


















**Anwendung
EXACT
Spiralbohrer**

**Application
EXACT
Twist Drills**



Norm Standard	DIN 338	DIN 338	DIN 338	DIN 338	DIN 338	DIN 338	DIN 338	DIN 338	DIN 338	DIN 338
Typ Type	N	N	N	N	VA	VA	N	N	N	EX-TL
Bohrtiefe Depth of drilling	5xD	5xD	5xD	5xD	5xD	5xD	5xD	5xD	5xD	5xD
Beschichtung Coating		dampfang.	TiN	TiAlN			TiN-Tip	TiAlN-Tip		
Werkstoff Steel grade	HSS-G	HSS-G	HSS-G	HSS-G	HSSE-Co 5	HSSE-Co 8	HSS-G	HSS-G	HSSE-Co 5	HSS-G
Spitzenwinkel Point angle	118°	118°	118°	118°	130°	130°	118°	118°	130°	130°
Ø mm	0,3 - 16,0	1,0 - 13,0	0,3 - 16,0	0,3 - 16,0	1,0 - 16,0	1,0 - 16,0	1,0 - 16,0	1,0 - 16,0	1,0 - 13,0	1,0 - 13,0
Seite Page	12-14	12-14	12-14	12-14	15-16	17	18-19	18-19	20	22
Geeignet für Suitable for										
 < 850 N/mm² Stähle < 850 N/mm ² Steels < 850 N/mm ²	●	●	●	●	●	○	●	●	●	●
 < 1100 N/mm² Stähle < 1100 N/mm ² Steels < 1100 N/mm ²	○	○	○	○	●	●	○	○	●	○
 < 1300 N/mm² Stähle < 1300 N/mm ² Steels < 1300 N/mm ²						●				
INOX < 850 N/mm² Rostfreie Stähle < 850 N/mm ² Stainless steels < 850 N/mm ²	○	○	○	○	●	●	○	○	●	
INOX > 850 N/mm² Rostfreie Stähle > 850 N/mm ² Stainless steels > 850 N/mm ²					●	●			○	
Grauguss Cast iron Grauguss, Temperguss Cast iron, malleable cast iron	●	●	●	●	○	●	○	○		○
Ti Titan- und Titanlegierungen Titanium and titanium alloys										
Cu Kupfer Copper	○	○	○	○			○	○		○
Ms Messing Brass	○	○	○	○			○	○		○
Al Aluminium Aluminium	○	○		○				○		○
 Kunststoffe Plastics	○	○	○	○			○	○		○

● empfohlen | recommended ○ bedingt geeignet | partly suitable

												
DIN 338	DIN 338	DIN 338	DIN 338	DIN 338	DIN 340	DIN 340	DIN 345	DIN 345	DIN 1897	DIN 1897	DIN 1897	DIN 1897
EX-TL	UNI	UNI	N	N	N	EX-TL	N	N	N	N	N	UF-L
5xD	5xD	5xD	5xD	5xD	10xD	10xD	6xD	6xD	3xD	3xD	3xD	3xD
HSSE-Co 5	HSS-G	HSSE-Co 5	HSS-G	HSSE-Co 5	HSS-G	HSSE-Co 5	HSS-G	HSSE-Co 5	HSS-G	HSSE-Co 5	HSS-G	HSSE-Co 5
130°	135°	135°	118°	130°	118°	130°	118°	118°	118°	130°	130°	130°
1,0 - 16,0	1,0 - 13,0	1,0 - 13,0	10,5 - 20,0	10,5 - 20,0	2,5 - 13,0	2,5 - 13,0	10,0 - 60,0	10,0 - 30,0	2,0 - 13,0	2,0 - 13,0	2,0 - 13,0	2,0 - 13,0
23	24	25	26	27	28	29	30-31	32	33	34	35	35
●	●	●	●	●	●	●	●	●	●	●	●	●
●	○	●	○	●	○	●		●	○	●	●	●
○						○						○
○		○	○	●	○	○		○	○	●	●	
○		○	○	●						○	○	
○		○	○	○	○	○	●	○	○			○
										○	○	
○		○	○		○	○	○	○	○			○
○		○	○		○	○	○	○	○			○
○		○	○		○	○	○	○	○			○
○		○	○		○	○	○	○	○			○
○		○	○		○	○	○	○	○			○
○		○	○		○	○	○	○	○			○



Spiralbohrer | Twist Drills DIN 338 | Typ N | HSS-G

HSS-G	DIN 338	N	5xD	118°
25-30°	Form C ≥∅ 2,0 mm			

HSS-G	HSS-G VAP	HSS-G TIN	HSS-G TiAlN
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Leistungsstarker, geschliffener Standard-Spiralbohrer aus Hochleistungs-Schnellarbeitsstahl. Der Spiralbohrer ist komplett geschliffen und verfügt über eine präzise Rundlaufgenauigkeit. Durch den Kreuzanschliff hat dieser Bohrer eine gute Zentrierung und benötigt eine geringe Vorschubkraft. Der dampfangelassene Spiralbohrer verringert die Reibung und den Gleitwiderstand. Diese Vaporisierung hilft Kaltaufschweißungen und Aufbauschnelden zu vermeiden. Die Titan-Nitrid- und Titan-Aluminium-Nitrid-Beschichtungen erhöhen die Oberflächenhärte und die Wärmebeständigkeit und verbessern die Standzeiten bei erhöhten Schnittwerten.

High-performance ground standard twist drill made from heavy-duty high speed steel. The fully ground twist drill has a precise concentricity. Thanks to the split point, this drill has good centring properties and requires little pressure. The vaporized twist drill reduces cold-welding. The titanium nitride and titanium aluminium nitride coating will increase a longer tool life.



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< 850 N/mm ²	< 1100 N/mm ²	< 1300 N/mm ²	INOX < 850 N/mm ²	INOX > 850 N/mm ²	Grauguss Cast iron	Ti	Cu	Ms	Al	
●	○		○		●		○	○	○	○

● empfohlen | recommended ○ bedingt geeignet | partly suitable

∅	L1	L2	HSS-G		HSS-G		HSS-G		HSS-G	
			Code	Stk. pcs.	Code	Stk. pcs.	Code	Stk. pcs.	Code	Stk. pcs.
0,3	19,0	3,0	73003	10		10	73203	10	72803	10
0,4	20,0	5,0	73004	10		10	73204	10	72804	10
0,5	22,0	6,0	73005	10		10	73205	10	72805	10
0,6	24,0	7,0	73006	10		10	73206	10	72806	10
0,7	28,0	9,0	73007	10		10	73207	10	72807	10
0,8	30,0	10,0	73008	10		10	73208	10	72808	10
0,9	32,0	11,0	73009	10		10	73209	10	72809	10
1,0	34,0	12,0	73010	10	73410	10	73210	10	72810	10
1,1	36,0	14,0	73011	10		10	73211	10	72811	10
1,2	38,0	16,0	73012	10		10	73212	10	72812	10

Ø	L1	L2	HSS-G		HSS-G		HSS-G		HSS-G	
			Code	Stk. pcs.	Code	Stk. pcs.	Code	Stk. pcs.	Code	Stk. pcs.
1,3	38,0	16,0	73013	10		10	73213	10	72813	10
1,4	40,0	18,0	73014	10		10	73214	10	72814	10
1,5	40,0	18,0	73015	10	73415	10	73215	10	72815	10
1,6	43,0	20,0	73016	10		10	73216	10	72816	10
1,7	43,0	20,0	73017	10		10	73217	10	72817	10
1,8	46,0	22,0	73018	10		10	73218	10	72818	10
1,9	46,0	22,0	73019	10		10	73219	10	72819	10
2,0	49,0	24,0	73020	10	73420	10	73220	10	72820	10
2,1	49,0	24,0	73021	10		10	73221	10	72821	10
2,2	53,0	27,0	73022	10		10	73222	10	72822	10
2,3	53,0	27,0	73023	10		10	73223	10	72823	10
2,4	57,0	30,0	73024	10		10	73224	10	72824	10
2,5	57,0	30,0	73025	10	73425	10	73225	10	72825	10
2,6	57,0	30,0	73026	10		10	73226	10	72826	10
2,7	61,0	33,0	73027	10		10	73227	10	72827	10
2,8	61,0	33,0	73028	10		10	73228	10	72828	10
2,9	61,0	33,0	73029	10		10	73229	10	72829	10
3,0	61,0	33,0	73030	10	73430	10	73230	10	72830	10
3,1	65,0	36,0	73031	10		10	73231	10	72831	10
3,2	65,0	36,0	73032	10		10	73232	10	72832	10
3,3	65,0	36,0	73033	10	73433	10	73233	10	72833	10
3,4	70,0	39,0	73034	10		10	73234	10	72834	10
3,5	70,0	39,0	73035	10	73435	10	73235	10	72835	10
3,6	70,0	39,0	73036	10		10	73236	10	72836	10
3,7	70,0	39,0	73037	10		10	73237	10	72837	10
3,8	75,0	43,0	73038	10		10	73238	10	72838	10
3,9	75,0	43,0	73039	10		10	73239	10	72839	10
4,0	75,0	43,0	73040	10	73440	10	73240	10	72840	10
4,1	75,0	43,0	73041	10		10	73241	10	72841	10
4,2	75,0	43,0	73042	10	73442	10	73242	10	72842	10
4,3	80,0	47,0	73043	10		10	73243	10	72843	10
4,4	80,0	47,0	73044	10		10	73244	10	72844	10
4,5	80,0	47,0	73045	10	73445	10	73245	10	72845	10
4,6	80,0	47,0	73046	10		10	73246	10	72846	10
4,7	80,0	47,0	73047	10		10	73247	10	72847	10
4,8	86,0	52,0	73048	10		10	73248	10	72848	10
4,9	86,0	52,0	73049	10		10	73249	10	72849	10
5,0	86,0	52,0	73050	10	73450	10	73250	10	72850	10
5,1	86,0	52,0	73051	10		10	73251	10	72851	10
5,2	86,0	52,0	73052	10		10	73252	10	72852	10
5,3	86,0	52,0	73053	10		10	73253	10	72853	10
5,4	93,0	57,0	73054	10		10	73254	10	72854	10
5,5	93,0	57,0	73055	10	73455	10	73255	10	72855	10
5,6	93,0	57,0	73056	10		10	73256	10	72856	10
5,7	93,0	57,0	73057	10		10	73257	10	72857	10
5,8	93,0	57,0	73058	10		10	73258	10	72858	10
5,9	93,0	57,0	73059	10		10	73259	10	72859	10
6,0	93,0	57,0	73060	10	73460	10	73260	10	72860	10
6,1	101,0	63,0	73061	10		10	73261	10	72861	10
6,2	101,0	63,0	73062	10		10	73262	10	72862	10
6,3	101,0	63,0	73063	10		10	73263	10	72863	10
6,4	101,0	63,0	73064	10		10	73264	10	72864	10
6,5	101,0	63,0	73065	10	73465	10	73265	10	72865	10
6,6	101,0	63,0	73066	10		10	73266	10	72866	10
6,7	101,0	63,0	73067	10		10	73267	10	72867	10
6,8	109,0	69,0	73068	10	73468	10	73268	10	72868	10
6,9	109,0	69,0	73069	10		10	73269	10	72869	10
7,0	109,0	69,0	73070	10	73470	10	73270	10	72870	10
7,1	109,0	69,0	73071	10		10	73271	10	72871	10
7,2	109,0	69,0	73072	10		10	73272	10	72872	10
7,3	109,0	69,0	73073	10		10	73273	10	72873	10
7,4	109,0	69,0	73074	10		10	73274	10	72874	10
7,5	109,0	69,0	73075	10	73475	10	73275	10	72875	10
7,6	117,0	75,0	73076	10		10	73276	10	72876	10
7,7	117,0	75,0	73077	10		10	73277	10	72877	10

Fortsetzung | Continuation

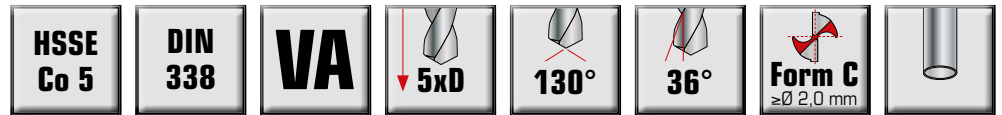
Spiralbohrer | Twist Drills DIN 338 | Typ N | HSS-G

Ø	L1	L2	HSS-G		HSS-G		HSS-G		HSS-G	
			Code	Stk. pcs.	Code	Stk. pcs.	Code	Stk. pcs.	Code	Stk. pcs.
7,8	117,0	75,0	73078	10		10	73278	10	72878	10
7,9	117,0	75,0	73079	10		10	73279	10	72879	10
8,0	117,0	75,0	73080	10	73480	10	73280	10	72880	10
8,1	117,0	75,0	73081	10		10	73281	10	72881	10
8,2	117,0	75,0	73082	10		10	73282	10	72882	10
8,3	117,0	75,0	73083	10		10	73283	10	72883	10
8,4	117,0	75,0	73084	10		10	73284	10	72884	10
8,5	117,0	75,0	73085	10	73485	10	73285	10	72885	10
8,6	125,0	81,0	73086	10		10	73286	10	72886	10
8,7	125,0	81,0	73087	10		10	73287	10	72887	10
8,8	125,0	81,0	73088	10		10	73288	10	72888	10
8,9	125,0	81,0	73089	10		10	73289	10	72889	10
9,0	125,0	81,0	73090	10	73490	10	73290	10	72890	10
9,1	125,0	81,0	73091	10		10	73291	10	72891	10
9,2	125,0	81,0	73092	10		10	73292	10	72892	10
9,3	125,0	81,0	73093	10		10	73293	10	72893	10
9,4	125,0	81,0	73094	10		10	73294	10	72894	10
9,5	125,0	81,0	73095	10	73495	10	73295	10	72895	10
9,6	133,0	87,0	73096	10		10	73296	10	72896	10
9,7	133,0	87,0	73097	10		10	73297	10	72897	10
9,8	133,0	87,0	73098	10		10	73298	10	72898	10
9,9	133,0	87,0	73099	10		10	73299	10	72899	10
10,0	133,0	87,0	73100	10	73500	10	73300	10	72900	10
10,1	133,0	87,0	73101	10		10	73301	10	72901	10
10,2	133,0	87,0	73102	10	73502	10	73302	10	72902	10
10,3	133,0	87,0	73103	10		10	73303	10	72903	10
10,4	133,0	87,0	73104	10		10	73304	10	72904	10
10,5	133,0	87,0	73105	5	73505	5	73305	5	72905	5
10,6	133,0	87,0	73106	5		5	73306	5	72906	5
10,7	142,0	94,0	73107	5		5	73307	5	72907	5
10,8	142,0	94,0	73108	5		5	73308	5	72908	5
10,9	142,0	94,0	73109	5		5	73309	5	72909	5
11,0	142,0	94,0	73110	5	73510	5	73310	5	72910	5
11,1	142,0	94,0	73111	5		5	73311	5	72911	5
11,2	142,0	94,0	73112	5		5	73312	5	72912	5
11,3	142,0	94,0	73113	5		5	73313	5	72913	5
11,4	142,0	94,0	73114	5		5	73314	5	72914	5
11,5	142,0	94,0	73115	5	73515	5	73315	5	72915	5
11,6	142,0	94,0	73116	5		5	73316	5	72916	5
11,7	142,0	94,0	73117	5		5	73317	5	72917	5
11,8	142,0	94,0	73118	5		5	73318	5	72918	5
11,9	151,0	101,0	73119	5		5	73319	5	72919	5
12,0	151,0	101,0	73120	5	73520	5	73320	5	72920	5
12,1	151,0	101,0	73121	5		5	73321	5	72921	5
12,2	151,0	101,0	73122	5		5	73322	5	72922	5
12,3	151,0	101,0	73123	5		5	73323	5	72923	5
12,4	151,0	101,0	73124	5		5	73324	5	72924	5
12,5	151,0	101,0	73125	5	73525	5	73325	5	72925	5
12,6	151,0	101,0	73126	5		5	73326	5	72926	5
12,7	151,0	101,0	73127	5		5	73327	5	72927	5
12,8	151,0	101,0	73128	5		5	73328	5	72928	5
12,9	151,0	101,0	73129	5		5	73329	5	72929	5
13,0	151,0	101,0	73130	5	73530	5	73330	5	72930	5
13,5	160,0	108,0	73135	5		5	73335	5	72935	5
14,0	160,0	108,0	73140	5		5	73340	5	72940	5
14,5	169,0	114,0	73145	5		5	73345	5	72945	5
15,0	169,0	114,0	73150	5		5	73350	5	72950	5
15,5	178,0	120,0	73155	5		5	73355	5	72955	5
16,0	178,0	120,0	73160	5		5	73360	5	72960	5

Spiralbohrer • Twist Drills



Spiralbohrer | **Twist Drills** DIN 338 | Typ VA | **HSSE-Co 5**

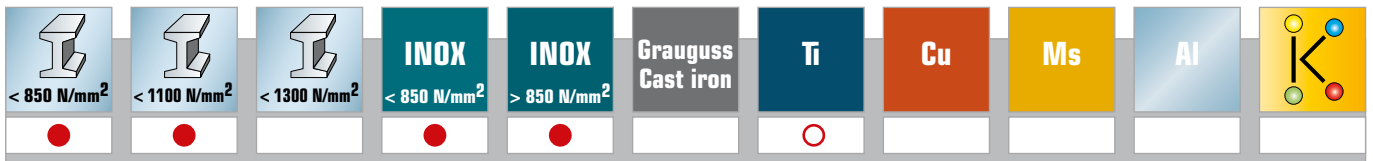


Kräftiger Hochleistungsbohrer, der durch den Kobaltanteil für eine höhere Wärmehärtebeständigkeit sorgt. Ideal zum Bohren von rost-, säure- und hitzebeständigem Stahl mit hoher Festigkeit.

Powerful right-hand cutting high-performance drill with distinctive heat resistance. Ideal for drilling high-strength stainless, acid-resistant and heat-resistant steel.



Sets: Seite 272 | **Page 272**



● empfohlen | recommended ○ bedingt geeignet | partly suitable

Ø	L1	L2	HSSE-Co 5	
			Code	Stk. pcs.
1,0	34,0	12,0	74010	10
1,1	36,0	14,0	74011	10
1,2	38,0	16,0	74012	10
1,3	38,0	16,0	74013	10
1,4	40,0	18,0	74014	10
1,5	40,0	18,0	74015	10
1,6	43,0	20,0	74016	10
1,7	43,0	20,0	74017	10
1,8	46,0	22,0	74018	10
1,9	46,0	22,0	74019	10
2,0	49,0	24,0	74020	10
2,1	49,0	24,0	74021	10
2,2	53,0	27,0	74022	10
2,3	53,0	27,0	74023	10
2,4	57,0	30,0	74024	10
2,5	57,0	30,0	74025	10
2,6	57,0	30,0	74026	10
2,7	61,0	33,0	74027	10
2,8	61,0	33,0	74028	10
2,9	61,0	33,0	74029	10
3,0	61,0	33,0	74030	10
3,1	65,0	36,0	74031	10
3,2	65,0	36,0	74032	10
3,3	65,0	36,0	74033	10
3,4	70,0	39,0	74034	10
3,5	70,0	39,0	74035	10
3,6	70,0	39,0	74036	10
3,7	70,0	39,0	74037	10
3,8	75,0	43,0	74038	10

Ø	L1	L2	HSSE-Co 5	
			Code	Stk. pcs.
3,9	75,0	43,0	74039	10
4,0	75,0	43,0	74040	10
4,1	75,0	43,0	74041	10
4,2	75,0	43,0	74042	10
4,3	80,0	47,0	74043	10
4,4	80,0	47,0	74044	10
4,5	80,0	47,0	74045	10
4,6	80,0	47,0	74046	10
4,7	80,0	47,0	74047	10
4,8	86,0	52,0	74048	10
4,9	86,0	52,0	74049	10
5,0	86,0	52,0	74050	10
5,1	86,0	52,0	74051	10
5,2	86,0	52,0	74052	10
5,3	86,0	52,0	74053	10
5,4	93,0	57,0	74054	10
5,5	93,0	57,0	74055	10
5,6	93,0	57,0	74056	10
5,7	93,0	57,0	74057	10
5,8	93,0	57,0	74058	10
5,9	93,0	57,0	74059	10
6,0	93,0	57,0	74060	10
6,1	101,0	63,0	74061	10
6,2	101,0	63,0	74062	10
6,3	101,0	63,0	74063	10
6,4	101,0	63,0	74064	10
6,5	101,0	63,0	74065	10
6,6	101,0	63,0	74066	10
6,7	101,0	63,0	74067	10

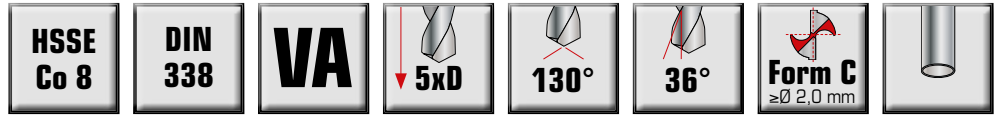
Ø	L1	L2	HSSE-Co 5	
			Code	Stk. pcs.
6,8	109,0	69,0	74068	10
6,9	109,0	69,0	74069	10
7,0	109,0	69,0	74070	10
7,1	109,0	69,0	74071	10
7,2	109,0	69,0	74072	10
7,3	109,0	69,0	74073	10
7,4	109,0	69,0	74074	10
7,5	109,0	69,0	74075	10
7,6	117,0	75,0	74076	10
7,7	117,0	75,0	74077	10
7,8	117,0	75,0	74078	10
7,9	117,0	75,0	74079	10
8,0	117,0	75,0	74080	10
8,1	117,0	75,0	74081	10
8,2	117,0	75,0	74082	10
8,3	117,0	75,0	74083	10
8,4	117,0	75,0	74084	10
8,5	117,0	75,0	74085	10
8,6	125,0	81,0	74086	10
8,7	125,0	81,0	74087	10
8,8	125,0	81,0	74088	10
8,9	125,0	81,0	74089	10
9,0	125,0	81,0	74090	10

Ø	L1	L2	HSSE-Co 5	
			Code	Stk. pcs.
9,1	125,0	81,0	74091	10
9,2	125,0	81,0	74092	10
9,3	125,0	81,0	74093	10
9,4	125,0	81,0	74094	10
9,5	125,0	81,0	74095	10
9,6	133,0	87,0	74096	10
9,7	133,0	87,0	74097	10
9,8	133,0	87,0	74098	10
9,9	133,0	87,0	74099	10
10,0	133,0	87,0	74100	10
10,2	133,0	87,0	74102	10
10,5	133,0	87,0	74105	5
11,0	142,0	94,0	74110	5
11,5	142,0	94,0	74115	5
12,0	151,0	101,0	74120	5
12,5	151,0	101,0	74125	5
13,0	151,0	101,0	74130	5
13,5	160,0	108,0	74135	5
14,0	160,0	108,0	74140	5
14,5	169,0	114,0	74145	5
15,0	169,0	114,0	74150	5
15,5	178,0	120,0	74155	5
16,0	178,0	120,0	74160	5





Spiralbohrer | **Twist Drills** DIN 338 | Typ VA | **HSSE-Co 8**



Kräftiger Sonderbohrer, der ideal für Titanlegierungen sowie rost-, säure- und hitzebeständigen austenitischen Stählen verwendbar ist. Weiterhin ist er für hochfeste Stähle mit niedriger Zähigkeit geeignet. Dieser Bohrer kann unter bestimmten Bedingungen für Sonderlegierungen wie Hastelloy, Inconell, Nimonic, usw. verwendet werden.

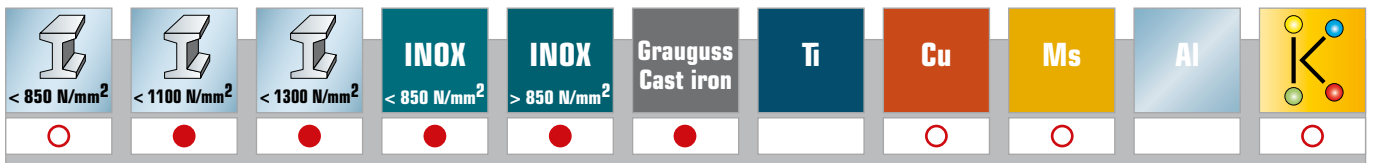
Powerful special drill that should ideally be used for titanium base alloys as well as stainless, acid-resistant and heat-resistant austenitic steels. It is also suitable for high strength steels with low ductility. Under certain conditions, these drills can be used for special alloys such as hastelloy, inconel and nimonic etc.

**HSSE
Co 8**



Set: Seite 272 | **Page 272**

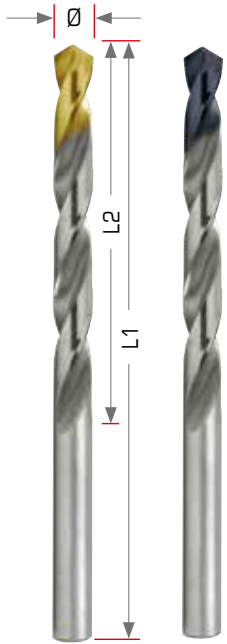
Spiralbohrer • Twist Drills



● empfohlen | recommended ○ bedingt geeignet | partly suitable

Ø	L1	L2	HSSE-Co 8	
			Code	Stk. pcs.
1,0	34,0	12,0	74610	10
1,5	40,0	18,0	74615	10
2,0	49,0	24,0	74620	10
2,5	57,0	30,0	74625	10
3,0	61,0	33,0	74630	10
3,3	65,0	36,0	74633	10
3,5	70,0	39,0	74635	10
4,0	75,0	43,0	74640	10
4,2	75,0	43,0	74642	10
4,5	80,0	47,0	74645	10
5,0	86,0	52,0	74650	10
5,5	93,0	57,0	74655	10
6,0	93,0	57,0	74660	10
6,5	101,0	63,0	74665	10
6,8	109,0	69,0	74668	10
7,0	109,0	69,0	74670	10
7,5	109,0	69,0	74675	10
8,0	117,0	75,0	74680	10

Ø	L1	L2	HSSE-Co 8	
			Code	Stk. pcs.
8,5	117,0	75,0	74685	10
9,0	125,0	81,0	74690	10
9,5	125,0	81,0	74695	10
10,0	133,0	87,0	74700	10
10,2	133,0	87,0	74702	10
10,5	133,0	87,0	74705	5
11,0	142,0	94,0	74710	5
11,5	142,0	94,0	74715	5
12,0	151,0	101,0	74720	5
12,5	151,0	101,0	74725	5
13,0	151,0	101,0	74730	5
13,5	160,0	108,0	74735	5
14,0	160,0	108,0	74740	5
14,5	169,0	114,0	74745	5
15,0	169,0	114,0	74750	5
15,5	178,0	120,0	74755	5
16,0	178,0	120,0	74760	5



Spiralbohrer | Twist Drills DIN 338 | Typ N | HSS-G

mit TIP-Beschichtung | with TIP Coating

HSS-G	DIN 338	N	5xD	118°	25-30°	Form C ±0,2,0 mm	
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Leistungstarker, geschliffener Spiralbohrer, der im schneidaktiven Teil beschichtet ist. Die Titan-Nitrid-Beschichtung erhöht die Werkzeugstandzeiten und ermöglicht höhere Schnittgeschwindigkeiten sowie Vorschübe. Die Titan-Aluminium-Beschichtung ist darüber hinaus für besonders harte Materialien geeignet und benötigt kein Kühlmittel.

Powerful, ground twist drill with a coated active cutting part. The titanium nitride coating increases the tool life and allows higher cutting speeds and feed rates. The titanium-aluminum coating is also suitable for particularly hard materials and does not require coolant.

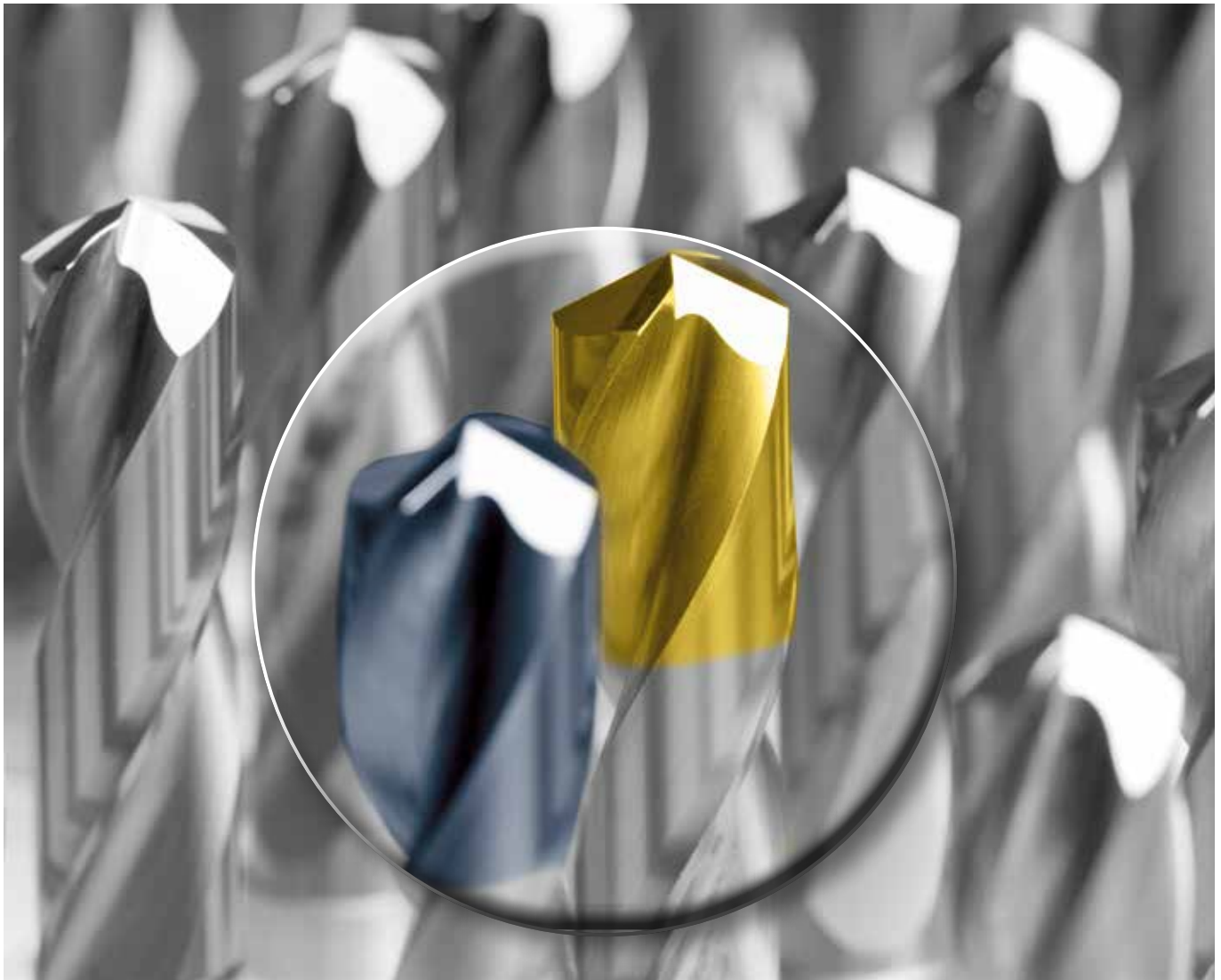


Sets: Seite 271 | Page 271

			INOX	INOX	Grauguss Cast iron	Ti	Cu	Ms	Al	
< 850 N/mm ²	< 1100 N/mm ²	< 1300 N/mm ²	< 850 N/mm ²	> 850 N/mm ²						
●	○		○		○		○	○	○	○

● empfohlen | recommended ○ bedingt geeignet | partly suitable

Ø	L1	L2	HSS-G		HSS-G	
			Code	Stk. pcs.	Code	Stk. pcs.
1,0	34,0	12,0	73610	10	73810	10
1,5	40,0	18,0	73615	10	73815	10
2,0	49,0	24,0	73620	10	73820	10
2,5	57,0	30,0	73625	10	73825	10
3,0	61,0	33,0	73630	10	73830	10
3,3	65,0	36,0	73633	10	73833	10
3,5	70,0	39,0	73635	10	73835	10
4,0	75,0	43,0	73640	10	73840	10
4,2	75,0	43,0	73642	10	73842	10
4,5	80,0	47,0	73645	10	73845	10
5,0	86,0	52,0	73650	10	73850	10
5,5	93,0	57,0	73655	10	73855	10
6,0	93,0	57,0	73660	10	73860	10
6,5	101,0	63,0	73665	10	73865	10
6,8	109,0	69,0	73668	10	73868	10
7,0	109,0	69,0	73670	10	73870	10
7,5	109,0	69,0	73675	10	73875	10
8,0	117,0	75,0	73680	10	73880	10



EXACT TIP-Beschichtung | EXACT TIP Coating

Ø	L1	L2	HSS-G		HSS-G	
			Code	Stk. pcs.	Code	Stk. pcs.
8,5	117,0	75,0	73685	10	73885	10
9,0	125,0	81,0	73690	10	73890	10
9,5	125,0	81,0	73695	10	73895	10
10,0	133,0	87,0	73700	10	73900	10
10,2	133,0	87,0	73702	10	73902	10
10,5	133,0	87,0	73705	5	73905	5
11,0	142,0	94,0	73710	5	73910	5
11,5	142,0	94,0	73715	5	73915	5
12,0	151,0	101,0	73720	5	73920	5
12,5	151,0	101,0	73725	5	73925	5
13,0	151,0	101,0	73730	5	73930	5
13,5	160,0	108,0	73735	5	73935	5
14,0	160,0	108,0	73740	5	73940	5
14,5	169,0	114,0	73745	5	73945	5
15,0	169,0	114,0	73750	5	73950	5
15,5	178,0	120,0	73755	5	73955	5
16,0	178,0	120,0	73760	5	73960	5



Spiralbohrer | Twist Drills DIN 338 | Typ N | HSSE-Co 5

mit ROTASTOP®-Schaft | ROTASTOP®-Shank

HSSE Co 5	DIN 338	N	5xD	130°	25-30°	Form C	ROTASTOP Die Kraft der Form
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Der leistungsstarke, komplett geschliffene Spiralbohrer verfügt über eine präzise Rundlaufgenauigkeit. Der Kobalt-Anteil sorgt für eine höhere Warmhärtebeständigkeit. Für legierte und unlegierte Stähle, Warm- und Kaltarbeitsstähle, Vergütungs- und Einsatzstähle sowie für rost- und säurebeständige Stähle. Der ROTASTOP®-Schaft verhindert ein Durchrutschen im Bohrfutter und ermöglicht optimale Drehmomentübertragung.

This high capacity, completely ground twist drill has increased true running accuracy. The cobalt content provides higher heat hardness strength. For alloyed and non-alloyed steel, hot and cold work steel, heat-treated and case-hardened steel and for stainless and acid-resistant steel. The ROTASTOP®-shank prevents slipping in the chuck and enables an optimum transmission of the torque.

HSSE Co 5



Sets: Seite 275 | Page 275

< 850 N/mm²	< 1100 N/mm²	< 1300 N/mm²	INOX < 850 N/mm²	INOX > 850 N/mm²	Grauguss Cast iron	Ti	Cu	Ms	Al	
●	●		●	○		○				

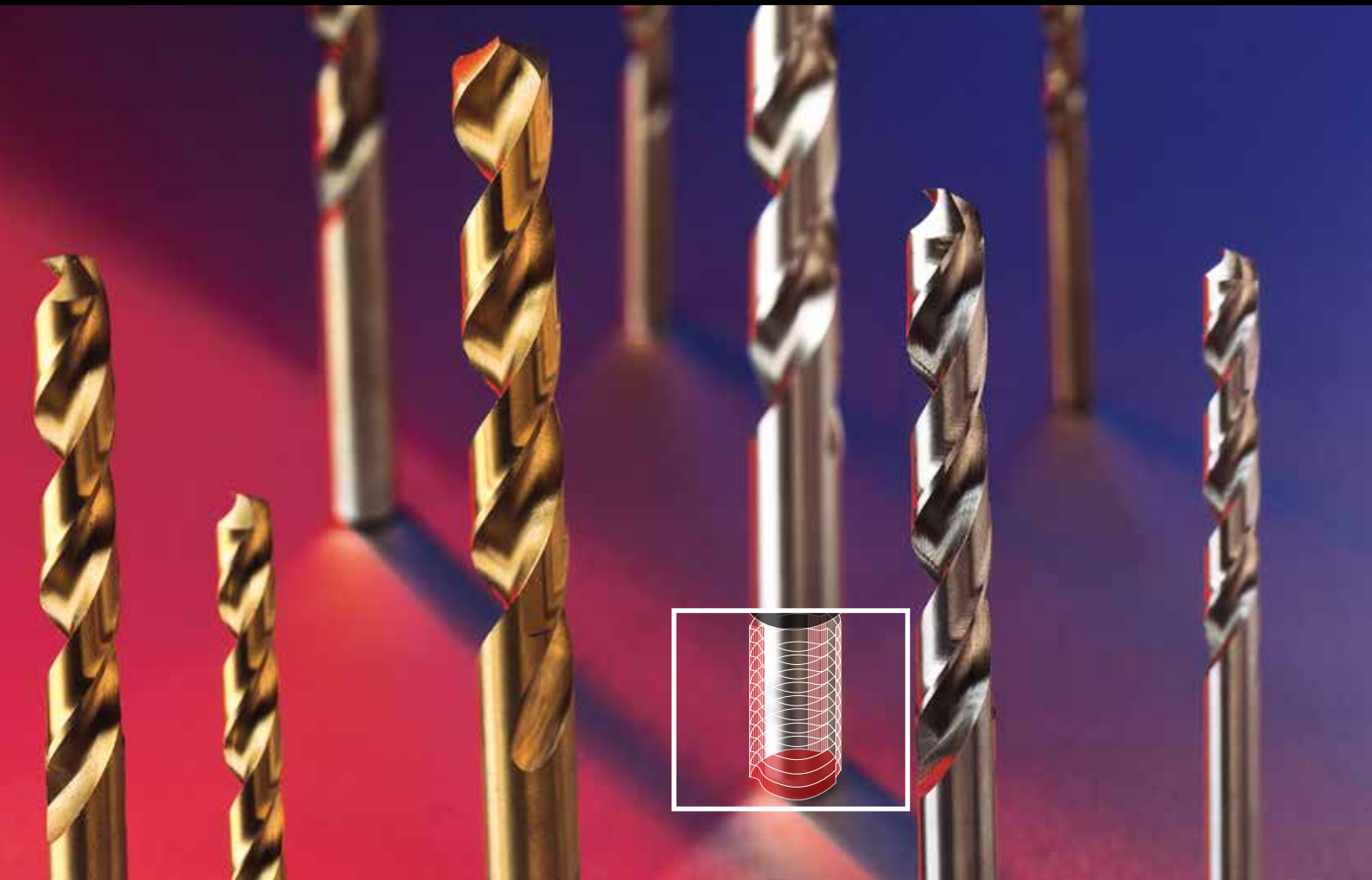
● empfohlen | recommended ○ bedingt geeignet | partly suitable

Ø	L1	L2	HSSE-Co 5	
			Code	Stk. pcs.
1,0	34	12	76410	10
1,5	40	18	76415	10
2,0	49	24	76420	10
2,5	57	30	76425	10
3,0	61	33	76430	10
3,3	65	36	76433	10
3,5	70	39	76435	10
4,0	75	43	76440	10
4,2	75	43	76442	10
4,5	80	47	76445	10
4,8	86	52	76448	10
5,0	93	57	76450	10
5,5	93	57	76455	10
6,0	101	63	76460	10
6,5	109	69	76465	10

Ø	L1	L2	HSSE-Co 5	
			Code	Stk. pcs.
6,8	109	69	76468	10
7,0	109	69	76470	10
7,5	117	75	76475	10
8,0	117	75	76480	10
8,5	125	81	76485	10
9,0	125	81	76490	10
9,5	133	87	76495	10
10,0	133	87	76500	10
10,5	133	87	76505	5
11,0	142	94	76510	5
11,5	142	94	76515	5
12,0	151	101	76520	5
12,5	151	101	76525	5
13,0	151	101	76530	5

INNOVATION BY

EXACT
PRÄZISIONSWERKZEUGE



ROTASTOP®-SCHAFT

INNOVATION | **INNOVATION**



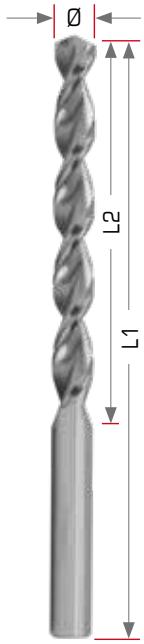
Durch ansteigende Formen spannt sich ROTASTOP® selbst im Bohrfutter

ROTASTOP® chucks itself automatically by rising contours

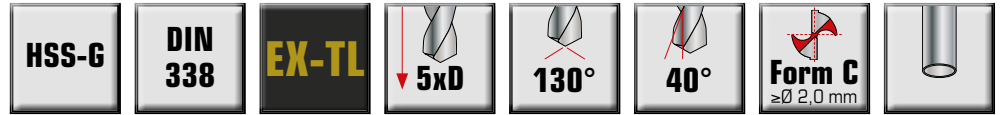
VORTEILE | **ADVANTAGES**

- ✓ Kein Durchrutschen im Bohrfutter
- ✓ ROTASTOP® spannt sich selbst im Bohrfutter
- ✓ Optimale Drehmomentübertragung
- ✓ Einfacher Werkzeugwechsel

- ✓ **No slipping in the chuck**
- ✓ **ROTASTOP® chucks itself automatically**
- ✓ **Optimal transmission of the torque**
- ✓ **Easy tool changing**



Spiralbohrer | Twist Drills DIN 338 | Typ EX-TL | HSS-G



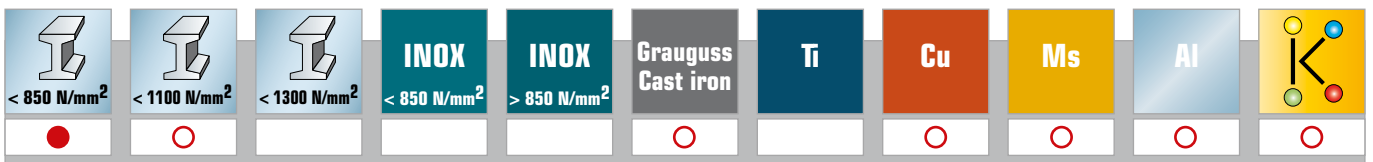
Stabiler Mehrbereichsbohrer mit verstärktem Bohrerker und einer parabolisch geformten Spannute zur idealen Spanabfuhr. Er ist ideal zum Bohren von mittel- und langspannenden Werkstoffen. Durch seinen dicken Kern und die spezielle Spannute mit gerundeter hinterer Kante ist dieser Bohrer für Hochleistungsanwendungen bestens geeignet. Er deckt in weiten Bereichen die Typen N, H und W ab.

Stable multirange drill with reinforced drill core and parabolic flute for ideal chip removal. Ideal for drilling medium and long-chipping materials. Thanks to its thick core and the special flute with a rounded rear edge, this drill is best suited for high-performance use. It covers types N, H and W for a wide range of applications.

HSS-G



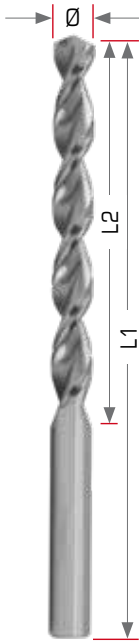
Sets: Seite 273 | Page 273



● empfohlen | recommended ○ bedingt geeignet | partly suitable

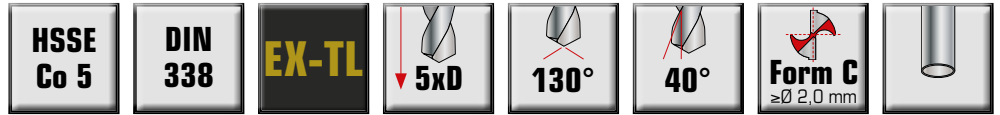
Ø	L1	L2	HSS-G	
			Code	Stk. pcs.
1,0	34,0	12,0	75010	10
1,5	40,0	18,0	75015	10
2,0	49,0	24,0	75020	10
2,5	57,0	30,0	75025	10
3,0	61,0	33,0	75030	10
3,3	65,0	36,0	75033	10
3,5	70,0	39,0	75035	10
4,0	75,0	43,0	75040	10
4,2	75,0	43,0	75042	10
4,5	80,0	47,0	75045	10
5,0	86,0	52,0	75050	10
5,5	93,0	57,0	75055	10
6,0	93,0	57,0	75060	10
6,5	101,0	63,0	75065	10
6,8	109,0	69,0	75068	10
7,0	109,0	69,0	75070	10
7,5	109,0	69,0	75075	10
8,0	117,0	75,0	75080	10

Ø	L1	L2	HSS-G	
			Code	Stk. pcs.
8,5	117,0	75,0	75085	10
9,0	125,0	81,0	75090	10
9,5	125,0	81,0	75095	10
10,0	133,0	87,0	75100	10
10,2	133,0	87,0	75102	10
10,5	133,0	87,0	75105	5
11,0	142,0	94,0	75110	5
11,5	142,0	94,0	75115	5
12,0	151,0	101,0	75120	5
12,5	151,0	101,0	75125	5
13,0	151,0	101,0	75130	5



**HSSE
Co 5**

Spiralbohrer | **Twist Drills** DIN 338 | Typ **EX-TL** | **HSSE-Co 5**

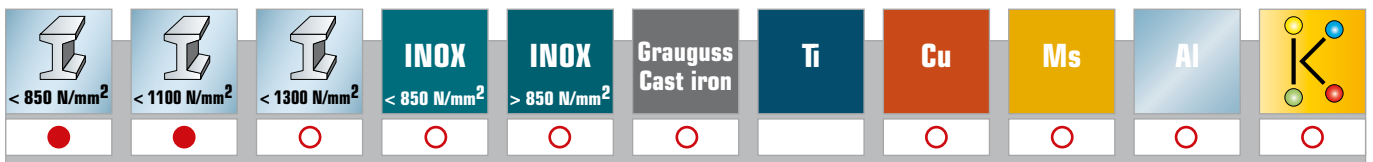


Sehr stabiler Mehrbereichsbohrer mit hervorragender Warmhärtebeständigkeit, verstärktem Bohrerker und einer parabolisch geformten Spannutt zur idealen Spanabfuhr. Er ist ideal zum Bohren von mittel- und langspanenden Werkstoffen. Durch seinen dicken Kern und die spezielle Spannutt mit einer gerundeten hinteren Kante ist dieser Bohrer für Hochleistungsanwendungen bestens geeignet. Er deckt in weiten Bereichen die Typen N, H und W ab.

Highly stable multirange drill with outstanding heat resistance, a reinforced drill core and a parabolic flute for ideal chip removal. Ideal for drilling medium and long-chipping materials. Thanks to its thick core and the special flute with a rounded rear edge, this drill is best suited for high-performance use. It covers types N, H and W for a wide range of applications.



Sets: Seite 273 | **Page 273**



● empfohlen | recommended ○ bedingt geeignet | partly suitable

Ø	L1	L2	HSSE-Co 5	
			Code	Stk. pcs.
1,0	34,0	12,0	75610	10
1,5	40,0	18,0	75615	10
2,0	49,0	24,0	75620	10
2,5	57,0	30,0	75625	10
3,0	61,0	33,0	75630	10
3,3	65,0	36,0	75633	10
3,5	70,0	39,0	75635	10
4,0	75,0	43,0	75640	10
4,2	75,0	43,0	75642	10
4,5	80,0	47,0	75645	10
5,0	86,0	52,0	75650	10
5,5	93,0	57,0	75655	10
6,0	93,0	57,0	75660	10
6,5	101,0	63,0	75665	10
6,8	109,0	69,0	75668	10
7,0	109,0	69,0	75670	10
7,5	109,0	69,0	75675	10
8,0	117,0	75,0	75680	10

Ø	L1	L2	HSSE-Co 5	
			Code	Stk. pcs.
8,5	117,0	75,0	75685	10
9,0	125,0	81,0	75690	10
9,5	125,0	81,0	75695	10
10,0	133,0	87,0	75700	10
10,2	133,0	87,0	75702	10
10,5	133,0	87,0	75705	5
11,0	142,0	94,0	75710	5
11,5	142,0	94,0	75715	5
12,0	151,0	101,0	75720	5
12,5	151,0	101,0	75725	5
13,0	151,0	101,0	75730	5
13,5	160,0	108,0	75735	5
14,0	160,0	108,0	75740	5
14,5	169,0	114,0	75745	5
15,0	169,0	114,0	75750	5
15,5	178,0	120,0	75755	5
16,0	178,0	120,0	75760	5



Spiralbohrer | Twist Drills DIN 338 | Typ UNI | HSS-G

HSS-G	DIN 338	UNI	5xD	135°	40°	Form C ≥Ø 2,0 mm	≥Ø 4,0 mm
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Dieser Hochleistungsspiralbohrer ist speziell für den portablen Einsatz in Bohrmaschinen und Akku-Bohrschraubern entwickelt worden (beste Leistung bis 5,0 mm Materialstärke).

High performance twist drill for all-purpose use in drilling machines and cordless drills.
(Materials up to 5,0 mm thickness)

HSS-G



Sets: Seite 274 | Page 274

 < 850 N/mm ² ●	 < 1100 N/mm ² ○	 < 1300 N/mm ² ○	INOX < 850 N/mm ² ○	INOX > 850 N/mm ² ○	Grauguss Cast iron ○	Ti ○	Cu ○	Ms ○	Al ○	 ○
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● empfohlen | recommended ○ bedingt geeignet | partly suitable

Ø	L1	L2	HSS-G	
			Code	Stk. pcs.
1,0	34,0	12,0	76010	10
1,5	40,0	18,0	76015	10
2,0	49,0	24,0	76020	10
2,5	57,0	30,0	76025	10
3,0	61,0	33,0	76030	10
3,3	65,0	36,0	76033	10
3,5	70,0	39,0	76035	10
4,0	75,0	43,0	76040	10
4,2	75,0	43,0	76042	10
4,5	80,0	47,0	76045	10
5,0	86,0	52,0	76050	10
5,5	93,0	57,0	76055	10
6,0	93,0	57,0	76060	10
6,5	101,0	63,0	76065	10
6,8	109,0	69,0	76068	10
7,0	109,0	69,0	76070	10
7,5	109,0	69,0	76075	10
8,0	117,0	75,0	76080	10
8,5	117,0	75,0	76085	10
9,0	125,0	81,0	76090	10
9,5	125,0	81,0	76095	10
10,0	133,0	87,0	76100	10
10,2	133,0	87,0	76102	10
10,5	133,0	87,0	76105	5
11,0	142,0	94,0	76110	5
11,5	142,0	94,0	76115	5
12,0	151,0	101,0	76120	5
12,5	151,0	101,0	76125	5
13,0	151,0	101,0	76130	5

Vorteile | Advantages

- Der Dreiflächenschaft sorgt für hervorragende Fixierung im Bohrfutter bei geringem Kraftaufwand. Zudem sorgt der Schaft für eine optimale Kraftübertragung und verhindert das Durchdrehen des Bohrers!
- Die 135° Hochleistungsschneide sorgt für eine sehr hohe Zentriergenauigkeit, insbesondere bei handgeführten Anwendungen mit dem Akku-Bohrschrauber. Durch die Schneide wird das Abrutschen beim Anbohren von gewölbten Oberflächen verhindert.
- Durch Verringerung der Schnittkräfte wird die Lebensdauer des Akkus erhöht.
- Die schwarze Fase erhöht die Verschleißfestigkeit und verhindert Kaltverschweißungen und Aufbauschnneiden.
- Der 40° Drallwinkel ermöglicht eine perfekte und schnelle Spanabfuhr und sorgt für hohe Schnittgeschwindigkeiten bei erhöhter Stabilität und Genauigkeit.
- The 3-surface-shank provides an excellent fixing within the drill chuck with little effort. In addition, the shank ensures an ideal power transmission. No spinning of the drill!
- The 135° high performance cutting edge ensures a very high aligned preciseness, particularly when hand-operated with a cordless drilling machine. The edge prevents sliding off corrugated surfaces whilst spot-drilling.
- Increased wear resistance of the rechargeable battery due to reduction of cutting forces.
- The black bevel increases the wear resistance and prevents cold welding and build-up edges.
- The 40° helix angle enables a perfect and fast chip removal and provides a high cutting speed along with increased stability and accuracy.



Spiralbohrer | **Twist Drills** DIN 338 | Typ **UNI** | **HSSE-Co 5**

HSSE Co 5	DIN 338	UNI	5xD	135°	40°	Form C ≥Ø 2,0 mm	≥Ø 4,0 mm
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Dieser Hochleistungsspiralbohrer ist speziell für den portablen Einsatz in Bohrmaschinen und Akku-Bohrschraubern entwickelt worden (beste Leistung bis 5,0 mm Materialstärke).



High performance twist drill for all-purpose use in drilling machines and cordless drills.
(Materials up to 5,0 mm thickness)

**HSSE
Co 5**



Sets: Seite 274 | **Page 274**

			INOX < 850 N/mm²	INOX > 850 N/mm²	Grauguss Cast iron	Ti	Cu	Ms	Al	
●	●		○	○	○		○	○	○	○

● empfohlen | recommended ○ bedingt geeignet | partly suitable

Ø	L1	L2	HSSE-Co 5	
			Code	Stk. pcs.
1,0	34,0	12,0	76210	10
1,5	40,0	18,0	76215	10
2,0	49,0	24,0	76220	10
2,5	57,0	30,0	76225	10
3,0	61,0	33,0	76230	10
3,3	65,0	36,0	76233	10
3,5	70,0	39,0	76235	10
4,0	75,0	43,0	76240	10
4,2	75,0	43,0	76242	10
4,5	80,0	47,0	76245	10
5,0	86,0	52,0	76250	10
5,5	93,0	57,0	76255	10
6,0	93,0	57,0	76260	10
6,5	101,0	63,0	76265	10
6,8	109,0	69,0	76268	10
7,0	109,0	69,0	76270	10
7,5	109,0	69,0	76275	10
8,0	117,0	75,0	76280	10
8,5	117,0	75,0	76285	10
9,0	125,0	81,0	76290	10
9,5	125,0	81,0	76295	10
10,0	133,0	87,0	76300	10
10,2	133,0	87,0	76302	10
10,5	133,0	87,0	76305	5
11,0	142,0	94,0	76310	5
11,5	142,0	94,0	76315	5
12,0	151,0	101,0	76320	5
12,5	151,0	101,0	76325	5
13,0	151,0	101,0	76330	5





Spiralbohrer | **Twist Drills** DIN 338 | Typ N | HSS-G reduzierter Schaft | **reduced shank**

HSS-G	DIN 338	N	5xD	118°	20-30°	Form C	
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Ideal geeignet zum Bohren größerer Bohrdurchmesser mit allen gängigen Bohrmaschinen mit einem Spannfutter bis 13,0 mm.

Ideally suitable for drilling larger drilling diameters on all commonly-used drilling machines with a clamping chuck up to 13,0 mm.

 < 850 N/mm ²	 < 1100 N/mm ²	 < 1300 N/mm ²	INOX < 850 N/mm ²	INOX > 850 N/mm ²	Grauguss Cast iron	Ti	Cu	Ms	Al	
●	○		○	○	○		○	○	○	○

● empfohlen | recommended ○ bedingt geeignet | partly suitable

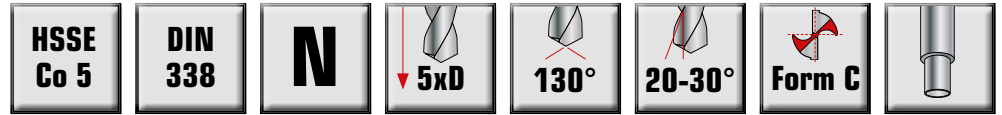
Ø1	L1	L3	Ø2	HSS-G	
				Code	Stk. pcs.
10,5	133,0	30,0	10	38231	1
11,0	142,0	30,0	10	38232	1
11,5	142,0	30,0	10	38233	1
12,0	151,0	30,0	10	38234	1
12,5	151,0	30,0	10	38235	1
13,0	151,0	30,0	10	38236	1
13,5	160,0	30,0	10	38237	1
14,0	160,0	30,0	10	38238	1
14,5	169,0	30,0	10	38239	1
15,0	169,0	30,0	10	38240	1
15,5	178,0	30,0	10	38241	1
16,0	178,0	30,0	10	38242	1
16,5	184,0	35,0	13	38243	1
17,0	184,0	35,0	13	38244	1
17,5	191,0	35,0	13	38245	1
18,0	191,0	35,0	13	38246	1
18,5	198,0	35,0	13	38247	1
19,0	198,0	35,0	13	38248	1
19,5	205,0	35,0	13	38249	1
20,0	205,0	35,0	13	38250	1





**HSSE
Co 5**

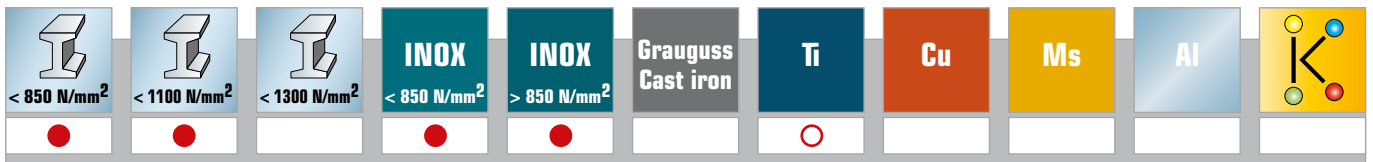
Spiralbohrer | Twist Drills
DIN 338 | Typ N | HSSE-Co 5
reduzierter Schaft | reduced shank



Ideal geeignet zum Bohren größerer Bohrdurchmesser mit allen gängigen Bohrmaschinen mit einem Spannfutter bis 13,0 mm.

Ideally suitable for drilling larger drilling diameters on all commonly-used drilling machines with a clamping chuck up to 13,0 mm.

Spiralbohrer • Twist Drills



● empfohlen | recommended ○ bedingt geeignet | partly suitable

Ø1	L1	L3	Ø2	HSSE-Co 5	
				Code	Stk. pcs.
10,5	133,0	30,0	10	38261	1
11,0	142,0	30,0	10	38262	1
11,5	142,0	30,0	10	38263	1
12,0	151,0	30,0	10	38264	1
12,5	151,0	30,0	10	38265	1
13,0	151,0	30,0	10	38266	1
13,5	160,0	30,0	10	38267	1
14,0	160,0	30,0	10	38268	1
14,5	169,0	30,0	10	38269	1
15,0	169,0	30,0	10	38270	1
15,5	178,0	30,0	10	38271	1
16,0	178,0	30,0	10	38272	1
16,5	184,0	35,0	13	38273	1
17,0	184,0	35,0	13	38274	1
17,5	191,0	35,0	13	38275	1
18,0	191,0	35,0	13	38276	1
18,5	198,0	35,0	13	38277	1
19,0	198,0	35,0	13	38278	1
19,5	205,0	35,0	13	38279	1
20,0	205,0	35,0	13	38280	1





Spiralbohrer | Twist Drills DIN 340 | Typ N | HSS-G

HSS-G

DIN 340

N

↓ 10xD

118°

25-30°

Form N

Leistungstarker Standardbohrer zum Bohren von legiertem und unlegiertem Stahl, Stahlguss und Gusseisen. Er weist eine hohe Bruchsicherheit auf.

High-performance ground standard twist drill made from heavy-duty high speed steel. The fully ground twist drill has a precise concentricity.

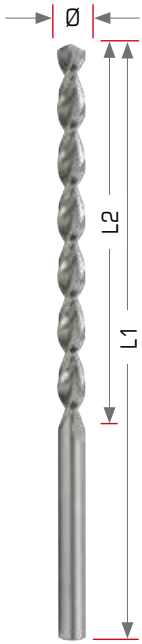
HSS-G

 < 850 N/mm ²	 < 1100 N/mm ²	 < 1300 N/mm ²	INOX < 850 N/mm ²	INOX > 850 N/mm ²	Grauguss Cast iron	Ti	Cu	Ms	Al	
●	○	○	○	○	○	○	○	○	○	○

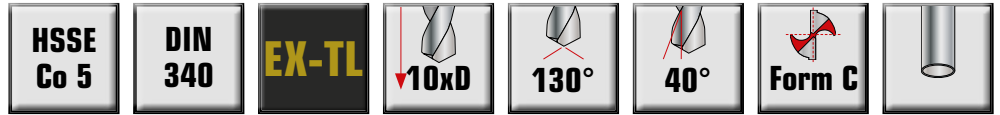
● empfohlen | recommended ○ bedingt geeignet | partly suitable

Ø	L1	L2	HSS-G	
			Code	Stk. pcs.
2,5	95,0	62,0	36201	10
3,0	100,0	66,0	36202	10
3,1	106,0	69,0	36203	10
3,2	106,0	69,0	36204	10
3,3	106,0	69,0	36205	10
3,4	112,0	73,0	36206	10
3,5	112,0	73,0	36207	10
3,6	112,0	73,0	36208	10
3,7	112,0	73,0	36209	10
3,8	119,0	78,0	36210	10
3,9	119,0	78,0	36211	10
4,0	119,0	78,0	36212	10
4,1	119,0	78,0	36213	10
4,2	119,0	78,0	36214	10
4,3	126,0	82,0	36215	10
4,4	126,0	82,0	36216	10
4,5	126,0	82,0	36217	10
4,6	126,0	82,0	36218	10
4,7	126,0	82,0	36219	10
4,8	132,0	87,0	36220	10
4,9	132,0	87,0	36221	10
5,0	132,0	87,0	36222	10
5,1	132,0	87,0	36223	10
5,2	132,0	87,0	36224	10
5,3	132,0	87,0	36225	10
5,4	139,0	91,0	36226	10
5,5	139,0	91,0	36227	10

Ø	L1	L2	HSS-G	
			Code	Stk. pcs.
5,6	139,0	91,0	36228	10
5,7	139,0	91,0	36229	10
5,8	139,0	91,0	36230	10
5,9	139,0	91,0	36231	10
6,0	139,0	91,0	36232	10
6,1	148,0	97,0	36233	10
6,2	148,0	97,0	36234	10
6,3	148,0	97,0	36235	10
6,4	148,0	97,0	36236	10
6,5	148,0	97,0	36237	10
6,6	148,0	97,0	36238	10
6,7	148,0	97,0	36239	10
6,8	156,0	102,0	36240	10
6,9	156,0	102,0	36241	10
7,0	156,0	102,0	36242	10
7,5	156,0	102,0	36247	10
8,0	165,0	109,0	36252	10
8,5	165,0	109,0	36257	10
9,0	175,0	115,0	36262	10
9,5	175,0	115,0	36267	10
10,0	184,0	121,0	36272	10
10,5	184,0	121,0	36273	5
11,0	195,0	128,0	36274	5
11,5	195,0	128,0	36275	5
12,0	205,0	134,0	36276	5
12,5	205,0	134,0	36277	5
13,0	205,0	134,0	36278	5



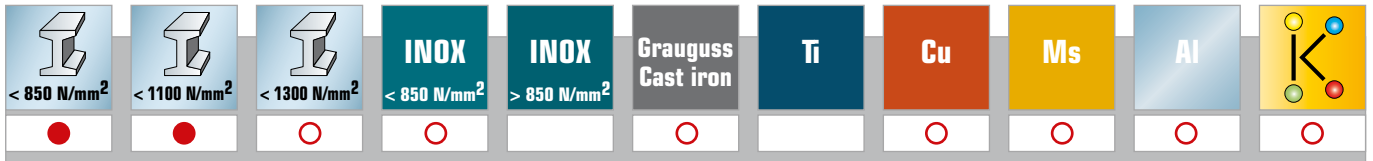
Spiralbohrer | Twist Drills
DIN 340 | Typ EX-TL | HSSE-Co 5



Sehr stabiler Mehrbereichsbohrer mit hervorragender Warmhärtebeständigkeit, verstärktem Bohrerker und einer parabolisch geformten Spannute zur idealen Spanabfuhr. Er ist ideal zum Bohren von mittel- und langspannenden Werkstoffen. Durch seinen dicken Kern und die spezielle Spannute mit einer gerundeten hinteren Kante ist dieser Bohrer für Hochleistungsanwendungen bestens geeignet. Er deckt in weiten Bereichen die Typen N, H und W ab.

Highly stable multirange drill with outstanding heat resistance, a reinforced drill core and a parabolic flute for ideal chip removal. Ideal for drilling medium and long-chipping materials. Thanks to its thick core and the special flute with a rounded rear edge, this drill is best suited for high-performance use. It covers types N, H and W for a wide range of applications.

**HSSE
Co 5**



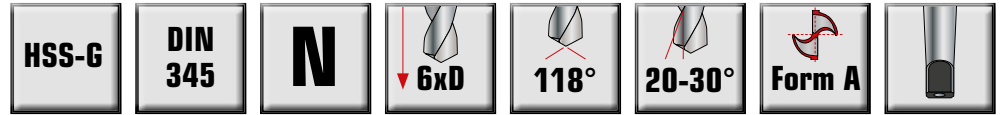
● empfohlen | recommended ○ bedingt geeignet | partly suitable

Ø	L1	L2	HSSE-Co 5	
			Code	Stk. pcs.
2,5	95,0	62,0	36305	10
3,0	100,0	66,0	36306	10
3,3	106,0	69,0	36307	10
3,5	112,0	73,0	36308	10
4,0	119,0	78,0	36309	10
4,2	119,0	78,0	36310	10
4,5	126,0	82,0	36311	10
5,0	132,0	87,0	36312	10
5,5	139,0	91,0	36313	10
6,0	139,0	91,0	36314	10
6,5	148,0	97,0	36315	10
6,8	156,0	102,0	36316	10
7,0	156,0	102,0	36317	10
7,5	156,0	102,0	36318	10
8,0	165,0	109,0	36319	10
8,5	165,0	109,0	36320	10
9,0	175,0	115,0	36321	10
9,5	175,0	115,0	36322	10
10,0	184,0	121,0	36323	10
10,5	184,0	121,0	36325	5
11,0	195,0	128,0	36326	5
11,5	195,0	128,0	36327	5
12,0	205,0	134,0	36328	5
12,5	205,0	134,0	36329	5
13,0	205,0	134,0	36330	5





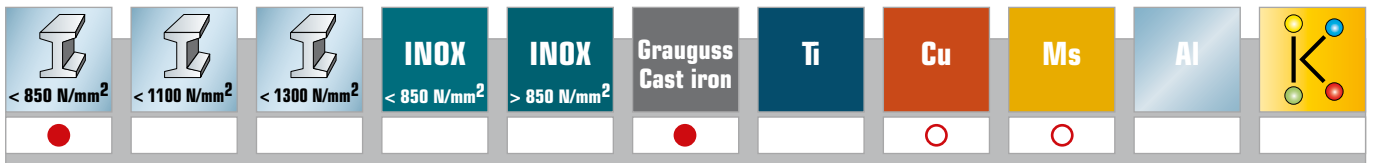
Spiralbohrer | Twist Drills DIN 345 | Typ N | HSS-G



Leistungstarker Standardbohrer mit Morsekegel zum Bohren von legiertem und unlegiertem Stahl, Stahlguss und Gusseisen. Er weist eine hohe Bruchsicherheit auf.

Highly efficient standard drill with morse taper. For drilling steel, cast steel and cast iron – alloyed and unalloyed. Highly secure against fracture.


HSS-G




● empfohlen | recommended ○ bedingt geeignet | partly suitable

Ø	L1	L2		HSS-G	
				Code	Stk. pcs.
10,0	168,0	87,0	1	36001	1
10,5	168,0	87,0	1	36002	1
11,0	175,0	94,0	1	36003	1
11,5	175,0	94,0	1	36004	1
12,0	182,0	101,0	1	36005	1
12,5	182,0	101,0	1	36006	1
13,0	182,0	101,0	1	36007	1
13,5	189,0	108,0	1	36008	1
14,0	189,0	108,0	1	36009	1
14,5	212,0	114,0	2	36010	1
15,0	212,0	114,0	2	36011	1
15,5	218,0	120,0	2	36012	1
16,0	218,0	120,0	2	36013	1
16,5	223,0	125,0	2	36014	1
17,0	223,0	125,0	2	36015	1
17,5	228,0	130,0	2	36016	1
18,0	228,0	130,0	2	36017	1
18,5	233,0	135,0	2	36018	1
19,0	233,0	135,0	2	36019	1
19,5	238,0	140,0	2	36020	1
20,0	238,0	140,0	2	36021	1
20,5	243,0	145,0	2	36022	1
21,0	243,0	145,0	2	36023	1

Ø	L1	L2		HSS-G	
				Code	Stk. pcs.
21,5	248,0	150,0	2	36024	1
22,0	248,0	150,0	2	36025	1
22,5	253,0	155,0	2	36026	1
23,0	253,0	155,0	2	36027	1
23,5	276,0	155,0	3	36028	1
24,0	281,0	160,0	3	36029	1
24,5	281,0	160,0	3	36030	1
25,0	281,0	160,0	3	36031	1
25,5	286,0	165,0	3	36032	1
26,0	286,0	165,0	3	36033	1
26,5	286,0	165,0	3	36034	1
27,0	291,0	170,0	3	36035	1
27,5	291,0	170,0	3	36036	1
28,0	291,0	170,0	3	36037	1
28,5	296,0	175,0	3	36038	1
29,0	296,0	175,0	3	36039	1
29,5	296,0	175,0	3	36040	1
30,0	296,0	175,0	3	36041	1
30,5	301,0	180,0	3	36042	1
31,0	301,0	180,0	3	36043	1
31,5	301,0	180,0	3	36044	1
32,0	334,0	185,0	4	36045	1
32,5	334,0	185,0	4	36046	1

Ø	L1	L2		HSS-G	
				Code	Stk. pcs.
33,0	334,0	185,0	4	36047	1
33,5	334,0	185,0	4	36048	1
34,0	339,0	190,0	4	36049	1
34,5	339,0	190,0	4	36050	1
35,0	339,0	190,0	4	36051	1
35,5	339,0	190,0	4	36052	1
36,0	344,0	195,0	4	36053	1
36,5	344,0	195,0	4	36054	1
37,0	344,0	195,0	4	36055	1
37,5	344,0	195,0	4	36056	1
38,0	349,0	200,0	4	36057	1
38,5	349,0	200,0	4	36058	1
39,0	349,0	200,0	4	36059	1
39,5	349,0	200,0	4	36060	1
40,0	349,0	200,0	4	36061	1
40,5	354,0	205,0	4	36062	1
41,0	354,0	205,0	4	36063	1
41,5	354,0	205,0	4	36064	1
42,0	354,0	205,0	4	36065	1
42,5	354,0	205,0	4	36066	1
43,0	359,0	210,0	4	36067	1
43,5	359,0	210,0	4	36068	1
44,0	359,0	210,0	4	36069	1

Ø	L1	L2		HSS-G	
				Code	Stk. pcs.
44,5	359,0	210,0	4	36070	1
45,0	359,0	210,0	4	36071	1
45,5	364,0	215,0	4	36072	1
46,0	364,0	215,0	4	36073	1
46,5	364,0	215,0	4	36074	1
47,0	364,0	215,0	4	36075	1
47,5	364,0	215,0	4	36076	1
48,0	369,0	220,0	4	36077	1
48,5	369,0	220,0	4	36078	1
49,0	369,0	220,0	4	36079	1
49,5	369,0	220,0	4	36080	1
50,0	369,0	220,0	4	36081	1
51,0	412,0	225,0	5	36082	1
52,0	412,0	225,0	5	36083	1
53,0	412,0	225,0	5	36084	1
54,0	417,0	230,0	5	36085	1
55,0	417,0	230,0	5	36086	1
56,0	417,0	230,0	5	36087	1
57,0	422,0	235,0	5	36088	1
58,0	422,0	235,0	5	36089	1
59,0	422,0	235,0	5	36090	1
60,0	422,0	235,0	5	36091	1





Spiralbohrer | **Twist Drills** DIN 345 | **Typ N** | **HSSE-Co 5**

HSSE Co 5	DIN 345	N	6xD	118°	20-30°	Form A	
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Leistungstarker Standardbohrer mit Morsekegel zum Bohren von legiertem und unlegiertem Stahl, Stahlguss und Gusseisen. Er weist eine hohe Bruchsicherheit auf.

Highly efficient standard drill with morse taper. For drilling steel, cast steel and cast iron – alloyed and unalloyed. Highly secure against fracture.

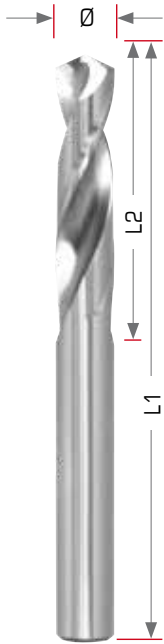
HSSE Co 5

< 850 N/mm ²	< 1100 N/mm ²	< 1300 N/mm ²	INOX < 850 N/mm ²	INOX > 850 N/mm ²	Grauguss Cast iron	Ti	Cu	Ms	Al	
●	●		○		○		○	○	○	○

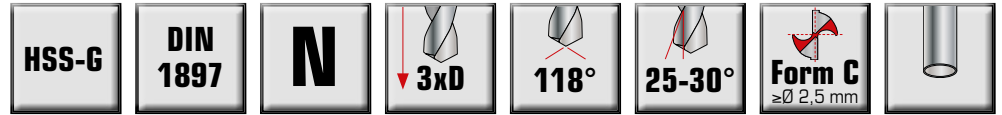
● empfohlen | recommended ○ bedingt geeignet | partly suitable

Ø	L1	L2		HSSE-Co 5	
				Code	Stk. pcs.
10,0	168,0	87,0	1	36101	1
10,5	168,0	87,0	1	36102	1
11,0	175,0	94,0	1	36103	1
11,5	175,0	94,0	1	36104	1
12,0	182,0	101,0	1	36105	1
12,5	182,0	101,0	1	36106	1
13,0	182,0	101,0	1	36107	1
13,5	189,0	108,0	1	36108	1
14,0	189,0	108,0	1	36109	1
14,5	212,0	114,0	2	36110	1
15,0	212,0	114,0	2	36111	1
15,5	218,0	120,0	2	36112	1
16,0	218,0	120,0	2	36113	1
16,5	223,0	125,0	2	36114	1
17,0	223,0	125,0	2	36115	1
17,5	228,0	130,0	2	36116	1
18,0	228,0	130,0	2	36117	1
18,5	233,0	135,0	2	36118	1
19,0	233,0	135,0	2	36119	1
19,5	238,0	140,0	2	36120	1
20,0	238,0	140,0	2	36121	1
20,5	243,0	145,0	2	36122	1
21,0	243,0	145,0	2	36123	1
21,5	248,0	150,0	2	36124	1
22,0	248,0	150,0	2	36125	1
22,5	253,0	155,0	2	36126	1
23,0	253,0	155,0	2	36127	1

Ø	L1	L2		HSSE-Co 5	
				Code	Stk. pcs.
23,5	276,0	155,0	3	36128	1
24,0	281,0	160,0	3	36129	1
24,5	281,0	160,0	3	36130	1
25,0	281,0	160,0	3	36131	1
25,5	286,0	165,0	3	36132	1
26,0	286,0	165,0	3	36133	1
26,5	286,0	165,0	3	36134	1
27,0	291,0	170,0	3	36135	1
27,5	291,0	170,0	3	36136	1
28,0	291,0	170,0	3	36137	1
28,5	296,0	175,0	3	36138	1
29,0	296,0	175,0	3	36139	1
29,5	296,0	175,0	3	36140	1
30,0	296,0	175,0	3	36141	1



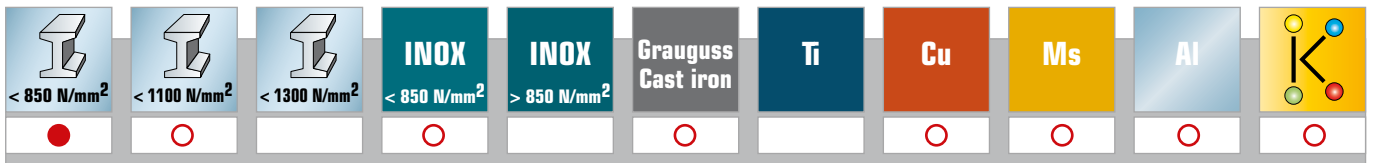
Spiralbohrer | Twist Drills
DIN 1897 | Typ N | HSS-G
kurz | short



Kurzer und stabiler Spiralbohrer mit ausgeprägter Warmhärtebeständigkeit, der ideal geeignet ist für Montagearbeiten in dünnwandigen Materialien wie z.B. Blechen, Flach- und Profi leisen im Karosseriebau. Einsatzmöglichkeit in Handbohrmaschinen, auf Automaten und Revolverbänken.

Short and stable twist drill with distinctive heat resistance. Ideally suited for assembly work with thin-walled materials such as sheet steels, flat steels and profile steel in bodyshell construction. Use in hand-held drilling machines, with automatic machines and with turret lathes.

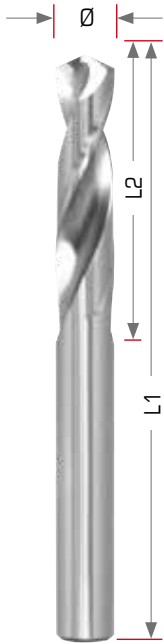
HSS-G



● empfohlen | recommended ○ bedingt geeignet | partly suitable

Ø	L1	L2	HSS-G	
			Code	Stk. pcs.
2,0	38,0	12,0	36401	10
2,5	43,0	14,0	36406	10
3,0	46,0	16,0	36411	10
3,3	49,0	18,0	36414	10
3,5	52,0	20,0	36416	10
4,0	55,0	22,0	36421	10
4,2	55,0	22,0	36423	10
4,5	58,0	24,0	36426	10
5,0	62,0	26,0	36431	10
5,5	66,0	28,0	36436	10
6,0	66,0	28,0	36441	10
6,5	70,0	31,0	36446	10
6,8	74,0	34,0	36449	10
7,0	74,0	34,0	36451	10
7,5	74,0	34,0	36456	10
8,0	79,0	37,0	36461	10
8,5	79,0	37,0	36462	10
9,0	84,0	40,0	36463	10
9,5	84,0	40,0	36464	10
10,0	89,0	43,0	36465	10
10,2	89,0	43,0	36466	10
10,5	89,0	43,0	36467	5
11,0	95,0	47,0	36468	5
11,5	95,0	47,0	36469	5
12,0	102,0	51,0	36470	5
12,5	102,0	51,0	36399	5
13,0	102,0	51,0	36400	5





**HSSE
Co 5**

Spiralbohrer | **Twist Drills** DIN 1897 | Typ N | **HSSE-Co 5** kurz | **short**

HSSE Co 5	DIN 1897	N	3xD	130°	25-30°	Form C ≥Ø 2,5 mm	
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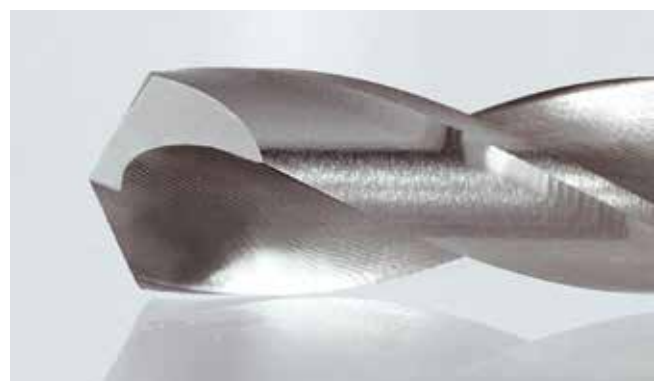
Kurzer und stabiler Spiralbohrer mit ausgeprägter Warmhärtebeständigkeit, der ideal geeignet ist für Montagearbeiten in dünnwandigen Materialien wie z.B. Blechen, Flach- und Profilleisen im Karosseriebau. Einsatzmöglichkeit in Handbohrmaschinen, auf Automaten und Revolverbänken.

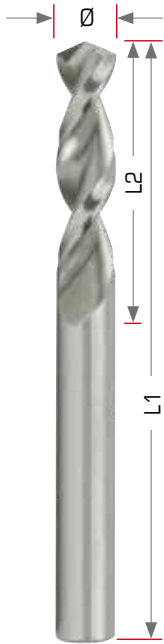
Short and stable twist drill with distinctive heat resistance. Ideally suited for assembly work with thin-walled materials such as sheet steels, flat steels and profile steel in bodyshell construction. Use in hand-held drilling machines, with automatic machines and with turret lathes.

< 850 N/mm ²	< 1100 N/mm ²	< 1300 N/mm ²	INOX < 850 N/mm ²	INOX > 850 N/mm ²	Grauguss Cast iron	Ti	Cu	Ms	Al	
●	●		●	○		○				

● empfohlen | recommended ○ bedingt geeignet | partly suitable

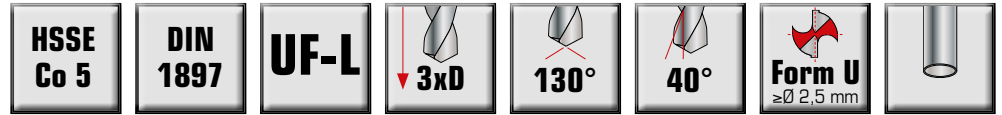
Ø	L1	L2	HSSE-Co 5	
			Code	Stk. pcs.
2,0	38,0	12,0	36471	10
2,5	43,0	14,0	36472	10
3,0	46,0	16,0	36473	10
3,3	49,0	18,0	36476	10
3,5	52,0	20,0	36478	10
4,0	55,0	22,0	36482	10
4,2	55,0	22,0	36484	10
4,5	58,0	24,0	36487	10
5,0	62,0	26,0	36491	10
5,5	66,0	28,0	36494	10
6,0	66,0	28,0	36498	10
6,5	70,0	31,0	36499	10
6,8	74,0	34,0	36500	10
7,0	74,0	34,0	36501	10
7,5	74,0	34,0	36502	10
8,0	79,0	37,0	36503	10
8,5	79,0	37,0	36504	10
9,0	84,0	40,0	36505	10
9,5	84,0	40,0	36506	10
10,0	89,0	43,0	36507	10
10,2	89,0	43,0	36508	10
10,5	89,0	43,0	36509	5
11,0	95,0	47,0	36510	5
11,5	95,0	47,0	36511	5
12,0	102,0	51,0	36512	5
12,5	102,0	51,0	36513	5
13,0	102,0	51,0	36514	5





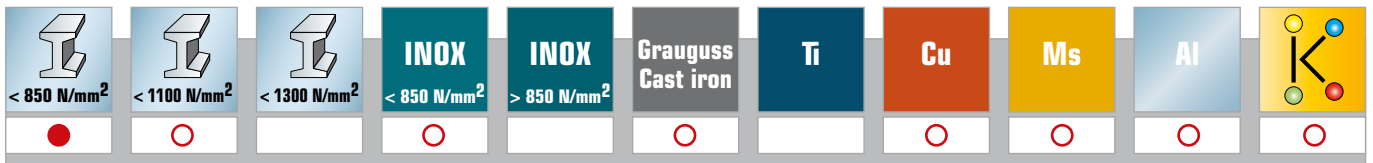
**HSSE
Co 5**

Spiralbohrer | Twist Drills
DIN 1897 | Typ UF-L | HSSE-Co 5
kurz | short



Kurzer und sehr stabiler Mehrbereichsbohrer mit hervorragender Warmhärtebeständigkeit mit spezieller Geometrie zur Optimierung von Spanbildung und Spanabfuhr. Er ist ideal geeignet für Montagearbeiten in dünnwandigen Materialien wie z.B. Blechen, Flach- und Profileisen aus mittel- und langspanenden Werkstoffen.

Short and highly stable multirange drill with outstanding heat resistance and special geometry for optimising chip formation and removal. Ideally suited for assembly work in thin-walled materials such as sheet steels, flat steel and profile steel comprising of medium and long-chipping materials.



● empfohlen | recommended ○ bedingt geeignet | partly suitable

Ø	L1	L2	HSSE-Co 5	
			Code	Stk. pcs.
2,0	38,0	12,0	36535	10
2,5	43,0	14,0	36536	10
3,0	46,0	16,0	36537	10
3,3	49,0	18,0	36538	10
3,5	52,0	20,0	36539	10
4,0	55,0	22,0	36540	10
4,2	55,0	22,0	36541	10
4,5	58,0	24,0	36542	10
5,0	62,0	26,0	36543	10
5,5	66,0	28,0	36544	10
6,0	66,0	28,0	36545	10
6,5	70,0	31,0	36546	10
6,8	74,0	34,0	36547	10
7,0	74,0	34,0	36548	10
7,5	74,0	34,0	36549	10
8,0	79,0	37,0	36550	10
8,5	79,0	37,0	36551	10
9,0	84,0	40,0	36552	10
9,5	84,0	40,0	36553	10
10,0	89,0	43,0	36554	10
10,2	89,0	43,0	36555	10
10,5	89,0	43,0	36556	5
11,0	95,0	47,0	36557	5
11,5	95,0	47,0	36558	5
12,0	102,0	51,0	36559	5
12,5	102,0	51,0	36560	5
13,0	102,0	51,0	36561	5



Spiralbohrer Sets | Sets of Twist Drills DIN 338 | Typ N | HSS-G

Spiralbohrer Set • Sets of Twist Drills



Technische Information Spiralbohrer HSS-G

Spitzenanschliff: Kegelmantelanschliff • Spiralwinkel: 20 - 30°
Ø-Toleranz: h8 • rechtsschneidend

Technical Information Twist Drills HSS-G

Tip grinding: Cone envelope grinding • Spiral angle: 20 - 30°
Diameter tolerance: h8 • clockwise-cutting

INHALT	HSS-G	
	Code	Stk. pcs.
19 tlg. pcs. DIN 338 Typ N Ø 1,0 mm – 10,0 mm x 0,5 mm steigend in steps	73161	1
25 tlg. pcs. DIN 338 Typ N Ø 1,0 mm – 13,0 mm x 0,5 mm steigend in steps	73162	1



Technische Information VAP (Vaporisieren)

Aufdampfen einer nicht metallischen Oxydschicht – wirkt als Trennschicht und vermindert Kaltaufschweißung.

Technical Information VAP (Vaporisation)

Steam tamping process – the nonferrous oxide film reduces cold-welding.

INHALT	HSS-G	
	Code	Stk. pcs.
19 tlg. pcs. DIN 338 Typ N Ø 1,0 mm – 10,0 mm x 0,5 mm steigend in steps	73561	1
25 tlg. pcs. DIN 338 Typ N Ø 1,0 mm – 13,0 mm x 0,5 mm steigend in steps	73562	1



Technische Information TIN-Beschichtung

Die Titan-Nitrid-Beschichtung erhöht die Werkzeugstandzeiten und ermöglicht höhere Schnittgeschwindigkeiten.

Technical Information TIN Coating

The titanium nitride coating increases the tool life and allows higher cutting speeds.

INHALT	HSS-G	
	Code	Stk. pcs.
19 tlg. pcs. DIN 338 Typ N Ø 1,0 mm – 10,0 mm x 0,5 mm steigend in steps	73361	1
25 tlg. pcs. DIN 338 Typ N Ø 1,0 mm – 13,0 mm x 0,5 mm steigend in steps	73362	1

Spiralbohrer Sets | Sets of Twist Drills DIN 338 | Typ N | HSS-G



**HSS-G
TiAlN**

Technische Information TiAlN-Beschichtung

Spiralbohrer mit Titan-Aluminium-Beschichtung sind für besonders harte Materialien geeignet, ermöglichen höchste Schnittgeschwindigkeiten und benötigen kein Kühlmittel.

Technical Information TiAlN TIP Coating

Twist Drills with titanium-aluminum coating are suitable for particularly hard materials and does not require coolant.

INHALT	HSS-G	
	Code	Stk. pcs.
19 tlg. pcs. DIN 338 Typ N Ø 1,0 mm – 10,0 mm x 0,5 mm steigend in steps	72961	1
25 tlg. pcs. DIN 338 Typ N Ø 1,0 mm – 13,0 mm x 0,5 mm steigend in steps	72962	1



**HSS-G
TiN
TIP**

Technische Information TiN TIP-Beschichtung

Die Titan-Nitrid-Beschichtung im schneidaktiven Teil erhöht die Werkzeugstandzeiten und ermöglicht höhere Schnittgeschwindigkeiten sowie Vorschübe.

Technical Information TiN TIP Coating

The titanium nitride coating in the active cutting part increases the tool life and allows higher cutting speeds and feed rates.

INHALT	HSS-G	
	Code	Stk. pcs.
19 tlg. pcs. DIN 338 Typ N Ø 1,0 mm – 10,0 mm x 0,5 mm steigend in steps	73761	1
25 tlg. pcs. DIN 338 Typ N Ø 1,0 mm – 13,0 mm x 0,5 mm steigend in steps	73762	1



**HSS-G
TiAlN
TIP**

Technische Information TiAlN TIP-Beschichtung

Die Titan-Aluminium-Beschichtung im schneidaktiven Teil ist für besonders harte Materialien geeignet und benötigt kein Kühlmittel.

Technical Information TiAlN TIP Coating

The titanium-aluminum coating in the active cutting part is suitable for particularly hard materials and does not require coolant.

INHALT	HSS-G	
	Code	Stk. pcs.
19 tlg. pcs. DIN 338 Typ N Ø 1,0 mm – 10,0 mm x 0,5 mm steigend in steps	73961	1
25 tlg. pcs. DIN 338 Typ N Ø 1,0 mm – 13,0 mm x 0,5 mm steigend in steps	73962	1

Spiralbohrer Sets | Sets of Twist Drills
DIN 338 | Typ VA | HSSE-Co 5

Spiralbohrer Set • Sets of Twist Drills



Technische Information

Der Kobaltanteil sorgt für eine höhere Wärmehärtebeständigkeit – Ideal zum Bohren von rost-, säure- und hitzebeständigem Stahl mit hoher Festigkeit.

Technical Information

High-performance drill with distinctive heat resistance. Ideal for drilling high-strength stainless, acid-resistant and heat-resistant steel.

INHALT	HSSE-Co 5	
	Code	Stk. pcs.
19 tlg. pcs. DIN 338 Typ N Ø 1,0 mm – 10,0 mm x 0,5 mm steigend in steps	74161	1
25 tlg. pcs. DIN 338 Typ N Ø 1,0 mm – 13,0 mm x 0,5 mm steigend in steps	74162	1

Spiralbohrer Sets | Sets of Twist Drills
DIN 338 | Typ VA | HSSE-Co 8



Technische Information

Kräftiger Sonderbohrer, der ideal für Titanlegierungen sowie rost-, säure- und hitzebeständigen austenitischen Stählen verwendbar ist.

Technical Information

Powerful special drill that should ideally be used for titanium base alloys as well as stainless, acid-resistant and heat-resistant austenitic steels.

INHALT	HSSE-Co 8	
	Code	Stk. pcs.
19 tlg. pcs. DIN 338 Typ N Ø 1,0 mm – 10,0 mm x 0,5 mm steigend in steps	74761	1
25 tlg. pcs. DIN 338 Typ N Ø 1,0 mm – 13,0 mm x 0,5 mm steigend in steps	74762	1

Spiralbohrer Sets | Sets of Twist Drills DIN 338 | Typ EX-TL | HSS-G



Technische Information

Sehr stabiler Mehrbereichsbohrer mit hervorragender Warmhärtebeständigkeit, verstärktem Bohrerkerne und einer parabolisch geformten Spannuten zur idealen Spanabfuhr.

Technical Information

Highly stable multirange drill with outstanding heat resistance, a reinforced drill core and a parabolic flute for ideal chip removal.

INHALT	HSS-G	
	Code	Stk. pcs.
19 tlg. pcs. DIN 338 Typ N Ø 1,0 mm – 10,0 mm x 0,5 mm steigend in steps	75161	1
25 tlg. pcs. DIN 338 Typ N Ø 1,0 mm – 13,0 mm x 0,5 mm steigend in steps	75162	1

Spiralbohrer Sets | Sets of Twist Drills DIN 338 | Typ EX-TL | HSSE-Co 5



Technische Information

Sehr stabiler Mehrbereichsbohrer mit hervorragender Warmhärtebeständigkeit, verstärktem Bohrerkerne und einer parabolisch geformten Spannuten zur idealen Spanabfuhr.

Technical Information

Highly stable multirange drill with outstanding heat resistance, a reinforced drill core and a parabolic flute for ideal chip removal.

INHALT	HSSE-Co 5	
	Code	Stk. pcs.
19 tlg. pcs. DIN 338 Typ N Ø 1,0 mm – 10,0 mm x 0,5 mm steigend in steps	75761	1
25 tlg. pcs. DIN 338 Typ N Ø 1,0 mm – 13,0 mm x 0,5 mm steigend in steps	75762	1

Spiralbohrer Sets | Sets of Twist Drills
DIN 338 | Typ UNI | HSS-G

Spiralbohrer Set • Sets of Twist Drills



Technische Information

Dieser Hochleistungsspiralbohrer ist speziell für den portablen Einsatz in Bohrmaschinen und Akku-Bohrschraubern entwickelt worden (beste Leistung bis 5,0 mm Materialstärke).

Technical Information

High performance twist drill for all-purpose use in drilling machines and cordless drills. (Materials up to 5,0 mm thickness)

INHALT	HSS-G	
	Code	Stk. pcs.
19 tlg. pcs. DIN 338 Typ N Ø 1,0 mm – 10,0 mm x 0,5 mm steigend in steps	76161	1
25 tlg. pcs. DIN 338 Typ N Ø 1,0 mm – 13,0 mm x 0,5 mm steigend in steps	76162	1

Spiralbohrer Sets | Sets of Twist Drills
DIN 338 | Typ UNI | HSSE-Co 5



Technische Information

Dieser Hochleistungsspiralbohrer ist speziell für den portablen Einsatz in Bohrmaschinen und Akku-Bohrschraubern entwickelt worden (beste Leistung bis 5,0 mm Materialstärke).

Technical Information

High performance twist drill for all-purpose use in drilling machines and cordless drills. (Materials up to 5,0 mm thickness)

INHALT	HSSE-Co 5	
	Code	Stk. pcs.
19 tlg. pcs. DIN 338 Typ N Ø 1,0 mm – 10,0 mm x 0,5 mm steigend in steps	76361	1
25 tlg. pcs. DIN 338 Typ N Ø 1,0 mm – 13,0 mm x 0,5 mm steigend in steps	76362	1

Spiralbohrer | **Twist Drills** **DIN 338 | HSSE-Co 5**

mit ROTASTOP®-Schaft | ROTASTOP®-Shank



Technische Information

Dieser Hochleistungsspiralbohrer ist speziell für den portablen Einsatz in Bohrmaschinen und Akku-Bohrschraubern entwickelt worden (beste Leistung bis 5,0 mm Materialstärke).

Technical Information

High performance twist drill for all-purpose use in drilling machines and cordless drills. (Materials up to 5,0 mm thickness)

INHALT	HSSE-Co 5	
	Code	Stk. pcs.
19 tlg. pcs. DIN 338 Typ N Ø 1,0 mm – 10,0 mm x 0,5 mm steigend in steps	76561	1
25 tlg. pcs. DIN 338 Typ N Ø 1,0 mm – 13,0 mm x 0,5 mm steigend in steps	76562	1



Verwendung der Bohrer & Schneidbedingungen

Application of drills and cutting conditions

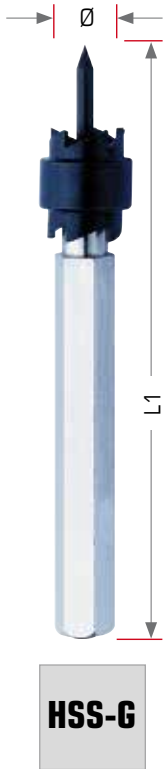
Material	Empfohlene Anwendung Recommended for use		Kühlung Cooling	Schnittgeschwindigkeit Cutting speed v (m/min)	Bohrerdurchmesser d (mm) Drill diameter d (mm)				
	Hauptvorschlag Main suggestion	Alternativvorschlag Other suggestion			2	4	6	9	12
	Seite Page	Seite Page			Vorschub f (mm/Umdrehung) Feed rate f (mm/rotation)				
Automatenstahl 350-500 N/mm ² Free cutting steel 350-500 N/mm ²	12	22 / 33	E	30-40	0,05	0,1	0,125	0,16	0,2
Automatenstahl 500-900 N/mm ² Free cutting steel 500-900 N/mm ²	12	24 / 33	E	25-30	0,04	0,08	0,1	0,125	0,16
Baustahl bis 500 N/mm ² Structural steel up to 500 N/mm ²	12	22 / 33	E	30-40	0,04	0,08	0,1	0,125	0,16
Baustahl 500-900 N/mm ² Structural steel 500-900 N/mm ²	12	24 / 33	E	20-25	0,032	0,063	0,08	0,1	0,125
Unlegierter Einsatzstahl bis 600 N/mm ² Plain carbon case hardening steel up to 600 N/mm ²	12	22 / 33	E	25-35	0,05	0,1	0,125	0,16	0,2
Legierter Einsatzstahl 500-900 N/mm ² Alloyed case hardening steel 500-900 N/mm ²	12	24 / 33		20-25	0,4	0,08	0,1	0,125	0,16
Legierter Einsatzstahl 900-1200 N/mm ² Alloyed case hardening steel 900-1000 N/mm ²	17	34	E, O	10-15	0,025	0,05	0,063	0,08	0,1
Nitrierstahl 700-900 N/mm ² Nitriding steel 700-900 N/mm ²	17	24 / 34	E	15-20	0,032	0,063	0,08	0,1	0,125
Vergüteter Nitrierstahl 800-1250 N/mm ² Heat treated nitriding steel 800-1250 N/mm ²	17	25	E, O	8-12	0,025	0,05	0,063	0,08	0,1
Weichstahl zur Vergütung 500-750 N/mm ² Mild steel for heat treatment 500-750 N/mm ²	12	24 / 33	E	25-35	0,04	0,08	0,1	0,125	0,16
Unlegierter Einsatzstahl zur Vergütung 700-1000 N/mm ² Plain carbon steel for heat treatment 700-1000 N/mm ²	17	25 / 35	E	15-20	0,04	0,08	0,1	0,125	0,16
Legierter Stahl zur Vergütung 900-1250 N/mm ² Alloyed steel heat treatment 900-1250 N/mm ²	17	25 / 35	E, O	10-15	0,032	0,063	0,08	0,1	0,125
Manganstahl mit einem Gehalt über 10 % Mn Manganese steel with content over 10 % Mn	17	34	E, O	3-6	0,2	0,04	0,063	0,08	0,1
Unlegierter Werkzeugstahl 700-900 N/mm ² Plain carbon tool steel 700-900 N/mm ²	17	25 / 34	E	14-18	0,032	0,063	0,08	0,1	0,12
Legierter Werkzeugstahl 850-1250 N/mm ² Alloyed tool steel 850-1250 N/mm ²	17	25	E, O	8-12	0,025	0,05	0,063	0,08	0,1
Hitzebeständiger Stahl 450-600 N/mm ² Heat resistant steel 450-600 N/mm ²	17	-	O	15-20	0,032	0,063	0,08	0,1	0,125
Rostfreie Stähle Stainless steel	15	17	E, O	6-10	0,02	0,032	0,05	0,08	0,1
Legierungen Hastelloy, Inconel, Nimonic Alloys hastelloy, inconel, nimonic	17	-	O	3-6	0,02	0,04	0,063	0,08	0,125
Grauguß HB 180-240 Grey cast iron HB 180-240	12	24	E, DL	30-40	0,05	0,1	0,125	0,16	0,2
Grauguß HB 240-300 Grey cast iron HB 240-300	12	24	E, DL	20-30	0,05	0,1	0,125	0,16	0,2
Temperguß HB 180-240 Malleable cast iron HB 180-240	12	24	DL	20-30	0,05	0,1	0,125	0,16	0,2
Aluminium Aluminium	22	-	E	50-80	0,05	0,1	0,125	0,16	0,2
Alu. Legierungen m. e. Gehalt bis 10 % Si u. 180 N/mm ² Aluminium alloys with content up to 10 % Si and 180 N/mm ²	22	-	E	40-65	0,063	0,1255	0,16	0,2	0,25
Alu. Legierungen / Gehalt bis 10 % Si u. 150-250 N/mm ² Aluminium alloys with content up to 10 % Si and 150-250 N/mm ²	12	-	E	30-50	0,063	0,1255	0,16	0,2	0,25
Kupfer 200-400 N/mm ² Copper 200-400 N/mm ²	24	-	E, O	30-40	0,05	0,1	0,125	0,16	0,2
Sprödes Messing mit kurzem Span 350-550 N/mm ² Fragile brass with short chip 350-550 N/mm ²	17	33	E, O	60-80	0,063	0,1255	0,16	0,2	0,25
Bronze 500-800 N/mm ² Bronze 500-800 N/mm ²	12	22	E, O	15-30	0,05	0,08	0,125	0,16	0,2
Magnesiumlegierungen-Elektron Magnesium alloys-electron	17	-	-	60-100	0,08	0,125	0,016	0,02	0,25
Zink, Zinklegierungen Zinc, zinc alloys	12	22	E	35-45	0,05	0,1	0,125	0,16	0,2
Titanlegierungen bis 700 N/mm ² Titanium alloys up to 700 N/mm ²	17	-	O	3-6	0,03	0,05	0,063	0,08	0,1
Titanlegierungen 700-1000 N/mm ² Titanium alloys 700-1000 N/mm ²	17	-	O	3-6	0,02	0,04	0,05	0,063	0,08
Silber Silver	12	22	E	30-40	0,05	0,08	0,1	0,125	0,16
Duromoren Duroplastics	17	-	DL	10-20	0,04	0,08	0,1	0,125	0,16

E = Emulsion / O = Schneidöl / DL = Druckluft / W = Wasser | E = emulsion / O = cutting oil / CA = compressed air / W = water

Bohrer Drills Ø mm	Schnittgeschwindigkeit Vc = m/min Cutting speed Vc = m/min															
	4	6	8	10	12	15	18	20	25	30	35	40	50	60	80	100
	Drehzahl U/min r.p.m.															
1,0	1274	1911	2548	3185	3822	4777	5732	6369	7962	9554	11146	12739	15924	19108	25478	31847
1,5	849	1274	1699	2123	2548	3185	3822	4246	5308	6369	7431	8493	10616	12739	16985	21231
2,0	637	955	1274	1592	1911	2389	2866	3185	3981	4777	5573	6369	7962	9554	12739	15924
2,5	510	764	1019	1274	1529	1911	2293	2548	3185	3822	4459	5096	6369	7643	10191	12739
3,0	425	637	849	1062	1274	1592	1911	2123	2654	3185	3715	4246	5308	6369	8493	10616
3,5	364	546	728	910	1092	1365	1638	1820	2275	2730	3185	3640	4550	5460	7279	9099
4,0	318	478	637	796	955	1194	1433	1592	1990	2389	2787	3185	3981	4777	6369	7962
4,5	283	425	566	708	849	1062	1274	1415	1769	2123	2477	2831	3539	4246	5662	7077
5,0	255	382	510	637	764	955	1146	1274	1592	1911	2229	2548	3185	3822	5096	6369
5,5	232	347	463	579	695	869	1042	1158	1448	1737	2027	2316	2895	3474	4632	5790
6,0	212	318	425	531	637	796	955	1062	1327	1592	1858	2123	2654	3185	4246	5308
6,5	196	294	392	490	588	735	882	980	1225	1470	1715	1960	2450	2940	3920	4900
7,0	182	273	364	455	546	682	819	910	1137	1365	1592	1820	2275	2730	3640	4550
7,5	170	255	340	425	510	637	764	849	1062	1274	1486	1699	2123	2548	3397	4246
8,0	159	239	318	398	478	597	717	796	995	1194	1393	1592	1990	2389	3185	3981
8,5	150	225	300	375	450	562	674	749	937	1124	1311	1499	1873	2248	2997	3747
9,0	142	212	283	354	425	531	637	708	885	1062	1238	1415	1769	2123	2831	3539
9,5	134	201	268	335	402	503	603	670	838	1006	1173	1341	1676	2011	2682	3352
10,0	127	191	255	318	382	478	573	637	796	955	1115	1274	1592	1911	2548	3185
11,0	116	174	232	290	347	434	521	579	724	869	1013	1158	1448	1737	2316	2895
12,0	106	159	212	265	318	398	478	531	663	796	929	1062	1327	1592	2123	2654
13,0	98	147	196	245	294	367	441	490	612	735	857	980	1225	1470	1960	2450
14,0	91	136	182	227	273	341	409	455	569	682	796	910	1137	1365	1820	2275
15,0	85	127	170	212	255	318	382	425	531	637	743	849	1062	1274	1699	2123
16,0	80	119	159	199	239	299	358	398	498	597	697	796	995	1194	1592	1990
17,0	75	112	150	187	225	281	337	375	468	562	656	749	937	1124	1499	1873
18,0	71	106	142	177	212	265	318	354	442	531	619	708	885	1062	1415	1769
19,0	67	101	134	168	201	251	302	335	419	503	587	670	838	1006	1341	1676
20,0	64	96	127	159	191	239	287	318	398	478	557	637	796	955	1274	1592
21,0	61	91	121	152	182	227	273	303	379	455	531	607	758	910	1213	1517
22,0	58	87	116	145	174	217	261	290	362	434	507	579	724	869	1158	1448
23,0	55	83	111	138	166	208	249	277	346	415	485	554	692	831	1108	1385
24,0	53	80	106	133	159	199	239	265	332	398	464	531	663	796	1062	1327
25,0	51	76	102	127	153	191	229	255	318	382	446	510	637	764	1019	1274
26,0	49	73	98	122	147	184	220	245	306	367	429	490	612	735	980	1225
27,0	47	71	94	118	142	177	212	236	295	354	413	472	590	708	944	1180
28,0	45	68	91	114	136	171	205	227	284	341	398	455	569	682	910	1137
29,0	44	66	88	110	132	165	198	220	275	329	384	439	549	659	879	1098
30,0	42	64	85	106	127	159	191	212	265	318	372	425	531	637	849	1062
31,0	41	62	82	103	123	154	185	205	257	308	360	411	514	616	822	1027
32,0	40	60	80	100	119	149	179	199	249	299	348	398	498	597	796	995
33,0	39	58	77	97	116	145	174	193	241	290	338	386	483	579	772	965
34,0	37	56	75	94	112	141	169	187	234	281	328	375	468	562	749	937
35,0	36	55	73	91	109	136	164	182	227	273	318	364	455	546	728	910
36,0	35	53	71	88	106	133	159	177	221	265	310	354	442	531	708	885
37,0	34	52	69	86	103	129	155	172	215	258	301	344	430	516	689	861
38,0	34	50	67	84	101	126	151	168	210	251	293	335	419	503	670	838
39,0	33	49	65	82	98	122	147	163	204	245	286	327	408	490	653	817
40,0	32	48	64	80	96	119	143	159	199	239	279	318	398	478	637	796
41,0	31	47	62	78	93	117	140	155	194	233	272	311	388	466	621	777
42,0	30	45	61	76	91	114	136	152	190	227	265	303	379	455	607	758
43,0	30	44	59	74	89	111	133	148	185	222	259	296	370	444	593	741
44,0	29	43	58	72	87	109	130	145	181	217	253	290	362	434	579	724
45,0	28	42	57	71	85	106	127	142	177	212	248	283	354	425	566	708
46,0	28	42	55	69	83	104	125	138	173	208	242	277	346	415	554	692
47,0	27	41	54	68	81	102	122	136	169	203	237	271	339	407	542	678
48,0	27	40	53	66	80	100	119	133	166	199	232	265	332	398	531	663
49,0	26	39	52	65	78	97	117	130	162	195	227	260	325	390	520	650
50,0	25	38	51	64	76	96	115	127	159	191	223	255	318	382	510	637

Werkstoff Material	Schnittgeschw. Cutting speed Vc m/min	Kühl- schmierstoff Coolant	Werkstoff Material	Schnittgeschw. Cutting speed Vc m/min	Kühl- schmierstoff Coolant
unlegierte Baustähle < 700 N/mm ²	30 - 35	Schneidspray Cutting spray	CuZn-Legierungen zäh CuZn alloy tough	35 - 60	Druckluft Compresses air
legierte Baustähle > 700 N/mm ²	20 - 25		Al-Legierungen bis 11 % Si Al alloy 11% Si	30 - 50	Schneid-/Cuttingspray
legierte Stähle Alloyed steel < 1000 N/mm ²	20 - 25		Thermoplaste Thermoplastics	20 - 40	Wasser water
Gußeisen Cast iron < 250 N/mm ²	15 - 25	Druckluft Compresses air	Duroplaste mit anorgan. Füllung Duroplastics	15 - 25	Druckluft
Gußeisen Cast iron > 250 N/mm ²	10 - 20		Duroplaste mit organ. Füllung Duroplastics	15 - 35	Compresses air
CuZn-Legierungen spröde CuZn alloy brittle	60 - 100				

Zusatzartikel • Additional products



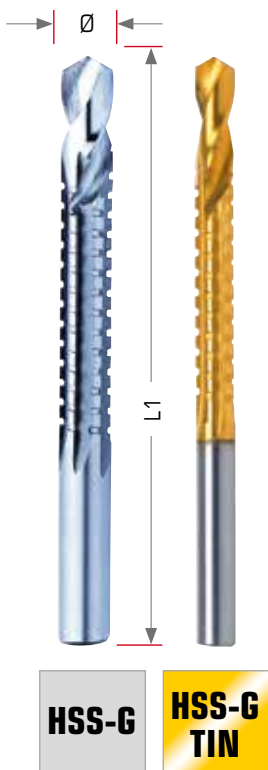
Schweißpunktfräser Weld Point Milling Bit | HSS-G

HSS-G

Zum Lösen von punktgeschweißten Blechteilen. Die Fräser sind beidseitig schneidend und auswechselbar. Die Frästiefe ist durch eine Schraube einstellbar. Keine Deformierung des Bleches.

For removing spot welds from sheet metal. Exchangeable and double-headed milling crown. Adjustable milling depth with setting screw. No tearing of the sheet metal. No deformation of the sheet metal.

	Ø	L1	HSS-G	
			Code	Stk. pcs.
	10,0	72,0	50501	1
Ersatzkrone Milling crown	9,6		50506	1
Ersatzstift Centering pin	2,5		50505	1



Fräsbohrer | Milling Drill HSS-G

HSS-G
N
5xD
118°

Zum Bohren und Fräsen in Holz, Blech, Plastik und anderen dünnwandigen Materialien.

For drilling and milling contours into wood, sheet metal, plastics and other thin-walled materials.

Ø	L1	HSS-G		HSS-G	
		Code	Stk. pcs.	Code	Stk. pcs.
6,0	90,0	5381	1	50779	1
8,0	90,0	5382	1	50780	1



Schweißpunktbohrer Welding Spot Drill | HSS-G

HSS-G	DIN 1897	180°	25-30°
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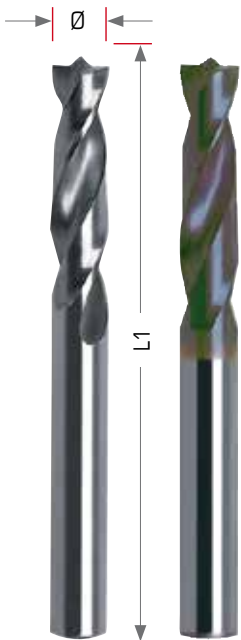
Besonders geeignet zum Ausbohren von Schweißpunkten und zum Bohren dünnwandiger Werkstücke. Extrem hohe Präzision und gratfreies Bohren ohne Ankörnen. Zum Bohren von Stahlblech, Messingblech, Aluminiumblech, Zinkblech, Kupferblech, Kunststoffplatten.

Good suited for clean and burr-free milling of welding spots and thin-walled work pieces without centering. Extreme high precision. Applicable for sheet steel, sheet brass, sheet aluminium, sheet zinc, sheet copper, plastic sheets.

< 850 N/mm ²	< 1100 N/mm ²
●	○

● empfohlen | recommended
○ bedingt geeignet | partly suitable

Ø	L1	HSS-G	
		Code	Stk. pcs.
6,0	66,0	50507	1
8,0	80,0	50508	1



Schweißpunktbohrer Welding Spot Drill | HSSE-Co 5

HSSE Co 5	DIN 1897	180°	25-30°
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Besonders geeignet zum Ausbohren von Schweißpunkten und zum Bohren dünnwandiger Werkstücke. Extrem hohe Präzision und gratfreies Bohren ohne Ankörnen. Zum Bohren von Stahlblech, Messingblech, Aluminiumblech, Zinkblech, Kupferblech, Kunststoffplatten. Die TiCN Beschichtung ist besonders geeignet für aufschmierende Werkstoffe wie Aluminium und VA.

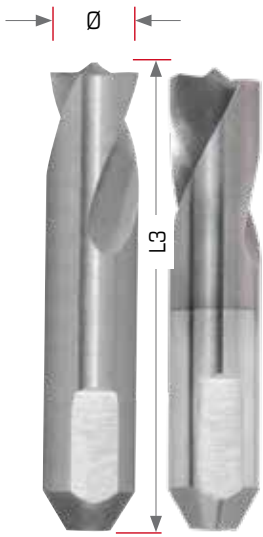
Good suited for clean and burr-free milling of welding spots and thin-walled work pieces without centering. Extreme high precision. Applicable for sheet steel, sheet brass, sheet aluminium, sheet zinc, sheet copper, plastic sheets. The TiCN coating has good attitudes at greasy materials like Aluminium and VA (Stainless Steel).

HSSE Co 5	HSSE Co 5 TiCN
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< 850 N/mm ²	< 1100 N/mm ²	< 1300 N/mm ²	INOX < 850 N/mm ²
●	●	○	○

● empfohlen | recommended ○ bedingt geeignet | partly suitable

Ø	L1	HSSE-Co 5		HSSE-Co 5	
		Code	Stk. pcs.	Code	Stk. pcs.
6,0	66,0	05383	1	50777	1
7,0	74,0	05391	1		
8,0	80,0	05384	1	50778	1
10,0	88,0	05392	1	50769	1



Schweißpunktbohrer Spotle Drill

Spotle Drill | HSSE-Co 5



Spezial-Schaftanfasung für den Einsatz in Pneumatikmaschinen. Für saubere und gratfreie Ausbohrungen von Schweißpunkten. Extrem hohe Präzision und gratfreies Bohren ohne Ankörnen. Die TiCN Beschichtung ist besonders geeignet für aufschmierende Werkstoffe wie Aluminium und VA.



Special shank for the application in pneumatic machines. For clean and burr-free milling of welding spots and thin-walled work pieces without centering. Extreme high precision. The TiCN coating has good attitudes at greasy materials like Aluminium and VA (Stainless Steel).





 < 850 N/mm ² ●	 < 1100 N/mm ² ●	 < 1300 N/mm ² ○	INOX < 850 N/mm ² ○
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● empfohlen | recommended ○ bedingt geeignet | partly suitable

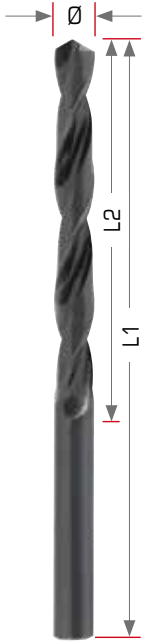
Ø	L3	HSSE-Co 5		HSSE-Co 5	
		Code	Stk. pcs.	Code	Stk. pcs.
6,5	40,0	05395	1		
8,0	40,0	05396	1	05397	1
8,0	44,0	05398	1	05399	1

Anwendung
EVENTUS by EXACT Spiralbohrer
Application
EVENTUS by EXACT Twist Drills



Norm Standard	DIN 338	DIN 338	DIN 338	DIN 338	DIN 338	DIN 340	DIN 345
Typ Type	N	N	N	N	N	N	N
Bohrtiefe Depth of drilling	5xD	5xD	5xD	5xD	5xD	10xD	6xD
Beschichtung Coating				TIN			
Werkstoff Steel grade	HSS-R	HSS-R	HSS-G	HSS-G	HSSE-Co 5	HSS-R	HSS-R
Spitzenwinkel Point angle	118°	118°	118°	118°	130°	118°	118°
Ø mm	1,0 - 16,0	10,5 - 25,0	0,3 - 16,0	0,3 - 16,0	1,0 - 16,0	1,0 - 13,0	10,0 - 50,0
Seite Page	48-49	50	51-53	51-53	54-55	56	57-58
Geeignet für Suitable for							
 < 850 N/mm² Stähle < 850 N/mm ² Steels < 850 N/mm ²	●	●	●	●	●	●	●
 < 1100 N/mm² Stähle < 1100 N/mm ² Steels < 1100 N/mm ²			○	○	●		
 < 1300 N/mm² Stähle < 1300 N/mm ² Steels < 1300 N/mm ²							
INOX < 850 N/mm² Rostfreie Stähle < 850 N/mm ² Stainless steels < 850 N/mm ²			○	○	●		
INOX > 850 N/mm² Rostfreie Stähle > 850 N/mm ² Stainless steels > 850 N/mm ²					○		
Grauguss Cast iron Grauguss, Temperguss Cast iron, malleable cast iron	●	●	●	●	○	●	●
Ti Titan- und Titanlegierungen Titanium and titanium alloys							
Cu Kupfer Copper	○	○	○	○		○	○
Ms Messing Brass	○	○	○	○		○	○
Al Aluminium Aluminium			○				
 K Kunststoffe Plastics			○	○			

● empfohlen | recommended ○ bedingt geeignet | partly suitable



Spiralbohrer | Twist Drills DIN 338 | Typ N | HSS-R

HSS-R	DIN 338	N	5xD	118°	25-30°	Form N	
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Dieser leistungsstarke, rollgewalzte Spiralbohrer aus Hochleistungs-Schnellarbeitsstahl bietet durch das rollgewalzte Herstellungsverfahren, bei dem der Werkstoff verfestigt wird, eine erhöhte Bruchsicherheit.

This high capacity, rolled twist drill bit made of high performance high speed steel offers increase resistance to fracture due to the rolled production process which strengthens the material.

HSS-R



Sets: Seite 294 | [Page 294](#)

< 850 N/mm ²	< 1100 N/mm ²	< 1300 N/mm ²	INOX < 850 N/mm ²	INOX > 850 N/mm ²	Grauguss Cast iron	Ti	Cu	Ms	Al	
●					●		○	○		

● empfohlen | recommended ○ bedingt geeignet | partly suitable

Ø	L1	L2	HSS-R	
			Code	Stk. pcs.
1,0	34	12	38010	10
1,1	36	14	38011	10
1,2	38	16	38012	10
1,3	38	16	38013	10
1,4	40	18	38014	10
1,5	40	18	38015	10
1,6	43	20	38016	10
1,7	43	20	38017	10
1,8	46	22	38018	10
1,9	46	22	38019	10
2,0	49	24	38020	10
2,1	49	24	38021	10
2,2	53	27	38022	10
2,3	53	27	38023	10
2,4	57	30	38024	10
2,5	57	30	38025	10
2,6	57	30	38026	10
2,7	61	33	38027	10
2,8	61	33	38028	10
2,9	61	33	38029	10
3,0	61	33	38030	10
3,1	65	36	38031	10
3,2	65	36	38032	10
3,3	65	36	38033	10
3,4	70	39	38034	10
3,5	70	39	38035	10
3,6	70	39	38036	10
3,7	70	39	38037	10
3,8	75	43	38038	10

Ø	L1	L2	HSS-R	
			Code	Stk. pcs.
3,9	75	43	38039	10
4,0	75	43	38040	10
4,1	75	43	38041	10
4,2	75	43	38042	10
4,3	80	47	38043	10
4,4	80	47	38044	10
4,5	80	47	38045	10
4,6	80	47	38046	10
4,7	80	47	38047	10
4,8	86	52	38048	10
4,9	86	52	38049	10
5,0	86	52	38050	10
5,1	86	52	38051	10
5,2	86	52	38052	10
5,3	86	52	38053	10
5,4	93	57	38054	10
5,5	93	57	38055	10
5,6	93	57	38056	10
5,7	93	57	38057	10
5,8	93	57	38058	10
5,9	93	57	38059	10
6,0	93	57	38060	10
6,1	101	63	38061	10
6,2	101	63	38062	10
6,3	101	63	38063	10
6,4	101	63	38064	10
6,5	101	63	38065	10
6,6	101	63	38066	10
6,7	101	63	38067	10

Ø	L1	L2	HSS-R	
			Code	Stk. pcs.
6,8	109	69	38068	10
6,9	109	69	38069	10
7,0	109	69	38070	10
7,1	109	69	38071	10
7,2	109	69	38072	10
7,3	109	69	38073	10
7,4	109	69	38074	10
7,5	109	69	38075	10
7,6	117	75	38076	10
7,7	117	75	38077	10
7,8	117	75	38078	10
7,9	117	75	38079	10
8,0	117	75	38080	10
8,1	117	75	38081	10
8,2	117	75	38082	10
8,3	117	75	38083	10
8,4	117	75	38084	10
8,5	117	75	38085	10
8,6	125	81	38086	10
8,7	125	81	38087	10
8,8	125	81	38088	10
8,9	125	81	38089	10
9,0	125	81	38090	10

Ø	L1	L2	HSS-R	
			Code	Stk. pcs.
9,1	125	81	38091	10
9,2	125	81	38092	10
9,3	125	81	38093	10
9,4	125	81	38094	10
9,5	125	81	38095	10
9,6	133	87	38096	10
9,7	133	87	38097	10
9,8	133	87	38098	10
9,9	133	87	38099	10
10,0	133	87	38100	10
10,2	133	87	38102	10
10,5	133	87	38105	5
11,0	142	94	38110	5
11,5	142	94	38115	5
12,0	151	101	38120	5
12,5	151	101	38125	5
13,0	151	101	38130	5
13,5	160	108	38135	5
14,0	160	108	38140	5
14,5	169	114	38145	5
15,0	169	114	38150	5
15,5	178	120	38155	5
16,0	178	120	38160	5





Spiralbohrer | Twist Drills DIN 338 | Typ N | HSS-R reduzierter Schaft | reduced shank

HSS-R	DIN 338	N	5xD	118°	20-30°	Form N	
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Ideal geeignet zum Bohren größerer Bohrdurchmesser mit allen gängigen Bohrmaschinen mit einem Spannfutter bis 13,0 mm.

Ideally suitable for drilling larger drilling diameters on all commonly-used drilling machines with a clamping chuck up to 13,0 mm.

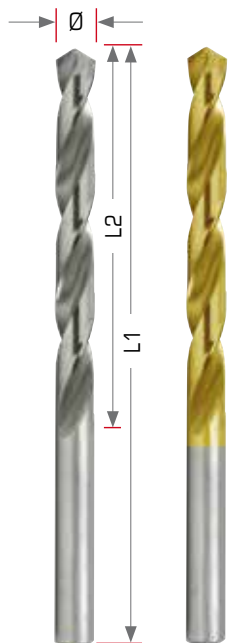
HSS-R

< 850 N/mm ²	< 1100 N/mm ²	< 1300 N/mm ²	INOX < 850 N/mm ²	INOX > 850 N/mm ²	Grauguss Cast iron	Ti	Cu	Ms	Al	
●					●		○	○		

● empfohlen | recommended ○ bedingt geeignet | partly suitable

Ø1	L1	L2	Ø2	HSS-R	
				Code	Stk. pcs.
10,5	133,0	30,0	10	38201	1
11,0	142,0	30,0	10	38202	1
11,5	142,0	30,0	10	38203	1
12,0	151,0	30,0	10	38204	1
12,5	151,0	30,0	10	38205	1
13,0	151,0	30,0	10	38206	1
13,5	160,0	30,0	10	38207	1
14,0	160,0	30,0	10	38208	1
14,5	169,0	30,0	10	38209	1
15,0	169,0	30,0	10	38210	1
15,5	178,0	30,0	10	38211	1
16,0	178,0	30,0	10	38212	1
16,5	184,0	35,0	13	38213	1
17,0	184,0	35,0	13	38214	1
17,5	191,0	35,0	13	38215	1
18,0	191,0	35,0	13	38216	1
18,5	198,0	35,0	13	38217	1
19,0	198,0	35,0	13	38218	1
19,5	205,0	35,0	13	38219	1
20,0	205,0	35,0	13	38220	1
22,0	205,0	35,0	13	38224	1
24,0	205,0	35,0	13	38225	1
25,0	205,0	35,0	13	38226	1





Spiralbohrer | Twist Drills DIN 338 | Typ N | HSS-G



Der leistungsstarke, komplett geschliffene Spiralbohrer aus Hochleistungs-Schnellarbeitsstahl verfügt über eine erhöhte Rundlaufgenauigkeit. Die TIN-Beschichtung erhöht die Oberflächenhärte auf ca. 2300 HV und die Warmhärtebeständigkeit bis 600° C. Erzielung hoher Standzeiten bei erhöhten Schnittwerten.

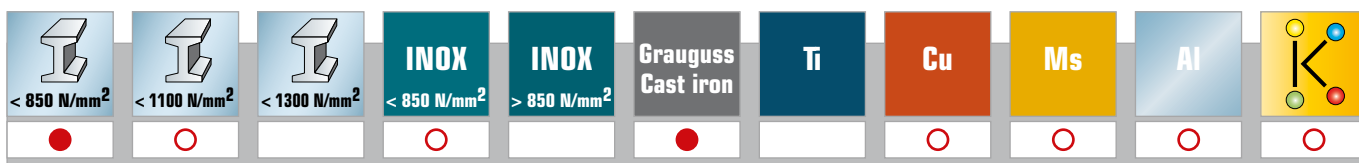
This high capacity, completel ground twist drill bit made of high performance high speed steel has increased true running accuracy. The TIN coating increases the tool's surface hardness to approx. 2300 HV and its heat hardness strength up to 600°C. Achieves long service lives coupled with increased cutting values.



Sets: Seiten 295 - 296 | [Pages 295 - 296](#)



Sets in Kunststoffbox: Seite 297 | [Sets in plastic case: page 297](#)



● empfohlen | recommended ○ bedingt geeignet | partly suitable

Ø	L1	L2	HSS-G		HSS-G	
			Code	Stk. pcs.	Code	Stk. pcs.
0,3	19	3	32101	10	32501	10
0,4	20	5	32102	10	32502	10
0,5	22	6	32103	10	32503	10
0,6	24	7	32104	10	32504	10
0,7	28	9	32105	10	32505	10
0,8	30	10	32106	10	32506	10
0,9	32	11	32107	10	32507	10
1,0	34	12	32108	10	32508	10
1,1	36	14	32109	10	32509	10
1,2	38	16	32110	10	32510	10
1,3	38	16	32112	10	32512	10
1,4	40	18	32113	10	32513	10
1,5	40	18	32114	10	32514	10
1,6	43	20	32115	10	32515	10

Fortsetzung | Continuation

Spiralbohrer | Twist Drills DIN 338 | Typ N | HSS-G

Ø	L1	L2	HSS-G		HSS-G	
			Code	Stk. pcs.	Code	Stk. pcs.
1,7	43	20	32116	10	32516	10
1,8	46	22	32118	10	32518	10
1,9	46	22	32119	10	32519	10
2,0	49	24	32120	10	32520	10
2,1	49	24	32121	10	32521	10
2,2	53	27	32122	10	32522	10
2,3	53	27	32124	10	32524	10
2,4	57	30	32125	10	32525	10
2,5	57	30	32126	10	32526	10
2,6	57	30	32127	10	32527	10
2,7	61	33	32128	10	32528	10
2,8	61	33	32130	10	32530	10
2,9	61	33	32131	10	32531	10
3,0	61	33	32132	10	32532	10
3,1	65	36	32133	10	32533	10
3,2	65	36	32134	10	32534	10
3,3	65	36	32136	10	32536	10
3,4	70	39	32137	10	32537	10
3,5	70	39	32138	10	32538	10
3,6	70	39	32139	10	32539	10
3,7	70	39	32140	10	32540	10
3,8	75	43	32142	10	32542	10
3,9	75	43	32143	10	32543	10
4,0	75	43	32144	10	32544	10
4,1	75	43	32145	10	32545	10
4,2	75	43	32146	10	32546	10
4,3	80	47	32148	10	32548	10
4,4	80	47	32149	10	32549	10
4,5	80	47	32150	10	32550	10
4,6	80	47	32151	10	32551	10
4,7	80	47	32152	10	32552	10
4,8	86	52	32154	10	32554	10
4,9	86	52	32155	10	32555	10
5,0	86	52	32156	10	32556	10
5,1	86	52	32157	10	32557	10
5,2	86	52	32158	10	32558	10
5,3	86	52	32160	10	32560	10
5,4	93	57	32161	10	32561	10
5,5	93	57	32162	10	32562	10
5,6	93	57	32163	10	32563	10
5,7	93	57	32164	10	32564	10
5,8	93	57	32166	10	32566	10
5,9	93	57	32167	10	32567	10
6,0	93	57	32168	10	32568	10
6,1	101	63	32169	10	32569	10
6,2	101	63	32170	10	32570	10
6,3	101	63	32172	10	32572	10
6,4	101	63	32173	10	32573	10
6,5	101	63	32174	10	32574	10
6,6	101	63	32175	10	32575	10
6,7	101	63	32176	10	32576	10
6,8	109	69	32178	10	32578	10
6,9	109	69	32179	10	32579	10
7,0	109	69	32180	10	32580	10
7,1	109	69	32181	10	32581	10
7,2	109	69	32182	10	32582	10
7,3	109	69	32184	10	32584	10
7,4	109	69	32185	10	32585	10
7,5	109	69	32186	10	32586	10
7,6	117	75	32187	10	32587	10

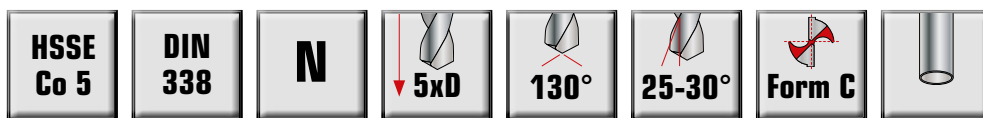
Fortsetzung | Continuation

Spiralbohrer | Twist Drills
DIN 338 | Typ N | HSS-G

Ø	L1	L2	HSS-G		HSS-G	
			Code	Stk. pcs.	Code	Stk. pcs.
7,7	117	75	32188	10	32588	10
7,8	117	75	32190	10	32590	10
7,9	117	75	32191	10	32591	10
8,0	117	75	32192	10	32592	10
8,1	117	75	32193	10	32593	10
8,2	117	75	32194	10	32594	10
8,3	117	75	32196	10	32596	10
8,4	117	75	32197	10	32597	10
8,5	117	75	32198	10	32598	10
8,6	125	81	32199	10	32599	10
8,7	125	81	32200	10	32600	10
8,8	125	81	32202	10	32602	10
8,9	125	81	32203	10	32603	10
9,0	125	81	32204	10	32604	10
9,1	125	81	32205	10	32605	10
9,2	125	81	32206	10	32606	10
9,3	125	81	32208	10	32608	10
9,4	125	81	32209	10	32609	10
9,5	125	81	32210	10	32610	10
9,6	133	87	32211	10	32611	10
9,7	133	87	32212	10	32612	10
9,8	133	87	32214	10	32614	10
9,9	133	87	32215	10	32615	10
10,0	133	87	32216	10	32616	10
10,1	133	87	32217	10	32617	10
10,2	133	87	32218	10	32618	10
10,3	133	87	32219	10	32619	10
10,4	133	87	32220	10	32620	10
10,5	133	87	32221	5	32621	5
10,6	133	87	32222	5	32622	5
10,7	142	94	32223	5	32623	5
10,8	142	94	32224	5	32624	5
10,9	142	94	32225	5	32625	5
11,0	142	94	32226	5	32626	5
11,1	142	94	32227	5	32627	5
11,2	142	94	32228	5	32628	5
11,3	142	94	32229	5	32629	5
11,4	142	94	32230	5	32630	5
11,5	142	94	32231	5	32631	5
11,6	142	94	32232	5	32632	5
11,7	142	94	32233	5	32633	5
11,8	142	94	32234	5	32634	5
11,9	151	101	32235	5	32635	5
12,0	151	101	32236	5	32636	5
12,1	151	101	32237	5	32637	5
12,2	151	101	32238	5	32638	5
12,3	151	101	32239	5	32639	5
12,4	151	101	32240	5	32640	5
12,5	151	101	32241	5	32641	5
12,6	151	101	32242	5	32642	5
12,7	151	101	32243	5	32643	5
12,8	151	101	32244	5	32644	5
12,9	151	101	32245	5	32645	5
13,0	151	101	32246	5	32646	5
13,5	160	108	32247	5	32647	5
14,0	160	108	32248	5	32648	5
14,5	169	114	32249	5	32649	5
15,0	169	114	32250	5	32650	5
15,5	178	120	32251	5	32651	5
16,0	178	120	32252	5	32652	5



Spiralbohrer | Twist Drills DIN 338 | HSSE-Co 5



Der leistungsstarke, komplett geschliffene Spiralbohrer aus Hochleistungs-Schnellarbeitsstahl verfügt über eine erhöhte Rundlaufgenauigkeit. Der Kobalt-Anteil sorgt für eine höhere Wärme-härtebeständigkeit. Für legierte und unlegierte Stähle (bis 900 N/mm² Festigkeit), Warm- und Kaltarbeitsstähle, Vergütungs- und Einsatzstähle sowie für rost- und säurebeständige Stähle.

This high capacity, completel ground twist drill bit made of high performance high speed steel has increased true running accuracy. The cobalt content provides higher heat hardness strength. For alloyed and non-alloyed steel (up to 900 N/mm² strength), hot and cold work steel, heat-treated and case-hardened steel and for stainless and acid-resistant steel.

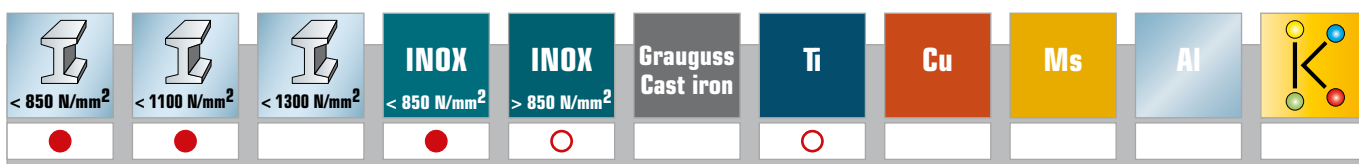
**HSSE
Co 5**



Sets: Seite 296 | [Page 296](#)



Sets in Kunststoffbox: Seite 297 | [Sets in plastic case: page 297](#)



● empfohlen | recommended ○ bedingt geeignet | partly suitable

Ø	L1	L2	HSSE-Co 5	
			Code	Stk. pcs.
1,0	34	12	32308	10
1,1	36	14	32309	10
1,2	38	16	32310	10
1,3	38	16	32312	10
1,4	40	18	32313	10
1,5	40	18	32314	10
1,6	43	20	32315	10
1,7	43	20	32316	10
1,8	46	22	32318	10
1,9	46	22	32319	10
2,0	49	24	32320	10
2,1	49	24	32321	10
2,2	53	27	32322	10
2,3	53	27	32324	10
2,4	57	30	32325	10
2,5	57	30	32326	10
2,6	57	30	32327	10
2,7	61	33	32328	10
2,8	61	33	32330	10

Ø	L1	L2	HSSE-Co 5	
			Code	Stk. pcs.
2,9	61	33	32331	10
3,0	61	33	32332	10
3,1	65	36	32333	10
3,2	65	36	32334	10
3,3	65	36	32336	10
3,4	70	39	32337	10
3,5	70	39	32338	10
3,6	70	39	32339	10
3,7	70	39	32340	10
3,8	75	43	32342	10
3,9	75	43	32343	10
4,0	75	43	32344	10
4,1	75	43	32345	10
4,2	75	43	32346	10
4,3	80	47	32348	10
4,4	80	47	32349	10
4,5	80	47	32350	10
4,6	80	47	32351	10
4,7	80	47	32352	10

Ø	L1	L2	HSSE-Co 5	
			Code	Stk. pcs.
4,8	86	52	32354	10
4,9	86	52	32355	10
5,0	86	52	32356	10
5,1	86	52	32357	10
5,2	86	52	32358	10
5,3	86	52	32360	10
5,4	93	57	32361	10
5,5	93	57	32362	10
5,6	93	57	32363	10
5,7	93	57	32364	10
5,8	93	57	32366	10
5,9	93	57	32367	10
6,0	93	57	32368	10
6,1	101	63	32369	10
6,2	101	63	32370	10
6,3	101	63	32372	10
6,4	101	63	32373	10
6,5	101	63	32374	10
6,6	101	63	32375	10
6,7	101	63	32376	10
6,8	109	69	32378	10
6,9	109	69	32379	10
7,0	109	69	32380	10
7,1	109	69	32381	10
7,2	109	69	32382	10
7,3	109	69	32384	10
7,4	109	69	32385	10
7,5	109	69	32386	10
7,6	117	75	32387	10
7,7	117	75	32388	10
7,8	117	75	32390	10
7,9	117	75	32391	10
8,0	117	75	32392	10

Ø	L1	L2	HSSE-Co 5	
			Code	Stk. pcs.
8,1	117	75	32393	10
8,2	117	75	32394	10
8,3	117	75	32396	10
8,4	117	75	32397	10
8,5	117	75	32398	10
8,6	125	125	32399	10
8,7	125	125	32400	10
8,8	125	125	32402	10
8,9	125	125	32403	10
9,0	125	125	32404	10
9,1	125	125	32405	10
9,2	125	125	32406	10
9,3	125	125	32408	10
9,4	125	125	32409	10
9,5	125	125	32410	10
9,6	133	87	32411	10
9,7	133	87	32412	10
9,8	133	87	32414	10
9,9	133	87	32415	10
10,0	133	87	32416	10
10,2	133	87	32418	10
10,5	133	87	32421	5
11,0	142	94	32426	5
11,5	142	94	32431	5
12,0	151	101	32436	5
12,5	151	101	32441	5
13,0	151	101	32446	5
13,5	160	108	32447	5
14,0	160	108	32448	5
14,5	169	114	32449	5
15,0	169	114	32450	5
15,5	178	120	32451	5
16,0	178	120	32452	5





Spiralbohrer | Twist Drills DIN 340 | Typ N | HSS-R

HSS-R	DIN 340	N					
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Dieser leistungsstarke, rollgewalzte Spiralbohrer aus Hochleistungs-Schnellarbeitsstahl bietet durch das rollgewalzte Herstellungsverfahren, bei dem der Werkstoff verfestigt wird, eine erhöhte Bruchsicherheit.

This high capacity, rolled twist drill bit made of high performance high speed steel offers increase resistance to fracture due to the rolled production process which strengthens the material.

HSS-R

 < 850 N/mm ²	 < 1100 N/mm ²	 < 1300 N/mm ²	INOX < 850 N/mm ²	INOX > 850 N/mm ²	Grauguss Cast iron	Ti	Cu	Ms	Al	
●					●		○	○		

● empfohlen | recommended ○ bedingt geeignet | partly suitable

Ø	L1	L2	HSS-R	
			Code	Stk. pcs.
1,0	56,0	33,0	44010	10
1,5	70,0	45,0	44015	10
2,0	85,0	56,0	44020	10
2,5	95,0	62,0	44025	10
3,0	100,0	66,0	44030	10
3,1	106,0	69,0	44031	10
3,2	106,0	69,0	44032	10
3,3	106,0	69,0	44033	10
3,5	112,0	73,0	44035	10
4,0	119,0	78,0	44040	10
4,1	119,0	78,0	44041	10
4,2	119,0	78,0	44042	10
4,5	126,0	82,0	44045	10
5,0	132,0	87,0	44050	10
5,1	132,0	87,0	44051	10
5,2	132,0	87,0	44052	10
5,5	139,0	91,0	44055	10
5,8	139,0	91,0	44058	10
6,0	139,0	91,0	44060	10
6,5	148,0	97,0	44065	10
6,8	156,0	102,0	44068	10
7,0	156,0	102,0	44070	10
7,5	156,0	102,0	44075	10
8,0	165,0	109,0	44080	10
8,5	165,0	109,0	44085	10
9,0	175,0	115,0	44090	10
9,5	175,0	115,0	44095	10

Ø	L1	L2	HSS-R	
			Code	Stk. pcs.
10,0	184,0	121,0	44100	10
10,2	184,0	121,0	44102	10
10,5	184,0	121,0	44105	5
11,0	195,0	128,0	44110	5
11,5	195,0	128,0	44115	5
12,0	205,0	134,0	44120	5
12,5	205,0	134,0	44125	5
13,0	205,0	134,0	44130	5





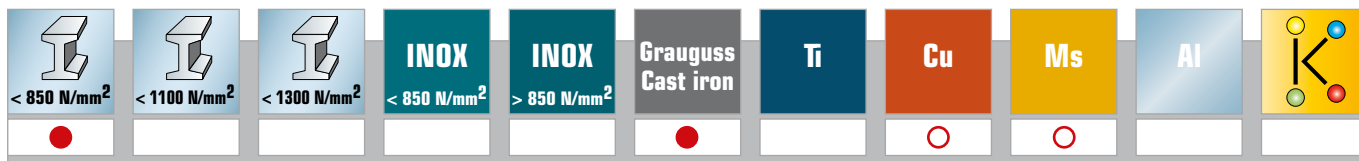
Spiralbohrer | Twist Drills DIN 345 | Typ N | HSS-R



Leistungstarker, rollgewalzter Spiralbohrer mit Morsekegel. Hohe Bruchsicherheit.

Highly efficient, rolled twist drill with morse taper. Highly secure against fracture.

HSS-R




● empfohlen | recommended ○ bedingt geeignet | partly suitable

Ø	L1	L2		HSS-R	
				Code	Stk. pcs.
10,0	168,0	87,0	1	45100	1
10,5	168,0	87,0	1	45105	1
11,0	175,0	94,0	1	45110	1
11,5	175,0	94,0	1	45115	1
12,0	182,0	101,0	1	45120	1
12,5	182,0	101,0	1	45125	1
13,0	182,0	101,0	1	45130	1
13,5	189,0	108,0	1	45135	1
14,0	189,0	108,0	1	45140	1
14,5	212,0	114,0	2	45145	1
15,0	212,0	114,0	2	45150	1
15,5	218,0	120,0	2	45155	1
16,0	218,0	120,0	2	45160	1
16,5	223,0	125,0	2	45165	1
17,0	223,0	125,0	2	45170	1
17,5	228,0	130,0	2	45175	1
18,0	228,0	130,0	2	45180	1
18,5	233,0	135,0	2	45185	1
19,0	233,0	135,0	2	45190	1
19,5	238,0	140,0	2	45195	1
20,0	238,0	140,0	2	45200	1
20,5	243,0	145,0	2	45205	1
21,0	243,0	145,0	2	45210	1
21,5	248,0	150,0	2	45215	1
22,0	248,0	150,0	2	45220	1
22,5	253,0	155,0	2	45225	1
23,0	253,0	155,0	2	45230	1

Ø	L1	L2		HSS-R	
				Code	Stk. pcs.
23,5	276,0	155,0	3	45235	1
24,0	281,0	160,0	3	45240	1
24,5	281,0	160,0	3	45245	1
25,0	281,0	160,0	3	45250	1
25,5	286,0	165,0	3	45255	1
26,0	286,0	165,0	3	45260	1
26,5	286,0	165,0	3	45265	1
27,0	291,0	170,0	3	45270	1
27,5	291,0	170,0	3	45275	1
28,0	291,0	170,0	3	45280	1
28,5	296,0	175,0	3	45285	1
29,0	296,0	175,0	3	45290	1
29,5	296,0	175,0	3	45295	1
30,0	296,0	175,0	3	45300	1
30,5	301,0	180,0	3	45305	1
31,0	301,0	180,0	3	45310	1
31,5	301,0	180,0	3	45315	1
32,0	334,0	185,0	4	45320	1
32,5	334,0	185,0	4	45325	1
33,0	334,0	185,0	4	45330	1
33,5	334,0	185,0	4	45335	1
34,0	339,0	190,0	4	45340	1
34,5	339,0	190,0	4	45345	1
35,0	339,0	190,0	4	45350	1
35,5	339,0	190,0	4	45355	1
36,0	344,0	195,0	4	45360	1
36,5	344,0	195,0	4	45365	1

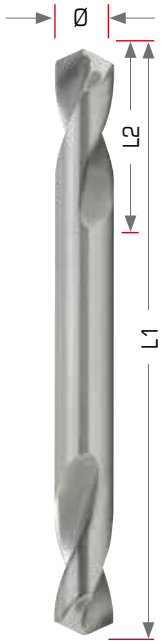
Fortsetzung | Continuation

Spiralbohrer | Twist Drills DIN 345 | Typ N | HSS-R

Ø	L1	L2		HSS-R	
				Code	Stk. pcs.
37,0	344,0	195,0	4	45370	1
37,5	344,0	195,0	4	45375	1
38,0	349,0	200,0	4	45380	1
38,5	349,0	200,0	4	45385	1
39,0	349,0	200,0	4	45390	1
39,5	349,0	200,0	4	45395	1
40,0	349,0	200,0	4	45400	1
41,0	354,0	205,0	4	45410	1
42,0	354,0	205,0	4	45420	1
43,0	359,0	210,0	4	45430	1
44,0	359,0	210,0	4	45440	1
45,0	359,0	210,0	4	45450	1
46,0	364,0	215,0	4	45460	1
47,0	364,0	215,0	4	45470	1
48,0	369,0	220,0	4	45480	1
49,0	369,0	220,0	4	45490	1
50,0	369,0	220,0	4	45500	1

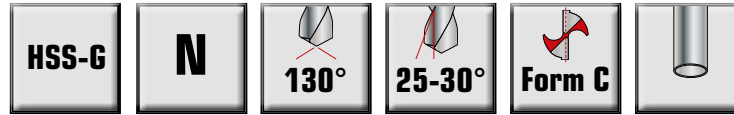


Für Ihre Notizen | For your notes



HSS-G

Doppelendbohrer Double end drills Typ KV | HSS-G



Extra kurzer und stabiler Standardbohrer. Noch kürzer als DIN 1897. Hohe Bruchsicherheit. Ideal geeignet für Montagearbeiten in dünnwandigen Materialien wie z.B. Blechen, Flach- und Profileisen. Einsatz in Handbohrmaschinen, doppelseitig verwendbar. Hauptsächlich für Nietungen und Karosseriearbeiten. Vorteile DIN 1412 C: gute Zentrierung, geringe Vorschubkraft, durch Spanverteilung verbesserter Spantransport.

Extra short and stable standard drill. Shorter than DIN 1897. Ideally suitable for assembly work in thin-walled materials such as sheet steels, flat steels and profile steels. High security against fracture. For use in hand-held drilling machines. Usable at both ends. Advantages DIN 1412 C: good centring, little pressure required. Chip distribution improves chip removal.

 < 850 N/mm ²	 < 1100 N/mm ²	 < 1300 N/mm ²	INOX < 850 N/mm ²	INOX > 850 N/mm ²	Grauguss Cast iron	Ti	Cu	Ms	Al	
●	○		○		○		○	○	○	○

● empfohlen | recommended ○ bedingt geeignet | partly suitable

Ø	L1	L2	HSS-G	
			Code	Stk. pcs.
2,5	43,0	10,0	36601	10
2,8	46,0	11,0	36602	10
3,0	46,0	11,0	36603	10
3,1	49,0	11,0	36604	10
3,2	49,0	11,0	36605	10
3,3	49,0	11,0	36606	10
3,4	52,0	14,0	36607	10
3,5	52,0	14,0	36608	10
4,0	55,0	14,0	36609	10
4,1	55,0	14,0	36610	10
4,2	55,0	14,0	36611	10
4,3	58,0	17,0	36612	10
4,5	58,0	17,0	36613	10
4,8	62,0	17,0	36614	10
4,9	62,0	17,0	36615	10
5,0	62,0	17,0	36616	10
5,1	62,0	17,0	36617	10
5,2	62,0	17,0	36618	10
5,5	66,0	20,0	36619	10
6,0	66,0	20,0	36620	10
6,5	70,0	20,0	36621	10

