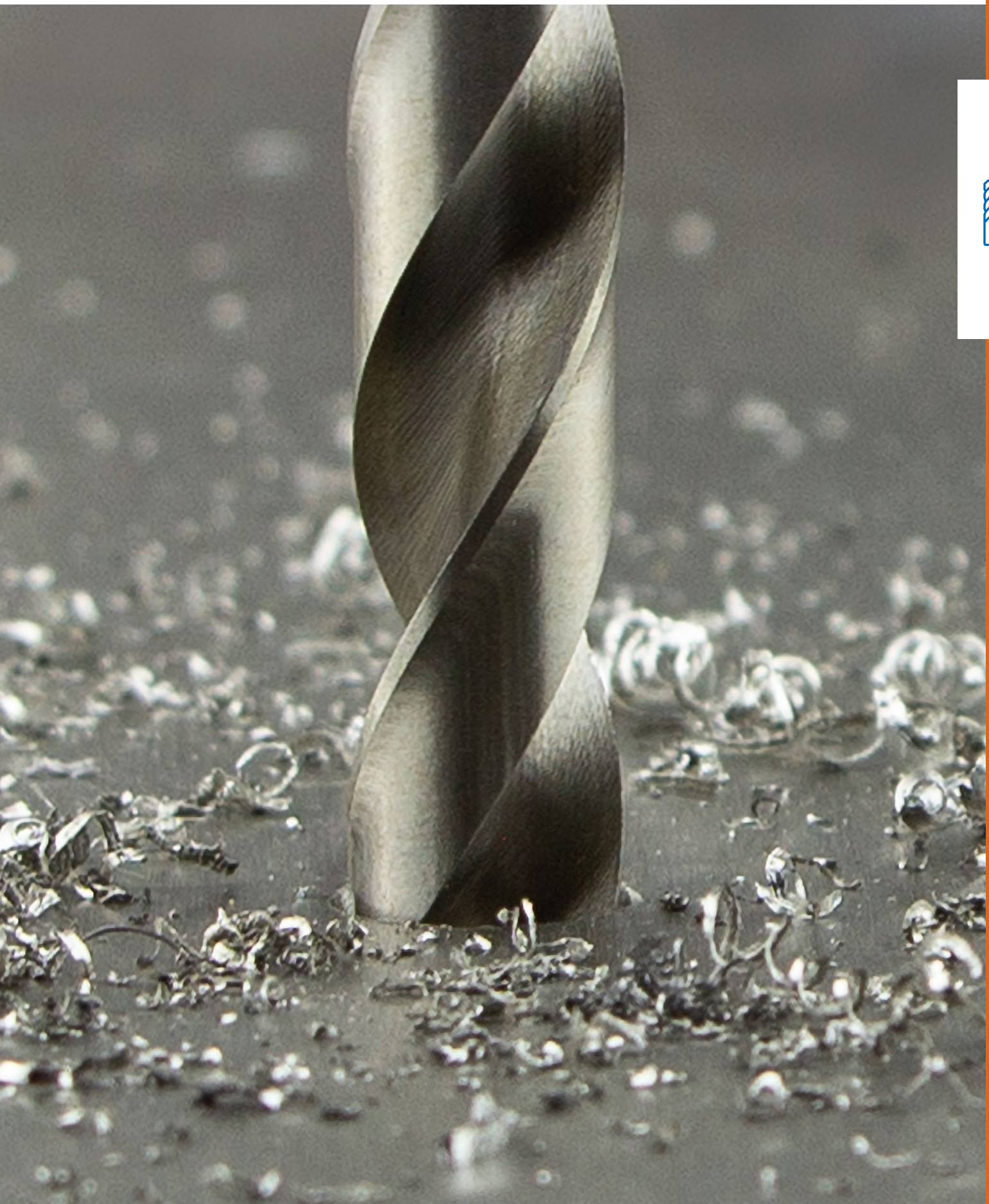
STEEL



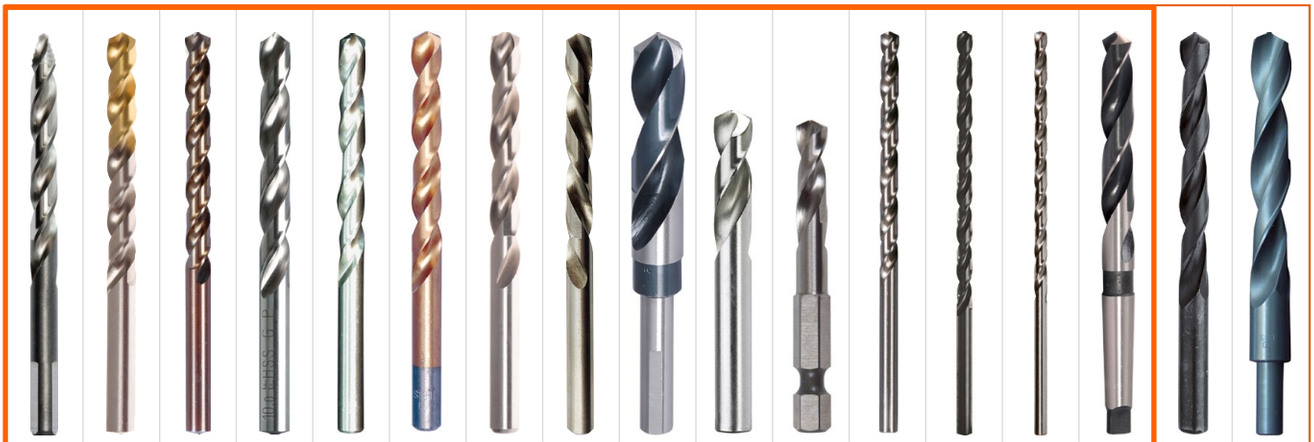
Twist Drill Bits HSS-Co	84 - 104
Twist Drill Bits HSS-G	105 - 128
Twist Drill Bits HSS-R	129 - 140
Special Drill Bits	141 - 153
Countersinks and Deburrers	155 - 162
Core Drill Bit	163 - 168
Carbide Burrs	169 - 180

TWIST DRILL BITS HSS-G



Overview of metal drill bits with recommendation

Steel



Quality	★★★★★	★★★★★	★★★★★	★★★★★	★★★★☆	★★★☆☆	★★★☆☆	★★★★☆	★★★★☆	★★★★☆	★★★★☆	★★★★☆	★★★★★	★★★★☆	★★★★☆	★★★★☆	★★★★☆
DIN Norm	338	338	338	338	338	338	338	338	PROJAHN standard	1897	–	340	1869	1869	345	338	PROJAHN standard
Product	PROSTEP	PROGRESSO TiN	PROGRESSO	TURBO	ECO	BASIC TiN	BASIC	–	–	–	–	–	–	ECO	–	ECO	ECO
Product material	HSS-G	HSS-G	HSS-G	HSS-G	HSS-G	HSS-G	HSS-G	HSS-G	HSS-G	HSS-G	HSS-G	HSS-G	HSS-G	HSS-G	HSS-G	HSS-R	HSS-R
Type	N	SN	SN	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Point angle	118°	130°	130°	118°	135°	135°	135°	118°	118°	135°	135°	135°	118°	130	118°	118°	118°
Coating	–	TiN	–	–	–	TiN	–	–	–	–	–	–	–	–	–	Vaporized	Vaporized
Shank	3 flat shank	Straight	Straight	Straight	Straight	Straight	Straight	Straight	3 flat shank	Straight	Hex	Straight	Straight	Straight	Morse taper	Straight	Straight reduced
Ø mm	1 - 24	1 - 13	1 - 20	0,3 - 16	1 - 13	1 - 13	1 - 13	1 - 13	10 - 30	2 - 10,2	3 - 10	1 - 13	2 - 13	1 - 13	10 - 60	0,3 - 20	10 - 25
Series	72200	29000	12500	14000	18000	29500	18500	18000L	49500	40000	13300	30000	17000	17500	22000	10000	49000
Article group	99	29	75	14	32	78	88	76	4	6	6	7	18	17	71	1	4
Page	106	108	110	112	114	116	118	120	121	122	123	124	126	127	128	130	133
HD Heavy <1,400 N/																	
Steel pipes files, solid	+++	+++	+++	+++	++	++	++	+++	+++	++	++	+++	+++	++	+++	++	++
Cast iron	++	++	+++	+++	++	++	++	++	++	++	++	++	++	++	++	++	++
Stainless s																	
Non-ferrous	++	+	++	+	+	+	+	+	++	++	++	++	+	+	++	+	+
Sheet meta	+++	++	++	+	+	+	+	+	+	++	++	+			+	+	+
Aluminum	++	+	++	++	++	+	++	++	++	++	++	++	++	++	++	++	++
Acryl glass	+++	+	+	+	+	+	+	+	+	+	+	+			+	+	+
Plastic	+++	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++
Wood	++	+	+	+	+	+	+	+	+	+	+	+	++	++	+	+	+

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

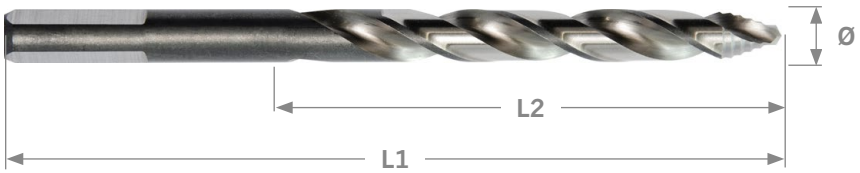
GOLD ★★★★★ SILVER ★★★★☆ BRONZE ★★★☆☆

72200 | Short Twist Drill Bits With Straight Shank
HSS-G DIN 338 Type N PROSTEP

PROSTEP



Art.-Group **99**

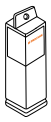




Fast and precise - the revolutionary twist drill bit with step tip

- 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
- Designed for alloyed and unalloyed steel, cast iron, sheet metal, non-ferrous metal, acrylic glass, aluminum, plastics and wood

Tolerance	h8	**Web Thinning**	Split point form C from Ø 3 mm	**Helix Angle**	26° - 32°
Material	HSS-G	**Web Thickness**	Normal	**Constructional Features**	DIN 1414
Point Grinding	Tapered finish	**Tensile Strength**	1.000 N/mm²		
Point Angle	118°	**Web Taper**	Normal		



Quadro pack with hanger

★★★★★

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
1.0	34	12	10	722 010
1.5	40	18	10	722 015
2.0	49	24	10	722 020
2.5	57	30	10	722 025
3.0	61	33	10	722 030
3.1	65	36	10	722 031
3.2	65	36	10	722 032
3.3	65	36	10	722 033
3.5	70	39	10	722 035
4.0	75	43	10	722 040
4.1	75	43	10	722 041
4.2	75	43	10	722 042
4.5	80	47	10	722 045
4.8	86	52	10	722 048
4.9	86	52	10	722 049
5.0	86	52	10	722 050
5.1	86	52	10	722 051
5.2	86	52	10	722 052
5.5	93	57	10	722 055
6.0	93	57	10	722 060
6.1	101	63	10	722 061
6.5	101	63	10	722 065
6.8	109	69	10	722 068

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
7.0	109	69	10	722 070
7.5	109	69	10	722 075
8.0	117	75	10	722 080
8.5	117	75	10	722 085
9.0	125	81	10	722 090
9.5	125	81	10	722 095
10.0	133	87	10	722 100
10.2	133	87	5	722 102
10.5	133	87	5	722 105
11.0	142	94	5	722 110
11.5	142	94	5	722 115
12.0	151	101	5	722 120
12.5	151	101	5	722 125
13.0	151	101	5	722 130
13.5	160	108	1	722 135
14.0	160	108	1	722 140
14.5	169	114	1	722 145
15.0	169	114	1	722 150
15.5	178	120	1	722 155

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
16.0	178	120	1	722 160
16.5	184	125	1	722 165
17.0	184	125	1	722 170
17.5	191	130	1	722 175
18.0	191	130	1	722 180
18.5	198	135	1	722 185
19.0	198	135	1	722 190
19.5	205	140	1	722 195
20.0	205	140	1	722 200
20.5	205	145	1	722 205
21.0	205	145	1	722 210
21.5	210	150	1	722 215
22.0	210	150	1	722 220
22.5	215	155	1	722 225
23.0	215	155	1	722 230
23.5	220	160	1	722 235
24.0	220	160	1	722 240

72200 | Single Packed Items

Art.-Group 99



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	722 010 1
1.5	40	18	2	722 015 1
2.0	49	24	2	722 020 1
2.5	57	30	2	722 025 1
3.0	61	33	2	722 030 1
3.3	65	36	2	722 033 1
3.5	70	39	2	722 035 1
4.0	75	43	2	722 040 1
4.2	75	43	1	722 042 1
4.5	80	47	1	722 045 1
5.0	86	52	1	722 050 1
5.5	93	57	1	722 055 1

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
6.0	93	57	1	722 060 1
6.5	101	63	1	722 065 1
6.8	109	69	1	722 068 1
7.0	109	69	1	722 070 1
7.5	109	69	1	722 075 1
8.0	117	75	1	722 080 1
8.5	117	75	1	722 085 1
9.0	125	81	1	722 090 1
9.5	125	81	1	722 095 1
10.0	133	87	1	722 100 1
10.2	133	87	1	722 102 1
10.5	133	87	1	722 105 1

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
11.0	142	94	1	722 110 1
11.5	142	94	1	722 115 1
12.0	151	101	1	722 120 1
12.5	151	101	1	722 125 1
13.0	151	101	1	722 130 1

Sets

Art.-Group 16



72 201



72 202



67 219



67 225

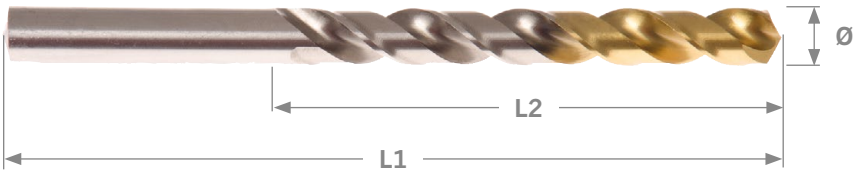
★★★★★

Content	Pieces	Packaging	Item No.
Ø 3 - 4 - 5 - 6 - 8 mm	5	Plastic box	72 201
Core hole dimensions Ø 2.5 - 3.3 - 4.2 - 5.0 - 6.8 - 8.5 - 10.2 mm	7	Plastic box	72 202
Ø 1 - 10 / 0.5 mm increasing	19	Plastic box	67 219
Ø 1 - 13 / 0.5 mm increasing	25	Plastic box	67 225

29000 | Short Twist Drill Bits With Straight Shank
HSS-G TiN DIN 338 Type SN PROGRESSO



Art.-Group **29**

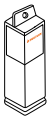




Robust twist drill bit with an excellent durability

- Very high break resistance and excellent heat transfer due to stronger core rise and reinforced drill bit core
- With high-quality titanium nitride coating for increased hardness and heat resistance
- The TiN-coated head extends the tool lifetime up to four times compared to uncoated drill bits or allows even higher cutting parameters to increase productivity
- As the heat development occurs primarily at the drill tip, the drill bit has all the positive characteristics of a drill bit with a complete TiN coating
- TiN-coated drill bits should also be cooled to maximize their lifetime
- Designed to drill: steel up to 1,000 N/mm², cast steel, gray cast iron, malleable cast iron, sintered iron, nickel silver, graphite, non-ferrous metals, aluminum and plastics

Tolerance	h8	**Web Thinning**	Split point form C from Ø 3 mm	**Web Taper**	Strong
Material	HSS-G TiN			**Helix Angle**	35 – 40°
Point Grinding	Tapered finish	**Web Thickness**	Reinforced		
Point Angle	130°	**Tensile Strength**	1.000 N/mm²	**Constructional Features**	DIN 1414



Quadro pack with hanger

★★★★★

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
1.0	34	12	10	29 010
1.5	40	18	10	29 015
2.0	49	24	10	29 020
2.1	49	24	10	29 021
2.2	53	27	10	29 022
2.3	53	27	10	29 023
2.4	57	30	10	29 024
2.5	57	30	10	29 025
2.6	57	30	10	29 026
2.7	61	33	10	29 027
2.8	61	33	10	29 028
2.9	61	33	10	29 029
3.0	61	33	10	29 030
3.1	65	36	10	29 031
3.2	65	36	10	29 032
3.3	65	36	10	29 033
3.4	70	39	10	29 034
3.5	70	39	10	29 035
3.6	70	39	10	29 036
3.7	70	39	10	29 037
3.8	75	43	10	29 038
3.9	75	43	10	29 039
4.0	75	43	10	29 040
4.1	75	43	10	29 041
4.2	75	43	10	29 042
4.3	80	47	10	29 043

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
4.4	80	47	10	29 044
4.5	80	47	10	29 045
4.6	80	47	10	29 046
4.7	80	47	10	29 047
4.8	86	52	10	29 048
4.9	86	52	10	29 049
5.0	86	52	10	29 050
5.1	86	52	10	29 051
5.2	86	52	10	29 052
5.3	86	52	10	29 053
5.4	93	57	10	29 054
5.5	93	57	10	29 055
5.6	93	57	10	29 056
5.7	93	57	10	29 057
5.8	93	57	10	29 058
5.9	93	57	10	29 059
6.0	93	57	10	29 060
6.1	101	63	10	29 061
6.2	101	63	10	29 062
6.3	101	63	10	29 063
6.4	101	63	10	29 064
6.5	101	63	10	29 065
6.6	101	63	10	29 066
6.7	101	63	10	29 067
6.8	109	69	10	29 068
6.9	109	69	10	29 069

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
7.0	109	69	10	29 070
7.1	109	69	10	29 071
7.2	109	69	10	29 072
7.3	109	69	10	29 073
7.4	109	69	10	29 074
7.5	109	69	10	29 075
7.6	117	75	10	29 076
7.7	117	75	10	29 077
7.8	117	75	10	29 078
7.9	117	75	10	29 079
8.0	117	75	10	29 080
8.5	117	75	10	29 085
9.0	125	81	10	29 090
9.5	125	81	10	29 095
10.0	133	87	10	29 100
10.2	133	87	5	29 102
10.5	133	87	5	29 105
11.0	142	94	5	29 110
11.5	142	94	5	29 115
12.0	151	101	5	29 120
12.5	151	101	5	29 125
13.0	151	101	5	29 130

Sets

Art.-Group **16**



67 391

★★★★★

Content	Pieces	Packaging	Item No.
Ø 1 - 10 / 0.5 mm increasing	19	Plastic box	67 391*



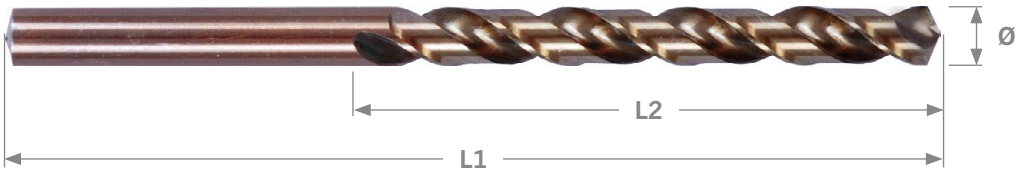
*Only as long as stocks last

GOLD ★★★★★ SILVER ★★★★☆ BRONZE ★★★☆☆

12500 | Short Twist Drill Bits With Straight Shank
HSS-G DIN 338 Type SN PROGRESSO



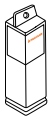
Art.-Group **75**





- 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
- Easy drilling - no center punching required
- For diameters greater than 13 mm, the shank is reduced to Ø 13 mm
- Designed to drill: steel up to 1,000 N/mm², cast steel, gray cast iron, malleable cast iron, sintered iron, nickel silver, graphite, non-ferrous metals, aluminum and plastics

Tolerance	h8	**Web Thinning**	Split point form C from Ø 3 mm	**Web Taper**	Normal
Material	HSS-G			**Helix Angle**	35 - 40°
Point Grinding	Tapered finish	**Web Thickness**	Reinforced	**Constructional Features**	DIN 1414
Point Angle	130°	**Tensile Strength**	1.000 N/mm²		



Quadro pack with hanger

★★★★★

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
1.0	34	12	10	125 010
1.1	36	14	10	125 011
1.2	38	16	10	125 012
1.3	38	16	10	125 013
1.4	40	17	10	125 014
1.5	40	17	10	125 015
1.6	43	20	10	125 016
1.7	43	20	10	125 017
1.8	46	22	10	125 018
1.9	46	22	10	125 019
2.0	49	24	10	125 020
2.1	49	24	10	125 021
2.2	53	27	10	125 022
2.3	53	27	10	125 023
2.4	57	30	10	125 024
2.5	57	30	10	125 025
2.6	57	30	10	125 026
2.7	61	33	10	125 027
2.8	61	33	10	125 028
2.9	61	33	10	125 029
3.0	61	33	10	125 030
3.1	65	36	10	125 031
3.2	65	36	10	125 032
3.3	65	36	10	125 033
3.4	70	39	10	125 034
3.5	70	39	10	125 035
3.6	70	39	10	125 036
3.7	70	39	10	125 037
3.8	75	43	10	125 038
3.9	75	43	10	125 039

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
4.0	75	43	10	125 040
4.1	75	43	10	125 041
4.2	75	43	10	125 042
4.3	80	47	10	125 043
4.4	80	47	10	125 044
4.5	80	47	10	125 045
4.6	80	47	10	125 046
4.7	80	47	10	125 047
4.8	86	52	10	125 048
4.9	86	52	10	125 049
5.0	86	52	10	125 050
5.1	86	52	10	125 051
5.2	86	52	10	125 052
5.3	86	52	10	125 053
5.4	93	57	10	125 054
5.5	93	57	10	125 055
5.6	93	57	10	125 056
5.7	93	57	10	125 057
5.8	93	57	10	125 058
5.9	93	57	10	125 059
6.0	93	57	10	125 060
6.1	101	63	10	125 061
6.2	101	63	10	125 062
6.3	101	63	10	125 063
6.4	101	63	10	125 064
6.5	101	63	10	125 065
6.6	101	63	10	125 066
6.7	101	63	10	125 067
6.8	109	69	10	125 068
6.9	109	69	10	125 069

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
7.0	109	69	10	125 070
7.1	109	69	10	125 071
7.2	109	69	10	125 072
7.3	109	69	10	125 073
7.4	109	69	10	125 074
7.5	109	69	10	125 075
7.6	117	75	10	125 076
7.7	117	75	10	125 077
7.8	117	75	10	125 078
7.9	117	75	10	125 079
8.0	117	75	10	125 080
8.1	117	75	10	125 081
8.2	117	75	10	125 082
8.3	117	75	10	125 083
8.4	117	75	10	125 084
8.5	117	75	10	125 085
8.6	125	81	10	125 086
8.7	125	81	10	125 087
8.8	125	81	10	125 088
8.9	125	81	10	125 089
9.0	125	81	10	125 090
9.1	125	81	10	125 091
9.2	125	81	10	125 092
9.3	125	81	10	125 093
9.4	125	81	10	125 094
9.5	125	81	10	125 095
9.6	133	87	10	125 096
9.7	133	87	10	125 097
9.8	133	87	10	125 098
9.9	133	87	10	125 099

GOLD ★★★★★ SILVER ★★★★☆ BRONZE ★★★☆☆

12500 | Short Twist Drill Bits With Straight Shank HSS-G DIN 338 Type SN PROGRESSO

Art.-Group **75**

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
10.0	133	87	10	125 100
10.2	133	87	5	125 102
10.5	133	87	5	125 105
11.0	142	94	5	125 110
11.5	142	94	5	125 115
12.0	151	101	5	125 120
12.5	151	101	5	125 125

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
13.0	151	101	5	125 130
13.5	160	108	5	125 135
14.0	160	108	5	125 140
14.5	169	114	1	125 145
15.0	169	114	1	125 150
16.0	178	120	1	125 160

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
17.0	184	125	1	125 170
18.0	191	130	1	125 180
19.0	198	135	1	125 190
20.0	205	140	1	125 200

12500 | Single Packed Items

Art.-Group **75**

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	125 010 01
1.5	40	18	2	125 015 01
2.0	49	24	2	125 020 01
2.5	57	30	2	125 025 01
3.0	61	33	2	125 030 01
3.1	65	36	2	125 031 01
3.2	65	36	2	125 032 01
3.3	65	36	2	125 033 01
3.5	70	39	2	125 035 01
4.0	75	43	2	125 040 01
4.1	75	43	1	125 041 01
4.2	75	43	1	125 042 01

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
4.5	80	47	1	125 045 01
4.8	86	52	1	125 048 01
5.0	86	52	1	125 050 01
5.5	93	57	1	125 055 01
6.0	93	57	1	125 060 01
6.5	101	63	1	125 065 01
6.8	109	69	1	125 068 01
7.0	109	69	1	125 070 01
7.5	109	69	1	125 075 01
8.0	117	75	1	125 080 01
8.5	117	75	1	125 085 01

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
9.0	125	81	1	125 090 01
9.5	125	81	1	125 095 01
10.0	133	87	1	125 100 01
10.2	133	87	1	125 102 01
10.5	133	87	1	125 105 01
11.0	142	94	1	125 110 01
11.5	142	94	1	125 115 01
12.0	151	101	1	125 120 01
12.5	151	101	1	125 125 01
13.0	151	101	1	125 130 01

Sets

Art.-Group **16**



60 021



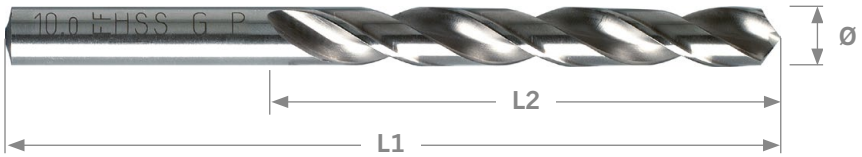
60 022

Content	Pieces	Packaging	Item No.
Ø 1 - 10 / 0.5 mm increasing	19	Plastic box	60 021
Ø 1 - 13 / 0.5 mm increasing	25	Plastic box	60 022

14000 | Short Twist Drill Bits With Straight Shank
HSS-G DIN 338 Type N TURBO



Art.-Group **14**





- Reduced cutting edge and 118° point angle ensure fast drilling progress
- Long lifetime due to high-quality high-speed steel
- Form A pointing ensures precise and round holes with every drilling
- Easy drilling - no center punching required
- Designed to drill: steel up to 900 N/mm², cast steel alloyed and unalloyed, gray cast iron, malleable cast iron, sintered iron, nodular cast iron, graphite, bronze, tough brass, aluminum and plastics

Tolerance	h8	**Web Thinning**	Form A according to DIN 1412 starting at Ø 3 mm	**Web Taper**	Normal
Material	HSS-G			**Helix Angle**	26° - 32°
Point Grinding	Tapered finish	**Web Thickness**	Normal	**Constructional Features**	DIN 1414
Point Angle	118°	**Tensile Strength**	900 N/mm²		

Quadro pack with hanger

★★★★★

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
0.3	19	3	10	140 030
0.4	20	5	10	140 040
0.5	22	6	10	140 050
0.6	24	7	10	140 060
0.7	28	9	10	140 070
0.8	30	10	10	140 080
0.9	32	11	10	140 090
1.0	34	12	10	140 100
1.1	36	14	10	140 110
1.2	38	16	10	140 120
1.3	38	16	10	140 130
1.4	40	18	10	140 140
1.5	40	18	10	140 150
1.6	43	20	10	140 160
1.7	43	20	10	140 170
1.8	46	22	10	140 180
1.9	46	22	10	140 190
2.0	49	24	10	140 200
2.1	49	24	10	140 210
2.2	53	27	10	140 220
2.3	53	27	10	140 230
2.4	57	30	10	140 240
2.5	57	30	10	140 250
2.6	57	30	10	140 260
2.7	61	33	10	140 270
2.8	61	33	10	140 280
2.9	61	33	10	140 290
3.0	61	33	10	140 300
3.1	65	36	10	140 310
3.2	65	36	10	140 320
3.3	65	36	10	140 330
3.4	70	39	10	140 340
3.5	70	39	10	140 350
3.6	70	39	10	140 360
3.7	70	39	10	140 370
3.8	75	43	10	140 380
3.9	75	43	10	140 390

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
4.0	75	43	10	140 400
4.1	75	43	10	140 410
4.2	75	43	10	140 420
4.3	80	47	10	140 430
4.4	80	47	10	140 440
4.5	80	47	10	140 450
4.6	80	47	10	140 460
4.7	80	47	10	140 470
4.8	86	52	10	140 480
4.9	86	52	10	140 490
5.0	86	52	10	140 500
5.1	86	52	10	140 510
5.2	86	52	10	140 520
5.3	86	52	10	140 530
5.4	93	57	10	140 540
5.5	93	57	10	140 550
5.6	93	57	10	140 560
5.7	93	57	10	140 570
5.8	93	57	10	140 580
5.9	93	57	10	140 590
6.0	93	57	10	140 600
6.1	101	63	10	140 610
6.2	101	63	10	140 620
6.3	101	63	10	140 630
6.4	101	63	10	140 640
6.5	101	63	10	140 650
6.6	101	63	10	140 660
6.7	101	63	10	140 670
6.8	109	69	10	140 680
6.9	109	69	10	140 690
7.0	109	69	10	140 700
7.1	109	69	10	140 710
7.2	109	69	10	140 720
7.3	109	69	10	140 730
7.4	109	69	10	140 740
7.5	109	69	10	140 750
7.6	117	75	10	140 760
7.7	117	75	10	140 770

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
7.8	117	75	10	140 780
7.9	117	75	10	140 790
8.0	117	75	10	140 800
8.1	117	75	10	140 810
8.2	117	75	10	140 820
8.3	117	75	10	140 830
8.4	117	75	10	140 840
8.5	117	75	10	140 850
8.6	125	81	10	140 860
8.7	125	81	10	140 870
8.8	125	81	10	140 880
8.9	125	81	10	140 890
9.0	125	81	10	140 900
9.1	125	81	10	140 910
9.2	125	81	10	140 920
9.3	125	81	10	140 930
9.4	125	81	10	140 940
9.5	125	81	10	140 950
9.6	133	87	10	140 960
9.7	133	87	10	140 970
9.8	133	87	10	140 980
9.9	133	87	10	140 990
10.0	133	87	10	141 000
10.1	133	87	5	141 010
10.2	133	87	5	141 020
10.3	133	87	5	141 030
10.4	133	87	5	141 040
10.5	133	87	5	141 050
10.6	133	87	5	141 060
10.7	142	97	5	141 070
10.8	142	97	5	141 080
10.9	142	97	5	141 090
11.0	142	94	5	141 100
11.1	142	94	5	141 110
11.2	142	94	5	141 120
11.3	142	94	5	141 130
11.4	142	94	5	141 140

GOLD ★★★★★ SILVER ★★★★☆ BRONZE ★★★☆☆

14000 | Short Twist Drill Bits With Straight Shank
HSS-G DIN 338 Type N TURBO

Art.-Group **14**

★★★★★

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
11.5	142	94	5	141 150
11.6	142	94	5	141 160
11.7	142	94	5	141 170
11.8	142	94	5	141 180
11.9	151	101	5	141 190
12.0	151	101	5	141 200
12.1	151	101	5	141 210
12.2	151	101	5	141 220
12.3	151	101	5	141 230

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
12.4	151	101	5	141 240
12.5	151	101	5	141 250
12.6	151	101	5	141 260
12.7	151	101	5	141 270
12.8	151	101	5	141 280
12.9	151	101	5	141 290
13.0	151	101	5	141 300
13.5	160	108	5	141 350

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
14.0	160	108	5	141 400
14.5	169	114	1	141 450
15.0	169	114	1	141 500
15.5	178	120	1	141 550
16.0	178	120	1	141 600
16.5	184	125	1	141 650

16000-10 | Single Packed Items

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

Art.-Group **14**

★★★★★

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
1.0	34	12	2	16010-10
1.5	40	18	2	16015-10
2.0	49	24	2	16020-10
2.1	49	24	2	16021-10
2.5	57	30	2	16025-10
3.0	61	33	2	16030-10
3.1	65	36	2	16031-10
3.2	65	36	2	16032-10
3.5	70	39	2	16035-10
4.0	75	43	2	16040-10
4.1	75	43	1	16041-10
4.2	75	43	1	16042-10
4.5	80	47	1	16045-10
4.8	86	52	1	16048-10

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
5.0	86	52	1	16050-10
5.2	86	52	1	16052-10
5.5	93	57	1	16055-10
6.0	93	57	1	16060-10
6.3	101	63	1	16063-10
6.5	101	63	1	16065-10
6.8	109	69	1	16068-10
7.0	109	69	1	16070-10
7.3	109	69	1	16073-10
7.5	109	69	1	16075-10
8.0	117	75	1	16080-10
8.3	117	75	1	16083-10
8.5	117	75	1	16085-10

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
9.0	125	81	1	16090-10
9.5	125	81	1	16095-10
10,0	133	87	1	16100-10
10,2	133	87	1	16102-10
10,4	133	87	1	16104-10
10,5	133	87	1	16105-10
11.0	142	94	1	16110-10
11.5	142	94	1	16115-10
12.0	151	101	1	16120-10
12.4	151	101	1	16124-10
12.5	151	101	1	16125-10
13.0	151	101	1	16130-10

Sets

Art.-Group **16**


67314


67374


60314


60374


60424


60445


60440


60614

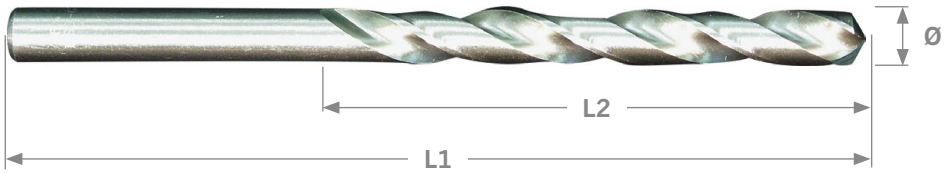
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Content	Pieces	Packaging	Item No.
Ø 1 - 10 / 0.5 mm increasing	19	Plastic box	67314
Ø 1 - 13 / 0.5 mm increasing	25	Plastic box	67374
Ø 1 - 10 / 0.5 mm increasing	19	Metal box	60314
Ø 1 - 13 / 0.5 mm increasing	25	Metal box	60374
Ø 1 - 10.5 / 0.5 mm increasing Core hole dimensions Ø 3.3 - 4.2 - 6.8 - 10.2 mm	24	Metal box	60424
Ø 6 - 10 / 0.1 mm increasing	41	Metal box	60445
Ø 1 - 5.9 / 0.1 mm increasing	50	Metal box	60440
10x Ø 1 - 8 / 0.5 mm increasing 5x Ø 8.5 - 10.0 / 0.5 mm increasing	170	Metal case	60614

18000 | Short Twist Drill Bits With Straight Shank
HSS-G DIN 338 Typ N ECO



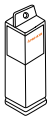
Art.-Group **32**





- High break resistance and very good heat transfer due to reinforced drill bit core
- Designed to drill: steel, cast steel alloyed and unalloyed, non-ferrous metals, aluminum and plastics

Tolerance	h8	**Web Thinning**	Split point form C from Ø 3 mm	**Web Taper**	Normal
Material	HSS-G			**Helix Angle**	26° - 31°
Point Grinding	Tapered finish	**Web Thickness**	Reinforced	**Constructional Features**	DIN 1414
Point Angle	135°	**Tensile Strength**	900 N/mm²		



Quadro pack with hanger

★★★★☆

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
1.0	34	12	10	18010
1.1	36	14	10	18011
1.2	38	16	10	18012
1.3	38	16	10	18013
1.4	40	18	10	18014
1.5	40	18	10	18015
1.6	43	20	10	18016
1.7	43	20	10	18017
1.8	46	22	10	18018
1.9	46	22	10	18019
2.0	49	24	10	18020
2.1	49	24	10	18021
2.2	53	27	10	18022
2.3	53	27	10	18023
2.4	57	30	10	18024
2.5	57	30	10	18025
2.6	57	30	10	18026
2.7	61	33	10	18027
2.8	61	33	10	18028
2.9	61	33	10	18029
3.0	61	33	10	18030
3.1	65	36	10	18031
3.2	65	36	10	18032
3.3	65	36	10	18033
3.4	70	39	10	18034
3.5	70	39	10	18035
3.6	70	39	10	18036
3.7	70	39	10	18037
3.8	75	43	10	18038
3.9	75	43	10	18039
4.0	75	43	10	18040
4.1	75	43	10	18041
4.2	75	43	10	18042
4.3	80	47	10	18043

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
4.4	80	47	10	18044
4.5	80	47	10	18045
4.6	80	47	10	18046
4.7	80	47	10	18047
4.8	86	52	10	18048
4.9	86	52	10	18049
5.0	86	52	10	18050
5.1	86	52	10	18051
5.2	86	52	10	18052
5.3	86	52	10	18053
5.4	93	57	10	18054
5.5	93	57	10	18055
5.6	93	57	10	18056
5.7	93	57	10	18057
5.8	93	57	10	18058
5.9	93	57	10	18059
6.0	93	57	10	18060
6.1	101	63	10	18061
6.2	101	63	10	18062
6.3	101	63	10	18063
6.4	101	63	10	18064
6.5	101	63	10	18065
6.6	101	63	10	18066
6.7	101	63	10	18067
6.8	109	69	10	18068
6.9	109	69	10	18069
7.0	109	69	10	18070
7.1	109	69	10	18071
7.2	109	69	10	18072
7.3	109	69	10	18073
7.4	109	69	10	18074
7.5	109	69	10	18075
7.6	117	75	10	18076
7.7	117	75	10	18077

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
7.8	117	75	10	18078
7.9	117	75	10	18079
8.0	117	75	10	18080
8.1	117	75	10	18081
8.2	117	75	10	18082
8.3	117	75	10	18083
8.4	117	75	10	18084
8.5	117	75	10	18085
8.6	125	81	10	18086
8.7	125	81	10	18087
8.8	125	81	10	18088
8.9	125	81	10	18089
9.0	125	81	10	18090
9.1	125	81	10	18091
9.2	125	81	10	18092
9.3	125	81	10	18093
9.4	125	81	10	18094
9.5	125	81	10	18095
9.6	133	87	10	18096
9.7	133	87	10	18097
9.8	133	87	10	18098
9.9	133	87	10	18099
10.0	133	87	10	18100
10.2	133	87	5	18102
10.5	133	87	5	18105
11.0	142	94	5	18110
11.5	142	94	5	18115
12.0	151	101	5	18120
12.5	151	101	5	18125
13.0	151	101	5	18130

16000 | Single Packed Items

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

Art.-Group **32**

★★★★☆

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
1.0	34	12	2	16010
1.5	40	18	2	16015
2.0	49	24	2	16020
2.5	57	30	2	16025
3.0	61	33	2	16030
3.1	65	36	2	16031
3.2	65	36	2	16032
3.3	65	36	2	16033
3.5	70	39	2	16035
4.0	75	43	2	16040
4.1	75	43	1	16041
4.2	75	43	1	16042

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
4.5	80	47	1	16045
4.8	86	52	1	16048
5.0	86	52	1	16050
5.5	93	57	1	16055
6.0	93	57	1	16060
6.5	101	63	1	16065
6.8	109	69	1	16068
7.0	109	69	1	16070
7.5	109	69	1	16075
8.0	117	75	1	16080
8.5	117	75	1	16085

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
9.0	125	81	1	16090
9.5	125	81	1	16095
10.0	133	87	1	16100
10.2	133	87	1	16102
10.5	133	87	1	16105
11.0	142	94	1	16110
11.5	142	94	1	16115
12.0	151	101	1	16120
12.5	151	101	1	16125
13.0	151	101	1	16130

Sets

Art.-Group **16**


67315


67375


60315


60375


60413*


60425


60436


60645


60615


67615


60715

★★★★☆

Content	Pieces	Packaging	Item No.
Ø 1 - 10 / 0.5 mm increasing	19	Plastic box	67315
Ø 1 - 13 / 0.5 mm increasing	25	Plastic box	67375
Ø 1 - 10 / 0.5 mm increasing	19	Metal box	60315
Ø 1 - 13 / 0.5 mm increasing	25	Metal box	60375
Ø 1.5 - 6.5 / 0.5 mm increasing Core hole dimensions Ø 3.3 - 4.8 mm	13	Metal box	60413*
Ø 1 - 10.5 / 0.5 mm increasing Core hole dimensions Ø 3.3 - 4.2 - 6.8 - 10.2 mm	24	Metal box	60425
Ø 1 - 10 / 0.1 mm increasing	91	Metal box	60436
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	60645
10x Ø 1.0 - 8.0 / 0.5 mm increasing 5x Ø 8.5 - 10.0 / 0.5 mm increasing	170	Metal case	60615
10x Ø 1.0 - 8.0 / 0.5 mm increasing 5x Ø 8.5 - 10.0 / 0.5 mm increasing	170	Plastic case	67615
10x Ø 1.0 - 8.0 / 0.5 mm increasing 10x Ø 3.3 - 4.2 mm 5x Ø 8.5 - 13.0 / 0.5 mm increasing	220	Metal case	60715

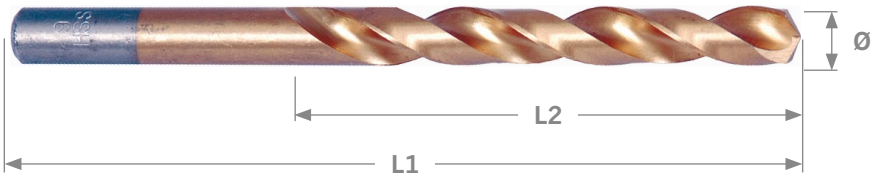
*Only as long as stocks last

GOLD ★★★★★ SILVER ★★★★☆ BRONZE ★★★☆☆

29500 | Short Twist Drill Bits With Straight Shank HSS-G TiN DIN 338 Type N BASIC



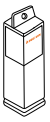
Art.-Group **78**





- With titanium nitride coating for increased hardness and heat resistance
- The TiN coating extends the tool lifetime up to four times compared to uncoated drill bits or allows even higher cutting parameters to increase productivity
- Designed to drill: steel up to 900 N/mm², cast steel alloyed and unalloyed, gray cast iron, malleable cast iron, sintered iron, nodular cast iron, graphite, bronze, non-ferrous metals, aluminum and plastics

Tolerance	h8	**Web Thinning**	Split point form C from Ø 3 mm	**Helix Angle**	26° - 31°
Material	HSS-G TiN	**Web Thickness**	Normal	**Constructional Features**	DIN 1414
Point Grinding	Tapered finish	**Tensile Strength**	900 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	295 010
1.5	40	18	10	295 015
2.0	49	24	10	295 020
2.5	57	30	10	295 025
3.0	61	33	10	295 030
3.2	65	36	10	295 032
3.5	70	39	10	295 035
4.0	75	43	10	295 040
4.2	75	43	10	295 042
4.5	80	47	10	295 045
5.0	86	52	10	295 050
5.2	86	52	10	295 052

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
5.5	93	57	10	295 055
6.0	93	57	10	295 060
6.5	101	63	10	295 065
6.8	109	69	10	295 068
7.0	109	69	10	295 070
7.5	109	69	10	295 075
8.0	117	75	10	295 080
8.5	117	75	10	295 085
9.0	125	81	10	295 090
9.5	125	81	10	295 095
10.0	133	87	10	295 100

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
10.2	133	87	5	295 102
10.5	133	87	5	295 105
11.0	142	94	5	295 110
11.5	142	94	5	295 115
12.0	151	101	5	295 120
12.5	151	101	5	295 125
13.0	151	101	5	295 130

Sets

Art.-Group **16**



67 029



60390



60395



60615_TIN

★★★☆☆

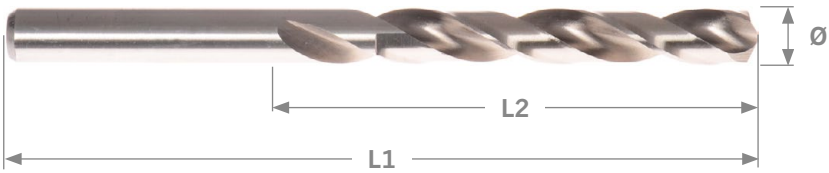
Content	Pieces	Packaging	Item No.
Ø 1.5 - 2 - 2.5 - 3 - 3.2 - 3.5 - 4 - 4.5 - 4.8 - 5 - 5.5 - 6 - 6.5 mm	13	Plastic box	67 029
Ø 1 - 10 / 0.5 mm increasing	19	Metal box	60 390
Ø 1 - 13 / 0.5 mm increasing	25	Metal box	60 395
10x Ø 1.0 - 8.0 / 0.5 mm increasing 5x Ø 8.5 - 10.0 / 0.5 mm increasing	170	Metal case	60615_TIN

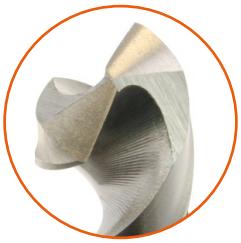


18500 | Short Twist Drill Bits With Straight Shank
HSS-G DIN 338 Type N BASIC



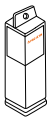
Art.-Group **88**





- Ground twist drill bit made from robust high-speed steel for a long lifetime and reliable performance
- Precision-ground twist drill bit with high concentricity
- Designed to drill: steel up to 900 N/mm², cast steel alloyed and unalloyed, gray cast iron, malleable cast iron, sintered iron, nodular cast iron, graphite, bronze, non-ferrous metals, aluminum and plastics

Tolerance	h8	**Web Thinning**	Split point form C from Ø 3 mm	**Web Taper**	Normal
Material	HSS-G			**Helix Angle**	26° - 31°
Point Grinding	Tapered finish	**Web Thickness**	Normal	**Constructional Features**	DIN 1414
Point Angle	135°	**Tensile Strength**	900 N/mm²		



Quadro pack with hanger

★★★☆☆

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
1.0	34	12	10	185 010
1.1	36	14	10	185 011
1.2	38	16	10	185 012
1.3	38	16	10	185 013
1.4	40	18	10	185 014
1.5	40	18	10	185 015
1.6	43	20	10	185 016
1.7	43	20	10	185 017
1.8	46	22	10	185 018
1.9	46	22	10	185 019
2.0	49	24	10	185 020
2.1	49	24	10	185 021
2.2	53	27	10	185 022
2.3	53	27	10	185 023
2.4	57	30	10	185 024
2.5	57	30	10	185 025
2.6	57	30	10	185 026
2.7	61	33	10	185 027
2.8	61	33	10	185 028
2.9	61	33	10	185 029
3.0	61	33	10	185 030
3.1	65	36	10	185 031
3.2	65	36	10	185 032
3.3	65	36	10	185 033
3.4	70	39	10	185 034
3.5	70	39	10	185 035
3.6	70	39	10	185 036
3.7	70	39	10	185 037
3.8	75	43	10	185 038
3.9	75	43	10	185 039

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
4.0	75	43	10	185 040
4.1	75	43	10	185 041
4.2	75	43	10	185 042
4.3	80	47	10	185 043
4.4	80	47	10	185 044
4.5	80	47	10	185 045
4.6	80	47	10	185 046
4.7	80	47	10	185 047
4.8	86	52	10	185 048
4.9	86	52	10	185 049
5.0	86	52	10	185 050
5.1	86	52	10	185 051
5.2	86	52	10	185 052
5.3	86	52	10	185 053
5.4	93	57	10	185 054
5.5	93	57	10	185 055
5.6	93	57	10	185 056
5.7	93	57	10	185 057
5.8	93	57	10	185 058
5.9	93	57	10	185 059
6.0	93	57	10	185 060
6.1	101	63	10	185 061
6.2	101	63	10	185 062
6.3	101	63	10	185 063
6.4	101	63	10	185 064
6.5	101	63	10	185 065
6.6	101	63	10	185 066
6.7	101	63	10	185 067
6.8	109	69	10	185 068
6.9	109	69	10	185 069

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
7.0	109	69	10	185 070
7.1	109	69	10	185 071
7.2	109	69	10	185 072
7.3	109	69	10	185 073
7.4	109	69	10	185 074
7.5	109	69	10	185 075
7.6	117	75	10	185 076
7.7	117	75	10	185 077
7.8	117	75	10	185 078
7.9	117	75	10	185 079
8.0	117	75	10	185 080
8.1	117	75	10	185 081
8.2	117	75	10	185 082
8.3	117	75	10	185 083
8.4	117	75	10	185 084
8.5	117	75	10	185 085
8.6	125	81	10	185 086
8.7	125	81	10	185 087
8.8	125	81	10	185 088
8.9	125	81	10	185 089
9.0	125	81	10	185 090
9.1	125	81	10	185 091
9.2	125	81	10	185 092
9.3	125	81	10	185 093
9.4	125	81	10	185 094
9.5	125	81	10	185 095
9.6	133	87	10	185 096
9.7	133	87	10	185 097
9.8	133	87	10	185 098
9.9	133	87	10	185 099

18500 | Short Twist Drill Bits With Straight Shank
HSS-G DIN 338 Type N BASIC

Art.-Group **88**

★★★☆☆

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
10.0	133	87	10	185 100
10.2	133	87	5	185 102
10.5	133	87	5	185 105

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
11.0	142	94	5	185 110
11.5	142	94	5	185 115
12.0	151	101	5	185 120

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
12.5	151	101	5	185 125
13.0	151	101	5	185 130

Sets

Art.-Group **16**


67318


67378


60318


60378



67018


60616

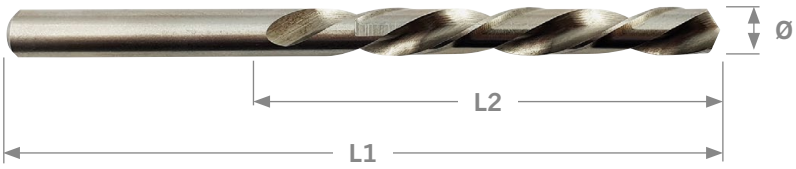
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Content	Pieces	Packaging	Item No.
Ø 1 - 10 / 0.5 mm increasing	19	Plastic box	67318
Ø 1 - 13 / 0.5 mm increasing	25	Plastic box	67378
Ø 1 - 10 / 0.5 mm increasing	19	Metal box	60318
Ø 1 - 13 / 0.5 mm increasing	25	Metal box	60378
Ø 1.5 - 2 - 2.5 - 3 - 3.2 - 3.5 - 4 - 4.5 - 4.8 - 5 - 5.5 - 6 - 6.5 mm	13	Plastic box	67018
10x Ø 1.0 - 8.0 / 0.5 mm increasing 5x Ø 8.5 - 10.0 / 0.5 mm increasing	170	Metal case	60616

18000L | Short Twist Drill Bits With Straight Shank
HSS-G DIN 338 Type N Left-hand cutting



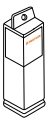
Art.-Group **76**





- Left-hand cutting twist drill bits for drilling out broken screws
- Designed to cut: steel up to 900 N/mm², non-ferrous metals, aluminum, cast iron, plastics and sandwich materials

Tolerance	h8	**Web Thinning**	Without	**Helix Angle**	26° - 31°
Material	HSS-G	**Web Thickness**	Normal	**Constructional Features**	DIN 1414
Point Grinding	Tapered finish	**Tensile Strength**	900 N/mm²		
Point Angle	118°	**Web Taper**	Normal		



Quadro pack with hanger

★★★★☆

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
1.0	34	12	10	180 10L
1.5	40	18	10	180 15L
2.0	49	24	10	180 20L
2.5	57	30	10	180 25L
3.0	61	33	10	180 30L
3.2	65	36	10	180 32L
3.5	70	39	10	180 35L
4.0	75	43	10	180 40L
4.2	75	43	10	180 42L
4.5	80	47	10	180 45L

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
5.0	86	52	10	180 50L
5.5	93	57	10	180 55L
6.0	93	57	10	180 60L
6.5	101	63	10	180 65L
6.8	109	69	10	180 68L
7.0	109	69	10	180 70L
7.5	109	69	10	180 75L
8.0	117	75	10	180 80L
8.5	117	75	10	180 85L
9.0	125	81	10	180 90L

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
9.5	125	81	10	180 95L
10.0	133	87	10	181 00L
10.2	133	87	5	181 02L
10.5	133	87	5	181 05L
11.0	142	94	5	181 10L
11.5	142	94	5	181 15L
12.0	151	101	5	181 20L
12.5	151	101	5	181 25L
13.0	151	101	5	181 30L

Sets

Art.-Group **16**



603 15L



603 75L

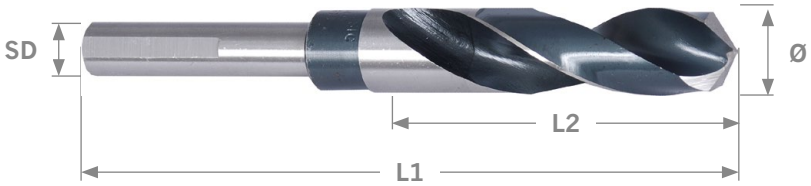
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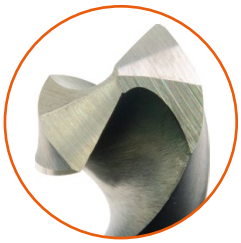
Content	Pieces	Packaging	Item No.
Ø 1 - 10 / 0.5 mm increasing	19	Plastic box	603 15L
Ø 1 - 13 / 0.5 mm increasing	25	Plastic box	603 75L

49500 | Twist drill bits with reduced straight shank
HSS-G PROJAHN standard Type N



Art.-Group **4**





- All drill bits with the same total length of 152 mm, for optimized drilling in pillar and column drill machines
- With 3-flat shank which prevents spinning in the drill chuck and ensures an optimal power transmission
- Due to the reduced shank, larger drill bit diameters can also be used in machines with smaller drill chucks
- Long lifetime due to high-quality high-speed steel
- Designed to drill: steel up to 900 N/mm², cast steel alloyed and unalloyed, gray cast iron, malleable cast iron, sintered iron, nodular cast iron, graphite, bronze, non-ferrous metals, aluminum and plastics

Tolerance	h8	**Web Thinning**	Split point form C	**Helix Angle**	30°
Material	HSS-G	**Web Thickness**	Normal	**Constructional Features**	DIN 1414
Point Grinding	Tapered finish	**Tensile Strength**	900 N/mm²		
Point Angle	118°	**Web Taper**	Normal		



Single packaging with hanger

★★★★☆

Ø mm	L1 mm	L2 mm	SD mm	Pc./ PU	Item No.
10.0	152	76	10	1	495 100
10.5	152	76	10	1	495 105
11.0	152	76	10	1	495 110
11.5	152	76	10	1	495 115
12.0	152	76	10	1	495 120
12.5	152	76	10	1	495 125
13.0	152	76	10	1	495 130
13.5	152	76	10	1	495 135
14.0	152	76	10	1	495 140
14.5	152	76	10	1	495 145
15.0	152	76	10	1	495 150
15.5	152	76	10	1	495 155
16.0	152	76	10	1	495 160
16.5	152	76	12.7	1	495 165

Ø mm	L1 mm	L2 mm	SD mm	Pc./ PU	Item No.
17.0	152	76	12.7	1	495 170
17.5	152	76	12.7	1	495 175
18.0	152	76	12.7	1	495 180
18.5	152	76	12.7	1	495 185
19.0	152	76	12.7	1	495 190
19.5	152	76	12.7	1	495 195
20.0	152	76	12.7	1	495 200
20.5	152	76	12.7	1	495 205
21.0	152	76	12.7	1	495 210
21.5	152	76	12.7	1	495 215
22.0	152	76	12.7	1	495 220
22.5	152	76	12.7	1	495 225
23.0	152	76	12.7	1	495 230
23.5	152	76	12.7	1	495 235

Ø mm	L1 mm	L2 mm	SD mm	Pc./ PU	Item No.
24.0	152	76	12.7	1	495 240
24.5	152	76	12.7	1	495 245
25.0	152	76	12.7	1	495 250
25.5	152	76	12.7	1	495 255
26.0	152	76	12.7	1	495 260
26.5	152	76	12.7	1	495 265
27.0	152	76	12.7	1	495 270
27.5	152	76	12.7	1	495 275
28.0	152	76	12.7	1	495 280
28.5	152	76	12.7	1	495 285
29.0	152	76	12.7	1	495 290
29.5	152	76	12.7	1	495 295
30.0	152	76	12.7	1	495 300

Sets

Art.-Group **16**

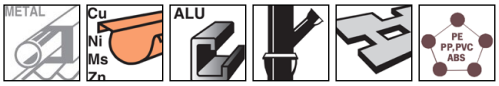


60 749

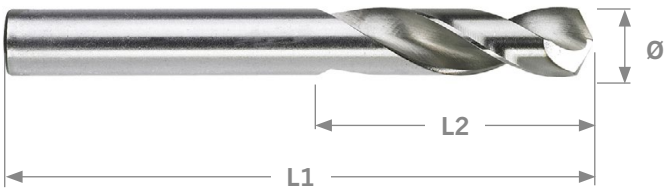
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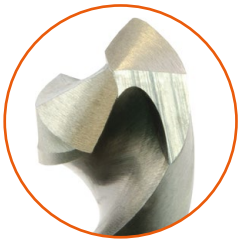
Content	Pieces	Packaging	Item No.
Ø 10.0 - 26.0 / 2 mm increasing + Ø 25.0 mm	10	Metal case	60 749

40000 | Extra Short Twist Drill Bits With Straight Shank
HSS-G DIN 1897 Type N



Art.-Group **6**



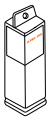


- Extra short design ensures a high level of stability for the drill bit
- Perfect for demanding applications in automatic machines and for use in hand drills
- Ideal for sheet metal, flat and profiled iron and for assembly work
- Designed to cut: steel up to 900 N/mm², non-ferrous metals, aluminum, cast iron and plastics

Tolerance	h8
Material	HSS-G
Point Grinding	Tapered finish
Point Angle	135°

Web Thinning	Split point form C from Ø 3 mm
Web Thickness	Normal
Tensile Strength	900 N/mm²
Web Taper	Normal

Helix Angle	26° - 31°
Constructional Features	DIN 1414



Quadro pack with hanger

★★★★☆

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
2.0	38	12	10	40 200
2.5	43	14	10	40 250
2.8	46	16	10	40 280
3.0	46	16	10	40 300
3.1	49	18	10	40 310
3.2	49	18	10	40 320
3.3	49	18	10	40 325
3.3	49	18	10	40 330
3.4	52	20	10	40 340
3.5	52	20	10	40 350
3.6	52	20	10	40 360
3.7	52	20	10	40 370
3.8	55	22	10	40 380
3.9	55	22	10	40 390

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
4.0	55	22	10	40 400
4.1	55	22	10	40 410
4.2	55	22	10	40 420
4.3	58	24	10	40 430
4.4	58	24	10	40 440
4.5	58	24	10	40 450
4.8	62	26	10	40 480
4.9	62	26	10	40 490
5.0	62	26	10	40 500
5.1	62	26	10	40 510
5.2	62	26	10	40 520
5.5	66	28	10	40 550
5.7	66	28	10	40 570

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
6.0	66	28	10	40 600
6.5	70	31	10	40 650
6.8	74	34	10	40 680
7.0	74	34	10	40 700
7.5	74	34	10	40 750
8.0	79	37	10	40 800
8.5	79	37	10	40 850
9.0	84	40	10	40 900
9.5	84	40	10	40 950
10.0	89	43	10	41 000
10.2	89	43	5	41 020

Sets

Art.-Group **16**



60 840

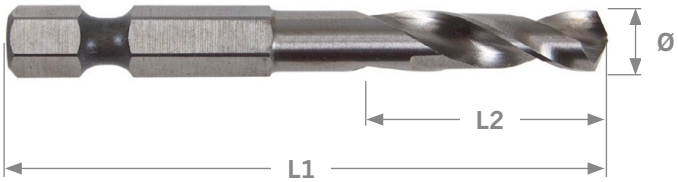
★★★★☆

Content	Pieces	Packaging	Item No.
Ø 2 - 10.2 / 0.5 mm increasing Core hole dimensions Ø 3.3 - 4.2 - 6.8 mm	21	Metal box	60 840

13300 | Extra Short Twist Drill Bits With 6.35 mm [1/4"] Hex Shank HSS-G Type N



Art.-Group **6**





- High concentricity and stability as the shank and the spiral are made from one piece and not plugged together
- 6.35 mm [1/4"] hex shank leads to an optimal power transmission and prevents spinning in the drill chuck
- Quick changing of drill bits due to 6.35 mm [1/4"] form E holder - e.g. in combination with a bit holder
- Ideal for sheet metal, flat and profiled iron and for assembly work
- Designed to cut: steel up to 900 N/mm², non-ferrous metals, aluminum, cast iron and plastics

Tolerance	h8	**Web Thinning**	Split point form C	**Helix Angle**	27° - 30°
Material	HSS-G	**Web Thickness**	Normal	**Constructional Features**	DIN 1414
Point Grinding	Tapered finish	**Tensile Strength**	900 N/mm²		
Point Angle	135°	**Web Taper**	Normal		



Single packaging with hanger

★★★★☆

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
3.0	47	16	1	133 030
3.2	47	16	1	133 032
3.5	47	16	1	133 035
4.0	53	20	1	133 040
4.2	53	20	1	133 042
4.5	53	20	1	133 045

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
4.8	59	26	1	133 048
5.0	59	26	1	133 050
6.0	59	26	1	133 060
7.0	59	30	1	133 070

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
8.0	60	32	1	133 080
9.0	83	45	1	133 090
10.0	87	50	1	133 100

Sets

Art.-Group **16**



13 399



13 302



67 300

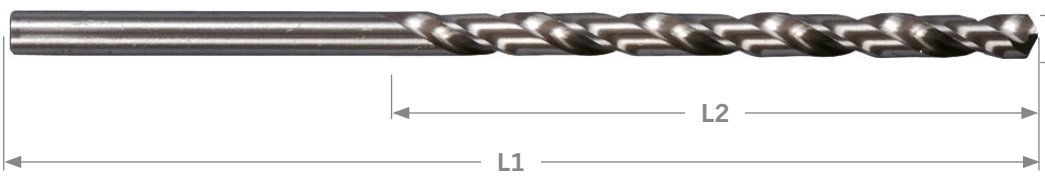
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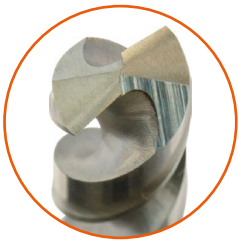
Content	Pieces	Packaging	Item No.
Ø 2 - 3 - 4 - 5 - 6 mm	5	Plastic box	13 399
Ø 3 - 4 - 5 - 6 - 8 - 10 mm	6	Metal box	13 302
Masonry, wood and twist drill bits with hexagonal shank Ø 5 - 6 - 8 mm	9	Metal box	67 300

30000 | Long Twist Drill Bits With Straight Shank
HSS-G DIN 340 Type N



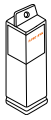
Art.-Group **7**





- High break resistance and very good heat transfer due to reinforced drill bit core
- Long lifetime due to high-quality high-speed steel
- High concentricity due to high-precision aligned twist drill bits
- Ideal for deep or deepened holes and for drilling through drill bushings - smaller feed rates and more frequent chip removal are recommended when used as a deep-hole drill bit
- Designed to cut: steel up to 900 N/mm², non-ferrous metals, aluminum, cast iron, plastics and sandwich materials

Tolerance	h8	**Web Thinning**	Split point from Ø 3.0 mm	**Web Taper**	Normal
Material	HSS-G	**Web Thickness**	Reinforced	**Helix Angle**	26° - 31°
Point Grinding	Tapered finish	**Tensile Strength**	900 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	56	33	10	30 100
1.5	70	45	10	30 150
2.0	85	56	10	30 200
2.5	95	62	10	30 250
2.8	100	66	10	30 280
3.0	100	66	10	30 300
3.1	106	69	10	30 310
3.2	106	69	10	30 320
3.3	106	69	10	30 330
3.4	112	73	10	30 340
3.5	112	73	10	30 350
3.6	112	73	10	30 360
3.7	112	73	10	30 370
3.8	119	78	10	30 380
3.9	119	78	10	30 390
4.0	119	78	10	30 400
4.1	119	78	10	30 410
4.2	119	78	10	30 420
4.3	126	82	10	30 430
4.4	126	82	10	30 440
4.5	126	82	10	30 450
4.6	126	82	10	30 460
4.7	126	82	10	30 470
4.8	132	87	10	30 480
4.9	132	87	10	30 490

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
5.0	132	87	10	30 500
5.1	132	87	10	30 510
5.2	132	87	10	30 520
5.3	132	87	10	30 530
5.4	139	91	10	30 540
5.5	139	91	10	30 550
5.6	139	91	10	30 560
5.7	139	91	10	30 570
5.8	139	91	10	30 580
5.9	139	91	10	30 590
6.0	139	91	10	30 600
6.1	148	97	10	30 610
6.2	148	97	10	30 620
6.3	148	97	10	30 630
6.4	148	97	10	30 640
6.5	148	97	10	30 650
6.8	156	102	10	30 680
7.0	156	102	10	30 700
7.5	156	102	10	30 750
8.0	165	109	10	30 800
8.5	165	109	10	30 850
9.0	175	115	10	30 900
9.5	175	115	10	30 950

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
10.0	184	121	10	31 000
10.2	184	121	5	31 020
10.5	184	121	5	31 050
11.0	195	128	5	31 100
11.5	195	128	5	31 150
12.0	205	134	5	31 200
12.5	205	134	5	31 250
13.0	205	134	5	31 300

GOLD ★★★★★ SILVER ★★★★☆ BRONZE ★★★☆☆

300005 | Single Packed Items

Art.-Group **7**



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

★★★★☆

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
2.0	85	56	2	302 005
2.5	95	62	2	302 505
3.0	100	66	2	303 005
3.2	106	69	2	303 205
3.5	112	73	2	303 505
4.0	119	78	2	304 005
4.2	119	78	1	304 205
4.5	126	82	1	304 505
4.8	132	87	1	304 805
5.0	132	87	1	305 005

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
5.5	139	91	1	305 505
6.0	139	91	1	306 005
6.5	148	97	1	306 505
6.8	156	102	1	306 805
7.0	156	102	1	307 005
7.5	156	102	1	307 505
8.0	165	109	1	308 005
8.5	165	109	1	308 505
9.0	175	115	1	309 005

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
9.5	175	115	1	309 505
10.0	184	121	1	310 005
10.2	184	121	1	310 205
10.5	184	121	1	310 505
11.0	195	128	1	311 005
11.5	195	128	1	311 505
12.0	205	134	1	312 005
12.5	205	134	1	312 505
13.0	205	134	1	313 005

Sets

Art.-Group **16**

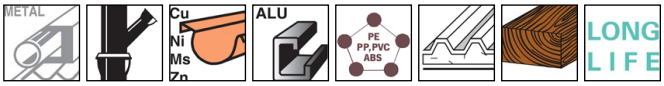


60 830

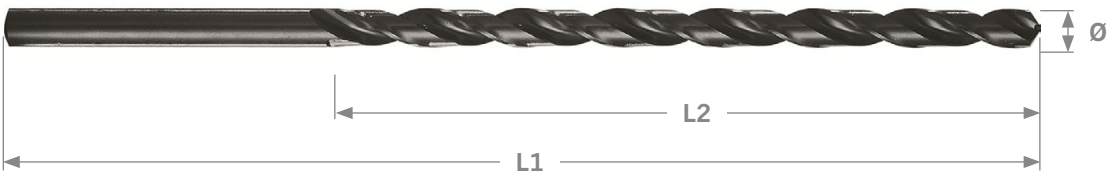
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Content	Pieces	Packaging	Item No.
Ø 1 - 10 / 0.5 mm increasing	19	Metal box	60 830

17000 | Extra Long Twist Drill Bits With Straight Shank HSS-G DIN 1869 Type N



Art.-Group **18**





- With vaporized surface for optimal coolant adhesion, effective corrosion protection and reduced cold welding
- Reduced cutting edge and 118° point angle ensure fast drilling progress
- Long lifetime due to high-quality high-speed steel
- High concentricity due to high-precision aligned twist drill bits
- Form A pointing ensures precise and round holes with every drilling
- Ideal for deep or deepened holes and for drilling through drill bushings - smaller feed rates and more frequent chip removal are recommended when used as a deep-hole drill bit
- Designed to drill: steel up to 1,000 N/mm², cast steel, gray cast iron, malleable cast iron, sintered iron, graphite, non-ferrous metals, aluminum, plastics, sandwich materials and wood

Tolerance	h8	**Web Thinning**	Form A according to DIN 1412 starting at Ø 3 mm
Material	HSS-G	**Web Thickness**	Reinforced
Point Grinding	Tapered finish	**Tensile Strength**	1.000 N/mm²
Point Angle	118°	**Web Taper**	Normal
		Helix Angle	28° - 32°
		Constructional Features	DIN 1414



Single packaging with hanger

★★★★★

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
2.0	125	85	1	170 201
2.5	140	95	1	170 251
3.0	150	100	1	170 301
3.0	190	130	1	170 302
3.3	155	105	1	170 331
3.3	200	135	1	170 332
3.5	165	115	1	170 351
3.5	210	145	1	170 352
3.5	265	180	1	170 353
4.0	175	120	1	170 401
4.0	220	150	1	170 402
4.0	280	190	1	170 403
4.2	175	120	1	170 421
4.2	220	150	1	170 422
4.2	280	190	1	170 423
4.5	185	125	1	170 451
4.5	235	160	1	170 452
4.5	295	200	1	170 453
5.0	195	135	1	170 501
5.0	245	170	1	170 502
5.0	315	210	1	170 503
5.5	205	140	1	170 551
5.5	260	180	1	170 552
5.5	330	225	1	170 553
5.8	205	140	1	170 581

Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
6.0	205	140	1	170 601
6.0	260	180	1	170 602
6.0	330	225	1	170 603
6.5	215	150	1	170 651
6.5	275	190	1	170 652
6.5	350	235	1	170 653
6.8	225	155	1	170 681
6.8	290	200	1	170 682
6.8	370	250	1	170 683
7.0	225	155	1	170 701
7.0	290	200	1	170 702
7.0	370	250	1	170 703
7.5	225	155	1	170 751
7.5	290	200	1	170 752
7.5	370	250	1	170 753
8.0	240	165	1	170 801
8.0	305	210	1	170 802
8.0	390	265	1	170 803
8.5	240	165	1	170 851
8.5	305	210	1	170 852
8.5	390	265	1	170 853
9.0	250	175	1	170 901
9.0	320	220	1	170 902
9.0	410	280	1	170 903
9.5	250	175	1	170 951

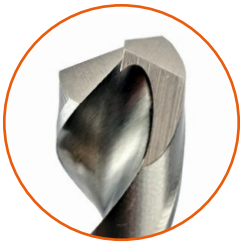
Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
9.5	320	220	1	170 952
9.5	410	280	1	170 953
10.0	265	185	1	171 001
10.0	340	235	1	171 002
10.0	430	295	1	171 003
10.5	265	185	1	171 051
10.5	340	235	1	171 052
10.5	430	295	1	171 053
11.0	280	195	1	171 101
11.0	365	250	1	171 102
11.0	455	310	1	171 103
11.5	280	195	1	171 151
11.5	365	250	1	171 152
11.5	455	310	1	171 153
12.0	295	205	1	171 201
12.0	375	260	1	171 202
12.0	480	330	1	171 203
12.5	375	260	1	171 252
12.5	480	330	1	171 253
13.0	295	205	1	171 301
13.0	375	260	1	171 302
13.0	480	330	1	171 303

17500 | Extra Long Twist Drill Bits With Straight Shank
HSS-G DIN 1869 Type N ECO



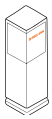
Art.-Group **17**





- Ideal for deep or deepened holes and for drilling through drill bushings - smaller feed rates and more frequent chip removal are recommended when used as a deep-hole drill bit
- Designed to cut: steel up to 900 N/mm², non-ferrous metals, aluminum, cast iron, plastics and sandwich materials

Tolerance	h8	**Web Thinning**	Split point form C from Ø 3 mm	**Helix Angle**	26° - 32°
Material	HSS-G	**Web Thickness**	Normal	**Constructional Features**	DIN 1414
Point Grinding	Tapered finish	**Tensile Strength**	900 N/mm²		
Point Angle	130°	**Web Taper**	Normal		



Quadro Pack not hangable

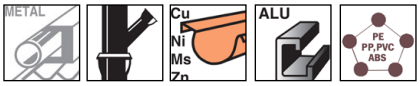
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Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
1.0	100	60	10	175 010 1
1.5	100	60	10	175 015 1
2.0	125	85	10	175 020 1
2.0	160	110	10	175 020 2
2.5	140	95	10	175 025 1
2.5	180	120	10	175 025 2
3.0	150	100	10	175 030 1
3.0	190	130	10	175 030 2
3.0	240	160	10	175 030 3
3.2	155	105	10	175 032 1
3.2	200	135	10	175 032 2
3.2	250	170	10	175 032 3
3.3	155	105	10	175 033 1
3.5	165	115	10	175 035 1
3.5	210	145	10	175 035 2
3.5	265	180	10	175 035 3
4.0	175	120	10	175 040 1
4.0	220	150	10	175 040 2
4.0	280	190	10	175 040 3
4.2	175	120	10	175 042 1
4.2	220	150	10	175 042 2
4.2	280	190	10	175 042 3
4.5	185	125	10	175 045 1
4.5	235	160	10	175 045 2
4.5	295	200	10	175 045 3
5.0	195	135	10	175 050 1
5.0	245	170	10	175 050 2

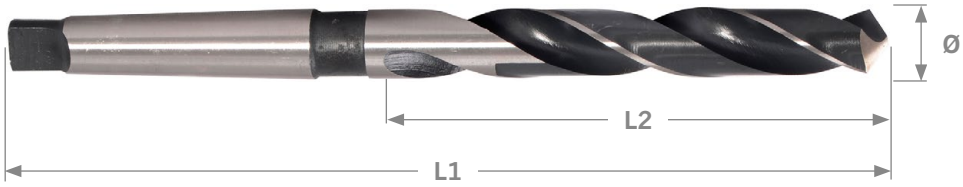
Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
5.0	315	210	10	175 050 3
5.5	205	140	10	175 055 1
5.5	260	180	10	175 055 2
5.5	330	225	10	175 055 3
6.0	205	140	10	175 060 1
6.0	260	180	10	175 060 2
6.0	330	225	5	175 060 3
6.5	215	150	5	175 065 1
6.5	275	190	5	175 065 2
6.5	350	235	5	175 065 3
6.8	225	155	5	175 068 1
6.8	290	200	5	175 068 2
6.8	370	250	5	175 068 3
7.0	225	155	5	175 070 1
7.0	290	200	5	175 070 2
7.0	370	250	5	175 070 3
7.5	225	155	5	175 075 1
7.5	290	200	5	175 075 2
7.5	370	250	5	175 075 3
8.0	240	165	5	175 080 1
8.0	305	210	5	175 080 2
8.0	390	265	5	175 080 3
8.5	240	165	5	175 085 1
8.5	305	210	5	175 085 2
8.5	390	265	5	175 085 3
9.0	250	175	5	175 090 1
9.0	320	220	5	175 090 2

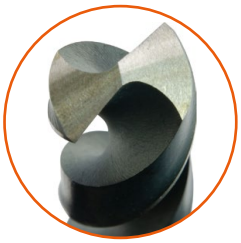
Ø mm	L1 mm	L2 mm	Pc./ PU	Item No.
9.0	410	280	5	175 090 3
9.5	250	175	5	175 095 1
9.5	320	220	5	175 095 2
9.5	410	280	5	175 095 3
10.0	265	185	5	175 100 1
10.0	340	235	5	175 100 2
10.0	430	295	5	175 100 3
10.2	265	185	5	175 102 1
10.2	340	235	5	175 102 2
10.5	265	185	5	175 105 1
10.5	340	235	5	175 105 2
11.0	280	195	5	175 110 1
11.0	365	250	5	175 110 2
11.5	280	195	5	175 115 1
11.5	365	250	5	175 115 2
12.0	295	205	5	175 120 1
12.0	375	260	5	175 120 2
12.5	295	205	5	175 125 1
12.5	375	260	5	175 125 2
13.0	295	205	5	175 130 1
13.0	375	260	5	175 130 2

22000 | Twist Drill Bits With Morse Taper
HSS-G DIN 345 Type N



Art.-Group **71**





- Precision-ground twist drill bit with excellent heat resistance and high break resistance
- Designed to drill: steel up to 900 N/mm², cast steel alloyed and unalloyed, gray cast iron, malleable cast iron, sintered iron, nodular cast iron, graphite, bronze, non-ferrous metals, aluminum and plastics

Tolerance	h8	**Web Thinning**	Without	**Helix Angle**	28° - 32°
Material	HSS-G	**Web Thickness**	Normal	**Constructional Features**	DIN 1414
Point Grinding	Tapered finish	**Tensile Strength**	900 N/mm²		
Point Angle	118°	**Web Taper**	Normal		



Single packaging with hanger

★★★★☆

Ø mm	L1 mm	L2 mm	MK	Pc./ PU	Item No.
10.0	168	87	1	1	220 100
10.5	168	87	1	1	220 105
11.0	175	94	1	1	220 110
11.5	175	94	1	1	220 115
12.0	182	101	1	1	220 120
12.5	182	101	1	1	220 125
13.0	182	101	1	1	220 130
13.5	189	108	1	1	220 135
14.0	189	108	1	1	220 140
14.5	212	114	2	1	220 145
15.0	212	114	2	1	220 150
15.5	218	120	2	1	220 155
16.0	218	120	2	1	220 160
16.5	223	125	2	1	220 165
17.0	223	125	2	1	220 170
17.5	228	130	2	1	220 175
18.0	228	130	2	1	220 180
18.5	233	135	2	1	220 185
19.0	233	135	2	1	220 190
19.5	238	140	2	1	220 195
20.0	238	140	2	1	220 200
20.5	243	145	2	1	220 205
21.0	243	145	2	1	220 210
21.5	248	150	2	1	220 215

Ø mm	L1 mm	L2 mm	MK	Pc./ PU	Item No.
22.0	248	150	2	1	220 220
22.5	253	155	2	1	220 225
23.0	253	155	2	1	220 230
23.5	276	155	3	1	220 235
24.0	281	160	3	1	220 240
24.5	281	160	3	1	220 245
25.0	281	160	3	1	220 250
25.5	286	165	3	1	220 255
26.0	286	165	3	1	220 260
26.5	286	165	3	1	220 265
27.0	291	170	3	1	220 270
27.5	291	170	3	1	220 275
28.0	291	170	3	1	220 280
28.5	296	175	3	1	220 285
29.0	296	175	3	1	220 290
29.5	296	175	3	1	220 295
30.0	296	175	3	1	220 300
30.5	301	180	3	1	220 305
31.0	301	180	3	1	220 310
31.5	301	180	3	1	220 315
32.0	334	185	4	1	220 320
32.5	334	185	4	1	220 325
33.0	334	185	4	1	220 330
33.5	334	185	4	1	220 335
34.0	339	190	4	1	220 340
34.5	339	190	4	1	220 345
35.0	339	190	4	1	220 350

Ø mm	L1 mm	L2 mm	MK	Pc./ PU	Item No.
35.5	339	190	4	1	220 355
36.0	344	195	4	1	220 360
36.5	344	195	4	1	220 365
37.0	344	195	4	1	220 370
37.5	344	195	4	1	220 375
38.0	349	200	4	1	220 380
38.5	349	200	4	1	220 385
39.0	349	200	4	1	220 390
39.5	349	200	4	1	220 395
40.0	349	200	4	1	220 400
40.5	354	205	4	1	220 405
41.0	354	205	4	1	220 410
41.5	354	205	4	1	220 415
42.0	354	205	4	1	220 420
42.5	354	205	4	1	220 425
43.0	359	210	4	1	220 430
43.5	359	210	4	1	220 435
44.0	359	210	4	1	220 440
44.5	359	210	4	1	220 445
45.0	359	210	4	1	220 450
45.5	364	215	4	1	220 455
46.0	364	215	4	1	220 460
46.5	364	215	4	1	220 465
47.0	364	215	4	1	220 470
47.5	364	215	4	1	220 475
48.0	369	220	4	1	220 480
48.5	369	220	4	1	220 485
49.0	369	220	4	1	220 490
49.5	369	220	4	1	220 495
50.0	369	220	4	1	220 500
55.0	417	230	5	1	220 550
60.0	422	235	5	1	220 600

Reducing sleeves and ejectors on page 104