

# DRSSYSTEM

Broad range of drilling solutions

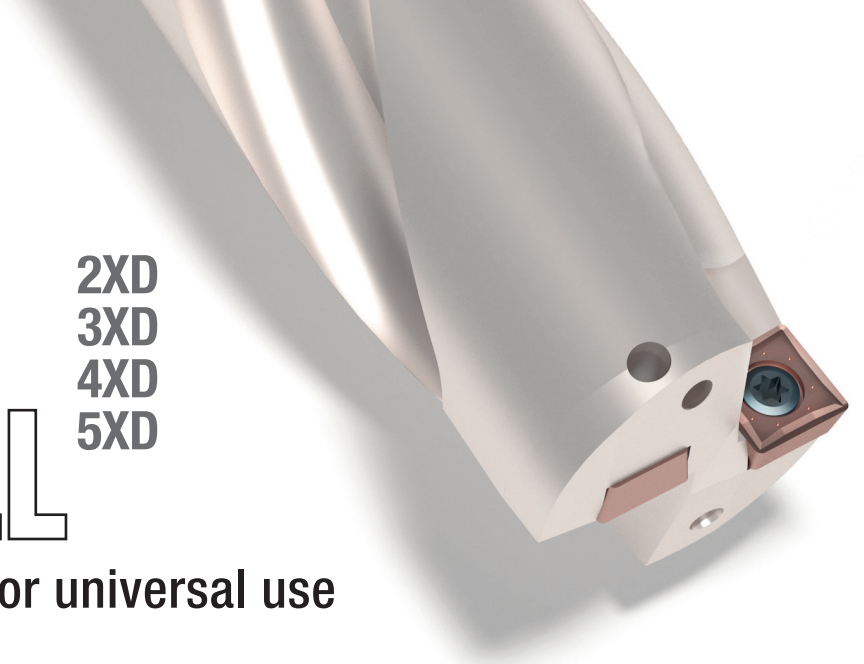
2XD - 3XD  
4XD - 5XD  
6XD - 9XD

**nikko**TOOLS

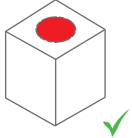
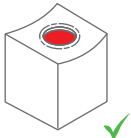
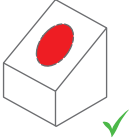
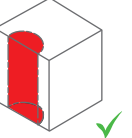
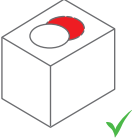
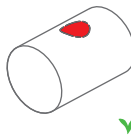
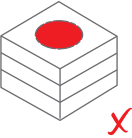
# DRSDRILL

2XD  
3XD  
4XD  
5XD

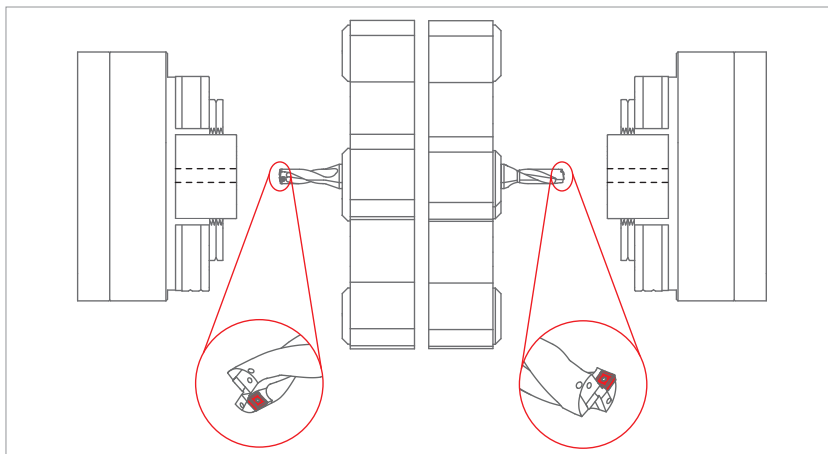
High performance drills for universal use



## 1. Where is DRSdrill applicable?

PLAIN SURFACE	CONCAVE SURFACE	SLANT SURFACE	HALF HOLE	HOLE EXPANSION	PIPES	STACKED PLATES
						

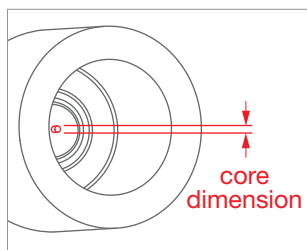
## 2. Lathe installation



*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.*

## 3. 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.*

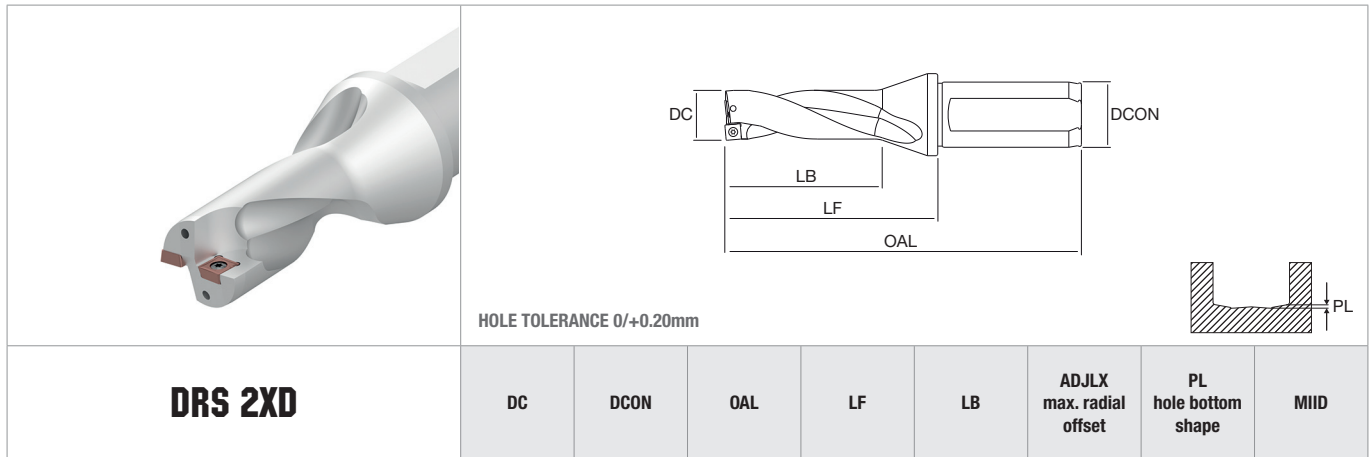
<b>SP<sup>□</sup>X</b>	<b>DRS</b> 4 edges drilling inserts					<b>ISO513</b>	HC-PVD		HW										
	<b>Size</b>	<b>IC</b>	<b>S</b>	<b>D1</b>	<b>RE</b>		<b>JP5625</b>	<b>JP5530</b>	<b>JP9635</b>	<b>JUG520</b>									
<p>4 edges</p>	<b>05</b>	5.00	2.38	2.50	0.40	<b>P</b>	80 300	80 300											
	<b>06</b>	6.00	2.38	2.80	0.40	<b>M</b>			50 220										
	<b>07</b>	7.94	3.97	2.80	0.80	<b>K</b>	120 250	120 250											
	<b>09</b>	9.80	4.30	4.10	0.80	<b>N</b>			200 400										
	<b>11</b>	11.50	4.76	4.40	0.80	<b>S</b>													
	<b>14</b>	14.30	5.20	5.50	1.20	<b>H</b>													
<b>GRADE APPLICATION AREA</b>		Stable machining			<b>+</b>														
main application		General machining			<b>-</b>														
applicable		Unstable machining			<b>+</b>														

<b>GENERAL</b>	<b>GP P M K S</b>	SPMX	IC	S	D1	RE	f <sub>n</sub>	v <sub>c</sub>											
<b>AL N</b>		SPMX	050204-GP	5.00	2.38	2.50	0.40	0.08	0.12										
		SPMX	060204-GP	6.00	2.38	2.80	0.40	0.07	0.10										
		SPMX	077308-GP	7.94	3.97	2.80	0.80	0.09	0.12										
		SPMX	090408-GP	9.80	4.30	4.10	0.80	0.11	0.16										
		SPMX	110408-GP	11.50	4.76	4.40	0.80	0.14	0.20										
SPMX	140512-GP	14.30	5.20	5.50	1.20	0.16	0.22												
<b>ALUMINIUM</b>	<b>AL N</b>	SPGX	050204-AL	5.00	2.38	2.50	0.09	0.12											
		SPGX	060204-AL	6.00	2.38	2.80	0.12	0.16											
		SPGX	077308-AL	7.94	3.97	2.80	0.14	0.18											
		SPGX	090408-AL	9.80	4.30	4.10	0.15	0.20											
		SPGX	110408-AL	11.50	4.76	4.40	0.16	0.21											
SPGX	140512-AL	14.30	5.20	5.50	0.17	0.22													

● stock standard

**MATERIALS**

<b>P</b>	<b>M</b>	<b>K</b>		p. 14-15
<b>N</b>	<b>S</b>	<b>H</b>		

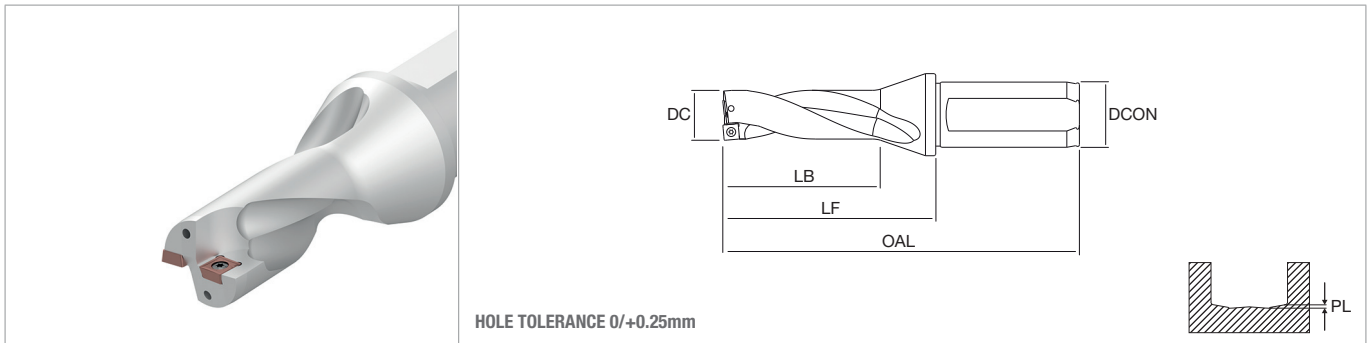


<b>DRS 2XD</b>			<b>DC</b>	<b>DCON</b>	<b>OAL</b>	<b>LF</b>	<b>LB</b>	<b>ADJLX max. radial offset</b>	<b>PL hole bottom shape</b>	<b>MIID</b>	
<b>05</b>	NT-DRS-2D	D13.00-S20-05	●	13	20	94	44	26	0.50	0.40	SPMX05 SPGX05
		D14.00-S20-05	●	14	20	96	46	28	0.50	0.40	
		D15.00-S20-05	●	15	20	99	49	30	0.50	0.40	
<b>06</b>	NT-DRS-2D	D16.00-S25-06	●	16	25	108	52	32	0.50	0.50	SPMX06 SPGX06
		D17.00-S25-06	●	17	25	110	54	34	0.50	0.50	
		D18.00-S25-06	●	18	25	113	57	36	0.50	0.50	
		D19.00-S25-06	●	19	25	115	59	38	0.50	0.50	
		D20.00-S25-06	●	20	25	119	63	40	0.50	0.50	
		D21.00-S25-06	●	21	25	121	65	42	0.25	0.50	
<b>07</b>	NT-DRS-2D	D22.00-S25-07	●	22	25	123	67	44	0.50	0.50	SPMX07 SPGX07
		D23.00-S32-07	●	23	32	131	71	46	0.50	0.50	
		D24.00-S32-07	●	24	32	134	74	48	0.50	0.50	
		D25.00-S32-07	●	25	32	137	77	50	0.50	0.50	
		D26.00-S32-07	●	26	32	139	79	52	0.25	0.60	
		D27.00-S32-07	●	27	32	141	81	54	0.25	0.60	
<b>09</b>	NT-DRS-2D	D28.00-S32-09	●	28	32	144	84	56	0.50	0.80	SPMX09 SPGX09
		D29.00-S32-09	●	29	32	146	86	58	0.50	0.80	
		D30.00-S32-09	●	30	32	151	91	60	0.50	0.80	
		D31.00-S32-09	●	31	32	154	94	62	0.25	0.80	
		D32.00-S32-09	●	32	32	156	96	64	0.25	0.80	
		D33.00-S32-09	●	33	32	159	99	66	0.25	0.80	
<b>11</b>	NT-DRS-2D	D34.00-S40-11	●	34	40	171	101	68	0.50	0.90	SPMX11 SPGX11
		D35.00-S40-11	●	35	40	174	104	70	0.50	0.90	
		D36.00-S40-11	●	36	40	177	107	72	0.50	0.90	
		D37.00-S40-11	●	37	40	180	110	74	0.50	0.90	
		D38.00-S40-11	●	38	40	183	113	76	0.50	0.90	
		D39.00-S40-11	●	39	40	185	115	78	0.50	0.90	
		D40.00-S40-11	●	40	40	188	118	80	0.25	0.90	
		D41.00-S40-11	●	41	40	191	121	82	0.25	0.90	
<b>14</b>	NT-DRS-2D	D42.00-S40-14	●	42	40	193	123	84	0.50	1.00	SPMX14 SPGX14
		D43.00-S40-14	●	43	40	196	126	86	0.50	1.00	
		D44.00-S40-14	●	44	40	198	128	88	0.50	1.00	
		D45.00-S40-14	●	45	40	202	132	90	0.50	1.00	
		D46.00-S40-14	●	46	40	205	135	92	0.50	1.00	
		D47.00-S40-14	●	47	40	207	137	94	0.50	1.00	
		D48.00-S40-14	●	48	40	210	140	96	0.25	1.00	
		D49.00-S40-14	●	49	40	212	142	98	0.25	1.00	
		D50.00-S40-14	●	50	40	215	145	100	0.25	1.00	

● stock standard

Spare Parts	INSERT SCREW	INSERT WRENCH

NT-DRS-2D D <sub>00.00</sub> -S <sub>00</sub> -05	NT-ST059	NT-FTB06
NT-DRS-2D D <sub>00.00</sub> -S <sub>00</sub> -06	NT-ST061	NT-FTB06
NT-DRS-2D D <sub>00.00</sub> -S <sub>00</sub> -07	NT-ST062	NT-FTB07
NT-DRS-2D D <sub>00.00</sub> -S <sub>00</sub> -09	NT-ST063	NT-FTB15
NT-DRS-2D D <sub>00.00</sub> -S <sub>00</sub> -11	NT-ST064	NT-FTB15
NT-DRS-2D D <sub>00.00</sub> -S <sub>00</sub> -14	NT-ST066	NT-FTB20




<b>DRS 3XD</b>		<b>DC</b>	<b>DCON</b>	<b>OAL</b>	<b>LF</b>	<b>LB</b>	<b>ADJLX</b> max. radial offset	<b>PL</b> hole bottom shape	<b>MIID</b>
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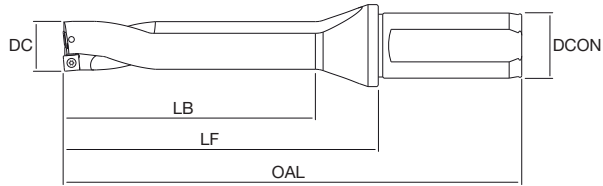
<b>05</b>	NT-DRS-3D	D12.50-S20-05	●	12.5	20	107	57	39	0.50	0.40	SPMX05 SPGX05
		D13.00-S20-05	●	13	20	107	57	39	0.50	0.40	
		D13.50-S20-05	●	13.5	20	110	60	42	0.50	0.40	
		D14.00-S20-05	●	14	20	110	60	42	0.50	0.40	
		D14.50-S20-05	●	14.5	20	114	64	45	0.50	0.40	
		D15.00-S20-05	●	15	20	114	64	45	0.50	0.40	
<b>06</b>	NT-DRS-3D	D15.50-S25-06	●	15.5	25	124	68	48	0.50	0.50	SPMX06 SPGX06
		D16.00-S25-06	●	16	25	124	68	48	0.50	0.50	
		D16.50-S25-06	●	16.5	25	127	71	51	0.50	0.50	
		D17.00-S25-06	●	17	25	127	71	51	0.50	0.50	
		D17.50-S25-06	●	17.5	25	131	75	54	0.50	0.50	
		D18.00-S25-06	●	18	25	131	75	54	0.50	0.50	
		D18.50-S25-06	●	18.5	25	134	78	57	0.50	0.50	
		D19.00-S25-06	●	19	25	134	78	57	0.50	0.50	
		D19.50-S25-06	●	19.5	25	139	83	60	0.50	0.50	
		D20.00-S25-06	●	20	25	139	83	60	0.50	0.50	
		D20.50-S25-06	●	20.5	25	142	86	63	0.25	0.50	
		D21.00-S25-06	●	21	25	142	86	63	0.25	0.50	
		D21.50-S25-06	●	21.5	25	145	89	66	0.25	0.50	
		<b>07</b>	NT-DRS-3D	D22.00-S25-07	●	22	25	145	89	66	
D22.50-S32-07	●			22.5	32	154	94	69	0.50	0.50	
D23.00-S32-07	●			23	32	154	94	69	0.50	0.50	
D23.50-S32-07	●			23.5	32	158	98	72	0.50	0.50	
D24.00-S32-07	●			24	32	158	98	72	0.50	0.50	
D24.50-S32-07	●			24.5	32	162	102	75	0.50	0.50	
D25.00-S32-07	●			25	32	162	102	75	0.50	0.50	
D25.50-S32-07	●			25.5	32	165	105	78	0.50	0.60	
D26.00-S32-07	●			26	32	165	105	78	0.25	0.60	
D26.50-S32-07	●			26.5	32	168	108	81	0.25	0.60	
D27.00-S32-07	●			27	32	168	108	81	0.25	0.60	
D27.50-S32-07	●			27.5	32	172	112	84	0.25	0.60	
<b>09</b>	NT-DRS-3D	D28.00-S32-09	●	28	32	172	112	84	0.50	0.80	SPMX09 SPGX09
		D28.50-S32-09	●	28.5	32	175	115	87	0.50	0.80	
		D29.00-S32-09	●	29	32	175	115	87	0.50	0.80	
		D29.50-S32-09	●	29.5	32	181	121	90	0.50	0.80	
		D30.00-S32-09	●	30	32	181	121	90	0.50	0.80	
		D31.00-S32-09	●	31	32	185	125	93	0.25	0.80	
		D32.00-S32-09	●	32	32	188	128	96	0.25	0.80	
		D33.00-S32-09	●	33	32	192	132	99	0.25	0.80	

● stock standard

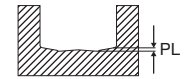
DRS 3XD				DC	DCON	OAL	LF	LB	ADJLX max. radial offset	PL hole bottom shape	MIID
11	NT-DRS-3D	D34.00-S40-11	●	34	40	205	135	102	0.50	0.90	SPMX11 SPGX11
		D35.00-S40-11	●	35	40	209	139	105	0.50	0.90	
		D36.00-S40-11	●	36	40	213	143	108	0.50	0.90	
		D37.00-S40-11	●	37	40	217	147	111	0.50	0.90	
		D38.00-S40-11	●	38	40	221	151	114	0.50	0.90	
		D39.00-S40-11	●	39	40	224	154	117	0.50	0.90	
		D40.00-S40-11	●	40	40	228	158	120	0.25	0.90	
		D41.00-S40-11	●	41	40	232	162	123	0.25	0.90	
14	NT-DRS-3D	D42.00-S40-14	●	42	40	235	165	126	0.50	1.00	SPMX14 SPGX14
		D43.00-S40-14	●	43	40	239	169	129	0.50	1.00	
		D44.00-S40-14	●	44	40	242	172	132	0.50	1.00	
		D45.00-S40-14	●	45	40	247	177	135	0.50	1.00	
		D46.00-S40-14	●	46	40	251	181	138	0.50	1.00	
		D47.00-S40-14	●	47	40	254	184	141	0.50	1.00	
		D48.00-S40-14	●	48	40	258	188	144	0.25	1.00	
		D49.00-S40-14	●	49	40	261	191	147	0.25	1.00	
		D50.00-S40-14	●	50	40	265	195	150	0.25	1.00	

● stock standard

Spare Parts	INSERT SCREW	INSERT WRENCH
		
NT-DRS-3D D00.00-S00-05	NT-ST059	NT-FTB06
NT-DRS-3D D00.00-S00-06	NT-ST061	NT-FTB06
NT-DRS-3D D00.00-S00-07	NT-ST062	NT-FTB07
NT-DRS-3D D00.00-S00-09	NT-ST063	NT-FTB15
NT-DRS-3D D00.00-S00-11	NT-ST064	NT-FTB15
NT-DRS-3D D00.00-S00-14	NT-ST066	NT-FTB20



HOLE TOLERANCE 0/+0.30mm




<b>DRS 4XD</b>		DC	DCON	OAL	LF	LB	ADJLX max. radial offset	PL hole bottom shape	MIID		
05	NT-DRS-4D	D12.50-S20-05	●	12.5	20	120	70	52	0.50	0.40	SPMX05 SPGX05
		D13.00-S20-05	●	13	20	120	70	52	0.50	0.40	
		D13.50-S20-05	●	13.5	20	124	74	56	0.50	0.40	
		D14.00-S20-05	●	14	20	124	74	56	0.50	0.40	
		D14.50-S20-05	●	14.5	20	129	79	60	0.50	0.40	
		D15.00-S20-05	●	15	20	129	79	60	0.50	0.40	
06	NT-DRS-4D	D15.50-S25-06	●	15.5	25	140	84	64	0.50	0.50	SPMX06 SPGX06
		D16.00-S25-06	●	16	25	140	84	64	0.50	0.50	
		D16.50-S25-06	●	16.5	25	144	88	68	0.50	0.50	
		D17.00-S25-06	●	17	25	144	88	68	0.50	0.50	
		D17.50-S25-06	●	17.5	25	149	93	72	0.50	0.50	
		D18.00-S25-06	●	18	25	149	93	72	0.50	0.50	
		D18.50-S25-06	●	18.5	25	153	97	76	0.50	0.50	
		D19.00-S25-06	●	19	25	153	97	76	0.50	0.50	
		D19.50-S25-06	●	19.5	25	159	103	80	0.50	0.50	
		D20.00-S25-06	●	20	25	159	103	80	0.50	0.50	
		D20.50-S25-06	●	20.5	25	163	107	84	0.25	0.50	
		D21.00-S25-06	●	21	25	163	107	84	0.25	0.50	
		D21.50-S25-06	●	21.5	25	167	111	88	0.25	0.50	
	07	NT-DRS-4D	D22.00-S25-07	●	22	25	167	111	88	0.50	
		D22.50-S32-07	●	22.5	32	177	117	92	0.50	0.50	
		D23.00-S32-07	●	23	32	177	117	92	0.50	0.50	
		D23.50-S32-07	●	23.5	32	182	122	96	0.50	0.50	
		D24.00-S32-07	●	24	32	182	122	96	0.50	0.50	
		D24.50-S32-07	●	24.5	32	187	127	100	0.50	0.50	
		D25.00-S32-07	●	25	32	187	127	100	0.50	0.50	
		D25.50-S32-07	●	25.5	32	191	131	104	0.50	0.60	
		D26.00-S32-07	●	26	32	191	131	104	0.25	0.60	
		D26.50-S32-07	●	26.5	32	195	135	108	0.25	0.60	
		D27.00-S32-07	●	27	32	195	135	108	0.25	0.60	
		D27.50-S32-07	●	27.5	32	200	140	112	0.25	0.60	
09	NT-DRS-4D	D28.00-S32-09	●	28	32	200	140	112	0.50	0.80	SPMX09 SPGX09
		D28.50-S32-09	●	28.5	32	204	144	116	0.50	0.80	
		D29.00-S32-09	●	29	32	204	144	116	0.50	0.80	
		D29.50-S32-09	●	29.5	32	211	151	120	0.50	0.80	
		D30.00-S32-09	●	30	32	211	151	120	0.50	0.80	
		D31.00-S32-09	●	31	32	216	156	124	0.25	0.80	
		D32.00-S32-09	●	32	32	220	160	128	0.25	0.80	
		D33.00-S32-09	●	33	32	225	165	132	0.25	0.80	

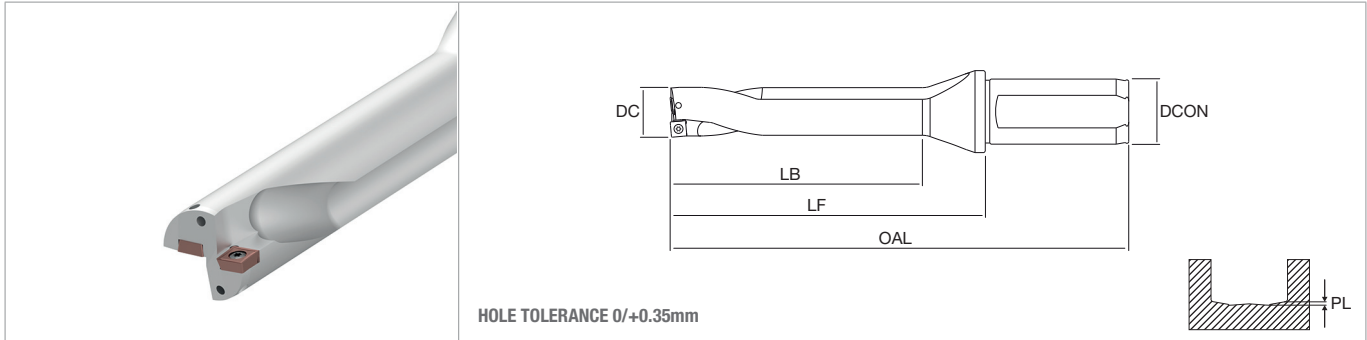
● stock standard

DRS 4XD				DC	DCON	OAL	LF	LB	ADJLX max. radial offset	PL hole bottom shape	MIID
11	NT-DRS-4D	D34.00-S40-11	●	34	40	239	169	136	0.50	0.90	SPMX11 SPGX11
		D35.00-S40-11	●	35	40	244	174	140	0.50	0.90	
		D36.00-S40-11	●	36	40	249	179	144	0.50	0.90	
		D37.00-S40-11	●	37	40	254	184	148	0.50	0.90	
		D38.00-S40-11	●	38	40	259	189	152	0.50	0.90	
		D39.00-S40-11	●	39	40	263	193	156	0.50	0.90	
		D40.00-S40-11	●	40	40	268	198	160	0.25	0.90	
		D41.00-S40-11	●	41	40	273	203	164	0.25	0.90	
14	NT-DRS-4D	D42.00-S40-14	●	42	40	277	207	168	0.50	1.00	SPMX14 SPGX14
		D43.00-S40-14	●	43	40	282	212	172	0.50	1.00	
		D44.00-S40-14	●	44	40	286	216	176	0.50	1.00	
		D45.00-S40-14	●	45	40	292	222	180	0.50	1.00	
		D46.00-S40-14	●	46	40	297	227	184	0.50	1.00	
		D47.00-S40-14	●	47	40	301	231	188	0.50	1.00	
		D48.00-S40-14	●	48	40	306	236	192	0.25	1.00	
		D49.00-S40-14	●	49	40	310	240	196	0.25	1.00	
		D50.00-S40-14	●	50	40	315	245	200	0.25	1.00	

● stock standard

Spare Parts	INSERT SCREW	INSERT WRENCH
		
NT-DRS-4D D□□□□-S□□-05	NT-ST059	NT-FTB06
NT-DRS-4D D□□□□-S□□-06	NT-ST061	NT-FTB06
NT-DRS-4D D□□□□-S□□-07	NT-ST062	NT-FTB07
NT-DRS-4D D□□□□-S□□-09	NT-ST063	NT-FTB15
NT-DRS-4D D□□□□-S□□-11	NT-ST064	NT-FTB15
NT-DRS-4D D□□□□-S□□-14	NT-ST066	NT-FTB20





HOLE TOLERANCE 0/+0.35mm

DRS 5XD			DC	DCON	OAL	LF	LB	ADJLX max. radial offset	PL hole bottom shape	MIID
---------	--	--	----	------	-----	----	----	--------------------------------	----------------------------	------

05	NT-DRS-5D	D13.00-S20-05	●	13	20	133	83	65	0.50	0.40	SPMX05 SPGX05
		D14.00-S20-05	●	14	20	138	88	70	0.50	0.40	
		D15.00-S20-05	●	15	20	144	94	75	0.50	0.40	
06	NT-DRS-5D	D16.00-S25-06	●	16	25	156	100	80	0.50	0.50	SPMX06 SPGX06
		D17.00-S25-06	●	17	25	161	105	85	0.50	0.50	
		D18.00-S25-06	●	18	25	167	111	90	0.50	0.50	
		D19.00-S25-06	●	19	25	172	116	95	0.50	0.50	
		D20.00-S25-06	●	20	25	179	123	100	0.50	0.50	
		D21.00-S25-06	●	21	25	184	128	105	0.25	0.50	
07	NT-DRS-5D	D22.00-S25-07	●	22	25	189	133	110	0.50	0.50	SPMX07 SPGX07
		D23.00-S32-07	●	23	32	200	140	115	0.50	0.50	
		D24.00-S32-07	●	24	32	206	146	120	0.50	0.50	
		D25.00-S32-07	●	25	32	212	152	125	0.50	0.50	
		D26.00-S32-07	●	26	32	217	157	130	0.25	0.60	
		D27.00-S32-07	●	27	32	222	162	135	0.25	0.60	
09	NT-DRS-5D	D28.00-S32-09	●	28	32	228	168	140	0.50	0.80	SPMX09 SPGX09
		D29.00-S32-09	●	29	32	233	173	145	0.50	0.80	
		D30.00-S32-09	●	30	32	241	181	150	0.50	0.80	
		D31.00-S32-09	●	31	32	247	187	155	0.25	0.80	
		D32.00-S32-09	●	32	32	252	192	160	0.25	0.80	
		D33.00-S32-09	●	33	32	258	198	165	0.25	0.80	
11	NT-DRS-5D	D34.00-S40-11	●	34	40	273	203	170	0.50	0.90	SPMX11 SPGX11
		D35.00-S40-11	●	35	40	279	209	175	0.50	0.90	
		D36.00-S40-11	●	36	40	285	215	180	0.50	0.90	
		D37.00-S40-11	●	37	40	291	221	185	0.50	0.90	
		D38.00-S40-11	●	38	40	297	227	190	0.50	0.90	
		D39.00-S40-11	●	39	40	302	232	195	0.50	0.90	
		D40.00-S40-11	●	40	40	308	238	200	0.25	0.90	
		D41.00-S40-11	●	41	40	314	244	205	0.25	0.90	
14	NT-DRS-5D	D42.00-S40-14	●	42	40	319	249	210	0.50	1.00	SPMX14 SPGX14
		D43.00-S40-14	●	43	40	325	255	215	0.50	1.00	
		D44.00-S40-14	●	44	40	330	260	220	0.50	1.00	
		D45.00-S40-14	●	45	40	337	267	225	0.50	1.00	
		D46.00-S40-14	●	46	40	343	273	230	0.50	1.00	
		D47.00-S40-14	●	47	40	348	278	235	0.50	1.00	
		D48.00-S40-14	●	48	40	354	284	240	0.25	1.00	
		D49.00-S40-14	●	49	40	359	289	245	0.25	1.00	
		D50.00-S40-14	●	50	40	365	295	250	0.25	1.00	

● stock standard

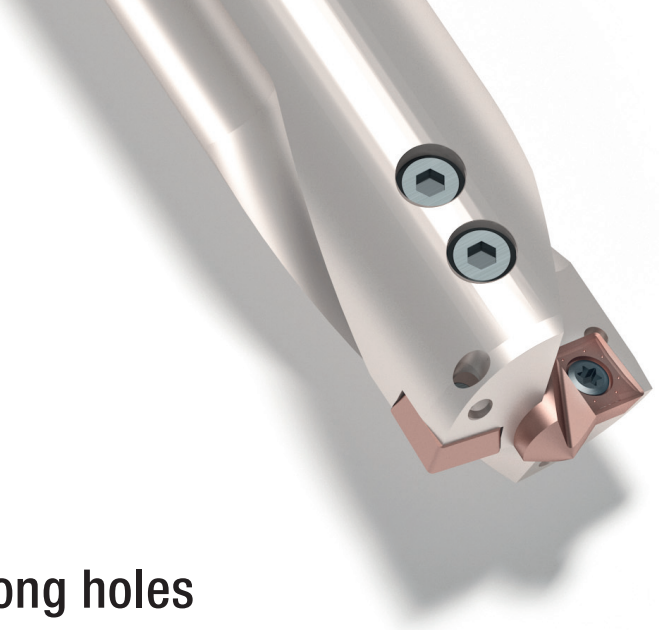
Spare Parts	INSERT SCREW	INSERT WRENCH

NT-DRS-5D D00.00-S00-05	NT-ST059	NT-FTB06
NT-DRS-5D D00.00-S00-06	NT-ST061	NT-FTB06
NT-DRS-5D D00.00-S00-07	NT-ST062	NT-FTB07
NT-DRS-5D D00.00-S00-09	NT-ST063	NT-FTB15
NT-DRS-5D D00.00-S00-11	NT-ST064	NT-FTB15
NT-DRS-5D D00.00-S00-14	NT-ST066	NT-FTB20

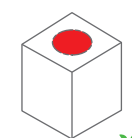
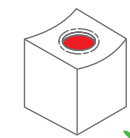
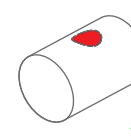
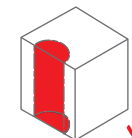
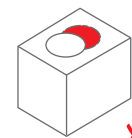
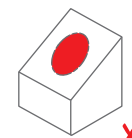
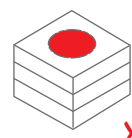
# DRSPILOT

6XD  
9XD

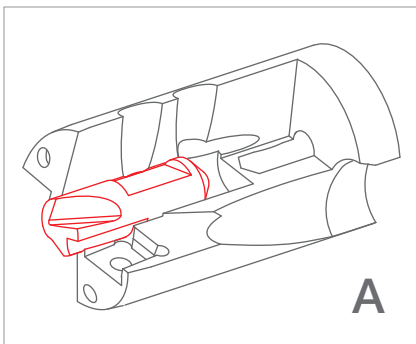
Perfect centering even on extra long holes



## 1. Where is DRSpilot applicable?

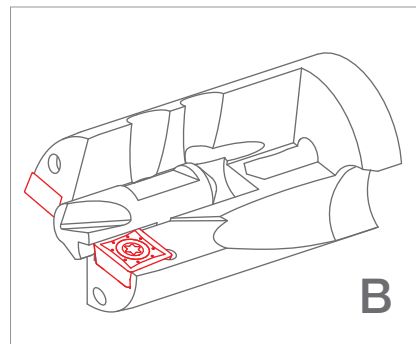
PLAIN SURFACE	CONCAVE SURFACE	PIPES	HALF HOLE	HOLE EXPANSION	SLANT SURFACE	STACKED PLATES
						

## 2. Installation of inserts and pilot drill



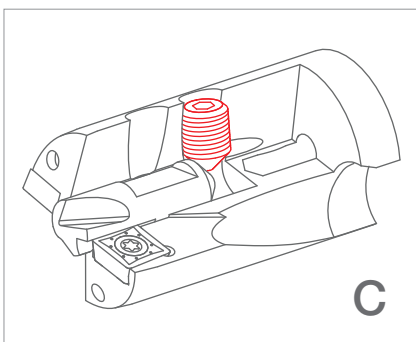
**A**

Insert DRSP pilot in the drilling body.



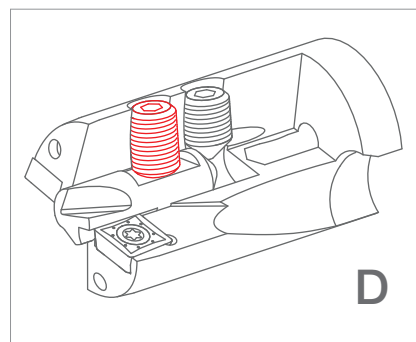
**B**

Install the SPMX/SPGX inserts.



**C**

Adjust the DRSP pilot height using the setting grain as shown in the drawing, following the table at pag. 11.



**D**

Screw tight the locking grain.

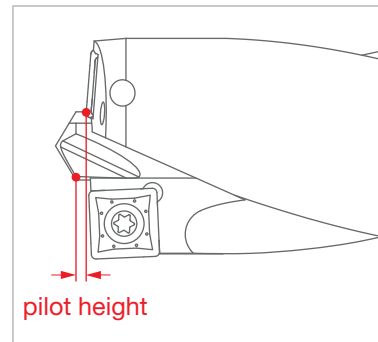
<b>SP<sub>□</sub>X</b>		<b>DRS PILOT</b> 4 edges drilling inserts					ISO513	HC-PVD		HW											
		Size	IC	S	D1	RE		JP5625	JP5530	JP9635	JU6520										
<p>4 edges</p>	<b>05</b>	5.00	2.38	2.50	0.40	<b>P</b>	60 220	60 220													
	<b>06</b>	6.00	2.38	2.80	0.40	<b>M</b>			40 160												
	<b>07</b>	7.94	3.97	2.80	0.80	<b>K</b>	100 190	100 190													
						<b>N</b>				150 300											
						<b>S</b>															
					<b>H</b>																
GRADE APPLICATION AREA		Stable machining				+															
		General machining				-															
		Unstable machining																			
<b>GENERAL</b>		SPMX 050204-GP	6xD 9xD	f <sub>n</sub> ▶ 0.08 f <sub>n</sub> ▶ 0.06	<b>0.10</b> <b>0.08</b>	0.12 0.10	●	●	●												
		SPMX 060204-GP	6xD 9xD	f <sub>n</sub> ▶ 0.08 f <sub>n</sub> ▶ 0.06	<b>0.10</b> <b>0.08</b>	0.12 0.10	●	●	●												
		SPMX 07T308-GP	6xD 9xD	f <sub>n</sub> ▶ 0.09 f <sub>n</sub> ▶ 0.07	<b>0.11</b> <b>0.09</b>	0.13 0.11	●	●	●												
<b>ALUMINIUM</b>	<p>polished surface</p>	SPGX 050204-AL	6xD 9xD	f <sub>n</sub> ▶ 0.05 f <sub>n</sub> ▶ 0.04	<b>0.07</b> <b>0.06</b>	0.09 0.08			●												
		SPGX 060204-AL	6xD 9xD	f <sub>n</sub> ▶ 0.05 f <sub>n</sub> ▶ 0.04	<b>0.07</b> <b>0.06</b>	0.09 0.08			●												
		SPGX 07T308-AL	6xD 9xD	f <sub>n</sub> ▶ 0.06 f <sub>n</sub> ▶ 0.05	<b>0.08</b> <b>0.07</b>	0.10 0.09			●												

● stock standard

<b>DRSP</b>		<b>DRS PILOT</b> interchangeable centering drill				
		Size	DC	OAL	PL	SIG
	<b>06</b>	6	20	1.5	118°	
	<b>08</b>	8	25	2.1	118°	
<b>GENERAL</b>		DRSP 06-GP HSS TIN				●
		DRSP 08-GP HSS TIN				●

● stock standard

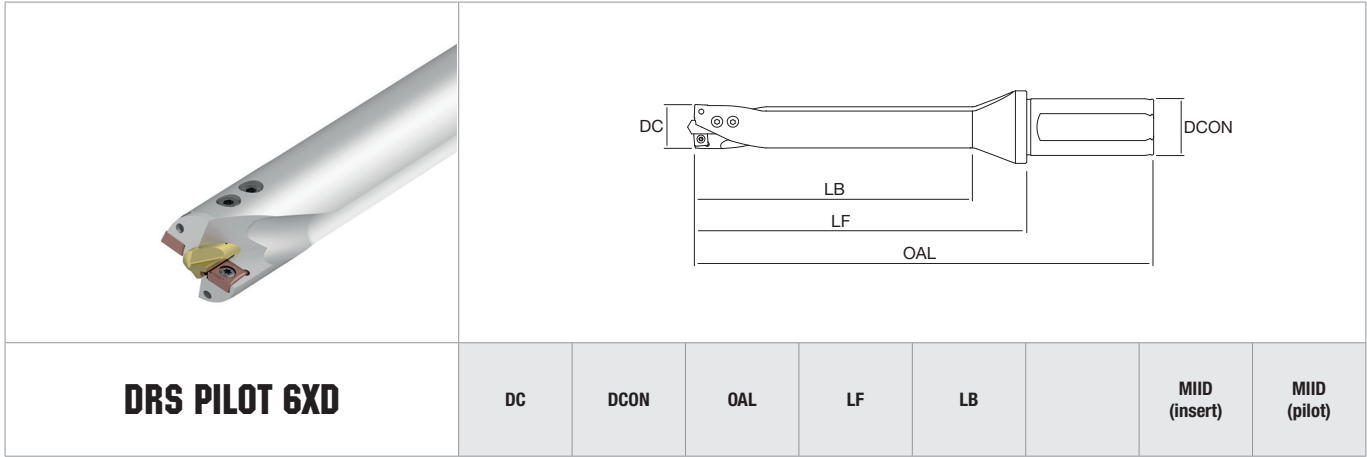
**HEIGHT ADJUSTEMENT**



MATERIAL	6xD	9xD
<b>P M K</b>	1.0 mm	1.4 mm
<b>N</b>	1.5 mm	1.7 mm

**MATERIALS**





<b>DRS PILOT 6XD</b>		DC	DCON	OAL	LF	LB		MID (insert)	MID (pilot)	
05	NT-DRS-6D	D18.00-S25-05P6	●	18	25	191	135	112	SPMX05 SPGX05	DRSP06
		D19.00-S25-05P6	●	19	25	197	141	118		
06	NT-DRS-6D	D20.00-S25-06P6	●	20	25	203	147	124	SPMX06 SPGX06	DRSP06
		D21.00-S25-06P6	●	21	25	209	153	130		
		D22.00-S25-06P6	●	22	25	215	159	136		
		D23.00-S32-06P6	●	23	32	228	168	142		
		D24.00-S32-06P6	●	24	32	234	174	148		
	D25.00-S32-06P6	●	25	32	240	180	154			
07	NT-DRS-6D	D26.00-S32-07P8	●	26	32	246	186	160	SPMX07 SPGX07	DRSP08
		D27.00-S32-07P8	●	27	32	252	192	166		
		D28.00-S32-07P8	●	28	32	258	198	172		
		D29.00-S32-07P8	●	29	32	264	204	178		
		D30.00-S32-07P8	●	30	32	270	210	184		

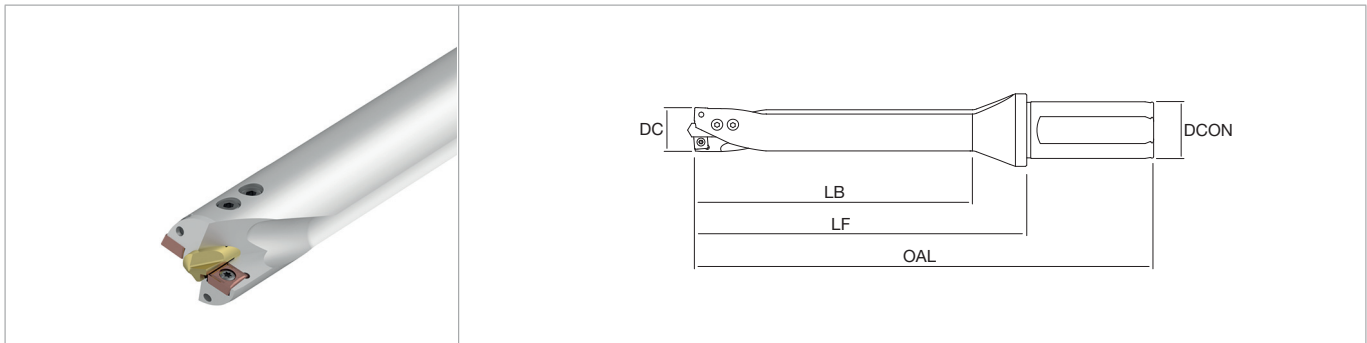
● stock standard



NT-DRS-6D D□□□-S□□-05P6	NT-ST059	NT-FTB06
NT-DRS-6D D□□□-S□□-06P6	NT-ST061	NT-FTB06
NT-DRS-6D D□□□-S□□-07P8	NT-ST062	NT-FTB07



DC 18÷22	NT-ST042	NT-ST043	NT-WR025
DC 23÷25	NT-ST044	NT-ST045	
DC 26÷30	NT-ST046	NT-ST047	NT-WR030



<b>DRS PILOT 9XD</b>			DC	DCON	OAL	LF	LB		MID (insert)	MID (pilot)
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05	NT-DRS-9D	D18.00-S25-05P6	●	18	25	245	189	166	SPMX05 SPGX05	DRSP06
		D19.00-S25-05P6	●	19	25	254	198	175		
06	NT-DRS-9D	D20.00-S25-06P6	●	20	25	263	207	184	SPMX06 SPGX06	DRSP06
		D21.00-S25-06P6	●	21	25	272	216	193		
		D22.00-S25-06P6	●	22	25	281	225	202		
		D23.00-S32-06P6	●	23	32	297	237	211		
		D24.00-S32-06P6	●	24	32	306	246	220		
		D25.00-S32-06P6	●	25	32	315	255	229		
07	NT-DRS-9D	D26.00-S32-07P8	●	26	32	324	264	238	SPMX07 SPGX07	DRSP08
		D27.00-S32-07P8	●	27	32	333	273	247		
		D28.00-S32-07P8	●	28	32	342	282	256		
		D29.00-S32-07P8	●	29	32	351	291	265		
		D30.00-S32-07P8	●	30	32	360	300	274		

● stock standard

Spare Parts	INSERT SCREW	INSERT WRENCH

NT-DRS-9D D□□□-S□□-05P6	NT-ST059	NT-FTB06
NT-DRS-9D D□□□-S□□-06P6	NT-ST061	NT-FTB06
NT-DRS-9D D□□□-S□□-07P8	NT-ST062	NT-FTB07

Spare Parts	LOCKING GRAIN	SETTING GRAIN	GRAIN WRENCH

DC 18÷22	NT-ST042	NT-ST043	NT-WR025
DC 23÷25	NT-ST044	NT-ST045	
DC 26÷30	NT-ST046	NT-ST047	NT-WR030

**CUTTING SPEED [m/min]**

	MATERIALS	HARDNESS/Rm	W.-Nr	DIN	AISI-ASTM	TRADE MARK
<b>P1</b>	Free cutting steel and structural steel	< 500 N/mm <sup>2</sup>	1.0715	9 SMn 28	1213	AVP
			1.0765	36 SMnPb 14	A29	PR80
<b>P2</b>	Carbon steel and low alloy steel	500-700 N/mm <sup>2</sup>	1.7147	20 MnCr 5	5120	-
			1.0511	C 40	1040	-
<b>P3</b>	Medium alloy steel and heat treated steel	600-800 N/mm <sup>2</sup>	1.1201	42 CrMo 4	4142, 4140	-
			1.6511	36 CrNiMo 4	9840	-
<b>P4</b>	High alloy steel	800-1000 N/mm <sup>2</sup>	1.1663	C 125 W	W1	-
			1.3505	100 Cr 6	52100	-
<b>P5</b>	Tool steel	900-1200 N/mm <sup>2</sup>	1.2080	X 210 Cr 12	D3	K100
			1.2379	X 155 CrVMo 12 1	-	K110
<b>M1</b>	Ferritic stainless steel	400-700 N/mm <sup>2</sup>	1.4016	X 6 Cr 17	430	-
			1.4104	X 12 CrMoS 17	430 F	-
<b>M2</b>	Austenitic stainless steel (good machinability)	500-750 N/mm <sup>2</sup>	1.4305	X 10 CrNiS 18 9	303	-
			1.4301	X 6 CrNi 18 10	304, 304 H	-
<b>M3</b>	Austenitic stainless steel (medium machinability)	550-850 N/mm <sup>2</sup>	1.4401	X 5 CrNiMo 17 12 2	316	-
			1.4462	X 2 CrNiMoN 22 5	F 51-329 A	DUPLEX
<b>M4</b>	Martensitic stainless steel	650-950 N/mm <sup>2</sup>	1.4021	X 20 Cr 13	420	-
			1.4410	X 2 CrNiMoN 25 7 4	F 53-329 S1	SUPER DUPLEX
<b>M5</b>	PH stainless steel	800-1250 N/mm <sup>2</sup>	1.4540	X 4 CrNiCuNb 16 4	XM-12	15-5-PH
			1.4542	X 5 CrNiNb 16 4	631	17-4-PH
<b>K1</b>	Grey cast iron	150-250 HB	0.6020	GG-20	A48 30 B	-
			0.6025	GG-25	A48 35 B	-
<b>K2</b>	Nodular cast iron	150-350 HB	0.7050	GGG-50	A536 80-55-6	-
			0.7070	GGG-70	A536 100-70-03	-
<b>N1</b>	Aluminium alloys ≤ 12% Si		3.3547	AlMg4.5Mn	5083	Peraluman 440
			3.2315	AlMgSi 1	6082	Anticorodal 100
<b>N2</b>	Aluminium alloys > 12% Si		3.2582	GD-AISi12	A413.0	
				G-AISi6Cu4	319	
<b>N3</b>	Copper		2.0940-01	CuAl10Fe	CA952	
			2.1176	CuPb10Sn	CA937	
<b>N4</b>	Bronze and brass		2.0401	Cu Zn39Pb3		OT58 AMPCO 18

# DRSDRILL

# DRSPILOT

JP5625	JP5530	JP9635	JU6520	JP5625	JP5530	JP9635	JU6520	MATERIALS	HARDNESS/Rm	
180÷300	180÷300			130÷220	130÷220			Free cutting steel and structural steel	< 500 N/mm <sup>2</sup>	<b>P1</b>
140÷240	140÷240			100÷180	100÷180			Carbon steel and low alloy steel	500-700 N/mm <sup>2</sup>	<b>P2</b>
100÷220	100÷220			80÷170	80÷170			Medium alloy steel and heat treated steel	600-800 N/mm <sup>2</sup>	<b>P3</b>
100÷180	100÷180			80÷140	80÷140			High alloy steel	800-1000 N/mm <sup>2</sup>	<b>P4</b>
80÷150	80÷150			60÷120	60÷120			Tool steel	900-1200 N/mm <sup>2</sup>	<b>P5</b>
		120÷220				90÷160		Ferritic stainless steel	400-700 N/mm <sup>2</sup>	<b>M1</b>
		80÷180				60÷130		Austenitic stainless steel (good machinability)	500-750 N/mm <sup>2</sup>	<b>M2</b>
		60÷150				50÷110		Austenitic stainless steel (medium machinability)	550-850 N/mm <sup>2</sup>	<b>M3</b>
		60÷150				50÷110		Martensitic stainless steel	650-950 N/mm <sup>2</sup>	<b>M4</b>
		50÷120				40÷100		PH stainless steel	800-1250 N/mm <sup>2</sup>	<b>M5</b>
180÷250	180÷250			130÷190	130÷190			Grey cast iron	150-250 HB	<b>K1</b>
120÷180	120÷180			100÷140	100÷140			Nodular cast iron	150-350 HB	<b>K2</b>
			250÷400				200÷300	Aluminium alloys ≤ 12% Si		<b>N1</b>
			150÷300				120÷240	Aluminium alloys > 12% Si		<b>N2</b>
			200÷300				150÷240	Copper		<b>N3</b>
			200÷300				150÷240	Bronze and brass		<b>N4</b>

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