STEEL



Twist Drill Bits HSS-Co	84 - 104
Twist Drill Bits HSS-G	105 - 128
Twist Drill Bits HSS-R	129 - 140
Special Drill Bits	141 - 153
Countersinks and Deburrers	155 - 162
Core Drill Bit	163 - 168
Carbide Burrs	169 - 180

Overview of metal drill bits with recommendation

Steel



Quality	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★☆	★★★☆☆	★★★★★	★★★★★	★★★★☆	★★★★★	★★★★★	★★★★☆	★★★★☆
DIN Norm	338	338	338	338	338	338	338	1897	1897	1897	340	1869	345	2185 317
Product	PROSTEP	HEAVY DUTY	–	–	SPEED	ECO	BASIC	–	–	–	–	–	–	–
Product material	HSS-Co 5%	HSS-Co 8%	HSS-Co 5%	HSS-Co 5%	HSS-Co 5%	HSS-Co 5%	HSS-Co 5%	HSS-Co 5%	HSS-Co 5%	HSS-Co 5%	HSS-Co 5%	HSS-Co 5%	HSS-Co 5%	–
Type	N	N	UF-L	UF-L	S	VA	N	UF-L	UF-L	N	UF-L	UF-L	N	–
Point angle	130°	135°	130°	130°	130°	135°	135°	130°	130°	135°	130°	130°	135°	–
Coating	–	–	AlTiN	–	–	–	–	AlTiN	–	–	–	–	–	–
Shank	3 flat shank	Straight	Straight	Straight	Straight	Straight	Straight	Straight	Straight	Straight	Straight	Straight	Morse taper	Morse taper
Ø mm	1-24	1 - 13	1,5 - 16	1,5 - 16	0,4 - 13	1 - 13	1 - 13	2 - 20	2 - 16	2 - 10,2	2 - 13	2 - 16	7 - 50	–
Series	72100	23000	32000	34000	26000	25000	25500	46000	44000	41000	42000	43000	24000	27000 28000
Article group	98	81	28	28	21	20	92	28	28	6	28	28	77	37
Page	84	86	88	90	92	94	96	98	99	100	101	102	103	104
HD Heavy Duty <1,400 N/mm²		+++												
Steel pipes, -profiles, solid metal	+++	+++	+++	+++	+++	++	++	+++	+++	++	+++	+++	+++	
Cast iron	++	++	++	+	+	++	++	+	++	++	+	+	++	
Stainless steel	+++	+++	+++	+++	+++	++	++	+++	+++	++	+++	+++	++	
Non-ferrous metals	++	++	+++	+++	++	++	++	+++	+++	++	+++	+++	++	
Sheet metals	+++	+			++	+	+			++			+	
Aluminum	++	++	+	+++	++	++	++	+++	+	++	+++	+++	++	
Acryl glass	+++	+			+	+	+			+				
Plastic	+++	+	++	++	+	++	++	++	++	++	++	++	+	
Wood	++	+			+	+	+			+				

+++ **recommended** ++ **well-suited** + **suitable**

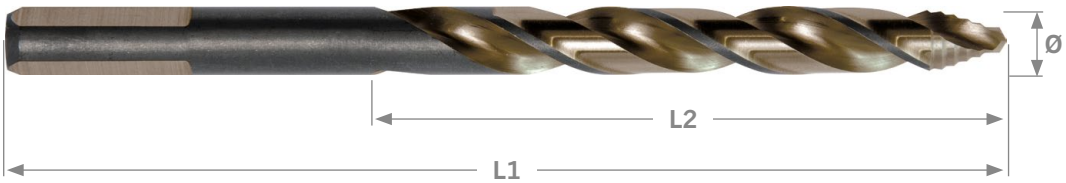
GOLD ★★★★★ SILVER ★★★★☆ BRONZE ★★★☆☆

72100 | Short Twist Drill Bits With Straight Shank HSS-Co 5% DIN 338 Type N PROSTEP

PROSTEP



Art.-Group **98**





Fast and precise - the revolutionary twist drill bit with step tip

- For extremely circular holes - even in thin materials
- Noticeably faster drilling progress in comparison to conventional twist drill bit designs
- Very clean entry and exit holes - even when drilling by hand
- No center punching necessary due to self-centering step tip - even in pipes and rounded materials
- No pre-drilling required
- Perfectly suited for cutting threads due to the extremely precise drill hole walls
- Energy-saving work due to reduced contact pressure
- Perfect for removing blind rivets and enlarging drill holes
- Minor step transitions ensure smooth drilling behavior
- With step tip starting from a diameter of 3 mm
- With 3-flat shank starting from a diameter of 5 mm - leads to an optimal power transmission and prevents spinning in the drill chuck
- Suitable for stainless steel, alloyed and unalloyed steels, cast iron, sheet metal, non-ferrous metals, acrylic glass, aluminum, plastics and wood

Tolerance	h8	**Web Thinning**	Split point form C from Ø 3 mm	**Web Taper**	Normal
Material	HSS-Co 5%	**Web Thickness**	Normal	**Helix Angle**	26° - 32°
Point Grinding	Tapered finish	**Tensile Strength**	1.000 N/mm²	**Constructional Features**	DIN 1414
Point Angle	130°				



Quadro pack with hanger

★★★★★

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
1.0	34	12	10	721 010
1.5	40	18	10	721 015
2.0	49	24	10	721 020
2.5	57	30	10	721 025
3.0	61	33	10	721 030
3.1	65	36	10	721 031
3.2	65	36	10	721 032
3.3	65	36	10	721 033
3.5	70	39	10	721 035
4.0	75	43	10	721 040
4.1	75	43	10	721 041
4.2	75	43	10	721 042
4.5	80	47	10	721 045
4.8	86	52	10	721 048
4.9	86	52	10	721 049
5.0	86	52	10	721 050
5.1	86	52	10	721 051
5.2	86	52	10	721 052
5.5	93	57	10	721 055
6.0	93	57	10	721 060
6.1	101	63	10	721 061
6.5	101	63	10	721 065
6.8	109	69	10	721 068

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
7.0	109	69	10	721 070
7.5	109	69	10	721 075
8.0	117	75	10	721 080
8.5	117	75	10	721 085
9.0	125	81	10	721 090
9.5	125	81	10	721 095
10.0	133	87	10	721 100
10.2	133	87	5	721 102
10.5	133	87	5	721 105
11.0	142	94	5	721 110
11.5	142	94	5	721 115
12.0	151	101	5	721 120
12.5	151	101	5	721 125
13.0	151	101	5	721 130
13.5	160	108	1	721 135
14.0	160	108	1	721 140
14.5	169	114	1	721 145
15.0	169	114	1	721 150
15.5	178	120	1	721 155

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
16.0	178	120	1	721 160
16.5	184	125	1	721 165
17.0	184	125	1	721 170
17.5	191	130	1	721 175
18.0	191	130	1	721 180
18.5	198	135	1	721 185
19.0	198	135	1	721 190
19.5	205	140	1	721 195
20.0	205	140	1	721 200
20.5	205	145	1	721 205
21.0	205	145	1	721 210
21.5	210	150	1	721 215
22.0	210	150	1	721 220
22.5	215	155	1	721 225
23.0	215	155	1	721 230
23.5	220	160	1	721 235
24.0	220	160	1	721 240

GOLD ★★★★★ SILVER ★★★★☆ BRONZE ★★★☆☆

72100 | Single Packed Items

Art.-Group **98**



In pouch
Single packaging hangable (2 pieces up to Ø 4 mm)

★★★★★

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
1.0	34	12	2	721 010 1
1.5	40	18	2	721 015 1
2.0	49	24	2	721 020 1
2.5	57	30	2	721 025 1
3.0	61	33	2	721 030 1
3.3	65	36	2	721 033 1
3.5	70	39	2	721 035 1
4.0	75	43	2	721 040 1
4.2	75	43	1	721 042 1
4.5	80	47	1	721 045 1
5.0	86	52	1	721 050 1
5.5	93	57	1	721 055 1

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
6.0	93	57	1	721 060 1
6.5	101	63	1	721 065 1
6.8	109	69	1	721 068 1
7.0	109	69	1	721 070 1
7.5	109	69	1	721 075 1
8.0	117	75	1	721 080 1
8.5	117	75	1	721 085 1
9.0	125	81	1	721 090 1
9.5	125	81	1	721 095 1
10.0	133	87	1	721 100 1
10.2	133	87	1	721 102 1
10.5	133	87	1	721 105 1

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
11.0	142	94	1	721 110 1
11.5	142	94	1	721 115 1
12.0	151	101	1	721 120 1
12.5	151	101	1	721 125 1
13.0	151	101	1	721 130 1

Sets

Art.-Group **16**



72 101



72 102



67 119



67 125

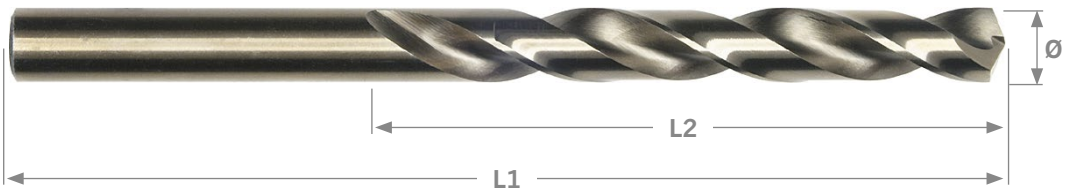
★★★★★

Content	Pieces	Packaging	Item No.
Ø 3 - 4 - 5 - 6 - 8 mm	5	Plastic box	72 101
Core hole dimensions Ø 2.5 - 3.3 - 4.2 - 5.0 - 6.8 - 8.5 - 10.2 mm	7	Plastic box	72 102
Ø 1 - 10 / 0.5 mm increasing	19	Plastic box	67 119
Ø 1 - 13 / 0.5 mm increasing	25	Plastic box	67 125

23000 | Short Twist Drill Bits With Straight Shank
HSS-Co 8% DIN 338 Type N HEAVY DUTY

NIROSTA STAINLESS INOX | METAL <1400 N/mm² | Cu Ni Ms Zn | ALU | LONG LIFE

Art.-Group **81**

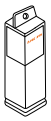




The twist drill bit for the toughest applications

- Extremely robust drill bit made of high-alloy HSS-Co (8% cobalt, 10% molybdenum) with excellent heat resistance
- Designed to drill: hardox 450, stainless steel, wear-resistant sheet metal, steel and bronze up to 1,400 N/mm², solid and high-strength alloys based on CrNi as well as acid- and heat-resistant steels

Tolerance	h8	**Web Thinning**	Split point form C from Ø 3 mm	**Helix Angle**	26° - 32°
Material	HSS-Co 8%	**Web Thickness**	Reinforced	**Constructional Features**	DIN 1414
Point Grinding	Tapered finish	**Tensile Strength**	1.400 N/mm²		
Point Angle	135°	**Web Taper**	Normal		



Quadro pack with hanger

★★★★★

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
1.0	34	12	10	230 100
1.1	36	14	10	230 110
1.2	38	16	10	230 120
1.3	38	16	10	230 130
1.4	40	17	10	230 140
1.5	40	17	10	230 150
1.6	43	20	10	230 160
1.7	43	20	10	230 170
1.8	46	22	10	230 180
1.9	46	22	10	230 190
2.0	49	24	10	230 200
2.1	49	24	10	230 210
2.2	53	27	10	230 220
2.3	53	27	10	230 230
2.4	57	30	10	230 240
2.5	57	30	10	230 250
2.6	57	30	10	230 260
2.7	61	33	10	230 270
2.8	61	33	10	230 280
2.9	61	33	10	230 290
3.0	61	33	10	230 300
3.1	65	36	10	230 310
3.2	65	36	10	230 320
3.3	65	36	10	230 330
3.4	70	39	10	230 340
3.5	70	39	10	230 350
3.6	70	39	10	230 360
3.7	70	39	10	230 370
3.8	75	43	10	230 380
3.9	75	43	10	230 390
4.0	75	43	10	230 400
4.1	75	43	10	230 410
4.2	75	43	10	230 420
4.3	80	47	10	230 430

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
4.4	80	47	10	230 440
4.5	80	47	10	230 450
4.6	80	47	10	230 460
4.7	80	47	10	230 470
4.8	86	52	10	230 480
4.9	86	52	10	230 490
5.0	86	52	10	230 500
5.1	86	52	10	230 510
5.2	86	52	10	230 520
5.3	86	52	10	230 530
5.4	93	57	10	230 540
5.5	93	57	10	230 550
5.6	93	57	10	230 560
5.7	93	57	10	230 570
5.8	93	57	10	230 580
5.9	93	57	10	230 590
6.0	93	57	10	230 600
6.1	101	63	10	230 610
6.2	101	63	10	230 620
6.3	101	63	10	230 630
6.4	101	63	10	230 640
6.5	101	63	10	230 650
6.6	101	63	10	230 660
6.7	101	63	10	230 670
6.8	109	69	10	230 680
6.9	109	69	10	230 690
7.0	109	69	10	230 700
7.1	109	69	10	230 710
7.2	109	69	10	230 720
7.3	109	69	10	230 730
7.4	109	69	10	230 740
7.5	109	69	10	230 750
7.6	117	75	10	230 760
7.7	117	75	10	230 770

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
7.8	117	75	10	230 780
7.9	117	75	10	230 790
8.0	117	75	10	230 800
8.1	117	75	5	230 810
8.2	117	75	5	230 820
8.3	117	75	5	230 830
8.4	117	75	5	230 840
8.5	117	75	5	230 850
8.6	125	81	5	230 860
8.7	125	81	5	230 870
8.8	125	81	5	230 880
8.9	125	81	5	230 890
9.0	125	81	5	230 900
9.1	125	81	5	230 910
9.2	125	81	5	230 920
9.3	125	81	5	230 930
9.4	125	81	5	230 940
9.5	125	81	5	230 950
9.6	133	87	5	230 960
9.7	133	87	5	230 970
9.8	133	87	5	230 980
9.9	133	87	5	230 990
10.0	133	87	5	231 000
10.2	133	87	1	231 020
10.5	133	87	1	231 050
11.0	142	94	1	231 100
11.5	142	94	1	231 150
12.0	151	101	1	231 200
12.5	151	101	1	231 250
13.0	151	101	1	231 300

23000 | Single Packed Items

Art.-Group **81**



In pouch
Single packaging hangable (2 pieces up to Ø 4 mm)

★★★★★

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
1.0	34	12	2	230 100 01
1.5	40	18	2	230 150 01
2.0	49	24	2	230 200 01
2.5	57	30	2	230 250 01
3.0	61	33	2	230 300 01
3.1	65	36	2	230 310 01
3.2	65	36	2	230 320 01
3.3	65	36	2	230 330 01
3.5	70	39	2	230 350 01

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
4.0	75	43	2	230 400 01
4.1	75	43	1	230 410 01
4.2	75	43	1	230 420 01
4.5	80	47	1	230 450 01
4.8	86	52	1	230 480 01
5.0	86	52	1	230 500 01
5.5	93	57	1	230 550 01
6.0	93	57	1	230 600 01
6.5	101	63	1	230 650 01

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
6.8	109	69	1	230 680 01
7.0	109	69	1	230 700 01
7.5	109	69	1	230 750 01
8.0	117	75	1	230 800 01
8.5	117	75	1	230 850 01
9.0	125	81	1	230 900 01
9.5	125	81	1	230 950 01
10.0	133	87	1	231 000 01

Sets

Art.-Group **16**



60 023



60 024

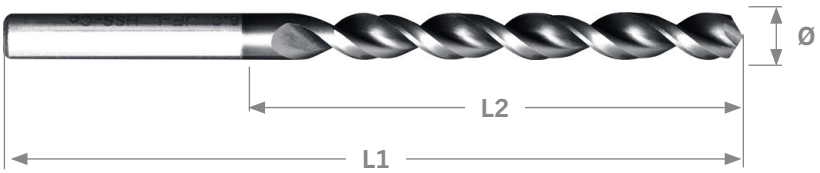
★★★★★

Content	Pieces	Packaging	Item No.
Ø 1 - 10 / 0.5 mm increasing	19	Plastic box	60 023
Ø 1 - 13 / 0.5 mm increasing	25	Plastic box	60 024

32000 | Short Multipurpose Twist Drill Bits With Straight Shank HSS-Co 5% AlTiN DIN 338 Type UF-L

NIROSTA STAINLESS INOX | METAL | Cu Ni Ms Zn | LONG LIFE PRO

Art.-Group **28**

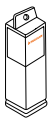




The multi-problem solver

- The aluminum-titanium-nitride coating ensures high wear resistance even with insufficient lubrication or without cooling
- This coating has a much higher thermal insulation (900°C) and hardness (3300 - 3500 HV) than a TiN coating (550°C / 2300 HV)
- Ideal for deep-hole drilling, as the special spiral geometry ensures optimal chip removal
- High break resistance and very good heat transfer due to reinforced drill bit core
- To be used at NC and CNC machining centers as well as automatic lathes
- Designed to drill: medium and long-chipping materials with a tensile strength up to 1,200 N/mm², copper, AlSi alloys, soft bronze, electrolytic copper, tough brass, stainless steels, titanium and titanium alloys

Tolerance	h8	**Web Thinning**	DIN 1412, shape UX	**Helix Angle**	40° - 42°
Material	HSS-Co 5%	**Web Thickness**	Thicker than normal	**Constructional Features**	DIN 1414
Point Grinding	Tapered finish	**Tensile Strength**	1.200 N/mm²		
Point Angle	130°	**Web Taper**	Without		



Quadro pack with hanger

★★★★★

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
1.5	40	18	10	32 015
1.6	43	20	10	32 016
1.7	43	20	10	32 017
1.8	46	22	10	32 018
1.9	46	22	10	32 019
2.0	49	24	10	32 020
2.1	49	24	10	32 021
2.2	53	27	10	32 022
2.3	53	27	10	32 023
2.4	57	30	10	32 024
2.5	57	30	10	32 025
2.6	57	30	10	32 026
2.7	61	33	10	32 027
2.8	61	33	10	32 028
2.9	61	33	10	32 029
3.0	61	33	10	32 030
3.1	65	36	10	32 031
3.2	65	36	10	32 032
3.3	65	36	10	32 033
3.4	70	39	10	32 034
3.5	70	39	10	32 035
3.6	70	39	10	32 036
3.7	70	39	10	32 037
3.8	75	43	10	32 038
3.9	75	43	10	32 039
4.0	75	43	10	32 040

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
4.1	75	43	10	32 041
4.2	75	43	10	32 042
4.3	80	47	10	32 043
4.4	80	47	10	32 044
4.5	80	47	10	32 045
4.6	80	47	10	32 046
4.7	80	47	10	32 047
4.8	86	52	10	32 048
4.9	86	52	10	32 049
5.0	86	52	10	32 050
5.1	86	52	10	32 051
5.2	86	52	10	32 052
5.3	86	52	10	32 053
5.4	93	57	10	32 054
5.5	93	57	10	32 055
5.6	93	57	10	32 056
5.7	93	57	10	32 057
5.8	93	57	10	32 058
5.9	93	57	10	32 059
6.0	93	57	10	32 060
6.1	101	63	10	32 061
6.2	101	63	10	32 062
6.3	101	63	10	32 063
6.4	101	63	10	32 064
6.5	101	63	10	32 065
6.6	101	63	10	32 066
6.7	101	63	10	32 067

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
6.8	109	69	10	32 068
6.9	109	69	10	32 069
7.0	109	69	10	32 070
7.1	109	69	10	32 071
7.2	109	69	10	32 072
7.3	109	69	10	32 073
7.4	109	69	10	32 074
7.5	109	69	10	32 075
7.6	117	75	10	32 076
7.7	117	75	10	32 077
7.8	117	75	10	32 078
7.9	117	75	10	32 079
8.0	117	75	10	32 080
8.1	117	75	10	32 081
8.2	117	75	10	32 082
8.3	117	75	10	32 083
8.4	117	75	10	32 084
8.5	117	75	10	32 085
8.6	125	81	10	32 086
8.7	125	81	10	32 087
8.8	125	81	10	32 088
8.9	125	81	10	32 089
9.0	125	81	10	32 090
9.1	125	81	10	32 091
9.2	125	81	10	32 092
9.3	125	81	10	32 093

32000 | Short Multipurpose Twist Drill Bits With Straight Shank HSS-Co 5% AlTiN DIN 338 Type UF-L

Art.-Group **28**

★★★★★

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
9.4	125	81	10	32 094
9.5	125	81	10	32 095
9.6	133	87	10	32 096
9.7	133	87	10	32 097
9.8	133	87	10	32 098
9.9	133	87	10	32 099
10.0	133	87	10	32 100
10.2	133	87	5	32 102

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
10.5	133	87	5	32 105
11.0	142	94	5	32 110
11.5	142	94	5	32 115
12.0	151	101	5	32 120
12.5	151	101	5	32 125
13.0	151	101	5	32 130

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
13.5	160	108	5	32 135
14.0	160	108	5	32 140
14.5	169	114	1	32 145
15.0	169	114	1	32 150
15.5	178	120	1	32 155
16.0	178	120	1	32 160

Sets

Art.-Group **16**



60 321

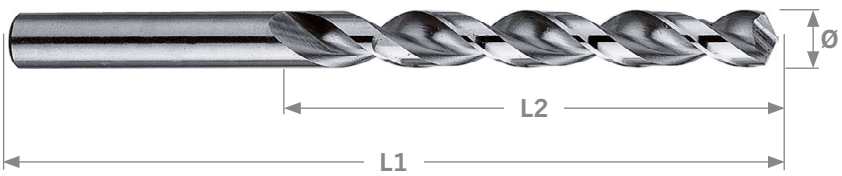
★★★★★

Content	Pieces	Packaging	Item No.
Ø 1 - 10 / 0.5 mm increasing	19	Metal box	60 321

34000 | Short Multipurpose Twist Drill Bits With Straight Shank HSS-Co 5% DIN 338 Type UF-L

NIROSTA STAINLESS INOX | METAL | Cu Ni Ms Zn | ALU | LONG LIFE

Art.-Group **28**

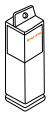




The specialist for deep-hole drilling

- Robust multipurpose drill bit with high heat resistance
- Ideal for deep-hole drilling, as the special spiral geometry ensures optimal chip removal
- High break resistance and very good heat transfer due to reinforced drill bit core
- To be used at NC and CNC machining centers as well as automatic lathes
- Designed to drill: medium and long-chipping materials with a tensile strength up to 1,200 N/mm², aluminum, copper, AlSi alloys, soft bronze, electrolytic copper, tough brass, stainless steels, titanium and titanium alloys

Tolerance	h8	**Web Thinning**	DIN 1412, shape UX	**Helix Angle**	40° - 42°
Material	HSS-Co 5%	**Web Thickness**	Thicker than normal	**Constructional Features**	DIN 1414
Point Grinding	Tapered finish	**Tensile Strength**	1.200 N/mm²		
Point Angle	130°	**Web Taper**	Without		



Quadro pack with hanger

★★★★★

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
1.5	40	18	10	34 015
1.6	43	20	10	34 016
1.7	43	20	10	34 017
1.8	46	22	10	34 018
1.9	46	22	10	34 019
2.0	49	24	10	34 020
2.1	49	24	10	34 021
2.2	53	27	10	34 022
2.3	53	27	10	34 023
2.4	57	30	10	34 024
2.5	57	30	10	34 025
2.6	57	30	10	34 026
2.7	61	33	10	34 027
2.8	61	33	10	34 028
2.9	61	33	10	34 029
3.0	61	33	10	34 030
3.1	65	36	10	34 031
3.2	65	36	10	34 032
3.3	65	36	10	34 033
3.4	70	39	10	34 034
3.5	70	39	10	34 035
3.6	70	39	10	34 036
3.7	70	39	10	34 037
3.8	75	43	10	34 038
3.9	75	43	10	34 039
4.0	75	43	10	34 040
4.1	75	43	10	34 041

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
4.2	75	43	10	34 042
4.3	80	47	10	34 043
4.4	80	47	10	34 044
4.5	80	47	10	34 045
4.6	80	47	10	34 046
4.7	80	47	10	34 047
4.8	86	52	10	34 048
4.9	86	52	10	34 049
5.0	86	52	10	34 050
5.1	86	52	10	34 051
5.2	86	52	10	34 052
5.3	86	52	10	34 053
5.4	93	57	10	34 054
5.5	93	57	10	34 055
5.6	93	57	10	34 056
5.7	93	57	10	34 057
5.8	93	57	10	34 058
5.9	93	57	10	34 059
6.0	93	57	10	34 060
6.1	101	63	10	34 061
6.2	101	63	10	34 062
6.3	101	63	10	34 063
6.4	101	63	10	34 064
6.5	101	63	10	34 065
6.6	101	63	10	34 066
6.7	101	63	10	34 067
6.8	109	69	10	34 068
6.9	109	69	10	34 069

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
7.0	109	69	10	34 070
7.1	109	69	10	34 071
7.2	109	69	10	34 072
7.3	109	69	10	34 073
7.4	109	69	10	34 074
7.5	109	69	10	34 075
7.6	117	75	10	34 076
7.7	117	75	10	34 077
7.8	117	75	10	34 078
7.9	117	75	10	34 079
8.0	117	75	10	34 080
8.1	117	75	10	34 081
8.2	117	75	10	34 082
8.3	117	75	10	34 083
8.4	117	75	10	34 084
8.5	117	75	10	34 085
8.6	125	81	10	34 086
8.7	125	81	10	34 087
8.8	125	81	10	34 088
8.9	125	81	10	34 089
9.0	125	81	10	34 090
9.1	125	81	10	34 091
9.2	125	81	10	34 092
9.3	125	81	10	34 093
9.4	125	81	10	34 094
9.5	125	81	10	34 095
9.6	133	87	10	34 096
9.7	133	87	10	34 097

34000 | Short Multipurpose Twist Drill Bits With Straight Shank HSS-Co 5% DIN 338 Type UF-L

Art.-Group **28**

★★★★★

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
9.8	133	87	10	34 098
9.9	133	87	10	34 099
10.0	133	87	10	34 100
10.2	133	87	5	34 102
10.5	133	87	5	34 105
11.0	142	94	5	34 110

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
11.5	142	94	5	34 115
12.0	151	101	5	34 120
12.5	151	101	5	34 125
13.0	151	101	5	34 130
13.5	160	108	5	34 135

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
14.0	160	108	5	34 140
14.5	169	114	1	34 145
15.0	169	114	1	34 150
15.5	178	120	1	34 155
16.0	178	120	1	34 160

Sets

Art.-Group **16**



60 340



60 345



60 343



60 342



60 341

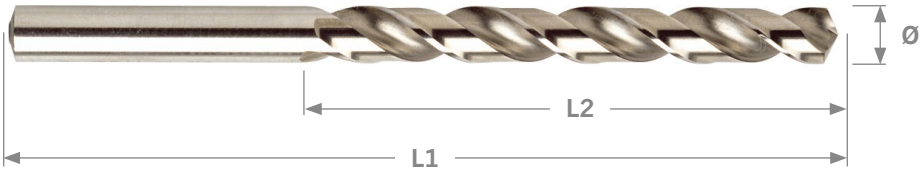
★★★★★

Content	Pieces	Packaging	Item No.
Ø 1 - 10 / 0.5 mm increasing	19	Metal box	60 340
Ø 1 - 13 / 0.5 mm increasing	25	Metal box	60 345
Ø 1 - 10.5 / 0.5 mm increasing Core hole dimensions Ø 3.3 - 4.2 - 6.8 - 10.2 mm	24	Metal box	60 343
Ø 6 - 10 / 0.1 mm increasing	41	Metal box	60 342
Ø 1 - 5.9 / 0.1 mm increasing	50	Metal box	60 341

26000 | Short Twist Drill Bits With Straight Shank
HSS-Co 5% DIN 338 Type S SPEED



Art.-Group **21**

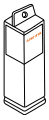




Precise and fast high performance drill bit

- High break resistance and good heat transfer due to reinforced web taper
- Long lifetime due to excellent heat resistance
- Precision ground for a particularly high concentricity
- Designed to drill: steel up to 1,100N/mm², stainless steel, hot and cold work steel, high-alloy steel, quenched and malleable steel, hardened steel, bearing steel, tool steel, spring steel, titanium and titanium alloy, brass, bronze long-chipping

Tolerance	h8	**Web Thinning**	Split point form C from Ø 3 mm	**Web Taper**	Strong
Material	HSS-Co 5%	**Web Thickness**	Normal	**Helix Angle**	38°
Point Grinding	Tapered finish	**Tensile Strength**	1.100 N/mm²	**Constructional Features**	DIN 1414
Point Angle	130°				



Quadro pack with hanger

★★★★★

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
0.4	20	5	10	260 040
0.5	22	6	10	260 050
0.6	24	7	10	260 060
0.7	28	9	10	260 070
0.8	30	10	10	260 080
0.9	32	11	10	260 090
1.0	34	12	10	260 100
1.1	36	14	10	260 110
1.2	38	16	10	260 120
1.3	38	16	10	260 130
1.4	40	18	10	260 140
1.5	40	18	10	260 150
1.6	43	20	10	260 160
1.7	43	20	10	260 170
1.8	46	22	10	260 180
1.9	46	22	10	260 190
2.0	49	24	10	260 200
2.1	49	24	10	260 210
2.2	53	27	10	260 220
2.3	53	27	10	260 230
2.4	57	30	10	260 240
2.5	57	30	10	260 250
2.6	57	30	10	260 260
2.7	61	33	10	260 270
2.8	61	33	10	260 280
2.9	61	33	10	260 290
3.0	61	33	10	260 300
3.1	65	36	10	260 310
3.2	65	36	10	260 320
3.3	65	36	10	260 330
3.4	70	39	10	260 340
3.5	70	39	10	260 350

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
3.6	70	39	10	260 360
3.7	70	39	10	260 370
3.8	75	43	10	260 380
3.9	75	43	10	260 390
4.0	75	43	10	260 400
4.1	75	43	10	260 410
4.2	75	43	10	260 420
4.3	80	47	10	260 430
4.4	80	47	10	260 440
4.5	80	47	10	260 450
4.6	80	47	10	260 460
4.7	80	47	10	260 470
4.8	86	52	10	260 480
4.9	86	52	10	260 490
5.0	86	52	10	260 500
5.1	86	52	10	260 510
5.2	86	52	10	260 520
5.3	86	52	10	260 530
5.4	93	57	10	260 540
5.5	93	57	10	260 550
5.6	93	57	10	260 560
5.7	93	57	10	260 570
5.8	93	57	10	260 580
5.9	93	57	10	260 590
6.0	93	57	10	260 600
6.1	101	63	10	260 610
6.2	101	63	10	260 620
6.3	101	63	10	260 630
6.4	101	63	10	260 640
6.5	101	63	10	260 650
6.6	101	63	10	260 660
6.7	101	63	10	260 670

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
6.8	109	69	10	260 680
6.9	109	69	10	260 690
7.0	109	69	10	260 700
7.1	109	69	10	260 710
7.2	109	69	10	260 720
7.3	109	69	10	260 730
7.4	109	69	10	260 740
7.5	109	69	10	260 750
7.6	117	75	10	260 760
7.7	117	75	10	260 770
7.8	117	75	10	260 780
7.9	117	75	10	260 790
8.0	117	75	10	260 800
8.1	117	75	10	260 810
8.2	117	75	10	260 820
8.3	117	75	10	260 830
8.4	117	75	10	260 840
8.5	117	75	10	260 850
8.6	125	81	10	260 860
8.7	125	81	10	260 870
8.8	125	81	10	260 880
8.9	125	81	10	260 890
9.0	125	81	10	260 900
9.1	125	81	10	260 910
9.2	125	81	10	260 920
9.3	125	81	10	260 930
9.4	125	81	10	260 940
9.5	125	81	10	260 950
9.6	133	87	10	260 960
9.7	133	87	10	260 970
9.8	133	87	10	260 980
9.9	133	87	10	260 990

GOLD ★★★★★ SILVER ★★★★☆ BRONZE ★★★☆☆

26000 | Short Twist Drill Bits With Straight Shank
HSS-Co 5% DIN 338 Type S SPEED

Art.-Group **21**

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
10.0	133	87	10	261 000
10.1	133	87	5	261 010
10.2	133	87	5	261 020
10.3	133	87	5	261 030
10.5	133	87	5	261 050
10.6	133	87	5	261 060
10.7	142	94	5	261 070
10.8	142	94	5	261 080

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
11.0	142	94	5	261 100
11.1	142	94	5	261 110
11.2	142	94	5	261 120
11.3	142	94	5	261 130
11.5	142	94	5	261 150
11.6	142	94	5	261 160
11.7	142	94	5	261 170
11.8	142	94	5	261 180

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
12.0	151	101	5	261 200
12.1	151	101	5	261 210
12.2	151	101	5	261 220
12.3	151	101	5	261 230
12.5	151	101	5	261 250
12.8	151	101	5	261 280
13.0	151	101	5	261 300

26000 | Single Packed Items

Art.-Group **21**



In pouch
Single packaging hangable (2 pieces up to Ø 4 mm)

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
1.0	34	12	2	260 100 01
1.5	40	18	2	260 150 01
2.0	49	24	2	260 200 01
2.5	57	30	2	260 250 01
3.0	61	33	2	260 300 01
3.1	65	36	2	260 310 01
3.2	65	36	2	260 320 01
3.3	65	36	2	260 330 01
3.5	70	39	2	260 350 01
4.0	75	43	2	260 400 01
4.1	75	43	1	260 410 01
4.2	75	43	1	260 420 01

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
4.5	80	47	1	260 450 01
4.8	86	52	1	260 480 01
5.0	86	52	1	260 500 01
5.5	93	57	1	260 550 01
6.0	93	57	1	260 600 01
6.5	101	63	1	260 650 01
6.8	109	69	1	260 680 01
7.0	109	69	1	260 700 01
7.5	109	69	1	260 750 01
8.0	117	75	1	260 800 01
8.5	117	75	1	260 850 01

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
9.0	125	81	1	260 900 01
9.5	125	81	1	260 950 01
10.0	133	87	1	261 000 01
10.2	133	87	1	261 020 01
10.5	133	87	1	261 050 01
11.0	142	94	1	261 100 01
11.5	142	94	1	261 150 01
12.0	151	101	1	261 200 01
12.5	151	101	1	261 250 01
13.0	151	101	1	261 300 01

Sets

Art.-Group **16**


67 380


67 385


60 380


60 385


60 545

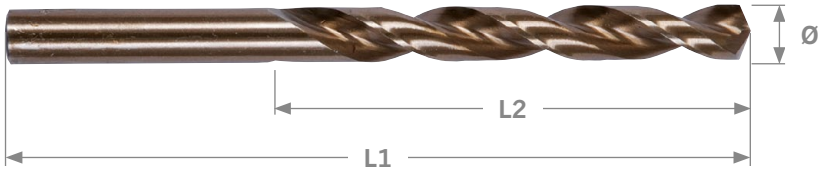

60 540

Content	Pieces	Packaging	Item No.
Ø 1 - 10 / 0.5 mm increasing	19	Plastic box	67 380
Ø 1 - 13 / 0.5 mm increasing	25	Plastic box	67 385
Ø 1 - 10 / 0.5 mm increasing	19	Metal box	60 380
Ø 1 - 13 / 0.5 mm increasing	25	Metal box	60 385
Ø 6 - 10 / 0.1 mm increasing	41	Metal box	60 545
Ø 1 - 5.9 / 0.1 mm increasing	50	Metal box	60 540

25000 | Short Twist Drill Bits With Straight Shank
HSS-Co 5% DIN 338 Type VA ECO



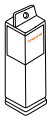
Art.-Group **20**





- High break resistance and very good heat transfer due to reinforced drill bit core
- With reduced web width for less heat development during the drilling process
- Designed to drill: steel and cast steel up to 1,100 N/mm², stainless and acid-resistant steels, tool steels, spring steels as well as non-ferrous metals

Tolerance	h8	**Web Thinning**	Split point form C from Ø 3 mm	**Web Taper**	Normal
Material	HSS-Co 5%			**Helix Angle**	26° - 32°
Point Grinding	Tapered finish	**Web Thickness**	Reinforced	**Constructional Features**	DIN 1414
Point Angle	135°	**Tensile Strength**	1.100 N/mm²		



Quadro pack with hanger

★★★★☆

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
1.0	34	12	10	250100
1.1	36	14	10	250110
1.2	38	16	10	250120
1.3	38	16	10	250130
1.4	40	18	10	250140
1.5	40	18	10	250150
1.6	43	20	10	250160
1.7	43	20	10	250170
1.8	46	22	10	250180
1.9	46	22	10	250190
2.0	49	24	10	250200
2.1	49	24	10	250210
2.2	53	27	10	250220
2.3	53	27	10	250230
2.4	57	30	10	250240
2.5	57	30	10	250250
2.6	57	30	10	250260
2.7	61	33	10	250270
2.8	61	33	10	250280
2.9	61	33	10	250290
3.0	61	33	10	250300
3.1	65	36	10	250310
3.2	65	36	10	250320
3.3	65	36	10	250330
3.4	70	39	10	250340
3.5	70	39	10	250350
3.6	70	39	10	250360
3.7	70	39	10	250370
3.8	75	43	10	250380
3.9	75	43	10	250390
4.0	75	43	10	250400
4.1	75	43	10	250410
4.2	75	43	10	250420
4.3	80	47	10	250430

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
4.4	80	47	10	250440
4.5	80	47	10	250450
4.6	80	47	10	250460
4.7	80	47	10	250470
4.8	86	52	10	250480
4.9	86	52	10	250490
5.0	86	52	10	250500
5.1	86	52	10	250510
5.2	86	52	10	250520
5.3	86	52	10	250530
5.4	93	57	10	250540
5.5	93	57	10	250550
5.6	93	57	10	250560
5.7	93	57	10	250570
5.8	93	57	10	250580
5.9	93	57	10	250590
6.0	93	57	10	250600
6.1	101	63	10	250610
6.2	101	63	10	250620
6.3	101	63	10	250630
6.4	101	63	10	250640
6.5	101	63	10	250650
6.6	101	63	10	250660
6.7	101	63	10	250670
6.8	109	69	10	250680
6.9	109	69	10	250690
7.0	109	69	10	250700
7.1	109	69	10	250710
7.2	109	69	10	250720
7.3	109	69	10	250730
7.4	109	69	10	250740
7.5	109	69	10	250750
7.6	117	75	10	250760
7.7	117	75	10	250770

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
7.8	117	75	10	250780
7.9	117	75	10	250790
8.0	117	75	10	250800
8.1	117	75	10	250810
8.2	117	75	10	250820
8.3	117	75	10	250830
8.4	117	75	10	250840
8.5	117	75	10	250850
8.6	125	81	10	250860
8.7	125	81	10	250870
8.8	125	81	10	250880
8.9	125	81	10	250890
9.0	125	81	10	250900
9.1	125	81	10	250910
9.2	125	81	10	250920
9.3	125	81	10	250930
9.4	125	81	10	250940
9.5	125	81	10	250950
9.6	133	87	10	250960
9.7	133	87	10	250970
9.8	133	87	10	250980
9.9	133	87	10	250990
10.0	133	87	10	251000
10.2	133	87	5	251020
10.5	133	87	5	251050
11.0	142	94	5	251100
11.5	142	94	5	251150
12.0	151	101	5	251200
12.5	151	101	5	251250
13.0	151	101	5	251300

GOLD ★★★★★ SILVER ★★★★☆ BRONZE ★★★☆☆

28000 | Single Packed Items

Art.-Group **20**

In pouch
Single packaging hangable (2 pieces up to Ø 4 mm)

★★★★☆

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
1.0	34	12	2	28010
1.5	40	18	2	28015
2.0	49	24	2	28020
2.5	57	30	2	28025
3.0	61	33	2	28030
3.1	65	36	2	28031
3.2	65	36	2	28032
3.3	65	36	2	28033
3.5	70	39	2	28035
4.0	75	43	2	28040
4.1	75	43	1	28041
4.2	75	43	1	28042

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
4.5	80	47	1	28045
4.8	86	52	1	28048
5.0	86	52	1	28050
5.5	93	57	1	28055
6.0	93	57	1	28060
6.5	101	63	1	28065
6.8	109	69	1	28068
7.0	109	69	1	28070
7.5	109	69	1	28075
8.0	117	75	1	28080
8.5	117	75	1	28085

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
9.0	125	81	1	28090
9.5	125	81	1	28095
10.0	133	87	1	28100
10.2	133	87	1	28102
10.5	133	87	1	28105
11.0	142	94	1	28110
11.5	142	94	1	28115
12.0	151	101	1	28120
12.5	151	101	1	28125
13.0	151	101	1	28130

Sets

Art.-Group **16**


67381


67386


60381


60386


60383


60643


60613


67613

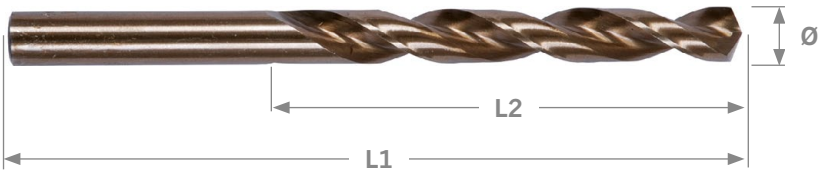
★★★★☆

Content	Pieces	Packaging	Item No.
Ø 1 - 10 / 0.5 mm increasing	19	Plastic box	67381
Ø 1 - 13 / 0.5 mm increasing	25	Plastic box	67386
Ø 1 - 10 / 0.5 mm increasing	19	Metal box	60381
Ø 1 - 13 / 0.5 mm increasing	25	Metal box	60386
Ø 1 - 10 / 0.5 mm increasing Core hole dimensions Ø 3.3 - 4.2 - 6.8 - 10.2 mm	24	Metal box	60383
5x Ø 1.0 - 5.0 / 0.5 mm increasing 3x Ø 5.5 - 7.5 / 0.5 mm increasing 2x Ø 8.0 - 10.0 / 0.5 mm increasing	70	Metal case	60643
10x Ø 1.0 - 8.0 / 0.5 mm increasing 5x Ø 8.5 - 10.0 / 0.5 mm increasing	170	Metal case	60613
10x Ø 1.0 - 8.0 / 0.5 mm increasing 5x Ø 8.5 - 10.0 / 0.5 mm increasing	170	Plastic case	67613

25500 | Short Twist Drill Bits With Straight Shank
HSS-Co 5% DIN 338 Type N BASIC



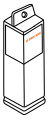
Art.-Group **92**





- Heat-resistant twist drill bit with good chip removal
- Designed to drill: steel up to 1,100 N/mm², stainless steels, non-ferrous metals, cast iron, aluminum and plastics

Tolerance	h8	**Web Thinning**	Split point form C from Ø 3 mm	**Web Taper**	Normal
Material	HSS-Co 5%	**Web Thickness**	Normal	**Helix Angle**	26° - 32°
Point Grinding	Tapered finish	**Tensile Strength**	1.100 N/mm²	**Constructional Features**	DIN 1414
Point Angle	135°				



Quadro pack with hanger

★★★☆☆

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
1.0	34	12	10	255 010
1.1	36	14	10	255 011
1.2	38	16	10	255 012
1.3	38	16	10	255 013
1.4	40	18	10	255 014
1.5	40	18	10	255 015
1.6	43	20	10	255 016
1.7	43	20	10	255 017
1.8	46	22	10	255 018
1.9	46	22	10	255 019
2.0	49	24	10	255 020
2.1	49	24	10	255 021
2.2	53	27	10	255 022
2.3	53	27	10	255 023
2.4	57	30	10	255 024
2.5	57	30	10	255 025
2.6	57	30	10	255 026
2.7	61	33	10	255 027
2.8	61	33	10	255 028
2.9	61	33	10	255 029
3.0	61	33	10	255 030
3.1	65	36	10	255 031
3.2	65	36	10	255 032
3.3	65	36	10	255 033
3.4	70	39	10	255 034
3.5	70	39	10	255 035
3.6	70	39	10	255 036
3.7	70	39	10	255 037
3.8	75	43	10	255 038
3.9	75	43	10	255 039
4.0	75	43	10	255 040
4.1	75	43	10	255 041

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
4.2	75	43	10	255 042
4.3	80	47	10	255 043
4.4	80	47	10	255 044
4.5	80	47	10	255 045
4.6	80	47	10	255 046
4.7	80	47	10	255 047
4.8	86	52	10	255 048
4.9	86	52	10	255 049
5.0	86	52	10	255 050
5.1	86	52	10	255 051
5.2	86	52	10	255 052
5.3	86	52	10	255 053
5.4	93	57	10	255 054
5.5	93	57	10	255 055
5.6	93	57	10	255 056
5.7	93	57	10	255 057
5.8	93	57	10	255 058
5.9	93	57	10	255 059
6.0	93	57	10	255 060
6.1	101	63	10	255 061
6.2	101	63	10	255 062
6.3	101	63	10	255 063
6.4	101	63	10	255 064
6.5	101	63	10	255 065
6.6	101	63	10	255 066
6.7	101	63	10	255 067
6.8	109	69	10	255 068
6.9	109	69	10	255 069
7.0	109	69	10	255 070
7.1	109	69	10	255 071
7.2	109	69	10	255 072
7.3	109	69	10	255 073

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
7.4	109	69	10	255 074
7.5	109	69	10	255 075
7.6	117	75	10	255 076
7.7	117	75	10	255 077
7.8	117	75	10	255 078
7.9	117	75	10	255 079
8.0	117	75	10	255 080
8.1	117	75	10	255 081
8.2	117	75	10	255 082
8.3	117	75	10	255 083
8.4	117	75	10	255 084
8.5	117	75	10	255 085
8.6	125	81	10	255 086
8.7	125	81	10	255 087
8.8	125	81	10	255 088
8.9	125	81	10	255 089
9.0	125	81	10	255 090
9.5	125	81	10	255 095
10.0	133	87	10	255 100
10.2	133	87	5	255 102
10.5	133	87	5	255 105
11.0	142	94	5	255 110
11.5	142	94	5	255 115
12.0	151	101	5	255 120
12.5	151	101	5	255 125
13.0	151	101	5	255 130

Sets

Art.-Group **16**



67319



67379



60319



60379



60617

★★★☆☆

Content	Pieces	Packaging	Item No.
Ø 1 - 10 / 0.5 mm increasing	19	Plastic box	67319
Ø 1 - 13 / 0.5 mm increasing	25	Plastic box	67379
Ø 1 - 10 / 0.5 mm increasing	19	Metal box	60319
Ø 1 - 13 / 0.5 mm increasing	25	Metal box	60379
10x Ø 1.0 - 8.0 / 0.5 mm increasing 5x Ø 8.5 - 10.0 / 0.5 mm increasing	170	Metal case	60617

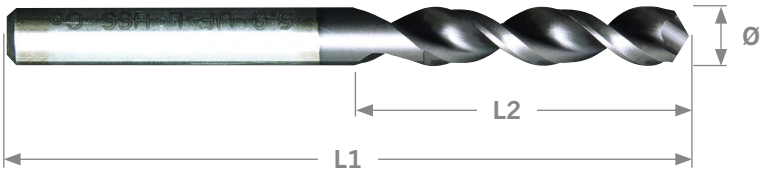


46000 | Extra Short Multi-Purpose Twist Drill Bits With Straight Shank
HSS-Co 5% AlTiN DIN 1897 Type UF-L

NIROSTA STAINLESS INOX | METAL | Cu Ni Ms Zn | ALU | LONG LIFE PRO

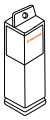
Art.-Group **28**





Tolerance	h8	**Web Thinning**	DIN 1412, shape UX	**Helix Angle**	40° - 42°
Material	HSS-Co 5%	**Web Thickness**	Thicker than normal	**Constructional Features**	DIN 1414
Point Grinding	Tapered finish	**Tensile Strength**	1.200 N/mm²		
Point Angle	130°	**Web Taper**	Without		

Further information regarding this product can be found on page 88



Quadro pack with hanger

★★★★★

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
2.0	38	12	10	46 020
2.1	38	12	10	46 021
2.2	40	13	10	46 022
2.3	40	13	10	46 023
2.4	43	14	10	46 024
2.5	43	14	10	46 025
2.6	43	14	10	46 026
2.7	46	16	10	46 027
2.8	46	16	10	46 028
2.9	46	16	10	46 029
3.0	46	16	10	46 030
3.1	49	18	10	46 031
3.2	49	18	10	46 032
3.3	49	18	10	46 033
3.4	52	20	10	46 034
3.5	52	20	10	46 035
3.6	52	20	10	46 036
3.7	52	20	10	46 037
3.8	55	22	10	46 038
3.9	55	22	10	46 039
4.0	55	22	10	46 040
4.1	55	22	10	46 041
4.2	55	22	10	46 042
4.3	58	24	10	46 043
4.4	58	24	10	46 044
4.5	58	24	10	46 045
4.6	58	24	10	46 046
4.7	58	24	10	46 047

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
4.8	62	26	10	46 048
4.9	62	26	10	46 049
5.0	62	26	10	46 050
5.1	62	26	10	46 051
5.2	62	26	10	46 052
5.3	62	26	10	46 053
5.4	66	28	10	46 054
5.5	66	28	10	46 055
5.6	66	28	10	46 056
5.7	66	28	10	46 057
5.8	66	28	10	46 058
5.9	66	28	10	46 059
6.0	66	28	10	46 060
6.5	70	31	10	46 065
6.8	74	34	10	46 068
7.0	74	34	10	46 070
7.5	74	34	10	46 075
8.0	79	37	10	46 080
8.5	79	37	10	46 085
9.0	84	40	10	46 090
9.5	84	40	10	46 095
10.0	89	43	10	46 100
10.2	89	43	5	46 102
10.5	89	43	5	46 105

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
11.0	95	47	5	46 110
11.5	95	47	5	46 115
12.0	102	51	5	46 120
12.5	102	51	5	46 125
13.0	102	51	5	46 130
13.5	107	54	5	46 135
14.0	107	54	5	46 140
14.5	111	56	1	46 145
15.0	111	56	1	46 150
15.5	115	58	1	46 155
16.0	115	58	1	46 160
16.5	119	60	1	46 165
17.0	119	60	1	46 170
17.5	123	62	1	46 175
18.0	123	62	1	46 180
18.5	127	64	1	46 185
19.0	127	64	1	46 190
19.5	131	66	1	46 195
20.0	131	66	1	46 200

Sets

Art.-Group **16**



60 846

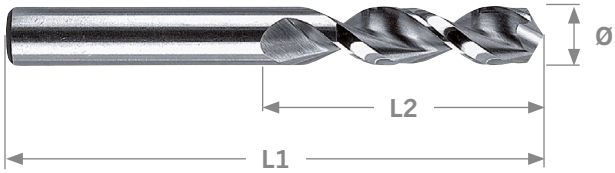
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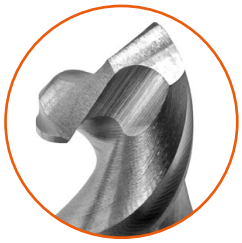
Content	Pieces	Packaging	Item No.
Ø 2.0 - 10.2 / 0.5 mm increasing Core hole dimensions Ø 3.3 - 4.2 - 6.8 mm	21	Metal box	60 846

44000 | Extra Short Multi-Purpose Twist Drill Bits With Straight Shank HSS-Co 5% DIN 1897 Type UF-L

NIROSTA STAINLESS INOX | METAL | Cu Ni Ms Zn | ALU | LONG LIFE

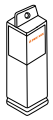
Art.-Group **28**





Tolerance	h8	**Web Thinning**	DIN 1412, shape UX	**Helix Angle**	40° - 42°
Material	HSS-Co 5%	**Web Thickness**	Thicker than normal	**Constructional Features**	DIN 1414
Point Grinding	Tapered finish	**Tensile Strength**	1.200 N/mm²		
Point Angle	130°	**Web Taper**	Without		

Further information regarding this product can be found on page 90



Quadro pack with hanger

★★★★★

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
2.0	38	12	10	44 020
2.1	38	12	10	44 021
2.2	40	13	10	44 022
2.3	40	13	10	44 023
2.4	43	14	10	44 024
2.5	43	14	10	44 025
2.6	43	14	10	44 026
2.7	46	16	10	44 027
2.8	46	16	10	44 028
2.9	46	16	10	44 029
3.0	46	16	10	44 030
3.1	49	18	10	44 031
3.2	49	18	10	44 032
3.3	49	18	10	44 033
3.4	52	20	10	44 034
3.5	52	20	10	44 035
3.6	52	20	10	44 036
3.7	52	20	10	44 037
3.8	55	22	10	44 038
3.9	55	22	10	44 039
4.0	55	22	10	44 040
4.1	55	22	10	44 041
4.2	55	22	10	44 042
4.3	58	24	10	44 043
4.4	58	24	10	44 044
4.5	58	24	10	44 045

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
4.6	58	24	10	44 046
4.7	58	24	10	44 047
4.8	62	26	10	44 048
4.9	62	26	10	44 049
5.0	62	26	10	44 050
5.1	62	26	10	44 051
5.2	62	26	10	44 052
5.3	62	26	10	44 053
5.4	66	28	10	44 054
5.5	66	28	10	44 055
5.6	66	28	10	44 056
5.7	66	28	10	44 057
5.8	66	28	10	44 058
5.9	66	28	10	44 059
6.0	66	28	10	44 060
6.5	70	31	10	44 065
6.8	74	34	10	44 068
7.0	74	34	10	44 070
7.5	74	34	10	44 075
8.0	79	37	10	44 080
8.5	79	37	10	44 085
9.0	84	40	10	44 090
9.5	84	40	10	44 095

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
10.0	89	43	10	44 100
10.2	89	43	5	44 102
10.5	89	43	5	44 105
11.0	95	47	5	44 110
11.5	95	47	5	44 115
12.0	102	51	5	44 120
12.5	102	51	5	44 125
13.0	102	51	5	44 130
13.5	107	54	5	44 135
14.0	107	54	5	44 140
14.5	111	56	1	44 145
15.0	111	56	1	44 150
15.5	115	58	1	44 155
16.0	115	58	1	44 160

Sets

Art.-Group **16**



60 844

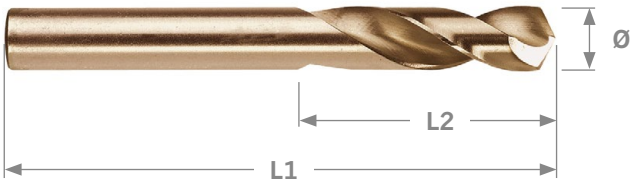
★★★★★

Content	Pieces	Packaging	Item No.
Ø 2.0 - 10.2 / 0.5 mm increasing Core hole dimensions Ø 3.3 - 4.2 - 6.8 mm	21	Metal box	60 844

41000 | Extra Short Twist Drill Bits With Straight Shank
HSS-Co 5% DIN 1897 Type N



Art.-Group **6**





- Extra short design ensures a high level of stability for the drill bit
- High break resistance and very good heat transfer due to reinforced drill bit core
- Perfect for demanding applications in automatic machines and for use in hand drills
- Ideal for sheet metal, flat and profiled iron and for assembly work
- Designed to drill: steel and cast steel up to 1,100 N/mm², stainless and acid-resistant steels, tool steels, spring steels as well as non-ferrous metals

Tolerance	h8	**Web Thinning**	Split point form C from Ø 3 mm	**Web Taper**	Normal
Material	HSS-Co 5%	**Web Thickness**	Reinforced	**Helix Angle**	26° - 31°
Point Grinding	Tapered finish	**Tensile Strength**	1.100 N/mm²	**Constructional Features**	DIN 1414
Point Angle	135°				



Quadro pack with hanger

★★★★☆

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
2.0	38	12	10	410200
2.5	43	14	10	410250
2.8	46	16	10	410280
3.0	46	16	10	410300
3.1	49	18	10	410310
3.2	49	18	10	410320
3.3	49	18	10	410325
3.3	49	18	10	410330
3.4	52	20	10	410340
3.5	52	20	10	410350
3.6	52	20	10	410360
3.7	52	20	10	410370
3.8	55	22	10	410380
3.9	55	22	10	410390

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
4.0	55	22	10	410400
4.1	55	22	10	410410
4.2	55	22	10	410420
4.3	58	24	10	410430
4.4	58	24	10	410440
4.5	58	24	10	410450
4.8	62	26	10	410480
4.9	62	26	10	410490
5.0	62	26	10	410500
5.1	62	26	10	410510
5.2	62	26	10	410520
5.5	66	28	10	410550
5.7	66	28	10	410570

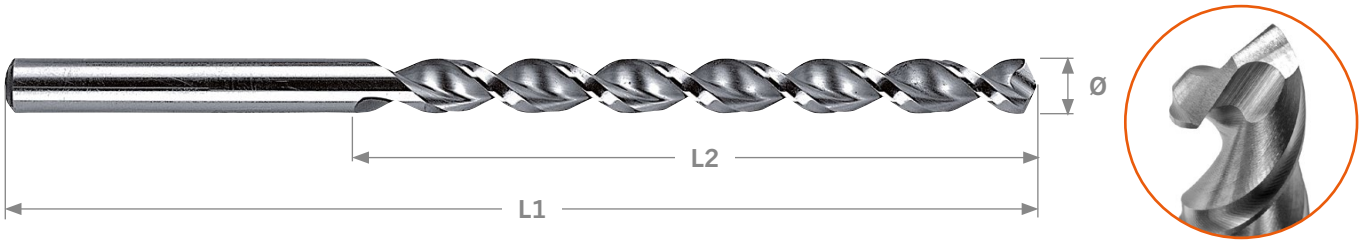
Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
6.0	66	28	10	410600
6.5	70	31	10	410650
6.8	74	34	10	410680
7.0	74	34	10	410700
7.5	74	34	10	410750
8.0	79	37	10	410800
8.5	79	37	10	410850
9.0	84	40	10	410900
9.5	84	40	10	410950
10.0	89	43	10	411000
10.2	89	43	5	411020

GOLD ★★★★★ SILVER ★★★★☆ BRONZE ★★★☆☆

42000 | Long Multipurpose Twist Drill Bits With Straight Shank HSS-Co 5% DIN 340 Type UF-L



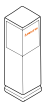
Art.-Group **28**



The specialist for deep-hole drilling

- Robust multipurpose drill bit with high heat resistance
- Ideal for deep-hole drilling, as the special spiral geometry ensures optimal chip removal
- High break resistance and very good heat transfer due to reinforced drill bit core
- To be used at NC and CNC machining centers as well as automatic lathes
- Designed to drill: medium and long-chipping materials with a tensile strength up to 1,200 N/mm², aluminum, copper, AlSi alloys, soft bronze, electrolytic copper, tough brass, stainless steels, titanium and titanium alloys

Tolerance	h8	**Web Thinning**	DIN 1412, shape UX	**Helix Angle**	40° - 42°
Material	HSS-Co 5%	**Web Thickness**	Thicker than normal	**Constructional Features**	DIN 1414
Point Grinding	Tapered finish	**Tensile Strength**	1.200 N/mm²		
Point Angle	130°	**Web Taper**	Without		



Quadro Pack not hangable

★★★★★

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
2.0	85	56	10	42 020
2.5	95	62	10	42 025
3.0	100	66	10	42 030
3.2	106	69	10	42 032
3.3	106	69	10	42 033
3.5	112	73	10	42 035
4.0	119	78	10	42 040
4.2	119	78	10	42 042
4.5	126	82	10	42 045
5.0	132	87	10	42 050
5.2	132	87	10	42 052

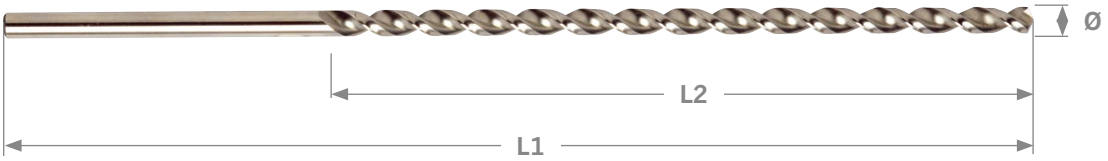
Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
5.5	139	91	10	42 055
6.0	139	91	10	42 060
6.5	148	97	10	42 065
6.8	156	102	10	42 068
7.0	156	102	10	42 070
7.5	156	102	10	42 075
8.0	165	109	10	42 080
8.5	165	109	10	42 085
9.0	175	115	10	42 090
9.5	175	115	10	42 095

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
10.0	184	121	10	42 100
10.2	184	121	5	42 102
10.5	184	121	5	42 105
11.0	195	128	5	42 110
11.5	195	128	5	42 115
12.0	205	134	5	42 120
12.5	205	134	5	42 125
13.0	205	134	5	42 130

43000 | Extra Long Multi-purpose Twist Drill Bits With Straight Shank HSS-Co 5% DIN 1869 Type UF-L



Art.-Group **28**

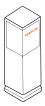




The specialist for deep-hole drilling

- Robust multipurpose drill bit with high heat resistance
- Ideal for deep-hole drilling, as the special spiral geometry ensures optimal chip removal
- High break resistance and very good heat transfer due to reinforced drill bit core
- To be used at NC and CNC machining centers as well as automatic lathes
- Designed to drill: medium and long-chipping materials with a tensile strength up to 1,200 N/mm², aluminum, copper, AlSi alloys, soft bronze, electrolytic copper, tough brass, stainless steels, titanium and titanium alloys

Tolerance	h8	**Web Thinning**	DIN 1412, shape UX	**Helix Angle**	40° - 42°
Material	HSS-Co 5%	**Web Thickness**	Thicker than normal	**Constructional Features**	DIN 1414
Point Grinding	Tapered finish	**Tensile Strength**	1.200 N/mm²		
Point Angle	130°	**Web Taper**	Without		



Quadro Pack not hangable

★★★★★

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
2.0	125	85	1	430 201
2.5	140	95	1	430 251
3.0	150	100	1	430 301
3.0	190	130	1	430 302
3.3	155	105	1	430 331
3.3	200	135	1	430 332
3.5	165	115	1	430 351
3.5	210	145	1	430 352
3.5	265	180	1	430 353
4.0	175	120	1	430 401
4.0	220	150	1	430 402
4.0	280	190	1	430 403
4.2	175	120	1	430 421
4.2	220	150	1	430 422
4.2	280	190	1	430 423
4.5	185	125	1	430 451
4.5	235	160	1	430 452
4.5	295	200	1	430 453
5.0	195	135	1	430 501
5.0	245	170	1	430 502
5.0	315	210	1	430 503
5.5	205	140	1	430 551
5.5	260	180	1	430 552
5.5	330	225	1	430 553
6.0	205	140	1	430 601
6.0	260	180	1	430 602
6.0	330	225	1	430 603
6.5	215	150	1	430 651
6.5	275	190	1	430 652
6.5	350	235	1	430 653

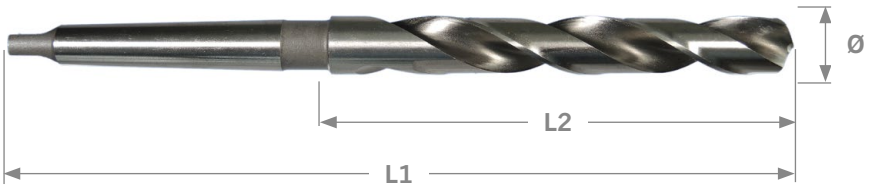
Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
6.8	225	155	1	430 681
6.8	290	200	1	430 682
6.8	370	250	1	430 683
7.0	225	155	1	430 701
7.0	290	200	1	430 702
7.0	370	250	1	430 703
7.5	225	155	1	430 751
7.5	290	200	1	430 752
7.5	370	250	1	430 753
8.0	240	165	1	430 801
8.0	305	210	1	430 802
8.0	390	265	1	430 803
8.5	240	165	1	430 851
8.5	305	210	1	430 852
8.5	390	265	1	430 853
9.0	250	175	1	430 901
9.0	320	220	1	430 902
9.0	410	280	1	430 903
9.5	250	175	1	430 951
9.5	320	220	1	430 952
9.5	410	280	1	430 953
10.0	265	185	1	431 001
10.0	340	235	1	431 002
10.0	430	295	1	431 003
10.2	265	185	1	431 021
10.2	340	235	1	431 022
10.2	430	295	1	431 023
10.5	265	185	1	431 051
10.5	340	235	1	431 052
10.5	430	295	1	431 053

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
11.0	280	195	1	431 101
11.0	365	250	1	431 102
11.0	455	310	1	431 103
11.5	280	195	1	431 151
11.5	365	250	1	431 152
11.5	455	310	1	431 153
12.0	295	205	1	431 201
12.0	375	260	1	431 202
12.0	480	330	1	431 203
12.5	295	205	1	431 251
12.5	375	260	1	431 252
12.5	480	330	1	431 253
13.0	295	205	1	431 301
13.0	375	260	1	431 302
13.0	480	330	1	431 303
13.5	310	220	1	431 351
13.5	380	275	1	431 352
14.0	310	220	1	431 401
14.0	380	275	1	431 402
14.5	310	220	1	431 451
14.5	380	275	1	431 452
15.0	310	220	1	431 501
15.0	380	275	1	431 502
15.5	320	230	1	431 551
15.5	400	295	1	431 552
16.0	320	230	1	431 601
16.0	400	295	1	431 602

24000 | Twist Drill Bits With Morse Taper
HSS-Co 5% DIN 345 Type N



Art.-Group **77**





- Long lifetime due to excellent heat resistance
- Designed to drill: steels up to 1,100 N/mm², stainless steels, cast iron, non-ferrous metals and aluminum

Tolerance	h8	**Web Thinning**	DIN 1412, shape A	**Helix Angle**	25° - 30°
Material	HSS-Co 5%	**Web Thickness**	Normal	**Constructional Features**	DIN 1414
Point Grinding	Tapered finish	**Tensile Strength**	1.100 N/mm²		
Point Angle	118°	**Web Taper**	Normal		



Quadro Pack not hangable

★★★★★

Ø mm	L1 mm	L2 mm	MK	Pc./ PU	Item No.
7.0	150	69	1	1	240 070*
7.5	150	69	1	1	240 075*
8.0	156	75	1	1	240 080
9.5	162	81	1	1	240 095*
10.0	168	87	1	1	240 100
10.5	168	87	1	1	240 105
11.0	175	94	1	1	240 110
11.5	175	94	1	1	240 115
12.0	182	101	1	1	240 120
12.5	182	101	1	1	240 125
13.0	182	101	1	1	240 130
13.5	189	108	1	1	240 135
14.0	189	108	1	1	240 140
14.5	212	114	2	1	240 145
15.0	212	114	2	1	240 150
15.5	218	120	2	1	240 155
16.0	218	120	2	1	240 160
16.5	223	125	2	1	240 165
17.0	223	125	2	1	240 170
17.5	228	130	2	1	240 175

Ø mm	L1 mm	L2 mm	MK	Pc./ PU	Item No.
18.0	228	130	2	1	240 180
18.5	233	135	2	1	240 185
19.0	233	135	2	1	240 190
19.5	238	140	2	1	240 195
20.0	238	140	2	1	240 200
20.5	243	145	2	1	240 205
21.0	243	145	2	1	240 210
21.5	248	150	2	1	240 215
22.0	248	150	2	1	240 220
22.5	253	155	2	1	240 225
23.0	253	155	2	1	240 230
23.5	276	155	3	1	240 235
24.0	281	160	3	1	240 240
24.5	281	160	3	1	240 245
25.0	281	160	3	1	240 250
25.5	286	165	3	1	240 255
26.0	286	165	3	1	240 260
26.5	286	165	3	1	240 265
27.0	291	170	3	1	240 270
27.5	291	170	3	1	240 275

Ø mm	L1 mm	L2 mm	MK	Pc./ PU	Item No.
28.0	291	170	3	1	240 280
28.5	296	175	3	1	240 285
29.0	296	175	3	1	240 290
29.5	296	175	3	1	240 295
30.0	296	175	3	1	240 300
31.0	301	180	3	1	240 310
32.0	334	185	4	1	240 320
33.0	334	185	4	1	240 330
34.0	339	190	4	1	240 340
35.0	339	190	4	1	240 350
36.0	344	195	4	1	240 360
37.0	344	195	4	1	240 370
38.0	349	200	4	1	240 380
39.0	349	200	4	1	240 390
40.0	349	200	4	1	240 400
41.0	354	205	4	1	240 410*
43.0	359	210	4	1	240 430*
44.0	359	210	4	1	240 440*
45.0	359	210	4	1	240 450*
46.0	364	215	4	1	240 460*
47.0	364	215	4	1	240 470*
48.0	369	220	4	1	240 480*
49.0	369	220	4	1	240 490*
50.0	369	220	4	1	240 500*

*Only as long as stocks last

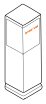
GOLD ★★★★★ SILVER ★★★★☆ BRONZE ★★★☆☆

27000 | Adaptor Sleeves DIN 2185

Art.-Group **37**

AK  IK

- High concentricity and fitting accuracy due to precision-ground inner and outer cones
- Fully hardened
- To compensate the different morse taper sizes on shank and power tool



Quadro Pack not hangable

★★★★☆

AK	IK	Item No.
2	1	27 021
3	1	27 031
3	2	27 032

AK	IK	Item No.
4	1	27 041
4	2	27 042
4	3	27 043

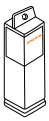
AK	IK	Item No.
5	3	27 053
5	4	27 054

28000 | Ejector DIN 317

Art.-Group **37**



- For an easy removal of tools with conical shank
- Robust, handy and durable



Single packaging with hanger

★★★★☆

Description	Item No.
Ejector suitable for size 1 and 2	28 012
Ejector suitable for size 3	28 003

Description	Item No.
Ejector suitable for size 4	28 004
Ejector suitable for sizes 5 and 6	28 056