



022

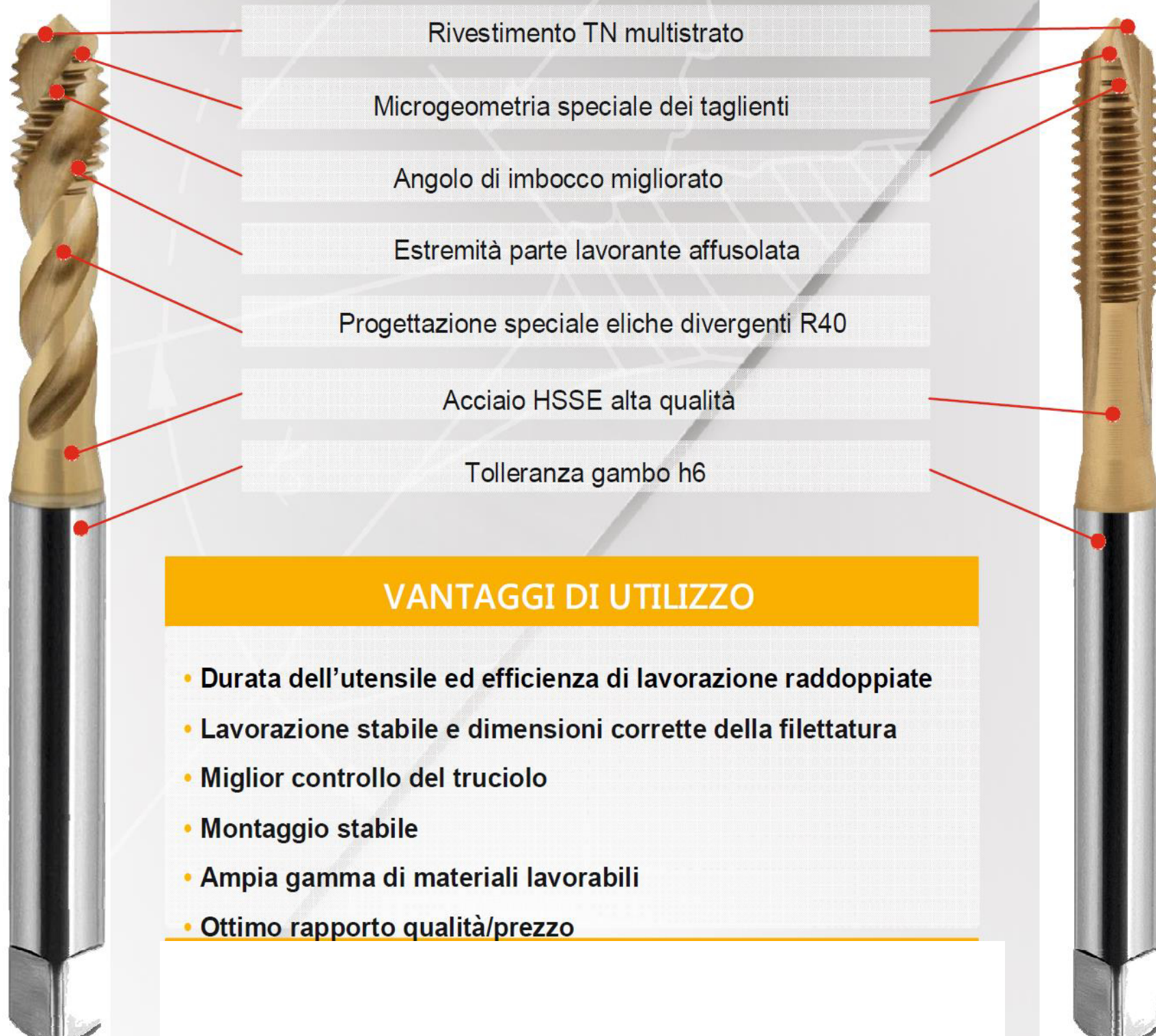
BEST CHOICE

MASCHI A MACCHINA | FILIERE | TAMPONI

Gli **800X** sono la versione evoluta dei già noti maschi 800. Il processo produttivo è completamente nuovo. La progettazione è cambiata, **la durata è aumentata** e rendono la lavorazione più **efficiente**. La gamma di materiali lavorabili ora comprende anche gli **acciai inossidabili**.

Per questi motivi i maschi **800X** sono la migliore scelta nelle produzioni piccole e medie ed offrono un ottimo rapporto qualità/prezzo.

PROGETTAZIONE



VANTAGGI DI UTILIZZO

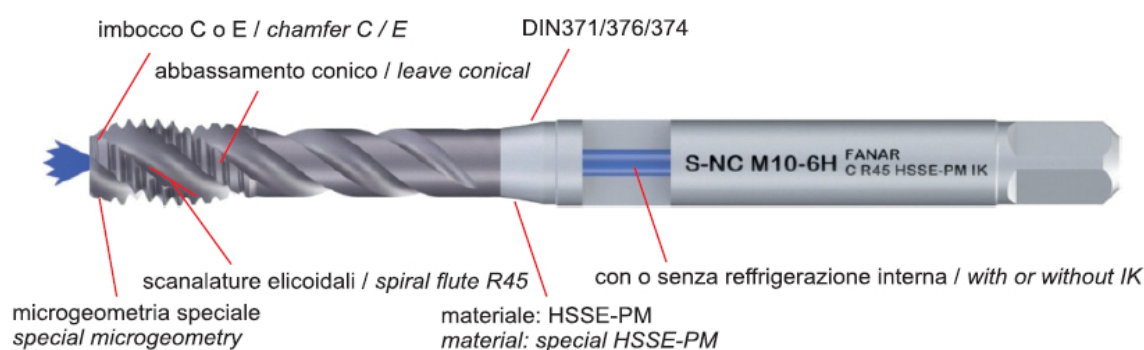
- Durata dell'utensile ed efficienza di lavorazione raddoppiate
- Lavorazione stabile e dimensioni corrette della filettatura
- Miglior controllo del truciolo
- Montaggio stabile
- Ampia gamma di materiali lavorabili
- Ottimo rapporto qualità/prezzo

S-NC

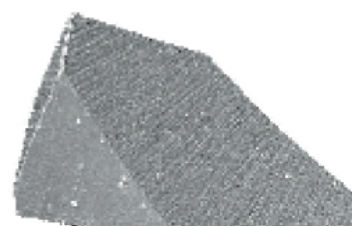
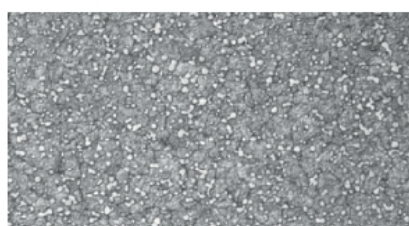
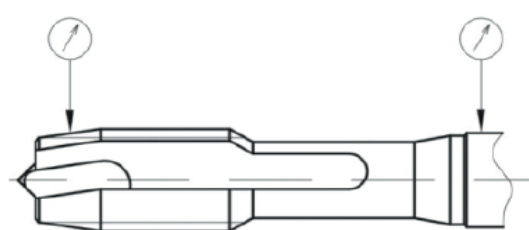
MASCHI PER MASCHIATURA SINCRONIZZATA AD ALTA VELOCITA' TAPS FOR HIGHT SPEED CUTTING HSC

Applicazione per ampia gamma dei materiali ISO

Application to the treatment of a wide range of materials. Acc. ISO

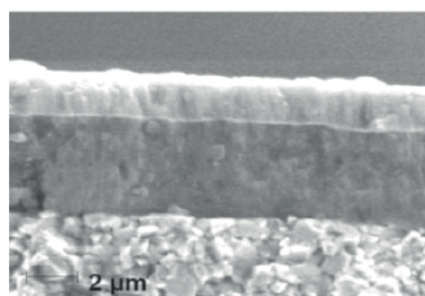


Caratteristiche principali dei maschi S-NC / Key features S-NC taps

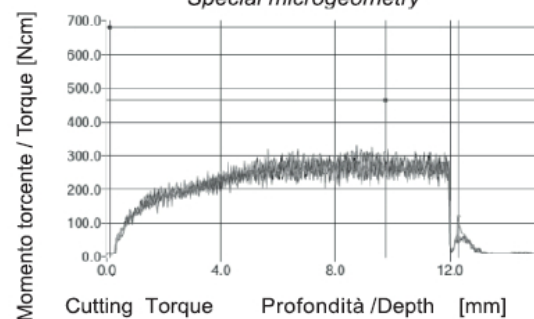


Acciaio da polveri (sinterizzato)/ Special HSSE-PM

Speciale microgeometria del tagliente
Special microgeometry

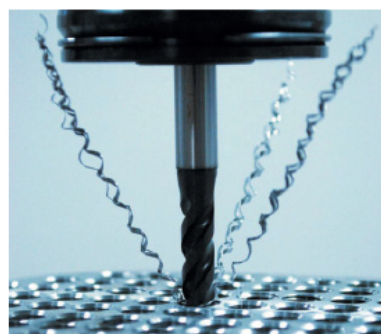


WC/C
TiAlN



Stabile momento della maschiatura / Stabil tapping torque

Migliore evacuazione del truciolo / Better chip evacuation



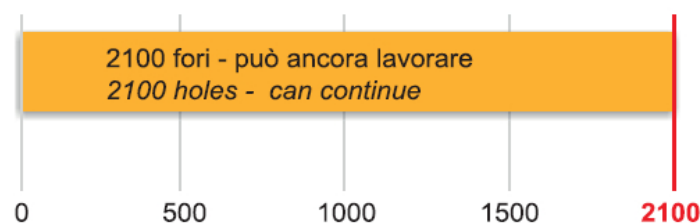
I migliori risultati della maschiatura sulle macchine CNC si ottengono usando i mandrini soft-synchro

Best results with Tap holders „SOFT SYNCHRO” (FANAR Catalogue Tools for Threads no.14 - OGSS)

Le prove / Case study

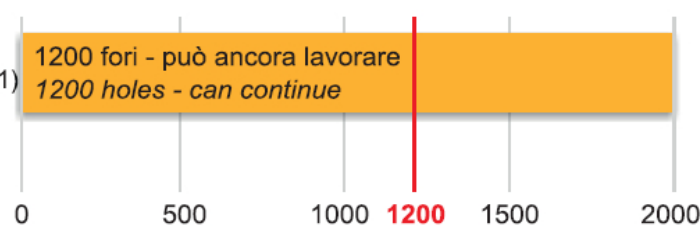
• C45

Maschio / Tap: M6 6H R45 HSSE-PM S-NC IK HL
Materiale / Material: C45 (1.0503)
Foro / Hole type: cieco / blind, profondità / depth 17 mm
Refrigerante / Cooling: emulsione 8% / emulsion 8%
Vc: 35 m/min
Mandrino / Holder: OGSS (soft-synchro)
Risultato / Result: 2100 fori - può ancora lavorare holes (can continue)



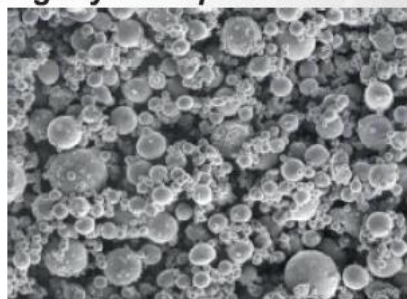
• 0H18N9

Maschio / Tap: M6 6H R45 HSSE-PM S-NC IK HL
Materiale / Material: stal nierdzewna / stainless steel 0H18N9 (1.4301)
Foro / Hole type: cieco / blind, profondità / depth 12 mm
Refrigerante / Cooling: emulsione 10% / emulsion 10%
Vc: 15 m/min
Risultato / Result: 1200 fori - può ancora lavorare holes (can continue)

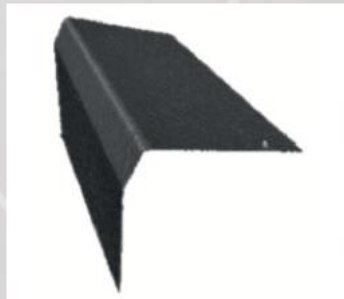


I maschi **MASTER TAP** sono stati creati per la maschiatura ad alto rendimento di una vasta gamma di materiali come **acciaio, acciaio inossidabile, ghisa, metalli non ferrosi, leghe resistenti al calore e leghe in titanio**. La maschiatura può essere realizzata sia usando le **moderne macchine autocentranti ad alta velocità, oppure con macchine a controllo numerico o macchine tradizionali con minori prestazioni**.

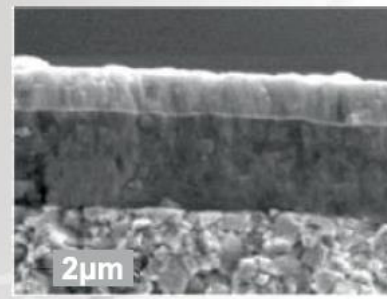
MASTERTAP's was designed for high-performance tapping a wide range of materials such as **steel, stainless steel, cast iron, non-ferrous metals, heat-resistant alloys and titanium alloys**. Threading may be performed both on **modern efficient machining centers with high cutting speeds, older type numerical machines and conventional machines with a slightly lower performance**.



POLVERE DI ACCIAIO
POWDERED STEEL



TAGLIANTE CON SPECIALE GEOMETRIA DI TAGLIO
SPECIAL MICRO-GEOMETRY OF CUTTING EDGE



**O RIVESTIMENTO IN MATERIALE
DURO MULTISTRATO**
MULTI-LAYER HARD MATERIAL COATING

**VANTAGGI / YOUR ADVANTAGES:**

- **Unico utensile che lavora diversi tipi di materiale / One tool for working with wide range of materials**
- **Utensile con maggiore durata rispetto a quelli attualmente presenti sul mercato**
The highest tool life in comparison with other products on the market
- **Migliore qualità delle superfici lavorate / The best quality of machined surfaces**
- **Garanzia di un'ottima evacuazione del truciolo / Guaranteed optimum chip evacuation**
- **Alto livello di affidabilità di processo / High level of process reliability**
- **Possibilità di lavorazione sia ad acqua che a MQL (Minima Quantità di Lubrificazione)**
The possibility of wet and MQL (Minimum Quantity Lubrication) working

CARATTERISTICHE / FEATURES:

- **Rivestimento multi strato a base di TiAlN + WC/C con durezza maggiorata e superficie ultra liscia**
The multi-layer coating based on TiAlN + WC / C with extra hardness and extremaly smooth surface
- **Geometria innovativa e micro-geometria del tagliente adatta a lavorare una vasta gamma di materiali**
Innovative geometry and micro-geometry of cutting edges for working with wide range of materials
- **Realizzati in HSSE-PM (Polvere di acciaio ad alta velocità)**
Made of HSSE-PM – high-speed powder steel

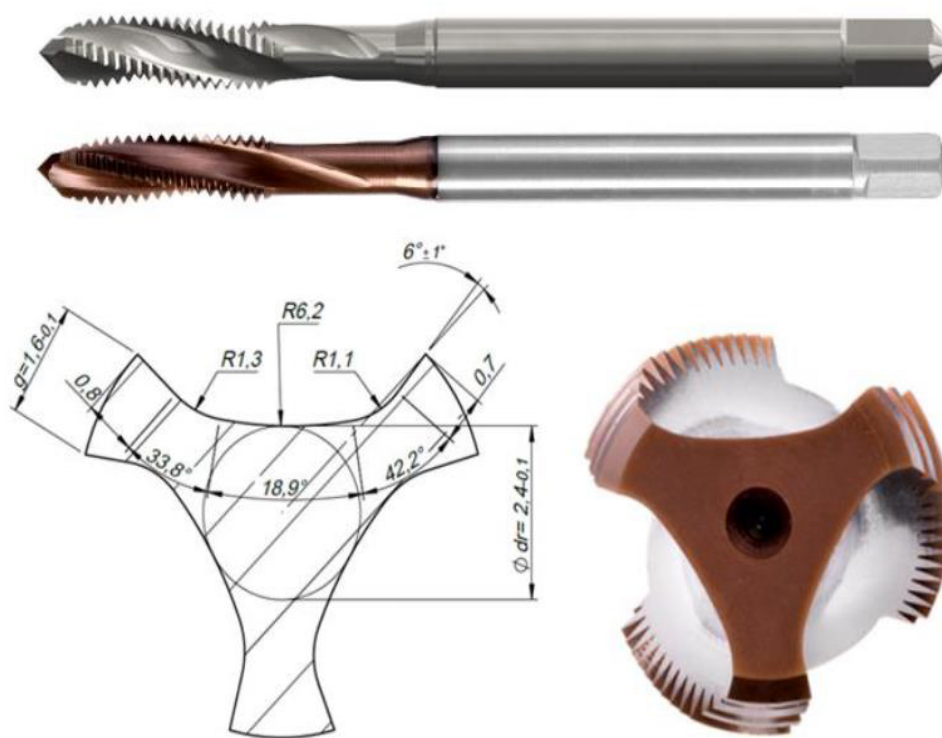


I400-HT

I400-HT

Fabryka Narzędzi FANAR S.A.

Construction of the group representative - an example for the M6 dimension



Characteristics:

- Material type - HSSE-PM powder steel;
- TiAlSiN coating - made in HIPIMS technology;
- Spiral flute – R15;
- Larger capacity of flutes;
- Rake angle – 6°;
- Tooth thickness 35% lower than the 1400 R15;
- Reinforced front and back surface of the blades;



Machine tap **I400-HT** R15



Application:

- for steel with strength up to 1400 MPa;
- for foundry aluminum with Si > 12%;
- gray cast iron machining possible;
- machining of ductile iron possible;
- machining of heat-resistant alloys and titanium alloys.

Tap features::

- Spiral flutes 15° with increased capacity;
- material HSSE-PM;
- chamfer C (2-3xP);
- available with IK cooling system.

For blind holes <1.5xD





INFORMAZIONI TECNICHE TECHNICAL INFORMATION

SIMBOLI <i>Execution</i>		SCANALATURE <i>Execution-flutes</i>		MATERIALE <i>Material</i>	
IK	Lubrificazione centrale <i>Internal cooling</i>			HSS	Acciaio super-rapido al molibdeno <i>High speed molibden steel</i>
	Lubrificazione radiale <i>Radial internal cooling</i>				
SR	Canalini di lubrificazione <i>Oil flutes</i>	B		HSSE	Acciaio super-rapido al cobalto <i>High speed cobalt steel</i>
SPN	Imbocco corretto <i>Spiral point</i>	R		HSSE PM	Acciaio da polveri (sinterizzato) <i>High speed powder steel</i> Applicata fino a Ø16, oltre a richiesta <i>Applied up to ø16mm diameter, over for request</i>
TIPO DI RIVESTIMENTO <i>Coating</i>					
TiN	BALINIT A ®	HT	TS-TIALSIN	VHM	

ricotto / <i>Annealed</i>	A			
temperato / <i>Tempered</i>	QT			
temperato e rinvenuto / <i>Hardened and tempered</i>	HT			
indurimento per precipitazione / <i>precipitation hardened</i>	PH			

Materiale								Rm	HB	
P	Acciaio			Steel						
	P1	Acciaio non legato	Acciaio automatico	Non-alloyed steel	Free cutting steel	A	750	220	P1	
	P2		C ≤ 0,55 %		C ≤ 0,55 %	A	650	190	P2	
	P3		C > 0,55 %		C > 0,55 %	A	650	190	P3	
	P4		C ≤ 0,55 %		C ≤ 0,55 %	QT	700	210	P4	
	P5		C > 0,55 %		C > 0,55 %	QT	1000	300	P5	
	P6	Acciaio debolmente legato		Low-alloyed steel		A	600	175	P6	
	P7				QT	1000	300	P7		
	P8				QT	1200	380	P8		
	P9				QT	1400	420	P9		
	P10	Acciaio altamente legato		High-alloyed steel and high-alloyed tool steel		A	700	210	P10	
	P11				A	1000	300	P11		
	P12				HT	1400	420	P12		
	P13	Acciaio inossidabile	Ferritico /martensitico	Stainless steel	Ferritic/martensitic	A	700	210	P13	
	P14		Martensitico		Martensitic	QT	1100	330	P14	
M	Acciaio inossidabile			Stainless steel						
	M1	Acciaio inossidabile	Acciaio inossidabile austenitico	Stainless steel	Austenitic		700	210	M1	
	M2		Acciaio inossidabile austenitico		Austenitic	PH	1000	300	M2	
	M3		Duplex		Duplex		800	240	M3	
K	Ghisa			Cast iron						
	K1	Ghisa grigia	Ferritico	Grey cast iron	Ferritic		600	180	K1	
	K2		Perlitico		Pearlitic		820	240	K2	
	K3	Ghisa malleabile	Ferritico	Malleable cast iron	Ferritic		675	200	K3	
	K4		Perlitico		Pearlitic		870	260	K4	
	K5	Ghisa sferoidale	Ferritico	Cast iron with spheroidal graphite	Ferritic		520	155	K5	
	K6		Perlitico		Pearlitic		900	270	K6	
N	Metalli non ferrosi			Non-ferrous metals						
	N1	Alluminio non legato		Aluminium wrought alloys		-	30	N1		
	N2				PH	345	10	N2		
	N3	Leghe di alluminio	Si ≤ 12%	Cast aluminium alloys	Si ≤ 12%		260	75	N3	
	N4					Si ≤ 12%	PH	300	90	N4
	N5					Si> 12 %		450	130	N5
	N6	Leghe di magnesio		Magnesium alloys		250	70	N6		
	N7	Leghe di rame	rame puro	Copper and copper alloys	Non-alloyed		350	100	N7	
	N8		ottone, bronzo		Brass, bronze		300	90	N8	
	N9		leghe di rame(truciolo corto)		Cu-alloys, short-chipping		400	110	N9	
	N10		rame ad alta resistenza		High-strength		1000	300	N10	
S	Leghe resistenti al calore e leghe di titanio			Superalloys and titanium						
	S1	Leghe resistenti al calore	Base Fe	Heat-resistant alloys	Fe-based	A	675	200	S1	
	S2					PH	950	280	S2	
	S3		Base Ni/Co		Ni / Co base	A	850	250	S3	
	S4					PH	1200	350	S4	
	S5					C	1100	320	S5	
	S6	Leghe di titanio	Titanio puro	Titanium alloys	Pure titanium		675	200	S6	
	S7		Leghe α- i β		α and β alloys		1250	375	S7	
	S8		Leghe β		β alloys		1400	410	S8	
H	Materiali duri			Hard materials						
	H1	Acciaio temprato		Hardened steel		HT		50 HRC	H1	
	H2				HT		55 HRC	H2		
	H3				HT		60 HRC	H3		
	H4	Ghisa temprata		Hardened cast iron		HT		55 HRC	H4	

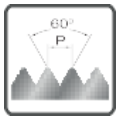
		Pg.		TIPO TYPE	MATERIALE MATERIAL
		Passanti Straight Flutes	Ciechi Spiral Flutes		
M	MASCHI SINCRONIZZATI HIGH PERFORMANCE MACHINE TAPS	1	6	S-NC	HSSE PM
	MASCHI A RULLARE FORMING MACHINE	2		WGN WGC	HSSE PM
	MASCHI AD ALTO RENDIMENTO HIGH PERFORMANCE MACHINE TAPS	3-4	7-8	800X INOX FAN HRC60	HSSE PM HSSE VHM
	MASCHI AD ALTO RENDIMENTO MASTER TAP HIGH PERFORMANCE MASTER TAPS	5	9	MASTER TAP	HSSE PM
MF	MASCHI SINCRONIZZATI METRICO FINE ISO METRIC FINE THREAD MACHINE TAPS	10	15	S-NC	HSSE PM
	MASCHI A RULLARE METRICO FINE ISO METRIC FINE THREAD MACHINES	11		WGN	HSSE PM
	MASCHI ALTO RENDIMENTO METRICO FINE HIGH PERFORMANCE ISO METRIC FINE THREAD MACHINE TAPS	12-13 14	16-17	800X GG INOX I400 MASTER TAP	HSSE PM HSSE
	MASCHI MASTER TAP METRICO FINE ISO METRIC TYPE THREAD MACHINE TAPS	12	18	MASTER TAP	HSSE PM
G	MASCHI GAS WHITWORTH MACHINE TAPS WHITWORTH PIPE THREAD G	19	19	800X	HSSE
BSW	MASCHI BSW WHITWORTH BSW WHITWORTH MACHINE TAPS	20	20	800X	HSSE
UNC	MASCHI UNC UNC MACHINE TAPS	21	21	800X	HSSE
UNF	MASCHI UNF UNF MACHINE TAPS	22	22	INOX	HSSE
NPT	MASCHI NTP 1:16 NTP MACHINE TAPS	23	23	800	HSSE
Pg	MASCHI PG PG MACHINE TAPS	24		500	HSS
M	MASCHI EXTRA LONG PG HAND TAPES XL MACHINE	24	24	800	HSSE
M	PUNTA MASCHIO COMBINED TAP	28		KOMBI	HSS

		Pg.	TIPO TYPE	MATERIALE MATERIAL
M	FILIERE METRICO METRICO FINE GAS <i>ISO METRIC THREAD</i> <i>FINE ISO METRIC</i> <i>COARSE THREAD</i>	25	INOX	HSSE
MF				
G				
M	TAMPONI PASSA/NON PASSA FILETTATI <i>THREAD GAUGE PLUGS GO/</i> <i>NO GO</i>	26		
M	ANELLI FILETTATI PASSA/NON PASSA <i>THREAD RING GO/NO GO</i>	26		
MSBa	TAMPONI PASSA/NON PASSA NON FILETTATI <i>SMOOTH PLUG GAUGES</i>	27		
i	PUNTA DISTRUGGI MASCHIO <i>DRILLS TO REMOVE BROKEN</i> <i>TAPS</i>	28	TiAIN	VHM

Filettatura metrica ISO DIN-13

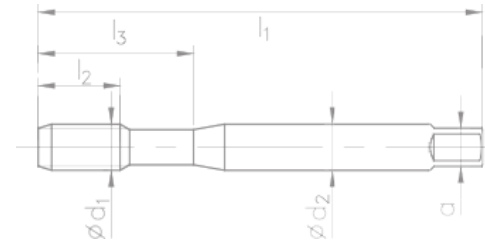
S-NC

B HL

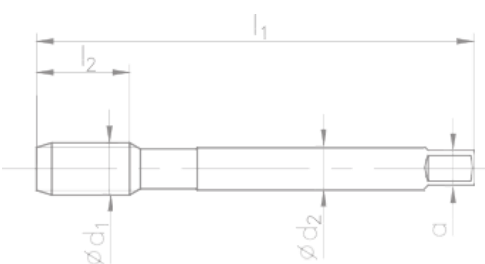


HSSE
PM

HL



DIN-371



DIN-376



Materiale

P	1+14
M	1+3
K	1+6
N	1+10
S	1+3 6

Qualità del materiale

HSSE-PM

Tipo di foro



Rivestimento

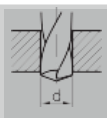
HL

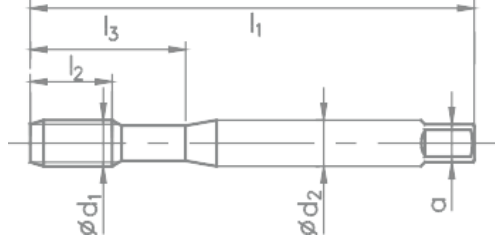
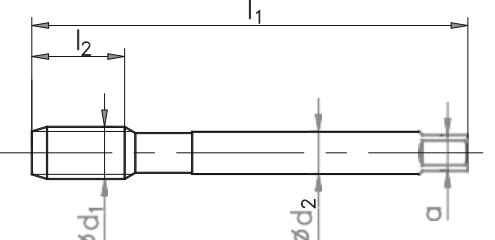
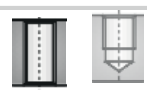
Imbocco

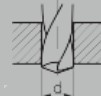
B / 4-5P

Tolleranza

6HX

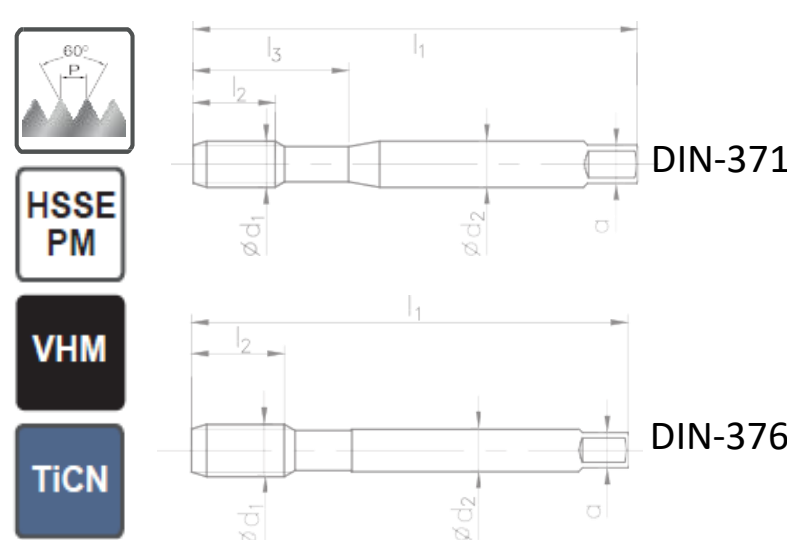
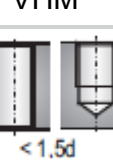
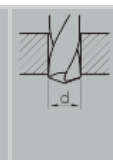
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DIN 371											
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M 2,5	0,45	50	5	14	2,8	2,1	2,05	0025	A RICHIESTA		
M 2,6	0,45	50	5	14	2,8	2,1	2,15	0026	A RICHIESTA		
M 3	0,5	56	5	18	3,5	2,7	2,5	0030	●		
M 4	0,7	63	7	21	4,5	3,4	3,3	0040	●		
M 5	0,8	70	8	25	6	4,9	4,2	0050	●		
M 6	1	80	10	30	6	4,9	5	0060	●		
M 8	1,25	90	13	35	8	6,2	6,8	0080	●		
M 10	1,5	100	15	39	10	8	8,5	0100	●		
DIN 376											
									D4-115301		
M 12	1,75	110	18		9	7	10,2	0120	●		
M 14	2	110	20		11	9	12	0140	●		
M 16	2	110	20		12	9	14	0160	●		
									P	20-40	
									M	5-15	
									K	10-30	
									N	10-30	
									S	1-8	

Filettatura metrica ISO DIN-13									WGN	WGN	
									SR TiN	SR IK TiCN	
  											
TiN TiCN DIN-371 DIN-376									 		
Materiale									P1.1 P1.3 M2.2 P1.1 P1.3 M2.2 N4.2 N4.5		
Qualità del materiale									HSSE-PM		
Tipo di foro									 <3d		
Rivestimento									TiN		
Imbocco									C / 2-3P		
Tolleranza									6HX		
M	P	l ₁	l ₂	l ₃	Ø d ₂	a		INDEX	C4-923005	C4-945055	
DIN 371											
M 2	0,4	45	8	8	2,8	2,1	1,85	0020	A RICHIESTA		
M 2,5	0,45	50	9	9	2,8	2,1	2,33	0025	A RICHIESTA		
M 3	0,5	56	10	18	3,5	2,7	2,8	0030	•		
M 4	0,7	63	7	21	4,5	3,4	3,7	0040	•		
M 5	0,8	70	8	25	6	4,9	4,65	0050	•	•	
M 6	1	80	10	30	6	4,9	5,6	0060	•	•	
M 8	1,25	90	13	35	8	6,2	7,45	0080	•	•	
M 10	1,5	100	15	39	10	8	9,35	0100	•	•	
DIN 376									D4-923005		
M 12	1,75	110	18		9	7	11,25	0120	•		
M 14	2	110	20		11	9	13,10	0140	•		
M 16	2	110	20		12	9	15,10	0160	•		
									P	5-40	15-50
									M	10-25	10-25
									K		
									N	20-40	20-40

Filettatura metrica ISO DIN-13									800	800X	800	INOX	
									B	B TN2	B LH (SX)	B HL	
60° P HSSE TN2 HL LH SX l₃ l₁ l₂ Ø d₁ Ø d₂ d DIN-371 l₁ l₂ Ø d₁ Ø d₂ d DIN-376													
Materiale									P1.3	P M K N S H	P1.3	P1.3 M2.2	
Qualità del materiale									HSSE	HSSE	HSSE	HSSE	
Tipo di foro									 <3d	 <3d	 <3d	 <2,5d	
Rivestimento										TN2	B LH	HL	
Imbocco									B / 4-5P	B / 4-5P	B / 4-5P	B / 4-5P	
Tolleranza									ISO2 (6H)	ISO2 (6H)	ISO2 (6H)	ISO2 (6H)	
M	P	I ₁	I ₂	I ₃	d ₂	a		INDEX	C2-111101	C2-113X01	C2-211101	C2-118801	
DIN 371													
M 3	0,5	56	10	18	3,5	2,7	2,5	0030	●	●	●	●	
M 4	0,7	63	12	21	4,5	3,4	3,3	0040	●	●	●	●	
M 5	0,8	70	14	25	6	4,9	4,2	0050	●	●	●	●	
M 6	1	80	18	30	6	4,9	5	0060	●	●	●	●	
M 8	1,25	90	20	35	8	6,2	6,8	0080	●	●	●	●	
M 10	1,5	100	20	39	10	8	8,5	0100	●	●	●	●	
DIN 376									D2-111101	D2-113X01	D2-211101	D2-118801	
M 12	1,75	110	24		9	7	10,2	0120	●	●	●	●	
M 14	2	110	25		11	9	12	0140	●	●		●	
M 16	2	110	32		12	9	14	0160	●	●	●	●	
M 18	2,5	125	32		14	11	15,5	0180	●	●	●	●	
M 20	2,5	140	32		16	12	17,5	0200	●	●	●	●	
M 22	2,5	140	32		18	14,5	19,5	0220		●			
M 24	3	160	38		18	14,5	21	0240	●	●	●	●	
M 27	3	160	38		20	16	24	0270		●			
M 30	3,5	180	40		22	18	26,5	0300	●	●		●	
M 33	3,5	180	45		25	20	29,5	0330	●	●			
M 36	4	200	50		28	22	32	0360		●			
M 39	4	200	55		32	24	35	0390	●	A RICHIESTA			
M 42	4,5	200	60		32	24	37,5	0420		A RICHIESTA			
M 45	4,5	220	60		36	29	40,5	0450	●	A RICHIESTA			
M 48	5	250	65		36	29	43	0480	●	A RICHIESTA			
M 52	5	250	65		40	32	47	0520	●	A RICHIESTA			
									P	5-15	5-35	5-15	10-35
									M		5-15		5-20
									K	5-20	5-25	5-20	
									N	10-25	10-30		

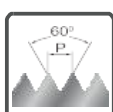
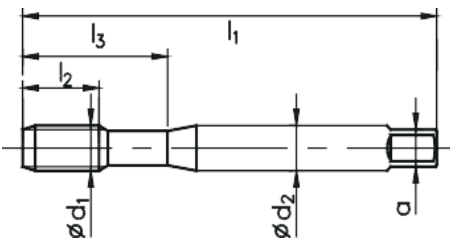
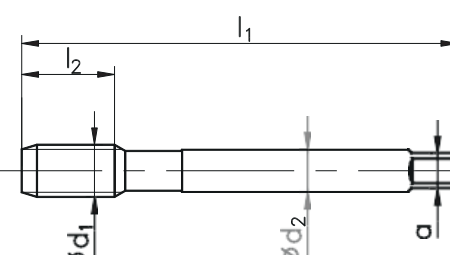
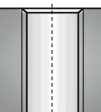
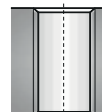
RIECO

<

Filettatura metrica ISO DIN-13									FAN	HRC60	HRC60	1400	GG
									B TiCN	IK* TiCN	D-HM-TC	B TiCN	TiCN
													
Materiale									P1.3 P1.5 M2.1 N4.2	H6.1 H6.2	H6.1 H6.2	P1.3 P1.6 K3.1 N4.6 N4.9	K3.1 K3.3
Qualità del materiale									HSSE-PM	VHM	VHM	HSSE-PM	HSSE-PM
Tipo di foro									 <3d	 <1,5d	 <1,5d	 <2,5d	 <1,5d
Rivestimento									TiCN	TiCN	TiCN	TiCN	TiCN
Imbocco									B / 4-5P	D / 4-5P	D / 4-5P	B / 3-5P	C / 2-3P
Tolleranza									ISO2 (6H)	6HX	6HX	6HX	6HX
M	P	I ₁	I ₂	I ₃	d ₂	a		INDEX	C4-115001	C9-135F51	C9-135F01	C4-115901	C2-125501
DIN 371													
M 3	0,5	56	10	18	3,5	2,7	2,5	0030	●		●	●	●
M 4	0,7	63	12	21	4,5	3,4	3,3	0040	●		●	●	●
M 5	0,8	70	14	25	6	4,9	4,2	0050	●		●	●	●
M 6	1	80	18	30	6	4,9	5	0060	●	●	●	●	●
M 8	1,25	90	20	35	8	6,2	6,8	0080	●	●	●	●	●
M 10	1,5	100	20	39	10	8	8,5	0100	●	●	●	●	●
DIN 376									D4-115001	D9-135F51	D9-135F01	D4-115901	D2-125501
M 12	1,75	110	24		9	7	10,2	0120	●	●	●	●	●
M 14	2	110	25		11	9	12	0140	●	●	●	●	●
M 16	2	110	32		12	9	14	0160	●	●	●	●	●
M 18	2,5	125	32		14	11	15,5	0180	●				●
M 20	2,5	140	32		16	12	17,5	0200	●				●

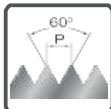
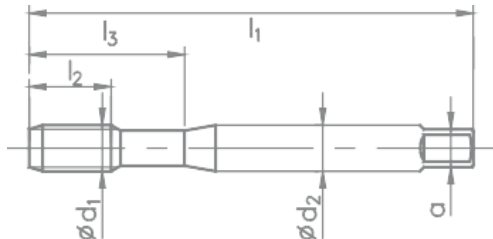
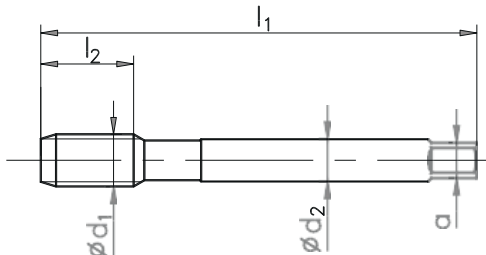
Vc (m/min)

P	5-20			5-20	
M	5-15				
K	10-20			10-20	15-25
N	10-20			10-20	
H		1-4	1-4		

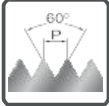
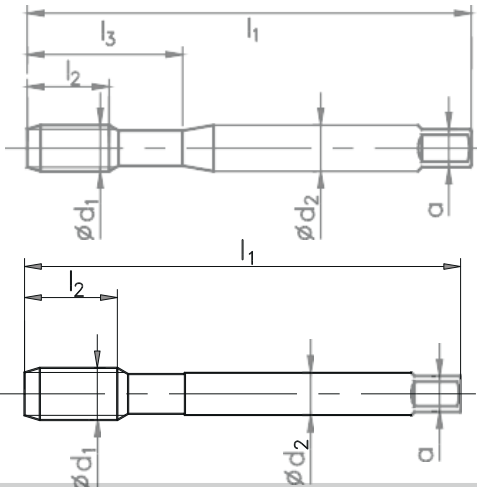
Filettatura metrica ISO DIN-13									MASTER TAP		MASTER TAP		
									B-HL		B-HL-IKR		
						DIN-371							
						DIN-376							
Materiale									P 1+8 10+11 9 13+14 M 1+3 K 1+6 N 1+10 S 1+3 6		P 1+8 10+11 9 13+14 M 1+3 K 1+6 N 1+10 S 1+3 6		
Qualità del materiale									HSSE-PM		HSSE-PM		
Tipo di foro									 <3d HL		 <3d HL		
Rivestimento									B / 4-5P		B / 4-5P		
Imbocco									6HX		6HX		
Tolleranza									6HX		6HX		
M Ød ₁	P	l ₁	l ₂	l ₃	Ød ₂	a		INDEX	C4-118M01	C4-118M61			
DIN 371													
M 2	0,4	45	10	13	2,8	2,1	1,6	0020	6H ●				
M 2,5	0,45	50	9	14	2,8	2,1	2,05	0025	6H ●				
M 3	0,5	56	5	18	3,5	2,7	2,5	0030	●				
M 4	0,7	63	7	21	4,5	3,4	3,3	0040	●				
M 5	0,8	70	8	25	6	4,9	4,2	0050	●	●			
M 6	1	80	10	30	6	4,9	5	0060	●	●			
M 8	1,25	90	13	35	8	6,2	6,8	0080	●	●			
M 10	1,5	100	15	39	10	8	8,5	0100	●	●			
DIN 376									D4-118M01	D4-118M61			
M 12	1,75	110	18	-	9	7	10,2	0120	●	●			
M 14	2	110	20	-	11	9	12	0140	●	●			
M 16	2	110	20	-	12	9	14	0160	●	●			

Vc (m/min)

20-40	20-40	
5-15	5-15	
10-30	10-30	
10-30	10-30	
1-8	1-8	

Filettatura metrica ISO DIN-13									S-NC			
									R45 HL			
 HSSE PM HL  DIN-371												
 DIN-376												
Materiale									P 1+8 10+11 9 13+14 M 1+3 K 1+6 N 1+10 S 1+3 6			
Qualità del materiale									HSSE-PM			
Tipo di foro									 <3d			
Rivestimento									HL			
Imbocco									C / 2-3P			
Tolleranza									6HX			
M d ₁	P	l ₁	l ₂	l ₃	d ₂	a		INDEX	C4-525301			
DIN 371												
M 2	0,4	45	8	12	2,8	2,1	1,6	0020	A RICHIESTA			
M 2,5	0,45	50	5	14	2,8	2,1	2,05	0025	A RICHIESTA			
M 2,6	0,45	50	5	14	2,8	2,1	2,1	0026	A RICHIESTA			
M 3	0,5	56	5	18	3,5	2,7	2,5	0030	●			
M 4	0,7	63	7	21	4,5	3,4	3,3	0040	●			
M 5	0,8	70	8	25	6	4,9	4,2	0050	●			
M 6	1	80	10	30	6	4,9	5	0060	●			
M 8	1,25	90	13	35	8	6,2	6,8	0080	●			
M 10	1,5	100	15	39	10	8	8,5	0100	●			
DIN 376									D4-525301			
M 12	1,75	110	18		9	7	10,2	0120	●			
M 14	2	110	20		11	9	12	0140	●			
M 16	2	110	20		12	9	14	0160	●			

P	20-40		
M	5-15		
K	10-30		
N	10-30		
S	5-15		

Filettatura metrica ISO DIN-13									800	800X	INOX	
									R40	R40 TN2	R40 HL	
 HSSE HL TN2  DIN-371 DIN-376												
Materiale									P1.3	P M K N S H	P1.3 M2.1 M2.2	
Qualità del materiale									HSSE	HSSE	HSSE	
Tipo di foro									 <2,5d	 <2,5d	 <2,5d	
Rivestimento										TN2	HL	
Imbocco									C / 2-3P	C / 2-3P	C / 2-3P	
Tolleranza									ISO2 (6H)	ISO2 (6H)	ISO2 (6H)	
M	P	I	I	I	d	a		INDEX	C2-511101	C2-513X01	C2-518801	
d ₁		1	2 R40	3	2							
DIN 371												
M 3	0,5	56	5	18	3,5	2,7	2,5	0030	●	●	●	
M 4	0,7	63	7	21	4,5	3,4	3,3	0040	●	●	●	
M 5	0,8	70	8	25	6	4,9	4,20	0050	●	●	●	
M 6	1	80	10	30	6	4,9	5	0060	●	●	●	
M 8	1,25	90	13	35	8	6,2	6,8	0080	●	●	●	
M 10	1,5	100	15	39	10	8	8,5	0100	●	●	●	
DIN 376									D2-511101	D2-513X01	D2-518801	
M 12	1,75	110	18		9	7	10,2	0120	●	●	●	
M 14	2	110	20		11	9	12	0140	●	●	●	
M 16	2	110	20		12	9	14	0160	●	●	●	
M 18	2,5	125	25		14	11	15,5	0180	●	●	●	
M 20	2,5	140	25		16	12	17,5	0200	●	●	●	
M 22	2,5	140	25		18	14,5	19,5	0220		●		
M 24	3	160	30		18	14,5	21	0240	●	●	●	
M 27	3	160	30		20	16	24	0270		●		
M 30	3,5	180	35		22	18	26,5	0300	●	●	●	
M 33	3,5	180	35		25	20	29,5	0330	●	●		
M 36	4	200	40		28	22	32	0360	●	●		
M 39	4	200	40		32	24	35	0390	●	A RICHIESTA		
M 42	4,5	200	45		32	24	37,5	0420	●	A RICHIESTA		
M 45	4,5	220	45		36	29	40,5	0450	●	A RICHIESTA		
M 48	5	250	50		36	29	43	0480	●	A RICHIESTA		
M 52	5	250	50		40	32	47	0520	●	A RICHIESTA		
									P	5-15	5-35	10-35
									M		5-15	5-20
									K	5-20	5-25	
									N	10-25	10-30	





MASCHI AD ALTO RENDIMENTO CIECHI

Filettatura metrica ISO DIN-13										FAN 1200	1400	1400-HT	800
										R40 TiCN	R15 TiCN	R15 - TIALSIN	L40 LH
60° P HSSE PM TiCN LH SX HT l₃ l₂ l₁ Ø d₁ Ø d₂ a DIN-371 l₂ l₁ Ø d₁ Ø d₂ a DIN-376													
Materiale										P1.4 M2.1 K3.2-3.3 N4.2	P1.5 M2.3 K3.1-K3.3 N4.6 N4.9	P M K N S H	P1.3
Qualità del materiale										HSSE-PM	HSSE-PM	HSSE-PM	HSSE
Tipo di foro										 <2,5d	 <1,5d	 <1,5d	 <2,5d
Rivestimento										TiCN	TiCN		L40 LH
Imbocco										C / 2-3P	C / 2-3P	C / 2-3P	C / 2-3P
Tolleranza										ISO2 (6H)	6HX	6HX	ISO2 (6H)
M	P	I ₁	I ₂ r15	I ₂ r40	I ₃	d	a		INDEX	C4-565001	C4-505901	C4-50G901	C2-591101
DIN371													
M 2	0,4	45	8	8	12	2,8	2,1	1,6	0020				
M 2,5	0,45	50	9	5	14	2,8	2,1	2,05	0025				
M 2,6	0,45	50	9	5	14	2,8	2,1	2,1	0026				
M 3	0,5	56	10	5	18	3,5	2,7	2,5	0030	●	●		
M 4	0,7	63	12	7	21	4,5	3,4	3,3	0040	●	●		◆
M 5	0,8	70	14	8	25	6	4,9	4,2	0050	●	●		◆
M 6	1	80	18	10	30	6	4,9	5	0060	●	●	●	◆
M 8	1,25	90	20	13	35	8	6,2	6,8	0080	●	●	●	◆
M 10	1,5	100	20	15	39	10	8	8,5	0100	●	●	●	◆
DIN 376										D4-565001	D4-505901	D4-50G901	D2-591101
M 12	1,75	110	24	18		9	7	10,2	0120	●	●	●	◆
M 14	2	110	25	20		11	9	12	0140	●	●		◆
M 16	2	110	32	20		12	9	14	0160	●	●		◆
M 18	2,5	125	32	25		14	11	15,5	0180	◆			
M 20	2,5	140	32	25		16	12	17,5	0200	◆			◆

P	5-20	1-15	1-15	5-20
M	5-15			
K	10-20	10-20	10-20	
N	10-20	10-20	10-20	
S				





MASCHI MASTER TAP CIECHI

Filettatura metrica ISO DIN-13									MASTERTAP	MASTERTAP	MASTERTAP	
									C-R45-HL	E-R45-HL	E-R45-IK-HL	
HSSE PM HL DIN-371 DIN-376												
Materiale									P1+810+11913+14 M1+3 K1+6 N1+10 S1+36	P1+810+11913+14 M1+3 K1+6 N1+10 S1+36	P1+810+11913+14 M1+3 K1+6 N1+10 S1+36	
Qualità del materiale									HSSE-PM	HSSE-PM	HSS-PM	
Tipo di foro									 <2,5d	 <2,5d	 <2,5d	
Rivestimento									HL	HL	HL	
Imbocco									C / 2-3P	E / 1,5-2P	E / 1,5-2P	
Tolleranza									6HX	6HX	6HX	
M Ød ₁	P	I ₁	I ₂	I ₃	Ød ₂	a		INDE X	C4-528M01	C4-718M01	C4-718M51	
DIN 371												
M 2	0,4	45	10	13	2,8	2,1	1,6	0020	6H •			
M 2,5	0,45	50	9	14	2,8	2,1	2,05	0025	6H •			
M 3	0,5	56	5	18	3,5	2,7	2,5	0030	•	•		
M 4	0,7	63	7	21	4,5	3,4	3,3	0040	•	•		
M 5	0,8	70	8	25	6	4,9	4,2	0050	•	•	•	
M 6	1	80	10	30	6	4,9	5	0060	•	•	•	
M 8	1,25	90	13	35	8	6,2	6,8	0080	•	•	•	
M 10	1,5	100	15	39	10	8	8,5	0100	•	•	•	
DIN 376									D4-528M01	D4-718M01	D4-718M51	
M 12	1,75	110	18		9	7	10,2	0120	•	•	•	
M 14	2	110	20		11	9	12	0140	•	•	•	
M 16	2	110	20		12	9	14	0160	•	•	•	

Vc (m/min)

	20-40	20-40	20-40	
	5-15	5-15	5-15	
	10-30	10-30	10-30	
	10-30	10-30	10-30	
	5-15	5-15	5-15	





ASCHI SINCRONIZZATI METRICO FINE PASSANTI

Filettatura metrica fine ISO DIN-13								S-NC				
								B HL				
60° P HSSE PM HL												
Materiale								P 1+8 10+11 9 13+14 M 1+3 K 1+6 N 1+10 S 1+3 6				
Qualità del materiale								HSSE-PM				
Tipo di foro												
Rivestimento								HL				
Imbocco								B / 4-5P				
Tolleranza								6HX				
MF d ₁	P	l ₁	l ₂	Ø	d ₂	a		INDEX	D4-115301			
DIN 374												
M 8 x 1	1	90	20	6	4,9	7,0	0083	●				
M 10 x 1	1	90	20	7	5,5	9,0	0103	●				
M 10 x 1,25	1,25	100	20	7	5,5	8,8	0104	●				
M 12 x 1,5	1,5	100	20	9	7	10,5	0125	●				
M 14 x 1,5	1,5	100	20	11	9	12,5	0145	●				
M 16 x 1,5	1,5	100	20	12	9	14,5	0165	●				

Vc (m/min)

P	20-40			
M	5-20			
K	10-50			
N	10-50			
S	1-8			



MASCHI A RULLARE METRICO FINE

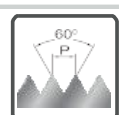
Filettatura metrica fine ISO DIN-13									WGN	
									SR TiN	
HSSE PM TiN DIN-374										
Materiale									P1.1 P1.3 M2.2 N4.2 N4.5	
Qualità del materiale									HSSE-PM	
Tipo di foro									 <3d	
Rivestimento									TiN	
Imbocco									C / 2-3P	
Tolleranza									6HX	
MF	P	l ₁	l ₂	∅	d ₂	a		INDE X	D4-923005	
∅ d ₁										
DIN 374										
M 8 x 1	1	90	10	6	4,9	7,6	0083	●		
M 10 x 1	1	90	10	7	5,5	9,6	0103	●		
M 10 x 1,25	1,25	100	15	7	5,5	9,45	0104	●		
M 12 x 1,5	1,5	100	15	9	7	11,35	0125	●		
M 14 x 1,5	1,5	100	15	11	9	13,35	0145	○		
M 16 x 1,5	1,5	100	15	12	9	15,35	0165	●		

Vc (m/min)

P	15-40		
M	10-25		
K			
N	20-40		
S			



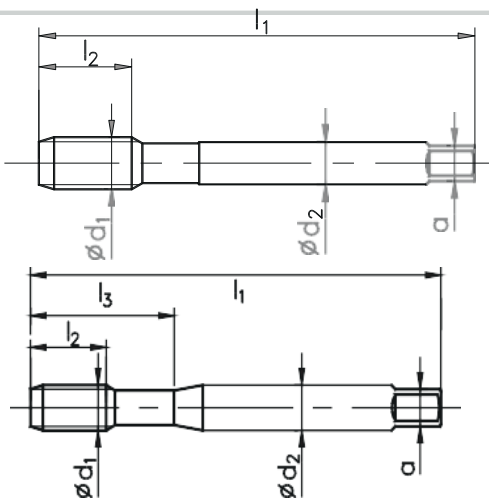
Filettatura metrica fine ISO DIN-13



HSSE
PM

HL

TN2



DIN-374

DIN-371

800X

B-TN2



MASTERTAP

B-HL

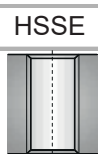


Materiale

P
M
K
N

P 1+8 10+11 13+14
M 1+3
K 1+6
N 1+10
S 1+3 6

Qualità del
Tipo di foro



<3d
TN2



<3d
HL

Rivestimento

Imbocco

Tolleranza

HSSE

HSSE-PM

<3d
TN2

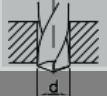
<3d
HL

B / 4-5P

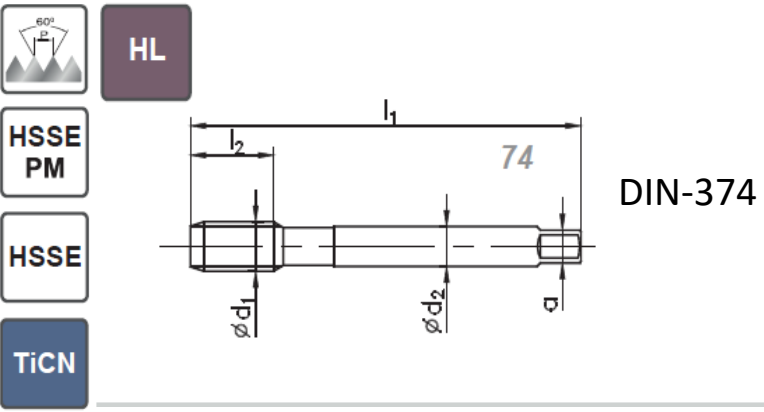
B / 4-5P

ISO2 (6H)

6HX

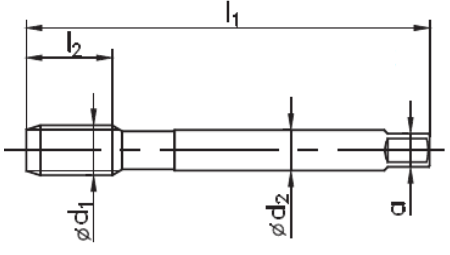
MF $\frac{1}{d}$	P	l1	l2	l3	d_2	a		INDEX	C2-113X01		
DIN 371											
M 4X0,5	0,50	63	12	21	4,5	3,4	3,50	0041	•		
M 5X0,5	0,50	70	14	25	6,0	4,9	4,50	0051	•		
M 6X0,75	0,75	80	14	30	6,0	4,9	5,2	0062	•		
DIN 374									D2-113X01		
M 8X1	1	90	20	-	6	4,9	7	0083	•		
M 10X1	1	90	20	-	7	5,5	9	0103	•		
M 10X1,25	1,25	100	20	-	7	5,5	8,8	0104	•		
M 12X1,5	1,5	100	20	-	9	7	10,5	0125	•		
M 14X1,5	1,5	100	20	-	11	9	12,5	0145	•		
M 16X1,5	1,5	100	20	-	12	9	14,5	0165	•		
M 18X1,5	1,5	110	24	-	14	11	16,5	0185	•		
M 20X1,5	1,5	125	24	-	16	12	18,5	0205	•		
M 22X1,5	1,5	125	24	-	18	14,5	20,5	0225	•		
M 24X1,5	1,5	140	27	-	18	14,5	22,5	0245	•		
M 30X1,5	1,5	150	27	-	22	18	28,5	0305	•		
MF $\frac{1}{d_1}$	P	l1	l2		d_2	a		INDEX		D4-118M01	
DIN 374											
M 8X1	1	90	10		6	4,9	7,0	0083		•	
M 10X1	1	90	10		7	5,5	9,0	0103		•	
M 10X1,25	1,25	100	15		7	5,5	8,8	0104		•	
M 12X1,5	1,5	100	15		9	7	10,5	0125		•	
M 14X1,5	1,5	100	15		11	9	12,5	0145		•	
M 16X1,5	1,5	100	15		12	9	14,5	0165		•	

P	5-35	20-40	
M	5-15	5-15	
K	5-25	10-30	
N	10-30	10-30	
S	-	5-15	

Filettatura metrica fine ISO DIN-13									INOX	GG	INOX	1400
									B	C-TICN	B HL	B TICN
												
									P1.3 M	K3.1-K3.3	P1.2-1.4 M2.1-M2.2 N4.5-N4.7-N4.8	P1.5-1.6 N4.6-N4.9 K3.1
Qualità del materiale									HSSE	HSSE-PM	HSSE	HSSE-PM
Tipo di foro									 <3d	 <1,5d	 <3d	 <2,5d
Rivestimento									B	TiCN	HL	TiCN
Imbocco									B / 4-5P	C / 2-3P	B / 4-5P	B / 4-5P
Tolleranza									ISO2 (6H)	6HX	ISO2 (6H)	6HX
MF d ₁	P	l ₁	l ₂	d ₂	a		INDEX		D2-111801	D2-125501	D2-118801	D4-115901
DIN 374												
M 8 x 1	1	90	20	6	4,9	7,0	0083	◆		◆	◆	◆
M 9 x 1	1	90	20	7	5,5	8,0	0093	○				
M 10 x 0,75	0,75	90	20	7	5,5	9,2	0102	◆				
M 10 x 1	1	90	20	7	5,5	9,0	0103	◆	◆	◆	◆	◆
M 10 x 1,25	1,25	100	20	7	5,5	8,8	0104	◆	◆	◆	◆	◆
M 11 x 1	1	90	20	8	6,2	10,0	0113	○				
M 12 x 1	1	100	20	9	7	11,0	0123	◆				
M 12 x 1,25	1,25	100	20	9	7	10,8	0124	◆				
M 12 x 1,5	1,5	100	20	9	7	10,5	0125	◆	◆	◆	◆	◆
M 14 x 1	1	100	20	11	9	13,0	0143	◆				
M 14 x 1,25	1,25	100	20	11	9	12,8	0144	◆				
M 14 x 1,5	1,5	100	20	11	9	12,5	0145	◆	◆	◆	◆	◆
M 15 x 1	1	100	20	12	9	14,0	0153	◆				
M 16 x 1	1	100	20	12	9	15,0	0163	◆				
M 16 x 1,5	1,5	100	20	12	9	14,5	0165	◆	◆	◆	◆	◆
M 18 x 1	1	110	24	14	11	17,0	0183	◆				
M 18 x 1,5	1,5	110	24	14	11	16,5	0185	◆				
M 18 x 2	2	125	27	14	11	16	0186	◆				
M 20 x 1	1	125	24	16	12	19	0203	◆				
M 20 x 1,5	1,5	125	24	16	12	18,5	0205	◆				
M 20 x 2	2	140	27	16	12	18	0206	◆				
M 22 x 1	1	125	24	18	14,5	21	0223	◆				
M 22 x 1,5	1,5	125	24	18	14,5	20,5	0225	◆				
M 22 x 2	2	140	27	18	14,5	20	0226	◆				
M 24 x 1	1	140	27	18	14,5	23	0243	◆				
M 24 x 1,5	1,5	140	27	18	14,5	22,5	0245	◆				
M 24 x 2	2	140	27	18	14,5	22	0246	◆				
M 25 x 1,5	1,5	140	27	18	14,5	23,5	0255	◆				

Vc (m/min)

P	5-25		5-20	10-30
M	5-15		10-30	
K		15-25		10-20
N			10-40	10-30

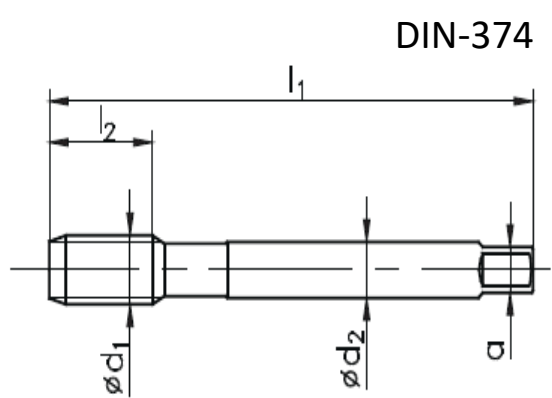
Filettatura metrica fine ISO DIN-13								INOX				
   DIN-374								B				
												
Materiale								P1.3 M				
Qualità del materiale.								HSSE				
Tipo di foro												
Rivestimento								B				
Imbocco								B / 4-5P				
Tolleranza								ISO2 (6H)				
MF ød ₁	P	l ₁	l ₂	ød ₂	a		INDEX	D2-111801				
DIN 374												
M 26 x 1,5	1,5	140	27	18	14,5	24,5	0265	●				
M 27 x 1,5	1,5	140	27	20	16	25,5	0275	●				
M 27 x 2	2	140	27	20	16	25	0276	●				
M 28 x 1,5	1,5	140	27	20	16	26,5	0285	●				
M 28 x 2	2	140	27	20	16	26	0286	●				
M 30 x 1,5	1,5	150	27	22	18	28,5	0305	●				
M 30 x 2	2	150	27	22	18	28	0306	●				
M 32 x 1,5	1,5	150	27	22	18	30,5	0325	●				
M 32 x 2	2	150	27	22	18	30	0326	●				
M 33 x 1,5	1,5	160	30	25	20	31,5	0335	●				
M 33 x 2	2	160	30	25	20	31	0336	●				
M 34 x 1,5	1,5	170	30	28	22	32,5	0345	●				
M 35 x 1,5	1,5	170	30	28	22	33,5	0355	●				
M 36 x 1,5	1,5	170	30	28	22	34,5	0365	●				
M 36 x 2	2	170	30	28	22	34	0366	●				
M 36 x 3	3	200	50	28	22	33	0367	●				
M 38 x 1,5	1,5	170	30	28	22	36,5	0385	●				
M 39 x 1,5	1,5	170	30	32	24	37,5	0395	○				
M 39 x 2	2	170	30	32	24	37	0396	○				
M 39 x 3	3	200	50	32	24	36	0397	○				
M 40 x 1,5	1,5	170	30	32	24	38,5	0405	○				
M 40 x 2	2	170	30	32	24	38	0406	○				

Vc (m/min)

P	5-20				
M	5-15				
K					
N					
S					

MASCHI SINCRONIZZATI METRICO FINE CIECHI

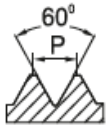
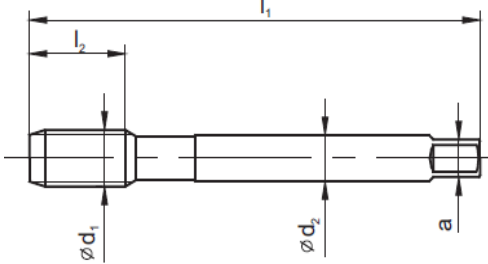
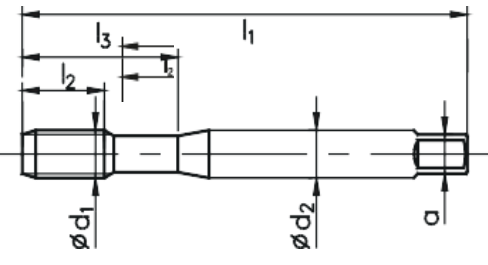


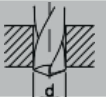
Filettatura metrica fine ISO DIN-13								S-NC	S-NC			
								C-R45 HL	E- R45 IK HL			
   												
Materiale								P 1+8 10+11 13+14 M 1+3 K 1+6 N 1+10 S 1+3 6	P 1+8 10+11 13+14 M 1+3 K 1+6 N 1+10 S 1+3 6			
Qualità del materiale.								HSSE-PM	HSSE-PM			
Tipo di foro												
Rivestimento								HL	HL			
Imbocco								C / 2-3P	E / 1,5-2P			
Tolleranza								6HX	6HX			
MF ød ₁	P	l ₁	l ₂	ød ₂	a		INDEX	D4-525301	D4-718M51			
DIN 374												
M 8 x 1	1	90	10	6	4,9	7,0	0083	•	•			
M 10 x 1	1	90	10	7	5,5	9,0	0103	•	•			
M 10 x 1,25	1,25	100	15	7	5,5	8,8	0104	•	•			
M 12 x 1,5	1,5	100	15	9	7	10,5	0125	•	•			
M 14 x 1,5	1,5	100	15	11	9	12,5	0145	•	•			
M 16 x 1,5	1,5	100	15	12	9	14,5	0165	•	•			

Vc (m/min)

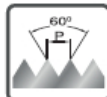
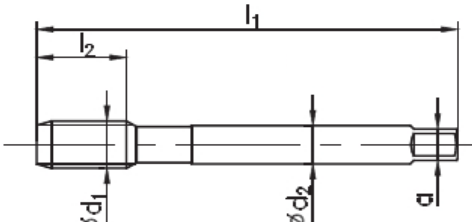
P	20-40	20-40			
M	5-15	5-15			
K	10-30	10-30			
N	10-30	10-30			
S	5-15	5-15			

Filettatura metrica fine ISO DIN-13

  	 DIN-374	800X		
	 DIN-371	 C-R40 TN2		
Materiale				
Qualità del materiale		HSSE		
Tipo di foro		 < 2,5d		
Rivestimento		TN2		
Imbocco		C /2-3P		
Tolleranza		6H		

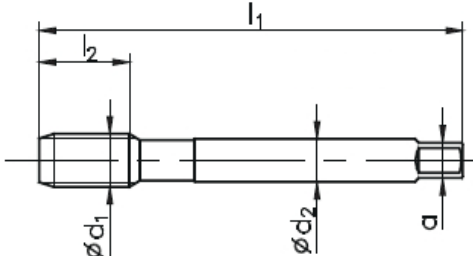
MF d ₁	P	l ₁	l ₂ r40	β	d ₂	a		INDEX	C2-513X01		
DIN 371											
M 4 X 0,5	0,5	63	7	21	4,5	3,4	3,5	0041	•		
M 5 X 0,5	0,5	70	8	25	6,0	4,9	4,5	0051	•		
M 6 X 0,75	0,75	80	10	30	6	4,9	5,2	0062	•		
DIN 374									INDEX	D2-513X01	
M 8X1	1	90	10	-	6	4,9	7	0083	•		
M 10X1	1	90	10	-	7	5,5	9	0103	•		
M 10X1,25	1,25	100	15	-	7	5,5	8,8	0104	•		
M 12X1,5	1,5	100	15	-	9	7	10,5	0125	•		
M 14X1,5	1,5	100	15	-	11	9,0	12,5	0145	•		
M 16X1,5	1,5	100	15	-	12	9,0	14,5	0165	•		
M 18X1,5	1,5	110	17	-	14	11	16,5	0185	•		
M 20X1,5	1,5	125	17	-	16	12	18,5	0205	•		
M 22X1,5	1,5	125	17	-	18	14,5	20,5	0225	•		
M 24X1,5	1,5	140	20	-	18	14,5	22,5	0245	•		
M 30X1,5	1,5	150	22	-	22	18	28,5	0305	•		

P	5-35		
M	5-15		
K	10-25		
N	10-30		
S	-		

Filettatura metrica fine ISO DIN-13										I400		INOX		
										R15 TiCN		R40 HL		
 HSSE HSSE PM TiCN HL  DIN-374														
Materiale										P1.1 P1.3 N4.2 N4.5		M2.1 M2.2		
Qualità del materiale /										HSSE-PM		HSSE		
Tipo di foro										 <1,5d		 <2,5d		
Rivestimento										TiCN		HL		
Imbocco /										C / 2-3P		C / 2-3P		
Tolleranza /										6HX		ISO2 (6H)		
MF d ₁	P	l ₁	l ₂ R15	l ₂	d ₂	a		INDEX	D4-505901		D2-518801			
DIN 374														
M 8 x 1	1	90	20	10	6	4,9	7,0	0083	●		●			
M 10 x 1	1	90	20	10	7	5,5	9,0	0103	●		●			
M 10 x 1,25	1,25	100	20	15	7	5,5	8,8	0104	●		●			
M 12 x 1,5	1,5	100	20	15	9	7	10,5	0125	●		●			
M 14 x 1,5	1,5	100	20	15	11	9	12,5	0145	●		●			
M 16 x 1,5	1,5	100	20	15	12	9	16,5	0165	●		●			
M 18 x 1,5	1,5	110	24	17	14	11	16,5	0185						
M 20 x 1,5	1,5	25	24	17	16	12	18,5	0205						

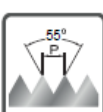
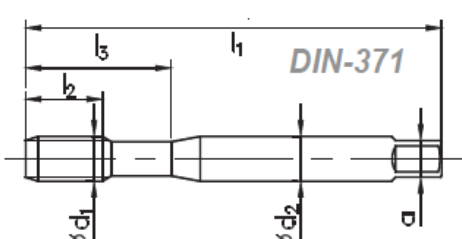
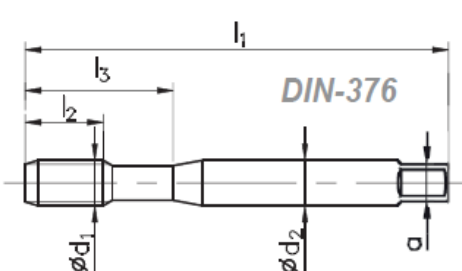
Vc (m/min)

P	1-15				
M			5-20		
K	10-20				
N					
S					

Filettatura metrica fine ISO DIN-13								MASTER TAP	MASTER TAP			
								C-R45-HL	E-R45-HL			
 DIN-374 60° HSSE PM HL												
Materiale								P 1+8 10+11 13+14 M 1+3 K 1+6 N 1+10 S 1+3 6	P 1+8 10+11 13+14 M 1+3 K 1+6 N 1+10 S 1+3 6			
Qualità del materiale.								HSSE-PM	HSSE-PM			
Tipo di foro								 <2,5d	 <2,5d			
Rivestimento								HL	HL			
Imbocco								C / 2-3P	E / 1,5-2P			
Tolleranza								6HX	6HX			
MF Ød ₁	P	l ₁	l ₂	Ød ₂	a		INDEX	D4-528M01	D4-718M01			
DIN 374												
M 8 x 1	1	90	10	6	4,9	7,0	0083	●	●			
M 10 x 1	1	90	10	7	5,5	9,0	0103	●	●			
M 10 x 1,25	1,25	100	15	7	5,5	8,8	0104	●	●			
M 12 x 1,5	1,5	100	15	9	7	10,5	0125	●	●			
M 14 x 1,5	1,5	100	15	11	9	12,5	0145	●	●			
M 16 x 1,5	1,5	100	15	12	9	14,5	0165	●	●			

Vc (m/min)

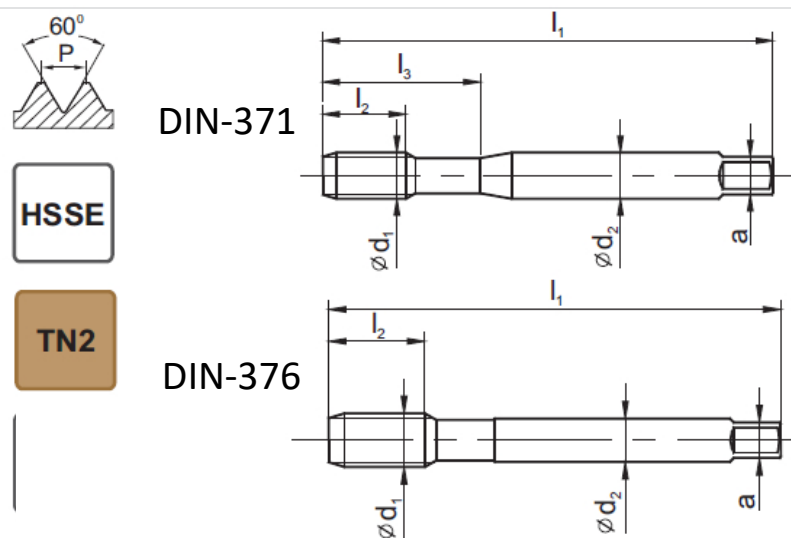
P	20-40	20-40			
M	5-15	5-15			
K	10-30	10-30			
N	10-30	10-30			
S	5-15	5-15			

Filettatura Whitworth BSW, BS-84:1956												800	800			
												B	R40			
BSW, BS-84:1956    																
Materiale												P1.3	P1.3			
Qualità del materiale												HSSE	HSSE			
Tipo di foro																
Rivestimento												B	R40			
Imbocco												B / 4-5P	C / 2-3P			
Tolleranza												normal	normal			
BSW	$\varnothing d_1$	1"/P	P	l_1	l_2	l_2 R40	l_3	$\varnothing d_2$	a		INDEX	C2-111101	C2-511101			
DIN 371																
1/8 - 40	3,175	40	0,635	56	10	5	18	3,5	2,7	2,5	7123	●	●			
3/16 - 24	4,762	24	1,058	70	14	8	25	6	4,9	3,7	7125	●	●			
1/4 - 20	6,350	20	1,270	80	18	12	30	7	5,5	5,1	7127	●	●			
5/16 - 18	7,938	18	1,411	90	20	15	35	8	6,2	6,5	7128	●	●			
3/8 - 16	9,525	16	1,588	100	21	18	39	10	8	7,9	7129	●	●			
DIN 376												D2-111101	D2-511101			
7/16 - 14	11,112	14	1,814	100	22	15		8	6,2	9,25	7130	●	●			
1/2 - 12	12,700	12	2,117	110	24	22		9	7	10,5	7131	●	●			
5/8 - 11	15,875	11	2,309	110	32	22		12	9	13,5	7133	●	●			
3/4 - 10	19,050	10	2,540	125	32	25		14	11	16,5	7135	●	●			

Vc (m/min)

P	5-15	5-15			
M					
K					
N					
S					

Filettatura metrico fine americana UNC, ANSI B-1.1



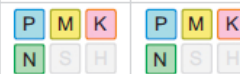
800X

B-TN2

C-R40-TN2



Materiale



Tipo di foro



Qualita' del materiale

HSSE HSSE

Rivestimento

TN2 TN2

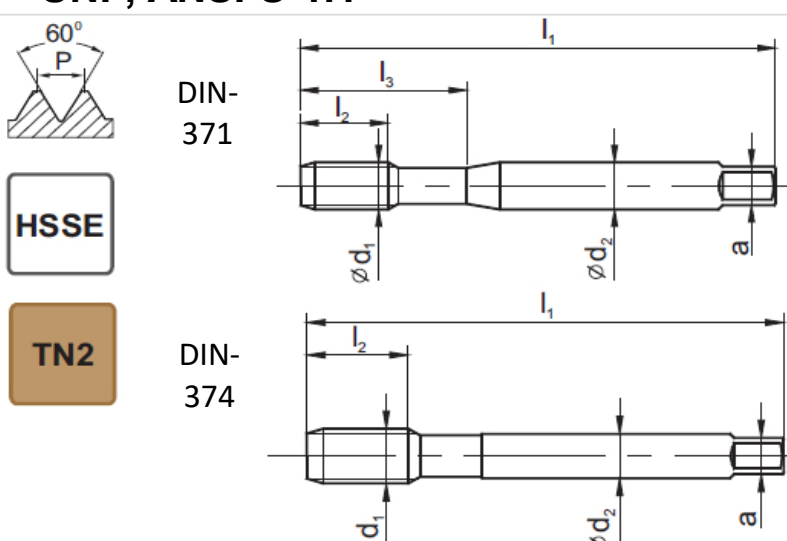
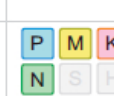
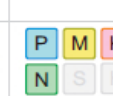
Imbocco

B / 4-5P C / 2-3P

UNC	$\varnothing d_1$	1"/P	P	l_1	l_2	l_2 R40	l_3	$\varnothing d_2$	a		Norm	DIN-371					
											Tol.	2B	2B				
											INDEX	C2-113X01	C2-513X01				
No2-56	2,184	56	0,455	45	10	10	13	2,8	2,1	1,85	4102	○	○				
No4-40	2,844	40	0,635	56	10	5	18	3,5	2,7	2,35	4104	●	●				
No5-40	3,175	40	0,635	56	10	7	18	3,5	2,7	2,65	4105	●	●				
No6-32	3,505	32	0,794	56	12	6	20	4,0	3,0	2,85	4106	●	●				
No8-32	4,165	32	0,794	63	12	7	21	4,5	3,4	3,50	4108	●	●				
No10-24	4,826	24	1,058	70	14	8	25	6,0	4,9	3,90	4110	●	●				
No12-24	5,486	24	1,058	80	18	10	30	6,0	4,9	4,50	4112	●	●				
1/4-20	6,350	20	1,270	80	18	13	30	7,0	5,5	5,10	4127	●	●				
5/16-18	7,938	18	1,411	90	20	13	35	8,0	6,0	6,60	4128	●	●				
3/8-16	9,525	16	1,588	100	20	15	39	10,0	8,0	8,00	4129	●	●				

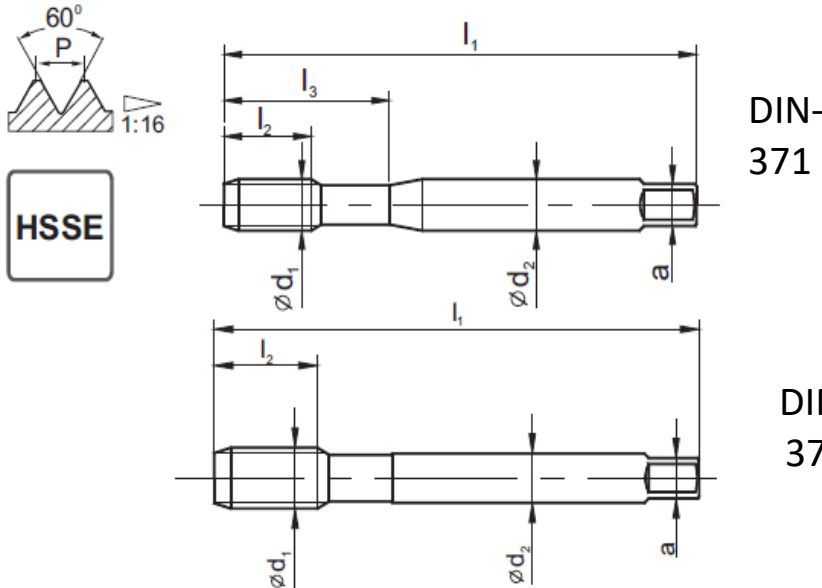
UNC	$\varnothing d_1$	1"/P	P	l_1	l_2	l_2 R40	l_3	$\varnothing d_2$	a		Norm	DIN-376					
											Tol.	2B	2B				
											INDEX	D2-113X01	D2-513X01				
7/16-14	11,112	14	1,814	100	22	15	-	8,0	6,2	9,40	4130	●	●				
1/2-13	12,700	13	1,954	110	24	18	-	9,0	7,0	10,80	4131	●	●				
9/16-12	14,288	12	2,117	110	25	20	-	11,0	9,0	12,20	4132	●	●				
5/8-11	15,875	11	2,309	110	32	22	-	12,0	9,0	13,50	4133	●	●				
3/4-10	19,050	10	2,504	125	32	25	-	14,0	11,0	16,50	4135	●	●				
7/8-9	22,225	9	2,822	140	32	30	-	18,0	14,5	19,50	4137	●	●				
1-8	25,400	8	3,175	160	38	30	-	20,0	16,0	22,25	4139	●	●				
1.1/8-7	28,575	7	3,629	180	40	40	-	22,0	18,0	25,00	4141	○	○				
1.1/4-7	31,750	7	3,629	180	40	40	-	22,0	18,0	28,00	4143	○	○				
1.3/8-6	34,925	6	4,233	200	50	40	-	28,0	22,0	30,75	4145	○	○				
1.1/2-6	38,100	6	4,233	200	55	40	-	28,0	22,0	34,00	4147	○	○				

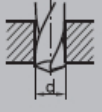
ISO	Vc (m/min)				
P	5-35	5-35			
M	5-15	5-15			
K	5-25	5-25			
N	10-30	10-30			
S	-	-			

Filettatura metrico fine americana UNF, ANSI S-1.1											800X					
											B-TN2	C-R40-TN2				
																
Materiale																
Tipo di foro																
Qualita' del materiale											HSSE	HSSE				
Rivestimento											TN2	TN2				
Imbocco											B / 4-5P	C / 2-3P				
UNF	Ød ₁	1"/P	P	I ₁	I ₂	I ₂ R40	I ₃	Ød ₂	a		Norm	DIN-371				
											Tol.	2B	2B			
											INDEX	C2-113X01	C2-513X01			
No6-40	3,505	40	0,635	56	12	6	20	4,0	3,0	2,95	4206	○	○			
No8-36	4,165	36	0,705	63	12	7	21	4,5	3,4	3,50	4208	○	○			
No10-32	4,826	32	0,794	70	14	8	25	6,0	4,9	4,10	4210	●	●			
No12-28	5,486	28	0,907	80	18	10	30	6,0	4,9	4,60	4212	●	●			
1/4-28	6,350	28	0,907	80	18	10	30	7,0	5,5	5,50	4227	●	●			
5/16-24	7,938	24	1,058	90	20	13	35	8,0	6,0	6,90	4228	●	●			
3/8-24	9,525	24	1,058	100	20	15	39	10,0	8,0	8,50	4229	●	●			

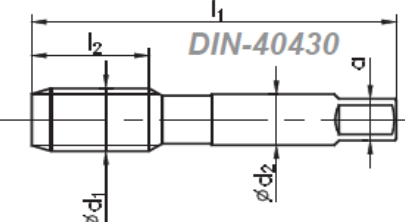
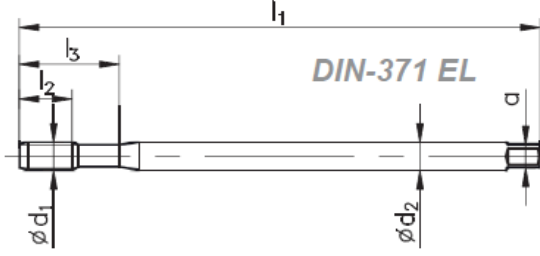
UNF	Ød ₁	1"/P	P	I ₁	I ₂	I ₂ R40	I ₃	Ød ₂	a		Norm	DIN-374				
											Tol.	2B	2B			
											INDEX	D2-113X01	D2-513X01			
7/16-20	11,112	20	1,270	100	20	15	-	8,0	6,2	9,90	4230	●	●			
1/2-20	12,700	20	1,270	100	20	15	-	9,0	7,0	11,50	4231	●	●			
9/16-18	14,288	18	1,411	100	20	15	-	11,0	9,0	12,90	4232	●	●			
5/8-18	15,875	18	1,411	100	20	15	-	12,0	9,0	14,50	4233	●	●			
3/4-16	19,050	16	1,588	110	24	17	-	14,0	11,0	17,50	4235	●	●			
7/8-14	22,225	14	1,814	125	24	17	-	18,0	14,5	20,40	4237	●	●			
1-12	25,400	12	2,117	140	27	20	-	18,0	14,5	23,25	4239	●	●			
1.1/8-12	28,575	12	2,117	150	27	22	-	22,0	18,0	26,50	4241	○	○			
1.1/4-12	31,750	12	2,117	150	27	22	-	22,0	18,0	29,50	4243	○	○			
1.3/8-12	34,925	12	2,117	170	30	22	-	28,0	22,0	32,75	4245	○	○			
1.1/2-12	38,100	12	2,117	170	30	24	-	28,0	22,0	36,00	4247	○	○			

ISO		Vc (m/min)				
P	5-35	5-35				
M	5-15	5-15				
K	5-25	10-25				
N	10-30	10-30				
S	-	-				

Filettatura metrico fine americana NPT 1:16 ANSI B-1.20.1										800					
										c					
															
Materiale										P M K N S H					
Tipo di foro															
Qualità del materiale										HSSE					
Imbocco										C / 2-3P					
NPT	Ød ₁	1"/P	P	L ₁	L ₂	L ₃	Ød ₂	a		Norm	~DIN-371				
										Tol.					
										INDEX	C2-121101				
1/8	-	27	0,94	90	13	33	10,0	8,0	8,50	4623	●				
1/4	-	18	11,411	100	19,5	34,5	14,0	11,0	11,10	4627	●				

Rp	1"/P	P	L ₁	L ₂	L ₃	Ød ₂	a		Norm	~DIN-374					
									Tol.						
									INDEX	D2-121101					
1/8	27	0,941	90	15	-	7	5,5	8,50	4623						
3/8	18	1,411	110	22	-	14,0	11,0	14,40	4629	●					
1/2	14	1,814	140	27	-	18,0	14,5	17,80	4631	●					
3/4	14	1,814	140	28	-	20,0	16,0	23,15	4635	●					
1	11.1/2	2,209	160	35	-	25,0	20,0	29,05	4639	●					

ISO		Vc (m/min)				
P	5-20					
M	-					
K	5-15					
N	10-25					
S	-					

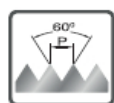
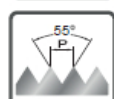
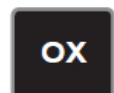
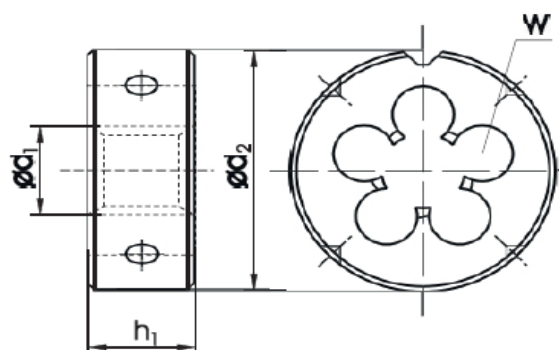
Filettatura PG DIN - 40430   											500	800	800		
Filettatura metrica ISO DIN-13   											PG	B	R40		
Materiale /											P1.2 P1.3	P1.3	P1.3		
Qualità del materiale											HSS	HSSE	HSSE		
Tipo di foro															
Rivestimento /											Nr2	B	R40		
Imbocco /											2P	B / 4-5P	C / 2-3P		
Tolleranza												ISO2 (6H)	ISO2 (6H)		
Pg	$\varnothing d_1$	1"/P	P	l_1	l_2			$\varnothing d_2$	a		INDEX	A1-322001			
DIN 40430															
Pg 7	12,5	20	1,270	65	18			9		11,4	8807	•			
Pg 9	15,2	18	1,411	70	20			12,5	10	14,0	8809	•			
Pg 11	18,6	18	1,411	75	22			16	12,5	17,25	8811	•			
Pg 13,5	20,4	18	1,411	80	22			18	14	19,0	8813	•			
Pg 16	22,5	18	1,411	85	22			20	16	21,25	8816	•			
Pg 21	28,3	16	1,588	95	25			25	20	27,0	8821	•			
M	$\varnothing d$		P	l_1	l_2	l_2 R40	l_3	$\varnothing d_2$	a		INDEX		C2-111121	C2-511121	
M 3			0,5	100	10	5	18	3,5	2,7	2,5	0030		•	•	
M 4			0,7	125	12	7	20	4,5	3	3,3	0040		•	•	
M 5			0,8	140	14	8	25	6	4,9	4,2	0050		•	•	
M 6			1	160	18	10	30	6	4,9	5	0060		•	•	
M	$\varnothing d$		P	l_1	l_2	l_2 R40		$\varnothing d_2$	a		INDEX		D2-111121	D2-511121	
M 8			1,25	180	20	13		6	4,9	6,8	0080		•	•	
M 10			1,5	180	22	15		7	5,5	8,5	0100		•	•	
M 12			1,75	220	29	18		9	7	10,2	0120		•	•	
M 16			2	220	32	20		12	9	14	0160		•	•	

Vc (m/min)

P	5-15	5-15	5-15		
M					
K					
N					
S					

Filettatura metrica e metrico fine
Filettatura Gas ISO DIN-13
DIN-EN 24231
INOX

OX


M
MF

G

Materiale

P1.2 P1.3
M2.1 M2.2
N4.2 N4.3

Qualità del materiale

HSSE

Rivestimento

OX

Imbocco

2,25P

Tolleranza

A

M d ₁	P	d x h ₁	2	W		INDEX	N2-188001		
DIN - EN 22568									
M 3	0,5	20 x 5	3	2,92	0030		●		
M 4	0,7	20 x 5	3	3,90	0040		●		
M 5	0,8	20 x 7	3	4,90	0050		●		
M 6	1	20 x 7	4	5,88	0060		●		
M 8	1,25	25 x 9	4	7,86	0080		●		
M 10	1,5	30 x 11	4	9,85	0100		●		
M 12	1,75	38 x 14	4	11,83	0120		●		
M 14	2	38 x 14	4	13,82	0140		●		
M 16	2	45 x 18	5	15,82	0160		●		
M 18	2,5	45 x 18	5	17,79	0180		●		
M 20	2,5	45 x 18	5	19,79	0200		●		
M 22	2,5	55 x 22	5	21,79	0220		●		
M 24	3	55 x 22	5	23,76	0240		●		
M 27	3	65 x 25	5	26,76	0270		●		
M 30	3,5	65 x 25	6	29,73	0300		●		
MF d ₁	P	d x h ₁	2	W		INDEX	N2-188001		
DIN - EN 22568									
M 8 x 1	1	25 x 9	4	7,88	0083		●		
M 10 x 1	1	30 x 11	5	9,88	0103		●		
M 12 x 1,25	1,25	38 x 10	4	11,86	0124		●		
M 12 x 1,5	1,5	38 x 10	4	1,85	0125		●		
M 14 x 1,5	1,5	38 x 10	5	13,85	0145		●		
M 16 x 1,5	1,5	45 x 14	5	15,85	0165		●		
M 18 x 1,5	1,5	45 x 14	5	17,85	0185		●		
M 20 x 1,5	1,5	45 x 14	6	19,85	0205		●		
M 22 x 1,5	1,5	55 x 16	6	21,85	0225		●		
M 24 x 1,5	1,5	55 x 16	6	23,85	0245		●		
G	d ₁	1"/P	P	d x h ₁	2	W		INDEX	N2-188001
DIN - EN 24231									
G-1/8"	9,73	28	0.907	30 x 11	4	9,62	3123		●
G-1/4"	13,16	19	1,337	38 x 10	4	13,03	3127		●
G-3/8"	16,66	19	1,337	45 x 14	5	16,54	3129		●
G-1/2"	20,96	14	1,814	45 x 14	6	20,81	3131		●
G-5/8"	22,91	14	1,814	55 x 16	5	22,77	3133		○
G-3/4"	26,44	14	1,814	55 x 16	6	26,30	3135		●
G-7/8"	30,20	14	1,814	65 x 18	6	30,06	3137		○
G-1"	33,25	11	2,309	65 x 18	7	33,07	3139		●

Filettatura metrica ISO DIN-13



Set di Tamponi

CZD-8 MSBg M3÷M12
Indice: Z3 302161 0312
Index: Z3-302161-0312

Dimensioni Tamponi
ISO 1502



Tipo di Tampone
PASSA
NON PASSA



Simbolo/

MSBg

MSRh

MSRk

Tipo/

PASSA/
NON PASSA
GO / NOGO

PASSA
GO

NON PASSA
NOGO

Tolleranza

6H

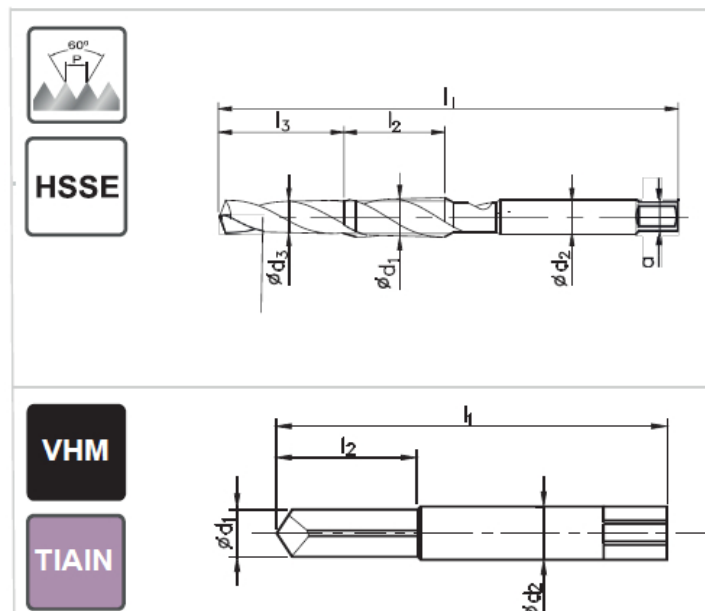
6g

6g

M	P	INDEX	S3-302161	Y3- 412162	Y3-422162	
M 3	0,5	0030	•	•	•	
M 4	0,7	0040	•	•	•	
M 5	0,8	0050	•	•	•	
M 6	1	0060	•	•	•	
M 8	1,25	0080	•	•	•	
M 10	1,5	0100	•	•	•	
M 12	1,75	0120	•	•	•	
M 14	2	0140	•	•	•	
M 16	2	0160	•	•	•	
M 18	2,5	0180	•	•	•	
M 20	2,5	0200	•	•	•	
M 22	2,5	0220	•	•	•	
M 24	3	0240	•	•	•	
M 27	3	0270	•	•	○	
M 30	3,5	0300	•	•	•	

DIMENSIONI TAMPONE PN-72/M-02140		MSBa				
		MSBa				
						
Tipo di Tampone PASSA / NON PASSA						
Symbolo		MSBa				
Tipo di foro		PASSA/ NON PASSA GO / NOGO				
Tolleranza		H7				
nom.	INDEX	S3-100111				
10	0100	●				
12	0120	●				
14	0140	●				
16	0160	●				
18	0180	●				
20	0200	●				
22	0220	●				
24	0240	●				
25	0250	●				
26	0260	●				
27	0270	●				
28	0280	●				
30	0300	●				
32	0320	●				
33	0330	○				
34	0340	●				
35	0350	●				
36	0360	●				
37	0370	●				
38	0380	●				
40	0400	●				
42	0420	○				

Filettatura metrica ISO DIN-13



Materiale

Qualità del materiale/

Tipo di foro.

Esecuzione

Smusso

Tolleranza

M $\varnothing d_1$	P	l_1	l_2	l_3	$\varnothing d_2$	a	$\varnothing d_3$	INDEX	G1-051001		
M 3	0,5	56	11	16	3	2,4	2,5	0030	•		
M 4	0,7	63	14	18	4	3	3,3	0040	•		
M 5	0,8	71	18	20	5	3,8	4,2	0050	•		
M 6	1	80	22	22	6	4,9	5	0060	•		
M 8	1,25	95	25	26	8	6,2	6,8	0080	•		
M 10	1,5	106	31	30	10	8	8,5	0100	•		
M 12	1,75	115	35	32	12	9	10,2	0120	•		
$\varnothing d_1$	M	$l_1 \pm 2$	$l_2 \pm 2$		d_2			INDEX		W9-900002	
2,5	M3	38	10		3			0250		•	
3,3	M4	46	14		4			0330		•	
4,2	M5	50	19		5			0420		•	
5,0	M6	50	23		6			0500		•	
6,8	M8	60	23		8			0680		•	
8,5	M10	80	25		10			0850		•	
10,2	M12	80	35		12			1020		•	

TABELLA DI
AVANZAMENTO
CONSIGLIATO AL GIRO

Diametro Punta												
	$\varnothing 1$	$\varnothing 2$	$\varnothing 3$	$\varnothing 4$	$\varnothing 5$	$\varnothing 6$					$\varnothing 16$	$\varnothing 20$
	0,030	0,100	0,160	0,180	0,220	0,240	0,300	0,370	0,400	0,450	0,480	0,500
Velocità di taglio 20/40 mt/min												

Assortimento completo consultabile nel catalogo generale nr. **18**
oppure sul sito www.fanar.eu

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022

MASCHI A MACCHINA | FILIERE | TAMPONI

