 16	11.80	2.00	5	45	0.055	1215	88	334
Acciaio inossidabile [Cr-Ni/1.4301]	M 2	1.55	0.40	4	55	0.010	11295	102	452
	M 3	2.40	0.50	4	55	0.020	7295	117	584
	M 4	3.20	0.70	4	55	0.025	5470	109	547
	M 5	4.00	0.80	4	55	0.030	4375	105	525
	M 6	4.80	1.00	4	55	0.030	3645	87	437
	M 8	5.95	1.25	4	55	0.030	2940	90	353
	M 10	7.80	1.50	4	55	0.035	2245	69	314
	M 12	9.00	1.75	4	55	0.050	1945	97	389
	M 16	11.80	2.00	5	55	0.055	1485	107	408
Leg. a base di nichel	M 2	1.55	0.40	4	30	0.010	6160	55	246
	M 3	2.40	0.50	4	30	0.010	3980	32	159
	M 4	3.20	0.70	4	30	0.015	2985	36	179
	M 5	4.00	0.80	4	30	0.020	2385	38	191
	M 6	4.80	1.00	4	30	0.025	1990	40	199
	M 8	5.95	1.25	4	30	0.030	1605	49	193
	M 10	7.80	1.50	4	30	0.035	1225	38	172
	M 12	9.00	1.75	4	30	0.040	1060	43	170
	M 16	11.80	2.00	5	30	0.045	810	48	182

Materiale	M	D1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Alluminio malleabile Si < 6%	M 2	1.55	0.40	4	150	0.020	30805	554	2464
	M 3	2.40	0.50	4	150	0.030	19895	477	2387
	M 4	3.20	0.70	4	150	0.035	14920	418	2089
	M 5	4.00	0.80	4	150	0.040	11935	382	1910
	M 6	4.80	1.00	4	150	0.045	9945	358	1790
	M 8	5.95	1.25	4	150	0.050	8025	411	1605
	M 10	7.80	1.50	4	150	0.055	6120	296	1346
	M 12	9.00	1.75	4	150	0.065	5305	345	1379
	M 16	11.80	2.00	5	150	0.075	4045	398	1517
Ghisa GG(G)	M 2	1.55	0.40	4	120	0.010	24645	222	986
	M 3	2.40	0.50	4	120	0.020	15915	255	1273
	M 4	3.20	0.70	4	120	0.025	11935	239	1194
	M 5	4.00	0.80	4	120	0.030	9550	229	1146
	M 6	4.80	1.00	4	120	0.035	7960	223	1114
	M 8	5.95	1.25	4	120	0.040	6420	263	1027
	M 10	7.80	1.50	4	120	0.050	4895	215	979
	M 12	9.00	1.75	4	120	0.060	4245	255	1019
	M 16	11.80	2.00	5	120	0.070	3235	297	1132
Rame non legato	M 2	1.55	0.40	4	130	0.010	26695	240	1068
	M 3	2.40	0.50	4	130	0.020	17240	276	1379
	M 4	3.20	0.70	4	130	0.025	12930	259	1293
	M 5	4.00	0.80	4	130	0.030	10345	248	1241
	M 6	4.80	1.00	4	130	0.035	8620	241	1207
	M 8	5.95	1.25	4	130	0.040	6955	285	1113
	M 10	7.80	1.50	4	130	0.045	5305	210	955
	M 12	9.00	1.75	4	130	0.055	4600	253	1012
	M 16	11.80	2.00	5	130	0.060	3505	276	1052
Leghe di titanio indurite > 300 HB [Ti6Al4V]	M 2	1.55	0.40	4	40	0.010	8215	74	329
	M 3	2.40	0.50	4	40	0.010	5305	42	212
	M 4	3.20	0.70	4	40	0.015	3980	48	239
	M 5	4.00	0.80	4	40	0.020	3185	51	255
	M 6	4.80	1.00	4	40	0.025	2655	53	266
	M 8	5.95	1.25	4	40	0.030	2140	66	257
	M 10	7.80	1.50	4	40	0.035	1630	50	228
	M 12	9.00	1.75	4	40	0.040	1415	57	226
	M 16	11.80	2.00	5	40	0.045	1080	64	243

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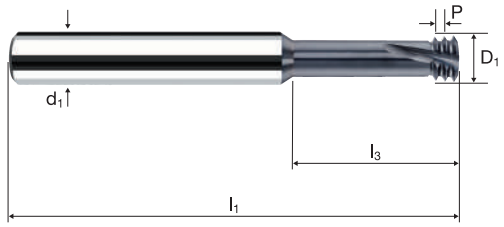

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Rm < 850	**Rm** 850-1100	**Rm** 1100-1300	**Rm** 1300-1500				**Inox** Stainless	**Ti** Titanium	**Aluminium/Copper GG(G) Nickel-Alloys**

Esempio: **N° Ordine** — Articolo **EH27502** Codice-ø **022**

ø Code	d	P	l1	l3	d1 h6	D1	Rk 6H			TiCN EH27502
										€
022	**M 1.6**	**0.35**	39	4.8	3	1.20	0.570	3	3	141.00
026	**M 1.8**	**0.35**	39	5.4	3	1.40	0.670	3	3	141.00
034	**M 2**	**0.40**	39	6.0	3	1.55	0.750	4	3	141.00
040	**M 2.5**	**0.45**	39	7.5	3	1.95	0.950	4	3	141.00
044	**M 3**	**0.50**	58	9.5	6	2.40	1.170	4	3	141.00
056	**M 3.5**	**0.60**	58	11.0	6	2.80	1.370	4	3	141.00
058	**M 4**	**0.70**	58	12.5	6	3.20	1.570	4	3	157.00
084	**M 5**	**0.80**	58	16.0	6	4.00	1.970	4	3	180.00
088	**M 6**	**1.00**	58	20.0	6	4.80	2.370	4	3	180.00
160	**M 8**	**1.25**	58	24.0	6	5.95	2.950	4	3	180.00
174	**M10**	**1.50**	73	33.0	8	7.80	3.840	4	3	204.00
240	**M12**	**1.75**	84	38.0	10	9.00	4.440	4	3	269.00
246	**M16**	**2.00**	84	35.0	12	11.80	5.840	5	3	319.00

Application

Materiale	M	D1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Acciaio da utensile temprato 48 - 52 HRC	M 2.0	1.55	0.40	4	45	0.010	9240	83	370
	M 2.5	1.95	0.45	4	45	0.010	7345	65	294
	M 3.0	2.35	0.50	4	45	0.010	6095	53	244
	M 4.0	3.10	0.70	4	45	0.015	4620	62	277
	M 5.0	3.80	0.80	4	45	0.020	3770	72	302
	M 6.0	4.80	1.00	4	45	0.025	2985	60	299
	M 8.0	5.95	1.25	4	45	0.030	2405	74	289
	M 10.0	7.80	1.50	4	45	0.035	1835	57	257
	M 12.0	9.00	1.75	5	45	0.040	1590	80	318
Acciaio da utensile temprato 52 - 56 HRC	M 2.0	1.55	0.40	4	45	0.010	9240	83	370
	M 2.5	1.95	0.45	4	45	0.010	7345	65	294
	M 3.0	2.35	0.50	4	45	0.010	6095	53	244
	M 4.0	3.10	0.70	4	45	0.015	4620	62	277
	M 5.0	3.80	0.80	4	45	0.020	3770	72	302
	M 6.0	4.80	1.00	4	45	0.025	2985	60	299
	M 8.0	5.95	1.25	4	45	0.030	2405	74	289
	M 10.0	7.80	1.50	4	45	0.035	1835	57	257
	M 12.0	9.00	1.75	5	45	0.040	1590	80	318
Acciaio da utensile temprato 56 - 60 HRC	M 2.0	1.55	0.40	4	40	0.010	8215	74	329
	M 2.5	1.95	0.45	4	40	0.010	6530	57	261
	M 3.0	2.35	0.50	4	40	0.010	5420	47	217
	M 4.0	3.10	0.70	4	40	0.015	4105	55	246
	M 5.0	3.80	0.80	4	40	0.020	3350	64	268
	M 6.0	4.80	1.00	4	40	0.025	2655	53	266
	M 8.0	5.95	1.25	4	40	0.030	2140	66	257
	M 10.0	7.80	1.50	4	40	0.035	1630	50	228
	M 12.0	9.00	1.75	5	40	0.040	1415	71	283
Acciaio da utensile temprato > 60 HRC	M 2.0	1.55	0.40	4	35	0.010	7190	65	288
	M 2.5	1.95	0.45	4	35	0.010	5715	50	229
	M 3.0	2.35	0.50	4	35	0.010	4740	41	190
	M 4.0	3.10	0.70	4	35	0.015	3595	49	216
	M 5.0	3.80	0.80	4	35	0.020	2930	56	234
	M 6.0	4.80	1.00	4	35	0.025	2320	46	232
	M 8.0	5.95	1.25	4	35	0.030	1870	57	224
	M 10.0	7.80	1.50	4	35	0.035	1430	44	200
	M 12.0	9.00	1.75	5	35	0.040	1240	62	248

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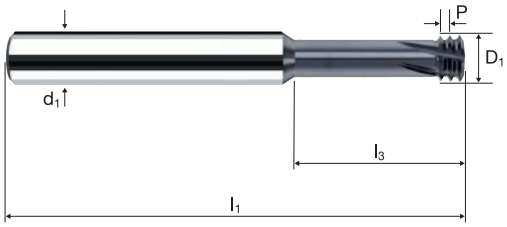

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Rm 1300-1500	HRC 48-56	HRC 56-60	HRC > 60

Esempio: **N° Ordine** — Articolo **EI27504** Codice-ø **034**

ø Code	d	P	l1	l3	d1 h6	D1	Rk 6H			INTEGRAL EI27504 €
034	M 2	0.40	39	6.0	3	1.55	0.750	4	3	162.00
040	M 2.5	0.45	39	7.5	3	1.95	0.950	4	3	162.00
044	M 3	0.50	58	9.5	6	2.35	1.150	4	3	162.00
058	M 4	0.70	58	12.5	6	3.10	1.520	4	3	181.00
084	M 5	0.80	58	16.0	6	3.80	1.870	4	3	207.00
088	M 6	1.00	58	20.0	6	4.80	2.370	4	3	207.00
160	M 8	1.25	58	24.0	6	5.95	2.950	4	3	207.00
174	M10	1.50	64	23.0	8	7.80	3.840	4	3	235.00
240	M12	1.75	73	26.0	10	9.00	4.440	5	3	309.00

Application

Materiale	M	D1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Acciaio 850 - 1100 N/mm²	M 1	0.70	0.25	3	120	0.0020	54570	98	325
	M 2	1.50	0.40	3	120	0.0040	25465	76	305
	M 3	2.20	0.50	3	120	0.0055	17365	76	285
	M 4	3.10	0.70	3	120	0.0080	12320	66	295
	M 5	3.80	0.80	3	120	0.0095	10050	68	285
	M 6	4.70	1.00	3	120	0.0120	8125	64	295
	M 8	5.90	1.25	5	120	0.0150	6475	127	485
	M 10	7.90	1.50	5	120	0.0200	4835	102	485
Acciaio 1300 - 1500 N/mm²	M 1	0.70	0.25	3	100	0.0010	45475	41	135
	M 2	1.50	0.40	3	100	0.0025	21220	40	160
	M 3	2.20	0.50	3	100	0.0035	14470	40	150
	M 4	3.10	0.70	3	100	0.0050	10270	35	155
	M 5	3.80	0.80	3	100	0.0065	8375	40	165
	M 6	4.70	1.00	3	100	0.0080	6775	36	165
	M 8	5.90	1.25	5	100	0.0100	5395	71	270
	M 10	7.90	1.50	5	100	0.0130	4030	55	260
Acciaio inossidabile [Cr-Ni/1.4301]	M 1	0.70	0.25	3	80	0.0010	36380	33	110
	M 2	1.50	0.40	3	80	0.0025	16975	31	125
	M 3	2.20	0.50	3	80	0.0035	11575	32	120
	M 4	3.10	0.70	3	80	0.0050	8215	28	125
	M 5	3.80	0.80	3	80	0.0060	6700	29	120
	M 6	4.70	1.00	3	80	0.0070	5420	25	115
	M 8	5.90	1.25	5	80	0.0090	4315	51	195
	M 10	7.90	1.50	5	80	0.0120	3225	41	195
Leg. a base di nichel	M 1	0.70	0.25	3	60	0.0010	27285	24	80
	M 2	1.50	0.40	3	60	0.0025	12735	24	95
	M 3	2.20	0.50	3	60	0.0035	8680	24	90
	M 4	3.10	0.70	3	60	0.0050	6160	20	90
	M 5	3.80	0.80	3	60	0.0060	5025	22	90
	M 6	4.70	1.00	3	60	0.0070	4065	18	85
	M 8	5.90	1.25	5	60	0.0090	3235	38	145
	M 10	7.90	1.50	5	60	0.0120	2420	30	145

Materiale	M	D1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Alluminio malleabile Si < 6%	M 1	0.70	0.25	3	150	0.0015	60000	81	270
	M 2	1.50	0.40	3	150	0.0035	31830	84	335
	M 3	2.20	0.50	3	150	0.0050	21705	87	325
	M 4	3.10	0.70	3	150	0.0070	15405	73	325
	M 5	3.80	0.80	3	150	0.0085	12565	77	320
	M 6	4.70	1.00	3	150	0.0105	10160	69	320
	M 8	5.90	1.25	5	150	0.0130	8095	138	525
	M 10	7.90	1.50	5	150	0.0175	6045	111	530
Getti d'alluminio	M 1	0.70	0.25	3	180	0.0020	60000	108	360
	M 2	1.50	0.40	3	180	0.0040	38200	115	460
	M 3	2.20	0.50	3	180	0.0055	26045	115	430
	M 4	3.10	0.70	3	180	0.0080	18485	100	445
	M 5	3.80	0.80	3	180	0.0095	15080	103	430
	M 6	4.70	1.00	3	180	0.0120	12190	95	440
	M 8	5.90	1.25	5	180	0.0150	9710	192	730
	M 10	7.90	1.50	5	180	0.0200	7255	152	725
Rame non legato	M 1	0.70	0.25	3	100	0.0015	45475	62	205
	M 2	1.50	0.40	3	100	0.0030	21220	48	190
	M 3	2.20	0.50	3	100	0.0045	14470	52	195
	M 4	3.10	0.70	3	100	0.0060	10270	42	185
	M 5	3.80	0.80	3	100	0.0075	8375	46	190
	M 6	4.70	1.00	3	100	0.0095	6775	42	195
	M 8	5.90	1.25	5	100	0.0120	5395	85	325
	M 10	7.90	1.50	5	100	0.0160	4030	67	320
Leghe di titanio indurite > 300 HB [Ti6Al4V]	M 1	0.70	0.25	3	70	0.0010	31830	29	95
	M 2	1.50	0.40	3	70	0.0025	14855	28	110
	M 3	2.20	0.50	3	70	0.0035	10130	28	105
	M 4	3.10	0.70	3	70	0.0050	7190	25	110
	M 5	3.80	0.80	3	70	0.0060	5865	25	105
	M 6	4.70	1.00	3	70	0.0070	4740	22	100
	M 8	5.90	1.25	5	70	0.0090	3775	45	170
	M 10	7.90	1.50	5	70	0.0120	2820	36	170

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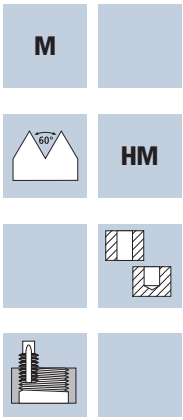

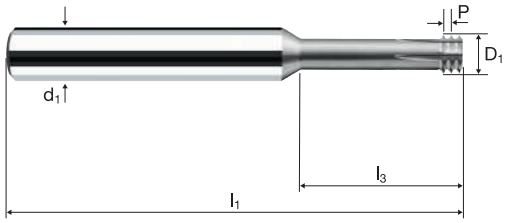

Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless	Ti Titanium	Aluminium/Copper GG(G) Nickel-Alloys

Esempio: **N° Ordine** — Articolo **EU28500** Codice-ø **010**

ø Code	d	P	l1	l3	d1 h6	D1	Rk 6H			UNICUT-4X E28500 €	UNICUT-4X EU28500 €
010	**M 1**	**0.25**	38	3.0	3	0.70	0.337	3	1	120.00	141.00
020	**M 1.4**	**0.30**	38	4.2	3	1.00	0.485	3	1	120.00	141.00
022	**M 1.6**	**0.35**	38	4.8	3	1.20	0.583	3	1	120.00	141.00
034	**M 2**	**0.40**	38	6.0	3	1.50	0.730	3	1	120.00	141.00
040	**M 2.5**	**0.45**	38	7.5	3	1.80	0.878	3	1	120.00	141.00
044	**M 3**	**0.50**	42	9.0	3	2.20	1.075	3	3	120.00	141.00
058	**M 4**	**0.70**	47	12.0	4	3.10	1.515	3	3	134.00	157.00
084	**M 5**	**0.80**	57	15.0	6	3.80	1.860	3	3	153.00	180.00
088	**M 6**	**1.00**	62	18.0	6	4.70	2.300	3	3	153.00	180.00
160	**M 8**	**1.25**	65	24.0	6	5.90	2.888	5	3	153.00	180.00
174	**M10**	**1.50**	86	30.0	8	7.90	3.875	5	3	174.00	204.00

Application

Materiale	G	D1 [mm]	P (TPI)	z	v_c [m/min]	f_z [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Acciaio 850 - 1100 N/mm²	G 1/8	6.20	28	4	80	0.035	4105	209	575
	G 3/8	9.95	19	4	80	0.060	2560	247	614
	G 7/8	11.95	14	4	80	0.060	2130	309	511
	G 2	15.95	11	5	80	0.065	1595	379	518
Acciaio 1300 - 1500 N/mm²	G 1/8	6.20	28	4	45	0.030	2310	100	277
	G 3/8	9.95	19	4	45	0.055	1440	128	317
	G 7/8	11.95	14	4	45	0.060	1200	174	288
	G 2	15.95	11	5	45	0.065	900	215	293
Acciaio inossidabile [Cr-Ni/1.4301]	G 1/8	6.20	28	4	55	0.030	2825	123	339
	G 3/8	9.95	19	4	55	0.055	1760	156	387
	G 7/8	11.95	14	4	55	0.060	1465	213	352
	G 2	15.95	11	5	55	0.065	1100	262	358
Leg. a base di nichel	G 1/8	6.20	28	4	30	0.030	1540	67	185
	G 3/8	9.95	19	4	30	0.040	960	62	154
	G 7/8	11.95	14	4	30	0.050	800	97	160
	G 2	15.95	11	5	30	0.060	600	132	180

Materiale	G	D1 [mm]	P (TPI)	z	v_c [m/min]	f_z [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Alluminio malleabile Si < 6%	G 1/8	6.20	28	4	150	0.050	7700	559	1540
	G 3/8	9.95	19	4	150	0.070	4800	541	1344
	G 7/8	11.95	14	4	150	0.080	3995	772	1278
	G 2	15.95	11	5	150	0.090	2995	987	1348
Ghisa GG(G)	G 1/8	6.20	28	4	120	0.040	6160	358	986
	G 3/8	9.95	19	4	120	0.065	3840	402	998
	G 7/8	11.95	14	4	120	0.070	3195	541	895
	G 2	15.95	11	5	120	0.090	2395	790	1078
Rame non legato	G 1/8	6.20	28	4	130	0.040	6675	387	1068
	G 3/8	9.95	19	4	130	0.060	4160	402	998
	G 7/8	11.95	14	4	130	0.065	3465	544	901
	G 2	15.95	11	5	130	0.075	2595	713	973
Leghe di titanio indurite > 300 HB [Ti6Al4V]	G 1/8	6.20	28	4	40	0.030	2055	90	247
	G 3/8	9.95	19	4	40	0.040	1280	83	205
	G 7/8	11.95	14	4	40	0.050	1065	129	213
	G 2	15.95	11	5	40	0.060	800	176	240

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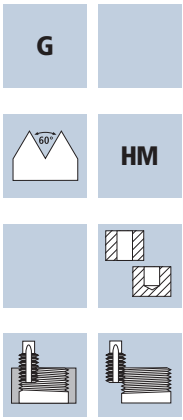

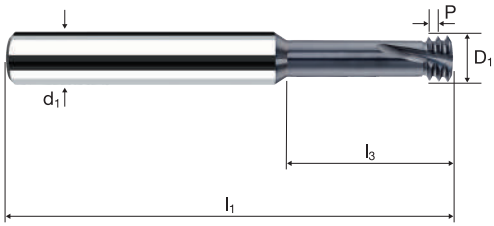

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TM

Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless	Ti Titanium	Aluminium/Copper GG(G) Nickel-Alloys

Esempio: **N° Ordine** — Articolo **EH27540** Codice-ø **550**

ø Code	d	P(TPI)	l1	l3	d1 h6	D1	Rk 6H			TiCN EH27540 €
550	G 1/8	28	64	19.5	8	6.20	3.070	4	3	198.00
552	G 3/8	19	73	25.0	10	9.95	4.920	4	3	322.00
554	G 7/8	14	84	37.0	12	11.95	5.920	4	3	383.00
558	G 2	11	105	44.0	16	15.95	7.930	5	3	540.00

Application

Materiale	UNC	UNF	D1 [mm]	P (TPI)	z	v_c [m/min]	f_z [mm]	n [min⁻¹]	v_{fc} [mm/min]	v_f [mm/min]
Acciaio < 850 N/mm²	1	2	1.40	64	3	90	0.010	20465	150	614
	3	4	1.90	48	4	90	0.020	15080	295	1206
	5	6	2.45	40	4	90	0.020	11695	214	936
	8		3.20	32	4	90	0.020	8950	166	716
	10-12		3.50	24	4	90	0.025	8185	225	819
	1/4		4.75	20	4	90	0.030	6030	182	724
	3/8		6.70	16	4	90	0.045	4275	228	770
		7/16	8.00	20	4	90	0.050	3580	201	716
		5/8	12.00	18	4	90	0.060	2385	140	572
Acciaio 850 - 1100 N/mm²	1	2	1.40	64	3	80	0.010	18190	134	546
	3	4	1.90	48	4	80	0.020	13405	262	1072
	5	6	2.45	40	4	80	0.020	10395	190	832
	8		3.20	32	4	80	0.020	7960	148	637
	10-12		3.50	24	4	80	0.025	7275	200	728
	1/4		4.75	20	4	80	0.030	5360	162	643
	3/8		6.70	16	4	80	0.045	3800	203	684
		7/16	8.00	20	4	80	0.050	3185	178	637
		5/8	12.00	18	4	80	0.060	2120	124	509
Acciaio 1100 - 1300 N/mm²	1	2	1.40	64	3	60	0.010	13640	100	409
	3	4	1.90	48	4	60	0.020	10050	197	804
	5	6	2.45	40	4	60	0.020	7795	142	624
	8		3.20	32	4	60	0.025	5970	138	597
	10-12		3.50	24	4	60	0.025	5455	150	546
	1/4		4.75	20	4	60	0.030	4020	121	482
	3/8		6.70	16	4	60	0.035	2850	118	399
		7/16	8.00	20	4	60	0.040	2385	107	382
		5/8	12.00	18	4	60	0.060	1590	93	382
Acciaio 1300 - 1500 N/mm²	1	2	1.40	64	3	45	0.010	10230	75	307
	3	4	1.90	48	4	45	0.020	7540	147	603
	5	6	2.45	40	4	45	0.020	5845	107	468
	8		3.20	32	4	45	0.025	4475	104	448
	10-12		3.50	24	4	45	0.025	4095	113	410
	1/4		4.75	20	4	45	0.030	3015	91	362
	3/8		6.70	16	4	45	0.035	2140	89	300
		7/16	8.00	20	4	45	0.040	1790	80	286
		5/8	12.00	18	4	45	0.060	1195	70	287

Materiale	UNC	UNF	D1 [mm]	P (TPI)	z	v_c [m/min]	f_z [mm]	n [min⁻¹]	v_{fc} [mm/min]	v_f [mm/min]
Alluminio malleabile Si < 6%	1	2	1.40	64	3	150	0.020	34105	501	2046
	3	4	1.90	48	4	150	0.030	25130	738	3016
	5	6	2.45	40	4	150	0.030	19490	534	2339
	8		3.20	32	4	150	0.035	14920	484	2089
	10-12		3.50	24	4	150	0.040	13640	600	2182
	1/4		4.75	20	4	150	0.045	10050	456	1809
	3/8		6.70	16	4	150	0.055	7125	465	1568
		7/16	8.00	20	4	150	0.060	5970	401	1433
		5/8	12.00	18	4	150	0.080	3980	311	1274
Ghisa GG(G)	1	2	1.40	64	3	120	0.010	27285	201	819
	3	4	1.90	48	4	120	0.020	20105	393	1608
	5	6	2.45	40	4	120	0.020	15590	285	1247
	8		3.20	32	4	120	0.025	11935	277	1194
	10-12		3.50	24	4	120	0.025	10915	300	1092
	1/4		4.75	20	4	120	0.035	8040	284	1126
	3/8		6.70	16	4	120	0.045	5700	304	1026
		7/16	8.00	20	4	120	0.050	4775	268	955
		5/8	12.00	18	4	120	0.070	3185	218	892
Rame non legato	1	2	1.40	64	3	130	0.010	29555	217	887
	3	4	1.90	48	4	130	0.010	21780	213	871
	5	6	2.45	40	4	130	0.020	16890	308	1351
	8		3.20	32	4	130	0.025	12930	300	1293
	10-12		3.50	24	4	130	0.025	11825	325	1183
	1/4		4.75	20	4	130	0.035	8710	307	1219
	3/8		6.70	16	4	130	0.040	6175	293	988
		7/16	8.00	20	4	130	0.050	5175	290	1035
		5/8	12.00	18	4	130	0.065	3450	219	897
Acciaio inossidabile [Cr-Ni/1.4301]	1	2	1.40	64	3	55	0.010	12505	92	375
	3	4	1.90	48	4	55	0.020	9215	180	737
	5	6	2.45	40	4	55	0.020	7145	131	572
	8		3.20	32	4	55	0.025	5470	127	547
	10-12		3.50	24	4	55	0.025	5000	137	500
	1/4		4.75	20	4	55	0.030	3685	111	442
	3/8		6.70	16	4	55	0.035	2615	109	366
		7/16	8.00	20	4	55	0.040	2190	98	350
		5/8	12.00	18	4	55	0.060	1460	85	350

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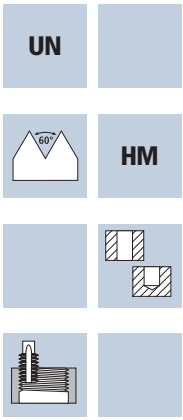

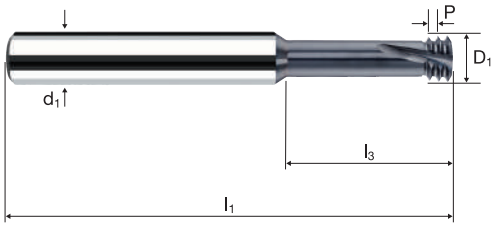

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TM

Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless		Aluminium/Copper GG(G)

Esempio: **N° Ordine** — Articolo **EH27560** — Codice-ø **750**

ø Code	UNC	UNF	P(TPI)	l_1	l_3	d_1 h6	D_1	R_k 6H			TiCN EH27560 €
750		Nr. 1	72	39	5.8	3	1.45	0.700	3	3	141.00
751	Nr. 1	Nr. 2	64	39	6.0	3	1.40	0.670	3	3	141.00
752	Nr. 2	Nr. 3	56	39	7.0	3	1.65	0.800	4	3	141.00
753	Nr. 3	Nr. 4	48	39	8.0	3	1.90	0.920	4	3	141.00
755	Nr. 4		40	58	9.0	6	2.10	1.020	4	3	141.00
756	Nr. 5	Nr. 6	40	58	10.0	6	2.45	1.200	4	3	141.00
757		Nr. 8	36	58	12.0	6	3.30	1.620	4	3	157.00
758	Nr. 6		32	58	11.0	6	2.55	1.250	4	3	141.00
759	Nr. 8		32	58	13.0	6	3.20	1.570	4	3	157.00
760		Nr. 10	32	58	15.0	6	3.70	1.820	4	3	157.00
761		Nr. 12	28	58	16.0	6	4.20	2.070	4	3	180.00
762		1/4	28	58	19.6	6	5.00	2.470	4	3	180.00
763	Nr. 10 - 12		24	58	16.0	6	3.50	1.720	4	3	157.00
764		5/16 - 3/8	24	64	24.0	8	6.60	3.270	4	3	180.00
765	1/4		20	58	20.0	6	4.75	2.320	4	3	180.00
766		7/16	20	64	34.6	8	8.00	3.940	4	3	204.00
767	5/16		18	58	23.0	6	6.00	2.940	4	3	180.00
768		5/8	18	84	35.0	12	12.00	5.940	4	3	348.00
769	3/8		16	64	25.0	8	6.70	3.290	4	3	180.00
770	7/16		14	64	25.0	8	7.70	3.790	4	3	180.00

Application

Materiale	M	D1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Acciaio < 850 N/mm²	M 3	2.30	0.50	3	90	0.016	12455	140	598
	M 4	3.00	0.70	3	90	0.016	9550	115	458
	M 5	4.00	0.80	3	90	0.020	7160	86	430
	M 6	4.80	1.00	3	90	0.024	5970	86	430
	M 8	6.40	1.25	3	90	0.028	4475	75	376
	M 10	7.95	1.50	3	90	0.040	3605	89	433
	M 12	9.95	1.75	4	90	0.048	2880	94	553
	M 14	11.20	2.00	4	90	0.048	2560	98	492
	M 16	12.80	2.00	4	90	0.048	2240	86	430
Acciaio 850 - 1100 N/mm²	M 3	2.30	0.50	3	80	0.016	11070	124	531
	M 4	3.00	0.70	3	80	0.016	8490	102	408
	M 5	4.00	0.80	3	80	0.020	6365	76	382
	M 6	4.80	1.00	3	80	0.024	5305	76	382
	M 8	6.40	1.25	3	80	0.028	3980	67	334
	M 10	7.95	1.50	3	80	0.040	3205	79	385
	M 12	9.95	1.75	4	80	0.048	2560	84	492
	M 14	11.20	2.00	4	80	0.048	2275	87	437
	M 16	12.80	2.00	4	80	0.048	1990	76	382
Acciaio 1100 - 1300 N/mm²	M 3	2.30	0.50	3	60	0.016	8305	93	399
	M 4	3.00	0.70	3	60	0.016	6365	77	306
	M 5	4.00	0.80	3	60	0.020	4775	57	287
	M 6	4.80	1.00	3	60	0.020	3980	48	239
	M 8	6.40	1.25	3	60	0.024	2985	43	215
	M 10	7.95	1.50	3	60	0.032	2400	47	230
	M 12	9.95	1.75	4	60	0.044	1920	58	338
	M 14	11.20	2.00	4	60	0.044	1705	60	300
	M 16	12.80	2.00	4	60	0.048	1490	57	286
Acciaio 1300 - 1500 N/mm²	M 3	2.30	0.50	3	45	0.008	6230	35	150
	M 4	3.00	0.70	3	45	0.012	4775	43	172
	M 5	4.00	0.80	3	45	0.016	3580	34	172
	M 6	4.80	1.00	3	45	0.020	2985	36	179
	M 8	6.40	1.25	3	45	0.024	2240	32	161
	M 10	7.95	1.50	3	45	0.028	1800	31	151
	M 12	9.95	1.75	4	45	0.036	1440	35	207
	M 14	11.20	2.00	4	45	0.036	1280	37	184
	M 16	12.80	2.00	4	45	0.040	1120	36	179

Materiale	M	D1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Alluminio malleabile Si < 6%	M 3	2.30	0.50	3	150	0.024	20760	349	1495
	M 4	3.00	0.70	3	150	0.028	15915	334	1337
	M 5	4.00	0.80	3	150	0.032	11935	229	1146
	M 6	4.80	1.00	3	150	0.036	9945	215	1074
	M 8	6.40	1.25	3	150	0.040	7460	179	895
	M 10	7.95	1.50	3	150	0.048	6005	177	865
	M 12	9.95	1.75	4	150	0.056	4800	184	1075
	M 14	11.20	2.00	4	150	0.056	4265	191	955
	M 16	12.80	2.00	4	150	0.064	3730	191	955
Ghisa GG(G)	M 3	2.30	0.50	3	120	0.016	16605	186	797
	M 4	3.00	0.70	3	120	0.020	12730	191	764
	M 5	4.00	0.80	3	120	0.024	9550	138	688
	M 6	4.80	1.00	3	120	0.028	7960	134	669
	M 8	6.40	1.25	3	120	0.032	5970	115	573
	M 10	7.95	1.50	3	120	0.040	4805	118	577
	M 12	9.95	1.75	4	120	0.052	3840	136	799
	M 14	11.20	2.00	4	120	0.052	3410	142	709
	M 16	12.80	2.00	4	120	0.056	2985	134	669
Rame non legato	M 3	2.30	0.50	3	130	0.016	17990	202	864
	M 4	3.00	0.70	3	130	0.020	13795	207	828
	M 5	4.00	0.80	3	130	0.024	10345	149	745
	M 6	4.80	1.00	3	130	0.028	8620	145	724
	M 8	6.40	1.25	3	130	0.032	6465	124	621
	M 10	7.95	1.50	3	130	0.040	5205	128	625
	M 12	9.95	1.75	4	130	0.052	4160	148	865
	M 14	11.20	2.00	4	130	0.052	3695	154	769
	M 16	12.80	2.00	4	130	0.056	3235	145	725
Acciaio inossidabile [Cr-Ni/1.4301]	M 3	2.30	0.50	3	55	0.016	7610	85	365
	M 4	3.00	0.70	3	55	0.020	5835	88	350
	M 5	4.00	0.80	3	55	0.024	4375	63	315
	M 6	4.80	1.00	3	55	0.024	3645	52	262
	M 8	6.40	1.25	3	55	0.024	2735	39	197
	M 10	7.95	1.50	3	55	0.032	2200	43	211
	M 12	9.95	1.75	4	55	0.044	1760	53	310
	M 14	11.20	2.00	4	55	0.044	1565	55	275
	M 16	12.80	2.00	4	55	0.048	1370	53	263

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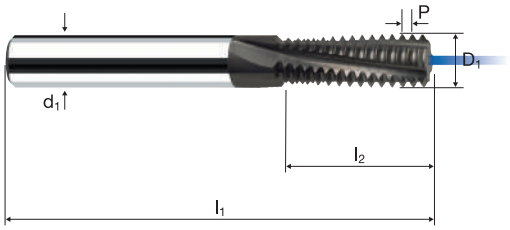

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Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium/Copper GG(G)

Esempio: **N° Ordine** — Articolo **EH20300** Codice-ø **044**

ø Code	d	P	l1	l2	d1 h6	D1	Rk 6H		TiCN EH20300	TiCN EH20306
										€
044 *	M 3	0.50	40	6.8	4	2.30	1.120	3		157.00
058	M 4	0.70	48	8.8	6	3.00	1.470	3		234.00
084	M 5	0.80	54	10.8	6	4.00	1.970	3		245.00
088	M 6	1.00	54	13.5	6	4.80	2.370	3		227.00
160	M 8	1.25	62	18.1	8	6.40	3.170	3		251.00
174	M10	1.50	74	21.8	10	7.95	3.920	3		278.00
240	M12	1.75	74	25.4	10	9.95	4.920	4		340.00
244	M14	2.00	90	31.0	12	11.20	5.540	4		386.00
246	M16	2.00	90	35.0	14	12.80	6.340	4		435.00
314	M20	2.50	102	41.3	16	14.95	7.430	4		497.00

* solo senza weldon

Application

Materiale	MF	D1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Acciaio < 850 N/mm²	M 8	6.40	1.00	3	90	0.028	4475	75	376
	M 10	7.95	1.00	3	90	0.040	3605	89	433
	M 10	7.95	1.25	3	90	0.040	3605	89	433
	M 12	9.95	1.50	3	90	0.048	2880	71	415
	M 14	11.20	1.50	3	90	0.048	2560	74	369
	M 16	12.80	1.50	3	90	0.048	2240	65	323
	M 20	14.95	1.50	4	90	0.052	1915	100	398
Acciaio 850 - 1100 N/mm²	M 8	6.40	1.00	3	80	0.028	3980	67	334
	M 10	7.95	1.00	3	80	0.040	3205	79	385
	M 10	7.95	1.25	3	80	0.040	3205	79	385
	M 12	9.95	1.50	3	80	0.048	2560	63	369
	M 14	11.20	1.50	3	80	0.048	2275	66	328
	M 16	12.80	1.50	3	80	0.048	1990	57	287
	M 20	14.95	1.50	4	80	0.052	1705	90	355
Acciaio 1100 - 1300 N/mm²	M 8	6.40	1.00	3	60	0.024	2985	43	215
	M 10	7.95	1.00	3	60	0.032	2400	47	230
	M 10	7.95	1.25	3	60	0.032	2400	47	230
	M 12	9.95	1.50	3	60	0.044	1920	43	253
	M 14	11.20	1.50	3	60	0.044	1705	45	225
	M 16	12.80	1.50	3	60	0.048	1490	43	215
	M 20	14.95	1.50	4	60	0.048	1275	62	245
Acciaio 1300 - 1500 N/mm²	M 8	6.40	1.00	3	45	0.024	2240	32	161
	M 10	7.95	1.00	3	45	0.032	1800	35	173
	M 10	7.95	1.25	3	45	0.032	1800	35	173
	M 12	9.95	1.50	3	45	0.044	1440	32	190
	M 14	11.20	1.50	3	45	0.044	1280	34	169
	M 16	12.80	1.50	3	45	0.048	1120	32	161
	M 20	14.95	1.50	4	45	0.048	960	46	184

Materiale	MF	D1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Alluminio malleabile Si < 6%	M 8	6.40	1.00	3	150	0.040	7460	179	895
	M 10	7.95	1.00	3	150	0.048	6005	177	865
	M 10	7.95	1.25	3	150	0.048	6005	177	865
	M 12	9.95	1.50	3	150	0.056	4800	138	806
	M 14	11.20	1.50	3	150	0.056	4265	143	717
	M 16	12.80	1.50	3	150	0.064	3730	143	716
	M 20	14.95	1.50	4	150	0.068	3195	219	869
Ghisa GG(G)	M 8	6.40	1.00	3	120	0.032	5970	115	573
	M 10	7.95	1.00	3	120	0.040	4805	118	577
	M 10	7.95	1.25	3	120	0.040	4805	118	577
	M 12	9.95	1.50	3	120	0.052	3840	102	599
	M 14	11.20	1.50	3	120	0.052	3410	106	532
	M 16	12.80	1.50	3	120	0.056	2985	100	501
	M 20	14.95	1.50	4	120	0.064	2555	165	654
Rame non legato	M 8	6.40	1.00	3	130	0.032	6465	124	621
	M 10	7.95	1.00	3	130	0.040	5205	128	625
	M 10	7.95	1.25	3	130	0.040	5205	128	625
	M 12	9.95	1.50	3	130	0.052	4160	111	649
	M 14	11.20	1.50	3	130	0.052	3695	115	576
	M 16	12.80	1.50	3	130	0.056	3235	109	543
	M 20	14.95	1.50	4	130	0.064	2770	179	709
Acciaio inossidabile [Cr-Ni/1.4301]	M 8	6.40	1.00	3	55	0.024	2735	39	197
	M 10	7.95	1.00	3	55	0.032	2200	43	211
	M 10	7.95	1.25	3	55	0.032	2200	43	211
	M 12	9.95	1.50	3	55	0.044	1760	40	232
	M 14	11.20	1.50	3	55	0.044	1565	41	207
	M 16	12.80	1.50	3	55	0.048	1370	39	197
	M 20	14.95	1.50	4	55	0.052	1170	61	243

Frese a filettare

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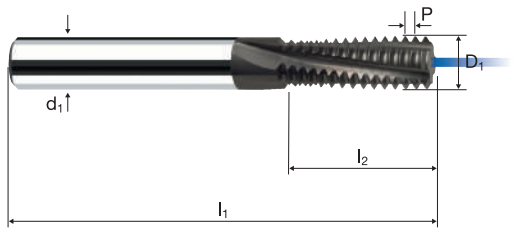
MF

HM



new!

Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium/Copper GG(G)

Esempio: **N° Ordine** — Articolo **EH20320** + Codice-ø **090**

ø Code	d	P	l1	l2	d1 h6	D1	Rk 6H		TiCN EH20320	TiCN EH20326
										€
090	**M 8**	**1.00**	62	17.5	8	6.40	3.170	3		260.00
092	**M10**	**1.00**	74	21.5	10	7.95	3.950	3		299.00
162	**M10**	**1.25**	74	21.9	10	7.95	3.950	3		305.00
176	**M12**	**1.50**	74	26.3	10	9.95	4.920	4		363.00
178	**M14**	**1.50**	90	30.8	12	11.20	5.540	4		383.00
180	**M16**	**1.50**	90	33.8	14	12.80	6.340	4		461.00
184	**M20**	**1.50**	102	42.8	16	14.95	7.420	4		513.00

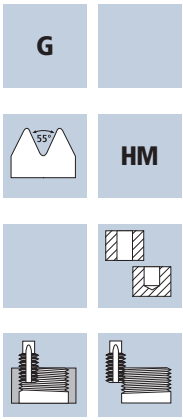
Application

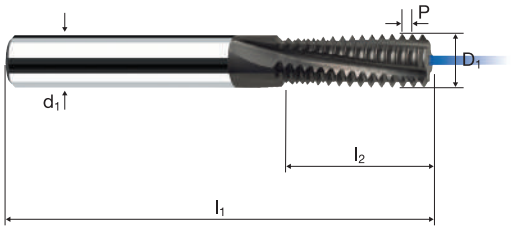
Materiale	G	D1 [mm]	P (TPI)	z	v_c [m/min]	f_z [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Acciaio < 850 N/mm²	G 1/8	7.95	28	3	90	0.040	3605	79	433
	G 1/4	10.50	19	4	90	0.048	2730	106	524
	G 3/8	13.60	19	4	90	0.052	2105	80	438
Acciaio 850 - 1100 N/mm²	G 1/8	7.95	28	3	80	0.040	3205	70	385
	G 1/4	10.50	19	4	80	0.048	2425	94	466
	G 3/8	13.60	19	4	80	0.052	1870	71	389
Acciaio 1100 - 1300 N/mm²	G 1/8	7.95	28	3	60	0.032	2400	42	230
	G 1/4	10.50	19	4	60	0.044	1820	65	320
	G 3/8	13.60	19	4	60	0.520	1405	537	2922
Acciaio 1300 - 1500 N/mm²	G 1/8	7.95	28	3	45	0.032	1800	32	173
	G 1/4	10.50	19	4	45	0.044	1365	48	240
	G 3/8	13.60	19	4	45	0.052	1055	40	219

Materiale	G	D1 [mm]	P (TPI)	z	v_c [m/min]	f_z [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Alluminio malleabile Si < 6%	G 1/8	7.95	28	3	150	0.048	6005	158	865
	G 1/4	10.50	19	4	150	0.056	4545	206	1018
	G 3/8	13.60	19	4	150	0.068	3510	176	955
Ghisa GG(G)	G 1/8	7.95	28	3	120	0.040	4805	105	577
	G 1/4	10.50	19	4	120	0.052	3640	153	757
	G 3/8	13.60	19	4	120	0.064	2810	132	719
Rame non legato	G 1/8	7.95	28	3	130	0.040	5205	114	625
	G 1/4	10.50	19	4	130	0.052	3940	166	820
	G 3/8	13.60	19	4	130	0.064	3045	143	780
Acciaio inossidabile [Cr-Ni/1.4301]	G 1/8	7.95	28	3	55	0.032	2200	39	211
	G 1/4	10.50	19	4	55	0.044	1665	59	293
	G 3/8	13.60	19	4	55	0.052	1285	49	267

Frese a filettare

2xd, Incool





new!

TM

Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium/Copper GG(G)

Esempio: **N° Ordine** — Articolo **EH20340** Codice-ø **551**

ø Code	d	P(TPI)	l1	l2	d1 h6	D1	Rk 6H		TiCN EH20340 €
551	**G 1/8**	**28**	64	21.3	8	7.95	3.950	3	321.00
552	**G 1/4**	**19**	90	28.7	12	10.50	5.190	4	398.00
553	**G 3/8**	**19**	90	35.4	14	13.60	6.740	4	509.00

Application

Materiale	UNC	D1 [mm]	P (TPI)	z	v_c [m/min]	f_z [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Acciaio < 850 N/mm²	10	3.40	24	3	90	0.016	8425	119	404
	12	4.10	24	3	90	0.020	6985	106	419
	1/4	4.70	20	3	90	0.024	6095	114	439
	5/16	6.10	18	3	90	0.028	4695	91	394
	3/8	7.60	16	3	90	0.036	3770	82	407
	7/16	9.00	14	3	90	0.044	3185	80	420
	1/2	9.95	13	4	90	0.048	2880	120	553
	9/16	11.40	12	4	90	0.048	2515	98	483
	5/8	12.70	11	4	90	0.048	2255	87	433
Acciaio 850 - 1100 N/mm²	10	3.40	24	3	80	0.016	7490	106	360
	12	4.10	24	3	80	0.020	6210	94	373
	1/4	4.70	20	3	80	0.024	5420	101	390
	5/16	6.10	18	3	80	0.028	4175	81	351
	3/8	7.60	16	3	80	0.036	3350	73	362
	7/16	9.00	14	3	80	0.044	2830	71	374
	1/2	9.95	13	4	80	0.048	2560	107	492
	9/16	11.40	12	4	80	0.048	2235	87	429
	5/8	12.70	11	4	80	0.048	2005	77	385
Acciaio 1100 - 1300 N/mm²	10	3.40	24	3	60	0.016	5615	80	270
	12	4.10	24	3	60	0.020	4660	71	280
	1/4	4.70	20	3	60	0.024	4065	76	293
	5/16	6.10	18	3	60	0.024	3130	52	225
	3/8	7.60	16	3	60	0.032	2515	49	241
	7/16	9.00	14	3	60	0.040	2120	48	254
	1/2	9.95	13	4	60	0.044	1920	73	338
	9/16	11.40	12	4	60	0.044	1675	60	295
	5/8	12.70	11	4	60	0.048	1505	58	289
Acciaio 1300 - 1500 N/mm²	10	3.40	24	3	45	0.016	4215	60	202
	12	4.10	24	3	45	0.020	3495	53	210
	1/4	4.70	20	3	45	0.024	3050	57	220
	5/16	6.10	18	3	45	0.024	2350	39	169
	3/8	7.60	16	3	45	0.032	1885	37	181
	7/16	9.00	14	3	45	0.040	1590	36	191
	1/2	9.95	13	4	45	0.044	1440	55	253
	9/16	11.40	12	4	45	0.044	1255	45	221
	5/8	12.70	11	4	45	0.048	1130	43	217

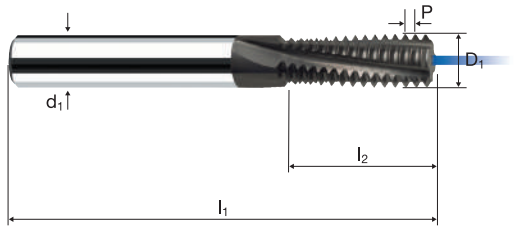
Materiale	UNC	D1 [mm]	P (TPI)	z	v_c [m/min]	f_z [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Alluminio malleabile Si < 6%	10	3.40	24	3	150	0.028	14045	349	1180
	12	4.10	24	3	150	0.032	11645	282	1118
	1/4	4.70	20	3	150	0.036	10160	285	1097
	5/16	6.10	18	3	150	0.040	7825	217	939
	3/8	7.60	16	3	150	0.044	6280	168	829
	7/16	9.00	14	3	150	0.052	5305	157	828
	1/2	9.95	13	4	150	0.056	4800	233	1075
	9/16	11.40	12	4	150	0.056	4190	190	939
	5/8	12.70	11	4	150	0.064	3760	193	963
Ghisa GG(G)	10	3.40	24	3	120	0.020	11235	199	674
	12	4.10	24	3	120	0.024	9315	170	671
	1/4	4.70	20	3	120	0.028	8125	177	683
	5/16	6.10	18	3	120	0.032	6260	139	601
	3/8	7.60	16	3	120	0.036	5025	110	543
	7/16	9.00	14	3	120	0.048	4245	116	611
	1/2	9.95	13	4	120	0.052	3840	173	799
	9/16	11.40	12	4	120	0.052	3350	141	697
	5/8	12.70	11	4	120	0.056	3010	135	674
Rame non legato	10	3.40	24	3	130	0.020	12170	216	730
	12	4.10	24	3	130	0.024	10095	184	727
	1/4	4.70	20	3	130	0.028	8805	192	740
	5/16	6.10	18	3	130	0.032	6785	151	651
	3/8	7.60	16	3	130	0.036	5445	119	588
	7/16	9.00	14	3	130	0.048	4600	126	662
	1/2	9.95	13	4	130	0.052	4160	187	865
	9/16	11.40	12	4	130	0.052	3630	153	755
	5/8	12.70	11	4	130	0.056	3260	146	730
Acciaio inossidabile [Cr-Ni/1.4301]	10	3.40	24	3	55	0.020	5150	91	309
	12	4.10	24	3	55	0.024	4270	78	307
	1/4	4.70	20	3	55	0.024	3725	70	268
	5/16	6.10	18	3	55	0.024	2870	48	207
	3/8	7.60	16	3	55	0.028	2305	39	194
	7/16	9.00	14	3	55	0.040	1945	44	233
	1/2	9.95	13	4	55	0.044	1760	67	310
	9/16	11.40	12	4	55	0.044	1535	55	270
	5/8	12.70	11	4	55	0.048	1380	53	265

Frese a filettare

2xd, Incool

UNC

HM



new!

TM

Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium/Copper GG(G)

Esempio: **N° Ordine** — Articolo **EH20360** Codice-ø **707**

ø Code	d	P(TPI)	l1	l2	d1 h6	D1	Rk 6H		TiCN EH20360 €
707	**Nr. 10**	**24**	54	11.1	6	3.40	1.670	3	211.00
708	**Nr. 12**	**24**	54	12.2	6	4.10	2.020	3	211.00
709	**1/4**	**20**	54	14.6	6	4.70	2.290	3	227.00
710	**5/16**	**18**	64	17.6	8	6.10	2.990	3	227.00
711	**3/8**	**16**	64	21.4	8	7.60	3.740	3	244.00
712	**7/16**	**14**	74	24.5	10	9.00	4.440	3	291.00
713	**1/2**	**13**	74	28.3	10	9.95	4.920	4	291.00
714	**9/16**	**12**	90	30.7	12	11.40	5.650	4	322.00
715	**5/8**	**11**	90	35.8	14	12.70	6.300	4	322.00

Application

Materiale	UNF	D1 [mm]	P (TPI)	z	v_c [m/min]	f_z [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Acciaio < 850 N/mm²	10	3.80	32	3	90	0.020	7540	96	452
	12	4.30	28	3	90	0.020	6660	86	400
	1/4	5.10	28	3	90	0.024	5615	80	404
	5/16	6.30	24	3	90	0.028	4545	79	382
	3/8	7.80	24	3	90	0.040	3675	80	441
	7/16	9.40	20	3	90	0.044	3050	62	403
	1/2	9.95	20	4	90	0.048	2880	120	553
	9/16	11.40	18	4	90	0.048	2515	98	483
	5/8	12.70	18	4	90	0.048	2255	87	433
Acciaio 850 - 1100 N/mm²	10	3.80	32	3	80	0.020	6700	85	402
	12	4.30	28	3	80	0.020	5920	77	355
	1/4	5.10	28	3	80	0.024	4995	71	360
	5/16	6.30	24	3	80	0.028	4040	70	339
	3/8	7.80	24	3	80	0.040	3265	71	392
	7/16	9.40	20	3	80	0.044	2710	55	358
	1/2	9.95	20	4	80	0.048	2560	107	492
	9/16	11.40	18	4	80	0.048	2235	87	429
	5/8	12.70	18	4	80	0.048	2005	77	385
Acciaio 1100 - 1300 N/mm²	10	3.80	32	3	60	0.020	5025	64	302
	12	4.30	28	3	60	0.020	4440	58	266
	1/4	5.10	28	3	60	0.024	3745	53	270
	5/16	6.30	24	3	60	0.024	3030	45	218
	3/8	7.80	24	3	60	0.032	2450	43	235
	7/16	9.40	20	3	60	0.040	2030	38	244
	1/2	9.95	20	4	60	0.044	1920	73	338
	9/16	11.40	18	4	60	0.044	1675	60	295
	5/8	12.70	18	4	60	0.048	1505	58	289
Acciaio 1300 - 1500 N/mm²	10	3.80	32	3	45	0.020	3770	48	226
	12	4.30	28	3	45	0.020	3330	43	200
	1/4	5.10	28	3	45	0.024	2810	40	202
	5/16	6.30	24	3	45	0.024	2275	34	164
	3/8	7.80	24	3	45	0.032	1835	32	176
	7/16	9.40	20	3	45	0.040	1525	28	183
	1/2	9.95	20	4	45	0.044	1440	55	253
	9/16	11.40	18	4	45	0.044	1255	45	221
	5/8	12.70	18	4	45	0.048	1130	43	217

Materiale	UNF	D1 [mm]	P (TPI)	z	v_c [m/min]	f_z [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Alluminio malleabile Si < 6%	10	3.80	32	3	150	0.032	12565	256	1206
	12	4.30	28	3	150	0.032	11105	230	1066
	1/4	5.10	28	3	150	0.036	9360	199	1011
	5/16	6.30	24	3	150	0.040	7580	188	910
	3/8	7.80	24	3	150	0.048	6120	160	881
	7/16	9.40	20	3	150	0.052	5080	122	792
	1/2	9.95	20	4	150	0.056	4800	233	1075
	9/16	11.40	18	4	150	0.056	4190	190	939
	5/8	12.70	18	4	150	0.064	3760	193	963
Ghisa GG(G)	10	3.80	32	3	120	0.024	10050	154	724
	12	4.30	28	3	120	0.024	8885	138	640
	1/4	5.10	28	3	120	0.028	7490	124	629
	5/16	6.30	24	3	120	0.032	6065	120	582
	3/8	7.80	24	3	120	0.040	4895	106	587
	7/16	9.40	20	3	120	0.048	4065	90	585
	1/2	9.95	20	4	120	0.052	3840	173	799
	9/16	11.40	18	4	120	0.052	3350	141	697
	5/8	12.70	18	4	120	0.056	3010	135	674
Rame non legato	10	3.80	32	3	130	0.024	10890	167	784
	12	4.30	28	3	130	0.024	9625	150	693
	1/4	5.10	28	3	130	0.028	8115	134	682
	5/16	6.30	24	3	130	0.032	6570	130	631
	3/8	7.80	24	3	130	0.040	5305	115	637
	7/16	9.40	20	3	130	0.048	4400	98	634
	1/2	9.95	20	4	130	0.052	4160	187	865
	9/16	11.40	18	4	130	0.052	3630	153	755
	5/8	12.70	18	4	130	0.056	3260	146	730
Acciaio inossidabile [Cr-Ni/1.4301]	10	3.80	32	3	55	0.024	4605	71	332
	12	4.30	28	3	55	0.024	4070	63	293
	1/4	5.10	28	3	55	0.024	3435	49	247
	5/16	6.30	24	3	55	0.024	2780	41	200
	3/8	7.80	24	3	55	0.032	2245	39	216
	7/16	9.40	20	3	55	0.040	1860	34	223
	1/2	9.95	20	4	55	0.044	1760	67	310
	9/16	11.40	18	4	55	0.044	1535	55	270
	5/8	12.70	18	4	55	0.048	1380	53	265

Frese a filettare

2xd, Incool

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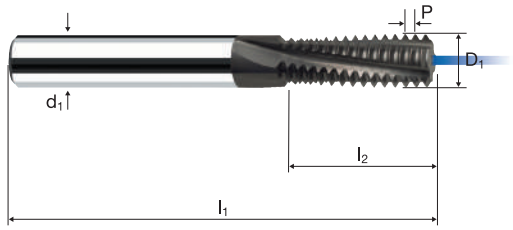
HM



new!

Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium/Copper GG(G)

Esempio: **N° Ordine** — Articolo **EH20370** Codice-ø **758**

ø Code	d	P(TPI)	l1	l2	d1 h6	D1	Rk 6H		TiCN EH20370 €
758	**Nr. 10**	**32**	54	11.5	6	3.80	1.870	3	224.00
759	**Nr. 12**	**28**	54	12.2	6	4.30	2.120	3	224.00
760	**1/4**	**28**	54	14.1	6	5.10	2.520	3	237.00
761	**5/16**	**24**	64	17.5	8	6.30	3.120	3	237.00
762	**3/8**	**24**	64	20.6	8	7.80	3.870	3	258.00
763	**7/16**	**20**	74	24.8	10	9.40	4.640	3	306.00
764	**1/2**	**20**	74	27.3	10	9.95	4.920	4	306.00
765	**9/16**	**18**	90	30.3	12	11.40	5.640	4	396.00
766	**5/8**	**18**	90	33.2	14	12.70	6.290	4	396.00

Application

Materiale	NPT	D1 [mm]	P (TPI)	z	v_c [m/min]	f_z [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Acciaio < 850 N/mm²	1/16	5.90	27	3	90	0.024	4855	98	350
	1/8	7.30	27	3	90	0.036	3925	133	424
	1/4	9.95	18	4	90	0.044	2880	150	507
	3/8	12.50	18	4	90	0.048	2290	127	440
	1/2	14.50	14	5	90	0.052	1975	174	514
	1	18.50	12	5	90	0.056	1550	199	434
Acciaio 850 - 1100 N/mm²	1/16	5.90	27	3	80	0.024	4315	87	311
	1/8	7.30	27	3	80	0.036	3490	118	377
	1/4	9.95	18	4	80	0.044	2560	134	451
	3/8	12.50	18	4	80	0.048	2035	113	391
	1/2	14.50	14	5	80	0.052	1755	154	456
	1	18.50	12	5	80	0.056	1375	177	385
Acciaio 1100 - 1300 N/mm²	1/16	5.90	27	3	60	0.024	3235	65	233
	1/8	7.30	27	3	60	0.028	2615	69	220
	1/4	9.95	18	4	60	0.040	1920	91	307
	3/8	12.50	18	4	60	0.048	1530	85	294
	1/2	14.50	14	5	60	0.052	1315	116	342
	1	18.50	12	5	60	0.056	1030	132	288
Acciaio 1300 - 1500 N/mm²	1/16	5.90	27	3	45	0.024	2430	49	175
	1/8	7.30	27	3	45	0.028	1960	52	165
	1/4	9.95	18	4	45	0.040	1440	68	230
	3/8	12.50	18	4	45	0.048	1145	63	220
	1/2	14.50	14	5	45	0.052	990	87	257
	1	18.50	12	5	45	0.056	775	100	217

Materiale	NPT	D1 [mm]	P (TPI)	z	v_c [m/min]	f_z [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Alluminio malleabile Si < 6%	1/16	5.90	27	3	150	0.036	8095	244	874
	1/8	7.30	27	3	150	0.044	6540	270	863
	1/4	9.95	18	4	150	0.052	4800	296	998
	3/8	12.50	18	4	150	0.064	3820	282	978
	1/2	14.50	14	5	150	0.068	3295	378	1120
	1	18.50	12	5	150	0.080	2580	473	1032
Ghisa GG(G)	1/16	5.90	27	3	120	0.028	6475	152	544
	1/8	7.30	27	3	120	0.036	5230	177	565
	1/4	9.95	18	4	120	0.048	3840	218	737
	3/8	12.50	18	4	120	0.056	3055	197	684
	1/2	14.50	14	5	120	0.064	2635	285	843
	1	18.50	12	5	120	0.080	2065	379	826
Rame non legato	1/16	5.90	27	3	130	0.028	7015	165	589
	1/8	7.30	27	3	130	0.036	5670	191	612
	1/4	9.95	18	4	130	0.048	4160	237	799
	3/8	12.50	18	4	130	0.056	3310	214	741
	1/2	14.50	14	5	130	0.064	2855	309	914
	1	18.50	12	5	130	0.080	2235	410	894
Acciaio inossidabile [Cr-Ni/1.4301]	1/16	5.90	27	3	55	0.024	2965	60	213
	1/8	7.30	27	3	55	0.028	2400	63	202
	1/4	9.95	18	4	55	0.040	1760	84	282
	3/8	12.50	18	4	55	0.048	1400	78	269
	1/2	14.50	14	5	55	0.052	1205	106	313
	1	18.50	12	5	55	0.056	945	122	265

Frese a filettare

Incool

NPT

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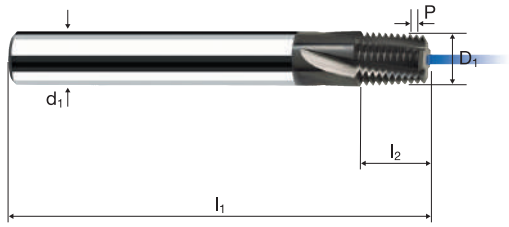

new!

TM

Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium/Copper GG(G)

Esempio: **N° Ordine** — Articolo **EH20380** Codice-ø **840**

ø Code	d	P(TPI)	l1	l2	d1 h6	D1	Rk 6H		TiCN EH20380 €
840	**1/16**	**27.0**	54	9.90	8	5.90	2.920	3	302.00
841	**1/8**	**27.0**	64	9.90	8	7.30	3.620	3	340.00
842	**1/4**	**18.0**	72	19.00	12	9.95	4.920	4	454.00
843	**3/8**	**18.0**	80	14.80	14	12.50	6.190	4	489.00
844	≥ **1/2**	**14.0**	90	19.05	16	14.50	7.190	5	707.00
846	≥ **1**	**11.5**	90	23.19	20	18.50	9.200	5	864.00

Application

Materiale	NPTF	D1 [mm]	P (TPI)	z	v_c [m/min]	f_z [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Acciaio < 850 N/mm²	1/16	5.90	27	3	90	0.024	4855	98	350
	1/8	7.30	27	3	90	0.036	3925	133	424
	1/4	9.95	18	4	90	0.044	2880	150	507
	3/8	12.50	18	4	90	0.048	2290	127	440
	1/2	14.50	14	5	90	0.052	1975	174	514
	1	18.50	12	5	90	0.056	1550	199	434
Acciaio 850 - 1100 N/mm²	1/16	5.90	27	3	80	0.024	4315	87	311
	1/8	7.30	27	3	80	0.036	3490	118	377
	1/4	9.95	18	4	80	0.044	2560	134	451
	3/8	12.50	18	4	80	0.048	2035	113	391
	1/2	14.50	14	5	80	0.052	1755	154	456
	1	18.50	12	5	80	0.056	1375	177	385
Acciaio 1100 - 1300 N/mm²	1/16	5.90	27	3	60	0.024	3235	65	233
	1/8	7.30	27	3	60	0.028	2615	69	220
	1/4	9.95	18	4	60	0.040	1920	91	307
	3/8	12.50	18	4	60	0.048	1530	85	294
	1/2	14.50	14	5	60	0.052	1315	116	342
	1	18.50	12	5	60	0.056	1030	132	288
Acciaio 1300 - 1500 N/mm²	1/16	5.90	27	3	45	0.024	2430	49	175
	1/8	7.30	27	3	45	0.028	1960	52	165
	1/4	9.95	18	4	45	0.040	1440	68	230
	3/8	12.50	18	4	45	0.048	1145	63	220
	1/2	14.50	14	5	45	0.052	990	87	257
	1	18.50	12	5	45	0.056	775	100	217

Materiale	NPTF	D1 [mm]	P (TPI)	z	v_c [m/min]	f_z [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Alluminio malleabile Si < 6%	1/16	5.90	27	3	150	0.036	8095	244	874
	1/8	7.30	27	3	150	0.044	6540	270	863
	1/4	9.95	18	4	150	0.052	4800	296	998
	3/8	12.50	18	4	150	0.064	3820	282	978
	1/2	14.50	14	5	150	0.068	3295	378	1120
	1	18.50	12	5	150	0.080	2580	473	1032
Ghisa GG(G)	1/16	5.90	27	3	120	0.028	6475	152	544
	1/8	7.30	27	3	120	0.036	5230	177	565
	1/4	9.95	18	4	120	0.048	3840	218	737
	3/8	12.50	18	4	120	0.056	3055	197	684
	1/2	14.50	14	5	120	0.064	2635	285	843
	1	18.50	12	5	120	0.080	2065	379	826
Rame non legato	1/16	5.90	27	3	130	0.028	7015	165	589
	1/8	7.30	27	3	130	0.036	5670	191	612
	1/4	9.95	18	4	130	0.048	4160	237	799
	3/8	12.50	18	4	130	0.056	3310	214	741
	1/2	14.50	14	5	130	0.064	2855	309	914
	1	18.50	12	5	130	0.080	2235	410	894
Acciaio inossidabile [Cr-Ni/1.4301]	1/16	5.90	27	3	55	0.024	2965	60	213
	1/8	7.30	27	3	55	0.028	2400	63	202
	1/4	9.95	18	4	55	0.040	1760	84	282
	3/8	12.50	18	4	55	0.048	1400	78	269
	1/2	14.50	14	5	55	0.052	1205	106	313
	1	18.50	12	5	55	0.056	945	122	265

Frese a filettare

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NPTF

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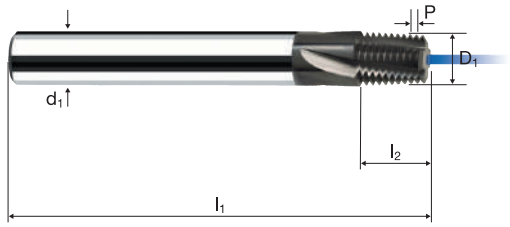

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TM

Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium/Copper GG(G)

Esempio: **N° Ordine** — Articolo **EH20390** Codice-ø **840**

ø Code	d	P(TPI)	l1	l2	d1 h6	D1	Rk 6H		TiCN EH20390 €
840	**1/16**	**27.0**	54	9.90	8	5.90	2.920	3	312.00
841	**1/8**	**27.0**	64	9.90	8	7.30	3.620	3	358.00
842	**1/4**	**18.0**	72	19.00	12	9.95	4.920	4	471.00
843	**3/8**	**18.0**	80	14.80	14	12.50	6.190	4	506.00
844	≥ **1/2**	**14.0**	90	19.05	16	14.50	7.190	5	716.00
846	≥ **1**	**11.5**	90	23.19	20	18.50	9.200	5	873.00

Application

Materiale	M	D1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Acciaio 850 - 1100 N/mm²	M 1.6	1.00	0.35	3	30	0.0015	9550	17	45
	M 2	1.30	0.40	3	30	0.0020	7345	16	45
	M 2.5	1.50	0.45	3	30	0.0025	6365	20	50
	M 3	2.10	0.50	3	30	0.0035	4545	15	50
	M 4	2.60	0.70	3	30	0.0065	3675	25	70
	M 5	3.60	0.80	3	30	0.0090	2655	20	70
	M 6	4.00	1.00	3	30	0.0100	2385	23	70
	M 8	5.00	1.25	3	30	0.0125	1910	26	70
	M 10	5.90	1.50	5	30	0.0150	1620	49	120
Acciaio 850 - 1100 N/mm²	M 12	7.90	1.75	5	30	0.0200	1210	41	120
	M 16	9.90	2.00	5	30	0.0250	965	46	120
Acciaio 1100 - 1300 N/mm²	M 1.6	1.00	0.35	3	20	0.0015	6365	11	30
	M 2	1.30	0.40	3	20	0.0020	4895	11	30
	M 2.5	1.50	0.45	3	20	0.0025	4245	12	30
	M 3	2.10	0.50	3	20	0.0035	3030	9	30
	M 4	2.60	0.70	3	20	0.0065	2450	18	50
	M 5	3.60	0.80	3	20	0.0090	1770	14	50
	M 6	4.00	1.00	3	20	0.0100	1590	17	50
	M 8	5.00	1.25	3	20	0.0125	1275	19	50
	M 10	5.90	1.50	5	20	0.0150	1080	33	80
Acciaio 1100 - 1300 N/mm²	M 12	7.90	1.75	5	20	0.0200	805	27	80
	M 16	9.90	2.00	5	20	0.0250	645	31	80

Materiale	M	D1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Alluminio malleabile Si < 6%	M 1.6	1.00	0.35	3	60	0.0015	19100	32	85
	M 2	1.30	0.40	3	60	0.0020	14690	32	90
	M 2.5	1.50	0.45	3	60	0.0025	12735	38	95
	M 3	2.10	0.50	3	60	0.0035	9095	29	95
	M 4	2.60	0.70	3	60	0.0065	7345	51	145
	M 5	3.60	0.80	3	60	0.0090	5305	41	145
	M 6	4.00	1.00	3	60	0.0100	4775	48	145
	M 8	5.00	1.25	3	60	0.0125	3820	54	145
	M 10	5.90	1.50	5	60	0.0150	3235	100	245
Alluminio malleabile Si < 6%	M 12	7.90	1.75	5	60	0.0200	2420	82	240
	M 16	9.90	2.00	5	60	0.0250	1930	92	240
Ghisa GG(G)	M 1.6	1.00	0.35	3	50	0.0015	15915	26	70
	M 2	1.30	0.40	3	50	0.0020	12245	26	75
	M 2.5	1.50	0.45	3	50	0.0025	10610	32	80
	M 3	2.10	0.50	3	50	0.0035	7580	24	80
	M 4	2.60	0.70	3	50	0.0065	6120	42	120
	M 5	3.60	0.80	3	50	0.0090	4420	34	120
	M 6	4.00	1.00	3	50	0.0100	3980	40	120
	M 8	5.00	1.25	3	50	0.0125	3185	45	120
	M 10	5.90	1.50	5	50	0.0150	2700	84	205
Ghisa GG(G)	M 12	7.90	1.75	5	50	0.0200	2015	68	200
	M 16	9.90	2.00	5	50	0.0250	1610	76	200

Frese a filettare

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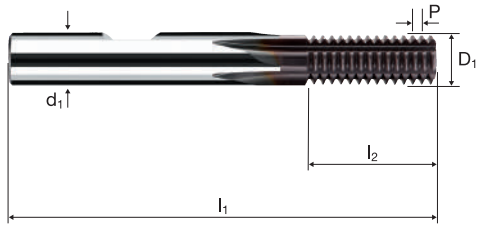

ToolSchool

Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless	Ti Titanium	Aluminium GG(G)

Esempio: **N° Ordine** — Articolo **EU2010** Codice-ø **022**

ø Code	d	P	l_1	l_2	d_1 h6	D_1	R_k 6H		UNICUT-4X EU2010 €
022 *	M 1.6	0.35	38	2.4	3	1.0	0.483	3	141.00
034 *	M 2	0.40	38	3.2	3	1.3	0.630	3	141.00
040 *	M 2.5	0.45	38	3.6	3	1.5	0.728	3	141.00
044 *	M 3	0.50	38	4.5	3	2.1	1.025	3	141.00
058 *	M 4	0.70	38	6.3	3	2.6	1.265	3	141.00
084 *	M 5	0.80	42	8.0	4	3.6	1.760	3	157.00
088	M 6	1.00	57	9.0	6	4.0	1.950	3	242.00
160	M 8	1.25	57	12.5	6	5.0	2.438	3	242.00
174	M10	1.50	57	15.0	6	5.9	2.875	5	242.00
240	M12	1.75	63	19.2	8	7.9	3.863	5	298.00
246	M16	2.00	72	24.0	10	9.9	4.850	5	389.00

* solo senza weldon

Application

Materiale	G	D1 [mm]	P (TPI)	z	v_c [m/min]	f_z [mm]	n [min^{-1}]	v_{fc} d/D_1 3/2	v_{fc} d/D_1 2/1	v_{fc} d/D_1 3/1	v_{fc} d/D_1 4/1	v_{fc} d/D_1 > 5/1	v_f [mm/min]
Acciaio < 850 N/mm²	G1/16-G1/8	5.90	28	5	30	0.0150	1620	40	60	80	90	96	120
	G1/4 -G3/8	7.90	19	5	30	0.0200	1210	40	60	80	90	96	120
	G1/2 -G7/8	11.90	14	5	30	0.0300	800	40	60	80	90	96	120
	G1 -G3	15.90	11	5	30	0.0400	600	40	60	80	90	96	120
Acciaio 850 - 1100 N/mm²	G1/16-G1/8	5.90	28	5	20	0.0150	1080	27	40	53	60	64	80
	G1/4 -G3/8	7.90	19	5	20	0.0200	805	27	40	53	60	64	80
	G1/2 -G7/8	11.90	14	5	20	0.0300	535	27	40	53	60	64	80
	G1 -G3	15.90	11	5	20	0.0400	400	27	40	53	60	64	80
Acciaio inossidabile [Cr-Ni/1.4301]	G1/16-G1/8	5.90	28	5	25	0.0100	1350	23	35	47	53	56	70
	G1/4 -G3/8	7.90	19	5	25	0.0130	1005	22	33	43	49	52	65
	G1/2 -G7/8	11.90	14	5	25	0.0200	670	22	33	43	49	52	65
	G1 -G3	15.90	11	5	25	0.0265	500	22	33	43	49	52	65
Ghisa GG(G)	G1/16-G1/8	5.90	28	5	50	0.0150	2700	68	103	137	154	164	205
	G1/4 -G3/8	7.90	19	5	50	0.0200	2015	67	100	133	150	160	200
	G1/2 -G7/8	11.90	14	5	50	0.0300	1335	67	100	133	150	160	200
	G1 -G3	15.90	11	5	50	0.0400	1000	67	100	133	150	160	200

Materiale	G	D1 [mm]	P (TPI)	z	v_c [m/min]	f_z [mm]	n [min^{-1}]	v_{fc} d/D_1 3/2	v_{fc} d/D_1 2/1	v_{fc} d/D_1 3/1	v_{fc} d/D_1 4/1	v_{fc} d/D_1 > 5/1	v_f [mm/min]
Alluminio malleabile Si < 6%	G1/16-G1/8	5.90	28	5	60	0.0150	3235	82	123	163	184	196	245
	G1/4 -G3/8	7.90	19	5	60	0.0200	2420	80	120	160	180	192	240
	G1/2 -G7/8	11.90	14	5	60	0.0300	1605	80	120	160	180	192	240
	G1 -G3	15.90	11	5	60	0.0400	1200	80	120	160	180	192	240
Getti d'alluminio	G1/16-G1/8	5.90	28	5	80	0.0150	4315	108	163	217	244	260	325
	G1/4 -G3/8	7.90	19	5	80	0.0200	3225	108	163	217	244	260	325
	G1/2 -G7/8	11.90	14	5	80	0.0300	2140	107	160	213	240	256	320
	G1 -G3	15.90	11	5	80	0.0400	1600	107	160	213	240	256	320
Rame non legato	G1/16-G1/8	5.90	28	5	70	0.0150	3775	95	143	190	214	228	285
	G1/4 -G3/8	7.90	19	5	70	0.0200	2820	93	140	187	210	224	280
	G1/2 -G7/8	11.90	14	5	70	0.0300	1870	93	140	187	210	224	280
	G1 -G3	15.90	11	5	70	0.0400	1400	93	140	187	210	224	280
Materiali termoplastici	G1/16-G1/8	5.90	28	5	100	0.0150	5395	135	203	270	304	324	405
	G1/4 -G3/8	7.90	19	5	100	0.0200	4030	135	203	270	304	324	405
	G1/2 -G7/8	11.90	14	5	100	0.0300	2675	133	200	267	300	320	400
	G1 -G3	15.90	11	5	100	0.0400	2000	133	200	267	300	320	400

Frese a filettare

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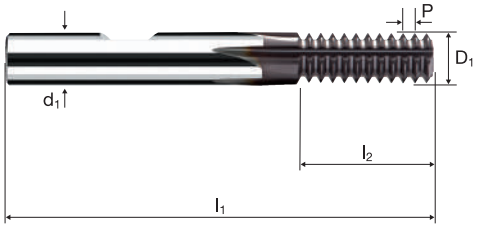

ToolSchool

Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless	Ti Titanium	Aluminium GG(G)

Esempio: **N° Ordine** — Articolo **EU2060** — Codice-ø **550**

ø Code	d	P(TPI)	l1	l2	d1 h6	D1		UNICUT-4X EU2060 €
550	G 1/16 - G1/8	28	57	14.5	6	5.9	5	242.00
552	G 1/4 - G3/8	19	63	18.7	8	7.9	5	298.00
554	G 1/2 - G7/8	14	83	29.0	12	11.9	5	480.00
558	G1" - G3"	11	92	34.6	16	15.9	6	707.00

Application

Materiale	UNC	UNF	D1 [mm]	P (TPI)	z	v_c [m/min]	f_z [mm]	n [min^{-1}]	v_{fc} d/D_1 3/2	v_{fc} d/D_1 2/1	v_{fc} d/D_1 3/1	v_{fc} d/D_1 4/1	v_{fc} d/D_1 > 5/1	v_f [mm/min]
Acciaio < 850 N/mm²	2	3	1.50	56	3	30	0.0025	6365	17	25	33	38	40	50
	3	4	1.50	48	3	30	0.0025	6365	17	25	33	38	40	50
	4-5	6	2.10	40	3	30	0.0035	4545	17	25	33	38	40	50
	8	10	3.00	32	3	30	0.0050	3185	17	25	33	38	40	50
	12	5/16-3/8	4.00	24	3	30	0.0065	2385	15	23	30	34	36	45
	1/4	7/16-1/2	4.00	20	3	30	0.0065	2385	15	23	30	34	36	45
	5/16	9/16-5/8	5.00	18	3	30	0.0085	1910	17	25	33	38	40	50
	3/8	3/4	5.90	16	5	30	0.0100	1620	27	40	53	60	64	80
	7/16	7/8	7.90	14	5	30	0.0130	1210	27	40	53	60	64	80
Acciaio < 850 N/mm²	1/2		7.90	13	5	30	0.0130	1210	27	40	53	60	64	80
	9/16	1- 1 1/2	9.90	12	5	30	0.0165	965	27	40	53	60	64	80
	5/8		9.90	11	5	30	0.0165	965	27	40	53	60	64	80
Acciaio 850 - 1100 N/mm²	2	3	1.50	56	3	20	0.0025	4245	10	15	20	23	24	30
	3	4	1.50	48	3	20	0.0025	4245	10	15	20	23	24	30
	4-5	6	2.10	40	3	20	0.0035	3030	10	15	20	23	24	30
	8	10	3.00	32	3	20	0.0050	2120	10	15	20	23	24	30
	12	5/16-3/8	4.00	24	3	20	0.0065	1590	10	15	20	23	24	30
	1/4	7/16-1/2	4.00	20	3	20	0.0065	1590	10	15	20	23	24	30
	5/16	9/16-5/8	5.00	18	3	20	0.0085	1275	12	18	23	26	28	35
	3/8	3/4	5.90	16	5	20	0.0100	1080	18	28	37	41	44	55
	7/16	7/8	7.90	14	5	20	0.0130	805	17	25	33	38	40	50
Acciaio 850 - 1100 N/mm²	1/2		7.90	13	5	20	0.0130	805	17	25	33	38	40	50
	9/16	1- 1 1/2	9.90	12	5	20	0.0165	645	18	28	37	41	44	55
	5/8		9.90	11	5	20	0.0165	645	18	28	37	41	44	55

Materiale	UNC	UNF	D1 [mm]	P (TPI)	z	v_c [m/min]	f_z [mm]	n [min^{-1}]	v_{fc} d/D_1 3/2	v_{fc} d/D_1 2/1	v_{fc} d/D_1 3/1	v_{fc} d/D_1 4/1	v_{fc} d/D_1 > 5/1	v_f [mm/min]
Alluminio malleabile Si < 6%	2	3	1.50	56	3	50	0.0025	10610	27	40	53	60	64	80
	3	4	1.50	48	3	50	0.0025	10610	27	40	53	60	64	80
	4-5	6	2.10	40	3	50	0.0035	7580	27	40	53	60	64	80
	8	10	3.00	32	3	50	0.0050	5305	27	40	53	60	64	80
	12	5/16-3/8	4.00	24	3	50	0.0065	3980	27	40	53	60	64	80
	1/4	7/16-1/2	4.00	20	3	50	0.0065	3980	27	40	53	60	64	80
	5/16	9/16-5/8	5.00	18	3	50	0.0085	3185	27	40	53	60	64	80
	3/8	3/4	5.90	16	5	50	0.0100	2700	45	68	90	101	108	135
	7/16	7/8	7.90	14	5	50	0.0130	2015	43	65	87	98	104	130
Alluminio malleabile Si < 6%	1/2		7.90	13	5	50	0.0130	2015	43	65	87	98	104	130
	9/16	1- 1 1/2	9.90	12	5	50	0.0165	1610	45	68	90	101	108	135
	5/8		9.90	11	5	50	0.0165	1610	45	68	90	101	108	135
Ghisa GG(G)	2	3	1.50	56	3	40	0.0025	8490	22	33	43	49	52	65
	3	4	1.50	48	3	40	0.0025	8490	22	33	43	49	52	65
	4-5	6	2.10	40	3	40	0.0035	6065	22	33	43	49	52	65
	8	10	3.00	32	3	40	0.0050	4245	22	33	43	49	52	65
	12	5/16-3/8	4.00	24	3	40	0.0065	3185	20	30	40	45	48	60
	1/4	7/16-1/2	4.00	20	3	40	0.0065	3185	20	30	40	45	48	60
	5/16	9/16-5/8	5.00	18	3	40	0.0085	2545	22	33	43	49	52	65
	3/8	3/4	5.90	16	5	40	0.0100	2160	37	55	73	83	88	110
	7/16	7/8	7.90	14	5	40	0.0130	1610	35	53	70	79	84	105
Ghisa GG(G)	1/2		7.90	12	5	40	0.0130	1610	35	53	70	79	84	105
	9/16	1- 1 1/2	9.90	12	5	40	0.0165	1285	35	53	70	79	84	105
	5/8		9.90	11	5	40	0.0165	1285	35	53	70	79	84	105

Frese a filettare

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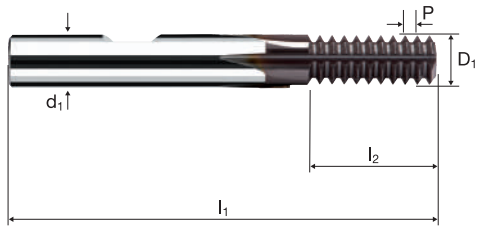

ToolSchool

Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Inox** Stainless | **Ti** Titanium | **Aluminium GG(G)**

Esempio: **N° Ordine** — Articolo **EU2110** — Codice-ø **750**

ø Code	UNC	UNF	P(TPI)	l1	l2	d1 h6	D1		UNICUT-4X EU2110 €
750 *		Nr. 2	64	38	3.1	3	1.5	3	141.00
751 *	Nr. 2	Nr. 3	56	38	3.1	3	1.5	3	141.00
752 *	Nr. 3	Nr. 4	48	38	3.7	3	1.5	3	141.00
753 *		Nr. 5	44	38	4.6	3	2.1	3	141.00
754 *	Nr. 4 - 5	Nr. 6	40	38	4.4	3	2.1	3	141.00
755 *		Nr. 8	36	42	6.3	4	3.0	3	157.00
756 *	Nr. 8	Nr. 10	32	42	6.3	4	3.0	3	157.00
759 *		Nr. 12 - 1/4	28	42	8.1	4	3.6	3	157.00
761	Nr. 12	5/16 - 3/8	24	57	8.4	6	4.0	3	242.00
762	1/4	7/16 - 1/2	20	57	10.1	6	4.0	3	242.00
764	5/16	9/16 - 5/8	18	57	12.7	6	5.0	3	242.00
766	3/8	3/4	16	57	14.2	6	5.9	5	242.00
769	7/16	7/8	14	63	16.3	8	7.9	5	298.00
770	1/2		13	63	19.5	8	7.9	5	298.00
771	9/16	1" - 1 1/2	12	72	23.2	10	9.9	5	389.00
773	5/8		11	72	23.0	10	9.9	5	389.00

* solo senza weldon

Application

Materiale	NPT / NPTF	D1 [mm]	P (TPI)	z	v_c [m/min]	f_z [mm]	n [min^{-1}]	v_{fc} d/D_1 3/2	v_{fc} d/D_1 2/1	v_{fc} d/D_1 3/1	v_{fc} d/D_1 4/1	v_{fc} d/D_1 > 5/1	v_f [mm/min]
Acciaio < 850 N/mm²	1/16 - 1/8	5.90	27	5	30	0.0100	1620	27	40	53	60	64	80
	1/4 - 3/8	7.90	18	5	30	0.0130	1210	27	40	53	60	64	80
	1/2 - 3/4	11.90	14	5	30	0.0200	800	27	40	53	60	64	80
	1 - 2	15.90	12	6	30	0.0265	600	32	48	63	71	76	95
Acciaio 850 - 1100 N/mm²	1/16 - 1/8	5.90	27	5	20	0.0100	1080	18	28	37	41	44	55
	1/4 - 3/8	7.90	18	5	20	0.0130	805	17	25	33	38	40	50
	1/2 - 3/4	11.90	14	5	20	0.0200	535	18	28	37	41	44	55
	1 - 2	15.90	12	6	20	0.0265	400	22	33	43	49	52	65
Acciaio inossidabile [Cr-Ni/1.4301]	1/16 - 1/8	5.90	27	5	15	0.0100	810	13	20	27	30	32	40
	1/4 - 3/8	7.90	18	5	15	0.0130	605	13	20	27	30	32	40
	1/2 - 3/4	11.90	14	5	15	0.0200	400	13	20	27	30	32	40
	1 - 2	15.90	12	6	15	0.0265	300	17	25	33	38	40	50
Ghisa GG(G)	1/16 - 1/8	5.90	27	5	40	0.0100	2160	37	55	73	83	88	110
	1/4 - 3/8	7.90	18	5	40	0.0130	1610	35	53	70	79	84	105
	1/2 - 3/4	11.90	14	5	40	0.0200	1070	35	53	70	79	84	105
	1 - 2	15.90	12	6	40	0.0265	800	42	63	83	94	100	125

Materiale	NPT / NPTF	D1 [mm]	P (TPI)	z	v_c [m/min]	f_z [mm]	n [min^{-1}]	v_{fc} d/D_1 3/2	v_{fc} d/D_1 2/1	v_{fc} d/D_1 3/1	v_{fc} d/D_1 4/1	v_{fc} d/D_1 > 5/1	v_f [mm/min]
Alluminio malleabile Si < 6%	1/16 - 1/8	5.90	27	5	50	0.0100	2700	45	68	90	101	108	135
	1/4 - 3/8	7.90	18	5	50	0.0130	2015	43	65	87	98	104	130
	1/2 - 3/4	11.90	14	5	50	0.0200	1335	45	68	90	101	108	135
	1 - 2	15.90	12	6	50	0.0265	1000	53	80	107	120	128	160
Getti d'alluminio	1/16 - 1/8	5.90	27	5	60	0.0100	3235	53	80	107	120	128	160
	1/4 - 3/8	7.90	18	5	60	0.0130	2420	52	78	103	116	124	155
	1/2 - 3/4	11.90	14	5	60	0.0200	1605	53	80	107	120	128	160
	1 - 2	15.90	12	6	60	0.0265	1200	63	95	127	143	152	190
Rame non legato	1/16 - 1/8	5.90	27	5	70	0.0100	3775	63	95	127	143	152	190
	1/4 - 3/8	7.90	18	5	70	0.0130	2820	62	93	123	139	148	185
	1/2 - 3/4	11.90	14	5	70	0.0200	1870	62	93	123	139	148	185
	1 - 2	15.90	12	6	70	0.0265	1400	75	113	150	169	180	225
Materiali termoplastici	1/16 - 1/8	5.90	27	5	90	0.0100	4855	82	123	163	184	196	245
	1/4 - 3/8	7.90	18	5	90	0.0130	3625	78	118	157	176	188	235
	1/2 - 3/4	11.90	14	5	90	0.0200	2405	80	120	160	180	192	240
	1 - 2	15.90	12	6	90	0.0265	1800	95	143	190	214	228	285

Frese a filettare

NPT
NPTF

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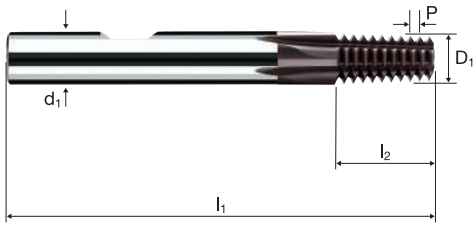


ToolSchool

Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Inox** Stainless | **Ti** Titanium | **Aluminium GG(G)**

Esempio: **N° Ordine** — Articolo **EU2200** — Codice-ø **840**

Ø Code	d	P(TPI)	l1	l2	d1 h6	D1		UNICUT-4X EU2200 €
840	**NPT 1/16 - 1/8**	**27**	57	9.4	6	5.9	5	242.00
842	**NPT 1/4 - 3/8**	**18**	63	14.1	8	7.9	5	298.00
844	**NPT 1/2 - 3/4**	**14**	83	19.9	12	11.9	5	480.00
846	**NPT 1" - 2"**	**11.5**	92	26.5	16	15.9	6	707.00

Esempio: **N° Ordine** — Articolo **EU2210** — Codice-ø **840**

Ø Code	d	P(TPI)	l1	l2	d1 h6	D1		UNICUT-4X EU2210 €
840	**NPTF 1/16 - 1/8**	**27**	57	9.4	6	5.9	5	242.00
842	**NPTF 1/4 - 3/8**	**18**	63	14.1	8	7.9	5	298.00
844	**NPTF 1/2 - 3/4**	**14**	83	19.9	12	11.9	5	480.00
846	**NPTF 1" - 2"**	**11.5**	92	26.5	16	15.9	6	707.00

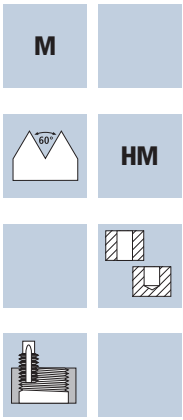
Application

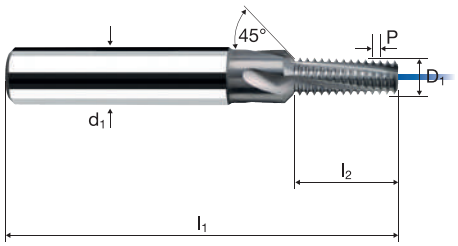
Materiale	M	D1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	L_K [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Acciaio 850 - 1100 N/mm²	M 3	2.30	0.50	3	80	0.0055	7.2	11070	43	185
	M 4	3.00	0.70	3	80	0.0070	9.4	8490	45	180
	M 5	4.00	0.80	3	80	0.0090	11.4	6365	34	170
	M 6	4.80	1.00	3	80	0.0110	14.3	5305	35	175
	M 8	6.40	1.25	3	80	0.0145	19.1	3980	35	175
	M 10	7.95	1.50	4	80	0.0180	23.1	3205	47	230
	M 12	9.95	1.75	4	80	0.0225	26.7	2560	39	230
	M 16	12.80	2.00	4	80	0.0290	37.0	1990	46	230
Acciaio 1300 - 1500 N/mm²	M 3	2.30	0.50	3	50	0.0045	7.2	6920	22	95
	M 4	3.00	0.70	3	50	0.0060	9.4	5305	24	95
	M 5	4.00	0.80	3	50	0.0080	11.4	3980	19	95
	M 6	4.80	1.00	3	50	0.0095	14.3	3315	19	95
	M 8	6.40	1.25	3	50	0.0125	19.1	2485	19	95
	M 10	7.95	1.50	4	50	0.0160	23.1	2000	27	130
	M 12	9.95	1.75	4	50	0.0200	26.7	1600	22	130
	M 16	12.80	2.00	4	50	0.0255	37.0	1245	25	125
Acciaio da utensile temperato 48 - 52 HRC	M 3	2.30	0.50	3	30	0.0035	7.2	4150	11	45
	M 4	3.00	0.70	3	30	0.0045	9.4	3185	11	45
	M 5	4.00	0.80	3	30	0.0060	11.4	2385	9	45
	M 6	4.80	1.00	3	30	0.0070	14.3	1990	8	40
	M 8	6.40	1.25	3	30	0.0095	19.1	1490	8	40
	M 10	7.95	1.50	4	30	0.0120	23.1	1200	12	60
	M 12	9.95	1.75	4	30	0.0150	26.7	960	10	60
	M 16	12.80	2.00	4	30	0.0195	37.0	745	12	60
Acciaio inossidabile [Cr-Ni/1.4301]	M 3	2.30	0.50	3	50	0.0035	7.2	6920	18	75
	M 4	3.00	0.70	3	50	0.0045	9.4	5305	18	70
	M 5	4.00	0.80	3	50	0.0060	11.4	3980	14	70
	M 6	4.80	1.00	3	50	0.0070	14.3	3315	14	70
	M 8	6.40	1.25	3	50	0.0095	19.1	2485	14	70
	M 10	7.95	1.50	4	50	0.0120	23.1	2000	19	95
	M 12	9.95	1.75	4	50	0.0150	26.7	1600	16	95
	M 16	12.80	2.00	4	50	0.0195	37.0	1245	19	95

Materiale	M	D1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	L_K [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Ghisa GG(G)	M 3	2.30	0.50	3	120	0.0055	7.2	16610	64	275
	M 4	3.00	0.70	3	120	0.0070	9.4	12735	66	265
	M 5	4.00	0.80	3	120	0.0090	11.4	9550	52	260
	M 6	4.80	1.00	3	120	0.0110	14.3	7960	53	265
	M 8	6.40	1.25	3	120	0.0145	19.1	5970	52	260
	M 10	7.95	1.50	4	120	0.0180	23.1	4805	71	345
	M 12	9.95	1.75	4	120	0.0225	26.7	3840	59	345
	M 16	12.80	2.00	4	120	0.0290	37.0	2985	69	345
Alluminio malleabile Si < 6%	M 3	2.30	0.50	3	150	0.0070	7.2	20760	102	435
	M 4	3.00	0.70	3	150	0.0095	9.4	15915	114	455
	M 5	4.00	0.80	3	150	0.0125	11.4	11935	90	450
	M 6	4.80	1.00	3	150	0.0155	14.3	9945	92	460
	M 8	6.40	1.25	3	150	0.0205	19.1	7460	92	460
	M 10	7.95	1.50	4	150	0.0250	23.1	6005	123	600
	M 12	9.95	1.75	4	150	0.0315	26.7	4800	103	605
	M 16	12.80	2.00	4	150	0.0405	37.0	3730	121	605
Getti d'alluminio	M 3	2.30	0.50	3	200	0.0070	7.2	27680	135	580
	M 4	3.00	0.70	3	200	0.0095	9.4	21220	151	605
	M 5	4.00	0.80	3	200	0.0125	11.4	15915	119	595
	M 6	4.80	1.00	3	200	0.0155	14.3	13265	123	615
	M 8	6.40	1.25	3	200	0.0205	19.1	9945	122	610
	M 10	7.95	1.50	4	200	0.0250	23.1	8010	164	800
	M 12	9.95	1.75	4	200	0.0315	26.7	6400	138	805
	M 16	12.80	2.00	4	200	0.0405	37.0	4975	161	805
Leghe di titanio indurite > 300 HB [Ti6Al4V]	M 3	2.30	0.50	3	40	0.0035	7.2	5535	14	60
	M 4	3.00	0.70	3	40	0.0045	9.4	4245	14	55
	M 5	4.00	0.80	3	40	0.0060	11.4	3185	11	55
	M 6	4.80	1.00	3	40	0.0070	14.3	2655	11	55
	M 8	6.40	1.25	3	40	0.0095	19.1	1990	11	55
	M 10	7.95	1.50	4	40	0.0120	23.1	1600	15	75
	M 12	9.95	1.75	4	40	0.0150	26.7	1280	13	75
	M 16	12.80	2.00	4	40	0.0195	37.0	995	16	80

Frese a filettare

2xd, smusso a 45°, Incool





Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium/Copper GG(G)

Esempio: **N° Ordine** — Articolo **EH24300** Codice-ø **044**

ø Code	d	P	l1	l2	d1 h6	D1	Rk 6H		TiCN EH24300
									€
044 *	**M 3**	**0.50**	48	6.8	6	2.30	1.125	3	281.00
058	**M 4**	**0.70**	48	8.8	6	3.00	1.465	3	268.00
084	**M 5**	**0.80**	54	10.8	6	4.00	1.960	3	268.00
088	**M 6**	**1.00**	62	13.5	8	4.80	2.350	3	295.00
160	**M 8**	**1.25**	74	18.1	10	6.40	3.138	3	353.00
174	**M10**	**1.50**	80	21.8	12	7.95	3.900	4	414.00
240	**M12**	**1.75**	90	25.4	14	9.95	4.887	4	586.00
246	**M16**	**2.00**	102	35.0	18	12.80	6.300	4	862.00

* Senza adduzione interna del refrigerante

Application

Materiale	MF	D1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	L_K [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Acciaio 850 - 1100 N/mm²	M 4	3.00	0.50	3	80	0.0070	9.4	8490	45	180
	M 5	4.00	0.50	3	80	0.0090	11.4	6365	34	170
	M 6	4.80	0.50	3	80	0.0110	13.6	5305	35	175
	M 6	4.80	0.75	3	80	0.0110	13.9	5305	35	175
	M 8	6.40	0.75	3	80	0.0145	17.9	3980	35	175
	M 8	6.40	1.00	3	80	0.0145	18.5	3980	35	175
	M 10	7.95	1.00	4	80	0.0180	22.8	3205	47	230
	M 10	7.95	1.25	4	80	0.0180	23.2	3205	47	230
	M 12	9.95	1.00	4	80	0.0225	26.8	2560	39	230
Acciaio 850 - 1100 N/mm²	M 12	9.95	1.50	4	80	0.0225	27.6	2560	39	230
	M 14	11.20	1.50	4	80	0.0250	32.6	2275	46	230
	M 16	12.80	1.50	4	80	0.0290	35.8	1990	46	230
Acciaio 1300 - 1500 N/mm²	M 4	3.00	0.50	3	50	0.0060	9.4	5305	24	95
	M 5	4.00	0.50	3	50	0.0080	11.4	3980	19	95
	M 6	4.80	0.50	3	50	0.0095	13.6	3315	19	95
	M 6	4.80	0.75	3	50	0.0095	13.9	3315	19	95
	M 8	6.40	0.75	3	50	0.0125	17.9	2485	19	95
	M 8	6.40	1.00	3	50	0.0125	18.5	2485	19	95
	M 10	7.95	1.00	4	50	0.0160	22.8	2000	27	130
	M 10	7.95	1.25	4	50	0.0160	23.2	2000	27	130
	M 12	9.95	1.00	4	50	0.0200	26.8	1600	22	130
Acciaio 1300 - 1500 N/mm²	M 12	9.95	1.50	4	50	0.0200	27.6	1600	22	130
	M 14	11.20	1.50	4	50	0.0225	32.6	1420	26	130
	M 16	12.80	1.50	4	50	0.0255	35.8	1245	25	125

Materiale	MF	D1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	L_K [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Alluminio malleabile Si < 6%	M 4	3.00	0.50	3	150	0.0095	9.4	15915	114	455
	M 5	4.00	0.50	3	150	0.0125	11.4	11935	90	450
	M 6	4.80	0.50	3	150	0.0155	13.6	9945	92	460
	M 6	4.80	0.75	3	150	0.0155	13.9	9945	92	460
	M 8	6.40	0.75	3	150	0.0205	17.9	7460	92	460
	M 8	6.40	1.00	3	150	0.0205	18.5	7460	92	460
	M 10	7.95	1.00	4	150	0.0250	22.8	6005	123	600
	M 10	7.95	1.25	4	150	0.0250	23.2	6005	123	600
	M 12	9.95	1.00	4	150	0.0315	26.8	4800	103	605
Alluminio malleabile Si < 6%	M 12	9.95	1.50	4	150	0.0315	27.6	4800	103	605
	M 14	11.20	1.50	4	150	0.0355	32.6	4265	121	605
	M 16	12.80	1.50	4	150	0.0405	35.8	3730	121	605
Ghisa GG(G)	M 4	3.00	0.50	3	120	0.0070	9.4	12735	66	265
	M 5	4.00	0.50	3	120	0.0090	11.4	9550	52	260
	M 6	4.80	0.50	3	120	0.0110	13.6	7960	53	265
	M 6	4.80	0.75	3	120	0.0110	13.9	7960	53	265
	M 8	6.40	0.75	3	120	0.0145	17.9	5970	52	260
	M 8	6.40	1.00	3	120	0.0145	18.5	5970	52	260
	M 10	7.95	1.00	4	120	0.0180	22.8	4805	71	345
	M 10	7.95	1.25	4	120	0.0180	23.2	4805	71	345
	M 12	9.95	1.00	4	120	0.0225	26.8	3840	59	345
Ghisa GG(G)	M 12	9.95	1.50	4	120	0.0225	27.6	3840	59	345
	M 14	11.20	1.50	4	120	0.0250	32.6	3410	68	340
	M 16	12.80	1.50	4	120	0.0290	35.8	2985	69	345

Frese a filettare

2xd, smusso a 45°, Incool

MF

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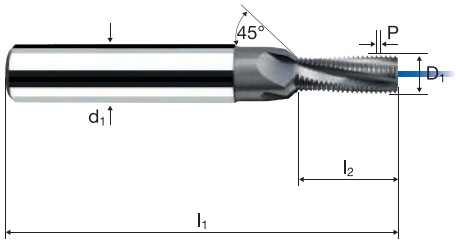


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless	Ti Titanium	Aluminium/Copper GG(G)

Esempio: **N° Ordine** — Articolo **EH24320** Codice-ø **046**

ø Code	d	P	l1	l2	d1 h6	D1	Rk 6H		TiCN EH24320 €
046	M 4	0.50	48	8.8	6	3.00	1.475	3	367.00
048	M 5	0.50	54	10.8	6	4.00	1.975	3	367.00
050	M 6	0.50	62	12.8	8	4.80	2.375	3	434.00
064	M 6	0.75	62	13.1	8	4.80	2.363	3	348.00
066	M 8	0.75	74	16.9	10	6.40	3.163	3	383.00
090	M 8	1.00	74	17.5	10	6.40	3.150	3	391.00
092	M10	1.00	80	21.5	12	7.95	3.925	4	455.00
162	M10	1.25	80	21.9	12	7.95	3.913	4	444.00
094	M12	1.00	90	25.5	14	9.95	4.925	4	636.00
176	M12	1.50	90	26.3	14	9.95	4.900	4	654.00
178	M14	1.50	102	30.8	16	11.20	5.525	4	691.00
180	M16	1.50	102	33.8	18	12.80	6.325	4	864.00

Application

Materiale	G	D1 [mm]	P (TPI)	z	v_c [m/min]	f_z [mm]	L_K [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Acciaio 850 - 1100 N/mm²	G 1/8	7.95	28	4	80	0.0180	22.4	3205	42	230
	G 1/4	10.50	19	4	80	0.0240	30.4	2425	47	235
	G 3/8	13.60	19	4	80	0.0310	37.3	1870	42	230
Acciaio 1300 - 1500 N/mm²	G 1/8	7.95	28	4	50	0.0160	22.4	2000	24	130
	G 1/4	10.50	19	4	50	0.0210	30.4	1515	25	125
	G 3/8	13.60	19	4	50	0.0275	37.3	1170	24	130
Acciaio da utensile temperato 48 - 52 HRC	G 1/8	7.95	28	4	30	0.0120	22.4	1200	11	60
	G 1/4	10.50	19	4	30	0.0160	30.4	910	12	60
	G 3/8	13.60	19	4	30	0.0205	37.3	700	10	55
Acciaio inossidabile [Cr-Ni/1.4301]	G 1/8	7.95	28	4	50	0.0120	22.4	2000	17	95
	G 1/4	10.50	19	4	50	0.0160	30.4	1515	19	95
	G 3/8	13.60	19	4	50	0.0205	37.3	1170	17	95

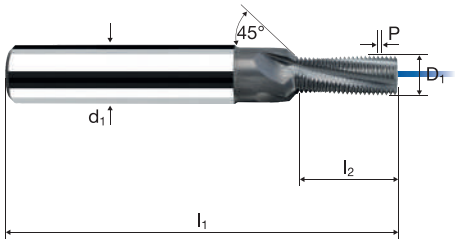
Materiale	G	D1 [mm]	P (TPI)	z	v_c [m/min]	f_z [mm]	L_K [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Ghisa GG(G)	G 1/8	7.95	28	4	120	0.0180	22.4	4805	63	345
	G 1/4	10.50	19	4	120	0.0240	30.4	3640	71	350
	G 3/8	13.60	19	4	120	0.0310	37.3	2810	64	350
Alluminio malleabile Si < 6%	G 1/8	7.95	28	4	150	0.0250	22.4	6005	110	600
	G 1/4	10.50	19	4	150	0.0335	30.4	4545	123	610
	G 3/8	13.60	19	4	150	0.0430	37.3	3510	111	605
Getti d'alluminio	G 1/8	7.95	28	4	200	0.0250	22.4	8010	146	800
	G 1/4	10.50	19	4	200	0.0335	30.4	6065	165	815
	G 3/8	13.60	19	4	200	0.0430	37.3	4680	148	805
Leghe di titanio indurite > 300 HB [Ti6Al4V]	G 1/8	7.95	28	4	40	0.0120	22.4	1600	14	75
	G 1/4	10.50	19	4	40	0.0160	30.4	1215	16	80
	G 3/8	13.60	19	4	40	0.0205	37.3	935	14	75

Frese a filettare

2xd, smusso a 45°, Incool

G

HM



Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium/Copper GG(G)

Esempio: **N° Ordine** — Articolo **EH24340** Codice-ø **551**

ø Code	d	P(TPI)	l_1	l_2	d_1 h6	D_1	R_k		TiCN EH24340 €
551	**G 1/8**	**28**	80	21.3	12	7.95	3.930	4	459.00
552	**G 1/4**	**19**	90	28.7	14	9.95	5.183	4	660.00
553	**G 3/8**	**19**	102	35.4	18	13.60	6.733	4	940.00

Application

Materiale	UNC	D1 [mm]	P (TPI)	z	v_c [m/min]	f_z [mm]	L_K [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Acciaio 850 - 1100 N/mm²	1/4	4.80	20	3	80	0.0110	15.5	5305	43	175
	5/16	5.95	18	3	80	0.0135	18.8	4280	44	175
	3/8	7.10	16	4	80	0.0160	22.9	3585	59	230
	7/16	7.95	14	4	80	0.0180	26.4	3205	65	230
	1/2	9.95	13	4	80	0.0225	30.0	2560	50	230
Acciaio 1300 - 1500 N/mm²	1/4	4.80	20	3	50	0.0095	15.5	3315	23	95
	5/16	5.95	18	3	50	0.0120	18.8	2675	24	95
	3/8	7.10	16	4	50	0.0145	22.9	2240	33	130
	7/16	7.95	14	4	50	0.0160	26.4	2000	37	130
	1/2	9.95	13	4	50	0.0200	30.0	1600	28	130
Acciaio da utensile temperato 48 - 52 HRC	1/4	4.80	20	3	30	0.0075	15.5	1990	11	45
	5/16	5.95	18	3	30	0.0090	18.8	1605	11	45
	3/8	7.10	16	4	30	0.0110	22.9	1345	15	60
	7/16	7.95	14	4	30	0.0120	26.4	1200	17	60
	1/2	9.95	13	4	30	0.0150	30.0	960	13	60
Acciaio inossidabile [Cr-Ni/1.4301]	1/4	4.80	20	3	50	0.0075	15.5	3315	18	75
	5/16	5.95	18	3	50	0.0090	18.8	2675	18	70
	3/8	7.10	16	4	50	0.0110	22.9	2240	25	100
	7/16	7.95	14	4	50	0.0120	26.4	2000	27	95
	1/2	9.95	13	4	50	0.0150	30.0	1600	21	95

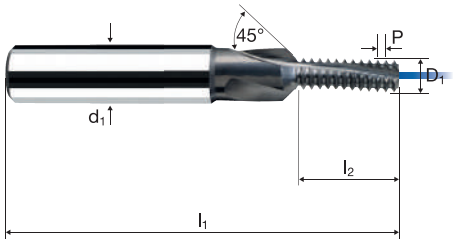
Materiale	UNC	D1 [mm]	P (TPI)	z	v_c [m/min]	f_z [mm]	L_K [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Ghisa GG(G)	1/4	4.80	20	3	120	0.0110	15.5	7960	65	265
	5/16	5.95	18	3	120	0.0135	18.8	6420	65	260
	3/8	7.10	16	4	120	0.0160	22.9	5380	88	345
	7/16	7.95	14	4	120	0.0180	26.4	4805	98	345
	1/2	9.95	13	4	120	0.0225	30.0	3840	75	345
Alluminio malleabile Si < 6%	1/4	4.80	20	3	150	0.0150	15.5	9945	110	450
	5/16	5.95	18	3	150	0.0190	18.8	8025	114	455
	3/8	7.10	16	4	150	0.0225	22.9	6725	154	605
	7/16	7.95	14	4	150	0.0250	26.4	6005	171	600
	1/2	9.95	13	4	150	0.0315	30.0	4800	131	605
Getti d'alluminio	1/4	4.80	20	3	200	0.0150	15.5	13265	145	595
	5/16	5.95	18	3	200	0.0190	18.8	10700	153	610
	3/8	7.10	16	4	200	0.0225	22.9	8965	205	805
	7/16	7.95	14	4	200	0.0250	26.4	8010	228	800
	1/2	9.95	13	4	200	0.0315	30.0	6400	174	805
Leghe di titanio indurite > 300 HB [Ti6Al4V]	1/4	4.80	20	3	40	0.0075	15.5	2655	15	60
	5/16	5.95	18	3	40	0.0090	18.8	2140	15	60
	3/8	7.10	16	4	40	0.0110	22.9	1795	20	80
	7/16	7.95	14	4	40	0.0120	26.4	1600	21	75
	1/2	9.95	13	4	40	0.0150	30.0	1280	16	75

Frese a filettare

2xd, smusso a 45°, Incool

UNC

HM



Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium/Copper GG(G)

Esempio: **N° Ordine** — Articolo **EH24360** Codice-ø **709**

ø Code	d	P(TPI)	l1	l2	d1 h6	D1	Rk 2B		TiCN EH24360 €
709	**1/4**	**20**	62	14.6	8	4.80	2.337	3	329.00
710	**5/16**	**18**	74	17.6	10	5.95	2.904	3	384.00
711	**3/8**	**16**	80	21.4	12	7.10	3.471	4	446.00
712	**7/16**	**14**	80	24.5	12	7.95	3.884	4	446.00
713	**1/2**	**13**	90	28.3	14	9.95	4.877	4	679.00

Application

Materiale	UNF	D1 [mm]	P (TPI)	z	v_c [m/min]	f_z [mm]	L_K [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Acciaio 850 - 1100 N/mm²	1/4	4.80	28	3	80	0.0110	15.0	5305	43	175
	5/16	5.95	24	3	80	0.0135	18.7	4280	44	175
	3/8	7.95	24	4	80	0.0180	21.6	3205	38	230
	7/16	7.95	20	4	80	0.0180	26.7	3205	65	230
	1/2	9.95	20	4	80	0.0225	29.0	2560	50	230
Acciaio 1300 - 1500 N/mm²	1/4	4.80	28	3	50	0.0095	15.0	3315	23	95
	5/16	5.95	24	3	50	0.0120	18.7	2675	24	95
	3/8	7.95	24	4	50	0.0160	21.6	2000	21	130
	7/16	7.95	20	4	50	0.0160	26.7	2000	37	130
	1/2	9.95	20	4	50	0.0200	29.0	1600	28	130
Acciaio da utensile temperato 48 - 52 HRC	1/4	4.80	28	3	30	0.0075	15.0	1990	11	45
	5/16	5.95	24	3	30	0.0090	18.7	1605	11	45
	3/8	7.95	24	4	30	0.0120	21.6	1200	10	60
	7/16	7.95	20	4	30	0.0120	26.7	1200	17	60
	1/2	9.95	20	4	30	0.0150	29.0	960	13	60
Acciaio inossidabile [Cr-Ni/1.4301]	1/4	4.80	28	3	50	0.0075	15.0	3315	18	75
	5/16	5.95	24	3	50	0.0090	18.7	2675	18	70
	3/8	7.95	24	4	50	0.0120	21.6	2000	16	95
	7/16	7.95	20	4	50	0.0120	26.7	2000	27	95
	1/2	9.95	20	4	50	0.0150	29.0	1600	21	95

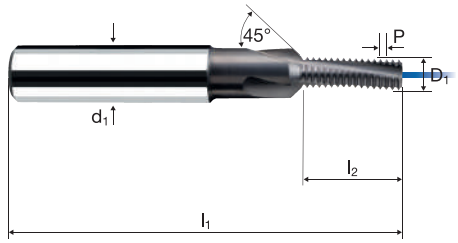
Materiale	UNF	D1 [mm]	P (TPI)	z	v_c [m/min]	f_z [mm]	L_K [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Ghisa GG(G)	1/4	4.80	28	3	120	0.0110	15.0	7960	65	265
	5/16	5.95	24	3	120	0.0135	18.7	6420	65	260
	3/8	7.95	24	4	120	0.0180	21.6	4805	57	345
	7/16	7.95	20	4	120	0.0180	26.7	4805	98	345
	1/2	9.95	20	4	120	0.0225	29.0	3840	75	345
Alluminio malleabile Si < 6%	1/4	4.80	28	3	150	0.0150	15.0	9945	110	450
	5/16	5.95	24	3	150	0.0190	18.7	8025	114	455
	3/8	7.95	24	4	150	0.0250	21.6	6005	99	600
	7/16	7.95	20	4	150	0.0250	26.7	6005	171	600
	1/2	9.95	20	4	150	0.0315	29.0	4800	131	605
Getti d'alluminio	1/4	4.80	28	3	200	0.0150	15.0	13265	145	595
	5/16	5.95	24	3	200	0.0190	18.7	10700	153	610
	3/8	7.95	24	4	200	0.0250	21.6	8010	132	800
	7/16	7.95	20	4	200	0.0250	26.7	8010	228	800
	1/2	9.95	20	4	200	0.0315	29.0	6400	174	805
Leghe di titanio indurite > 300 HB [Ti6Al4V]	1/4	4.80	28	3	40	0.0075	15.0	2655	15	60
	5/16	5.95	24	3	40	0.0090	18.7	2140	15	60
	3/8	7.95	24	4	40	0.0120	21.6	1600	12	75
	7/16	7.95	20	4	40	0.0120	26.7	1600	21	75
	1/2	9.95	20	4	40	0.0150	29.0	1280	16	75

Frese a filettare

2xd, smusso a 45°, Incool

UNF

HM



Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium/Copper GG(G)

Esempio: **N° Ordine** — Articolo **EH24370** Codice-ø **760**

ø Code	d	P(TPI)	l1	l2	d1 h6	D1	Rk 2B		TiCN EH24370 €
760	**1/4**	**28**	62	14.1	8	4.80	2.355	3	376.00
761	**5/16**	**24**	74	17.5	10	5.95	2.922	3	428.00
762	**3/8**	**24**	80	20.6	12	7.95	3.922	4	491.00
763	**7/16**	**20**	80	24.8	12	7.95	3.912	4	491.00
764	**1/2**	**20**	90	27.3	14	9.95	4.911	4	666.00

Application

Materiale	M	D1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	L_K [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Acciaio 850 - 1100 N/mm²	M 3	2.30	0.50	3	80	0.0060	5.7	11070	47	200
	M 4	3.00	0.70	3	80	0.0075	8.0	8490	48	190
	M 5	4.00	0.80	3	80	0.0100	9.8	6365	38	190
	M 6	4.80	1.00	3	80	0.0120	11.3	5305	38	190
	M 8	6.40	1.25	3	80	0.0160	14.1	3980	38	190
	M 10	7.95	1.50	4	80	0.0200	18.6	3205	52	255
	M 12	9.95	1.75	4	80	0.0250	21.4	2560	44	255
	M 16	12.80	2.00	4	80	0.0320	29.0	1990	51	255
Acciaio 1300 - 1500 N/mm²	M 3	2.30	0.50	3	50	0.0050	5.7	6920	25	105
	M 4	3.00	0.70	3	50	0.0065	8.0	5305	26	105
	M 5	4.00	0.80	3	50	0.0090	9.8	3980	21	105
	M 6	4.80	1.00	3	50	0.0105	11.3	3315	21	105
	M 8	6.40	1.25	3	50	0.0140	14.1	2485	21	105
	M 10	7.95	1.50	4	50	0.0175	18.6	2000	29	140
	M 12	9.95	1.75	4	50	0.0220	21.4	1600	24	140
	M 16	12.80	2.00	4	50	0.0285	29.0	1245	28	140
Acciaio da utensile temperato 48 - 52 HRC	M 3	2.30	0.50	3	30	0.0040	5.7	4150	12	50
	M 4	3.00	0.70	3	30	0.0050	8.0	3185	13	50
	M 5	4.00	0.80	3	30	0.0065	9.8	2385	9	45
	M 6	4.80	1.00	3	30	0.0080	11.3	1990	10	50
	M 8	6.40	1.25	3	30	0.0105	14.1	1490	9	45
	M 10	7.95	1.50	4	30	0.0135	18.6	1200	13	65
	M 12	9.95	1.75	4	30	0.0165	21.4	960	11	65
	M 16	12.80	2.00	4	30	0.0215	29.0	745	13	65
Acciaio inossidabile [Cr-Ni/1.4301]	M 3	2.30	0.50	3	50	0.0040	5.7	6920	20	85
	M 4	3.00	0.70	3	50	0.0050	8.0	5305	20	80
	M 5	4.00	0.80	3	50	0.0065	9.8	3980	16	80
	M 6	4.80	1.00	3	50	0.0080	11.3	3315	16	80
	M 8	6.40	1.25	3	50	0.0105	14.1	2485	16	80
	M 10	7.95	1.50	4	50	0.0135	18.6	2000	23	110
	M 12	9.95	1.75	4	50	0.0165	21.4	1600	18	105
	M 16	12.80	2.00	4	50	0.0215	29.0	1245	21	105

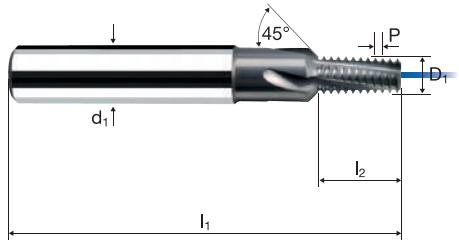
Materiale	M	D1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	L_K [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Ghisa GG(G)	M 3	2.30	0.50	3	120	0.0060	5.7	16610	70	300
	M 4	3.00	0.70	3	120	0.0075	8.0	12735	71	285
	M 5	4.00	0.80	3	120	0.0100	9.8	9550	57	285
	M 6	4.80	1.00	3	120	0.0120	11.3	7960	57	285
	M 8	6.40	1.25	3	120	0.0160	14.1	5970	57	285
	M 10	7.95	1.50	4	120	0.0200	18.6	4805	79	385
	M 12	9.95	1.75	4	120	0.0250	21.4	3840	66	385
	M 16	12.80	2.00	4	120	0.0320	29.0	2985	76	380
Alluminio malleabile Si < 6%	M 3	2.30	0.50	3	150	0.0080	5.7	20760	117	500
	M 4	3.00	0.70	3	150	0.0105	8.0	15915	125	500
	M 5	4.00	0.80	3	150	0.0140	9.8	11935	100	500
	M 6	4.80	1.00	3	150	0.0170	11.3	9945	101	505
	M 8	6.40	1.25	3	150	0.0225	14.1	7460	101	505
	M 10	7.95	1.50	4	150	0.0280	18.6	6005	138	675
	M 12	9.95	1.75	4	150	0.0350	21.4	4800	114	670
	M 16	12.80	2.00	4	150	0.0450	29.0	3730	134	670
Getti d'alluminio	M 3	2.30	0.50	3	200	0.0080	5.7	27680	155	665
	M 4	3.00	0.70	3	200	0.0105	8.0	21220	168	670
	M 5	4.00	0.80	3	200	0.0140	9.8	15915	134	670
	M 6	4.80	1.00	3	200	0.0170	11.3	13265	135	675
	M 8	6.40	1.25	3	200	0.0225	14.1	9945	134	670
	M 10	7.95	1.50	4	200	0.0280	18.6	8010	183	895
	M 12	9.95	1.75	4	200	0.0350	21.4	6400	153	895
	M 16	12.80	2.00	4	200	0.0450	29.0	4975	179	895
Leghe di titanio indurite > 300 HB [Ti6Al4V]	M 3	2.30	0.50	3	40	0.0040	5.7	5535	15	65
	M 4	3.00	0.70	3	40	0.0050	8.0	4245	16	65
	M 5	4.00	0.80	3	40	0.0065	9.8	3185	12	60
	M 6	4.80	1.00	3	40	0.0080	11.3	2655	13	65
	M 8	6.40	1.25	3	40	0.0105	14.1	1990	13	65
	M 10	7.95	1.50	4	40	0.0135	18.6	1600	17	85
	M 12	9.95	1.75	4	40	0.0165	21.4	1280	15	85
	M 16	12.80	2.00	4	40	0.0215	29.0	995	17	85

Frese a filettare

1.5xd, smusso 45°, Incool

M

HM



Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium/Copper GG(G)

Esempio: **N° Ordine** — Articolo **EH24200** Codice-ø **044**

ø Code	d	P	l_1	l_2	d_1 h6	D_1	R_k 6H		TiCN EH24200 €
044 *	M 3	0.50	48	5.3	6	2.30	1.125	3	281.00
058	M 4	0.70	48	7.4	6	3.00	1.465	3	268.00
084	M 5	0.80	54	9.2	6	4.00	1.960	3	268.00
088	M 6	1.00	62	10.5	8	4.80	2.350	3	295.00
160	M 8	1.25	74	13.1	10	6.40	3.138	3	353.00
174	M10	1.50	80	17.3	12	7.95	3.900	4	414.00
240	M12	1.75	90	20.1	14	9.95	4.887	4	586.00
246	M16	2.00	102	27.0	18	12.80	6.300	4	862.00

* Senza adduzione interna del refrigerante

Application

Materiale	MF	D1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	L_K [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Acciaio 850 - 1100 N/mm²	M 4	3.00	0.50	3	80	0.0075	7.9	8490	48	190
	M 5	4.00	0.50	3	80	0.0100	9.4	6365	38	190
	M 6	4.80	0.50	3	80	0.0120	10.6	5305	38	190
	M 6	4.80	0.75	3	80	0.0120	10.8	5305	38	190
	M 8	6.40	0.75	3	80	0.0160	14.1	3980	38	190
	M 8	6.40	1.00	3	80	0.0160	14.5	3980	38	190
	M 10	7.95	1.00	4	80	0.0200	17.8	3205	52	255
	M 10	7.95	1.25	4	80	0.0200	18.2	3205	52	255
	M 12	9.95	1.00	4	80	0.0250	20.8	2560	44	255
Acciaio 850 - 1100 N/mm²	M 12	9.95	1.50	4	80	0.0250	21.6	2560	44	255
	M 14	11.20	1.50	4	80	0.0280	25.1	2275	51	255
	M 16	12.80	1.50	4	80	0.0320	28.3	1990	51	255
Acciaio 1300 - 1500 N/mm²	M 4	3.00	0.50	3	50	0.0065	7.9	5305	26	105
	M 5	4.00	0.50	3	50	0.0090	9.4	3980	21	105
	M 6	4.80	0.50	3	50	0.0105	10.6	3315	21	105
	M 6	4.80	0.75	3	50	0.0105	10.8	3315	21	105
	M 8	6.40	0.75	3	50	0.0140	14.1	2485	21	105
	M 8	6.40	1.00	3	50	0.0140	14.5	2485	21	105
	M 10	7.95	1.00	4	50	0.0175	17.8	2000	29	140
	M 10	7.95	1.25	4	50	0.0175	18.2	2000	29	140
	M 12	9.95	1.00	4	50	0.0220	20.8	1600	24	140
Acciaio 1300 - 1500 N/mm²	M 12	9.95	1.50	4	50	0.0220	21.6	1600	24	140
	M 14	11.20	1.50	4	50	0.0250	25.1	1420	28	140
	M 16	12.80	1.50	4	50	0.0285	28.3	1245	28	140

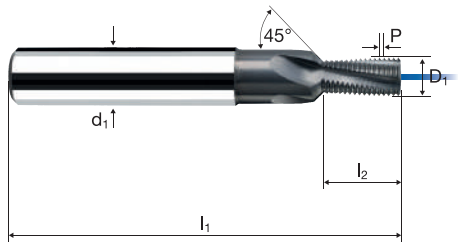
Materiale	MF	D1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	L_K [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Alluminio malleabile Si < 6%	M 4	3.00	0.50	3	150	0.0105	7.9	15915	125	500
	M 5	4.00	0.50	3	150	0.0140	9.4	11935	100	500
	M 6	4.80	0.50	3	150	0.0170	10.6	9945	101	505
	M 6	4.80	0.75	3	150	0.0170	10.8	9945	101	505
	M 8	6.40	0.75	3	150	0.0225	14.1	7460	101	505
	M 8	6.40	1.00	3	150	0.0225	14.5	7460	101	505
	M 10	7.95	1.00	4	150	0.0280	17.8	6005	138	675
	M 10	7.95	1.25	4	150	0.0280	18.2	6005	138	675
	M 12	9.95	1.00	4	150	0.0350	20.8	4800	114	670
Alluminio malleabile Si < 6%	M 12	9.95	1.50	4	150	0.0350	21.6	4800	114	670
	M 14	11.20	1.50	4	150	0.0395	25.1	4265	135	675
	M 16	12.80	1.50	4	150	0.0450	28.3	3730	134	670
Ghisa GG(G)	M 4	3.00	0.50	3	120	0.0075	7.9	12735	71	285
	M 5	4.00	0.50	3	120	0.0100	9.4	9550	57	285
	M 6	4.80	0.50	3	120	0.0120	10.6	7960	57	285
	M 6	4.80	0.75	3	120	0.0120	10.8	7960	57	285
	M 8	6.40	0.75	3	120	0.0160	14.1	5970	57	285
	M 8	6.40	1.00	3	120	0.0160	14.5	5970	57	285
	M 10	7.95	1.00	4	120	0.0200	17.8	4805	79	385
	M 10	7.95	1.25	4	120	0.0200	18.2	4805	79	385
	M 12	9.95	1.00	4	120	0.0250	20.8	3840	66	385
Ghisa GG(G)	M 12	9.95	1.50	4	120	0.0250	21.6	3840	66	385
	M 14	11.20	1.50	4	120	0.0280	25.1	3410	76	380
	M 16	12.80	1.50	4	120	0.0320	28.3	2985	76	380

Frese a filettare

1.5xd, smusso a 45°, Incool

MF

HM

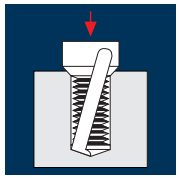


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium/Copper GG(G)

Esempio: **N° Ordine** — Articolo **EH24220** Codice-ø **046**

ø Code	d	P	l1	l2	d1 h6	D1	Rk 6H		TiCN EH24220 €
046	M 4	0.50	48	7.3	6	3.00	1.475	3	367.00
048	M 5	0.50	54	8.8	6	4.00	1.975	3	367.00
050	M 6	0.50	62	9.8	8	4.80	2.375	3	434.00
064	M 6	0.75	62	10.1	8	4.80	2.363	3	348.00
066	M 8	0.75	74	13.1	10	6.40	3.163	3	383.00
090	M 8	1.00	74	13.5	10	6.40	3.150	3	391.00
092	M10	1.00	80	16.5	12	7.95	3.925	4	465.00
162	M10	1.25	80	16.9	12	7.95	3.913	4	460.00
094	M12	1.00	90	19.5	14	9.95	4.925	4	636.00
176	M12	1.50	90	20.3	14	9.95	4.900	4	636.00
178	M14	1.50	102	23.3	16	11.20	5.525	4	691.00
180	M16	1.50	102	26.3	18	12.80	6.325	4	904.00

Application



Materiale

Materiale	M	d2 [mm]	v_c [m/min]	f [mm]	L_K [mm]	n [min^{-1}]	v_f [mm/min]
Ghisa GG(G)	M 4	3.30	100	0.050	9.5	9645	480
	M 5	4.20	100	0.065	11.8	7580	495
	M 6	5.00	100	0.075	14.7	6365	475
	M 8	6.80	100	0.100	19.7	4680	470
	M 10	8.50	100	0.125	23.8	3745	470
	M 12	10.20	100	0.150	27.4	3120	470
	M 16	14.00	100	0.210	37.8	2275	480
Getti d'alluminio	M 4	3.30	250	0.060	9.5	24115	1445
	M 5	4.20	250	0.075	11.8	18950	1420
	M 6	5.00	250	0.090	14.7	15915	1430
	M 8	6.80	250	0.120	19.7	11705	1405
	M 10	8.50	250	0.150	23.8	9360	1405
	M 12	10.20	250	0.180	27.4	7800	1405
	M 16	14.00	250	0.250	37.8	5685	1420
Alluminio malleabile Si < 6% Raccomandazione: senza rivestimento	M 4	3.30	200	0.060	9.5	19290	1155
	M 5	4.20	200	0.075	11.8	15160	1135
	M 6	5.00	200	0.090	14.7	12735	1145
	M 8	6.80	200	0.120	19.7	9360	1125
	M 10	8.50	200	0.150	23.8	7490	1125
	M 12	10.20	200	0.180	27.4	6240	1125
	M 16	14.00	200	0.250	37.8	4545	1135
Ottone a truciolo corto CuZn	M 4	3.30	250	0.060	9.5	24115	1445
	M 5	4.20	250	0.075	11.8	18950	1420
	M 6	5.00	250	0.090	14.7	15915	1430
	M 8	6.80	250	0.120	19.7	11705	1405
	M 10	8.50	250	0.150	23.8	9360	1405
	M 12	10.20	250	0.180	27.4	7800	1405
	M 16	14.00	250	0.250	37.8	5685	1420

Parametri di taglio degli utensili con rivestimento TiCN

Application

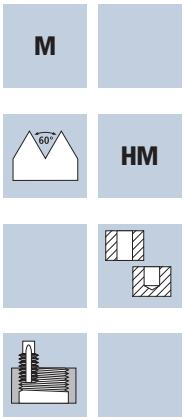
Materiale

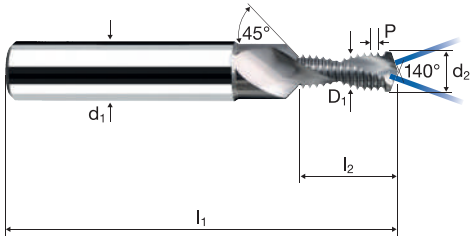
Materiale	M	D1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	n [mm^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Ghisa GG(G)	M 4	3.20	0.70	2	100	0.020	9945	80	400
	M 5	4.00	0.80	2	100	0.025	7960	80	400
	M 6	4.75	1.00	2	100	0.030	6700	83	400
	M 8	6.35	1.25	2	100	0.040	5015	83	400
	M 10	7.95	1.50	2	100	0.055	4005	90	440
	M 12	9.95	1.75	2	100	0.065	3200	71	415
	M 16	13.20	2.00	2	100	0.090	2410	76	435
Getti d'alluminio	M 4	3.20	0.70	2	250	0.025	24870	249	1245
	M 5	4.00	0.80	2	250	0.030	19895	239	1195
	M 6	4.75	1.00	2	250	0.035	16755	245	1175
	M 8	6.35	1.25	2	250	0.050	12530	259	1255
	M 10	7.95	1.50	2	250	0.060	10010	246	1200
	M 12	9.95	1.75	2	250	0.075	8000	205	1200
	M 16	13.20	2.00	2	250	0.100	6030	211	1205
Alluminio malleabile Si < 6% Raccomandazione: senza rivestimento	M 4	3.20	0.70	2	200	0.025	19895	199	995
	M 5	4.00	0.80	2	200	0.030	15915	191	955
	M 6	4.75	1.00	2	200	0.035	13405	196	940
	M 8	6.35	1.25	2	200	0.050	10025	207	1005
	M 10	7.95	1.50	2	200	0.060	8010	197	960
	M 12	9.95	1.75	2	200	0.075	6400	164	960
	M 16	13.20	2.00	2	200	0.100	4825	169	965
Ottone a truciolo corto CuZn	M 4	3.20	0.70	2	250	0.025	24870	249	1245
	M 5	4.00	0.80	2	250	0.030	19895	239	1195
	M 6	4.75	1.00	2	250	0.035	16755	245	1175
	M 8	6.35	1.25	2	250	0.050	12530	259	1255
	M 10	7.95	1.50	2	250	0.060	10010	246	1200
	M 12	9.95	1.75	2	250	0.075	8000	205	1200
	M 16	13.20	2.00	2	250	0.100	6030	211	1205

Parametri di taglio degli utensili con rivestimento TiCN

Frese a forare e filettare

2xd, smusso a 45°, Incool



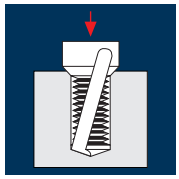


					Al Aluminium Alloy	Al Aluminium Cast		Cu Copper	Plastic Thermoplast	GG(G) CuZn Brass

Esempio: **N° Ordine** — Articolo **EH22300** Codice-ø **058**

ø Code	d	P	l_1	l_2	$d_{1\ h6}$	d_2	D_1	$R_{k\ 6H}$		E22300 €	TiCN EH22300 €
058	**M 4**	**0.70**	48	9.0	6	3.3	3.20	1.560	2	486.00	518.00
084	**M 5**	**0.80**	54	11.2	6	4.2	4.00	1.950	2	475.00	512.00
088	**M 6**	**1.00**	62	13.9	8	5.0	4.75	2.315	2	462.00	515.00
160	**M 8**	**1.25**	74	18.7	10	6.8	6.35	3.095	2	552.00	605.00
174	**M10**	**1.50**	80	22.5	12	8.5	7.95	3.875	2	648.00	690.00
240	**M12**	**1.75**	90	26.1	14	10.2	9.95	4.855	2	850.00	903.00
246	**M16**	**2.00**	102	36.0	18	14.0	13.20	6.440	2	1235.00	1288.00

Application



Materiale

Materiale	M	d2 [mm]	v_c [m/min]	f [mm]	L_K [mm]	n [min⁻¹]	v_f [mm/min]
Ghisa GG(G)	M 4	3.30	100	0.050	7.4	9645	480
	M 5	4.20	100	0.065	9.4	7580	495
	M 6	5.00	100	0.075	11.7	6365	475
	M 8	6.80	100	0.100	14.7	4680	470
	M 10	8.50	100	0.125	19.3	3745	470
	M 12	10.20	100	0.150	22.2	3120	470
	M 16	14.00	100	0.210	27.8	2275	480
Getti d'alluminio	M 4	3.30	250	0.060	7.4	24115	1445
	M 5	4.20	250	0.075	9.4	18950	1420
	M 6	5.00	250	0.090	11.7	15915	1430
	M 8	6.80	250	0.120	14.7	11705	1405
	M 10	8.50	250	0.150	19.3	9360	1405
	M 12	10.20	250	0.180	22.2	7800	1405
	M 16	14.00	250	0.250	27.8	5685	1420
Alluminio malleabile Si < 6% Raccomandazione: senza rivestimento	M 4	3.30	200	0.060	7.4	19290	1155
	M 5	4.20	200	0.075	9.4	15160	1135
	M 6	5.00	200	0.090	11.7	12735	1145
	M 8	6.80	200	0.120	14.7	9360	1125
	M 10	8.50	200	0.150	19.3	7490	1125
	M 12	10.20	200	0.180	22.2	6240	1125
	M 16	14.00	200	0.250	27.8	4545	1135
Ottone a truciolo corto CuZn	M 4	3.30	250	0.060	7.4	24115	1445
	M 5	4.20	250	0.075	9.4	18950	1420
	M 6	5.00	250	0.090	11.7	15915	1430
	M 8	6.80	250	0.120	14.7	11705	1405
	M 10	8.50	250	0.150	19.3	9360	1405
	M 12	10.20	250	0.180	22.2	7800	1405
	M 16	14.00	250	0.250	27.8	5685	1420

Parametri di taglio degli utensili con rivestimento TiCN

Application

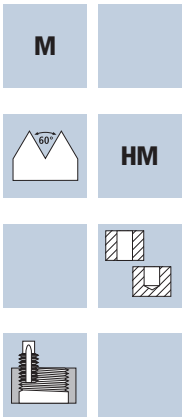
Materiale

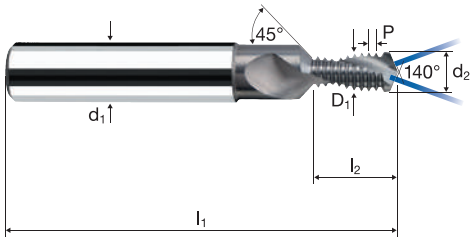
Materiale	M	D1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	n [mm⁻¹]	v_{fc} [mm/min]	v_f [mm/min]
Ghisa GG(G)	M 4	3.20	0.70	2	100	0.025	9945	99	495
	M 5	4.00	0.80	2	100	0.030	7960	96	480
	M 6	4.75	1.00	2	100	0.035	6700	98	470
	M 8	6.35	1.25	2	100	0.050	5015	103	500
	M 10	7.95	1.50	2	100	0.060	4005	98	480
	M 12	9.95	1.75	2	100	0.075	3200	82	480
	M 16	13.20	2.00	2	100	0.100	2410	84	480
Getti d'alluminio	M 4	3.20	0.70	2	250	0.030	24870	298	1490
	M 5	4.00	0.80	2	250	0.035	19895	279	1395
	M 6	4.75	1.00	2	250	0.045	16755	315	1510
	M 8	6.35	1.25	2	250	0.060	12530	310	1505
	M 10	7.95	1.50	2	250	0.070	10010	287	1400
	M 12	9.95	1.75	2	250	0.090	8000	246	1440
	M 16	13.20	2.00	2	250	0.120	6030	253	1445
Alluminio malleabile Si < 6% Raccomandazione: senza rivestimento	M 4	3.20	0.70	2	200	0.030	19895	239	1195
	M 5	4.00	0.80	2	200	0.035	15915	223	1115
	M 6	4.75	1.00	2	200	0.045	13405	251	1205
	M 8	6.35	1.25	2	200	0.060	10025	249	1205
	M 10	7.95	1.50	2	200	0.070	8010	230	1120
	M 12	9.95	1.75	2	200	0.090	6400	196	1150
	M 16	13.20	2.00	2	200	0.120	4825	203	1160
Ottone a truciolo corto CuZn	M 4	3.20	0.70	2	250	0.030	24870	298	1490
	M 5	4.00	0.80	2	250	0.035	19895	279	1395
	M 6	4.75	1.00	2	250	0.045	16755	315	1510
	M 8	6.35	1.25	2	250	0.060	12530	310	1505
	M 10	7.95	1.50	2	250	0.070	10010	287	1400
	M 12	9.95	1.75	2	250	0.090	8000	246	1440
	M 16	13.20	2.00	2	250	0.120	6030	253	1445

Parametri di taglio degli utensili con rivestimento TiCN

Frese a forare e filettare

1.5xd, smusso a 45°, Incool





					Al Aluminium Alloy	Al Aluminium Cast		Cu Copper	Plastic Thermoplast	GG(G) CuZn Brass

Esempio: **N° Ordine** — Articolo **EH22200** Codice-ø **058**

ø Code	d	P	l_1	l_2	$d_{1\ h6}$	d_2	D_1	$R_{k\ 6H}$		E22200 €	TiCN EH22200 €
058	M 4	0.70	48	6.9	6	3.3	3.20	1.560	2	486.00	518.00
084	M 5	0.80	54	8.8	6	4.2	4.00	1.950	2	475.00	512.00
088	M 6	1.00	62	10.9	8	5.0	4.75	2.315	2	462.00	515.00
160	M 8	1.25	74	13.7	10	6.8	6.35	3.095	2	552.00	605.00
174	M10	1.50	80	18.0	12	8.5	7.95	3.875	2	648.00	690.00
240	M12	1.75	90	20.9	14	10.2	9.95	4.855	2	850.00	903.00
246	M16	2.00	102	26.0	18	14.0	13.20	6.440	2	1235.00	1288.00

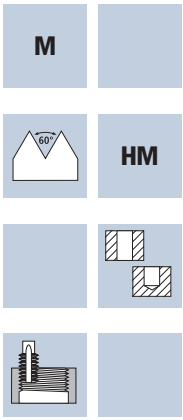
Application

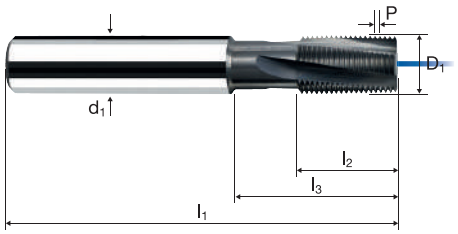
Materiale	M	D1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	n [min^{-1}]	v_{fc} d/D_1 3/2	v_{fc} d/D_1 2/1	v_{fc} d/D_1 3/1	v_{fc} d/D_1 4/1	v_{fc} d/D_1 > 5/1	v_f [mm/min]
Acciaio 850 - 1100 N/mm²	≥ M14	9.95	1.00	4	80	0.0250	2560	85	128	170	191	204	255
	≥ M14	9.95	1.25	4	80	0.0250	2560	85	128	170	191	204	255
	≥ M14	9.95	1.50	4	80	0.0250	2560	85	128	170	191	204	255
	≥ M18	11.95	1.00	4	80	0.0300	2130	85	128	170	191	204	255
	≥ M18	11.95	1.50	4	80	0.0300	2130	85	128	170	191	204	255
	≥ M24	15.95	1.00	5	80	0.0400	1595	107	160	213	240	256	320
	≥ M24	15.95	2.00	5	80	0.0400	1595	107	160	213	240	256	320
	≥ M30	19.95	1.50	5	80	0.0500	1275	107	160	213	240	256	320
	≥ M30	19.95	2.00	5	80	0.0500	1275	107	160	213	240	256	320
Acciaio 1300 - 1500 N/mm²	≥ M14	9.95	1.00	4	50	0.0200	1600	43	65	87	98	104	130
	≥ M14	9.95	1.25	4	50	0.0200	1600	43	65	87	98	104	130
	≥ M14	9.95	1.50	4	50	0.0200	1600	43	65	87	98	104	130
	≥ M18	11.95	1.00	4	50	0.0240	1330	43	65	87	98	104	130
	≥ M18	11.95	1.50	4	50	0.0240	1330	43	65	87	98	104	130
	≥ M24	15.95	1.00	5	50	0.0320	1000	53	80	107	120	128	160
	≥ M24	15.95	2.00	5	50	0.0320	1000	53	80	107	120	128	160
	≥ M30	19.95	1.50	5	50	0.0400	800	53	80	107	120	128	160
	≥ M30	19.95	2.00	5	50	0.0400	800	53	80	107	120	128	160
Acciaio da utensile temperato 48 - 52 HRC	≥ M14	9.95	1.00	4	30	0.0165	960	22	33	43	49	52	65
	≥ M14	9.95	1.25	4	30	0.0165	960	22	33	43	49	52	65
	≥ M14	9.95	1.50	4	30	0.0165	960	22	33	43	49	52	65
	≥ M18	11.95	1.00	4	30	0.0200	800	22	33	43	49	52	65
	≥ M18	11.95	1.50	4	30	0.0200	800	22	33	43	49	52	65
	≥ M24	15.95	1.00	5	30	0.0265	600	27	40	53	60	64	80
	≥ M24	15.95	2.00	5	30	0.0265	600	27	40	53	60	64	80
	≥ M30	19.95	1.50	5	30	0.0335	480	27	40	53	60	64	80
	≥ M30	19.95	2.00	5	30	0.0335	480	27	40	53	60	64	80
Acciaio inossidabile [Cr-Ni/1.4301]	≥ M14	9.95	1.00	4	45	0.0200	1440	38	58	77	86	92	115
	≥ M14	9.95	1.25	4	45	0.0200	1440	38	58	77	86	92	115
	≥ M14	9.95	1.50	4	45	0.0200	1440	38	58	77	86	92	115
	≥ M18	11.95	1.00	4	45	0.0240	1200	38	58	77	86	92	115
	≥ M18	11.95	1.50	4	45	0.0240	1200	38	58	77	86	92	115
	≥ M24	15.95	1.00	5	45	0.0320	900	48	73	97	109	116	145
	≥ M24	15.95	2.00	5	45	0.0320	900	48	73	97	109	116	145
	≥ M30	19.95	1.50	5	45	0.0400	720	48	73	97	109	116	145
	≥ M30	19.95	2.00	5	45	0.0400	720	48	73	97	109	116	145

Materiale	M	D1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	n [min^{-1}]	v_{fc} d/D_1 3/2	v_{fc} d/D_1 2/1	v_{fc} d/D_1 3/1	v_{fc} d/D_1 4/1	v_{fc} d/D_1 > 5/1	v_f [mm/min]
Ghisa GG(G)	≥ M14	9.95	1.00	4	120	0.0250	3840	128	193	257	289	308	385
	≥ M14	9.95	1.25	4	120	0.0250	3840	128	193	257	289	308	385
	≥ M14	9.95	1.50	4	120	0.0250	3840	128	193	257	289	308	385
	≥ M18	11.95	1.00	4	120	0.0300	3195	128	193	257	289	308	385
	≥ M18	11.95	1.50	4	120	0.0300	3195	128	193	257	289	308	385
	≥ M24	15.95	1.00	5	120	0.0400	2395	160	240	320	360	384	480
	≥ M24	15.95	2.00	5	120	0.0400	2395	160	240	320	360	384	480
	≥ M30	19.95	1.50	5	120	0.0500	1915	160	240	320	360	384	480
	≥ M30	19.95	2.00	5	120	0.0500	1915	160	240	320	360	384	480
Alluminio malleabile Si < 6%	≥ M14	9.95	1.00	4	150	0.0285	4800	182	273	363	409	436	545
	≥ M14	9.95	1.25	4	150	0.0285	4800	182	273	363	409	436	545
	≥ M14	9.95	1.50	4	150	0.0285	4800	182	273	363	409	436	545
	≥ M18	11.95	1.00	4	150	0.0340	3995	182	273	363	409	436	545
	≥ M18	11.95	1.50	4	150	0.0340	3995	182	273	363	409	436	545
	≥ M24	15.95	1.00	5	150	0.0455	2995	227	340	453	510	544	680
	≥ M24	15.95	2.00	5	150	0.0455	2995	227	340	453	510	544	680
	≥ M30	19.95	1.50	5	150	0.0570	2395	228	343	457	514	548	685
	≥ M30	19.95	2.00	5	150	0.0570	2395	228	343	457	514	548	685
Getti d'alluminio	≥ M14	9.95	1.00	4	200	0.0285	6400	243	365	487	548	584	730
	≥ M14	9.95	1.25	4	200	0.0285	6400	243	365	487	548	584	730
	≥ M14	9.95	1.50	4	200	0.0285	6400	243	365	487	548	584	730
	≥ M18	11.95	1.00	4	200	0.0340	5330	242	363	483	544	580	725
	≥ M18	11.95	1.50	4	200	0.0340	5330	242	363	483	544	580	725
	≥ M24	15.95	1.00	5	200	0.0455	3990	303	455	607	683	728	910
	≥ M24	15.95	2.00	5	200	0.0455	3990	303	455	607	683	728	910
	≥ M30	19.95	1.50	5	200	0.0570	3190	303	455	607	683	728	910
	≥ M30	19.95	2.00	5	200	0.0570	3190	303	455	607	683	728	910
Leghe di titanio indurite > 300 HB [Ti6Al4V]	≥ M14	9.95	1.00	4	35	0.0200	1120	30	45	60	68	72	90
	≥ M14	9.95	1.25	4	35	0.0200	1120	30	45	60	68	72	90
	≥ M14	9.95	1.50	4	35	0.0200	1120	30	45	60	68	72	90
	≥ M18	11.95	1.00	4	35	0.0240	930	30	45	60	68	72	90
	≥ M18	11.95	1.50	4	35	0.0240	930	30	45	60	68	72	90
	≥ M24	15.95	1.00	5	35	0.0320	700	37	55	73	83	88	110
	≥ M24	15.95	2.00	5	35	0.0320	700	37	55	73	83	88	110
	≥ M30	19.95	1.50	5	35	0.0400	560	37	55	73	83	88	110
	≥ M30	19.95	2.00	5	35	0.0400	560	37	55	73	83	88	110

Frese a filettare multirange

Incool





Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium/Copper GG(G)

Esempio: **N° Ordine** — Articolo **EH26020** Codice-ø **096**

ø Code	d min.	P	l1	l2	l3	d1 h6	D1		TiCN EH26020
									€
096	**14**	**1.00**	70	16	25	10	9.95	4	410.00
166	**14**	**1.25**	70	16	25	10	9.95	4	465.00
178	**14**	**1.50**	70	16	25	10	9.95	4	412.00
100	**18**	**1.00**	80	20	31	12	11.95	4	527.00
182	**18**	**1.50**	80	20	31	12	11.95	4	500.00
106	**24**	**1.00**	90	25	40	16	15.95	5	662.00
188	**24**	**1.50**	90	25	40	16	15.95	5	630.00
254	**24**	**2.00**	90	25	40	16	15.95	5	662.00
194	**30**	**1.50**	105	33	50	20	19.95	5	904.00
260	**30**	**2.00**	105	33	50	20	19.95	5	984.00

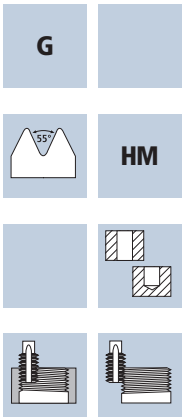
Application

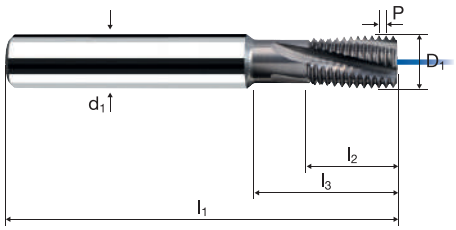
Materiale	G	D1 [mm]	P (TPI)	z	v_c [m/min]	f_z [mm]	n [min^{-1}]	v_{fc} d/D_1 3/2	v_{fc} d/D_1 2/1	v_{fc} d/D_1 3/1	v_{fc} d/D_1 4/1	v_{fc} d/D_1 > 5/1	v_f [mm/min]
Acciaio 850 - 1100 N/mm²	G1/4 - G3/8	9.95	19	4	80	0.0250	2560	85	128	170	191	204	255
	G1/2 - G7/8	15.95	14	5	80	0.0400	1595	107	160	213	240	256	320
	G1 - G3	19.95	11	5	80	0.0500	1275	107	160	213	240	256	320
Acciaio 1300 - 1500 N/mm²	G1/4 - G3/8	9.95	19	4	50	0.0200	1600	43	65	87	98	104	130
	G1/2 - G7/8	15.95	14	5	50	0.0320	1000	53	80	107	120	128	160
	G1 - G3	19.95	11	5	50	0.0400	800	53	80	107	120	128	160
Acciaio da utensile temperato 48 - 52 HRC	G1/4 - G3/8	9.95	19	4	30	0.0165	960	22	33	43	49	52	65
	G1/2 - G7/8	15.95	14	5	30	0.0265	600	27	40	53	60	64	80
	G1 - G3	19.95	11	5	30	0.0335	480	27	40	53	60	64	80
Acciaio inossidabile [Cr-Ni/1.4301]	G1/4 - G3/8	9.95	19	4	45	0.0200	1440	38	58	77	86	92	115
	G1/2 - G7/8	15.95	14	5	45	0.0320	900	48	73	97	109	116	145
	G1 - G3	19.95	11	5	45	0.0400	720	48	73	97	109	116	145

Materiale	G	D1 [mm]	P (TPI)	z	v_c [m/min]	f_z [mm]	n [min^{-1}]	v_{fc} d/D_1 3/2	v_{fc} d/D_1 2/1	v_{fc} d/D_1 3/1	v_{fc} d/D_1 4/1	v_{fc} d/D_1 > 5/1	v_f [mm/min]
Ghisa GG(G)	G1/4 - G3/8	9.95	19	4	120	0.0250	3840	128	193	257	289	308	385
	G1/2 - G7/8	15.95	14	5	120	0.0400	2395	160	240	320	360	384	480
	G1 - G3	19.95	11	5	120	0.0500	1915	160	240	320	360	384	480
Alluminio malleabile Si < 6%	G1/4 - G3/8	9.95	19	4	150	0.0285	4800	182	273	363	409	436	545
	G1/2 - G7/8	15.95	14	5	150	0.0455	2995	227	340	453	510	544	680
	G1 - G3	19.95	11	5	150	0.0570	2395	228	343	457	514	548	685
Getti d'alluminio	G1/4 - G3/8	9.95	19	4	200	0.0285	6400	243	365	487	548	584	730
	G1/2 - G7/8	15.95	14	5	200	0.0455	3990	303	455	607	683	728	910
	G1 - G3	19.95	11	5	200	0.0570	3190	303	455	607	683	728	910
Leghe di titanio indurite > 300 HB [Ti6Al4V]	G1/4 - G3/8	9.95	19	4	35	0.0200	1120	30	45	60	68	72	90
	G1/2 - G7/8	15.95	14	5	35	0.0320	700	37	55	73	83	88	110
	G1 - G3	19.95	11	5	35	0.0400	560	37	55	73	83	88	110

Frese a filettare multirange

Incool





Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium/Copper GG(G)

Esempio: **N° Ordine** — Articolo **EH26040** Codice-ø **552**

ø Code	d min.	P(TPI)	l1	l2	l3	d1 h6	D1		TiCN EH26040 €
552	**1/4**	**19**	70	16	25	10	9.95	4	463.00
554	**1/2**	**14**	90	25	40	16	15.95	5	678.00
558	**1"**	**11**	105	33	50	20	19.95	5	997.00

passion
for precision
fraisa

Tolleranza ISO 2 (6H)

N° EH0100 / EH0101			08	HSS PM/F		Rm <850	207
N° EH10310 / EH10311		s-tap	08	HSS-E Co5		Rm <850	209
N° EH0502 / EH0503		x-tap	11	HSS PM/F		Rm 850-1100	211
N° EH0570 / EH0571		x-tap	11	HSS PM/F		Rm 850-1100	213
N° EH0580 / EH0581		x-tap	11	HSS PM/F		Rm 850-1100	217
N° EH0590		x-tap-R	11	HSS PM/F		Rm 850-1100	219
N° EH0591		x-tap-R	11	HSS PM/F		Rm 850-1100	221
N° EH0512 / EH0513			15	HSS PM/F		Rm 1100-1500	223
N° EH0595 / EH0596		h-tap	15	HSS PM/F		Rm 1100-1500	225
N° EH6900 / EH6901		durotap H	60	HM MG10		HRC 48- >60	227
N° ET0400 / ET0401		Inotap	In	HSS PM/F		Inox Stainless	229
N° ET0570 / ET0571		x-tap	In	HSS PM/F		Inox Stainless	231
N° ET0580 / ET0581		x-tap	In	HSS PM/F		Inox Stainless	233
N° ET0590		x-tap-R	In	HSS PM/F		Inox Stainless	235

M

Filettatura metrica M

Tolleranza ISO 2 (6H)

N° ET0591		x-tap-R	In	HSS PM/F		**Inox** Stainless		237
N° EH0600 / EH0601		c-tap	GG	HSS PM/F		**GG(G)** Cast iron		239
N° EH0620 / EH0621		c-tap	GG	HSS PM/F		**GG(G)** Cast iron		241
N° EH6500		durotap GG-R	GG	HM MG10		**GG(G)** Cast iron		243
N° EH6501		durotap GG-R	GG	HM MG10		**GG(G)** Cast iron		245
N° EH6550 / EH6551		durotap GG	GG	HM MG10		**GG(G)** Cast iron		247
N° EI0020 / EI0021			Al	HSS PM/F		**Al** Aluminium Alloy	**Cu** Copper	249
N° EI0050 / EI0051			Al	HSS PM/F		**Al** Aluminium Alloy	**Cu** Copper	251
N° EH6300		durotap A-R	Al	HM MG10		**Al** Aluminium Cast		253
N° EH6301		durotap A-R	Al	HM MG10		**Al** Aluminium Cast		255
N° EH6350 / EH6351		durotap A	Al	HM MG10		**Al** Aluminium Cast		257
N° ET0705 / ET0706		titap	Ti	HSS PM/F		**Ti** Titanium		259
N° ET0755 / ET0756		titap	Ti	HSS PM/F		**Ti** Titanium		263
N° E0598		n-tap	Ni	HSS PM/F		**Ni** Nickel Alloy		265
N° EH0109		polytap-R	R	HSS PM/F		**Rm** <850-1100	**Inox** Stainless	267
N° EH0110		polytap-R	R	HSS PM/F		**Rm** <850-1100	**Inox** Stainless	269

Tolleranza ISO 2 (6H)

N° EH0229

N° EH0230

polytap-R	R	HSS PM/F		Rm <850-1100	Inox Stainless	271
polytap-R	R	HSS PM/F		Rm <850-1100	Inox Stainless	273

Tolleranza ISO 2 (6H)

N° E10800 / E10801

N° E10820 / E10821

N° E10340

N° E10350

u-tap	U	HSS-E Co5		Rm <850		275
u-tap	U	HSS-E Co5		Rm <850		279
extra lang	U	HSS PM/F		Rm <850		283
extra lang	U	HSS PM/F		Rm <850		285

Tolleranza ISO 2 (6H) LH

N° E10122 / E10123

N° E10222 / E10223

U	HSS-E Co5		Rm <850		287
U	HSS-E Co5		Rm <850		289

M

Tolleranza ISO 2 +0.1

N° E10118 / E10119

N° E10220 / E10221

U	HSS-E Co5		Rm <850			291
U	HSS-E Co5		Rm <850			293

Tolleranza ISO 3 (6G)

N° EH0504 / EH0505

N° EH0572 / EH0573

x-tap	11	HSS PM/F		Rm 850-1100			295
x-tap	11	HSS PM/F		Rm 850-1100			297

Tolleranza ISO 1 (4H)

N° E10110

N° E10214

U	HSS-E Co5		Rm <850			299
U	HSS-E Co5		Rm <850			301

Tolleranza 7G

N° E10114 / E10115

U	HSS-E Co5		Rm <850		303

N° E10218 / E10219

U	HSS-E Co5		Rm <850		305

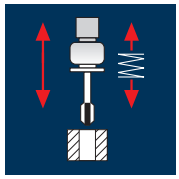
MJ Tolleranza 4H

N° E0599

Ni	HSS PM/F		Ni Nickel Alloy		307

M

Application



Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Acciaio < 500 N/mm^2	M 2	2.0	0.40	28	4455	1782	23	3660	1464	18	2865	1146
	M 2.5	2.5	0.45	28	3565	1604	23	2930	1319	18	2290	1031
	M 3	3.0	0.50	28	2970	1485	23	2440	1220	18	1910	955
	M 4	4.0	0.70	28	2230	1561	23	1830	1281	18	1430	1001
	M 5	5.0	0.80	28	1785	1428	23	1465	1172	18	1145	916
	M 6	6.0	1.00	28	1485	1485	23	1220	1220	18	955	955
	M 8	8.0	1.25	28	1115	1394	23	915	1144	18	715	894
	M10	10.0	1.50	28	890	1335	23	730	1095	18	575	863
	M12	12.0	1.75	28	745	1304	23	610	1068	18	475	831
Acciaio < 500 N/mm^2	M14	14.0	2.00	28	635	1270	23	525	1050	18	410	820
	M16	16.0	2.00	28	555	1110	23	460	920	18	360	720
	M18	18.0	2.50	28	495	1238	23	405	1013	18	320	800
	M20	20.0	2.50	28	445	1113	23	365	913	18	285	713
	M22	22.0	2.50	28	405	1013	23	335	838	18	260	650
	M24	24.0	3.00	28	370	1110	23	305	915	18	240	720
Acciaio 500 - 850 N/mm^2	M 2	2.0	0.40	25	3980	1592	20	3185	1274	15	2385	954
	M 2.5	2.5	0.45	25	3185	1433	20	2545	1145	15	1910	860
	M 3	3.0	0.50	25	2655	1328	20	2120	1060	15	1590	795
	M 4	4.0	0.70	25	1990	1393	20	1590	1113	15	1195	837
	M 5	5.0	0.80	25	1590	1272	20	1275	1020	15	955	764
	M 6	6.0	1.00	25	1325	1325	20	1060	1060	15	795	795
	M 8	8.0	1.25	25	995	1244	20	795	994	15	595	744
	M10	10.0	1.50	25	795	1193	20	635	953	15	475	713
	M12	12.0	1.75	25	665	1164	20	530	928	15	400	700
Acciaio 500 - 850 N/mm^2	M14	14.0	2.00	25	570	1140	20	455	910	15	340	680
	M16	16.0	2.00	25	495	990	20	400	800	15	300	600
	M18	18.0	2.50	25	440	1100	20	355	888	15	265	663
	M20	20.0	2.50	25	400	1000	20	320	800	15	240	600
	M22	22.0	2.50	25	360	900	20	290	725	15	215	538
	M24	24.0	3.00	25	330	990	20	265	795	15	200	600

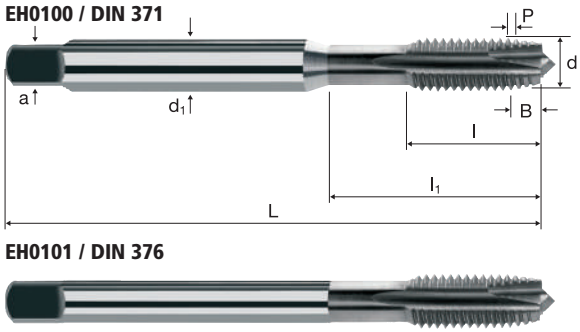
M

ISO 2 (6H)

HSS PM/F

DIN 371/376

Form B



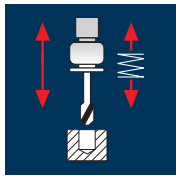
Rm < 850

Rm 850-1100

Esempio: N° Ordine	Articolo EH0100	Codice-ø 034									TiCN EH0100
Ø Code	d	P	L	l	l1	d1	a				€
034	M 2	0.40	45	8	–	2.8	2.1	2	1.60		30.90
040	M 2.5	0.45	50	9	–	2.8	2.1	2	2.05		26.90
044	M 3	0.50	56	12	18.0	3.5	2.7	3	2.50		25.50
058	M 4	0.70	63	13	21.0	4.5	3.4	3	3.30		25.50
084	M 5	0.80	70	15	25.0	6.0	4.9	3	4.20		25.90
088	M 6	1.00	80	17	30.0	6.0	4.9	3	5.00		27.10
160	M 8	1.25	90	20	35.0	8.0	6.2	3	6.80		32.70
174	M10	1.50	100	22	39.0	10.0	8.0	3	8.50		37.80

Esempio: N° Ordine	Articolo EH0101	Codice-ø 240									TiCN EH0101
Ø Code	d	P	L	l	l1	d1	a				€
240	M12	1.75	110	24	40.0	9.0	7.0	3	10.20		47.20
244	M14	2.00	110	26	40.0	11.0	9.0	3	12.00		59.70
246	M16	2.00	110	27	40.0	12.0	9.0	3	14.00		71.00
312	M18	2.50	125	30	45.0	14.0	11.0	4	15.50		90.00
314	M20	2.50	140	32	50.0	16.0	12.0	4	17.50		110.00
316	M22	2.50	140	32	50.0	18.0	14.5	4	19.50		130.00
320	M24	3.00	160	34	60.0	18.0	14.5	4	21.00		153.00

Application



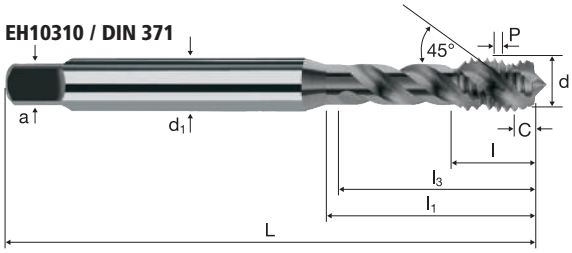
Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio < 500 N/mm^2	M 2	2.0	0.40	25	3980	1592	20	3185	1274	18	2865	1146
	M 2.5	2.5	0.45	25	3185	1433	20	2545	1145	18	2290	1031
	M 3	3.0	0.50	25	2655	1328	20	2120	1060	18	1910	955
	M 4	4.0	0.70	25	1990	1393	20	1590	1113	18	1430	1001
	M 5	5.0	0.80	25	1590	1272	20	1275	1020	18	1145	916
	M 6	6.0	1.00	25	1325	1325	20	1060	1060	18	955	955
	M 8	8.0	1.25	25	995	1244	20	795	994	18	715	894
	M10	10.0	1.50	25	795	1193	20	635	953	18	575	863
	M12	12.0	1.75	25	665	1164	20	530	928	18	475	831
Acciaio < 500 N/mm^2	M14	14.0	2.00	25	570	1140	20	455	910	18	410	820
	M16	16.0	2.00	25	495	990	20	400	800	18	360	720
	M18	18.0	2.50	25	440	1100	20	355	888	18	320	800
	M20	20.0	2.50	25	400	1000	20	320	800	18	285	713
	M22	22.0	2.50	25	360	900	20	290	725	18	260	650
	M24	24.0	3.00	25	330	990	20	265	795	18	240	720
Acciaio 500 - 850 N/mm^2	M 2	2.0	0.40	16	2545	1018	14	2230	892	12	1910	764
	M 2.5	2.5	0.45	16	2035	916	14	1785	803	12	1530	689
	M 3	3.0	0.50	16	1700	850	14	1485	743	12	1275	638
	M 4	4.0	0.70	16	1275	893	14	1115	781	12	955	669
	M 5	5.0	0.80	16	1020	816	14	890	712	12	765	612
	M 6	6.0	1.00	16	850	850	14	745	745	12	635	635
	M 8	8.0	1.25	16	635	794	14	555	694	12	475	594
	M10	10.0	1.50	16	510	765	14	445	668	12	380	570
	M12	12.0	1.75	16	425	744	14	370	648	12	320	560
Acciaio 500 - 850 N/mm^2	M14	14.0	2.00	16	365	730	14	320	640	12	275	550
	M16	16.0	2.00	16	320	640	14	280	560	12	240	480
	M18	18.0	2.50	16	285	713	14	250	625	12	210	525
	M20	20.0	2.50	16	255	638	14	225	563	12	190	475
	M22	22.0	2.50	16	230	575	14	205	513	12	175	438
	M24	24.0	3.00	16	210	630	14	185	555	12	160	480

Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Ghisa GG(G)	M 2	2.0	0.40	14	2230	892	12	1910	764	10	1590	636
	M 2.5	2.5	0.45	14	1785	803	12	1530	689	10	1275	574
	M 3	3.0	0.50	14	1485	743	12	1275	638	10	1060	530
	M 4	4.0	0.70	14	1115	781	12	955	669	10	795	557
	M 5	5.0	0.80	14	890	712	12	765	612	10	635	508
	M 6	6.0	1.00	14	745	745	12	635	635	10	530	530
	M 8	8.0	1.25	14	555	694	12	475	594	10	400	500
	M10	10.0	1.50	14	445	668	12	380	570	10	320	480
	M12	12.0	1.75	14	370	648	12	320	560	10	265	464
Ghisa GG(G)	M14	14.0	2.00	14	320	640	12	275	550	10	225	450
	M16	16.0	2.00	14	280	560	12	240	480	10	200	400
	M18	18.0	2.50	14	250	625	12	210	525	10	175	438
	M20	20.0	2.50	14	225	563	12	190	475	10	160	400
	M22	22.0	2.50	14	205	513	12	175	438	10	145	363
	M24	24.0	3.00	14	185	555	12	160	480	10	135	405
Acciaio inossidabile [Cr-Ni/1.4301]	M 2	2.0	0.40	3	475	190	2	320	128	2	320	128
	M 2.5	2.5	0.45	3	380	171	2	255	115	2	255	115
	M 3	3.0	0.50	3	320	160	2	210	105	2	210	105
	M 4	4.0	0.70	3	240	168	2	160	112	2	160	112
	M 5	5.0	0.80	3	190	152	2	125	100	2	125	100
	M 6	6.0	1.00	3	160	160	2	105	105	2	105	105
	M 8	8.0	1.25	3	120	150	2	80	100	2	80	100
	M10	10.0	1.50	3	95	143	2	65	98	2	65	98
	M12	12.0	1.75	3	80	140	2	55	96	2	55	96
Acciaio inossidabile [Cr-Ni/1.4301]	M14	14.0	2.00	3	70	140	2	45	90	2	45	90
	M16	16.0	2.00	3	60	120	2	40	80	2	40	80
	M18	18.0	2.50	3	55	138	2	35	88	2	35	88
	M20	20.0	2.50	3	50	125	2	30	75	2	30	75
	M22	22.0	2.50	3	45	113	2	30	75	2	30	75
	M24	24.0	3.00	3	40	120	2	25	75	2	25	75

Maschi s-tap

M	**ISO 2 (6H)**
60°	**HSS-E Co5**
DIN 371/376	
	Form C

EH10310 / DIN 371



EH10311 / DIN 376

Rm < 850	**Rm** 850-1100						**Inox** Stainless		**GG(G)**

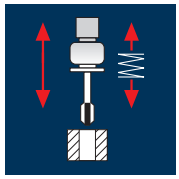
Esempio: **N° Ordine** — Articolo **EH10310** Codice-ø **034**

Ø Code	d	P	L	l	l1	l3	d1	a			TiCN EH10310 €
034	M 2	0.40	45	8.0	–	10.5	2.8	2.1	3	1.60	41.80
040	M 2.5	0.45	50	9.0	–	13.0	2.8	2.1	3	2.05	37.10
044	M 3	0.50	56	4.0	18.0	16.0	3.5	2.7	3	2.50	34.30
058	M 4	0.70	63	5.6	21.0	19.0	4.5	3.4	3	3.30	34.30
084	M 5	0.80	70	6.4	25.0	23.0	6.0	4.9	3	4.20	35.00
088	M 6	1.00	80	8.0	30.0	28.0	6.0	4.9	3	5.00	36.50
160	M 8	1.25	90	10.0	35.0	33.0	8.0	6.2	3	6.80	44.10
174	M10	1.50	100	12.0	39.0	37.0	10.0	8.0	3	8.50	52.20

Esempio: **N° Ordine** — Articolo **EH10311** Codice-ø **240**

Ø Code	d	P	L	l	l1	l3	d1	a			TiCN EH10311 €
240	M12	1.75	110	14.0	50.0	48.0	9.0	7.0	3	10.20	66.00
244	M14	2.00	110	16.0	58.0	56.0	11.0	9.0	4	12.00	80.00
246	M16	2.00	110	16.0	58.0	56.0	12.0	9.0	4	14.00	96.00
312	M18	2.50	125	20.0	65.0	63.0	14.0	11.0	4	15.50	119.00
314	M20	2.50	140	20.0	72.0	70.0	16.0	12.0	4	17.50	144.00
316	M22	2.50	140	20.0	72.0	70.0	18.0	14.5	4	19.50	171.00
320	M24	3.00	160	24.0	74.0	72.0	18.0	14.5	4	21.00	200.00

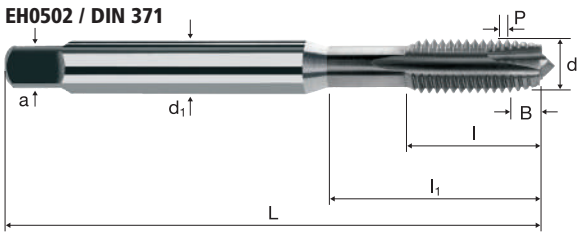
Application



Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Acciaio 500 - 850 N/mm^2	M 2	2.0	0.40	25	3980	1592	20	3185	1274	15	2385	954
	M 2.5	2.5	0.45	25	3185	1433	20	2545	1145	15	1910	860
	M 3	3.0	0.50	25	2655	1328	20	2120	1060	15	1590	795
	M 4	4.0	0.70	25	1990	1393	20	1590	1113	15	1195	837
	M 5	5.0	0.80	25	1590	1272	20	1275	1020	15	955	764
	M 6	6.0	1.00	25	1325	1325	20	1060	1060	15	795	795
	M 8	8.0	1.25	25	995	1244	20	795	994	15	595	744
	M10	10.0	1.50	25	795	1193	20	635	953	15	475	713
	M12	12.0	1.75	25	665	1164	20	530	928	15	400	700
Acciaio 500 - 850 N/mm^2	M14	14.0	2.00	25	570	1140	20	455	910	15	340	680
	M16	16.0	2.00	25	495	990	20	400	800	15	300	600
	M18	18.0	2.50	25	440	1100	20	355	888	15	265	663
	M20	20.0	2.50	25	400	1000	20	320	800	15	240	600
	M22	22.0	2.50	25	360	900	20	290	725	15	215	538
	M24	24.0	3.00	25	330	990	20	265	795	15	200	600
Acciaio 850 - 1100 N/mm^2	M 2	2.0	0.40	20	3185	1274	15	2385	954	12	1910	764
	M 2.5	2.5	0.45	20	2545	1145	15	1910	860	12	1530	689
	M 3	3.0	0.50	20	2120	1060	15	1590	795	12	1275	638
	M 4	4.0	0.70	20	1590	1113	15	1195	837	12	955	669
	M 5	5.0	0.80	20	1275	1020	15	955	764	12	765	612
	M 6	6.0	1.00	20	1060	1060	15	795	795	12	635	635
	M 8	8.0	1.25	20	795	994	15	595	744	12	475	594
	M10	10.0	1.50	20	635	953	15	475	713	12	380	570
	M12	12.0	1.75	20	530	928	15	400	700	12	320	560
Acciaio 850 - 1100 N/mm^2	M14	14.0	2.00	20	455	910	15	340	680	12	275	550
	M16	16.0	2.00	20	400	800	15	300	600	12	240	480
	M18	18.0	2.50	20	355	888	15	265	663	12	210	525
	M20	20.0	2.50	20	320	800	15	240	600	12	190	475
	M22	22.0	2.50	20	290	725	15	215	538	12	175	438
	M24	24.0	3.00	20	265	795	15	200	600	12	160	480

Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio 1100 - 1300 N/mm^2	M 2	2.0	0.40	7	1115	446	4	635	254
	M 2.5	2.5	0.45	7	890	401	4	510	230
	M 3	3.0	0.50	7	745	373	4	425	213
	M 4	4.0	0.70	7	555	389	4	320	224
	M 5	5.0	0.80	7	445	356	4	255	204
	M 6	6.0	1.00	7	370	370	4	210	210
	M 8	8.0	1.25	7	280	350	4	160	200
	M10	10.0	1.50	7	225	338	4	125	188
	M12	12.0	1.75	7	185	324	4	105	184
Acciaio 1100 - 1300 N/mm^2	M14	14.0	2.00	7	160	320	4	90	180
	M16	16.0	2.00	7	140	280	4	80	160
	M18	18.0	2.50	7	125	313	4	70	175
	M20	20.0	2.50	7	110	275	4	65	163
	M22	22.0	2.50	7	100	250	4	60	150
	M24	24.0	3.00	7	95	285	4	55	165

M	ISO 2 (6H)
60°	HSS PM/F
DIN 371/376	
	X · P Form B



Rm < 850	Rm 850-1100	Rm 1100-1300							

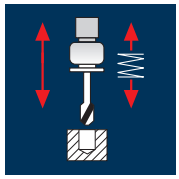
Esempio: N° Ordine — Articolo: EH0502 — Codice-ø: 034

Ø Code	d	P	L	l	l1	d1	a			TiCN EH0502 €
034	M 2	0.40	45	8	–	2.8	2.1	2	1.60	41.00
040	M 2.5	0.45	50	9	–	2.8	2.1	2	2.05	35.70
044	M 3	0.50	56	12	18.0	3.5	2.7	3	2.50	33.80
058	M 4	0.70	63	13	21.0	4.5	3.4	3	3.30	33.80
084	M 5	0.80	70	15	25.0	6.0	4.9	3	4.20	34.40
088	M 6	1.00	80	17	30.0	6.0	4.9	3	5.00	36.00
160	M 8	1.25	90	20	35.0	8.0	6.2	3	6.80	43.30
174	M10	1.50	100	22	39.0	10.0	8.0	3	8.50	50.10

Esempio: N° Ordine — Articolo: EH0503 — Codice-ø: 240

Ø Code	d	P	L	l	l1	d1	a			TiCN EH0503 €
240	M12	1.75	110	24	40.0	9.0	7.0	3	10.20	63.00
244	M14	2.00	110	26	40.0	11.0	9.0	3	12.00	79.00
246	M16	2.00	110	27	40.0	12.0	9.0	3	14.00	94.00
312	M18	2.50	125	30	45.0	14.0	11.0	4	15.50	120.00
314	M20	2.50	140	32	50.0	16.0	12.0	4	17.50	145.00
316	M22	2.50	140	32	50.0	18.0	14.5	4	19.50	173.00
320	M24	3.00	160	34	60.0	18.0	14.5	4	21.00	202.00

Application

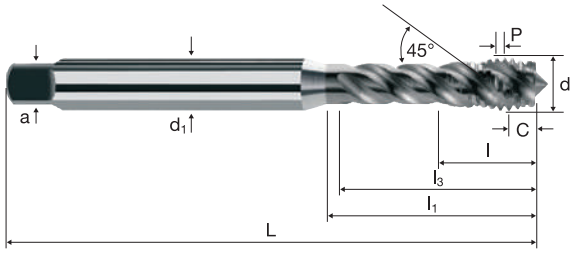


Materiale

	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio 500 - 850 N/mm^2	M 2	2.0	0.40	32	5095	2038	28	4455	1782	22	3500	1400
	M 2.5	2.5	0.45	32	4075	1834	28	3565	1604	22	2800	1260
	M 3	3.0	0.50	32	3395	1698	28	2970	1485	22	2335	1168
	M 4	4.0	0.70	32	2545	1782	28	2230	1561	22	1750	1225
	M 5	5.0	0.80	32	2035	1628	28	1785	1428	22	1400	1120
	M 6	6.0	1.00	32	1700	1700	28	1485	1485	22	1165	1165
	M 8	8.0	1.25	32	1275	1594	28	1115	1394	22	875	1094
	M10	10.0	1.50	32	1020	1530	28	890	1335	22	700	1050
Acciaio 850 - 1100 N/mm^2	M 2	2.0	0.40	20	3185	1274	16	2545	1018	10	1590	636
	M 2.5	2.5	0.45	20	2545	1145	16	2035	916	10	1275	574
	M 3	3.0	0.50	20	2120	1060	16	1700	850	10	1060	530
	M 4	4.0	0.70	20	1590	1113	16	1275	893	10	795	557
	M 5	5.0	0.80	20	1275	1020	16	1020	816	10	635	508
	M 6	6.0	1.00	20	1060	1060	16	850	850	10	530	530
	M 8	8.0	1.25	20	795	994	16	635	794	10	400	500
	M10	10.0	1.50	20	635	953	16	510	765	10	320	480

Maschi x-tap

M	**ISO 2 (6H)**
60°	**HSS PM/F**
DIN 371	
	X · P Form C



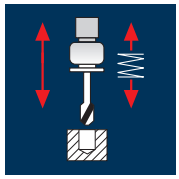
Rm < 850	**Rm** 850-1100								

Esempio: **N° Ordine** — Articolo **EH0570** Codice-ø **034**

Ø Code	d	P	L	l	l1	l3	d1	a			TiCN EH0570 €
034	**M 2**	**0.40**	45	8	–	10.5	2.8	2.1	3	1.60	46.40
040	**M 2.5**	**0.45**	50	9	–	13.0	2.8	2.1	3	2.05	41.20
044	**M 3**	**0.50**	56	5	–	16.0	3.5	2.7	3	2.50	38.10
058	**M 4**	**0.70**	63	7	–	19.0	4.5	3.4	3	3.30	38.10
084	**M 5**	**0.80**	70	8	–	23.0	6.0	4.9	3	4.20	38.90
088	**M 6**	**1.00**	80	10	–	28.0	6.0	4.9	3	5.00	40.60
160	**M 8**	**1.25**	90	13	35.0	33.0	8.0	6.2	3	6.80	49.00
173	**M10**	**1.50**	100	15	39.0	37.0	10.0	8.0	3	8.50	58.00
174	**M10**	**1.50**	100	15	39.0	37.0	10.0	8.0	4	8.50	58.00

Dimensioni superiori vedere articolo E0571, pagina 215

Application



Materiale

M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio 500 - 850 N/mm²											
M12	12.0	1.75	32	850	1488	28	745	1304	22	585	1024
M14	14.0	2.00	32	730	1460	28	635	1270	22	500	1000
M16	16.0	2.00	32	635	1270	28	555	1110	22	440	880
M18	18.0	2.50	32	565	1413	28	495	1238	22	390	975
M20	20.0	2.50	32	510	1275	28	445	1113	22	350	875
M22	22.0	2.50	32	465	1163	28	405	1013	22	320	800
M24	24.0	3.00	32	425	1275	28	370	1110	22	290	870
Acciaio 850 - 1100 N/mm²											
M12	12.0	1.75	20	530	928	16	425	744	10	265	464
M14	14.0	2.00	20	455	910	16	365	730	10	225	450
M16	16.0	2.00	20	400	800	16	320	640	10	200	400
M18	18.0	2.50	20	355	888	16	285	713	10	175	438
M20	20.0	2.50	20	320	800	16	255	638	10	160	400
M22	22.0	2.50	20	290	725	16	230	575	10	145	363
M24	24.0	3.00	20	265	795	16	210	630	10	135	405

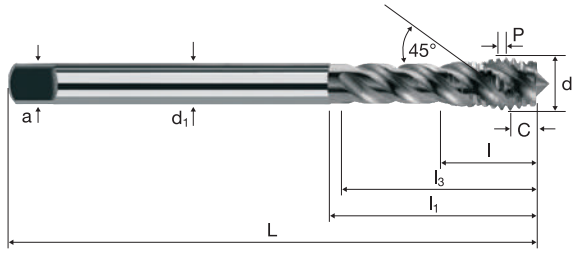
M

ISO 2 (6H)

HSS PM/F

DIN 376

Form C



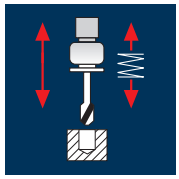
Rm < 850

Rm 850-1100

Esempio: **N° Ordine** — Articolo **EH0571** — Codice-ø **240**

Ø Code	d	P	L	l	l_1	l_3	d_1	a			TiCN EH0571 €
240	**M12**	**1.75**	110	18	50	48	9.0	7.0	4	10.20	74.00
244	**M14**	**2.00**	110	20	58	56	11.0	9.0	4	12.00	88.00
246	**M16**	**2.00**	110	20	58	56	12.0	9.0	4	14.00	107.00
312	**M18**	**2.50**	125	25	65	63	14.0	11.0	4	15.50	133.00
314	**M20**	**2.50**	140	25	72	70	16.0	12.0	4	17.50	160.00
316	**M22**	**2.50**	140	25	72	70	18.0	14.5	5	19.50	190.00
320	**M24**	**3.00**	160	30	74	72	18.0	14.5	5	21.00	223.00

Application

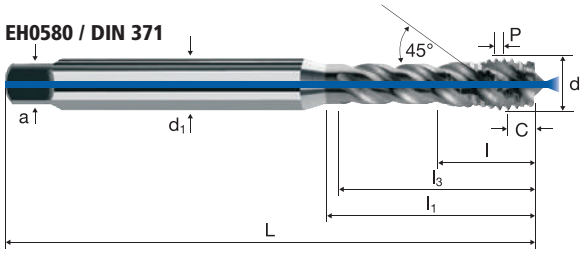


Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio 500 - 850 N/mm^2	M 4	4.0	0.70	32	2545	1782	28	2230	1561	22	1750	1225
	M 5	5.0	0.80	32	2035	1628	28	1785	1428	22	1400	1120
	M 6	6.0	1.00	32	1700	1700	28	1485	1485	22	1165	1165
	M 8	8.0	1.25	32	1275	1594	28	1115	1394	22	875	1094
	M10	10.0	1.50	32	1020	1530	28	890	1335	22	700	1050
	M12	12.0	1.75	32	850	1488	28	745	1304	22	585	1024
	M14	14.0	2.00	32	730	1460	28	635	1270	22	500	1000
	M16	16.0	2.00	32	635	1270	28	555	1110	22	440	880
	M18	18.0	2.50	32	565	1413	28	495	1238	22	390	975
Acciaio 500 - 850 N/mm^2	M20	20.0	2.50	32	510	1275	28	445	1113	22	350	875
	M22	22.0	2.50	32	465	1163	28	405	1013	22	320	800
	M24	24.0	3.00	32	425	1275	28	370	1110	22	290	870
Acciaio 850 - 1100 N/mm^2	M 4	4.0	0.70	20	1590	1113	16	1275	893	10	795	557
	M 5	5.0	0.80	20	1275	1020	16	1020	816	10	635	508
	M 6	6.0	1.00	20	1060	1060	16	850	850	10	530	530
	M 8	8.0	1.25	20	795	994	16	635	794	10	400	500
	M10	10.0	1.50	20	635	953	16	510	765	10	320	480
	M12	12.0	1.75	20	530	928	16	425	744	10	265	464
	M14	14.0	2.00	20	455	910	16	365	730	10	225	450
	M16	16.0	2.00	20	400	800	16	320	640	10	200	400
	M18	18.0	2.50	20	355	888	16	285	713	10	175	438
Acciaio 850 - 1100 N/mm^2	M20	20.0	2.50	20	320	800	16	255	638	10	160	400
	M22	22.0	2.50	20	290	725	16	230	575	10	145	363
	M24	24.0	3.00	20	265	795	16	210	630	10	135	405

Maschi x-tap

Incool

M	ISO 2 (6H)
60°	HSS PM/F
DIN 371/376	
	X · P Form C



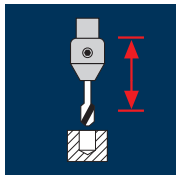
Rm < 850	Rm 850-1100

Esempio: N° Ordine — Articolo: EH0580 — Codice-ø: 058

Ø Code	d	P	L	l	l1	l3	d1	a			TiCN EH0580 €
058	M 4	0.70	63	7	–	19	4.5	3.4	3	3.30	53.30
084	M 5	0.80	70	8	–	23	6.0	4.9	3	4.20	54.40
088	M 6	1.00	80	10	–	28	6.0	4.9	3	5.00	56.90
160	M 8	1.25	90	13	35	33	8.0	6.2	3	6.80	69.00
174	M10	1.50	100	15	39	37	10.0	8.0	4	8.50	81.00

Esempio: N° Ordine — Articolo: EH0581 — Codice-ø: 240

Ø Code	d	P	L	l	l1	l3	d1	a			TiCN EH0581 €
240	M12	1.75	110	18	50	48	9.0	7.0	4	10.20	103.00
244	M14	2.00	110	20	58	56	11.0	9.0	4	12.00	124.00
246	M16	2.00	110	20	58	56	12.0	9.0	4	14.00	149.00
312	M18	2.50	125	25	65	63	14.0	11.0	4	15.50	186.00
314	M20	2.50	140	25	72	70	16.0	12.0	4	17.50	224.00
316	M22	2.50	140	25	72	70	18.0	14.5	5	19.50	265.00
320	M24	3.00	160	30	74	72	18.0	14.5	5	21.00	312.00

Application	Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]
	Acciaio 500 - 850 N/mm²	M 3	3.0	0.50	34	3610	30	3185	24	2545
		M 4	4.0	0.70	34	2705	30	2385	24	1910
		M 5	5.0	0.80	34	2165	30	1910	24	1530
		M 6	6.0	1.00	34	1805	30	1590	24	1275
		M 8	8.0	1.25	34	1355	30	1195	24	955
		M10	10.0	1.50	34	1080	30	955	24	765
		M12	12.0	1.75	34	900	30	795	24	635
		M14	14.0	2.00	34	775	30	680	24	545
		M16	16.0	2.00	34	675	30	595	24	475
	Acciaio 500 - 850 N/mm²	M18	18.0	2.50	34	600	30	530	24	425
		M20	20.0	2.50	34	540	30	475	24	380
		M22	22.0	2.50	34	490	30	435	24	345
		M24	24.0	3.00	34	450	30	400	24	320
	Acciaio 850 - 1100 N/mm²	M 3	3.0	0.50	22	2335	18	1910	12	1275
		M 4	4.0	0.70	22	1750	18	1430	12	955
		M 5	5.0	0.80	22	1400	18	1145	12	765
		M 6	6.0	1.00	22	1165	18	955	12	635
		M 8	8.0	1.25	22	875	18	715	12	475
		M10	10.0	1.50	22	700	18	575	12	380
		M12	12.0	1.75	22	585	18	475	12	320
		M14	14.0	2.00	22	500	18	410	12	275
		M16	16.0	2.00	22	440	18	360	12	240
	Acciaio 850 - 1100 N/mm²	M18	18.0	2.50	22	390	18	320	12	210
		M20	20.0	2.50	22	350	18	285	12	190
		M22	22.0	2.50	22	320	18	260	12	175
		M24	24.0	3.00	22	290	18	240	12	160

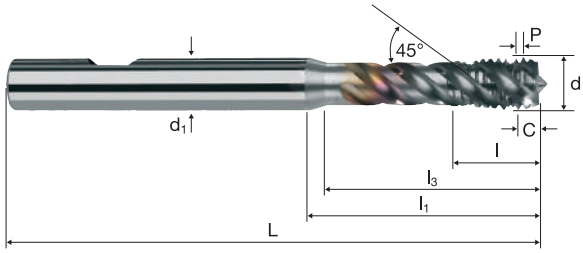
M

ISO 2 (6H)

HSS PM/F

DIN 1835B ISO 3338

Form C

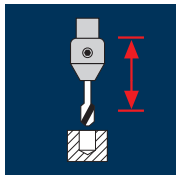


Rm < 850

Rm 850-1100

Esempio: **N° Ordine** — Articolo **EH0590** Codice-ø **044**

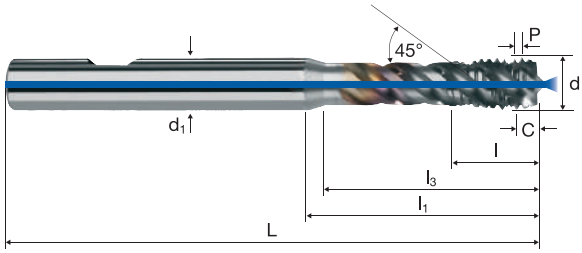
ø Code	d	P	L	l	l1	l3	d1 h6			TiCN EH0590
										€
044	**M 3**	**0.50**	63	5	–	16	6	3	2.50	38.10
058	**M 4**	**0.70**	66	7	–	19	6	3	3.30	38.10
084	**M 5**	**0.80**	70	8	–	23	6	3	4.20	38.90
088	**M 6**	**1.00**	80	10	–	28	6	3	5.00	40.60
160	**M 8**	**1.25**	90	13	35	33	8	3	6.80	49.00
174	**M10**	**1.50**	100	15	39	37	10	4	8.50	58.00
240	**M12**	**1.75**	110	18	45	43	12	4	10.20	74.00
244	**M14**	**2.00**	110	20	46	44	16	4	12.00	88.00
246	**M16**	**2.00**	110	20	50	48	16	4	14.00	107.00
312	**M18**	**2.50**	125	25	60	58	16	4	15.50	133.00
314	**M20**	**2.50**	140	25	64	62	16	4	17.50	160.00
316	**M22**	**2.50**	140	25	64	62	20	5	19.50	190.00
320	**M24**	**3.00**	160	30	74	72	20	5	21.00	223.00

Application	Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]
	Acciaio 500 - 850 N/mm²	M 4	4.0	0.70	28	2230	24	1910	18	1430
		M 5	5.0	0.80	28	1785	24	1530	18	1145
		M 6	6.0	1.00	28	1485	24	1275	18	955
		M 8	8.0	1.25	28	1115	24	955	18	715
		M10	10.0	1.50	28	890	24	765	18	575
		M12	12.0	1.75	28	745	24	635	18	475
		M14	14.0	2.00	28	635	24	545	18	410
		M16	16.0	2.00	28	555	24	475	18	360
		M18	18.0	2.50	28	495	24	425	18	320
	Acciaio 500 - 850 N/mm²	M20	20.0	2.50	28	445	24	380	18	285
		M22	22.0	2.50	28	405	24	345	18	260
		M24	24.0	3.00	28	370	24	320	18	240
	Acciaio 850 - 1100 N/mm²	M 4	4.0	0.70	22	1750	18	1430	12	955
		M 5	5.0	0.80	22	1400	18	1145	12	765
		M 6	6.0	1.00	22	1165	18	955	12	635
		M 8	8.0	1.25	22	875	18	715	12	475
		M10	10.0	1.50	22	700	18	575	12	380
		M12	12.0	1.75	22	585	18	475	12	320
		M14	14.0	2.00	22	500	18	410	12	275
		M16	16.0	2.00	22	440	18	360	12	240
		M18	18.0	2.50	22	390	18	320	12	210
	Acciaio 850 - 1100 N/mm²	M20	20.0	2.50	22	350	18	285	12	190
		M22	22.0	2.50	22	320	18	260	12	175
		M24	24.0	3.00	22	290	18	240	12	160

Maschi x-tap-R

Incool

M	ISO 2 (6H)
60°	HSS PM/F
DIN 1835B ISO 3338	
	X · P Form C

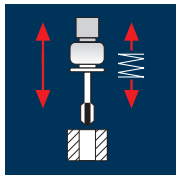


Rm < 850	Rm 850-1100								

Esempio: **N° Ordine** — Articolo **EH0591** Codice-ø **058**

ø Code	d	P	L	l	l1	l3	d1 h6			TiCN EH0591 €
058	M 4	0.70	66	7	–	19	6	3	3.30	53.30
084	M 5	0.80	70	8	–	23	6	3	4.20	54.40
088	M 6	1.00	80	10	–	28	6	3	5.00	56.90
160	M 8	1.25	90	13	35	33	8	3	6.80	69.00
174	M10	1.50	100	15	39	37	10	4	8.50	81.00
240	M12	1.75	110	18	45	43	12	4	10.20	103.00
244	M14	2.00	110	20	46	44	16	4	12.00	124.00
246	M16	2.00	110	20	50	48	16	4	14.00	149.00
312	M18	2.50	125	25	60	58	16	4	15.50	186.00
314	M20	2.50	140	25	64	62	16	4	17.50	224.00
316	M22	2.50	140	25	64	62	20	5	19.50	265.00
320	M24	3.00	160	30	74	72	20	5	21.00	312.00

Application



Materiale

M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio 1100 - 1300 N/mm²											
M 2	2.0	0.40	10	1590	636	8	1275	510	5	795	318
M 2.5	2.5	0.45	10	1275	574	8	1020	459	5	635	286
M 3	3.0	0.50	10	1060	530	8	850	425	5	530	265
M 4	4.0	0.70	10	795	557	8	635	445	5	400	280
M 5	5.0	0.80	10	635	508	8	510	408	5	320	256
M 6	6.0	1.00	10	530	530	8	425	425	5	265	265
M 8	8.0	1.25	10	400	500	8	320	400	5	200	250
M10	10.0	1.50	10	320	480	8	255	383	5	160	240
M12	12.0	1.75	10	265	464	8	210	368	5	135	236
Acciaio 1100 - 1300 N/mm²											
M14	14.0	2.00	10	225	450	8	180	360	5	115	230
M16	16.0	2.00	10	200	400	8	160	320	5	100	200
M18	18.0	2.50	10	175	438	8	140	350	5	90	225
M20	20.0	2.50	10	160	400	8	125	313	5	80	200
M22	22.0	2.50	10	145	363	8	115	288	5	70	175
M24	24.0	3.00	10	135	405	8	105	315	5	65	195
Acciaio 1300 - 1500 N/mm²											
M 2	2.0	0.40	6	955	382	4	635	254	3	475	190
M 2.5	2.5	0.45	6	765	344	4	510	230	3	380	171
M 3	3.0	0.50	6	635	318	4	425	213	3	320	160
M 4	4.0	0.70	6	475	333	4	320	224	3	240	168
M 5	5.0	0.80	6	380	304	4	255	204	3	190	152
M 6	6.0	1.00	6	320	320	4	210	210	3	160	160
M 8	8.0	1.25	6	240	300	4	160	200	3	120	150
M10	10.0	1.50	6	190	285	4	125	188	3	95	143
M12	12.0	1.75	6	160	280	4	105	184	3	80	140
Acciaio 1300 - 1500 N/mm²											
M14	14.0	2.00	6	135	270	4	90	180	3	70	140
M16	16.0	2.00	6	120	240	4	80	160	3	60	120
M18	18.0	2.50	6	105	263	4	70	175	3	55	138
M20	20.0	2.50	6	95	238	4	65	163	3	50	125
M22	22.0	2.50	6	85	213	4	60	150	3	45	113
M24	24.0	3.00	6	80	240	4	55	165	3	40	120

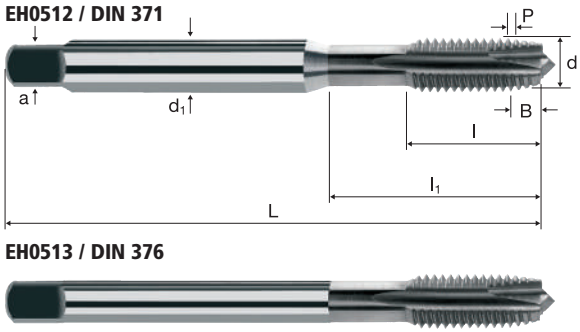
M

ISO 2 (6H)

HSS PM/F

DIN 371/376

Form B



Rm 1100-1300 | **Rm** 1300-1500

Esempio: **N° Ordine** — Articolo **EH0512** Codice-ø **034**

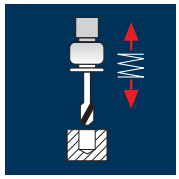
Ø Code	d	P	L	l	l1	d1	a			TiCN EH0512 €
034	M 2	0.40	45	8	–	2.8	2.1	2	1.70 *	41.00
040	M 2.5	0.45	50	9	–	2.8	2.1	2	2.10	35.70
044	M 3	0.50	56	12	18.0	3.5	2.7	3	2.60 *	33.80
058	M 4	0.70	63	13	21.0	4.5	3.4	3	3.40	33.80
084	M 5	0.80	70	15	25.0	6.0	4.9	3	4.30	34.40
088	M 6	1.00	80	17	30.0	6.0	4.9	3	5.10	36.00
160	M 8	1.25	90	20	35.0	8.0	6.2	3	6.90	43.30
174	M10	1.50	100	22	39.0	10.0	8.0	3	8.60	50.10

Esempio: **N° Ordine** — Articolo **EH0513** Codice-ø **240**

Ø Code	d	P	L	l	l1	d1	a			TiCN EH0513 €
240	M12	1.75	110	24	40.0	9.0	7.0	3	10.40	63.00
244	M14	2.00	110	26	40.0	11.0	9.0	3	12.20	79.00
246	M16	2.00	110	27	40.0	12.0	9.0	3	14.20	94.00
312	M18	2.50	125	30	45.0	14.0	11.0	4	15.70	120.00
314	M20	2.50	140	32	50.0	16.0	12.0	4	17.70	145.00
316	M22	2.50	140	32	50.0	18.0	14.5	4	19.70	173.00
320	M24	3.00	160	34	60.0	18.0	14.5	4	21.20	202.00

* La dimensione data è fuori norma

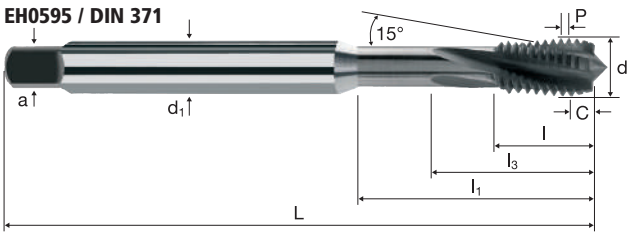
Application



Materiale

Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]
Acciaio 1100 - 1300 N/mm^2	M 3	3.0	0.50	6	635	318	5	530	265
	M 4	4.0	0.70	6	475	333	5	400	280
	M 5	5.0	0.80	6	380	304	5	320	256
	M 6	6.0	1.00	6	320	320	5	265	265
	M 8	8.0	1.25	6	240	300	5	200	250
	M10	10.0	1.50	6	190	285	5	160	240
	M12	12.0	1.75	6	160	280	5	135	236
	M14	14.0	2.00	6	135	270	5	115	230
	M16	16.0	2.00	6	120	240	5	100	200
Acciaio 1100 - 1300 N/mm^2	M18	18.0	2.50	6	105	263	5	90	225
	M20	20.0	2.50	6	95	238	5	80	200
	M22	22.0	2.50	6	85	213	5	70	175
	M24	24.0	3.00	6	80	240	5	65	195
Acciaio 1300 - 1500 N/mm^2	M 3	3.0	0.50	5	530	265	4	425	213
	M 4	4.0	0.70	5	400	280	4	320	224
	M 5	5.0	0.80	5	320	256	4	255	204
	M 6	6.0	1.00	5	265	265	4	210	210
	M 8	8.0	1.25	5	200	250	4	160	200
	M10	10.0	1.50	5	160	240	4	125	188
	M12	12.0	1.75	5	135	236	4	105	184
	M14	14.0	2.00	5	115	230	4	90	180
	M16	16.0	2.00	5	100	200	4	80	160
Acciaio 1300 - 1500 N/mm^2	M18	18.0	2.50	5	90	225	4	70	175
	M20	20.0	2.50	5	80	200	4	65	163
	M22	22.0	2.50	5	70	175	4	60	150
	M24	24.0	3.00	5	65	195	4	55	165

M	ISO 2 (6H)
60°	HSS PM/F
DIN 371/376	
	Form C



Rm 1100-1300 | **Rm** 1300-1500

Esempio: **N° Ordine** — Articolo **EH0595** Codice-ø **044**

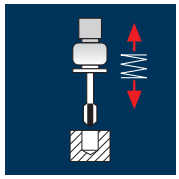
Ø Code	d	P	L	l	l1	l3	d1	a			TiCN EH0595 €
044	M 3	0.50	56	5	18	16	3.5	2.7	3	2.60 *	38.10
058	M 4	0.70	63	7	21	19	4.5	3.4	3	3.40	38.10
084	M 5	0.80	70	8	25	23	6.0	4.9	3	4.30	38.90
088	M 6	1.00	80	10	30	28	6.0	4.9	3	5.10	40.60
160	M 8	1.25	90	13	35	33	8.0	6.2	3	6.90	49.00
174	M10	1.50	100	15	39	37	10.0	8.0	4	8.60	58.00

Esempio: **N° Ordine** — Articolo **EH0596** Codice-ø **240**

Ø Code	d	P	L	l	l1	l3	d1	a			TiCN EH0596 €
240	M12	1.75	110	18	50	48	9.0	7.0	4	10.40	74.00
244	M14	2.00	110	20	58	56	11.0	9.0	4	12.20	88.00
246	M16	2.00	110	20	58	56	12.0	9.0	4	14.20	107.00
312	M18	2.50	125	25	65	63	14.0	11.0	4	15.70	133.00
314	M20	2.50	140	25	72	70	16.0	12.0	4	17.70	160.00
316	M22	2.50	140	25	72	70	18.0	14.5	4	19.70	190.00
320	M24	3.00	160	30	74	72	18.0	14.5	5	21.20	223.00

* La dimensione data è fuori norma

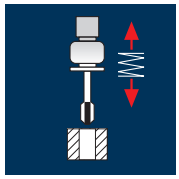
Application



Materiale

M	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Acciaio da utensile temperato 48 - 52 HRC											
M 4	4.0	0.70	8	635	445	6	475	333	4	320	224
M 5	5.0	0.80	8	510	408	6	380	304	4	255	204
M 6	6.0	1.00	8	425	425	6	320	320	4	210	210
M 8	8.0	1.25	8	320	400	6	240	300	4	160	200
M10	10.0	1.50	8	255	383	6	190	285	4	125	188
M12	12.0	1.75	8	210	368	6	160	280	4	105	184
M14	14.0	2.00	8	180	360	6	135	270	4	90	180
M16	16.0	2.00	8	160	320	6	120	240	4	80	160
Acciaio da utensile temperato 52 - 56 HRC											
M 4	4.0	0.70	6	475	333	4	320	224	3	240	168
M 5	5.0	0.80	6	380	304	4	255	204	3	190	152
M 6	6.0	1.00	6	320	320	4	210	210	3	160	160
M 8	8.0	1.25	6	240	300	4	160	200	3	120	150
M10	10.0	1.50	6	190	285	4	125	188	3	95	143
M12	12.0	1.75	6	160	280	4	105	184	3	80	140
M14	14.0	2.00	6	135	270	4	90	180	3	70	140
M16	16.0	2.00	6	120	240	4	80	160	3	60	120
Acciaio da utensile temperato 56 - 60 HRC											
M 4	4.0	0.70	4	320	224	2	160	112			
M 5	5.0	0.80	4	255	204	2	125	100			
M 6	6.0	1.00	4	210	210	2	105	105			
M 8	8.0	1.25	4	160	200	2	80	100			
M10	10.0	1.50	4	125	188	2	65	98			
M12	12.0	1.75	4	105	184	2	55	96			
M14	14.0	2.00	4	90	180	2	45	90			
M16	16.0	2.00	4	80	160	2	40	80			
Acciaio da utensile temperato > 60 HRC											
M 4	4.0	0.70	2	160	112	1.5	120	84			
M 5	5.0	0.80	2	125	100	1.5	95	76			
M 6	6.0	1.00	2	105	105	1.5	80	80			
M 8	8.0	1.25	2	80	100	1.5	60	75			
M10	10.0	1.50	2	65	98	1.5	50	75			
M12	12.0	1.75	2	55	96	1.5	40	70			
M14	14.0	2.00	2	45	90	1.5	35	70			
M16	16.0	2.00	2	40	80	1.5	30	60			

Application

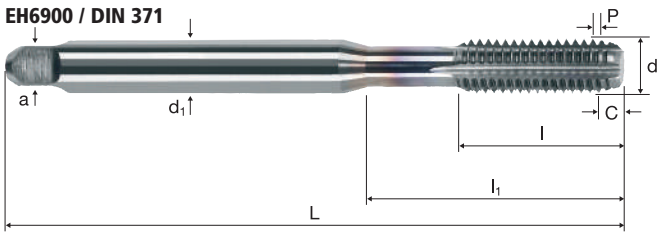


Materiale

M	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Acciaio da utensile temperato 48 - 52 HRC											
M 4	4.0	0.70	8	635	445	6	475	333	4	320	224
M 5	5.0	0.80	8	510	408	6	380	304	4	255	204
M 6	6.0	1.00	8	425	425	6	320	320	4	210	210
M 8	8.0	1.25	8	320	400	6	240	300	4	160	200
M10	10.0	1.50	8	255	383	6	190	285	4	125	188
M12	12.0	1.75	8	210	368	6	160	280	4	105	184
M14	14.0	2.00	8	180	360	6	135	270	4	90	180
M16	16.0	2.00	8	160	320	6	120	240	4	80	160
Acciaio da utensile temperato 52 - 56 HRC											
M 4	4.0	0.70	6	475	333	4	320	224	3	240	168
M 5	5.0	0.80	6	380	304	4	255	204	3	190	152
M 6	6.0	1.00	6	320	320	4	210	210	3	160	160
M 8	8.0	1.25	6	240	300	4	160	200	3	120	150
M10	10.0	1.50	6	190	285	4	125	188	3	95	143
M12	12.0	1.75	6	160	280	4	105	184	3	80	140
M14	14.0	2.00	6	135	270	4	90	180	3	70	140
M16	16.0	2.00	6	120	240	4	80	160	3	60	120
Acciaio da utensile temperato 56 - 60 HRC											
M 4	4.0	0.70	4	320	224	2	160	112			
M 5	5.0	0.80	4	255	204	2	125	100			
M 6	6.0	1.00	4	210	210	2	105	105			
M 8	8.0	1.25	4	160	200	2	80	100			
M10	10.0	1.50	4	125	188	2	65	98			
M12	12.0	1.75	4	105	184	2	55	96			
M14	14.0	2.00	4	90	180	2	45	90			
M16	16.0	2.00	4	80	160	2	40	80			
Acciaio da utensile temperato > 60 HRC											
M 4	4.0	0.70	2	160	112	1.5	120	84			
M 5	5.0	0.80	2	125	100	1.5	95	76			
M 6	6.0	1.00	2	105	105	1.5	80	80			
M 8	8.0	1.25	2	80	100	1.5	60	75			
M10	10.0	1.50	2	65	98	1.5	50	75			
M12	12.0	1.75	2	55	96	1.5	40	70			
M14	14.0	2.00	2	45	90	1.5	35	70			
M16	16.0	2.00	2	40	80	1.5	30	60			

Maschi durotap H

M	ISO 2 (6H)
60°	HM MG10
DIN 371/376	
	Form C



				HRC 48-56	HRC 56-60	HRC > 60			

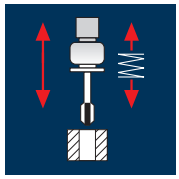
Esempio: N° Ordine — Articolo: **EH6900** — Codice-ø: **058**

Ø Code	d	P	L	l	l1	d1	a			TiCN EH6900 €
058	M 4	0.70	63	13	21	4.5	3.4	4	3.40	182.00
084	M 5	0.80	70	15	25	6.0	4.9	4	4.30	185.00
088	M 6	1.00	80	17	30	6.0	4.9	4	5.10	193.00
160	M 8	1.25	90	20	35	8.0	6.2	5	6.90	234.00
174	M10	1.50	100	22	39	10.0	8.0	5	8.60	287.00

Esempio: N° Ordine — Articolo: **EH6901** — Codice-ø: **240**

Ø Code	d	P	L	l	l1	d1	a			TiCN EH6901 €
240	M12	1.75	110	24	40	9.0	7.0	5	10.40	354.00
244	M14	2.00	110	26	40	11.0	9.0	5	12.20	425.00
246	M16	2.00	110	27	40	12.0	9.0	5	14.20	499.00

Application



Materiale

Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Acciaio inossidabile ferritico/martensitico	M 2	2.0	0.40	12	1910	764	10	1590	636	8	1275	510
	M 2.5	2.5	0.45	12	1530	689	10	1275	574	8	1020	459
	M 3	3.0	0.50	12	1275	638	10	1060	530	8	850	425
	M 4	4.0	0.70	12	955	669	10	795	557	8	635	445
	M 5	5.0	0.80	12	765	612	10	635	508	8	510	408
	M 6	6.0	1.00	12	635	635	10	530	530	8	425	425
	M 8	8.0	1.25	12	475	594	10	400	500	8	320	400
	M10	10.0	1.50	12	380	570	10	320	480	8	255	383
	M12	12.0	1.75	12	320	560	10	265	464	8	210	368
Acciaio inossidabile ferritico/martensitico	M14	14.0	2.00	12	275	550	10	225	450	8	180	360
	M16	16.0	2.00	12	240	480	10	200	400	8	160	320
	M18	18.0	2.50	12	210	525	10	175	438	8	140	350
	M20	20.0	2.50	12	190	475	10	160	400	8	125	313
	M22	22.0	2.50	12	175	438	10	145	363	8	115	288
	M24	24.0	3.00	12	160	480	10	135	405	8	105	315
Acciaio inossidabile [Cr-Ni/1.4301]	M 2	2.0	0.40	7	1115	446	5	795	318	4	635	254
	M 2.5	2.5	0.45	7	890	401	5	635	286	4	510	230
	M 3	3.0	0.50	7	745	373	5	530	265	4	425	213
	M 4	4.0	0.70	7	555	389	5	400	280	4	320	224
	M 5	5.0	0.80	7	445	356	5	320	256	4	255	204
	M 6	6.0	1.00	7	370	370	5	265	265	4	210	210
	M 8	8.0	1.25	7	280	350	5	200	250	4	160	200
	M10	10.0	1.50	7	225	338	5	160	240	4	125	188
	M12	12.0	1.75	7	185	324	5	135	236	4	105	184
Acciaio inossidabile [Cr-Ni/1.4301]	M14	14.0	2.00	7	160	320	5	115	230	4	90	180
	M16	16.0	2.00	7	140	280	5	100	200	4	80	160
	M18	18.0	2.50	7	125	313	5	90	225	4	70	175
	M20	20.0	2.50	7	110	275	5	80	200	4	65	163
	M22	22.0	2.50	7	100	250	5	70	175	4	60	150
	M24	24.0	3.00	7	95	285	5	65	195	4	55	165

Materiale

Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]	M 2	2.0	0.40	8	1275	510	6	955	382	5	795	318
	M 2.5	2.5	0.45	8	1020	459	6	765	344	5	635	286
	M 3	3.0	0.50	8	850	425	6	635	318	5	530	265
	M 4	4.0	0.70	8	635	445	6	475	333	5	400	280
	M 5	5.0	0.80	8	510	408	6	380	304	5	320	256
	M 6	6.0	1.00	8	425	425	6	320	320	5	265	265
	M 8	8.0	1.25	8	320	400	6	240	300	5	200	250
	M10	10.0	1.50	8	255	383	6	190	285	5	160	240
	M12	12.0	1.75	8	210	368	6	160	280	5	135	236
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]	M14	14.0	2.00	8	180	360	6	135	270	5	115	230
	M16	16.0	2.00	8	160	320	6	120	240	5	100	200
	M18	18.0	2.50	8	140	350	6	105	263	5	90	225
	M20	20.0	2.50	8	125	313	6	95	238	5	80	200
	M22	22.0	2.50	8	115	288	6	85	213	5	70	175
	M24	24.0	3.00	8	105	315	6	80	240	5	65	195
Acciaio resistente al calore [17-4 PH]	M 2	2.0	0.40	5	795	318	4	635	254	3	475	190
	M 2.5	2.5	0.45	5	635	286	4	510	230	3	380	171
	M 3	3.0	0.50	5	530	265	4	425	213	3	320	160
	M 4	4.0	0.70	5	400	280	4	320	224	3	240	168
	M 5	5.0	0.80	5	320	256	4	255	204	3	190	152
	M 6	6.0	1.00	5	265	265	4	210	210	3	160	160
	M 8	8.0	1.25	5	200	250	4	160	200	3	120	150
	M10	10.0	1.50	5	160	240	4	125	188	3	95	143
	M12	12.0	1.75	5	135	236	4	105	184	3	80	140
Acciaio resistente al calore [17-4 PH]	M14	14.0	2.00	5	115	230	4	90	180	3	70	140
	M16	16.0	2.00	5	100	200	4	80	160	3	60	120
	M18	18.0	2.50	5	90	225	4	70	175	3	55	138
	M20	20.0	2.50	5	80	200	4	65	163	3	50	125
	M22	22.0	2.50	5	70	175	4	60	150	3	45	113
	M24	24.0	3.00	5	65	195	4	55	165	3	40	120

Maschi Inotap

In

M

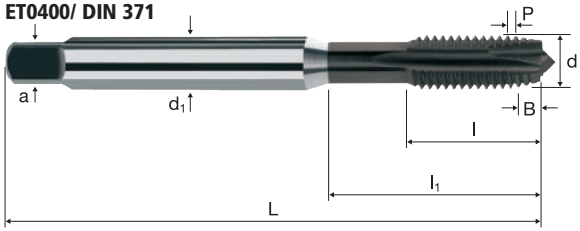
ISO 2 (6H)

HSS PM/F

DIN 371/376

Form B

ET0400/ DIN 371



ET0401/ DIN 376

Inox Stainless

Esempio: **N° Ordine** — Articolo **ET0400** Codice-ø **034**

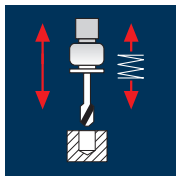
Ø Code	d	P	L	l	l_1	d_1	a			TRIBO ET0400 €
034	M 2	0.40	45	8	–	2.8	2.1	2	1.70 *	41.60
040	M 2.5	0.45	50	9	–	2.8	2.1	2	2.10	36.20
044	M 3	0.50	56	12	18.0	3.5	2.7	3	2.60 *	34.30
058	M 4	0.70	63	13	21.0	4.5	3.4	3	3.40	34.30
084	M 5	0.80	70	15	25.0	6.0	4.9	3	4.30	34.90
088	M 6	1.00	80	17	30.0	6.0	4.9	3	5.10	36.50
160	M 8	1.25	90	20	35.0	8.0	6.2	3	6.90	44.00
174	M10	1.50	100	22	39.0	10.0	8.0	3	8.60	50.90

Esempio: **N° Ordine** — Articolo **ET0401** Codice-ø **240**

Ø Code	d	P	L	l	l_1	d_1	a			TRIBO ET0401 €
240	M12	1.75	110	24	40.0	9.0	7.0	3	10.40	63.00
244	M14	2.00	110	26	40.0	11.0	9.0	3	12.20	80.00
246	M16	2.00	110	27	40.0	12.0	9.0	3	14.20	95.00
312	M18	2.50	125	30	45.0	14.0	11.0	4	15.70	121.00
314	M20	2.50	140	32	50.0	16.0	12.0	4	17.70	148.00
316	M22	2.50	140	32	50.0	18.0	14.5	4	19.70	176.00
320	M24	3.00	160	34	60.0	18.0	14.5	4	21.20	205.00

* La dimensione data è fuori norma

Application



Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
Acciaio inossidabile ferritico/martensitico	M 2	2.0	0.40	10	1590	636	8	1275	510	6	955	382
	M 2.5	2.5	0.45	10	1275	574	8	1020	459	6	765	344
	M 3	3.0	0.50	10	1060	530	8	850	425	6	635	318
	M 4	4.0	0.70	10	795	557	8	635	445	6	475	333
	M 5	5.0	0.80	10	635	508	8	510	408	6	380	304
	M 6	6.0	1.00	10	530	530	8	425	425	6	320	320
	M 8	8.0	1.25	10	400	500	8	320	400	6	240	300
	M10	10.0	1.50	10	320	480	8	255	383	6	190	285
	M12	12.0	1.75	10	265	464	8	210	368	6	160	280
Acciaio inossidabile ferritico/martensitico	M14	14.0	2.00	10	225	450	8	180	360	6	135	270
	M16	16.0	2.00	10	200	400	8	160	320	6	120	240
	M18	18.0	2.50	10	175	438	8	140	350	6	105	263
	M20	20.0	2.50	10	160	400	8	125	313	6	95	238
	M22	22.0	2.50	10	145	363	8	115	288	6	85	213
	M24	24.0	3.00	10	135	405	8	105	315	6	80	240
Acciaio inossidabile [Cr-Ni/1.4301]	M 2	2.0	0.40	5	795	318	4	635	254	3	475	190
	M 2.5	2.5	0.45	5	635	286	4	510	230	3	380	171
	M 3	3.0	0.50	5	530	265	4	425	213	3	320	160
	M 4	4.0	0.70	5	400	280	4	320	224	3	240	168
	M 5	5.0	0.80	5	320	256	4	255	204	3	190	152
	M 6	6.0	1.00	5	265	265	4	210	210	3	160	160
	M 8	8.0	1.25	5	200	250	4	160	200	3	120	150
	M10	10.0	1.50	5	160	240	4	125	188	3	95	143
	M12	12.0	1.75	5	135	236	4	105	184	3	80	140
Acciaio inossidabile [Cr-Ni/1.4301]	M14	14.0	2.00	5	115	230	4	90	180	3	70	140
	M16	16.0	2.00	5	100	200	4	80	160	3	60	120
	M18	18.0	2.50	5	90	225	4	70	175	3	55	138
	M20	20.0	2.50	5	80	200	4	65	163	3	50	125
	M22	22.0	2.50	5	70	175	4	60	150	3	45	113
	M24	24.0	3.00	5	65	195	4	55	165	3	40	120

Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]	M 2	2.0	0.40	6	955	382	5	795	318	4	635	254
	M 2.5	2.5	0.45	6	765	344	5	635	286	4	510	230
	M 3	3.0	0.50	6	635	318	5	530	265	4	425	213
	M 4	4.0	0.70	6	475	333	5	400	280	4	320	224
	M 5	5.0	0.80	6	380	304	5	320	256	4	255	204
	M 6	6.0	1.00	6	320	320	5	265	265	4	210	210
	M 8	8.0	1.25	6	240	300	5	200	250	4	160	200
	M10	10.0	1.50	6	190	285	5	160	240	4	125	188
	M12	12.0	1.75	6	160	280	5	135	236	4	105	184
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]	M14	14.0	2.00	6	135	270	5	115	230	4	90	180
	M16	16.0	2.00	6	120	240	5	100	200	4	80	160
	M18	18.0	2.50	6	105	263	5	90	225	4	70	175
	M20	20.0	2.50	6	95	238	5	80	200	4	65	163
	M22	22.0	2.50	6	85	213	5	70	175	4	60	150
	M24	24.0	3.00	6	80	240	5	65	195	4	55	165
Acciaio resistente al calore [17-4 PH]	M 2	2.0	0.40	4	635	254	3	475	190			
	M 2.5	2.5	0.45	4	510	230	3	380	171			
	M 3	3.0	0.50	4	425	213	3	320	160			
	M 4	4.0	0.70	4	320	224	3	240	168			
	M 5	5.0	0.80	4	255	204	3	190	152			
	M 6	6.0	1.00	4	210	210	3	160	160			
	M 8	8.0	1.25	4	160	200	3	120	150			
	M10	10.0	1.50	4	125	188	3	95	143			
	M12	12.0	1.75	4	105	184	3	80	140			
Acciaio resistente al calore [17-4 PH]	M14	14.0	2.00	4	90	180	3	70	140			
	M16	16.0	2.00	4	80	160	3	60	120			
	M18	18.0	2.50	4	70	175	3	55	138			
	M20	20.0	2.50	4	65	163	3	50	125			
	M22	22.0	2.50	4	60	150	3	45	113			
	M24	24.0	3.00	4	55	165	3	40	120			

Maschi x-tap

In

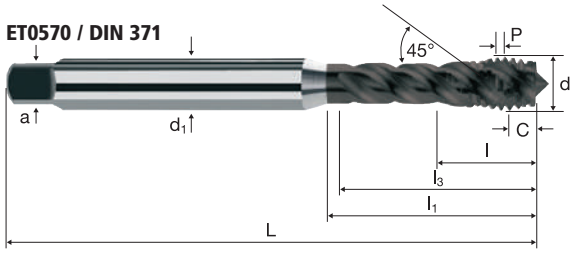
M

ISO 2 (6H)

HSS PM/F

DIN 371/376

Form C



Inox Stainless

Esempio: N° Ordine — Articolo: ET0570 — Codice-ø: 034

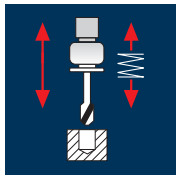
Ø Code	d	P	L	l	l1	l3	d1	a			TRIBO ET0570 €
034	M 2	0.40	45	8	–	10.5	2.8	2.1	3	1.70 *	47.10
040	M 2.5	0.45	50	9	–	13.0	2.8	2.1	3	2.10	41.80
044	M 3	0.50	56	5	–	16.0	3.5	2.7	3	2.60 *	38.60
058	M 4	0.70	63	7	–	19.0	4.5	3.4	3	3.40	38.60
084	M 5	0.80	70	8	–	23.0	6.0	4.9	3	4.30	39.40
088	M 6	1.00	80	10	–	28.0	6.0	4.9	3	5.10	41.20
160	M 8	1.25	90	13	35.0	33.0	8.0	6.2	3	6.90	49.70
174	M10	1.50	100	15	39.0	37.0	10.0	8.0	4	8.60	58.80

Esempio: N° Ordine — Articolo: ET0571 — Codice-ø: 240

Ø Code	d	P	L	l	l1	l3	d1	a			TRIBO ET0571 €
240	M12	1.75	110	18	50.0	48.0	9.0	7.0	4	10.40	75.00
244	M14	2.00	110	20	58.0	56.0	11.0	9.0	4	12.20	90.00
246	M16	2.00	110	20	58.0	56.0	12.0	9.0	4	14.20	108.00
312	M18	2.50	125	25	65.0	63.0	14.0	11.0	4	15.70	134.00
314	M20	2.50	140	25	72.0	70.0	16.0	12.0	4	17.70	162.00
316	M22	2.50	140	25	72.0	70.0	18.0	14.5	5	19.70	192.00
320	M24	3.00	160	30	74.0	72.0	18.0	14.5	5	21.20	226.00

* La dimensione data è fuori norma

Application



Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio inossidabile ferritico/martensitico	M 4	4.0	0.70	10	795	557	8	635	445	6	475	333
	M 5	5.0	0.80	10	635	508	8	510	408	6	380	304
	M 6	6.0	1.00	10	530	530	8	425	425	6	320	320
	M 8	8.0	1.25	10	400	500	8	320	400	6	240	300
	M10	10.0	1.50	10	320	480	8	255	383	6	190	285
	M12	12.0	1.75	10	265	464	8	210	368	6	160	280
	M14	14.0	2.00	10	225	450	8	180	360	6	135	270
	M16	16.0	2.00	10	200	400	8	160	320	6	120	240
	M18	18.0	2.50	10	175	438	8	140	350	6	105	263
Acciaio inossidabile ferritico/martensitico	M20	20.0	2.50	10	160	400	8	125	313	6	95	238
	M22	22.0	2.50	10	145	363	8	115	288	6	85	213
	M24	24.0	3.00	10	135	405	8	105	315	6	80	240
Acciaio inossidabile [Cr-Ni/1.4301]	M 4	4.0	0.70	5	400	280	4	320	224	3	240	168
	M 5	5.0	0.80	5	320	256	4	255	204	3	190	152
	M 6	6.0	1.00	5	265	265	4	210	210	3	160	160
	M 8	8.0	1.25	5	200	250	4	160	200	3	120	150
	M10	10.0	1.50	5	160	240	4	125	188	3	95	143
	M12	12.0	1.75	5	135	236	4	105	184	3	80	140
	M14	14.0	2.00	5	115	230	4	90	180	3	70	140
	M16	16.0	2.00	5	100	200	4	80	160	3	60	120
	M18	18.0	2.50	5	90	225	4	70	175	3	55	138
Acciaio inossidabile [Cr-Ni/1.4301]	M20	20.0	2.50	5	80	200	4	65	163	3	50	125
	M22	22.0	2.50	5	70	175	4	60	150	3	45	113
	M24	24.0	3.00	5	65	195	4	55	165	3	40	120

Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]	M 4	4.0	0.70	6	475	333	5	400	280	4	320	224
	M 5	5.0	0.80	6	380	304	5	320	256	4	255	204
	M 6	6.0	1.00	6	320	320	5	265	265	4	210	210
	M 8	8.0	1.25	6	240	300	5	200	250	4	160	200
	M10	10.0	1.50	6	190	285	5	160	240	4	125	188
	M12	12.0	1.75	6	160	280	5	135	236	4	105	184
	M14	14.0	2.00	6	135	270	5	115	230	4	90	180
	M16	16.0	2.00	6	120	240	5	100	200	4	80	160
	M18	18.0	2.50	6	105	263	5	90	225	4	70	175
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]	M20	20.0	2.50	6	95	238	5	80	200	4	65	163
	M22	22.0	2.50	6	85	213	5	70	175	4	60	150
	M24	24.0	3.00	6	80	240	5	65	195	4	55	165
Acciaio resistente al calore [17-4 PH]	M 4	4.0	0.70	4	320	224	3	240	168			
	M 5	5.0	0.80	4	255	204	3	190	152			
	M 6	6.0	1.00	4	210	210	3	160	160			
	M 8	8.0	1.25	4	160	200	3	120	150			
	M10	10.0	1.50	4	125	188	3	95	143			
	M12	12.0	1.75	4	105	184	3	80	140			
	M14	14.0	2.00	4	90	180	3	70	140			
	M16	16.0	2.00	4	80	160	3	60	120			
	M18	18.0	2.50	4	70	175	3	55	138			
Acciaio resistente al calore [17-4 PH]	M20	20.0	2.50	4	65	163	3	50	125			
	M22	22.0	2.50	4	60	150	3	45	113			
	M24	24.0	3.00	4	55	165	3	40	120			

Maschi x-tap

Incool

In

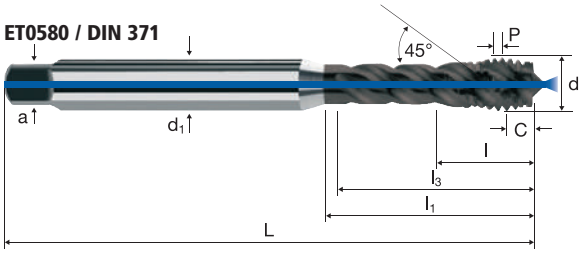
M

ISO 2 (6H)

HSS PM/F

DIN 371/376

Form C



Inox Stainless

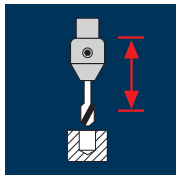
Esempio: N° Ordine — Articolo: ET0580 — Codice-ø: 058

Ø Code	d	P	L	l	l1	l3	d1	a			TRIBO ET0580 €
058	M 4	0.70	63	7	–	19	4.5	3.4	3	3.40	54.10
084	M 5	0.80	70	8	–	23	6.0	4.9	3	4.30	55.20
088	M 6	1.00	80	10	–	28	6.0	4.9	3	5.10	57.70
160	M 8	1.25	90	13	35	33	8.0	6.2	3	6.90	70.00
174	M10	1.50	100	15	39	37	10.0	8.0	4	8.60	82.00

Esempio: N° Ordine — Articolo: ET0581 — Codice-ø: 240

Ø Code	d	P	L	l	l1	l3	d1	a			TRIBO ET0581 €
240	M12	1.75	110	18	50	48	9.0	7.0	4	10.40	105.00
244	M14	2.00	110	20	58	56	11.0	9.0	4	12.20	125.00
246	M16	2.00	110	20	58	56	12.0	9.0	4	14.20	152.00
312	M18	2.50	125	25	65	63	14.0	11.0	4	15.70	188.00
314	M20	2.50	140	25	72	70	16.0	12.0	4	17.70	227.00
316	M22	2.50	140	25	72	70	18.0	14.5	5	19.70	269.00
320	M24	3.00	160	30	74	72	18.0	14.5	5	21.20	316.00

Application



Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]
Acciaio inossidabile ferritico/martensitico	M 3	3.0	0.50	12	1275	10	1060	8	850
	M 4	4.0	0.70	12	955	10	795	8	635
	M 5	5.0	0.80	12	765	10	635	8	510
	M 6	6.0	1.00	12	635	10	530	8	425
	M 8	8.0	1.25	12	475	10	400	8	320
	M10	10.0	1.50	12	380	10	320	8	255
	M12	12.0	1.75	12	320	10	265	8	210
	M14	14.0	2.00	12	275	10	225	8	180
	M16	16.0	2.00	12	240	10	200	8	160
Acciaio inossidabile ferritico/martensitico	M18	18.0	2.50	12	210	10	175	8	140
	M20	20.0	2.50	12	190	10	160	8	125
	M22	22.0	2.50	12	175	10	145	8	115
	M24	24.0	3.00	12	160	10	135	8	105
Acciaio inossidabile [Cr-Ni/1.4301]	M 3	3.0	0.50	7	745	5	530	4	425
	M 4	4.0	0.70	7	555	5	400	4	320
	M 5	5.0	0.80	7	445	5	320	4	255
	M 6	6.0	1.00	7	370	5	265	4	210
	M 8	8.0	1.25	7	280	5	200	4	160
	M10	10.0	1.50	7	225	5	160	4	125
	M12	12.0	1.75	7	185	5	135	4	105
	M14	14.0	2.00	7	160	5	115	4	90
	M16	16.0	2.00	7	140	5	100	4	80
Acciaio inossidabile [Cr-Ni/1.4301]	M18	18.0	2.50	7	125	5	90	4	70
	M20	20.0	2.50	7	110	5	80	4	65
	M22	22.0	2.50	7	100	5	70	4	60
	M24	24.0	3.00	7	95	5	65	4	55

Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]	M 3	3.0	0.50	8	850	6	635	5	530
	M 4	4.0	0.70	8	635	6	475	5	400
	M 5	5.0	0.80	8	510	6	380	5	320
	M 6	6.0	1.00	8	425	6	320	5	265
	M 8	8.0	1.25	8	320	6	240	5	200
	M10	10.0	1.50	8	255	6	190	5	160
	M12	12.0	1.75	8	210	6	160	5	135
	M14	14.0	2.00	8	180	6	135	5	115
	M16	16.0	2.00	8	160	6	120	5	100
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]	M18	18.0	2.50	8	140	6	105	5	90
	M20	20.0	2.50	8	125	6	95	5	80
	M22	22.0	2.50	8	115	6	85	5	70
	M24	24.0	3.00	8	105	6	80	5	65
Acciaio resistente al calore [17-4 PH]	M 3	3.0	0.50	5	530	4	425		
	M 4	4.0	0.70	5	400	4	320		
	M 5	5.0	0.80	5	320	4	255		
	M 6	6.0	1.00	5	265	4	210		
	M 8	8.0	1.25	5	200	4	160		
	M10	10.0	1.50	5	160	4	125		
	M12	12.0	1.75	5	135	4	105		
	M14	14.0	2.00	5	115	4	90		
	M16	16.0	2.00	5	100	4	80		
Acciaio resistente al calore [17-4 PH]	M18	18.0	2.50	5	90	4	70		
	M20	20.0	2.50	5	80	4	65		
	M22	22.0	2.50	5	70	4	60		
	M24	24.0	3.00	5	65	4	55		

Maschi x-tap-R

In

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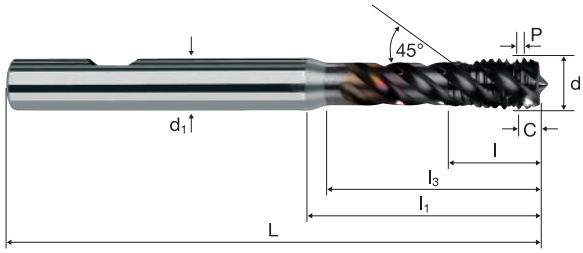
ISO 2 (6H)

HSS PM/F

DIN 1835B ISO 3338

Form C



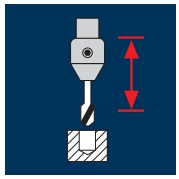
Inox Stainless

Esempio: **N° Ordine** — Articolo **ET0590** — Codice-ø **044**

ø Code	d	P	L	l	l_1	l_3	d_1 h6			TRIBO ET0590 €
044	M 3	0.50	63	5	–	16	6	3	2.60 *	38.60
058	M 4	0.70	66	7	–	19	6	3	3.40	38.60
084	M 5	0.80	70	8	–	23	6	3	4.30	39.40
088	M 6	1.00	80	10	–	28	6	3	5.10	41.20
160	M 8	1.25	90	13	35	33	8	3	6.90	49.70
174	M10	1.50	100	15	39	37	10	4	8.60	58.80
240	M12	1.75	110	18	45	43	12	4	10.40	75.00
244	M14	2.00	110	20	46	44	16	4	12.20	90.00
246	M16	2.00	110	20	50	48	16	4	14.20	108.00
312	M18	2.50	125	25	60	58	16	4	15.70	134.00
314	M20	2.50	140	25	64	62	16	4	17.70	162.00
316	M22	2.50	140	25	64	62	20	5	19.70	192.00
320	M24	3.00	160	30	74	72	20	5	21.20	226.00

* La dimensione data è fuori norma

Application



Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]
Acciaio inossidabile ferritico/martensitico	M 4	4.0	0.70	12	955	10	795	8	635
	M 5	5.0	0.80	12	765	10	635	8	510
	M 6	6.0	1.00	12	635	10	530	8	425
	M 8	8.0	1.25	12	475	10	400	8	320
	M10	10.0	1.50	12	380	10	320	8	255
	M12	12.0	1.75	12	320	10	265	8	210
	M14	14.0	2.00	12	275	10	225	8	180
	M16	16.0	2.00	12	240	10	200	8	160
	M18	18.0	2.50	12	210	10	175	8	140
Acciaio inossidabile ferritico/martensitico	M20	20.0	2.50	12	190	10	160	8	125
	M22	22.0	2.50	12	175	10	145	8	115
	M24	24.0	3.00	12	160	10	135	8	105
Acciaio inossidabile [Cr-Ni/1.4301]	M 4	4.0	0.70	7	555	5	400	4	320
	M 5	5.0	0.80	7	445	5	320	4	255
	M 6	6.0	1.00	7	370	5	265	4	210
	M 8	8.0	1.25	7	280	5	200	4	160
	M10	10.0	1.50	7	225	5	160	4	125
	M12	12.0	1.75	7	185	5	135	4	105
	M14	14.0	2.00	7	160	5	115	4	90
	M16	16.0	2.00	7	140	5	100	4	80
	M18	18.0	2.50	7	125	5	90	4	70
Acciaio inossidabile [Cr-Ni/1.4301]	M20	20.0	2.50	7	110	5	80	4	65
	M22	22.0	2.50	7	100	5	70	4	60
	M24	24.0	3.00	7	95	5	65	4	55

Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]	M 4	4.0	0.70	8	635	6	475	5	400
	M 5	5.0	0.80	8	510	6	380	5	320
	M 6	6.0	1.00	8	425	6	320	5	265
	M 8	8.0	1.25	8	320	6	240	5	200
	M10	10.0	1.50	8	255	6	190	5	160
	M12	12.0	1.75	8	210	6	160	5	135
	M14	14.0	2.00	8	180	6	135	5	115
	M16	16.0	2.00	8	160	6	120	5	100
	M18	18.0	2.50	8	140	6	105	5	90
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]	M20	20.0	2.50	8	125	6	95	5	80
	M22	22.0	2.50	8	115	6	85	5	70
	M24	24.0	3.00	8	105	6	80	5	65
Acciaio resistente al calore [17-4 PH]	M 4	4.0	0.70	5	400	4	320		
	M 5	5.0	0.80	5	320	4	255		
	M 6	6.0	1.00	5	265	4	210		
	M 8	8.0	1.25	5	200	4	160		
	M10	10.0	1.50	5	160	4	125		
	M12	12.0	1.75	5	135	4	105		
	M14	14.0	2.00	5	115	4	90		
	M16	16.0	2.00	5	100	4	80		
	M18	18.0	2.50	5	90	4	70		
Acciaio resistente al calore [17-4 PH]	M20	20.0	2.50	5	80	4	65		
	M22	22.0	2.50	5	70	4	60		
	M24	24.0	3.00	5	65	4	55		

Maschi x-tap-R

Incool

In

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ISO 2 (6H)

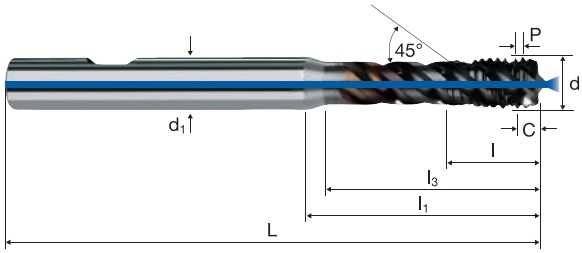
60°

HSS PM/F

DIN 1835B ISO 3338

X · P

Form C



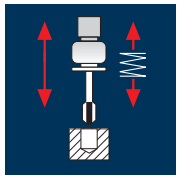
M

Inox Stainless

Esempio: **N° Ordine** — Articolo **ET0591** — Codice-ø **058**

ø Code	d	P	L	l	l1	l3	d1 h6			TRIBO ET0591 €
058	M 4	0.70	66	7	–	19	6	3	3.40	54.10
084	M 5	0.80	70	8	–	23	6	3	4.30	55.20
088	M 6	1.00	80	10	–	28	6	3	5.10	57.70
160	M 8	1.25	90	13	35	33	8	3	6.90	70.00
174	M10	1.50	100	15	39	37	10	4	8.60	82.00
240	M12	1.75	110	18	45	43	12	4	10.40	105.00
244	M14	2.00	110	20	46	44	16	4	12.20	125.00
246	M16	2.00	110	20	50	48	16	4	14.20	152.00
312	M18	2.50	125	25	60	58	16	4	15.70	188.00
314	M20	2.50	140	25	64	62	16	4	17.70	227.00
316	M22	2.50	140	25	64	62	20	5	19.70	269.00
320	M24	3.00	160	30	74	72	20	5	21.20	316.00

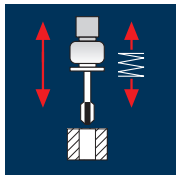
Application



Materiale

Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
Ghisa GG	M 2	2.0	0.40	28	4455	1782	24	3820	1528	20	3185	1274
	M 2.5	2.5	0.45	28	3565	1604	24	3055	1375	20	2545	1145
	M 3	3.0	0.50	28	2970	1485	24	2545	1273	20	2120	1060
	M 4	4.0	0.70	28	2230	1561	24	1910	1337	20	1590	1113
	M 5	5.0	0.80	28	1785	1428	24	1530	1224	20	1275	1020
	M 6	6.0	1.00	28	1485	1485	24	1275	1275	20	1060	1060
	M 8	8.0	1.25	28	1115	1394	24	955	1194	20	795	994
	M10	10.0	1.50	28	890	1335	24	765	1148	20	635	953
	M12	12.0	1.75	28	745	1304	24	635	1111	20	530	928
Ghisa GG	M14	14.0	2.00	28	635	1270	24	545	1090	20	455	910
	M16	16.0	2.00	28	555	1110	24	475	950	20	400	800
	M18	18.0	2.50	28	495	1238	24	425	1063	20	355	888
	M20	20.0	2.50	28	445	1113	24	380	950	20	320	800
	M22	22.0	2.50	28	405	1013	24	345	863	20	290	725
	M24	24.0	3.00	28	370	1110	24	320	960	20	265	795
Ghisa GGG	M 2	2.0	0.40	20	3185	1274	18	2865	1146	15	2385	954
	M 2.5	2.5	0.45	20	2545	1145	18	2290	1031	15	1910	860
	M 3	3.0	0.50	20	2120	1060	18	1910	955	15	1590	795
	M 4	4.0	0.70	20	1590	1113	18	1430	1001	15	1195	837
	M 5	5.0	0.80	20	1275	1020	18	1145	916	15	955	764
	M 6	6.0	1.00	20	1060	1060	18	955	955	15	795	795
	M 8	8.0	1.25	20	795	994	18	715	894	15	595	744
	M10	10.0	1.50	20	635	953	18	575	863	15	475	713
	M12	12.0	1.75	20	530	928	18	475	831	15	400	700
Ghisa GGG	M14	14.0	2.00	20	455	910	18	410	820	15	340	680
	M16	16.0	2.00	20	400	800	18	360	720	15	300	600
	M18	18.0	2.50	20	355	888	18	320	800	15	265	663
	M20	20.0	2.50	20	320	800	18	285	713	15	240	600
	M22	22.0	2.50	20	290	725	18	260	650	15	215	538
	M24	24.0	3.00	20	265	795	18	240	720	15	200	600

Application



Materiale

Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Ghisa GG	M 2	2.0	0.40	30	4775	1910	28	4455	1782	25	3980	1592
	M 2.5	2.5	0.45	30	3820	1719	28	3565	1604	25	3185	1433
	M 3	3.0	0.50	30	3185	1593	28	2970	1485	25	2655	1328
	M 4	4.0	0.70	30	2385	1670	28	2230	1561	25	1990	1393
	M 5	5.0	0.80	30	1910	1528	28	1785	1428	25	1590	1272
	M 6	6.0	1.00	30	1590	1590	28	1485	1485	25	1325	1325
	M 8	8.0	1.25	30	1195	1494	28	1115	1394	25	995	1244
	M10	10.0	1.50	30	955	1433	28	890	1335	25	795	1193
	M12	12.0	1.75	30	795	1391	28	745	1304	25	665	1164
Ghisa GG	M14	14.0	2.00	30	680	1360	28	635	1270	25	570	1140
	M16	16.0	2.00	30	595	1190	28	555	1110	25	495	990
	M18	18.0	2.50	30	530	1325	28	495	1238	25	440	1100
	M20	20.0	2.50	30	475	1188	28	445	1113	25	400	1000
	M22	22.0	2.50	30	435	1088	28	405	1013	25	360	900
	M24	24.0	3.00	30	400	1200	28	370	1110	25	330	990
Ghisa GGG	M 2	2.0	0.40	25	3980	1592	22	3500	1400	20	3185	1274
	M 2.5	2.5	0.45	25	3185	1433	22	2800	1260	20	2545	1145
	M 3	3.0	0.50	25	2655	1328	22	2335	1168	20	2120	1060
	M 4	4.0	0.70	25	1990	1393	22	1750	1225	20	1590	1113
	M 5	5.0	0.80	25	1590	1272	22	1400	1120	20	1275	1020
	M 6	6.0	1.00	25	1325	1325	22	1165	1165	20	1060	1060
	M 8	8.0	1.25	25	995	1244	22	875	1094	20	795	994
	M10	10.0	1.50	25	795	1193	22	700	1050	20	635	953
	M12	12.0	1.75	25	665	1164	22	585	1024	20	530	928
Ghisa GGG	M14	14.0	2.00	25	570	1140	22	500	1000	20	455	910
	M16	16.0	2.00	25	495	990	22	440	880	20	400	800
	M18	18.0	2.50	25	440	1100	22	390	975	20	355	888
	M20	20.0	2.50	25	400	1000	22	350	875	20	320	800
	M22	22.0	2.50	25	360	900	22	320	800	20	290	725
	M24	24.0	3.00	25	330	990	22	290	870	20	265	795

GG

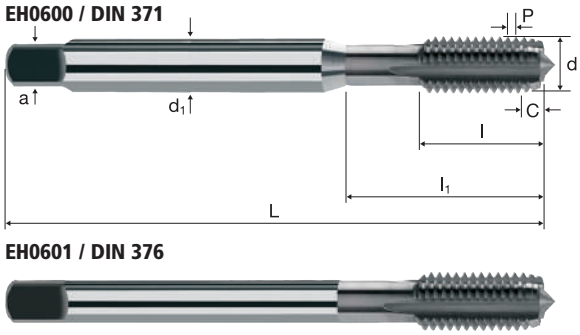
M

ISO 2 (6H)

HSS PM/F

DIN 371/376

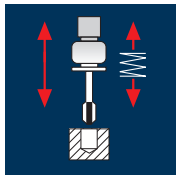
Form C



GG(G)

Esempio: N° Ordine	Articolo EH0600	Codice-ø 034									TiCN EH0600
Ø Code	d	P	L	l	l1	d1	a				€
034	M 2	0.40	45	8	–	2.8	2.1	3	1.60		30.90
040	M 2.5	0.45	50	9	–	2.8	2.1	3	2.05		26.90
044	M 3	0.50	56	12	18.0	3.5	2.7	3	2.50		25.50
058	M 4	0.70	63	13	21.0	4.5	3.4	3	3.30		25.50
084	M 5	0.80	70	15	25.0	6.0	4.9	3	4.20		25.90
088	M 6	1.00	80	17	30.0	6.0	4.9	4	5.00		27.10
160	M 8	1.25	90	20	35.0	8.0	6.2	4	6.80		32.70
174	M10	1.50	100	22	39.0	10.0	8.0	4	8.50		37.80

Esempio: N° Ordine	Articolo EH0601	Codice-ø 240									TiCN EH0601
Ø Code	d	P	L	l	l1	d1	a				€
240	M12	1.75	110	24	40.0	9.0	7.0	4	10.20		47.20
244	M14	2.00	110	26	40.0	11.0	9.0	4	12.00		59.70
246	M16	2.00	110	27	40.0	12.0	9.0	4	14.00		71.00
312	M18	2.50	125	30	45.0	14.0	11.0	4	15.50		90.00
314	M20	2.50	140	32	50.0	16.0	12.0	4	17.50		110.00
316	M22	2.50	140	32	50.0	18.0	14.5	5	19.50		130.00
320	M24	3.00	160	34	60.0	18.0	14.5	5	21.00		153.00

Application	Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
	Ghisa GG	M 4	4.0	0.70	28	2230	1561	24	1910	1337	20	1590	1113
		M 5	5.0	0.80	28	1785	1428	24	1530	1224	20	1275	1020
		M 6	6.0	1.00	28	1485	1485	24	1275	1275	20	1060	1060
		M 8	8.0	1.25	28	1115	1394	24	955	1194	20	795	994
		M10	10.0	1.50	28	890	1335	24	765	1148	20	635	953
		M12	12.0	1.75	28	745	1304	24	635	1111	20	530	928
		M14	14.0	2.00	28	635	1270	24	545	1090	20	455	910
		M16	16.0	2.00	28	555	1110	24	475	950	20	400	800
		M18	18.0	2.50	28	495	1238	24	425	1063	20	355	888
	Ghisa GG	M20	20.0	2.50	28	445	1113	24	380	950	20	320	800
		M22	22.0	2.50	28	405	1013	24	345	863	20	290	725
		M24	24.0	3.00	28	370	1110	24	320	960	20	265	795
	Ghisa GGG	M 4	4.0	0.40	20	1590	636	18	1430	572	15	1195	478
		M 5	5.0	0.45	20	1275	574	18	1145	515	15	955	430
		M 6	6.0	0.50	20	1060	530	18	955	478	15	795	398
		M 8	8.0	0.70	20	795	557	18	715	500	15	595	417
		M10	10.0	0.80	20	635	508	18	575	460	15	475	380
		M12	12.0	1.00	20	530	530	18	475	475	15	400	400
		M14	14.0	1.25	20	455	569	18	410	513	15	340	425
		M16	16.0	1.50	20	400	600	18	360	540	15	300	450
		M18	18.0	1.75	20	355	621	18	320	560	15	265	464
	Ghisa GGG	M20	20.0	2.00	20	320	640	18	285	570	15	240	480
		M22	22.0	2.00	20	290	580	18	260	520	15	215	430
		M24	24.0	2.50	20	265	663	18	240	600	15	200	500

Maschi c-tap

Incool

GG

M

ISO 2 (6H)

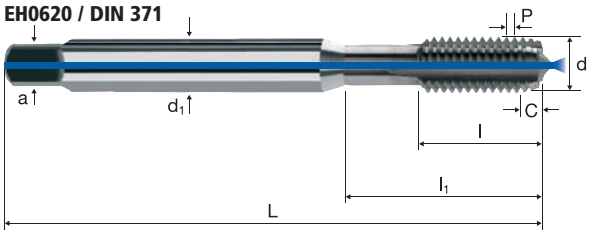
60°

HSS PM/F

DIN 371/376

X · P

Form C



GG(G)

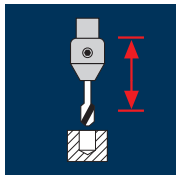
Esempio: N° Ordine — Articolo: EH0620 — Codice-ø: 058

Ø Code	d	P	L	l	l1	d1	a			TiCN EH0620 €
058	M 4	0.70	63	13	21	4.5	3.4	3	3.30	39.50
084	M 5	0.80	70	15	25	6.0	4.9	3	4.20	40.20
088	M 6	1.00	80	17	30	6.0	4.9	4	5.00	42.00
160	M 8	1.25	90	20	35	8.0	6.2	4	6.80	50.60
174	M10	1.50	100	22	39	10.0	8.0	4	8.50	58.60

Esempio: N° Ordine — Articolo: EH0621 — Codice-ø: 240

Ø Code	d	P	L	l	l1	d1	a			TiCN EH0621 €
240	M12	1.75	110	24	40	9.0	7.0	4	10.20	73.00
244	M14	2.00	110	26	40	11.0	9.0	4	12.00	92.00
246	M16	2.00	110	27	40	12.0	9.0	4	14.00	110.00
312	M18	2.50	125	30	45	14.0	11.0	4	15.50	140.00
314	M20	2.50	140	32	50	16.0	12.0	4	17.50	170.00
316	M22	2.50	140	32	50	18.0	14.5	5	19.50	202.00
320	M24	3.00	160	34	60	18.0	14.5	5	21.00	237.00

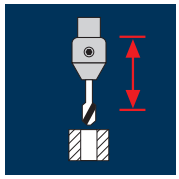
Application



Materiale

M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]
Ghisa GG								
M 3	3.0	0.50	80	8490	70	7425	50	5305
M 4	4.0	0.70	80	6365	70	5570	50	3980
M 5	5.0	0.80	80	5095	70	4455	50	3185
M 6	6.0	1.00	80	4245	70	3715	50	2655
M 8	8.0	1.25	80	3185	70	2785	50	1990
M10	10.0	1.50	80	2545	70	2230	50	1590
M12	12.0	1.75	80	2120	70	1855	50	1325
Ghisa GGG								
M 3	3.0	0.50	60	6365	40	4245	30	3185
M 4	4.0	0.70	60	4775	40	3185	30	2385
M 5	5.0	0.80	60	3820	40	2545	30	1910
M 6	6.0	1.00	60	3185	40	2120	30	1590
M 8	8.0	1.25	60	2385	40	1590	30	1195
M10	10.0	1.50	60	1910	40	1275	30	955
M12	12.0	1.75	60	1590	40	1060	30	795

Application



Materiale

M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]	v_c 3.0 x d	n [min^{-1}]
Ghisa GG								
M 3	3.0	0.50	80	8490	60	6365	50	5305
M 4	4.0	0.70	80	6365	60	4775	50	3980
M 5	5.0	0.80	80	5095	60	3820	50	3185
M 6	6.0	1.00	80	4245	60	3185	50	2655
M 8	8.0	1.25	80	3185	60	2385	50	1990
M10	10.0	1.50	80	2545	60	1910	50	1590
M12	12.0	1.75	80	2120	60	1590	50	1325
Ghisa GGG								
M 3	3.0	0.50	60	6365	50	5305	40	4245
M 4	4.0	0.70	60	4775	50	3980	40	3185
M 5	5.0	0.80	60	3820	50	3185	40	2545
M 6	6.0	1.00	60	3185	50	2655	40	2120
M 8	8.0	1.25	60	2385	50	1990	40	1590
M10	10.0	1.50	60	1910	50	1590	40	1275
M12	12.0	1.75	60	1590	50	1325	40	1060

Maschi durotap GG-R

GG

M

ISO 2 (6H)

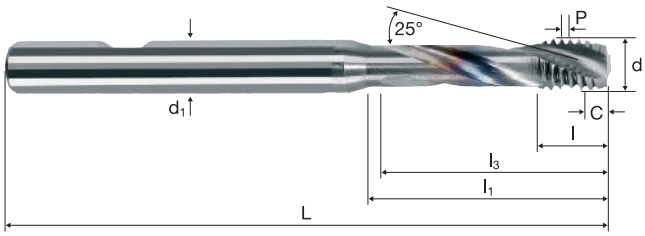
60°

HM MG10

DIN 6535 HB

X · P

Form C



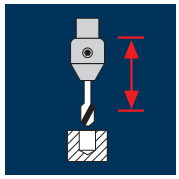
M

GG(G)

Esempio: **N° Ordine**

Articolo **EH6500** Codice-ø **044**

ø Code	d	P	L	l	l1	l3	d1 h6			TiCN EH6500 €
044	M 3	0.50	63	2.5	18	16	6	3	2.50	109.00
058	M 4	0.70	63	3.5	21	19	6	3	3.30	109.00
084	M 5	0.80	70	4.0	25	23	6	3	4.20	111.00
088	M 6	1.00	80	5.0	30	28	6	3	5.00	116.00
160	M 8	1.25	90	6.5	35	33	8	3	6.80	141.00
174	M10	1.50	100	7.5	39	37	10	3	8.50	172.00
240	M12	1.75	110	9.0	45	43	12	3	10.20	212.00

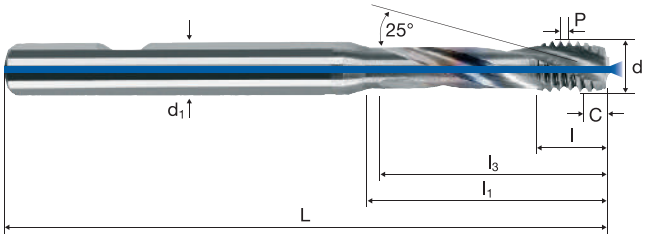
Application	Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]
	Ghisa GG	M 6	6.0	1.00	80	4245	70	3715	50	2655
		M 8	8.0	1.25	80	3185	70	2785	50	1990
		M10	10.0	1.50	80	2545	70	2230	50	1590
		M12	12.0	1.75	80	2120	70	1855	50	1325
	Ghisa GGG	M 6	6.0	1.00	60	3185	40	2120	30	1590
		M 8	8.0	1.25	60	2385	40	1590	30	1195
		M10	10.0	1.50	60	1910	40	1275	30	955
		M12	12.0	1.75	60	1590	40	1060	30	795

Maschi durotap GG-R

Incool

GG

M	ISO 2 (6H)
60°	HM MG10
DIN 6535 HB	
	X · P Form C

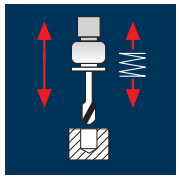


M

GG(G)

											TiCN
											EH6501
Esempio: N° Ordine			Articolo EH6501	Codice-ø 088							
ø Code	d	P	L	l	l_1	l_3	d_1 h6				€
088	M 6	1.00	80	5.0	30	28	6	3	5.00		162.00
160	M 8	1.25	90	6.5	35	33	8	3	6.80		197.00
174	M10	1.50	100	7.5	39	37	10	3	8.50		241.00
240	M12	1.75	110	9.0	45	43	12	3	10.20		297.00

Application



Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]
Ghisa GG	M 3	3.0	0.50	80	8490	70	7425	50	5305
	M 4	4.0	0.70	80	6365	70	5570	50	3980
	M 5	5.0	0.80	80	5095	70	4455	50	3185
	M 6	6.0	1.00	80	4245	70	3715	50	2655
	M 8	8.0	1.25	80	3185	70	2785	50	1990
	M10	10.0	1.50	80	2545	70	2230	50	1590
	M12	12.0	1.75	80	2120	70	1855	50	1325
Ghisa GGG	M 3	3.0	0.50	60	6365	40	4245	30	3185
	M 4	4.0	0.70	60	4775	40	3185	30	2385
	M 5	5.0	0.80	60	3820	40	2545	30	1910
	M 6	6.0	1.00	60	3185	40	2120	30	1590
	M 8	8.0	1.25	60	2385	40	1590	30	1195
	M10	10.0	1.50	60	1910	40	1275	30	955
	M12	12.0	1.75	60	1590	40	1060	30	795

Maschi durotap GG

Incool

GG

M

ISO 2 (6H)

60°

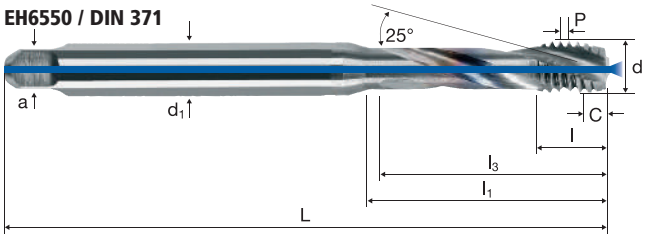
HM MG10

DIN 371/376

X · P

Form C

EH6550 / DIN 371



EH6551 / DIN 376

GG(G)

Esempio: **N° Ordine** — Articolo **EH6550** Codice-ø **044**

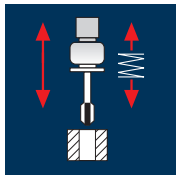
Ø Code	d	P	L	l	l1	l3	d1	a			TiCN €
											EH6550
044 *	**M 3**	**0.50**	56	5	18	16	3.5	2.7	3	2.50	153.00
058 *	**M 4**	**0.70**	63	7	21	19	4.5	3.4	3	3.30	153.00
084 *	**M 5**	**0.80**	70	8	25	23	6.0	4.9	3	4.20	155.00
088	**M 6**	**1.00**	80	10	30	28	6.0	4.9	3	5.00	162.00
160	**M 8**	**1.25**	90	13	35	33	8.0	6.2	3	6.80	197.00
174	**M10**	**1.50**	100	15	39	37	10.0	8.0	3	8.50	241.00

Esempio: **N° Ordine** — Articolo **EH6551** Codice-ø **240**

Ø Code	d	P		L	l	l1	l3	d1	a			TiCN €
												EH6551
240	**M12**	**1.75**	110	18	50	48	9.0	7.0	3	10.20		297.00

* Senza adduzione interna del refrigerante

Application

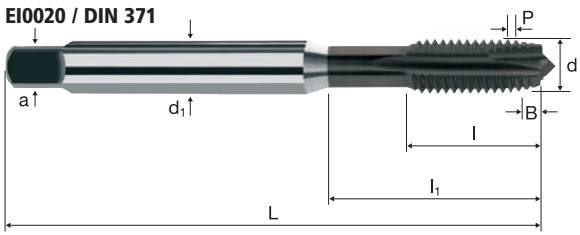


Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Alluminio non legato	M 2	2.0	0.40	23	3660	1464	19	3025	1210	16	2545	1018
	M 2.5	2.5	0.45	23	2930	1319	19	2420	1089	16	2035	916
	M 3	3.0	0.50	23	2440	1220	19	2015	1008	16	1700	850
	M 4	4.0	0.70	23	1830	1281	19	1510	1057	16	1275	893
	M 5	5.0	0.80	23	1465	1172	19	1210	968	16	1020	816
	M 6	6.0	1.00	23	1220	1220	19	1010	1010	16	850	850
	M 8	8.0	1.25	23	915	1144	19	755	944	16	635	794
	M10	10.0	1.50	23	730	1095	19	605	908	16	510	765
	M12	12.0	1.75	23	610	1068	19	505	884	16	425	744
Alluminio non legato	M14	14.0	2.00	23	525	1050	19	430	860	16	365	730
	M16	16.0	2.00	23	460	920	19	380	760	16	320	640
	M18	18.0	2.50	23	405	1013	19	335	838	16	285	713
	M20	20.0	2.50	23	365	913	19	300	750	16	255	638
	M22	22.0	2.50	23	335	838	19	275	688	16	230	575
	M24	24.0	3.00	23	305	915	19	250	750	16	210	630
Alluminio malleabile Si < 6% non temprato	M 2	2.0	0.40	35	5570	2228	30	4775	1910	25	3980	1592
	M 2.5	2.5	0.45	35	4455	2005	30	3820	1719	25	3185	1433
	M 3	3.0	0.50	35	3715	1858	30	3185	1593	25	2655	1328
	M 4	4.0	0.70	35	2785	1949	30	2385	1670	25	1990	1393
	M 5	5.0	0.80	35	2230	1784	30	1910	1528	25	1590	1272
	M 6	6.0	1.00	35	1855	1855	30	1590	1590	25	1325	1325
	M 8	8.0	1.25	35	1395	1744	30	1195	1494	25	995	1244
	M10	10.0	1.50	35	1115	1673	30	955	1433	25	795	1193
	M12	12.0	1.75	35	930	1628	30	795	1391	25	665	1164
Alluminio malleabile Si < 6% non temprato	M14	14.0	2.00	35	795	1590	30	680	1360	25	570	1140
	M16	16.0	2.00	35	695	1390	30	595	1190	25	495	990
	M18	18.0	2.50	35	620	1550	30	530	1325	25	440	1100
	M20	20.0	2.50	35	555	1388	30	475	1188	25	400	1000
	M22	22.0	2.50	35	505	1263	30	435	1088	25	360	900
	M24	24.0	3.00	35	465	1395	30	400	1200	25	330	990

Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Alluminio malleabile Si < 6% temprato	M 2	2.0	0.40	20	3185	1274	17	2705	1082	14	2230	892
	M 2.5	2.5	0.45	20	2545	1145	17	2165	974	14	1785	803
	M 3	3.0	0.50	20	2120	1060	17	1805	903	14	1485	743
	M 4	4.0	0.70	20	1590	1113	17	1355	948	14	1115	781
	M 5	5.0	0.80	20	1275	1020	17	1080	864	14	890	712
	M 6	6.0	1.00	20	1060	1060	17	900	900	14	745	745
	M 8	8.0	1.25	20	795	994	17	675	844	14	555	694
	M10	10.0	1.50	20	635	953	17	540	810	14	445	668
	M12	12.0	1.75	20	530	928	17	450	788	14	370	648
Alluminio malleabile Si < 6% temprato	M14	14.0	2.00	20	455	910	17	385	770	14	320	640
	M16	16.0	2.00	20	400	800	17	340	680	14	280	560
	M18	18.0	2.50	20	355	888	17	300	750	14	250	625
	M20	20.0	2.50	20	320	800	17	270	675	14	225	563
	M22	22.0	2.50	20	290	725	17	245	613	14	205	513
	M24	24.0	3.00	20	265	795	17	225	675	14	185	555
Rame non legato	M 2	2.0	0.40	21	3340	1336	18	2865	1146	15	2385	954
	M 2.5	2.5	0.45	21	2675	1204	18	2290	1031	15	1910	860
	M 3	3.0	0.50	21	2230	1115	18	1910	955	15	1590	795
	M 4	4.0	0.70	21	1670	1169	18	1430	1001	15	1195	837
	M 5	5.0	0.80	21	1335	1068	18	1145	916	15	955	764
	M 6	6.0	1.00	21	1115	1115	18	955	955	15	795	795
	M 8	8.0	1.25	21	835	1044	18	715	894	15	595	744
	M10	10.0	1.50	21	670	1005	18	575	863	15	475	713
	M12	12.0	1.75	21	555	971	18	475	831	15	400	700
Rame non legato	M14	14.0	2.00	21	475	950	18	410	820	15	340	680
	M16	16.0	2.00	21	420	840	18	360	720	15	300	600
	M18	18.0	2.50	21	370	925	18	320	800	15	265	663
	M20	20.0	2.50	21	335	838	18	285	713	15	240	600
	M22	22.0	2.50	21	305	763	18	260	650	15	215	538
	M24	24.0	3.00	21	280	840	18	240	720	15	200	600

Maschi

M	ISO 2 (6H)
60°	HSS PM/F
DIN 371/376	
	Form B



Al Aluminium > 99% | **Al** Aluminium Alloy | **Al** Aluminium Cast | **Cu** Copper | **Plastic** Thermoplast

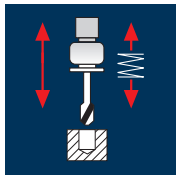
Esempio: N° Ordine — Articolo: **EI0020** — Codice-ø: **034**

Ø Code	d	P	L	l	l1	d1	a			INTEGRAL EI0020 €
034	M 2	0.40	45	8	–	2.8	2.1	2	1.60	36.20
040	M 2.5	0.45	50	9	–	2.8	2.1	2	2.05	31.50
044	M 3	0.50	56	12	18.0	3.5	2.7	2	2.50	29.80
058	M 4	0.70	63	13	21.0	4.5	3.4	2	3.30	29.80
084	M 5	0.80	70	15	25.0	6.0	4.9	2	4.20	30.30
088	M 6	1.00	80	17	30.0	6.0	4.9	2	5.00	31.70
160	M 8	1.25	90	20	35.0	8.0	6.2	2	6.80	38.20
174	M10	1.50	100	22	39.0	10.0	8.0	2	8.50	44.20

Esempio: N° Ordine — Articolo: **EI0021** — Codice-ø: **240**

Ø Code	d	P	L	l	l1	d1	a			INTEGRAL EI0021 €
240	M12	1.75	110	24	40.0	9.0	7.0	3	10.20	55.20
244	M14	2.00	110	26	40.0	11.0	9.0	3	12.00	70.00
246	M16	2.00	110	27	40.0	12.0	9.0	3	14.00	83.00
312	M18	2.50	125	30	45.0	14.0	11.0	3	15.50	106.00
314	M20	2.50	140	32	50.0	16.0	12.0	3	17.50	128.00
316	M22	2.50	140	32	50.0	18.0	14.5	3	19.50	153.00
320	M24	3.00	160	34	60.0	18.0	14.5	3	21.00	179.00

Application

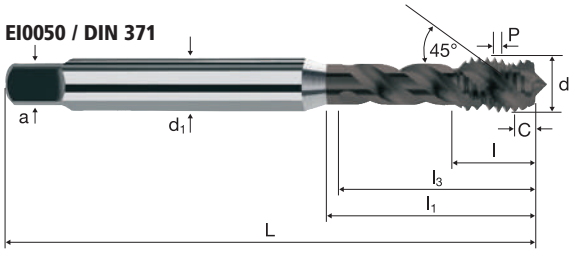


Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
Alluminio non legato	M 2	2.0	0.40	25	3980	1592	21	3340	1336	17	2705	1082
	M 2.5	2.5	0.45	25	3185	1433	21	2675	1204	17	2165	974
	M 3	3.0	0.50	25	2655	1328	21	2230	1115	17	1805	903
	M 4	4.0	0.70	25	1990	1393	21	1670	1169	17	1355	948
	M 5	5.0	0.80	25	1590	1272	21	1335	1068	17	1080	864
	M 6	6.0	1.00	25	1325	1325	21	1115	1115	17	900	900
	M 8	8.0	1.25	25	995	1244	21	835	1044	17	675	844
	M10	10.0	1.50	25	795	1193	21	670	1005	17	540	810
	M12	12.0	1.75	25	665	1164	21	555	971	17	450	788
Alluminio non legato	M14	14.0	2.00	25	570	1140	21	475	950	17	385	770
	M16	16.0	2.00	25	495	990	21	420	840	17	340	680
	M18	18.0	2.50	25	440	1100	21	370	925	17	300	750
	M20	20.0	2.50	25	400	1000	21	335	838	17	270	675
	M22	22.0	2.50	25	360	900	21	305	763	17	245	613
	M24	24.0	3.00	25	330	990	21	280	840	17	225	675
Alluminio malleabile Si < 6% non temprato	M 2	2.0	0.40	27	4295	1718	24	3820	1528	18	2865	1146
	M 2.5	2.5	0.45	27	3440	1548	24	3055	1375	18	2290	1031
	M 3	3.0	0.50	27	2865	1433	24	2545	1273	18	1910	955
	M 4	4.0	0.70	27	2150	1505	24	1910	1337	18	1430	1001
	M 5	5.0	0.80	27	1720	1376	24	1530	1224	18	1145	916
	M 6	6.0	1.00	27	1430	1430	24	1275	1275	18	955	955
	M 8	8.0	1.25	27	1075	1344	24	955	1194	18	715	894
	M10	10.0	1.50	27	860	1290	24	765	1148	18	575	863
	M12	12.0	1.75	27	715	1251	24	635	1111	18	475	831
Alluminio malleabile Si < 6% non temprato	M14	14.0	2.00	27	615	1230	24	545	1090	18	410	820
	M16	16.0	2.00	27	535	1070	24	475	950	18	360	720
	M18	18.0	2.50	27	475	1188	24	425	1063	18	320	800
	M20	20.0	2.50	27	430	1075	24	380	950	18	285	713
	M22	22.0	2.50	27	390	975	24	345	863	18	260	650
	M24	24.0	3.00	27	360	1080	24	320	960	18	240	720

Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
Alluminio malleabile Si < 6% temprato	M 2	2.0	0.40	21	3340	1336	18	2865	1146	15	2385	954
	M 2.5	2.5	0.45	21	2675	1204	18	2290	1031	15	1910	860
	M 3	3.0	0.50	21	2230	1115	18	1910	955	15	1590	795
	M 4	4.0	0.70	21	1670	1169	18	1430	1001	15	1195	837
	M 5	5.0	0.80	21	1335	1068	18	1145	916	15	955	764
	M 6	6.0	1.00	21	1115	1115	18	955	955	15	795	795
	M 8	8.0	1.25	21	835	1044	18	715	894	15	595	744
	M10	10.0	1.50	21	670	1005	18	575	863	15	475	713
	M12	12.0	1.75	21	555	971	18	475	831	15	400	700
Alluminio malleabile Si < 6% temprato	M14	14.0	2.00	21	475	950	18	410	820	15	340	680
	M16	16.0	2.00	21	420	840	18	360	720	15	300	600
	M18	18.0	2.50	21	370	925	18	320	800	15	265	663
	M20	20.0	2.50	21	335	838	18	285	713	15	240	600
	M22	22.0	2.50	21	305	763	18	260	650	15	215	538
	M24	24.0	3.00	21	280	840	18	240	720	15	200	600
Rame non legato	M 2	2.0	0.40	20	3185	1274	18	2865	1146	16	2545	1018
	M 2.5	2.5	0.45	20	2545	1145	18	2290	1031	16	2035	916
	M 3	3.0	0.50	20	2120	1060	18	1910	955	16	1700	850
	M 4	4.0	0.70	20	1590	1113	18	1430	1001	16	1275	893
	M 5	5.0	0.80	20	1275	1020	18	1145	916	16	1020	816
	M 6	6.0	1.00	20	1060	1060	18	955	955	16	850	850
	M 8	8.0	1.25	20	795	994	18	715	894	16	635	794
	M10	10.0	1.50	20	635	953	18	575	863	16	510	765
	M12	12.0	1.75	20	530	928	18	475	831	16	425	744
Rame non legato	M14	14.0	2.00	20	455	910	18	410	820	16	365	730
	M16	16.0	2.00	20	400	800	18	360	720	16	320	640
	M18	18.0	2.50	20	355	888	18	320	800	16	285	713
	M20	20.0	2.50	20	320	800	18	285	713	16	255	638
	M22	22.0	2.50	20	290	725	18	260	650	16	230	575
	M24	24.0	3.00	20	265	795	18	240	720	16	210	630

Maschi

M	ISO 2 (6H)
60°	HSS PM/F
DIN 371/376	
	X · P Form C



			Al Aluminium > 99%	Al Aluminium Alloy	Al Aluminium Cast		Cu Copper	Plastic Thermoplast	

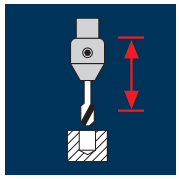
Esempio: **N° Ordine** — Articolo **EI0050** + Codice-ø **034**

Ø Code	d	P	L	l	l1	l3	d1	a			INTEGRAL EI0050 €
034	M 2	0.40	45	8	–	10.5	2.8	2.1	3	1.60	41.00
040	M 2.5	0.45	50	9	–	13.0	2.8	2.1	3	2.05	36.30
044	M 3	0.50	56	5	18.0	16.0	3.5	2.7	3	2.50	33.60
058	M 4	0.70	63	7	21.0	19.0	4.5	3.4	3	3.30	33.60
084	M 5	0.80	70	8	25.0	23.0	6.0	4.9	3	4.20	34.30
088	M 6	1.00	80	10	30.0	28.0	6.0	4.9	3	5.00	35.80
160	M 8	1.25	90	13	35.0	33.0	8.0	6.2	3	6.80	43.20
174	M10	1.50	100	15	39.0	37.0	10.0	8.0	3	8.50	51.10

Esempio: **N° Ordine** — Articolo **EI0051** + Codice-ø **240**

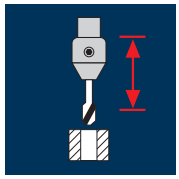
Ø Code	d	P	L	l	l1	l3	d1	a			INTEGRAL EI0051 €
240	M12	1.75	110	18	50.0	48.0	9.0	7.0	3	10.20	65.00
244	M14	2.00	110	20	58.0	56.0	11.0	9.0	4	12.00	78.00
246	M16	2.00	110	20	58.0	56.0	12.0	9.0	4	14.00	94.00
312	M18	2.50	125	25	65.0	63.0	14.0	11.0	4	15.50	117.00
314	M20	2.50	140	25	72.0	70.0	16.0	12.0	4	17.50	141.00
316	M22	2.50	140	25	72.0	70.0	18.0	14.5	4	19.50	167.00
320	M24	3.00	160	30	74.0	72.0	18.0	14.5	4	21.00	196.00

Application



Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]
Getti d'alluminio	M 5	5.0	0.80	80	5095	60	3820	40	2545
	M 6	6.0	1.00	80	4245	60	3185	40	2120
	M 7	7.0	1.00	80	3640	60	2730	40	1820
	M 8	8.0	1.25	80	3185	60	2385	40	1590
	M10	10.0	1.50	80	2545	60	1910	40	1275
CuAlFe (Ampco)	M 5	5.0	0.80	10	635	8	510	7	445
	M 6	6.0	1.00	10	530	8	425	7	370
	M 7	7.0	1.00	10	455	8	365	7	320
	M 8	8.0	1.25	10	400	8	320	7	280
	M10	10.0	1.50	10	320	8	255	7	225

Application



Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]	v_c 3.0 x d	n [min^{-1}]
Getti d'alluminio	M 5	5.0	0.80	100	6365	80	5095	60	3820
	M 6	6.0	1.00	100	5305	80	4245	60	3185
	M 7	7.0	1.00	100	4545	80	3640	60	2730
	M 8	8.0	1.25	100	3980	80	3185	60	2385
	M10	10.0	1.50	100	3185	80	2545	60	1910
CuAlFe (Ampco)	M 5	5.0	0.80	12	765	10	635	9	575
	M 6	6.0	1.00	12	635	10	530	9	475
	M 7	7.0	1.00	12	545	10	455	9	410
	M 8	8.0	1.25	12	475	10	400	9	360
	M10	10.0	1.50	12	380	10	320	9	285

Maschi durotap A-R

Al

M

ISO 2 (6H)

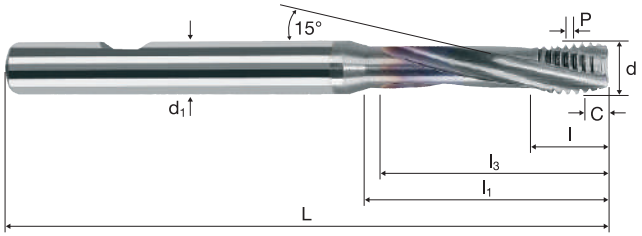
60°

HM MG10

DIN 6535 HB

X · P

Form C



Al Aluminium Cast

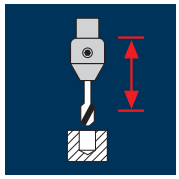
Cu Copper

GG(G)

Esempio: **N° Ordine** — Articolo **EH6300** — Codice-ø **084**

ø Code	d	P	L	l	l_1	l_3	d_1 h6			TiCN **EH6300** €
084	**M 5**	**0.80**	70	4.0	25	23	6	3	4.20	118.00
088	**M 6**	**1.00**	80	5.0	30	28	6	3	5.00	123.00
089	**M 7**	**1.00**	80	5.0	30	28	8	3	6.00	123.00
160	**M 8**	**1.25**	90	6.5	35	33	8	3	6.80	150.00
174	**M10**	**1.50**	100	7.5	39	37	10	3	8.50	183.00

Application



Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]
Getti d'alluminio	M 6	6.0	1.00	80	4245	60	3185	40	2120
	M 7	7.0	1.00	80	3640	60	2730	40	1820
	M 8	8.0	1.25	80	3185	60	2385	40	1590
	M10	10.0	1.50	80	2545	60	1910	40	1275
CuAlFe (Ampco)	M 6	6.0	1.00	10	530	8	425	7	370
	M 7	7.0	1.00	10	455	8	365	7	320
	M 8	8.0	1.25	10	400	8	320	7	280
	M10	10.0	1.50	10	320	8	255	7	225

Maschi durotap A-R

Incool

Al

M

ISO 2 (6H)

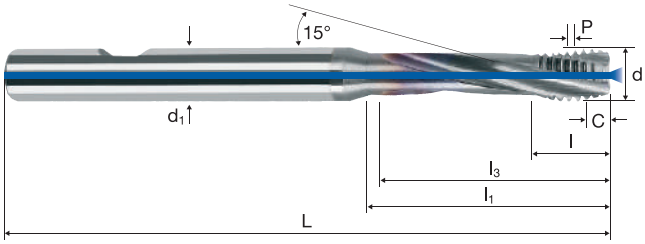
60°

HM MG10

DIN 6535 HB

X · P

Form C



M

Al Aluminium Cast

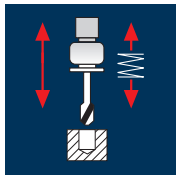
Cu Copper

GG(G)

Esempio: **N° Ordine** — Articolo **EH6301** — Codice-ø **088**

ø Code	d	P	L	l	l1	l3	d1 h6			TiCN EH6301
										€
088	M 6	1.00	80	5.0	30	28	6	3	5.00	173.00
089	M 7	1.00	80	5.0	30	28	8	3	6.00	173.00
160	M 8	1.25	90	6.5	35	33	8	3	6.80	209.00
174	M10	1.50	100	7.5	39	37	10	3	8.50	257.00

Application

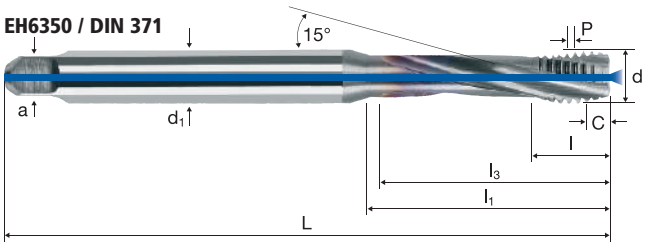


Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Getti d'alluminio	M 4	4.0	0.70	80	6365	4456	60	4775	3343	40	3185	2230
	M 5	5.0	0.80	80	5095	4076	60	3820	3056	40	2545	2036
	M 6	6.0	1.00	80	4245	4245	60	3185	3185	40	2120	2120
	M 8	8.0	1.25	80	3185	3981	60	2385	2981	40	1590	1988
	M10	10.0	1.50	80	2545	3818	60	1910	2865	40	1275	1913
	M12	12.0	1.75	80	2120	3710	60	1590	2783	40	1060	1855
	M14	14.0	2.00	80	1820	3640	60	1365	2730	40	910	1820
	M16	16.0	2.00	80	1590	3180	60	1195	2390	40	795	1590
CuAlFe (Ampco)	M 4	4.0	0.70	10	795	557	8	635	445	7	555	389
	M 5	5.0	0.80	10	635	508	8	510	408	7	445	356
	M 6	6.0	1.00	10	530	530	8	425	425	7	370	370
	M 8	8.0	1.25	10	400	500	8	320	400	7	280	350
	M10	10.0	1.50	10	320	480	8	255	383	7	225	338
	M12	12.0	1.75	10	265	464	8	210	368	7	185	324
	M14	14.0	2.00	10	225	450	8	180	360	7	160	320
	M16	16.0	2.00	10	200	400	8	160	320	7	140	280

Maschi durotap A

Incool

M	ISO 2 (6H)
60°	HM MG10
DIN 371/376	
	X · P Form C



M

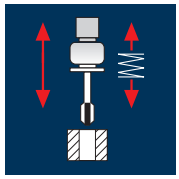
					Al Aluminium Cast		Cu Copper		GG(G)

Ø Code	d	P	L	l	l1	l3	d1	a				TiCN EH6350 €
Esempio: N° Ordine	Articolo EH6350	Codice-ø 058										
058 *	M 4	0.70	63	7	21	19	4.5	3.4	3	3.30		162.00
084 *	M 5	0.80	70	8	25	23	6.0	4.9	3	4.20		165.00
088	M 6	1.00	80	10	30	28	6.0	4.9	3	5.00		173.00
160	M 8	1.25	90	13	35	33	8.0	6.2	3	6.80		209.00
174	M10	1.50	100	15	39	37	10.0	8.0	3	8.50		257.00

Ø Code	d	P	L	l	l1	l3	d1	a				TiCN EH6351 €
Esempio: N° Ordine	Articolo EH6351	Codice-ø 240										
240	M12	1.75	110	18	50	48	9.0	7.0	3	10.20		316.00
244	M14	2.00	110	20	58	56	11.0	9.0	4	12.00		380.00
246	M16	2.00	110	20	58	56	12.0	9.0	4	14.00		446.00

* Senza adduzione interna del refrigerante

Application



Materiale

Leghe di titanio indurite
> 300 HB
[Ti6Al4V]

M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
M 1.2	1.2	0.25	4	1060	265	3	795	199	2	530	133
M 1.4	1.4	0.30	4	910	273	3	680	204	2	455	137
M 1.6	1.6	0.35	4	795	278	3	595	208	2	400	140
M 1.8	1.8	0.35	4	705	247	3	530	186	2	355	124
M 2	2.0	0.40	4	635	254	3	475	190	2	320	128
M 2.5	2.5	0.45	4	510	230	3	380	171	2	255	115
M 3	3.0	0.50	5	530	265	4	425	213	3	320	160
M 3.5	3.5	0.60	5	455	273	4	365	219	3	275	165
M 4	4.0	0.70	5	400	280	4	320	224	3	240	168

Leghe di titanio indurite
> 300 HB
[Ti6Al4V]

M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
M 5	5.0	0.80	5	320	256	4	255	204	3	190	152
M 6	6.0	1.00	5	265	265	4	210	210	3	160	160
M 8	8.0	1.25	5	200	250	4	160	200	3	120	150
M10	10.0	1.50	5	160	240	4	125	188	3	95	143

Maschi titap

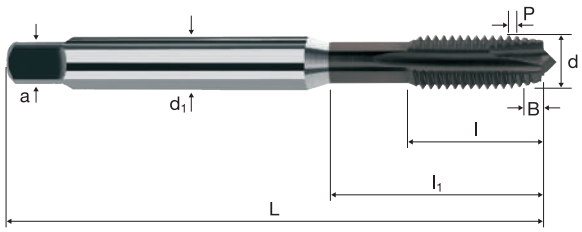
Ti

M | ISO 2 (6H)

60° | HSS PM/F

DIN 371

X · P Form B



M

Ti Titanium

Esempio: N° Ordine — Articolo **ET0705** — Codice-ø **012**

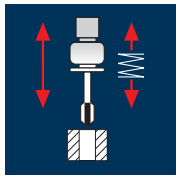
Ø Code	d	P	L	l	l1	d1	a			TRIBO ET0705 €
012	M 1.2	0.25	40	5.5	–	2.5	2.1	2	1.00 *	53.80
020	M 1.4	0.30	40	7.0	–	2.5	2.1	2	1.15 *	53.80
022	M 1.6	0.35	40	8.0	–	2.5	2.1	2	1.30	49.70
026	M 1.8	0.35	40	8.0	–	2.5	2.1	2	1.50	49.70
034	M 2	0.40	45	8.0	–	2.8	2.1	2	1.70 *	43.70
040	M 2.5	0.45	50	9.0	–	2.8	2.1	2	2.10	38.00
044	M 3	0.50	56	12.0	18.0	3.5	2.7	3	2.60 *	36.00
056	M 3.5	0.60	56	12.0	20.0	4.0	3.0	3	3.00	36.00
058	M 4	0.70	63	13.0	21.0	4.5	3.4	3	3.40	36.00
084	M 5	0.80	70	15.0	25.0	6.0	4.9	3	4.30	36.60
088	M 6	1.00	80	17.0	30.0	6.0	4.9	3	5.10	38.30
160	M 8	1.25	90	20.0	35.0	8.0	6.2	3	6.90	46.20
174	M10	1.50	100	22.0	39.0	10.0	8.0	3	8.60	53.40

≤ M1.4 Tolleranza ISO 1 (4H)

* La dimensione data è fuori norma

Dimensioni superiori vedere articolo ET0706, pagina 261

Application

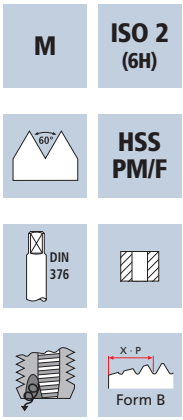


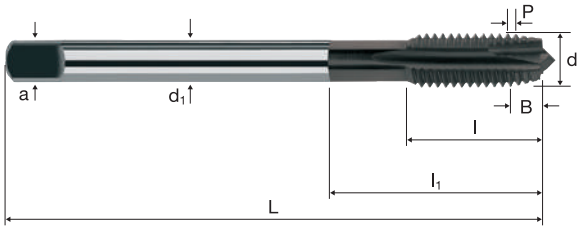
Materiale

Leghe di titanio indurite
> 300 HB
[Ti6Al4V]

M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
M12	12.0	1.75	5	135	236	4	105	184	3	80	140
M14	14.0	2.00	5	115	230	4	90	180	3	70	140
M16	16.0	2.00	5	100	200	4	80	160	3	60	120
M18	18.0	2.50	5	90	225	4	70	175	3	55	138
M20	20.0	2.50	5	80	200	4	65	163	3	50	125
M22	22.0	2.50	5	70	175	4	60	150	3	45	113
M24	24.0	3.00	5	65	195	4	55	165	3	40	120

Maschi titap





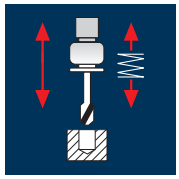
M

Ti
Titanium

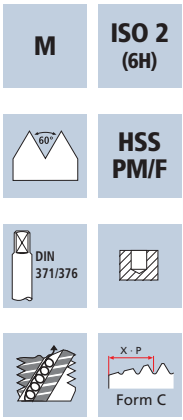
Esempio:
N° Ordine

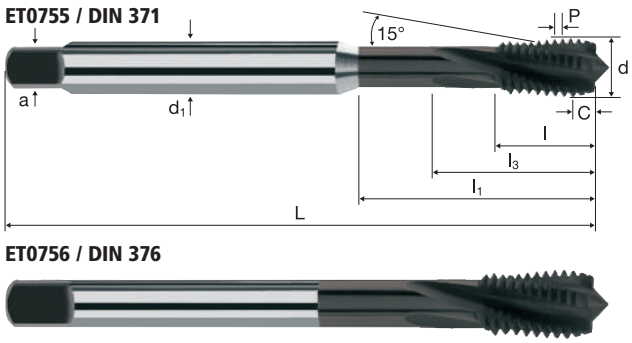
Articolo **ET0706** Codice-ø **240**

Ø Code	d	P	L	l	l1	d1	a			TRIBO ET0706 €
240	**M12**	**1.75**	110	24	40	9	7.0	3	10.40	67.00
244	**M14**	**2.00**	110	26	40	11	9.0	3	12.20	84.00
246	**M16**	**2.00**	110	27	40	12	9.0	3	14.20	100.00
312	**M18**	**2.50**	125	30	45	14	11.0	4	15.70	127.00
314	**M20**	**2.50**	140	32	50	16	12.0	4	17.70	155.00
316	**M22**	**2.50**	140	32	50	18	14.5	4	19.70	184.00
320	**M24**	**3.00**	160	34	60	18	14.5	4	21.20	216.00

Application	Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]
	Leghe di titanio indurite > 300 HB [Ti6Al4V]	M 2	2.0	0.40	4	635	254	3	475	190
		M 2.5	2.5	0.45	4	510	230	3	380	171
		M 3	3.0	0.50	5	530	265	4	425	213
		M 3.5	3.5	0.60	5	455	273	4	365	219
		M 4	4.0	0.70	5	400	280	4	320	224
		M 5	5.0	0.80	5	320	256	4	255	204
		M 6	6.0	1.00	5	265	265	4	210	210
		M 8	8.0	1.25	5	200	250	4	160	200
		M10	10.0	1.50	5	160	240	4	125	188
	Leghe di titanio indurite > 300 HB [Ti6Al4V]	M12	12.0	1.75	5	135	236	4	105	184
		M14	14.0	2.00	5	115	230	4	90	180
		M16	16.0	2.00	5	100	200	4	80	160
		M18	18.0	2.50	5	90	225	4	70	175
		M20	20.0	2.50	5	80	200	4	65	163
		M22	22.0	2.50	5	70	175	4	60	150
		M24	24.0	3.00	5	65	195	4	55	165

Maschi titap





M

Ti
Titanium

Esempio: N° Ordine — Articolo: ET0755 — Codice-ø: 034

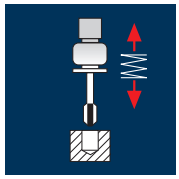
Ø Code	d	P	L	l	l1	l3	d1	a			TRIBO ET0755 €
034	M 2	0.40	45	8	–	10.5	2.8	2.1	3	1.70 *	49.50
040	M 2.5	0.45	50	9	–	13.0	2.8	2.1	3	2.10	43.90
044	M 3	0.50	56	5	18.0	16.0	3.5	2.7	3	2.60 *	40.60
056	M 3.5	0.60	56	6	20.0	18.0	4.0	3.0	3	3.00	40.60
058	M 4	0.70	63	7	21.0	19.0	4.5	3.4	3	3.40	40.60
084	M 5	0.80	70	8	25.0	23.0	6.0	4.9	3	4.30	41.40
088	M 6	1.00	80	10	30.0	28.0	6.0	4.9	3	5.10	43.30
160	M 8	1.25	90	13	35.0	33.0	8.0	6.2	3	6.90	52.20
174	M10	1.50	100	15	39.0	37.0	10.0	8.0	4	8.60	62.00

Esempio: N° Ordine — Articolo: ET0756 — Codice-ø: 240

Ø Code	d	P	L	l	l1	l3	d1	a			TRIBO ET0756 €
240	M12	1.75	110	18	50.0	48.0	9.0	7.0	4	10.40	78.00
244	M14	2.00	110	20	58.0	56.0	11.0	9.0	4	12.20	94.00
246	M16	2.00	110	20	58.0	56.0	12.0	9.0	4	14.20	114.00
312	M18	2.50	125	25	65.0	63.0	14.0	11.0	5	15.70	141.00
314	M20	2.50	140	25	72.0	70.0	16.0	12.0	5	17.70	171.00
316	M22	2.50	140	25	72.0	70.0	18.0	14.5	5	19.70	202.00
320	M24	3.00	160	30	74.0	72.0	18.0	14.5	5	21.20	237.00

* La dimensione data è fuori norma

Application



Materiale

Leg. a base di nichel non indurite

M	ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]
M 2	2.0	0.40	3	475	190	2	320	128
M 2.5	2.5	0.45	3	380	171	2	255	115
M 3	3.0	0.50	3	320	160	2	210	105
M 4	4.0	0.70	3	240	168	2	160	112
M 5	5.0	0.80	3	190	152	2	125	100
M 6	6.0	1.00	3	160	160	2	105	105
M 8	8.0	1.25	3	120	150	2	80	100
M10	10.0	1.50	3	95	143	2	65	98
M12	12.0	1.75	3	80	140	2	55	96

Leg. a base di nichel non indurite

M	ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]
M14	14.0	2.00	3	70	140	2	45	90
M16	16.0	2.00	3	60	120	2	40	80
M18	18.0	2.50	3	55	138	2	35	88
M20	20.0	2.50	3	50	125	2	30	75
M22	22.0	2.50	3	45	113	2	30	75
M24	24.0	3.00	3	40	120	2	25	75

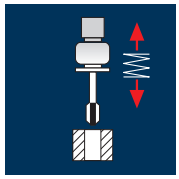
Leg. a base di nichel indurite

M	ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]
M 2	2.0	0.40	2	320	128	2	320	128
M 2.5	2.5	0.45	2	255	115	2	255	115
M 3	3.0	0.50	2	210	105	2	210	105
M 4	4.0	0.70	2	160	112	2	160	112
M 5	5.0	0.80	2	125	100	2	125	100
M 6	6.0	1.00	2	105	105	2	105	105
M 8	8.0	1.25	2	80	100	2	80	100
M10	10.0	1.50	2	65	98	2	65	98
M12	12.0	1.75	2	55	96	2	55	96

Leg. a base di nichel indurite

M	ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]
M14	14.0	2.00	2	45	90	2	45	90
M16	16.0	2.00	2	40	80	2	40	80
M18	18.0	2.50	2	35	88	2	35	88
M20	20.0	2.50	2	30	75	2	30	75
M22	22.0	2.50	2	30	75	2	30	75
M24	24.0	3.00	2	25	75	2	25	75

Application



Materiale

Leg. a base di nichel non indurite

M	ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]
M 2	2.0	0.40	3	475	190	2	320	128
M 2.5	2.5	0.45	3	380	171	2	255	115
M 3	3.0	0.50	3	320	160	2	210	105
M 4	4.0	0.70	3	240	168	2	160	112
M 5	5.0	0.80	3	190	152	2	125	100
M 6	6.0	1.00	3	160	160	2	105	105
M 8	8.0	1.25	3	120	150	2	80	100
M10	10.0	1.50	3	95	143	2	65	98
M12	12.0	1.75	3	80	140	2	55	96

Leg. a base di nichel non indurite

M	ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]
M14	14.0	2.00	3	70	140	2	45	90
M16	16.0	2.00	3	60	120	2	40	80
M18	18.0	2.50	3	55	138	2	35	88
M20	20.0	2.50	3	50	125	2	30	75
M22	22.0	2.50	3	45	113	2	30	75
M24	24.0	3.00	3	40	120	2	25	75

Leg. a base di nichel indurite

M	ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]
M 2	2.0	0.40	2	320	128	2	320	128
M 2.5	2.5	0.45	2	255	115	2	255	115
M 3	3.0	0.50	2	210	105	2	210	105
M 4	4.0	0.70	2	160	112	2	160	112
M 5	5.0	0.80	2	125	100	2	125	100
M 6	6.0	1.00	2	105	105	2	105	105
M 8	8.0	1.25	2	80	100	2	80	100
M10	10.0	1.50	2	65	98	2	65	98
M12	12.0	1.75	2	55	96	2	55	96

Leg. a base di nichel indurite

M	ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]
M14	14.0	2.00	2	45	90	2	45	90
M16	16.0	2.00	2	40	80	2	40	80
M18	18.0	2.50	2	35	88	2	35	88
M20	20.0	2.50	2	30	75	2	30	75
M22	22.0	2.50	2	30	75	2	30	75
M24	24.0	3.00	2	25	75	2	25	75

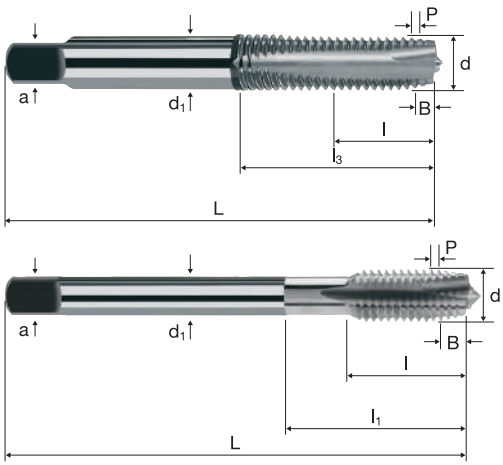
Maschi n-tap

Ni

M | ISO 2 (6H)

HSS PM/F

X · P
Form B



M

Nickel-Alloys

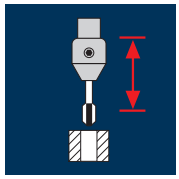
Esempio:
N° Ordine Articolo **E0598** Codice-ø **034**

E0598

Ø Code	d	P	L	l	l1	l3	d1	a			€
034	**M 2**	**0.40**	41	8	–	11	2.8	2.1	2	1.70 *	35.40
040	**M 2.5**	**0.45**	44	9	–	13	2.8	2.1	2	2.10	30.80
044	**M 3**	**0.50**	48	11	–	16	3.5	2.7	3	2.60 *	29.20
058	**M 4**	**0.70**	53	13	–	19	4.5	3.4	3	3.40	29.20
084	**M 5**	**0.80**	58	15	–	22	6.0	4.9	3	4.30	29.70
088	**M 6**	**1.00**	66	17	–	28	6.0	4.9	3	5.10	31.00
160	**M 8**	**1.25**	72	20	–	34	8.0	6.2	3	6.90	37.40
174	**M10**	**1.50**	80	22	–	37	10.0	8.0	3	8.60	43.20
240	**M12**	**1.75**	89	24	40	–	9.0	7.0	3	10.40	54.00
244	**M14**	**2.00**	95	26	40	–	11.0	9.0	3	12.20	68.00
246	**M16**	**2.00**	102	27	40	–	12.0	9.0	3	14.20	81.00
312	**M18**	**2.50**	112	30	45	–	14.0	11.0	3	15.70	103.00
314	**M20**	**2.50**	112	32	45	–	16.0	12.0	3	17.70	125.00
316	**M22**	**2.50**	118	32	50	–	18.0	14.5	4	19.70	149.00
320	**M24**	**3.00**	130	34	60	–	18.0	14.5	4	21.20	175.00

* La dimensione data è fuori norma

Application



Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]	v_c 3.0 x d	n [min^{-1}]
Acciaio < 500 N/mm^2	M 3	3.0	0.50	25	2655	20	2120	15	1590
	M 4	4.0	0.70	25	1990	20	1590	15	1195
	M 5	5.0	0.80	25	1590	20	1275	15	955
	M 6	6.0	1.00	25	1325	20	1060	15	795
	M 8	8.0	1.25	25	995	20	795	15	595
	M10	10.0	1.50	25	795	20	635	15	475
	M12	12.0	1.75	25	665	20	530	15	400
	M16	16.0	2.00	25	495	20	400	15	300
	M20	20.0	2.50	25	400	20	320	15	240
Acciaio 500 - 850 N/mm^2	M 3	3.0	0.50	22	2335	18	1910	12	1275
	M 4	4.0	0.70	22	1750	18	1430	12	955
	M 5	5.0	0.80	22	1400	18	1145	12	765
	M 6	6.0	1.00	22	1165	18	955	12	635
	M 8	8.0	1.25	22	875	18	715	12	475
	M10	10.0	1.50	22	700	18	575	12	380
	M12	12.0	1.75	22	585	18	475	12	320
	M16	16.0	2.00	22	440	18	360	12	240
	M20	20.0	2.50	22	350	18	285	12	190
Acciaio 850 - 1100 N/mm^2	M 3	3.0	0.50	18	1910	12	1275	10	1060
	M 4	4.0	0.70	18	1430	12	955	10	795
	M 5	5.0	0.80	18	1145	12	765	10	635
	M 6	6.0	1.00	18	955	12	635	10	530
	M 8	8.0	1.25	18	715	12	475	10	400
	M10	10.0	1.50	18	575	12	380	10	320
	M12	12.0	1.75	18	475	12	320	10	265
	M16	16.0	2.00	18	360	12	240	10	200
	M20	20.0	2.50	18	285	12	190	10	160
Ghisa GG(G)	M 3	3.0	0.50	22	2335	20	2120	18	1910
	M 4	4.0	0.70	22	1750	20	1590	18	1430
	M 5	5.0	0.80	22	1400	20	1275	18	1145
	M 6	6.0	1.00	22	1165	20	1060	18	955
	M 8	8.0	1.25	22	875	20	795	18	715
	M10	10.0	1.50	22	700	20	635	18	575
	M12	12.0	1.75	22	585	20	530	18	475
	M16	16.0	2.00	22	440	20	400	18	360
	M20	20.0	2.50	22	350	20	320	18	285

Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]	v_c 3.0 x d	n [min^{-1}]
Acciaio inossidabile [Cr-Ni/1.4301]	M 3	3.0	0.50	6	635	4	425	3	320
	M 4	4.0	0.70	6	475	4	320	3	240
	M 5	5.0	0.80	6	380	4	255	3	190
	M 6	6.0	1.00	6	320	4	210	3	160
	M 8	8.0	1.25	6	240	4	160	3	120
	M10	10.0	1.50	6	190	4	125	3	95
	M12	12.0	1.75	6	160	4	105	3	80
	M16	16.0	2.00	6	120	4	80	3	60
	M20	20.0	2.50	6	95	4	65	3	50
Alluminio malleabile Si < 6% temprato	M 3	3.0	0.50	25	2655	20	2120	15	1590
	M 4	4.0	0.70	25	1990	20	1590	15	1195
	M 5	5.0	0.80	25	1590	20	1275	15	955
	M 6	6.0	1.00	25	1325	20	1060	15	795
	M 8	8.0	1.25	25	995	20	795	15	595
	M10	10.0	1.50	25	795	20	635	15	475
	M12	12.0	1.75	25	665	20	530	15	400
	M16	16.0	2.00	25	495	20	400	15	300
	M20	20.0	2.50	25	400	20	320	15	240

Maschi polytap-R

R

M

ISO 2 (6H)

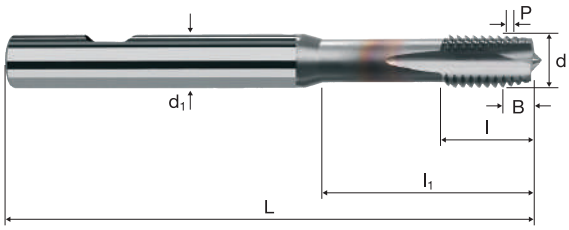
60°

HSS PM/F

DIN 1835B ISO 3338

X · P

Form B

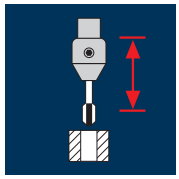


Rm < 850	Rm 850-1100						Inox Stainless		GG(G) Aluminium

Esempio: **N° Ordine** — Articolo **EH0109** Codice-ø **044**

ø Code	d	P	L	l	l_1	d_1 h6				TiCN EH0109 €
044	M 3	0.50	63	5	18	6	3	2.50		32.30
058	M 4	0.70	66	7	21	6	3	3.30		32.30
084	M 5	0.80	70	8	25	6	3	4.20		32.90
088	M 6	1.00	80	10	30	6	3	5.00		34.40
160	M 8	1.25	90	13	35	8	3	6.80		41.50
174	M10	1.50	100	15	39	10	3	8.50		48.00
240	M12	1.75	110	18	45	12	3	10.20		59.90
244	M14	2.00	110	20	46	16	3	12.00		76.00
246	M16	2.00	110	20	50	16	3	14.00		90.00
312	M18	2.50	125	25	60	16	4	15.50		114.00
314	M20	2.50	140	25	64	16	4	17.50		139.00

Application



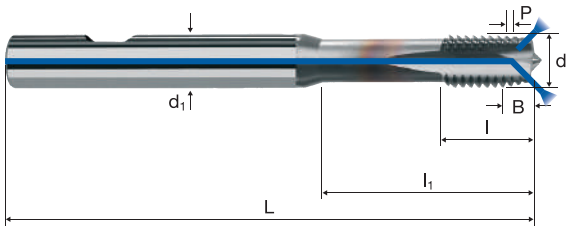
Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]	v_c 3.0 x d	n [min^{-1}]
Acciaio < 500 N/mm^2	M 6	6.0	1.00	25	1325	20	1060	15	795
	M 8	8.0	1.25	25	995	20	795	15	595
	M10	10.0	1.50	25	795	20	635	15	475
	M12	12.0	1.75	25	665	20	530	15	400
	M14	14.0	2.00	25	570	20	455	15	340
	M16	16.0	2.00	25	495	20	400	15	300
	M18	18.0	2.50	25	440	20	355	15	265
	M20	20.0	2.50	25	400	20	320	15	240
Acciaio 500 - 850 N/mm^2	M 6	6.0	1.00	22	1165	18	955	12	635
	M 8	8.0	1.25	22	875	18	715	12	475
	M10	10.0	1.50	22	700	18	575	12	380
	M12	12.0	1.75	22	585	18	475	12	320
	M14	14.0	2.00	22	500	18	410	12	275
	M16	16.0	2.00	22	440	18	360	12	240
	M18	18.0	2.50	22	390	18	320	12	210
	M20	20.0	2.50	22	350	18	285	12	190
Acciaio 850 - 1100 N/mm^2	M 6	6.0	1.00	18	955	12	635	10	530
	M 8	8.0	1.25	18	715	12	475	10	400
	M10	10.0	1.50	18	575	12	380	10	320
	M12	12.0	1.75	18	475	12	320	10	265
	M14	14.0	2.00	18	410	12	275	10	225
	M16	16.0	2.00	18	360	12	240	10	200
	M18	18.0	2.50	18	320	12	210	10	175
	M20	20.0	2.50	18	285	12	190	10	160
Ghisa GG(G)	M 6	6.0	1.00	22	1165	20	1060	18	955
	M 8	8.0	1.25	22	875	20	795	18	715
	M10	10.0	1.50	22	700	20	635	18	575
	M12	12.0	1.75	22	585	20	530	18	475
	M14	14.0	2.00	22	500	20	455	18	410
	M16	16.0	2.00	22	440	20	400	18	360
	M18	18.0	2.50	22	390	20	355	18	320
	M20	20.0	2.50	22	350	20	320	18	285

Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]	v_c 3.0 x d	n [min^{-1}]
Acciaio inossidabile [Cr-Ni/1.4301]	M 6	6.0	1.00	6	320	4	210	3	160
	M 8	8.0	1.25	6	240	4	160	3	120
	M10	10.0	1.50	6	190	4	125	3	95
	M12	12.0	1.75	6	160	4	105	3	80
	M14	14.0	2.00	6	135	4	90	3	70
	M16	16.0	2.00	6	120	4	80	3	60
	M18	18.0	2.50	6	105	4	70	3	55
	M20	20.0	2.50	6	95	4	65	3	50
Alluminio malleabile Si < 6% temprato	M 6	6.0	1.00	25	1325	20	1060	15	795
	M 8	8.0	1.25	25	995	20	795	15	595
	M10	10.0	1.50	25	795	20	635	15	475
	M12	12.0	1.75	25	665	20	530	15	400
	M14	14.0	2.00	25	570	20	455	15	340
	M16	16.0	2.00	25	495	20	400	15	300
	M18	18.0	2.50	25	440	20	355	15	265
	M20	20.0	2.50	25	400	20	320	15	240

Maschi polytap-R

Incool

M	**ISO 2 (6H)**
60°	**HSS PM/F**
DIN 1835B ISO 3338	
	X · P Form B

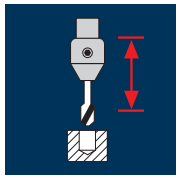


Rm < 850	**Rm** 850-1100						**Inox** Stainless		**GG(G) Aluminium**

Esempio: **N° Ordine** — Articolo **EH0110** — Codice-ø **088**

ø Code	d	P	L	l	l_1	d_1 h6				TiCN **EH0110** €
088	**M 6**	**1.00**	80	10	30	6	3	5.00		50.00
160	**M 8**	**1.25**	90	13	35	8	3	6.80		60.00
174	**M10**	**1.50**	100	15	39	10	3	8.50		70.00
240	**M12**	**1.75**	110	18	45	12	3	10.20		87.00
244	**M14**	**2.00**	110	20	46	16	3	12.00		110.00
246	**M16**	**2.00**	110	20	50	16	3	14.00		131.00
312	**M18**	**2.50**	125	25	60	16	4	15.50		166.00
314	**M20**	**2.50**	140	25	64	16	4	17.50		202.00

Application



Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]
Acciaio < 500 N/mm^2	M 3	3.0	0.50	25	2655	22	2335	15	1590
	M 4	4.0	0.70	25	1990	22	1750	15	1195
	M 5	5.0	0.80	25	1590	22	1400	15	955
	M 6	6.0	1.00	25	1325	22	1165	15	795
	M 8	8.0	1.25	25	995	22	875	15	595
	M10	10.0	1.50	25	795	22	700	15	475
	M12	12.0	1.75	25	665	22	585	15	400
	M16	16.0	2.00	25	495	22	440	15	300
	M20	20.0	2.50	25	400	22	350	15	240
Acciaio 500 - 850 N/mm^2	M 3	3.0	0.50	22	2335	20	2120	12	1275
	M 4	4.0	0.70	22	1750	20	1590	12	955
	M 5	5.0	0.80	22	1400	20	1275	12	765
	M 6	6.0	1.00	22	1165	20	1060	12	635
	M 8	8.0	1.25	22	875	20	795	12	475
	M10	10.0	1.50	22	700	20	635	12	380
	M12	12.0	1.75	22	585	20	530	12	320
	M16	16.0	2.00	22	440	20	400	12	240
	M20	20.0	2.50	22	350	20	320	12	190
Acciaio 850 - 1100 N/mm^2	M 3	3.0	0.50	18	1910	12	1275	8	850
	M 4	4.0	0.70	18	1430	12	955	8	635
	M 5	5.0	0.80	18	1145	12	765	8	510
	M 6	6.0	1.00	18	955	12	635	8	425
	M 8	8.0	1.25	18	715	12	475	8	320
	M10	10.0	1.50	18	575	12	380	8	255
	M12	12.0	1.75	18	475	12	320	8	210
	M16	16.0	2.00	18	360	12	240	8	160
	M20	20.0	2.50	18	285	12	190	8	125
Ghisa GG(G)	M 3	3.0	0.50	18	1910	15	1590	12	1275
	M 4	4.0	0.70	18	1430	15	1195	12	955
	M 5	5.0	0.80	18	1145	15	955	12	765
	M 6	6.0	1.00	18	955	15	795	12	635
	M 8	8.0	1.25	18	715	15	595	12	475
	M10	10.0	1.50	18	575	15	475	12	380
	M12	12.0	1.75	18	475	15	400	12	320
	M16	16.0	2.00	18	360	15	300	12	240
	M20	20.0	2.50	18	285	15	240	12	190

Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]
Acciaio inossidabile [Cr-Ni/1.4301]	M 3	3.0	0.50	4	425	3	320	2	210
	M 4	4.0	0.70	4	320	3	240	2	160
	M 5	5.0	0.80	4	255	3	190	2	125
	M 6	6.0	1.00	4	210	3	160	2	105
	M 8	8.0	1.25	4	160	3	120	2	80
	M10	10.0	1.50	4	125	3	95	2	65
	M12	12.0	1.75	4	105	3	80	2	55
	M16	16.0	2.00	4	80	3	60	2	40
	M20	20.0	2.50	4	65	3	50	2	30
Alluminio malleabile Si < 6% temprato	M 3	3.0	0.50	25	2655	22	2335	15	1590
	M 4	4.0	0.70	25	1990	22	1750	15	1195
	M 5	5.0	0.80	25	1590	22	1400	15	955
	M 6	6.0	1.00	25	1325	22	1165	15	795
	M 8	8.0	1.25	25	995	22	875	15	595
	M10	10.0	1.50	25	795	22	700	15	475
	M12	12.0	1.75	25	665	22	585	15	400
	M16	16.0	2.00	25	495	22	440	15	300
	M20	20.0	2.50	25	400	22	350	15	240

Maschi polytap-R

R

M

ISO 2 (6H)

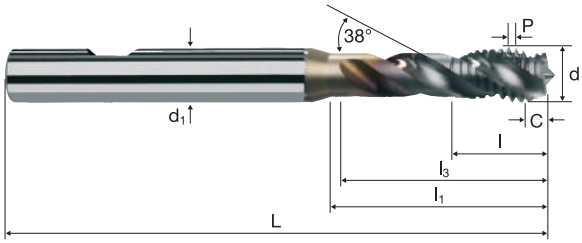
60°

HSS PM/F

DIN 1835B ISO 3338

X · P

Form C

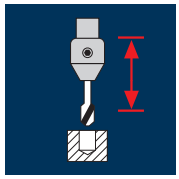


Rm < 850	Rm 850-1100						Inox Stainless		GG(G) Aluminium

Esempio: **N° Ordine** — Articolo **EH0229** Codice-ø **044**

											TiCN
											EH0229
ø Code	d	P	L	l	l_1	l_3	d_1 h6				€
044	M 3	0.50	63	5	18	16	6	3	2.50		34.80
058	M 4	0.70	66	7	21	19	6	3	3.30		34.80
084	M 5	0.80	70	8	25	23	6	3	4.20		35.50
088	M 6	1.00	80	10	30	28	6	3	5.00		37.10
160	M 8	1.25	90	13	35	33	8	3	6.80		44.70
174	M10	1.50	100	15	39	37	10	3	8.50		52.90
240	M12	1.75	110	18	45	43	12	3	10.20		67.00
244	M14	2.00	110	20	46	44	16	4	12.00		81.00
246	M16	2.00	110	20	50	48	16	4	14.00		97.00
312	M18	2.50	125	25	60	58	16	4	15.50		121.00
314	M20	2.50	140	25	64	62	16	4	17.50		146.00

Application



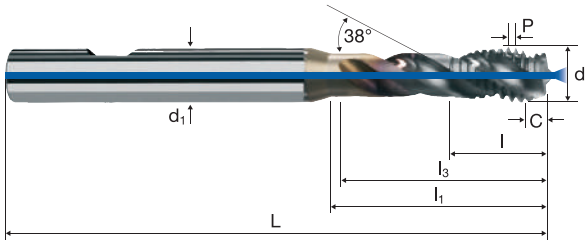
Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]
Acciaio < 500 N/mm^2	M 4	4.0	0.70	25	1990	22	1750	15	1195
	M 5	5.0	0.80	25	1590	22	1400	15	955
	M 6	6.0	1.00	25	1325	22	1165	15	795
	M 8	8.0	1.25	25	995	22	875	15	595
	M10	10.0	1.50	25	795	22	700	15	475
	M12	12.0	1.75	25	665	22	585	15	400
	M14	14.0	2.00	25	570	22	500	15	340
	M16	16.0	2.00	25	495	22	440	15	300
	M20	20.0	2.50	25	400	22	350	15	240
Acciaio 500 - 850 N/mm^2	M 4	4.0	0.70	22	1750	20	1590	12	955
	M 5	5.0	0.80	22	1400	20	1275	12	765
	M 6	6.0	1.00	22	1165	20	1060	12	635
	M 8	8.0	1.25	22	875	20	795	12	475
	M10	10.0	1.50	22	700	20	635	12	380
	M12	12.0	1.75	22	585	20	530	12	320
	M14	14.0	2.00	22	500	20	455	12	275
	M16	16.0	2.00	22	440	20	400	12	240
	M20	20.0	2.50	22	350	20	320	12	190
Acciaio 850 - 1100 N/mm^2	M 4	4.0	0.70	18	1430	12	955	8	635
	M 5	5.0	0.80	18	1145	12	765	8	510
	M 6	6.0	1.00	18	955	12	635	8	425
	M 8	8.0	1.25	18	715	12	475	8	320
	M10	10.0	1.50	18	575	12	380	8	255
	M12	12.0	1.75	18	475	12	320	8	210
	M14	14.0	2.00	18	410	12	275	8	180
	M16	16.0	2.00	18	360	12	240	8	160
	M20	20.0	2.50	18	285	12	190	8	125
Ghisa GG(G)	M 4	4.0	0.70	18	1430	15	1195	12	955
	M 5	5.0	0.80	18	1145	15	955	12	765
	M 6	6.0	1.00	18	955	15	795	12	635
	M 8	8.0	1.25	18	715	15	595	12	475
	M10	10.0	1.50	18	575	15	475	12	380
	M12	12.0	1.75	18	475	15	400	12	320
	M14	14.0	2.00	18	410	15	340	12	275
	M16	16.0	2.00	18	360	15	300	12	240
	M20	20.0	2.50	18	285	15	240	12	190

Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]
Acciaio inossidabile [Cr-Ni/1.4301]	M 4	4.0	0.70	4	320	3	240	2	160
	M 5	5.0	0.80	4	255	3	190	2	125
	M 6	6.0	1.00	4	210	3	160	2	105
	M 8	8.0	1.25	4	160	3	120	2	80
	M10	10.0	1.50	4	125	3	95	2	65
	M12	12.0	1.75	4	105	3	80	2	55
	M14	14.0	2.00	4	90	3	70	2	45
	M16	16.0	2.00	4	80	3	60	2	40
	M20	20.0	2.50	4	65	3	50	2	30
Alluminio malleabile Si < 6% temprato	M 4	4.0	0.70	25	1990	22	1750	15	1195
	M 5	5.0	0.80	25	1590	22	1400	15	955
	M 6	6.0	1.00	25	1325	22	1165	15	795
	M 8	8.0	1.25	25	995	22	875	15	595
	M10	10.0	1.50	25	795	22	700	15	475
	M12	12.0	1.75	25	665	22	585	15	400
	M14	14.0	2.00	25	570	22	500	15	340
	M16	16.0	2.00	25	495	22	440	15	300
	M20	20.0	2.50	25	400	22	350	15	240

Maschi polytap-R

Incool

M	**ISO 2 (6H)**
60°	**HSS PM/F**
DIN 1835B ISO 3338	
	X · P Form C

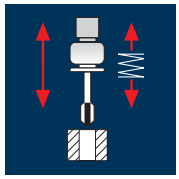


Rm < 850	**Rm** 850-1100						**Inox** Stainless		**GG(G) Aluminium**	

Esempio: **N° Ordine** — Articolo **EH0230** — Codice-ø **058**

ø Code	d	P	L	l	l1	l3	d1 h6				TiCN EH0230
											€
058	**M 4**	**0.70**	66	7	21	19	6	3	3.30		48.00
084	**M 5**	**0.80**	70	8	25	23	6	3	4.20		49.00
088	**M 6**	**1.00**	80	10	30	28	6	3	5.00		51.20
160	**M 8**	**1.25**	90	13	35	33	8	3	6.80		62.00
174	**M10**	**1.50**	100	15	39	37	10	3	8.50		73.00
240	**M12**	**1.75**	110	18	45	43	12	3	10.20		93.00
244	**M14**	**2.00**	110	20	46	44	16	4	12.00		111.00
246	**M16**	**2.00**	110	20	50	48	16	4	14.00		135.00
312	**M18**	**2.50**	125	25	60	58	16	4	15.50		167.00
314	**M20**	**2.50**	140	25	64	62	16	4	17.50		202.00

Application

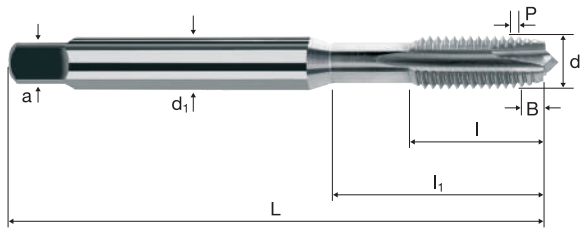


Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Acciaio < 500 N/mm²	M 1	1.0	0.25	14	4455	1114	12	3820	955	10	3185	796
	M 1.2	1.2	0.25	14	3715	929	12	3185	796	10	2655	664
	M 1.4	1.4	0.30	14	3185	956	12	2730	819	10	2275	683
	M 1.6	1.6	0.35	14	2785	975	12	2385	835	10	1990	697
	M 1.8	1.8	0.35	14	2475	866	12	2120	742	10	1770	620
	M 2	2.0	0.40	14	2230	892	12	1910	764	10	1590	636
	M 2.2	2.2	0.45	14	2025	911	12	1735	781	10	1445	650
	M 2.3	2.3	0.40	14	1940	776	12	1660	664	10	1385	554
	M 2.5	2.5	0.45	14	1785	803	12	1530	689	10	1275	574
Acciaio < 500 N/mm²	M 2.6	2.6	0.45	18	2205	992	15	1835	826	12	1470	662
	M 3	3.0	0.50	18	1910	955	15	1590	795	12	1275	638
	M 3.5	3.5	0.60	18	1635	981	15	1365	819	12	1090	654
	M 4	4.0	0.70	18	1430	1001	15	1195	837	12	955	669
	M 4.5	4.5	0.75	18	1275	956	15	1060	795	12	850	638
	M 5	5.0	0.80	18	1145	916	15	955	764	12	765	612
	M 6	6.0	1.00	18	955	955	15	795	795	12	635	635
	M 8	8.0	1.25	18	715	894	15	595	744	12	475	594
	M10	10.0	1.50	18	575	863	15	475	713	12	380	570
Acciaio 500 - 850 N/mm²	M 1	1.0	0.25	12	3820	955	8	2545	636	6	1910	478
	M 1.2	1.2	0.25	12	3185	796	8	2120	530	6	1590	398
	M 1.4	1.4	0.30	12	2730	819	8	1820	546	6	1365	410
	M 1.6	1.6	0.35	12	2385	835	8	1590	557	6	1195	418
	M 1.8	1.8	0.35	12	2120	742	8	1415	495	6	1060	371
	M 2	2.0	0.40	12	1910	764	8	1275	510	6	955	382
	M 2.2	2.2	0.45	12	1735	781	8	1155	520	6	870	392
	M 2.3	2.3	0.40	12	1660	664	8	1105	442	6	830	332
	M 2.5	2.5	0.45	12	1530	689	8	1020	459	6	765	344
Acciaio 500 - 850 N/mm²	M 2.6	2.6	0.45	15	1835	826	10	1225	551	8	980	441
	M 3	3.0	0.50	15	1590	795	10	1060	530	8	850	425
	M 3.5	3.5	0.60	15	1365	819	10	910	546	8	730	438
	M 4	4.0	0.70	15	1195	837	10	795	557	8	635	445
	M 4.5	4.5	0.75	15	1060	795	10	705	529	8	565	424
	M 5	5.0	0.80	15	955	764	10	635	508	8	510	408
	M 6	6.0	1.00	15	795	795	10	530	530	8	425	425
	M 8	8.0	1.25	15	595	744	10	400	500	8	320	400
	M10	10.0	1.50	15	475	713	10	320	480	8	255	383

Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Alluminio malleabile Si < 6% temprato Raccomandazione: senza rivestimento	M 1	1.0	0.25	12	3820	955	10	3185	796	8	2545	636
	M 1.2	1.2	0.25	12	3185	796	10	2655	664	8	2120	530
	M 1.4	1.4	0.30	12	2730	819	10	2275	683	8	1820	546
	M 1.6	1.6	0.35	12	2385	835	10	1990	697	8	1590	557
	M 1.8	1.8	0.35	12	2120	742	10	1770	620	8	1415	495
	M 2	2.0	0.40	12	1910	764	10	1590	636	8	1275	510
	M 2.2	2.2	0.45	12	1735	781	10	1445	650	8	1155	520
	M 2.3	2.3	0.40	12	1660	664	10	1385	554	8	1105	442
	M 2.5	2.5	0.45	12	1530	689	10	1275	574	8	1020	459
Alluminio malleabile Si < 6% temprato Raccomandazione: senza rivestimento	M 2.6	2.6	0.45	15	1835	826	12	1470	662	10	1225	551
	M 3	3.0	0.50	15	1590	795	12	1275	638	10	1060	530
	M 3.5	3.5	0.60	15	1365	819	12	1090	654	10	910	546
	M 4	4.0	0.70	15	1195	837	12	955	669	10	795	557
	M 4.5	4.5	0.75	15	1060	795	12	850	638	10	705	529
	M 5	5.0	0.80	15	955	764	12	765	612	10	635	508
	M 6	6.0	1.00	15	795	795	12	635	635	10	530	530
	M 8	8.0	1.25	15	595	744	12	475	594	10	400	500
	M10	10.0	1.50	15	475	713	12	380	570	10	320	480
Acciaio inossidabile [Cr-Ni/1.4301]	M 1	1.0	0.25	4	1275	319	3	955	239	2	635	159
	M 1.2	1.2	0.25	4	1060	265	3	795	199	2	530	133
	M 1.4	1.4	0.30	4	910	273	3	680	204	2	455	137
	M 1.6	1.6	0.35	4	795	278	3	595	208	2	400	140
	M 1.8	1.8	0.35	4	705	247	3	530	186	2	355	124
	M 2	2.0	0.40	4	635	254	3	475	190	2	320	128
	M 2.2	2.2	0.45	4	580	261	3	435	196	2	290	131
	M 2.3	2.3	0.40	4	555	222	3	415	166	2	275	110
	M 2.5	2.5	0.45	4	510	230	3	380	171	2	255	115
Acciaio inossidabile [Cr-Ni/1.4301]	M 2.6	2.6	0.45	5	610	275	4	490	221	3	365	164
	M 3	3.0	0.50	5	530	265	4	425	213	3	320	160
	M 3.5	3.5	0.60	5	455	273	4	365	219	3	275	165
	M 4	4.0	0.70	5	400	280	4	320	224	3	240	168
	M 4.5	4.5	0.75	5	355	266	4	285	214	3	210	158
	M 5	5.0	0.80	5	320	256	4	255	204	3	190	152
	M 6	6.0	1.00	5	265	265	4	210	210	3	160	160
	M 8	8.0	1.25	5	200	250	4	160	200	3	120	150
	M10	10.0	1.50	5	160	240	4	125	188	3	95	143

Maschi u-tap

M	ISO 2 (6H)
60°	HSS-E Co5
DIN 371	
	X · P Form B



Rm < 850							Inox Stainless		GG(G) Aluminium Copper

Esempio: **N° Ordine** — Articolo **E10800** Codice-ø **010**

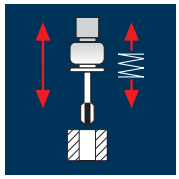
Ø Code	d	P	L	l	l1	d1	a			E10800 €	VAP EV10800 €
010	M 1	0.25	40	5.5	–	2.5	2.1	2	0.80 *	29.00	29.70
012	M 1.2	0.25	40	5.5	–	2.5	2.1	2	1.00	29.00	29.70
020	M 1.4	0.30	40	7.0	–	2.5	2.1	2	1.15 *	29.00	29.70
022	M 1.6	0.35	40	8.0	–	2.5	2.1	2	1.30	26.80	27.40
024	M 1.7	0.35	40	8.0	–	2.5	2.1	2	1.40	26.80	27.40
026	M 1.8	0.35	40	8.0	–	2.5	2.1	2	1.50	26.80	27.40
034	M 2	0.40	45	8.0	–	2.8	2.1	2	1.60	23.60	24.10
036	M 2.2	0.45	45	9.0	–	2.8	2.1	2	1.75	23.60	24.10
038	M 2.3	0.40	45	9.0	–	2.8	2.1	2	1.90	23.60	24.10
040	M 2.5	0.45	50	9.0	–	2.8	2.1	2	2.05	20.50	21.00
042	M 2.6	0.45	50	9.0	–	2.8	2.1	2	2.15	20.50	21.00
044	M 3	0.50	56	12.0	18.0	3.5	2.7	3	2.50	19.40	19.90
056	M 3.5	0.60	56	12.0	20.0	4.0	3.0	3	2.90	19.40	19.90
058	M 4	0.70	63	13.0	21.0	4.5	3.4	3	3.30	19.40	19.90
061	M 4.5	0.75	70	14.0	25.0	6.0	4.9	3	3.75	19.40	19.90
084	M 5	0.80	70	15.0	25.0	6.0	4.9	3	4.20	19.80	20.20
088	M 6	1.00	80	17.0	30.0	6.0	4.9	3	5.00	20.70	21.20
089	M 7	1.00	80	17.0	30.0	7.0	6.2	3	6.00	20.70	21.20
160	M 8	1.25	90	20.0	35.0	8.0	6.2	3	6.80	24.90	25.50
174	M10	1.50	100	22.0	39.0	10.0	8.0	3	8.50	28.80	29.50

≤ M1.4 Tolleranza ISO 1 (4H)

* La dimensione data è fuori norma

Dimensioni superiori vedere articolo E10801, pagina 277

Application



Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Acciaio < 500 N/mm^2	M12	12.0	1.75	18	475	831	15	400	700	12	320	560
	M14	14.0	2.00	18	410	820	15	340	680	12	275	550
	M16	16.0	2.00	18	360	720	15	300	600	12	240	480
	M18	18.0	2.50	18	320	800	15	265	663	12	210	525
	M20	20.0	2.50	18	285	713	15	240	600	12	190	475
	M22	22.0	2.50	18	260	650	15	215	538	12	175	438
	M24	24.0	3.00	18	240	720	15	200	600	12	160	480
Acciaio 500 - 850 N/mm^2	M12	12.0	1.75	15	400	700	10	265	464	8	210	368
	M14	14.0	2.00	15	340	680	10	225	450	8	180	360
	M16	16.0	2.00	15	300	600	10	200	400	8	160	320
	M18	18.0	2.50	15	265	663	10	175	438	8	140	350
	M20	20.0	2.50	15	240	600	10	160	400	8	125	313
	M22	22.0	2.50	15	215	538	10	145	363	8	115	288
	M24	24.0	3.00	15	200	600	10	135	405	8	105	315
Alluminio malleabile Si < 6% temprato Raccomandazione: senza rivestimento	M12	12.0	1.75	15	400	700	12	320	560	10	265	464
	M14	14.0	2.00	15	340	680	12	275	550	10	225	450
	M16	16.0	2.00	15	300	600	12	240	480	10	200	400
	M18	18.0	2.50	15	265	663	12	210	525	10	175	438
	M20	20.0	2.50	15	240	600	12	190	475	10	160	400
	M22	22.0	2.50	15	215	538	12	175	438	10	145	363
	M24	24.0	3.00	15	200	600	12	160	480	10	135	405
Acciaio inossidabile [Cr-Ni/1.4301]	M12	12.0	1.75	5	135	236	4	105	184	3	80	140
	M14	14.0	2.00	5	115	230	4	90	180	3	70	140
	M16	16.0	2.00	5	100	200	4	80	160	3	60	120
	M18	18.0	2.50	5	90	225	4	70	175	3	55	138
	M20	20.0	2.50	5	80	200	4	65	163	3	50	125
	M22	22.0	2.50	5	70	175	4	60	150	3	45	113
	M24	24.0	3.00	5	65	195	4	55	165	3	40	120

Maschi u-tap

U

M

ISO 2 (6H)

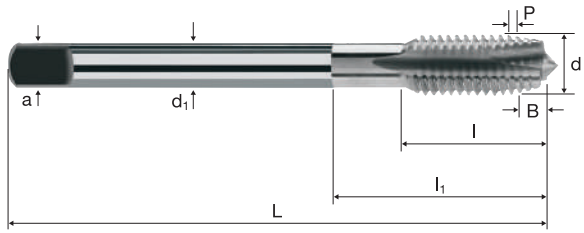
60°

HSS-E Co5

DIN 376

X · P

Form B

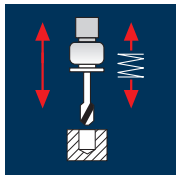


Rm < 850 | **Inox** Stainless | **GG(G) Aluminium Copper**

Esempio: **N° Ordine** — Articolo **E10801** — Codice-ø **240**

Ø Code	d	P	L	l	l_1	d_1	a			E10801 €	VAP EV10801 €
240	**M12**	**1.75**	110	24	40	9.0	7.0	3	10.20	36.00	36.80
244	**M14**	**2.00**	110	26	40	11.0	9.0	3	12.00	45.50	46.60
246	**M16**	**2.00**	110	27	40	12.0	9.0	3	14.00	54.00	55.20
312	**M18**	**2.50**	125	30	45	14.0	11.0	4	15.50	69.00	70.00
314	**M20**	**2.50**	140	32	50	16.0	12.0	4	17.50	84.00	86.00
316	**M22**	**2.50**	140	32	50	18.0	14.5	4	19.50	99.00	102.00
320	**M24**	**3.00**	160	34	60	18.0	14.5	4	21.00	116.00	119.00

Application

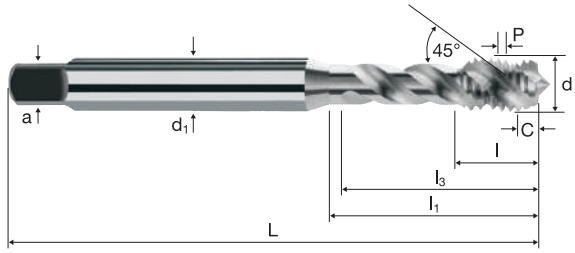


Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
Acciaio < 500 N/mm²	M 1.6	1.6	0.35	11	2190	767	10	1990	697	8	1590	557
	M 1.7	1.7	0.35	11	2060	721	10	1870	655	8	1500	525
	M 1.8	1.8	0.35	11	1945	681	10	1770	620	8	1415	495
	M 2	2.0	0.40	11	1750	700	10	1590	636	8	1275	510
	M 2.2	2.2	0.45	11	1590	716	10	1445	650	8	1155	520
	M 2.3	2.3	0.40	11	1520	608	10	1385	554	8	1105	442
	M 2.5	2.5	0.45	11	1400	630	10	1275	574	8	1020	459
	M 2.6	2.6	0.45	14	1715	772	12	1470	662	10	1225	551
	M 3	3.0	0.50	14	1485	743	12	1275	638	10	1060	530
Acciaio < 500 N/mm²	M 3.5	3.5	0.60	14	1275	765	12	1090	654	10	910	546
	M 4	4.0	0.70	14	1115	781	12	955	669	10	795	557
	M 4.5	4.5	0.75	14	990	743	12	850	638	10	705	529
	M 5	5.0	0.80	14	890	712	12	765	612	10	635	508
	M 6	6.0	1.00	14	745	745	12	635	635	10	530	530
	M 7	7.0	1.00	14	635	635	12	545	545	10	455	455
	M 8	8.0	1.25	14	555	694	12	475	594	10	400	500
	M10	10.0	1.50	14	445	668	12	380	570	10	320	480
Acciaio 500 - 850 N/mm²	M 1.6	1.6	0.35	8	1590	557	7	1395	488	6	1195	418
	M 1.7	1.7	0.35	8	1500	525	7	1310	458	6	1125	394
	M 1.8	1.8	0.35	8	1415	495	7	1240	434	6	1060	371
	M 2	2.0	0.40	8	1275	510	7	1115	446	6	955	382
	M 2.2	2.2	0.45	8	1155	520	7	1015	457	6	870	392
	M 2.3	2.3	0.40	8	1105	442	7	970	388	6	830	332
	M 2.5	2.5	0.45	8	1020	459	7	890	401	6	765	344
	M 2.6	2.6	0.45	9	1100	495	8	980	441	7	855	385
	M 3	3.0	0.50	9	955	478	8	850	425	7	745	373
Acciaio 500 - 850 N/mm²	M 3.5	3.5	0.60	9	820	492	8	730	438	7	635	381
	M 4	4.0	0.70	9	715	500	8	635	445	7	555	389
	M 4.5	4.5	0.75	9	635	476	8	565	424	7	495	371
	M 5	5.0	0.80	9	575	460	8	510	408	7	445	356
	M 6	6.0	1.00	9	475	475	8	425	425	7	370	370
	M 7	7.0	1.00	9	410	410	8	365	365	7	320	320
	M 8	8.0	1.25	9	360	450	8	320	400	7	280	350
	M10	10.0	1.50	9	285	428	8	255	383	7	225	338

Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
Alluminio malleabile Si < 6% temprato Raccomandazione: senza rivestimento	M 1.6	1.6	0.35	8	1590	557	6	1195	418	5	995	348
	M 1.7	1.7	0.35	8	1500	525	6	1125	394	5	935	327
	M 1.8	1.8	0.35	8	1415	495	6	1060	371	5	885	310
	M 2	2.0	0.40	8	1275	510	6	955	382	5	795	318
	M 2.2	2.2	0.45	8	1155	520	6	870	392	5	725	326
	M 2.3	2.3	0.40	8	1105	442	6	830	332	5	690	276
	M 2.5	2.5	0.45	8	1020	459	6	765	344	5	635	286
	M 2.6	2.6	0.45	10	1225	551	8	980	441	6	735	331
	M 3	3.0	0.50	10	1060	530	8	850	425	6	635	318
Alluminio malleabile Si < 6% temprato Raccomandazione: senza rivestimento	M 3.5	3.5	0.60	10	910	546	8	730	438	6	545	327
	M 4	4.0	0.70	10	795	557	8	635	445	6	475	333
	M 4.5	4.5	0.75	10	705	529	8	565	424	6	425	319
	M 5	5.0	0.80	10	635	508	8	510	408	6	380	304
	M 6	6.0	1.00	10	530	530	8	425	425	6	320	320
	M 7	7.0	1.00	10	455	455	8	365	365	6	275	275
	M 8	8.0	1.25	10	400	500	8	320	400	6	240	300
	M10	10.0	1.50	10	320	480	8	255	383	6	190	285
Acciaio inossidabile [Cr-Ni/1.4301]	M 1.6	1.6	0.35	3	595	208	2	400	140	2	400	140
	M 1.7	1.7	0.35	3	560	196	2	375	131	2	375	131
	M 1.8	1.8	0.35	3	530	186	2	355	124	2	355	124
	M 2	2.0	0.40	3	475	190	2	320	128	2	320	128
	M 2.2	2.2	0.45	3	435	196	2	290	131	2	290	131
	M 2.3	2.3	0.40	3	415	166	2	275	110	2	275	110
	M 2.5	2.5	0.45	3	380	171	2	255	115	2	255	115
	M 2.6	2.6	0.45	4	490	221	3	365	164	3	365	164
	M 3	3.0	0.50	4	425	213	3	320	160	3	320	160
Acciaio inossidabile [Cr-Ni/1.4301]	M 3.5	3.5	0.60	4	365	219	3	275	165	3	275	165
	M 4	4.0	0.70	4	320	224	3	240	168	3	240	168
	M 4.5	4.5	0.75	4	285	214	3	210	158	3	210	158
	M 5	5.0	0.80	4	255	204	3	190	152	3	190	152
	M 6	6.0	1.00	4	210	210	3	160	160	3	160	160
	M 7	7.0	1.00	4	180	180	3	135	135	3	135	135
	M 8	8.0	1.25	4	160	200	3	120	150	3	120	150
	M10	10.0	1.50	4	125	188	3	95	143	3	95	143

Maschi u-tap

M	ISO 2 (6H)
60°	HSS-E Co5
DIN 371	
	Form C



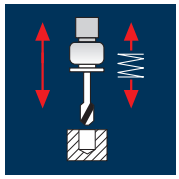
Rm < 850							Inox Stainless		GG(G) Aluminium Copper

Esempio: **N° Ordine** — Articolo **E10820** — Codice-ø **022**

Ø Code	d	P	L	l	l1	l3	d1	a			E10820 €	VAP EV10820 €
022	M 1.6	0.35	40	8.0	–	9.0	2.5	2.1	3	1.30	30.20	30.90
024	M 1.7	0.35	40	8.0	–	9.0	2.5	2.1	3	1.40	30.20	30.90
026	M 1.8	0.35	40	8.0	–	9.0	2.5	2.1	3	1.50	30.20	30.90
034	M 2	0.40	45	8.0	–	10.5	2.8	2.1	3	1.60	26.70	27.30
036	M 2.2	0.45	45	9.0	–	12.5	2.8	2.1	3	1.75	26.70	27.30
038	M 2.3	0.40	45	9.0	–	12.5	2.8	2.1	3	1.90	26.70	27.30
040	M 2.5	0.45	50	9.0	–	13.0	2.8	2.1	3	2.05	23.70	24.20
042	M 2.6	0.45	50	9.0	–	13.0	2.8	2.1	3	2.15	23.70	24.20
044	M 3	0.50	56	4.0	18.0	16.0	3.5	2.7	3	2.50	21.90	22.40
056	M 3.5	0.60	56	4.8	20.0	18.0	4.0	3.0	3	2.90	21.90	22.40
058	M 4	0.70	63	5.6	21.0	19.0	4.5	3.4	3	3.30	21.90	22.40
061	M 4.5	0.75	70	6.0	25.0	23.0	6.0	4.9	3	3.75	21.90	22.40
084	M 5	0.80	70	6.4	25.0	23.0	6.0	4.9	3	4.20	22.30	22.90
088	M 6	1.00	80	8.0	30.0	28.0	6.0	4.9	3	5.00	23.30	23.90
089	M 7	1.00	80	8.0	30.0	28.0	7.0	6.2	3	6.00	23.30	23.90
160	M 8	1.25	90	10.0	35.0	33.0	8.0	6.2	3	6.80	28.20	28.80
174	M10	1.50	100	12.0	39.0	37.0	10.0	8.0	3	8.50	33.30	34.10

Dimensioni superiori vedere articolo E10821, pagina 281

Application

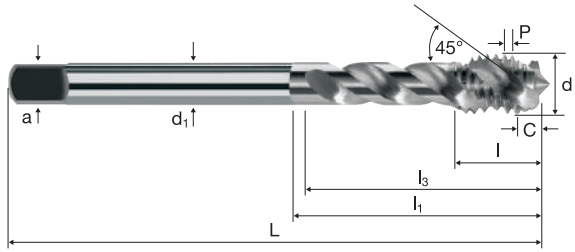


Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio < 500 N/mm^2	M12	12.0	1.75	14	370	648	12	320	560	10	265	464
	M14	14.0	2.00	14	320	640	12	275	550	10	225	450
	M16	16.0	2.00	14	280	560	12	240	480	10	200	400
	M18	18.0	2.50	14	250	625	12	210	525	10	175	438
	M20	20.0	2.50	14	225	563	12	190	475	10	160	400
	M22	22.0	2.50	14	205	513	12	175	438	10	145	363
	M24	24.0	3.00	14	185	555	12	160	480	10	135	405
Acciaio 500 - 850 N/mm^2	M12	12.0	1.75	9	240	420	8	210	368	7	185	324
	M14	14.0	2.00	9	205	410	8	180	360	7	160	320
	M16	16.0	2.00	9	180	360	8	160	320	7	140	280
	M18	18.0	2.50	9	160	400	8	140	350	7	125	313
	M20	20.0	2.50	9	145	363	8	125	313	7	110	275
	M22	22.0	2.50	9	130	325	8	115	288	7	100	250
	M24	24.0	3.00	9	120	360	8	105	315	7	95	285

Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Alluminio malleabile Si < 6% temprato Raccomandazione: senza rivestimento	M12	12.0	1.75	10	265	464	8	210	368	6	160	280
	M14	14.0	2.00	10	225	450	8	180	360	6	135	270
	M16	16.0	2.00	10	200	400	8	160	320	6	120	240
	M18	18.0	2.50	10	175	438	8	140	350	6	105	263
	M20	20.0	2.50	10	160	400	8	125	313	6	95	238
	M22	22.0	2.50	10	145	363	8	115	288	6	85	213
	M24	24.0	3.00	10	135	405	8	105	315	6	80	240
Acciaio inossidabile [Cr-Ni/1.4301]	M12	12.0	1.75	4	105	184	3	80	140	3	80	140
	M14	14.0	2.00	4	90	180	3	70	140	3	70	140
	M16	16.0	2.00	4	80	160	3	60	120	3	60	120
	M18	18.0	2.50	4	70	175	3	55	138	3	55	138
	M20	20.0	2.50	4	65	163	3	50	125	3	50	125
	M22	22.0	2.50	4	60	150	3	45	113	3	45	113
	M24	24.0	3.00	4	55	165	3	40	120	3	40	120

Maschi u-tap

M	ISO 2 (6H)
60°	HSS-E Co5
DIN 376	
	X · P Form C

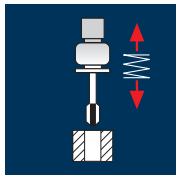


Rm < 850							Inox Stainless		GG(G) Aluminium Copper

Esempio: **N° Ordine** — Articolo **E10821** — Codice-ø **240**

Ø Code	d	P	L	l	l_1	l_3	d_1	a			E10821 €	VAP EV10821 €
240	**M12**	**1.75**	110	14	50	48	9	7.0	3	10.20	42.30	43.30
244	**M14**	**2.00**	110	16	58	56	11	9.0	4	12.00	50.80	52.00
246	**M16**	**2.00**	110	16	58	56	12	9.0	4	14.00	61.00	63.00
312	**M18**	**2.50**	125	20	65	63	14	11.0	4	15.50	76.00	78.00
314	**M20**	**2.50**	140	20	72	70	16	12.0	4	17.50	92.00	94.00
316	**M22**	**2.50**	140	20	72	70	18	14.5	4	19.50	109.00	112.00
320	**M24**	**3.00**	160	24	74	72	18	14.5	4	21.00	128.00	131.00

Application

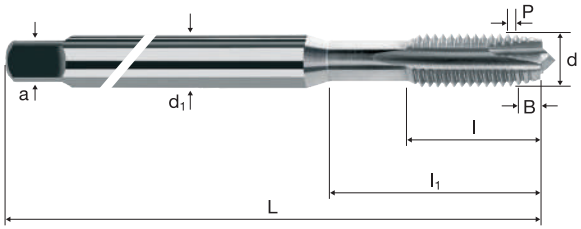


Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Acciaio < 500 N/mm^2	M 3	3.0	0.50	8	850	425	6	635	318	4	425	213
	M 4	4.0	0.70	8	635	445	6	475	333	4	320	224
	M 5	5.0	0.80	8	510	408	6	380	304	4	255	204
	M 6	6.0	1.00	8	425	425	6	320	320	4	210	210
	M 8	8.0	1.25	8	320	400	6	240	300	4	160	200
	M10	10.0	1.50	8	255	383	6	190	285	4	125	188
Acciaio 500 - 850 N/mm^2	M 3	3.0	0.50	5	530	265	4	425	213	3	320	160
	M 4	4.0	0.70	5	400	280	4	320	224	3	240	168
	M 5	5.0	0.80	5	320	256	4	255	204	3	190	152
	M 6	6.0	1.00	5	265	265	4	210	210	3	160	160
	M 8	8.0	1.25	5	200	250	4	160	200	3	120	150
	M10	10.0	1.50	5	160	240	4	125	188	3	95	143
Alluminio malleabile Si < 6% temprato	M 3	3.0	0.50	8	850	425	6	635	318	4	425	213
	M 4	4.0	0.70	8	635	445	6	475	333	4	320	224
	M 5	5.0	0.80	8	510	408	6	380	304	4	255	204
	M 6	6.0	1.00	8	425	425	6	320	320	4	210	210
	M 8	8.0	1.25	8	320	400	6	240	300	4	160	200
	M10	10.0	1.50	8	255	383	6	190	285	4	125	188
Ghisa GG(G)	M 3	3.0	0.50	12	1275	638	10	1060	530	8	850	425
	M 4	4.0	0.70	12	955	669	10	795	557	8	635	445
	M 5	5.0	0.80	12	765	612	10	635	508	8	510	408
	M 6	6.0	1.00	12	635	635	10	530	530	8	425	425
	M 8	8.0	1.25	12	475	594	10	400	500	8	320	400
	M10	10.0	1.50	12	380	570	10	320	480	8	255	383

Maschi

Esecuzione extralunga

M	ISO 2 (6H)
60°	HSS PM/F
	Form B



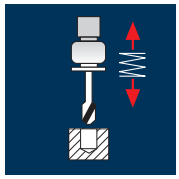
Rm < 850									GG(G) Aluminium

Esempio: **N° Ordine** — Articolo **E10340** — Codice-ø **044**

E10340

Ø Code	d	P	L	l	l1	d1	a			€
044	**M 3**	**0.50**	100	12	18	3.5	2.7	3	2.50	32.10
058	**M 4**	**0.70**	125	13	21	4.5	3.4	3	3.30	32.10
084	**M 5**	**0.80**	140	15	25	6.0	4.9	3	4.20	32.60
088	**M 6**	**1.00**	160	17	30	6.0	4.9	3	5.00	34.10
160	**M 8**	**1.25**	180	20	35	8.0	6.2	3	6.80	41.10
174	**M10**	**1.50**	200	22	39	10.0	8.0	3	8.50	47.60

Application

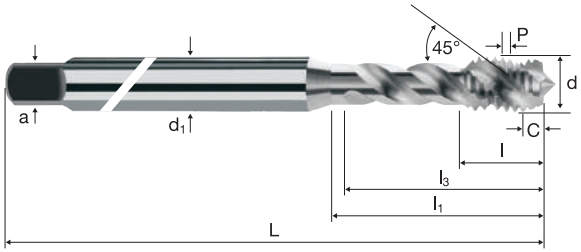


Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio < 500 N/mm^2	M 3	3.0	0.50	8	850	425	6	635	318	4	425	213
	M 4	4.0	0.70	8	635	445	6	475	333	4	320	224
	M 5	5.0	0.80	8	510	408	6	380	304	4	255	204
	M 6	6.0	1.00	8	425	425	6	320	320	4	210	210
	M 8	8.0	1.25	8	320	400	6	240	300	4	160	200
	M10	10.0	1.50	8	255	383	6	190	285	4	125	188
Acciaio 500 - 850 N/mm^2	M 3	3.0	0.50	5	530	265	4	425	213	3	320	160
	M 4	4.0	0.70	5	400	280	4	320	224	3	240	168
	M 5	5.0	0.80	5	320	256	4	255	204	3	190	152
	M 6	6.0	1.00	5	265	265	4	210	210	3	160	160
	M 8	8.0	1.25	5	200	250	4	160	200	3	120	150
	M10	10.0	1.50	5	160	240	4	125	188	3	95	143
Alluminio malleabile Si < 6% temprato	M 3	3.0	0.50	8	850	425	6	635	318	4	425	213
	M 4	4.0	0.70	8	635	445	6	475	333	4	320	224
	M 5	5.0	0.80	8	510	408	6	380	304	4	255	204
	M 6	6.0	1.00	8	425	425	6	320	320	4	210	210
	M 8	8.0	1.25	8	320	400	6	240	300	4	160	200
	M10	10.0	1.50	8	255	383	6	190	285	4	125	188
Ghisa GG(G)	M 3	3.0	0.50	12	1275	638	10	1060	530	8	850	425
	M 4	4.0	0.70	12	955	669	10	795	557	8	635	445
	M 5	5.0	0.80	12	765	612	10	635	508	8	510	408
	M 6	6.0	1.00	12	635	635	10	530	530	8	425	425
	M 8	8.0	1.25	12	475	594	10	400	500	8	320	400
	M10	10.0	1.50	12	380	570	10	320	480	8	255	383

Maschi

Esecuzione extralunga

M	**ISO 2 (6H)**
HSS PM/F	
Form C	



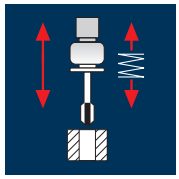
M

Rm < 850									**GG(G) Aluminium**

Esempio: **N° Ordine** — Articolo **E10350** — Codice-ø **044**

												E10350
ø Code	**d**	**P**	**L**	**l**	**l_1**	**l_3**	**d_1**	**a**				€
044	**M 3**	**0.50**	100	4.0	18	16	3.5	2.7	3	2.50		36.10
058	**M 4**	**0.70**	125	5.6	21	19	4.5	3.4	3	3.30		36.10
084	**M 5**	**0.80**	140	6.4	25	23	6.0	4.9	3	4.20		36.90
088	**M 6**	**1.00**	160	8.0	30	28	6.0	4.9	3	5.00		38.50
160	**M 8**	**1.25**	180	10.0	35	33	8.0	6.2	3	6.80		46.50
174	**M10**	**1.50**	200	12.0	39	37	10.0	8.0	3	8.50		55.00

Application



Materiale	M-LH	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Acciaio < 500 N/mm²	M 2	2.0	0.40	14	2230	892	12	1910	764	10	1590	636
	M 2.5	2.5	0.45	14	1785	803	12	1530	689	10	1275	574
	M 3	3.0	0.50	18	1910	955	15	1590	795	12	1275	638
	M 4	4.0	0.70	18	1430	1001	15	1195	837	12	955	669
	M 5	5.0	0.80	18	1145	916	15	955	764	12	765	612
	M 6	6.0	1.00	18	955	955	15	795	795	12	635	635
	M 8	8.0	1.25	18	715	894	15	595	744	12	475	594
	M10	10.0	1.50	18	575	863	15	475	713	12	380	570
	M12	12.0	1.75	18	475	831	15	400	700	12	320	560
Acciaio < 500 N/mm²	M16	16.0	2.00	18	360	720	15	300	600	12	240	480
	M20	20.0	2.50	18	285	713	15	240	600	12	190	475
	M24	24.0	3.00	18	240	720	15	200	600	12	160	480
Acciaio 500 - 850 N/mm²	M 2	2.0	0.40	12	1910	764	8	1275	510	6	955	382
	M 2.5	2.5	0.45	12	1530	689	8	1020	459	6	765	344
	M 3	3.0	0.50	15	1590	795	10	1060	530	8	850	425
	M 4	4.0	0.70	15	1195	837	10	795	557	8	635	445
	M 5	5.0	0.80	15	955	764	10	635	508	8	510	408
	M 6	6.0	1.00	15	795	795	10	530	530	8	425	425
	M 8	8.0	1.25	15	595	744	10	400	500	8	320	400
	M10	10.0	1.50	15	475	713	10	320	480	8	255	383
	M12	12.0	1.75	15	400	700	10	265	464	8	210	368
Acciaio 500 - 850 N/mm²	M16	16.0	2.00	15	300	600	10	200	400	8	160	320
	M20	20.0	2.50	15	240	600	10	160	400	8	125	313
	M24	24.0	3.00	15	200	600	10	135	405	8	105	315

Materiale	M-LH	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Alluminio malleabile Si < 6% temprato	M 2	2.0	0.40	12	1910	764	10	1590	636	8	1275	510
	M 2.5	2.5	0.45	12	1530	689	10	1275	574	8	1020	459
	M 3	3.0	0.50	15	1590	795	12	1275	638	10	1060	530
	M 4	4.0	0.70	15	1195	837	12	955	669	10	795	557
	M 5	5.0	0.80	15	955	764	12	765	612	10	635	508
	M 6	6.0	1.00	15	795	795	12	635	635	10	530	530
	M 8	8.0	1.25	15	595	744	12	475	594	10	400	500
	M10	10.0	1.50	15	475	713	12	380	570	10	320	480
	M12	12.0	1.75	15	400	700	12	320	560	10	265	464
Alluminio malleabile Si < 6% temprato	M16	16.0	2.00	15	300	600	12	240	480	10	200	400
	M20	20.0	2.50	15	240	600	12	190	475	10	160	400
	M24	24.0	3.00	15	200	600	12	160	480	10	135	405
Acciaio inossidabile [Cr-Ni/1.4301]	M 2	2.0	0.40	4	635	254	3	475	190	2	320	128
	M 2.5	2.5	0.45	4	510	230	3	380	171	2	255	115
	M 3	3.0	0.50	5	530	265	4	425	213	3	320	160
	M 4	4.0	0.70	5	400	280	4	320	224	3	240	168
	M 5	5.0	0.80	5	320	256	4	255	204	3	190	152
	M 6	6.0	1.00	5	265	265	4	210	210	3	160	160
	M 8	8.0	1.25	5	200	250	4	160	200	3	120	150
	M10	10.0	1.50	5	160	240	4	125	188	3	95	143
	M12	12.0	1.75	5	135	236	4	105	184	3	80	140
Acciaio inossidabile [Cr-Ni/1.4301]	M16	16.0	2.00	5	100	200	4	80	160	3	60	120
	M20	20.0	2.50	5	80	200	4	65	163	3	50	125
	M24	24.0	3.00	5	65	195	4	55	165	3	40	120

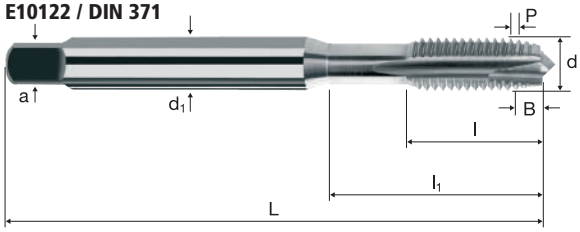
Maschi

M-LH | ISO 2 (6H)

60° | HSS-E Co5

DIN 371/376

X · P Form B



M

Rm < 850							Inox Stainless		GG(G) Aluminium Copper

Esempio: **N° Ordine** — Articolo **E10122** — Codice-ø **034**

E10122

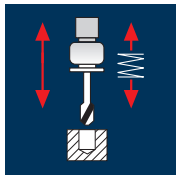
Ø Code	d	P		L	l	l1	d1	a			€
034	M 2	0.40	LH	45	8.0	–	2.8	2.1	2	1.60	36.50
040	M 2.5	0.45	LH	50	9.0	–	2.8	2.1	2	2.05	31.80
044	M 3	0.50	LH	56	12.0	18.0	3.5	2.7	3	2.50	30.10
058	M 4	0.70	LH	63	13.0	21.0	4.5	3.4	3	3.30	30.10
084	M 5	0.80	LH	70	15.0	25.0	6.0	4.9	3	4.20	30.60
088	M 6	1.00	LH	80	17.0	30.0	6.0	4.9	3	5.00	32.00
160	M 8	1.25	LH	90	20.0	35.0	8.0	6.2	3	6.80	38.60
174	M10	1.50	LH	100	22.0	39.0	10.0	8.0	3	8.50	44.70

Esempio: **N° Ordine** — Articolo **E10123** — Codice-ø **240**

E10123

Ø Code	d	P		L	l	l1	d1	a			€
240	M12	1.75	LH	110	24.0	40.0	9.0	7.0	3	10.20	55.80
246	M16	2.00	LH	110	27.0	40.0	12.0	9.0	3	14.00	84.00
314	M20	2.50	LH	140	32.0	50.0	16.0	12.0	4	17.50	130.00
320	M24	3.00	LH	160	34.0	60.0	18.0	14.5	4	21.00	180.00

Application



Materiale	M-LH	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio < 500 N/mm²	M 2	2.0	0.40	11	1750	700	10	1590	636	8	1275	510
	M 2.5	2.5	0.45	11	1400	630	10	1275	574	8	1020	459
	M 3	3.0	0.50	14	1485	743	12	1275	638	10	1060	530
	M 4	4.0	0.70	14	1115	781	12	955	669	10	795	557
	M 5	5.0	0.80	14	890	712	12	765	612	10	635	508
	M 6	6.0	1.00	14	745	745	12	635	635	10	530	530
	M 8	8.0	1.25	14	555	694	12	475	594	10	400	500
	M10	10.0	1.50	14	445	668	12	380	570	10	320	480
	M12	12.0	1.75	14	370	648	12	320	560	10	265	464
Acciaio < 500 N/mm²	M16	16.0	2.00	14	280	560	12	240	480	10	200	400
	M20	20.0	2.50	14	225	563	12	190	475	10	160	400
	M24	24.0	3.00	14	185	555	12	160	480	10	135	405
Acciaio 500 - 850 N/mm²	M 2	2.0	0.40	7	1115	446	6	955	382	5	795	318
	M 2.5	2.5	0.45	7	890	401	6	765	344	5	635	286
	M 3	3.0	0.50	9	955	478	8	850	425	7	745	373
	M 4	4.0	0.70	9	715	500	8	635	445	7	555	389
	M 5	5.0	0.80	9	575	460	8	510	408	7	445	356
	M 6	6.0	1.00	9	475	475	8	425	425	7	370	370
	M 8	8.0	1.25	9	360	450	8	320	400	7	280	350
	M10	10.0	1.50	9	285	428	8	255	383	7	225	338
	M12	12.0	1.75	9	240	420	8	210	368	7	185	324
Acciaio 500 - 850 N/mm²	M16	16.0	2.00	9	180	360	8	160	320	7	140	280
	M20	20.0	2.50	9	145	363	8	125	313	7	110	275
	M24	24.0	3.00	9	120	360	8	105	315	7	95	285

Materiale	M-LH	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Alluminio malleabile Si < 6% temprato	M 2	2.0	0.40	8	1275	510	6	955	382	5	795	318
	M 2.5	2.5	0.45	8	1020	459	6	765	344	5	635	286
	M 3	3.0	0.50	10	1060	530	8	850	425	6	635	318
	M 4	4.0	0.70	10	795	557	8	635	445	6	475	333
	M 5	5.0	0.80	10	635	508	8	510	408	6	380	304
	M 6	6.0	1.00	10	530	530	8	425	425	6	320	320
	M 8	8.0	1.25	10	400	500	8	320	400	6	240	300
	M10	10.0	1.50	10	320	480	8	255	383	6	190	285
	M12	12.0	1.75	10	265	464	8	210	368	6	160	280
Alluminio malleabile Si < 6% temprato	M16	16.0	2.00	10	200	400	8	160	320	6	120	240
	M20	20.0	2.50	10	160	400	8	125	313	6	95	238
	M24	24.0	3.00	10	135	405	8	105	315	6	80	240
Acciaio inossidabile [Cr-Ni/1.4301]	M 2	2.0	0.40	3	475	190	2	320	128	2	320	128
	M 2.5	2.5	0.45	3	380	171	2	255	115	2	255	115
	M 3	3.0	0.50	4	425	213	3	320	160	3	320	160
	M 4	4.0	0.70	4	320	224	3	240	168	3	240	168
	M 5	5.0	0.80	4	255	204	3	190	152	3	190	152
	M 6	6.0	1.00	4	210	210	3	160	160	3	160	160
	M 8	8.0	1.25	4	160	200	3	120	150	3	120	150
	M10	10.0	1.50	4	125	188	3	95	143	3	95	143
	M12	12.0	1.75	4	105	184	3	80	140	3	80	140
Acciaio inossidabile [Cr-Ni/1.4301]	M16	16.0	2.00	4	80	160	3	60	120	3	60	120
	M20	20.0	2.50	4	65	163	3	50	125	3	50	125
	M24	24.0	3.00	4	55	165	3	40	120	3	40	120

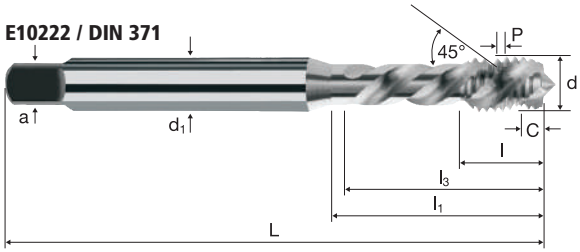
Maschi

M-LH | ISO 2 (6H)

60° | HSS-E Co5

DIN 371/376

X · P Form C



M

Rm < 850 | **Inox** Stainless | **GG(G) Aluminium Copper**

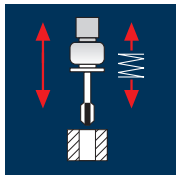
Esempio: **N° Ordine** — Articolo **E10222** — Codice-ø **034**

Ø Code	d	P		L	l	l1	l3	d1	a	⌑		€
												E10222
034	**M 2**	**0.40**	LH	45	8.0	–	10.5	2.8	2.1	3	1.60	41.40
040	**M 2.5**	**0.45**	LH	50	9.0	–	13.0	2.8	2.1	3	2.05	36.70
044	**M 3**	**0.50**	LH	56	4.0	18.0	16.0	3.5	2.7	3	2.50	33.90
058	**M 4**	**0.70**	LH	63	5.6	21.0	19.0	4.5	3.4	3	3.30	33.90
084	**M 5**	**0.80**	LH	70	6.4	25.0	23.0	6.0	4.9	3	4.20	34.60
088	**M 6**	**1.00**	LH	80	8.0	30.0	28.0	6.0	4.9	3	5.00	36.20
160	**M 8**	**1.25**	LH	90	10.0	35.0	33.0	8.0	6.2	3	6.80	43.60
174	**M10**	**1.50**	LH	100	12.0	39.0	37.0	10.0	8.0	3	8.50	51.70

Esempio: **N° Ordine** — Articolo **E10223** — Codice-ø **240**

Ø Code	d	P		L	l	l1	l3	d1	a	⌑		€
												E10223
240	**M12**	**1.75**	LH	110	14.0	50.0	48.0	9.0	7.0	3	10.20	66.00
246	**M16**	**2.00**	LH	110	16.0	58.0	56.0	12.0	9.0	4	14.00	95.00
314	**M20**	**2.50**	LH	140	20.0	72.0	70.0	16.0	12.0	4	17.50	143.00
320	**M24**	**3.00**	LH	160	24.0	74.0	72.0	18.0	14.5	4	21.00	198.00

Application



Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Acciaio < 500 N/mm²	M 2	2.0	0.40	14	2230	892	12	1910	764	10	1590	636
	M 2.5	2.5	0.45	14	1785	803	12	1530	689	10	1275	574
	M 3	3.0	0.50	18	1910	955	15	1590	795	12	1275	638
	M 4	4.0	0.70	18	1430	1001	15	1195	837	12	955	669
	M 5	5.0	0.80	18	1145	916	15	955	764	12	765	612
	M 6	6.0	1.00	18	955	955	15	795	795	12	635	635
	M 8	8.0	1.25	18	715	894	15	595	744	12	475	594
	M10	10.0	1.50	18	575	863	15	475	713	12	380	570
	M12	12.0	1.75	18	475	831	15	400	700	12	320	560
Acciaio < 500 N/mm²	M16	16.0	2.00	18	360	720	15	300	600	12	240	480
	M20	20.0	2.50	18	285	713	15	240	600	12	190	475
	M24	24.0	3.00	18	240	720	15	200	600	12	160	480
Acciaio 500 - 850 N/mm²	M 2	2.0	0.40	12	1910	764	8	1275	510	6	955	382
	M 2.5	2.5	0.45	12	1530	689	8	1020	459	6	765	344
	M 3	3.0	0.50	15	1590	795	10	1060	530	8	850	425
	M 4	4.0	0.70	15	1195	837	10	795	557	8	635	445
	M 5	5.0	0.80	15	955	764	10	635	508	8	510	408
	M 6	6.0	1.00	15	795	795	10	530	530	8	425	425
	M 8	8.0	1.25	15	595	744	10	400	500	8	320	400
	M10	10.0	1.50	15	475	713	10	320	480	8	255	383
	M12	12.0	1.75	15	400	700	10	265	464	8	210	368
Acciaio 500 - 850 N/mm²	M16	16.0	2.00	15	300	600	10	200	400	8	160	320
	M20	20.0	2.50	15	240	600	10	160	400	8	125	313
	M24	24.0	3.00	15	200	600	10	135	405	8	105	315

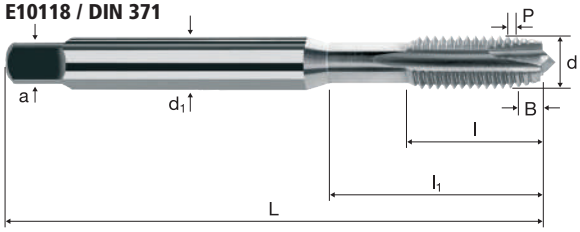
Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Alluminio malleabile Si < 6% temprato	M 2	2.0	0.40	12	1910	764	10	1590	636	8	1275	510
	M 2.5	2.5	0.45	12	1530	689	10	1275	574	8	1020	459
	M 3	3.0	0.50	15	1590	795	12	1275	638	10	1060	530
	M 4	4.0	0.70	15	1195	837	12	955	669	10	795	557
	M 5	5.0	0.80	15	955	764	12	765	612	10	635	508
	M 6	6.0	1.00	15	795	795	12	635	635	10	530	530
	M 8	8.0	1.25	15	595	744	12	475	594	10	400	500
	M10	10.0	1.50	15	475	713	12	380	570	10	320	480
	M12	12.0	1.75	15	400	700	12	320	560	10	265	464
Alluminio malleabile Si < 6% temprato	M16	16.0	2.00	15	300	600	12	240	480	10	200	400
	M20	20.0	2.50	15	240	600	12	190	475	10	160	400
	M24	24.0	3.00	15	200	600	12	160	480	10	135	405
Acciaio inossidabile [Cr-Ni/1.4301]	M 2	2.0	0.40	4	635	254	3	475	190	2	320	128
	M 2.5	2.5	0.45	4	510	230	3	380	171	2	255	115
	M 3	3.0	0.50	5	530	265	4	425	213	3	320	160
	M 4	4.0	0.70	5	400	280	4	320	224	3	240	168
	M 5	5.0	0.80	5	320	256	4	255	204	3	190	152
	M 6	6.0	1.00	5	265	265	4	210	210	3	160	160
	M 8	8.0	1.25	5	200	250	4	160	200	3	120	150
	M10	10.0	1.50	5	160	240	4	125	188	3	95	143
	M12	12.0	1.75	5	135	236	4	105	184	3	80	140
Acciaio inossidabile [Cr-Ni/1.4301]	M16	16.0	2.00	5	100	200	4	80	160	3	60	120
	M20	20.0	2.50	5	80	200	4	65	163	3	50	125
	M24	24.0	3.00	5	65	195	4	55	165	3	40	120

Raccomandazione: adgiustare il ø del foro secondo la tolleranza

Maschi

M	ISO 2 +0.1
60°	HSS-E Co5
DIN 371/376	
	X · P Form B

E10118 / DIN 371



E10119 / DIN 376

M

Rm < 850							Inox Stainless		GG(G) Aluminium Copper

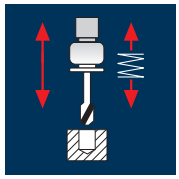
Esempio: N° Ordine — Articolo: E10118 — Codice-ø: 034

Ø Code	d	P	L	l	l1	d1	a	⌀	Δ	E10118 €
034	M 2	0.40	45	8	–	2.8	2.1	2	+0.100	29.50
040	M 2.5	0.45	50	9	–	2.8	2.1	2	+0.100	25.70
044	M 3	0.50	56	12	18.0	3.5	2.7	3	+0.100	24.30
058	M 4	0.70	63	13	21.0	4.5	3.4	3	+0.100	24.30
084	M 5	0.80	70	15	25.0	6.0	4.9	3	+0.100	24.70
088	M 6	1.00	80	17	30.0	6.0	4.9	3	+0.100	25.80
160	M 8	1.25	90	20	35.0	8.0	6.2	3	+0.100	31.10
174	M10	1.50	100	22	39.0	10.0	8.0	3	+0.100	36.00

Esempio: N° Ordine — Articolo: E10119 — Codice-ø: 240

Ø Code	d	P	L	l	l1	d1	a	⌀	Δ	E10119 €
240	M12	1.75	110	24	40.0	9.0	7.0	3	+0.100	45.00
246	M16	2.00	110	27	40.0	12.0	9.0	4	+0.100	67.00
314	M20	2.50	140	32	50.0	16.0	12.0	4	+0.100	105.00
320	M24	3.00	160	34	60.0	18.0	14.5	4	+0.100	146.00

Application

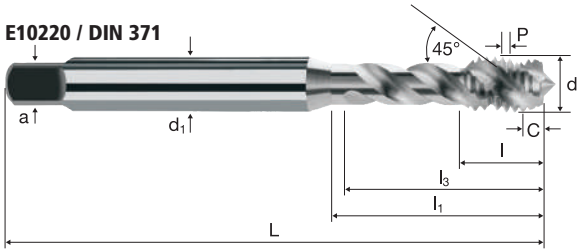


Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio < 500 N/mm^2 Raccomandazione: adgiustare il ø del foro secondo la tolleranza	M 2	2.0	0.40	12	1910	764	10	1590	636	8	1275	510
	M 2.5	2.5	0.45	12	1530	689	10	1275	574	8	1020	459
	M 3	3.0	0.50	14	1485	743	12	1275	638	10	1060	530
	M 4	4.0	0.70	14	1115	781	12	955	669	10	795	557
	M 5	5.0	0.80	14	890	712	12	765	612	10	635	508
	M 6	6.0	1.00	14	745	745	12	635	635	10	530	530
	M 8	8.0	1.25	14	555	694	12	475	594	10	400	500
	M10	10.0	1.50	14	445	668	12	380	570	10	320	480
	M12	12.0	1.75	14	370	648	12	320	560	10	265	464
Acciaio < 500 N/mm^2 Raccomandazione: adgiustare il ø del foro secondo la tolleranza	M16	16.0	2.00	14	280	560	12	240	480	10	200	400
	M20	20.0	2.50	14	225	563	12	190	475	10	160	400
	M24	24.0	3.00	14	185	555	12	160	480	10	135	405
Acciaio 500 - 850 N/mm^2 Raccomandazione: adgiustare il ø del foro secondo la tolleranza	M 2	2.0	0.40	7	1115	446	6	955	382	5	795	318
	M 2.5	2.5	0.45	7	890	401	6	765	344	5	635	286
	M 3	3.0	0.50	9	955	478	8	850	425	7	745	373
	M 4	4.0	0.70	9	715	500	8	635	445	7	555	389
	M 5	5.0	0.80	9	575	460	8	510	408	7	445	356
	M 6	6.0	1.00	9	475	475	8	425	425	7	370	370
	M 8	8.0	1.25	9	360	450	8	320	400	7	280	350
	M10	10.0	1.50	9	285	428	8	255	383	7	225	338
	M12	12.0	1.75	9	240	420	8	210	368	7	185	324
Acciaio 500 - 850 N/mm^2 Raccomandazione: adgiustare il ø del foro secondo la tolleranza	M16	16.0	2.00	9	180	360	8	160	320	7	140	280
	M20	20.0	2.50	9	145	363	8	125	313	7	110	275
	M24	24.0	3.00	9	120	360	8	105	315	7	95	285

Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Alluminio malleabile Si < 6% temprato Raccomandazione: adgiustare il ø del foro secondo la tolleranza	M 2	2.0	0.40	8	1275	510	6	955	382	5	795	318
	M 2.5	2.5	0.45	8	1020	459	6	765	344	5	635	286
	M 3	3.0	0.50	10	1060	530	8	850	425	6	635	318
	M 4	4.0	0.70	10	795	557	8	635	445	6	475	333
	M 5	5.0	0.80	10	635	508	8	510	408	6	380	304
	M 6	6.0	1.00	10	530	530	8	425	425	6	320	320
	M 8	8.0	1.25	10	400	500	8	320	400	6	240	300
	M10	10.0	1.50	10	320	480	8	255	383	6	190	285
	M12	12.0	1.75	10	265	464	8	210	368	6	160	280
Alluminio malleabile Si < 6% temprato Raccomandazione: adgiustare il ø del foro secondo la tolleranza	M16	16.0	2.00	10	200	400	8	160	320	6	120	240
	M20	20.0	2.50	10	160	400	8	125	313	6	95	238
	M24	24.0	3.00	10	135	405	8	105	315	6	80	240
Acciaio inossidabile [Cr-Ni/1.4301] Raccomandazione: adgiustare il ø del foro secondo la tolleranza	M 2	2.0	0.40	3	475	190	2	320	128	2	320	128
	M 2.5	2.5	0.45	3	380	171	2	255	115	2	255	115
	M 3	3.0	0.50	4	425	213	3	320	160	3	320	160
	M 4	4.0	0.70	4	320	224	3	240	168	3	240	168
	M 5	5.0	0.80	4	255	204	3	190	152	3	190	152
	M 6	6.0	1.00	4	210	210	3	160	160	3	160	160
	M 8	8.0	1.25	4	160	200	3	120	150	3	120	150
	M10	10.0	1.50	4	125	188	3	95	143	3	95	143
	M12	12.0	1.75	4	105	184	3	80	140	3	80	140
Acciaio inossidabile [Cr-Ni/1.4301] Raccomandazione: adgiustare il ø del foro secondo la tolleranza	M16	16.0	2.00	4	80	160	3	60	120	3	60	120
	M20	20.0	2.50	4	65	163	3	50	125	3	50	125
	M24	24.0	3.00	4	55	165	3	40	120	3	40	120

Maschi

M	ISO 2 +0.1
60°	HSS-E Co5
DIN 371/376	
	X · P Form C



Rm < 850							Inox Stainless		GG(G) Aluminium Copper

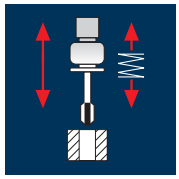
Esempio: **N° Ordine** — Articolo **E10220** Codice-ø **034**

Ø Code	d	P	L	l	l1	l3	d1	a	⌂	Δ	E10220 €
034	M 2	0.40	45	8.0	–	10.5	2.8	2.1	3	+0.100	33.40
040	M 2.5	0.45	50	9.0	–	13.0	2.8	2.1	3	+0.100	29.60
044	M 3	0.50	56	4.0	18.0	16.0	3.5	2.7	3	+0.100	27.40
058	M 4	0.70	63	5.6	21.0	19.0	4.5	3.4	3	+0.100	27.40
084	M 5	0.80	70	6.4	25.0	23.0	6.0	4.9	3	+0.100	27.90
088	M 6	1.00	80	8.0	30.0	28.0	6.0	4.9	3	+0.100	29.20
160	M 8	1.25	90	10.0	35.0	33.0	8.0	6.2	3	+0.100	35.20
174	M10	1.50	100	12.0	39.0	37.0	10.0	8.0	3	+0.100	41.70

Esempio: **N° Ordine** — Articolo **E10221** Codice-ø **240**

Ø Code	d	P	L	l	l1	l3	d1	a	⌂	Δ	E10221 €
240	M12	1.75	110	14.0	50.0	48.0	9.0	7.0	3	+0.100	52.90
246	M16	2.00	110	16.0	58.0	56.0	12.0	9.0	4	+0.100	77.00
314	M20	2.50	140	20.0	72.0	70.0	16.0	12.0	4	+0.100	115.00
320	M24	3.00	160	24.0	74.0	72.0	18.0	14.5	4	+0.100	160.00

Application

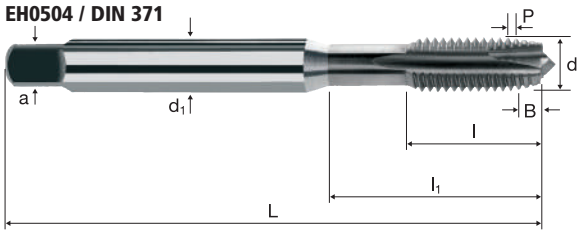


Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Acciaio 500 - 850 N/mm^2	M 2	2.0	0.40	25	3980	1592	20	3185	1274	15	2385	954
	M 2.5	2.5	0.45	25	3185	1433	20	2545	1145	15	1910	860
	M 3	3.0	0.50	25	2655	1328	20	2120	1060	15	1590	795
	M 4	4.0	0.70	25	1990	1393	20	1590	1113	15	1195	837
	M 5	5.0	0.80	25	1590	1272	20	1275	1020	15	955	764
	M 6	6.0	1.00	25	1325	1325	20	1060	1060	15	795	795
	M 8	8.0	1.25	25	995	1244	20	795	994	15	595	744
	M10	10.0	1.50	25	795	1193	20	635	953	15	475	713
	M12	12.0	1.75	25	665	1164	20	530	928	15	400	700
Acciaio 500 - 850 N/mm^2	M16	16.0	2.00	25	495	990	20	400	800	15	300	600
	M20	20.0	2.50	25	400	1000	20	320	800	15	240	600
	M24	24.0	3.00	25	330	990	20	265	795	15	200	600
Acciaio 850 - 1100 N/mm^2	M 2	2.0	0.40	20	3185	1274	15	2385	954	12	1910	764
	M 2.5	2.5	0.45	20	2545	1145	15	1910	860	12	1530	689
	M 3	3.0	0.50	20	2120	1060	15	1590	795	12	1275	638
	M 4	4.0	0.70	20	1590	1113	15	1195	837	12	955	669
	M 5	5.0	0.80	20	1275	1020	15	955	764	12	765	612
	M 6	6.0	1.00	20	1060	1060	15	795	795	12	635	635
	M 8	8.0	1.25	20	795	994	15	595	744	12	475	594
	M10	10.0	1.50	20	635	953	15	475	713	12	380	570
	M12	12.0	1.75	20	530	928	15	400	700	12	320	560
Acciaio 850 - 1100 N/mm^2	M16	16.0	2.00	20	400	800	15	300	600	12	240	480
	M20	20.0	2.50	20	320	800	15	240	600	12	190	475
	M24	24.0	3.00	20	265	795	15	200	600	12	160	480

Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	
Acciaio 1100 - 1300 N/mm^2	M 2	2.0	0.40	7	1115	446	4	635	254	
	M 2.5	2.5	0.45	7	890	401	4	510	230	
	M 3	3.0	0.50	7	745	373	4	425	213	
	M 4	4.0	0.70	7	555	389	4	320	224	
	M 5	5.0	0.80	7	445	356	4	255	204	
	M 6	6.0	1.00	7	370	370	4	210	210	
	M 8	8.0	1.25	7	280	350	4	160	200	
	M10	10.0	1.50	7	225	338	4	125	188	
	M12	12.0	1.75	7	185	324	4	105	184	
Acciaio 1100 - 1300 N/mm^2	M16	16.0	2.00	7	140	280	4	80	160	
	M20	20.0	2.50	7	110	275	4	65	163	
	M24	24.0	3.00	7	95	285	4	55	165	

Maschi x-tap

M	ISO 3 (6G)
60°	HSS PM/F
DIN 371/376	
	X · P Form B



Rm < 850	Rm 850-1100	Rm 1100-1300							

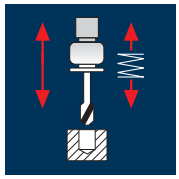
Esempio: N° Ordine — Articolo: **EH0504** Codice-ø: **034**

Ø Code	d	P	L	l	l1	d1	a	⌀	Δ	TiCN EH0504 €
034	M 2	0.40	45	8	–	2.8	2.1	2	+0.015	47.20
040	M 2.5	0.45	50	9	–	2.8	2.1	2	+0.015	41.10
044	M 3	0.50	56	12	18.0	3.5	2.7	3	+0.016	38.90
058	M 4	0.70	63	13	21.0	4.5	3.4	3	+0.019	38.90
084	M 5	0.80	70	15	25.0	6.0	4.9	3	+0.020	39.60
088	M 6	1.00	80	17	30.0	6.0	4.9	3	+0.024	41.30
160	M 8	1.25	90	20	35.0	8.0	6.2	3	+0.025	49.80
174	M10	1.50	100	22	39.0	10.0	8.0	3	+0.028	57.70

Esempio: N° Ordine — Articolo: **EH0505** Codice-ø: **240**

Ø Code	d	P	L	l	l1	d1	a	⌀	Δ	TiCN EH0505 €
240	M 12	1.75	110	24	40.0	9.0	7.0	3	+0.032	72.00
246	M 16	2.00	110	27	40.0	12.0	9.0	3	+0.034	108.00
314	M 20	2.50	140	32	50.0	16.0	12.0	4	+0.036	167.00
320	M 24	3.00	160	34	60.0	18.0	14.5	4	+0.042	233.00

Application



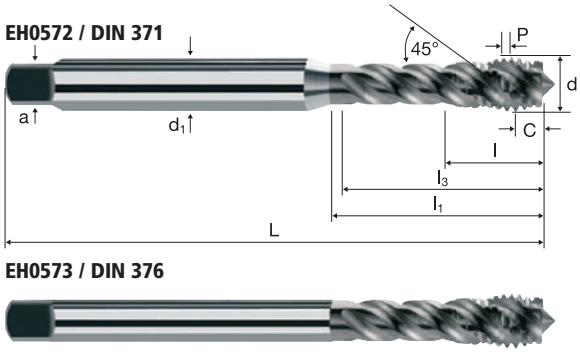
Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio 500 - 850 N/mm^2	M 2	2.0	0.40	32	5095	2038	28	4455	1782	22	3500	1400
	M 2.5	2.5	0.45	32	4075	1834	28	3565	1604	22	2800	1260
	M 3	3.0	0.50	32	3395	1698	28	2970	1485	22	2335	1168
	M 4	4.0	0.70	32	2545	1782	28	2230	1561	22	1750	1225
	M 5	5.0	0.80	32	2035	1628	28	1785	1428	22	1400	1120
	M 6	6.0	1.00	32	1700	1700	28	1485	1485	22	1165	1165
	M 8	8.0	1.25	32	1275	1594	28	1115	1394	22	875	1094
	M10	10.0	1.50	32	1020	1530	28	890	1335	22	700	1050
	M12	12.0	1.75	32	850	1488	28	745	1304	22	585	1024
Acciaio 500 - 850 N/mm^2	M16	16.0	2.00	32	635	1270	28	555	1110	22	440	880
	M20	20.0	2.50	32	510	1275	28	445	1113	22	350	875
	M24	24.0	3.00	32	425	1275	28	370	1110	22	290	870
Acciaio 850 - 1100 N/mm^2	M 2	2.0	0.40	20	3185	1274	16	2545	1018	10	1590	636
	M 2.5	2.5	0.45	20	2545	1145	16	2035	916	10	1275	574
	M 3	3.0	0.50	20	2120	1060	16	1700	850	10	1060	530
	M 4	4.0	0.70	20	1590	1113	16	1275	893	10	795	557
	M 5	5.0	0.80	20	1275	1020	16	1020	816	10	635	508
	M 6	6.0	1.00	20	1060	1060	16	850	850	10	530	530
	M 8	8.0	1.25	20	795	994	16	635	794	10	400	500
	M10	10.0	1.50	20	635	953	16	510	765	10	320	480
	M12	12.0	1.75	20	530	928	16	425	744	10	265	464
Acciaio 850 - 1100 N/mm^2	M16	16.0	2.00	20	400	800	16	320	640	10	200	400
	M20	20.0	2.50	20	320	800	16	255	638	10	160	400
	M24	24.0	3.00	20	265	795	16	210	630	10	135	405

M | ISO 3 (6G)

60° | HSS PM/F

DIN 371/376

X · P Form C



Rm < 850 | **Rm 850-1100**

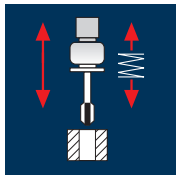
Esempio: **N° Ordine** — Articolo **EH0572** Codice-ø **034**

Ø Code	d	P	L	l	l1	l3	d1	a	⌂	Δ	TiCN EH0572 €
034	M 2	0.40	45	8	–	10.5	2.8	2.1	3	+0.015	53.40
040	M 2.5	0.45	50	9	–	13.0	2.8	2.1	3	+0.015	47.40
044	M 3	0.50	56	5	–	16.0	3.5	2.7	3	+0.016	43.80
058	M 4	0.70	63	7	–	19.0	4.5	3.4	3	+0.019	43.80
084	M 5	0.80	70	8	–	23.0	6.0	4.9	3	+0.020	44.70
088	M 6	1.00	80	10	–	28.0	6.0	4.9	3	+0.024	46.70
160	M 8	1.25	90	13	35.0	33.0	8.0	6.2	3	+0.025	56.30
174	M10	1.50	100	15	39.0	37.0	10.0	8.0	4	+0.028	67.00

Esempio: **N° Ordine** — Articolo **EH0573** Codice-ø **240**

Ø Code	d	P	L	l	l1	l3	d1	a	⌂	Δ	TiCN EH0573 €
240	M12	1.75	110	18	50.0	48.0	9.0	7.0	4	+0.032	85.00
246	M16	2.00	110	20	58.0	56.0	12.0	9.0	4	+0.034	123.00
314	M20	2.50	140	25	72.0	70.0	16.0	12.0	4	+0.036	184.00
320	M24	3.00	160	30	74.0	72.0	18.0	14.5	5	+0.042	256.00

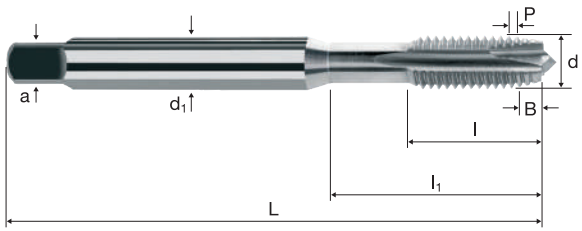
Application



Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Acciaio < 500 N/mm²	M 2	2.0	0.40	14	2230	892	12	1910	764	10	1590	636
	M 2.5	2.5	0.45	14	1785	803	12	1530	689	10	1275	574
	M 3	3.0	0.50	18	1910	955	15	1590	795	12	1275	638
	M 4	4.0	0.70	18	1430	1001	15	1195	837	12	955	669
	M 5	5.0	0.80	18	1145	916	15	955	764	12	765	612
	M 6	6.0	1.00	18	955	955	15	795	795	12	635	635
	M 8	8.0	1.25	18	715	894	15	595	744	12	475	594
	M10	10.0	1.50	18	575	863	15	475	713	12	380	570
Acciaio 500 - 850 N/mm²	M 2	2.0	0.40	12	1910	764	8	1275	510	6	955	382
	M 2.5	2.5	0.45	12	1530	689	8	1020	459	6	765	344
	M 3	3.0	0.50	15	1590	795	10	1060	530	8	850	425
	M 4	4.0	0.70	15	1195	837	10	795	557	8	635	445
	M 5	5.0	0.80	15	955	764	10	635	508	8	510	408
	M 6	6.0	1.00	15	795	795	10	530	530	8	425	425
	M 8	8.0	1.25	15	595	744	10	400	500	8	320	400
	M10	10.0	1.50	15	475	713	10	320	480	8	255	383
Alluminio malleabile Si < 6% temprato	M 2	2.0	0.40	12	1910	764	10	1590	636	8	1275	510
	M 2.5	2.5	0.45	12	1530	689	10	1275	574	8	1020	459
	M 3	3.0	0.50	15	1590	795	12	1275	638	10	1060	530
	M 4	4.0	0.70	15	1195	837	12	955	669	10	795	557
	M 5	5.0	0.80	15	955	764	12	765	612	10	635	508
	M 6	6.0	1.00	15	795	795	12	635	635	10	530	530
	M 8	8.0	1.25	15	595	744	12	475	594	10	400	500
	M10	10.0	1.50	15	475	713	12	380	570	10	320	480
Acciaio inossidabile [Cr-Ni/1.4301]	M 2	2.0	0.40	4	635	254	3	475	190	2	320	128
	M 2.5	2.5	0.45	4	510	230	3	380	171	2	255	115
	M 3	3.0	0.50	5	530	265	4	425	213	3	320	160
	M 4	4.0	0.70	5	400	280	4	320	224	3	240	168
	M 5	5.0	0.80	5	320	256	4	255	204	3	190	152
	M 6	6.0	1.00	5	265	265	4	210	210	3	160	160
	M 8	8.0	1.25	5	200	250	4	160	200	3	120	150
	M10	10.0	1.50	5	160	240	4	125	188	3	95	143

Maschi

M	**ISO 1 (4H)**
60°	**HSS-E Co5**
DIN 371	
	Form B



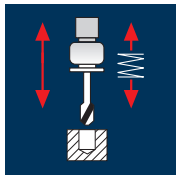
Rm < 850							**Inox** Stainless		**GG(G) Aluminium Copper**

Esempio: **N° Ordine** — Articolo **E10110** Codice-ø **034**

E10110

Ø Code	d	P	L	l	l1	d1	a		Δ	€
034	**M 2**	**0.40**	45	8	–	2.8	2.1	2	–0.014	29.50
040	**M 2.5**	**0.45**	50	9	–	2.8	2.1	2	–0.015	25.70
044	**M 3**	**0.50**	56	12	18.0	3.5	2.7	3	–0.016	24.30
058	**M 4**	**0.70**	63	13	21.0	4.5	3.4	3	–0.019	24.30
084	**M 5**	**0.80**	70	15	25.0	6.0	4.9	3	–0.020	24.70
088	**M 6**	**1.00**	80	17	30.0	6.0	4.9	3	–0.024	25.80
160	**M 8**	**1.25**	90	20	35.0	8.0	6.2	3	–0.025	31.10
174	**M10**	**1.50**	100	22	39.0	10.0	8.0	3	–0.028	36.00

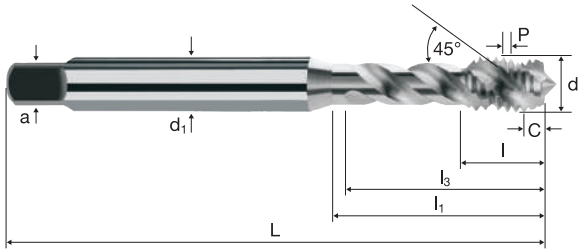
Application



Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio < 500 N/mm²	M 2	2.0	0.40	11	1750	700	10	1590	636	8	1275	510
	M 2.5	2.5	0.45	11	1400	630	10	1275	574	8	1020	459
	M 3	3.0	0.50	14	1485	743	12	1275	638	10	1060	530
	M 4	4.0	0.70	14	1115	781	12	955	669	10	795	557
	M 5	5.0	0.80	14	890	712	12	765	612	10	635	508
	M 6	6.0	1.00	14	745	745	12	635	635	10	530	530
	M 8	8.0	1.25	14	555	694	12	475	594	10	400	500
	M10	10.0	1.50	14	445	668	12	380	570	10	320	480
Acciaio 500 - 850 N/mm²	M 2	2.0	0.40	7	1115	446	6	955	382	5	795	318
	M 2.5	2.5	0.45	7	890	401	6	765	344	5	635	286
	M 3	3.0	0.50	9	955	478	8	850	425	7	745	373
	M 4	4.0	0.70	9	715	500	8	635	445	7	555	389
	M 5	5.0	0.80	9	575	460	8	510	408	7	445	356
	M 6	6.0	1.00	9	475	475	8	425	425	7	370	370
	M 8	8.0	1.25	9	360	450	8	320	400	7	280	350
	M10	10.0	1.50	9	285	428	8	255	383	7	225	338
Alluminio malleabile Si < 6% temprato	M 2	2.0	0.40	8	1275	510	6	955	382	5	795	318
	M 2.5	2.5	0.45	8	1020	459	6	765	344	5	635	286
	M 3	3.0	0.50	10	1060	530	8	850	425	6	635	318
	M 4	4.0	0.70	10	795	557	8	635	445	6	475	333
	M 5	5.0	0.80	10	635	508	8	510	408	6	380	304
	M 6	6.0	1.00	10	530	530	8	425	425	6	320	320
	M 8	8.0	1.25	10	400	500	8	320	400	6	240	300
	M10	10.0	1.50	10	320	480	8	255	383	6	190	285
Acciaio inossidabile [Cr-Ni/1.4301]	M 2	2.0	0.40	3	475	190	2	320	128	2	320	128
	M 2.5	2.5	0.45	3	380	171	2	255	115	2	255	115
	M 3	3.0	0.50	4	425	213	3	320	160	3	320	160
	M 4	4.0	0.70	4	320	224	3	240	168	3	240	168
	M 5	5.0	0.80	4	255	204	3	190	152	3	190	152
	M 6	6.0	1.00	4	210	210	3	160	160	3	160	160
	M 8	8.0	1.25	4	160	200	3	120	150	3	120	150
	M10	10.0	1.50	4	125	188	3	95	143	3	95	143

Maschi

M	**ISO 1 (4H)**
60°	**HSS-E Co5**
DIN 371	
	X · P Form C



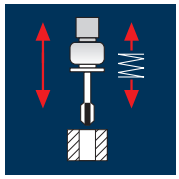
Rm < 850							**Inox** Stainless		**GG(G) Aluminium Copper**

Esempio: **N° Ordine** — Articolo **E10214** Codice-ø **034**

E10214

Ø Code	d	P	L	l	l_1	l_3	d_1	a	⬡	Δ	€
034	**M 2**	**0.40**	45	8.0	–	10.5	2.8	2.1	3	–0.014	33.40
040	**M 2.5**	**0.45**	50	9.0	–	13.0	2.8	2.1	3	–0.015	29.60
044	**M 3**	**0.50**	56	4.0	18.0	16.0	3.5	2.7	3	–0.016	27.40
058	**M 4**	**0.70**	63	5.6	21.0	19.0	4.5	3.4	3	–0.019	27.40
084	**M 5**	**0.80**	70	6.4	25.0	23.0	6.0	4.9	3	–0.020	27.90
088	**M 6**	**1.00**	80	8.0	30.0	28.0	6.0	4.9	3	–0.024	29.20
160	**M 8**	**1.25**	90	10.0	35.0	33.0	8.0	6.2	3	–0.025	35.20
174	**M10**	**1.50**	100	12.0	39.0	37.0	10.0	8.0	3	–0.028	41.70

Application



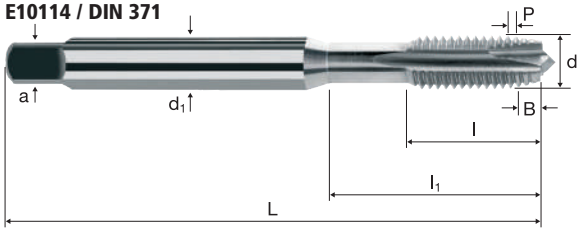
Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Acciaio < 500 N/mm²	M 2	2.0	0.40	14	2230	892	12	1910	764	10	1590	636
	M 2.5	2.5	0.45	14	1785	803	12	1530	689	10	1275	574
	M 3	3.0	0.50	18	1910	955	15	1590	795	12	1275	638
	M 4	4.0	0.70	18	1430	1001	15	1195	837	12	955	669
	M 5	5.0	0.80	18	1145	916	15	955	764	12	765	612
	M 6	6.0	1.00	18	955	955	15	795	795	12	635	635
	M 8	8.0	1.25	18	715	894	15	595	744	12	475	594
	M10	10.0	1.50	18	575	863	15	475	713	12	380	570
	M12	12.0	1.75	18	475	831	15	400	700	12	320	560
Acciaio < 500 N/mm²	M16	16.0	2.00	18	360	720	15	300	600	12	240	480
	M20	20.0	2.50	18	285	713	15	240	600	12	190	475
	M24	24.0	3.00	18	240	720	15	200	600	12	160	480
Acciaio 500 - 850 N/mm²	M 2	2.0	0.40	12	1910	764	8	1275	510	6	955	382
	M 2.5	2.5	0.45	12	1530	689	8	1020	459	6	765	344
	M 3	3.0	0.50	15	1590	795	10	1060	530	8	850	425
	M 4	4.0	0.70	15	1195	837	10	795	557	8	635	445
	M 5	5.0	0.80	15	955	764	10	635	508	8	510	408
	M 6	6.0	1.00	15	795	795	10	530	530	8	425	425
	M 8	8.0	1.25	15	595	744	10	400	500	8	320	400
	M10	10.0	1.50	15	475	713	10	320	480	8	255	383
	M12	12.0	1.75	15	400	700	10	265	464	8	210	368
Acciaio 500 - 850 N/mm²	M16	16.0	2.00	15	300	600	10	200	400	8	160	320
	M20	20.0	2.50	15	240	600	10	160	400	8	125	313
	M24	24.0	3.00	15	200	600	10	135	405	8	105	315

Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Alluminio malleabile Si < 6% temprato	M 2	2.0	0.40	12	1910	764	10	1590	636	8	1275	510
	M 2.5	2.5	0.45	12	1530	689	10	1275	574	8	1020	459
	M 3	3.0	0.50	15	1590	795	12	1275	638	10	1060	530
	M 4	4.0	0.70	15	1195	837	12	955	669	10	795	557
	M 5	5.0	0.80	15	955	764	12	765	612	10	635	508
	M 6	6.0	1.00	15	795	795	12	635	635	10	530	530
	M 8	8.0	1.25	15	595	744	12	475	594	10	400	500
	M10	10.0	1.50	15	475	713	12	380	570	10	320	480
	M12	12.0	1.75	15	400	700	12	320	560	10	265	464
Alluminio malleabile Si < 6% temprato	M16	16.0	2.00	15	300	600	12	240	480	10	200	400
	M20	20.0	2.50	15	240	600	12	190	475	10	160	400
	M24	24.0	3.00	15	200	600	12	160	480	10	135	405
Acciaio inossidabile [Cr-Ni/1.4301]	M 2	2.0	0.40	4	635	254	3	475	190	2	320	128
	M 2.5	2.5	0.45	4	510	230	3	380	171	2	255	115
	M 3	3.0	0.50	5	530	265	4	425	213	3	320	160
	M 4	4.0	0.70	5	400	280	4	320	224	3	240	168
	M 5	5.0	0.80	5	320	256	4	255	204	3	190	152
	M 6	6.0	1.00	5	265	265	4	210	210	3	160	160
	M 8	8.0	1.25	5	200	250	4	160	200	3	120	150
	M10	10.0	1.50	5	160	240	4	125	188	3	95	143
	M12	12.0	1.75	5	135	236	4	105	184	3	80	140
Acciaio inossidabile [Cr-Ni/1.4301]	M16	16.0	2.00	5	100	200	4	80	160	3	60	120
	M20	20.0	2.50	5	80	200	4	65	163	3	50	125
	M24	24.0	3.00	5	65	195	4	55	165	3	40	120

Maschi

M	7G
60°	HSS-E Co5
DIN 371/376	
	Form B

E10114 / DIN 371



E10115 / DIN 376

Rm < 850							Inox Stainless		GG(G) Aluminium Copper

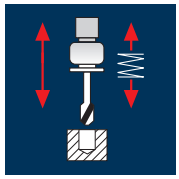
Esempio: N° Ordine — Articolo: **E10114** — Codice-ø: **034**

Ø Code	d	P	L	l	l1	d1	a	⌀	Δ	€
										E10114
034	M 2	0.40	45	8	–	2.8	2.1	2	+0.030	29.50
040	M 2.5	0.45	50	9	–	2.8	2.1	2	+0.030	25.70
044	M 3	0.50	56	12	18.0	3.5	2.7	3	+0.032	24.30
058	M 4	0.70	63	13	21.0	4.5	3.4	3	+0.038	24.30
084	M 5	0.80	70	15	25.0	6.0	4.9	3	+0.040	24.70
088	M 6	1.00	80	17	30.0	6.0	4.9	3	+0.048	25.80
160	M 8	1.25	90	20	35.0	8.0	6.2	3	+0.050	31.10
174	M10	1.50	100	22	39.0	10.0	8.0	3	+0.056	36.00

Esempio: N° Ordine — Articolo: **E10115** — Codice-ø: **240**

Ø Code	d	P	L	l	l1	d1	a	⌀	Δ	€
										E10115
240	M12	1.75	110	24	40.0	9.0	7.0	3	+0.064	45.00
246	M16	2.00	110	27	40.0	12.0	9.0	3	+0.068	67.00
314	M20	2.50	140	32	50.0	16.0	12.0	4	+0.072	105.00
320	M24	3.00	160	34	60.0	18.0	14.5	4	+0.085	146.00

Application



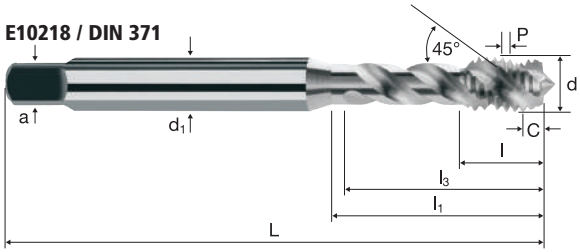
Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio < 500 N/mm²	M 2	2.0	0.40	11	1750	700	10	1590	636	8	1275	510
	M 2.5	2.5	0.45	11	1400	630	10	1275	574	8	1020	459
	M 3	3.0	0.50	14	1485	743	12	1275	638	10	1060	530
	M 4	4.0	0.70	14	1115	781	12	955	669	10	795	557
	M 5	5.0	0.80	14	890	712	12	765	612	10	635	508
	M 6	6.0	1.00	14	745	745	12	635	635	10	530	530
	M 8	8.0	1.25	14	555	694	12	475	594	10	400	500
	M10	10.0	1.50	14	445	668	12	380	570	10	320	480
	M12	12.0	1.75	14	370	648	12	320	560	10	265	464
Acciaio < 500 N/mm²	M16	16.0	2.00	14	280	560	12	240	480	10	200	400
	M20	20.0	2.50	14	225	563	12	190	475	10	160	400
	M24	24.0	3.00	14	185	555	12	160	480	10	135	405
Acciaio 500 - 850 N/mm²	M 2	2.0	0.40	7	1115	446	6	955	382	5	795	318
	M 2.5	2.5	0.45	7	890	401	6	765	344	5	635	286
	M 3	3.0	0.50	9	955	478	8	850	425	7	745	373
	M 4	4.0	0.70	9	715	500	8	635	445	7	555	389
	M 5	5.0	0.80	9	575	460	8	510	408	7	445	356
	M 6	6.0	1.00	9	475	475	8	425	425	7	370	370
	M 8	8.0	1.25	9	360	450	8	320	400	7	280	350
	M10	10.0	1.50	9	285	428	8	255	383	7	225	338
	M12	12.0	1.75	9	240	420	8	210	368	7	185	324
Acciaio 500 - 850 N/mm²	M16	16.0	2.00	9	180	360	8	160	320	7	140	280
	M20	20.0	2.50	9	145	363	8	125	313	7	110	275
	M24	24.0	3.00	9	120	360	8	105	315	7	95	285

Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Alluminio malleabile Si < 6% temprato	M 2	2.0	0.40	8	1275	510	6	955	382	5	795	318
	M 2.5	2.5	0.45	8	1020	459	6	765	344	5	635	286
	M 3	3.0	0.50	10	1060	530	8	850	425	6	635	318
	M 4	4.0	0.70	10	795	557	8	635	445	6	475	333
	M 5	5.0	0.80	10	635	508	8	510	408	6	380	304
	M 6	6.0	1.00	10	530	530	8	425	425	6	320	320
	M 8	8.0	1.25	10	400	500	8	320	400	6	240	300
	M10	10.0	1.50	10	320	480	8	255	383	6	190	285
	M12	12.0	1.75	10	265	464	8	210	368	6	160	280
Alluminio malleabile Si < 6% temprato	M16	16.0	2.00	10	200	400	8	160	320	6	120	240
	M20	20.0	2.50	10	160	400	8	125	313	6	95	238
	M24	24.0	3.00	10	135	405	8	105	315	6	80	240
Acciaio inossidabile [Cr-Ni/1.4301]	M 2	2.0	0.40	3	475	190	2	320	128	2	320	128
	M 2.5	2.5	0.45	3	380	171	2	255	115	2	255	115
	M 3	3.0	0.50	4	425	213	3	320	160	3	320	160
	M 4	4.0	0.70	4	320	224	3	240	168	3	240	168
	M 5	5.0	0.80	4	255	204	3	190	152	3	190	152
	M 6	6.0	1.00	4	210	210	3	160	160	3	160	160
	M 8	8.0	1.25	4	160	200	3	120	150	3	120	150
	M10	10.0	1.50	4	125	188	3	95	143	3	95	143
	M12	12.0	1.75	4	105	184	3	80	140	3	80	140
Acciaio inossidabile [Cr-Ni/1.4301]	M16	16.0	2.00	4	80	160	3	60	120	3	60	120
	M20	20.0	2.50	4	65	163	3	50	125	3	50	125
	M24	24.0	3.00	4	55	165	3	40	120	3	40	120

Maschi

M	7G
60°	HSS-E Co5
DIN 371/376	
	X · P Form C

E10218 / DIN 371



E10219 / DIN 376

M

Rm < 850							Inox Stainless		GG(G) Aluminium Copper

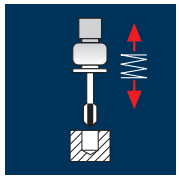
Esempio: N° Ordine — Articolo: E10218 — Codice-ø: 034

Ø Code	d	P	L	l	l1	l3	d1	a	⌀	Δ	E10218 €
034	M 2	0.40	45	8.0	–	10.5	2.8	2.1	3	+0.030	33.40
040	M 2.5	0.45	50	9.0	–	13.0	2.8	2.1	3	+0.030	29.60
044	M 3	0.50	56	4.0	18.0	16.0	3.5	2.7	3	+0.032	27.40
058	M 4	0.70	63	5.6	21.0	19.0	4.5	3.4	3	+0.038	27.40
084	M 5	0.80	70	6.4	25.0	23.0	6.0	4.9	3	+0.040	27.90
088	M 6	1.00	80	8.0	30.0	28.0	6.0	4.9	3	+0.048	29.20
160	M 8	1.25	90	10.0	35.0	33.0	8.0	6.2	3	+0.050	35.20
174	M10	1.50	100	12.0	39.0	37.0	10.0	8.0	3	+0.056	41.70

Esempio: N° Ordine — Articolo: E10219 — Codice-ø: 240

Ø Code	d	P	L	l	l1	l3	d1	a	⌀	Δ	E10219 €
240	M12	1.75	110	14.0	50.0	48.0	9.0	7.0	3	+0.064	52.90
246	M16	2.00	110	16.0	58.0	56.0	12.0	9.0	4	+0.068	77.00
314	M20	2.50	140	20.0	72.0	70.0	16.0	12.0	4	+0.072	115.00
320	M24	3.00	160	24.0	74.0	72.0	18.0	14.5	4	+0.085	160.00

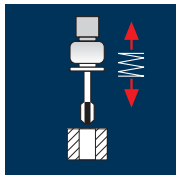
Application



Materiale

MJ	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]
Leg. a base di nichel non indurite								
MJ 2	2.0	0.40	3	475	190	2	320	128
MJ 2.5	2.5	0.45	3	380	171	2	255	115
MJ 3	3.0	0.50	3	320	160	2	210	105
MJ 4	4.0	0.70	3	240	168	2	160	112
MJ 5	5.0	0.80	3	190	152	2	125	100
MJ 6	6.0	1.00	3	160	160	2	105	105
MJ 8	8.0	1.00	3	120	120	2	80	80
MJ 8	8.0	1.25	3	120	150	2	80	100
MJ 10	10.0	1.25	3	95	119	2	65	81
Leg. a base di nichel non indurite								
MJ 10	10.0	1.50	3	95	143	2	65	98
Leg. a base di nichel indurite								
MJ 2	2.0	0.40	2	320	128	2	320	128
MJ 2.5	2.5	0.45	2	255	115	2	255	115
MJ 3	3.0	0.50	2	210	105	2	210	105
MJ 4	4.0	0.70	2	160	112	2	160	112
MJ 5	5.0	0.80	2	125	100	2	125	100
MJ 6	6.0	1.00	2	105	105	2	105	105
MJ 8	8.0	1.00	2	80	80	2	80	80
MJ 8	8.0	1.25	2	80	100	2	80	100
MJ 10	10.0	1.25	2	65	81	2	65	81
Leg. a base di nichel indurite								
MJ 10	10.0	1.50	2	65	98	2	65	98

Application



Materiale

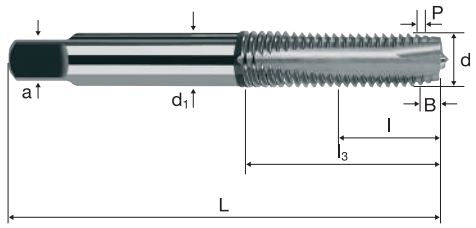
MJ	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]
Leg. a base di nichel non indurite								
MJ 2	2.0	0.40	3	475	190	2	320	128
MJ 2.5	2.5	0.45	3	380	171	2	255	115
MJ 3	3.0	0.50	3	320	160	2	210	105
MJ 4	4.0	0.70	3	240	168	2	160	112
MJ 5	5.0	0.80	3	190	152	2	125	100
MJ 6	6.0	1.00	3	160	160	2	105	105
MJ 8	8.0	1.00	3	120	120	2	80	80
MJ 8	8.0	1.25	3	120	150	2	80	100
MJ 10	10.0	1.25	3	95	119	2	65	81
Leg. a base di nichel non indurite								
MJ 10	10.0	1.50	3	95	143	2	65	98
Leg. a base di nichel indurite								
MJ 2	2.0	0.40	2	320	128	2	320	128
MJ 2.5	2.5	0.45	2	255	115	2	255	115
MJ 3	3.0	0.50	2	210	105	2	210	105
MJ 4	4.0	0.70	2	160	112	2	160	112
MJ 5	5.0	0.80	2	125	100	2	125	100
MJ 6	6.0	1.00	2	105	105	2	105	105
MJ 8	8.0	1.00	2	80	80	2	80	80
MJ 8	8.0	1.25	2	80	100	2	80	100
MJ 10	10.0	1.25	2	65	81	2	65	81
Leg. a base di nichel indurite								
MJ 10	10.0	1.50	2	65	98	2	65	98

Maschi

Ni

MJ | 4H

HSS PM/F



Form B

M

Nickel-Alloys

Esempio: **N° Ordine** — Articolo **E0599** — Codice-ø **034**

Ø Code	d	P	L	l	l_1	l_3	d_1	a			€
											E0599
034	**MJ 2**	**0.40**	41	8	–	11	2.8	2.1	3	1.70	38.70
040	**MJ 2.5**	**0.45**	44	9	–	13	2.8	2.1	3	2.20 *	33.70
044	**MJ 3**	**0.50**	48	11	–	16	3.5	2.7	3	2.65	31.90
058	**MJ 4**	**0.70**	53	13	–	19	4.5	3.4	3	3.50 *	31.90
084	**MJ 5**	**0.80**	58	15	–	22	6.0	4.9	3	4.40	32.50
088	**MJ 6**	**1.00**	66	17	–	28	6.0	4.9	3	5.20	34.00
090	**MJ 8**	**1.00**	72	20	–	34	8.0	6.2	3	7.20	34.00
160	**MJ 8**	**1.25**	72	20	–	34	8.0	6.2	3	7.00 *	40.90
162	**MJ10**	**1.25**	80	22	–	37	10.0	8.0	3	9.00 *	40.90
174	**MJ10**	**1.50**	80	22	–	37	10.0	8.0	3	8.70	47.40

* La dimensione data è fuori norma

passion
for precision
fraisa

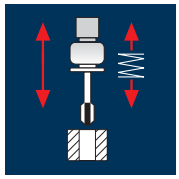
Filettatura metrica fina MF

Tolleranza ISO 2 (6H)

N° EH1257 / EH1258	x-tap	11	HSS PM/F		**Rm** 850-1100		311
N° EH1260 / EH1261	x-tap	11	HSS PM/F		**Rm** 850-1100		315
N° EH6910 / EH6911 ToolSchool		60	HM MG10		**HRC** 48- >60		319
N° ET1240 / ET1241	Inotap	In	HSS PM/F		**Inox** Stainless		321
N° ET1260 / ET1261	x-tap	In	HSS PM/F		**Inox** Stainless		325
N° EH1270 / EH1271 ToolSchool		GG	HSS PM/F		**GG(G)** Cast iron		329
N° EH1229	polytap-R	R	HSS PM/F		**Rm** <850-1100	**Inox** Stainless	333

MF

Application



Materiale	MF	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Acciaio 500 - 850 N/mm^2	M 2.5	2.5	0.35	25	3185	1115	20	2545	891	15	1910	669
	M 3	3.0	0.35	25	2655	929	20	2120	742	15	1590	557
	M 3.5	3.5	0.35	25	2275	796	20	1820	637	15	1365	478
	M 4	4.0	0.50	25	1990	995	20	1590	795	15	1195	598
	M 5	5.0	0.50	25	1590	795	20	1275	638	15	955	478
	M 6	6.0	0.50	25	1325	663	20	1060	530	15	795	398
	M 8	8.0	0.50	25	995	498	20	795	398	15	595	298
	M10	10.0	0.50	25	795	398	20	635	318	15	475	238
	M 6	6.0	0.75	25	1325	994	20	1060	795	15	795	596
Acciaio 500 - 850 N/mm^2	M 7	7.0	0.75	25	1135	851	20	910	683	15	680	510
	M 8	8.0	0.75	25	995	746	20	795	596	15	595	446
	M10	10.0	0.75	25	795	596	20	635	476	15	475	356
	M 8	8.0	1.00	25	995	995	20	795	795	15	595	595
	M 9	9.0	1.00	25	885	885	20	705	705	15	530	530
	M10	10.0	1.00	25	795	795	20	635	635	15	475	475
	M10	10.0	1.25	25	795	994	20	635	794	15	475	594
Acciaio 850 - 1100 N/mm^2	M 2.5	2.5	0.35	20	2545	891	15	1910	669	12	1530	536
	M 3	3.0	0.35	20	2120	742	15	1590	557	12	1275	446
	M 3.5	3.5	0.35	20	1820	637	15	1365	478	12	1090	382
	M 4	4.0	0.50	20	1590	795	15	1195	598	12	955	478
	M 5	5.0	0.50	20	1275	638	15	955	478	12	765	383
	M 6	6.0	0.50	20	1060	530	15	795	398	12	635	318
	M 8	8.0	0.50	20	795	398	15	595	298	12	475	238
	M10	10.0	0.50	20	635	318	15	475	238	12	380	190
	M 6	6.0	0.75	20	1060	795	15	795	596	12	635	476
Acciaio 850 - 1100 N/mm^2	M 7	7.0	0.75	20	910	683	15	680	510	12	545	409
	M 8	8.0	0.75	20	795	596	15	595	446	12	475	356
	M10	10.0	0.75	20	635	476	15	475	356	12	380	285
	M 8	8.0	1.00	20	795	795	15	595	595	12	475	475
	M 9	9.0	1.00	20	705	705	15	530	530	12	425	425
	M10	10.0	1.00	20	635	635	15	475	475	12	380	380
	M10	10.0	1.25	20	635	794	15	475	594	12	380	475

Materiale	MF	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio 1100 - 1300 N/mm^2	M 2.5	2.5	0.35	7	890	312	4	510	179
	M 3	3.0	0.35	7	745	261	4	425	149
	M 3.5	3.5	0.35	7	635	222	4	365	128
	M 4	4.0	0.50	7	555	278	4	320	160
	M 5	5.0	0.50	7	445	223	4	255	128
	M 6	6.0	0.50	7	370	185	4	210	105
	M 8	8.0	0.50	7	280	140	4	160	80
	M10	10.0	0.50	7	225	113	4	125	63
	M 6	6.0	0.75	7	370	278	4	210	158
Acciaio 1100 - 1300 N/mm^2	M 7	7.0	0.75	7	320	240	4	180	135
	M 8	8.0	0.75	7	280	210	4	160	120
	M10	10.0	0.75	7	225	169	4	125	94
	M 8	8.0	1.00	7	280	280	4	160	160
	M 9	9.0	1.00	7	250	250	4	140	140
	M10	10.0	1.00	7	225	225	4	125	125
	M10	10.0	1.25	7	225	281	4	125	156

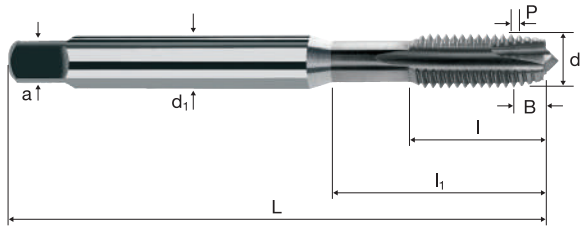
Maschi x-tap

MF | ISO 2 (6H)

60° | HSS PM/F

DIN 371

X · P Form B



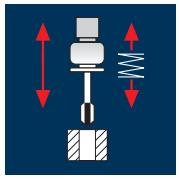
Rm < 850 | **Rm 850-1100** | Rm 1100-1300

Esempio: **N° Ordine** — Articolo **EH1257** Codice-ø **029**

Ø Code	d	P	L	l	l1	d1	a			TiCN EH1257 €
029	M 2.5	0.35	50	9	–	2.8	2.1	2	2.15	47.20
031	M 3	0.35	56	12	18	3.5	2.7	3	2.65	38.90
032	M 3.5	0.35	56	12	20	4.0	3.0	3	3.15	38.90
046	M 4	0.50	63	13	21	4.5	3.4	3	3.50	38.90
048	M 5	0.50	70	15	25	6.0	4.9	3	4.50	39.60
050	M 6	0.50	80	17	30	6.0	4.9	3	5.50	41.30
052	M 8	0.50	90	20	35	8.0	6.2	3	7.50	49.80
054	M10	0.50	100	22	39	10.0	8.0	3	9.50	57.70
064	M 6	0.75	80	17	30	6.0	4.9	3	5.20	41.30
065	M 7	0.75	80	17	30	7.0	5.5	3	6.20	45.50
066	M 8	0.75	90	20	35	8.0	6.2	3	7.20	49.80
068	M10	0.75	100	22	39	10.0	8.0	3	9.20	57.70
090	M 8	1.00	90	20	35	8.0	6.2	3	7.00	49.80
091	M 9	1.00	90	20	35	9.0	7.0	3	8.00	53.80
092	M10	1.00	100	22	39	10.0	8.0	3	9.00	57.70
162	M10	1.25	100	22	39	10.0	8.0	3	8.80	57.70

Dimensioni superiori vedere articolo EH1258, pagina 313

Application



Materiale	MF	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Acciaio 500 - 850 N/mm^2	M12	12.0	0.75	25	665	499	20	530	398	15	400	300
	M14	14.0	0.75	25	570	428	20	455	341	15	340	255
	M16	16.0	0.75	25	495	371	20	400	300	15	300	225
	M12	12.0	1.00	25	665	665	20	530	530	15	400	400
	M13	13.0	1.00	25	610	610	20	490	490	15	365	365
	M14	14.0	1.00	25	570	570	20	455	455	15	340	340
	M16	16.0	1.00	25	495	495	20	400	400	15	300	300
	M18	18.0	1.00	25	440	440	20	355	355	15	265	265
	M20	20.0	1.00	25	400	400	20	320	320	15	240	240
Acciaio 500 - 850 N/mm^2	M12	12.0	1.25	25	665	831	20	530	663	15	400	500
	M14	14.0	1.25	25	570	713	20	455	569	15	340	425
	M16	16.0	1.25	25	495	619	20	400	500	15	300	375
	M12	12.0	1.50	25	665	998	20	530	795	15	400	600
	M14	14.0	1.50	25	570	855	20	455	683	15	340	510
	M16	16.0	1.50	25	495	743	20	400	600	15	300	450
	M18	18.0	1.50	25	440	660	20	355	533	15	265	398
	M20	20.0	1.50	25	400	600	20	320	480	15	240	360
	M24	24.0	1.50	25	330	495	20	265	398	15	200	300
Acciaio 850 - 1100 N/mm^2	M12	12.0	0.75	20	530	398	15	400	300	12	320	240
	M14	14.0	0.75	20	455	341	15	340	255	12	275	206
	M16	16.0	0.75	20	400	300	15	300	225	12	240	180
	M12	12.0	1.00	20	530	530	15	400	400	12	320	320
	M13	13.0	1.00	20	490	490	15	365	365	12	295	295
	M14	14.0	1.00	20	455	455	15	340	340	12	275	275
	M16	16.0	1.00	20	400	400	15	300	300	12	240	240
	M18	18.0	1.00	20	355	355	15	265	265	12	210	210
	M20	20.0	1.00	20	320	320	15	240	240	12	190	190
Acciaio 850 - 1100 N/mm^2	M12	12.0	1.25	20	530	663	15	400	500	12	320	400
	M14	14.0	1.25	20	455	569	15	340	425	12	275	344
	M16	16.0	1.25	20	400	500	15	300	375	12	240	300
	M12	12.0	1.50	20	530	795	15	400	600	12	320	480
	M14	14.0	1.50	20	455	683	15	340	510	12	275	413
	M16	16.0	1.50	20	400	600	15	300	450	12	240	360
	M18	18.0	1.50	20	355	533	15	265	398	12	210	315
	M20	20.0	1.50	20	320	480	15	240	360	12	190	285
	M24	24.0	1.50	20	265	398	15	200	300	12	160	240

Materiale	MF	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio 1100 - 1300 N/mm^2	M12	12.0	0.75	7	185	139	4	105	79
	M14	14.0	0.75	7	160	120	4	90	68
	M16	16.0	0.75	7	140	105	4	80	60
	M12	12.0	1.00	7	185	185	4	105	105
	M13	13.0	1.00	7	170	170	4	100	100
	M14	14.0	1.00	7	160	160	4	90	90
	M16	16.0	1.00	7	140	140	4	80	80
	M18	18.0	1.00	7	125	125	4	70	70
	M20	20.0	1.00	7	110	110	4	65	65
Acciaio 1100 - 1300 N/mm^2	M12	12.0	1.25	7	185	231	4	105	131
	M14	14.0	1.25	7	160	200	4	90	113
	M16	16.0	1.25	7	140	175	4	80	100
	M12	12.0	1.50	7	185	278	4	105	158
	M14	14.0	1.50	7	160	240	4	90	135
	M16	16.0	1.50	7	140	210	4	80	120
	M18	18.0	1.50	7	125	188	4	70	105
	M20	20.0	1.50	7	110	165	4	65	98
	M24	24.0	1.50	7	95	143	4	55	83

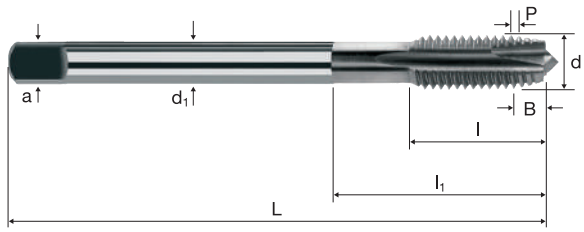
Maschi x-tap

MF | ISO 2 (6H)

60° | HSS PM/F

DIN 374

X · P Form B

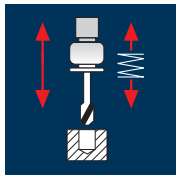


Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300

Esempio: **N° Ordine** — Articolo **EH1258** — Codice-ø **070**

Ø Code	d	P	L	l	l_1	d_1	a			TiCN EH1258 €
070	**M12**	**0.75**	100	18	39	9.0	7.0	3	11.30	72.00
072	**M14**	**0.75**	100	18	39	11.0	9.0	3	13.30	91.00
074	**M16**	**0.75**	100	18	39	12.0	9.0	3	15.30	108.00
094	**M12**	**1.00**	100	18	39	9.0	7.0	3	11.00	72.00
095	**M13**	**1.00**	100	18	39	11.0	7.0	3	12.00	83.00
096	**M14**	**1.00**	100	18	39	11.0	9.0	3	13.00	91.00
097	**M15**	**1.00**	100	18	39	12.0	9.0	3	14.00	100.00
098	**M16**	**1.00**	100	18	39	12.0	9.0	3	15.00	108.00
099	**M17**	**1.00**	100	18	39	12.0	9.0	4	16.00	122.00
100	**M18**	**1.00**	110	20	45	14.0	11.0	4	17.00	138.00
102	**M20**	**1.00**	125	20	50	16.0	12.0	4	19.00	167.00
164	**M12**	**1.25**	100	22	39	9.0	7.0	3	10.80	72.00
166	**M14**	**1.25**	100	22	39	11.0	9.0	3	12.80	91.00
168	**M16**	**1.25**	100	22	39	12.0	9.0	3	14.80	108.00
176	**M12**	**1.50**	100	22	39	9.0	7.0	3	10.50	72.00
178	**M14**	**1.50**	100	22	39	11.0	9.0	3	12.50	91.00
180	**M16**	**1.50**	100	22	39	12.0	9.0	3	14.50	108.00
182	**M18**	**1.50**	110	22	45	14.0	11.0	4	16.50	138.00
184	**M20**	**1.50**	125	25	50	16.0	12.0	4	18.50	167.00
186	**M22**	**1.50**	125	26	50	18.0	14.5	4	20.50	199.00
188	**M24**	**1.50**	140	27	52	18.0	14.5	4	22.50	233.00

Application



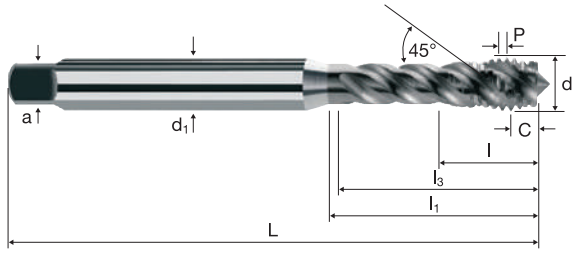
Materiale	MF	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio 500 - 850 N/mm^2	M 2.5	2.5	0.35	32	4075	1426	28	3565	1248	22	2800	980
	M 3	3.0	0.35	32	3395	1188	28	2970	1040	22	2335	817
	M 3.5	3.5	0.35	32	2910	1018	28	2545	891	22	2000	700
	M 4	4.0	0.50	32	2545	1273	28	2230	1115	22	1750	875
	M 5	5.0	0.50	32	2035	1018	28	1785	893	22	1400	700
	M 6	6.0	0.50	32	1700	850	28	1485	743	22	1165	583
	M 8	8.0	0.50	32	1275	638	28	1115	558	22	875	438
	M10	10.0	0.50	32	1020	510	28	890	445	22	700	350
	M 6	6.0	0.75	32	1700	1275	28	1485	1114	22	1165	874
Acciaio 500 - 850 N/mm^2	M 7	7.0	0.75	32	1455	1091	28	1275	956	22	1000	750
	M 8	8.0	0.75	32	1275	956	28	1115	836	22	875	656
	M10	10.0	0.75	32	1020	765	28	890	668	22	700	525
	M 8	8.0	1.00	32	1275	1275	28	1115	1115	22	875	875
	M 9	9.0	1.00	32	1130	1130	28	990	990	22	780	780
	M10	10.0	1.00	32	1020	1020	28	890	890	22	700	700
	M10	10.0	1.25	32	1020	1275	28	890	1113	22	700	875
Acciaio 850 - 1100 N/mm^2	M 2.5	2.5	0.35	20	2545	891	16	2035	712	10	1275	446
	M 3	3.0	0.35	20	2120	742	16	1700	595	10	1060	371
	M 3.5	3.5	0.35	20	1820	637	16	1455	509	10	910	319
	M 4	4.0	0.50	20	1590	795	16	1275	638	10	795	398
	M 5	5.0	0.50	20	1275	638	16	1020	510	10	635	318
	M 6	6.0	0.50	20	1060	530	16	850	425	10	530	265
	M 8	8.0	0.50	20	795	398	16	635	318	10	400	200
	M10	10.0	0.50	20	635	318	16	510	255	10	320	160
	M 6	6.0	0.75	20	1060	795	16	850	638	10	530	398
Acciaio 850 - 1100 N/mm^2	M 7	7.0	0.75	20	910	683	16	730	548	10	455	341
	M 8	8.0	0.75	20	795	596	16	635	476	10	400	300
	M10	10.0	0.75	20	635	476	16	510	383	10	320	240
	M 8	8.0	1.00	20	795	795	16	635	635	10	400	400
	M 9	9.0	1.00	20	705	705	16	565	565	10	355	355
	M10	10.0	1.00	20	635	635	16	510	510	10	320	320
	M10	10.0	1.25	20	635	794	16	510	638	10	320	400

MF | ISO 2 (6H)

60° | HSS PM/F

DIN 371

X · P Form C



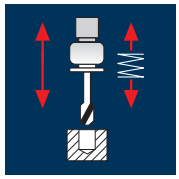
Rm < 850 | Rm 850-1100

Esempio: **N° Ordine** — Articolo **EH1260** Codice-ø **029**

Ø Code	d	P	L	l	l_1	l_3	d_1	a			TiCN EH1260 €
029	M 2.5	0.35	50	9	–	13	2.8	2.1	3	2.15	53.40
031	M 3	0.35	56	5	18	16	3.5	2.7	3	2.65	43.80
032	M 3.5	0.35	56	6	20	18	4.0	3.0	3	3.15	43.80
046	M 4	0.50	63	7	21	19	4.5	3.4	3	3.50	43.80
048	M 5	0.50	70	8	25	23	6.0	4.9	3	4.50	44.70
050	M 6	0.50	80	10	30	28	6.0	4.9	3	5.50	46.70
052	M 8	0.50	90	13	35	33	8.0	6.2	3	7.50	56.30
054	M10	0.50	100	15	39	37	10.0	8.0	4	9.50	67.00
064	M 6	0.75	80	10	30	28	6.0	4.9	3	5.20	46.70
065	M 7	0.75	80	10	30	28	7.0	5.5	3	6.20	50.80
066	M 8	0.75	90	13	35	33	8.0	6.2	3	7.20	56.30
068	M10	0.75	100	15	39	37	10.0	8.0	4	9.20	67.00
090	M 8	1.00	90	13	35	33	8.0	6.2	3	7.00	56.30
091	M 9	1.00	90	13	35	33	9.0	7.0	3	8.00	61.00
092	M10	1.00	100	15	39	37	10.0	8.0	4	9.00	67.00
162	M10	1.25	100	15	39	37	10.0	8.0	4	8.80	67.00

Dimensioni superiori vedere articolo EH1261, pagina 317

Application



Materiale

MF	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio 500 - 850 N/mm²											
M12	12.0	0.75	32	850	638	28	745	559	22	585	439
M14	14.0	0.75	32	730	548	28	635	476	22	500	375
M16	16.0	0.75	32	635	476	28	555	416	22	440	330
M12	12.0	1.00	32	850	850	28	745	745	22	585	585
M13	13.0	1.00	32	785	785	28	685	685	22	540	540
M14	14.0	1.00	32	730	730	28	635	635	22	500	500
M15	15.0	1.00	32	680	680	28	595	595	22	465	465
M16	16.0	1.00	32	635	635	28	555	555	22	440	440
M17	17.0	1.00	32	600	600	28	525	525	22	410	410
Acciaio 500 - 850 N/mm²											
M18	18.0	1.00	32	565	565	28	495	495	22	390	390
M20	20.0	1.00	32	510	510	28	445	445	22	350	350
M12	12.0	1.25	32	850	1063	28	745	931	22	585	731
M14	14.0	1.25	32	730	913	28	635	794	22	500	625
M16	16.0	1.25	32	635	794	28	555	694	22	440	550
M12	12.0	1.50	32	850	1275	28	745	1118	22	585	878
M14	14.0	1.50	32	730	1095	28	635	953	22	500	750
M16	16.0	1.50	32	635	953	28	555	833	22	440	660
M18	18.0	1.50	32	565	848	28	495	743	22	390	585
Acciaio 500 - 850 N/mm²											
M20	20.0	1.50	32	510	765	28	445	668	22	350	525
M22	22.0	1.50	32	465	698	28	405	608	22	320	480
M24	24.0	1.50	32	425	638	28	370	555	22	290	435

Materiale

MF	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio 850 - 1100 N/mm²											
M12	12.0	0.75	20	530	398	16	425	319	10	265	199
M14	14.0	0.75	20	455	341	16	365	274	10	225	169
M16	16.0	0.75	20	400	300	16	320	240	10	200	150
M12	12.0	1.00	20	530	530	16	425	425	10	265	265
M13	13.0	1.00	20	490	490	16	390	390	10	245	245
M14	14.0	1.00	20	455	455	16	365	365	10	225	225
M15	15.0	1.00	20	425	425	16	340	340	10	210	210
M16	16.0	1.00	20	400	400	16	320	320	10	200	200
M17	17.0	1.00	20	375	375	16	300	300	10	185	185
Acciaio 850 - 1100 N/mm²											
M18	18.0	1.00	20	355	355	16	285	285	10	175	175
M20	20.0	1.00	20	320	320	16	255	255	10	160	160
M12	12.0	1.25	20	530	663	16	425	531	10	265	331
M14	14.0	1.25	20	455	569	16	365	456	10	225	281
M16	16.0	1.25	20	400	500	16	320	400	10	200	250
M12	12.0	1.50	20	530	795	16	425	638	10	265	398
M14	14.0	1.50	20	455	683	16	365	548	10	225	338
M16	16.0	1.50	20	400	600	16	320	480	10	200	300
M18	18.0	1.50	20	355	533	16	285	428	10	175	263
Acciaio 850 - 1100 N/mm²											
M20	20.0	1.50	20	320	480	16	255	383	10	160	240
M22	22.0	1.50	20	290	435	16	230	345	10	145	218
M24	24.0	1.50	20	265	398	16	210	315	10	135	203

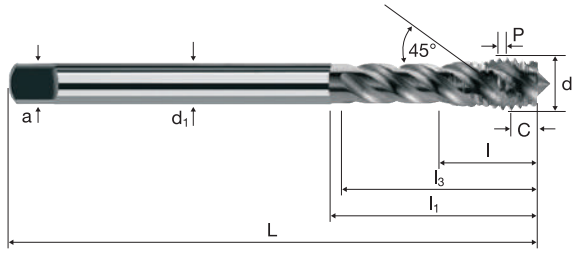
Maschi x-tap

MF | ISO 2 (6H)

60° | HSS PM/F

DIN 374

X · P Form C

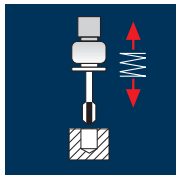


Rm < 850 | **Rm 850-1100**

Esempio: **N° Ordine** — Articolo **EH1261** — Codice-ø **070**

Ø Code	d	P	L	l	l_1	l_3	d_1	a			TiCN EH1261 €
070	**M12**	**0.75**	100	11	39	37	9.0	7.0	4	11.30	85.00
072	**M14**	**0.75**	100	11	39	37	11.0	9.0	4	13.30	102.00
074	**M16**	**0.75**	100	12	39	37	12.0	9.0	4	15.30	123.00
094	**M12**	**1.00**	100	11	39	37	9.0	7.0	4	11.00	85.00
095	**M13**	**1.00**	100	11	39	37	11.0	9.0	4	12.00	93.00
096	**M14**	**1.00**	100	11	39	37	11.0	9.0	4	13.00	102.00
097	**M15**	**1.00**	100	12	39	37	12.0	9.0	4	14.00	112.00
098	**M16**	**1.00**	100	12	39	37	12.0	9.0	4	15.00	123.00
099	**M17**	**1.00**	100	12	39	37	12.0	9.0	4	16.00	135.00
100	**M18**	**1.00**	110	13	50	48	14.0	11.0	4	17.00	152.00
102	**M20**	**1.00**	125	14	65	63	16.0	12.0	4	19.00	184.00
164	**M12**	**1.25**	100	15	39	37	9.0	7.0	4	10.80	85.00
166	**M14**	**1.25**	100	15	39	37	11.0	9.0	4	12.80	102.00
168	**M16**	**1.25**	100	15	39	37	12.0	9.0	4	14.80	123.00
176	**M12**	**1.50**	100	15	39	37	9.0	7.0	4	10.50	85.00
178	**M14**	**1.50**	100	15	39	37	11.0	9.0	4	12.50	102.00
180	**M16**	**1.50**	100	15	39	37	12.0	9.0	4	14.50	123.00
182	**M18**	**1.50**	110	17	50	48	14.0	11.0	4	16.50	152.00
184	**M20**	**1.50**	125	18	65	63	16.0	12.0	4	18.50	184.00
186	**M22**	**1.50**	125	18	65	63	18.0	14.5	5	20.50	218.00
188	**M24**	**1.50**	140	20	72	70	18.0	14.5	5	22.50	256.00

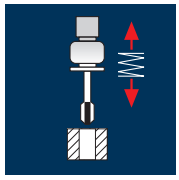
Application



Materiale

MF	ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
Acciaio da utensile temperato 48 - 52 HRC											
M 6	6.0	0.50	8	425	213	6	320	160	4	210	105
M 8	8.0	1.00	8	320	320	6	240	240	4	160	160
M10	10.0	1.00	8	255	255	6	190	190	4	125	125
M12	12.0	1.50	8	210	315	6	160	240	4	105	158
M14	14.0	1.50	8	180	270	6	135	203	4	90	135
M16	16.0	1.50	8	160	240	6	120	180	4	80	120
Acciaio da utensile temperato 52 - 56 HRC											
M 6	6.0	0.50	6	320	160	4	210	105	3	160	80
M 8	8.0	1.00	6	240	240	4	160	160	3	120	120
M10	10.0	1.00	6	190	190	4	125	125	3	95	95
M12	12.0	1.50	6	160	240	4	105	158	3	80	120
M14	14.0	1.50	6	135	203	4	90	135	3	70	105
M16	16.0	1.50	6	120	180	4	80	120	3	60	90
Acciaio da utensile temperato 56 - 60 HRC											
M 6	6.0	0.50	4	210	105	2	105	53			
M 8	8.0	1.00	4	160	160	2	80	80			
M10	10.0	1.00	4	125	125	2	65	65			
M12	12.0	1.50	4	105	158	2	55	83			
M14	14.0	1.50	4	90	135	2	45	68			
M16	16.0	1.50	4	80	120	2	40	60			
Acciaio da utensile temperato > 60 HRC											
M 6	6.0	0.50	2	105	53	1.5	80	40			
M 8	8.0	1.00	2	80	80	1.5	60	60			
M10	10.0	1.00	2	65	65	1.5	50	50			
M12	12.0	1.50	2	55	83	1.5	40	60			
M14	14.0	1.50	2	45	68	1.5	35	53			
M16	16.0	1.50	2	40	60	1.5	30	45			

Application



Materiale

MF	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Acciaio da utensile temperato 48 - 52 HRC											
M 6	6.0	0.50	8	425	213	6	320	160	4	210	105
M 8	8.0	1.00	8	320	320	6	240	240	4	160	160
M10	10.0	1.00	8	255	255	6	190	190	4	125	125
M12	12.0	1.50	8	210	315	6	160	240	4	105	158
M14	14.0	1.50	8	180	270	6	135	203	4	90	135
M16	16.0	1.50	8	160	240	6	120	180	4	80	120
Acciaio da utensile temperato 52 - 56 HRC											
M 6	6.0	0.50	6	320	160	4	210	105	3	160	80
M 8	8.0	1.00	6	240	240	4	160	160	3	120	120
M10	10.0	1.00	6	190	190	4	125	125	3	95	95
M12	12.0	1.50	6	160	240	4	105	158	3	80	120
M14	14.0	1.50	6	135	203	4	90	135	3	70	105
M16	16.0	1.50	6	120	180	4	80	120	3	60	90
Acciaio da utensile temperato 56 - 60 HRC											
M 6	6.0	0.50	4	210	105	2	105	53			
M 8	8.0	1.00	4	160	160	2	80	80			
M10	10.0	1.00	4	125	125	2	65	65			
M12	12.0	1.50	4	105	158	2	55	83			
M14	14.0	1.50	4	90	135	2	45	68			
M16	16.0	1.50	4	80	120	2	40	60			
Acciaio da utensile temperato > 60 HRC											
M 6	6.0	0.50	2	105	53	1.5	80	40			
M 8	8.0	1.00	2	80	80	1.5	60	60			
M10	10.0	1.00	2	65	65	1.5	50	50			
M12	12.0	1.50	2	55	83	1.5	40	60			
M14	14.0	1.50	2	45	68	1.5	35	53			
M16	16.0	1.50	2	40	60	1.5	30	45			

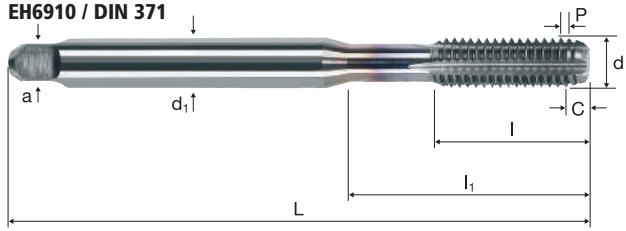
MF | ISO 2 (6H)

HM MG10

DIN 371/374

Form C

EH6910 / DIN 371



EH6911 / DIN 374

ToolSchool

HRC 48-56 | HRC 56-60 | HRC > 60

Esempio: N° Ordine — Articolo: EH6910 — Codice-ø: 050

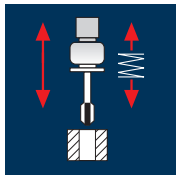
Ø Code	d	P	L	l	l_1	d_1	a			TiCN EH6910 €
050	M 6	0.50	80	17	30	6.0	4.9	4	5.60 *	222.00
090	M 8	1.00	90	20	35	8.0	6.2	5	7.10	269.00
092	M10	1.00	100	22	39	10.0	8.0	5	9.10	330.00

Esempio: N° Ordine — Articolo: EH6911 — Codice-ø: 176

Ø Code	d	P	L	l	l_1	d_1	a			TiCN EH6911 €
176	M12	1.50	100	22	39	9	7.0	5	10.70 *	407.00
178	M14	1.50	100	22	39	11	9.0	5	12.70 *	488.00
180	M16	1.50	100	22	39	12	9.0	5	14.70 *	574.00

* La dimensione data è fuori norma

Application



Materiale	MF	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Acciaio inossidabile ferritico/martensitico	M 2.5	2.5	0.35	12	1530	536	10	1275	446	8	1020	357
	M 3	3.0	0.35	12	1275	446	10	1060	371	8	850	298
	M 3.5	3.5	0.35	12	1090	382	10	910	319	8	730	255
	M 4	4.0	0.50	12	955	478	10	795	398	8	635	318
	M 5	5.0	0.50	12	765	383	10	635	318	8	510	255
	M 6	6.0	0.50	12	635	318	10	530	265	8	425	213
	M 8	8.0	0.50	12	475	238	10	400	200	8	320	160
	M10	10.0	0.50	12	380	190	10	320	160	8	255	128
	M 6	6.0	0.75	12	635	476	10	530	398	8	425	319
Acciaio inossidabile ferritico/martensitico	M 7	7.0	0.75	12	545	409	10	455	341	8	365	274
	M 8	8.0	0.75	12	475	356	10	400	300	8	320	240
	M10	10.0	0.75	12	380	285	10	320	240	8	255	191
	M 8	8.0	1.00	12	475	475	10	400	400	8	320	320
	M 9	9.0	1.00	12	425	425	10	355	355	8	285	285
	M10	10.0	1.00	12	380	380	10	320	320	8	255	255
	M10	10.0	1.25	12	380	475	10	320	400	8	255	319
Acciaio inossidabile [Cr-Ni/1.4301]	M 2.5	2.5	0.35	7	890	312	5	635	222	4	510	179
	M 3	3.0	0.35	7	745	261	5	530	186	4	425	149
	M 3.5	3.5	0.35	7	635	222	5	455	159	4	365	128
	M 4	4.0	0.50	7	555	278	5	400	200	4	320	160
	M 5	5.0	0.50	7	445	223	5	320	160	4	255	128
	M 6	6.0	0.50	7	370	185	5	265	133	4	210	105
	M 8	8.0	0.50	7	280	140	5	200	100	4	160	80
	M10	10.0	0.50	7	225	113	5	160	80	4	125	63
	M 6	6.0	0.75	7	370	278	5	265	199	4	210	158
Acciaio inossidabile [Cr-Ni/1.4301]	M 7	7.0	0.75	7	320	240	5	225	169	4	180	135
	M 8	8.0	0.75	7	280	210	5	200	150	4	160	120
	M10	10.0	0.75	7	225	169	5	160	120	4	125	94
	M 8	8.0	1.00	7	280	280	5	200	200	4	160	160
	M 9	9.0	1.00	7	250	250	5	175	175	4	140	140
	M10	10.0	1.00	7	225	225	5	160	160	4	125	125
	M10	10.0	1.25	7	225	281	5	160	200	4	125	156

Materiale	MF	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]	M 2.5	2.5	0.35	8	1020	357	6	765	268	5	635	222
	M 3	3.0	0.35	8	850	298	6	635	222	5	530	186
	M 3.5	3.5	0.35	8	730	255	6	545	191	5	455	159
	M 4	4.0	0.50	8	635	318	6	475	238	5	400	200
	M 5	5.0	0.50	8	510	255	6	380	190	5	320	160
	M 6	6.0	0.50	8	425	213	6	320	160	5	265	133
	M 8	8.0	0.50	8	320	160	6	240	120	5	200	100
	M10	10.0	0.50	8	255	128	6	190	95	5	160	80
	M 6	6.0	0.75	8	425	319	6	320	240	5	265	199
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]	M 7	7.0	0.75	8	365	274	6	275	206	5	225	169
	M 8	8.0	0.75	8	320	240	6	240	180	5	200	150
	M10	10.0	0.75	8	255	191	6	190	143	5	160	120
	M 8	8.0	1.00	8	320	320	6	240	240	5	200	200
	M 9	9.0	1.00	8	285	285	6	210	210	5	175	175
	M10	10.0	1.00	8	255	255	6	190	190	5	160	160
	M10	10.0	1.25	8	255	319	6	190	238	5	160	200
Acciaio resistente al calore [17-4 PH]	M 2.5	2.5	0.35	5	635	222	4	510	179	3	380	133
	M 3	3.0	0.35	5	530	186	4	425	149	3	320	112
	M 3.5	3.5	0.35	5	455	159	4	365	128	3	275	96
	M 4	4.0	0.50	5	400	200	4	320	160	3	240	120
	M 5	5.0	0.50	5	320	160	4	255	128	3	190	95
	M 6	6.0	0.50	5	265	133	4	210	105	3	160	80
	M 8	8.0	0.50	5	200	100	4	160	80	3	120	60
	M10	10.0	0.50	5	160	80	4	125	63	3	95	48
	M 6	6.0	0.75	5	265	199	4	210	158	3	160	120
Acciaio resistente al calore [17-4 PH]	M 7	7.0	0.75	5	225	169	4	180	135	3	135	101
	M 8	8.0	0.75	5	200	150	4	160	120	3	120	90
	M10	10.0	0.75	5	160	120	4	125	94	3	95	71
	M 8	8.0	1.00	5	200	200	4	160	160	3	120	120
	M 9	9.0	1.00	5	175	175	4	140	140	3	105	105
	M10	10.0	1.00	5	160	160	4	125	125	3	95	95
	M10	10.0	1.25	5	160	200	4	125	156	3	95	119

Maschi Inotap

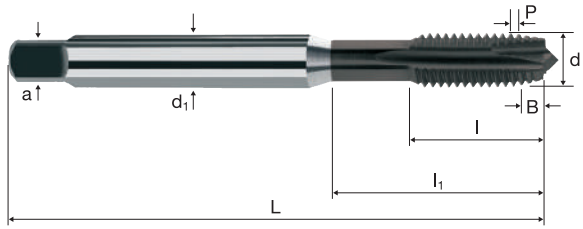
In

MF | ISO 2 (6H)

60° | HSS PM/F

DIN 371

X · P Form B



MF

Inox Stainless

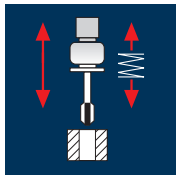
Esempio: **N° Ordine** — Articolo **ET1240** Codice-ø **029**

Ø Code	d	P	L	l	l1	d1	a			TRIBO ET1240 €
029	M 2.5	0.35	50	9	–	2.8	2.1	2	2.20	47.80
031	M 3	0.35	56	12	18	3.5	2.7	3	2.70	39.40
032	M 3.5	0.35	56	12	20	4.0	3.0	3	3.20	39.40
046	M 4	0.50	63	13	21	4.5	3.4	3	3.60 *	39.40
048	M 5	0.50	70	15	25	6.0	4.9	3	4.60 *	40.10
050	M 6	0.50	80	17	30	6.0	4.9	3	5.60 *	41.90
052	M 8	0.50	90	20	35	8.0	6.2	3	7.60 *	50.60
054	M10	0.50	100	22	39	10.0	8.0	3	9.60 *	58.50
064	M 6	0.75	80	17	30	6.0	4.9	3	5.30	41.90
065	M 7	0.75	80	17	30	7.0	5.5	3	6.30	46.20
066	M 8	0.75	90	20	35	8.0	6.2	3	7.30	50.60
068	M10	0.75	100	22	39	10.0	8.0	3	9.30	58.50
090	M 8	1.00	90	20	35	8.0	6.2	3	7.10	50.60
091	M 9	1.00	90	20	35	9.0	7.0	3	8.10	54.50
092	M10	1.00	100	22	39	10.0	8.0	3	9.10	58.50
162	M10	1.25	100	22	39	10.0	8.0	3	8.90	58.50

* La dimensione data è fuori norma

Dimensioni superiori vedere articolo EH1241, pagina 323

Application



Materiale

MF	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Acciaio inossidabile ferritico/martensitico											
M12	12.0	0.75	12	320	240	10	265	199	8	210	158
M14	14.0	0.75	12	275	206	10	225	169	8	180	135
M16	16.0	0.75	12	240	180	10	200	150	8	160	120
M12	12.0	1.00	12	320	320	10	265	265	8	210	210
M13	13.0	1.00	12	295	295	10	245	245	8	195	195
M14	14.0	1.00	12	275	275	10	225	225	8	180	180
M16	16.0	1.00	12	240	240	10	200	200	8	160	160
M18	18.0	1.00	12	210	210	10	175	175	8	140	140
M20	20.0	1.00	12	190	190	10	160	160	8	125	125
Acciaio inossidabile ferritico/martensitico											
M12	12.0	1.25	12	320	400	10	265	331	8	210	263
M14	14.0	1.25	12	275	344	10	225	281	8	180	225
M16	16.0	1.25	12	240	300	10	200	250	8	160	200
M12	12.0	1.50	12	320	480	10	265	398	8	210	315
M14	14.0	1.50	12	275	413	10	225	338	8	180	270
M16	16.0	1.50	12	240	360	10	200	300	8	160	240
M18	18.0	1.50	12	210	315	10	175	263	8	140	210
M20	20.0	1.50	12	190	285	10	160	240	8	125	188
M24	24.0	1.50	12	160	240	10	135	203	8	105	158
Acciaio inossidabile [Cr-Ni/1.4301]											
M12	12.0	0.75	7	185	139	5	135	101	4	105	79
M14	14.0	0.75	7	160	120	5	115	86	4	90	68
M16	16.0	0.75	7	140	105	5	100	75	4	80	60
M12	12.0	1.00	7	185	185	5	135	135	4	105	105
M13	13.0	1.00	7	170	170	5	120	120	4	100	100
M14	14.0	1.00	7	160	160	5	115	115	4	90	90
M16	16.0	1.00	7	140	140	5	100	100	4	80	80
M18	18.0	1.00	7	125	125	5	90	90	4	70	70
M20	20.0	1.00	7	110	110	5	80	80	4	65	65
Acciaio inossidabile [Cr-Ni/1.4301]											
M12	12.0	1.25	7	185	231	5	135	169	4	105	131
M14	14.0	1.25	7	160	200	5	115	144	4	90	113
M16	16.0	1.25	7	140	175	5	100	125	4	80	100
M12	12.0	1.50	7	185	278	5	135	203	4	105	158
M14	14.0	1.50	7	160	240	5	115	173	4	90	135
M16	16.0	1.50	7	140	210	5	100	150	4	80	120
M18	18.0	1.50	7	125	188	5	90	135	4	70	105
M20	20.0	1.50	7	110	165	5	80	120	4	65	98
M24	24.0	1.50	7	95	143	5	65	98	4	55	83

Materiale

MF	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]											
M12	12.0	0.75	8	210	158	6	160	120	5	135	101
M14	14.0	0.75	8	180	135	6	135	101	5	115	86
M16	16.0	0.75	8	160	120	6	120	90	5	100	75
M12	12.0	1.00	8	210	210	6	160	160	5	135	135
M13	13.0	1.00	8	195	195	6	145	145	5	120	120
M14	14.0	1.00	8	180	180	6	135	135	5	115	115
M16	16.0	1.00	8	160	160	6	120	120	5	100	100
M18	18.0	1.00	8	140	140	6	105	105	5	90	90
M20	20.0	1.00	8	125	125	6	95	95	5	80	80
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]											
M12	12.0	1.25	8	210	263	6	160	200	5	135	169
M14	14.0	1.25	8	180	225	6	135	169	5	115	144
M16	16.0	1.25	8	160	200	6	120	150	5	100	125
M12	12.0	1.50	8	210	315	6	160	240	5	135	203
M14	14.0	1.50	8	180	270	6	135	203	5	115	173
M16	16.0	1.50	8	160	240	6	120	180	5	100	150
M18	18.0	1.50	8	140	210	6	105	158	5	90	135
M20	20.0	1.50	8	125	188	6	95	143	5	80	120
M24	24.0	1.50	8	105	158	6	80	120	5	65	98
Acciaio resistente al calore [17-4 PH]											
M12	12.0	0.75	5	135	101	4	105	79	3	80	60
M14	14.0	0.75	5	115	86	4	90	68	3	70	53
M16	16.0	0.75	5	100	75	4	80	60	3	60	45
M12	12.0	1.00	5	135	135	4	105	105	3	80	80
M13	13.0	1.00	5	120	120	4	100	100	3	75	75
M14	14.0	1.00	5	115	115	4	90	90	3	70	70
M16	16.0	1.00	5	100	100	4	80	80	3	60	60
M18	18.0	1.00	5	90	90	4	70	70	3	55	55
M20	20.0	1.00	5	80	80	4	65	65	3	50	50
Acciaio resistente al calore [17-4 PH]											
M12	12.0	1.25	5	135	169	4	105	131	3	80	100
M14	14.0	1.25	5	115	144	4	90	113	3	70	88
M16	16.0	1.25	5	100	125	4	80	100	3	60	75
M12	12.0	1.50	5	135	203	4	105	158	3	80	120
M14	14.0	1.50	5	115	173	4	90	135	3	70	105
M16	16.0	1.50	5	100	150	4	80	120	3	60	90
M18	18.0	1.50	5	90	135	4	70	105	3	55	83
M20	20.0	1.50	5	80	120	4	65	98	3	50	75
M24	24.0	1.50	5	65	98	4	55	83	3	40	60

Maschi Inotap

In

MF

ISO 2 (6H)

60°

HSS PM/F

DIN 374

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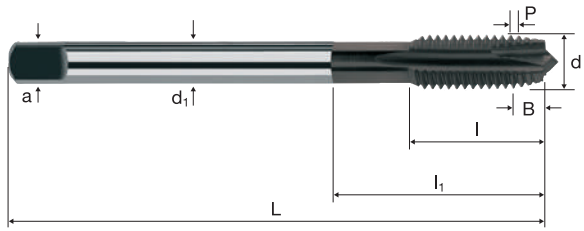
Form B



MF

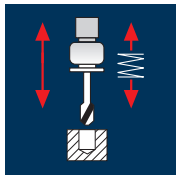
Inox Stainless

Esempio: **N° Ordine** — Articolo **ET1241** — Codice-ø **070**

Ø Code	d	P	L	l	l_1	d_1	a			TRIBO ET1241 €
070	M12	0.75	100	18	39	9.0	7.0	3	11.40 *	73.00
072	M14	0.75	100	18	39	11.0	9.0	3	13.40 *	92.00
074	M16	0.75	100	18	39	12.0	9.0	3	15.40 *	110.00
094	M12	1.00	100	18	39	9.0	7.0	3	11.10	73.00
095	M13	1.00	100	18	39	11.0	9.0	3	12.10	84.00
096	M14	1.00	100	18	39	11.0	9.0	3	13.10	92.00
097	M15	1.00	100	18	39	12.0	9.0	3	14.10	101.00
098	M16	1.00	100	18	39	12.0	9.0	3	15.10	110.00
099	M17	1.00	100	18	39	12.0	9.0	4	16.10	123.00
100	M18	1.00	110	20	45	14.0	11.0	4	17.10	140.00
102	M20	1.00	125	20	50	16.0	12.0	4	19.10	170.00
164	M12	1.25	100	22	39	9.0	7.0	3	10.90	73.00
166	M14	1.25	100	22	39	11.0	9.0	3	12.90	92.00
168	M16	1.25	100	22	39	12.0	9.0	3	14.90	110.00
176	M12	1.50	100	22	39	9.0	7.0	3	10.70	73.00
178	M14	1.50	100	22	39	11.0	9.0	3	12.70	92.00
180	M16	1.50	100	22	39	12.0	9.0	3	14.70	110.00
182	M18	1.50	110	25	45	14.0	11.0	4	16.70	140.00
184	M20	1.50	125	26	50	16.0	12.0	4	18.70	170.00
186	M22	1.50	125	26	50	18.0	14.5	4	20.70	202.00
188	M24	1.50	140	27	52	18.0	14.5	4	22.70	236.00

* La dimensione data è fuori norma

Application



Materiale	MF	ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
Acciaio inossidabile ferritico/martensitico	M 2.5	2.5	0.35	10	1275	446	8	1020	357	6	765	268
	M 3	3.0	0.35	10	1060	371	8	850	298	6	635	222
	M 3.5	3.5	0.35	10	910	319	8	730	255	6	545	191
	M 4	4.0	0.50	10	795	398	8	635	318	6	475	238
	M 5	5.0	0.50	10	635	318	8	510	255	6	380	190
	M 6	6.0	0.50	10	530	265	8	425	213	6	320	160
	M 8	8.0	0.50	10	400	200	8	320	160	6	240	120
	M10	10.0	0.50	10	320	160	8	255	128	6	190	95
	M 6	6.0	0.75	10	530	398	8	425	319	6	320	240
Acciaio inossidabile ferritico/martensitico	M 7	7.0	0.75	10	455	341	8	365	274	6	275	206
	M 8	8.0	0.75	10	400	300	8	320	240	6	240	180
	M10	10.0	0.75	10	320	240	8	255	191	6	190	143
	M 8	8.0	1.00	10	400	400	8	320	320	6	240	240
	M 9	9.0	1.00	10	355	355	8	285	285	6	210	210
	M10	10.0	1.00	10	320	320	8	255	255	6	190	190
	M10	10.0	1.25	10	320	400	8	255	319	6	190	238
Acciaio inossidabile [Cr-Ni/1.4301]	M 2.5	2.5	0.35	5	635	222	4	510	179	3	380	133
	M 3	3.0	0.35	5	530	186	4	425	149	3	320	112
	M 3.5	3.5	0.35	5	455	159	4	365	128	3	275	96
	M 4	4.0	0.50	5	400	200	4	320	160	3	240	120
	M 5	5.0	0.50	5	320	160	4	255	128	3	190	95
	M 6	6.0	0.50	5	265	133	4	210	105	3	160	80
	M 8	8.0	0.50	5	200	100	4	160	80	3	120	60
	M10	10.0	0.50	5	160	80	4	125	63	3	95	48
	M 6	6.0	0.75	5	265	199	4	210	158	3	160	120
Acciaio inossidabile [Cr-Ni/1.4301]	M 7	7.0	0.75	5	225	169	4	180	135	3	135	101
	M 8	8.0	0.75	5	200	150	4	160	120	3	120	90
	M10	10.0	0.75	5	160	120	4	125	94	3	95	71
	M 8	8.0	1.00	5	200	200	4	160	160	3	120	120
	M 9	9.0	1.00	5	175	175	4	140	140	3	105	105
	M10	10.0	1.00	5	160	160	4	125	125	3	95	95
	M10	10.0	1.25	5	160	200	4	125	156	3	95	119

Materiale	MF	ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]	M 2.5	2.5	0.35	6	765	268	5	635	222	4	510	179
	M 3	3.0	0.35	6	635	222	5	530	186	4	425	149
	M 3.5	3.5	0.35	6	545	191	5	455	159	4	365	128
	M 4	4.0	0.50	6	475	238	5	400	200	4	320	160
	M 5	5.0	0.50	6	380	190	5	320	160	4	255	128
	M 6	6.0	0.50	6	320	160	5	265	133	4	210	105
	M 8	8.0	0.50	6	240	120	5	200	100	4	160	80
	M10	10.0	0.50	6	190	95	5	160	80	4	125	63
	M 6	6.0	0.75	6	320	240	5	265	199	4	210	158
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]	M 7	7.0	0.75	6	275	206	5	225	169	4	180	135
	M 8	8.0	0.75	6	240	180	5	200	150	4	160	120
	M10	10.0	0.75	6	190	143	5	160	120	4	125	94
	M 8	8.0	1.00	6	240	240	5	200	200	4	160	160
	M 9	9.0	1.00	6	210	210	5	175	175	4	140	140
	M10	10.0	1.00	6	190	190	5	160	160	4	125	125
	M10	10.0	1.25	6	190	238	5	160	200	4	125	156
Acciaio resistente al calore [17-4 PH]	M 2.5	2.5	0.35	4	510	179	3	380	133			
	M 3	3.0	0.35	4	425	149	3	320	112			
	M 3.5	3.5	0.35	4	365	128	3	275	96			
	M 4	4.0	0.50	4	320	160	3	240	120			
	M 5	5.0	0.50	4	255	128	3	190	95			
	M 6	6.0	0.50	4	210	105	3	160	80			
	M 8	8.0	0.50	4	160	80	3	120	60			
	M10	10.0	0.50	4	125	63	3	95	48			
	M 6	6.0	0.75	4	210	158	3	160	120			
Acciaio resistente al calore [17-4 PH]	M 7	7.0	0.75	4	180	135	3	135	101			
	M 8	8.0	0.75	4	160	120	3	120	90			
	M10	10.0	0.75	4	125	94	3	95	71			
	M 8	8.0	1.00	4	160	160	3	120	120			
	M 9	9.0	1.00	4	140	140	3	105	105			
	M10	10.0	1.00	4	125	125	3	95	95			
	M10	10.0	1.25	4	125	156	3	95	119			

Maschi x-tap

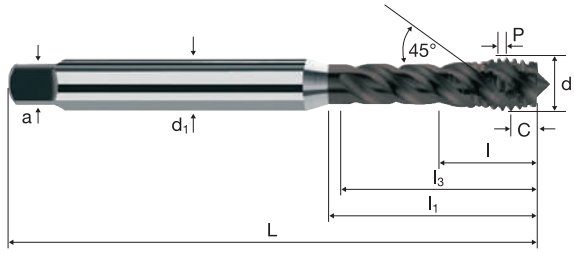
In

MF | ISO 2 (6H)

60° | HSS PM/F

DIN 371

X · P Form C



MF

Inox Stainless

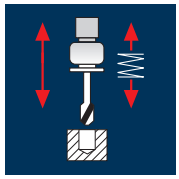
Esempio: **N° Ordine** — Articolo **ET1260** — Codice-ø **029**

Ø Code	d	P	L	l	l1	l3	d1	a			TRIBO ET1260 €
029	M 2.5	0.35	50	9	–	13	2.8	2.1	3	2.20	54.20
031	M 3	0.35	56	5	18	16	3.5	2.7	3	2.70	44.40
032	M 3.5	0.35	56	6	20	18	4.0	3.0	3	3.20	44.40
046	M 4	0.50	63	7	21	19	4.5	3.4	3	3.60 *	44.40
048	M 5	0.50	70	8	25	23	6.0	4.9	3	4.60 *	45.30
050	M 6	0.50	80	10	30	28	6.0	4.9	3	5.60 *	47.40
052	M 8	0.50	90	13	35	33	8.0	6.2	3	7.60 *	57.10
054	M10	0.50	100	15	39	37	10.0	8.0	4	9.60 *	68.00
064	M 6	0.75	80	10	30	28	6.0	4.9	3	5.30	47.40
065	M 7	0.75	80	10	30	28	7.0	5.5	3	6.30	51.50
066	M 8	0.75	90	13	35	33	8.0	6.2	3	7.30	57.10
068	M10	0.75	100	15	39	37	10.0	8.0	4	9.30	68.00
090	M 8	1.00	90	13	35	33	8.0	6.2	3	7.10	57.10
091	M 9	1.00	90	13	35	33	9.0	7.0	3	8.10	61.00
092	M10	1.00	100	15	39	37	10.0	8.0	4	9.10	68.00
162	M10	1.25	100	15	39	37	10.0	8.0	4	8.90	68.00

* La dimensione data è fuori norma

Dimensioni superiori vedere articolo E1261, pagina 327

Application



Materiale	MF	ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
Acciaio inossidabile ferritico/martensitico	M12	12.0	0.75	10	265	199	8	210	158	6	160	120
	M14	14.0	0.75	10	225	169	8	180	135	6	135	101
	M16	16.0	0.75	10	200	150	8	160	120	6	120	90
	M12	12.0	1.00	10	265	265	8	210	210	6	160	160
	M13	13.0	1.00	10	245	245	8	195	195	6	145	145
	M14	14.0	1.00	10	225	225	8	180	180	6	135	135
	M16	16.0	1.00	10	200	200	8	160	160	6	120	120
	M18	18.0	1.00	10	175	175	8	140	140	6	105	105
	M20	20.0	1.00	10	160	160	8	125	125	6	95	95
Acciaio inossidabile ferritico/martensitico	M12	12.0	1.25	10	265	331	8	210	263	6	160	200
	M14	14.0	1.25	10	225	281	8	180	225	6	135	169
	M16	16.0	1.25	10	200	250	8	160	200	6	120	150
	M12	12.0	1.50	10	265	398	8	210	315	6	160	240
	M14	14.0	1.50	10	225	338	8	180	270	6	135	203
	M16	16.0	1.50	10	200	300	8	160	240	6	120	180
	M18	18.0	1.50	10	175	263	8	140	210	6	105	158
	M20	20.0	1.50	10	160	240	8	125	188	6	95	143
	M24	24.0	1.50	10	135	203	8	105	158	6	80	120
Acciaio inossidabile [Cr-Ni/1.4301]	M12	12.0	0.75	5	135	101	4	105	79	3	80	60
	M14	14.0	0.75	5	115	86	4	90	68	3	70	53
	M16	16.0	0.75	5	100	75	4	80	60	3	60	45
	M12	12.0	1.00	5	135	135	4	105	105	3	80	80
	M13	13.0	1.00	5	120	120	4	100	100	3	75	75
	M14	14.0	1.00	5	115	115	4	90	90	3	70	70
	M16	16.0	1.00	5	100	100	4	80	80	3	60	60
	M18	18.0	1.00	5	90	90	4	70	70	3	55	55
	M20	20.0	1.00	5	80	80	4	65	65	3	50	50
Acciaio inossidabile [Cr-Ni/1.4301]	M12	12.0	1.25	5	135	169	4	105	131	3	80	100
	M14	14.0	1.25	5	115	144	4	90	113	3	70	88
	M16	16.0	1.25	5	100	125	4	80	100	3	60	75
	M12	12.0	1.50	5	135	203	4	105	158	3	80	120
	M14	14.0	1.50	5	115	173	4	90	135	3	70	105
	M16	16.0	1.50	5	100	150	4	80	120	3	60	90
	M18	18.0	1.50	5	90	135	4	70	105	3	55	83
	M20	20.0	1.50	5	80	120	4	65	98	3	50	75
	M24	24.0	1.50	5	65	98	4	55	83	3	40	60

Materiale	MF	ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]	M12	12.0	0.75	6	160	120	5	135	101	4	105	79
	M14	14.0	0.75	6	135	101	5	115	86	4	90	68
	M16	16.0	0.75	6	120	90	5	100	75	4	80	60
	M12	12.0	1.00	6	160	160	5	135	135	4	105	105
	M13	13.0	1.00	6	145	145	5	120	120	4	100	100
	M14	14.0	1.00	6	135	135	5	115	115	4	90	90
	M16	16.0	1.00	6	120	120	5	100	100	4	80	80
	M18	18.0	1.00	6	105	105	5	90	90	4	70	70
	M20	20.0	1.00	6	95	95	5	80	80	4	65	65
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]	M12	12.0	1.25	6	160	200	5	135	169	4	105	131
	M14	14.0	1.25	6	135	169	5	115	144	4	90	113
	M16	16.0	1.25	6	120	150	5	100	125	4	80	100
	M12	12.0	1.50	6	160	240	5	135	203	4	105	158
	M14	14.0	1.50	6	135	203	5	115	173	4	90	135
	M16	16.0	1.50	6	120	180	5	100	150	4	80	120
	M18	18.0	1.50	6	105	158	5	90	135	4	70	105
	M20	20.0	1.50	6	95	143	5	80	120	4	65	98
	M24	24.0	1.50	6	80	120	5	65	98	4	55	83
Acciaio resistente al calore [17-4 PH]	M12	12.0	0.75	4	105	79	3	80	60			
	M14	14.0	0.75	4	90	68	3	70	53			
	M16	16.0	0.75	4	80	60	3	60	45			
	M12	12.0	1.00	4	105	105	3	80	80			
	M13	13.0	1.00	4	100	100	3	75	75			
	M14	14.0	1.00	4	90	90	3	70	70			
	M16	16.0	1.00	4	80	80	3	60	60			
	M18	18.0	1.00	4	70	70	3	55	55			
	M20	20.0	1.00	4	65	65	3	50	50			
Acciaio resistente al calore [17-4 PH]	M12	12.0	1.25	4	105	131	3	80	100			
	M14	14.0	1.25	4	90	113	3	70	88			
	M16	16.0	1.25	4	80	100	3	60	75			
	M12	12.0	1.50	4	105	158	3	80	120			
	M14	14.0	1.50	4	90	135	3	70	105			
	M16	16.0	1.50	4	80	120	3	60	90			
	M18	18.0	1.50	4	70	105	3	55	83			
	M20	20.0	1.50	4	65	98	3	50	75			
	M24	24.0	1.50	4	55	83	3	40	60			

Maschi x-tap

In

MF

ISO 2 (6H)

60°

HSS PM/F

DIN 374

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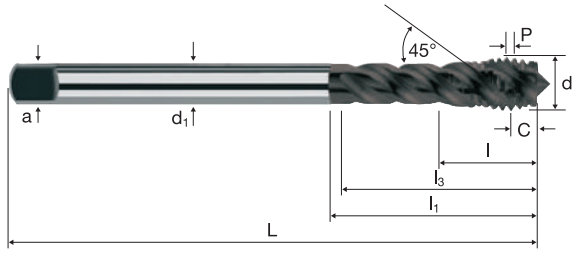
Form C



MF

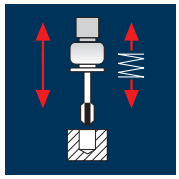
Inox Stainless

Esempio: **N° Ordine** — Articolo **ET1261** — Codice-ø **070**

Ø Code	d	P	L	l	l_1	l_3	d_1	a			TRIBO ET1261 €
070	**M12**	**0.75**	100	11	39	37	9.0	7.0	4	11.40 *	86.00
072	**M14**	**0.75**	100	11	39	37	11.0	9.0	4	13.40 *	103.00
074	**M16**	**0.75**	100	12	39	37	12.0	9.0	4	15.40 *	125.00
094	**M12**	**1.00**	100	11	39	37	9.0	7.0	4	11.10	86.00
095	**M13**	**1.00**	100	11	39	37	11.0	9.0	4	12.10	94.00
096	**M14**	**1.00**	100	11	39	37	11.0	9.0	4	13.10	103.00
097	**M15**	**1.00**	100	12	39	37	12.0	9.0	4	14.10	114.00
098	**M16**	**1.00**	100	12	39	37	12.0	9.0	4	15.10	125.00
099	**M17**	**1.00**	100	12	39	37	12.0	9.0	4	16.10	137.00
100	**M18**	**1.00**	110	13	50	48	14.0	11.0	4	17.10	155.00
102	**M20**	**1.00**	125	14	65	63	16.0	12.0	4	19.10	187.00
164	**M12**	**1.25**	100	15	39	37	9.0	7.0	4	10.90	86.00
166	**M14**	**1.25**	100	15	39	37	11.0	9.0	4	12.90	103.00
168	**M16**	**1.25**	100	15	39	37	12.0	9.0	4	14.90	125.00
176	**M12**	**1.50**	100	15	39	37	9.0	7.0	4	10.70 *	86.00
178	**M14**	**1.50**	100	15	39	37	11.0	9.0	4	12.70 *	103.00
180	**M16**	**1.50**	100	15	39	37	12.0	9.0	4	14.70 *	125.00
182	**M18**	**1.50**	110	17	50	48	14.0	11.0	4	16.70 *	155.00
184	**M20**	**1.50**	125	18	65	63	16.0	12.0	4	18.70 *	187.00
186	**M22**	**1.50**	125	18	65	63	18.0	14.5	5	20.70 *	221.00
188	**M24**	**1.50**	140	20	72	70	18.0	14.5	5	22.70 *	260.00

* La dimensione data è fuori norma

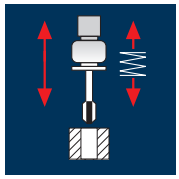
Application



Materiale

MF	ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
Ghisa GG											
M 2.5	2.5	0.35	28	3565	1248	24	3055	1069	20	2545	891
M 3	3.0	0.35	28	2970	1040	24	2545	891	20	2120	742
M 3.5	3.5	0.35	28	2545	891	24	2185	765	20	1820	637
M 4	4.0	0.50	28	2230	1115	24	1910	955	20	1590	795
M 5	5.0	0.50	28	1785	893	24	1530	765	20	1275	638
M 6	6.0	0.50	28	1485	743	24	1275	638	20	1060	530
M 8	8.0	0.50	28	1115	558	24	955	478	20	795	398
M10	10.0	0.50	28	890	445	24	765	383	20	635	318
M 6	6.0	0.75	28	1485	1114	24	1275	956	20	1060	795
Ghisa GG											
M 7	7.0	0.75	28	1275	956	24	1090	818	20	910	683
M 8	8.0	0.75	28	1115	836	24	955	716	20	795	596
M10	10.0	0.75	28	890	668	24	765	574	20	635	476
M 8	8.0	1.00	28	1115	1115	24	955	955	20	795	795
M 9	9.0	1.00	28	990	990	24	850	850	20	705	705
M10	10.0	1.00	28	890	890	24	765	765	20	635	635
M10	10.0	1.25	28	890	1113	24	765	956	20	635	794
Ghisa GGG											
M 2.5	2.5	0.35	20	2545	891	18	2290	802	15	1910	669
M 3	3.0	0.35	20	2120	742	18	1910	669	15	1590	557
M 3.5	3.5	0.35	20	1820	637	18	1635	572	15	1365	478
M 4	4.0	0.50	20	1590	795	18	1430	715	15	1195	598
M 5	5.0	0.50	20	1275	638	18	1145	573	15	955	478
M 6	6.0	0.50	20	1060	530	18	955	478	15	795	398
M 8	8.0	0.50	20	795	398	18	715	358	15	595	298
M10	10.0	0.50	20	635	318	18	575	288	15	475	238
M 6	6.0	0.75	20	1060	795	18	955	716	15	795	596
Ghisa GGG											
M 7	7.0	0.75	20	910	683	18	820	615	15	680	510
M 8	8.0	0.75	20	795	596	18	715	536	15	595	446
M10	10.0	0.75	20	635	476	18	575	431	15	475	356
M 8	8.0	1.00	20	795	795	18	715	715	15	595	595
M 9	9.0	1.00	20	705	705	18	635	635	15	530	530
M10	10.0	1.00	20	635	635	18	575	575	15	475	475
M10	10.0	1.25	20	635	794	18	575	719	15	475	594

Application



Materiale

MF	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Ghisa GG											
M 2.5	2.5	0.35	30	3820	1337	28	3565	1248	25	3185	1115
M 3	3.0	0.35	30	3185	1115	28	2970	1040	25	2655	929
M 3.5	3.5	0.35	30	2730	955	28	2545	891	25	2275	796
M 4	4.0	0.50	30	2385	1193	28	2230	1115	25	1990	995
M 5	5.0	0.50	30	1910	955	28	1785	893	25	1590	795
M 6	6.0	0.50	30	1590	795	28	1485	743	25	1325	663
M 8	8.0	0.50	30	1195	598	28	1115	558	25	995	498
M10	10.0	0.50	30	955	478	28	890	445	25	795	398
M 6	6.0	0.75	30	1590	1193	28	1485	1114	25	1325	994
Ghisa GG											
M 7	7.0	0.75	30	1365	1024	28	1275	956	25	1135	851
M 8	8.0	0.75	30	1195	896	28	1115	836	25	995	746
M10	10.0	0.75	30	955	716	28	890	668	25	795	596
M 8	8.0	1.00	30	1195	1195	28	1115	1115	25	995	995
M 9	9.0	1.00	30	1060	1060	28	990	990	25	885	885
M10	10.0	1.00	30	955	955	28	890	890	25	795	795
M10	10.0	1.25	30	955	1194	28	890	1113	25	795	994
Ghisa GGG											
M 2.5	2.5	0.35	25	3185	1115	22	2800	980	20	2545	891
M 3	3.0	0.35	25	2655	929	22	2335	817	20	2120	742
M 3.5	3.5	0.35	25	2275	796	22	2000	700	20	1820	637
M 4	4.0	0.50	25	1990	995	22	1750	875	20	1590	795
M 5	5.0	0.50	25	1590	795	22	1400	700	20	1275	638
M 6	6.0	0.50	25	1325	663	22	1165	583	20	1060	530
M 8	8.0	0.50	25	995	498	22	875	438	20	795	398
M10	10.0	0.50	25	795	398	22	700	350	20	635	318
M 6	6.0	0.75	25	1325	994	22	1165	874	20	1060	795
Ghisa GGG											
M 7	7.0	0.75	25	1135	851	22	1000	750	20	910	683
M 8	8.0	0.75	25	995	746	22	875	656	20	795	596
M10	10.0	0.75	25	795	596	22	700	525	20	635	476
M 8	8.0	1.00	25	995	995	22	875	875	20	795	795
M 9	9.0	1.00	25	885	885	22	780	780	20	705	705
M10	10.0	1.00	25	795	795	22	700	700	20	635	635
M10	10.0	1.25	25	795	994	22	700	875	20	635	794

Maschi

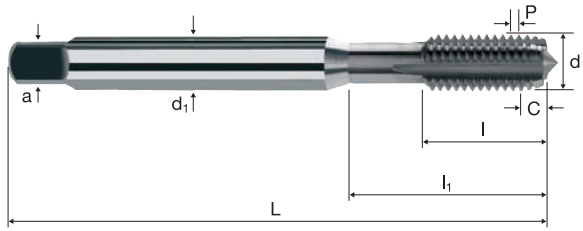
GG

MF | ISO 2 (6H)

60° | HSS PM/F

DIN 371

X · P Form C



ToolSchool

MF

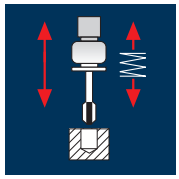
GG(G)

Esempio: **N° Ordine** — Articolo **EH1270** Codice-ø **029**

Ø Code	d	P	L	l	l1	d1	a			TiCN EH1270 €
029	M 2.5	0.35	50	9	–	2.8	2.1	3	2.15	35.50
031	M 3	0.35	56	12	18	3.5	2.7	3	2.65	29.30
032	M 3.5	0.35	56	12	20	4.0	3.0	3	3.15	29.30
046	M 4	0.50	63	13	21	4.5	3.4	3	3.50	29.30
048	M 5	0.50	70	15	25	6.0	4.9	3	4.50	29.80
050	M 6	0.50	80	17	30	6.0	4.9	4	5.50	31.20
052	M 8	0.50	90	20	35	8.0	6.2	4	7.50	37.60
054	M10	0.50	100	22	39	10.0	8.0	4	9.50	43.50
064	M 6	0.75	80	17	30	6.0	4.9	4	5.20	31.20
065	M 7	0.75	80	17	30	7.0	5.5	4	6.20	34.30
066	M 8	0.75	90	20	35	8.0	6.2	4	7.20	37.60
068	M10	0.75	100	22	39	10.0	8.0	4	9.20	43.50
090	M 8	1.00	90	20	35	8.0	6.2	4	7.00	37.60
091	M 9	1.00	90	20	35	9.0	7.0	4	8.00	40.50
092	M10	1.00	100	22	39	10.0	8.0	4	9.00	43.50
162	M10	1.25	100	22	39	10.0	8.0	4	8.80	43.50

Dimensioni superiori vedere articolo EH1271, pagina 331

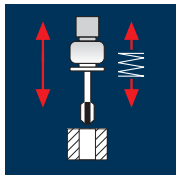
Application



Materiale

MF	ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
Ghisa GG											
M12	12.0	0.75	28	745	559	24	635	476	20	530	398
M14	14.0	0.75	28	635	476	24	545	409	20	455	341
M16	16.0	0.75	28	555	416	24	475	356	20	400	300
M12	12.0	1.00	28	745	745	24	635	635	20	530	530
M13	13.0	1.00	28	685	685	24	590	590	20	490	490
M14	14.0	1.00	28	635	635	24	545	545	20	455	455
M16	16.0	1.00	28	555	555	24	475	475	20	400	400
M18	18.0	1.00	28	495	495	24	425	425	20	355	355
M20	20.0	1.00	28	445	445	24	380	380	20	320	320
Ghisa GG											
M12	12.0	1.25	28	745	931	24	635	794	20	530	663
M14	14.0	1.25	28	635	794	24	545	681	20	455	569
M16	16.0	1.25	28	555	694	24	475	594	20	400	500
M12	12.0	1.50	28	745	1118	24	635	953	20	530	795
M14	14.0	1.50	28	635	953	24	545	818	20	455	683
M16	16.0	1.50	28	555	833	24	475	713	20	400	600
M18	18.0	1.50	28	495	743	24	425	638	20	355	533
M20	20.0	1.50	28	445	668	24	380	570	20	320	480
M24	24.0	1.50	28	370	555	24	320	480	20	265	398
Ghisa GGG											
M12	12.0	0.75	20	530	398	18	475	356	15	400	300
M14	14.0	0.75	20	455	341	18	410	308	15	340	255
M16	16.0	0.75	20	400	300	18	360	270	15	300	225
M12	12.0	1.00	20	530	530	18	475	475	15	400	400
M13	13.0	1.00	20	490	490	18	440	440	15	365	365
M14	14.0	1.00	20	455	455	18	410	410	15	340	340
M16	16.0	1.00	20	400	400	18	360	360	15	300	300
M18	18.0	1.00	20	355	355	18	320	320	15	265	265
M20	20.0	1.00	20	320	320	18	285	285	15	240	240
Ghisa GGG											
M12	12.0	1.25	20	530	663	18	475	594	15	400	500
M14	14.0	1.25	20	455	569	18	410	513	15	340	425
M16	16.0	1.25	20	400	500	18	360	450	15	300	375
M12	12.0	1.50	20	530	795	18	475	713	15	400	600
M14	14.0	1.50	20	455	683	18	410	615	15	340	510
M16	16.0	1.50	20	400	600	18	360	540	15	300	450
M18	18.0	1.50	20	355	533	18	320	480	15	265	398
M20	20.0	1.50	20	320	480	18	285	428	15	240	360
M24	24.0	1.50	20	265	398	18	240	360	15	200	300

Application



Materiale

MF	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Ghisa GG											
M12	12.0	0.75	30	795	596	28	745	559	25	665	499
M14	14.0	0.75	30	680	510	28	635	476	25	570	428
M16	16.0	0.75	30	595	446	28	555	416	25	495	371
M12	12.0	1.00	30	795	795	28	745	745	25	665	665
M13	13.0	1.00	30	735	735	28	685	685	25	610	610
M14	14.0	1.00	30	680	680	28	635	635	25	570	570
M16	16.0	1.00	30	595	595	28	555	555	25	495	495
M18	18.0	1.00	30	530	530	28	495	495	25	440	440
M20	20.0	1.00	30	475	475	28	445	445	25	400	400
Ghisa GG											
M12	12.0	1.25	30	795	994	28	745	931	25	665	831
M14	14.0	1.25	30	680	850	28	635	794	25	570	713
M16	16.0	1.25	30	595	744	28	555	694	25	495	619
M12	12.0	1.50	30	795	1193	28	745	1118	25	665	998
M14	14.0	1.50	30	680	1020	28	635	953	25	570	855
M16	16.0	1.50	30	595	893	28	555	833	25	495	743
M18	18.0	1.50	30	530	795	28	495	743	25	440	660
M20	20.0	1.50	30	475	713	28	445	668	25	400	600
M24	24.0	1.50	30	400	600	28	370	555	25	330	495
Ghisa GGG											
M12	12.0	0.75	25	665	499	22	585	439	20	530	398
M14	14.0	0.75	25	570	428	22	500	375	20	455	341
M16	16.0	0.75	25	495	371	22	440	330	20	400	300
M12	12.0	1.00	25	665	665	22	585	585	20	530	530
M13	13.0	1.00	25	610	610	22	540	540	20	490	490
M14	14.0	1.00	25	570	570	22	500	500	20	455	455
M16	16.0	1.00	25	495	495	22	440	440	20	400	400
M18	18.0	1.00	25	440	440	22	390	390	20	355	355
M20	20.0	1.00	25	400	400	22	350	350	20	320	320
Ghisa GGG											
M12	12.0	1.25	25	665	831	22	585	731	20	530	663
M14	14.0	1.25	25	570	713	22	500	625	20	455	569
M16	16.0	1.25	25	495	619	22	440	550	20	400	500
M12	12.0	1.50	25	665	998	22	585	878	20	530	795
M14	14.0	1.50	25	570	855	22	500	750	20	455	683
M16	16.0	1.50	25	495	743	22	440	660	20	400	600
M18	18.0	1.50	25	440	660	22	390	585	20	355	533
M20	20.0	1.50	25	400	600	22	350	525	20	320	480
M24	24.0	1.50	25	330	495	22	290	435	20	265	398

Maschi

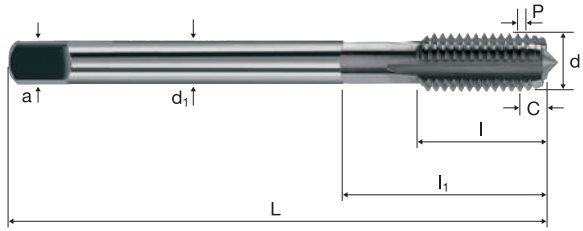
GG

MF | ISO 2 (6H)

60° | HSS PM/F

DIN 374

X · P Form C



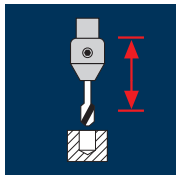
ToolSchool

MF

GG(G)

Esempio: N° Ordine	Articolo EH1271	Codice-ø 070								TiCN EH1271
Ø Code	d	P	L	l	l_1	d_1	a			€
070	M12	0.75	100	18	39	9.0	7.0	4	11.30	54.20
072	M14	0.75	100	18	39	11.0	9.0	4	13.30	69.00
074	M16	0.75	100	18	39	12.0	9.0	4	15.30	81.00
094	M12	1.00	100	18	39	9.0	7.0	4	11.00	54.20
095	M13	1.00	100	18	39	11.0	9.0	4	12.00	62.00
096	M14	1.00	100	18	39	11.0	9.0	4	13.00	69.00
097	M15	1.00	100	18	39	12.0	9.0	4	14.00	75.00
098	M16	1.00	100	18	39	12.0	9.0	4	15.00	81.00
099	M17	1.00	100	18	39	12.0	9.0	4	16.00	92.00
100	M18	1.00	110	20	45	14.0	11.0	4	17.00	104.00
102	M20	1.00	125	20	50	16.0	12.0	4	19.00	126.00
164	M12	1.25	100	22	39	9.0	7.0	4	10.80	54.20
166	M14	1.25	100	22	39	11.0	9.0	4	12.80	69.00
168	M16	1.25	100	22	39	12.0	9.0	4	14.80	81.00
176	M12	1.50	100	22	39	9.0	7.0	4	10.50	54.20
178	M14	1.50	100	22	39	11.0	9.0	4	12.50	69.00
180	M16	1.50	100	22	39	12.0	9.0	4	14.50	81.00
182	M18	1.50	110	25	45	14.0	11.0	4	16.50	104.00
184	M20	1.50	125	26	50	16.0	12.0	4	18.50	126.00
186	M22	1.50	125	26	50	18.0	14.5	5	20.50	150.00
188	M24	1.50	140	27	52	18.0	14.5	5	22.50	175.00

Application



Materiale	MF	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]
Acciaio 500 - 850 N/mm²	M 3	3.0	0.35	22	2335	20	2120	12	1275
	M 4	4.0	0.50	22	1750	20	1590	12	955
	M 5	5.0	0.50	22	1400	20	1275	12	765
	M 6	6.0	0.50	22	1165	20	1060	12	635
	M 6	6.0	0.75	22	1165	20	1060	12	635
	M 8	8.0	0.75	22	875	20	795	12	475
	M10	10.0	0.75	22	700	20	635	12	380
	M 8	8.0	1.00	22	875	20	795	12	475
	M10	10.0	1.00	22	700	20	635	12	380
Acciaio 500 - 850 N/mm²	M12	12.0	1.00	22	585	20	530	12	320
	M14	14.0	1.00	22	500	20	455	12	275
	M16	16.0	1.00	22	440	20	400	12	240
	M10	10.0	1.25	22	700	20	635	12	380
	M12	12.0	1.25	22	585	20	530	12	320
	M12	12.0	1.50	22	585	20	530	12	320
	M14	14.0	1.50	22	500	20	455	12	275
	M16	16.0	1.50	22	440	20	400	12	240
	M20	20.0	1.50	22	350	20	320	12	190
Acciaio 850 - 1100 N/mm²	M 3	3.0	0.35	18	1910	12	1275	8	850
	M 4	4.0	0.50	18	1430	12	955	8	635
	M 5	5.0	0.50	18	1145	12	765	8	510
	M 6	6.0	0.50	18	955	12	635	8	425
	M 6	6.0	0.75	18	955	12	635	8	425
	M 8	8.0	0.75	18	715	12	475	8	320
	M10	10.0	0.75	18	575	12	380	8	255
	M 8	8.0	1.00	18	715	12	475	8	320
	M10	10.0	1.00	18	575	12	380	8	255
Acciaio 850 - 1100 N/mm²	M12	12.0	1.00	18	475	12	320	8	210
	M14	14.0	1.00	18	410	12	275	8	180
	M16	16.0	1.00	18	360	12	240	8	160
	M10	10.0	1.25	18	575	12	380	8	255
	M12	12.0	1.25	18	475	12	320	8	210
	M12	12.0	1.50	18	475	12	320	8	210
	M14	14.0	1.50	18	410	12	275	8	180
	M16	16.0	1.50	18	360	12	240	8	160
	M20	20.0	1.50	18	285	12	190	8	125

Materiale	MF	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]
Acciaio inossidabile [Cr-Ni/1.4301]	M 3	3.0	0.35	4	425	3	320	2	210
	M 4	4.0	0.50	4	320	3	240	2	160
	M 5	5.0	0.50	4	255	3	190	2	125
	M 6	6.0	0.50	4	210	3	160	2	105
	M 6	6.0	0.75	4	210	3	160	2	105
	M 8	8.0	0.75	4	160	3	120	2	80
	M10	10.0	0.75	4	125	3	95	2	65
	M 8	8.0	1.00	4	160	3	120	2	80
	M10	10.0	1.00	4	125	3	95	2	65
Acciaio inossidabile [Cr-Ni/1.4301]	M12	12.0	1.00	4	105	3	80	2	55
	M14	14.0	1.00	4	90	3	70	2	45
	M16	16.0	1.00	4	80	3	60	2	40
	M10	10.0	1.25	4	125	3	95	2	65
	M12	12.0	1.25	4	105	3	80	2	55
	M12	12.0	1.50	4	105	3	80	2	55
	M14	14.0	1.50	4	90	3	70	2	45
	M16	16.0	1.50	4	80	3	60	2	40
	M20	20.0	1.50	4	65	3	50	2	30
Alluminio malleabile Si < 6% temprato	M 3	3.0	0.35	22	2335	20	2120	12	1275
	M 4	4.0	0.50	22	1750	20	1590	12	955
	M 5	5.0	0.50	22	1400	20	1275	12	765
	M 6	6.0	0.50	22	1165	20	1060	12	635
	M 6	6.0	0.75	22	1165	20	1060	12	635
	M 8	8.0	0.75	22	875	20	795	12	475
	M10	10.0	0.75	22	700	20	635	12	380
	M 8	8.0	1.00	22	875	20	795	12	475
	M10	10.0	1.00	22	700	20	635	12	380
Alluminio malleabile Si < 6% temprato	M12	12.0	1.00	22	585	20	530	12	320
	M14	14.0	1.00	22	500	20	455	12	275
	M16	16.0	1.00	22	440	20	400	12	240
	M10	10.0	1.25	22	700	20	635	12	380
	M12	12.0	1.25	22	585	20	530	12	320
	M12	12.0	1.50	22	585	20	530	12	320
	M14	14.0	1.50	22	500	20	455	12	275
	M16	16.0	1.50	22	440	20	400	12	240
	M20	20.0	1.50	22	350	20	320	12	190

Maschi polytap-R

R

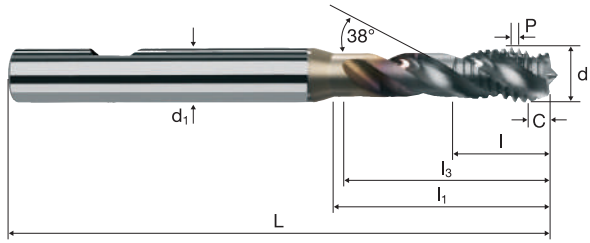
MF

ISO 2 (6H)

HSS PM/F

DIN 1835B ISO 3338

Form C



MF

Rm < 850	Rm 850-1100						Inox Stainless		GG(G) Aluminium

Esempio: **N° Ordine** — Articolo **EH1229** Codice-ø **031**

ø Code	d	P	L	l	l_1	l_3	d_1 h6			TiCN EH1229 €
031	M 3	0.35	63	5	18	16	6	3	2.65	41.40
046	M 4	0.50	66	7	21	19	6	3	3.50	41.40
048	M 5	0.50	70	8	25	23	6	3	4.50	42.20
050	M 6	0.50	80	10	30	28	6	3	5.50	44.10
064	M 6	0.75	80	10	30	28	6	3	5.20	44.10
066	M 8	0.75	90	13	35	33	8	3	7.20	53.20
068	M10	0.75	100	15	39	37	10	3	9.20	63.00
090	M 8	1.00	90	13	35	37	8	3	7.00	53.20
092	M10	1.00	100	15	39	37	10	3	9.00	63.00
094	M12	1.00	110	11	39	37	12	3	11.00	80.00
096	M14	1.00	110	11	46	44	16	4	13.00	96.00
098	M16	1.00	110	12	50	48	16	4	15.00	116.00
162	M10	1.25	100	15	39	37	10	3	8.80	63.00
164	M12	1.25	110	15	39	37	12	3	10.80	80.00
176	M12	1.50	110	15	39	37	12	3	10.50	80.00
178	M14	1.50	110	15	46	44	16	4	12.50	96.00
180	M16	1.50	110	15	50	48	16	4	14.50	116.00
184	M20	1.50	140	20	64	62	16	4	18.50	174.00

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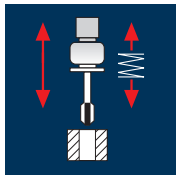
G

N° EH1400			08	HSS PM/F		Rm <850		337
N° EH11425		s-tap	08	HSS-E Co5		Rm <850		339
N° EH1472		x-tap	11	HSS PM/F		Rm 850-1100		341
N° EH1475		x-tap	11	HSS PM/F		Rm 850-1100		343
N° EH1482 ToolSchool			15	HSS PM/F		Rm 1100-1500		345
N° EH1495 ToolSchool			15	HSS PM/F		Rm 1100-1500		347
N° EH6916 ToolSchool			60	HM MG10		HRC 48- >60		349
N° ET1440		Inotap	In	HSS PM/F		Inox Stainless		351
N° ET1475		x-tap	In	HSS PM/F		Inox Stainless		353
N° EH1480 ToolSchool			GG	HSS PM/F		GG(G) Cast iron		355
N° EI1402 ToolSchool			Al	HSS PM/F		Al Aluminium Alloy	Cu Copper	357
N° EI1452 ToolSchool			Al	HSS PM/F		Al Aluminium Alloy	Cu Copper	359
N° EH1429		polytap-R	R	HSS PM/F		Rm <850-1100	Inox Stainless	361
N° E11480		u-tap	U	HSS-E Co5		Rm <850		363
N° E11482		u-tap	U	HSS-E Co5		Rm <850		365

G

Application



Materiale

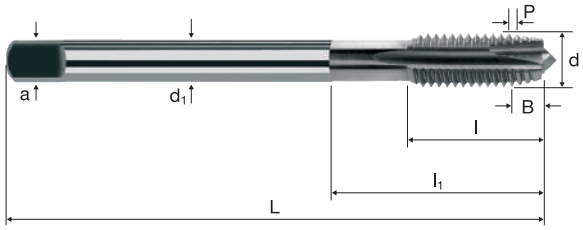
	G	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Acciaio < 500 N/mm^2	G 1/8	9.728	0.907	28	915	830	23	755	685	18	590	535
	G 1/4	13.157	1.337	28	675	902	23	555	742	18	435	582
	G 3/8	16.662	1.337	28	535	715	23	440	588	18	345	461
	G 1/2	20.955	1.814	28	425	771	23	350	635	18	275	499
	G 5/8	22.911	1.814	28	390	707	23	320	580	18	250	454
Acciaio 500 - 850 N/mm^2	G 1/8	9.728	0.907	25	820	744	20	655	594	15	490	444
	G 1/4	13.157	1.337	25	605	809	20	485	648	15	365	488
	G 3/8	16.662	1.337	25	480	642	20	380	508	15	285	381
	G 1/2	20.955	1.814	25	380	689	20	305	553	15	230	417
	G 5/8	22.911	1.814	25	345	626	20	280	508	15	210	381

G

HSS
PM/F

DIN
5156

Form B



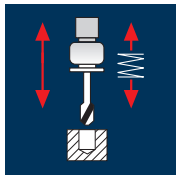
Rm < 850

Rm 850-1100

Esempio: **N° Ordine** — Articolo: **EH1400** — Codice-ø: **551**

ø Code	d	P(TPI)	d (mm)	L	l	l_1	d_1	a			TiCN **EH1400** €
551	**G 1/8**	**28**	9.728	90	18	35	7	5.5	3	8.80	49.60
552	**G 1/4**	**19**	13.157	100	20	39	11	9.0	3	11.80	71.00
553	**G 3/8**	**19**	16.662	100	22	39	12	9.0	4	15.25	105.00
554	**G 1/2**	**14**	20.955	125	25	50	16	12.0	4	19.00	157.00
555	**G 5/8**	**14**	22.911	125	25	50	18	14.5	4	21.00	186.00

Application



Materiale

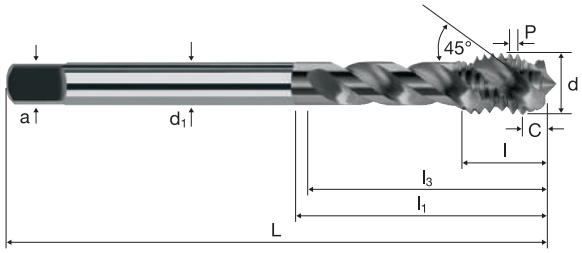
Materiale	G	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio < 500 N/mm^2	G 1/8	9.728	0.907	25	820	744	20	655	594	18	590	535
	G 1/4	13.157	1.337	25	605	809	20	485	648	18	435	582
	G 3/8	16.662	1.337	25	480	642	20	380	508	18	345	461
	G 1/2	20.955	1.814	25	380	689	20	305	553	18	275	499
	G 5/8	22.911	1.814	25	345	626	20	280	508	18	250	454
Acciaio 500 - 850 N/mm^2	G 1/8	9.728	0.907	16	525	476	14	460	417	12	395	358
	G 1/4	13.157	1.337	16	385	515	14	340	455	12	290	388
	G 3/8	16.662	1.337	16	305	408	14	265	354	12	230	308
	G 1/2	20.955	1.814	16	245	444	14	215	390	12	180	327
	G 5/8	22.911	1.814	16	220	399	14	195	354	12	165	299
Ghisa GG(G)	G 1/8	9.728	0.907	14	460	417	12	395	358	10	325	295
	G 1/4	13.157	1.337	14	340	455	12	290	388	10	240	321
	G 3/8	16.662	1.337	14	265	354	12	230	308	10	190	254
	G 1/2	20.955	1.814	14	215	390	12	180	327	10	150	272
	G 5/8	22.911	1.814	14	195	354	12	165	299	10	140	254
Acciaio inossidabile [Cr-Ni/1.4301]	G 1/8	9.728	0.907	3	100	91	2	65	59	2	65	59
	G 1/4	13.157	1.337	3	75	100	2	50	67	2	50	67
	G 3/8	16.662	1.337	3	55	74	2	40	53	2	40	53
	G 1/2	20.955	1.814	3	45	82	2	30	54	2	30	54
	G 5/8	22.911	1.814	3	40	73	2	30	54	2	30	54

G

HSS-E Co5

DIN 5156

Form C

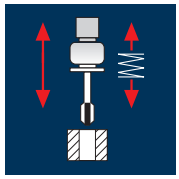


Rm < 850 | **Rm** 850-1100 | **Inox** Stainless | **GG(G)**

Esempio: **N° Ordine** — Articolo **EH11425** Codice-ø **551**

ø Code	d	P(TPI)	d (mm)	L	l	l_1	l_3	d_1	a			TiCN **EH11425** €
551	**G 1/8**	**28**	9.728	90	7.3	35	33	7	5.5	3	8.80	57.40
552	**G 1/4**	**19**	13.157	100	10.7	39	37	11	9.0	4	11.80	80.00
553	**G 3/8**	**19**	16.662	100	10.7	39	37	12	9.0	4	15.25	117.00
554	**G 1/2**	**14**	20.955	125	14.5	65	63	16	12.0	4	19.00	173.00
555	**G 5/8**	**14**	22.911	125	14.5	65	63	18	14.5	4	21.00	204.00

Application



Materiale

Acciaio
500 - 850 N/mm²

G	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
G 1/8	9.728	0.907	25	820	744	20	655	594	15	490	444
G 1/4	13.157	1.337	25	605	809	20	485	648	15	365	488
G 3/8	16.662	1.337	25	480	642	20	380	508	15	285	381
G 1/2	20.955	1.814	25	380	689	20	305	553	15	230	417
G 5/8	22.911	1.814	25	345	626	20	280	508	15	210	381

Acciaio
850 - 1100 N/mm²

G	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
G 1/8	9.728	0.907	20	655	594	15	490	444	12	395	358
G 1/4	13.157	1.337	20	485	648	15	365	488	12	290	388
G 3/8	16.662	1.337	20	380	508	15	285	381	12	230	308
G 1/2	20.955	1.814	20	305	553	15	230	417	12	180	327
G 5/8	22.911	1.814	20	280	508	15	210	381	12	165	299

Acciaio
1100 - 1300 N/mm²

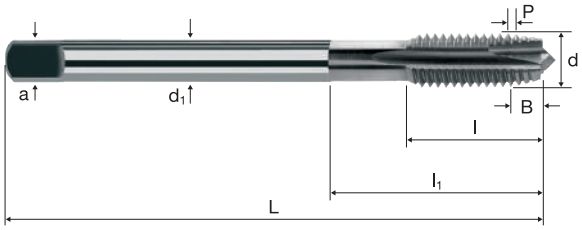
G	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
G 1/8	9.728	0.907	7	230	209	4	130	118			
G 1/4	13.157	1.337	7	170	227	4	95	127			
G 3/8	16.662	1.337	7	135	180	4	75	100			
G 1/2	20.955	1.814	7	105	190	4	60	109			
G 5/8	22.911	1.814	7	95	172	4	55	100			

G

HSS PM/F

DIN 5156

Form B

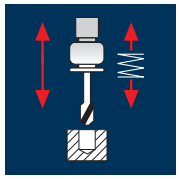


Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300

Esempio: **N° Ordine** — Articolo **EH1472** — Codice-ø **551**

ø Code	d	P(TPI)	d (mm)	L	l	l_1	d_1	a			TiCN EH1472 €
551	**G 1/8**	**28**	9.728	90	18	35	7	5.5	3	8.80	55.20
552	**G 1/4**	**19**	13.157	100	20	39	11	9.0	3	11.80	79.00
553	**G 3/8**	**19**	16.662	100	22	39	12	9.0	4	15.25	116.00
554	**G 1/2**	**14**	20.955	125	25	50	16	12.0	4	19.00	174.00
555	**G 5/8**	**14**	22.911	125	25	50	18	14.5	4	21.00	207.00

Application



Materiale

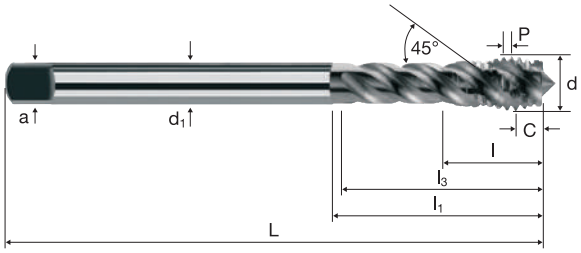
Materiale	G	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio 500 - 850 N/mm^2	G 1/8	9.728	0.907	32	1045	948	28	915	830	22	720	653
	G 1/4	13.157	1.337	32	775	1036	28	675	902	22	530	709
	G 3/8	16.662	1.337	32	610	816	28	535	715	22	420	562
	G 1/2	20.955	1.814	32	485	880	28	425	771	22	335	608
	G 5/8	22.911	1.814	32	445	807	28	390	707	22	305	553
Acciaio 850 - 1100 N/mm^2	G 1/8	9.728	0.907	20	655	594	16	525	476	10	325	295
	G 1/4	13.157	1.337	20	485	648	16	385	515	10	240	321
	G 3/8	16.662	1.337	20	380	508	16	305	408	10	190	254
	G 1/2	20.955	1.814	20	305	553	16	245	444	10	150	272
	G 5/8	22.911	1.814	20	280	508	16	220	399	10	140	254

G

HSS PM/F

DIN 5156

X · P Form C



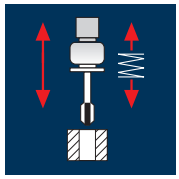
Rm < 850

Rm 850-1100

Esempio: **N° Ordine** — Articolo **EH1475** — Codice-ø **551**

ø Code	d	P(TPI)	d (mm)	L	l	l_1	l_3	d_1	a			TiCN EH1475 €
551	**G 1/8**	**28**	9.728	90	10	35	33	7	5.5	3	8.80	64.00
552	**G 1/4**	**19**	13.157	100	14	39	37	11	9.0	4	11.80	89.00
553	**G 3/8**	**19**	16.662	100	14	39	37	12	9.0	4	15.25	130.00
554	**G 1/2**	**14**	20.955	125	20	65	63	16	12.0	5	19.00	192.00
555	**G 5/8**	**14**	22.911	125	20	65	63	18	14.5	5	21.00	227.00

Application



Materiale

Acciaio
1100 - 1300 N/mm²

G	ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
G 1/8	9.728	0.907	10	325	295	8	260	236	5	165	150
G 1/4	13.157	1.337	10	240	321	8	195	261	5	120	160
G 3/8	16.662	1.337	10	190	254	8	155	207	5	95	127
G 1/2	20.955	1.814	10	150	272	8	120	218	5	75	136
G 5/8	22.911	1.814	10	140	254	8	110	200	5	70	127

Acciaio
1300 - 1500 N/mm²

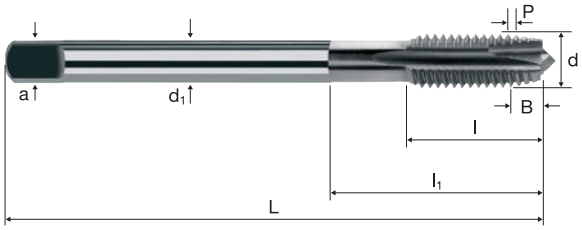
G	ø	P									
G 1/8	9.728	0.907	6	195	177	4	130	118	3	100	91
G 1/4	13.157	1.337	6	145	194	4	95	127	3	75	100
G 3/8	16.662	1.337	6	115	154	4	75	100	3	55	74
G 1/2	20.955	1.814	6	90	163	4	60	109	3	45	82
G 5/8	22.911	1.814	6	85	154	4	55	100	3	40	73

G

HSS PM/F

DIN 5156

Form B



ToolSchool

Rm 1100-1300

Rm 1300-1500

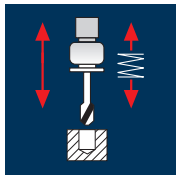
G

Esempio: **N° Ordine** — Articolo **EH1482** — Codice-ø **551**

ø Code	d	P(TPI)	d (mm)	L	l	l_1	d_1	a			TiCN EH1482 €
551	**G 1/8**	**28**	9.728	90	18	35	7	5.5	3	8.85 *	53.30
552	**G 1/4**	**19**	13.157	100	20	39	11	9.0	3	11.90 *	76.00
553	**G 3/8**	**19**	16.662	100	22	39	12	9.0	4	15.40 *	112.00
554	**G 1/2**	**14**	20.955	125	25	50	16	12.0	4	19.20 *	168.00
555	**G 5/8**	**14**	22.911	125	25	50	18	14.5	4	21.10	200.00

* La dimensione data è fuori norma

Application



Materiale

Acciaio
1100 - 1300 N/mm²

G	ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	
G 1/8	9.728	0.907	6	195	177	5	165	150	
G 1/4	13.157	1.337	6	145	194	5	120	160	
G 3/8	16.662	1.337	6	115	154	5	95	127	
G 1/2	20.955	1.814	6	90	163	5	75	136	
G 5/8	22.911	1.814	6	85	154	5	70	127	

Acciaio
1300 - 1500 N/mm²

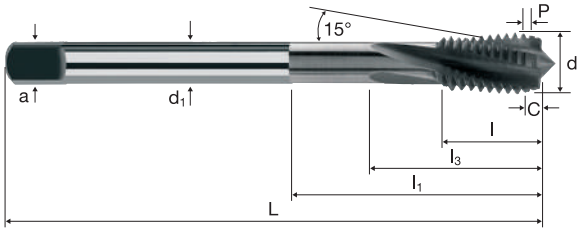
G	ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	
G 1/8	9.728	0.907	5	165	150	4	130	118	
G 1/4	13.157	1.337	5	120	160	4	95	127	
G 3/8	16.662	1.337	5	95	127	4	75	100	
G 1/2	20.955	1.814	5	75	136	4	60	109	
G 5/8	22.911	1.814	5	70	127	4	55	100	

G

HSS PM/F

DIN 5156

Form C



ToolSchool

Rm 1100-1300

Rm 1300-1500

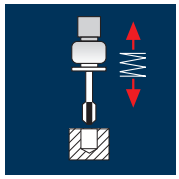
G

Esempio: **N° Ordine** — Articolo **EH1495** — Codice-ø **551**

ø Code	d	P(TPI)	d (mm)	L	l	l_1	l_3	d_1	a			TiCN EH1495 €
551	**G 1/8**	**28**	9.728	90	10	35	33	7	5.5	4	8.85 *	62.00
552	**G 1/4**	**19**	13.157	100	14	39	37	11	9.0	4	11.90 *	86.00
553	**G 3/8**	**19**	16.662	100	14	39	37	12	9.0	4	15.40 *	125.00
554	**G 1/2**	**14**	20.955	125	20	65	63	16	12.0	4	19.20 *	186.00
555	**G 5/8**	**14**	22.911	125	20	65	63	18	14.5	4	21.10	219.00

* La dimensione data è fuori norma

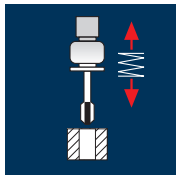
Application



Materiale

G	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio da utensile temperato 48 - 52 HRC											
G 1/8	9.728	0.907	8	260	236	6	195	177	4	130	118
G 1/4	13.157	1.337	8	195	261	6	145	194	4	95	127
G 3/8	16.662	1.337	8	155	207	6	115	154	4	75	100
G 1/2	20.955	1.814	8	120	218	6	90	163	4	60	109
Acciaio da utensile temperato 52 - 56 HRC											
G 1/8	9.728	0.907	6	195	177	4	130	118	3	100	91
G 1/4	13.157	1.337	6	145	194	4	95	127	3	75	100
G 3/8	16.662	1.337	6	115	154	4	75	100	3	55	74
G 1/2	20.955	1.814	6	90	163	4	60	109	3	45	82
Acciaio da utensile temperato 56 - 60 HRC											
G 1/8	9.728	0.907	4	130	118	2	65	59			
G 1/4	13.157	1.337	4	95	127	2	50	67			
G 3/8	16.662	1.337	4	75	100	2	40	53			
G 1/2	20.955	1.814	4	60	109	2	30	54			
Acciaio da utensile temperato > 60 HRC											
G 1/8	9.728	0.907	2	65	59	1.5	50	45			
G 1/4	13.157	1.337	2	50	67	1.5	35	47			
G 3/8	16.662	1.337	2	40	53	1.5	30	40			
G 1/2	20.955	1.814	2	30	54	1.5	25	45			

Application



Materiale

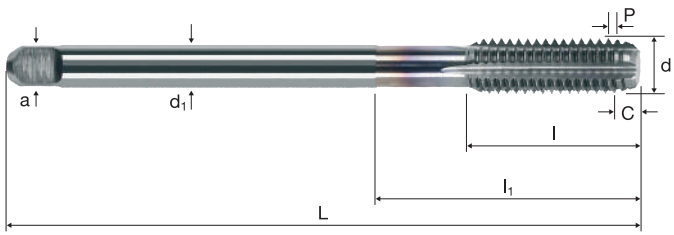
G	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Acciaio da utensile temperato 48 - 52 HRC											
G 1/8	9.728	0.907	8	260	236	6	195	177	4	130	118
G 1/4	13.157	1.337	8	195	261	6	145	194	4	95	127
G 3/8	16.662	1.337	8	155	207	6	115	154	4	75	100
G 1/2	20.955	1.814	8	120	218	6	90	163	4	60	109
Acciaio da utensile temperato 52 - 56 HRC											
G 1/8	9.728	0.907	6	195	177	4	130	118	3	100	91
G 1/4	13.157	1.337	6	145	194	4	95	127	3	75	100
G 3/8	16.662	1.337	6	115	154	4	75	100	3	55	74
G 1/2	20.955	1.814	6	90	163	4	60	109	3	45	82
Acciaio da utensile temperato 56 - 60 HRC											
G 1/8	9.728	0.907	4	130	118	2	65	59			
G 1/4	13.157	1.337	4	95	127	2	50	67			
G 3/8	16.662	1.337	4	75	100	2	40	53			
G 1/2	20.955	1.814	4	60	109	2	30	54			
Acciaio da utensile temperato > 60 HRC											
G 1/8	9.728	0.907	2	65	59	1.5	50	45			
G 1/4	13.157	1.337	2	50	67	1.5	35	47			
G 3/8	16.662	1.337	2	40	53	1.5	30	40			
G 1/2	20.955	1.814	2	30	54	1.5	25	45			

G

HM MG10

DIN 5156

X · P Form C



ToolSchool

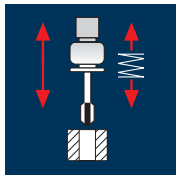
HRC 48-56 | HRC 56-60 | HRC > 60

Esempio: **N° Ordine** — Articolo **EH6916** — Codice-ø **551**

ø Code	d	P(TPI)	d (mm)	L	l	l_1	d_1	a			TiCN EH6916 €
551	**G 1/8**	**28**	9.728	90	18	35	7	5.5	5	8.85 *	316.00
552	**G 1/4**	**19**	13.157	100	20	39	11	9.0	5	11.90 *	427.00
553	**G 3/8**	**19**	16.662	100	22	39	12	9.0	5	15.40 *	586.00
554	**G 1/2**	**14**	20.955	125	25	50	16	12.0	5	19.20 *	741.00

* La dimensione data è fuori norma

Application



Materiale	G	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Acciaio inossidabile ferritico/martensitico	G 1/8	9.728	0.907	12	395	358	10	325	295	8	260	236
	G 1/4	13.157	1.337	12	290	388	10	240	321	8	195	261
	G 3/8	16.662	1.337	12	230	308	10	190	254	8	155	207
	G 1/2	20.955	1.814	12	180	327	10	150	272	8	120	218
	G 5/8	22.911	1.814	12	165	299	10	140	254	8	110	200
Acciaio inossidabile [Cr-Ni/1.4301]	G 1/8	9.728	0.907	7	230	209	5	165	150	4	130	118
	G 1/4	13.157	1.337	7	170	227	5	120	160	4	95	127
	G 3/8	16.662	1.337	7	135	180	5	95	127	4	75	100
	G 1/2	20.955	1.814	7	105	190	5	75	136	4	60	109
	G 5/8	22.911	1.814	7	95	172	5	70	127	4	55	100
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]	G 1/8	9.728	0.907	8	260	236	6	195	177	5	165	150
	G 1/4	13.157	1.337	8	195	261	6	145	194	5	120	160
	G 3/8	16.662	1.337	8	155	207	6	115	154	5	95	127
	G 1/2	20.955	1.814	8	120	218	6	90	163	5	75	136
	G 5/8	22.911	1.814	8	110	200	6	85	154	5	70	127
Acciaio resistente al calore [17-4 PH]	G 1/8	9.728	0.907	5	165	150	4	130	118	3	100	91
	G 1/4	13.157	1.337	5	120	160	4	95	127	3	75	100
	G 3/8	16.662	1.337	5	95	127	4	75	100	3	55	74
	G 1/2	20.955	1.814	5	75	136	4	60	109	3	45	82
	G 5/8	22.911	1.814	5	70	127	4	55	100	3	40	73

Maschi Inotap

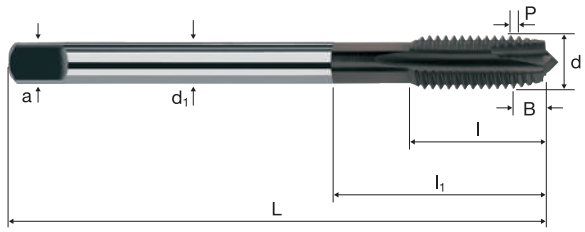
In

G

HSS PM/F

DIN 5156

Form B



Inox
Stainless

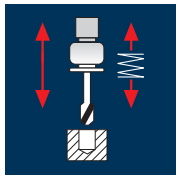
G

Esempio: **N° Ordine** — Articolo **ET1440** — Codice-ø **551**

ø Code	d	P(TPI)	d (mm)	L	l	l_1	d_1	a			TRIBO ET1440 €
551	**G 1/8**	**28**	9.728	90	18	35	7	5.5	3	8.85 *	56.00
552	**G 1/4**	**19**	13.157	100	20	39	11	9.0	3	11.90 *	80.00
553	**G 3/8**	**19**	16.662	100	22	39	12	9.0	4	15.40 *	118.00
554	**G 1/2**	**14**	20.955	125	25	50	16	12.0	4	19.20 *	177.00
555	**G 5/8**	**14**	22.911	125	25	50	18	14.5	4	21.10	210.00

* La dimensione data è fuori norma

Application



Materiale

Materiale	G	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio inossidabile ferritico/martensitico	G 1/8	9.728	0.907	10	325	295	8	260	236	6	195	177
	G 1/4	13.157	1.337	10	240	321	8	195	261	6	145	194
	G 3/8	16.662	1.337	10	190	254	8	155	207	6	115	154
	G 1/2	20.955	1.814	10	150	272	8	120	218	6	90	163
	G 5/8	22.911	1.814	10	140	254	8	110	200	6	85	154
Acciaio inossidabile [Cr-Ni/1.4301]	G 1/8	9.728	0.907	5	165	150	4	130	118	3	100	91
	G 1/4	13.157	1.337	5	120	160	4	95	127	3	75	100
	G 3/8	16.662	1.337	5	95	127	4	75	100	3	55	74
	G 1/2	20.955	1.814	5	75	136	4	60	109	3	45	82
	G 5/8	22.911	1.814	5	70	127	4	55	100	3	40	73
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]	G 1/8	9.728	0.907	6	195	177	5	165	150	4	130	118
	G 1/4	13.157	1.337	6	145	194	5	120	160	4	95	127
	G 3/8	16.662	1.337	6	115	154	5	95	127	4	75	100
	G 1/2	20.955	1.814	6	90	163	5	75	136	4	60	109
	G 5/8	22.911	1.814	6	85	154	5	70	127	4	55	100
Acciaio resistente al calore [17-4 PH]	G 1/8	9.728	0.907	4	130	118	3	100	91			
	G 1/4	13.157	1.337	4	95	127	3	75	100			
	G 3/8	16.662	1.337	4	75	100	3	55	74			
	G 1/2	20.955	1.814	4	60	109	3	45	82			
	G 5/8	22.911	1.814	4	55	100	3	40	73			

Maschi x-tap

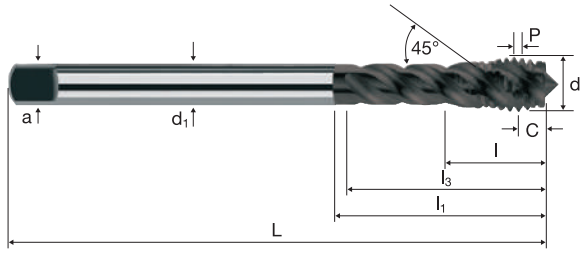
In

G

HSS PM/F

DIN 5156

Form C



Inox Stainless

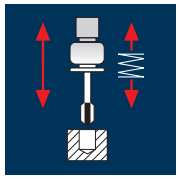
G

Esempio: **N° Ordine** — Articolo **ET1475** — Codice-ø **551**

ø Code	d	P(TPI)	d (mm)	L	l	l_1	l_3	d_1	a			TRIBO ET1475 €
551	**G 1/8**	**28**	9.728	90	10	35	33	7	5.5	3	8.85 *	65.00
552	**G 1/4**	**19**	13.157	100	14	39	37	11	9.0	4	11.90 *	90.00
553	**G 3/8**	**19**	16.662	100	14	39	37	12	9.0	4	15.40 *	131.00
554	**G 1/2**	**14**	20.955	125	20	65	63	16	12.0	5	19.20 *	195.00
555	**G 5/8**	**14**	22.911	125	20	65	63	18	14.5	5	21.10	230.00

* La dimensione data è fuori norma

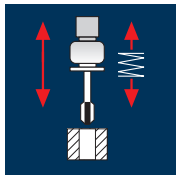
Application



Materiale

	G	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Ghisa GG	G 1/8	9.728	0.907	28	915	830	24	785	712	20	655	594
	G 1/4	13.157	1.337	28	675	902	24	580	775	20	485	648
	G 3/8	16.662	1.337	28	535	715	24	460	615	20	380	508
	G 1/2	20.955	1.814	28	425	771	24	365	662	20	305	553
	G 5/8	22.911	1.814	28	390	707	24	335	608	20	280	508
Ghisa GGG	G 1/8	9.728	0.907	20	655	594	18	590	535	15	490	444
	G 1/4	13.157	1.337	20	485	648	18	435	582	15	365	488
	G 3/8	16.662	1.337	20	380	508	18	345	461	15	285	381
	G 1/2	20.955	1.814	20	305	553	18	275	499	15	230	417
	G 5/8	22.911	1.814	20	280	508	18	250	454	15	210	381

Application



Materiale

	G	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Ghisa GG	G 1/8	9.728	0.907	30	980	889	28	915	830	25	820	744
	G 1/4	13.157	1.337	30	725	969	28	675	902	25	605	809
	G 3/8	16.662	1.337	30	575	769	28	535	715	25	480	642
	G 1/2	20.955	1.814	30	455	825	28	425	771	25	380	689
	G 5/8	22.911	1.814	30	415	753	28	390	707	25	345	626
Ghisa GGG	G 1/8	9.728	0.907	25	820	744	22	720	653	20	655	594
	G 1/4	13.157	1.337	25	605	809	22	530	709	20	485	648
	G 3/8	16.662	1.337	25	480	642	22	420	562	20	380	508
	G 1/2	20.955	1.814	25	380	689	22	335	608	20	305	553
	G 5/8	22.911	1.814	25	345	626	22	305	553	20	280	508

Maschi

GG

G

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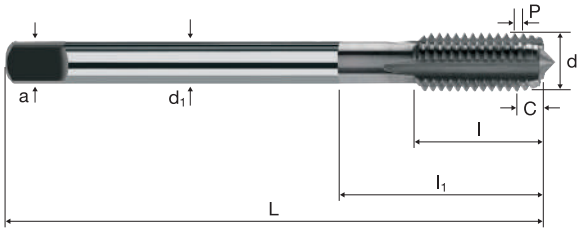
DIN
5156

Form C



ToolSchool

GG(G)

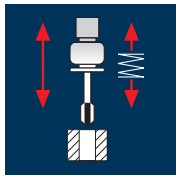
G

Esempio:
N° Ordine

Articolo **EH1480** Codice-ø **551**

ø Code	d	P(TPI)	d (mm)	L	l	l_1	d_1	a			TiCN EH1480 €
551	**G 1/8**	**28**	9.728	90	18	35	7	5.5	4	8.80	41.60
552	**G 1/4**	**19**	13.157	100	20	39	11	9.0	4	11.80	59.50
553	**G 3/8**	**19**	16.662	100	22	39	12	9.0	4	15.25	88.00
554	**G 1/2**	**14**	20.955	125	25	50	16	12.0	5	19.00	131.00
555	**G 5/8**	**14**	22.911	125	25	50	18	14.5	5	21.00	156.00

Application



Materiale	G	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Alluminio non legato	G 1/8	9.728	0.907	23	755	685	19	620	562	16	525	476
	G 1/4	13.157	1.337	23	555	742	19	460	615	16	385	515
	G 3/8	16.662	1.337	23	440	588	19	365	488	16	305	408
	G 1/2	20.955	1.814	23	350	635	19	290	526	16	245	444
	G 5/8	22.911	1.814	23	320	580	19	265	481	16	220	399
Alluminio malleabile Si < 6% non temprato	G 1/8	9.728	0.907	35	1145	1039	30	980	889	25	820	744
	G 1/4	13.157	1.337	35	845	1130	30	725	969	25	605	809
	G 3/8	16.662	1.337	35	670	896	30	575	769	25	480	642
	G 1/2	20.955	1.814	35	530	961	30	455	825	25	380	689
	G 5/8	22.911	1.814	35	485	880	30	415	753	25	345	626
Alluminio malleabile Si < 6% temprato	G 1/8	9.728	0.907	20	655	594	17	555	503	14	460	417
	G 1/4	13.157	1.337	20	485	648	17	410	548	14	340	455
	G 3/8	16.662	1.337	20	380	508	17	325	435	14	265	354
	G 1/2	20.955	1.814	20	305	553	17	260	472	14	215	390
	G 5/8	22.911	1.814	20	280	508	17	235	426	14	195	354
Rame non legato	G 1/8	9.728	0.907	21	685	621	18	590	535	15	490	444
	G 1/4	13.157	1.337	21	510	682	18	435	582	15	365	488
	G 3/8	16.662	1.337	21	400	535	18	345	461	15	285	381
	G 1/2	20.955	1.814	21	320	580	18	275	499	15	230	417
	G 5/8	22.911	1.814	21	290	526	18	250	454	15	210	381

Maschi

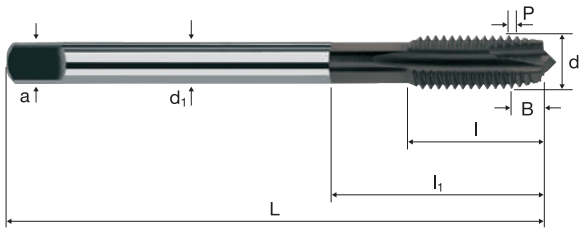
Al

G

HSS PM/F

DIN 5156

Form B



ToolSchool

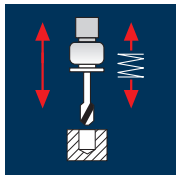
Al Aluminium > 99% | **Al** Aluminium Alloy | **Al** Aluminium Cast | **Cu** Copper | **Plastic** Thermoplast

G

Esempio: **N° Ordine** — Articolo: **EI1402** — Codice-ø: **551**

ø Code	d	P(TPI)	d (mm)	L	l	l_1	d_1	a			INTEGRAL EI1402 €
551	**G 1/8**	**28**	9.728	90	18	35	7	5.5	2	8.80	48.70
552	**G 1/4**	**19**	13.157	100	20	39	11	9.0	3	11.80	70.00
553	**G 3/8**	**19**	16.662	100	22	39	12	9.0	3	15.25	103.00
554	**G 1/2**	**14**	20.955	125	25	50	16	12.0	3	19.00	154.00
555	**G 5/8**	**14**	22.911	125	25	50	18	14.5	3	21.00	182.00

Application



Materiale

Materiale	G	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Alluminio non legato	G 1/8	9.728	0.907	25	820	744	21	685	621	17	555	503
	G 1/4	13.157	1.337	25	605	809	21	510	682	17	410	548
	G 3/8	16.662	1.337	25	480	642	21	400	535	17	325	435
	G 1/2	20.955	1.814	25	380	689	21	320	580	17	260	472
	G 5/8	22.911	1.814	25	345	626	21	290	526	17	235	426
Alluminio malleabile Si < 6% non temprato	G 1/8	9.728	0.907	27	885	803	24	785	712	18	590	535
	G 1/4	13.157	1.337	27	655	876	24	580	775	18	435	582
	G 3/8	16.662	1.337	27	515	689	24	460	615	18	345	461
	G 1/2	20.955	1.814	27	410	744	24	365	662	18	275	499
	G 5/8	22.911	1.814	27	375	680	24	335	608	18	250	454
Alluminio malleabile Si < 6% temprato	G 1/8	9.728	0.907	21	685	621	18	590	535	15	490	444
	G 1/4	13.157	1.337	21	510	682	18	435	582	15	365	488
	G 3/8	16.662	1.337	21	400	535	18	345	461	15	285	381
	G 1/2	20.955	1.814	21	320	580	18	275	499	15	230	417
	G 5/8	22.911	1.814	21	290	526	18	250	454	15	210	381
Rame non legato	G 1/8	9.728	0.907	20	655	594	18	590	535	16	525	476
	G 1/4	13.157	1.337	20	485	648	18	435	582	16	385	515
	G 3/8	16.662	1.337	20	380	508	18	345	461	16	305	408
	G 1/2	20.955	1.814	20	305	553	18	275	499	16	245	444
	G 5/8	22.911	1.814	20	280	508	18	250	454	16	220	399

Maschi

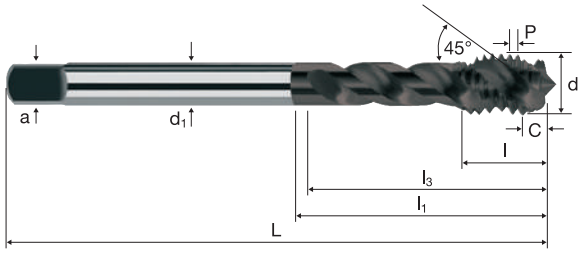
Al

G

HSS
PM/F

DIN
5156

Form C



ToolSchool

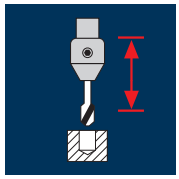
Al Aluminium > 99% | **Al** Aluminium Alloy | **Al** Aluminium Cast | **Cu** Copper | **Plastic** Thermoplast

G

Esempio: **N° Ordine** — Articolo: **EI1452** — Codice-ø: **551**

ø Code	d	P(TPI)	d (mm)	L	l	l_1	l_3	d_1	a			INTEGRAL €
												EI1452
551	**G 1/8**	**28**	9.728	90	10	35	33	7	5.5	3	8.80	56.30
552	**G 1/4**	**19**	13.157	100	14	39	37	11	9.0	4	11.80	79.00
553	**G 3/8**	**19**	16.662	100	14	39	37	12	9.0	4	15.25	114.00
554	**G 1/2**	**14**	20.955	125	20	65	63	16	12.0	4	19.00	170.00
555	**G 5/8**	**14**	22.911	125	20	65	63	18	14.5	4	21.00	200.00

Application



Materiale	G	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]
Acciaio < 500 N/mm^2	G 1/8	9.728	0.907	25	820	22	720	15	490
	G 1/4	13.157	1.337	25	605	22	530	15	365
	G 3/8	16.662	1.337	25	480	22	420	15	285
	G 1/2	20.955	1.814	25	380	22	335	15	230
	G 5/8	22.911	1.814	25	345	22	305	15	210
Acciaio 500 - 850 N/mm^2	G 1/8	9.728	0.907	22	720	20	655	12	395
	G 1/4	13.157	1.337	22	530	20	485	12	290
	G 3/8	16.662	1.337	22	420	20	380	12	230
	G 1/2	20.955	1.814	22	335	20	305	12	180
	G 5/8	22.911	1.814	22	305	20	280	12	165
Acciaio 850 - 1100 N/mm^2	G 1/8	9.728	0.907	18	590	12	395	8	260
	G 1/4	13.157	1.337	18	435	12	290	8	195
	G 3/8	16.662	1.337	18	345	12	230	8	155
	G 1/2	20.955	1.814	18	275	12	180	8	120
	G 5/8	22.911	1.814	18	250	12	165	8	110
Ghisa GG(G)	G 1/8	9.728	0.907	18	590	15	490	12	395
	G 1/4	13.157	1.337	18	435	15	365	12	290
	G 3/8	16.662	1.337	18	345	15	285	12	230
	G 1/2	20.955	1.814	18	275	15	230	12	180
	G 5/8	22.911	1.814	18	250	15	210	12	165

Materiale	G	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]
Acciaio inossidabile [Cr-Ni/1.4301]	G 1/8	9.728	0.907	4	130	3	100	2	65
	G 1/4	13.157	1.337	4	95	3	75	2	50
	G 3/8	16.662	1.337	4	75	3	55	2	40
	G 1/2	20.955	1.814	4	60	3	45	2	30
	G 5/8	22.911	1.814	4	55	3	40	2	30
Alluminio malleabile Si < 6% temprato	G 1/8	9.728	0.907	25	820	22	720	15	490
	G 1/4	13.157	1.337	25	605	22	530	15	365
	G 3/8	16.662	1.337	25	480	22	420	15	285
	G 1/2	20.955	1.814	25	380	22	335	15	230
	G 5/8	22.911	1.814	25	345	22	305	15	210

Maschi polytap-R

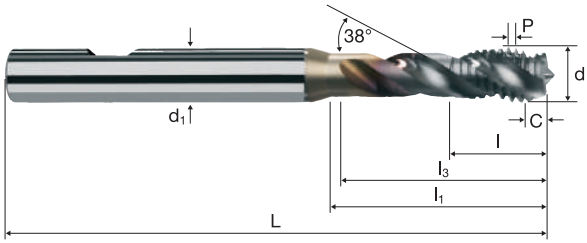
R

G

HSS PM/F

DIN 1835B ISO 3338

Form C

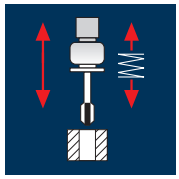


Rm < 850	Rm 850-1100						Inox Stainless		GG(G) Aluminium

Esempio: **N° Ordine** — Articolo **EH1429** — Codice-ø **551**

ø Code	d	P(TPI)	d (mm)	L	l	l1	l3	d1 h6			TiCN EH1429
											€
551	**G 1/8**	**28**	9.728	100	15	39	37	10	3	8.80	61.00
552	**G 1/4**	**19**	13.157	110	15	46	44	16	4	11.80	85.00
553	**G 3/8**	**19**	16.662	110	15	50	48	16	4	15.25	123.00
554	**G 1/2**	**14**	20.955	140	20	64	62	20	4	19.00	182.00
555	**G 5/8**	**14**	22.911	140	20	64	62	20	4	21.00	215.00

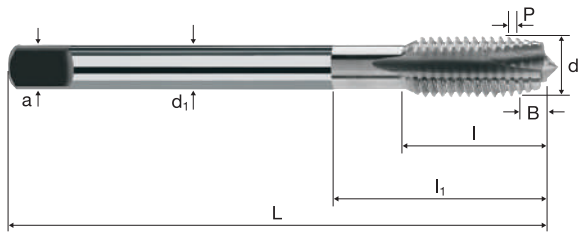
Application



Materiale

Materiale	G	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Acciaio < 500 N/mm²	G 1/8	9.728	0.907	18	590	535	15	490	444	12	395	358
	G 1/4	13.157	1.337	18	435	582	15	365	488	12	290	388
	G 3/8	16.662	1.337	18	345	461	15	285	381	12	230	308
	G 1/2	20.955	1.814	18	275	499	15	230	417	12	180	327
	G 5/8	22.911	1.814	18	250	454	15	210	381	12	165	299
Acciaio 500 - 850 N/mm²	G 1/8	9.728	0.907	15	490	444	10	325	295	8	260	236
	G 1/4	13.157	1.337	15	365	488	10	240	321	8	195	261
	G 3/8	16.662	1.337	15	285	381	10	190	254	8	155	207
	G 1/2	20.955	1.814	15	230	417	10	150	272	8	120	218
	G 5/8	22.911	1.814	15	210	381	10	140	254	8	110	200
Alluminio malleabile Si < 6% temprato Raccomandazione: senza rivestimento	G 1/8	9.728	0.907	15	490	444	12	395	358	10	325	295
	G 1/4	13.157	1.337	15	365	488	12	290	388	10	240	321
	G 3/8	16.662	1.337	15	285	381	12	230	308	10	190	254
	G 1/2	20.955	1.814	15	230	417	12	180	327	10	150	272
	G 5/8	22.911	1.814	15	210	381	12	165	299	10	140	254
Acciaio inossidabile [Cr-Ni/1.4301]	G 1/8	9.728	0.907	5	165	150	4	130	118	3	100	91
	G 1/4	13.157	1.337	5	120	160	4	95	127	3	75	100
	G 3/8	16.662	1.337	5	95	127	4	75	100	3	55	74
	G 1/2	20.955	1.814	5	75	136	4	60	109	3	45	82
	G 5/8	22.911	1.814	5	70	127	4	55	100	3	40	73

Maschi u-tap



G

HSS-E Co5

DIN 5156

X · P
Form B

Rm < 850

Inox Stainless

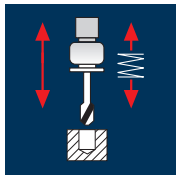
GG(G) Aluminium Copper

G

Esempio: **N° Ordine** — Articolo **E11480** — Codice-ø **551**

ø Code	d	P(TPI)	d (mm)	L	l	l_1	d_1	a			E11480 €	VAP EV11480 €
551	**G 1/8**	**28**	9.728	90	18	35	7	5.5	3	8.80	43.70	44.70
552	**G 1/4**	**19**	13.157	100	20	39	11	9.0	3	11.80	63.00	64.00
553	**G 3/8**	**19**	16.662	100	22	39	12	9.0	4	15.25	92.00	94.00
554	**G 1/2**	**14**	20.955	125	25	50	16	12.0	4	19.00	138.00	141.00
555	**G 5/8**	**14**	22.911	125	25	50	18	14.5	4	21.00	164.00	167.00

Application



Materiale

Materiale	G	ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio < 500 N/mm²	G 1/8	9.728	0.907	14	460	417	12	395	358	10	325	295
	G 1/4	13.157	1.337	14	340	455	12	290	388	10	240	321
	G 3/8	16.662	1.337	14	265	354	12	230	308	10	190	254
	G 1/2	20.955	1.814	14	215	390	12	180	327	10	150	272
	G 5/8	22.911	1.814	14	195	354	12	165	299	10	140	254
Acciaio 500 - 850 N/mm²	G 1/8	9.728	0.907	9	295	268	8	260	236	7	230	209
	G 1/4	13.157	1.337	9	220	294	8	195	261	7	170	227
	G 3/8	16.662	1.337	9	170	227	8	155	207	7	135	180
	G 1/2	20.955	1.814	9	135	245	8	120	218	7	105	190
	G 5/8	22.911	1.814	9	125	227	8	110	200	7	95	172
Alluminio malleabile Si < 6% temprato Raccomandazione: senza rivestimento	G 1/8	9.728	0.907	10	325	295	8	260	236	6	195	177
	G 1/4	13.157	1.337	10	240	321	8	195	261	6	145	194
	G 3/8	16.662	1.337	10	190	254	8	155	207	6	115	154
	G 1/2	20.955	1.814	10	150	272	8	120	218	6	90	163
	G 5/8	22.911	1.814	10	140	254	8	110	200	6	85	154
Acciaio inossidabile [Cr-Ni/1.4301]	G 1/8	9.728	0.907	4	130	118	3	100	91	3	100	91
	G 1/4	13.157	1.337	4	95	127	3	75	100	3	75	100
	G 3/8	16.662	1.337	4	75	100	3	55	74	3	55	74
	G 1/2	20.955	1.814	4	60	109	3	45	82	3	45	82
	G 5/8	22.911	1.814	4	55	100	3	40	73	3	40	73

Maschi u-tap

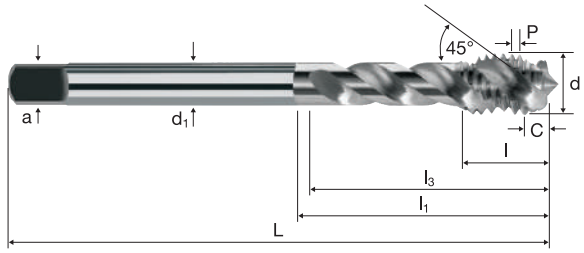
U

G

HSS-E Co5

DIN 5156

Form C



Rm < 850 | **Inox** Stainless | **GG(G) Aluminium Copper**

G

Esempio: **N° Ordine** — Articolo **E11482** — Codice-ø **551**

ø Code	d	P(TPI)	d (mm)	L	l	l_1	l_3	d_1	a			E11482 €	VAP EV11482 €
551	**G 1/8**	**28**	9.728	90	7.3	35	33	7	5.5	3	8.80	50.50	51.70
552	**G 1/4**	**19**	13.157	100	10.7	39	37	11	9.0	4	11.80	71.00	72.00
553	**G 3/8**	**19**	16.662	100	10.7	39	37	12	9.0	4	15.25	103.00	105.00
554	**G 1/2**	**14**	20.955	125	14.5	65	63	16	12.0	4	19.00	152.00	156.00
555	**G 5/8**	**14**	22.911	125	14.5	65	63	18	14.5	4	21.00	180.00	184.00

passion
for precision
fraisa

Filettatura americana UNC / UNJC / UNF / UNJF

UNC, tolleranza 2B

N° EH1687 / EH1688

	11	HSS PM/F		**Rm** 850-1100		369

N° EH1690 / EH1691

x-tap	11	HSS PM/F		**Rm** 850-1100		373

N° ET1620 / ET1621 ToolSchool

	In	HSS PM/F		**Inox** Stainless		377

N° ET1690 / ET1691 ToolSchool

x-tap	In	HSS PM/F		**Inox** Stainless		381

N° EI1602 ToolSchool

	Al	HSS PM/F		**Al** Aluminium Alloy	**Cu** Copper	385

N° EI1652 ToolSchool

	Al	HSS PM/F		**Al** Aluminium Alloy	**Cu** Copper	387

UNJC, tolleranza 3B

N° E1699

	Ni	HSS PM/F		**Ni** Nickel Alloy		389

UNF, tolleranza 2B

N° EH1787 / EH1788

	11	HSS PM/F		**Rm** 850-1100		391

N° EH1790 / EH1791

x-tap	11	HSS PM/F		**Rm** 850-1100		393

N° ET1750 / ET1751 ToolSchool

	In	HSS PM/F		**Inox** Stainless		395

N° ET1790 / ET1791 ToolSchool

x-tap	In	HSS PM/F		**Inox** Stainless		397

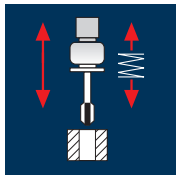
UNJF, tolleranza 3B

N° E1799

	Ni	HSS PM/F		**Ni** Nickel Alloy		399

UN

Application



Materiale	UNC	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Acciaio 500 - 850 N/mm²	2 -56	2.184	0.454	20	2915	1323	16	2330	1058	12	1750	795
	3 -48	2.515	0.529	20	2530	1338	16	2025	1071	12	1520	804
	4 -40	2.845	0.635	20	2240	1422	16	1790	1137	12	1345	854
	5 -40	3.175	0.635	20	2005	1273	16	1605	1019	12	1205	765
	6 -32	3.505	0.794	20	1815	1441	16	1455	1155	12	1090	865
	8 -32	4.166	0.794	20	1530	1215	16	1225	973	12	915	727
	10 -24	4.826	1.058	20	1320	1397	16	1055	1116	12	790	836
	12 -24	5.486	1.058	20	1160	1227	16	930	984	12	695	735
	1/4 -20	6.350	1.270	20	1005	1276	16	800	1016	12	600	762
Acciaio 500 - 850 N/mm²	5/16 -18	7.938	1.411	20	800	1129	16	640	903	12	480	677
	3/8 -16	9.525	1.588	20	670	1064	16	535	850	12	400	635
Acciaio 850 - 1100 N/mm²	2 -56	2.184	0.454	16	2330	1058	12	1750	795	10	1455	661
	3 -48	2.515	0.529	16	2025	1071	12	1520	804	10	1265	669
	4 -40	2.845	0.635	16	1790	1137	12	1345	854	10	1120	711
	5 -40	3.175	0.635	16	1605	1019	12	1205	765	10	1005	638
	6 -32	3.505	0.794	16	1455	1155	12	1090	865	10	910	723
	8 -32	4.166	0.794	16	1225	973	12	915	727	10	765	607
	10 -24	4.826	1.058	16	1055	1116	12	790	836	10	660	698
	12 -24	5.486	1.058	16	930	984	12	695	735	10	580	614
	1/4 -20	6.350	1.270	16	800	1016	12	600	762	10	500	635
Acciaio 850 - 1100 N/mm²	5/16 -18	7.938	1.411	16	640	903	12	480	677	10	400	564
	3/8 -16	9.525	1.588	16	535	850	12	400	635	10	335	532

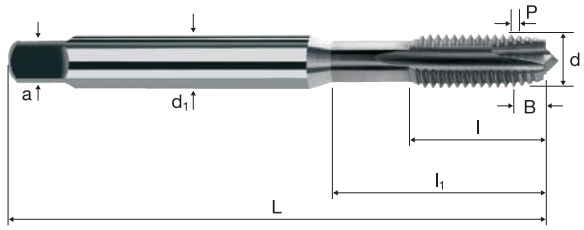
Materiale	UNC	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
Acciaio 1100 - 1300 N/mm²	2 -56	2.184	0.454	5	730	331	3	435	197
	3 -48	2.515	0.529	5	635	336	3	380	201
	4 -40	2.845	0.635	5	560	356	3	335	213
	5 -40	3.175	0.635	5	500	318	3	300	191
	6 -32	3.505	0.794	5	455	361	3	270	214
	8 -32	4.166	0.794	5	380	302	3	230	183
	10 -24	4.826	1.058	5	330	349	3	200	212
	12 -24	5.486	1.058	5	290	307	3	175	185
	1/4 -20	6.350	1.270	5	250	318	3	150	191
Acciaio 1100 - 1300 N/mm²	5/16 -18	7.938	1.411	5	200	282	3	120	169
	3/8 -16	9.525	1.588	5	165	262	3	100	159

UNC | 2B

60° | HSS PM/F

DIN 371

X · P Form B



Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300

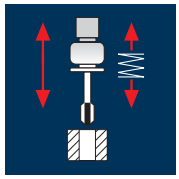
Esempio: **N° Ordine** — Articolo **EH1687** — Codice-ø **701**

ø Code	d	P(TPI)	d (mm)	L	l	l_1	d_1	a			TiCN **EH1687** €
701	**Nr. 2**	**-56**	2.184	45	9	–	2.8	2.1	3	1.85	47.20
702	**Nr. 3**	**-48**	2.515	50	9	–	2.8	2.1	3	2.10	38.90
703	**Nr. 4**	**-40**	2.845	56	12	18.0	3.5	2.7	3	2.35	38.90
704	**Nr. 5**	**-40**	3.175	56	12	18.0	3.5	2.7	3	2.65	38.90
705	**Nr. 6**	**-32**	3.505	56	12	20.0	4.0	3.0	3	2.85	38.90
706	**Nr. 8**	**-32**	4.166	63	13	21.0	4.5	3.4	3	3.50	38.90
707	**Nr. 10**	**-24**	4.826	70	15	25.0	6.0	4.9	3	3.90	39.60
708	**Nr. 12**	**-24**	5.486	80	17	30.0	6.0	4.9	3	4.50	39.60
709	**1/4**	**-20**	6.350	80	17	30.0	7.0	5.5	3	5.10	41.30
710	**5/16**	**-18**	7.938	90	20	35.0	8.0	6.2	3	6.60	49.80
711	**3/8**	**-16**	9.525	100	22	39.0	10.0	8.0	3	8.00	57.70

Dimensioni superiori vedere articolo EH1688, pagina 371

UN

Application



Materiale

Acciaio
500 - 850 N/mm²

UNC		ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
7/16	-14	11.113	1.814	20	575	1043	16	460	834	12	345	626
1/2	-13	12.700	1.954	20	500	977	16	400	782	12	300	586
9/16	-12	14.288	2.117	20	445	942	16	355	752	12	265	561
5/8	-11	15.875	2.309	20	400	924	16	320	739	12	240	554
3/4	-10	19.050	2.540	20	335	851	16	265	673	12	200	508
7/8	-9	22.225	2.822	20	285	804	16	230	649	12	170	480

Acciaio
850 - 1100 N/mm²

UNC		ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
7/16	-14	11.113	1.814	16	460	834	12	345	626	10	285	517
1/2	-13	12.700	1.954	16	400	782	12	300	586	10	250	489
9/16	-12	14.288	2.117	16	355	752	12	265	561	10	225	476
5/8	-11	15.875	2.309	16	320	739	12	240	554	10	200	462
3/4	-10	19.050	2.540	16	265	673	12	200	508	10	165	419
7/8	-9	22.225	2.822	16	230	649	12	170	480	10	145	409

Acciaio
1100 - 1300 N/mm²

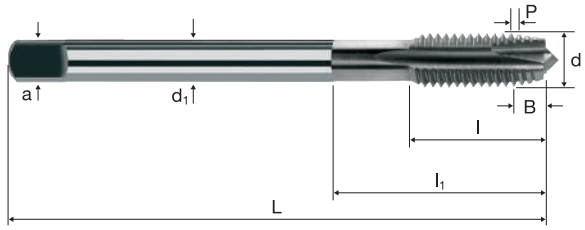
UNC		ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
7/16	-14	11.113	1.814	5	145	263	3	85	154			
1/2	-13	12.700	1.954	5	125	244	3	75	147			
9/16	-12	14.288	2.117	5	110	233	3	65	138			
5/8	-11	15.875	2.309	5	100	231	3	60	139			
3/4	-10	19.050	2.540	5	85	216	3	50	127			
7/8	-9	22.225	2.822	5	70	198	3	45	127			

UNC | 2B

60° | HSS PM/F

≈DIN 376

X · P Form B



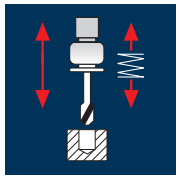
Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300

Esempio: **N° Ordine** — Articolo **EH1688** — Codice-ø **712**

ø Code	d	P(TPI)	d (mm)	L	l	l_1	d_1	a			TiCN **EH1688** €
712	**7/16**	**-14**	11.113	100	22	39	8	6.2	3	9.40	67.00
713	**1/2**	**-13**	12.700	110	24	40	9	7.0	3	10.80	83.00
714	**9/16**	**-12**	14.288	110	26	40	11	9.0	3	12.20	91.00
715	**5/8**	**-11**	15.875	110	27	40	12	9.0	3	13.50	108.00
716	**3/4**	**-10**	19.050	125	30	45	14	11.0	4	16.50	152.00
717	**7/8**	**-9**	22.225	140	32	50	18	14.5	4	19.50	199.00

UN

Application



Materiale

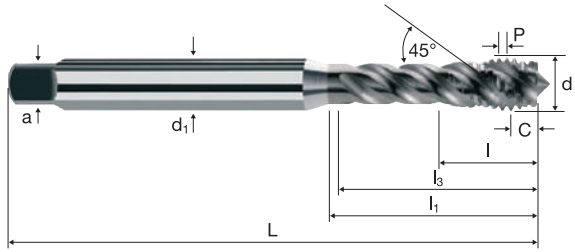
	UNC		ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio 500 - 850 N/mm²	2	-56	2.184	0.454	25	3645	1655	22	3205	1455	18	2625	1192
	3	-48	2.515	0.529	25	3165	1674	22	2785	1473	18	2280	1206
	4	-40	2.845	0.635	25	2795	1775	22	2460	1562	18	2015	1280
	5	-40	3.175	0.635	25	2505	1591	22	2205	1400	18	1805	1146
	6	-32	3.505	0.794	25	2270	1802	22	2000	1588	18	1635	1298
	8	-32	4.166	0.794	25	1910	1517	22	1680	1334	18	1375	1092
	10	-24	4.826	1.058	25	1650	1746	22	1450	1534	18	1185	1254
	12	-24	5.486	1.058	25	1450	1534	22	1275	1349	18	1045	1106
	1/4	-20	6.350	1.270	25	1255	1594	22	1105	1403	18	900	1143
Acciaio 500 - 850 N/mm²	5/16	-18	7.938	1.411	25	1000	1411	22	880	1242	18	720	1016
	3/8	-16	9.525	1.588	25	835	1326	22	735	1167	18	600	953
Acciaio 850 - 1100 N/mm²	2	-56	2.184	0.454	16	2330	1058	13	1895	860	8	1165	529
	3	-48	2.515	0.529	16	2025	1071	13	1645	870	8	1015	537
	4	-40	2.845	0.635	16	1790	1137	13	1455	924	8	895	568
	5	-40	3.175	0.635	16	1605	1019	13	1305	829	8	800	508
	6	-32	3.505	0.794	16	1455	1155	13	1180	937	8	725	576
	8	-32	4.166	0.794	16	1225	973	13	995	790	8	610	484
	10	-24	4.826	1.058	16	1055	1116	13	855	905	8	530	561
	12	-24	5.486	1.058	16	930	984	13	755	799	8	465	492
	1/4	-20	6.350	1.270	16	800	1016	13	650	826	8	400	508
Acciaio 850 - 1100 N/mm²	5/16	-18	7.938	1.411	16	640	903	13	520	734	8	320	452
	3/8	-16	9.525	1.588	16	535	850	13	435	691	8	265	421

UNC | 2B

HSS PM/F

DIN 371

Form C



Rm < 850 | **Rm** 850-1100

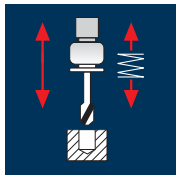
Esempio: **N° Ordine** — Articolo **EH1690** — Codice-ø **701**

ø Code	d	P(TPI)	d (mm)	L	l	l_1	l_3	d_1	a			TiCN EH1690 €
701	**Nr. 2**	**-56**	2.184	45	9	–	12.5	2.8	2.1	3	1.85	53.40
702	**Nr. 3**	**-48**	2.515	50	9	–	13.0	2.8	2.1	3	2.10	43.80
703	**Nr. 4**	**-40**	2.845	56	5	–	16.0	3.5	2.7	3	2.35	43.80
704	**Nr. 5**	**-40**	3.175	56	5	–	16.0	3.5	2.7	3	2.65	43.80
705	**Nr. 6**	**-32**	3.505	56	6	–	18.0	4.0	3.0	3	2.85	43.80
706	**Nr. 8**	**-32**	4.166	63	7	–	19.0	4.5	3.4	3	3.50	43.80
707	**Nr. 10**	**-24**	4.826	70	8	–	23.0	6.0	4.9	3	3.90	44.70
708	**Nr. 12**	**-24**	5.486	80	10	–	28.0	6.0	4.9	3	4.50	44.70
709	**1/4**	**-20**	6.350	80	10	30.0	28.0	7.0	5.5	3	5.10	46.70
710	**5/16**	**-18**	7.938	90	13	35.0	33.0	8.0	6.2	3	6.60	56.30
711	**3/8**	**-16**	9.525	100	15	39.0	37.0	10.0	8.0	3	8.00	67.00

Dimensioni superiori vedere articolo EH1691, pagina 375

UN

Application



Materiale

Acciaio
500 - 850 N/mm²

UNC		ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
7/16	-14	11.113	1.814	25	715	1297	22	630	1143	18	515	934
1/2	-13	12.700	1.954	25	625	1221	22	550	1075	18	450	879
9/16	-12	14.288	2.117	25	555	1175	22	490	1037	18	400	847
5/8	-11	15.875	2.309	25	500	1155	22	440	1016	18	360	831
3/4	-10	19.050	2.540	25	420	1067	22	370	940	18	300	762
7/8	-9	22.225	2.822	25	360	1016	22	315	889	18	260	734

Acciaio
850 - 1100 N/mm²

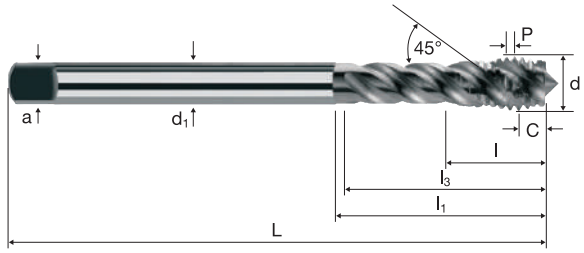
UNC		ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
7/16	-14	11.113	1.814	16	460	834	13	370	671	8	230	417
1/2	-13	12.700	1.954	16	400	782	13	325	635	8	200	391
9/16	-12	14.288	2.117	16	355	752	13	290	614	8	180	381
5/8	-11	15.875	2.309	16	320	739	13	260	600	8	160	369
3/4	-10	19.050	2.540	16	265	673	13	215	546	8	135	343
7/8	-9	22.225	2.822	16	230	649	13	185	522	8	115	325

UNC | 2B

60° | HSS PM/F

DIN 376

X · P Form C



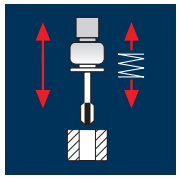
Rm < 850 | **Rm 850-1100**

Esempio: **N° Ordine** — Articolo **EH1691** — Codice-ø **712**

ø Code	d	P(TPI)	d (mm)	L	l	l_1	l_3	d_1	a			TiCN EH1691 €
712	**7/16**	**-14**	11.113	100	15	39	37	8	6.2	3	9.40	76.00
713	**1/2**	**-13**	12.700	110	18	50	48	9	7.0	3	10.80	93.00
714	**9/16**	**-12**	14.288	110	20	58	56	11	9.0	3	12.20	102.00
715	**5/8**	**-11**	15.875	110	20	58	56	12	9.0	3	13.50	123.00
716	**3/4**	**-10**	19.050	125	25	65	63	14	11.0	4	16.50	169.00
717	**7/8**	**-9**	22.225	140	25	72	70	18	14.5	4	19.50	218.00

UN

Application



Materiale

	UNC		ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Acciaio inossidabile ferritico/martensitico	2	-56	2.184	0.454	10	1455	661	8	1165	529	6	875	397
	3	-48	2.515	0.529	10	1265	669	8	1015	537	6	760	402
	4	-40	2.845	0.635	10	1120	711	8	895	568	6	670	425
	5	-40	3.175	0.635	10	1005	638	8	800	508	6	600	381
	6	-32	3.505	0.794	10	910	723	8	725	576	6	545	433
	8	-32	4.166	0.794	10	765	607	8	610	484	6	460	365
	10	-24	4.826	1.058	10	660	698	8	530	561	6	395	418
	12	-24	5.486	1.058	10	580	614	8	465	492	6	350	370
	1/4	-20	6.350	1.270	10	500	635	8	400	508	6	300	381
Acciaio inossidabile ferritico/martensitico	5/16	-18	7.938	1.411	10	400	564	8	320	452	6	240	339
	3/8	-16	9.525	1.588	10	335	532	8	265	421	6	200	318
Acciaio inossidabile [Cr-Ni/1.4301]	2	-56	2.184	0.454	6	875	397	4	585	266	3	435	197
	3	-48	2.515	0.529	6	760	402	4	505	267	3	380	201
	4	-40	2.845	0.635	6	670	425	4	450	286	3	335	213
	5	-40	3.175	0.635	6	600	381	4	400	254	3	300	191
	6	-32	3.505	0.794	6	545	433	4	365	290	3	270	214
	8	-32	4.166	0.794	6	460	365	4	305	242	3	230	183
	10	-24	4.826	1.058	6	395	418	4	265	280	3	200	212
	12	-24	5.486	1.058	6	350	370	4	230	243	3	175	185
	1/4	-20	6.350	1.270	6	300	381	4	200	254	3	150	191
Acciaio inossidabile [Cr-Ni/1.4301]	5/16	-18	7.938	1.411	6	240	339	4	160	226	3	120	169
	3/8	-16	9.525	1.588	6	200	318	4	135	214	3	100	159

Materiale

	UNC		ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]	2	-56	2.184	0.454	6	875	397	5	730	331	4	585	266
	3	-48	2.515	0.529	6	760	402	5	635	336	4	505	267
	4	-40	2.845	0.635	6	670	425	5	560	356	4	450	286
	5	-40	3.175	0.635	6	600	381	5	500	318	4	400	254
	6	-32	3.505	0.794	6	545	433	5	455	361	4	365	290
	8	-32	4.166	0.794	6	460	365	5	380	302	4	305	242
	10	-24	4.826	1.058	6	395	418	5	330	349	4	265	280
	12	-24	5.486	1.058	6	350	370	5	290	307	4	230	243
	1/4	-20	6.350	1.270	6	300	381	5	250	318	4	200	254
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]	5/16	-18	7.938	1.411	6	240	339	5	200	282	4	160	226
	3/8	-16	9.525	1.588	6	200	318	5	165	262	4	135	214
Acciaio resistente al calore [17-4 PH]	2	-56	2.184	0.454	4	585	266	3	435	197	2	290	132
	3	-48	2.515	0.529	4	505	267	3	380	201	2	255	135
	4	-40	2.845	0.635	4	450	286	3	335	213	2	225	143
	5	-40	3.175	0.635	4	400	254	3	300	191	2	200	127
	6	-32	3.505	0.794	4	365	290	3	270	214	2	180	143
	8	-32	4.166	0.794	4	305	242	3	230	183	2	155	123
	10	-24	4.826	1.058	4	265	280	3	200	212	2	130	138
	12	-24	5.486	1.058	4	230	243	3	175	185	2	115	122
	1/4	-20	6.350	1.270	4	200	254	3	150	191	2	100	127
Acciaio resistente al calore [17-4 PH]	5/16	-18	7.938	1.411	4	160	226	3	120	169	2	80	113
	3/8	-16	9.525	1.588	4	135	214	3	100	159	2	65	103

Maschi

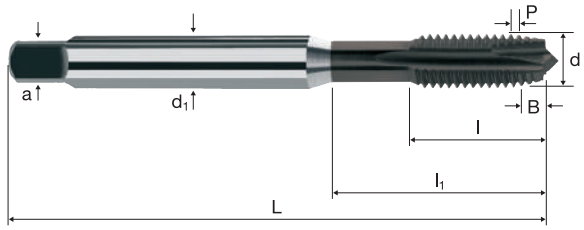
In

UNC | 2B

60° | HSS PM/F

DIN 371

Form B



ToolSchool

Inox Stainless

UN

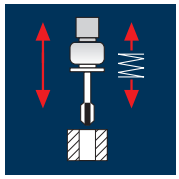
Esempio: **N° Ordine** — Articolo **ET1620** — Codice-ø **701**

ø Code	d	P(TPI)	d (mm)	L	l	l_1	d_1	a			TRIBO ET1620 €
701	**Nr. 2**	**-56**	2.184	45	9	–	2.8	2.1	2	1.90 *	47.80
702	**Nr. 3**	**-48**	2.515	50	9	–	2.8	2.1	2	2.15 *	39.40
703	**Nr. 4**	**-40**	2.845	56	12	18.0	3.5	2.7	3	2.40 *	39.40
704	**Nr. 5**	**-40**	3.175	56	12	18.0	3.5	2.7	3	2.70 *	39.40
705	**Nr. 6**	**-32**	3.505	56	12	20.0	4.0	3.0	3	2.90 *	39.40
706	**Nr. 8**	**-32**	4.166	63	13	21.0	4.5	3.4	3	3.50	39.40
707	**Nr. 10**	**-24**	4.826	70	15	25.0	6.0	4.9	3	4.00 *	40.10
708	**Nr. 12**	**-24**	5.486	80	17	30.0	6.0	4.9	3	4.60 *	40.10
709	**1/4**	**-20**	6.350	80	17	30.0	7.0	5.5	3	5.20	41.90
710	**5/16**	**-18**	7.938	90	20	35.0	8.0	6.2	3	6.70	50.60
711	**3/8**	**-16**	9.525	100	22	39.0	10.0	8.0	3	8.10	58.50

* La dimensione data è fuori norma

Dimensioni superiori vedere articolo ET1621, pagina 379

Application



Materiale	UNC		ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Acciaio inossidabile ferritico/martensitico	7/16	-14	11.113	1.814	10	285	517	8	230	417	6	170	308
	1/2	-13	12.700	1.954	10	250	489	8	200	391	6	150	293
	9/16	-12	14.288	2.117	10	225	476	8	180	381	6	135	286
	5/8	-11	15.875	2.309	10	200	462	8	160	369	6	120	277
	3/4	-10	19.050	2.540	10	165	419	8	135	343	6	100	254
	7/8	-9	22.225	2.822	10	145	409	8	115	325	6	85	240
Acciaio inossidabile [Cr-Ni/1.4301]	7/16	-14	11.113	1.814	6	170	308	4	115	209	3	85	154
	1/2	-13	12.700	1.954	6	150	293	4	100	195	3	75	147
	9/16	-12	14.288	2.117	6	135	286	4	90	191	3	65	138
	5/8	-11	15.875	2.309	6	120	277	4	80	185	3	60	139
	3/4	-10	19.050	2.540	6	100	254	4	65	165	3	50	127
	7/8	-9	22.225	2.822	6	85	240	4	55	155	3	45	127
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]	7/16	-14	11.113	1.814	6	170	308	5	145	263	4	115	209
	1/2	-13	12.700	1.954	6	150	293	5	125	244	4	100	195
	9/16	-12	14.288	2.117	6	135	286	5	110	233	4	90	191
	5/8	-11	15.875	2.309	6	120	277	5	100	231	4	80	185
	3/4	-10	19.050	2.540	6	100	254	5	85	216	4	65	165
	7/8	-9	22.225	2.822	6	85	240	5	70	198	4	55	155
Acciaio resistente al calore [17-4 PH]	7/16	-14	11.113	1.814	4	115	209	3	85	154	2	55	100
	1/2	-13	12.700	1.954	4	100	195	3	75	147	2	50	98
	9/16	-12	14.288	2.117	4	90	191	3	65	138	2	45	95
	5/8	-11	15.875	2.309	4	80	185	3	60	139	2	40	92
	3/4	-10	19.050	2.540	4	65	165	3	50	127	2	35	89
	7/8	-9	22.225	2.822	4	55	155	3	45	127	2	30	85

Maschi

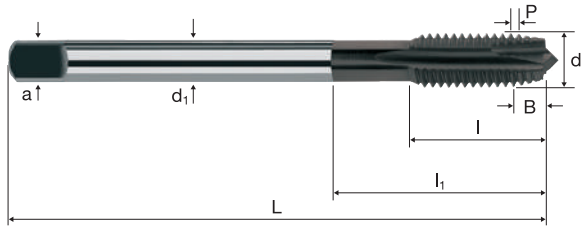
In

UNC | 2B

60° | HSS PM/F

≈DIN 376

X · P Form B



ToolSchool

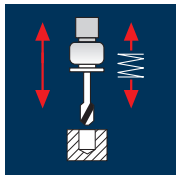
Inox Stainless

UN

Esempio: **N° Ordine** — Articolo **ET1621** — Codice-ø **712**

ø Code	d	P(TPI)	d (mm)	L	l	l_1	d_1	a			TRIBO ET1621 €
712	**7/16**	**-14**	11.113	100	22	39	8	6.2	3	9.50	68.00
713	**1/2**	**-13**	12.700	110	24	40	9	7.0	3	11.00	84.00
714	**9/16**	**-12**	14.288	110	26	40	11	9.0	3	12.40	92.00
715	**5/8**	**-11**	15.875	110	27	40	12	9.0	3	13.80	110.00
716	**3/4**	**-10**	19.050	125	30	45	14	11.0	4	16.80	155.00
717	**7/8**	**-9**	22.225	140	32	50	18	14.5	4	19.70	202.00

Application



Materiale

	UNC		ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
Acciaio inossidabile ferritico/martensitico	2	-56	2.184	0.454	8	1165	529	6	875	397	5	730	331
	3	-48	2.515	0.529	8	1015	537	6	760	402	5	635	336
	4	-40	2.845	0.635	8	895	568	6	670	425	5	560	356
	5	-40	3.175	0.635	8	800	508	6	600	381	5	500	318
	6	-32	3.505	0.794	8	725	576	6	545	433	5	455	361
	8	-32	4.166	0.794	8	610	484	6	460	365	5	380	302
	10	-24	4.826	1.058	8	530	561	6	395	418	5	330	349
	12	-24	5.486	1.058	8	465	492	6	350	370	5	290	307
	1/4	-20	6.350	1.270	8	400	508	6	300	381	5	250	318
Acciaio inossidabile ferritico/martensitico	5/16	-18	7.938	1.411	8	320	452	6	240	339	5	200	282
	3/8	-16	9.525	1.588	8	265	421	6	200	318	5	165	262
Acciaio inossidabile [Cr-Ni/1.4301]	2	-56	2.184	0.454	4	585	266	3	435	197	2	290	132
	3	-48	2.515	0.529	4	505	267	3	380	201	2	255	135
	4	-40	2.845	0.635	4	450	286	3	335	213	2	225	143
	5	-40	3.175	0.635	4	400	254	3	300	191	2	200	127
	6	-32	3.505	0.794	4	365	290	3	270	214	2	180	143
	8	-32	4.166	0.794	4	305	242	3	230	183	2	155	123
	10	-24	4.826	1.058	4	265	280	3	200	212	2	130	138
	12	-24	5.486	1.058	4	230	243	3	175	185	2	115	122
	1/4	-20	6.350	1.270	4	200	254	3	150	191	2	100	127
Acciaio inossidabile [Cr-Ni/1.4301]	5/16	-18	7.938	1.411	4	160	226	3	120	169	2	80	113
	3/8	-16	9.525	1.588	4	135	214	3	100	159	2	65	103

Materiale

	UNC		ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]	2	-56	2.184	0.454	5	730	331	4	585	266	3	435	197
	3	-48	2.515	0.529	5	635	336	4	505	267	3	380	201
	4	-40	2.845	0.635	5	560	356	4	450	286	3	335	213
	5	-40	3.175	0.635	5	500	318	4	400	254	3	300	191
	6	-32	3.505	0.794	5	455	361	4	365	290	3	270	214
	8	-32	4.166	0.794	5	380	302	4	305	242	3	230	183
	10	-24	4.826	1.058	5	330	349	4	265	280	3	200	212
	12	-24	5.486	1.058	5	290	307	4	230	243	3	175	185
	1/4	-20	6.350	1.270	5	250	318	4	200	254	3	150	191
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]	5/16	-18	7.938	1.411	5	200	282	4	160	226	3	120	169
	3/8	-16	9.525	1.588	5	165	262	4	135	214	3	100	159
Acciaio resistente al calore [17-4 PH]	2	-56	2.184	0.454	3	435	197	2	290	132			
	3	-48	2.515	0.529	3	380	201	2	255	135			
	4	-40	2.845	0.635	3	335	213	2	225	143			
	5	-40	3.175	0.635	3	300	191	2	200	127			
	6	-32	3.505	0.794	3	270	214	2	180	143			
	8	-32	4.166	0.794	3	230	183	2	155	123			
	10	-24	4.826	1.058	3	200	212	2	130	138			
	12	-24	5.486	1.058	3	175	185	2	115	122			
	1/4	-20	6.350	1.270	3	150	191	2	100	127			
Acciaio resistente al calore [17-4 PH]	5/16	-18	7.938	1.411	3	120	169	2	80	113			
	3/8	-16	9.525	1.588	3	100	159	2	65	103			

Maschi x-tap

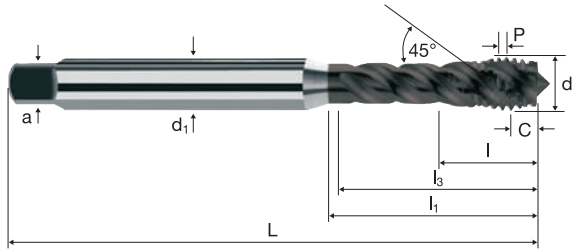
In

UNC | 2B

60° | HSS PM/F

DIN 371

X · P Form C



ToolSchool

Inox Stainless

UN

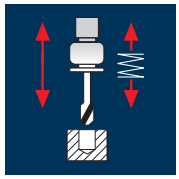
Esempio: **N° Ordine** — Articolo **ET1690** — Codice-ø **701**

ø Code	d	P(TPI)	d (mm)	L	l	l1	l3	d1	a			TRIBO ET1690 €
701	**Nr. 2**	**-56**	2.184	45	9	–	12.5	2.8	2.1	3	1.90 *	54.20
702	**Nr. 3**	**-48**	2.515	50	9	–	13.0	2.8	2.1	3	2.15 *	44.40
703	**Nr. 4**	**-40**	2.845	56	5	–	16.0	3.5	2.7	3	2.40 *	44.40
704	**Nr. 5**	**-40**	3.175	56	5	–	16.0	3.5	2.7	3	2.70 *	44.40
705	**Nr. 6**	**-32**	3.505	56	6	–	18.0	4.0	3.0	3	2.90 *	44.40
706	**Nr. 8**	**-32**	4.166	63	7	–	19.0	4.5	3.4	3	3.50	44.40
707	**Nr. 10**	**-24**	4.826	70	8	–	23.0	6.0	4.9	3	4.00 *	45.30
708	**Nr. 12**	**-24**	5.486	80	10	–	28.0	6.0	4.9	3	4.60 *	45.30
709	**1/4**	**-20**	6.350	80	10	30.0	28.0	7.0	5.5	3	5.20	47.40
710	**5/16**	**-18**	7.938	90	13	35.0	33.0	8.0	6.2	3	6.70	57.10
711	**3/8**	**-16**	9.525	100	15	39.0	37.0	10.0	8.0	3	8.10	68.00

* La dimensione data è fuori norma

Dimensioni superiori vedere articolo ET1691, pagina 383

Application



Materiale	UNC		ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio inossidabile ferritico/martensitico	7/16	-14	11.113	1.814	8	230	417	6	170	308	5	145	263
	1/2	-13	12.700	1.954	8	200	391	6	150	293	5	125	244
	9/16	-12	14.288	2.117	8	180	381	6	135	286	5	110	233
	5/8	-11	15.875	2.309	8	160	369	6	120	277	5	100	231
	3/4	-10	19.050	2.540	8	135	343	6	100	254	5	85	216
	7/8	-9	22.225	2.822	8	115	325	6	85	240	5	70	198
Acciaio inossidabile [Cr-Ni/1.4301]	7/16	-14	11.113	1.814	4	115	209	3	85	154	2	55	100
	1/2	-13	12.700	1.954	4	100	195	3	75	147	2	50	98
	9/16	-12	14.288	2.117	4	90	191	3	65	138	2	45	95
	5/8	-11	15.875	2.309	4	80	185	3	60	139	2	40	92
	3/4	-10	19.050	2.540	4	65	165	3	50	127	2	35	89
	7/8	-9	22.225	2.822	4	55	155	3	45	127	2	30	85
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]	7/16	-14	11.113	1.814	5	145	263	4	115	209	3	85	154
	1/2	-13	12.700	1.954	5	125	244	4	100	195	3	75	147
	9/16	-12	14.288	2.117	5	110	233	4	90	191	3	65	138
	5/8	-11	15.875	2.309	5	100	231	4	80	185	3	60	139
	3/4	-10	19.050	2.540	5	85	216	4	65	165	3	50	127
	7/8	-9	22.225	2.822	5	70	198	4	55	155	3	45	127
Acciaio resistente al calore [17-4 PH]	7/16	-14	11.113	1.814	3	85	154	2	55	100			
	1/2	-13	12.700	1.954	3	75	147	2	50	98			
	9/16	-12	14.288	2.117	3	65	138	2	45	95			
	5/8	-11	15.875	2.309	3	60	139	2	40	92			
	3/4	-10	19.050	2.540	3	50	127	2	35	89			
	7/8	-9	22.225	2.822	3	45	127	2	30	85			

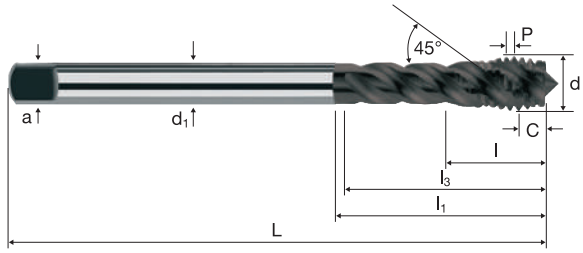
Maschi x-tap

UNC | 2B

60° | HSS PM/F

≈DIN 376

X · P Form C



ToolSchool

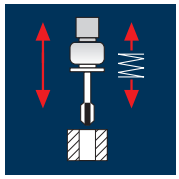
Inox Stainless

UN

Esempio: **N° Ordine** — Articolo **ET1691** — Codice-ø **712**

ø Code	d	P(TPI)	d (mm)	L	l	l_1	l_3	d_1	a			TRIBO ET1691 €
712	**7/16**	**-14**	11.113	100	15	39	37	8	6.2	3	9.50	77.00
713	**1/2**	**-13**	12.700	110	18	50	48	9	7.0	3	11.00	94.00
714	**9/16**	**-12**	14.288	110	20	58	56	11	9.0	3	12.40	103.00
715	**5/8**	**-11**	15.875	110	20	58	56	12	9.0	3	13.80	125.00
716	**3/4**	**-10**	19.050	125	25	65	63	14	11.0	4	16.80	172.00
717	**7/8**	**-9**	22.225	140	25	72	70	18	14.5	4	19.70	221.00

Application



Materiale	UNC	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Alluminio non legato	2 -56	2.184	0.454	18	2625	1192	15	2185	992	13	1895	860
	3 -48	2.515	0.529	18	2280	1206	15	1900	1005	13	1645	870
	4 -40	2.845	0.635	18	2015	1280	15	1680	1067	13	1455	924
	5 -40	3.175	0.635	18	1805	1146	15	1505	956	13	1305	829
	6 -32	3.505	0.794	18	1635	1298	15	1360	1080	13	1180	937
	8 -32	4.166	0.794	18	1375	1092	15	1145	909	13	995	790
	10 -24	4.826	1.058	18	1185	1254	15	990	1047	13	855	905
	12 -24	5.486	1.058	18	1045	1106	15	870	920	13	755	799
	1/4 -20	6.350	1.270	18	900	1143	15	750	953	13	650	826
Alluminio non legato	5/16 -18	7.938	1.411	18	720	1016	15	600	847	13	520	734
	3/8 -16	9.525	1.588	18	600	953	15	500	794	13	435	691
Alluminio malleabile Si < 6% non temprato	2 -56	2.184	0.454	28	4080	1852	24	3500	1589	20	2915	1323
	3 -48	2.515	0.529	28	3545	1875	24	3040	1608	20	2530	1338
	4 -40	2.845	0.635	28	3135	1991	24	2685	1705	20	2240	1422
	5 -40	3.175	0.635	28	2805	1781	24	2405	1527	20	2005	1273
	6 -32	3.505	0.794	28	2545	2021	24	2180	1731	20	1815	1441
	8 -32	4.166	0.794	28	2140	1699	24	1835	1457	20	1530	1215
	10 -24	4.826	1.058	28	1845	1952	24	1585	1677	20	1320	1397
	12 -24	5.486	1.058	28	1625	1719	24	1395	1476	20	1160	1227
	1/4 -20	6.350	1.270	28	1405	1784	24	1205	1530	20	1005	1276
Alluminio malleabile Si < 6% non temprato	5/16 -18	7.938	1.411	28	1125	1587	24	960	1355	20	800	1129
	3/8 -16	9.525	1.588	28	935	1485	24	800	1270	20	670	1064

Materiale	UNC	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Alluminio malleabile Si < 6% temprato	2 -56	2.184	0.454	16	2330	1058	14	2040	926	11	1605	729
	3 -48	2.515	0.529	16	2025	1071	14	1770	936	11	1390	735
	4 -40	2.845	0.635	16	1790	1137	14	1565	994	11	1230	781
	5 -40	3.175	0.635	16	1605	1019	14	1405	892	11	1105	702
	6 -32	3.505	0.794	16	1455	1155	14	1270	1008	11	1000	794
	8 -32	4.166	0.794	16	1225	973	14	1070	850	11	840	667
	10 -24	4.826	1.058	16	1055	1116	14	925	979	11	725	767
	12 -24	5.486	1.058	16	930	984	14	810	857	11	640	677
	1/4 -20	6.350	1.270	16	800	1016	14	700	889	11	550	699
Alluminio malleabile Si < 6% temprato	5/16 -18	7.938	1.411	16	640	903	14	560	790	11	440	621
	3/8 -16	9.525	1.588	16	535	850	14	470	746	11	370	588
Rame non legato	2 -56	2.184	0.454	17	2480	1126	14	2040	926	12	1750	795
	3 -48	2.515	0.529	17	2150	1137	14	1770	936	12	1520	804
	4 -40	2.845	0.635	17	1900	1207	14	1565	994	12	1345	854
	5 -40	3.175	0.635	17	1705	1083	14	1405	892	12	1205	765
	6 -32	3.505	0.794	17	1545	1227	14	1270	1008	12	1090	865
	8 -32	4.166	0.794	17	1300	1032	14	1070	850	12	915	727
	10 -24	4.826	1.058	17	1120	1185	14	925	979	12	790	836
	12 -24	5.486	1.058	17	985	1042	14	810	857	12	695	735
	1/4 -20	6.350	1.270	17	850	1080	14	700	889	12	600	762
Rame non legato	5/16 -18	7.938	1.411	17	680	959	14	560	790	12	480	677
	3/8 -16	9.525	1.588	17	570	905	14	470	746	12	400	635

Maschi

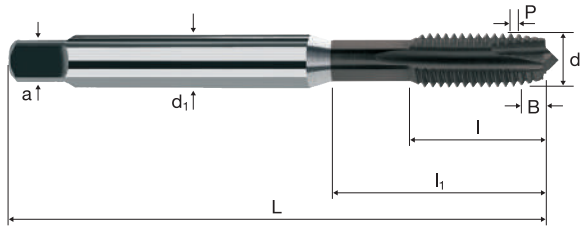
Al

UNC | 2B

60° | HSS PM/F

DIN 371

X · P Form B



ToolSchool

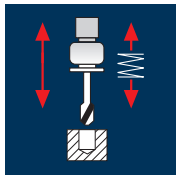
			Al Aluminium > 99%	Al Aluminium Alloy	Al Aluminium Cast		Cu Copper	Plastic Thermoplast	

Esempio: **N° Ordine** — Articolo: **EI1602** — Codice-ø: **701**

ø Code	d	P(TPI)	d (mm)	L	l	l1	d1	a			INTEGRAL EI1602 €
701	**Nr. 2**	**-56**	2.184	45	9	–	2.8	2.1	2	1.85	41.60
702	**Nr. 3**	**-48**	2.515	50	9	–	2.8	2.1	2	2.10	34.30
703	**Nr. 4**	**-40**	2.845	56	12	18.0	3.5	2.7	2	2.35	34.30
704	**Nr. 5**	**-40**	3.175	56	12	18.0	3.5	2.7	2	2.65	34.30
705	**Nr. 6**	**-32**	3.505	56	12	20.0	4.0	3.0	2	2.85	34.30
706	**Nr. 8**	**-32**	4.166	63	13	21.0	4.5	3.4	2	3.50	34.30
707	**Nr. 10**	**-24**	4.826	70	15	25.0	6.0	4.9	2	3.90	34.90
708	**Nr. 12**	**-24**	5.486	80	17	30.0	6.0	4.9	2	4.50	34.90
709	**1/4**	**-20**	6.350	80	17	30.0	7.0	5.5	2	5.10	36.50
710	**5/16**	**-18**	7.938	90	20	35.0	8.0	6.2	2	6.60	44.00
711	**3/8**	**-16**	9.525	100	22	39.0	10.0	8.0	2	8.00	50.90

UN

Application



Materiale	UNC		ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
Alluminio non legato	2	-56	2.184	0.454	12	1750	795	10	1455	661	8	1165	529
	3	-48	2.515	0.529	12	1520	804	10	1265	669	8	1015	537
	4	-40	2.845	0.635	12	1345	854	10	1120	711	8	895	568
	5	-40	3.175	0.635	12	1205	765	10	1005	638	8	800	508
	6	-32	3.505	0.794	12	1090	865	10	910	723	8	725	576
	8	-32	4.166	0.794	12	915	727	10	765	607	8	610	484
	10	-24	4.826	1.058	12	790	836	10	660	698	8	530	561
	12	-24	5.486	1.058	12	695	735	10	580	614	8	465	492
	1/4	-20	6.350	1.270	12	600	762	10	500	635	8	400	508
Alluminio non legato	5/16	-18	7.938	1.411	12	480	677	10	400	564	8	320	452
	3/8	-16	9.525	1.588	12	400	635	10	335	532	8	265	421
Alluminio malleabile Si < 6% non temprato	2	-56	2.184	0.454	12	1750	795	10	1455	661	8	1165	529
	3	-48	2.515	0.529	12	1520	804	10	1265	669	8	1015	537
	4	-40	2.845	0.635	12	1345	854	10	1120	711	8	895	568
	5	-40	3.175	0.635	12	1205	765	10	1005	638	8	800	508
	6	-32	3.505	0.794	12	1090	865	10	910	723	8	725	576
	8	-32	4.166	0.794	12	915	727	10	765	607	8	610	484
	10	-24	4.826	1.058	12	790	836	10	660	698	8	530	561
	12	-24	5.486	1.058	12	695	735	10	580	614	8	465	492
	1/4	-20	6.350	1.270	12	600	762	10	500	635	8	400	508
Alluminio malleabile Si < 6% non temprato	5/16	-18	7.938	1.411	12	480	677	10	400	564	8	320	452
	3/8	-16	9.525	1.588	12	400	635	10	335	532	8	265	421

Materiale	UNC		ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
Alluminio malleabile Si < 6% temprato	2	-56	2.184	0.454	10	1455	661	9	1310	595	8	1165	529
	3	-48	2.515	0.529	10	1265	669	9	1140	603	8	1015	537
	4	-40	2.845	0.635	10	1120	711	9	1005	638	8	895	568
	5	-40	3.175	0.635	10	1005	638	9	900	572	8	800	508
	6	-32	3.505	0.794	10	910	723	9	815	647	8	725	576
	8	-32	4.166	0.794	10	765	607	9	690	548	8	610	484
	10	-24	4.826	1.058	10	660	698	9	595	630	8	530	561
	12	-24	5.486	1.058	10	580	614	9	520	550	8	465	492
	1/4	-20	6.350	1.270	10	500	635	9	450	572	8	400	508
Alluminio malleabile Si < 6% temprato	5/16	-18	7.938	1.411	10	400	564	9	360	508	8	320	452
	3/8	-16	9.525	1.588	10	335	532	9	300	476	8	265	421
Rame non legato	2	-56	2.184	0.454	16	2330	1058	14	2040	926	13	1895	860
	3	-48	2.515	0.529	16	2025	1071	14	1770	936	13	1645	870
	4	-40	2.845	0.635	16	1790	1137	14	1565	994	13	1455	924
	5	-40	3.175	0.635	16	1605	1019	14	1405	892	13	1305	829
	6	-32	3.505	0.794	16	1455	1155	14	1270	1008	13	1180	937
	8	-32	4.166	0.794	16	1225	973	14	1070	850	13	995	790
	10	-24	4.826	1.058	16	1055	1116	14	925	979	13	855	905
	12	-24	5.486	1.058	16	930	984	14	810	857	13	755	799
	1/4	-20	6.350	1.270	16	800	1016	14	700	889	13	650	826
Rame non legato	5/16	-18	7.938	1.411	16	640	903	14	560	790	13	520	734
	3/8	-16	9.525	1.588	16	535	850	14	470	746	13	435	691

Maschi

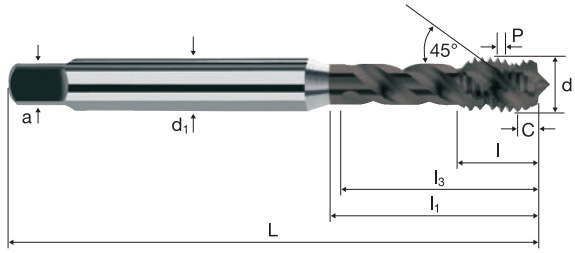
Al

UNC | 2B

60° | HSS PM/F

DIN 371

X · P Form C



ToolSchool

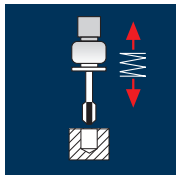
Al Aluminium > 99% | **Al** Aluminium Alloy | **Al** Aluminium Cast | **Cu** Copper | **Plastic** Thermoplast

Esempio: **N° Ordine** — Articolo **EI1652** — Codice-ø **701**

ø Code	d	P(TPI)	d (mm)	L	l	l1	l3	d1	a			INTEGRAL EI1652 €
701	**Nr. 2**	**-56**	2.184	45	9	–	12.5	2.8	2.1	3	1.85	47.10
702	**Nr. 3**	**-48**	2.515	50	9	–	13.0	2.8	2.1	3	2.10	38.60
703	**Nr. 4**	**-40**	2.845	56	5	18.0	16.0	3.5	2.7	3	2.35	38.60
704	**Nr. 5**	**-40**	3.175	56	5	18.0	16.0	3.5	2.7	3	2.65	38.60
705	**Nr. 6**	**-32**	3.505	56	6	20.0	18.0	4.0	3.0	3	2.85	38.60
706	**Nr. 8**	**-32**	4.166	63	7	21.0	19.0	4.5	3.4	3	3.50	38.60
707	**Nr. 10**	**-24**	4.826	70	8	25.0	23.0	6.0	4.9	3	3.90	39.40
708	**Nr. 12**	**-24**	5.486	80	10	30.0	28.0	6.0	4.9	3	4.50	39.40
709	**1/4**	**-20**	6.350	80	10	30.0	28.0	7.0	5.5	3	5.10	41.20
710	**5/16**	**-18**	7.938	90	13	35.0	33.0	8.0	6.2	3	6.60	49.70
711	**3/8**	**-16**	9.525	100	15	39.0	37.0	10.0	8.0	3	8.00	58.80

UN

Application



Materiale

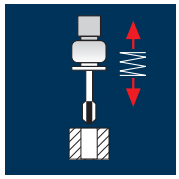
Leg. a base di nichel non indurite

UNJC		ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]
4	-40	2.845	0.635	2	225	143	1.5	170	108
6	-32	3.505	0.794	2	180	143	1.5	135	107
8	-32	4.166	0.794	2	155	123	1.5	115	91
10	-24	4.826	1.058	2	130	138	1.5	100	106
1/4	-20	4.350	1.270	2	145	184	1.5	110	140
5/16	-18	7.938	1.411	2	80	113	1.5	60	85
3/8	-16	9.525	1.588	2	65	103	1.5	50	79

Leg. a base di nichel indurite

UNJC		ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]
4	-40	2.845	0.635	1.5	170	108	1.5	170	108
6	-32	3.505	0.794	1.5	135	107	1.5	135	107
8	-32	4.166	0.794	1.5	115	91	1.5	115	91
10	-24	4.826	1.058	1.5	100	106	1.5	100	106
1/4	-20	4.350	1.270	1.5	110	140	1.5	110	140
5/16	-18	7.938	1.411	1.5	60	85	1.5	60	85
3/8	-16	9.525	1.588	1.5	50	79	1.5	50	79

Application



Materiale

Leg. a base di nichel non indurite

UNJC		ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]
4	-40	2.845	0.635	2	225	143	1.5	170	108
6	-32	3.505	0.794	2	180	143	1.5	135	107
8	-32	4.166	0.794	2	155	123	1.5	115	91
10	-24	4.826	1.058	2	130	138	1.5	100	106
1/4	-20	4.350	1.270	2	145	184	1.5	110	140
5/16	-18	7.938	1.411	2	80	113	1.5	60	85
3/8	-16	9.525	1.588	2	65	103	1.5	50	79

Leg. a base di nichel indurite

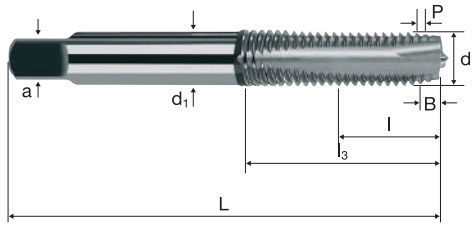
UNJC		ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]
4	-40	2.845	0.635	1.5	170	108	1.5	170	108
6	-32	3.505	0.794	1.5	135	107	1.5	135	107
8	-32	4.166	0.794	1.5	115	91	1.5	115	91
10	-24	4.826	1.058	1.5	100	106	1.5	100	106
1/4	-20	4.350	1.270	1.5	110	140	1.5	110	140
5/16	-18	7.938	1.411	1.5	60	85	1.5	60	85
3/8	-16	9.525	1.588	1.5	50	79	1.5	50	79

Maschi

Ni

UNJC | 3B

60° | HSS PM/F



Nickel-Alloys

Esempio: **N° Ordine** — Articolo **E1699** — Codice-ø **703**

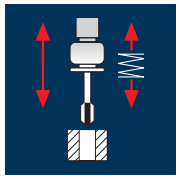
E1699

ø Code	d	P(TPI)	d (mm)	L	l	l_1	l_3	d_1	a			€
703	**Nr. 4**	**-40**	2.845	48	11	–	16	3.5	2.7	3	2.40 *	33.30
705	**Nr. 6**	**-32**	3.505	50	12	–	18	4.0	3.0	3	2.90	33.30
706	**Nr. 8**	**-32**	4.166	53	13	–	19	4.5	3.4	3	3.60 *	33.30
707	**Nr. 10**	**-24**	4.826	58	15	–	22	6.0	4.9	3	4.00	33.90
709	**1/4**	**-20**	6.350	66	17	–	28	7.0	5.5	3	5.40 *	35.40
710	**5/16**	**-18**	7.938	72	20	–	34	8.0	6.2	3	6.80	42.70
711	**3/8**	**-16**	9.525	80	22	–	37	10.0	8.0	3	8.20	49.40

* La dimensione data è fuori norma

UN

Application



Materiale

	UNF		ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Acciaio 500 - 850 N/mm²	6	-40	3.505	0.635	25	2270	1441	20	1815	1153	15	1360	864
	8	-36	4.166	0.706	25	1910	1348	20	1530	1080	15	1145	808
	10	-32	4.826	0.794	25	1650	1310	20	1320	1048	15	990	786
	12	-28	5.486	0.907	25	1450	1315	20	1160	1052	15	870	789
	1/4	-28	6.350	0.907	25	1255	1138	20	1005	912	15	750	680
	5/16	-24	7.938	1.058	25	1005	1064	20	800	847	15	600	635
	3/8	-24	9.525	1.058	25	835	883	20	670	709	15	500	529
	7/16	-20	11.113	1.270	25	715	908	20	575	730	15	430	546
	1/2	-20	12.700	1.270	25	625	794	20	500	635	15	375	476
Acciaio 500 - 850 N/mm²	9/16	-18	14.288	1.411	25	555	783	20	445	628	15	335	473
	5/8	-18	15.875	1.411	25	500	706	20	400	564	15	300	423
	3/4	-16	19.050	1.588	25	420	667	20	335	532	15	250	397
	7/8	-14	22.225	1.814	25	360	653	20	285	517	15	215	390
Acciaio 850 - 1100 N/mm²	6	-40	3.505	0.635	20	1815	1153	15	1360	864	12	1090	692
	8	-36	4.166	0.706	20	1530	1080	15	1145	808	12	915	646
	10	-32	4.826	0.794	20	1320	1048	15	990	786	12	790	627
	12	-28	5.486	0.907	20	1160	1052	15	870	789	12	695	630
	1/4	-28	6.350	0.907	20	1005	912	15	750	680	12	600	544
	5/16	-24	7.938	1.058	20	800	847	15	600	635	12	480	508
	3/8	-24	9.525	1.058	20	670	709	15	500	529	12	400	423
	7/16	-20	11.113	1.270	20	575	730	15	430	546	12	345	438
	1/2	-20	12.700	1.270	20	500	635	15	375	476	12	300	381
Acciaio 850 - 1100 N/mm²	9/16	-18	14.288	1.411	20	445	628	15	335	473	12	265	374
	5/8	-18	15.875	1.411	20	400	564	15	300	423	12	240	339
	3/4	-16	19.050	1.588	20	335	532	15	250	397	12	200	318
	7/8	-14	22.225	1.814	20	285	517	15	215	390	12	170	308

Materiale

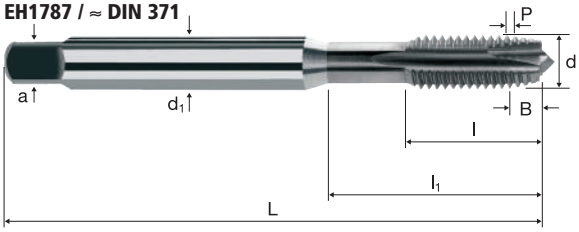
	UNF		ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
Acciaio 1100 - 1300 N/mm²	6	-40	3.505	0.635	7	635	403	4	365	232
	8	-36	4.166	0.706	7	535	377	4	305	215
	10	-32	4.826	0.794	7	460	365	4	265	210
	12	-28	5.486	0.907	7	405	367	4	230	209
	1/4	-28	6.350	0.907	7	350	317	4	200	181
	5/16	-24	7.938	1.058	7	280	296	4	160	169
	3/8	-24	9.525	1.058	7	235	249	4	135	143
	7/16	-20	11.113	1.270	7	200	254	4	115	146
	1/2	-20	12.700	1.270	7	175	222	4	100	127
Acciaio 1100 - 1300 N/mm²	9/16	-18	14.288	1.411	7	155	219	4	90	127
	5/8	-18	15.875	1.411	7	140	198	4	80	113
	3/4	-16	19.050	1.588	7	115	183	4	65	103
	7/8	-14	22.225	1.814	7	100	181	4	55	100

Maschi

11

UNF	2B
60°	HSS PM/F
≈DIN 371/374	
	X · P Form B

EH1787 / ≈ DIN 371



EH1788 / ≈ DIN 374

Rm < 850	Rm 850-1100	Rm 1100-1300							

Esempio: N° Ordine — Articolo: EH1787 — Codice-ø: 756

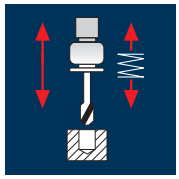
ø Code	d	P(TPI)	d (mm)	L	l	l1	d1	a				TiCN EH1787 €
756	Nr. 6	-40	3.505	56	12	20	4.0	3.0	3	2.95		44.00
757	Nr. 8	-36	4.166	63	13	21	4.5	3.4	3	3.50		44.00
758	Nr. 10	-32	4.826	70	15	25	6.0	4.9	3	4.10		44.70
759	Nr. 12	-28	5.486	80	17	30	6.0	4.9	3	4.60		44.70
760	1/4	-28	6.350	80	17	30	7.0	5.5	3	5.50		46.70
761	5/16	-24	7.938	90	20	35	8.0	6.2	3	6.90		56.30
762	3/8	-24	9.525	100	22	39	10.0	8.0	3	8.50		65.00

Esempio: N° Ordine — Articolo: EH1788 — Codice-ø: 763

ø Code	d	P(TPI)	d (mm)	L	l	l1	d1	a				TiCN EH1788 €
763	7/16	-20	11.113	100	22	39	8.0	6.2	3	9.90		76.00
764	1/2	-20	12.700	100	22	39	9.0	7.0	3	11.50		93.00
765	9/16	-18	14.288	100	22	39	11.0	9.0	3	12.90		103.00
766	5/8	-18	15.875	100	22	39	12.0	9.0	3	14.50		122.00
767	3/4	-16	19.050	110	25	45	14.0	11.0	4	17.50		172.00
768	7/8	-14	22.225	125	26	50	18.0	14.5	4	20.40		225.00

UN

Application



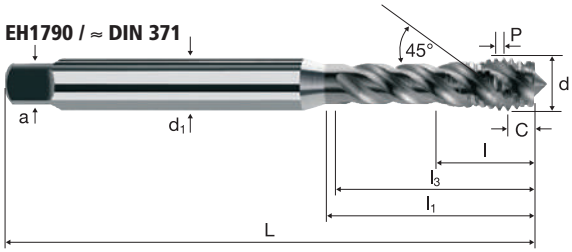
Materiale	UNF		ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio 500 - 850 N/mm²	6	-40	3.505	0.635	32	2905	1845	28	2545	1616	22	2000	1270
	8	-36	4.166	0.706	32	2445	1725	28	2140	1510	22	1680	1185
	10	-32	4.826	0.794	32	2110	1675	28	1845	1465	22	1450	1151
	12	-28	5.486	0.907	32	1855	1683	28	1625	1474	22	1275	1157
	1/4	-28	6.350	0.907	32	1605	1456	28	1405	1274	22	1105	1002
	5/16	-24	7.938	1.058	32	1285	1360	28	1125	1191	22	880	931
	3/8	-24	9.525	1.058	32	1070	1132	28	935	989	22	735	778
	7/16	-20	11.113	1.270	32	915	1162	28	800	1016	22	630	800
	1/2	-20	12.700	1.270	32	800	1016	28	700	889	22	550	699
Acciaio 500 - 850 N/mm²	9/16	-18	14.288	1.411	32	715	1009	28	625	882	22	490	691
	5/8	-18	15.875	1.411	32	640	903	28	560	790	22	440	621
	3/4	-16	19.050	1.588	32	535	849	28	470	746	22	370	587
	7/8	-14	22.225	1.814	32	460	835	28	400	726	22	315	572
Acciaio 850 - 1100 N/mm²	6	-40	3.505	0.635	20	1815	1153	16	1455	924	10	910	578
	8	-36	4.166	0.706	20	1530	1080	16	1225	864	10	765	540
	10	-32	4.826	0.794	20	1320	1048	16	1055	837	10	660	524
	12	-28	5.486	0.907	20	1160	1052	16	930	844	10	580	526
	1/4	-28	6.350	0.907	20	1005	912	16	800	726	10	500	454
	5/16	-24	7.938	1.058	20	800	847	16	640	677	10	400	423
	3/8	-24	9.525	1.058	20	670	709	16	535	566	10	335	354
	7/16	-20	11.113	1.270	20	575	730	16	460	584	10	285	362
	1/2	-20	12.700	1.270	20	500	635	16	400	508	10	250	318
Acciaio 850 - 1100 N/mm²	9/16	-18	14.288	1.411	20	445	628	16	355	501	10	225	317
	5/8	-18	15.875	1.411	20	400	564	16	320	452	10	200	282
	3/4	-16	19.050	1.588	20	335	532	16	265	421	10	165	262
	7/8	-14	22.225	1.814	20	285	517	16	230	417	10	145	263

UNF | 2B

60° | HSS PM/F

DIN 371/374

X · P Form C



EH1791 / ≈ DIN 374

Rm < 850 | **Rm** 850-1100

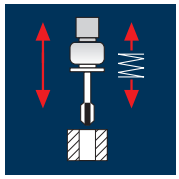
Esempio: **N° Ordine** — Articolo **EH1790** — Codice-ø **756**

Ø Code	d	P(TPI)	d (mm)	L	l	l1	l3	d1	a			TiCN EH1790 €
756	**Nr. 6**	**-40**	3.505	56	6	20	18	4.0	3.0	3	2.95	49.50
757	**Nr. 8**	**-36**	4.166	63	7	21	19	4.5	3.4	3	3.50	49.50
758	**Nr. 10**	**-32**	4.826	70	8	25	23	6.0	4.9	3	4.10	50.50
759	**Nr. 12**	**-28**	5.486	80	10	30	28	6.0	4.9	3	4.60	50.50
760	**1/4**	**-28**	6.350	80	10	30	28	7.0	5.5	3	5.50	52.80
761	**5/16**	**-24**	7.938	90	13	35	33	8.0	6.2	3	6.90	64.00
762	**3/8**	**-24**	9.525	100	15	39	37	10.0	8.0	3	8.50	75.00

Esempio: **N° Ordine** — Articolo **EH1791** — Codice-ø **763**

Ø Code	d	P(TPI)	d (mm)	L	l	l1	l3	d1	a			TiCN EH1791 €
763	**7/16**	**-20**	11.113	100	15	39	37	8.0	6.2	4	9.90	85.00
764	**1/2**	**-20**	12.700	100	15	39	37	9.0	7.0	4	11.50	105.00
765	**9/16**	**-18**	14.288	100	15	39	37	11.0	9.0	4	12.90	115.00
766	**5/8**	**-18**	15.875	100	15	39	37	12.0	9.0	4	14.50	139.00
767	**3/4**	**-16**	19.050	110	17	50	48	14.0	11.0	4	17.50	191.00
768	**7/8**	**-14**	22.225	125	18	65	63	18.0	14.5	5	20.40	246.00

Application



Materiale

Materiale	UNF		ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Acciaio inossidabile ferritico/martensitico	6	-40	3.505	0.635	12	1090	692	10	910	578	8	725	460
	8	-36	4.166	0.706	12	915	646	10	765	540	8	610	430
	10	-32	4.826	0.794	12	790	627	10	660	524	8	530	421
	12	-28	5.486	0.907	12	695	630	10	580	526	8	465	422
	1/4	-28	6.350	0.907	12	600	544	10	500	454	8	400	363
	5/16	-24	7.938	1.058	12	480	508	10	400	423	8	320	339
	3/8	-24	9.525	1.058	12	400	423	10	335	354	8	265	280
	7/16	-20	11.113	1.270	12	345	438	10	285	362	8	230	292
	1/2	-20	12.700	1.270	12	300	381	10	250	318	8	200	254
Acciaio inossidabile ferritico/martensitico	9/16	-18	14.288	1.411	12	265	374	10	225	317	8	180	254
	5/8	-18	15.875	1.411	12	240	339	10	200	282	8	160	226
	3/4	-16	19.050	1.588	12	200	318	10	165	262	8	135	214
	7/8	-14	22.225	1.814	12	170	308	10	145	263	8	115	209
Acciaio inossidabile [Cr-Ni/1.4301]	6	-40	3.505	0.635	7	635	403	5	455	289	4	365	232
	8	-36	4.166	0.706	7	535	377	5	380	268	4	305	215
	10	-32	4.826	0.794	7	460	365	5	330	262	4	265	210
	12	-28	5.486	0.907	7	405	367	5	290	263	4	230	209
	1/4	-28	6.350	0.907	7	350	317	5	250	227	4	200	181
	5/16	-24	7.938	1.058	7	280	296	5	200	212	4	160	169
	3/8	-24	9.525	1.058	7	235	249	5	165	175	4	135	143
	7/16	-20	11.113	1.270	7	200	254	5	145	184	4	115	146
	1/2	-20	12.700	1.270	7	175	222	5	125	159	4	100	127
Acciaio inossidabile [Cr-Ni/1.4301]	9/16	-18	14.288	1.411	7	155	219	5	110	155	4	90	127
	5/8	-18	15.875	1.411	7	140	198	5	100	141	4	80	113
	3/4	-16	19.050	1.588	7	115	183	5	85	135	4	65	103
	7/8	-14	22.225	1.814	7	100	181	5	70	127	4	55	100

Materiale

Materiale	UNF		ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]	6	-40	3.505	0.635	8	725	460	6	545	346	5	455	289
	8	-36	4.166	0.706	8	610	430	6	460	325	5	380	268
	10	-32	4.826	0.794	8	530	421	6	395	314	5	330	262
	12	-28	5.486	0.907	8	465	422	6	350	317	5	290	263
	1/4	-28	6.350	0.907	8	400	363	6	300	272	5	250	227
	5/16	-24	7.938	1.058	8	320	339	6	240	254	5	200	212
	3/8	-24	9.525	1.058	8	265	280	6	200	212	5	165	175
	7/16	-20	11.113	1.270	8	230	292	6	170	216	5	145	184
	1/2	-20	12.700	1.270	8	200	254	6	150	191	5	125	159
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]	9/16	-18	14.288	1.411	8	180	254	6	135	190	5	110	155
	5/8	-18	15.875	1.411	8	160	226	6	120	169	5	100	141
	3/4	-16	19.050	1.588	8	135	214	6	100	159	5	85	135
	7/8	-14	22.225	1.814	8	115	209	6	85	154	5	70	127
Acciaio resistente al calore [17-4 PH]	6	-40	3.505	0.635	5	455	289	4	365	232	3	270	171
	8	-36	4.166	0.706	5	380	268	4	305	215	3	230	162
	10	-32	4.826	0.794	5	330	262	4	265	210	3	200	159
	12	-28	5.486	0.907	5	290	263	4	230	209	3	175	159
	1/4	-28	6.350	0.907	5	250	227	4	200	181	3	150	136
	5/16	-24	7.938	1.058	5	200	212	4	160	169	3	120	127
	3/8	-24	9.525	1.058	5	165	175	4	135	143	3	100	106
	7/16	-20	11.113	1.270	5	145	184	4	115	146	3	85	108
	1/2	-20	12.700	1.270	5	125	159	4	100	127	3	75	95
Acciaio resistente al calore [17-4 PH]	9/16	-18	14.288	1.411	5	110	155	4	90	127	3	65	92
	5/8	-18	15.875	1.411	5	100	141	4	80	113	3	60	85
	3/4	-16	19.050	1.588	5	85	135	4	65	103	3	50	79
	7/8	-14	22.225	1.814	5	70	127	4	55	100	3	45	82

Maschi

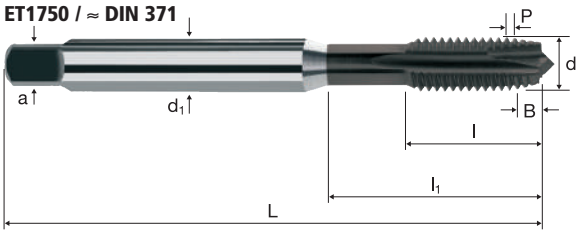
In

UNF | 2B

60° | HSS PM/F

DIN 371/374

X · P Form B



ToolSchool

Inox Stainless

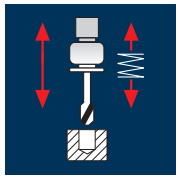
UN

Esempio: N° Ordine	Articolo ET1750	Codice-ø 756								TRIBO ET1750
ø Code	d	P(TPI)	d (mm)	L	l	l1	d1	a			€
756	Nr. 6	-40	3.505	56	12	20	4.0	3.0	3	3.00	44.60
757	Nr. 8	-36	4.166	63	13	21	4.5	3.4	3	3.60	44.60
758	Nr. 10	-32	4.826	70	15	25	6.0	4.9	3	4.20 *	45.40
759	Nr. 12	-28	5.486	80	17	30	6.0	4.9	3	4.70	45.40
760	1/4	-28	6.350	80	17	30	7.0	5.5	3	5.60 *	47.40
761	5/16	-24	7.938	90	20	35	8.0	6.2	3	7.00	57.20
762	3/8	-24	9.525	100	22	39	10.0	8.0	3	8.60	66.00

Esempio: N° Ordine	Articolo ET1751	Codice-ø 763								TRIBO ET1751
ø Code	d	P(TPI)	d (mm)	L	l	l1	d1	a			€
763	7/16	-20	11.113	100	22	39	8.0	6.2	3	10.00	77.00
764	1/2	-20	12.700	100	22	39	9.0	7.0	3	11.60	95.00
765	9/16	-18	14.288	100	22	39	11.0	9.0	3	13.00	104.00
766	5/8	-18	15.875	100	22	39	12.0	9.0	3	14.70 *	124.00
767	3/4	-16	19.050	110	25	45	14.0	11.0	4	17.70 *	175.00
768	7/8	-14	22.225	125	26	50	18.0	14.5	4	20.70 *	228.00

* La dimensione data è fuori norma

Application



Materiale

Materiale	UNF		ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
Acciaio inossidabile ferritico/martensitico	6	-40	3.505	0.635	10	910	578	8	725	460	6	545	346
	8	-36	4.166	0.706	10	765	540	8	610	430	6	460	325
	10	-32	4.826	0.794	10	660	524	8	530	421	6	395	314
	12	-28	5.486	0.907	10	580	526	8	465	422	6	350	317
	1/4	-28	6.350	0.907	10	500	454	8	400	363	6	300	272
	5/16	-24	7.938	1.058	10	400	423	8	320	339	6	240	254
	3/8	-24	9.525	1.058	10	335	354	8	265	280	6	200	212
	7/16	-20	11.113	1.270	10	285	362	8	230	292	6	170	216
	1/2	-20	12.700	1.270	10	250	318	8	200	254	6	150	191
Acciaio inossidabile ferritico/martensitico	9/16	-18	14.288	1.411	10	225	317	8	180	254	6	135	190
	5/8	-18	15.875	1.411	10	200	282	8	160	226	6	120	169
	3/4	-16	19.050	1.588	10	165	262	8	135	214	6	100	159
	7/8	-14	22.225	1.814	10	145	263	8	115	209	6	85	154
Acciaio inossidabile [Cr-Ni/1.4301]	6	-40	3.505	0.635	5	455	289	4	365	232	3	270	171
	8	-36	4.166	0.706	5	380	268	4	305	215	3	230	162
	10	-32	4.826	0.794	5	330	262	4	265	210	3	200	159
	12	-28	5.486	0.907	5	290	263	4	230	209	3	175	159
	1/4	-28	6.350	0.907	5	250	227	4	200	181	3	150	136
	5/16	-24	7.938	1.058	5	200	212	4	160	169	3	120	127
	3/8	-24	9.525	1.058	5	165	175	4	135	143	3	100	106
	7/16	-20	11.113	1.270	5	145	184	4	115	146	3	85	108
	1/2	-20	12.700	1.270	5	125	159	4	100	127	3	75	95
Acciaio inossidabile [Cr-Ni/1.4301]	9/16	-18	14.288	1.411	5	110	155	4	90	127	3	65	92
	5/8	-18	15.875	1.411	5	100	141	4	80	113	3	60	85
	3/4	-16	19.050	1.588	5	85	135	4	65	103	3	50	79
	7/8	-14	22.225	1.814	5	70	127	4	55	100	3	45	82

Materiale

Materiale	UNF		ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]	6	-40	3.505	0.635	6	545	346	5	455	289	4	365	232
	8	-36	4.166	0.706	6	460	325	5	380	268	4	305	215
	10	-32	4.826	0.794	6	395	314	5	330	262	4	265	210
	12	-28	5.486	0.907	6	350	317	5	290	263	4	230	209
	1/4	-28	6.350	0.907	6	300	272	5	250	227	4	200	181
	5/16	-24	7.938	1.058	6	240	254	5	200	212	4	160	169
	3/8	-24	9.525	1.058	6	200	212	5	165	175	4	135	143
	7/16	-20	11.113	1.270	6	170	216	5	145	184	4	115	146
	1/2	-20	12.700	1.270	6	150	191	5	125	159	4	100	127
Acciaio inossidabile [Cr-Ni-Mo-…/1.4571]	9/16	-18	14.288	1.411	6	135	190	5	110	155	4	90	127
	5/8	-18	15.875	1.411	6	120	169	5	100	141	4	80	113
	3/4	-16	19.050	1.588	6	100	159	5	85	135	4	65	103
	7/8	-14	22.225	1.814	6	85	154	5	70	127	4	55	100
Acciaio resistente al calore [17-4 PH]	6	-40	3.505	0.635	4	365	232	3	270	171			
	8	-36	4.166	0.706	4	305	215	3	230	162			
	10	-32	4.826	0.794	4	265	210	3	200	159			
	12	-28	5.486	0.907	4	230	209	3	175	159			
	1/4	-28	6.350	0.907	4	200	181	3	150	136			
	5/16	-24	7.938	1.058	4	160	169	3	120	127			
	3/8	-24	9.525	1.058	4	135	143	3	100	106			
	7/16	-20	11.113	1.270	4	115	146	3	85	108			
	1/2	-20	12.700	1.270	4	100	127	3	75	95			
Acciaio resistente al calore [17-4 PH]	9/16	-18	14.288	1.411	4	90	127	3	65	92			
	5/8	-18	15.875	1.411	4	80	113	3	60	85			
	3/4	-16	19.050	1.588	4	65	103	3	50	79			
	7/8	-14	22.225	1.814	4	55	100	3	45	82			

Maschi x-tap

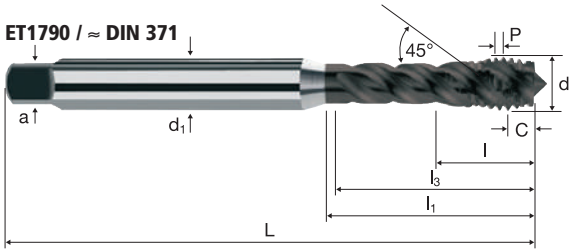
In

UNF | 2B

60° | HSS PM/F

DIN 371/374

X · P Form C



ToolSchool

Inox Stainless

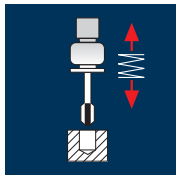
UN

Ø Code	d	P(TPI)	d (mm)	L	l	l1	l3	d1	a			TRIBO ET1790 €
Esempio: N° Ordine	Articolo ET1790		Codice-ø 756									
756	Nr. 6	-40	3.505	56	6	20	18	4.0	3.0	3	3.00	50.20
757	Nr. 8	-36	4.166	63	7	21	19	4.5	3.4	3	3.60	50.20
758	Nr. 10	-32	4.826	70	8	25	23	6.0	4.9	3	4.20 *	51.30
759	Nr. 12	-28	5.486	80	10	30	28	6.0	4.9	3	4.70	51.30
760	1/4	-28	6.350	80	10	30	28	7.0	5.5	3	5.60 *	53.60
761	5/16	-24	7.938	90	13	35	33	8.0	6.2	3	7.00	65.00
762	3/8	-24	9.525	100	15	39	37	10.0	8.0	3	8.60	76.00

Ø Code	d	P(TPI)	d (mm)	L	l	l1	l3	d1	a			TRIBO ET1791 €
Esempio: N° Ordine	Articolo ET1791		Codice-ø 763									
763	7/16	-20	11.113	100	15	39	37	8.0	6.2	4	10.00	87.00
764	1/2	-20	12.700	100	15	39	37	9.0	7.0	4	11.60	107.00
765	9/16	-18	14.288	100	15	39	37	11.0	9.0	4	13.00	117.00
766	5/8	-18	15.875	100	15	39	37	12.0	9.0	4	14.70 *	141.00
767	3/4	-16	19.050	110	17	50	48	14.0	11.0	4	17.70 *	194.00
768	7/8	-14	22.225	125	18	65	63	18.0	14.5	5	20.70 *	250.00

* La dimensione data è fuori norma

Application



Materiale

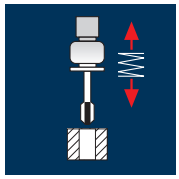
Leg. a base di nichel non indurite

Leg. a base di nichel indurite

UNJF		ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]
6	-40	3.505	0.635	3	270	171	2	180	114
8	-36	4.166	0.706	3	230	162	2	155	109
10	-32	4.826	0.794	3	200	159	2	130	103
1/4	-28	6.350	0.907	3	150	136	2	100	91
5/16	-24	7.938	1.058	3	120	127	2	80	85
3/8	-24	9.525	1.058	3	100	106	2	65	69

UNJF		ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]
6	-40	3.505	0.635	2	180	114	2	180	114
8	-36	4.166	0.706	2	155	109	2	155	109
10	-32	4.826	0.794	2	130	103	2	130	103
1/4	-28	6.350	0.907	2	100	91	2	100	91
5/16	-24	7.938	1.058	2	80	85	2	80	85
3/8	-24	9.525	1.058	2	65	69	2	65	69

Application



Materiale

Leg. a base di nichel non indurite

Leg. a base di nichel indurite

UNJF		ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]
6	-40	3.505	0.635	3	270	171	2	180	114
8	-36	4.166	0.706	3	230	162	2	155	109
10	-32	4.826	0.794	3	200	159	2	130	103
1/4	-28	6.350	0.907	3	150	136	2	100	91
5/16	-24	7.938	1.058	3	120	127	2	80	85
3/8	-24	9.525	1.058	3	100	106	2	65	69

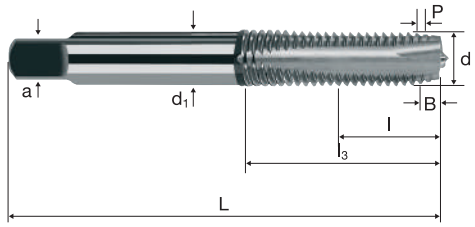
UNJF		ø [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]
6	-40	3.505	0.635	2	180	114	2	180	114
8	-36	4.166	0.706	2	155	109	2	155	109
10	-32	4.826	0.794	2	130	103	2	130	103
1/4	-28	6.350	0.907	2	100	91	2	100	91
5/16	-24	7.938	1.058	2	80	85	2	80	85
3/8	-24	9.525	1.058	2	65	69	2	65	69

Maschi

Ni

UNJF | 3B

60° | HSS PM/F



Nickel-Alloys

Esempio: **N° Ordine** — Articolo **E1799** — Codice-ø **756**

E1799

ø Code	d	P(TPI)	d (mm)	L	l	l_1	l_3	d_1	a	⬡		€
756	**Nr. 6**	**-40**	3.505	50	12	–	18	4.0	3.0	3	3.05	37.50
757	**Nr. 8**	**-36**	4.166	53	13	–	19	4.5	3.4	3	3.60	37.50
758	**Nr. 10**	**-32**	4.826	58	15	–	22	6.0	4.9	3	4.20	38.10
760	**1/4**	**-28**	6.350	66	17	–	28	7.0	5.5	3	5.60	39.90
761	**5/16**	**-24**	7.938	72	20	–	34	8.0	6.2	3	7.10	48.00
762	**3/8**	**-24**	9.525	80	22	–	37	10.0	8.0	3	8.70 *	55.60

* La dimensione data è fuori norma

UN

passion
for precision
fraisa

Filettatura americana gas conica NPT / NPTF

NPT

N° E11820

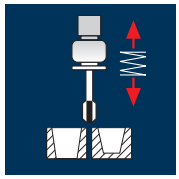
U | HSS-E Co5 | Rm <850 | 403

NPTF

N° E11846

U | HSS-E Co5 | Rm <850 | 405

Application



Materiale	NPT	ø [mm]	P [mm]	v_c	n [min^{-1}]	v_f [100%]
Acciaio < 500 N/mm²	1/16 -27	6.25	0.941	8	405	381
	1/8 -27	8.50	0.941	8	300	282
	1/4 -18	11.10	1.411	8	230	325
	3/8 -18	14.70	1.411	8	175	247
	1/2 -14	18.00	1.814	8	140	254
Acciaio 500 - 850 N/mm²	1/16 -27	6.25	0.941	6	305	287
	1/8 -27	8.50	0.941	6	225	212
	1/4 -18	11.10	1.411	6	170	240
	3/8 -18	14.70	1.411	6	130	183
	1/2 -14	18.00	1.814	6	105	190
Acciaio 850 - 1100 N/mm²	1/16 -27	6.25	0.941	5	255	240
	1/8 -27	8.50	0.941	5	185	174
	1/4 -18	11.10	1.411	5	145	205
	3/8 -18	14.70	1.411	5	110	155
	1/2 -14	18.00	1.814	5	90	163
Alluminio malleabile Si < 6% temprato	1/16 -27	6.25	0.941	10	510	480
	1/8 -27	8.50	0.941	10	375	353
	1/4 -18	11.10	1.411	10	285	402
	3/8 -18	14.70	1.411	10	215	303
	1/2 -14	18.00	1.814	10	175	317

Materiale	NPT	ø [mm]	P [mm]	v_c	n [min^{-1}]	v_f [100%]
Ghisa GG(G)	1/16 -27	6.25	0.941	6	305	287
	1/8 -27	8.50	0.941	6	225	212
	1/4 -18	11.10	1.411	6	170	240
	3/8 -18	14.70	1.411	6	130	183
	1/2 -14	18.00	1.814	6	105	190

Maschi

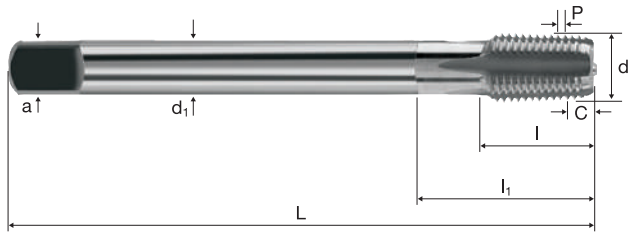
NPT

HSS-E Co5

1 : 16

DIN 374

Form C



Rm < 850 | **Rm** 850-1100 | **GG(G) Aluminium Copper**

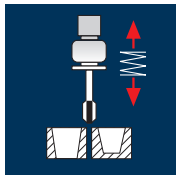
Esempio: **N° Ordine** — Articolo **E11820** — Codice-ø **840**

E11820

Ø Code	d	P(TPI)	L	l	l1	d1	a			€
840	**1/16**	**-27**	80	14	27	7	5.5	3	i	42.40
841	**1/8**	**-27**	90	14	30	8	6.2	4		46.10
842	**1/4**	**-18**	100	20	40	11	9.0	4		62.00
843	**3/8**	**-18**	110	20	40	14	11.0	4		88.00
844	**1/2**	**-14**	125	26	48	18	14.5	5		132.00

NPT NPTF

Application



Materiale	NPTF		ø [mm]	P [mm]	v_c	n [min^{-1}]	v_f [100%]		
Acciaio < 500 N/mm²	1/16	-27	6.25	0.941	8	405	381		
	1/8	-27	8.50	0.941	8	300	282		
	1/4	-18	11.10	1.411	8	230	325		
	3/8	-18	14.70	1.411	8	175	247		
	1/2	-14	18.00	1.814	8	140	254		
Acciaio 500 - 850 N/mm²	1/16	-27	6.25	0.941	6	305	287		
	1/8	-27	8.50	0.941	6	225	212		
	1/4	-18	11.10	1.411	6	170	240		
	3/8	-18	14.70	1.411	6	130	183		
	1/2	-14	18.00	1.814	6	105	190		
Acciaio 850 - 1100 N/mm²	1/16	-27	6.25	0.941	5	255	240		
	1/8	-27	8.50	0.941	5	185	174		
	1/4	-18	11.10	1.411	5	145	205		
	3/8	-18	14.70	1.411	5	110	155		
	1/2	-14	18.00	1.814	5	90	163		
Alluminio malleabile Si < 6% temprato	1/16	-27	6.25	0.941	10	510	480		
	1/8	-27	8.50	0.941	10	375	353		
	1/4	-18	11.10	1.411	10	285	402		
	3/8	-18	14.70	1.411	10	215	303		
	1/2	-14	18.00	1.814	10	175	317		

Materiale	NPTF		ø [mm]	P [mm]	v_c	n [min^{-1}]	v_f [100%]		
Ghisa GG(G)	1/16	-27	6.25	0.941	6	305	287		
	1/8	-27	8.50	0.941	6	225	212		
	1/4	-18	11.10	1.411	6	170	240		
	3/8	-18	14.70	1.411	6	130	183		
	1/2	-14	18.00	1.814	6	105	190		

Maschi

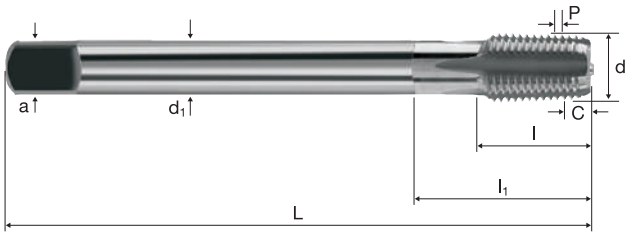
NPTF

1 : 16

HSS-E Co5

DIN 374

Form C



Rm < 850	Rm 850-1100								GG(G) Aluminium Copper

Esempio: **N° Ordine** Articolo **E11846** Codice-ø **840**

E11846

Ø Code	d	P(TPI)	L	l	l1	d1	a			€
840	**1/16**	**-27**	80	17.5	27	7	5.5	3	i	44.80
841	**1/8**	**-27**	90	19.0	30	8	6.2	4		49.00
842	**1/4**	**-18**	100	27.0	40	11	9.0	4		66.00
843	**3/8**	**-18**	110	27.0	40	14	11.0	4		94.00
844	**1/2**	**-14**	125	35.0	48	18	14.5	5		141.00

NPT NPTF

passion
for precision
fraisa

Filettatura metrica per inserti EG M

Tolleranza 6H mod

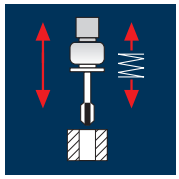
N° E11970 / E11971

N° E11980 / E11981

U	HSS-E Co5		Rm <850	Al Aluminium Alloy	409
U	HSS-E Co5		Rm <850	Al Aluminium Alloy	411

EG

Application



Materiale

EG-M	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Acciaio < 500 N/mm²											
EGM 2	2.520	0.40	14	1770	708	12	1515	606	10	1265	506
EGM 2.5	3.084	0.45	14	1445	650	12	1240	558	10	1030	464
EGM 3	3.650	0.50	14	1220	610	12	1045	523	10	870	435
EGM 4	4.910	0.70	14	910	637	12	780	546	10	650	455
EGM 5	6.040	0.80	14	740	592	12	630	504	10	525	420
EGM 6	7.300	1.00	14	610	610	12	525	525	10	435	435
EGM 8	9.624	1.25	14	465	581	12	395	494	10	330	413
EGM 10	11.948	1.50	14	375	563	12	320	480	10	265	398
EGM 12	14.274	1.75	14	310	543	12	270	473	10	225	394
Acciaio < 500 N/mm²											
EGM 14	16.598	2.00	14	270	540	12	230	460	10	190	380
EGM 16	18.598	2.00	14	240	480	12	205	410	10	170	340
Acciaio 500 - 850 N/mm²											
EGM 2	2.520	0.40	10	1265	506	8	1010	404	6	760	304
EGM 2.5	3.084	0.45	10	1030	464	8	825	371	6	620	279
EGM 3	3.650	0.50	10	870	435	8	700	350	6	525	263
EGM 4	4.910	0.70	10	650	455	8	520	364	6	390	273
EGM 5	6.040	0.80	10	525	420	8	420	336	6	315	252
EGM 6	7.300	1.00	10	435	435	8	350	350	6	260	260
EGM 8	9.624	1.25	10	330	413	8	265	331	6	200	250
EGM 10	11.948	1.50	10	265	398	8	215	323	6	160	240
EGM 12	14.274	1.75	10	225	394	8	180	315	6	135	236
Acciaio 500 - 850 N/mm²											
EGM 14	16.598	2.00	10	190	380	8	155	310	6	115	230
EGM 16	18.598	2.00	10	170	340	8	135	270	6	105	210

Materiale

EG-M	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Alluminio malleabile Si < 6% temprato											
EGM 2	2.520	0.40	11	1390	556	9	1135	454	7	885	354
EGM 2.5	3.084	0.45	11	1135	511	9	930	419	7	720	324
EGM 3	3.650	0.50	11	960	480	9	785	393	7	610	305
EGM 4	4.910	0.70	11	715	500	9	585	410	7	455	319
EGM 5	6.040	0.80	11	580	464	9	475	380	7	370	296
EGM 6	7.300	1.00	11	480	480	9	390	390	7	305	305
EGM 8	9.624	1.25	11	365	456	9	300	375	7	230	288
EGM 10	11.948	1.50	11	295	443	9	240	360	7	185	278
EGM 12	14.274	1.75	11	245	429	9	200	350	7	155	271
Alluminio malleabile Si < 6% temprato											
EGM 14	16.598	2.00	11	210	420	9	175	350	7	135	270
EGM 16	18.598	2.00	11	190	380	9	155	310	7	120	240
Rame non legato											
EGM 2	2.520	0.40	12	1515	606	10	1265	506	8	1010	404
EGM 2.5	3.084	0.45	12	1240	558	10	1030	464	8	825	371
EGM 3	3.650	0.50	12	1045	523	10	870	435	8	700	350
EGM 4	4.910	0.70	12	780	546	10	650	455	8	520	364
EGM 5	6.040	0.80	12	630	504	10	525	420	8	420	336
EGM 6	7.300	1.00	12	525	525	10	435	435	8	350	350
EGM 8	9.624	1.25	12	395	494	10	330	413	8	265	331
EGM 10	11.948	1.50	12	320	480	10	265	398	8	215	323
EGM 12	14.274	1.75	12	270	473	10	225	394	8	180	315
Rame non legato											
EGM 14	16.598	2.00	12	230	460	10	190	380	8	155	310
EGM 16	18.598	2.00	12	205	410	10	170	340	8	135	270

Maschi per inserti

U

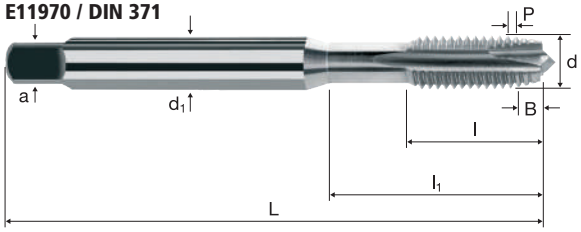
EG M | 6H mod

60° | HSS-E Co5

DIN 371/376

X · P Form B

E11970 / DIN 371



E11971 / DIN 376

Rm < 850 | **Al** Aluminium > 99% | **Al** Aluminium Alloy | **Al** Aluminium Cast | **Cu** Copper | **Plastic** Thermoplast | **GG(G)**

Esempio: **N° Ordine** — Articolo **E11970** Codice-ø **034**

E11970

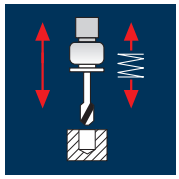
Ø Code	d	P	L	l	l1	d1	a			€
034	**EGM 2**	**0.40**	50	9	15	2.8	2.1	2	2.15	22.40
040	**EGM 2.5**	**0.45**	56	12	18	3.5	2.7	3	2.65	22.40
044	**EGM 3**	**0.50**	63	13	21	4.5	3.0	3	3.15	22.40
058	**EGM 4**	**0.70**	70	15	25	6.0	4.9	3	4.20	22.70
084	**EGM 5**	**0.80**	80	17	30	6.0	4.9	3	5.25	23.80
088	**EGM 6**	**1.00**	90	20	35	8.0	6.2	3	6.30	26.20
160	**EGM 8**	**1.25**	100	22	39	10.0	8.0	3	8.40	33.10

Esempio: **N° Ordine** — Articolo **E11971** Codice-ø **174**

E11971

Ø Code	d	P	L	l	l1	d1	a			€
174	**EGM10**	**1.50**	110	24	40	9.0	7.0	3	10.40	41.40
240	**EGM12**	**1.75**	110	26	40	11.0	9.0	3	12.50	52.30
244	**EGM14**	**2.00**	110	27	40	12.0	9.0	4	14.50	70.00
246	**EGM16**	**2.00**	125	30	65	14.0	11.0	4	16.50	88.00

Application



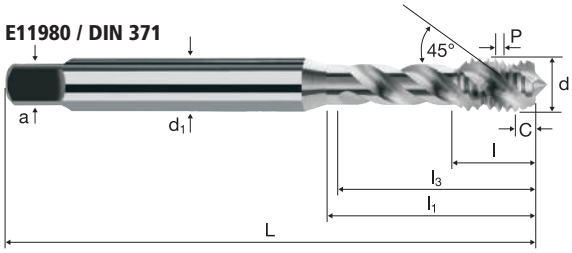
Materiale	EG-M	ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
Acciaio < 500 N/mm²	EGM 2	2.520	0.40	11	1390	556	10	1265	506	8	1010	404
	EGM 2.5	3.084	0.45	11	1135	511	10	1030	464	8	825	371
	EGM 3	3.650	0.50	11	960	480	10	870	435	8	700	350
	EGM 4	4.910	0.70	11	715	500	10	650	455	8	520	364
	EGM 5	6.040	0.80	11	580	464	10	525	420	8	420	336
	EGM 6	7.300	1.00	11	480	480	10	435	435	8	350	350
	EGM 8	9.624	1.25	11	365	456	10	330	413	8	265	331
	EGM 10	11.948	1.50	11	295	443	10	265	398	8	215	323
	EGM 12	14.274	1.75	11	245	429	10	225	394	8	180	315
Acciaio < 500 N/mm²	EGM 14	16.598	2.00	11	210	420	10	190	380	8	155	310
	EGM 16	18.598	2.00	11	190	380	10	170	340	8	135	270
Acciaio 500 - 850 N/mm²	EGM 2	2.520	0.40	8	1010	404	7	885	354	6	760	304
	EGM 2.5	3.084	0.45	8	825	371	7	720	324	6	620	279
	EGM 3	3.650	0.50	8	700	350	7	610	305	6	525	263
	EGM 4	4.910	0.70	8	520	364	7	455	319	6	390	273
	EGM 5	6.040	0.80	8	420	336	7	370	296	6	315	252
	EGM 6	7.300	1.00	8	350	350	7	305	305	6	260	260
	EGM 8	9.624	1.25	8	265	331	7	230	288	6	200	250
	EGM 10	11.948	1.50	8	215	323	7	185	278	6	160	240
	EGM 12	14.274	1.75	8	180	315	7	155	271	6	135	236
Acciaio 500 - 850 N/mm²	EGM 14	16.598	2.00	8	155	310	7	135	270	6	115	230
	EGM 16	18.598	2.00	8	135	270	7	120	240	6	105	210

Materiale	EG-M	ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
Alluminio malleabile Si < 6% temprato	EGM 2	2.520	0.40	7	885	354	6	760	304	6	760	304
	EGM 2.5	3.084	0.45	7	720	324	6	620	279	6	620	279
	EGM 3	3.650	0.50	7	610	305	6	525	263	6	525	263
	EGM 4	4.910	0.70	7	455	319	6	390	273	6	390	273
	EGM 5	6.040	0.80	7	370	296	6	315	252	6	315	252
	EGM 6	7.300	1.00	7	305	305	6	260	260	6	260	260
	EGM 8	9.624	1.25	7	230	288	6	200	250	6	200	250
	EGM 10	11.948	1.50	7	185	278	6	160	240	6	160	240
	EGM 12	14.274	1.75	7	155	271	6	135	236	6	135	236
Alluminio malleabile Si < 6% temprato	EGM 14	16.598	2.00	7	135	270	6	115	230	6	115	230
	EGM 16	18.598	2.00	7	120	240	6	105	210	6	105	210
Rame non legato	EGM 2	2.520	0.40	10	1265	506	9	1135	454	8	1010	404
	EGM 2.5	3.084	0.45	10	1030	464	9	930	419	8	825	371
	EGM 3	3.650	0.50	10	870	435	9	785	393	8	700	350
	EGM 4	4.910	0.70	10	650	455	9	585	410	8	520	364
	EGM 5	6.040	0.80	10	525	420	9	475	380	8	420	336
	EGM 6	7.300	1.00	10	435	435	9	390	390	8	350	350
	EGM 8	9.624	1.25	10	330	413	9	300	375	8	265	331
	EGM 10	11.948	1.50	10	265	398	9	240	360	8	215	323
	EGM 12	14.274	1.75	10	225	394	9	200	350	8	180	315
Rame non legato	EGM 14	16.598	2.00	10	190	380	9	175	350	8	155	310
	EGM 16	18.598	2.00	10	170	340	9	155	310	8	135	270

Maschi per inserti

U

EG M	6H mod
60°	HSS-E Co5
DIN 371/376	
	X · P Form C



Rm < 850			Al Aluminium > 99%	Al Aluminium Alloy	Al Aluminium Cast		Cu Copper	Plastic Thermoplast	GG(G)

Esempio: N° Ordine — Articolo: **E11980** — Codice-ø: **034**

Ø Code	d	P	L	l	l1	l3	d1	a			E11980 €
034	EGM 2	0.40	50	9.0	15	13	2.8	2.1	3	2.15	25.20
040	EGM 2.5	0.45	56	4.0	18	16	3.5	2.7	3	2.65	25.20
044	EGM 3	0.50	63	5.6	21	19	4.5	3.0	3	3.15	25.20
058	EGM 4	0.70	70	6.4	25	23	6.0	4.9	3	4.20	25.70
084	EGM 5	0.80	80	8.0	30	28	6.0	4.9	3	5.25	26.90
088	EGM 6	1.00	90	10.0	35	33	8.0	6.2	3	6.30	29.20
160	EGM 8	1.25	100	12.0	39	37	10.0	8.0	3	8.40	38.30

Esempio: N° Ordine — Articolo: **E11981** — Codice-ø: **174**

Ø Code	d	P	L	l	l1	l3	d1	a			E11981 €
174	EGM10	1.50	110	14.0	50	48	9.0	7.0	3	10.40	48.70
240	EGM12	1.75	110	16.0	58	56	11.0	9.0	4	12.50	58.40
244	EGM14	2.00	110	16.0	58	56	12.0	9.0	4	14.50	78.00
246	EGM16	2.00	125	20.0	65	63	14.0	11.0	4	16.50	97.00

EG

passion
for precision
fraisa

Maschi a rullare M

Tolleranza ISO 2 (6H)

N° EF10060 / EF10061

Al	HSS PM/F		Al Aluminium Alloy	Cu Copper		417

N° EH6100 / EH6101

duroform

U	HM MG10		Rm <850-1100	Al Aluminium Alloy		421

N° EL10080 / EL10081

Lightform Steel

St	HSS PM/F		Rm <850			423

N° EH10070 / EH10071

St	HSS PM/F		Rm <850			427

N° EH10072 / EH10073

St	HSS PM/F		Rm <850			431

Tolleranza ISO 3 (6G)

N° EF10064 / EF10065

Al	HSS PM/F		Al Aluminium Alloy	Cu Copper		433

N° EH10074 / EH10075

St	HSS PM/F		Rm <850			435

Tolleranza 7G

N° EF10068

Al	HSS PM/F		Al Aluminium Alloy	Cu Copper		437

N° EH10078

St	HSS PM/F		Rm <850			439

CF

passion
for precision
fraisa

Maschi a rullare MF

Tolleranza ISO 2 (6H)

N° EF11260 / EF11261

N° EH11270 / EH11271

Al	HSS PM/F		**Al** Aluminium Alloy	**Cu** Copper	441
St	HSS PM/F		**Rm** <850		443

Maschi a rullare per inserti EG M

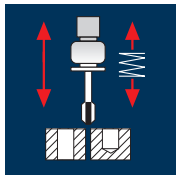
Tolleranza 6H mod

N° EF11960 / EF11961

N° EH11950 / EH11951

Al	HSS PM/F		**Al** Aluminium Alloy	**Cu** Copper	445
St	HSS PM/F		**Rm** <850		447

Application



Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Alluminio non legato	M 1	1.0	0.25	25	7960	1990	20	6365	1591	15	4775	1194
	M 1.2	1.2	0.25	25	6630	1658	20	5305	1326	15	3980	995
	M 1.4	1.4	0.30	25	5685	1706	20	4545	1364	15	3410	1023
	M 1.6	1.6	0.35	25	4975	1741	20	3980	1393	15	2985	1045
	M 1.8	1.8	0.35	25	4420	1547	20	3535	1237	15	2655	929
	M 2	2.0	0.40	25	3980	1592	20	3185	1274	15	2385	954
	M 2.2	2.2	0.45	25	3615	1627	20	2895	1303	15	2170	977
	M 2.5	2.5	0.45	25	3185	1433	20	2545	1145	15	1910	860
	M 3	3.0	0.50	25	2655	1328	20	2120	1060	15	1590	795
Alluminio non legato	M 4	4.0	0.70	25	1990	1393	20	1590	1113	15	1195	837
	M 5	5.0	0.80	25	1590	1272	20	1275	1020	15	955	764
	M 6	6.0	1.00	25	1325	1325	20	1060	1060	15	795	795
	M 8	8.0	1.25	25	995	1244	20	795	994	15	595	744
	M10	10.0	1.50	25	795	1193	20	635	953	15	475	713
Alluminio malleabile Si < 6% non temprato	M 1	1.0	0.25	30	9550	2388	25	7960	1990	20	6365	1591
	M 1.2	1.2	0.25	30	7960	1990	25	6630	1658	20	5305	1326
	M 1.4	1.4	0.30	30	6820	2046	25	5685	1706	20	4545	1364
	M 1.6	1.6	0.35	30	5970	2090	25	4975	1741	20	3980	1393
	M 1.8	1.8	0.35	30	5305	1857	25	4420	1547	20	3535	1237
	M 2	2.0	0.40	30	4775	1910	25	3980	1592	20	3185	1274
	M 2.2	2.2	0.45	30	4340	1953	25	3615	1627	20	2895	1303
	M 2.5	2.5	0.45	30	3820	1719	25	3185	1433	20	2545	1145
	M 3	3.0	0.50	30	3185	1593	25	2655	1328	20	2120	1060
Alluminio malleabile Si < 6% non temprato	M 4	4.0	0.70	30	2385	1670	25	1990	1393	20	1590	1113
	M 5	5.0	0.80	30	1910	1528	25	1590	1272	20	1275	1020
	M 6	6.0	1.00	30	1590	1590	25	1325	1325	20	1060	1060
	M 8	8.0	1.25	30	1195	1494	25	995	1244	20	795	994
	M10	10.0	1.50	30	955	1433	25	795	1193	20	635	953

Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Rame non legato	M 1	1.0	0.25	15	4775	1194	10	3185	796	10	3185	796
	M 1.2	1.2	0.25	15	3980	995	10	2655	664	10	2655	664
	M 1.4	1.4	0.30	15	3410	1023	10	2275	683	10	2275	683
	M 1.6	1.6	0.35	15	2985	1045	10	1990	697	10	1990	697
	M 1.8	1.8	0.35	15	2655	929	10	1770	620	10	1770	620
	M 2	2.0	0.40	15	2385	954	10	1590	636	10	1590	636
	M 2.2	2.2	0.45	15	2170	977	10	1445	650	10	1445	650
	M 2.5	2.5	0.45	15	1910	860	10	1275	574	10	1275	574
	M 3	3.0	0.50	15	1590	795	10	1060	530	10	1060	530
Rame non legato	M 4	4.0	0.70	15	1195	837	10	795	557	10	795	557
	M 5	5.0	0.80	15	955	764	10	635	508	10	635	508
	M 6	6.0	1.00	15	795	795	10	530	530	10	530	530
	M 8	8.0	1.25	15	595	744	10	400	500	10	400	500
	M10	10.0	1.50	15	475	713	10	320	480	10	320	480
Metalli non ferrosi A_5 > 15%	M 1	1.0	0.25	15	4775	1194	10	3185	796	10	3185	796
	M 1.2	1.2	0.25	15	3980	995	10	2655	664	10	2655	664
	M 1.4	1.4	0.30	15	3410	1023	10	2275	683	10	2275	683
	M 1.6	1.6	0.35	15	2985	1045	10	1990	697	10	1990	697
	M 1.8	1.8	0.35	15	2655	929	10	1770	620	10	1770	620
	M 2	2.0	0.40	15	2385	954	10	1590	636	10	1590	636
	M 2.2	2.2	0.45	15	2170	977	10	1445	650	10	1445	650
	M 2.5	2.5	0.45	15	1910	860	10	1275	574	10	1275	574
	M 3	3.0	0.50	15	1590	795	10	1060	530	10	1060	530
Metalli non ferrosi A_5 > 15%	M 4	4.0	0.70	15	1195	837	10	795	557	10	795	557
	M 5	5.0	0.80	15	955	764	10	635	508	10	635	508
	M 6	6.0	1.00	15	795	795	10	530	530	10	530	530
	M 8	8.0	1.25	15	595	744	10	400	500	10	400	500
	M10	10.0	1.50	15	475	713	10	320	480	10	320	480

Maschi a rullare

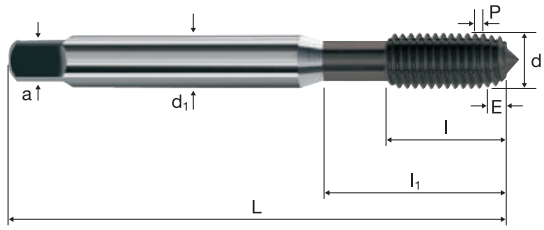
Al

M | ISO 2 (6H)

60° | HSS PM/F

DIN 371

Form E



Al Aluminium > 99% | **Al** Aluminium Alloy | **Cu** Copper | **CuZn Brass**

Esempio: **N° Ordine** — Articolo **EF10060** + Codice-ø **010**

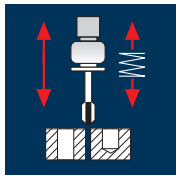
Ø Code	d	P	L	l	l1	d1	a			F-DLC EF10060 €
010	**M 1**	**0.25**	40	5.5	–	2.5	2.1	3	0.87	44.30
012	**M 1.2**	**0.25**	40	5.5	–	2.5	2.1	3	1.07	44.30
020	**M 1.4**	**0.30**	40	7.0	–	2.5	2.1	3	1.25	44.30
022	**M 1.6**	**0.35**	40	8.0	–	2.5	2.1	3	1.42	44.30
026	**M 1.8**	**0.35**	40	8.0	–	2.5	2.1	3	1.62	44.30
034	**M 2**	**0.40**	45	8.0	–	2.8	2.1	3	1.80	36.00
036	**M 2.2**	**0.45**	45	9.0	–	2.8	2.1	3	2.00	36.00
040	**M 2.5**	**0.45**	50	9.0	–	2.8	2.1	3	2.30	36.00
044	**M 3**	**0.50**	56	12.0	18.0	3.5	2.7	3	2.80	29.60
058	**M 4**	**0.70**	63	13.0	21.0	4.5	3.4	3	3.70	29.60
084	**M 5**	**0.80**	70	15.0	25.0	6.0	4.9	4	4.60	30.20
088	**M 6**	**1.00**	80	17.0	30.0	6.0	4.9	4	5.50	31.50
160	**M 8**	**1.25**	90	20.0	35.0	8.0	6.2	4	7.40	38.00
174	**M10**	**1.50**	100	22.0	39.0	10.0	8.0	4	9.30	44.00

≤ M 1.4 Tolleranza ISO1 (4H)

Dimensioni superiori vedere articolo EF10061, pagina 419

CF

Application



Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Alluminio non legato	M12	12.0	1.75	25	665	1164	20	530	928	15	400	700
	M14	14.0	2.00	25	570	1140	20	455	910	15	340	680
	M16	16.0	2.00	25	495	990	20	400	800	15	300	600
Alluminio malleabile Si < 6% non temprato	M12	12.0	1.75	30	795	1391	25	665	1164	20	530	928
	M14	14.0	2.00	30	680	1360	25	570	1140	20	455	910
	M16	16.0	2.00	30	595	1190	25	495	990	20	400	800
Rame non legato	M12	12.0	1.75	15	400	700	10	265	464	10	265	464
	M14	14.0	2.00	15	340	680	10	225	450	10	225	450
	M16	16.0	2.00	15	300	600	10	200	400	10	200	400
Metalli non ferrosi A_5 > 15%	M12	12.0	1.75	15	400	700	10	265	464	10	265	464
	M14	14.0	2.00	15	340	680	10	225	450	10	225	450
	M16	16.0	2.00	15	300	600	10	200	400	10	200	400

Maschi a rullare

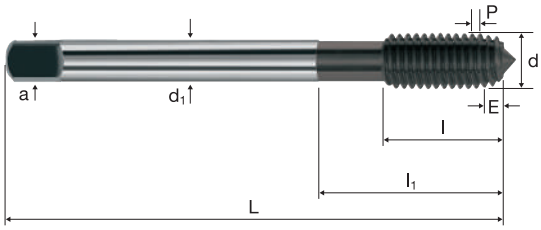
Al

M | ISO 2 (6H)

60° | HSS PM/F

DIN 376

Form E



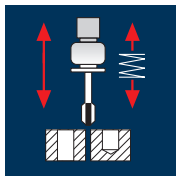
Al Aluminium > 99% | **Al** Aluminium Alloy | **Cu** Copper | **CuZn Brass**

Esempio: **N° Ordine** — Articolo **EF10061** Codice-ø **240**

Ø Code	d	P	L	l	l_1	d_1	a			F-DLC EF10061 €
240	**M12**	**1.75**	110	24	40	9	7	5	11.20	54.90
244	**M14**	**2.00**	110	26	40	11	9	5	13.10	69.00
246	**M16**	**2.00**	110	27	40	12	9	5	15.10	82.00

CF

Application



Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
Acciaio < 850 N/mm² A_5 > 10%	M 3	3.0	0.50	35	3715	1858	30	3185	1593	25	2655	1328
	M 4	4.0	0.70	35	2785	1949	30	2385	1670	25	1990	1393
	M 5	5.0	0.80	35	2230	1784	30	1910	1528	25	1590	1272
	M 6	6.0	1.00	35	1855	1855	30	1590	1590	25	1325	1325
	M 8	8.0	1.25	35	1395	1744	30	1195	1494	25	995	1244
	M10	10.0	1.50	35	1115	1673	30	955	1433	25	795	1193
	M12	12.0	1.75	35	930	1628	30	795	1391	25	665	1164
Acciaio 850 - 1100 N/mm² A_5 > 10%	M 3	3.0	0.50	30	3185	1593	25	2655	1328	20	2120	1060
	M 4	4.0	0.70	30	2385	1670	25	1990	1393	20	1590	1113
	M 5	5.0	0.80	30	1910	1528	25	1590	1272	20	1275	1020
	M 6	6.0	1.00	30	1590	1590	25	1325	1325	20	1060	1060
	M 8	8.0	1.25	30	1195	1494	25	995	1244	20	795	994
	M10	10.0	1.50	30	955	1433	25	795	1193	20	635	953
	M12	12.0	1.75	30	795	1391	25	665	1164	20	530	928
Alluminio non legato	M 3	3.0	0.50	50	5305	2653	40	4245	2123	30	3185	1593
	M 4	4.0	0.70	50	3980	2786	40	3185	2230	30	2385	1670
	M 5	5.0	0.80	50	3185	2548	40	2545	2036	30	1910	1528
	M 6	6.0	1.00	50	2655	2655	40	2120	2120	30	1590	1590
	M 8	8.0	1.25	50	1990	2488	40	1590	1988	30	1195	1494
	M10	10.0	1.50	50	1590	2385	40	1275	1913	30	955	1433
	M12	12.0	1.75	50	1325	2319	40	1060	1855	30	795	1391
Alluminio malleabile Si < 6% non temprato	M 3	3.0	0.50	80	8490	4245	60	6365	3183	40	4245	2123
	M 4	4.0	0.70	80	6365	4456	60	4775	3343	40	3185	2230
	M 5	5.0	0.80	80	5095	4076	60	3820	3056	40	2545	2036
	M 6	6.0	1.00	80	4245	4245	60	3185	3185	40	2120	2120
	M 8	8.0	1.25	80	3185	3981	60	2385	2981	40	1590	1988
	M10	10.0	1.50	80	2545	3818	60	1910	2865	40	1275	1913
	M12	12.0	1.75	80	2120	3710	60	1590	2783	40	1060	1855

Materiale	M	ø [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
Rame non legato	M 3	3.0	0.50	60	6365	3183	40	4245	2123	30	3185	1593
	M 4	4.0	0.70	60	4775	3343	40	3185	2230	30	2385	1670
	M 5	5.0	0.80	60	3820	3056	40	2545	2036	30	1910	1528
	M 6	6.0	1.00	60	3185	3185	40	2120	2120	30	1590	1590
	M 8	8.0	1.25	60	2385	2981	40	1590	1988	30	1195	1494
	M10	10.0	1.50	60	1910	2865	40	1275	1913	30	955	1433
	M12	12.0	1.75	60	1590	2783	40	1060	1855	30	795	1391
Metalli non ferrosi A_5 > 15%	M 3	3.0	0.50	50	5305	2653	30	3185	1593	25	2655	1328
	M 4	4.0	0.70	50	3980	2786	30	2385	1670	25	1990	1393
	M 5	5.0	0.80	50	3185	2548	30	1910	1528	25	1590	1272
	M 6	6.0	1.00	50	2655	2655	30	1590	1590	25	1325	1325
	M 8	8.0	1.25	50	1990	2488	30	1195	1494	25	995	1244
	M10	10.0	1.50	50	1590	2385	30	955	1433	25	795	1193
	M12	12.0	1.75	50	1325	2319	30	795	1391	25	665	1164
Acciaio inossidabile ferritico/martensitico A_5 > 10%	M 3	3.0	0.50	30	3185	1593	25	2655	1328	20	2120	1060
	M 4	4.0	0.70	30	2385	1670	25	1990	1393	20	1590	1113
	M 5	5.0	0.80	30	1910	1528	25	1590	1272	20	1275	1020
	M 6	6.0	1.00	30	1590	1590	25	1325	1325	20	1060	1060
	M 8	8.0	1.25	30	1195	1494	25	995	1244	20	795	994
	M10	10.0	1.50	30	955	1433	25	795	1193	20	635	953
	M12	12.0	1.75	30	795	1391	25	665	1164	20	530	928
Acciaio inossidabile [Cr-Ni/1.4301]	M 3	3.0	0.50	30	3185	1593	25	2655	1328	20	2120	1060
	M 4	4.0	0.70	30	2385	1670	25	1990	1393	20	1590	1113
	M 5	5.0	0.80	30	1910	1528	25	1590	1272	20	1275	1020
	M 6	6.0	1.00	30	1590	1590	25	1325	1325	20	1060	1060
	M 8	8.0	1.25	30	1195	1494	25	995	1244	20	795	994
	M10	10.0	1.50	30	955	1433	25	795	1193	20	635	953
	M12	12.0	1.75	30	795	1391	25	665	1164	20	530	928

Maschi a rullare duroform

U

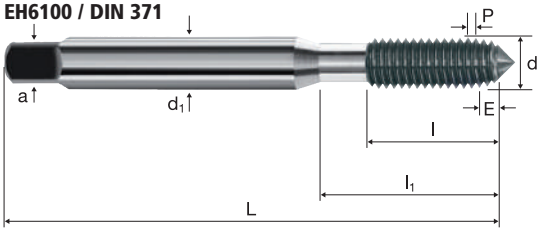
M | ISO 2 (6H)

60° | HM MG10

DIN 371/376

Form E

EH6100 / DIN 371



EH6101 / DIN 376

Rm < 850 | **Rm** 850-1100 | **Inox** Stainless | **Aluminium Copper**

Esempio: **N° Ordine** — Articolo **EH6100** Codice-ø **044**

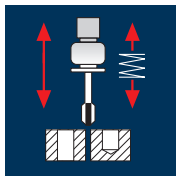
Ø Code	d	P	L	l	l1	d1	a			TiCN EH6100 €
044	M 3	0.50	56	12	8	3.5	2.7	3	2.80	126.00
058	M 4	0.70	63	13	21	4.5	3.4	4	3.70	126.00
084	M 5	0.80	70	15	25	6.0	4.9	4	4.60	128.00
088	M 6	1.00	80	17	30	6.0	4.9	4	5.50	134.00
160	M 8	1.25	90	20	35	8.0	6.2	5	7.40	162.00
174	M10	1.50	100	22	39	10.0	8.0	5	9.30	199.00
				1						

Esempio: **N° Ordine** — Articolo **EH6101** Codice-ø **240**

Ø Code	d	P	L	l	l1	d1	a			TiCN EH6101 €
240	M12	1.75	110	24	50	9.0	7.0	7	11.20	245.00

CF

Application



Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Acciaio < 850 N/mm² A_5 > 10%	M 1	1.0	0.25	20	6365	1591	15	4775	1194	10	3185	796
	M 1.2	1.2	0.25	20	5305	1326	15	3980	995	10	2655	664
	M 1.4	1.4	0.30	20	4545	1364	15	3410	1023	10	2275	683
	M 1.6	1.6	0.35	20	3980	1393	15	2985	1045	10	1990	697
	M 1.8	1.8	0.35	20	3535	1237	15	2655	929	10	1770	620
	M 2	2.0	0.40	20	3185	1274	15	2385	954	10	1590	636
	M 2.2	2.2	0.45	20	2895	1303	15	2170	977	10	1445	650
	M 2.5	2.5	0.45	20	2545	1145	15	1910	860	10	1275	574
	M 3	3.0	0.50	20	2120	1060	15	1590	795	10	1060	530
Acciaio < 850 N/mm² A_5 > 10%	M 4	4.0	0.70	20	1590	1113	15	1195	837	10	795	557
	M 5	5.0	0.80	20	1275	1020	15	955	764	10	635	508
	M 6	6.0	1.00	20	1060	1060	15	795	795	10	530	530
	M 8	8.0	1.25	20	795	994	15	595	744	10	400	500
	M 10	10.0	1.50	20	635	953	15	475	713	10	320	480
Acciaio 850 - 1100 N/mm² A_5 > 10%	M 1	1.0	0.25	15	4775	1194	10	3185	796			
	M 1.2	1.2	0.25	15	3980	995	10	2655	664			
	M 1.4	1.4	0.30	15	3410	1023	10	2275	683			
	M 1.6	1.6	0.35	15	2985	1045	10	1990	697			
	M 1.8	1.8	0.35	15	2655	929	10	1770	620			
	M 2	2.0	0.40	15	2385	954	10	1590	636			
	M 2.2	2.2	0.45	15	2170	977	10	1445	650			
	M 2.5	2.5	0.45	15	1910	860	10	1275	574			
	M 3	3.0	0.50	15	1590	795	10	1060	530			
Acciaio 850 - 1100 N/mm² A_5 > 10%	M 4	4.0	0.70	15	1195	837	10	795	557			
	M 5	5.0	0.80	15	955	764	10	635	508			
	M 6	6.0	1.00	15	795	795	10	530	530			
	M 8	8.0	1.25	15	595	744	10	400	500			
	M 10	10.0	1.50	15	475	713	10	320	480			

Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio inossidabile ferritico/martensitico A_5 > 10%	M 1	1.0	0.25	15	4775	1194	10	3185	796
	M 1.2	1.2	0.25	15	3980	995	10	2655	664
	M 1.4	1.4	0.30	15	3410	1023	10	2275	683
	M 1.6	1.6	0.35	15	2985	1045	10	1990	697
	M 1.8	1.8	0.35	15	2655	929	10	1770	620
	M 2	2.0	0.40	15	2385	954	10	1590	636
	M 2.2	2.2	0.45	15	2170	977	10	1445	650
	M 2.5	2.5	0.45	15	1910	860	10	1275	574
	M 3	3.0	0.50	15	1590	795	10	1060	530
Acciaio inossidabile ferritico/martensitico A_5 > 10%	M 4	4.0	0.70	15	1195	837	10	795	557
	M 5	5.0	0.80	15	955	764	10	635	508
	M 6	6.0	1.00	15	795	795	10	530	530
	M 8	8.0	1.25	15	595	744	10	400	500
	M 10	10.0	1.50	15	475	713	10	320	480
Acciaio inossidabile [Cr-Ni/1.4301]	M 1	1.0	0.25	15	4775	1194	10	3185	796
	M 1.2	1.2	0.25	15	3980	995	10	2655	664
	M 1.4	1.4	0.30	15	3410	1023	10	2275	683
	M 1.6	1.6	0.35	15	2985	1045	10	1990	697
	M 1.8	1.8	0.35	15	2655	929	10	1770	620
	M 2	2.0	0.40	15	2385	954	10	1590	636
	M 2.2	2.2	0.45	15	2170	977	10	1445	650
	M 2.5	2.5	0.45	15	1910	860	10	1275	574
	M 3	3.0	0.50	15	1590	795	10	1060	530
Acciaio inossidabile [Cr-Ni/1.4301]	M 4	4.0	0.70	15	1195	837	10	795	557
	M 5	5.0	0.80	15	955	764	10	635	508
	M 6	6.0	1.00	15	795	795	10	530	530
	M 8	8.0	1.25	15	595	744	10	400	500
	M 10	10.0	1.50	15	475	713	10	320	480

Maschi a rullare Lightform Steel

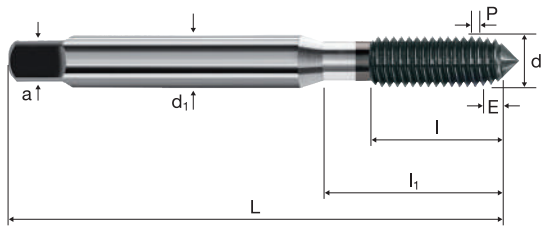
St

M | ISO 2 (6H)

60° | HSS PM/F

DIN 371

X · P Form C



Rm < 850 | **Rm** 850-1100 | **Inox** Stainless

Esempio: **N° Ordine** — Articolo **EL10080** Codice-ø **010**

Ø Code	d	P	L	l	l1	d1	a			LONGCUT EL10080 €
010*	**M 1**	**0.25**	40	5.5	–	2.5	2.1	3	0.87	61.00
012*	**M 1.2**	**0.25**	40	5.5	–	2.5	2.1	3	1.07	61.00
020*	**M 1.4**	**0.30**	40	7.0	–	2.5	2.1	3	1.25	61.00
022*	**M 1.6**	**0.35**	40	8.0	–	2.5	2.1	3	1.42	61.00
026*	**M 1.8**	**0.35**	40	8.0	–	2.5	2.1	3	1.62	61.00
034	**M 2**	**0.40**	45	8.0	–	2.8	2.1	3	1.80	49.50
036	**M 2.2**	**0.45**	45	9.0	–	2.8	2.1	3	2.00	49.50
040	**M 2.5**	**0.45**	50	9.0	–	2.8	2.1	3	2.30	49.50
044	**M 3**	**0.50**	56	12.0	18.0	3.5	2.7	3	2.80	40.80
058	**M 4**	**0.70**	63	13.0	21.0	4.5	3.4	3	3.70	40.80
084	**M 5**	**0.80**	70	15.0	25.0	6.0	4.9	4	4.60	42.20
088	**M 6**	**1.00**	80	17.0	30.0	6.0	4.9	4	5.50	43.40
160	**M 8**	**1.25**	90	20.0	35.0	8.0	6.2	4	7.40	52.30
174	**M10**	**1.50**	100	22.0	39.0	10.0	8.0	4	9.30	61.00

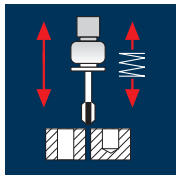
≤ M 1.4 Tolleranza ISO1 (4H)

* senza canalini di lubrificazione

Dimensioni superiori vedere articolo EL10081, pagina 425

CF

Application



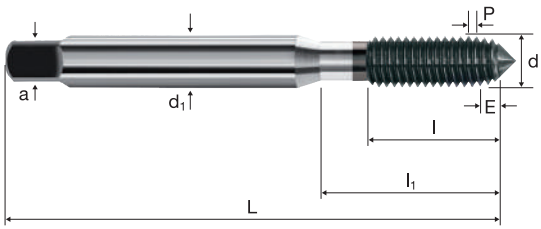
Materiale

Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Acciaio < 850 N/mm² A_5 > 10%	M 12	12.0	1.75	20	530	928	15	400	700	10	265	464
	M 14	14.0	2.00	20	455	910	15	340	680	10	225	450
	M 16	16.0	2.00	20	400	800	15	300	600	10	200	400
Acciaio 850 - 1100 N/mm² A_5 > 10%	M 12	12.0	1.75	15	400	700	10	265	464			
	M 14	14.0	2.00	15	340	680	10	225	450			
	M 16	16.0	2.00	15	300	600	10	200	400			
Acciaio inossidabile ferritico/martensitico A_5 > 10%	M 12	12.0	1.75	15	400	700	10	265	464			
	M 14	14.0	2.00	15	340	680	10	225	450			
	M 16	16.0	2.00	15	300	600	10	200	400			
Acciaio inossidabile [Cr-Ni/1.4301]	M 12	12.0	1.75	15	400	700	10	265	464			
	M 14	14.0	2.00	15	340	680	10	225	450			
	M 16	16.0	2.00	15	300	600	10	200	400			

Maschi a rullare Lightform Steel

St

M	ISO 2 (6H)
60°	HSS PM/F
DIN 376	
	X · P Form C



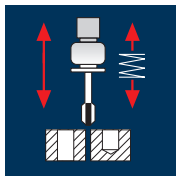
Rm < 850	Rm 850-1100						Inox Stainless		

Esempio: **N° Ordine** — Articolo **EL10081** Codice-ø **240**

Ø Code	d	P	L	l	l1	d1	a			LONGCUT EL10081 €
240	M12	1.75	110	24	40	9	7	5	11.20	76.00
244	M14	2.00	110	26	40	11	9	5	13.10	96.00
246	M16	2.00	110	27	40	12	9	5	15.10	113.00

CF

Application



Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Acciaio < 850 N/mm² A_5 > 10%	M 1	1.0	0.25	20	6365	1591	15	4775	1194	10	3185	796
	M 1.2	1.2	0.25	20	5305	1326	15	3980	995	10	2655	664
	M 1.4	1.4	0.30	20	4545	1364	15	3410	1023	10	2275	683
	M 1.6	1.6	0.35	20	3980	1393	15	2985	1045	10	1990	697
	M 1.8	1.8	0.35	20	3535	1237	15	2655	929	10	1770	620
	M 2	2.0	0.40	20	3185	1274	15	2385	954	10	1590	636
	M 2.2	2.2	0.45	20	2895	1303	15	2170	977	10	1445	650
	M 2.5	2.5	0.45	20	2545	1145	15	1910	860	10	1275	574
	M 3	3.0	0.50	20	2120	1060	15	1590	795	10	1060	530
Acciaio < 850 N/mm² A_5 > 10%	M 4	4.0	0.70	20	1590	1113	15	1195	837	10	795	557
	M 5	5.0	0.80	20	1275	1020	15	955	764	10	635	508
	M 6	6.0	1.00	20	1060	1060	15	795	795	10	530	530
	M 8	8.0	1.25	20	795	994	15	595	744	10	400	500
	M10	10.0	1.50	20	635	953	15	475	713	10	320	480
Acciaio 850 - 1100 N/mm² A_5 > 10%	M 1	1.0	0.25	15	4775	1194	10	3185	796			
	M 1.2	1.2	0.25	15	3980	995	10	2655	664			
	M 1.4	1.4	0.30	15	3410	1023	10	2275	683			
	M 1.6	1.6	0.35	15	2985	1045	10	1990	697			
	M 1.8	1.8	0.35	15	2655	929	10	1770	620			
	M 2	2.0	0.40	15	2385	954	10	1590	636			
	M 2.2	2.2	0.45	15	2170	977	10	1445	650			
	M 2.5	2.5	0.45	15	1910	860	10	1275	574			
	M 3	3.0	0.50	15	1590	795	10	1060	530			
Acciaio 850 - 1100 N/mm² A_5 > 10%	M 4	4.0	0.70	15	1195	837	10	795	557			
	M 5	5.0	0.80	15	955	764	10	635	508			
	M 6	6.0	1.00	15	795	795	10	530	530			
	M 8	8.0	1.25	15	595	744	10	400	500			
	M10	10.0	1.50	15	475	713	10	320	480			

Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio inossidabile ferritico/martensitico A_5 > 10%	M 1	1.0	0.25	15	4775	1194	10	3185	796
	M 1.2	1.2	0.25	15	3980	995	10	2655	664
	M 1.4	1.4	0.30	15	3410	1023	10	2275	683
	M 1.6	1.6	0.35	15	2985	1045	10	1990	697
	M 1.8	1.8	0.35	15	2655	929	10	1770	620
	M 2	2.0	0.40	15	2385	954	10	1590	636
	M 2.2	2.2	0.45	15	2170	977	10	1445	650
	M 2.5	2.5	0.45	15	1910	860	10	1275	574
	M 3	3.0	0.50	15	1590	795	10	1060	530
Acciaio inossidabile ferritico/martensitico A_5 > 10%	M 4	4.0	0.70	15	1195	837	10	795	557
	M 5	5.0	0.80	15	955	764	10	635	508
	M 6	6.0	1.00	15	795	795	10	530	530
	M 8	8.0	1.25	15	595	744	10	400	500
	M10	10.0	1.50	15	475	713	10	320	480
Acciaio inossidabile [Cr-Ni/1.4301]	M 1	1.0	0.25	15	4775	1194	10	3185	796
	M 1.2	1.2	0.25	15	3980	995	10	2655	664
	M 1.4	1.4	0.30	15	3410	1023	10	2275	683
	M 1.6	1.6	0.35	15	2985	1045	10	1990	697
	M 1.8	1.8	0.35	15	2655	929	10	1770	620
	M 2	2.0	0.40	15	2385	954	10	1590	636
	M 2.2	2.2	0.45	15	2170	977	10	1445	650
	M 2.5	2.5	0.45	15	1910	860	10	1275	574
	M 3	3.0	0.50	15	1590	795	10	1060	530
Acciaio inossidabile [Cr-Ni/1.4301]	M 4	4.0	0.70	15	1195	837	10	795	557
	M 5	5.0	0.80	15	955	764	10	635	508
	M 6	6.0	1.00	15	795	795	10	530	530
	M 8	8.0	1.25	15	595	744	10	400	500
	M10	10.0	1.50	15	475	713	10	320	480

Maschi a rullare

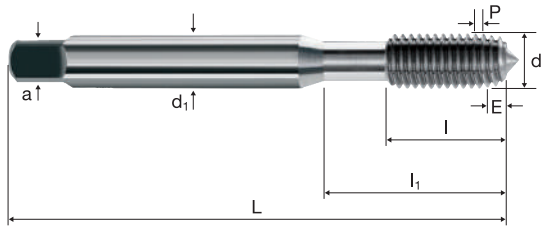
St

M | ISO 2 (6H)

60° | HSS PM/F

DIN 371

Form E



Rm < 850 | **Rm** 850-1100 | **Inox** Stainless

Esempio: **N° Ordine** — Articolo **EH10070** Codice-ø **010**

Ø Code	d	P	L	l	l1	d1	a			TiCN EH10070 €
010*	**M 1**	**0.25**	40	5.5	–	2.5	2.1	3	0.87	46.90
012*	**M 1.2**	**0.25**	40	5.5	–	2.5	2.1	3	1.07	46.90
020*	**M 1.4**	**0.30**	40	7.0	–	2.5	2.1	3	1.25	46.90
022*	**M 1.6**	**0.35**	40	8.0	–	2.5	2.1	3	1.42	46.90
026*	**M 1.8**	**0.35**	40	8.0	–	2.5	2.1	3	1.62	46.90
034	**M 2**	**0.40**	45	8.0	–	2.8	2.1	3	1.80	38.00
036	**M 2.2**	**0.45**	45	9.0	–	2.8	2.1	3	2.00	38.00
040	**M 2.5**	**0.45**	50	9.0	–	2.8	2.1	3	2.30	38.00
044	**M 3**	**0.50**	56	12.0	18.0	3.5	2.7	3	2.80	31.40
058	**M 4**	**0.70**	63	13.0	21.0	4.5	3.4	4	3.70	31.40
084	**M 5**	**0.80**	70	15.0	25.0	6.0	4.9	4	4.60	31.90
088	**M 6**	**1.00**	80	17.0	30.0	6.0	4.9	4	5.50	33.30
160	**M 8**	**1.25**	90	20.0	35.0	8.0	6.2	5	7.40	40.20
174	**M10**	**1.50**	100	22.0	39.0	10.0	8.0	5	9.30	46.50

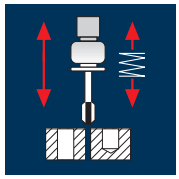
≤ M 1.4 Tolleranza ISO1 (4H)

* senza canalini di lubrificazione

Dimensioni superiori vedere articolo EH10071, pagina 429

CF

Application



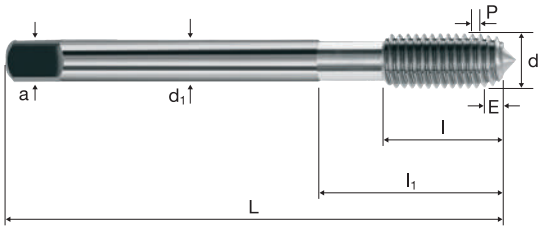
Materiale

Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Acciaio < 850 N/mm² A_5 > 10%	M12	12.0	1.75	20	530	928	15	400	700	10	265	464
	M14	14.0	2.00	20	455	910	15	340	680	10	225	450
	M16	16.0	2.00	20	400	800	15	300	600	10	200	400
Acciaio 850 - 1100 N/mm² A_5 > 10%	M12	12.0	1.75	15	400	700	10	265	464			
	M14	14.0	2.00	15	340	680	10	225	450			
	M16	16.0	2.00	15	300	600	10	200	400			
Acciaio inossidabile ferritico/martensitico A_5 > 10%	M12	12.0	1.75	15	400	700	10	265	464			
	M14	14.0	2.00	15	340	680	10	225	450			
	M16	16.0	2.00	15	300	600	10	200	400			
Acciaio inossidabile [Cr-Ni/1.4301]	M12	12.0	1.75	15	400	700	10	265	464			
	M14	14.0	2.00	15	340	680	10	225	450			
	M16	16.0	2.00	15	300	600	10	200	400			

Maschi a rullare

St

M	**ISO 2 (6H)**
60°	**HSS PM/F**
DIN 376	
	X - P Form E



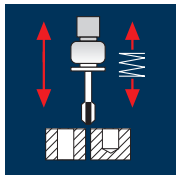
Rm < 850	**Rm** 850-1100						**Inox** Stainless		

Esempio: **N° Ordine** — Articolo **EH10071** Codice-ø **240**

											TiCN
											EH10071
ø Code	**d**	**P**	**L**	**l**	**l_1**	**d_1**	**a**				€
240	**M12**	**1.75**	110	24	40	9	7	7	11.20		58.10
244	**M14**	**2.00**	110	26	40	11	9	7	13.10		73.00
246	**M16**	**2.00**	110	27	40	12	9	7	15.10		87.00

CF

Application



Materiale

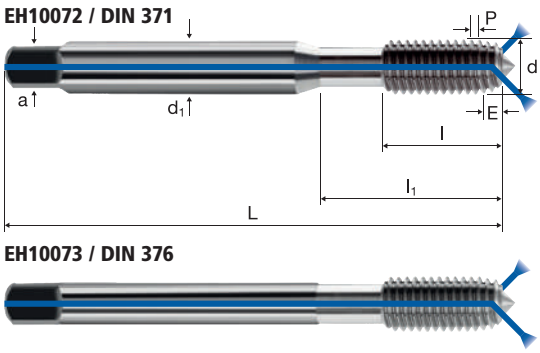
M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Acciaio < 850 N/mm² A_5 > 10%											
M 6	6.0	1.00	25	1325	1325	20	1060	1060	15	795	795
M 8	8.0	1.25	25	995	1244	20	795	994	15	595	744
M10	10.0	1.50	25	795	1193	20	635	953	15	475	713
M12	12.0	1.75	25	665	1164	20	530	928	15	400	700
M14	14.0	2.00	25	570	1140	20	455	910	15	340	680
M16	16.0	2.00	25	495	990	20	400	800	15	300	600
Acciaio 850 - 1100 N/mm² A_5 > 10%											
M 6	6.0	1.00	15	795	795	10	530	530			
M 8	8.0	1.25	15	595	744	10	400	500			
M10	10.0	1.50	15	475	713	10	320	480			
M12	12.0	1.75	15	400	700	10	265	464			
M14	14.0	2.00	15	340	680	10	225	450			
M16	16.0	2.00	15	300	600	10	200	400			
Acciaio inossidabile ferritico/martensitico A_5 > 10%											
M 6	6.0	1.00	15	795	795	10	530	530			
M 8	8.0	1.25	15	595	744	10	400	500			
M10	10.0	1.50	15	475	713	10	320	480			
M12	12.0	1.75	15	400	700	10	265	464			
M14	14.0	2.00	15	340	680	10	225	450			
M16	16.0	2.00	15	300	600	10	200	400			
Acciaio inossidabile [Cr-Ni/1.4301]											
M 6	6.0	1.00	15	795	795	10	530	530			
M 8	8.0	1.25	15	595	744	10	400	500			
M10	10.0	1.50	15	475	713	10	320	480			
M12	12.0	1.75	15	400	700	10	265	464			
M14	14.0	2.00	15	340	680	10	225	450			
M16	16.0	2.00	15	300	600	10	200	400			

Maschi a rullare

Incool

St

M	ISO 2 (6H)
60°	HSS PM/F
DIN 371/376	
	Form E



Rm < 850	Rm 850-1100						Inox Stainless		

Esempio: N° Ordine — Articolo **EH10072** Codice-ø **088**

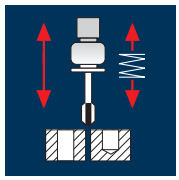
Ø Code	d	P	L	l	l1	d1	a			TiCN EH10072 €
088	M 6	1.00	80	17	30	6	4.9	4	5.50	43.90
160	M 8	1.25	90	20	35	8	6.2	5	7.40	53.00
174	M10	1.50	100	22	39	10	8.0	5	9.30	61.00

Esempio: N° Ordine — Articolo **EH10073** Codice-ø **240**

Ø Code	d	P	L	l	l1	d1	a			TiCN EH10073 €
240	M12	1.75	110	24	50	9	7.0	7	11.20	76.00
244	M14	2.00	110	26	58	11	9.0	7	13.10	97.00
246	M16	2.00	110	27	58	12	9.0	7	15.10	115.00

CF

Application



Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Alluminio non legato	M 2	2.0	0.40	25	3980	1592	20	3185	1274	15	2385	954
	M 2.2	2.2	0.45	25	3615	1627	20	2895	1303	15	2170	977
	M 2.5	2.5	0.45	25	3185	1433	20	2545	1145	15	1910	860
	M 3	3.0	0.50	25	2655	1328	20	2120	1060	15	1590	795
	M 4	4.0	0.70	25	1990	1393	20	1590	1113	15	1195	837
	M 5	5.0	0.80	25	1590	1272	20	1275	1020	15	955	764
	M 6	6.0	1.00	25	1325	1325	20	1060	1060	15	795	795
	M 8	8.0	1.25	25	995	1244	20	795	994	15	595	744
	M10	10.0	1.50	25	795	1193	20	635	953	15	475	713
Alluminio non legato	M12	12.0	1.75	25	665	1164	20	530	928	15	400	700
	M14	14.0	2.00	25	570	1140	20	455	910	15	340	680
	M16	16.0	2.00	25	495	990	20	400	800	15	300	600
Alluminio malleabile Si < 6% non temprato	M 2	2.0	0.40	30	4775	1910	25	3980	1592	20	3185	1274
	M 2.2	2.2	0.45	30	4340	1953	25	3615	1627	20	2895	1303
	M 2.5	2.5	0.45	30	3820	1719	25	3185	1433	20	2545	1145
	M 3	3.0	0.50	30	3185	1593	25	2655	1328	20	2120	1060
	M 4	4.0	0.70	30	2385	1670	25	1990	1393	20	1590	1113
	M 5	5.0	0.80	30	1910	1528	25	1590	1272	20	1275	1020
	M 6	6.0	1.00	30	1590	1590	25	1325	1325	20	1060	1060
	M 8	8.0	1.25	30	1195	1494	25	995	1244	20	795	994
	M10	10.0	1.50	30	955	1433	25	795	1193	20	635	953
Alluminio malleabile Si < 6% non temprato	M12	12.0	1.75	30	795	1391	25	665	1164	20	530	928
	M14	14.0	2.00	30	680	1360	25	570	1140	20	455	910
	M16	16.0	2.00	30	595	1190	25	495	990	20	400	800

Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Rame non legato	M 2	2.0	0.40	15	2385	954	10	1590	636	10	1590	636
	M 2.2	2.2	0.45	15	2170	977	10	1445	650	10	1445	650
	M 2.5	2.5	0.45	15	1910	860	10	1275	574	10	1275	574
	M 3	3.0	0.50	15	1590	795	10	1060	530	10	1060	530
	M 4	4.0	0.70	15	1195	837	10	795	557	10	795	557
	M 5	5.0	0.80	15	955	764	10	635	508	10	635	508
	M 6	6.0	1.00	15	795	795	10	530	530	10	530	530
	M 8	8.0	1.25	15	595	744	10	400	500	10	400	500
	M10	10.0	1.50	15	475	713	10	320	480	10	320	480
Rame non legato	M12	12.0	1.75	15	400	700	10	265	464	10	265	464
	M14	14.0	2.00	15	340	680	10	225	450	10	225	450
	M16	16.0	2.00	15	300	600	10	200	400	10	200	400
Metalli non ferrosi A_5 > 15%	M 2	2.0	0.40	15	2385	954	10	1590	636	10	1590	636
	M 2.2	2.2	0.45	15	2170	977	10	1445	650	10	1445	650
	M 2.5	2.5	0.45	15	1910	860	10	1275	574	10	1275	574
	M 3	3.0	0.50	15	1590	795	10	1060	530	10	1060	530
	M 4	4.0	0.70	15	1195	837	10	795	557	10	795	557
	M 5	5.0	0.80	15	955	764	10	635	508	10	635	508
	M 6	6.0	1.00	15	795	795	10	530	530	10	530	530
	M 8	8.0	1.25	15	595	744	10	400	500	10	400	500
	M10	10.0	1.50	15	475	713	10	320	480	10	320	480
Metalli non ferrosi A_5 > 15%	M12	12.0	1.75	15	400	700	10	265	464	10	265	464
	M14	14.0	2.00	15	340	680	10	225	450	10	225	450
	M16	16.0	2.00	15	300	600	10	200	400	10	200	400

Maschi a rullare

Al

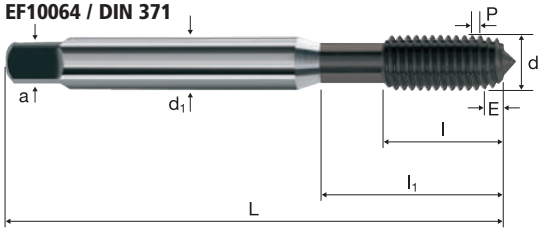
M | ISO 3 (6G)

60° | HSS PM/F

DIN 371/376

Form E

EF10064 / DIN 371



EF10065 / DIN 376

Al Aluminium > 99% | **Al** Aluminium Alloy | **Cu** Copper | CuZn Brass

Esempio: N° Ordine — Articolo: **EF10064** Codice-ø: **034**

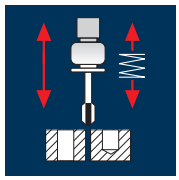
Ø Code	d	P	L	l	l1	d1	a			F-DLC EF10064 €
034	M 2	0.40	45	8	–	2.8	2.1	3	1.80	43.10
036	M 2.2	0.45	45	9	–	2.8	2.1	3	2.00	43.10
040	M 2.5	0.45	50	9	–	2.8	2.1	3	2.30	43.10
044	M 3	0.50	56	12	18.0	3.5	2.7	3	2.80	35.60
058	M 4	0.70	63	13	21.0	4.5	3.4	3	3.70	35.60
084	M 5	0.80	70	15	25.0	6.0	4.9	4	4.60	36.20
088	M 6	1.00	80	17	30.0	6.0	4.9	4	5.50	37.80
160	M 8	1.25	90	20	35.0	8.0	6.2	4	7.40	45.60
174	M10	1.50	100	22	39.0	10.0	8.0	4	9.30	52.80

Esempio: N° Ordine — Articolo: **EF10065** Codice-ø: **240**

Ø Code	d	P	L	l	l1	d1	a			F-DLC EF10065 €
240	M12	1.75	110	24	40.0	9.0	7.0	5	11.20	66.00
244	M14	2.00	110	26	40.0	11.0	9.0	5	13.10	83.00
246	M16	2.00	110	27	40.0	12.0	9.0	5	15.10	99.00

CF

Application



Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Acciaio < 850 N/mm² A_5 > 10%	M 2	2.0	0.40	20	3185	1274	15	2385	954	10	1590	636
	M 2.2	2.2	0.45	20	2895	1303	15	2170	977	10	1445	650
	M 2.5	2.5	0.45	20	2545	1145	15	1910	860	10	1275	574
	M 3	3.0	0.50	20	2120	1060	15	1590	795	10	1060	530
	M 4	4.0	0.70	20	1590	1113	15	1195	837	10	795	557
	M 5	5.0	0.80	20	1275	1020	15	955	764	10	635	508
	M 6	6.0	1.00	20	1060	1060	15	795	795	10	530	530
	M 8	8.0	1.25	20	795	994	15	595	744	10	400	500
	M10	10.0	1.50	20	635	953	15	475	713	10	320	480
Acciaio < 850 N/mm² A_5 > 10%	M12	12.0	1.75	20	530	928	15	400	700	10	265	464
	M14	14.0	2.00	20	455	910	15	340	680	10	225	450
	M16	16.0	2.00	20	400	800	15	300	600	10	200	400
Acciaio 850 - 1100 N/mm² A_5 > 10%	M 2	2.0	0.40	15	2385	954	10	1590	636			
	M 2.2	2.2	0.45	15	2170	977	10	1445	650			
	M 2.5	2.5	0.45	15	1910	860	10	1275	574			
	M 3	3.0	0.50	15	1590	795	10	1060	530			
	M 4	4.0	0.70	15	1195	837	10	795	557			
	M 5	5.0	0.80	15	955	764	10	635	508			
	M 6	6.0	1.00	15	795	795	10	530	530			
	M 8	8.0	1.25	15	595	744	10	400	500			
	M10	10.0	1.50	15	475	713	10	320	480			
Acciaio 850 - 1100 N/mm² A_5 > 10%	M12	12.0	1.75	15	400	700	10	265	464			
	M14	14.0	2.00	15	340	680	10	225	450			
	M16	16.0	2.00	15	300	600	10	200	400			

Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio inossidabile ferritico/martensitico A_5 > 10%	M 2	2.0	0.40	15	2385	954	10	1590	636
	M 2.2	2.2	0.45	15	2170	977	10	1445	650
	M 2.5	2.5	0.45	15	1910	860	10	1275	574
	M 3	3.0	0.50	15	1590	795	10	1060	530
	M 4	4.0	0.70	15	1195	837	10	795	557
	M 5	5.0	0.80	15	955	764	10	635	508
	M 6	6.0	1.00	15	795	795	10	530	530
	M 8	8.0	1.25	15	595	744	10	400	500
	M10	10.0	1.50	15	475	713	10	320	480
Acciaio inossidabile ferritico/martensitico A_5 > 10%	M12	12.0	1.75	15	400	700	10	265	464
	M14	14.0	2.00	15	340	680	10	225	450
	M16	16.0	2.00	15	300	600	10	200	400
Acciaio inossidabile [Cr-Ni/1.4301]	M 2	2.0	0.40	15	2385	954	10	1590	636
	M 2.2	2.2	0.45	15	2170	977	10	1445	650
	M 2.5	2.5	0.45	15	1910	860	10	1275	574
	M 3	3.0	0.50	15	1590	795	10	1060	530
	M 4	4.0	0.70	15	1195	837	10	795	557
	M 5	5.0	0.80	15	955	764	10	635	508
	M 6	6.0	1.00	15	795	795	10	530	530
	M 8	8.0	1.25	15	595	744	10	400	500
	M10	10.0	1.50	15	475	713	10	320	480
Acciaio inossidabile [Cr-Ni/1.4301]	M12	12.0	1.75	15	400	700	10	265	464
	M14	14.0	2.00	15	340	680	10	225	450
	M16	16.0	2.00	15	300	600	10	200	400

Maschi a rullare

St

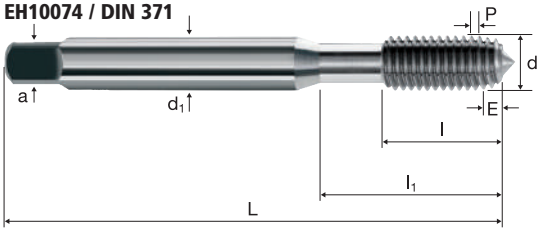
M | ISO 3 (6G)

60° | HSS PM/F

DIN 371/376

Form E

EH10074 / DIN 371



EH10075 / DIN 376

Rm < 850 | **Rm** 850-1100 | **Inox** Stainless

Esempio: N° Ordine — Articolo **EH10074** Codice-ø **034**

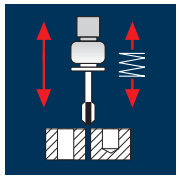
Ø Code	d	P	L	l	l1	d1	a			TiCN EH10074 €
034	M 2	0.40	45	8	–	2.8	2.1	3	1.80	41.40
036	M 2.2	0.45	45	9	–	2.8	2.1	3	2.00	41.40
040	M 2.5	0.45	50	9	–	2.8	2.1	3	2.30	41.40
044	M 3	0.50	56	12	18.0	3.5	2.7	3	2.80	34.10
058	M 4	0.70	63	13	21.0	4.5	3.4	3	3.70	34.10
084	M 5	0.80	70	15	25.0	6.0	4.9	4	4.60	34.70
088	M 6	1.00	80	17	30.0	6.0	4.9	4	5.50	36.30
160	M 8	1.25	90	20	35.0	8.0	6.2	5	7.40	43.80
174	M10	1.50	100	22	39.0	10.0	8.0	5	9.30	50.60

Esempio: N° Ordine — Articolo **EH10075** Codice-ø **240**

Ø Code	d	P	L	l	l1	d1	a			TiCN EH10075 €
240	M12	1.75	110	24	40	9.0	7.0	7	11.20	63.00
244	M14	2.00	110	26	40	11.0	9.0	7	13.10	80.00
246	M16	2.00	110	27	40	12.0	9.0	7	15.10	95.00

CF

Application



Materiale	M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Alluminio non legato	M 2	2.0	0.40	25	3980	1592	20	3185	1274	15	2385	954
	M 2.2	2.2	0.45	25	3615	1627	20	2895	1303	15	2170	977
	M 2.5	2.5	0.45	25	3185	1433	20	2545	1145	15	1910	860
	M 3	3.0	0.50	25	2655	1328	20	2120	1060	15	1590	795
	M 4	4.0	0.70	25	1990	1393	20	1590	1113	15	1195	837
	M 5	5.0	0.80	25	1590	1272	20	1275	1020	15	955	764
	M 6	6.0	1.00	25	1325	1325	20	1060	1060	15	795	795
	M 8	8.0	1.25	25	995	1244	20	795	994	15	595	744
	M10	10.0	1.50	25	795	1193	20	635	953	15	475	713
Alluminio malleabile Si < 6% non temprato	M 2	2.0	0.40	30	4775	1910	25	3980	1592	20	3185	1274
	M 2.2	2.2	0.45	30	4340	1953	25	3615	1627	20	2895	1303
	M 2.5	2.5	0.45	30	3820	1719	25	3185	1433	20	2545	1145
	M 3	3.0	0.50	30	3185	1593	25	2655	1328	20	2120	1060
	M 4	4.0	0.70	30	2385	1670	25	1990	1393	20	1590	1113
	M 5	5.0	0.80	30	1910	1528	25	1590	1272	20	1275	1020
	M 6	6.0	1.00	30	1590	1590	25	1325	1325	20	1060	1060
	M 8	8.0	1.25	30	1195	1494	25	995	1244	20	795	994
	M10	10.0	1.50	30	955	1433	25	795	1193	20	635	953
Rame non legato	M 2	2.0	0.40	15	2385	954	10	1590	636	10	1590	636
	M 2.2	2.2	0.45	15	2170	977	10	1445	650	10	1445	650
	M 2.5	2.5	0.45	15	1910	860	10	1275	574	10	1275	574
	M 3	3.0	0.50	15	1590	795	10	1060	530	10	1060	530
	M 4	4.0	0.70	15	1195	837	10	795	557	10	795	557
	M 5	5.0	0.80	15	955	764	10	635	508	10	635	508
	M 6	6.0	1.00	15	795	795	10	530	530	10	530	530
	M 8	8.0	1.25	15	595	744	10	400	500	10	400	500
	M10	10.0	1.50	15	475	713	10	320	480	10	320	480
Metalli non ferrosi A_5 > 15%	M 2	2.0	0.40	15	2385	954	10	1590	636	10	1590	636
	M 2.2	2.2	0.45	15	2170	977	10	1445	650	10	1445	650
	M 2.5	2.5	0.45	15	1910	860	10	1275	574	10	1275	574
	M 3	3.0	0.50	15	1590	795	10	1060	530	10	1060	530
	M 4	4.0	0.70	15	1195	837	10	795	557	10	795	557
	M 5	5.0	0.80	15	955	764	10	635	508	10	635	508
	M 6	6.0	1.00	15	795	795	10	530	530	10	530	530
	M 8	8.0	1.25	15	595	744	10	400	500	10	400	500
	M10	10.0	1.50	15	475	713	10	320	480	10	320	480

Maschi a rullare

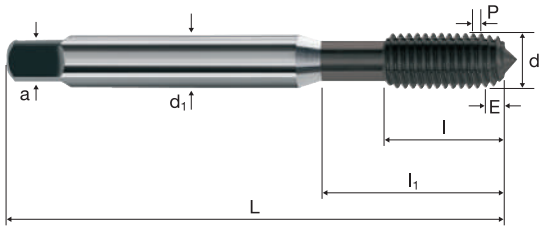
Al

M | 7G

60° | HSS PM/F

DIN 371

Form E



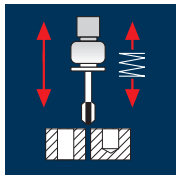
			Al Aluminium > 99%	Al Aluminium Alloy			Cu Copper		CuZn Brass

Esempio: **N° Ordine** — Articolo **EF10068** Codice-ø **034**

Ø Code	d	P	L	l	l_1	d_1	a			F-DLC EF10068 €
034	**M 2**	**0.40**	45	8	–	2.8	2.1	3	1.80	43.10
036	**M 2.2**	**0.45**	45	9	–	2.8	2.1	3	2.00	43.10
040	**M 2.5**	**0.45**	50	9	–	2.8	2.1	3	2.30	43.10
044	**M 3**	**0.50**	56	12	18.0	3.5	2.7	3	2.80	35.60
058	**M 4**	**0.70**	63	13	21.0	4.5	3.4	3	3.70	35.60
084	**M 5**	**0.80**	70	15	25.0	6.0	4.9	4	4.60	36.20
088	**M 6**	**1.00**	80	17	30.0	6.0	4.9	4	5.50	37.80
160	**M 8**	**1.25**	90	20	35.0	8.0	6.2	4	7.40	45.60
174	**M10**	**1.50**	100	22	39.0	10.0	8.0	4	9.30	52.80

CF

Application



Materiale

M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Acciaio < 850 N/mm² A_5 > 10%											
M 2	2.0	0.40	20	3185	1274	15	2385	954	10	1590	636
M 2.2	2.2	0.45	20	2895	1303	15	2170	977	10	1445	650
M 2.5	2.5	0.45	20	2545	1145	15	1910	860	10	1275	574
M 3	3.0	0.50	20	2120	1060	15	1590	795	10	1060	530
M 4	4.0	0.70	20	1590	1113	15	1195	837	10	795	557
M 5	5.0	0.80	20	1275	1020	15	955	764	10	635	508
M 6	6.0	1.00	20	1060	1060	15	795	795	10	530	530
M 8	8.0	1.25	20	795	994	15	595	744	10	400	500
M10	10.0	1.50	20	635	953	15	475	713	10	320	480
Acciaio 850 - 1100 N/mm² A_5 > 10%											
M 2	2.0	0.40	15	2385	954	10	1590	636			
M 2.2	2.2	0.45	15	2170	977	10	1445	650			
M 2.5	2.5	0.45	15	1910	860	10	1275	574			
M 3	3.0	0.50	15	1590	795	10	1060	530			
M 4	4.0	0.70	15	1195	837	10	795	557			
M 5	5.0	0.80	15	955	764	10	635	508			
M 6	6.0	1.00	15	795	795	10	530	530			
M 8	8.0	1.25	15	595	744	10	400	500			
M10	10.0	1.50	15	475	713	10	320	480			
Acciaio inossidabile ferritico/martensitico A_5 > 10%											
M 2	2.0	0.40	15	2385	954	10	1590	636			
M 2.2	2.2	0.45	15	2170	977	10	1445	650			
M 2.5	2.5	0.45	15	1910	860	10	1275	574			
M 3	3.0	0.50	15	1590	795	10	1060	530			
M 4	4.0	0.70	15	1195	837	10	795	557			
M 5	5.0	0.80	15	955	764	10	635	508			
M 6	6.0	1.00	15	795	795	10	530	530			
M 8	8.0	1.25	15	595	744	10	400	500			
M10	10.0	1.50	15	475	713	10	320	480			
Acciaio inossidabile [Cr-Ni/1.4301]											
M 2	2.0	0.40	15	2385	954	10	1590	636			
M 2.2	2.2	0.45	15	2170	977	10	1445	650			
M 2.5	2.5	0.45	15	1910	860	10	1275	574			
M 3	3.0	0.50	15	1590	795	10	1060	530			
M 4	4.0	0.70	15	1195	837	10	795	557			
M 5	5.0	0.80	15	955	764	10	635	508			
M 6	6.0	1.00	15	795	795	10	530	530			
M 8	8.0	1.25	15	595	744	10	400	500			
M10	10.0	1.50	15	475	713	10	320	480			

Maschi a rullare

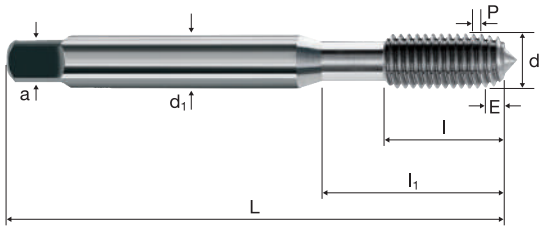
St

M | 7G

60° | HSS PM/F

DIN 371

Form E



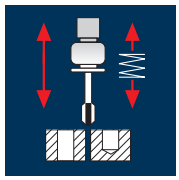
Rm < 850 | **Rm** 850-1100 | **Inox** Stainless

Esempio: **N° Ordine** — Articolo **EH10078** Codice-ø **034**

Ø Code	d	P	L	l	l1	d1	a			TiCN EH10078 €
034	M 2	0.40	45	8	–	2.8	2.1	3	1.80	41.40
036	M 2.2	0.45	45	9	–	2.8	2.1	3	2.00	41.40
040	M 2.5	0.45	50	9	–	2.8	2.1	3	2.30	41.40
044	M 3	0.50	56	12	18.0	3.5	2.7	3	2.80	34.10
058	M 4	0.70	63	13	21.0	4.5	3.4	4	3.70	34.10
084	M 5	0.80	70	15	25.0	6.0	4.9	4	4.60	34.70
088	M 6	1.00	80	17	30.0	6.0	4.9	4	5.50	36.30
160	M 8	1.25	90	20	35.0	8.0	6.2	5	7.40	43.80
174	M10	1.50	100	22	39.0	10.0	8.0	5	9.30	50.60

CF

Application



Materiale	MF	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Alluminio non legato	M 4	4.0	0.50	25	1990	995	20	1590	795	15	1195	598
	M 5	5.0	0.50	25	1590	795	20	1275	638	15	955	478
	M 6	6.0	0.50	25	1325	663	20	1060	530	15	795	398
	M 6	6.0	0.75	25	1325	994	20	1060	795	15	795	596
	M 8	8.0	0.75	25	995	746	20	795	596	15	595	446
	M10	10.0	0.75	25	795	596	20	635	476	15	475	356
	M 8	8.0	1.00	25	995	995	20	795	795	15	595	595
	M10	10.0	1.00	25	795	795	20	635	635	15	475	475
	M10	10.0	1.25	25	795	994	20	635	794	15	475	594
Alluminio non legato	M12	12.0	1.00	25	665	665	20	530	530	15	400	400
	M14	14.0	1.00	25	570	570	20	455	455	15	340	340
	M16	16.0	1.00	25	495	495	20	400	400	15	300	300
	M12	12.0	1.25	25	665	831	20	530	663	15	400	500
	M12	12.0	1.50	25	665	998	20	530	795	15	400	600
	M14	14.0	1.50	25	570	855	20	455	683	15	340	510
	M16	16.0	1.50	25	495	743	20	400	600	15	300	450
	M20	20.0	1.50	25	400	600	20	320	480	15	240	360
Alluminio malleabile Si < 6% non temprato	M 4	4.0	0.50	30	2385	1193	25	1990	995	20	1590	795
	M 5	5.0	0.50	30	1910	955	25	1590	795	20	1275	638
	M 6	6.0	0.50	30	1590	795	25	1325	663	20	1060	530
	M 6	6.0	0.75	30	1590	1193	25	1325	994	20	1060	795
	M 8	8.0	0.75	30	1195	896	25	995	746	20	795	596
	M10	10.0	0.75	30	955	716	25	795	596	20	635	476
	M 8	8.0	1.00	30	1195	1195	25	995	995	20	795	795
	M10	10.0	1.00	30	955	955	25	795	795	20	635	635
	M10	10.0	1.25	30	955	1194	25	795	994	20	635	794
Alluminio malleabile Si < 6% non temprato	M12	12.0	1.00	30	795	795	25	665	665	20	530	530
	M14	14.0	1.00	30	680	680	25	570	570	20	455	455
	M16	16.0	1.00	30	595	595	25	495	495	20	400	400
	M12	12.0	1.25	30	795	994	25	665	831	20	530	663
	M12	12.0	1.50	30	795	1193	25	665	998	20	530	795
	M14	14.0	1.50	30	680	1020	25	570	855	20	455	683
	M16	16.0	1.50	30	595	893	25	495	743	20	400	600
	M20	20.0	1.50	30	475	713	25	400	600	20	320	480

Materiale	MF	ø [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Rame non legato	M 4	4.0	0.50	15	1195	598	10	795	398	10	795	398
	M 5	5.0	0.50	15	955	478	10	635	318	10	635	318
	M 6	6.0	0.50	15	795	398	10	530	265	10	530	265
	M 6	6.0	0.75	15	795	596	10	530	398	10	530	398
	M 8	8.0	0.75	15	595	446	10	400	300	10	400	300
	M10	10.0	0.75	15	475	356	10	320	240	10	320	240
	M 8	8.0	1.00	15	595	595	10	400	400	10	400	400
	M10	10.0	1.00	15	475	475	10	320	320	10	320	320
	M10	10.0	1.25	15	475	594	10	320	400	10	320	400
Rame non legato	M12	12.0	1.00	15	400	400	10	265	265	10	265	265
	M14	14.0	1.00	15	340	340	10	225	225	10	225	225
	M16	16.0	1.00	15	300	300	10	200	200	10	200	200
	M12	12.0	1.25	15	400	500	10	265	331	10	265	331
	M12	12.0	1.50	15	400	600	10	265	398	10	265	398
	M14	14.0	1.50	15	340	510	10	225	338	10	225	338
	M16	16.0	1.50	15	300	450	10	200	300	10	200	300
	M20	20.0	1.50	15	240	360	10	160	240	10	160	240
Metalli non ferrosi A_5 > 15%	M 4	4.0	0.50	15	1195	598	10	795	398	10	795	398
	M 5	5.0	0.50	15	955	478	10	635	318	10	635	318
	M 6	6.0	0.50	15	795	398	10	530	265	10	530	265
	M 6	6.0	0.75	15	795	596	10	530	398	10	530	398
	M 8	8.0	0.75	15	595	446	10	400	300	10	400	300
	M10	10.0	0.75	15	475	356	10	320	240	10	320	240
	M 8	8.0	1.00	15	595	595	10	400	400	10	400	400
	M10	10.0	1.00	15	475	475	10	320	320	10	320	320
	M10	10.0	1.25	15	475	594	10	320	400	10	320	400
Metalli non ferrosi A_5 > 15%	M12	12.0	1.00	15	400	400	10	265	265	10	265	265
	M14	14.0	1.00	15	340	340	10	225	225	10	225	225
	M16	16.0	1.00	15	300	300	10	200	200	10	200	200
	M12	12.0	1.25	15	400	500	10	265	331	10	265	331
	M12	12.0	1.50	15	400	600	10	265	398	10	265	398
	M14	14.0	1.50	15	340	510	10	225	338	10	225	338
	M16	16.0	1.50	15	300	450	10	200	300	10	200	300
	M20	20.0	1.50	15	240	360	10	160	240	10	160	240

Maschi a rullare

Al

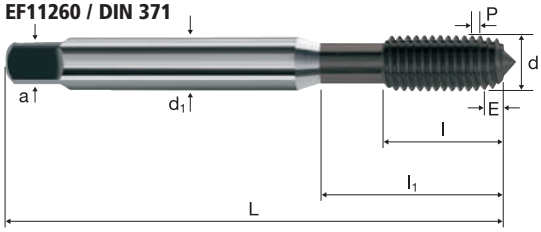
MF | ISO 2 (6H)

60° | HSS PM/F

DIN 371/374

X - P Form E

EF11260 / DIN 371



EF11261 / DIN 374

Al Aluminium > 99% | **Al** Aluminium Alloy | **Cu** Copper | **CuZn Brass**

Esempio: **N° Ordine** — Articolo **EF11260** Codice-ø **046**

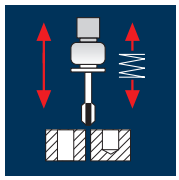
Ø Code	d	P	L	l	l1	d1	a			F-DLC EF11260 €
046	M 4	0.50	63	13	21	4.5	3.4	3	3.80	33.60
048	M 5	0.50	70	15	25	6.0	4.9	4	4.80	34.20
050	M 6	0.50	80	17	30	6.0	4.9	4	5.80	35.70
064	M 6	0.75	80	17	30	6.0	4.9	4	5.65	35.70
066	M 8	0.75	90	20	35	8.0	6.2	4	7.65	43.10
068	M10	0.75	100	22	39	10.0	8.0	4	9.65	49.80
090	M 8	1.00	90	20	35	8.0	6.2	4	7.55	43.10
092	M10	1.00	100	22	39	10.0	8.0	4	9.55	49.80
162	M10	1.25	100	22	39	10.0	8.0	4	9.40	49.80

Esempio: **N° Ordine** — Articolo **EF11261** Codice-ø **094**

Ø Code	d	P	L	l	l1	d1	a			F-DLC EF11261 €
094	M12	1.00	100	18	39	9.0	7.0	5	11.50	62.00
096	M14	1.00	100	18	39	11.0	9.0	5	13.50	79.00
098	M16	1.00	100	18	39	12.0	9.0	5	15.50	93.00
164	M12	1.25	100	22	39	9.0	7.0	5	11.40	62.00
176	M12	1.50	100	22	39	9.0	7.0	5	11.30	62.00
178	M14	1.50	100	22	39	11.0	9.0	5	13.30	79.00
180	M16	1.50	100	22	39	12.0	9.0	5	15.30	86.00
184	M20	1.50	125	26	50	16.0	12.0	6	19.30	145.00

CF

Application



Materiale	MF	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Acciaio < 850 N/mm² A_5 > 10%	M 4	4.0	0.50	20	1590	795	15	1195	598	10	795	398
	M 5	5.0	0.50	20	1275	638	15	955	478	10	635	318
	M 6	6.0	0.50	20	1060	530	15	795	398	10	530	265
	M 6	6.0	0.75	20	1060	795	15	795	596	10	530	398
	M 8	8.0	0.75	20	795	596	15	595	446	10	400	300
	M10	10.0	0.75	20	635	476	15	475	356	10	320	240
	M 8	8.0	1.00	20	795	795	15	595	595	10	400	400
	M10	10.0	1.00	20	635	635	15	475	475	10	320	320
	M10	10.0	1.25	20	635	794	15	475	594	10	320	400
Acciaio < 850 N/mm² A_5 > 10%	M12	12.0	1.00	20	530	530	15	400	400	10	265	265
	M14	14.0	1.00	20	455	455	15	340	340	10	225	225
	M16	16.0	1.00	20	400	400	15	300	300	10	200	200
	M12	12.0	1.25	20	530	663	15	400	500	10	265	331
	M12	12.0	1.50	20	530	795	15	400	600	10	265	398
	M14	14.0	1.50	20	455	683	15	340	510	10	225	338
	M16	16.0	1.50	20	400	600	15	300	450	10	200	300
	M20	20.0	1.50	20	320	480	15	240	360	10	160	240
Acciaio 850 - 1100 N/mm² A_5 > 10%	M 4	4.0	0.50	15	1195	598	10	795	398			
	M 5	5.0	0.50	15	955	478	10	635	318			
	M 6	6.0	0.50	15	795	398	10	530	265			
	M 6	6.0	0.75	15	795	596	10	530	398			
	M 8	8.0	0.75	15	595	446	10	400	300			
	M10	10.0	0.75	15	475	356	10	320	240			
	M 8	8.0	1.00	15	595	595	10	400	400			
	M10	10.0	1.00	15	475	475	10	320	320			
	M10	10.0	1.25	15	475	594	10	320	400			
Acciaio 850 - 1100 N/mm² A_5 > 10%	M12	12.0	1.00	15	400	400	10	265	265			
	M14	14.0	1.00	15	340	340	10	225	225			
	M16	16.0	1.00	15	300	300	10	200	200			
	M12	12.0	1.25	15	400	500	10	265	331			
	M12	12.0	1.50	15	400	600	10	265	398			
	M14	14.0	1.50	15	340	510	10	225	338			
	M16	16.0	1.50	15	300	450	10	200	300			
	M20	20.0	1.50	15	240	360	10	160	240			

Materiale	MF	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
Acciaio inossidabile ferritico/martensitico A_5 > 10%	M 4	4.0	0.50	15	1195	598	10	795	398
	M 5	5.0	0.50	15	955	478	10	635	318
	M 6	6.0	0.50	15	795	398	10	530	265
	M 6	6.0	0.75	15	795	596	10	530	398
	M 8	8.0	0.75	15	595	446	10	400	300
	M10	10.0	0.75	15	475	356	10	320	240
	M 8	8.0	1.00	15	595	595	10	400	400
	M10	10.0	1.00	15	475	475	10	320	320
	M10	10.0	1.25	15	475	594	10	320	400
Acciaio inossidabile ferritico/martensitico A_5 > 10%	M12	12.0	1.00	15	400	400	10	265	265
	M14	14.0	1.00	15	340	340	10	225	225
	M16	16.0	1.00	15	300	300	10	200	200
	M12	12.0	1.25	15	400	500	10	265	331
	M12	12.0	1.50	15	400	600	10	265	398
	M14	14.0	1.50	15	340	510	10	225	338
	M16	16.0	1.50	15	300	450	10	200	300
	M20	20.0	1.50	15	240	360	10	160	240
Acciaio inossidabile [Cr-Ni/1.4301]	M 4	4.0	0.50	15	1195	598	10	795	398
	M 5	5.0	0.50	15	955	478	10	635	318
	M 6	6.0	0.50	15	795	398	10	530	265
	M 6	6.0	0.75	15	795	596	10	530	398
	M 8	8.0	0.75	15	595	446	10	400	300
	M10	10.0	0.75	15	475	356	10	320	240
	M 8	8.0	1.00	15	595	595	10	400	400
	M10	10.0	1.00	15	475	475	10	320	320
	M10	10.0	1.25	15	475	594	10	320	400
Acciaio inossidabile [Cr-Ni/1.4301]	M12	12.0	1.00	15	400	400	10	265	265
	M14	14.0	1.00	15	340	340	10	225	225
	M16	16.0	1.00	15	300	300	10	200	200
	M12	12.0	1.25	15	400	500	10	265	331
	M12	12.0	1.50	15	400	600	10	265	398
	M14	14.0	1.50	15	340	510	10	225	338
	M16	16.0	1.50	15	300	450	10	200	300
	M20	20.0	1.50	15	240	360	10	160	240

Maschi a rullare

St

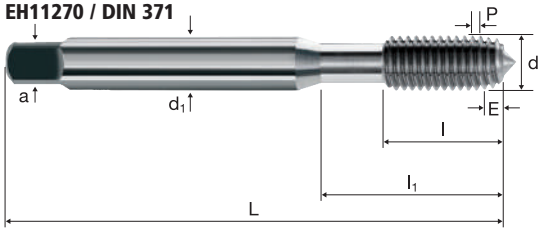
MF | ISO 2 (6H)

60° | HSS PM/F

DIN 371/374

X - P Form E

EH11270 / DIN 371



EH11271 / DIN 374

Rm < 850 | **Rm** 850-1100 | **Inox** Stainless

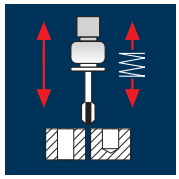
Esempio: N° Ordine — Articolo **EH11270** Codice-ø **046**

Ø Code	d	P	L	l	l1	d1	a			TiCN EH11270 €
046	M 4	0.50	63	13	21	4.5	2.1	4	3.80	32.30
048	M 5	0.50	70	15	25	6.0	2.7	4	4.80	32.90
050	M 6	0.50	80	17	30	6.0	3.4	4	5.80	34.40
064	M 6	0.75	80	17	30	6.0	3.4	4	5.65	34.40
066	M 8	0.75	90	20	35	8.0	4.9	5	7.65	41.50
068	M10	0.75	100	22	39	10.0	5.5	5	9.65	48.00
090	M 8	1.00	90	20	35	8.0	4.9	5	7.55	41.50
092	M10	1.00	100	22	39	10.0	5.5	5	9.55	48.00
162	M10	1.25	100	22	39	10.0	5.5	5	9.40	48.00

Esempio: N° Ordine — Articolo **EH11271** Codice-ø **094**

Ø Code	d	P	L	l	l1	d1	a			TiCN EH11271 €
094	M12	1.00	100	18	39	9.0	7.0	7	11.50	59.90
096	M14	1.00	100	18	39	11.0	9.0	7	13.50	76.00
098	M16	1.00	100	18	39	12.0	9.0	7	15.50	90.00
164	M12	1.25	100	22	39	9.0	7.0	7	11.40	59.90
176	M12	1.50	100	22	39	9.0	7.0	7	11.30	59.90
178	M14	1.50	100	22	39	11.0	9.0	7	13.30	76.00
180	M16	1.50	100	22	39	12.0	9.0	7	15.30	90.00
184	M20	1.50	125	26	50	16.0	12.0	7	19.30	139.00

Application



Materiale

	EG-M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Alluminio non legato												
	EGM 3	3.650	0.50	25	2180	1090	20	1745	873	15	1310	655
	EGM 4	4.910	0.70	25	1620	1134	20	1295	906	15	970	679
	EGM 5	6.040	0.80	25	1320	1056	20	1055	844	15	790	632
	EGM 6	7.300	1.00	25	1090	1090	20	870	870	15	655	655
	EGM 8	9.624	1.25	25	825	1031	20	660	825	15	495	619
	EGM 10	11.948	1.50	25	665	998	20	535	803	15	400	600
	EGM 12	14.274	1.75	25	555	971	20	445	779	15	335	586
Alluminio malleabile Si < 6% non temprato												
	EGM 3	3.650	0.50	30	2615	1308	25	2180	1090	20	1745	873
	EGM 4	4.910	0.70	30	1945	1362	25	1620	1134	20	1295	906
	EGM 5	6.040	0.80	30	1580	1264	25	1320	1056	20	1055	844
	EGM 6	7.300	1.00	30	1310	1310	25	1090	1090	20	870	870
	EGM 8	9.624	1.25	30	990	1238	25	825	1031	20	660	825
	EGM 10	11.948	1.50	30	800	1200	25	665	998	20	535	803
	EGM 12	14.274	1.75	30	670	1173	25	555	971	20	445	779
Rame non legato												
	EGM 3	3.650	0.50	15	1310	655	10	870	435	10	870	435
	EGM 4	4.910	0.70	15	970	679	10	650	455	10	650	455
	EGM 5	6.040	0.80	15	790	632	10	525	420	10	525	420
	EGM 6	7.300	1.00	15	655	655	10	435	435	10	435	435
	EGM 8	9.624	1.25	15	495	619	10	330	413	10	330	413
	EGM 10	11.948	1.50	15	400	600	10	265	398	10	265	398
	EGM 12	14.274	1.75	15	335	586	10	225	394	10	225	394
Metalli non ferrosi A_5 > 15%												
	EGM 3	3.650	0.50	15	1310	655	10	870	435	10	870	435
	EGM 4	4.910	0.70	15	970	679	10	650	455	10	650	455
	EGM 5	6.040	0.80	15	790	632	10	525	420	10	525	420
	EGM 6	7.300	1.00	15	655	655	10	435	435	10	435	435
	EGM 8	9.624	1.25	15	495	619	10	330	413	10	330	413
	EGM 10	11.948	1.50	15	400	600	10	265	398	10	265	398
	EGM 12	14.274	1.75	15	335	586	10	225	394	10	225	394

Maschi a rullare per inserti

Al

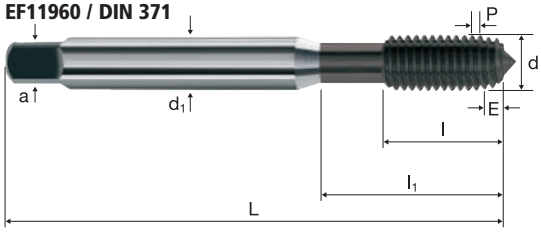
EG M | 6H mod

60° | HSS PM/F

DIN 371/376

X - P Form E

EF11960 / DIN 371



EF11961 / DIN 376

Al Aluminium > 99% | **Al** Aluminium Alloy | **Cu** Copper | **CuZn Brass**

Esempio: **N° Ordine** — Articolo **EF11960** Codice-ø **044**

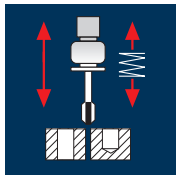
Ø Code	d	P	L	l	l1	d1	a			F-DLC EF11960 €
044	EGM 3	0.50	63	13	21	4.5	3.4	3	3.40	39.50
058	EGM 4	0.70	70	15	25	6.0	4.9	4	4.60	40.20
084	EGM 5	0.80	80	17	30	6.0	4.9	4	5.70	42.00
088	EGM 6	1.00	90	20	35	8.0	6.2	4	6.80	46.30
160	EGM 8	1.25	100	22	39	10.0	8.0	4	9.00	58.60

Esempio: **N° Ordine** — Articolo **EF11961** Codice-ø **174**

Ø Code	d	P	L	l	l1	d1	a			F-DLC EF11961 €
174	EGM10	1.50	110	25	50	9.0	7.0	5	11.20	73.00
240	EGM12	1.75	110	26	58	11.0	9.0	5	13.40	93.00

CF

Application



Materiale

	EG-M	ø [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
Acciaio < 850 N/mm² A_5 > 10%	EGM 3	3.650	0.50	20	1745	873	15	1310	655	10	870	435
	EGM 4	4.910	0.70	20	1295	906	15	970	679	10	650	455
	EGM 5	6.040	0.80	20	1055	844	15	790	632	10	525	420
	EGM 6	7.300	1.00	20	870	870	15	655	655	10	435	435
	EGM 8	9.624	1.25	20	660	825	15	495	619	10	330	413
	EGM 10	11.948	1.50	20	535	803	15	400	600	10	265	398
	EGM 12	14.274	1.75	20	445	779	15	335	586	10	225	394
Acciaio 850 - 1100 N/mm² A_5 > 10%	EGM 3	3.650	0.50	15	1310	655	10	870	435			
	EGM 4	4.910	0.70	15	970	679	10	650	455			
	EGM 5	6.040	0.80	15	790	632	10	525	420			
	EGM 6	7.300	1.00	15	655	655	10	435	435			
	EGM 8	9.624	1.25	15	495	619	10	330	413			
	EGM 10	11.948	1.50	15	400	600	10	265	398			
	EGM 12	14.274	1.75	15	335	586	10	225	394			
Acciaio inossidabile ferritico/martensitico A_5 > 10%	EGM 3	3.650	0.50	15	1310	655	10	870	435			
	EGM 4	4.910	0.70	15	970	679	10	650	455			
	EGM 5	6.040	0.80	15	790	632	10	525	420			
	EGM 6	7.300	1.00	15	655	655	10	435	435			
	EGM 8	9.624	1.25	15	495	619	10	330	413			
	EGM 10	11.948	1.50	15	400	600	10	265	398			
	EGM 12	14.274	1.75	15	335	586	10	225	394			
Acciaio inossidabile [Cr-Ni/1.4301]	EGM 3	3.650	0.50	15	1310	655	10	870	435			
	EGM 4	4.910	0.70	15	970	679	10	650	455			
	EGM 5	6.040	0.80	15	790	632	10	525	420			
	EGM 6	7.300	1.00	15	655	655	10	435	435			
	EGM 8	9.624	1.25	15	495	619	10	330	413			
	EGM 10	11.948	1.50	15	400	600	10	265	398			
	EGM 12	14.274	1.75	15	335	586	10	225	394			

Maschi a rullare per inserti

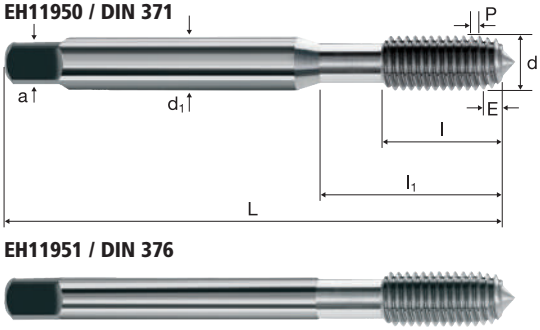
St

EG M | 6H mod

HSS PM/F

DIN 371/376

Form E



Rm < 850 | **Rm** 850-1100 | **Inox** Stainless

Esempio: **N° Ordine** — Articolo **EH11950** Codice-ø **044**

Ø Code	d	P	L	l	l1	d1	a			TiCN EH11950 €
044	EGM 3	0.50	63	13	21	4.5	3.4	3	3.40	37.70
058	EGM 4	0.70	70	15	25	6.0	4.9	4	4.60	38.40
084	EGM 5	0.80	80	17	30	6.0	4.9	5	5.70	40.10
088	EGM 6	1.00	90	20	35	8.0	6.2	5	6.80	44.20
160	EGM 8	1.25	100	22	39	10.0	8.0	5	9.00	56.00

Esempio: **N° Ordine** — Articolo **EH11951** Codice-ø **174**

Ø Code	d	P	L	l	l1	d1	a			TiCN EH11951 €
174	EGM10	1.50	110	25	40	9.0	7.0	7	11.20	70.00
240	EGM12	1.75	110	28	40	11.0	9.0	7	13.40	88.00

CF

passion
for precision
fraisa

FRAISA vi offre dei prodotti altamente innovativi. Prodotti che sono sempre all'alteza degli sviluppi tecnologici e spesso ne rappresentano addirittura la massima espressione.

Con **«i suggerimenti della ToolSchool»** vogliamo illustrarvi le tecnologie di volta in volta più aggiornate e apprezzate comprese nel nostro catalogo e naturalmente i loro vantaggi.

«I suggerimenti della ToolSchool» vi dimostreranno con chiarezza come passare da prodotti finora impiegati a nuove soluzioni. Nel catalogo, con il logo ToolSchool contrassegniamo i prodotti selezionati per i quali proporre un upgrade dalle tecnologie già esistenti a quelle più aggiornate e apprezzate.

Il passaggio da «già esistente» a «nuovo» vi consentirà di incrementare la produttività e ridurre i costi assicurandovi più vantaggi sul mercato nel confronti della concorrenza.

Grazie a ToolSchool potrete contare sempre sulle più aggiornate e apprezzate tecnologie.
Questo vi permetterà di rafforzare la vostra posizione rispetto alla concorrenza.

In FRAISA, ToolSchool è sinonimo di esperienza pluriennale ampiamente collaudata e di grande perizia in fase di applicazione ma ToolSchool significa anche fondato know-how applicativo e vantaggi per il cliente.
Su questo potete avere assoluta certezza.

La più aggiornata e apprezzata tecnologia FRAISA per

- **più efficienza**
- **meno costi**
- **migliore competitività sul mercato**

A questo catalogo si aggiunge un opuscolo presenta in modo chiaro i suggerimenti di ToolSchool sulla base di una panoramica degli utensili.

passion
for precision
fraisa

Informazioni sugli utensili per foratura

452 – 457

Informazioni sugli utensili per filettatura

458 – 479

Informazioni generali

480 – 486

Legenda riguardante la pagina dei prodotti degli utensili per foratura

Tecnologie degli utensili

Punte con quattro smussi (due smussi d'attrito e due smussi guida)
- Miglioramento rettilineità del foro
- Migliore qualità del foro e migliore allineamento
- Minori deviazioni del foro nell'intersezione con fori trasversali
- fori di ottima concentricità, buona superficie; massimo supporto dell'utensile in uscita dal foro

Punte con scanalature di scarico trucioli ottimizzate e lucidate e con adduzione interna del refrigerante
- Riduzione attrito (e quindi meno tendenza all'adesione), migliore evacuazione del truciolo e minore riscaldamento

Punte con scanalature di scarico trucioli ottimizzate e lucidate, senza adduzione interna del refrigerante
- Riduzione attrito (e quindi meno tendenza all'adesione), migliore evacuazione del truciolo e minore riscaldamento

Punte con gambo di presa in qualità h5
- Elevata precisione di concentricità ed eccentricità
- Ottima per le moderne attrezzature di serraggio di precisione

Materiali per utensili

HM XA

Metallo duro micrograna. Durezza 1950 HV. Contenuto di cobalto 8%. Si distingue particolarmente per l'elevata resistenza all'usura (Abrasion).

HM MGX

Metallo duro micrograna ad alto rendimento con carburo di tungsteno ultrafine. Durezza 1610 HV. Contenuto di cobalto 10%.

HM MG10

Metallo duro micrograna. Durezza 1600 HV. Contenuto di cobalto 10%.

HM MGD²

Metallo duro micrograna con caratteristiche di elevata resistenza a flessione e al taglio in condizioni di buona elasticità.

HM

Metallo duro micrograno, universale.

HSS

Materiale per utensili ad alto rendimento. Lega ASR prodotto con metallurgia convenzionale.

Legenda riguardante la pagina dei prodotti degli utensili per foratura

Adduzione refrigerante

Le punte con adduzione interna del refrigerante danno migliore formazione ed evacuazione del truciolo assicurando maggior sicurezza di processo e durata utensile.

Punte senza adduzione interna refrigerante.

Angolo alla sommità ed inclinazione dell'elica

Il valore dell'angolo di testa influenza in modo determinante la gamma di materiali lavorabili. Angoli minori facilitano il centraggio mentre angoli maggiori riducono la coppia.

L'inclinazione dell'elica incide in modo determinante sulla spoglia principale (estremità della punta). Grandi inclinazioni si addicono ai materiali teneri, piccole inclinazioni ai materiali secchi e duri.

Esecuzioni e dimensioni delle punte elicoidali

Punte elicoidali in metallo duro, 3xd
Le dimensioni di questo utensile rispondono alla norma DIN 6537 K «Punte elicoidali in metallo duro con gambo cilindrico ribassato».

Punte elicoidali in metallo duro, 5xd
Le dimensioni di questo utensile rispondono alla norma DIN 6537 L «Punte elicoidali in metallo duro con gambo cilindrico ribassato».

Punte elicoidali in metallo duro e punte per foratura profonda, lunghezza maggiore di 5xd.
Secondo lo standard aziendale.

Punte elicoidali in metallo duro lunghezza 8xd, ottimizzate; secondo norma aziendale ma con rapporto l/d ottimizzato per la max stabilità dell'utensile.

Esecuzioni e dimensioni speciali

90°

Indicazione dell'angolo al vertice per punte da centro o punte per intestatura conica.
Punte per svasatura a 90° DIN 335

Profondità di foratura

Dati della profondità nominale di foratura. (Esempio: 5xd = 5 volte il diametro).
La profondità nominale di foratura non corrisponde alla profondità massima! La profondità massima di foratura dell'utensile è indicata con L_{max}.

Legenda riguardante la pagina dei prodotti degli utensili per foratura

Forma del gambo / Esecuzioni del gambo

Utensili per metallo duro con gambo cilindrico: esecuzione gambo ai sensi della norma DIN 6535 HA

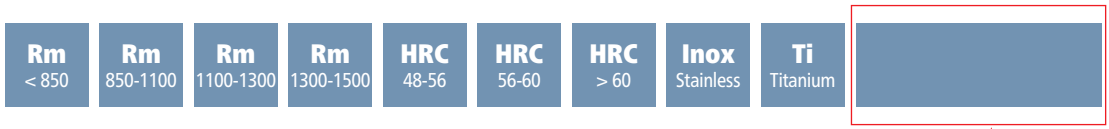
Utensili per metallo duro con gambo cilindrico e superficie di serraggio laterale: esecuzione gambo ai sensi della norma DIN 6535 HB

Micropunta per metallo duro e punte per foratura profondi con gambo cilindrico: esecuzione gambo secondo gli standard aziendali.

Idoneita alla lavorazione

Lo sfondo blu indica l'eccezionale adeguatezza dell'utensile a questo materiale.

Lo sfondo azzurro indica un'adeguatezza da buona a sufficiente dell'utensile a questo materiale.



Nel campo aggiuntivo sono indicati gli altri materiali che è possibile lavorare

Abbreviazioni

d_1	Diametro dei taglienti [mm]
d_2	Diametro del gambo [mm]
d_3	Diametro della superficie frontale di frese a svasare [mm]
l_1	Lunghezza totale dell'utensile [mm]
l_2	Lunghezza della scanalatura per i trucioli [mm]
l_3	Lunghezza del 2° gradino (punte a gradini) [mm]
l_4	Lunghezza del gambo [mm]
L_{max}	Profondità massima di foratura dell'utensile
L_K	Profondità di foratura per smusso (Punte a gradini)

Lubrorefrigerazione e pressione del refrigerante

Di regola la foratura avviene con lubrorefrigerante. Obiettivi sono l'efficiente evacuazione del truciolo e del calore. Acciai temperati o materiali abrasivi possono essere forati anche a secco (raffreddamento con aria) o con MMS (lubrificazione minimale). Se il liquido di raffreddamento perviene dall'esterno occorre fare attenzione al corretto posizionamento del getto. Questo dovrebbe essere diretto parallelamente all'angolo d'elica e sull'ingresso del foro.

Con uso di una erogazione interna del lubrorefrigerante (attraverso mandrino e utensile) si ottengono superiori prestazione e una maggiore vita dell'utensile. In questo caso, in funzione dell'esecuzione e del diametro dell'utensile, occorre una determinata pressione minima del fluido refrigerante.

La seguente tabella fornisce valori orientativi del lubrorefrigerante raccomandati da Fraisa per punte con erogazione interna del fluiido:

Pressione di refrigerante richiesta per punte elicoidali con erogazione interna dl fluido						
Esecuzioni	< ø 3 mm	ø 3-5 mm	ø 5-8 mm	ø 8-12 mm	ø 12-16 mm	ø 16-20 mm
fino a 5xd	60 bar	50 bar	30 bar	25 bar	20 bar	15 bar
8xd – 30xd	80 bar	60 bar	40 bar	30 bar	25 bar	20 bar
Pressione di refrigerante richiesta per punte a elica con erogazione interna e lubrificazione minimale						
Esecuzioni	< ø 3 mm	ø 3-5 mm	ø 5-8 mm	ø 8-12 mm	ø 12-16 mm	ø 16-20 mm
fino a 5xd	12 bar	10 bar	9 bar	8 bar	8 bar	7 bar
8xd – 30xd	14 bar	12 bar	10 bar	9 bar	9 bar	8 bar

Concentricità

La concentricità di rotazione nel processo di foratura è una grandezza molto importante. L'eccentricità deve essere la più piccola possibile poiché influenza fortemente lo sviluppo dell'usura. La concentricità di rotazione dovrebbe essere controllata soprattutto con i diametri di foro sotto 6 mm. La misura di controllo va effettuata a utensile montato e serrato nel portautensile o nel mandrino della macchina.

La seguente tabella fornisce un orientamento per l'errore di concentricità massimo, secondo Fraisa:

Eccentricità massima di punte elicoidali						
Campo di diametri	< ø 1 mm	ø 1-3 mm	ø 3-6 mm	ø 6-10 mm	ø 10-16 mm	ø 16-20 mm
Eccentricità massima	3 µm	5 µm	10 µm	15 µm	20 µm	25 µm

Centraggio e foro pilota

La punta deve essere sempre perpendicolare al pezzo. In caso di foratura su una superficie inclinata è necessario prevedere una superficie ausiliaria perpendicolare alla punta per foratura.

L'angolo al vertice della punta da centro deve essere sempre più grande dell'angolo al vertice della punta elicoidale. Così, si ha un centraggio ottimale della punta a forare e minore usura.

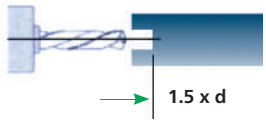
Raccomandazioni Fraisa circa centraggi e fori pilota:

Esecuzioni	**Mat. per utensili**	**Raccomandazione**
fino a 5xd	Metallo duro	No
fino a 5xd	ASR	Sì
8xd	Metallo duro	Opzione: Un miglioramento della cilindricità può essere ottenuto mediante centraggio.
12xd – 30xd	Metallo duro	Sì, un foro pilota è necessario (vedere a pagina 428)

Istruzioni tecniche per l'impiego delle punte per foratura profonda

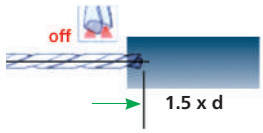
Allo scopo di aumentare la durata e l'affidabilità di questo di tipo di punte, Fraisa SA suggerisce di adottare la seguente tecnica di foratura:

Fase 1



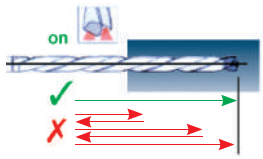
Esecuzione del foro pilota = 1.5 x d.
Ad esempio con Supradrill® U 3xd. B62011.
Il foro pilota dovrà essere pulito, libero da trucioli, prima dell'usi della punta per fori profondi!

Fase 2



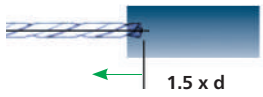
Introdurre la punta per fori profondi nel foro con numero di giri massimo di 300 1/min e avanzamento v_f = 1000mm/min, senza refrigerante fino ad 1 mm dal fondo del foro pilota.

Fase 3



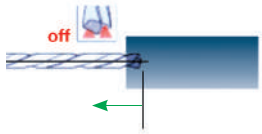
Alimentazione refrigerante ins.
Perforare senza rottura truciolo con dati di taglio consigliati.
In caso di perforazione per realizzare **fori passanti**, ridurre l'avanzamento di almeno il 25% prima che la punta esca dal foro.

Fase 4



Trattandosi di punte per fori profondi, arretrare con doppio avanzamento (=2 x v_f) – fino a 1,5 x d dopo l'entrata nel foro.
Posizione come nell'operazione 2.

Fase 5



Ridurre quindi la velocità a un massimo di 300 giri/min.
Estrarre la punta dal foro. (max. 1000 mm/min).

AVVERTENZA DI SICUREZZA

Le punte per fori profondi lunghe possono essere fatte ruotare libere, al di fuori del foro soltanto a basso numero di giri (max. 300 1/min).
Velocità maggiori possono generare vibrazioni tali da portare ad una loro rottura spontanea.

Formule di calcolo per i parametri di taglio

d_1 Diametro dei taglienti [mm]

v_c Velocità di taglio [m/min]

f Avanzamento per giro [mm]

n Velocità di rotazione [min^{-1}]

v_f Velocità di avanzamento [mm/min]

Q Volume di truciolatura [cm^3/min]

T Tempo macchina di lavorazione per la profondità massima di perforazione dell'utensile [sec]

L Profondità di foratura effettiva [mm]

Velocità di rotazione	$n = \frac{v_c \cdot 1000}{d_1 \cdot \pi}$	$\left[\frac{1}{min}\right]$
Velocità di taglio	$v_c = \frac{d_1 \cdot n \cdot \pi}{1000}$	$\left[\frac{m}{min}\right]$
Velocità di avanzamento	$v_f = f \cdot n$	$\left[\frac{mm}{min}\right]$
Volume di truciolatura	$Q = \frac{d_1^2 \cdot \pi \cdot v_f}{4 \cdot 1000}$	$\left[\frac{cm^3}{min}\right]$
Tempo macchina di lavorazione	$T = \frac{L}{v_f} \cdot 60$	[sec]

Codici dei materiali sugli utensili per filettatura

Maschi

08	Acciaio < 850 N/mm^2
11	Acciaio 850 - 1100 N/mm^2
15	Acciaio 1100 - 1500 N/mm^2
60	Acciaio temperato 48 - 60 HRC
In	Acciaio inossidabile
GG	Ghisa (grigia/sferoidale)
Al	Alluminio
Ti	Leghe di titanio indurite
Ni	Leg. a base di nichel indurite
R	Universal Rigid
U	Universal

Maschi a rullare

St	Acciaio
Al	Alluminio
U	Universal

Legenda riguardante la pagina dei prodotti degli utensili per filettatura

	Tipi di filettatura
M	Filettatura metrica ISO DIN 965 (DIN 13)
MF	Filettatura metrica fine ISO DIN 965 (DIN 13)
MJ	Filettatura MJ per industria aerospaziale secondo DIN ISO 5855
G	Filettatura gas Whitworth secondo DIN ISO 228
UNC	Filettatura americana a passo grosso secondo ASME B1.1
UNJC	Filettatura americana a passo grosso secondo SAE AS 8879
UNF	Filettatura americana a passo fino secondo ASME B1.1
UNJF	Filettatura americana a passo fino secondo SAE AS 8879
NPT	Filettatura gas conica americana secondo ANSI B1.20.1
NPTF	Filettatura gas conica americana secondo ANSI B1.20.3
EG M	Filettatura metrica per inserti secondo DIN 8140-2

Legenda riguardante la pagina dei prodotti degli utensili per filettatura

Classe d'applicazioni / Posizioni della tolleranza

ISO 2 (6H)	Gli utensili della classe applicativa 2 (ISO 2) sono concepiti per la generazione di filettature nei campi di tolleranza 4G, 5G, 6H.
ISO 1 (4H)	Gli utensili della classe applicativa 1 (ISO 1) sono concepiti per la generazione di filettature nei campi di tolleranza 4H, 5H.
ISO 3 (6G)	Gli utensili della classe applicativa 3 (ISO 3) sono concepiti per la generazione di filettature nei campi di tolleranza 6G, 7H, 8H.
7G	Gli utensili della classe applicativa 7G sono concepiti per la generazione di filettature nei campi di tolleranza 7G, 8G con successivo trattamento di tempra con deformazioni.
ISO 2 +0,1	Gli utensili della classe applicativa 2 (ISO 2) sono concepiti per la generazione di filettature nei campi di tolleranza 4G, 5G, 6H. A scopo di successivo trattamento galvanico superficiale delle filettature con spessore di riporto di 0.025 mm, gli utensili sono concepiti con tolleranza maggiorata di 0.1 mm sulla filettatura.
4H	Gli utensili della classe applicativa 4H sono concepiti per la generazione di filettature MJ nei campi di tolleranza 4H (ASME B1.1).
2B	Gli utensili della classe applicativa 2B sono concepiti per la generazione di filettature nei campi di tolleranza 2B.
3B	Gli utensili della classe applicativa 3B sono concepiti per la generazione di filettature nei campi di tolleranza 3B.
6H mod	Gli utensili della classe applicativa 6H sono concepiti per la generazione di filettature per inserti.

Materiali per utensili

HSS PM/F	ASR di alta resa per utensili, da metallurgia delle polveri.
HSS-E Co5	Materiale per utensili di alte prestazioni. Prodotto con metallurgia convenzionale ma con contenuto di cobalto dell'5%.
HM MG10	Metallo duro micrograno, universale, durezza 1600 HV, contenuto di Co 10%.
HM	Metallo duro micrograno, universale.

Legenda riguardante la pagina dei prodotti degli utensili per filettatura

Norma di filettatura

I fianchi dell'utensile rispondono alle norme indicate sotto «Tipi di filettatura».

Forma del gambo

Esecuzione cilindrica del gambo secondo la norma indicata.

Esecuzione cilindrica del gambo con spianatura laterale secondo la norma indicata.

Esecuzione cilindrica del gambo con quadro secondo la norma indicata.

Esecuzione cilindrica del gambo con quadro secondo la norma specificata.

Esecuzione cilindrica del gambo con quadro.

Forme di foro

I fori da maschiare devono avere il giusto diametro.
(Regola empirica della maschiatura: Diametro foro = Diametro interno filettatura – passo)

Utensile adatto alla filettatura di fori ciechi.

Utensile adatto alla filettatura di fori passanti.

Utensile adatto alla filettatura di fori ciechi e fori passanti.

Utensile adatto alla generazione di fori conici ciechi e fori conici passanti.

Legenda riguardante la pagina dei prodotti degli utensili per filettatura

Forme d'imbocco / Forme d'imbocco coniche

Forme d'imbocco per maschi DIN 2197, Tabella 4: Tipo B.
Il numero di passi sull'imbocco varia da 3.5 a 5.

Forme d'imbocco per maschi DIN 2197, Tabella 4: Tipo C.
Il numero di passi sull'imbocco varia da 2 a 3.
Forma conica d'imbocco per maschi a rullare DIN 2175, Tabella 4: Tipo C.
Lunghezza del cono d'imbocco: 2 - 3 passi.

Forma conica d'imbocco per maschi a rullare DIN 2175, Tabella 4: Tipo E.
Lunghezza del cono d'imbocco: max. 2 passi.

Scarico trucioli

Utensile con scarico trucioli in direzione avanzamento.

Utensile con scarico trucioli in direzione contraria a quella di avanzamento.

Utensile per materiali a truciolo corto.

Maschi a rullare

Utensile con profilo poligonale senza cave di lubrificazione.

Utensile con profilo poligonale con cave di lubrificazione.

Frese a filettare

Utensile per filettature interne.

Utensile per filettature esterne.

Legenda riguardante la pagina dei prodotti degli utensili per filettatura

Idoneita alla lavorazione

Lo sfondo blu indica l'eccezionale adeguatezza dell'utensile a questo materiale.

Lo sfondo azzurro indica un'adeguatezza da buona a sufficiente dell'utensile a questo materiale.

Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56	HRC 56-60	HRC > 60	Inox Stainless	Ti Titanium	

Nel campo aggiuntivo sono indicati gli altri materiali che è possibile lavorare

Lubrorefrigeranti

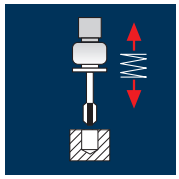
Per la filettatura con maschi, e in particolare con maschi a rullare, va assicurata un'adeguata lubrificazione. Più profonda è la filettatura, tanto più importante è la lubrificazione.

Nella maschiatura si ottengono i migliori risultati con olio (effetto lubrificante). E però possibile anche la lavorazione con emulsione minimo al 5%.

Per la lavorazione è necessario olio come lubrificante.

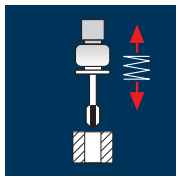
Per la lavorazione è necessario olio con additivi speciali come lubrificante.

Definire il diametro del foro secondo la colonna Mat. Critico, pagina 445.

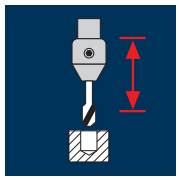


Maschiatura con mandrino di compensazione

Deve essere garantita una buona funzione di compensazione del mandrino (nessun blocco). In caso contrario, nonostante il mandrino di compensazione la filettatura potrebbe tagliarsi scorrettamente oppure potrebbero verificarsi degli errori di passo. La forza di trazione del mandrino di compensazione lineare deve essere scelta in funzione della filettatura da realizzare e del materiale da lavorare.

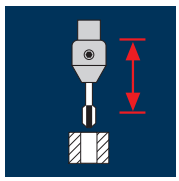


La programmazione di un numero di giri troppo elevato può dare problemi. Se il numero di giri è programmato in modo che non possa essere raggiunto (a causa del ritardo del movimento della macchina), può verificarsi una rottura prematura dell'utensile o il taglio scorretto della filettatura. Ad un'osservazione precisa, risulta che un numero di giri elevato non apporta spesso il risparmio di tempo auspicato.



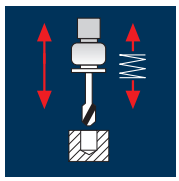
Rigid Tapping

Rigid Tapping - maschiatura rigida viene utilizzato per macchine moderne con guida sincronizzata. Tutti gli utensili dispongono di superficie laterale di serraggio e sono impiegati in pinze convenzionali.

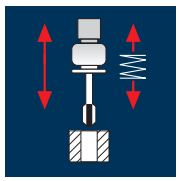


Nel taglio delle filettature con Rigid Tapping occorre programmare una distanza di sicurezza sufficiente. Se la distanza di sicurezza è insufficiente, il mandrino della macchina potrebbe non girare in sincronia con l'avanzamento prima di entrare nel foro. La conseguenza sono errori di passo della filettatura anche se si lavora in modo sincronizzato.

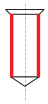
In diverse macchine non è possibile raggiungere la velocità di rotazione raccomandata nel funzionamento sincrono. In questi casi é necessario operare con il numero dei giri massimi dove la sincronizzazione della macchina é ancora garantita.



Maschiatura con compensazione lunghezza oppure Rigid Tapping

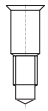


Istruzioni tecniche per l'impiego degli utensili per filettatura



Incrudimento del foro
Durante la foratura assicurarsi di utilizzare una punta adatta e intatta. Se l'usura della punta è troppo elevata, potrebbe formarsi un indurimento della zona marginale. Una della conseguenze di questo indurimento può essere la rottura dell'utensile per maschiare.

Indurimento e rifinitura della svasatura
Per la preparazione del foro devono essere utilizzati degli utensili buoni e adatti al materiale. Se lo svasatore è troppo usurato, la svasatura si indurisce od è ricalcata. In questo modo l'utensile per maschiare incontra dei problemi già nella prima fase di taglio. Questo può provocare rotture all'imbocco. La svasatura è importante per guidare l'utensile per maschiare.



Filettatura profonda
Per le filettature profonde devono essere utilizzati utensili con scanalature sufficientemente lunghe. In caso contrario l'utensile potrebbe rompersi in seguito all'accumulo di trucioli poiché questi ultimi non possono fuoriuscire dal foro. Nel Rigid Tapping è possibile lavorare con diversi avanzamenti di profondità per accorciare i trucioli. È importante che il raffreddamento sia sufficiente.

Funzionalità del mandrino di compensazione
Deve essere garantita una buona funzione di compensazione del mandrino (nessun blocco). In caso contrario, nonostante il mandrino di compensazione la filettatura potrebbe tagliarsi scorrettamente oppure potrebbero verificarsi degli errori di passo. La forza di trazione del mandrino di compensazione lineare deve essere scelta in funzione della filettatura da realizzare.

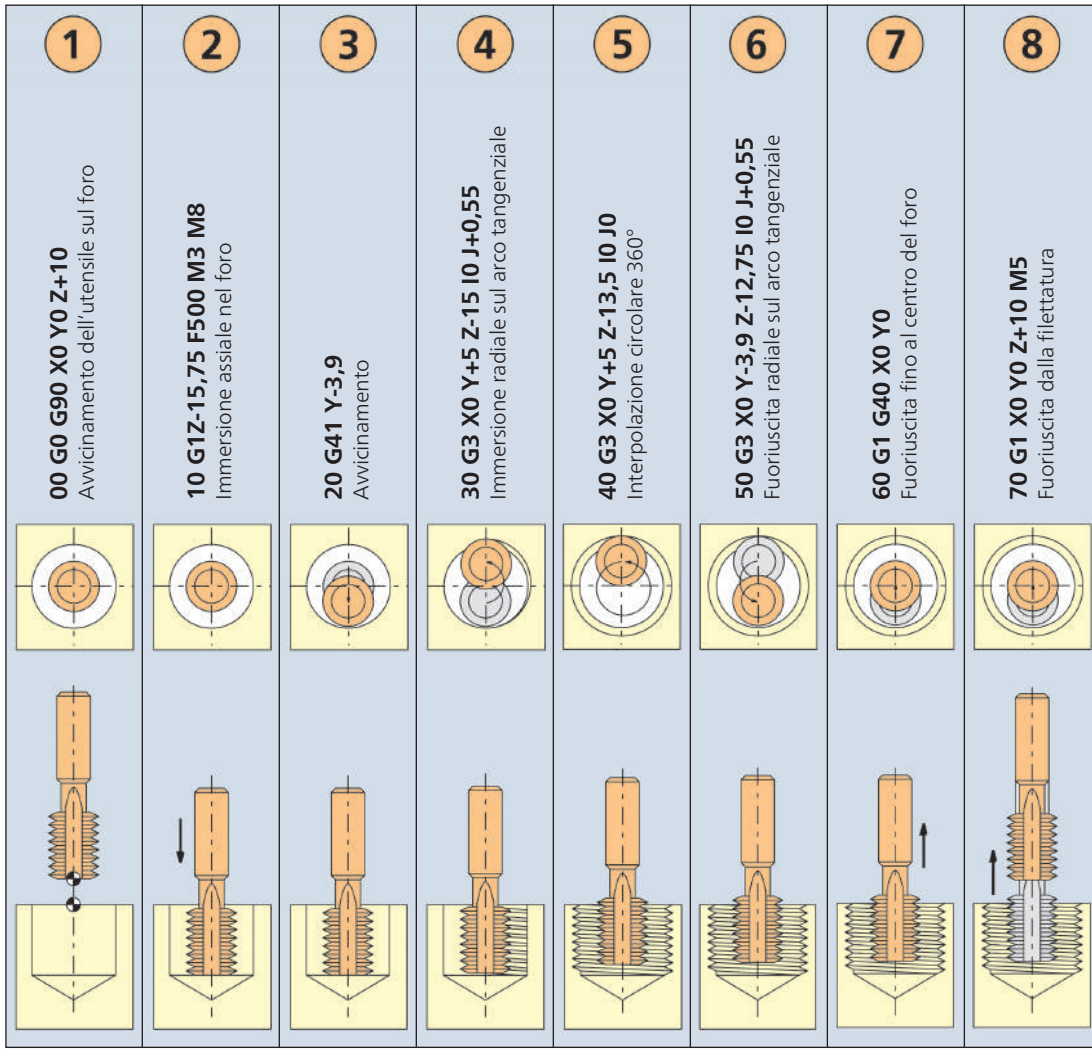
Getto di raffreddamento orientato in modo corretto
Nel taglio delle filettature è importante che il getto di raffreddamento sia orientato in modo corretto. L'allineamento deve essere eseguito dall'alto in direzione delle scanalature di serraggio affinché il raffreddamento sia efficace anche in profondità. Se il getto di raffreddamento non è orientato in modo corretto, all'interno del foro si forma del calore con il conseguente problema della saldatura a freddo del materiale. Tutto ciò può provocare una minore durata utile e una pessima formazione di trucioli.

Distanza di sicurezza
Nel taglio delle filettature con Rigid Tapping occorre programmare una distanza di sicurezza sufficiente. Se la distanza di sicurezza è troppo corta, il mandrino della macchina potrebbe non giare in sincronia con l'avanzamento prima di entrare nel foro. La conseguenza sono errori di passo della filettatura anche se si lavora in modo sincronizzato.

Idoneità della macchina
In diverse macchine esiste la possibilità che il numero di giri consigliato non possa essere raggiunto. In questo caso occorre programmare di conseguenza il numero di giri della macchina.

Numero di giri non costante
La programmazione di un numero di giri troppo elevato può dare problemi: se il numero di giri è programmato in modo che non possa essere raggiunto (a causa del ritardo del movimento della macchina), può verificarsi una rottura prematura dell'utensile o il taglio scorretto della filettatura. Ad un'osservazione precisa, risulta che un numero di giri elevato non apporta spesso il risparmio di tempo auspicato.

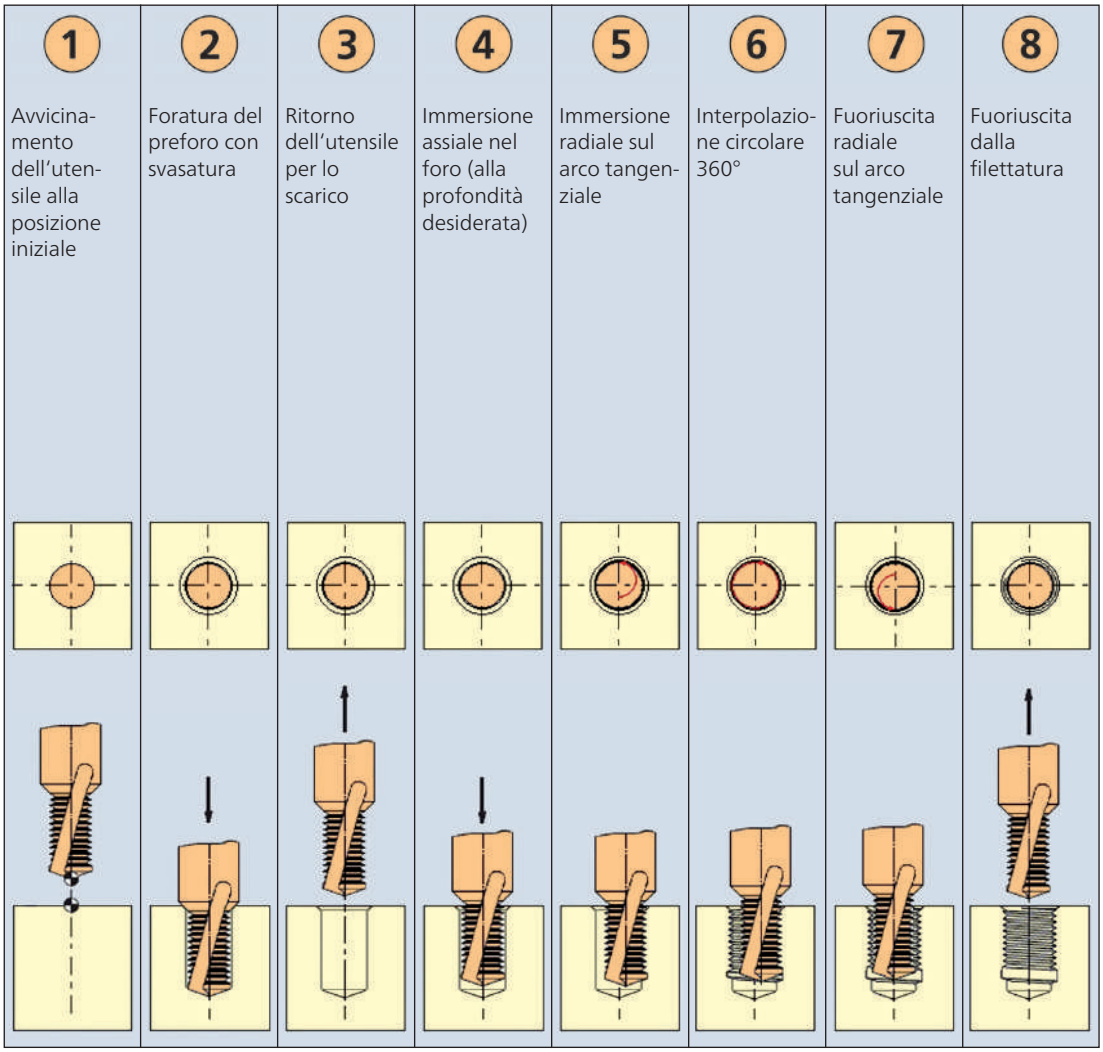
Ciclo di fresatura del filetto per M10 in codice ISO come esempio



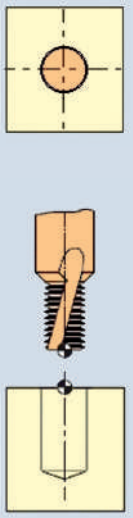
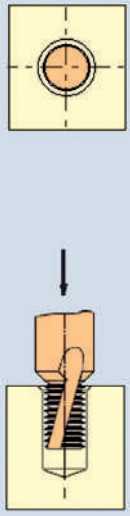
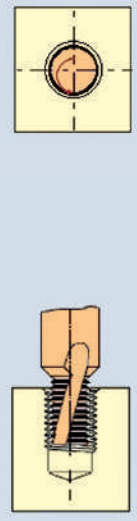
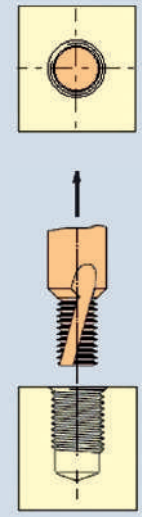
Significato dei comandi G e M impiegati

G0	G1	G3	G40	G41	G90	G91	M3	M5	M8	M9
Movimento lineare in rapido	Movimento lineare con avanzamento F in mm/min	Interpolazione arco di cerchio con centro (I,J)	Sopprimere la correzione del raggio utensile	Correzione raggio utensile (utensile a sinistra del contorno)	Programmazione con quote assolute	Programmazione incrementale	Mandrino ON (rotazione a destra)	Mandrino OFF	Raffreddamento ON	Raffreddamento OFF

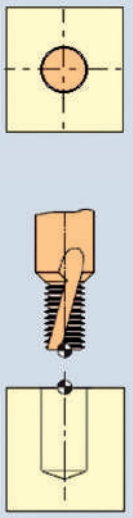
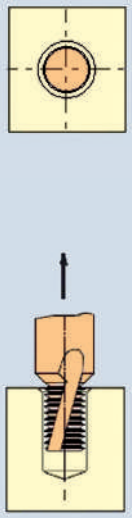
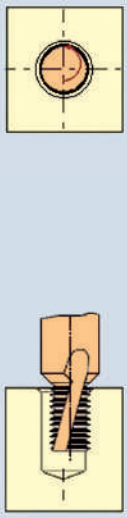
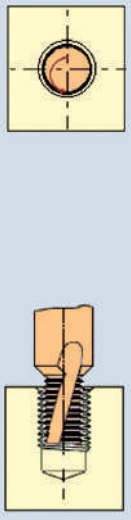
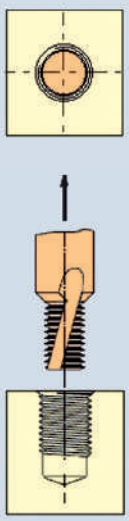
Ciclo di fresatura del filetto per la fresatura a forare e filettare



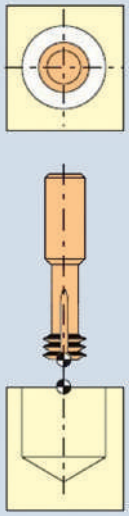
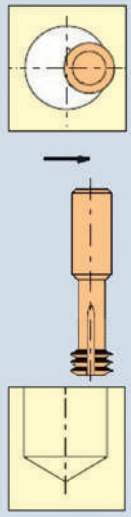
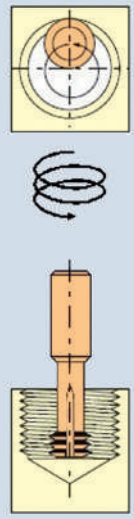
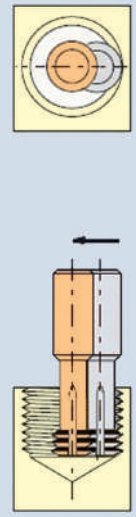
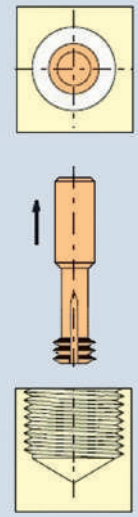
Ciclo di fresatura per frese a filettare (direzione di lavorazione consigliata: controdirezionale)

1	2	3	4	5	6
Avvicinamento dell'utensile sul foro	Lasciare l'utensile nella posizione di inizio della fresatura a filettare	Immersione radiale sul arco tangenziale	Interpolazione circolare 360°	Fuoriuscita radiale sul arco tangenziale	Fuoriuscita dalla filettatura
					

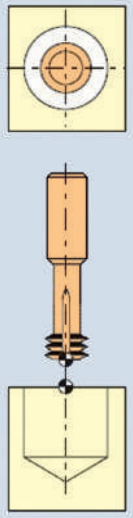
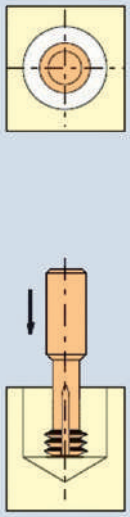
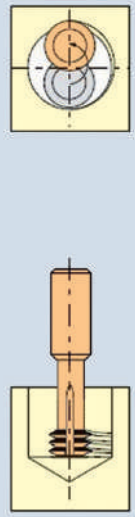
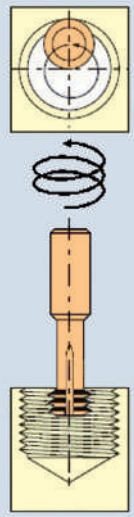
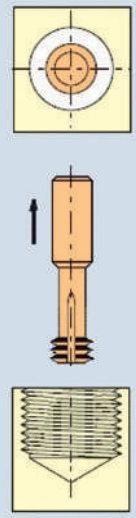
Ciclo di fresatura del filetto per frese a filettare con smusso

1	2	3	4	5	6	7
Avvicinamento dell'utensile sul foro	Svasatura dello smusso di 90°	Lasciare l'utensile nella posizione di inizio della fresatura a filettare	Immersione radiale sul arco tangenziale	Interpolazione circolare 360°	Fuoriuscita radiale sul arco tangenziale	Fuoriuscita dalla filettatura
						

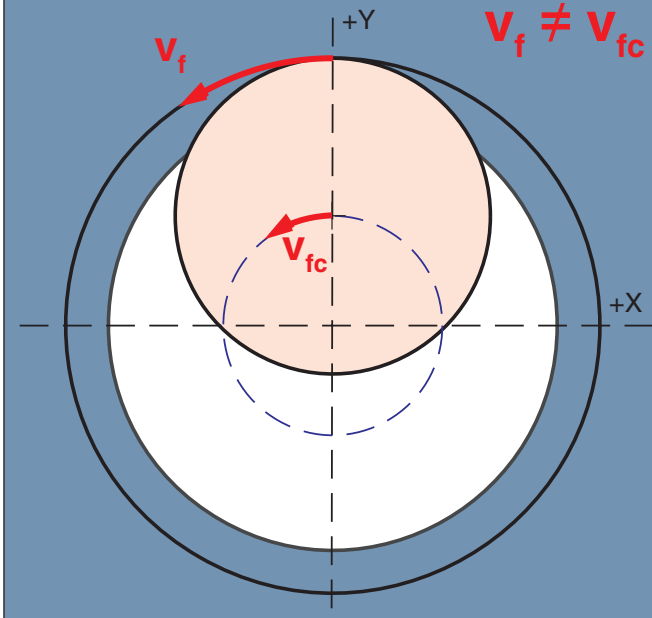
Ciclo di fresatura del filetto per frese a filettare con smusso (direzione di lavorazione consigliata)

1	2	3	4	5
Avvicinamento dell’utensile sul foro	Avanzamento radiale	Filettatura mediante interpolazione elicoidale (alla profondità desiderata)	Estrazione radiale	Fuoriuscita dalla filettatura
				

Ciclo per filettatura destra concordanza con utensile per turbofilettatrice

1	2	3	4	5
Avvicinamento dell'utensile sul foro	Immersione assiale nel foro (alla profondità desiderata)	Immersione radiale sul arco tangenziale	Filettatura mediante interpolazione elicoidale	Fuoriuscita dalla filettatura
				

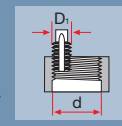
Definizione della velocità di avanzamento



Diametro nominale della filettatura d

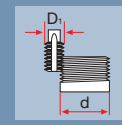
Conversione della velocità di avanzamento desiderata sul pezzo da lavorate v_f, in velocità d'avanzamento da programmare v_{fc} sul centro dell'utensile:

Per filetto interno



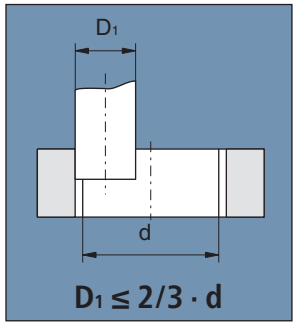
$$v_{fc} = \frac{v_f \cdot (d - D_1)}{d}$$

Per filetto esterno



$$v_{fc} = \frac{v_f \cdot (d + D_1)}{d}$$

Come evitare distorsioni del profilo



Per evitare distorsioni del profilo, il diametro della fresa D_1 deve essere massimo i 2/3 del diametro di nocciolo della madrevite d.

Il sovrametallo del foro da maschiare deve essere da 0.1 a 0.3 mm.

In questo modo il filetto viene fresato senza problemi.

Formule e abbreviazioni

a	Dimensioni del quadro
d	Diametro nominale filettatura
d_1	Diametro del gambo
d_2	Diametro di foratura della fresa per forare e filettare
D_1	Diametro della fresa a filettare
d/D_1	Rapporto del diametro per la determinazione della velocità di avanzamento
Rk	Raggio di fresatura corretto per tolleranza del dado 6H / ISO2 (da programmare nella memoria dell'utensile)
f_z	Avanzamento per dente
l	Lunghezza della parte filettata dei maschi / maschi a rullare
l_1	Lunghezza del collarino dei maschi / maschi a rullare o lunghezza complessiva delle frese a filettare
l_2	Lunghezza della parte filettata delle frese a filettare
l_3	Lunghezza delle scanalature dei maschi o lunghezza del collarino delle frese a filettare
L	Lunghezza complessiva dei maschi / maschi a rullare
L_K	Profondità dello smusso nella fresa a filettare con smusso
n	Velocità di rotazione
P	Passo filettatura
v_c	Velocità di taglio
v_f	Velocità di avanzamento
v_{fc}	Velocità di avanzamento del centro utensile
	Numero di denti dei maschi e delle frese a filettare
	Numero di spigoli a rullare per maschi a rullare
Δ	Differenza tra diametro fianchi filettatura, diametro esterno filettatura e diametro nucleo filettatura per la classe d'impiego 2 (ISO 2) secondo DIN 22857.
R_m	Resistenza meccanica a trazione
HRC	Durezza Rockwell C
HV	Durezza Vickers
HB	Durezza Brinell

Velocità di rotazione	$n = \frac{v_c \cdot 1000}{d_1 \cdot \pi}$	$\left[\frac{1}{min}\right]$
Velocità di taglio	$v_c = \frac{d \cdot \pi \cdot n}{1000}$	$\left[\frac{m}{min}\right]$
Velocità di avanzamento Maschi	$v_f = P \cdot n$	$\left[\frac{mm}{min}\right]$
Velocità di avanzamento Frese a filettare	$v_f = f_z \cdot z \cdot n$	$\left[\frac{mm}{min}\right]$

M

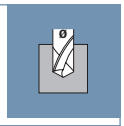
ø	P	Misura max.	Standard	Mat. critico*
1.0	0.25	0.785	0.75	0.80 *
1.2	0.25	0.985	0.95	1.00 *
1.4	0.30	1.142	1.10	1.15 *
1.6	0.35	1.321	1.25	1.30
1.7	0.35	1.421	1.35	1.40
1.8	0.35	1.521	1.45	1.50
2.0	0.40	1.679	1.60	1.70
2.2	0.45	1.838	1.75	1.85 *
2.3	0.40	1.979	1.90	1.95
2.5	0.45	2.138	2.05	2.10
2.6	0.45	2.238	2.15	2.20
3.0	0.50	2.599	2.50	2.60 *
3.5	0.60	3.010	2.90	3.00
4.0	0.70	3.422	3.30	3.40
4.5	0.75	3.878	3.75	3.90 *
5.0	0.80	4.334	4.20	4.30
6.0	1.00	5.153	5.00	5.10
7.0	1.00	6.153	6.00	6.10
8.0	1.25	6.912	6.80	6.90
10.0	1.50	8.676	8.50	8.60
12.0	1.75	10.441	10.20	10.40
14.0	2.00	12.210	12.00	12.20
16.0	2.00	14.210	14.00	14.20
18.0	2.50	15.744	15.50	15.70
20.0	2.50	17.744	17.50	17.70
22.0	2.50	19.744	19.50	19.70
24.0	3.00	21.252	21.00	21.20
27.0	3.00	24.252	24.00	24.20
30.0	3.50	26.771	26.50	26.70
33.0	3.50	29.771	29.50	29.70
36.0	4.00	32.270	32.00	32.20
39.0	4.00	35.270	35.00	35.20
42.0	4.50	37.799	37.50	37.70

MF

ø	P	Misura max.	Standard	Mat. critico*
2.5	0.35	2.221	2.15	2.20
3.0	0.35	2.721	2.65	2.70
3.5	0.35	3.221	3.15	3.20
4.0	0.50	3.599	3.50	3.60 *
5.0	0.50	4.599	4.50	4.60 *
6.0	0.50	5.599	5.50	5.60 *
8.0	0.50	7.599	7.50	7.60 *
10.0	0.50	9.599	9.50	9.60 *
6.0	0.75	5.378	5.20	5.30
7.0	0.75	6.378	6.25	6.30
8.0	0.75	7.378	7.20	7.30
10.0	0.75	9.378	9.20	9.30
12.0	0.75	11.378	11.30	11.40 *
14.0	0.75	13.378	13.30	13.40 *
16.0	0.75	15.378	15.30	15.40 *
8.0	1.00	7.153	7.00	7.10
9.0	1.00	8.153	8.00	8.10
10.0	1.00	9.153	9.00	9.10
12.0	1.00	11.153	11.00	11.10
13.0	1.00	12.153	12.00	12.10
14.0	1.00	13.153	13.00	13.10
15.0	1.00	14.153	14.00	14.10
16.0	1.00	15.153	15.00	15.10
17.0	1.00	16.153	16.00	16.10
18.0	1.00	17.153	17.00	17.10
20.0	1.00	19.153	19.00	19.10
10.0	1.25	8.912	8.80	8.90
12.0	1.25	10.912	10.80	10.90
14.0	1.25	12.912	12.80	12.90
16.0	1.25	14.912	14.80	14.90
12.0	1.50	10.676	10.50	10.70 *
14.0	1.50	12.676	12.50	12.70 *
16.0	1.50	14.676	14.50	14.70 *
18.0	1.50	16.676	16.50	16.70 *
20.0	1.50	18.676	18.50	18.70 *
22.0	1.50	20.676	20.50	20.70 *
24.0	1.50	22.676	22.50	22.70 *

* La dimensione data è fuori norma

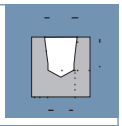
MJ



ø	P	Misura max.	Standard	Mat. critico*
2.0	0.40	1.722	1.65	1.70
2.5	0.45	2.187	2.10	2.20 *
3.0	0.50	2.653	2.60	2.65
4.0	0.70	3.498	3.40	3.50 *
5.0	0.80	4.421	4.30	4.40
6.0	1.00	5.216	5.10	5.20
8.0	1.00	7.216	7.10	7.20
10.0	1.25	8.994	8.90	9.00 *

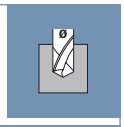
Rc

Rc 1:16 Alesatura conica del foro con alesatore 1:16



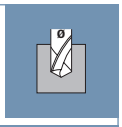
ø	P(TPI)	ø	D max	D min	L min
1/16	28	6.10	6.605	6.515	11.90
1/8	28	8.10	8.615	8.525	11.90
1/4	19	10.80	11.505	11.395	17.70
3/8	19	14.30	15.005	14.895	18.10
1/2	14	17.80	18.695	18.565	24.00
3/4	14	23.00	24.185	24.055	25.30

G



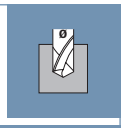
ø	P	Misura max.	Standard	Mat. critico*
1/8	28	8.848	8.80	8.85 *
1/4	19	11.890	11.80	11.90 *
3/8	19	15.395	15.25	15.40 *
1/2	14	19.172	19.00	19.20 *
5/8	14	21.128	21.00	21.10
3/4	14	24.658	24.50	24.60

BSW



ø	P	Misura max.	Standard	Mat. critico*
1/8	40	2.591	2.50	2.60 *
3/16	24	3.745	3.60	3.70
1/4	20	5.156	5.10	5.10
5/16	18	6.588	6.50	6.60 *
3/8	16	7.988	7.90	8.00 *
7/16	14	9.332	9.20	9.30
1/2	12	10.589	10.50	10.60 *
5/8	11	13.558	13.50	13.50
3/4	10	16.484	16.20	16.50 *
7/8	9	19.355	19.20	19.30
1	8	22.1492	22.00	22.10

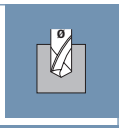
Rp



ø	P	Misura max.	Standard	Mat. critico*
1/8	28	8.637	8.60	8.60
1/4	19	11.549	11.50	11.50
3/8	19	15.054	15.00	15.00
1/2	14	18.773	18.50	18.70
3/4	14	24.259	24.00	24.20

W zyl.

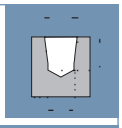
Pre-foro cilindrico



ø	P	Misura max.	Standard	Mat. critico*
21.80	14	20.066	19.80	20.00
24.32	14	22.586	22.30	22.50

W kon.

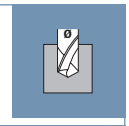
W kon 3:25 Alesatura conica del foro con alesatore 3:25



ø	P(TPI)	ø	D max	D min	L min
19.80	14	14.60	16.880	16.760	23.50
28.80	14	22.60	25.480	25.360	28.50

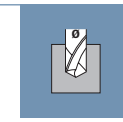
* La dimensione data è fuori norma

UNC



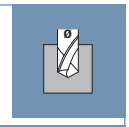
ø	P	Misura max.	Standard	Mat. critico*
1	64	1.582	1.55	1.60 *
2	56	1.872	1.85	1.90 *
3	48	2.146	2.10	2.15 *
4	40	2.385	2.35	2.40 *
5	40	2.697	2.65	2.70 *
6	32	2.896	2.85	2.90 *
8	32	3.531	3.50	3.50
10	24	3.962	3.90	4.00 *
12	24	4.597	4.50	4.60 *
1/4	20	5.258	5.10	5.20
5/16	18	6.731	6.60	6.70
3/8	16	8.153	8.00	8.10
7/16	14	9.550	9.40	9.50
1/2	13	11.024	10.80	11.00
9/16	12	12.446	12.20	12.40
5/8	11	13.868	13.50	13.80
3/4	10	16.840	16.50	16.80
7/8	9	19.761	19.50	19.70
1	8	22.601	22.30	22.60

UNF



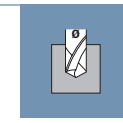
ø	P	Misura max.	Standard	Mat. critico*
0	80	1.306	1.25	1.30
1	72	1.613	1.55	1.60
2	64	1.913	1.85	1.90
3	56	2.197	2.15	2.20 *
4	48	2.459	2.40	2.45
5	44	2.741	2.70	2.75 *
6	40	3.023	2.95	3.00
8	36	3.607	3.50	3.60
10	32	4.166	4.10	4.20 *
12	28	4.727	4.60	4.70
1/4	28	5.588	5.50	5.60 *
5/16	24	7.036	6.90	7.00
3/8	24	8.636	8.50	8.60
7/16	20	10.033	9.90	10.00
1/2	20	11.608	11.50	11.60
9/16	18	13.081	12.90	13.00
5/8	18	14.681	14.50	14.70 *
3/4	16	17.678	17.50	17.70 *
7/8	14	20.675	20.50	20.70 *
1	12	23.571	23.30	23.50

UNJC



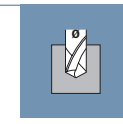
ø	P	Misura max.	Standard	Mat. critico*
4	40	2.392	2.30	2.40 *
6	32	2.938	2.85	2.90
8	32	3.599	3.50	3.60 *
10	24	4.064	3.90	4.00
1/4	20	5.387	5.25	5.40 *
5/16	18	6.832	6.70	6.80
3/8	16	8.257	8.10	8.20

UNJF



ø	P	Misura max.	Standard	Mat. critico*
6	40	3.053	3.00	3.05
8	36	3.662	3.55	3.60
10	32	4.254	4.15	4.20
1/4	28	5.661	5.55	5.60
5/16	24	7.109	7.00	7.10
3/8	24	8.679	8.60	8.70 *

UNEF

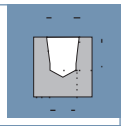


ø	P	Misura max.	Standard	Mat. critico*
1/4	32	5.689	5.60	5.70 *
5/16	32	7.264	7.20	7.30 *
3/8	32	8.864	8.80	8.90 *
7/16	28	10.337	10.20	10.30
1/2	28	11.938	11.80	11.90
9/16	24	13.385	13.20	13.40 *
5/8	24	14.986	14.80	15.00 *
11/16	24	16.560	16.40	16.50
3/4	20	17.957	17.80	18.00 *
7/8	20	21.132	21.00	21.10
1	20	24.307	24.20	24.30

* La dimensione data è fuori norma

NPT

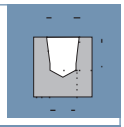
1:16 Alesatura conica del foro con alesatore 1:16



ø	P(TPI)	ø	D max	D min	L min
1/16	27	6.00	6.440	6.390	12.00
1/8	27	8.30	8.790	8.740	12.00
1/4	18	10.80	11.410	11.360	17.50
3/8	18	14.20	14.850	14.800	17.60
1/2	14	17.50	18.370	18.320	22.90
3/4	14	22.80	23.720	23.670	23.00
1	11.5	28.60	29.740	29.690	27.40

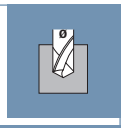
NPTF

1:16 Alesatura conica del foro con alesatore 1:16



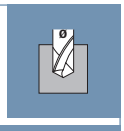
ø	P(TPI)	ø	D max	D min	L min
1/16	27	6.00	6.460	6.410	12.00
1/8	27	8.30	8.810	8.760	12.00
1/4	18	10.80	11.450	11.400	17.50
3/8	18	14.20	14.890	14.840	17.60
1/2	14	17.50	18.380	18.330	22.90
3/4	14	22.80	23.730	23.680	23.00
1	11.5	28.60	29.770	29.720	27.40

NPSM



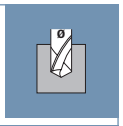
ø	P	Misura max.	Standard	Mat. critico*
1/8	27	9.246	9.10	9.20
1/4	18	12.217	12.00	12.20
3/8	18	15.545	15.50	15.50
1/2	14	19.279	19.00	19.20
3/4	14	24.638	24.50	24.60

PG



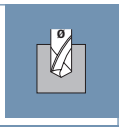
ø	P	Misura max.	Standard	Mat. critico*
7	20	11.430	11.40	11.40
9	18	14.010	14.00	14.00
11	18	17.410	17.30	17.40
13.5	18	19.210	19.10	19.20
16	18	21.310	21.25	21.30

EG M



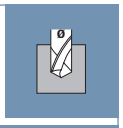
ø	P	Misura max.	Standard	Mat. critico*
2.0	0.40	2.177	2.15	2.20 *
2.5	0.45	2.697	2.65	2.70 *
3.0	0.50	3.220	3.15	3.20
4.0	0.70	4.292	4.20	4.30 *
5.0	0.80	5.334	5.25	5.30
6.0	1.00	6.407	6.30	6.40
8.0	1.25	8.483	8.40	8.50 *
10.0	1.50	10.560	10.40	10.50
12.0	1.75	12.644	12.50	12.60
14.0	2.00	14.733	14.50	14.70
16.0	2.00	16.733	16.50	16.70

EG MF



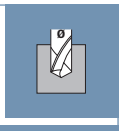
ø	P	Misura max.	Standard	Mat. critico*
8.0	1.00	8.407	8.30	8.40
10.0	1.00	10.407	10.30	10.40
12.0	1.50	12.560	12.50	12.50
14.0	1.50	14.560	14.50	14.50
16.0	1.50	16.560	16.50	16.50

EG UNC



ø	P	Misura max.	Standard	Mat. critico*
4	40	3.178	3.10	3.20 *
6	32	3.879	3.80	3.90 *
8	32	4.523	4.40	4.50
10	24	5.283	5.20	5.30 *
1/4	20	6.872	6.70	6.90 *
5/16	18	8.490	8.40	8.50 *
3/8	16	10.126	10.00	10.10
1/2	13	13.393	13.30	13.40 *

EG UNF



ø	P	Misura max.	Standard	Mat. critico*
6	40	3.815	3.70	3.80
8	36	4.496	4.40	4.50 *
10	32	5.184	5.10	5.20 *
1/4	28	6.720	6.60	6.70
5/16	24	8.351	8.30	8.40 *
3/8	24	9.931	9.80	9.90
7/16	20	11.587	11.50	11.60 *
1/2	20	13.176	13.10	13.20 *

* La dimensione data è fuori norma

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Tabella di confronto delle durezze (R_m → HV10 → HB → HRC)

R_m [N/mm²]	HV 10	HB	HRC		R_m [N/mm²]	HV 10	HB	HRC
240	75	71			920	287	273	28
255	80	76			940	293	278	29
270	85	81			970	302	287	30
285	90	86			995	310	295	31
305	95	90			1020	317	301	32
320	100	95			1050	327	311	33
335	105	100			1080	336	319	34
350	110	105			1110	345	328	35
370	115	109			1140	355	337	36
385	120	114			1170	364	346	37
400	125	119			1200	373	354	38
415	130	124			1230	382	363	39
430	135	128			1260	392	372	40
450	140	133			1300	403	383	41
465	145	138			1330	413	393	42
480	150	143			1360	423	402	43
495	155	147			1400	434	413	44
510	160	152			1440	446	424	45
530	165	157			1480	458	435	46
545	170	162			1530	473	449	47
560	175	166			1570	484	460	48
575	180	171			1620	497	472	49
595	185	176			1680	514	488	50
610	190	181			1730	527	501	51
625	195	185			1790	544	517	52
640	200	190			1845	560	532	53
660	205	195			1910	578	549	54
675	210	199			1980	596	567	55
690	215	204			2050	615	584	56
705	220	209			2140	639	607	57
720	225	214				655	622	58
740	230	219				675		59
755	235	223				698		60
770	240	228				720		61
785	245	233				745		62
800	250	238	22			773		63
820	255	242	23			800		64
835	260	247	24			829		65
860	268	255	25			864		66
870	272	258	26			900		67
900	280	266	27			940		68

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Indice articoli – Utensili per foratura

Esempio : Articolo B62015

Articolo: B62015
Rivestimento: NANO-U²
Pagina: 17

Articolo		Rivestimento							
INDEX		senza	U-4XD	NANO-U²	DURO-VD	DURO-X	DURO-SD	DURO-D²	DIAPLUS
Composizione chimica			TiAlCN	AlTiN	AlTiSiN	TiAlN/TiN	AlTiN	AlTiN/TiN	C
Durezza [HV]			3200	3700	3500	3300	3600	3300	10000
max. temp [°C]			650	1100	1100	900	880	900	600
B52020	103						●		
B52111	87						●		
B52112	75				●				
B52801	129							●	
B52915	107							●	
B52920	109							●	
B52925	111							●	
B52930	113							●	
B53020	103						●		
B53111	87						●		
B57014	115						●		
B57015	121						●		
B57020	125						●		
B62011	61			●					
B62014	35			●					
B62015	17			●					
B63011	61			●					
B63014	35			●					
B63015	17			●					
B72011	65					●			
B72015	45					●			
B72020	93					●			
B92008	135		●						
B92020	133		●						
B92040	131		●						
B92310	137		●						

Indice articoli – Utensili per filettatura

Esempio : Articolo EH27500

Articolo: EH27500
Rivestimento: TiCN
Pagina: 145

Articolo		Rivestimento							
INDEX		E	EV	EH	ET	EI	EF	EL	EU
		senza	vaporizzato	TiCN	TRIBO	INTEGRAL	F-DLC	LONGCUT	UNICUT-4X
Composizione chimica				TiCN	TiAlN	TiAlN	DLC	AlCrN	TiAlCN
Durezza [HV]				3000	3000	3500	2800	3200	3200
max. temp [°C]				400	300	1000	500	1100	650
_ 0020	249					●			
_ 0021	249					●			
_ 0050	251					●			
_ 0051	251					●			
_ 0100	207			●					
_ 0101	207			●					
_ 0109	267			●					
_ 0110	269			●					
_ 0229	271			●					
_ 0230	273			●					
_ 0400	229				●				
_ 0401	229				●				
_ 0502	211			●					
_ 0503	211			●					
_ 0504	295			●					
_ 0505	295			●					
_ 0512	223			●					
_ 0513	223			●					
_ 0570	213			●					
_ 0570	231				●				
_ 0571	215			●					
_ 0571	231				●				
_ 0572	297			●					
_ 0573	297			●					
_ 0580	217			●					
_ 0580	233				●				
_ 0581	217			●					
_ 0581	233				●				
_ 0590	219			●					
_ 0590	235				●				
_ 0591	221			●					
_ 0591	237				●				
_ 0595	225			●					
_ 0596	225			●					
_ 0598	265	●							
_ 0599	307	●							
_ 0600	239			●					
_ 0601	239			●					
_ 0620	241			●					
_ 0621	241			●					
_ 0705	259				●				

Articolo		Rivestimento							
INDEX		E	EV	EH	ET	EI	EF	EL	EU
		senza	vaporizzato	TiCN	TRIBO	INTEGRAL	F-DLC	LONGCUT	UNICUT-4X
_ 0706	261				●				
_ 0755	263				●				
_ 0756	263				●				
_ 1229	333			●					
_ 1240	321				●				
_ 1241	323				●				
_ 1257	311			●					
_ 1258	313			●					
_ 1260	315			●					
_ 1260	325				●				
_ 1261	317			●					
_ 1261	327				●				
_ 1270	329			●					
_ 1271	331			●					
_ 1400	337			●					
_ 1402	357					●			
_ 1429	361			●					
_ 1440	351				●				
_ 1452	359					●			
_ 1472	341			●					
_ 1475	343			●					
_ 1475	353				●				
_ 1480	355			●					
_ 1482	345			●					
_ 1495	347			●					
_ 1602	385					●			
_ 1620	377				●				
_ 1621	379				●				
_ 1652	387					●			
_ 1687	369			●					
_ 1688	371			●					
_ 1690	373			●					
_ 1690	381				●				
_ 1691	375			●					
_ 1691	383				●				
_ 1699	389	●							
_ 1750	395				●				
_ 1751	395				●				
_ 1787	391			●					
_ 1788	391			●					
_ 1790	393			●					
_ 1790	397				●				
_ 1791	393			●					
_ 1791	397				●				
_ 1799	399	●							
_ 2010	171								●
_ 2060	173								●
_ 2110	175								●
_ 2200	177								●
_ 2210	177								●
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_ 6101	421			●					
_ 6300	253			●					
_ 6301	255			●					
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_ 6351	257			●					
_ 6500	243			●					
_ 6501	245			●					
_ 6550	247			●					
_ 6551	247			●					
_ 6900	227			●					
_ 6901	227			●					
_ 6910	319			●					
_ 6911	319			●					
_ 6916	349			●					
_ 10060	417						●		

Articolo		Rivestimento							
INDEX		E	EV	EH	ET	EI	EF	EL	EU
		senza	vaporizzato	TiCN	TRIBO	INTEGRAL	F-DLC	LONGCUT	UNICUT-4X
_ 10061	419						●		
_ 10064	433						●		
_ 10065	433						●		
_ 10068	437						●		
_ 10070	427			●					
_ 10071	429			●					
_ 10072	431			●					
_ 10073	431			●					
_ 10074	435			●					
_ 10075	435			●					
_ 10078	439			●					
_ 10080	423							●	
_ 10081	425							●	
_ 10110	299	●							
_ 10114	303	●							
_ 10115	303	●							
_ 10118	291	●							
_ 10119	291	●							
_ 10122	287	●							
_ 10123	287	●							
_ 10214	301	●							
_ 10218	305	●							
_ 10219	305	●							
_ 10220	293	●							
_ 10221	293	●							
_ 10222	289	●							
_ 10223	289	●							
_ 10310	209			●					
_ 10311	209			●					
_ 10340	283	●							
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_ 10820	279	●	●						
_ 10821	281	●	●						
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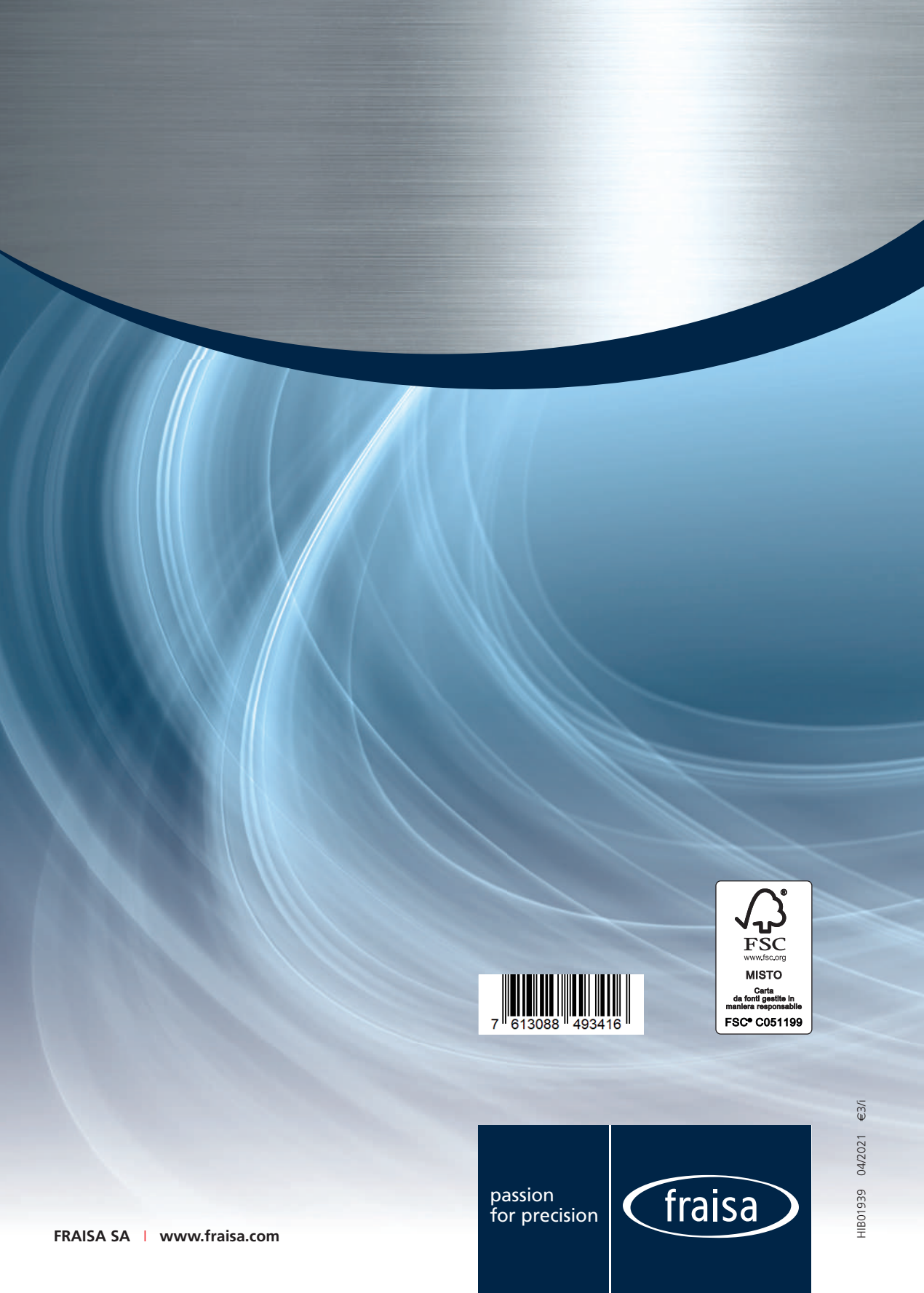
_ 11270	443			●					
_ 11271	443			●					
_ 11425	339			●					
_ 11480	363	●	●						
_ 11482	365	●	●						
_ 11820	403	●							
_ 11846	405	●							
_ 11950	447			●					
_ 11951	447			●					
_ 11960	445						●		
_ 11961	445						●		
_ 11970	409	●							
_ 11971	409	●							
_ 11980	411	●							
_ 11981	411	●							
_ 20300	157			●					
_ 20306	157			●					
_ 20320	159			●					
_ 20326	159			●					
_ 20340	161			●					
_ 20360	163			●					
_ 20370	165			●					
_ 20380	167			●					
_ 20390	169			●					
_ 22200	195	●		●					
_ 22300	193	●		●					
_ 24200	189			●					
_ 24220	191			●					
_ 24300	179			●					

Articolo		Rivestimento							
INDEX		E	EV	EH	ET	EI	EF	EL	EU
		senza	vaporizzato	TiCN	TRIBO	INTEGRAL	F-DLC	LONGCUT	UNICUT-4X
_ 24320	181			●					
_ 24340	183			●					
_ 24360	185			●					
_ 24370	187			●					
_ 26020	197			●					
_ 26040	199			●					
_ 27500	145			●					
_ 27502	147			●					
_ 27504	149					●			
_ 27540	153			●					
_ 27560	155			●					
_ 28500	151	●							●

Notizie

Notizie



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