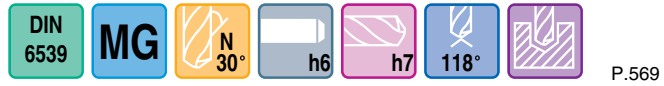


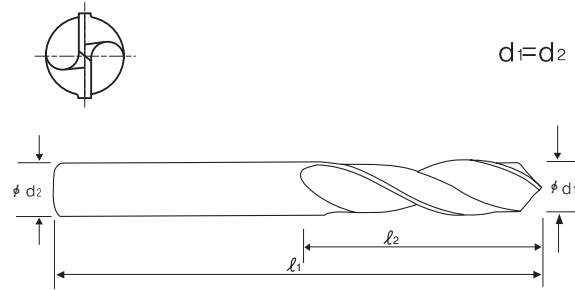
Vollhartmetall-Spiralbohrer Carbide Drills

EXTRA KURZ
STUB



► **Verwendung** : Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart- und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.

► **Application** : Drilling into steel in general, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.



Unit:mm

Art.-Nr. EDP No.	DRILL DIAMETER d ₁	OVERALL LENGTH l ₁	FLUTE LENGTH l ₂	Art.-Nr. EDP No.	DRILL DIAMETER d ₁	OVERALL LENGTH l ₁	FLUTE LENGTH l ₂
D5405020	2.0	38	12	D5405047	4.7	58	24
D5405021	2.1	38	12	D5405048	4.8	62	26
D5405022	2.2	40	13	D5405049	4.9	62	26
D5405023	2.3	40	13	D5405050	5.0	62	26
D5405024	2.4	43	14	D5405051	5.1	62	26
D5405025	2.5	43	14	D5405052	5.2	62	26
D5405026	2.6	43	14	D5405053	5.3	62	26
D5405027	2.7	46	16	D5405054	5.4	66	28
D5405028	2.8	46	16	D5405055	5.5	66	28
D5405029	2.9	46	16	D5405056	5.6	66	28
D5405030	3.0	46	16	D5405057	5.7	66	28
D5405031	3.1	49	18	D5405058	5.8	66	28
D5405032	3.2	49	18	D5405059	5.9	66	28
D5405033	3.3	49	18	D5405060	6.0	66	28
D5405034	3.4	52	20	D5405061	6.1	70	31
D5405035	3.5	52	20	D5405062	6.2	70	31
D5405036	3.6	52	20	D5405063	6.3	70	31
D5405037	3.7	52	20	D5405064	6.4	70	31
D5405038	3.8	52	20	D5405065	6.5	70	31
D5405039	3.9	55	22	D5405066	6.6	70	31
D5405040	4.0	55	22	D5405067	6.7	70	31
D5405041	4.1	55	22	D5405068	6.8	74	34
D5405042	4.2	55	22	D5405069	6.9	74	34
D5405043	4.3	58	24	D5405070	7.0	74	34
D5405044	4.4	58	24	D5405071	7.1	74	34
D5405045	4.5	58	24	D5405072	7.2	74	34
D5405046	4.6	58	24	D5405073	7.3	74	34

► The TiN(D6405), TiCN(DG405) and TiAlN(DH405) are available on your request.

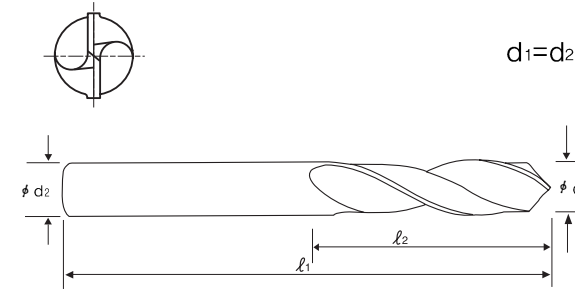
Vollhartmetall-Spiralbohrer Carbide Drills

EXTRA KURZ
STUB



► **Verwendung** : Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart- und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.

► **Application** : Drilling into steel in general, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.



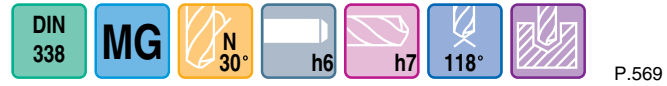
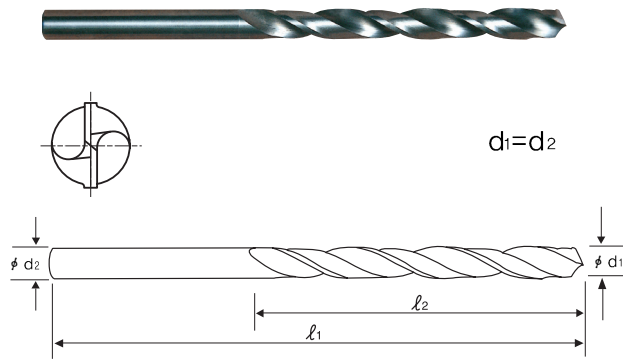
Unit:mm

Art.-Nr. EDP No.	DRILL DIAMETER d ₁	OVERALL LENGTH l ₁	FLUTE LENGTH l ₂	Art.-Nr. EDP No.	DRILL DIAMETER d ₁	OVERALL LENGTH l ₁	FLUTE LENGTH l ₂
D5405074	7.4	74	34	D5405091	9.1	84	40
D5405075	7.5	74	34	D5405092	9.2	84	40
D5405076	7.6	79	37	D5405093	9.3	84	40
D5405077	7.7	79	37	D5405094	9.4	84	40
D5405078	7.8	79	37	D5405095	9.5	84	40
D5405079	7.9	79	37	D5405096	9.6	89	43
D5405080	8.0	79	37	D5405097	9.7	89	43
D5405081	8.1	79	37	D5405098	9.8	89	43
D5405082	8.2	79	37	D5405099	9.9	89	43
D5405083	8.3	79	37	D5405100	10.0	89	43
D5405084	8.4	79	37	D5405102	10.2	89	43
D5405085	8.5	79	37	D5405105	10.5	89	43
D5405086	8.6	84	40	D5405110	11.0	95	47
D5405087	8.7	84	40	D5405115	11.5	95	47
D5405088	8.8	84	40	D5405120	12.0	102	51
D5405089	8.9	84	40	D5405130	13.0	102	51
D5405090	9.0	84	40				

► The TiN(D6405), TiCN(DG405) and TiAlN(DH405) are available on your request.

Vollhartmetall-Spiralbohrer Carbide Drills

KURZ
JOBBER



► **Verwendung** : Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart- und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.
 ► **Application** : Drilling into steel in general, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.

Unit:mm

Art.-Nr. EDP No.	DRILL DIAMETER d ₁	OVERALL LENGTH l ₁	FLUTE LENGTH l ₂	Art.-Nr. EDP No.	DRILL DIAMETER d ₁	OVERALL LENGTH l ₁	FLUTE LENGTH l ₂
D5407020	2.0	49	24	D5407046	4.6	80	47
D5407021	2.1	49	24	D5407047	4.7	80	47
D5407022	2.2	53	27	D5407048	4.8	86	52
D5407023	2.3	53	27	D5407049	4.9	86	52
D5407024	2.4	57	30	D5407050	5.0	86	52
D5407025	2.5	57	30	D5407051	5.1	86	52
D5407026	2.6	57	30	D5407052	5.2	86	52
D5407027	2.7	61	33	D5407053	5.3	86	52
D5407028	2.8	61	33	D5407054	5.4	93	57
D5407029	2.9	61	33	D5407055	5.5	93	57
D5407030	3.0	61	33	D5407056	5.6	93	57
D5407031	3.1	65	36	D5407057	5.7	93	57
D5407032	3.2	65	36	D5407058	5.8	93	57
D5407033	3.3	65	36	D5407059	5.9	93	57
D5407034	3.4	70	39	D5407060	6.0	93	57
D5407035	3.5	70	39	D5407061	6.1	101	63
D5407036	3.6	70	39	D5407062	6.2	101	63
D5407037	3.7	70	39	D5407063	6.3	101	63
D5407038	3.8	75	43	D5407064	6.4	101	63
D5407039	3.9	75	43	D5407065	6.5	101	63
D5407040	4.0	75	43	D5407068	6.8	109	69
D5407041	4.1	75	43	D5407070	7.0	109	69
D5407042	4.2	75	43	D5407080	8.0	117	75
D5407043	4.3	80	47	D5407085	8.5	117	75
D5407044	4.4	80	47	D5407100	10.0	133	87
D5407045	4.5	80	47	D5407102	10.2	133	87

► The TiN(D6407), TiCN(DG407) and TiAlN(DH407) are available on your request.

RECOMMENDED CUTTING CONDITIONS EMPFOHLENE SCHNEIDKONDITIONEN

CARBIDE DRILLS, DIN6539, DIN338

VOLLHARTMETALL SPIRALBOHRER, DIN 6539, DIN 338

D5405, D5407 SERIES

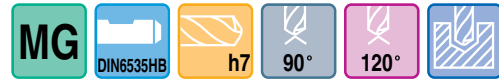
WORK MATERIAL Werkstück	NON-ALLOY STEELS Non-stahl-Legierungen		ALLOY STEELS Stahl-Legierungen		SOFT GREY CAST IRON Weicher Grauguss		HARD GREY CAST IRON Harter Grauguss		STAINLESS STEELS Edelstähle		Al-Si ALLOY, Si<10% Al-Si Legierungen, Si<10%		Al-Si ALLOY, Si>10% Al-Si Legierungen, Si>10%		Ti, Ni ALLOY STEELS Ti, Ni Legierungen Stähle	
	STRENGTH < 700 N/mm ²		< 1000 N/mm ²		< HB240, GG25		< HB300, GG40									
DIAMETER(mm)	N	S	N	S	N	S	N	S	N	S	N	S	N	S	N	S
2	11500	0.04	8600	0.04	16000	0.05	11500	0.05	6000	0.03	27000	0.06	21000	0.06	5900	0.03
3	7800	0.05	5750	0.05	10500	0.06	7600	0.06	4000	0.04	18000	0.07	14000	0.07	3900	0.04
4	5800	0.06	4300	0.06	7800	0.07	5700	0.07	3000	0.05	13000	0.08	10500	0.08	2950	0.05
5	4700	0.07	3450	0.07	6200	0.08	4550	0.08	2400	0.06	10500	0.09	8500	0.09	2350	0.06
6	3900	0.08	2850	0.08	5200	0.09	3800	0.09	2000	0.07	8800	0.11	7100	0.11	1950	0.07
7	3350	0.09	2450	0.09	4500	0.10	3250	0.10	1700	0.08	7600	0.13	6100	0.13	1700	0.08
8	2900	0.10	2150	0.10	3900	0.12	2850	0.12	1500	0.09	6600	0.15	5350	0.15	1450	0.09
9	2600	0.11	1900	0.11	3450	0.14	2550	0.14	1350	0.10	5900	0.17	4750	0.17	1300	0.10
10	2350	0.12	1700	0.12	3100	0.16	2300	0.16	1200	0.11	5300	0.19	4250	0.19	1200	0.11
11	2150	0.13	1600	0.13	2850	0.18	2100	0.18	1100	0.12	4850	0.21	3900	0.21	1050	0.12
12	1950	0.14	1450	0.14	2600	0.20	1900	0.20	1000	0.13	4450	0.23	3550	0.23	980	0.13
13	1800	0.16	1350	0.16	2400	0.20	1750	0.20	950	0.13	4100	0.25	3300	0.25	905	0.13

N=R.P.M
S=Feed per Revolution (mm/rev.)

CARBIDE DRILLS

CARBIDE DRILLS

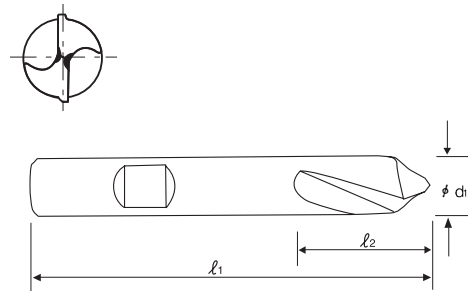
Vollhartmetall NC-Anbohrer Carbide NC-Spotting Drills



P.571

► **Verwendung** : Auf NC-Maschinen, Lehrenbohrwerken u.a. kapitalintensiven Bohrwerken, Zum Zentrieren und Anfasen von Gewindebohrungen in einem Arbeitsgang. Besonders geeignet zum Anbohren von hochfesten Stählen, Stahlguß, Grauguß, Hartguß, Mangan-Hartstahl, CrNi-Stählen, Bronzen, Leicht und Buntmetallen.

► **Application** : For more precise centering work on NC/CNC Machine. A large diameter in respect to the subsequent drilling tool permits to obtain the centering and chamfering simultaneously.



NC-Anbohrer 90° NC-Spotting drills 90°

Art.-Nr. EDP No.	DRILL DIAMETER d ₁	OVERALL LENGTH l ₁	FLUTE LENGTH l ₂	Art.-Nr. EDP No.	DRILL DIAMETER d ₁	OVERALL LENGTH l ₁	FLUTE LENGTH l ₂
D5306060	6.0	50	13	D5307060	6.0	50	13
D5306080	8.0	60	23	D5307080	8.0	60	23
D5306100	10.0	70	24	D5307100	10.0	70	24
D5306120	12.0	70	24	D5307120	12.0	70	24
D5306160	16.0	75	29	D5307160	16.0	75	29
D5306200	20.0	100	35	D5307200	20.0	100	35

► The TiN(D6306,D6307), TiCN(DG306, DG307) and TiAlN(DH306, DH307) are available on your request.

NC-Anbohrer 120° NC-Spotting drills 120°

Unit:mm

Recommended cutting conditions EMPFOHLENE SCHNEIDKONDITIONEN

CARBIDE NC - SPOTTING DRILLS 90°, 120° with FLATTED SHANK

VOLLHARTMETALL NC-ANBOHRER 90°, 120° mit MITNAHME FLÄCHE

D5306, D5307 SERIES

WORK MATERIAL Werkstück	NON-ALLOY STEELS		ALLOY STEELS		SOFT GREY CAST IRON		HARD GREY CAST IRON		STAINLESS STEELS		Al-Si ALLOY, Si<10%		Al-Si ALLOY, Si>10%		Ti, Ni ALLOY STEELS	
	Non-stahl-Legierungen		Stahl-Legierungen		Weicher Grauguss		Harter Grauguss		Edelstähle		Al-Si Legierungen, Si<10%		Al-Si Legierungen, Si>10%		Ti, Ni Legierungen Stähle	
STRENGTH	< 700 N/mm ²		< 1000 N/mm ²		< HB240, GG25		< HB300, GG40									
DIAMETER(mm)	N	S	N	S	N	S	N	S	N	S	N	S	N	S	N	S
6	3900	0.08	2850	0.08	5200	0.09	3800	0.09	2000	0.07	8800	0.11	7100	0.11	1950	0.07
8	2900	0.10	2150	0.10	3900	0.12	2850	0.12	1500	0.09	6600	0.15	5350	0.15	1450	0.09
10	2350	0.12	1700	0.12	3100	0.16	2300	0.16	1200	0.11	5300	0.19	4250	0.19	1200	0.11
12	1950	0.14	1450	0.14	2600	0.20	1900	0.20	1000	0.13	4450	0.23	3550	0.23	980	0.13
16	1450	0.17	1100	0.17	1950	0.24	1450	0.24	755	0.17	3300	0.27	2650	0.27	735	0.17
20	1150	0.19	850	0.19	1550	0.28	1150	0.28	590	0.20	2650	0.31	2150	0.31	590	0.20

N=R.P.M
S=Feed per Revolution (mm/rev.)