The Right Tool at the Right Time

DORMER



High Performance Multi-Material Application Taps

to DIN, DIN/ANSI and ISO standards

spectrum™

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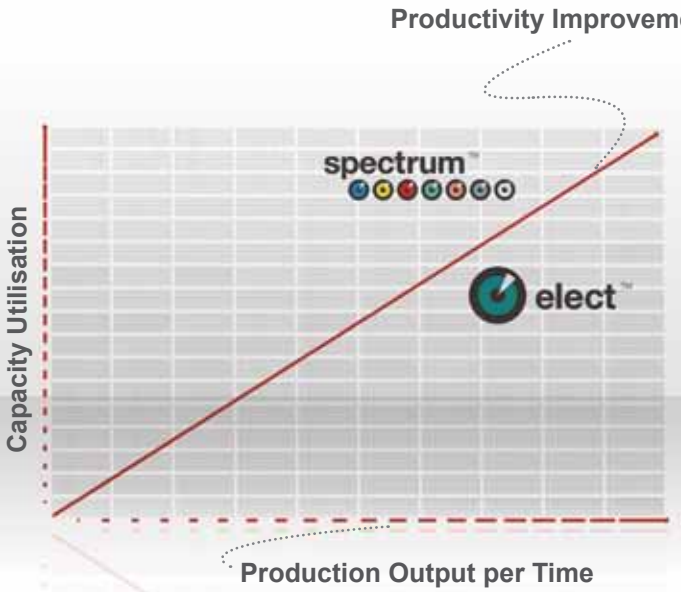
Your Productivity *Our Vision*

At Dormer, we understand that each customer is different. One customer's priority may be to maximise capacity utilisation, whilst another's may be to increase production output per time.

To help our customers choose the tool that best meets their requirements, Dormer classifies its rotary tooling ranges under one of the following two productivity classes:





elect™

spectrum™

Products carrying the **Elect™** brand identify Dormer's best performing tools for one specific material or application, satisfying the need for high output per time.

In the case of material specific tools, a letter, relating to the **ISO** material classifications, will be added to the brand mark to denote material suitability e.g. **Elect P™** denotes that this is a top performing tool for steel. In the case of application specific tools (e.g. deep hole drills or thread milling cutters) the term "APP" will be used to form the brand mark **Elect APP™**.

Tools carrying the **Spectrum™** brand indicate excellent productivity over a multitude of materials, providing high capacity utilisation and versatility.

The brand mark incorporates a visual reference to every **ISO** material colour code, denoting that these products are suitable for a range of applications or material types.

Features&*Benefits*

Spectrum™ Cutting Taps

Material
Manufactured from HSS-XS1 premium quality vanadium powder steel and HSCo for superior toughness and edge strength, to give a high resistance to wear and long tool life.

Surface Treatment
Special gold finish with bright flutes/thread, or steam tempering (blue) guarantee a smooth cutting action with less build up on the cutting edge. TiAlN-Top treatment on E615 & E616 long reach taps gives high toughness.

Flute Geometry
Available in spiral point for through holes and spiral flute for blind holes with 45° spiral angle. The three radii profile, with a constant rake angle all along the flute, is specially designed to give an optimum performance and chip evacuation in materials being threaded.

Thread Depth
Threading to depths of up to 3 x Diameter.

Thread Form
Available in Metric, Metric Fine, UNC, UNF, G and NPT thread forms.

Tool Holding
These tap ranges have been designed for use with a high quality floating tool holder. For synchronous tapping on CNC machines with a rigid tapping cycle, Dormer SynchroFlex® tool holders are recommended for a precisely defined minimum compensation in order to maximise machine performance. This is particularly important for larger sizes of spiral flute taps.

Standard
Available in a choice of DIN or ISO standard. E735 NPT have ANSI shank and square with DIN overall length.

Short Thread Length
The short thread length means low torque and better chip evacuation.



SynchroFlex® is a registered trademark of Tapmatic Corp., USA

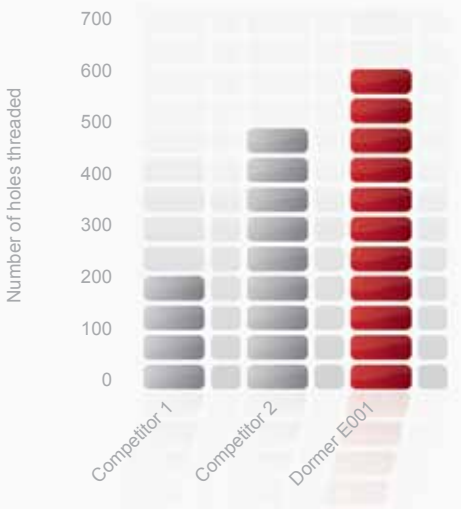
Customer*Benefits*

Spectrum™ Cutting Taps

- High performance and productivity in a wide range of materials for blind and through holes.
- Increased tool life as a result of an optimum combination of material and geometry, which gives low material adhesion.
- Narrow, regular chips and adequate flute space mean negligible chip congestion and therefore a continuous production process.
- Threading depths up to 3 x Ø.
- Long reach taps (E615 & E616) designed with long overall length and short thread length for maximum reach and efficient chip evacuation.
- Available to DIN, DIN/ANSI or ISO standard and in thread forms M, MF, UNC, UNF, G and NPT.

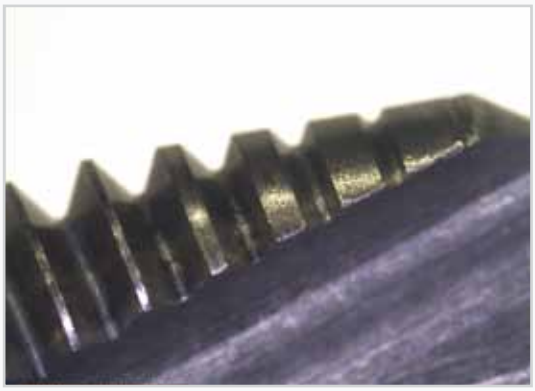
Test*Results*

Tool Life comparison, Dormer Spectrum™ E001 spiral point tap v competitor taps



The graph compares the tool life achieved (number of holes threaded) of each tap, threading through holes. At a cutting speed of 10m/min and to a depth of 1.5 x Ø, the Dormer Spectrum™ E001 spiral point tap threaded 28% more holes than its nearest competitor in 41CrMo4/SS2244 (AMG 1.5) Alloy Steel material.

Dormer Spectrum™ spiral point tap, EP01
Industry segment: Small part machining, European customer
Target: To increase tool life
Machine: CNC milling machine
Material: AMG 2.2, 304L
Dimension: M6
Threading depth: 12 mm
Drill diameter: 5 mm
Coolant: Emulsion 6%
Holder: Rigid tap holder
Hole type: Through holes
Cutting speed: 8m/min



Condition of the cutting edge of Dormer Spectrum™ EP01 after 400 threaded holes

Results
The cutting conditions used for the Dormer Spectrum™ EP01 and the competitor tap were identical. However, a tool life of 100 threaded holes was achieved with the competitor tap. After 400 threaded holes with the Dormer Spectrum™ EP01, tool life was still not reached.

Features&*Benefits*

Spectrum™ Forming Taps

Material
Manufactured from HSS-XS1 premium quality vanadium powder steel and HSCo for superior toughness and edge strength, to give a high resistance to wear and long tool life. The Solid Carbide substrate on T115 and T116 allows these taps to be operated at higher cutting speeds for increased productivity.

Surface Treatment
Titanium Nitride (TiN) coating reduces friction resulting in longer tool life; Chromium Nitride (CrN), with its lower tendency to built up edge, is ideal for softer steel and aluminium alloys. A bright finish option is also available.

Titanium Carbo Nitride (TiCN), with its properties of excellent wear resistance, complements the Solid Carbide substrate on the T115 and T116.

Geometry
The thread profile generates only low torque and gives a smooth surface on the finished thread and a long tool life. Oil grooves on the E096 and E308 facilitate the flow of coolant to the machining area, whilst internal coolant option on the E099 and E315 further increases tool life.

Threading Depth
Threading to depths of up to 3.5 x Diameter.

Thread Form
Available in Metric, Metric Fine, UNC, UNF and EGM thread forms.

Tool Holding
These tap ranges have been designed for use with a high quality floating tool holder. Dormer SynchroFlex® tool holders further ensure a precisely defined minimum compensation so that maximum performance of CNC machines can be fully exploited.

Standard
Available in a choice of DIN or ISO standard.







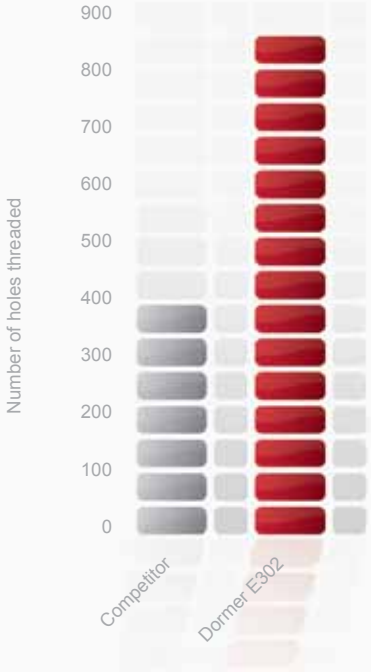
Customer*Benefits*

Spectrum™ Forming Taps

- High performance and productivity in a wide range of materials – same tap for threading both blind and through holes.
- Chip-free operation with strong thread for long tool life.
- Smooth surface finish in threaded hole.
- Highly stable design for a lower risk of tap breakage.
- Threading depths up to 3.5 x Ø.
- Forming tap options with internal coolant or oil grooves facilitate coolant flow to the machining area, for increased tool life.
- Also available in Solid Carbide, with or without internal coolant (T115 & T116), for applications where higher productivity is required.
- Available to DIN or ISO standard and in thread forms M, MF, UNC, UNF and EGM.

Test*Results*

Tool Life comparison, Dormer Spectrum™ E302 forming tap v competitor tap



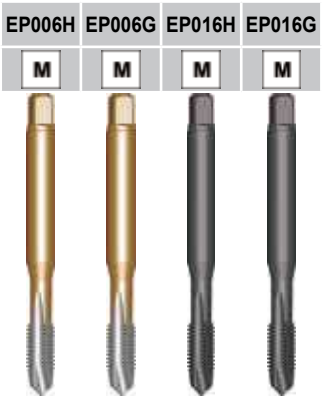
The graph shows that the Dormer Spectrum™ E302 TiN coated tap achieved in excess of double the number of holes threaded by a competitor's equivalent tap in AMG 1.2 Fe37, threading at 2 x Ø at a cutting speed of 33 metres per minute.

Application *MaterialGroups*

- ■ Excellent for Application
- ● Good for Application

(see pages 16 - 82)

Example
25 = Peripheral speed, metres/min. +/- 10%



Application Material Groups (AMG)		Hardness HB	Tensile Strength N/mm²	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376
				6H	6G	6H	6G
				2.5xD	2.5xD	2.5xD	2.5xD
				Gold	Gold	ST	ST
				HSS XS1	HSS XS1	HSS XS1	HSS XS1
				B 3.5 - 5	B 3.5 - 5	B 3.5 - 5	B 3.5 - 5
				M2 - M30	M3 - M20	M2 - M30	M3 - M20
				NEW 2010.02	NEW 2010.02	NEW 2010.02	NEW 2010.02
				16	17	18	19
1.Steel	1.1 Magnetic soft steel	<120	<400	25	25	25	25
	1.2 Structural Steel / case carburising steel	<200	<700	22	22	22	22
	1.3 Plain Carbon steel	<250	<850	18	18	18	18
	1.4 Alloy steel	<250	<850	16	16	16	16
	1.5 Alloy steel/ Hardened and tempered steel	>250 <350	>850 <1200	10	10	10	10
	1.6 Alloy steel/ Hardened and tempered steel	>350	>1200 <1620	5	5	5	5
	1.7 Alloy steel Hardened	49-55HRC	>1620				
	1.8 Alloy steel Hardened	55-63HRC	<1960				
2. Stainless Steel	2.1 Free machining Stainless Steel	<250	<850			7	7
	2.2 Austenitic	<320	<1100			6	6
	2.3 Ferritic + Austenitic, Martensitic	<300	<1000			4	4
	2.4 Precipitation Hardened	>320 <410	>1100 <1400				
3. Cast Iron	3.1 Lamellar graphite	<150	<500	15	15	15	15
	3.2 Lamellar graphite	>150 <300	>500 <1000	8	8	8	8
	3.3 Nodular graphite/ Malleable Cast Iron	<200	<700	15	15	15	15
	3.4 Nodular graphite/ Malleable Cast Iron	>200 <300	>700 <1000	8	8	8	8
4. Titanium	4.1 Titanium, unalloyed	<200	<700	10	10		
	4.2 Titanium, alloyed	<270	<900	5	5		
	4.3 Titanium, alloyed	>270 <350	>900 <1250				
5. Nickel	5.1 Nickel, unalloyed	<150	<500	12	12		
	5.2 Nickel, alloyed	<270	<900	5	5		
	5.3 Nickel, alloyed	>270 <350	>900 <1200				
6. Copper	6.1 Copper	<100	<350	12	12		
	6.2 ß-Brass, Bronze	<200	<700	30	30		
	6.3 α-Brass	<200	<700	20	20		
	6.4 High Strength Bronze	<470	<1500				
7.Aluminium Magnesium	7.1 Al, Mg, unalloyed	<100	<350	16	16		
	7.2 Al alloyed, Si<0.5%	<150	<500	35	35		
	7.3 Al alloyed, Si>0.5%<10%	<120	<400	20	20		
	7.4 Al alloyed, Si>10% Whisker reinforced Al-alloys, Mg alloys	<120	<400	15	15		
8.Synthetic Materials	8.1 Thermoplastics	---	---	30	30		
	8.2 Thermosetting plastics	---	---				
	8.3 Reinforced plastic materials	---	---				
9. Hard Materials	9.1 Cermets (Metal-ceramics)	<550	<1700				
10.Graphite	10.1 Standard graphite	---	<100				

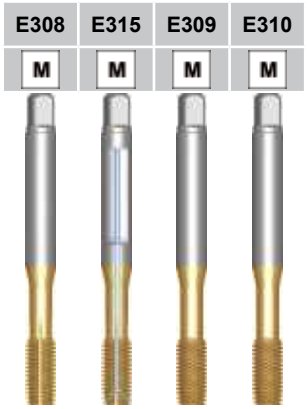
E616	EX006H	EX006G	EX016H	EX016G	E195	E245	E615	E000	E001	E002	E003	E301	E302	E305	E306		
M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M		
																	
DIN 371x10 376x12	DIN 371x10 376x12	DIN 371x10 376x12	DIN 371x10 376x12	DIN 371x10 376x12	DIN 371	DIN 376	DIN 371x10 376x12	ISO 529	ISO 529	ISO 529	ISO 529	DIN 2174	DIN 2174	DIN 2174	DIN 2174		
6H	6H	6G	6H	6G	6H	6H	6H	6H	6H	6H	6H	6HX	6HX	6HX	6HX		
3xD	2.5xD	2.5xD	2.5xD	2.5xD	2.5xD	2.5xD	3xD	2.5xD	2.5xD	2.5xD	2.5xD	3xD	3xD	3xD	3xD		
TiAlN Top	Gold	Gold	ST	ST			TiAlN Top	Gold	ST	Gold	ST		TiN	TiN	CrN		
HSCo	HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSCo	HSCo	HSCo	HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSCo	HSCo	HSCo	HSCo		
B 3.5 - 5	C 2 - 3	C 2 - 3	C 2 - 3	C 2 - 3	C 2 - 3	C 2 - 3	C 2 - 3	B 3.5 - 5	B 3.5 - 5	C 2 - 3	C 2 - 3	C 2 - 3.5	C 2 - 3.5	E 1.5 - 2	C 2 - 3.5		
M3 - M20	M2 - M64	M3 - M20	M2 - M64	M3 - M20	M4 - M10	M12 - M24	M3 - M20	M1.6 - M24	M1.6 - M24	M2 - M24	M2 - M24	M1 - M24	M1 - M24	M3 - M10	M3 - M12		
NEW 2008.09	NEW 2010.02	NEW 2010.02	NEW 2010.02	NEW 2010.02			NEW 2008.09										
20	**21**	**22**	**23**	**24**	**25**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**AMG**	**ISO**
38	25	25	25	25	22	22	38	25	25	25	25	30	55	55	55	1.1	P
38	22	22	22	22	20	20	38	22	22	22	22	27	50	50	50	1.2	P
30	18	18	18	18	16	16	30	18	18	18	18	23	45	45	45	1.3	P
28	16	16	16	16	12	12	28	16	16	16	16	20	40	40	40	1.4	P
15	10	10	10	10	7	7	15	10	10	10	10		20	20		1.5	P
10							10	5	5							1.6	P
																1.7	H
																1.8	H
7			7	7			7		7		7		18	18	18	2.1	M
6			6	6			6		6		6		15	15	15	2.2	M
5			4	4			5		4		4		10	10		2.3	M
																2.4	M
20							20	15	15							3.1	K
16							16	8	8							3.2	K
24							24	15	15							3.3	K
16							16	8	8							3.4	K
	10	10						10		10			35	35	35	4.1	S
7	5	5					7	5		5						4.2	S
																4.3	S
	12	12						12		12			20	20	20	5.1	S
7	5	5					7	5		5			8	8	8	5.2	S
																5.3	S
18							18	12					25	25	25	6.1	N
45							45	30								6.2	N
35							35	20					40	40	40	6.3	N
																6.4	N
28	16	16					28	16		16		22	40	40	40	7.1	N
	35	35						35		35		38	55	55	55	7.2	N
	20	20						20		20		22	40	40	40	7.3	N
	15	15						15		15			25	25	25	7.4	N
								30								8.1	O
																8.2	O
																8.3	O
																9.1	H
																10.1	O

Application *MaterialGroups*

- ■ Excellent for Application
- ● Good for Application

(see pages 16 - 82)

Example
55 = Peripheral speed, metres/min. +/- 10%



Application Material Groups (AMG)		Hardness HB	Tensile Strength N/mm²	E308	E315	E309	E310
				DIN 2174	DIN 2174	DIN 2174	DIN 2174
				6HX	6HX	6GX	6GX
				3.5xD	3.5xD	3xD	3xD
				TiN	TiN	TiN	TiN
				HSCo	HSCo	HSCo	HSCo
				C 2 - 3.5	C 2 - 3.5	C 2 - 3.5	E 1.5 - 2
				M3 - M24	M5 - M12	M3 - M12	M3 - M10
				35	36	36	37
1.Steel	1.1 Magnetic soft steel	<120	<400	55	55	55	55
	1.2 Structural Steel / case carburising steel	<200	<700	50	50	50	50
	1.3 Plain Carbon steel	<250	<850	45	45	45	45
	1.4 Alloy steel	<250	<850	40	40	40	40
	1.5 Alloy steel/ Hardened and tempered steel	>250 <350	>850 <1200	20	20	20	20
	1.6 Alloy steel/ Hardened and tempered steel	>350	>1200 <1620				
	1.7 Alloy steel Hardened	49-55HRC	>1620				
	1.8 Alloy steel Hardened	55-63HRC	<1960				
2. Stainless Steel	2.1 Free machining Stainless Steel	<250	<850	18	18	18	18
	2.2 Austenitic	<320	<1100	15	15	15	15
	2.3 Ferritic + Austenitic, Martensitic	<300	<1000	10	10	10	10
	2.4 Precipitation Hardened	>320 <410	>1100 <1400				
3. Cast Iron	3.1 Lamellar graphite	<150	<500				
	3.2 Lamellar graphite	>150 <300	>500 <1000				
	3.3 Nodular graphite/ Malleable Cast Iron	<200	<700				
	3.4 Nodular graphite/ Malleable Cast Iron	>200 <300	>700 <1000				
4. Titanium	4.1 Titanium, unalloyed	<200	<700	35	35	35	35
	4.2 Titanium, alloyed	<270	<900				
	4.3 Titanium, alloyed	>270 <350	>900 <1250				
5. Nickel	5.1 Nickel, unalloyed	<150	<500	20	20	20	20
	5.2 Nickel, alloyed	<270	<900	8	8	8	8
	5.3 Nickel, alloyed	>270 <350	>900 <1200				
6. Copper	6.1 Copper	<100	<350	25	25	25	25
	6.2 ß-Brass, Bronze	<200	<700				
	6.3 α-Brass	<200	<700	40	40	40	40
	6.4 High Strength Bronze	<470	<1500				
7.Aluminium Magnesium	7.1 Al, Mg, unalloyed	<100	<350	40	40	40	40
	7.2 Al alloyed, Si<0.5%	<150	<500	55	55	55	55
	7.3 Al alloyed, Si>0.5%<10%	<120	<400	40	40	40	40
	7.4 Al alloyed, Si>10% Whisker reinforced Al-alloys, Mg alloys	<120	<400	25	25	25	25
8.Synthetic Materials	8.1 Thermoplastics	---	---				
	8.2 Thermosetting plastics	---	---				
	8.3 Reinforced plastic materials	---	---				
9. Hard Materials	9.1 Cermets (Metal-ceramics)	<550	<1700				
10.Graphite	10.1 Standard graphite	---	<100				

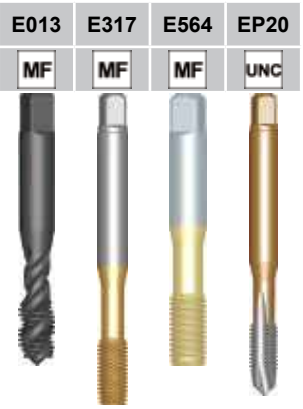
E323	T115	T116	E090	E097	E091	E098	E096	E099	EP10	EP11	EX10	EX11	E010	E011	E012		
EGM	M	M	M	M	M	M	M	M	MF	MF	MF	MF	MF	MF	MF		
																	
DIN 40435	DIN 2174	DIN 2174	ISO 529	ISO 529	ISO 529	ISO 529	ISO 529	ISO 529	DIN 374	DIN 374	DIN 374	DIN 374	ISO 529	ISO 529	ISO 529		
6H mod.	6HX	6HX	6HX	6HX	6HX	6HX	6HX	6HX	6H	6H	6H	6H	6H	6H	6H		
3xD	3xD	3xD	2.5xD	2.5xD	2.5xD	2.5xD	2.5xD	3xD	2.5xD	2.5xD	2.5xD	2.5xD	2.5xD	2.5xD	2.5xD		
TiN	TiCN	TiCN	Gold	CrN	TiN	TiN	TiN	TiN	Gold	ST	Gold	ST	Gold	ST	Gold		
HSCo	HM	HM	HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSS XS1		
C 2 - 3.5	C 2 - 3	C 2 - 3	C 2 - 3	C 2 - 3	C 2 - 3	E 1.5 - 2	C 2 - 3	C 2 - 3	B 3.5 - 5	B 3.5 - 5	C 2 - 3	C 2 - 3	B 3.5 - 5	B 3.5 - 5	C 2 - 3		
M3 - M12	M3 - M10	M5 - M12	M2 - M16	M2 - M16	M2 - M16	M3 - M10	M3 - M16	M4 - M16	M4 - M30	M4 - M30	M4 - M30	M4 - M30	M4 - M24	M4 - M24	M4 - M22		
									NEW 2010.09	NEW 2010.09	NEW 2010.09	NEW 2010.09					
37	38	38	39	40	41	42	43	44	45	46	47	48	49	50	51	AMG	ISO
55	60	60	30	55	55	55	55	55	25	25	25	25	25	25	25	1.1	P
50	60	60	27	50	50	50	50	50	22	22	22	22	22	22	22	1.2	P
45	60	60	23	45	45	45	45	45	18	18	18	18	18	18	18	1.3	P
40	40	40	20	40	40	40	40	40	16	16	16	16	16	16	16	1.4	P
20	30	30			20	20	20	20	10	10	10	10	10	10	10	1.5	P
									5	5			5	5		1.6	P
																1.7	H
																1.8	H
18	25	25		18	18	18	18	18		7		7		7		2.1	M
15	25	25		15	15	15	15	15		6		6		6		2.2	M
10	25	25			10	10	10	10		4		4		4		2.3	M
	25	25														2.4	M
									15	15			15	15		3.1	K
									8	8			8	8		3.2	K
									15	15			15	15		3.3	K
									8	8			8	8		3.4	K
35				35	35	35	35	35	10		10		10		10	4.1	S
									5		5		5		5	4.2	S
																4.3	S
20	35	35		20	20	20	20	20	12		12		12		12	5.1	S
8	15	15		8	8	8	8	8	5		5		5		5	5.2	S
																5.3	S
25	40	40		25	25	25	25	25	12				12			6.1	N
									30				30			6.2	N
40	81	81		40	40	40	40	40	20				20			6.3	N
																6.4	N
40	70	70	22	40	40	40	40	40	16		16		16		16	7.1	N
55	80	80	38	55	55	55	55	55	35		35		35		35	7.2	N
40	80	80	22	40	40	40	40	40	20		20		20		20	7.3	N
25				25	25	25	25	25	15		15		15		15	7.4	N
									30				30		30	8.1	O
																8.2	O
																8.3	O
																9.1	H
																10.1	O

Application *MaterialGroups*

- ■ Excellent for Application
- ● Good for Application

(see pages 16 - 82)

Example
25 = Peripheral speed, metres/min. +/- 10%



Application Material Groups (AMG)		Hardness HB	Tensile Strength N/mm²	E013	E317	E564	EP20
				ISO 529	DIN 2174	ISO 529	DIN 2184-1
				6H	6HX	6HX	2B
				2.5xD	3xD	2.5xD	2.5xD
				ST	TiN	TiN	Gold
				HSS XS1	HSCo	HSCo	HSS XS1
				C 2 - 3	C 2 - 3.5	C 2 - 3	B 3.5 - 5
				M4 - M22	M5 - M10	M4 - M16	No.4 - 1“
							NEW 2010.09
				52	53	54	55
1.Steel	1.1 Magnetic soft steel	<120	<400	25	55	55	25
	1.2 Structural Steel / case carburising steel	<200	<700	22	50	50	22
	1.3 Plain Carbon steel	<250	<850	18	45	45	18
	1.4 Alloy steel	<250	<850	16	40	40	16
	1.5 Alloy steel/ Hardened and tempered steel	>250 <350	>850 <1200	10	20	20	10
	1.6 Alloy steel/ Hardened and tempered steel	>350	>1200 <1620				5
	1.7 Alloy steel Hardened	49-55HRC	>1620				
	1.8 Alloy steel Hardened	55-63HRC	<1960				
2. Stainless Steel	2.1 Free machining Stainless Steel	<250	<850	7	18	18	
	2.2 Austenitic	<320	<1100	6	15	15	
	2.3 Ferritic + Austenitic, Martensitic	<300	<1000	4	10	10	
	2.4 Precipitation Hardened	>320 <410	>1100 <1400				
3. Cast Iron	3.1 Lamellar graphite	<150	<500				15
	3.2 Lamellar graphite	>150 <300	>500 <1000				8
	3.3 Nodular graphite/ Malleable Cast Iron	<200	<700				15
	3.4 Nodular graphite/ Malleable Cast Iron	>200 <300	>700 <1000				8
4. Titanium	4.1 Titanium, unalloyed	<200	<700		35	35	10
	4.2 Titanium, alloyed	<270	<900				5
	4.3 Titanium, alloyed	>270 <350	>900 <1250				
5. Nickel	5.1 Nickel, unalloyed	<150	<500		20	20	12
	5.2 Nickel, alloyed	<270	<900		8	8	5
	5.3 Nickel, alloyed	>270 <350	>900 <1200				
6. Copper	6.1 Copper	<100	<350		25	25	12
	6.2 ß-Brass, Bronze	<200	<700				30
	6.3 α-Brass	<200	<700		40	40	20
	6.4 High Strength Bronze	<470	<1500				
7.Aluminium Magnesium	7.1 Al, Mg, unalloyed	<100	<350		40	40	16
	7.2 Al alloyed, Si<0.5%	<150	<500		55	55	35
	7.3 Al alloyed, Si>0.5%<10%	<120	<400		40	40	20
	7.4 Al alloyed, Si>10% Whisker reinforced Al-alloys, Mg alloys	<120	<400		25	25	15
8.Synthetic Materials	8.1 Thermoplastics	---	---				30
	8.2 Thermosetting plastics	---	---				
	8.3 Reinforced plastic materials	---	---				
9. Hard Materials	9.1 Cermets (Metal-ceramics)	<550	<1700				
10.Graphite	10.1 Standard graphite	---	<100				

EP21	EX20	EX21	E020	E021	E022	E023	E523	E596	EP30	EP31	EX30	EX31	E030	E031	E032		
UNC	UNC	UNC	UNC	UNC	UNC	UNC	UNC	UNC	UNF	UNF	UNF	UNF	UNF	UNF	UNF		
																	
DIN 2184-1	DIN 2184-1	DIN 2184-1	ISO 529	ISO 529	ISO 529	ISO 529	ISO 529	ISO 529	DIN 2184-1	DIN 2184-1	DIN 2184-1	DIN 2184-1	ISO 529	ISO 529	ISO 529		
2B	2B	2B	2B	2B	2B	2B	2BX	2BX	2B	2B	2B	2B	2B	2B	2B		
2.5xD	2.5xD	2.5xD	2.5xD	2.5xD	2.5xD	2.5xD	2.5xD	2.5xD	2.5xD	2.5xD	2.5xD	2.5xD	2.5xD	2.5xD	2.5xD		
ST	Gold	ST	Gold	ST	Gold	ST		C-N	Gold	ST	Gold	ST	Gold	ST	Gold		
HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSS	HSS	HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSS XS1		
B 3.5 - 5	C 2 - 3	C 2 - 3	B 3.5 - 5	B 3.5 - 5	C 2 - 3	C 2 - 3	C 2 - 3	C 2 - 3	C 2 - 3	C 2 - 3	C 2 - 3	C 2 - 3	B 3.5 - 5	B 3.5 - 5	C 2 - 3		
No.4 - 1“	No.4 - 1“	No.4 - 1“	No.2 - 1“	No.2 - 1“	No.2 - 1“	No.2 - 1“	No.4 - 3/8	No.4 - 3/8	No.8 - 1“	No.8 - 1“	No.8 - 1“	No.8 - 1“	No.8 - 1“	No.8 - 1“	No.8 - 1“		
NEW 2010.09	NEW 2010.09	NEW 2010.09							NEW 2010.09	NEW 2010.09	NEW 2010.09	NEW 2010.09					
56	**57**	**58**	**59**	**60**	**61**	**62**	**63**	**64**	**65**	**66**	**67**	**68**	**69**	**70**	**71**	**AMG**	**ISO**
25	25	25	25	25	25	25	30	55	25	25	25	25	25	25	25	1.1	P
22	22	22	22	22	22	22	27	50	22	22	22	22	22	22	22	1.2	P
18	18	18	18	18	18	18	23	45	18	18	18	18	18	18	18	1.3	P
16	16	16	16	16	16	16	20	40	16	16	16	16	16	16	16	1.4	P
10	10	10	10	10	10	10			10	10	10	10	10	10	10	1.5	P
5			5	5					5	5			5	5	5	1.6	P
																1.7	H
																1.8	H
7		7		7		7		18		7		7		7		2.1	M
6		6		6		6		15		6		6		6		2.2	M
4		4		4		4				4		4		4		2.3	M
																2.4	M
15			15	15					15	15			15	15		3.1	K
8			8	8					8	8			8	8		3.2	K
15			15	15					15	15			15	15		3.3	K
8			8	8					8	8			8	8		3.4	K
	10		10		10			35	10		10		10		10	4.1	S
	5		5		5				5		5		5		5	4.2	S
																4.3	S
	12		12		12			20	12		12		12		12	5.1	S
	5		5		5			8	5		5		5		5	5.2	S
																5.3	S
			12		12			25	12				12			6.1	N
			30		30				30				30			6.2	N
			20		20			40	20				20			6.3	N
																6.4	N
	16		16		16		22	40	16		16		16		16	7.1	N
	35		35		35		38	55	35		35		35		35	7.2	N
	20		20		20		22	40	20		20		20		20	7.3	N
	15		15		15			25	15		15		15		15	7.4	N
			30		30				30				30		30	8.1	O
																8.2	O
																8.3	O
																9.1	H
																10.1	O

Application *MaterialGroups*

- ■ Excellent for Application
- ● Good for Application

(see pages 16 - 82)

Example
25 = Peripheral speed, metres/min. +/- 10%

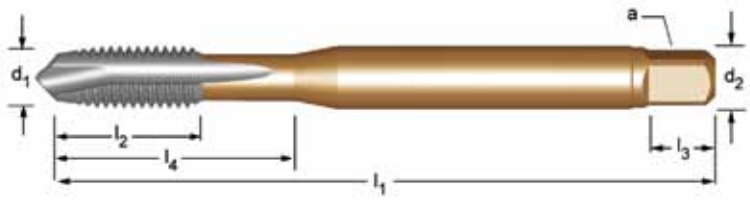


Application Material Groups (AMG)		Hardness HB	Tensile Strength N/mm²	E033	E530	EP40	EP41
				ISO 529	ISO 529	DIN 5156	DIN 5156
				2B	2BX	NORMAL	NORMAL
				2.5xD	2.5xD	2.5xD	2.5xD
				ST		Gold	ST
				HSS XS1	HSS	HSCo	HSCo
				C 2 - 3	C 2 - 3	B 3.5 - 5	B 3.5 - 5
				No.8 - 1“	No.10 - No.8	1/8 - 1“	1/8 - 1“
						NEW 2010.09	NEW 2010.09
				72	73	74	75
1.Steel	1.1 Magnetic soft steel	<120	<400	25	30	25	25
	1.2 Structural Steel / case carburising steel	<200	<700	22	27	22	22
	1.3 Plain Carbon steel	<250	<850	18	23	18	18
	1.4 Alloy steel	<250	<850	16	20	16	16
	1.5 Alloy steel/ Hardened and tempered steel	>250 <350	>850 <1200	10		10	10
	1.6 Alloy steel/ Hardened and tempered steel	>350	>1200 <1620	5		5	5
	1.7 Alloy steel Hardened	49-55HRC	>1620				
	1.8 Alloy steel Hardened	55-63HRC	<1960				
2. Stainless Steel	2.1 Free machining Stainless Steel	<250	<850	7			7
	2.2 Austenitic	<320	<1100	6			6
	2.3 Ferritic + Austenitic, Martensitic	<300	<1000	4			4
	2.4 Precipitation Hardened	>320 <410	>1100 <1400				
3. Cast Iron	3.1 Lamellar graphite	<150	<500			15	15
	3.2 Lamellar graphite	>150 <300	>500 <1000			8	8
	3.3 Nodular graphite/ Malleable Cast Iron	<200	<700			15	15
	3.4 Nodular graphite/ Malleable Cast Iron	>200 <300	>700 <1000			8	8
4. Titanium	4.1 Titanium, unalloyed	<200	<700			10	
	4.2 Titanium, alloyed	<270	<900			5	
	4.3 Titanium, alloyed	>270 <350	>900 <1250				
5. Nickel	5.1 Nickel, unalloyed	<150	<500			12	
	5.2 Nickel, alloyed	<270	<900			5	
	5.3 Nickel, alloyed	>270 <350	>900 <1200				
6. Copper	6.1 Copper	<100	<350			12	
	6.2 ß-Brass, Bronze	<200	<700			30	
	6.3 α-Brass	<200	<700			20	
	6.4 High Strength Bronze	<470	<1500				
7.Aluminium Magnesium	7.1 Al, Mg, unalloyed	<100	<350		22	16	
	7.2 Al alloyed, Si<0.5%	<150	<500		38	35	
	7.3 Al alloyed, Si>0.5%<10%	<120	<400		22	20	
	7.4 Al alloyed, Si>10% Whisker reinforced Al-alloys, Mg alloys	<120	<400			15	
8.Synthetic Materials	8.1 Thermoplastics	---	---			30	
	8.2 Thermosetting plastics	---	---				
	8.3 Reinforced plastic materials	---	---				
9. Hard Materials	9.1 Cermets (Metal-ceramics)	<550	<1700				
10.Graphite	10.1 Standard graphite	---	<100				

EX40	EX41	E040	E041	E042	E043	E735		
G	G	G	G	G	G	NPT		
								
DIN 5156	DIN 5156	ISO	ISO	ISO	ISO	DIN ANSI		
NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL		
2.5xD	2.5xD	2.5xD	2.5xD	2.5xD	2.5xD	1.5xD		
Gold	ST	Gold	ST	Gold	ST	ST		
HSCo	HSCo	HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSCo		
C 2 - 3	C 2 - 3	B 3.5 - 5	B 3.5 - 5	C 2 - 3	C 2 - 3	C 2 - 3		
1/8 - 1.1/2	1/8 - 1.1/2	1/8 - 3/4	1/8 - 3/4	1/8 - 3/4	1/8 - 3/4	1/16 - 1"		
NEW 2010.09	NEW 2010.09							
76	**77**	**78**	**79**	**80**	**81**	**82**	**AMG**	**ISO**
25	25	25	25	25	25		1.1	P
22	22	22	22	22	22		1.2	P
18	18	18	18	18	18		1.3	P
16	16	16	16	16	16	6	1.4	P
10	10	10	10	10	10	4	1.5	P
	5	5	5		5	3	1.6	P
							1.7	H
							1.8	H
	7		7		7		2.1	M
	6		6		6		2.2	M
	4		4		4		2.3	M
						3	2.4	M
		15	15			9	3.1	K
		8	8			4	3.2	K
		15	15				3.3	K
		8	8				3.4	K
10		10		10			4.1	S
5		5		5		3	4.2	S
						3	4.3	S
12		12		12			5.1	S
5		5		5		3	5.2	S
						3	5.3	S
		12					6.1	N
		30				15	6.2	N
		20				11	6.3	N
						4	6.4	N
16		16		16			7.1	N
35		35		35			7.2	N
20		20		20		16	7.3	N
15		15		15		12	7.4	N
30		30		30			8.1	O
							8.2	O
							8.3	O
							9.1	H
							10.1	O

EP006H

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



NEW
2010.02

spectrum™

DIN

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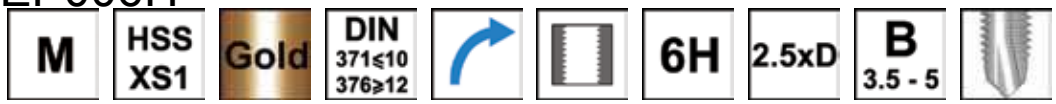

■ 1.1 1.2 1.3 1.4 1.5 6.1 6.3 7.1 7.2 7.3 7.4

● 1.6 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.2 8.1

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code	
2	0.40	50	6	2.8	2.1	5	3	1.6	9	**EP00M2**	1)
2.5	0.45	50	8	2.8	2.1	5	3	2.1	12.5	**EP00M2.5**	1)
3	0.50	56	9	3.5	2.7	6	3	2.5	18	**EP00M3**	
3	0.50	56	10	2.2	1.8	4	3	2.5		**EP00M3DIN376**	
3.5	0.60	56	11	4.0	3.0	6	3	2.9	20	**EP00M3.5**	
4	0.70	63	12	4.5	3.4	6	3	3.3	21	**EP00M4**	
4	0.70	63	12	2.8	2.1	5	3	3.3		**EP00M4DIN376**	
4.5	0.75	70	13	6.0	4.9	8	3	3.8	25	**EP00M4.5**	
5	0.80	70	13	6.0	4.9	8	3	4.2	25	**EP00M5**	
5	0.80	70	13	3.5	2.7	6	3	4.2		**EP00M5DIN376**	
6	1.00	80	15	6.0	4.9	8	3	5	30	**EP00M6**	
6	1.00	80	15	4.5	3.4	6	3	5		**EP00M6DIN376**	
7	1.00	80	15	7.0	5.5	8	3	6	30	**EP00M7**	
8	1.25	90	18	8.0	6.2	9	3	6.8	35	**EP00M8**	
8	1.25	90	18	6.0	4.9	8	3	6.8		**EP00M8DIN376**	
10	1.50	100	20	10.0	8.0	11	3	8.5	39	**EP00M10**	
10	1.50	100	20	7.0	5.5	8	3	8.5		**EP00M10DIN376**	
12	1.75	110	23	9.0	7.0	10	3	10.3		**EP00M12**	
14	2.00	110	25	11.0	9.0	12	3	12		**EP00M14**	
16	2.00	110	25	12.0	9.0	12	3	14		**EP00M16**	
18	2.50	125	30	14.0	11.0	14	4	15.5		**EP00M18**	1)
20	2.50	140	30	16.0	12.0	15	4	17.5		**EP00M20**	1)
22	2.50	140	34	18.0	14.5	17	4	19.5		**EP00M22**	1)
24	3.00	160	38	18.0	14.5	17	4	21		**EP00M24**	1)
27	3.00	160	38	20.0	16.0	19	4	24		**EP00M27**	1)
30	3.50	180	45	22.0	18.0	21	4	26.5		**EP00M30**	1)

1) HSCo

EP006G

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
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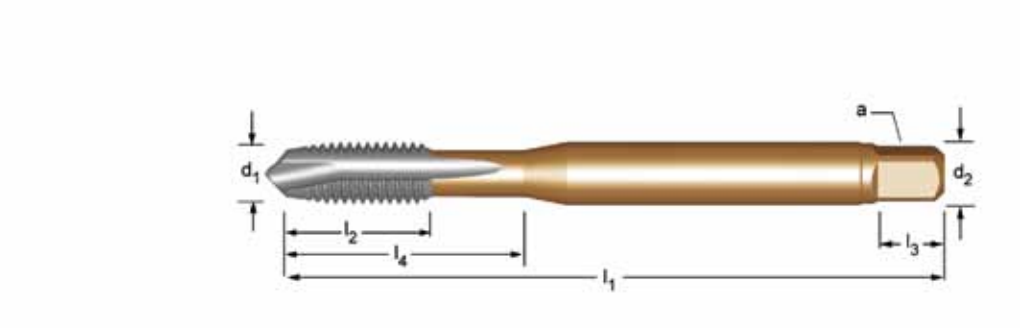
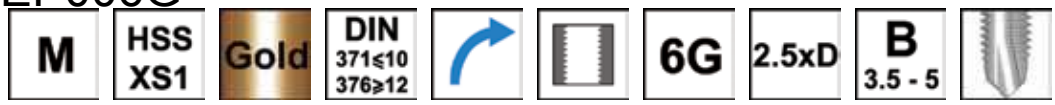


NEW
2010.02

spectrum™

DIN

EP006G



■ 1.1 1.2 1.3 1.4 1.5 6.1 6.3 7.1 7.2 7.3 7.4

● 1.6 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.2 8.1

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
3	0.50	56	9	3.5	2.7	6	3	2.5	18	**EP00M36G**
4	0.70	63	12	4.5	3.4	6	3	3.3	21	**EP00M46G**
5	0.80	70	13	6.0	4.9	8	3	4.2	25	**EP00M56G**
6	1.00	80	15	6.0	4.9	8	3	5	30	**EP00M66G**
8	1.25	90	18	8.0	6.2	9	3	6.8	35	**EP00M86G**
10	1.50	100	20	10.0	8.0	11	3	8.5	39	**EP00M106G**
12	1.75	110	23	9.0	7.0	10	3	10.3		**EP00M126G**
16	2.00	110	25	12.0	9.0	12	3	14		**EP00M166G**
20	2.50	140	30	16.0	12.0	15	4	17.5		**EP00M206G** [1]

[1] HSCo

EP016H

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™

NEW
2010.02

spectrum™

DIN



EP016H

M | HSS XS1 | ST | DIN 371≤10 376≥12 | 6H | 2.5xD | B 3.5 - 5

■ 1.1 1.2 1.3 1.4 1.5 2.1 2.2

● 1.6 2.3 3.1 3.2 3.3 3.4

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code	
2	0.40	50	6	2.8	2.1	5	3	1.6	9	**EP01M2**	1)
2.5	0.45	50	8	2.8	2.1	5	3	2.1	12.5	**EP01M2.5**	1)
3	0.50	56	9	3.5	2.7	6	3	2.5	18	**EP01M3**	
3	0.50	56	10	2.2	1.8	4	3	2.5		**EP01M3DIN376**	
3.5	0.60	56	11	4.0	3.0	6	3	2.9	20	**EP01M3.5**	
4	0.70	63	12	4.5	3.4	6	3	3.3	21	**EP01M4**	
4	0.70	63	12	2.8	2.1	5	3	3.3		**EP01M4DIN376**	
4.5	0.75	70	13	6.0	4.9	8	3	3.8	25	**EP01M4.5**	
5	0.80	70	13	6.0	4.9	8	3	4.2	25	**EP01M5**	
5	0.80	70	13	3.5	2.7	6	3	4.2		**EP01M5DIN376**	
6	1.00	80	15	6.0	4.9	8	3	5	30	**EP01M6**	
6	1.00	80	15	4.5	3.4	6	3	5		**EP01M6DIN376**	
7	1.00	80	15	7.0	5.5	8	3	6	30	**EP01M7**	
8	1.25	90	18	8.0	6.2	9	3	6.8	35	**EP01M8**	
8	1.25	90	18	6.0	4.9	8	3	6.8		**EP01M8DIN376**	
10	1.50	100	20	10.0	8.0	11	3	8.5	39	**EP01M10**	
10	1.50	100	20	7.0	5.5	8	3	8.5		**EP01M10DIN376**	
12	1.75	110	23	9.0	7.0	10	3	10.3		**EP01M12**	
14	2.00	110	25	11.0	9.0	12	3	12		**EP01M14**	
16	2.00	110	25	12.0	9.0	12	3	14		**EP01M16**	
18	2.50	125	30	14.0	11.0	14	4	15.5		**EP01M18**	1)
20	2.50	140	30	16.0	12.0	15	4	17.5		**EP01M20**	1)
22	2.50	140	34	18.0	14.5	17	4	19.5		**EP01M22**	1)
24	3.00	160	38	18.0	14.5	17	4	21		**EP01M24**	1)
27	3.00	160	38	20.0	16.0	19	4	24		**EP01M27**	1)
30	3.50	180	45	22.0	18.0	21	4	26.5		**EP01M30**	1)

1) HSCo

EP016G

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™

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spectrum™

DIN



EP016G

M | HSS XS1 | ST | DIN 371≤10 376≥12 | | | 6G | 2.5xD | B 3.5 - 5 |

■ 1.1 1.2 1.3 1.4 1.5 2.1 2.2

● 1.6 2.3 3.1 3.2 3.3 3.4

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
3	0.50	56	9	3.5	2.7	6	3	2.5	18	**EP01M36G**
4	0.70	63	12	4.5	3.4	6	3	3.3	21	**EP01M46G**
5	0.80	70	13	6.0	4.9	8	3	4.2	25	**EP01M56G**
6	1.00	80	15	6.0	4.9	8	3	5	30	**EP01M66G**
8	1.25	90	18	8.0	6.2	9	3	6.8	35	**EP01M86G**
10	1.50	100	20	10.0	8.0	11	3	8.5	39	**EP01M106G**
12	1.75	110	23	9.0	7.0	10	3	10.3		**EP01M126G**
16	2.00	110	25	12.0	9.0	12	3	14		**EP01M166G**
20	2.50	140	30	16.0	12.0	15	4	17.5		**EP01M206G** [1]

[1] HSCo

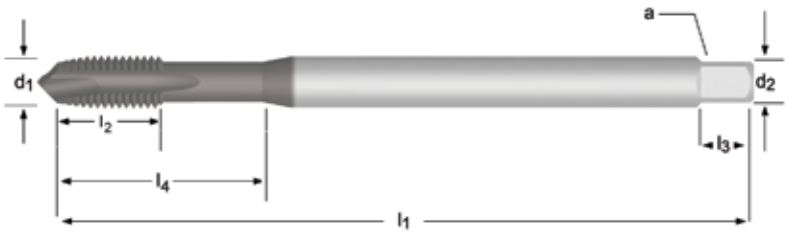
E616

- Machine Tap Spectrum™, Extra Long
- Spectrum™Tarauds machine, Extra Long
- Spectrum™ Maschinen-Gewindebohrer, extra lang
- Spectrum™ Machos de máquina Extra largo
- Spectrum™ Machinetappen, extra lang
- Macho Máquina Spectrum™ Extra Longo

NEW
2008.09

spectrum™

DIN



E616

M | HSCo | TiAlN Top | DIN 371≤10 376≥12 | 6H | 3xD | B 3.5 - 5

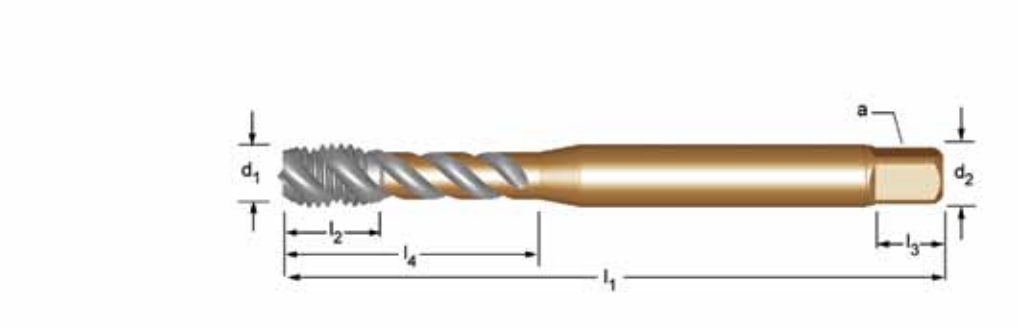
■ 1.1 1.2 1.3 1.4 1.5 6.1 6.3

● 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.2 5.2 6.2 7.1

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
3	0.50	112	9	3.5	2.7	6	3	2.5	18	**E616M3**
4	0.70	112	12	4.5	3.4	6	3	3.3	21	**E616M4**
5	0.80	125	13	6.0	4.9	8	3	4.2	25	**E616M5**
6	1.00	125	15	6.0	4.9	8	3	5	30	**E616M6**
8	1.25	140	18	8.0	6.2	9	3	6.8	40	**E616M8**
10	1.50	160	20	10.0	8.0	11	3	8.5	50	**E616M10**
12	1.75	180	23	9.0	7.0	10	3	10.2		**E616M12**
14	2.00	180	25	11.0	9.0	12	3	12		**E616M14**
16	2.00	200	25	12.0	9.0	12	3	14		**E616M16**
20	2.50	224	30	16	12.0	15	4	17.5		**E616M20**

EX006H

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



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spectrum™

DIN

EX006H



■ 1.1 1.2 1.3 1.4 1.5 7.1 7.2 7.3 7.4

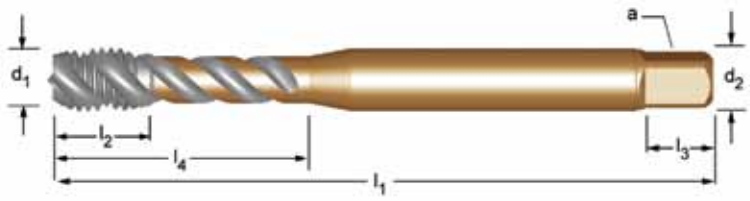
● 4.1 4.2 5.1 5.2

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code	
2	0.40	45	4	2.8	2.1	5	3	1.6	9	**EX00M2**	1)
2.5	0.45	50	4	2.8	2.1	5	3	2.05	12.5	**EX00M2.5**	1)
3	0.50	56	6	3.5	2.7	6	3	2.5	18	**EX00M3**	
3.5	0.60	56	7	4.0	3.0	6	3	2.9	20	**EX00M3.5**	
4	0.70	63	7	4.5	3.4	6	3	3.3	21	**EX00M4**	
5	0.80	70	8	6.0	4.9	8	3	4.2	25	**EX00M5**	
6	1.00	80	10	6.0	4.9	8	3	5	31	**EX00M6**	
6	1.00	80	10	4.5	3.4	6	3	5		**EX00M6DIN376**	
7	1.00	80	10	7.0	5.5	8	3	6	31	**EX00M7**	
8	1.25	90	12	8.0	6.2	9	3	6.8	35	**EX00M8**	
8	1.25	90	13	6.0	4.9	8	3	6.8		**EX00M8DIN376**	
10	1.50	100	15	10.0	8.0	11	3	8.5	39	**EX00M10**	
10	1.50	100	15	7.0	5.5	8	3	8.5		**EX00M10DIN376**	
12	1.75	110	16	9.0	7.0	10	3	10.3		**EX00M12**	
14	2.00	110	20	11.0	9.0	12	3	12		**EX00M14**	
16	2.00	110	20	12.0	9.0	12	4	14		**EX00M16**	
18	2.50	125	25	14.0	11.0	14	4	15.5		**EX00M18**	1)
20	2.50	140	25	16.0	12.0	15	4	17.5		**EX00M20**	1)
22	2.50	140	25	18.0	14.5	17	4	19.5		**EX00M22**	1)
24	3.00	160	30	18.0	14.5	17	4	21		**EX00M24**	1)
27	3.00	160	30	20.0	16.0	19	4	24		**EX00M27**	1)
30	3.50	180	36	22.0	18.0	21	4	26.5		**EX00M30**	1)
33	3.50	180	36	25.0	20.0	23	4	29.5		**EX00M33**	1)
36	4.00	200	40	28.0	22.0	25	4	32		**EX00M36**	1)
39	4.00	200	40	32.0	24.0	27	4	35		**EX00M39**	1)
42	4.50	200	45	32.0	24.0	27	4	37.5		**EX00M42**	1)
48	5.00	250	50	36.0	29.0	32	4	43		**EX00M48**	1)
52	5.00	250	50	40.0	32.0	35	5	47		**EX00M52**	1)
56	5.50	250	55	40.0	32.0	35	5	50.5		**EX00M56**	1)
64	6.00	315	60	50.0	39.0	42	6	58		**EX00M64**	1)

1) HSCo

EX006G

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



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spectrum™

DIN

EX006G



■ 1.1 1.2 1.3 1.4 1.5 7.1 7.2 7.3 7.4

● 4.1 4.2 5.1 5.2

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
3	0.50	56	6	3.5	2.7	6	3	2.5	18	**EX00M36G**
4	0.70	63	7	4.5	3.4	6	3	3.3	21	**EX00M46G**
5	0.80	70	8	6.0	4.9	8	3	4.2	25	**EX00M56G**
6	1.00	80	10	6.0	4.9	8	3	5	31	**EX00M66G**
8	1.25	90	12	8.0	6.2	9	3	6.8	35	**EX00M86G**
10	1.50	100	15	10.0	8.0	11	3	8.5	39	**EX00M106G**
12	1.75	110	16	9.0	7.0	10	3	10.3		**EX00M126G**
14	2.00	110	20	11.0	9.0	12	3	12		**EX00M146G**
16	2.00	110	20	12.0	9.0	12	4	14		**EX00M166G**
20	2.50	140	25	16.0	12.0	15	4	17.5		**EX00M206G** [1]

[1] HSCo

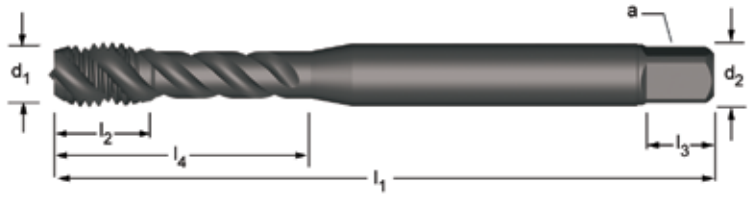
EX016H

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™

NEW
2010.02

spectrum™

DIN



EX016H

M | HSS XS1 | ST | DIN 371≤10 376≥12 | 6H | 2.5xD | C 2 - 3 | 45°

- ■ 1.1 1.2 1.3 1.4 1.5 2.1 2.2
- ● 2.3

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
2	0.40	45	4	2.8	2.1	5	3	1.6	9	**EX01M2** [1]
2.5	0.45	50	4	2.8	2.1	5	3	2.05	12.5	**EX01M2.5** [1]
3	0.50	56	6	3.5	2.7	6	3	2.5	18	**EX01M3**
3.5	0.60	56	7	4.0	3.0	6	3	2.9	20	**EX01M3.5**
4	0.70	63	7	4.5	3.4	6	3	3.3	21	**EX01M4**
5	0.80	70	8	6.0	4.9	8	3	4.2	25	**EX01M5**
6	1.00	80	10	6.0	4.9	8	3	5	31	**EX01M6**
6	1.00	80	10	4.5	3.4	6	3	5		**EX01M6DIN376**
7	1.00	80	10	7.0	5.5	8	3	6	31	**EX01M7**
8	1.25	90	12	8.0	6.2	9	3	6.8	35	**EX01M8**
8	1.25	90	13	6.0	4.9	8	3	6.8		**EX01M8DIN376**
10	1.50	100	15	10.0	8.0	11	3	8.5	39	**EX01M10**
10	1.50	100	15	7.0	5.5	8	3	8.5		**EX01M10DIN376**
12	1.75	110	16	9.0	7.0	10	3	10.3		**EX01M12**
14	2.00	110	20	11.0	9.0	12	3	12		**EX01M14**
16	2.00	110	20	12.0	9.0	12	4	14		**EX01M16**
18	2.50	125	25	14.0	11.0	14	4	15.5		**EX01M18** [1]
20	2.50	140	25	16.0	12.0	15	4	17.5		**EX01M20** [1]
22	2.50	140	25	18.0	14.5	17	4	19.5		**EX01M22** [1]
24	3.00	160	30	18.0	14.5	17	4	21		**EX01M24** [1]
27	3.00	160	30	20.0	16.0	19	4	24		**EX01M27** [1]
30	3.50	180	36	22.0	18.0	21	4	26.5		**EX01M30** [1]
33	3.50	180	36	25.0	20.0	23	4	29.5		**EX01M33** [1]
36	4.00	200	40	28.0	22.0	25	4	32		**EX01M36** [1]
39	4.00	200	40	32.0	24.0	27	4	35		**EX01M39** [1]
42	4.50	200	45	32.0	24.0	27	4	37.5		**EX01M42** [1]
48	5.00	250	50	36.0	29.0	32	4	43		**EX01M48** [1]
52	5.00	250	50	40.0	32.0	35	5	47		**EX01M52** [1]
56	5.50	250	55	40.0	32.0	35	5	50.5		**EX01M56** [1]
64	6.00	315	60	50.0	39.0	42	6	58		**EX01M64** [1]

[1] HSCo

EX016G

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™

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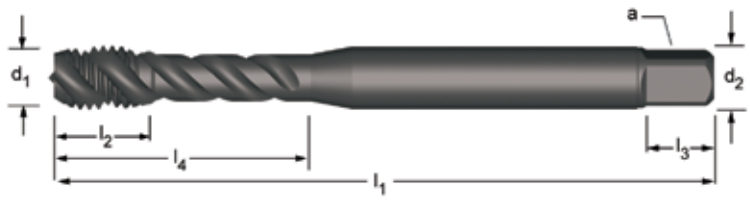
spectrum™

DIN



EX016G

M | HSS XS1 | ST | DIN 371≤10 376≥12 | 6G | 2.5xD | C 2 - 3 | 45°

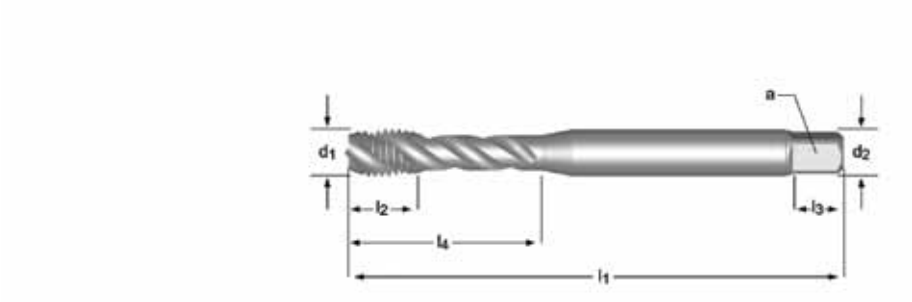
- ■ 1.1 1.2 1.3 1.4 1.5 2.1 2.2
- ● 2.3

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
3	0.50	56	6	3.5	2.7	6	3	2.5	18	**EX01M36G**
4	0.70	63	7	4.5	3.4	6	3	3.3	21	**EX01M46G**
5	0.80	70	8	6.0	4.9	8	3	4.2	25	**EX01M56G**
6	1.00	80	10	6.0	4.9	8	3	5	31	**EX01M66G**
8	1.25	90	12	8.0	6.2	9	3	6.8	35	**EX01M86G**
10	1.50	100	15	10.0	8.0	11	3	8.5	39	**EX01M106G**
12	1.75	110	16	9.0	7.0	10	3	10.3		**EX01M126G**
14	2.00	110	20	11.0	9.0	12	3	12		**EX01M146G**
16	2.00	110	20	12.0	9.0	12	4	14		**EX01M166G**
20	2.50	140	25	16.0	12.0	15	4	17.5		**EX01M206G** [1]

[1] HSCo

E195 / E245

- Machine Tap, Spectrum™ Back Tapered
- Spectrum™ Tarauds machine
- Spectrum™ Maschinen-Gewindebohrer, abgeflacht
- Spectrum™ Machos de máquina con rosca acheflanada hacia atras
- Spectrum™ Machinetappen, achtergeslepen
- Macho Máquina Spectrum™, Saída Cônica



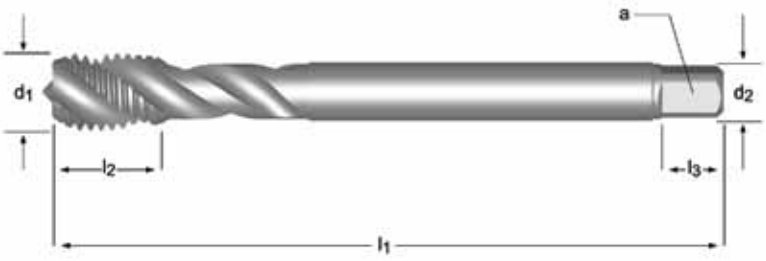
spectrum™

E195

M | HSCo | DIN 371 | 6H | 2.5xD | C 2 - 3 | 40°

- ■ 1.3 1.4
- ● 1.1 1.2 1.5

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
4	0.70	63	7	4.5	3.4	6	3	3.3	21	**E195M4**
5	0.80	70	8	6.0	4.9	8	3	4.2	25	**E195M5**
6	1.00	80	10	6.0	4.9	8	3	5	30	**E195M6**
8	1.25	90	13	8.0	6.2	9	3	6.8	35	**E195M8**
10	1.50	100	15	10.0	8.0	11	3	8.5	39	**E195M10**



spectrum™

E245

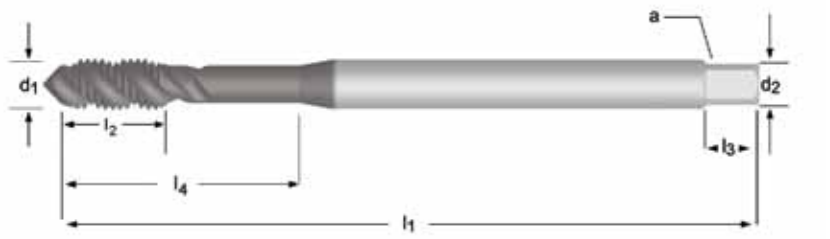
M | HSCo | DIN 376 | 6H | 2.5xD | C 2 - 3 | 40°

- ■ 1.3 1.4
- ● 1.1 1.2 1.5

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		e-Code
12	1.75	110	18	9	7.0	10	3	10.3	**E245M12**
14	2.00	110	20	11	9.0	12	3	12	**E245M14**
16	2.00	110	20	12	9.0	12	4	14	**E245M16**
18	2.50	125	25	14	11.0	14	4	15.5	**E245M18**
20	2.50	140	25	16	12.0	15	4	17.5	**E245M20**
22	2.50	140	25	18	14.5	17	4	19.5	**E245M22**
24	3.00	160	30	18	14.5	17	4	21	**E245M24**

E615

- Machine Tap Spectrum™, Extra Long
- Spectrum™Tarauds machine, Extra Long
- Spectrum™ Maschinen-Gewinde-bohrer, extra lang
- Spectrum™ Machos de máquina Extra largo
- Spectrum™ Machinetappen, extra lang
- Macho Máquina Spectrum™ Extra Longo



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DIN

E615



■ 1.1 1.2 1.3 1.4 1.5 6.1 6.3

● 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.2 5.2 6.2 7.1

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
3	0.50	112	6	3.5	2.7	6	3	2.5	18	**E615M3**
4	0.70	112	7	4.5	3.4	6	3	3.3	21	**E615M4**
5	0.80	125	8	6.0	4.9	8	3	4.2	25	**E615M5**
6	1.00	125	10	6.0	4.9	8	3	5	30	**E615M6**
8	1.25	140	13	8.0	6.2	9	3	6.8	40	**E615M8**
10	1.50	160	15	10.0	8.0	11	3	8.5	50	**E615M10**
12	1.75	180	16	9.0	7.0	10	3	10.2		**E615M12**
14	2.00	180	20	11.0	9.0	12	3	12		**E615M14**
16	2.00	200	20	12.0	9.0	12	3	14		**E615M16**
20	2.50	224	25	16	12	15	4	17.5		**E615M20**

E000

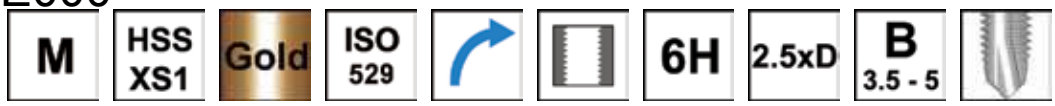
- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



spectrum™

ISO

E000



■ 1.1 1.2 1.3 1.4 1.5 6.1 6.3 7.1 7.2 7.3 7.4

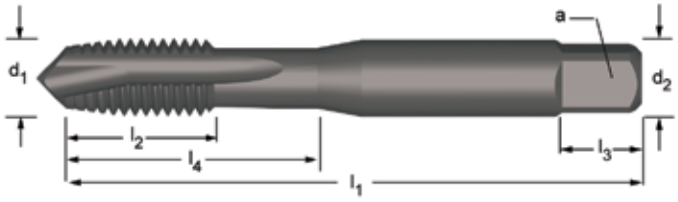
● 1.6 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.2 8.1

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
1.6	0.35	41	7	2.50	2.00	4	3	1.25	7	**E000M1.6**
2	0.40	41	8	2.50	2.00	4	3	1.6	8	**E000M2**
2.5	0.45	44.5	9.5	2.80	2.24	5	3	2.05	9.5	**E000M2.5**
3	0.50	48	15	3.15	2.50	5	3	2.5	12.5	**E000M3**
3.5	0.60	50	16	3.55	2.80	5	3	2.9	14	**E000M3.5**
4	0.70	53	17	4.00	3.15	6	3	3.3	14	**E000M4**
5	0.80	58	11	5.00	4.00	7	3	4.2	22	**E000M5**
6	1.00	66	13	6.30	5.00	8	3	5.0	26	**E000M6**
7	1.00	66	13	7.10	5.60	8	3	6,0	26	**E000M7**
8	1.25	72	16	8.00	6.30	9	3	6.8	29	**E000M8**
10	1.50	80	18	10.00	8.00	11	3	8.5	34	**E000M10**
12	1.75	89	22	9.00	7.10	10	3	10.3		**E000M12**
14	2.00	95	24	11.20	9.00	12	3	12.0		**E000M14**
16	2.00	102	24	12.50	10.00	13	3	14.0		**E000M16**
18	2.50	112	29	14.00	11.20	14	4	15.5		**E000M18**
20	2.50	112	29	14.00	11.20	14	4	17.5		**E000M20**
22	2.50	118	29	16.00	12.50	16	4	19.5		**E000M22**
24	3.00	130	35	18.00	14.00	18	4	21.0		**E000M24**

E001

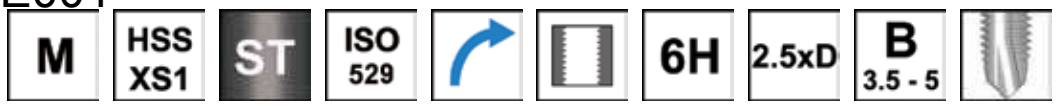
- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™

ISO



spectrum™

E001



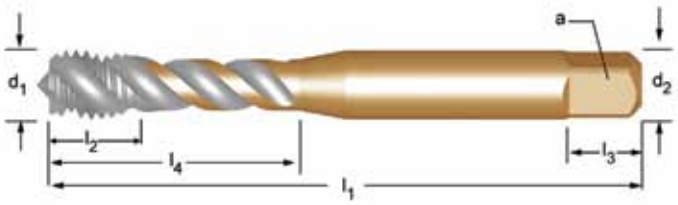
■ 1.1 1.2 1.3 1.4 1.5 2.1 2.2

● 1.6 2.3 3.1 3.2 3.3 3.4

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
1.6	0.35	41	7	2.50	2.00	4	3	1.25	7	**E001M1.6**
2	0.40	41	8	2.50	2.00	4	3	1.6	8	**E001M2**
2.5	0.45	44.5	9.5	2.80	2.24	5	3	2.05	9.5	**E001M2.5**
3	0.50	48	15	3.15	2.50	5	3	2.5	12.5	**E001M3**
3.5	0.60	50	16	3.55	2.80	5	3	2.9	14	**E001M3.5**
4	0.70	53	17	4.00	3.15	6	3	3.3	14	**E001M4**
5	0.80	58	11	5.00	4.00	7	3	4.2	22	**E001M5**
6	1.00	66	13	6.30	5.00	8	3	5.0	26	**E001M6**
7	1.00	66	13	7.10	5.60	8	3	6,0	26	**E001M7**
8	1.25	72	16	8.00	6.30	9	3	6.8	29	**E001M8**
10	1.50	80	18	10.00	8.00	11	3	8.5	34	**E001M10**
12	1.75	89	22	9.00	7.10	10	3	10.3		**E001M12**
14	2.00	95	24	11.20	9.00	12	3	12.0		**E001M14**
16	2.00	102	24	12.50	10.00	13	3	14.0		**E001M16**
18	2.50	112	29	14.00	11.20	14	4	15.5		**E001M18**
20	2.50	112	29	14.00	11.20	14	4	17.5		**E001M20**
22	2.50	118	29	16.00	12.50	16	4	19.5		**E001M22**
24	3.00	130	35	18.00	14.00	18	4	21.0		**E001M24**

E002

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



spectrum™

ISO

E002



■ 1.1 1.2 1.3 1.4 1.5 7.1 7.2 7.3 7.4

● 4.1 4.2 5.1 5.2

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
2	0.40	41	8	2.50	2.00	4	3	1.6	8	**E002M2**
2.5	0.45	44.5	9.5	2.80	2.24	5	3	2.05	9.5	**E002M2.5**
3	0.50	48	6	3.15	2.50	5	3	2.5	12.5	**E002M3**
3.5	0.60	50	16	3.55	2.80	5	3	2.9	14	**E002M3.5**
4	0.70	53	7	4.00	3.15	6	3	3.3	19	**E002M4**
5	0.80	58	8	5.00	4.00	7	3	4.2	22	**E002M5**
6	1.00	66	10	6.30	5.00	8	3	5.0	27	**E002M6**
7	1.00	66	13	7.10	5.60	8	3	6	26	**E002M7**
8	1.25	72	12	8.00	6.30	9	3	6.8	31	**E002M8**
10	1.50	80	15	10.00	8.00	11	3	8.5	35	**E002M10**
12	1.75	89	16	9.00	7.10	10	3	10.3		**E002M12**
14	2.00	95	18	11.20	9.00	12	3	12.0		**E002M14**
16	2.00	102	18	12.50	10.00	13	4	14.0		**E002M16**
18	2.50	112	29	14.00	11.20	14	4	15.5		**E002M18**
20	2.50	112	29	14.00	11.20	14	4	17.5		**E002M20**
22	2.50	118	29	16.00	12.50	16	4	19.5		**E002M22**
24	3.00	130	35	18.00	14.00	18	4	21.0		**E002M24**

E003

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



spectrum™

E003

M | HSS XS1 | ST | ISO 529 | 6H | 2.5xD | C 2 - 3 | 48°

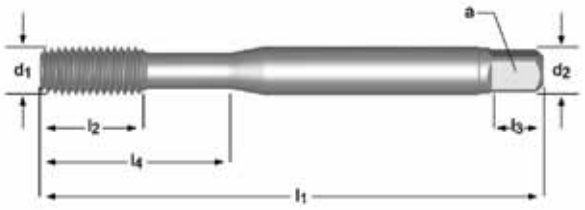
■ 1.1 1.2 1.3 1.4 1.5 2.1 2.2

● 2.3

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
2	0.40	41	8	2.50	2.00	4	3	1.6	8	**E003M2**
2.5	0.45	44.5	9.5	2.80	2.24	5	3	2.05	9.5	**E003M2.5**
3	0.50	48	6	3.15	2.50	5	3	2.5	12.5	**E003M3**
3.5	0.60	50	16	3.55	2.80	5	3	2.9	14	**E003M3.5**
4	0.70	53	7	4.00	3.15	6	3	3.3	19	**E003M4**
5	0.80	58	8	5.00	4.00	7	3	4.2	22	**E003M5**
6	1.00	66	10	6.30	5.00	8	3	5.0	27	**E003M6**
7	1.00	66	13	7.10	5.60	8	3	6	26	**E003M7**
8	1.25	72	12	8.00	6.30	9	3	6.8	31	**E003M8**
10	1.50	80	15	10.00	8.00	11	3	8.5	35	**E003M10**
12	1.75	89	16	9.00	7.10	10	3	10.3		**E003M12**
14	2.00	95	18	11.20	9.00	12	3	12.0		**E003M14**
16	2.00	102	18	12.50	10.00	13	4	14.0		**E003M16**
18	2.50	112	29	14.00	11.20	14	4	15.5		**E003M18**
20	2.50	112	29	14.00	11.20	14	4	17.5		**E003M20**
22	2.50	118	29	16.00	12.50	16	4	19.5		**E003M22**
24	3.00	130	35	18.00	14.00	18	4	21.0		**E003M24**

E301

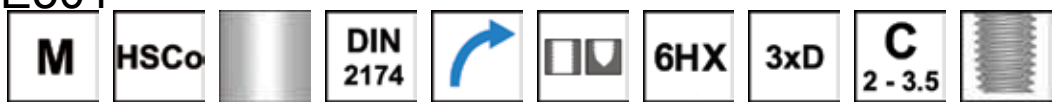
- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindeformer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



spectrum™

DIN

E301



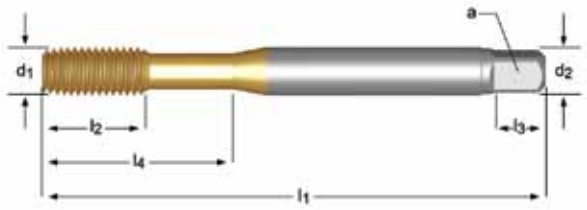
- 1.1 1.2 1.3 1.4 7.1 7.2 7.3

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z	↔	l_4 mm	e-Code
1	0.25	40	5.5	2.5	2.1	5	3	0.90	-	**E301M1**
1.2	0.25	40	5.5	2.5	2.1	5		1.10	-	**E301M1.2**
1.4	0.30	40	7	2.5	2.1	5		1.25	-	**E301M1.4**
1.6	0.35	40	8	2.5	2.1	5	3	1.45	-	**E301M1.6**
1.7	0.35	40	8	2.5	2.1	5		1.26	-	**E301M1.7**
1.8	0.35	40	8	2.5	2.1	5		1.65	-	**E301M1.8**
2	0.40	45	6	2.8	2.1	5	3	1.80	11	**E301M2**
2.2	0.45	45	7	2.8	2.1	5		2.00	12	**E301M2.2**
2.3	0.40	45	7	2.8	2.1	5		2.1	12	**E301M2.3**
2.5	0.45	50	8	2.8	2.1	5	3	2.30	14	**E301M2.5**
2.6	0.45	50	8	2.8	2.1	5		2.4	5	**E301M2.6**
3	0.50	56	9	3.5	2.7	6	4	2.80	18	**E301M3**
3.5	0.60	56	11	4.0	3.0	6	4	3.20	20	**E301M3.5**
4	0.70	63	12	4.5	3.4	6	5	3.70	21	**E301M4**
5	0.80	70	13	6.0	4.9	8	5	4.60	25	**E301M5**
6	1.00	80	15	6.0	4.9	8	5	5.50	30	**E301M6**
8	1.25	90	18	8.0	6.2	9	5	7.40	35	**E301M8**
10	1.50	100	20	10.0	8.0	11	5	9.30	39	**E301M10**
12	1.75	110	23	9.0	7.0	10	5	11.20	-	**E301M12**
16	2.00	110	25	12.0	9.0	12	8	15.10	-	**E301M16**
20	2.50	140	30	16.0	12.0	15	8	18.90	-	**E301M20**
24	3.00	160	36	18.0	14.5	17	8	22.7	-	**E301M24**

E302

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindeformer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™

DIN



spectrum™

E302

M | HSCo | TiN | DIN 2174 | 6HX | 3xD | C 2 - 3.5

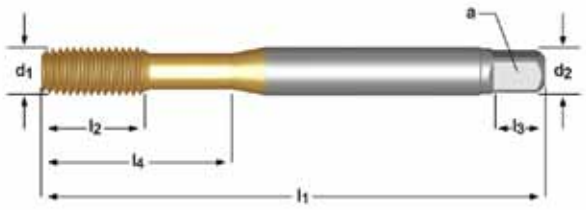
■ 1.1 1.2 1.3 1.4 2.1 2.2 4.1 5.1 7.3

● 1.5 2.3 5.2 6.1 6.3 7.1 7.2 7.4

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
1	0.25	40	5.5	2.5	2.1	5	3	0.90	-	**E302M1**
1.2	0.25	40	5.5	2.5	2.1	5	3	1.10	-	**E302M1.2**
1.4	0.30	40	7	2.5	2.1	5	3	1.25	-	**E302M1.4**
1.6	0.35	40	8	2.5	2.1	5	3	1.45	-	**E302M1.6**
1.7	0.35	40	8	2.5	2.1	5	3	1.55	-	**E302M1.7**
1.8	0.35	40	8	2.5	2.1	5	3	1.65	-	**E302M1.8**
2	0.40	45	6	2.8	2.1	5	3	1.80	11	**E302M2**
2.2	0.45	45	7	2.8	2.1	5	3	2.0	12	**E302M2.2**
2.3	0.40	45	7	2.8	2.1	5	3	2.1	12	**E302m2.3**
2.5	0.45	50	8	2.8	2.1	5	3	2.30	14	**E302M2.5**
2.6	0.45	50	8	2.8	2.1	5	3	2.4	5	**E302M2.6**
3	0.50	56	9	3.5	2.7	6	4	2.80	18	**E302M3**
3.5	0.60	56	11	4.0	3.0	6	4	3.20	20	**E302M3.5**
4	0.70	63	12	4.5	3.4	6	5	3.70	21	**E302M4**
5	0.80	70	13	6.0	4.9	8	5	4.60	25	**E302M5**
6	1.00	80	15	6.0	4.9	8	5	5.50	30	**E302M6**
8	1.25	90	18	8.0	6.2	9	5	7.40	35	**E302M8**
10	1.50	100	20	10.0	8.0	11	5	9.30	39	**E302M10**
12	1.75	110	23	9.0	7.0	10	5	11.20	-	**E302M12**
16	2.00	110	25	12.0	9.0	12	8	15.10	-	**E302M16**
20	2.50	140	30	16.0	12.0	15	8	18.9	-	**E302M20**
24	3.00	160	36	18.0	14.5	17	8	22.70	-	**E302M24**

E305

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindeformer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



spectrum™

DIN

E305

M | HSCo | TiN | DIN 2174 | 6HX | 3xD | E 1.5 - 2

■ 1.1 1.2 1.3 1.4 2.1 2.2 4.1 5.1 7.3

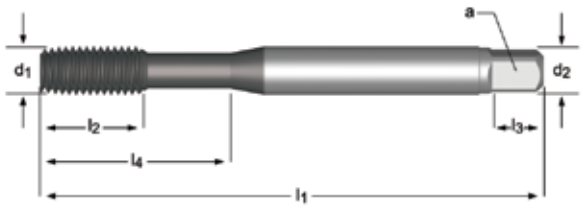
● 1.5 2.3 5.2 6.1 6.3 7.1 7.2 7.4

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
3	0.50	56	9	3.5	2.7	6	4	2.80	18	**E305M3**
4	0.70	63	12	4.5	3.4	6	5	3.70	21	**E305M4**
5	0.80	70	13	6.0	4.9	8	5	4.60	25	**E305M5**
6	1.00	80	15	6.0	4.9	8	5	5.50	30	**E305M6**
8	1.25	90	18	8.0	6.2	9	5	7.40	35	**E305M8**
10	1.50	100	20	10.0	8.0	11	5	9.30	39	**E305M10**

E306

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindeformer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™

DIN



spectrum™

E306

M | HSCo | CrN | DIN 2174 | 6HX | 3xD | C 2 - 3.5

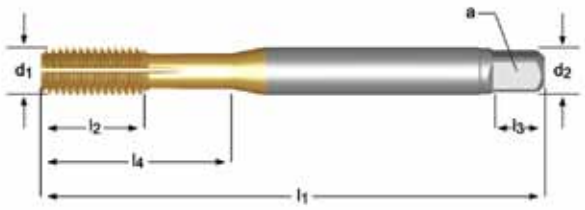
■ 1.1 1.2 1.3 1.4 4.1 5.1 7.1 7.2 7.3

● 2.1 2.2 5.2 6.1 6.3 7.4

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
3	0.50	56	9	3.5	2.7	6	4	2.80	18	**E306M3**
4	0.70	63	12	4.5	3.4	6	5	3.70	21	**E306M4**
5	0.80	70	13	6.0	4.9	8	5	4.60	25	**E306M5**
6	1.00	80	15	6.0	4.9	8	5	5.50	30	**E306M6**
8	1.25	90	18	8.0	6.2	9	5	7.40	35	**E306M8**
10	1.50	100	20	10.0	8.0	11	5	9.30	39	**E306M10**
12	1.75	110	23	9.0	7.0	10	5	11.20	-	**E306M12**

E308

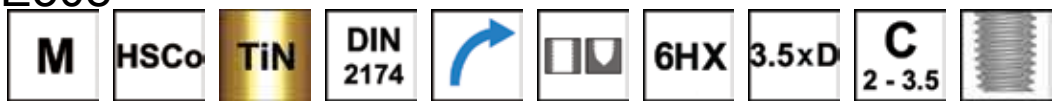
- Machine Tap, Spectrum™, Oil Grooves
- Spectrum™ Tarauds machine
- Spectrum™ Maschinen-Gewindeformer, Ölnuten
- Spectrum™ Machos de máquina, con ranuras de lubrificación
- Spectrum™ Machinetappen met smeergroeven
- Macho Máquina Spectrum™



spectrum™

DIN

E308



■ 1.1 1.2 1.3 1.4 2.1 2.2 4.1 5.1 7.3

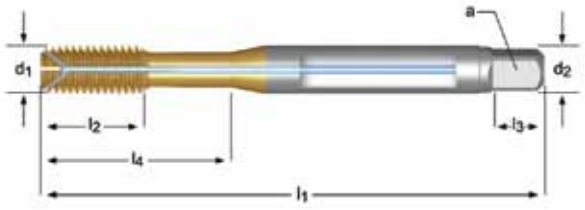
● 1.5 2.3 5.2 6.1 6.3 7.1 7.2 7.4

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
3	0.50	56	9	3.5	2.7	6	4	2.80	18	**E308M3**
4	0.70	63	12	4.5	3.4	6	5	3.70	21	**E308M4**
5	0.80	70	13	6.0	4.9	8	5	4.60	25	**E308M5**
6	1.00	80	15	6.0	4.9	8	5	5.50	30	**E308M6**
7	1.00	80	15	7.0	5.5	8	5	6.50	30	**E308M7**
8	1.25	90	18	8.0	6.2	9	5	7.40	35	**E308M8**
10	1.50	100	20	10.0	8.0	11	5	9.30	39	**E308M10**
12	1.75	110	23	9.0	7.0	10	5	11.20	-	**E308M12**
14	2.00	110	25	11.0	9.0	12	6	13.00	-	**E308M14**
16	2.00	110	25	12.0	9.0	12	6	15.00	-	**E308M16**
20	2.50	140	30	16.0	12.0	15		18.90	-	**E308M20**
24	3.00	160	36	18.0	14.5	17		22.70	-	**E308M24**

E315 / E309

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindeformer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™

DIN



spectrum™

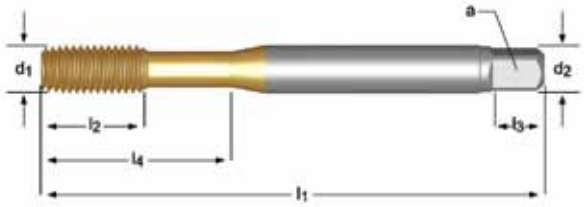
E315

M | HSCo | TiN | DIN 2174 | 6HX | 3.5xD | C 2 - 3.5

■ 1.1 1.2 1.3 1.4 2.1 2.2 4.1 5.1 7.3

● 1.5 2.3 5.2 6.1 6.3 7.1 7.2 7.4

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
5	0.80	70	13	6.0	4.9	8	5	4.60	25	**E315M5**
6	1.00	80	15	6.0	4.9	8	5	5.50	30	**E315M6**
8	1.25	90	18	8.0	6.2	9	5	7.40	35	**E315M8**
10	1.50	100	20	10.0	8.0	11	5	9.30	39	**E315M10**
12	1.75	110	23	9.0	7.0	10	5	11.20	-	**E315M12**



spectrum™

E309

M | HSCo | TiN | DIN 2174 | 6GX | 3xD | C 2 - 3.5

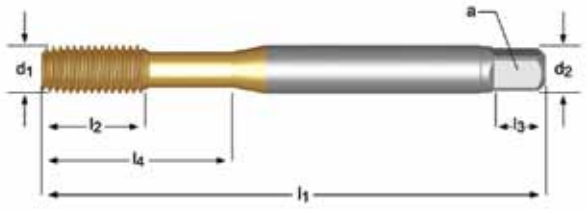
■ 1.1 1.2 1.3 1.4 2.1 2.2 4.1 5.1 7.3

● 1.5 2.3 5.2 6.1 6.3 7.1 7.2 7.4

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
3	0.50	56	9	3.5	2.7	6	4	2.80	18	**E309M3**
3.5	0.60	56	11	4.0	3.0	6	4	3.20	20	**E309M3.5**
4	0.70	63	12	4.5	3.4	6	5	3.70	21	**E309M4**
5	0.80	70	13	6.0	4.9	8	5	4.60	25	**E309M5**
6	1.00	80	15	6.0	4.9	8	5	5.50	30	**E309M6**
8	1.25	90	18	8.0	6.2	9	5	7.40	35	**E309M8**
10	1.50	100	20	10.0	8.0	11	5	9.30	39	**E309M10**
12	1.75	110	23	9.0	7.0	10	5	11.20	-	**E309M12**

E310 / E323

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindeformer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



spectrum™

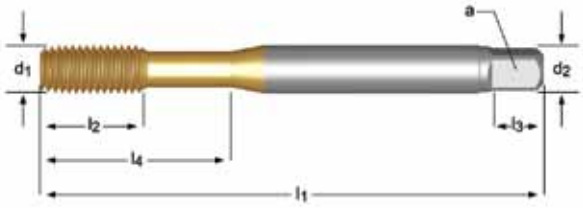
E310

M | HSCo | TiN | DIN 2174 | 6GX | 3xD | E 1.5 - 2

■ 1.1 1.2 1.3 1.4 2.1 2.2 4.1 5.1 7.3

● 1.5 2.3 5.2 6.1 6.3 7.1 7.2 7.4

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
3	0.50	56	9	3.5	2.7	6	4	2.80	18	**E310M3**
4	0.70	63	12	4.5	3.4	6	5	3.70	21	**E310M4**
5	0.80	70	13	6.0	4.9	8	5	4.60	25	**E310M5**
6	1.00	80	15	6.0	4.9	8	5	5.50	30	**E310M6**
8	1.25	90	18	8.0	6.2	9	5	7.40	35	**E310M8**
10	1.50	100	20	10.0	8.0	11	5	9.30	39	**E310M10**



spectrum™

E323

EGM | HSCo | TiN | DIN 40435 | 6H mod. | 3xD | C 2 - 3.5

■ 1.1 1.2 1.3 1.4 2.1 2.2 4.1 5.1 7.3

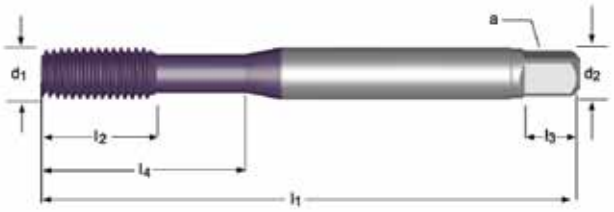
● 1.5 2.3 5.2 6.1 6.3 7.1 7.2 7.4

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
3	0.50	63	12	4.5	3.4	6	4	3.40	21	**E323M3**
4	0.70	70	13	6.0	4.9	8	4	4.60	25	**E323M4**
5	0.80	80	15	6.0	4.9	8	4	5.70	30	**E323M5**
6	1.00	90	18	8.0	6.2	9	5	6.80	35	**E323M6**
8	1.25	100	20	10.0	8	11	5	9.10	39	**E323M8**
10	1.50	100	21	9.0	7	10	5	11.30	-	**E323M10**
12	1.75	110	25	11.0	9	12	6	13.50	-	**E323M12**

T115 / T116

- Machine Tap Spectrum™
- Spectrum™ Tarauds machine
- Spectrum™ Maschinen-Gewindeformer
- Spectrum™ Machos de máquina
- Spectrum™ Machinetappen
- Macho Máquina Spectrum™

DIN



spectrum™

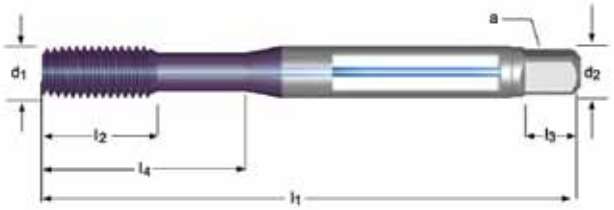
T115

M | HM | TiCN | DIN 2174 | 6HX | 3xD | C 2 - 3

■ 1.1 1.2 1.3 1.4 1.5 2.1 2.2 2.3 5.1 7.1 7.2 7.3

● 2.4 5.2 6.1 6.3

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm		l_4 mm	e-Code	
3	0.50	56	10	3.5	2.7	6	2.8		T115M3	2)
4	0.70	63	13	4.5	3.4	6	3.7		T115M4	2)
5	0.80	70	16	6	4.9	8	4.6		T115M5	2)
6	1.00	80	19	6	4.9	8	5.5	30	T115M6	
8	1.25	90	22	8	6.2	9	7.4	35	T115M8	
10	1.50	100	24	10	8.0	11	9.3	39	T115M10	



spectrum™

T116

M | HM | TiCN | DIN 2174 | 6HX | 3xD | C 2 - 3

■ 1.1 1.2 1.3 1.4 1.5 2.1 2.2 2.3 5.1 7.1 7.2 7.3

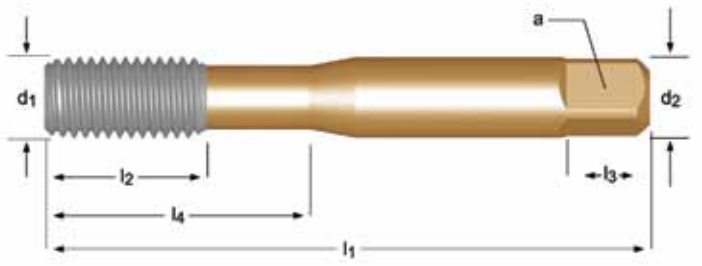
● 2.4 5.2 6.1 6.3

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm		l_4 mm	e-Code
5	0.80	70	16	6	4.9	8	4.6		T116M5
6	1.00	80	19	6	4.9	8	5.5	30	T116M6
8	1.25	90	22	8	6.2	9	7.4	35	T116M8
10	1.50	100	24	10	8.0	11	9.3	39	T116M10
12	1.75	110	23	9	7.0	10	11.2		T116M12

2) Without neck / ohne “Hals” / Zonder verjonging / sans détalonnage / Sin Desahogo / Sem Pescoço

E090

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindeformer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



spectrum™

ISO

E090



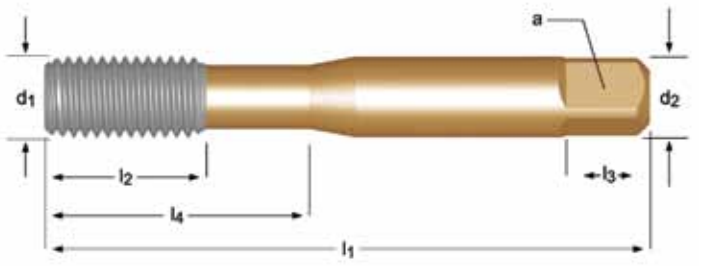
- 1.1 1.2 1.3 1.4 7.1 7.2 7.3

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm		l_4 mm	e-Code
2	0.40	41	8	2.50	2.00	4	1.8	8	**E090M2** [1]
2.5	0.45	44.5	9.5	2.80	2.24	5	2.3	9.5	**E090M2.5** [1]
3	0.50	48	12.5	3.15	2.50	5	2.8	12.5	**E090M3**
3.5	0.60	50	14	3.55	2.80	5	3.2	14	**E090M3.5**
4	0.70	53	14	4.00	3.15	6	3.7	14	**E090M4**
5	0.80	58	11	5.00	4.00	7	4.6	22	**E090M5**
6	1.00	66	13	6.30	5.00	8	5.5	26	**E090M6**
8	1.25	72.0	16	8.00	6.30	9	7.4	29	**E090M8**
10	1.50	80.0	18	10.00	8.00	11	9.3	34	**E090M10**
12	1.75	89.0	22	9.00	7.10	10	11.2	-	**E090M12**
16	2.00	102.0	24	12.50	10.00	13	15.0	-	**E090M16**

[1] HSCo

E097

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindeformer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



spectrum™

E097

M | HSS XS1 | CrN | ISO 529 | 6HX | 2.5xD | C 2 - 3

■ 1.1 1.2 1.3 4.1 5.1 7.1 7.2 7.3

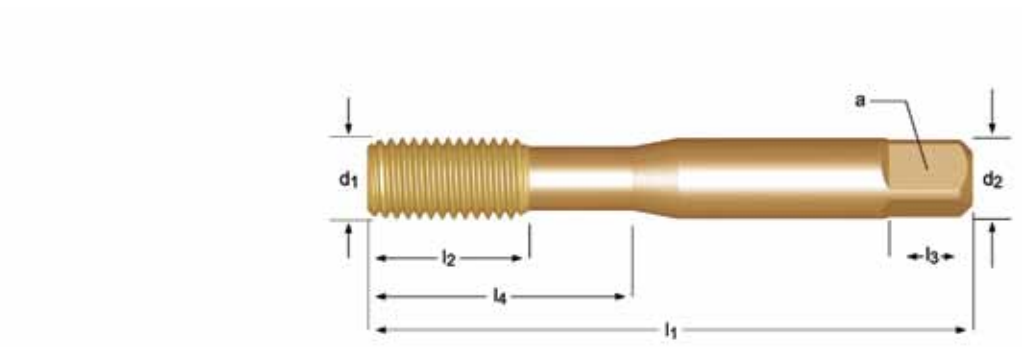
● 1.4 2.1 2.2 5.2 6.1 6.3 7.4

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm		l_4 mm	e-Code
2	0.40	41	8	2.50	2.00	4	1.8	8	**E097M2** [1]
2.5	0.45	44.5	9.5	2.80	2.24	5	2.3	9.5	**E097M2.5** [1]
3	0.50	48	12.5	3.15	2.50	5	2.8	12.5	**E097M3**
4	0.70	53	14	4.00	3.15	6	3.7	14	**E097M4**
5	0.80	58	11	5.00	4.00	7	4.6	22	**E097M5**
6	1.00	66	13	6.30	5.00	8	5.5	26	**E097M6**
8	1.25	72.0	16	8.00	6.30	9	7.4	29	**E097M8**
10	1.50	80.0	18	10.00	8.00	11	9.3	34	**E097M10**
12	1.75	89.0	22	9.00	7.10	10	11.2		**E097M12**
16	2.00	102.0	24	12.50	10.00	13	15		**E097M16**

[1] HSCo

E091

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindeformer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



ISO

E091

M | HSS XS1 | TiN | ISO 529 | 6HX | 2.5xD | C 2 - 3

■ 1.1 1.2 1.3 1.4 2.1 2.2 4.1 5.1 7.3

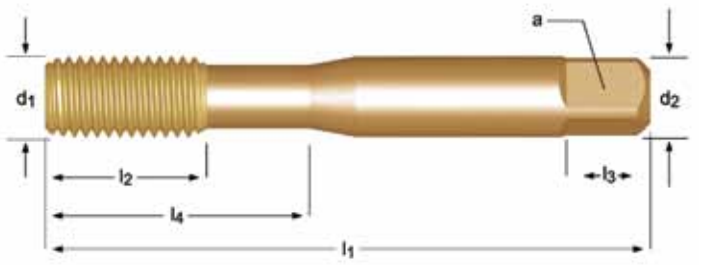
● 1.5 2.3 5.2 6.1 6.3 7.1 7.2 7.4

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm		l_4 mm	e-Code
2	0.40	41	8	2.50	2.00	4	1.8	8	**E091M2** [1]
2.5	0.45	44.5	9.5	2.80	2.24	5	2.3	9.5	**E091M2.5** [1]
3	0.50	48	12.5	3.15	2.50	5	2.8	12.5	**E091M3**
3.5	0.60	50	14	3.55	2.80	5	3.2	14	**E091M3.5**
4	0.70	53	14	4.00	3.15	6	3.7	14	**E091M4**
5	0.80	58	11	5.00	4.00	7	4.6	22	**E091M5**
6	1.00	66	13	6.30	5.00	8	5.5	26	**E091M6**
8	1.25	72	16	8.00	6.30	9	7.4	29	**E091M8**
10	1.50	80	18	10.00	8.00	11	9.3	34	**E091M10**
12	1.75	89	22	9.00	7.10	10	11.2		**E091M12**
16	2.00	102	24	12.50	10.00	13	15		**E091M16**

[1] HSCo

E098

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindeformer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



spectrum™

E098



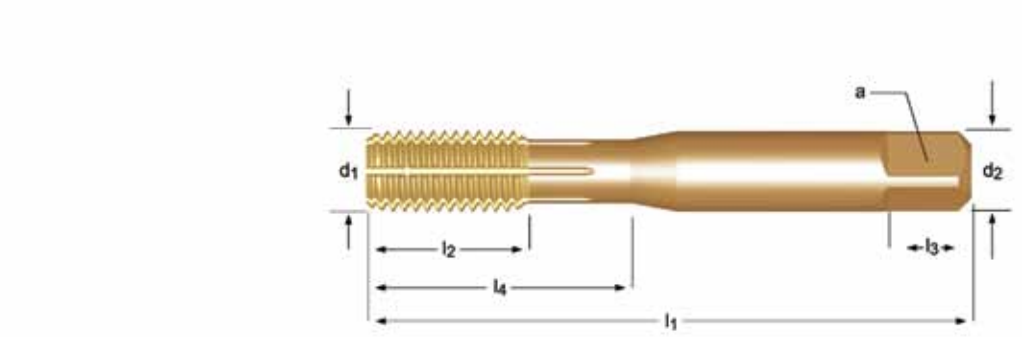
■ 1.1 1.2 1.3 1.4 2.1 2.2 4.1 5.1 7.3

● 1.5 2.3 5.2 6.1 6.3 7.1 7.2 7.4

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm		l_4 mm	e-Code
3	0.50	48	12.5	3.15	2.50	5	2.8	12.5	**E098M3**
4	0.70	53	14	4.00	3.15	6	3.7	14	**E098M4**
5	0.80	58	11	5.00	4.00	7	4.6	22	**E098M5**
6	1.00	66	13	6.30	5.00	8	5.5	26	**E098M6**
8	1.25	72	16	8.00	6.30	9	7.4	29	**E098M8**
10	1.50	80	18	10.00	8.00	11	9.3	34	**E098M10**

E096

- Machine Tap, Spectrum™, Oil Grooves
- Spectrum™ Tarauds machine
- Spectrum™ Maschinen-Gewindeformer, Ölnuten
- Spectrum™ Machos de máquina, con ranuras de lubrificación
- Spectrum™ Machinetappen met smeergroeven
- Macho Máquina Spectrum™



ISO

E096

M | HSS XS1 | TiN | ISO 529 | 6HX | 2.5xD | C 2 - 3

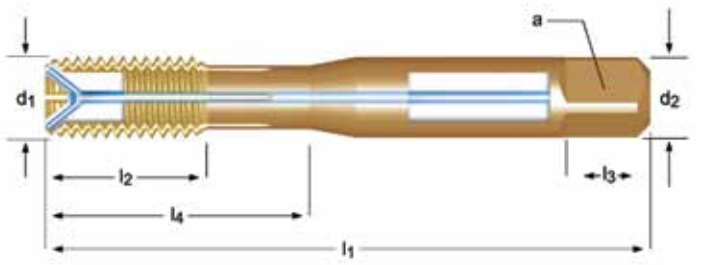
■ 1.1 1.2 1.3 1.4 2.1 2.2 4.1 5.1 7.3

● 1.5 2.3 5.2 6.1 6.3 7.1 7.2 7.4

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm		l_4 mm	e-Code
3	0.50	48	12.5	3.15	2.50	5	2.8	12.5	**E096M3**
4	0.70	53	14	4.00	3.15	6	3.7	14	**E096M4**
5	0.80	58	11	5.00	4.00	7	4.6	22	**E096M5**
6	1.00	66	13	6.30	5.00	8	5.5	26	**E096M6**
8	1.25	72	16	8.00	6.30	9	7.4	29	**E096M8**
10	1.50	80	18	10.00	8.00	11	9.3	34	**E096M10**
12	1.75	89	22	9.00	7.10	10	11.2		**E096M12**
16	2.00	102	24	12.50	10.00	13	15		**E096M16**

E099

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindeformer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



spectrum™

E099

M | HSS XS1 | TiN | ISO 529 | 6HX | 3xD | C 2 - 3

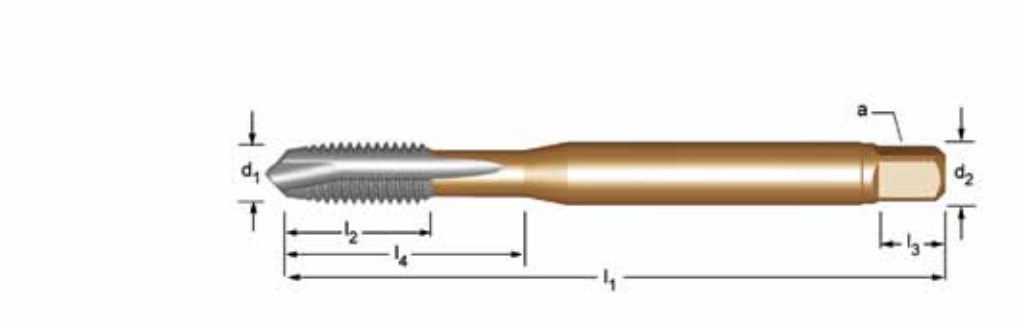
■ 1.1 1.2 1.3 1.4 2.1 2.2 4.1 5.1 7.3

● 1.5 2.3 5.2 6.1 6.3 7.1 7.2 7.4

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm		l_4 mm	e-Code
4	0.70	53	14	4.00	3.15	6	3.7	14	**E099M4**
5	0.80	58	11	5.00	4.00	7	4.6	22	**E099M5**
6	1.00	66	13	6.30	5.00	8	5.5	26	**E099M6**
8	1.25	72	16	8.00	6.30	9	7.4	29	**E099M8**
10	1.50	80	18	10.00	8.00	11	9.3	34	**E099M10**
12	1.75	89	22	9.00	7.10	10	11.2		**E099M12**
16	2.00	102	24	12.50	10.00	13	15		**E099M16**

EP10

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



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spectrum™

DIN

EP10

MF | HSS XS1 | Gold | DIN 374 | 6H | 2.5xD | B 3.5 - 5

■ 1.1 1.2 1.3 1.4 1.5 6.1 6.3 7.1 7.2 7.3 7.4

● 1.6 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.2 8.1

MF	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		e-Code	
4	0.50	63	12	2.8	2.1	5	3	3.5	EP10M4X.5	
5	0.50	70	13	3.5	2.7	6	3	4.5	EP10M5X.5	
6	0.75	80	15	4.5	3.4	6	3	5.3	EP10M6X.75	
8	0.75	80	15	6.0	4.9	8	3	7.3	EP10M8X.75	
8	1.00	90	18	6.0	4.9	8	3	7	EP10M8X1.0	
10	0.75	90	18	7.0	5.5	8	3	9.3	EP10M10X.75	
10	1.00	90	18	7.0	5.5	8	3	9	EP10M10X1.0	
10	1.25	100	20	7.0	5.5	8	3	8.8	EP10M10X1.25	
12	1.00	100	21	9.0	7.0	10	3	11	EP10M12X1.0	
12	1.25	100	21	9.0	7.0	10	3	10.8	EP10M12X1.25	
12	1.50	100	21	9.0	7.0	10	3	10.5	EP10M12X1.5	
14	1.00	100	21	11.0	9.0	12	3	13	EP10M14X1.0	
14	1.25	100	21	11.0	9.0	12	3	13	EP10M14X1.25	
14	1.50	100	21	11.0	9.0	12	3	12.5	EP10M14X1.5	
16	1.00	100	21	12.0	9.0	12	3	15	EP10M16X1.0	
16	1.50	100	21	12.0	9.0	12	3	14.5	EP10M16X1.5	
18	1.00	110	24	14.0	11.0	14	4	17	EP10M18X1.0	
18	1.50	110	24	14.0	11.0	14	4	16.5	EP10M18X1.5	1)
20	1.00	125	24	16.0	12.0	15	4	19	EP10M20X1.0	1)
20	1.50	125	24	16.0	12.0	15	4	18.5	EP10M20X1.5	1)
22	1.50	125	25	18.0	14.5	17	4	20.5	EP10M22X1.5	1)
24	1.50	140	28	18.0	14.5	17	4	22.5	EP10M24X1.5	1)
24	2.00	140	28	18.0	14.5	17	4	22	EP10M24X2.0	1)
25	1.50	140	28	18.0	14.5	17	4	23.5	EP10M25X1.5	1)
26	1.50	140	28	18.0	14.5	17	4	24.5	EP10M26X1,5	1)
27	1.50	140	28	20.0	16.0	19	4	25.5	EP10M27X1.5	1)
27	2.00	140	28	20.0	16.0	19	4	25	EP10M27X2.0	1)
28	1.50	140	28	20.0	16.0	19	4	26.5	EP10M28X1.5	1)
30	1.50	150	28	22.0	18.0	21	4	28.5	EP10M30X1.5	1)
30	2.00	150	28	22.0	18.0	21	4	28	EP10M30X2.0	1)

1) HSCo

EP11

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™

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spectrum™

DIN



EP11

MF | HSS XS1 | ST | DIN 374 | 6H | 2.5xD | B 3.5 - 5

■ 1.1 1.2 1.3 1.4 1.5 2.1 2.2

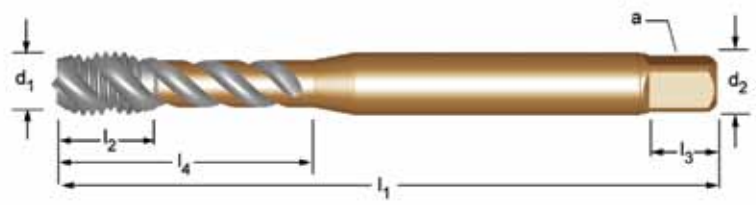
● 1.6 2.3 3.1 3.2 3.3 3.4

MF	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		e-Code
4	0.50	63	12	2.8	2.1	5	3	3.5	EP11M4X.5
5	0.50	70	13	3.5	2.7	6	3	4.5	EP11M5X.5
6	0.75	80	15	4.5	3.4	6	3	5.3	EP11M6X.75
8	0.75	80	15	6.0	4.9	8	3	7.3	EP11M8X.75
8	1.00	90	18	6.0	4.9	8	3	7	EP11M8X1.0
10	0.75	90	18	7.0	5.5	8	3	9.3	EP11M10X.75
10	1.00	90	18	7.0	5.5	8	3	9	EP11M10X1.0
10	1.25	100	20	7.0	5.5	8	3	8.8	EP11M10X1.25
12	1.00	100	21	9.0	7.0	10	3	11	EP11M12X1.0
12	1.25	100	21	9.0	7.0	10	3	10.8	EP11M12X1.25
12	1.50	100	21	9.0	7.0	10	3	10.5	EP11M12X1.5
14	1.00	100	21	11.0	9.0	12	3	13	EP11M14X1.0
14	1.25	100	21	11.0	9.0	12	3	13	EP11M14X1.25
14	1.50	100	21	11.0	9.0	12	3	12.5	EP11M14X1.5
16	1.00	100	21	12.0	9.0	12	3	15	EP11M16X1.0
16	1.50	100	21	12.0	9.0	12	3	14.5	EP11M16X1.5
18	1.00	110	24	14.0	11.0	14	4	17	EP11M18X1.0
18	1.50	110	24	14.0	11.0	14	4	16.5	EP11M18X1.5 [1]
20	1.00	125	24	16.0	12.0	15	4	19	EP11M20X1.0 [1]
20	1.50	125	24	16.0	12.0	15	4	18.5	EP11M20X1.5 [1]
22	1.50	125	25	18.0	14.5	17	4	20.5	EP11M22X1.5 [1]
24	1.50	140	28	18.0	14.5	17	4	22.5	EP11M24X1.5 [1]
24	2.00	140	28	18.0	14.5	17	4	22	EP11M24X2.0 [1]
25	1.50	140	28	18.0	14.5	17	4	23.5	EP11M25X1.5 [1]
26	1.50	140	28	18.0	14.5	17	4	24.5	EP11M26X1,5 [1]
27	1.50	140	28	20.0	16.0	19	4	25.5	EP11M27X1.5 [1]
27	2.00	140	28	20.0	16.0	19	4	25	EP11M27X2.0 [1]
28	1.50	140	28	20.0	16.0	19	4	26.5	EP11M28X1.5 [1]
30	1.50	150	28	22.0	18.0	21	4	28.5	EP11M30X1.5 [1]
30	2.00	150	28	22.0	18.0	21	4	28	EP11M30X2.0 [1]

[1] HSCo

EX10

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



NEW
2010.09

spectrum™

DIN

EX10

MF | HSS XS1 | Gold | DIN 374 | 6H | 2.5xD | C 2 - 3 | 45°

■ 1.1 1.2 1.3 1.4 1.5 7.1 7.2 7.3 7.4

● 4.1 4.2 5.1 5.2

MF	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		e-Code	
4	0.50	63	7	2.8	2.1	5	3	3.5	EX10M4X.50	
5	0.50	70	8	3.5	2.7	6	3	4.5	EX10M5X.50	
6	0.75	80	10	4.5	3.4	6	3	5.3	EX10M6X.75	
8	0.75	80	13	6.0	4.9	8	3	7.3	EX10M8X.75	
8	1.00	90	13	6.0	4.9	8	3	7	EX10M8X1.0	
10	0.75	90	13	7.0	5.5	8	3	9.3	EX10M10X.75	
10	1.00	90	13	7.0	5.5	8	3	9	EX10M10X1.0	
10	1.25	100	15	7.0	5.5	8	3	8.8	EX10M10X1.25	
12	1.00	100	15	9.0	7.0	10	3	11	EX10M12X1.0	
12	1.25	100	15	9.0	7.0	10	3	10.8	EX10M12X1.25	
12	1.50	100	15	9.0	7.0	10	3	10.5	EX10M12X1.5	
14	1.00	100	15	11.0	9.0	12	3	13	EX10M14X1.0	
14	1.25	100	15	11.0	9.0	12	3	12.8	EX10M14X1.25	
14	1.50	100	15	11.0	9.0	12	3	12.5	EX10M14X1.5	
16	1.00	100	15	12.0	9.0	12	4	15	EX10M16X1.0	
16	1.50	100	15	12.0	9.0	12	4	14.5	EX10M16X1.5	
18	1.00	110	17	14.0	11.0	14	4	17	EX10M18X1.0	1)
18	1.50	110	17	14.0	11.0	14	4	16.5	EX10M18X1.5	1)
20	1.00	125	17	16.0	12.0	15	4	19	EX10M20X1.0	1)
20	1.50	125	17	16.0	12.0	15	4	18.5	EX10M20X1.5	1)
22	1.50	125	17	18.0	14.5	17	4	20.5	EX10M22X1.5	1)
24	1.50	140	20	18.0	14.5	17	4	22.5	EX10M24X1.5	1)
24	2.00	140	20	18.0	14.5	17	4	22	EX10M24X2.0	1)
25	1.50	140	20	18.0	14.5	17	4	23.5	EX10M25X1.5	1)
26	1.50	140	20	18.0	14.5	17	4	24.5	EX10M26X1.5	1)
27	1.50	140	20	20.0	16.0	19	4	25.5	EX10M27X1.5	1)
27	2.00	140	20	20.0	16.0	19	4	25	EX10M27X2.0	1)
28	1.50	140	20	20.0	16.0	19	4	26.5	EX10M28X1.5	1)
30	1.50	150	20	22.0	18.0	21	4	28.5	EX10M30X1.5	1)
30	2.00	150	20	22.0	18.0	21	4	28	EX10M30X2.0	1)

1) HSCo

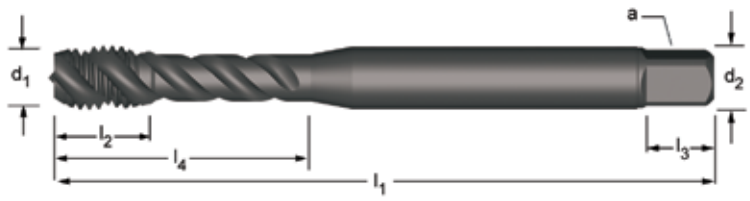
EX11

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™

NEW
2010.09

spectrum™

DIN



EX11

MF | HSS XS1 | ST | DIN 374 | 6H | 2.5xD | C 2 - 3 | 45°

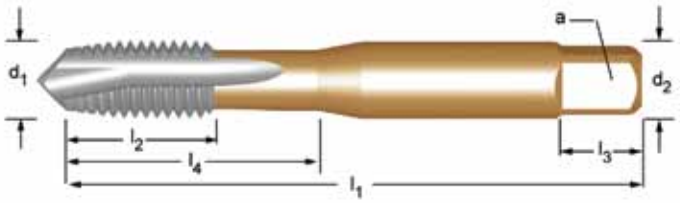
- ■ 1.1 1.2 1.3 1.4 1.5 2.1 2.2
- ● 2.3

MF	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		e-Code	
4	0.50	63	7	2.8	2.1	5	3	3.5	EX11M4X.50	
5	0.50	70	8	3.5	2.7	6	3	4.5	EX11M5X.50	
6	0.75	80	10	4.5	3.4	6	3	5.3	EX11M6X.75	
8	0.75	80	13	6.0	4.9	8	3	7.3	EX11M8X.75	
8	1.00	90	13	6.0	4.9	8	3	7	EX11M8X1.0	
10	0.75	90	13	7.0	5.5	8	3	9.3	EX11M10X.75	
10	1.00	90	13	7.0	5.5	8	3	9	EX11M10X1.0	
10	1.25	100	15	7.0	5.5	8	3	8.8	EX11M10X1.25	
12	1.00	100	15	9.0	7.0	10	3	11	EX11M12X1.0	
12	1.25	100	15	9.0	7.0	10	3	10.8	EX11M12X1.25	
12	1.50	100	15	9.0	7.0	10	3	10.5	EX11M12X1.5	
14	1.00	100	15	11.0	9.0	12	3	13	EX11M14X1.0	
14	1.25	100	15	11.0	9.0	12	3	12.8	EX11M14X1.25	
14	1.50	100	15	11.0	9.0	12	3	12.5	EX11M14X1.5	
16	1.00	100	15	12.0	9.0	12	4	15	EX11M16X1.0	
16	1.50	100	15	12.0	9.0	12	4	14.5	EX11M16X1.5	
18	1.00	110	17	14.0	11.0	14	4	17	EX11M18X1.0	1)
18	1.50	110	17	14.0	11.0	14	4	16.5	EX11M18X1.5	1)
20	1.00	125	17	16.0	12.0	15	4	19	EX11M20X1.0	1)
20	1.50	125	17	16.0	12.0	15	4	18.5	EX11M20X1.5	1)
22	1.50	125	17	18.0	14.5	17	4	20.5	EX11M22X1.5	1)
24	1.50	140	20	18.0	14.5	17	4	22.5	EX11M24X1.5	1)
24	2.00	140	20	18.0	14.5	17	4	22	EX11M24X2.0	1)
25	1.50	140	20	18.0	14.5	17	4	23.5	EX11M25X1.5	1)
26	1.50	140	20	18.0	14.5	17	4	24.5	EX11M26X1.5	1)
27	1.50	140	20	20.0	16.0	19	4	25.5	EX11M27X1.5	1)
27	2.00	140	20	20.0	16.0	19	4	25	EX11M27X2.0	1)
28	1.50	140	20	20.0	16.0	19	4	26.5	EX11M28X1.5	1)
30	1.50	150	20	22.0	18.0	21	4	28.5	EX11M30X1.5	1)
30	2.00	150	20	22.0	18.0	21	4	28	EX11M30X2.0	1)

1) HSCo

E010

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



spectrum™

ISO

E010

MF | HSS XS1 | Gold | ISO 529 | 6H | 2.5xD | B 3.5 - 5

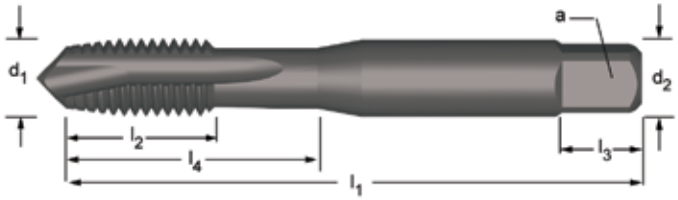
■ 1.1 1.2 1.3 1.4 1.5 6.1 6.3 7.1 7.2 7.3 7.4

● 1.6 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.2 8.1

MF	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
4	0.50	53	17	4.00	3.15	6	3	3.5	14	**E010M4X.5**
5	0.50	58	11	5.00	4.00	7	3	4.5	22	**E010M5X.5**
6	0.50	66	13	6.30	5.00	8	3	5.5	26	**E010M6X.5**
6	0.75	66	13	6.30	5.00	8	3	5.3	26	**E010M6X.75**
8	0.75	72	16	8.00	6.30	9	3	7.3	29	**E010M8X.75**
8	1.00	72	16	8.00	6.30	9	3	7.0	29	**E010M8X1.0**
10	1.00	80	18	10.00	8.00	11	3	9.0	34	**E010M10X1.0**
10	1.25	80	18	10.00	8.00	11	3	8.8	34	**E010M10X1.25**
12	1.00	89	22	9.00	7.10	10	3	11.0		**E010M12X1.0**
12	1.25	89	22	9.00	7.10	10	3	10.8		**E010M12X1.25**
12	1.50	89	22	9.00	7.10	10	3	10.5		**E010M12X1.5**
14	1.00	95	24	11.20	9.00	12	3	13.0		**E010M14X1.0**
14	1.25	95	24	11.20	9.00	12	3	12.8		**E010M14X1.25**
14	1.50	95	24	11.20	9.00	12	3	12.5		**E010M14X1.5**
16	1.00	102	24	12.50	10.00	13	3	15.0		**E010M16X1.0**
16	1.50	102	24	12.50	10.00	13	3	14.5		**E010M16X1.5**
18	1.00	112	29	14.00	11.20	14	4	17.0		**E010M18X1.0**
18	1.50	112	29	14.00	11.20	14	4	16.5		**E010M18X1.5**
20	1.00	112	29	14.00	11.20	14	4	19.0		**E010M20X1.0**
20	1.50	112	29	14.00	11.20	14	4	18.5		**E010M20X1.5**
20	2.00	112	29	14.00	11.20	14	4	18.0		**E010M20X2.0**
22	1.50	118	29	16.00	12.50	16	4	20.5		**E010M22X1.5**
24	1.50	130	35	18.00	14.00	18	4	22.5		**E010M24X1.5**
24	2.00	130	35	18.00	14.00	18	4	22.0		**E010M24X2.0**

E011

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



spectrum™

E011

MF | HSS XS1 | ST | ISO 529 | 6H | 2.5xD | B 3.5 - 5

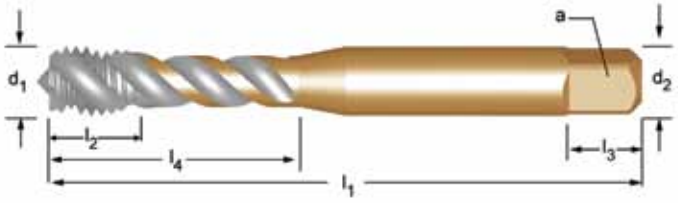
■ 1.1 1.2 1.3 1.4 1.5 2.1 2.2

● 1.6 2.3 3.1 3.2 3.3 3.4

MF	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
4	0.50	53	17	4.00	3.15	6	3	3.5	14	**E011M4X.5**
5	0.50	58	11	5.00	4.00	7	3	4.5	22	**E011M5X.5**
6	0.50	66	13	6.30	5.00	8	3	5.5	26	**E011M6X.5**
6	0.75	66	13	6.30	5.00	8	3	5.3	26	**E011M6X.75**
8	0.75	72	16	8.00	6.30	9	3	7.3	29	**E011M8X.75**
8	1.00	72	16	8.00	6.30	9	3	7.0	29	**E011M8X1.0**
10	1.00	80	18	10.00	8.00	11	3	9.0	34	**E011M10X1.0**
10	1.25	80	18	10.00	8.00	11	3	8.8	34	**E011M10X1.25**
12	1.00	89	22	9.00	7.10	10	3	11.0		**E011M12X1.0**
12	1.25	89	22	9.00	7.10	10	3	10.8		**E011M12X1.25**
12	1.50	89	22	9.00	7.10	10	3	10.5		**E011M12X1.5**
14	1.00	95	24	11.20	9.00	12	3	13.0		**E011M14X1.0**
14	1.25	95	24	11.20	9.00	12	3	12.8		**E011M14X1.25**
14	1.50	95	24	11.20	9.00	12	3	12.5		**E011M14X1.5**
16	1.00	102	24	12.50	10.00	13	3	15.0		**E011M16X1.0**
16	1.50	102	24	12.50	10.00	13	3	14.5		**E011M16X1.5**
18	1.00	112	29	14.00	11.20	14	4	17.0		**E011M18X1.0**
18	1.50	112	29	14.00	11.20	14	4	16.5		**E011M18X1.5**
20	1.00	112	29	14.00	11.20	14	4	19.0		**E011M20X1.0**
20	1.50	112	29	14.00	11.20	14	4	18.5		**E011M20X1.5**
20	2.00	112	29	14.00	11.20	14	4	18.0		**E011M20X2.0**
22	1.50	118	29	16.00	12.50	16	4	20.5		**E011M22X1.5**
24	1.50	130	35	18.00	14.00	18	4	22.5		**E011M24X1.5**
24	2.00	130	35	18.00	14.00	18	4	22.0		**E011M24X2.0**

E012

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



spectrum™

ISO

E012

MF | HSS XS1 | Gold | ISO 529 | 6H | 2.5xD | C 2 - 3 | 48°

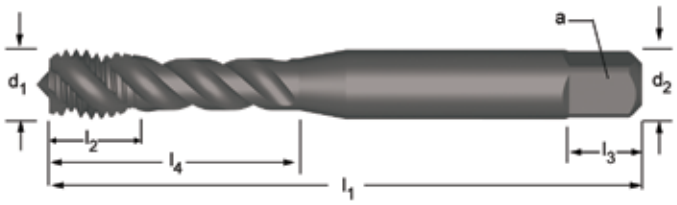
■ 1.1 1.2 1.3 1.4 1.5 7.1 7.2 7.3 7.4

● 4.1 4.2 5.1 5.2 8.1

MF	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
4	0.50	53	7	4.0	3.15	6	3	3.5	19	**E012M4X.5**
5	0.50	58	8	5.0	4.0	7	3	4.5	22	**E012M5X.5**
6	0.50	66	10	6.3	5.0	8	3	5.5	27	**E012M6X.5**
6	0.75	66	10	6.3	5.0	8	3	5.3	27	**E012M6X.75**
8	0.75	72	12	8.0	6.3	9	3	7.3	31	**E012M8X.75**
8	1.00	72	12	8.0	6.3	9	3	7.0	31	**E012M8X1.0**
10	1.00	80	15	10.0	8.0	11	3	9.0	35	**E012M10X1.0**
10	1.25	80	15	10.0	8.0	11	3	8.8	35	**E012M10X1.25**
12	1.00	89	16	9.0	7.1	10	3	11.0		**E012M12X1.0**
12	1.25	89	16	9.0	7.1	10	3	10.8		**E012M12X1.25**
12	1.50	89	16	9.0	7.1	10	3	10.5		**E012M12X1.5**
14	1.50	95	18	11.2	9.0	12	3	12.5		**E012M14X1.5**
16	1.00	102	18	12.5	10.0	13	4	15.0		**E012M16X1.0**
16	1.50	102	18	12.5	10.0	13	4	14.5		**E012M16X1.5**
18	1.50	112	29	14.0	11.2	14	4	16.5		**E012M18X1.5**
20	1.50	112	29	14.0	11.2	14	4	18.5		**E012M20X1.5**
22	1.50	118	29	16.0	12.5	16	4	20.5		**E012M22X1.5**

E013

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



spectrum™

E013



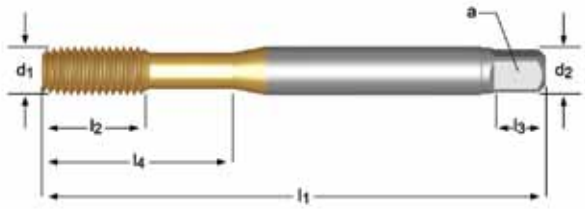
■ 1.1 1.2 1.3 1.4 1.5 2.1 2.2

● 2.3

MF	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
4	0.50	53	7	4.0	3.15	6	3	3.5	19	**E013M4X.5**
5	0.50	58	8	5.0	4.0	7	3	4.5	22	**E013M5X.5**
6	0.50	66	10	6.3	5.0	8	3	5.5	27	**E013M6X.5**
6	0.75	66	10	6.3	5.0	8	3	5.3	27	**E013M6X.75**
8	0.75	72	12	8.0	6.3	9	3	7.3	31	**E013M8X.75**
8	1.00	72	12	8.0	6.3	9	3	7.0	31	**E013M8X1.0**
10	1.00	80	15	10.0	8.0	11	3	9.0	35	**E013M10X1.0**
10	1.25	80	15	10.0	8.0	11	3	8.8	35	**E013M10X1.25**
12	1.00	89	16	9.0	7.1	10	3	11.0		**E013M12X1.0**
12	1.25	89	16	9.0	7.1	10	3	10.8		**E013M12X1.25**
12	1.50	89	16	9.0	7.1	10	3	10.5		**E013M12X1.5**
14	1.50	95	18	11.2	9.0	12	3	12.5		**E013M14X1.5**
16	1.00	102	18	12.5	10.0	13	4	15.0		**E013M16X1.0**
16	1.50	102	18	12.5	10.0	13	4	14.5		**E013M16X1.5**
18	1.50	112	29	14.0	11.2	14	4	16.5		**E013M18X1.5**
20	1.50	112	29	14.0	11.2	14	4	18.5		**E013M20X1.5**
22	1.50	118	29	16.0	12.5	16	4	20.5		**E013M22X1.5**

E317

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindeformer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



spectrum™

DIN

E317

MF | HSCo | TiN | DIN 2174 | 6HX | 3xD | C 2 - 3.5

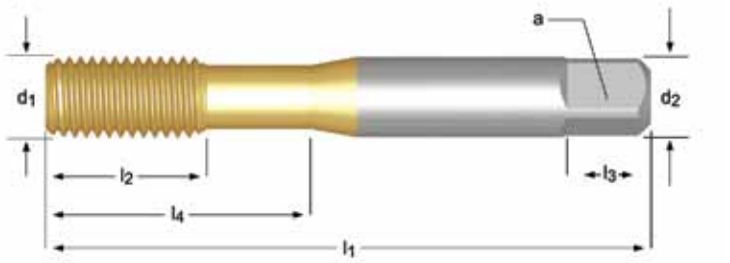
■ 1.1 1.2 1.3 1.4 2.1 2.2 4.1 5.1 7.3

● 1.5 2.3 5.2 6.1 6.3 7.1 7.2 7.4

MF	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
5	0.50	70	13	6.0	4.9	8	5	4.80	25	**E317M5X0.5**
6	0.75	80	15	6.0	4.9	8	5	5.70	30	**E317M6X0.75**
7	0.75	80	15	7.0	5.5	8	5	6.70	30	**E317M7X0.75**
8	1.00	90	18	8.0	6.2	9	5	7.50	35	**E317M8X1**
10	1.00	100	20	10.0	8.0	11	5	9.50	39	**E317M10X1**
10	1.25	100	20	10.0	8.0	11	5	9.40	39	**E317M10X1.25**

E564

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindeformer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



spectrum™

E564

MF | HSCo | TiN | ISO 529 | 6HX | 2.5xD | C 2 - 3

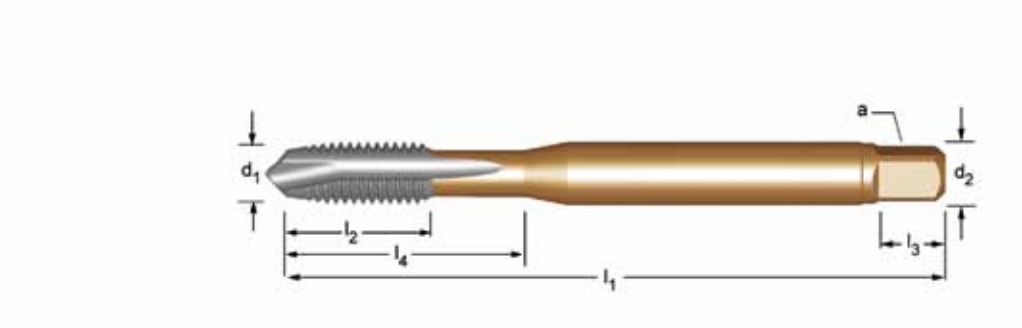
■ 1.1 1.2 1.3 1.4 2.1 2.2 4.1 5.1 7.3

● 1.5 2.3 5.2 6.1 6.3 7.1 7.2 7.4

MF	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm		l_4 mm	e-Code
5	0.50	58	11	5.00	4.00	7	4.8	22	**E564M5X.5**
6	0.75	66	13	6.30	5.00	8	5.7	26	**E564M6X.75**
8	0.75	72	16	8.00	6.30	9	7.7	29	**E564M8X.75**
8	1.00	72	16	8.00	6.30	9	7.5	29	**E564M8X1.0**
10	1.00	80	18	10.00	8.00	11	9.5	34	**E564M10X1.0**
10	1.25	80	18	10.00	8.00	11	9.4	34	**E564M10X1.25**
12	1.00	89	22	9.00	7.10	10	11.5		**E564M12X1.0**
12	1.25	89	22	9.00	7.10	10	11.4		**E564M12X1.25**
12	1.50	89	22	9.00	7.10	10	11.3		**E564M12X1.5**
14	1.00	95	24	11.20	9.00	12	13.5		**E564M14X1.0**
14	1.25	95	24	11.20	9.00	12	13.4		**E564M14X1.25**
14	1.50	95	24	11.20	9.00	12	13.3		**E564M14X1.5**
16	1.50	102	24	12.50	10.00	13	15.25		**E564M16X1.5**

EP20

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



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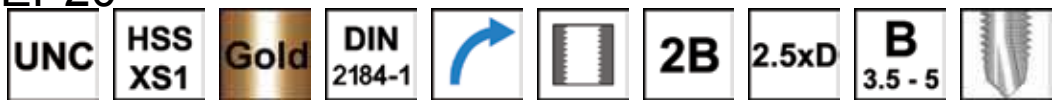
DIN

EP20



■ 1.1 1.2 1.3 1.4 1.5 6.1 6.3 7.1 7.2 7.3 7.4

● 1.6 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.2 8.1

UNC	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code	
4	40	2.845	56	9	3.5	2.7	6	3	2.35	18	**EP204-40**	
5	40	3.175	56	10	3.5	2.7	6	3	2.65	18	**EP205-40**	
6	32	3.505	56	11	4.0	3.0	6	3	2.85	20	**EP206-32**	
8	32	4.166	63	12	4.5	3.4	8	3	3.5	21	**EP208-32**	
10	24	4.826	70	13	6.0	4.9	8	3	3.9	25	**EP2010-24**	
12	24	5.486	80	15	6.0	4.9	8	3	4.5	30	**EP2012-24**	
1/4	20	6.350	80	15	7.0	5.5	8	3	5.1	30	**EP201/4**	
5/16	18	7.938	90	18	8.0	6.2	9	3	6.6	35	**EP205/16**	
3/8	16	9.525	100	20	10.0	8.0	11	3	8	39	**EP203/8**	
7/16	14	11.112	100	20	8.0	6.2	9	3	9.4		**EP207/16**	
1/2	13	12.700	110	23	9.0	7.0	10	3	10.8		**EP201/2**	
5/8	11	15.875	110	25	12.0	9.0	12	3	13.5		**EP205/8**	
3/4	10	19.050	125	30	14.0	11.0	14	4	16.5		**EP203/4**	1)
7/8	9	22.225	140	34	18.0	14.5	17	4	19.5		**EP207/8**	1)
1	8	25.400	160	38	18.0	14.5	17	4	22.25		**EP201**	1)

1) HSCo

EP21

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™

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DIN

EP21

UNC | HSS XS1 | ST | DIN 2184-1 | 2B | 2.5xD | B 3.5 - 5

■ 1.1 1.2 1.3 1.4 1.5 2.1 2.2

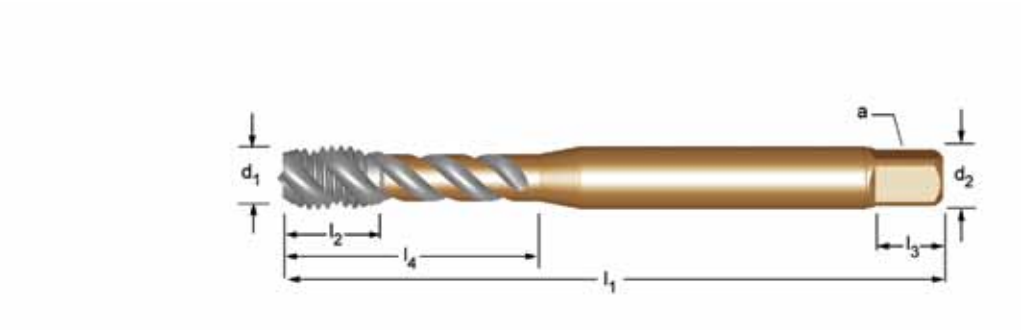
● 1.6 2.3 3.1 3.2 3.3 3.4

UNC	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code	
4	40	2.845	56	9	3.5	2.7	6	3	2.35	18	**EP214-40**	
5	40	3.175	56	10	3.5	2.7	6	3	2.65	18	**EP215-40**	
6	32	3.505	56	11	4.0	3.0	6	3	2.85	20	**EP216-32**	
8	32	4.166	63	12	4.5	3.4	8	3	3.5	21	**EP218-32**	
10	24	4.826	70	13	6.0	4.9	8	3	3.9	25	**EP2110-24**	
12	24	5.486	80	15	6.0	4.9	8	3	4.5	30	**EP2112-24**	
1/4	20	6.350	80	15	7.0	5.5	8	3	5.1	30	**EP211/4**	
5/16	18	7.938	90	18	8.0	6.2	9	3	6.6	35	**EP215/16**	
3/8	16	9.525	100	20	10.0	8.0	11	3	8	39	**EP213/8**	
7/16	14	11.112	100	20	8.0	6.2	9	3	9.4		**EP217/16**	
1/2	13	12.700	110	23	9.0	7.0	10	3	10.8		**EP211/2**	
5/8	11	15.875	110	25	12.0	9.0	12	3	13.5		**EP215/8**	
3/4	10	19.050	125	30	14.0	11.0	14	4	16.5		**EP213/4**	1)
7/8	9	22.225	140	34	18.0	14.5	17	4	19.5		**EP217/8**	1)
1	8	25.400	160	38	18.0	14.5	17	4	22.25		**EP211**	1)

1) HSCo

EX20

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



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DIN

EX20



■ 1.1 1.2 1.3 1.4 1.5 7.1 7.2 7.3 7.4

● 4.1 4.2 5.1 5.2

UNC	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code	
4	40	2.845	56	6	3.5	2.7	6	3	2.35	18	**EX204-40**	
5	40	3.175	56	6	3.5	2.7	6	3	2.65	18	**EX205-40**	
6	32	3.505	56	7	4.0	3.0	6	3	2.85	20	**EX206-32**	
8	32	4.166	63	7	4.5	3.4	8	3	3.5	21	**EX208-32**	
10	24	4.826	70	8	6.0	4.9	8	3	3.9	25	**EX2010-24**	
12	24	5.486	80	10	6.0	4.9	8	3	4.5	30	**EX2012-24**	
1/4	20	6.350	80	10	7.0	5.5	8	3	5.1	30	**EX201/4**	
5/16	18	7.938	90	12	8.0	6.2	9	3	6.6	35	**EX205/16**	
3/8	16	9.525	100	15	10.0	8.0	11	3	8	39	**EX203/8**	
7/16	14	11.112	100	15	8.0	6.2	9	3	9.4		**EX207/16**	
1/2	13	12.700	110	18	9.0	7.0	10	3	10.8		**EX201/2**	
5/8	11	15.875	110	20	12.0	9.0	12	4	13.5		**EX205/8**	
3/4	10	19.050	125	25	14.0	11.0	14	4	16.5		**EX203/4**	1)
7/8	9	22.225	140	25	18.0	14.5	17	4	19.5		**EX207/8**	1)
1	8	25.400	160	30	18.0	14.5	17	4	22.25		**EX201**	1)

1) HSCo

EX21

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™

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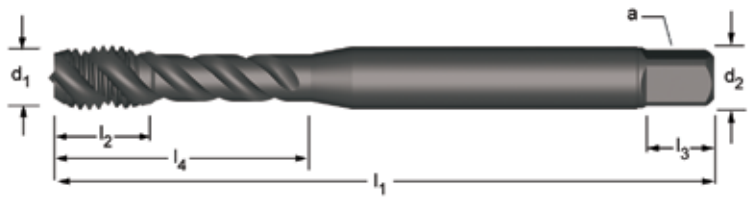
spectrum™



EX21

UNC | HSS XS1 | ST | DIN 2184-1 | 2B | 2.5xD | C 2 - 3 | 45°

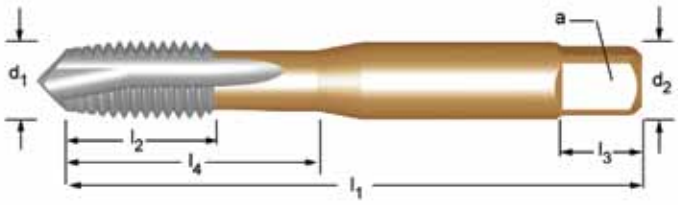
- ■ 1.1 1.2 1.3 1.4 1.5 2.1 2.2
- ● 2.3

UNC	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code	
4	40	2.845	56	6	3.5	2.7	6	3	2.35	18	**EX214-40**	
5	40	3.175	56	6	3.5	2.7	6	3	2.65	18	**EX215-40**	
6	32	3.505	56	7	4.0	3.0	6	3	2.85	20	**EX216-32**	
8	32	4.166	63	7	4.5	3.4	8	3	3.5	21	**EX218-32**	
10	24	4.826	70	8	6.0	4.9	8	3	3.9	25	**EX2110-24**	
12	24	5.486	80	10	6.0	4.9	8	3	4.5	30	**EX2112-24**	
1/4	20	6.350	80	10	7.0	5.5	8	3	5.1	30	**EX211/4**	
5/16	18	7.938	90	12	8.0	6.2	9	3	6.6	35	**EX215/16**	
3/8	16	9.525	100	15	10.0	8.0	11	3	8	39	**EX213/8**	
7/16	14	11.112	100	15	8.0	6.2	9	3	9.4		**EX217/16**	
1/2	13	12.700	110	18	9.0	7.0	10	3	10.8		**EX211/2**	
5/8	11	15.875	110	20	12.0	9.0	12	4	13.5		**EX215/8**	
3/4	10	19.050	125	25	14.0	11.0	14	4	16.5		**EX213/4**	1)
7/8	9	22.225	140	25	18.0	14.5	17	4	19.5		**EX217/8**	1)
1	8	25.400	160	30	18.0	14.5	17	4	22.25		**EX211**	1)

1) HSCo

E020

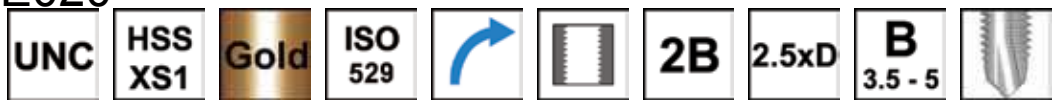
- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



spectrum™

ISO

E020



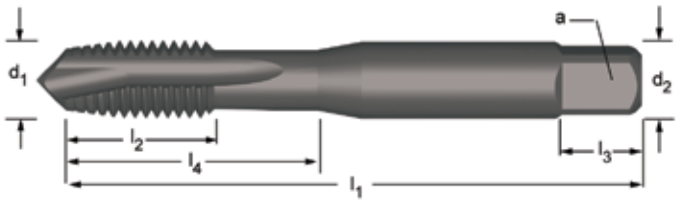
■ 1.1 1.2 1.3 1.4 1.5 6.1 6.3 7.1 7.2 7.3 7.4

● 1.6 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.2 8.1

UNC	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
2	56	2.184	44.5	9.5	2.80	2.24	5	3	1.85	9.5	**E0202-56**
4	40	2.845	48	14	3.15	2.50	5	3	2.35	14	**E0204-40**
5	40	3.175	48	12.5	3.15	2.50	5	3	2.65	12.5	**E0205-40**
6	32	3.505	50	16	3.55	2.80	5	3	2.85	16	**E0206-32**
8	32	4.166	53	9.5	4.50	3.55	6	3	3.50	17	**E0208-32**
10	24	4.826	58	11	5.00	4.00	7	3	3.90	20	**E02010-24**
12	24	5.486	62	12	5.60	4.50	7	3	4.50	21	**E02012-24**
1/4	20	6.350	66	13	6.30	5.00	8	3	5.10	26	**E0201/4**
5/16	18	7.938	72	16	8.00	6.30	9	3	6.60	29	**E0205/16**
3/8	16	9.525	80	18	10.00	8.00	11	3	8.00	32	**E0203/8**
7/16	14	11.112	85	19	8.00	6.30	9	3	9.40		**E0207/16**
1/2	13	12.700	89	22	9.00	7.10	10	3	10.80		**E0201/2**
5/8	11	15.875	102	24	12.50	10.00	13	3	13.50		**E0205/8**
3/4	10	19.050	112	29	14.00	11.20	14	4	16.50		**E0203/4**
7/8	9	22.225	118	29	16.00	12.50	16	4	19.50		**E0207/8**
1“	8	25.400	130	35	18.00	14.00	18	4	22.25		**E0201**

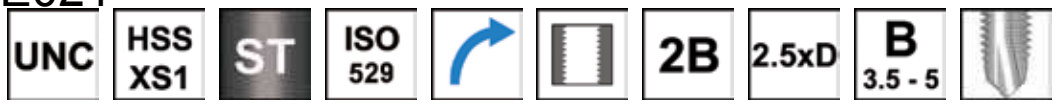
E021

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



spectrum™

E021



■ 1.1 1.2 1.3 1.4 1.5 2.1 2.2

● 1.6 2.3 3.1 3.2 3.3 3.4

UNC	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
2	56	2.184	44.5	9.5	2.80	2.24	5	3	1.85	9.5	**E0212-56**
4	40	2.845	48	14	3.15	2.50	5	3	2.35	14	**E0214-40**
5	40	3.175	48	12.5	3.15	2.50	5	3	2.65	12.5	**E0215-40**
6	32	3.505	50	16	3.55	2.80	5	3	2.85	16	**E0216-32**
8	32	4.166	53	9.5	4.50	3.55	6	3	3.50	17	**E0218-32**
10	24	4.826	58	11	5.00	4.00	7	3	3.90	20	**E02110-24**
12	24	5.486	62	12	5.60	4.50	7	3	4.50	21	**E02112-24**
1/4	20	6.350	66	13	6.30	5.00	8	3	5.10	26	**E0211/4**
5/16	18	7.938	72	16	8.00	6.30	9	3	6.60	29	**E0215/16**
3/8	16	9.525	80	18	10.00	8.00	11	3	8.00	32	**E0213/8**
7/16	14	11.112	85	19	8.00	6.30	9	3	9.40		**E0217/16**
1/2	13	12.700	89	22	9.00	7.10	10	3	10.80		**E0211/2**
5/8	11	15.875	102	24	12.50	10.00	13	3	13.50		**E0215/8**
3/4	10	19.050	112	29	14.00	11.20	14	4	16.50		**E0213/4**
7/8	9	22.225	118	29	16.00	12.50	16	4	19.50		**E0217/8**
1“	8	25.400	130	35	18.00	14.00	18	4	22.25		**E0211**

E022

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
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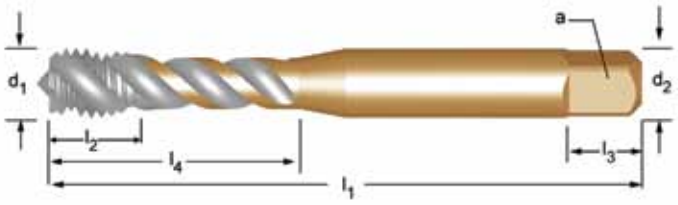
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



spectrum™

ISO

E022

UNC | HSS XS1 | Gold | ISO 529 | 2B | 2.5xD | C 2 - 3 | 48°

■ 1.1 1.2 1.3 1.4 1.5 6.1 6.3 7.1 7.2 7.3 7.4

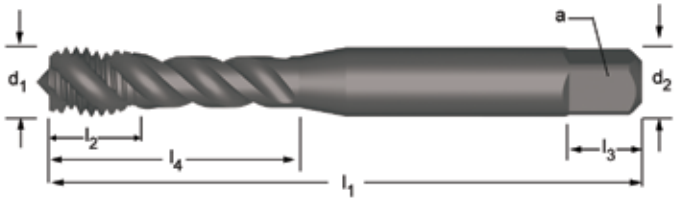
● 4.1 4.2 5.1 5.2 6.2 8.1

UNC	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	□ a mm	l_3 mm	z	↔	l_4 mm	e-Code
2	56	2.184	44.5	9.5	2.80	2.24	5	2	1.85	9.5	**E0222-56**
4	40	2.845	48	6	3.15	2.50	5	3	2.35	14	**E0224-40**
5	40	3.175	48	6	3.15	2.50	5	3	2.65	12.5	**E0225-40**
6	32	3.505	50	6	3.55	2.80	5	3	2.85	16	**E0226-32**
8	32	4.166	53	7	4.50	3.55	6	3	3.50	17	**E0228-32**
10	24	4.826	58	8	5.00	4.00	7	3	3.90	20	**E02210-24**
12	24	5.486	62	12	5.60	4.50	7	3	4.50	21	**E02212-24**
1/4	20	6.350	66	10	6.30	5.00	8	3	5.10	28	**E0221/4**
5/16	18	7.938	72	12	8.00	6.30	9	3	6.60	31	**E0225/16**
3/8	16	9.525	80	15	10.00	8.00	11	3	8.00	34	**E0223/8**
7/16	14	11.112	85	19	8.00	6.30	9	3	9.40		**E0227/16**
1/2	13	12.700	89	19	9.00	7.10	10	3	10.80		**E0221/2**
5/8	11	15.875	102	24	12.50	10.00	13	4	13.50		**E0225/8**
3/4	10	19.050	112	29	14.00	11.20	14	4	16.50		**E0223/4**
7/8	9	22.225	118	29	16.00	12.50	16	4	19.50		**E0227/8**
1	8	25.400	130	35	18.00	14.00	18	4	22.25		**E0221**

E023

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™

ISO



spectrum™

E023



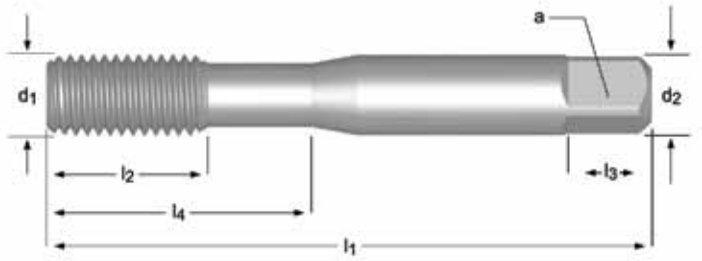
■ 1.1 1.2 1.3 1.4 1.5 2.1 2.2

● 2.3

UNC	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
2	56	2.184	44.5	9.5	2.80	2.24	5	2	1.85	9.5	**E0232-56**
4	40	2.845	48	6	3.15	2.50	5	3	2.35	14	**E0234-40**
5	40	3.175	48	6	3.15	2.50	5	3	2.65	12.5	**E0235-40**
6	32	3.505	50	6	3.55	2.80	5	3	2.85	16	**E0236-32**
8	32	4.166	53	7	4.50	3.55	6	3	3.50	17	**E0238-32**
10	24	4.826	58	8	5.00	4.00	7	3	3.90	20	**E02310-24**
12	24	5.486	62	12	5.60	4.50	7	3	4.50	21	**E02312-24**
1/4	20	6.350	66	10	6.30	5.00	8	3	5.10	28	**E0231/4**
5/16	18	7.938	72	12	8.00	6.30	9	3	6.60	31	**E0235/16**
3/8	16	9.525	80	15	10.00	8.00	11	3	8.00	34	**E0233/8**
7/16	14	11.112	85	19	8.00	6.30	9	3	9.40		**E0237/16**
1/2	13	12.700	89	19	9.00	7.10	10	3	10.80		**E0231/2**
5/8	11	15.875	102	24	12.50	10.00	13	4	13.50		**E0235/8**
3/4	10	19.050	112	29	14.00	11.20	14	4	16.50		**E0233/4**
7/8	9	22.225	118	29	16.00	12.50	16	4	19.50		**E0237/8**
1	8	25.400	130	35	18.00	14.00	18	4	22.25		**E0231**

E523

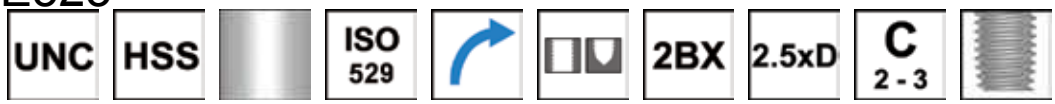
- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindeformer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



spectrum™

ISO

E523

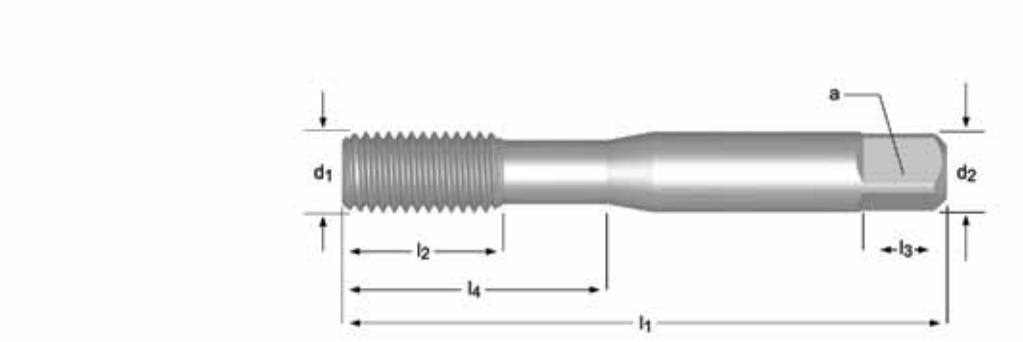


- 1.1 1.2 1.3 1.4 7.1 7.2 7.3

UNC	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm		l_4 mm	e-Code
4	40	2.845	48	12.5	3.15	2.50	5	2.6	12.5	**E5234-40BRIGHT**
6	32	3.505	50	14	3.55	2.80	5	3.2	14	**E5236-32BRIGHT**
8	32	4.166	53	9.5	4.50	3.55	6	3.8	18	**E5238-32BRIGHT**
10	24	4.826	58	11	5.00	4.00	7	4.4	20	**E52310-24BRIGHT**
1/4	20	6.350	66	13	6.30	5.00	8	5.8	26	**E5231/4BRIGHT**
5/16	18	7.938	72	16	8.00	6.30	9	7.3	29	**E5235/16BRIGHT**
3/8	16	9.525	80	18	10.00	8.00	11	8.8	32	**E5233/8BRIGHT**

E596

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindeformer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



spectrum™

E596

UNC | HSS | CrN | ISO 529 | 2BX | 2.5xD | C 2 - 3

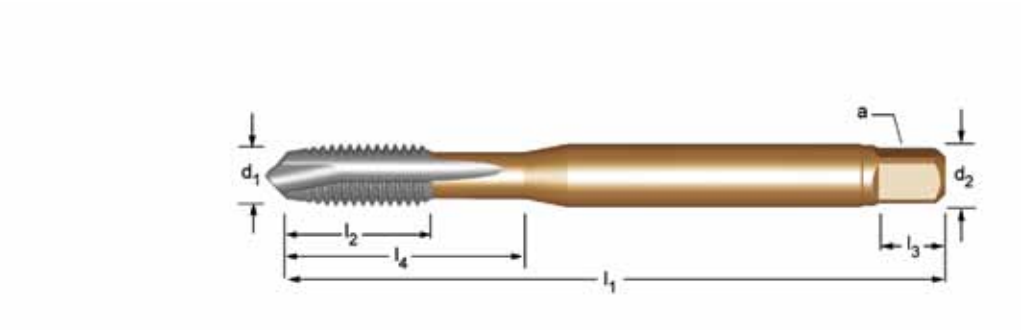
■ 1.1 1.2 1.3 4.1 5.1 7.1 7.2 7.3

● 1.4 2.1 2.2 5.2 6.1 6.3 7.4

UNC	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm		l_4 mm	e-Code
4	40	2.845	48	12.5	3.15	2.50	5	2.6	12.5	**E5964-40**
6	32	3.505	50	14	3.55	2.80	5	3.2	14	**E5966-32**
8	32	4.166	53	9.5	4.50	3.55	6	3.8	18	**E5968-32**
10	24	4.826	58	11	5.00	4.00	7	4.4	20	**E59610-24**
1/4	20	6.350	66	13	6.30	5.00	8	5.8	26	**E5961/4**
5/16	18	7.938	72	16	8.00	6.30	9	7.3	29	**E5965/16**
3/8	16	9.525	80	18	10.00	8.00	11	8.8	32	**E5963/8**

EP30

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



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spectrum™

DIN

EP30

UNF | HSS XS1 | Gold | DIN 2184-1 | 2B | 2.5xD | C 2 - 3

■ 1.1 1.2 1.3 1.4 1.5 6.1 6.3 7.1 7.2 7.3 7.4

● 1.6 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.2 8.1

UNF	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code	
8	36	4.166	63	12	4.5	3.4	8	3	3.5	21	**EP308-36**	
10	32	4.826	70	13	6.0	4.9	8	3	4.1	25	**EP3010-32**	
1/4	28	6.350	80	15	7.0	5.5	8	3	5.5	30	**EP301/4**	
5/16	24	7.938	90	18	8.0	6.2	9	3	6.9	35	**EP305/16**	
3/8	24	9.525	100	20	10.0	8.0	11	3	8.5	39	**EP303/8**	
7/16	20	11.112	100	20	8.0	6.2	9	3	9.9		**EP307/16**	
1/2	20	12.700	110	23	9.0	7.0	10	3	11.5		**EP301/2**	
5/8	18	15.875	110	25	12.0	9.0	12	3	14.5		**EP305/8**	
3/4	16	19.050	125	30	14.0	11.0	14	4	17.5		**EP303/4**	1)
7/8	14	22.225	140	34	18.0	14.5	17	4	20.4		**EP307/8**	1)
1	12	25.400	160	38	18.0	14.5	17	4	23.25		**EP301**	1)

1) HSCo

EP31

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™

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spectrum™

DIN



EP31

UNF | HSS XS1 | ST | DIN 2184-1 | 2B | 2.5xD | C 2 - 3

■ 1.1 1.2 1.3 1.4 1.5 2.1 2.2

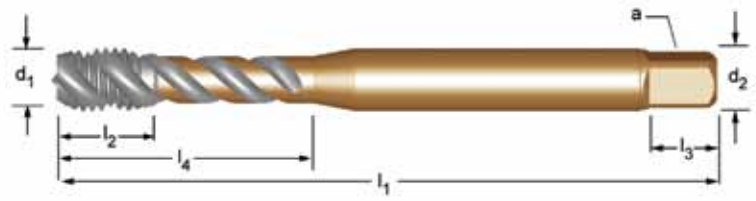
● 1.6 2.3 3.1 3.2 3.3 3.4

UNF	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
8	36	4.166	63	12	4.5	3.4	8	3	3.5	21	**EP318-36**
10	32	4.826	70	13	6.0	4.9	8	3	4.1	25	**EP3110-32**
1/4	28	6.350	80	15	7.0	5.5	8	3	5.5	30	**EP311/4**
5/16	24	7.938	90	18	8.0	6.2	9	3	6.9	35	**EP315/16**
3/8	24	9.525	100	20	10.0	8.0	11	3	8.5	39	**EP313/8**
7/16	20	11.112	100	20	8.0	6.2	9	3	9.9		**EP317/16**
1/2	20	12.700	110	23	9.0	7.0	10	3	11.5		**EP311/2**
5/8	18	15.875	110	25	12.0	9.0	12	3	14.5		**EP315/8**
3/4	16	19.050	125	30	14.0	11.0	14	4	17.5		**EP313/4** [1)]
7/8	14	22.225	140	34	18.0	14.5	17	4	20.4		**EP317/8** [1)]
1	12	25.400	160	38	18.0	14.5	17	4	23.25		**EP311** [1)]

[1)] HSCo

EX30

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



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spectrum™

DIN

EX30



■ 1.1 1.2 1.3 1.4 1.5 7.1 7.2 7.3 7.4

● 4.1 4.2 5.1 5.2

UNF	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code	
8	36	4.166	63	7	4.5	3.4	8	3	3.5	21	**EX308-36**	
10	32	4.826	70	8	6.0	4.9	8	3	4.1	25	**EX3010-32**	
1/4	28	6.350	80	10	7.0	5.5	8	3	5.5	30	**EX301/4**	
5/16	24	7.938	90	12	8.0	6.2	9	3	6.9	35	**EX305/16**	
3/8	24	9.525	100	15	10.0	8.0	11	3	8.5	39	**EX303/8**	
7/16	20	11.112	100	15	8.0	6.2	9	3	9.9		**EX307/16**	
1/2	20	12.700	110	18	9.0	7.0	10	3	11.5		**EX301/2**	
5/8	18	15.875	110	20	12.0	9.0	12	4	14.5		**EX305/8**	
3/4	16	19.050	125	25	14.0	11.0	14	4	17.5		**EX303/4**	1)
7/8	14	22.225	140	25	18.0	14.5	17	4	20.4		**EX307/8**	1)
1	12	25.400	160	30	18.0	14.5	17	4	23.25		**EX301**	1)

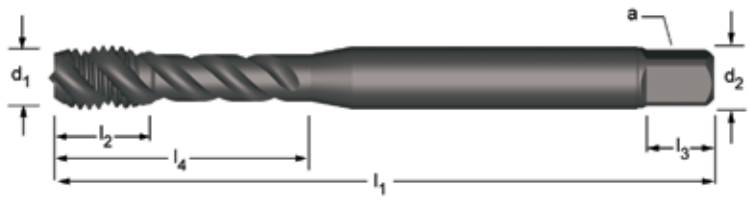
1) HSCo

EX31

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™

NEW
2010.09

spectrum™



EX31



■ 1.1 1.2 1.3 1.4 1.5 2.1 2.2

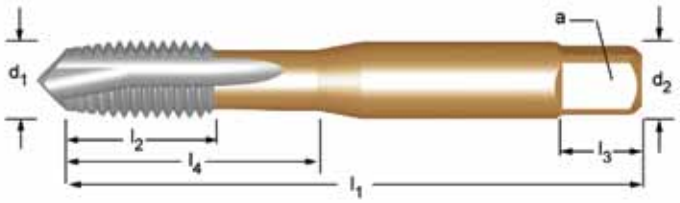
● 2.3

UNF	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code	
8	36	4.166	63	7	4.5	3.4	8	3	3.5	21	**EX318-36**	
10	32	4.826	70	8	6.0	4.9	8	3	4.1	25	**EX3110-32**	
1/4	28	6.350	80	10	7.0	5.5	8	3	5.5	30	**EX311/4**	
5/16	24	7.938	90	12	8.0	6.2	9	3	6.9	35	**EX315/16**	
3/8	24	9.525	100	15	10.0	8.0	11	3	8.5	39	**EX313/8**	
7/16	20	11.112	100	15	8.0	6.2	9	3	9.9		**EX317/16**	
1/2	20	12.700	110	18	9.0	7.0	10	3	11.5		**EX311/2**	
5/8	18	15.875	110	20	12.0	9.0	12	4	14.5		**EX315/8**	
3/4	16	19.050	125	25	14.0	11.0	14	4	17.5		**EX313/4**	1)
7/8	14	22.225	140	25	18.0	14.5	17	4	20.4		**EX317/8**	1)
1	12	25.400	160	30	18.0	14.5	17	4	23.25		**EX311**	1)

1) HSCo

E030

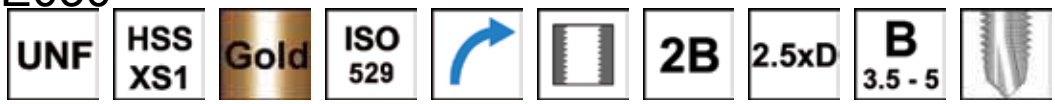
- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



spectrum™

ISO

E030



■ 1.1 1.2 1.3 1.4 1.5 6.1 6.3 7.1 7.2 7.3 7.4

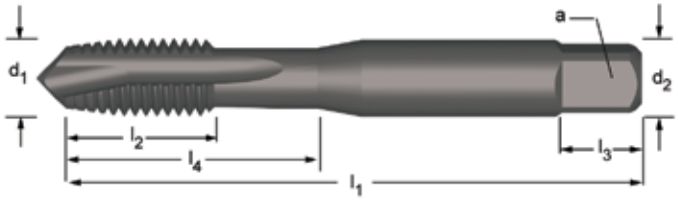
● 1.6 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.2 8.1

UNF	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z	↔	l_4 mm	e-Code
8	36	4.166	53	9.5	4.50	3.55	6	3	3.50	17	**E0308-36**
10	32	4.826	58	11	5.00	4.00	7	3	4.10	20	**E03010-32**
1/4	28	6.350	66	13	6.30	5.00	8	3	5.50	26	**E0301/4**
5/16	24	7.938	72	16	8.00	6.30	9	3	6.90	29	**E0305/16**
3/8	24	9.525	80	18	10.00	8.00	11	3	8.50	32	**E0303/8**
7/16	20	11.112	85	19	8.00	6.30	9	3	9.90		**E0307/16**
1/2	20	12.700	89	22	9.00	7.10	10	3	11.50		**E0301/2**
9/16	18	14.288	95	24	11.20	9.00	12	3	12.90		**E0309/16**
5/8	18	15.875	102	24	12.50	10.00	13	3	14.50		**E0305/8**
3/4	16	19.050	112	29	14.00	11.20	14	4	17.50		**E0303/4**
7/8	14	22.225	118	29	16.00	12.50	16	4	20.40		**E0307/8**
1“	12	25.400	130	35	18.00	14.00	18	4	23.25		**E0301**

E031

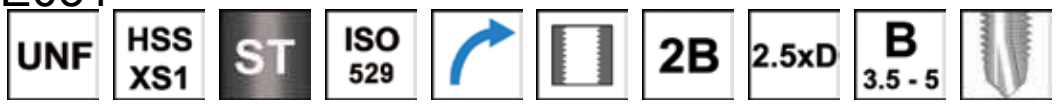
- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™

ISO



spectrum™

E031



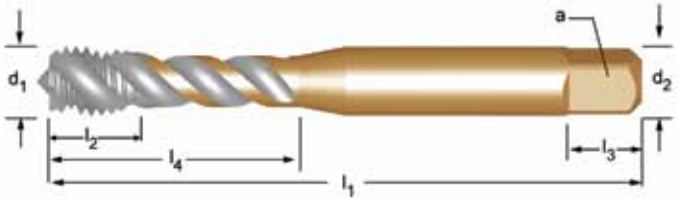
■ 1.1 1.2 1.3 1.4 1.5 2.1 2.2

● 1.6 2.3 3.1 3.2 3.3 3.4

UNF	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
8	36	4.166	53	9.5	4.50	3.55	6	3	3.50	17	**E0318-36**
10	32	4.826	58	11	5.00	4.00	7	3	4.10	20	**E03110-32**
1/4	28	6.350	66	13	6.30	5.00	8	3	5.50	26	**E0311/4**
5/16	24	7.938	72	16	8.00	6.30	9	3	6.90	29	**E0315/16**
3/8	24	9.525	80	18	10.00	8.00	11	3	8.50	32	**E0313/8**
7/16	20	11.112	85	19	8.00	6.30	9	3	9.90		**E0317/16**
1/2	20	12.700	89	22	9.00	7.10	10	3	11.50		**E0311/2**
9/16	18	14.288	95	24	11.20	9.00	12	3	12.90		**E0319/16**
5/8	18	15.875	102	24	12.50	10.00	13	3	14.50		**E0315/8**
3/4	16	19.050	112	29	14.00	11.20	14	4	17.50		**E0313/4**
7/8	14	22.225	118	29	16.00	12.50	16	4	20.40		**E0317/8**
1“	12	25.400	130	35	18.00	14.00	18	4	23.25		**E0311**

E032

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



spectrum™

ISO

E032



■ 1.1 1.2 1.3 1.4 1.5 7.1 7.2 7.3 7.4

● 1.6 4.1 4.2 5.1 5.2 8.1

UNF	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z	↔	l_4 mm	e-Code
8	36	4.166	53	7	4.50	3.55	6	3	3.50	17	**E0328-36**
10	32	4.826	58	8	5.00	4.00	7	3	4.10	20	**E03210-32**
1/4	28	6.350	66	10	6.30	5.00	8	3	5.50	28	**E0321/4**
5/16	24	7.938	72	12	8.00	6.30	9	3	6.90	31	**E0325/16**
3/8	24	9.525	80	15	10.00	8.00	11	3	8.50	34	**E0323/8**
7/16	20	11.112	85	19	8.00	6.30	9	3	9.90		**E0327/16**
1/2	20	12.700	89	22	9.00	7.10	10	3	11.50		**E0321/2**
9/16	18	14.288	95	24	11.20	9.00	12	3	12.90		**E0329/16**
5/8	18	15.875	102	24	12.50	10.00	13	4	14.50		**E0325/8**
3/4	16	19.050	112	29	14.00	11.20	14	4	17.50		**E0323/4**
7/8	14	22.225	118	29	16.00	12.50	16	4	20.40		**E0327/8**
1“	12	25.400	130	35	18.00	14.00	18	4	23.25		**E0321**

E033

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
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spectrum™

ISO

E033

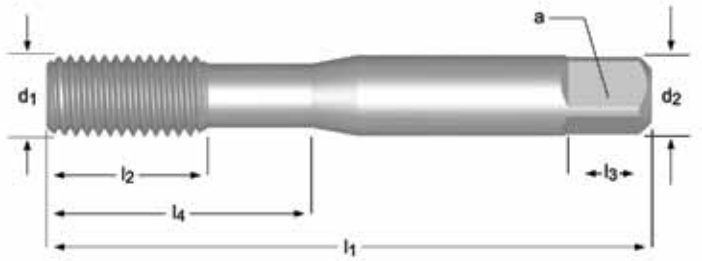
UNF | HSS XS1 | ST | ISO 529 | 2B | 2.5xD | C 2 - 3 | 48°

- ■ 1.1 1.2 1.3 1.4 1.5 2.1 2.2
- ● 1.6 2.3

UNF	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		l_4 mm	e-Code
8	36	4.166	53	7	4.50	3.55	6	3	3.50	17	**E0338-36**
10	32	4.826	58	8	5.00	4.00	7	3	4.10	20	**E03310-32**
1/4	28	6.350	66	10	6.30	5.00	8	3	5.50	28	**E0331/4**
5/16	24	7.938	72	12	8.00	6.30	9	3	6.90	31	**E0335/16**
3/8	24	9.525	80	15	10.00	8.00	11	3	8.50	34	**E0333/8**
7/16	20	11.112	85	19	8.00	6.30	9	3	9.90		**E0337/16**
1/2	20	12.700	89	22	9.00	7.10	10	3	11.50		**E0331/2**
9/16	18	14.288	95	24	11.20	9.00	12	3	12.90		**E0339/16**
5/8	18	15.875	102	24	12.50	10.00	13	4	14.50		**E0335/8**
3/4	16	19.050	112	29	14.00	11.20	14	4	17.50		**E0333/4**
7/8	14	22.225	118	29	16.00	12.50	16	4	20.40		**E0337/8**
1“	12	25.400	130	35	18.00	14.00	18	4	23.25		**E0331**

E530

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindeformer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



spectrum™

ISO

E530

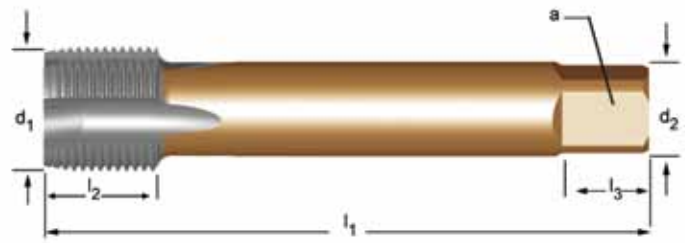
UNF | HSS | ISO 529 | 2BX | 2.5xD | C 2 - 3

- 1.1 1.2 1.3 1.4 7.1 7.2 7.3

UNF	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm		l_4 mm	e-Code
10	32	4.826	58	11	5.00	4.00	7	4.5	20	**E53010-32BRIGHT**
1/4	28	6.350	66	13	6.30	5.00	8	6	26	**E5301/4BRIGHT**
5/16	24	7.938	72	16	8.00	8.00	9	7.5	29	**E5305/16BRIGHT**
3/8	24	9.525	80	18	10.00	10.00	11	9.1	32	**E5303/8BRIGHT**
7/16	20	11.112	85	19	8.00	8.00	9	10.6		**E5307/16BRIGHT**

EP40

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



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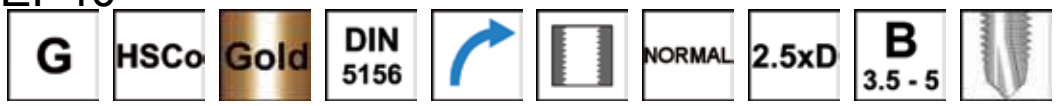
EP40



■ 1.1 1.2 1.3 1.4 1.5 6.1 6.3 7.1 7.2 7.3 7.4

● 1.6 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.2 8.1

G(BSP)	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		e-Code
1/8	28	9.728	90	18	7	5.5	8	3	8.8	**EP401/8**
1/4	19	13.157	100	21	11	9.0	12	3	11.8	**EP401/4**
3/8	19	16.662	100	21	12	9.0	12	4	15.25	**EP403/8**
1/2	14	20.955	125	24	16	12.0	15	4	19	**EP401/2**
5/8	14	22.911	125	24	18	14.5	17	4	21	**EP405/8**
3/4	14	26.441	140	28	20	16.0	19	4	24.5	**EP403/4**
7/8	14	30.201	150	28	22	18.0	21	4	28.25	**EP407/8**
1	11	33.249	160	30	25	20.0	23	4	30.75	**EP401**

EP41

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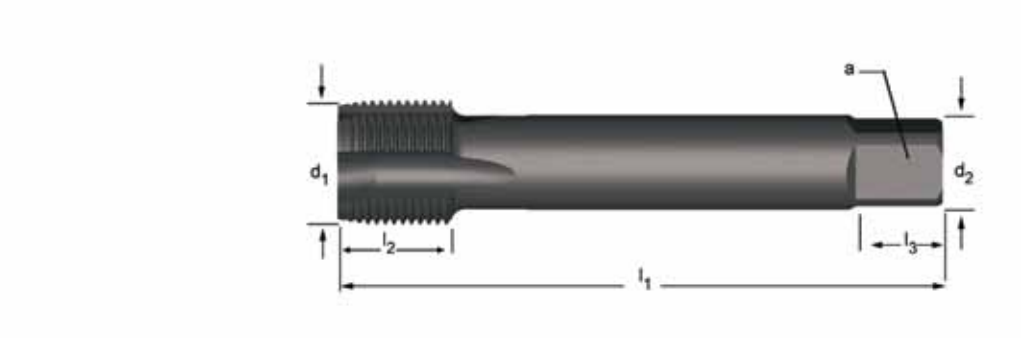
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



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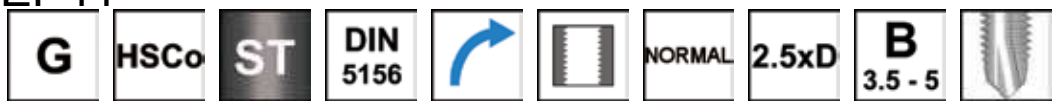
DIN

EP41



■ 1.1 1.2 1.3 1.4 1.5 2.1 2.2

● 1.6 2.3 3.1 3.2 3.3 3.4

G(BSP)	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		e-Code
1/8	28	9.728	90	18	7	5.5	8	3	8.8	**EP411/8**
1/4	19	13.157	100	21	11	9.0	12	3	11.8	**EP411/4**
3/8	19	16.662	100	21	12	9.0	12	4	15.25	**EP413/8**
1/2	14	20.955	125	24	16	12.0	15	4	19	**EP411/2**
5/8	14	22.911	125	24	18	14.5	17	4	21	**EP415/8**
3/4	14	26.441	140	28	20	16.0	19	4	24.5	**EP413/4**
7/8	14	30.201	150	28	22	18.0	21	4	28.25	**EP417/8**
1	11	33.249	160	30	25	20.0	23	4	30.75	**EP411**

EX40

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
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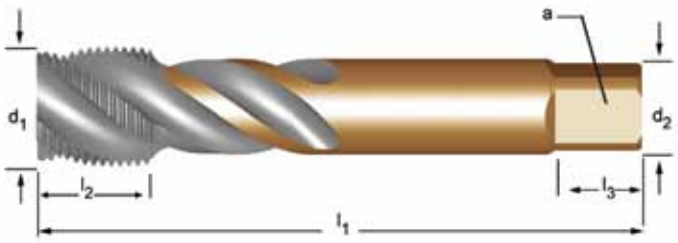
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



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EX40



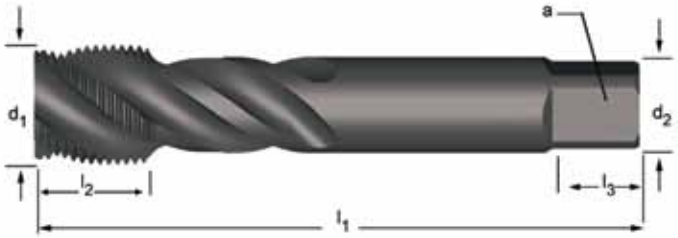
■ 1.1 1.2 1.3 1.4 1.5 7.1 7.2 7.3 7.4

● 4.1 4.2 5.1 5.2 8.1

G(BSP)	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		e-Code
1/8	28	9.728	90	13	7	5.5	8	3	8.8	**EX401/8**
1/4	19	13.157	100	15	11	9.0	12	3	11.8	**EX401/4**
3/8	19	16.662	100	15	12	9.0	12	4	15.25	**EX403/8**
1/2	14	20.955	125	18	16	12.0	15	4	19	**EX401/2**
5/8	14	22.911	125	18	18	14.5	17	4	21	**EX405/8**
3/4	14	26.441	140	20	20	16.0	19	4	24.5	**EX403/4**
7/8	14	30.201	150	20	22	18.0	21	4	28.25	**EX407/8**
1	11	33.249	160	22	25	20.0	23	4	30.75	**EX401**
1.1/8	11	37.897	170	22	28	22.0	25	4	35	**EX401.1/8**
1.1/4	11	41.910	170	22	32	24.0	27	4	39.5	**EX401.1/4**
1.1/2	11	47.803	190	23	36	29.0	32	4	45	**EX401.1/2**

EX41

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



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DIN

EX41



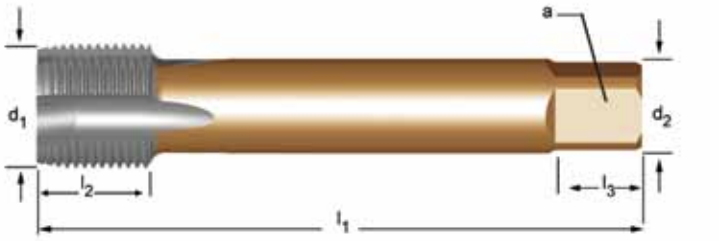
■ 1.1 1.2 1.3 1.4 1.5 2.1 2.2

● 1.6 2.3

G(BSP)	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		e-Code
1/8	28	9.728	90	13	7	5.5	8	3	8.8	**EX411/8**
1/4	19	13.157	100	15	11	9.0	12	3	11.8	**EX411/4**
3/8	19	16.662	100	15	12	9.0	12	4	15.25	**EX413/8**
1/2	14	20.955	125	18	16	12.0	15	4	19	**EX411/2**
5/8	14	22.911	125	18	18	14.5	17	4	21	**EX415/8**
3/4	14	26.441	140	20	20	16.0	19	4	24.5	**EX413/4**
7/8	14	30.201	150	20	22	18.0	21	4	28.25	**EX417/8**
1	11	33.249	160	22	25	20.0	23	4	30.75	**EX411**
1.1/8	11	37.897	170	22	28	22.0	25	4	35	**EX411.1/8**
1.1/4	11	41.910	170	22	32	24.0	27	4	39.5	**EX411.1/4**
1.1/2	11	47.803	190	23	36	29.0	32	4	45	**EX411.1/2**

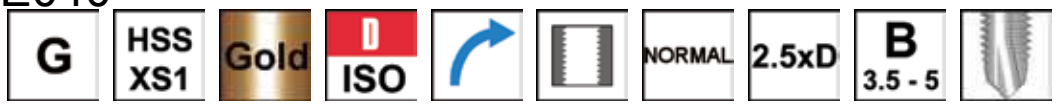
E040

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



spectrum™

E040



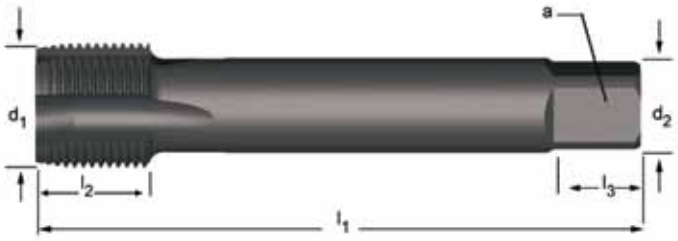
■ 1.1 1.2 1.3 1.4 1.5 6.1 6.3 7.1 7.2 7.3 7.4

● 1.6 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.2 8.1

G(BSP)	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		e-Code
1/8	28	9.728	90	15	8	6.3	9	3	8.80	**E0401/8**
1/4	19	13.157	100	19	10	8	11	3	11.80	**E0401/4**
3/8	19	16.662	100	21	12.5	10	13	3	15.25	**E0403/8**
1/2	14	20.955	125	26	16	12.5	16	4	19.00	**E0401/2**
3/4	14	26.441	140	28	20	16	20	4	24.50	**E0403/4**

E041

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



spectrum™

E041

G | HSS XS1 | ST | D ISO | NORMAL | 2.5xD | B 3.5 - 5

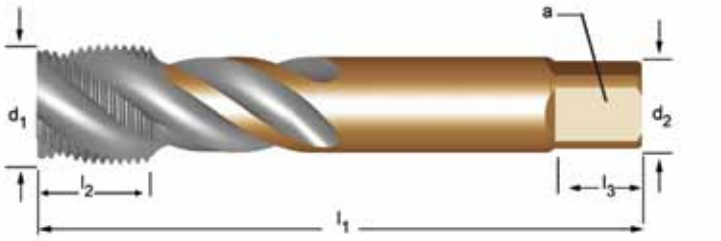
■ 1.1 1.2 1.3 1.4 1.5 2.1 2.2

● 1.6 2.3 3.1 3.2 3.3 3.4

G(BSP)	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		e-Code
1/8	28	9.728	90	15	8	6.3	9	3	8.80	**E0411/8**
1/4	19	13.157	100	19	10	8	11	3	11.80	**E0411/4**
3/8	19	16.662	100	21	12.5	10	13	3	15.25	**E0413/8**
1/2	14	20.955	125	26	16	12.5	16	4	19.00	**E0411/2**
3/4	14	26.441	140	28	20	16	20	4	24.50	**E0413/4**

E042

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



spectrum™

E042



■ 1.1 1.2 1.3 1.4 1.5 7.1 7.2 7.3 7.4

● 4.1 4.2 5.1 5.2 8.1

G(BSP)	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		e-Code
1/8	28	9.728	90	15	8	6.3	9	3	8.80	**E0421/8**
1/4	19	13.157	100	19	10	8	11	3	11.80	**E0421/4**
3/8	19	16.662	100	21	12.5	10	13	4	15.25	**E0423/8**
1/2	14	20.955	125	26	16	12.5	16	4	19.00	**E0421/2**
3/4	14	26.441	140	28	20	16	20	4	24.50	**E0423/4**

E043

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
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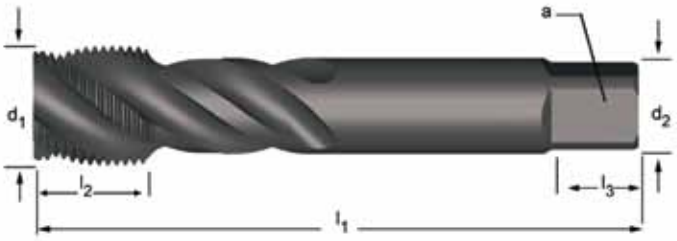
- Macho Máquina Spectrum™



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E043



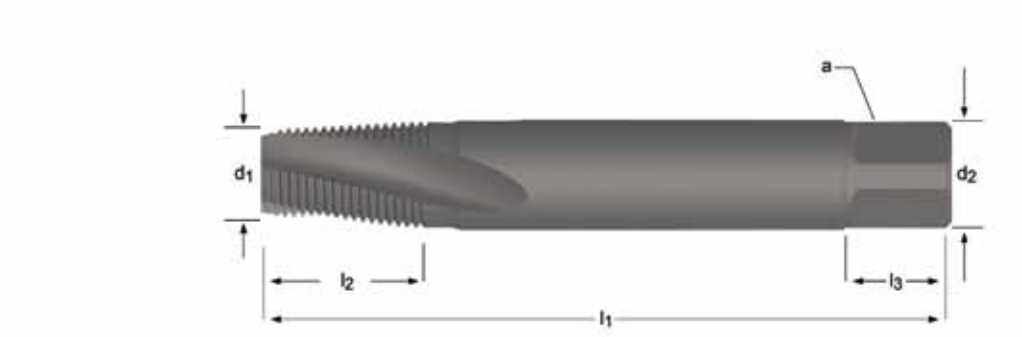
■ 1.1 1.2 1.3 1.4 1.5 2.1 2.2

● 1.6 2.3

G(BSP)	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z		e-Code
1/8	28	9.728	90	15	8	6.3	9	3	8.80	**E0431/8**
1/4	19	13.157	100	19	10	8	11	3	11.80	**E0431/4**
3/8	19	16.662	100	21	12.5	10	13	4	15.25	**E0433/8**
1/2	14	20.955	125	26	16	12.5	16	4	19.00	**E0431/2**
3/4	14	26.441	140	28	20	16	20	4	24.50	**E0433/4**

E735

- Machine Tap Spectrum™
- Spectrum™ Maschinen-Gewindebohrer
- Spectrum™ Machinetappen
- Spectrum™ Tarauds machine
- Spectrum™ Machos de máquina
- Macho Máquina Spectrum™



spectrum™

E735

NPT | HSCo | ST | DIN ANSI | NORMAL | 1.5xD | C 2 - 3 | 15°

■ 1.4 1.5 1.6 2.4 3.1 3.2 4.2 4.3 5.2 5.3 6.2 6.4

● 6.3 7.3 7.4

NPT	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	z			e-Code
1/16	27	7.72	80	14	7.9	5.9	9	3	6.30	D	**E7351/16**
1/8	27	10.06	90	14	11.1	8.3	9	4	8.50	R	**E7351/8**
1/4	18	13.36	100	20	14.3	10.7	11	4	11.00	7/16	**E7351/4**
3/8	18	16.81	110	20	17.8	13.5	13	5	14.50	37/64	**E7353/8**
1/2	14	20.96	125	26	17.5	13.1	16	5	18.00	23/32	**E7351/2**
3/4	14	26.29	140	26	23.0	17.2	18	5	23.00	59/64	**E7353/4**
1“	11.5	32.92	150	31	28.6	21.4	21	5	29.00	1.5/32	**E7351**

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