



**NC-SPOTTING DRILLS**

**D5306** SERIES

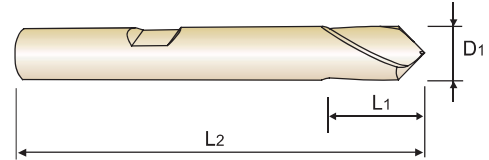
**D5307** SERIES

**CARBIDE, NC-SPOTTING DRILLS 90°, 120°**

- **VOLLHARTMETALL NC-ANBOHRER 90°, 120°**
- **Forets carbure à pointer NC 90°, 120°**
- **PUNTE IN MD A CENTRARE NC 90°, 120°**

► **Application** : For more precise centering work on NC/CNC machines. The large diameter of the tool permits chamfering work after centering continuously.

► **Verwendung** : Auf NC-Maschinen, Lehnbohrwerken 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, Bronze, Leicht- und Buntmetallen.



CARBIDE P.306

**NC-Spotting drills 90° NC-Anbohrer 90°**

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
D5306060	6.0	13	50
D5306080	8.0	23	60
D5306100	10.0	24	70
D5306120	12.0	24	70
D5306160	16.0	29	75
D5306200	20.0	35	100

**NC-Spotting drills 120° NC-Anbohrer 120°**

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
D5307060	6.0	13	50
D5307080	8.0	23	60
D5307100	10.0	24	70
D5307120	12.0	24	70
D5307160	16.0	29	75
D5307200	20.0	35	100

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

◎ : Excellent ○ : Good

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25			
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	◎	◎			◎	○				○				◎	○	○			○

ISO	N										S							H			
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials			Heat Resistant Super Alloys					Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron	
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	60	100	75	90	130	110	90	100			15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommended	○	○	○													○					



# NC-SPOTTING DRILLS

## RECOMMENDED CUTTING CONDITIONS EMPFOLHENE SCHNEIDPARAMETER

### D2320, D2321, D2322, D2323, D2306, D2307 SERIES

### HSSCo8, NC-SPOTTING DRILLS

RPM = rev./min.  
FEED = mm/rev.

i-ONE DRILLS

i-DREAM DRILLS

DREAM DRILLS -GENERAL

DREAM DRILLS -HIGH FEED

DREAM DRILLS -FLAT BOTTOM

DREAM DRILLS -INOX

DREAM DRILLS -ALU

DREAM DRILLS -CFRP

DREAM DRILLS -MQL

DREAM DRILLS for HIGH HARDENED STEELS

GENERAL CARBIDE DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

SUPER-GP DRILLS

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

SPADE DRILLS

REAMERS

COUNTER SINKS

COUNTER BORES

TECHNICAL DATA

ISO	VDI 3323	Material Description	Vc (m/min)	Parameter	Drill Diameter (mm)									
					2.0	3.0	4.0	6.0	8.0	10.0	12.0	16.0	20.0	
P	1	Non-alloy steel	25	RPM FEED	3980 0.02-0.04	2650 0.04-0.06	1990 0.05-0.08	1330 0.07-0.10	990 0.08-0.12	800 0.09-0.14	660 0.11-0.17	500 0.13-0.19	400 0.15-0.21	
	2		25	RPM FEED	3980 0.02-0.04	2650 0.04-0.06	1990 0.05-0.08	1330 0.07-0.10	990 0.08-0.12	800 0.09-0.14	660 0.11-0.17	500 0.13-0.19	400 0.15-0.21	
	3		15	RPM FEED	2390 0.01-0.03	1590 0.03-0.05	1190 0.04-0.07	800 0.05-0.08	600 0.07-0.10	480 0.08-0.12	400 0.09-0.14	300 0.11-0.17	240 0.13-0.19	
	4													
	5													
	6	Low alloy steel	20	RPM FEED	3180 0.02-0.04	2120 0.04-0.06	1590 0.05-0.08	1060 0.07-0.10	800 0.08-0.12	640 0.09-0.14	530 0.11-0.17	400 0.13-0.19	320 0.15-0.21	
	7		15	RPM FEED	2390 0.01-0.03	1590 0.03-0.05	1190 0.04-0.07	800 0.05-0.08	600 0.07-0.10	480 0.08-0.12	400 0.09-0.14	300 0.11-0.17	240 0.13-0.19	
	8													
	9													
	10		High alloyed steel, and tool steel											
	11													
M	12	Stainless steel	15	RPM FEED	2390 0.02-0.04	1590 0.04-0.06	1190 0.05-0.08	800 0.07-0.10	600 0.08-0.12	480 0.09-0.14	400 0.11-0.17	300 0.13-0.19	240 0.15-0.21	
	13													
	14													
K	15	Grey cast iron	30	RPM FEED	4770 0.03-0.05	3180 0.05-0.07	2390 0.06-0.09	1590 0.08-0.11	1190 0.10-0.13	950 0.12-0.16	800 0.15-0.20	600 0.18-0.24	480 0.22-0.28	
	16		25	RPM FEED	3980 0.01-0.03	2650 0.03-0.05	1990 0.04-0.07	1330 0.05-0.08	990 0.07-0.10	800 0.08-0.12	660 0.09-0.14	500 0.11-0.17	400 0.13-0.19	
	17	Nodular cast iron	30	RPM FEED	4770 0.03-0.05	3180 0.05-0.07	2390 0.06-0.09	1590 0.08-0.11	1190 0.10-0.13	950 0.12-0.16	800 0.15-0.20	600 0.18-0.24	480 0.22-0.28	
	18													
	19	Malleable cast iron	20	RPM FEED	3180 0.03-0.05	2120 0.05-0.07	1590 0.06-0.09	1060 0.08-0.11	800 0.10-0.13	640 0.12-0.16	530 0.15-0.20	400 0.18-0.24	320 0.22-0.28	
20														
N	21	Aluminum-wrought alloy	65	RPM FEED	10350 0.04-0.06	6900 0.06-0.09	5170 0.08-0.11	3450 0.10-0.13	2590 0.12-0.15	2070 0.15-0.19	1720 0.18-0.23	1290 0.21-0.27	1030 0.25-0.31	
	22		60	RPM FEED	9550 0.04-0.06	6370 0.06-0.09	4770 0.08-0.11	3180 0.10-0.13	2390 0.12-0.15	1910 0.15-0.19	1590 0.18-0.23	1190 0.21-0.27	950 0.25-0.31	
	23	Aluminum-cast, alloyed	50	RPM FEED	7960 0.04-0.06	5310 0.06-0.09	3980 0.08-0.11	2650 0.10-0.13	1990 0.12-0.15	1590 0.15-0.19	1330 0.18-0.23	990 0.21-0.27	800 0.25-0.31	
	24													
	25													
	26		Copper and Copper Alloys (Bronze / Brass)											
	27													
	28													
	29		Non Metallic Materials											
	30													
S	31	Heat Resistant Super Alloys												
	32													
	33													
	34													
	35													
H	36	Titanium Alloys												
	37													
H	38	Hardened steel												
	39													
	40		Chilled Cast Iron											
41	Hardened Cast Iron													