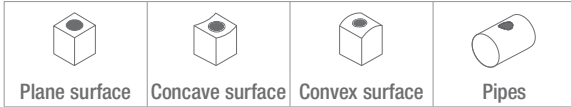


DRS PILOT

For extra deep holes - High performance indexable drilling system

APPLICATION



ISO APPLICATION FIELDS

P M K N

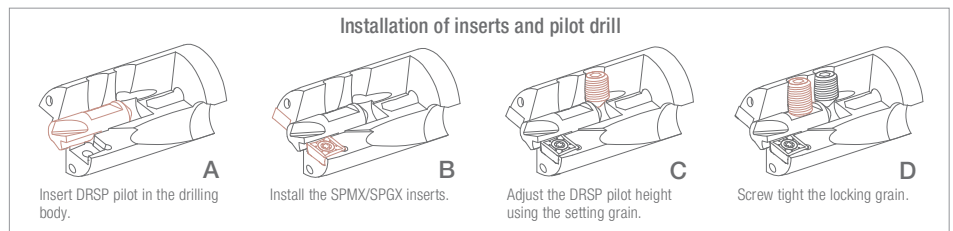
ADVANTAGES AND CHARACTERISTICS

- Highly universal drilling system suitable for diverse conditions
- Highly cost-efficient system for deep hole drilling
- The use of pilot provides better centering effect
- Straight flute design improves chip evacuation and strengthens the body



• Drilling bodies

- Weldon shank with internal coolant
- 6xD and 9xD available from D18 to D30
- Special length and stepped body available upon request



 For pilot adjustment see page E22.

• Inserts

- Available sizes 05/06/07
- Cemented carbide grades with PVD coatings or uncoated for N materials
- Geometries: GP, AL
- Pilot drill made of coated premium HSS



G

D - MILLING

E - DRILLING

F - ACCESSORIES

G - SPARE PARTS

A - TURNING

B - THREADING

C - GROOVING

D - MILLING

E - DRILLING

F - ACCESSORIES

G - SPARE PARTS

6xD

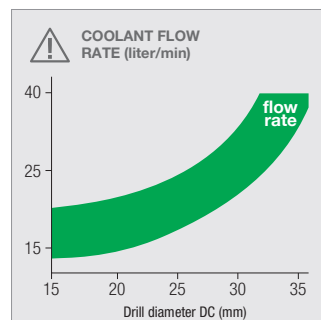
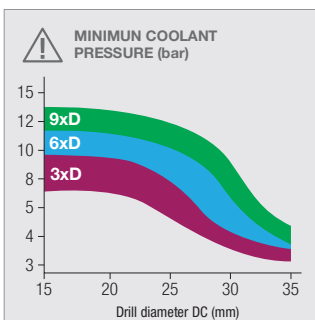
DRS pilot

- 6xD indexable drill body with pilot and seats for SP inserts with straight flutes
- All with coolant through
- Please select insert and pilot size according to the drill diameter

Designation	Stock	DC	DCON	OAL	LF	LB				PILOT	MIID
NT-DRS-6D D18.00-S25-05P6	●	18	25	191	135	112				DRSP06	SPoX05
NT-DRS-6D D19.00-S25-05P6	●	19	25	197	141	118				DRSP06	SPoX05
NT-DRS-6D D20.00-S25-06P6	●	20	25	203	147	124				DRSP06	SPoX06
NT-DRS-6D D21.00-S25-06P6	●	21	25	209	153	130				DRSP06	SPoX06
NT-DRS-6D D22.00-S25-06P6	●	22	25	215	159	136				DRSP06	SPoX06
NT-DRS-6D D23.00-S32-06P6	●	23	32	228	168	142				DRSP06	SPoX06
NT-DRS-6D D24.00-S32-06P6	●	24	32	234	174	148				DRSP06	SPoX06
NT-DRS-6D D25.00-S32-06P6	●	25	32	240	180	154				DRSP06	SPoX06
NT-DRS-6D D26.00-S32-07P8	●	26	32	246	186	160				DRSP08	SPoX07
NT-DRS-6D D27.00-S32-07P8	●	27	32	252	192	166				DRSP08	SPoX07
NT-DRS-6D D28.00-S32-07P8	●	28	32	258	198	172				DRSP08	SPoX07
NT-DRS-6D D29.00-S32-07P8	●	29	32	264	204	178				DRSP08	SPoX07
NT-DRS-6D D30.00-S32-07P8	●	30	32	270	210	184				DRSP08	SPoX07

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches	Locking grains	Setting grains	L wrench
NT-DRS-6D (DC 18÷19)	NT-ST20043T06	NT-FTB06	NT-ST042	NT-ST043	NT-WR025
NT-DRS-6D (DC 20÷22)	NT-ST22055T06	NT-FTB06	NT-ST042	NT-ST043	NT-WR025
NT-DRS-6D (DC 23÷25)	NT-ST22055T06	NT-FTB06	NT-ST044	NT-ST045	NT-WR025
NT-DRS-6D (DC 26÷30)	NT-ST25065T07	NT-FTB07	NT-ST046	NT-ST047	NT-WR030

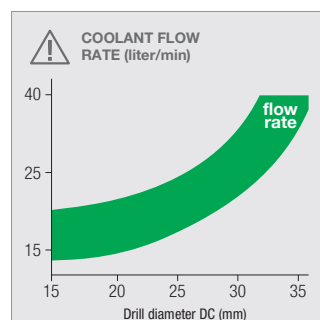
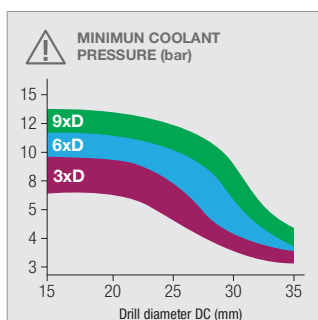


<h1>9xD</h1>		
<h2>DRS pilot</h2>		
<ul style="list-style-type: none"> • 9xD indexable drill body with pilot and seats for SP inserts with straight flutes • All with coolant through • Please select insert and pilot size according to the drill diameter 		

Designation	Stock	DC	DCON	OAL	LF	LB				PILOT	MIID
NT-DRS-9D D18.00-S25-05P6	●	18	25	245	189	166				DRSP06	SPoX05
NT-DRS-9D D19.00-S25-05P6	●	19	25	254	198	175				DRSP06	SPoX05
NT-DRS-9D D20.00-S25-06P6	●	20	25	263	207	184				DRSP06	SPoX06
NT-DRS-9D D21.00-S25-06P6	●	21	25	272	216	193				DRSP06	SPoX06
NT-DRS-9D D22.00-S25-06P6	●	22	25	281	225	202				DRSP06	SPoX06
NT-DRS-9D D23.00-S32-06P6	●	23	32	297	237	211				DRSP06	SPoX06
NT-DRS-9D D24.00-S32-06P6	●	24	32	306	246	220				DRSP06	SPoX06
NT-DRS-9D D25.00-S32-06P6	●	25	32	315	255	229				DRSP06	SPoX06
NT-DRS-9D D26.00-S32-07P8	●	26	32	324	264	238				DRSP08	SPoX07
NT-DRS-9D D27.00-S32-07P8	●	27	32	333	273	247				DRSP08	SPoX07
NT-DRS-9D D28.00-S32-07P8	●	28	32	342	282	256				DRSP08	SPoX07
NT-DRS-9D D29.00-S32-07P8	●	29	32	351	291	265				DRSP08	SPoX07
NT-DRS-9D D30.00-S32-07P8	●	30	32	360	300	274				DRSP08	SPoX07

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches	Locking grains	Setting grains	L wrench
NT-DRS-6D (DC 18÷19)	NT-ST20043T06	NT-FTB06	NT-ST042	NT-ST043	NT-WR025
NT-DRS-6D (DC 20÷22)	NT-ST22055T06	NT-FTB06	NT-ST042	NT-ST043	NT-WR025
NT-DRS-6D (DC 23÷25)	NT-ST22055T06	NT-FTB06	NT-ST044	NT-ST045	NT-WR025
NT-DRS-6D (DC 26÷30)	NT-ST25065T07	NT-FTB07	NT-ST046	NT-ST047	NT-WR030



A - TURNING

B - THREADING

C - GROOVING

D - MILLING

E - DRILLING

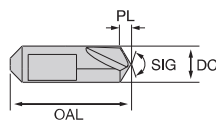

F - ACCESSORIES

G - SPARE PARTS

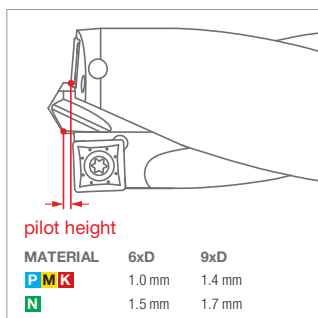
<h1>SPoX</h1>	HF: Micrograin carbide PVD: Physical vapour deposition				HF PVD	HF PVD	HF PVD	HF	
	<h2>DRS pilot</h2>				JP5530	JP8725	JP9535	JU6520	
<ul style="list-style-type: none"> General purpose type or fine polished sharp geometries for aluminum or non-ferrous materials available Diverse PVD coated carbide grades available Inserts could also be mounted on Chamfer-Square milling bodies 	Stable machining, light cut	● 1 st choice ○ suitable							
	General machining, medium cut	● 1 st choice ○ suitable	●	●	●	●			
	Unstable machining, heavy cut	● 1 st choice ○ suitable	⊕	⊕					
	Dimensions		ISO		Vc(m/min) - suggested cutting speed range (bold: 1st choice)				
			P	90 200	90 200				
M			30 85		50 130				
K			90 150						
N						160 320			
S									

Designation		RE	IC	S	D1	LE	Stock				
GENERAL 	GP P M K SPMX050204-GP	0.4	5	2.38	2.5	4.2	●	●	●		
	SPMX060204-GP	0.4	6	2.38	2.8	5.2	●	●	●		
	SPMX07T308-GP	0.8	7.94	3.97	2.8	6.34	●	●	●		
ALUMINIUM periphery ground polished surface	AL N SPGX050204-AL	0.4	5	2.38	2.5	4.2				●	
	SPGX060204-AL	0.4	6	2.38	2.8	5.2				●	
	SPGX07T308-AL	0.8	7.94	3.97	2.8	6.34				●	

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

<h1>Pilot</h1>	Hss: High speed steel PVD: Physical vapour deposition		Hss		
			PVD		
<h2>DRS pilot</h2>			HSS	TIN	
<ul style="list-style-type: none"> • TIN coated HSS pilot for DRS PILOT drills • 1 Pilot is already pre-mounted on DRS Pilot drill body • Universal use for PMKN materials • Cannot be mounted on DEX Pilot 	Stable machining, light cut	● 1 st choice ○ suitable			
	General machining, medium cut	● 1 st choice ○ suitable	●		
	Unstable machining, heavy cut	▲ 1 st choice ▼ suitable	▲		
	Dimensions		ISO	Vc(m/min) - suggested cutting speed range (bold: 1st choice)	
			P	90 200	
		M	50 130		
		K	90 150		
		N	160 320		
		S			
		H			
Designation	DC	OAL	PL	SIG	Stock
GENERAL 	GP P M K N				
	DRSP06-GP	6	20	1.5	118°
DRSP08-GP	8	25	2.1	118°	●

● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▼ stock exhaustion



A - TURNING

B - THREADING

C - GROOVING

D - MILLING

E - DRILLING

F - ACCESSORIES

G - SPARE PARTS

	ISO 513	MATERIAL	HARDNESS HB	L/D	JP5530			JP8725		
					min	start	max	min	start	max
A - TURNING	P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	6XD	100	150	200	100	150	200
				9XD	90	130	170	90	130	170
	P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	6XD	80	120	160	80	120	160
				9XD	70	105	140	70	105	140
B - THREADING	P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	6XD	65	95	125	65	95	125
				9XD	55	85	115	55	85	115
	ISO 513	MATERIAL	HARDNESS HB	L/D	JP5530			JP9535		
	P7	Ferritic and martensitic stainless steel (ex. 1.4021/X 20 Cr 13/AISI420)	≤ 200	6XD	40	80	120	70	100	130
				9XD	30	60	90	50	80	110
C - GROOVING	P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	6XD	-	-	-	60	80	100
				9XD	-	-	-	50	70	90
	M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	6XD	35	60	85	70	100	130
				9XD	30	50	70	50	80	110
D - MILLING	M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		6XD	-	-	-	60	90	120
				9XD	-	-	-	50	80	110
	ISO 513	MATERIAL	HARDNESS HB	L/D	JP5530					
	K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	6XD	110	130	150			
				9XD	90	110	130			
E - DRILLING	K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	6XD	80	100	120			
				9XD	70	90	110			
	ISO 513	MATERIAL	HARDNESS HB	L/D	JU6520					
	N1	Aluminium alloys ≤ Si 12% (ex. 3.4365/AlZn5.5MgCu/ERGA)		6XD	200	260	320			
				9XD	160	220	280			
F - ACCESSORIES	N2	Aluminium alloys Si > 12% (ex. 3.2382/G-AISI12)		6XD	120	180	240			
				9XD	100	150	200			

Complete workpiece materials p. H1.

ISO 513	MATERIAL	HARDNESS HB	L/D	DC 18.00 ÷ 19.00			DC 20.00 ÷ 25.00			DC 26.00 ÷ 30.00		
				min	start	max	min	start	max	min	start	max
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	6XD	0.04	0.06	0.08	0.04	0.07	0.10	0.05	0.08	0.11
			9XD	0.04	0.05	0.06	0.04	0.06	0.08	0.05	0.07	0.09
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	6XD	0.06	0.09	0.12	0.08	0.11	0.14	0.08	0.12	0.16
			9XD	0.06	0.08	0.10	0.08	0.10	0.12	0.08	0.11	0.14
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	6XD	0.06	0.08	0.10	0.08	0.10	0.12	0.08	0.11	0.14
			9XD	0.06	0.07	0.08	0.08	0.09	0.10	0.08	0.10	0.12
P7	Ferritic and martensitic stainless steel (ex. 1.4021/X 20 Cr 13/AISI420)	≤ 200	6XD	0.05	0.08	0.11	0.05	0.09	0.13	0.06	0.10	0.14
			9XD	0.05	0.07	0.09	0.05	0.08	0.11	0.06	0.09	0.12
P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	6XD	0.04	0.07	0.10	0.04	0.08	0.12	0.05	0.09	0.13
			9XD	0.04	0.06	0.08	0.04	0.07	0.10	0.05	0.08	0.11
M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	6XD	0.05	0.06	0.07	0.05	0.08	0.11	0.06	0.09	0.12
			9XD	0.04	0.05	0.06	0.05	0.07	0.09	0.06	0.08	0.10
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		6XD	0.04	0.06	0.08	0.04	0.07	0.10	0.05	0.08	0.11
			9XD	0.03	0.05	0.07	0.04	0.06	0.08	0.05	0.07	0.09
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	6XD	0.08	0.11	0.14	0.10	0.13	0.16	0.10	0.15	0.20
			9XD	0.08	0.10	0.12	0.10	0.12	0.14	0.10	0.14	0.18
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	6XD	0.07	0.10	0.13	0.08	0.12	0.16	0.10	0.14	0.18
			9XD	0.07	0.08	0.11	0.08	0.11	0.14	0.10	0.13	0.16
N1	Aluminium alloys ≤ Si 12% (ex. 3.4365/AlZn5.5MgCu/ERGA)		6XD	0.06	0.10	0.14	0.08	0.12	0.16	0.08	0.13	0.18
			9XD	0.06	0.09	0.12	0.08	0.11	0.14	0.08	0.12	0.16
N2	Aluminium alloys Si > 12% (ex. 3.2382/G-AISI12)		6XD	0.06	0.09	0.12	0.08	0.11	0.14	0.08	0.12	0.16
			9XD	0.06	0.08	0.10	0.08	0.10	0.12	0.08	0.11	0.14

Complete workpiece materials p. H1.

(fn: mm/rev)

A - TURNING

B - THREADING

C - GROOVING

D - MILLING

E - DRILLING

F - ACCESSORIES

G - SPARE PARTS