

DRILLING TOOLS CATALOGUE





Overview of symbols



Heavy-duty high speed steel for drilling holes in easy-to-machine materials with a strength of up to 900 N/mm2.



Same as HSS, drill is ground.



Heavy-duty high speed steel with 5 % cobalt content. High ductility and heat resistance, for drilling holes in difficult-to-machine materials with a strength of up to 1100 N/mm2.



same as HSS, drill is rolled.



bright



Gold surface



Black surface



bright / black surface



The titanium nitride coating is a universally usable standard coating. It has a 300-400 % longer service life than non-coated materials. Cooling is recommended.



Shank: Morse taper



Shank: cylindrical



Shank: Weldon



Step angle, e.g. 90°



Point angle: 118°



Drilling depth e.g. 30,0 mm



Point angle e.g. 130°



Shape C: Split point



Tenacity classes



Countersink angle: 90°



Cutting edges: 3



Short twist drills with straight shank



Twist drills: right hand cutting



Step drills: right hand cutting



Thread-cutting tools: right hand cutting



Core drills: right hand cutting



Taper and deburring countersinkers: right hand cutting



Type B, 4 - 5 threads with progressive tap



Type C / 35° right-hand spiral flutes, 2 - 3 threads



Helix angle: 25-30°
Point angle: 118°
Point cut: form C



TWIST DRILLS



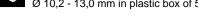




Twist drills DIN 338 type N HSSE-Co 5 ground in plastic box



Ø 1,0 - 10,0 mm in plastic box of 10 Ø 10,2 - 13,0 mm in plastic box of 5



















Ø mm	mm	mm	No.		€
Ø 1,0 mm	34,0 mm	12,0 mm	215 010 TX	10	
Ø 1,5 mm	40,0 mm	18,0 mm	215 015 TX	10	
Ø 2,0 mm	49,0 mm	24,0 mm	215 020 TX	10	
Ø 2,5 mm	57,0 mm	30,0 mm	215 025 TX	10	
Ø 3,0 mm	61,0 mm	33,0 mm	215 030 TX	10	
Ø 3,3 mm	65,0 mm	36,0 mm	215 033 TX	10	
Ø 3,5 mm	70,0 mm	39,0 mm	215 035 TX	10	
Ø 4,0 mm	75,0 mm	43,0 mm	215 040 TX	10	
Ø 4,2 mm	75,0 mm	43,0 mm	215 042 TX	10	
Ø 4,5 mm	80,0 mm	47,0 mm	215 045 TX	10	
Ø 5,0 mm	86,0 mm	52,0 mm	215 050 TX	10	
Ø 5,5 mm	93,0 mm	57,0 mm	215 055 TX	10	
Ø 6,0 mm	93,0 mm	57,0 mm	215 060 TX	10	
Ø 6,5 mm	101,0 mm	63,0 mm	215 065 TX	10	
Ø 6,8 mm	109,0 mm	69,0 mm	215 068 TX	10	
Ø 7,0 mm	109,0 mm	69,0 mm	215 070 TX	10	
Ø 7,5 mm	109,0 mm	69,0 mm	215 075 TX	10	
Ø 8,0 mm	117,0 mm	75,0 mm	215 080 TX	10	
Ø 8,5 mm	117,0 mm	75,0 mm	215 085 TX	10	
Ø 9,0 mm	125,0 mm	81,0 mm	215 090 TX	10	
Ø 9,5 mm	125,0 mm	81,0 mm	215 095 TX	10	
Ø 10,0 mm	133,0 mm	87,0 mm	215 100 TX	10	
Ø 10,2 mm	133,0 mm	87,0 mm	215 102 TX	5	
Ø 10,5 mm	133,0 mm	87,0 mm	215 105 TX	5	
Ø 11,0 mm	142,0 mm	94,0 mm	215 110 TX	5	
Ø 11,5 mm	142,0 mm	94,0 mm	215 115 TX	5	
Ø 12,0 mm	151,0 mm	101,0 mm	215 120 TX	5	
Ø 12,5 mm	151,0 mm	101,0 mm	215 125 TX	5	
Ø 13,0 mm	151,0 mm	101,0 mm	215 130 TX	5	

Twist drills DIN 338 type N HSSE-Co 5 ground in plastic case













Ø 1,0 - 10,0 x 0,5 mm

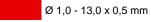














	No.	€
19-piece set of twist drills	A 215 214 RO	
25-piece set of twist drills	A 215 215 RO	

Twist drills DIN 338 type N HSSE-Co 5 ground in steel case

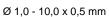










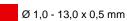








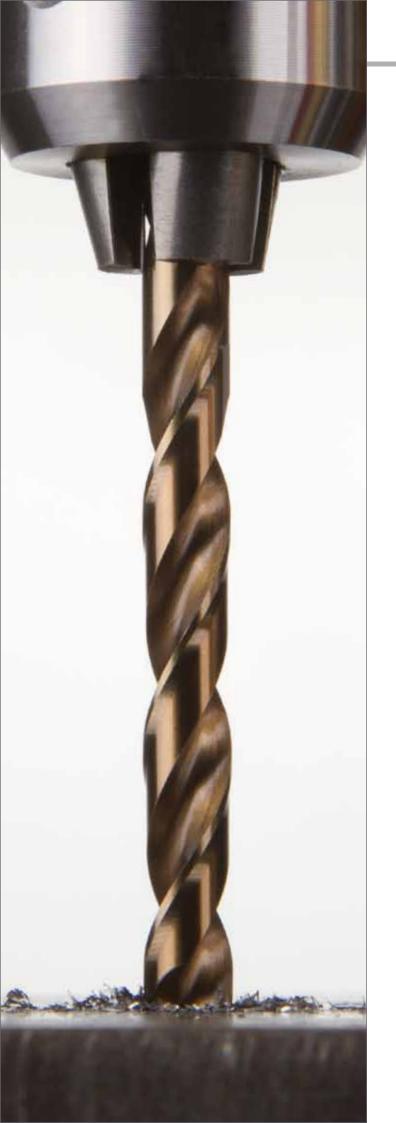






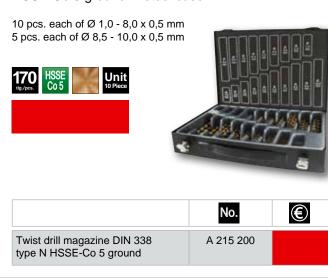
	No.	€
19-piece set of twist drills	A 215 214	
25-piece set of twist drills	A 215 215	



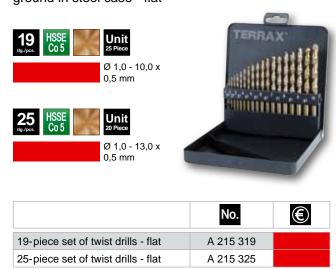




Twist drill magazine DIN 338 type N HSSE-Co 5 ground in steel case



Twist drills DIN 338 type N HSSE-Co 5 ground in steel case - flat







Twist drills DIN 338 type N HSS ground in plastic box



Ø 1,0 - 10,0 mm in plastic box of 10 Ø 10,2 - 13,0 mm in plastic box of 5









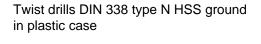




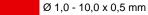




Ø mm	■ mm	★ mm	No.	*	€
Ø 1,0 mm	34,0 mm	12,0 mm	214 010 TX	10	
Ø 1,5 mm	40,0 mm	18,0 mm	214 015 TX	10	
Ø 2,0 mm	49,0 mm	24,0 mm	214 020 TX	10	
Ø 2,5 mm	57,0 mm	30,0 mm	214 025 TX	10	
Ø 3,0 mm	61,0 mm	33,0 mm	214 030 TX	10	
Ø 3,3 mm	65,0 mm	36,0 mm	214 033 TX	10	
Ø 3,5 mm	70,0 mm	39,0 mm	214 035 TX	10	
Ø 4,0 mm	75,0 mm	43,0 mm	214 040 TX	10	
Ø 4,2 mm	75,0 mm	43,0 mm	214 042 TX	10	
Ø 4,5 mm	80,0 mm	47,0 mm	214 045 TX	10	
Ø 5,0 mm	86,0 mm	52,0 mm	214 050 TX	10	
Ø 5,5 mm	93,0 mm	57,0 mm	214 055 TX	10	
Ø 6,0 mm	93,0 mm	57,0 mm	214 060 TX	10	
Ø 6,5 mm	101,0 mm	63,0 mm	214 065 TX	10	
Ø 6,8 mm	109,0 mm	69,0 mm	214 068 TX	10	
Ø 7,0 mm	109,0 mm	69,0 mm	214 070 TX	10	
Ø 7,5 mm	109,0 mm	69,0 mm	214 075 TX	10	
Ø 8,0 mm	117,0 mm	75,0 mm	214 080 TX	10	
Ø 8,5 mm	117,0 mm	75,0 mm	214 085 TX	10	
Ø 9,0 mm	125,0 mm	81,0 mm	214 090 TX	10	
Ø 9,5 mm	125,0 mm	81,0 mm	214 095 TX	10	
Ø 10,0 mm	133,0 mm	87,0 mm	214 100 TX	10	
Ø 10,2 mm	133,0 mm	87,0 mm	214 102 TX	5	
Ø 10,5 mm	133,0 mm	87,0 mm	214 105 TX	5	
Ø 11,0 mm	142,0 mm	94,0 mm	214 110 TX	5	
Ø 11,5 mm	142,0 mm	94,0 mm	214 115 TX	5	
Ø 12,0 mm	151,0 mm	101,0 mm	214 120 TX	5	
Ø 12,2 mm	151,0 mm	101,0 mm	214 122 TX	5	
Ø 12,5 mm	151,0 mm	101,0 mm	214 125 TX	5	
Ø 13,0 mm	151,0 mm	101,0 mm	214 130 TX	5	









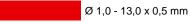


Twist drills DIN 338 type N HSS ground

in steel case









	No.	€
19-piece set of twist drills	A 214 214	
25-piece set of twist drills	A 214 215	



Twist drills magazine DIN 338 type N HSS ground in plastic case



10 pcs. each of Ø 1,0 - 8,0 x 0,5 mm 5 pcs. each of Ø 8,5 - 10,0 x 0,5 mm



	No.	€
Twist drills magazine DIN 338 type N HSS ground	A 214 200 RO	

Twist drills DIN 338 type N HSS ground in steel case - flat





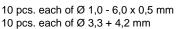






	No.	€
19-piece set of twist drills - flat	A 214 319	
25-piece set of twist drills - flat	A 214 325	

Twist drill magazine DIN 338 type N HSS ground in steel case







	No.	€
Twist drill magazine DIN 338 type N HSS ground	A 214 195	

Twist drill magazine DIN 338 type N HSS ground in steel case

10 pcs. each of Ø 1,0 - 8,0 x 0,5 mm 5 pcs. each of Ø 8,5 - 10,0 x 0,5 mm





	No.	€
Twist drill magazine DIN 338 type N HSS ground	A 214 200	

Twist drill magazine DIN 338 type N HSS ground in steel case



10 pcs. each of Ø 1,0 - 8,0 x 0,5 mm 5 pcs. each of Ø 8,5 - 13,0 x 0,5 mm 10 pcs. each of Ø 3.3 + 4.2 mm



	No.	€
Twist drills magazine DIN 338 type N HSS ground	A 214 220	

Twist drill set DIN 345 type N HSS in steel case







	No.	€
Ø 14,0 / 15,0 / 16,0 / 17,0 / 18,0 / 19,0 / 20,0 / 21,0 / 22,0 / 23,0 mm	A 204 001	
Ø 14,0 / 16,0 / 18,0 / 20,0 / 22,0 / 24,0 / 25,0 / 26,0 / 28,0 / 30,0 mm	A 204 002	





Twist drills DIN 338 type N HSS rolled in plastic box



Ø 1,0 - 10,0 mm in plastic box of 10 Ø 10,2 - 13,0 mm in plastic box of 5

















Ø mm	★ mm	<mark>→ mm</mark>	No.		€
Ø 1,0 mm	34,0 mm	12,0 mm	201 010 TX	10	
Ø 1,5 mm	40,0 mm	18,0 mm	201 015 TX	10	
Ø 2,0 mm	49,0 mm	24,0 mm	201 020 TX	10	
Ø 2,5 mm	57,0 mm	30,0 mm	201 025 TX	10	
Ø 3,0 mm	61,0 mm	33,0 mm	201 030 TX	10	
Ø 3,3 mm	65,0 mm	36,0 mm	201 033 TX	10	
Ø 3,5 mm	70,0 mm	39,0 mm	201 035 TX	10	
Ø 4,0 mm	75,0 mm	43,0 mm	201 040 TX	10	
Ø 4,2 mm	75,0 mm	43,0 mm	201 042 TX	10	
Ø 4,5 mm	80,0 mm	47,0 mm	201 045 TX	10	
Ø 5,0 mm	86,0 mm	52,0 mm	201 050 TX	10	
Ø 5,5 mm	93,0 mm	57,0 mm	201 055 TX	10	
Ø 6,0 mm	93,0 mm	57,0 mm	201 060 TX	10	
Ø 6,5 mm	101,0 mm	63,0 mm	201 065 TX	10	
Ø 6,8 mm	109,0 mm	69,0 mm	201 068 TX	10	
Ø 7,0 mm	109,0 mm	69,0 mm	201 070 TX	10	
Ø 7,5 mm	109,0 mm	69,0 mm	201 075 TX	10	
Ø 8,0 mm	117,0 mm	75,0 mm	201 080 TX	10	
Ø 8,5 mm	117,0 mm	75,0 mm	201 085 TX	10	
Ø 9,0 mm	125,0 mm	81,0 mm	201 090 TX	10	
Ø 9,5 mm	125,0 mm	81,0 mm	201 095 TX	10	
Ø 10,0 mm	133,0 mm	87,0 mm	201 100 TX	10	
Ø 10,2 mm	133,0 mm	87,0 mm	201 102 TX	5	
Ø 10,5 mm	133,0 mm	87,0 mm	201 105 TX	5	
Ø 11,0 mm	142,0 mm	94,0 mm	201 110 TX	5	
Ø 11,5 mm	142,0 mm	94,0 mm	201 115 TX	5	
Ø 12,0 mm	151,0 mm	101,0 mm	201 120 TX	5	
Ø 12,2 mm	151,0 mm	101,0 mm	201 122 TX	5	
Ø 12,5 mm	151,0 mm	101,0 mm	201 125 TX	5	
Ø 13,0 mm	151,0 mm	101,0 mm	201 130 TX	5	

Twist drill sets DIN 338 type N HSS rolled

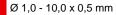










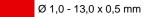












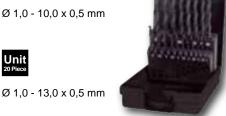


Twist drill sets DIN 338 type N HSS rolled in plastic case



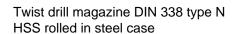


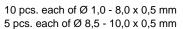




	No.	€
19-piece set of twist drills	A 205 210 RO	
25-piece set of twist drills	A 205 211 RO	











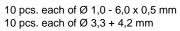






	No.	€
Twist drill magazine DIN 338 type N HSS rolled	A 205 200	

Twist drill magazine DIN 338 type N HSS rolled in steel case







	No.	€
Twist drill magazine DIN 338 type N HSS rolled	A 205 195	

Twist drill sets DIN 338 type N HSS rolled in steel case - flat







No.	€
A 205 319	
A 205 325	
	7.2000.0







Twist drills DIN 338 type N HSS-TiN ground in plastic box



Ø 1,0 - 10,0 mm in plastic box of 10 Ø 10,2 - 13,0 mm in plastic box of 5





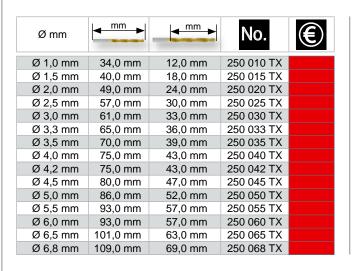












Ø mm	<mark>■ mm</mark>	mm	No.	€
Ø 7,0 mm	109,0 mm	69,0 mm	250 070 TX	
Ø 7,5 mm	109,0 mm	69,0 mm	250 075 TX	
Ø 8,0 mm	117,0 mm	75,0 mm	250 080 TX	
Ø 8,5 mm	117,0 mm	75,0 mm	250 085 TX	
Ø 9,0 mm	125,0 mm	81,0 mm	250 090 TX	
Ø 9,5 mm	125,0 mm	81,0 mm	250 095 TX	
Ø 10,0 mm	133,0 mm	87,0 mm	250 100 TX	
Ø 10,2 mm	133,0 mm	87,0 mm	250 102 TX	
Ø 10,5 mm	133,0 mm	87,0 mm	250 105 TX	
Ø 11,0 mm	142,0 mm	94,0 mm	250 110 TX	
Ø 11,5 mm	142,0 mm	94,0 mm	250 115 TX	
Ø 12,0 mm	151,0 mm	101,0 mm	250 120 TX	
Ø 12,2 mm	151,0 mm	101,0 mm	250 122 TX	
Ø 12,5 mm	151,0 mm	101,0 mm	250 125 TX	
Ø 13,0 mm	151,0 mm	101,0 mm	250 130 TX	

Twist drills DIN 338 type N HSS-TiN ground in steel case





Ø 1,0 - 10,0 x 0,5 mm









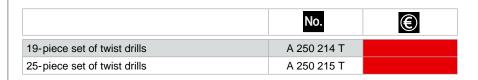








Ø 1,0 - 13,0 x 0,5 mm





Twist drills magazine DIN 338 type N HSS-TiN ground in plastic case











10 pcs. each of Ø 1,0 - 8,0 x 0,5 mm 5 pcs. each of Ø 8,5 - 10,0 x 0,5 mm



	No.	€
Twist drills magazine DIN 338 type N HSS ground	A 214 200 RO	

Twist drills DIN 338 type N HSS-TiN ground in plastic case













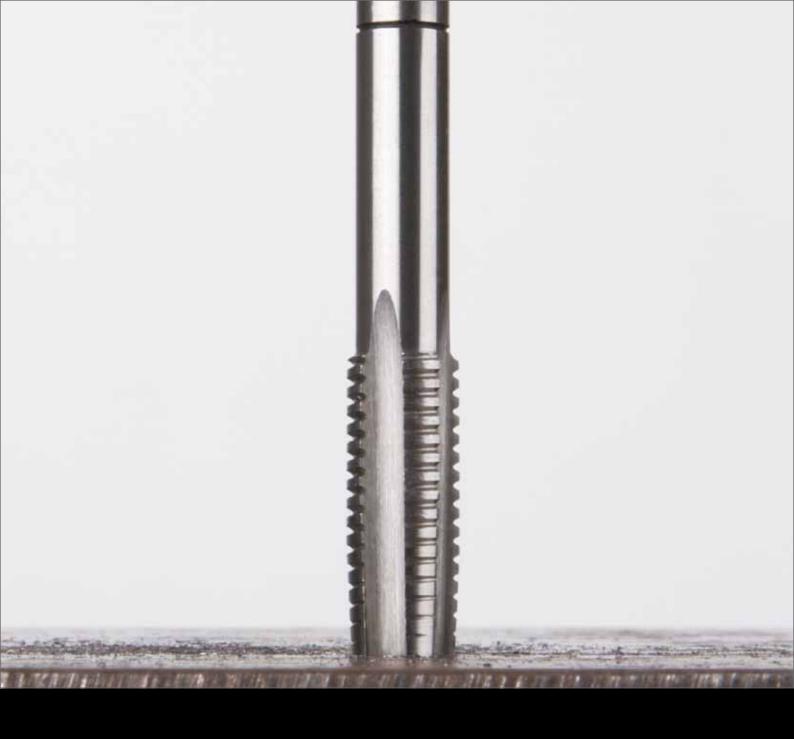








	No.	€
19-piece set of twist drills	A 250 214 TRO	
25-piece set of twist drills	A 250 215 TRO	



THREAD-CUTTING





Thread-cutting set HSS in steel case



One round die ≈ DIN EN 22568 HSS ground M3 - M12

+ die stock DIN 225 – 25,0 x 9,0 mm



	No.	€
Thread-cutting set, 8 pcs.	A 245 014	

Hand tap set HSS in steel case



One three-piece set of hand taps DIN 352 HSS M $3\,/$ M $4\,/$ M $5\,/$ M $6\,/$ M $8\,/$ M $10\,/$ M 12



	No.	€
Thread-cutting set, 21 pcs.	A 245 006	

Thread-cutting set HSS in steel case









One round die \approx DIN EN 22568 HSS / M3 - M12

- + 1 hand tap set DIN 352 HSS / M3 M12
- + die stock DIN 225 25,0 x 9,0 mm
- + 1 tap wrench DIN 1814 Size 11/2
- + 1 screwdriver

	No.	€
Thread-cutting set, 31 pcs.	A 245 013	



Thread-cutting set HSS in plastic case









Hand tap set $\,$ DIN 352 HSS / M3 - M12 $\,$

- + one round die \approx DIN EN 22568 HSS / M3 M12
- + die stock DIN 225 20,0 x 5,0 / 20,0 x 7,0 / 25,0 x 9,0 / 30,0 x 11,0 / 38,0 x 14,0 mm
- + twist drills DIN 338 type N HSS ground Ø 2,5 / 3,3 / 4,2 / 5,0 / 6,8 / 8,5 / 10,2 mm
- + tap wrench size 1 / size 2 DIN 1814
- + 1 steel tap wrench size 1
- + 1 screwdriver
- + 1 screw-pitch gauge

	No.	€
Thread-cutting set, 45 pcs.	A 245 021	





Thread-cutting set HSS in steel case











- + one round die \approx DIN EN 22568 HSS / M3 M12
- + die stock DIN 225 20,0 x 5,0 / 20,0 x 7,0 / 25,0 x 9,0 / 30,0 x 11,0 / 38,0 x 14,0 mm
- + tap wrench size 1 + 2 DIN 1814
- + 1 screwdriver
- + 1 screw-pitch gauge

	No.	€
Thread-cutting set, 37 pcs.	A 245 020	



Thread-cutting set HSS in steel case

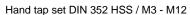












- + one round die \approx DIN EN 22568 HSS / M3 M12
- + die stock DIN 225 20,0 x 5,0 / 20,0 x 7,0 / 25,0 x 9,0 / 30,0 x 11,0 / 38,0 x 14,0 mm
- + twist drills DIN 338 type N HSS-R \emptyset 2,5 / 3,3 / 4,2 / 5,0 / 6,8 / 8,5 / 10,2 mm
- + tap wrench size 1 + 2 DIN 1814
- + 1 screwdriver
- + 1 screw-pitch gauge

	No.	€
Thread-cutting set, 44 pcs.	A 245 030	



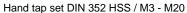
Thread-cutting set HSS in steel case











- + one round die \approx DIN EN 22568 HSS / M3 M20
- + die stock DIN 225 -
- + tap wrench size 1 + 3 DIN 1814
- + 1 screwdriver
- + 1 screw-pitch gauge

	No.	€
Thread-cutting set, 54 pcs.	A 245 040	







Hand taps M DIN 352 HSS ground in plastic case



5 - 6 thread chamfer Taper tap: Second tap: 4 - 5 thread chamfer Final tap: 2 - 3 thread chamfer

metric, DIN ISO 13 Thread: Tolerance: ISO 2 / 6H

right hand cutting

















M	Pitch mm	Thread core hole Ø mm	mm	de mm de memorial de la memoria	No.	€
M 3	0,50	2,5	40,0	10,0	230 030 TX	
M 4	0,70	3,3	45,0	12,0	230 040 TX	
M 5	0,80	4,2	50,0	13,0	230 050 TX	
M 6	1,00	5,0	56,0	15,0	230 060 TX	
M 8	1,25	6,8	63,0	18,0	230 080 TX	
M 10	1,50	8,5	70,0	24,0	230 100 TX	
M 12	1,75	10,2	75,0	29,0	230 120 TX	
M 14	2,00	12,0	80,0	30,0	230 140 TX	
M 16	2,00	14,0	80,0	32,0	230 160 TX	
M 18	2,50	15,5	95,0	40,0	230 180 TX	
M 20	2,50	17,5	95,0	40,0	230 200 TX	

Round dies M DIN EN 22568 HSS ground in plastic case

Type B closed, preslotted Type: Thread: metric, DIN ISO 13

Tolerance: ISO - 6g

Surface: bright right hand cutting





















M	Pitch mm	Thickness mm	Outside Ø mm	No.	(E)
M 3	0,50	5,0	20,0	237 030 TX	
M 4	0,70	5,0	20,0	237 040 TX	
M 5	0,80	7,0	20,0	237 050 TX	
M 6	1,00	7,0	20,0	237 060 TX	
M 8	1,25	9,0	25,0	237 080 TX	
M 10	1,50	11,0	38,0	237 100 TX	
M 12	1,75	14,0	38,0	237 120 TX	
M 14	2,00	14,0	38,0	237 140 TX	
M 16	2,00	18,0	45,0	237 160 TX	
M 18	2,50	18,0	45,0	237 180 TX	
M 20	2,50	18,0	45,0	237 200 TX	



MACHINE TAPS









Machine taps M DIN 371 / 376 type B with progressive tap HSS ground









Machine taps with reinforced shank for through threads.

Chamfer: type B, 4 - 5 threads with progressive tap

metric, DIN ISO 13 Thread: Flanks: relief-ground



M	Pitch mm	Thread core hole mm	★ mm	de mm de me	Ø shank mm	No.	€
M 3	0,50	2,5	56,0	11,0	3,5	232 030 TX	
M 4	0,70	3,3	63,0	13,0	4,5	232 040 TX	
M 5	0,80	4,2	70,0	16,0	6,0	232 050 TX	
M 6	1,00	5,0	80,0	19,0	6,0	232 060 TX	
M 8	1,25	6,8	90,0	22,0	8,0	232 080 TX	
M 10	1,50	8,5	100,0	24,0	10,0	232 100 TX	
M 12	1,75	10,2	110,0	28,0	9,0	232 120 TX	

Machine taps M DIN 371 / 376 type C / 35° righthand spiral flutes HSS ground













Machine taps with reinforced shank and 35° right-hand spiral flutes for bottoming.

Chamfer: type C / 35° right-hand spiral flutes, 2-3 threads

metric, DIN ISO 13 Thread: Flanks: relief-ground



М	Pitch mm	Thread core hole mm	★ mm	mm	Ø shank mm	No.	€
M 3	0,50	2,5	56,0	11,0	3,5	234 030 TX	
M 4	0,70	3,3	63,0	13,0	4,5	234 040 TX	
M 5	0,80	4,2	70,0	16,0	6,0	234 050 TX	
M 6	1,00	5,0	80,0	19,0	6,0	234 060 TX	
M 8	1,25	6,8	90,0	22,0	8,0	234 080 TX	
M 10	1,50	8,5	100,0	24,0	10,0	234 100 TX	
M 12	1,75	10,2	110,0	28,0	9,0	233 120 TX	

Machine tap set HSS + HSSE-Co 5, in plastic case





















	No.	€
HSS - type B	A 245 057 TX	
HSSE-Co 5 - type B	A 245 057 ETX	

Machine tap set HSS + HSSE-Co 5, in plastic case





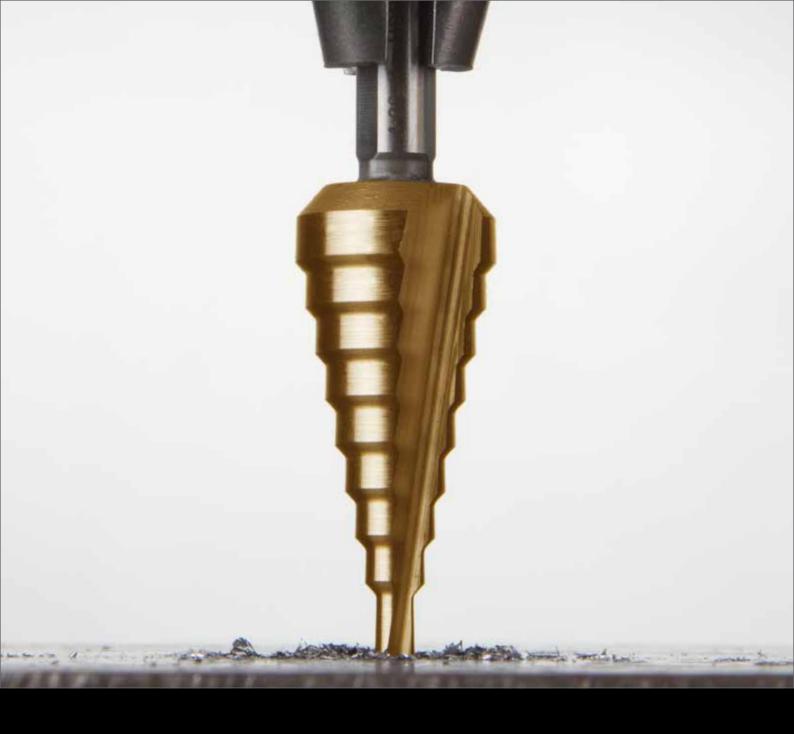








	No.	€
HSS - type C	A 245 058 TX	
HSSE-Co 5 - type C	A 245 058 ETX	



STEP DRILLS









Step drills HSS + HSS-TiN, CBN ground, straight cut with split point





Size 0/9 I Ø 4,0 - 12,0 mm

Size 1 I Ø 4,0 - 20,0 mm

Size 2 I Ø 6,0 - 30,0 mm









work's specification with split point DIN 1412 C Point cut:

Point angle: 118° Step angle: 90°

Ø tolerance: works specification

bright / titanium-nitride coated Surface:

right hand cutting

Packing unit: in plastic box of 1



	Size no.	Drilling range	No.	€
100 (00)	0/9	4,0 - 12,0	A101 050-9 TX	
HSS-G	1	4,0 - 20,0	A101 051 TX	
	2	6,0 - 30,0	A101 052 TX	

	Size no.	Drilling range	No.	(
	0/9	4,0 - 12,0	A101 050-9 TTX	
HSS-G TIN	1	4,0 - 20,0	A101 051 TTX	
	2	6,0 - 30,0	A101 052 TTX	

Step drill set HSS, straight cut in plastic case













Size 0/9 / Size 1 / Size 2



	No.	€
3-piece set of step drills HSS, sizes 0/9, 1, 2	A 101 126 RO	

Step drill set HSS-TiN, straight cut in plastic case











Size 0/9 / Size 1 / Size 2



	No.	€
3-piece set of step drills HSS-TiN, sizes 0/9, 1, 2	A 101 126 TRO	





TAPER AND DEBURRING COUNTERSINKER







Taper and deburring countersinker HSS + HSS-TiN DIN 335 type C 90°













Counters. angle: 90° Shank: cylindrical Cutting edges:

Surface: bright / titanium-nitride

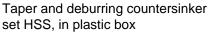
right hand cutting

Packing unit: in plastic tubes of 1



	Ø2 mm	™	No.	€
	6,3	45,0	102 107 TX	
HSS	8,3	50,0	102 111 TX	
	10,4	50,0	102 114 TX	
20	12,4	56,0	102 116 TX	
17	16,5	60,0	102 119-1 TX	
	20,5	63,0	102 121 TX	

	Ø2 mm	mm	No.	€
	6,3	45,0	102 107 TTX	
HSS	8,3	50,0	102 111 TTX	
	10,4	50,0	102 114 TTX	
TiN	12,4	56,0	102 116 TTX	
	16,5	60,0	102 119 -1 TTX	
	20,5	63,0	102 121 TTX	















DIN 335 type C 90° Ø 6,3 - 8,3 - 10,4 - 12,4 -16,5 - 20,5 mm



No.	©

	No.	€
Taper and deburring countersinker set DIN 335 type C 90°	A 102 152 RO	

Taper and deburring countersinker set HSS-TiN, in plastic box











DIN 335 type C 90° Ø 6,3 - 8,3 - 10,4 - 12,4 -16,5 - 20,5 mm



	No.	€
Taper and deburring countersinker set DIN 335 type C 90°	A 102 152 TRO	





CORE DRILLS









Core drills HSS + HSS-TiN with weldon shank (3/4"), CBN ground, cutting depth 30,0 mm













Core drill made of heavy-duty high speed steel. Suitable for steel (such as T-brackets, large sheets), cast iron, non-ferrous and light metals.

Packing unit: in plastic tubes of 1



	Ø mm		mm		No.	(
	12,0	19,0	63,0	30,0	108 212 TX	
HSS	14,0	19,0	63,0	30,0	108 214 TX	
	16,0	19,0	63,0	30,0	108 216 TX	
	18,0	19,0	63,0	30,0	108 218 TX	
	20,0	19,0	63,0	30,0	108 220 TX	
	22,0	19,0	63,0	30,0	108 222 TX	
	24,0	19,0	63,0	30,0	108 224 TX	
	26,0	19,0	63,0	30,0	108 226 TX	
	28,0	19,0	63,0	30,0	108 228 TX	
	30,0	19,0	63,0	30,0	108 230 TX	
	32,0	19,0	63,0	30,0	108 232 TX	

	Ø mm		mm		No.	(E)
	12,0	19,0	63,0	30,0	108 212 TTX	
HSS TIN	14,0	19,0	63,0	30,0	108 214 TTX	
	16,0	19,0	63,0	30,0	108 216 TTX	
	18,0	19,0	63,0	30,0	108 218 TTX	
	20,0	19,0	63,0	30,0	108 220 TTX	
	22,0	19,0	63,0	30,0	108 222 TTX	
	24,0	19,0	63,0	30,0	108 224 TTX	
	26,0	19,0	63,0	30,0	108 226 TTX	
	28,0	19,0	63,0	30,0	108 228 TTX	
	30,0	19,0	63,0	30,0	108 230 TTX	
	32,0	19,0	63,0	30,0	108 232 TTX	

Pilot pin Ø 6,35 x 77,0 mm for core drills HSS with weldon shank (3/4")

108 304 TX

Set of core drills HSS with weldon shank (3/4"), CBN ground, in steel case











Ø 12,0 - 14,0 - 16,0 -18,0 - 20,0 - 22,0 mm + 1 pilot pin Ø 6,35 mm



	No.	€
Set of core drills HSS with weldon shank	A 108 820	

Set of core drills HSS-TiN with weldon shank (3/4"), CBN ground, in steel case











	No.	€
Set of core drills HSS-TiN with weldon shank	A 108 820 T	



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Bi-metal hole saw set HSS in plastic case









Ø 22,0 / 29,0 / 35,0 / 44,0 / 51,0 / 68,0 mm + 2 arbor holders A2 and A4 $\,$



	No.	€
Bi-metal hole saw set HSS for electricians	A 106 340	



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