DRS DRILLS

High performance universal indexable drilling system with inserts

APPLICATION

Plane surface	Slant surface	Concave surface	Convex surface	Pipes	Half hole	Hole expansion

ISO APPLICATION FIELDS

P M K N

ADVANTAGES AND CHARACTERISTICS

- Highly universal drilling system suitable for diverse conditions
- Highly cost-efficient system
- Twisted flute style available in 2xD and 3xD, straight flute style in 4xD and 5xD to improve chip evacuation

Drilling bodies

- Weldon shank with internal coolant
- 2/ 3/ 4/ 5xD available from D13 to D50
- Special length and stepped body available upon request

2D - 3D Twisted flute, coolant holes with "Y" design

4D - 5D Straight flute, coolant holes with "II" design

Inserts

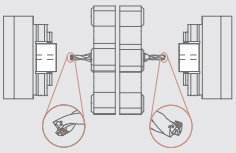
- Available sizes 05/06/07/09/11/14
- Cemented carbide grades with PVD coatings or uncoated for N materials
- Geometries: GP, AL

GP P M K

SIZE
05 06 07 09 11 14

AL N

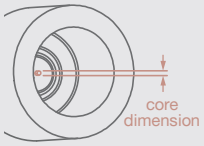
SIZE
05 06 07 09 11 14



Lathe installation

It's recommended to set the outer insert facing the operator as shown in the drawing, both for main and sub-spindle to gain the best results.

Following this suggestion, generally, the inner insert will be set below the center which is the recommended situation for optimal operation.



Quick check
of the center height

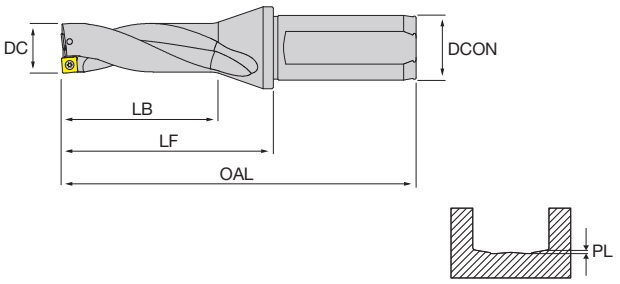
To check if the machine axis is correctly aligned, a test hole should be drilled checking the remaining core on the hole bottom.

Center-height adjustment is necessary when no core remains or if the core diameter is larger than 1mm.

2xD

DRS drill

- 2xD indexable drill body for SP inserts with helical flutes
- All with coolant through
- Please select insert size according to the drill diameter



Designation	Stock	DC	DCON	OAL	LF	LB	PL	ADJLX			MIID
NT-DRS-2D D12.50-S20-05	▽	12.5	20	94	44	26	0.4	0.5			SPoX05
NT-DRS-2D D13.00-S20-05	●	13	20	94	44	26	0.4	0.5			SPoX05
NT-DRS-2D D14.00-S20-05	●	14	20	96	46	28	0.4	0.5			SPoX05
NT-DRS-2D D15.00-S20-05	●	15	20	99	49	30	0.4	0.5			SPoX05
NT-DRS-2D D16.00-S25-06	●	16	25	108	52	32	0.5	0.5			SPoX06
NT-DRS-2D D17.00-S25-06	●	17	25	110	54	34	0.5	0.5			SPoX06
NT-DRS-2D D18.00-S25-06	●	18	25	113	57	36	0.5	0.5			SPoX06
NT-DRS-2D D19.00-S25-06	●	19	25	115	59	38	0.5	0.5			SPoX06
NT-DRS-2D D20.00-S25-06	●	20	25	119	63	40	0.5	0.5			SPoX06
NT-DRS-2D D21.00-S25-06	●	21	25	121	65	42	0.5	0.25			SPoX06
NT-DRS-2D D22.00-S25-07	●	22	25	123	67	44	0.5	0.5			SPoX07
NT-DRS-2D D23.00-S32-07	●	23	32	131	71	46	0.5	0.5			SPoX07
NT-DRS-2D D24.00-S32-07	●	24	32	134	74	48	0.5	0.5			SPoX07
NT-DRS-2D D25.00-S32-07	●	25	32	137	77	50	0.5	0.5			SPoX07
NT-DRS-2D D26.00-S32-07	●	26	32	139	79	52	0.6	0.25			SPoX07
NT-DRS-2D D27.00-S32-07	●	27	32	141	81	54	0.6	0.25			SPoX07
NT-DRS-2D D28.00-S32-09	●	28	32	144	84	56	0.8	0.5			SPoX09
NT-DRS-2D D29.00-S32-09	●	29	32	146	86	58	0.8	0.5			SPoX09
NT-DRS-2D D30.00-S32-09	●	30	32	151	91	60	0.8	0.5			SPoX09
NT-DRS-2D D31.00-S32-09	●	31	32	154	94	62	0.8	0.25			SPoX09
NT-DRS-2D D32.00-S32-09	●	32	32	156	96	64	0.8	0.25			SPoX09
NT-DRS-2D D33.00-S32-09	●	33	32	159	99	66	0.8	0.25			SPoX09
NT-DRS-2D D34.00-S40-11	●	34	40	171	101	68	0.9	0.5			SPoX11
NT-DRS-2D D35.00-S40-11	●	35	40	174	104	70	0.9	0.5			SPoX11
NT-DRS-2D D36.00-S40-11	●	36	40	177	107	72	0.9	0.5			SPoX11
NT-DRS-2D D37.00-S40-11	●	37	40	180	110	74	0.9	0.5			SPoX11
NT-DRS-2D D38.00-S40-11	●	38	40	183	113	76	0.9	0.5			SPoX11
NT-DRS-2D D39.00-S40-11	●	39	40	185	115	78	0.9	0.5			SPoX11
NT-DRS-2D D40.00-S40-11	●	40	40	188	118	80	0.9	0.25			SPoX11
NT-DRS-2D D41.00-S40-11	●	41	40	191	121	82	0.9	0.25			SPoX11
NT-DRS-2D D42.00-S40-14	●	42	40	193	123	84	1	0.5			SPoX14
NT-DRS-2D D43.00-S40-14	●	43	40	196	126	86	1	0.5			SPoX14
NT-DRS-2D D44.00-S40-14	●	44	40	198	128	88	1	0.5			SPoX14
NT-DRS-2D D45.00-S40-14	●	45	40	202	132	90	1	0.5			SPoX14
NT-DRS-2D D46.00-S40-14	●	46	40	205	135	92	1	0.5			SPoX14
NT-DRS-2D D47.00-S40-14	●	47	40	207	137	94	1	0.5			SPoX14
NT-DRS-2D D48.00-S40-14	●	48	40	210	140	96	1	0.25			SPoX14
NT-DRS-2D D49.00-S40-14	●	49	40	212	142	98	1	0.25			SPoX14
NT-DRS-2D D50.00-S40-14	●	50	40	215	145	100	1	0.25			SPoX14

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

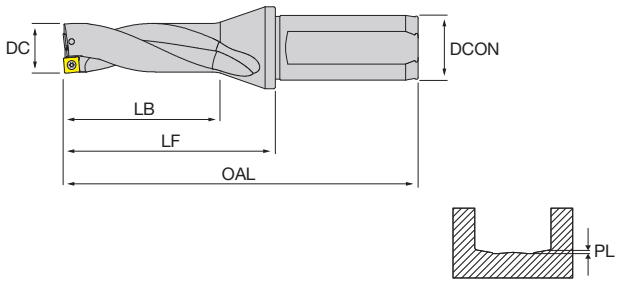
Spare parts	Insert screws	Flag wrenches
NT-DRS-2D Doo.oo-Soo-05	NT-ST20043T06	NT-FTB06
NT-DRS-2D Doo.oo-Soo-06	NT-ST22055T06	NT-FTB06
NT-DRS-2D Doo.oo-Soo-07	NT-ST25065T07	NT-FTB07

Spare parts	Insert screws	Flag wrenches
NT-DRS-2D Doo.oo-Soo-09	NT-ST35080T15	NT-FTB15
NT-DRS-2D Doo.oo-Soo-11	NT-ST40100T15	NT-FTB15
NT-DRS-2D Doo.oo-Soo-14	NT-ST50108T20	NT-FTB20

3xD

DRS drill

- 3xD indexable drill body for SP inserts with helical flutes
- All with coolant through
- Please select insert size according to the drill diameter



Designation	Stock	DC	DCON	OAL	LF	LB	PL	ADJLX			MIID
NT-DRS-3D D12.50-S20-05	●	12.5	20	107	57	39	0.4	0.5			SPoX05
NT-DRS-3D D13.00-S20-05	●	13	20	107	57	39	0.4	0.5			SPoX05
NT-DRS-3D D13.50-S20-05	●	13.5	20	110	60	42	0.4	0.5			SPoX05
NT-DRS-3D D14.00-S20-05	●	14	20	110	60	42	0.4	0.5			SPoX05
NT-DRS-3D D14.50-S20-05	●	14.5	20	114	64	45	0.4	0.5			SPoX05
NT-DRS-3D D15.00-S20-05	●	15	20	114	64	45	0.4	0.5			SPoX05
NT-DRS-3D D15.50-S25-06	●	15.5	25	124	68	48	0.5	0.5			SPoX06
NT-DRS-3D D16.00-S25-06	●	16	25	124	68	48	0.5	0.5			SPoX06
NT-DRS-3D D16.50-S25-06	●	16.5	25	127	71	51	0.5	0.5			SPoX06
NT-DRS-3D D17.00-S25-06	●	17	25	127	71	51	0.5	0.5			SPoX06
NT-DRS-3D D17.50-S25-06	●	17.5	25	131	75	54	0.5	0.5			SPoX06
NT-DRS-3D D18.00-S25-06	●	18	25	131	75	54	0.5	0.5			SPoX06
NT-DRS-3D D18.50-S25-06	●	18.5	25	134	78	57	0.5	0.5			SPoX06
NT-DRS-3D D19.00-S25-06	●	19	25	134	78	57	0.5	0.5			SPoX06
NT-DRS-3D D19.50-S25-06	●	19.5	25	139	83	60	0.5	0.5			SPoX06
NT-DRS-3D D20.00-S25-06	●	20	25	139	83	60	0.5	0.5			SPoX06
NT-DRS-3D D20.50-S25-06	●	20.5	25	142	86	63	0.5	0.25			SPoX06
NT-DRS-3D D21.00-S25-06	●	21	25	142	86	63	0.5	0.25			SPoX06
NT-DRS-3D D21.50-S25-06	●	21.5	25	145	89	66	0.5	0.25			SPoX06
NT-DRS-3D D22.00-S25-07	●	22	25	145	89	66	0.5	0.5			SPoX07
NT-DRS-3D D22.50-S32-07	●	22.5	32	154	94	69	0.5	0.5			SPoX07
NT-DRS-3D D23.00-S32-07	●	23	32	154	94	69	0.5	0.5			SPoX07
NT-DRS-3D D23.50-S32-07	●	23.5	32	158	98	72	0.5	0.5			SPoX07
NT-DRS-3D D24.00-S32-07	●	24	32	158	98	72	0.5	0.5			SPoX07
NT-DRS-3D D24.50-S32-07	●	24.5	32	162	102	75	0.5	0.5			SPoX07
NT-DRS-3D D25.00-S32-07	●	25	32	162	102	75	0.5	0.5			SPoX07
NT-DRS-3D D25.50-S32-07	●	25.5	32	165	105	78	0.6	0.5			SPoX07
NT-DRS-3D D26.00-S32-07	●	26	32	165	105	78	0.6	0.25			SPoX07
NT-DRS-3D D26.50-S32-07	●	26.5	32	168	108	81	0.6	0.25			SPoX07
NT-DRS-3D D27.00-S32-07	●	27	32	168	108	81	0.6	0.25			SPoX07
NT-DRS-3D D27.50-S32-07	●	27.5	32	172	112	84	0.6	0.25			SPoX07
NT-DRS-3D D28.00-S32-09	●	28	32	172	112	84	0.8	0.5			SPoX09
NT-DRS-3D D28.50-S32-09	●	28.5	32	175	115	87	0.8	0.5			SPoX09
NT-DRS-3D D29.00-S32-09	●	29	32	175	115	87	0.8	0.5			SPoX09
NT-DRS-3D D29.50-S32-09	●	29.5	32	181	121	90	0.8	0.5			SPoX09
NT-DRS-3D D30.00-S32-09	●	30	32	181	121	90	0.8	0.5			SPoX09
NT-DRS-3D D31.00-S32-09	●	31	32	185	125	93	0.8	0.25			SPoX09
NT-DRS-3D D32.00-S32-09	●	32	32	188	128	96	0.8	0.25			SPoX09
NT-DRS-3D D33.00-S32-09	●	33	32	192	132	99	0.8	0.25			SPoX09
NT-DRS-3D D34.00-S40-11	●	34	40	205	135	102	0.9	0.5			SPoX11
NT-DRS-3D D35.00-S40-11	●	35	40	209	139	105	0.9	0.5			SPoX11
NT-DRS-3D D36.00-S40-11	●	36	40	213	143	108	0.9	0.5			SPoX11
NT-DRS-3D D37.00-S40-11	●	37	40	217	147	111	0.9	0.5			SPoX11
NT-DRS-3D D38.00-S40-11	●	38	40	221	151	114	0.9	0.5			SPoX11
NT-DRS-3D D39.00-S40-11	●	39	40	224	154	117	0.9	0.25			SPoX11
NT-DRS-3D D40.00-S40-11	●	40	40	228	158	120	0.9	0.25			SPoX11
NT-DRS-3D D41.00-S40-11	●	41	40	232	162	123	0.9	0.5			SPoX11

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

Designation	Stock	DC	DCON	OAL	LF	LB	PL	ADJLX			MIID
NT-DRS-3D D42.00-S40-14	●	42	40	235	165	126	1	0.5			SPoX14
NT-DRS-3D D43.00-S40-14	●	43	40	239	169	129	1	0.5			SPoX14
NT-DRS-3D D44.00-S40-14	●	44	40	242	172	132	1	0.5			SPoX14
NT-DRS-3D D45.00-S40-14	●	45	40	247	177	135	1	0.5			SPoX14
NT-DRS-3D D46.00-S40-14	●	46	40	251	181	138	1	0.5			SPoX14
NT-DRS-3D D47.00-S40-14	●	47	40	254	184	141	1	0.5			SPoX14
NT-DRS-3D D48.00-S40-14	●	48	40	258	188	144	1	0.25			SPoX14
NT-DRS-3D D49.00-S40-14	●	49	40	261	191	147	1	0.25			SPoX14
NT-DRS-3D D50.00-S40-14	●	50	40	265	195	150	1	0.25			SPoX14

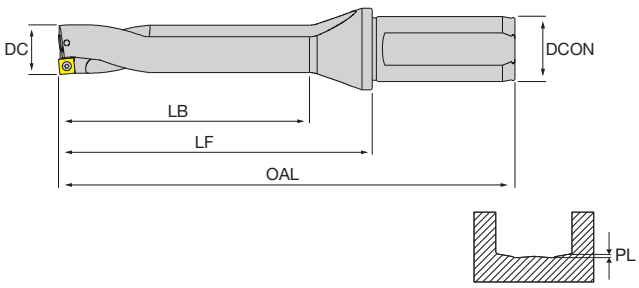
● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
		
NT-DRS-3D Doo.oo-Soo-05	NT-ST20043T06	NT-FTB06
NT-DRS-3D Doo.oo-Soo-06	NT-ST22055T06	NT-FTB06
NT-DRS-3D Doo.oo-Soo-07	NT-ST25065T07	NT-FTB07
NT-DRS-3D Doo.oo-Soo-09	NT-ST35080T15	NT-FTB15
NT-DRS-3D Doo.oo-Soo-11	NT-ST40100T15	NT-FTB15
NT-DRS-3D Doo.oo-Soo-14	NT-ST50108T20	NT-FTB20

4xD

DRS drill

- 4xD indexable drill body for SP inserts with straight flutes
- All with coolant through
- Please select insert size according to the drill diameter



Designation	Stock	DC	DCON	OAL	LF	LB	PL	ADJLX			MIID
NT-DRS-4D D12.50-S20-05	●	12.5	20	120	70	52	0.4	0.5			SPoX05
NT-DRS-4D D13.00-S20-05	●	13	20	120	70	52	0.4	0.5			SPoX05
NT-DRS-4D D13.50-S20-05	●	13.5	20	124	74	56	0.4	0.5			SPoX05
NT-DRS-4D D14.00-S20-05	●	14	20	124	74	56	0.4	0.5			SPoX05
NT-DRS-4D D14.50-S20-05	●	14.5	20	129	79	60	0.4	0.5			SPoX05
NT-DRS-4D D15.00-S20-05	●	15	20	129	79	60	0.4	0.5			SPoX05
NT-DRS-4D D15.50-S25-06	●	15.5	25	140	84	64	0.5	0.5			SPoX06
NT-DRS-4D D16.00-S25-06	●	16	25	140	84	64	0.5	0.5			SPoX06
NT-DRS-4D D16.50-S25-06	●	16.5	25	144	88	68	0.5	0.5			SPoX06
NT-DRS-4D D17.00-S25-06	●	17	25	144	88	68	0.5	0.5			SPoX06
NT-DRS-4D D17.50-S25-06	●	17.5	25	149	93	72	0.5	0.5			SPoX06
NT-DRS-4D D18.00-S25-06	●	18	25	149	93	72	0.5	0.5			SPoX06
NT-DRS-4D D18.50-S25-06	●	18.5	25	153	97	76	0.5	0.5			SPoX06
NT-DRS-4D D19.00-S25-06	●	19	25	153	97	76	0.5	0.5			SPoX06
NT-DRS-4D D19.50-S25-06	●	19.5	25	159	103	80	0.5	0.5			SPoX06
NT-DRS-4D D20.00-S25-06	●	20	25	159	103	80	0.5	0.5			SPoX06
NT-DRS-4D D20.50-S25-06	●	20.5	25	163	107	84	0.5	0.25			SPoX06
NT-DRS-4D D21.00-S25-06	●	21	25	163	107	84	0.5	0.25			SPoX06
NT-DRS-4D D21.50-S25-06	●	21.5	25	167	111	88	0.5	0.25			SPoX06
NT-DRS-4D D22.00-S25-07	●	22	25	167	111	88	0.5	0.5			SPoX07
NT-DRS-4D D22.50-S32-07	●	22.5	32	177	117	92	0.5	0.5			SPoX07
NT-DRS-4D D23.00-S32-07	●	23	32	177	117	92	0.5	0.5			SPoX07
NT-DRS-4D D23.50-S32-07	●	23.5	32	182	122	96	0.5	0.5			SPoX07
NT-DRS-4D D24.00-S32-07	●	24	32	182	122	96	0.5	0.5			SPoX07
NT-DRS-4D D24.50-S32-07	●	24.5	32	187	127	100	0.5	0.5			SPoX07
NT-DRS-4D D25.00-S32-07	●	25	32	187	127	100	0.5	0.5			SPoX07
NT-DRS-4D D25.50-S32-07	●	25.5	32	191	131	104	0.6	0.5			SPoX07
NT-DRS-4D D26.00-S32-07	●	26	32	191	131	104	0.6	0.25			SPoX07
NT-DRS-4D D26.50-S32-07	●	26.5	32	195	135	108	0.6	0.25			SPoX07
NT-DRS-4D D27.00-S32-07	●	27	32	195	135	108	0.6	0.25			SPoX07
NT-DRS-4D D27.50-S32-07	●	27.5	32	200	140	112	0.6	0.25			SPoX07
NT-DRS-4D D28.00-S32-09	●	28	32	200	140	112	0.8	0.5			SPoX09
NT-DRS-4D D28.50-S32-09	●	28.5	32	204	144	116	0.8	0.5			SPoX09
NT-DRS-4D D29.00-S32-09	●	29	32	204	144	116	0.8	0.5			SPoX09
NT-DRS-4D D29.50-S32-09	●	29.5	32	211	151	120	0.8	0.5			SPoX09
NT-DRS-4D D30.00-S32-09	●	30	32	211	151	120	0.8	0.5			SPoX09
NT-DRS-4D D31.00-S32-09	●	31	32	216	156	124	0.8	0.25			SPoX09
NT-DRS-4D D32.00-S32-09	●	32	32	220	160	128	0.8	0.25			SPoX09
NT-DRS-4D D33.00-S32-09	●	33	32	225	165	132	0.8	0.25			SPoX09
NT-DRS-4D D34.00-S40-11	●	34	40	239	169	136	0.9	0.5			SPoX11
NT-DRS-4D D35.00-S40-11	●	35	40	244	174	140	0.9	0.5			SPoX11
NT-DRS-4D D36.00-S40-11	●	36	40	249	179	144	0.9	0.5			SPoX11
NT-DRS-4D D37.00-S40-11	●	37	40	254	184	148	0.9	0.5			SPoX11
NT-DRS-4D D38.00-S40-11	●	38	40	259	189	152	0.9	0.5			SPoX11
NT-DRS-4D D39.00-S40-11	●	39	40	263	193	156	0.9	0.25			SPoX11
NT-DRS-4D D40.00-S40-11	●	40	40	268	198	160	0.9	0.25			SPoX11
NT-DRS-4D D41.00-S40-11	▲	41	40	273	203	164	0.9	0.5			SPoX11

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

Designation	Stock	DC	DCON	OAL	LF	LB	PL	ADJLX			MIID
NT-DRS-4D D42.00-S40-14	●	42	40	277	207	168	1	0.5			SPoX14
NT-DRS-4D D43.00-S40-14	●	43	40	282	212	172	1	0.5			SPoX14
NT-DRS-4D D44.00-S40-14	●	44	40	286	216	176	1	0.5			SPoX14
NT-DRS-4D D45.00-S40-14	●	45	40	292	222	180	1	0.5			SPoX14
NT-DRS-4D D46.00-S40-14	●	46	40	297	227	184	1	0.5			SPoX14
NT-DRS-4D D47.00-S40-14	●	47	40	301	231	188	1	0.5			SPoX14
NT-DRS-4D D48.00-S40-14	●	48	40	306	236	192	1	0.25			SPoX14
NT-DRS-4D D49.00-S40-14	▲	49	40	310	240	196	1	0.25			SPoX14
NT-DRS-4D D50.00-S40-14	●	50	40	315	245	200	1	0.25			SPoX14

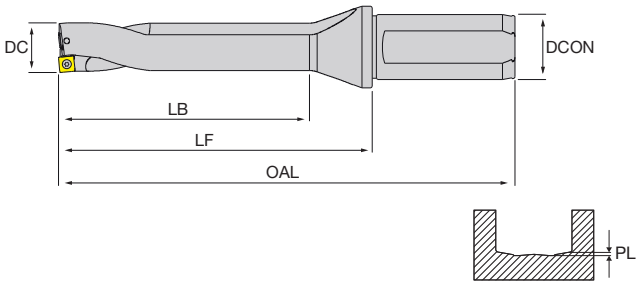
● stock standard, ○ non-standard stock, ▲ upcoming introduction, ▽ stock exhaustion

Spare parts	Insert screws	Flag wrenches
		
NT-DRS-4D Doo.oo-Soo-05	NT-ST20043T06	NT-FTB06
NT-DRS-4D Doo.oo-Soo-06	NT-ST22055T06	NT-FTB06
NT-DRS-4D Doo.oo-Soo-07	NT-ST25065T07	NT-FTB07
NT-DRS-4D Doo.oo-Soo-09	NT-ST35080T15	NT-FTB15
NT-DRS-4D Doo.oo-Soo-11	NT-ST40100T15	NT-FTB15
NT-DRS-4D Doo.oo-Soo-14	NT-ST50108T20	NT-FTB20

5xD

DRS drill

- 5xD indexable drill body for SP inserts with straight flutes
- All with coolant through
- Please select insert size according to the drill diameter



Designation	Stock	DC	DCON	OAL	LF	LB	PL	ADJLX			MIID
NT-DRS-5D D13.00-S20-05	●	13	20	133	83	65	0.4	0.5			SPoX05
NT-DRS-5D D14.00-S20-05	●	14	20	138	88	70	0.4	0.5			SPoX05
NT-DRS-5D D15.00-S20-05	●	15	20	144	94	75	0.4	0.5			SPoX05
NT-DRS-5D D16.00-S25-06	●	16	25	156	100	80	0.5	0.5			SPoX06
NT-DRS-5D D17.00-S25-06	●	17	25	161	105	85	0.5	0.5			SPoX06
NT-DRS-5D D18.00-S25-06	●	18	25	167	111	90	0.5	0.5			SPoX06
NT-DRS-5D D19.00-S25-06	●	19	25	172	116	95	0.5	0.5			SPoX06
NT-DRS-5D D20.00-S25-06	●	20	25	179	123	100	0.5	0.5			SPoX06
NT-DRS-5D D21.00-S25-06	●	21	25	184	128	105	0.5	0.25			SPoX06
NT-DRS-5D D22.00-S25-07	●	22	25	189	133	110	0.5	0.5			SPoX07
NT-DRS-5D D23.00-S32-07	●	23	32	200	140	115	0.5	0.5			SPoX07
NT-DRS-5D D24.00-S32-07	●	24	32	206	146	120	0.5	0.5			SPoX07
NT-DRS-5D D25.00-S32-07	●	25	32	212	152	125	0.5	0.5			SPoX07
NT-DRS-5D D26.00-S32-07	●	26	32	217	157	130	0.6	0.25			SPoX07
NT-DRS-5D D27.00-S32-07	●	27	32	222	162	135	0.6	0.25			SPoX07
NT-DRS-5D D28.00-S32-09	●	28	32	228	168	140	0.8	0.5			SPoX09
NT-DRS-5D D29.00-S32-09	●	29	32	233	173	145	0.8	0.5			SPoX09
NT-DRS-5D D30.00-S32-09	●	30	32	241	181	150	0.8	0.5			SPoX09
NT-DRS-5D D31.00-S32-09	●	31	32	247	187	155	0.8	0.25			SPoX09
NT-DRS-5D D32.00-S32-09	●	32	32	252	192	160	0.8	0.25			SPoX09
NT-DRS-5D D33.00-S32-09	●	33	32	258	198	165	0.8	0.25			SPoX09
NT-DRS-5D D34.00-S40-11	●	34	40	273	203	170	0.9	0.5			SPoX11
NT-DRS-5D D35.00-S40-11	●	35	40	279	209	175	0.9	0.5			SPoX11
NT-DRS-5D D36.00-S40-11	●	36	40	285	215	180	0.9	0.5			SPoX11
NT-DRS-5D D37.00-S40-11	●	37	40	291	221	185	0.9	0.5			SPoX11
NT-DRS-5D D38.00-S40-11	●	38	40	297	227	190	0.9	0.5			SPoX11
NT-DRS-5D D39.00-S40-11	●	39	40	302	232	195	0.9	0.5			SPoX11
NT-DRS-5D D40.00-S40-11	●	40	40	308	238	200	0.9	0.25			SPoX11
NT-DRS-5D D41.00-S40-11	●	41	40	314	244	205	0.9	0.25			SPoX11
NT-DRS-5D D42.00-S40-14	●	42	40	319	249	210	1	0.5			SPoX14
NT-DRS-5D D43.00-S40-14	●	43	40	325	255	215	1	0.5			SPoX14
NT-DRS-5D D44.00-S40-14	●	44	40	330	260	220	1	0.5			SPoX14
NT-DRS-5D D45.00-S40-14	●	45	40	337	267	225	1	0.5			SPoX14
NT-DRS-5D D46.00-S40-14	●	46	40	343	273	230	1	0.5			SPoX14
NT-DRS-5D D47.00-S40-14	●	47	40	348	278	235	1	0.5			SPoX14
NT-DRS-5D D48.00-S40-14	●	48	40	354	284	240	1	0.25			SPoX14
NT-DRS-5D D49.00-S40-14	●	49	40	359	289	245	1	0.25			SPoX14
NT-DRS-5D D50.00-S40-14	●	50	40	365	295	250	1	0.25			SPoX14

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

Spare parts	Insert screws	Flag wrenches
NT-DRS-5D Doo.oo-Soo-05	NT-ST20043T06	NT-FTB06
NT-DRS-5D Doo.oo-Soo-06	NT-ST22055T06	NT-FTB06
NT-DRS-5D Doo.oo-Soo-07	NT-ST25065T07	NT-FTB07

Spare parts	Insert screws	Flag wrenches
NT-DRS-5D Doo.oo-Soo-09	NT-ST35080T15	NT-FTB15
NT-DRS-5D Doo.oo-Soo-11	NT-ST40100T15	NT-FTB15
NT-DRS-5D Doo.oo-Soo-14	NT-ST50108T20	NT-FTB20

SPoX

DRS drill

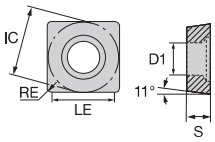
- General purpose type or fine polished sharp geometries for aluminum or non-ferrous materials available
- Diverse PVD coated carbide grades available
- Inserts could also be mounted on DRS Pilot type and ChamferSquare milling bodies

HF: Micrograin carbide
PVD: Physical vapour deposition

	JP5530	JP8725	JP9535	JP9635	JU6520
	HF PVD	HF PVD	HF PVD	HF PVD	HF
Stable machining, light cut		○			●
General machining, medium cut	●	●	●	●	●
Unstable machining, heavy cut	◈		◈	◈	

● 1st choice ○ suitable ◈ 1st choice ◈ suitable

Dimensions



4 edges

ISO	Vc(m/min) - suggested cutting speed range (bold: 1st choice)					
P	**120 240**	**120 240**				
M	40 100		**80 160**	**80 160**		
K	**120 180**					
N					**240 400**	
S						
H						

	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	●	●	●			
		SPMX090408-GP	0.8	9.8	4.3	4.2	8.2	●	●	▲	●		
		SPMX110408-GP	0.8	11.5	4.76	4.4	9.9	●	●	●			
		SPMX140512-GP	1.2	14.3	5.2	5.5	11.9	●	●	▲	●		
ALUMINIUM	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					●	
		SPGX090408-AL	0.8	9.8	4.3	4.2	8.2					●	
		SPGX110408-AL	0.8	11.5	4.76	4.4	9.9					●	
		SPGX140512-AL	1.2	14.3	5.2	5.5	11.9					●	

periphery ground
polished surface

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

ISO 513	MATERIAL	HARDNESS HB	L/D	DC 12.50 ÷ 15.00			DC 15.50 ÷ 21.50			DC 22.00 ÷ 27.50		
				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	2xD - 3xD	0.05	**0.07**	0.09	0.05	**0.08**	0.11	0.05	**0.09**	0.13
			4xD	0.04	**0.06**	0.08	0.04	**0.07**	0.10	0.04	**0.08**	0.12
			5xD	0.04	**0.05**	0.06	0.04	**0.06**	0.08	0.04	**0.07**	0.10
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	2xD - 3xD	0.07	**0.10**	0.13	0.07	**0.11**	0.15	0.09	**0.13**	0.17
			4xD	0.06	**0.09**	0.12	0.06	**0.10**	0.14	0.08	**0.12**	0.16
			5xD	0.06	**0.08**	0.10	0.06	**0.09**	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	2xD - 3xD	0.07	**0.09**	0.11	0.07	**0.10**	0.13	0.09	**0.12**	0.15
			4xD	0.06	**0.08**	0.10	0.06	**0.09**	0.12	0.08	**0.11**	0.14
			5xD	0.06	**0.07**	0.08	0.06	**0.08**	0.10	0.08	**0.10**	0.12
P7	Ferritic and martensitic stainless steel (ex. 1.4021/X 20 Cr 13/AISI420)	≤ 200	2xD - 3xD	0.06	**0.09**	0.12	0.06	**0.10**	0.14	0.06	**0.11**	0.16
			4xD	0.05	**0.08**	0.11	0.05	**0.09**	0.13	0.05	**0.10**	0.15
			5xD	0.05	**0.06**	0.07	0.05	**0.08**	0.11	0.05	**0.09**	0.13
P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	2xD - 3xD	0.05	**0.08**	0.11	0.05	**0.09**	0.13	0.05	**0.10**	0.15
			4xD	0.04	**0.07**	0.10	0.04	**0.08**	0.12	0.04	**0.09**	0.14
			5xD	0.04	**0.06**	0.08	0.04	**0.07**	0.10	0.04	**0.08**	0.12
M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	2xD - 3xD	0.06	**0.08**	0.10	0.06	**0.09**	0.12	0.06	**0.10**	0.14
			4xD	0.05	**0.07**	0.09	0.05	**0.08**	0.11	0.05	**0.09**	0.13
			5xD	0.05	**0.06**	0.07	0.05	**0.06**	0.07	0.05	**0.08**	0.11
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		2xD - 3xD	0.05	**0.07**	0.09	0.05	**0.08**	0.11	0.05	**0.09**	0.13
			4xD	0.04	**0.06**	0.08	0.04	**0.07**	0.10	0.04	**0.08**	0.12
			5XD	0.04	**0.05**	0.06	0.04	**0.06**	0.08	0.04	**0.07**	0.10
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	2xD - 3xD	0.07	**0.10**	0.13	0.09	**0.13**	0.17	0.11	**0.15**	0.19
			4xD	0.06	**0.09**	0.12	0.08	**0.12**	0.16	0.10	**0.14**	0.18
			5xD	0.06	**0.08**	0.10	0.08	**0.11**	0.14	0.10	**0.13**	0.16
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	2xD - 3xD	0.07	**0.09**	0.11	0.08	**0.12**	0.16	0.09	**0.14**	0.19
			4xD	0.06	**0.08**	0.10	0.07	**0.11**	0.15	0.08	**0.13**	0.18
			5xD	0.06	**0.07**	0.08	0.07	**0.10**	0.13	0.08	**0.12**	0.16
N1	Aluminium alloys ≤ Si 12% (ex. 3.4365/AlZn5.5MgCu/ERGAL)		2xD - 3xD	0.07	**0.11**	0.15	0.07	**0.12**	0.17	0.09	**0.14**	0.19
			4xD	0.06	**0.10**	0.14	0.06	**0.11**	0.16	0.08	**0.13**	0.18
			5xD	0.06	**0.09**	0.12	0.06	**0.10**	0.14	0.08	**0.12**	0.16
N2	Aluminium alloys Si > 12% (ex. 3.2382/G-AlSi12)		2xD - 3xD	0.07	**0.10**	0.13	0.07	**0.11**	0.15	0.09	**0.13**	0.17
			4xD	0.06	**0.09**	0.12	0.06	**0.10**	0.14	0.08	**0.12**	0.16
			5xD	0.06	**0.08**	0.10	0.06	**0.09**	0.12	0.08	**0.11**	0.14

Complete workpiece materials p. **H**1.

(fn: mm/rev)

DC 28.00 ÷ 33.00			DC 34.00 ÷ 41.00			DC 42.00 ÷ 50.00					
min	start	max	min	start	max	min	start	max			
0.06	**0.10**	0.14	0.07	**0.11**	0.15	0.07	**0.12**	0.17			
0.05	**0.09**	0.13	0.06	**0.10**	0.14	0.06	**0.11**	0.16			
0.05	**0.08**	0.11	0.06	**0.09**	0.12	0.06	**0.10**	0.14			
0.09	**0.14**	0.19	0.11	**0.16**	0.21	0.11	**0.17**	0.23			
0.08	**0.13**	0.18	0.10	**0.15**	0.20	0.10	**0.16**	0.22			
0.08	**0.12**	0.16	0.10	**0.14**	0.18	0.10	**0.15**	0.20			
0.09	**0.13**	0.17	0.09	**0.14**	0.19	0.11	**0.16**	0.21			
0.08	**0.12**	0.16	0.08	**0.13**	0.18	0.10	**0.15**	0.20			
0.08	**0.11**	0.14	0.08	**0.12**	0.16	0.10	**0.14**	0.18			
0.07	**0.12**	0.17	0.08	**0.12**	0.18	0.09	**0.14**	0.19			
0.06	**0.11**	0.16	0.07	**0.11**	0.17	0.08	**0.13**	0.18			
0.06	**0.10**	0.14	0.07	**0.10**	0.13	0.08	**0.12**	0.16			
0.06	**0.11**	0.16	0.07	**0.12**	0.17	0.09	**0.13**	0.17			
0.05	**0.10**	0.15	0.06	**0.11**	0.16	0.08	**0.12**	0.16			
0.05	**0.09**	0.13	0.06	**0.10**	0.14	0.08	**0.11**	0.14			
0.07	**0.11**	0.15	0.08	**0.12**	0.16	0.09	**0.13**	0.17			
0.06	**0.10**	0.14	0.07	**0.11**	0.15	0.08	**0.12**	0.16			
0.06	**0.09**	0.12	0.07	**0.10**	0.13	0.08	**0.11**	0.14			
0.06	**0.10**	0.14	0.07	**0.11**	0.15	0.09	**0.12**	0.15			
0.05	**0.09**	0.13	0.06	**0.10**	0.14	0.08	**0.11**	0.14			
0.05	**0.08**	0.11	0.06	**0.09**	0.12	0.08	**0.10**	0.12			
0.11	**0.17**	0.23	0.13	**0.19**	0.25	0.15	**0.21**	0.27			
0.10	**0.16**	0.22	0.12	**0.18**	0.24	0.14	**0.20**	0.26			
0.10	**0.15**	0.20	0.12	**0.17**	0.22	0.14	**0.19**	0.24			
0.11	**0.16**	0.21	0.13	**0.17**	0.21	0.15	**0.19**	0.23			
0.10	**0.15**	0.20	0.12	**0.16**	0.20	0.14	**0.18**	0.22			
0.10	**0.14**	0.18	0.12	**0.15**	0.18	0.14	**0.17**	0.20			
0.09	**0.15**	0.21	0.11	**0.17**	0.23	0.13	**0.18**	0.23			
0.08	**0.14**	0.20	0.10	**0.16**	0.22	0.12	**0.17**	0.22			
0.08	**0.13**	0.18	0.10	**0.15**	0.20	0.12	**0.16**	0.20			
0.09	**0.14**	0.19	0.11	**0.16**	0.21	0.13	**0.17**	0.21			
0.08	**0.13**	0.18	0.10	**0.15**	0.20	0.12	**0.16**	0.20			
0.08	**0.12**	0.16	0.10	**0.14**	0.18	0.12	**0.15**	0.18			

Complete workpiece materials p. **H**1.

(fn: mm/rev)

ISO 513	MATERIAL	HARDNESS HB	L/D	JP5530 min	JP5530 start	JP5530 max	JP8725 min	JP8725 start	JP8725 max	
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	2XD ÷ 5XD	120	**180**	240	120	**180**	240	
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	2XD ÷ 5XD	100	**150**	200	100	**150**	200	
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	2XD ÷ 5XD	80	**120**	160	80	**120**	160	
ISO 513	MATERIAL	HARDNESS HB	L/D	JP5530 min	JP5530 start	JP5530 max	JP9535 min	JP9535 start	JP9535 max	
P7	Ferritic and martensitic stainless steel (ex. 1.4021/X 20 Cr 13/AISI420)	≤ 200	2XD ÷ 5XD	50	**90**	130	80	**120**	160	
P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	2XD ÷ 5XD		-		60	**90**	120	
M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	2XD ÷ 5XD	40	**70**	100	80	**120**	160	
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		2XD ÷ 5XD		-		60	**100**	140	
ISO 513	MATERIAL	HARDNESS HB	L/D	JP5530 min	JP5530 start	JP5530 max				
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	2XD ÷ 5XD	120	**150**	180				
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	2XD ÷ 5XD	100	**120**	140				
ISO 513	MATERIAL	HARDNESS HB	L/D	JU6520 min	JU6520 start	JU6520 max				
N1	Aluminium alloys ≤ Si 12% (ex. 3.4365/AlZn5.5MgCu/ERGAL)		2XD ÷ 5XD	240	**320**	400				
N2	Aluminium alloys Si > 12% (ex. 3.2382/G-AlSi12)		2XD ÷ 5XD	160	**230**	300				

Complete workpiece materials p. **H**1.