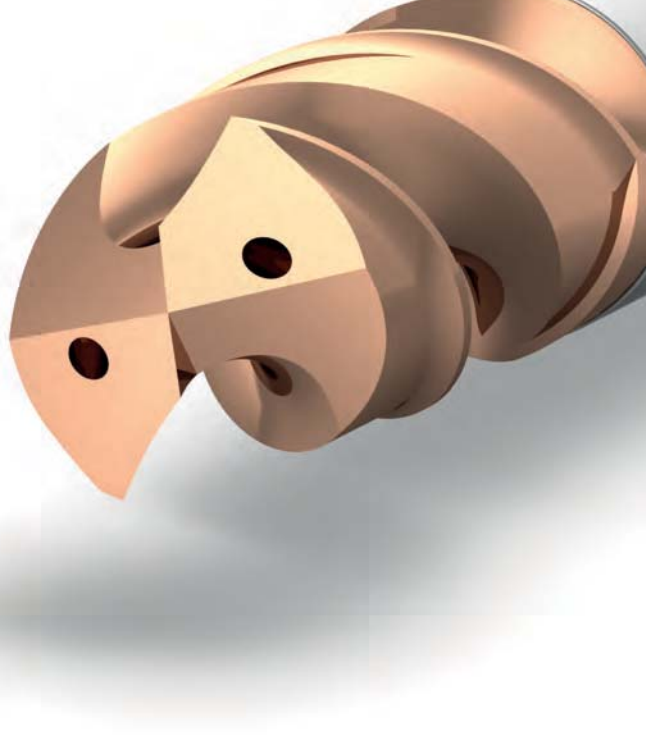
NCD DRILLS

Premium quality solid carbide drills

- Available range Ø3÷Ø20
  3xD and 5xD
- 2 geometries optimized for excellent performance on ISO P M K S materials

uemme TOOLS and EQUIPMENT

nikko TOOLS



NCD DRILLS

Premium quality solid carbide drills

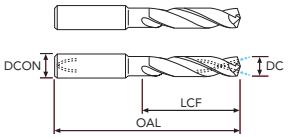
SC - SMOOTH CUT P M S

- First choice for difficult to machine materials: stainless steel, sticky free-cutting steel, HRSA and Titanium
- Self-centering geometry for accurate holes
- Back taper geometry to reduce cutting force
- Special micro-honing treatment for edge protection
- AlCrN based multilayer coating with very low friction coefficient to reduce built up edge

GP - GENERAL PURPOSE P K

- First choice for steel and cast iron machining (<45 HRC)
- Self-centering geometry for accurate holes
- Straight cutting edge improves chip ejection
- Special corner protection for reliable operations
- AlTiN-nano based coating for long lasting tool life
- Available both with and without coolant holes

NCDDRILLS



P M S ★ ★ ☆ SC

P K ★ ★ GP

					SMOOTH		GENERAL			
					NCD3H-SC	NCD5H-SC	NCD3-GP	NCD5-GP	NCD3H-GP	NCD5H-GP
DC (m7)	DCON (h6)	ULDR	LCF	OAL	STOCK					
3,00	6	3xD	20	62	●		●		●	
		5xD	28	66		●		●		●
3,10	6	3xD	20	62	●		●		●	
		5xD	28	66		●		●		●
3,20	6	3xD	20	62	●		●		●	
		5xD	28	66		●		●		●
3,30	6	3xD	20	62	●		●		●	
		5xD	28	66		●		●		●
3,40	6	3xD	20	62	●		●		●	
		5xD	28	66		●		●		●
3,50	6	3xD	20	62	●		●		●	
		5xD	28	66		●		●		●
3,60	6	3xD	20	62	●		●		●	
		5xD	28	66		●		●		●
3,70	6	3xD	20	62	●		●		●	
		5xD	28	66		●		●		●
3,80	6	3xD	24	66	●		●		●	
		5xD	36	74		●		●		●
3,90	6	3xD	24	66	●		●		●	
		5xD	36	74		●		●		●
4,00	6	3xD	24	66	●		●		●	
		5xD	36	74		●		●		●
4,10	6	3xD	24	66	●		●		●	
		5xD	36	74		●		●		●
4,20	6	3xD	24	66	●		●		●	
		5xD	36	74		●		●		●
4,30	6	3xD	24	66	●		●		●	
		5xD	36	74		●		●		●
4,40	6	3xD	24	66	●		●		●	
		5xD	36	74		●		●		●
4,50	6	3xD	24	66	●		●		●	
		5xD	36	74		●		●		●
4,60	6	3xD	24	66	●		●		●	
		5xD	36	74		●		●		●
4,70	6	3xD	24	66	●		●		●	
		5xD	36	74		●		●		●
4,80	6	3xD	28	66	●		●		●	
		5xD	44	82		●		●		●
4,90	6	3xD	28	66	●		●		●	
		5xD	44	82		●		●		●
5,00	6	3xD	28	66	●		●		●	
		5xD	44	82		●		●		●
5,10	6	3xD	28	66	●		●		●	
		5xD	44	82		●		●		●
5,20	6	3xD	28	66	●		●		●	
		5xD	44	82		●		●		●
5,30	6	3xD	28	66	●		●		●	
		5xD	44	82		●		●		●
5,40	6	3xD	28	66	●		●		●	
		5xD	44	82		●		●		●
5,50	6	3xD	28	66	●		●		●	
		5xD	44	82		●		●		●
5,60	6	3xD	28	66	●		●		●	
		5xD	44	82		●		●		●
5,70	6	3xD	28	66	●		●		●	
		5xD	44	82		●		●		●
5,80	6	3xD	28	66	●		●		●	
		5xD	44	82		●		●		●
5,90	6	3xD	28	66	●		●		●	
		5xD	44	82		●		●		●

● stock standard

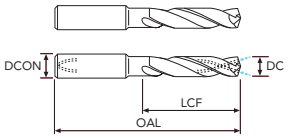
▶

					SMOOTH		GENERAL			
					NCD3H-SC	NCD5H-SC	NCD3-GP	NCD5-GP	NCD3H-GP	NCD5H-GP
DC (m7)	DCON (h6)	ULDR	LCF	OAL	STOCK					
6,00	6	3xD	28	66	●		●		●	
		5xD	44	82		●		●		●
6,10	8	3xD	34	79	●		●		●	
		5xD	53	91		●		●		●
6,20	8	3xD	34	79	●		●		●	
		5xD	53	91		●		●		●
6,30	8	3xD	34	79	●		●		●	
		5xD	53	91		●		●		●
6,40	8	3xD	34	79	●		●		●	
		5xD	53	91		●		●		●
6,50	8	3xD	34	79	●		●		●	
		5xD	53	91		●		●		●
6,60	8	3xD	34	79	●		●		●	
		5xD	53	91		●		●		●
6,70	8	3xD	34	79	●		●		●	
		5xD	53	91		●		●		●
6,80	8	3xD	34	79	●		●		●	
		5xD	53	91		●		●		●
6,90	8	3xD	34	79	●		●		●	
		5xD	53	91		●		●		●
7,00	8	3xD	34	79	●		●		●	
		5xD	53	91		●		●		●
7,10	8	3xD	41	79	●		●		●	
		5xD	53	91		●		●		●
7,20	8	3xD	41	79	●		●		●	
		5xD	53	91		●		●		●
7,30	8	3xD	41	79	●		●		●	
		5xD	53	91		●		●		●
7,40	8	3xD	41	79	●		●		●	
		5xD	53	91		●		●		●
7,50	8	3xD	41	79	●		●		●	
		5xD	53	91		●		●		●
7,60	8	3xD	41	79	●		●		●	
		5xD	53	91		●		●		●
7,70	8	3xD	41	79	●		●		●	
		5xD	53	91		●		●		●
7,80	8	3xD	41	79	●		●		●	
		5xD	53	91		●		●		●
7,90	8	3xD	41	79	●		●		●	
		5xD	53	91		●		●		●
8,00	8	3xD	41	79	●		●		●	
		5xD	53	91		●		●		●
8,10	10	3xD	47	89	●		●		●	
		5xD	61	103		●		●		●
8,20	10	3xD	47	89	●		●		●	
		5xD	61	103		●		●		●
8,30	10	3xD	47	89	●		●		●	
		5xD	61	103		●		●		●
8,40	10	3xD	47	89	●		●		●	
		5xD	61	103		●		●		●
8,50	10	3xD	47	89	●		●		●	
		5xD	61	103		●		●		●
8,60	10	3xD	47	89	●		●		●	
		5xD	61	103		●		●		●
8,70	10	3xD	47	89	●		●		●	
		5xD	61	103		●		●		●
8,80	10	3xD	47	89	●		●		●	
		5xD	61	103		●		●		●
8,90	10	3xD	47	89	●		●		●	
		5xD	61	103		●		●		●

● stock standard

▶

NCDDRILLS



P M S ★ ★ ☆ SC

P K ★ ★ GP

					SMOOTH		GENERAL			
					NCD3H-SC	NCD5H-SC	NCD3-GP	NCD5-GP	NCD3H-GP	NCD5H-GP
DC (m7)	DCON (h6)	ULDR	LCF	OAL	STOCK					
9,00	10	3xD	47	89	●		●		●	
		5xD	61	103		●		●		●
9,10	10	3xD	47	89	●		●		●	
		5xD	61	103		●		●		●
9,20	10	3xD	47	89	●		●		●	
		5xD	61	103		●		●		●
9,30	10	3xD	47	89	●		●		●	
		5xD	61	103		●		●		●
9,40	10	3xD	47	89	●		●		●	
		5xD	61	103		●		●		●
9,50	10	3xD	47	89	●		●		●	
		5xD	61	103		●		●		●
9,60	10	3xD	47	89	●		●		●	
		5xD	61	103		●		●		●
9,70	10	3xD	47	89	●		●		●	
		5xD	61	103		●		●		●
9,80	10	3xD	47	89	●		●		●	
		5xD	61	103		●		●		●
9,90	10	3xD	47	89	●		●		●	
		5xD	61	103		●		●		●
10,00	10	3xD	47	89	●		●		●	
		5xD	61	103		●		●		●
10,10	12	3xD	55	102	●		●		●	
		5xD	71	118		●		●		●
10,20	12	3xD	55	102	●		●		●	
		5xD	71	118		●		●		●
10,30	12	3xD	55	102	●		●		●	
		5xD	71	118		●		●		●
10,40	12	3xD	55	102	●		●		●	
		5xD	71	118		●		●		●
10,50	12	3xD	55	102	●		●		●	
		5xD	71	118		●		●		●
10,60	12	3xD	55	102	●		●		●	
		5xD	71	118		●		●		●
10,70	12	3xD	55	102	●		●		●	
		5xD	71	118		●		●		●
10,80	12	3xD	55	102	●		●		●	
		5xD	71	118		●		●		●
10,90	12	3xD	55	102	●		●		●	
		5xD	71	118		●		●		●
11,00	12	3xD	55	102	●		●		●	
		5xD	71	118		●		●		●
11,10	12	3xD	55	102	●		●		●	
		5xD	71	118		●		●		●
11,20	12	3xD	55	102	●		●		●	
		5xD	71	118		●		●		●
11,30	12	3xD	55	102	●		●		●	
		5xD	71	118		●		●		●
11,40	12	3xD	55	102	●		●		●	
		5xD	71	118		●		●		●
11,50	12	3xD	55	102	●		●		●	
		5xD	71	118		●		●		●
11,60	12	3xD	55	102	●		●		●	
		5xD	71	118		●		●		●
11,70	12	3xD	55	102	●		●		●	
		5xD	71	118		●		●		●
11,80	12	3xD	55	102	●		●		●	
		5xD	71	118		●		●		●
11,90	12	3xD	55	102	●		●		●	
		5xD	71	118		●		●		●

● stock standard

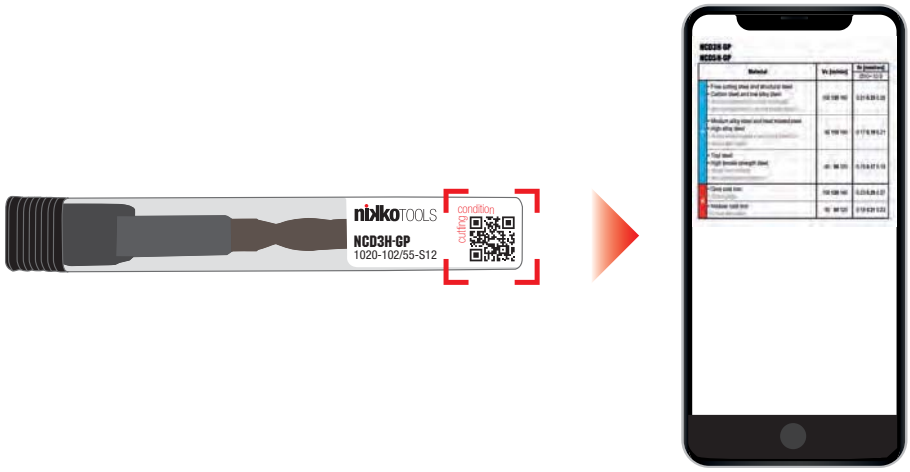
					SMOOTH		GENERAL			
					NCD3H-SC	NCD5H-SC	NCD3-GP	NCD5-GP	NCD3H-GP	NCD5H-GP
DC (m7)	DCON (h6)	ULDR	LCF	OAL	STOCK					
12,00	12	3xD	55	102	●		●		●	
		5xD	71	118		●		●		●
12,50	14	3xD	60	107	●		●		●	
		5xD	77	124		●		●		●
13,00	14	3xD	60	107	●		●		●	
		5xD	77	124		●		●		●
13,50	14	3xD	60	107	●		●		●	
		5xD	77	124		●		●		●
14,00	14	3xD	60	107	●		●		●	
		5xD	77	124		●		●		●
14,50	16	3xD	65	115	●		●		●	
		5xD	83	133		●		●		●
15,00	16	3xD	65	115	●		●		●	
		5xD	83	133		●		●		●
15,50	16	3xD	65	115	●		●		●	
		5xD	83	133		●		●		●
16,00	16	3xD	65	115	●		●		●	
		5xD	83	133		●		●		●
16,50	18	3xD	73	123	●		●		●	
		5xD	93	143		●		●		●
17,00	18	3xD	73	123	●		●		●	
		5xD	93	143		●		●		●
17,50	18	3xD	73	123	●		●		●	
		5xD	93	143		●		●		●
18,00	18	3xD	73	123	●		●		●	
		5xD	93	143		●		●		●
18,50	20	3xD	79	131	●		●		●	
		5xD	101	153		●		●		●
19,00	20	3xD	79	131	●		●		●	
		5xD	101	153		●		●		●
19,50	20	3xD	79	131	●		●		●	
		5xD	101	153		●		●		●
20,00	20	3xD	79	131	●		●		●	
		5xD	101	153		●		●		●

● stock standard

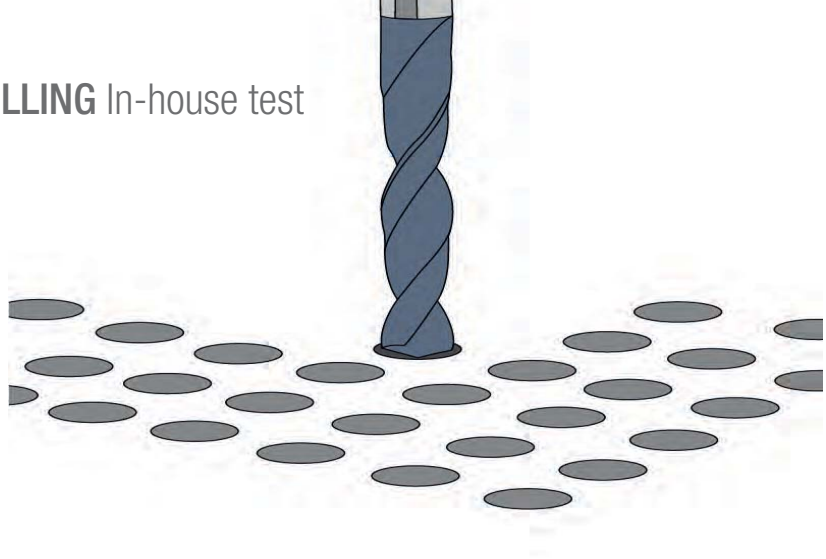
	P			M		K		S	
	Free cutting steel and structural steel Carbon steel and low alloy steel	Medium alloy steel and heat treated steel High alloy steel	Tool steel High tensile strength steel	Austenitic stainless steel	Duplex stainless steel	Grey cast iron	Nodular cast iron	Heat resistant super alloys	Titanium alloy
TYPE	**Vc (m/min)**								
SC	★ 100 **130** 160	☆ 80 **110** 140	-	★ 40 **60** 80	★ 20 **30** 40	-	-	☆ 30 **40** 50	☆ 40 **50** 60
GP	☆ 100 **130** 160	★ 80 **110** 140	★ 60 **90** 120	-	-	★ 100 **120** 140	★ 60 **90** 120	-	-
GP without coolant	☆ 80 **100** 120	★ 60 **80** 100	★ 40 **60** 80	-	-	★ 80 **90** 100	★ 40 **60** 80	-	-

Ø	**fn (mm/rev)**								
3÷3.9	0.14 **0.16** 0.18	0.10 **0.12** 0.14	0.08 **0.10** 0.12	0.08 **0.10** 0.12	0.04 **0.06** 0.08	0.16 **0.18** 0.20	0.12 **0.14** 0.16	0.02 **0.04** 0.06	0.03 **0.05** 0.07
4÷4.9	0.15 **0.17** 0.19	0.11 **0.13** 0.15	0.09 **0.11** 0.13	0.09 **0.11** 0.13	0.05 **0.07** 0.09	0.17 **0.19** 0.21	0.13 **0.15** 0.17	0.03 **0.05** 0.07	0.04 **0.06** 0.08
5÷5.9	0.16 **0.18** 0.20	0.12 **0.14** 0.16	0.10 **0.12** 0.14	0.10 **0.12** 0.14	0.06 **0.08** 0.10	0.18 **0.20** 0.22	0.14 **0.16** 0.18	0.04 **0.06** 0.08	0.05 **0.07** 0.09
6÷6.9	0.17 **0.19** 0.21	0.13 **0.15** 0.17	0.11 **0.13** 0.15	0.11 **0.13** 0.15	0.07 **0.09** 0.11	0.19 **0.21** 0.23	0.15 **0.17** 0.19	0.05 **0.07** 0.09	0.06 **0.08** 0.10
7÷7.9	0.18 **0.20** 0.22	0.14 **0.16** 0.18	0.12 **0.14** 0.16	0.12 **0.14** 0.16	0.08 **0.10** 0.12	0.20 **0.22** 0.24	0.16 **0.18** 0.20	0.06 **0.08** 0.10	0.07 **0.09** 0.11
8÷8.9	0.19 **0.21** 0.23	0.15 **0.17** 0.19	0.13 **0.15** 0.17	0.13 **0.15** 0.17	0.09 **0.11** 0.13	0.21 **0.23** 0.25	0.17 **0.19** 0.21	0.07 **0.09** 0.11	0.08 **0.10** 0.12
9÷9.9	0.20 **0.22** 0.24	0.16 **0.18** 0.20	0.14 **0.16** 0.18	0.14 **0.16** 0.18	0.10 **0.12** 0.14	0.22 **0.24** 0.26	0.18 **0.20** 0.22	0.08 **0.10** 0.12	0.09 **0.11** 0.13
10÷10.9	0.21 **0.23** 0.25	0.17 **0.19** 0.21	0.15 **0.17** 0.19	0.15 **0.17** 0.19	0.11 **0.13** 0.15	0.23 **0.25** 0.27	0.19 **0.21** 0.23	0.09 **0.11** 0.13	0.10 **0.12** 0.14
11÷11.9	0.22 **0.24** 0.26	0.18 **0.20** 0.22	0.16 **0.18** 0.20	0.16 **0.18** 0.20	0.12 **0.14** 0.16	0.24 **0.26** 0.28	0.20 **0.22** 0.24	0.10 **0.12** 0.14	0.11 **0.13** 0.15
12÷12.9	0.23 **0.25** 0.27	0.19 **0.21** 0.23	0.17 **0.19** 0.21	0.17 **0.19** 0.21	0.13 **0.15** 0.17	0.25 **0.27** 0.29	0.21 **0.23** 0.25	0.11 **0.13** 0.15	0.12 **0.14** 0.16
13÷13.9	0.24 **0.26** 0.28	0.20 **0.22** 0.24	0.18 **0.20** 0.22	0.18 **0.20** 0.22	0.14 **0.16** 0.18	0.26 **0.28** 0.30	0.22 **0.24** 0.26	0.12 **0.14** 0.16	0.13 **0.15** 0.17
14÷14.9	0.25 **0.27** 0.29	0.21 **0.23** 0.25	0.19 **0.21** 0.23	0.19 **0.21** 0.23	0.15 **0.17** 0.19	0.27 **0.29** 0.31	0.23 **0.25** 0.27	0.13 **0.15** 0.17	0.14 **0.16** 0.18
15÷15.9	0.26 **0.28** 0.30	0.22 **0.24** 0.26	0.20 **0.22** 0.24	0.20 **0.22** 0.24	0.16 **0.18** 0.20	0.28 **0.30** 0.32	0.24 **0.26** 0.28	0.14 **0.16** 0.18	0.15 **0.17** 0.19
16÷16.9	0.27 **0.29** 0.31	0.23 **0.25** 0.27	0.21 **0.23** 0.25	0.21 **0.23** 0.25	0.17 **0.19** 0.21	0.29 **0.31** 0.33	0.25 **0.27** 0.29	0.15 **0.17** 0.19	0.16 **0.18** 0.20
17÷17.9	0.28 **0.30** 0.32	0.24 **0.26** 0.28	0.22 **0.24** 0.26	0.22 **0.24** 0.26	0.18 **0.20** 0.22	0.30 **0.32** 0.34	0.26 **0.28** 0.30	0.16 **0.18** 0.20	0.17 **0.19** 0.21
18÷18.9	0.29 **0.31** 0.33	0.25 **0.27** 0.29	0.23 **0.25** 0.27	0.23 **0.25** 0.27	0.19 **0.21** 0.23	0.31 **0.33** 0.35	0.27 **0.29** 0.31	0.17 **0.19** 0.21	0.18 **0.20** 0.22
19÷19.9	0.30 **0.32** 0.34	0.26 **0.28** 0.30	0.24 **0.26** 0.28	0.24 **0.26** 0.28	0.20 **0.22** 0.24	0.32 **0.34** 0.36	0.28 **0.30** 0.32	0.18 **0.20** 0.22	0.19 **0.21** 0.23
20÷20.9	0.31 **0.33** 0.35	0.27 **0.29** 0.31	0.25 **0.27** 0.29	0.25 **0.27** 0.29	0.21 **0.23** 0.25	0.33 **0.35** 0.37	0.29 **0.31** 0.33	0.19 **0.21** 0.23	0.20 **0.22** 0.24

★ 1st choice ☆ suitable



Read the QR code with your smartphone and find the right parameters for the NCD drill that you are going to use!

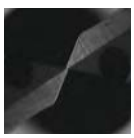
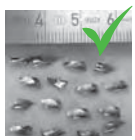
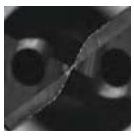
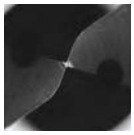


P DIN 36CrNiMo4, W.stoff nr. 1.6511, AISI 9840

		Power Consumption	Wear condition (mm)			Chips shape
Drill Ø: 6.8 mm 5xD **Vc:** 100 m/min **fn:** 0.14 mm/rev **Coolant:** emulsion 6% **Pressure:** 15 bar **Tool life target: 45 minutes**	**NCD5H-GP** TOP **0680-091/053-S08**	8%	0.030			
	Competitor G	9%	0.052			
	Competitor M	11%	too damaged			
	Competitor Y	10%	0.040			

Note: NCD drill shows less power consumption and a better wear condition once reached the fixed target.

M DIN X6CrNi18-10, W.-Nr 1.4301, AISI 304

		Power Consumption	Wear condition (mm)			Chips shape
Drill Ø: 6.8 mm 5xD **Vc:** 60 m/min **fn:** 0.12 mm/rev **Coolant:** emulsion 8% **Pressure:** 15 bar **Tool life target: 30 minutes**	**NCD5H-SC** TOP **0680-091/053-S08**	6%	0.026			
	Competitor G	6%	0.045			
	Competitor M	7%	0.039			
	Competitor Y	8%	0.037			

Note: NCD drill shows less power consumption and a better wear condition once reached the fixed target.

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P M K S

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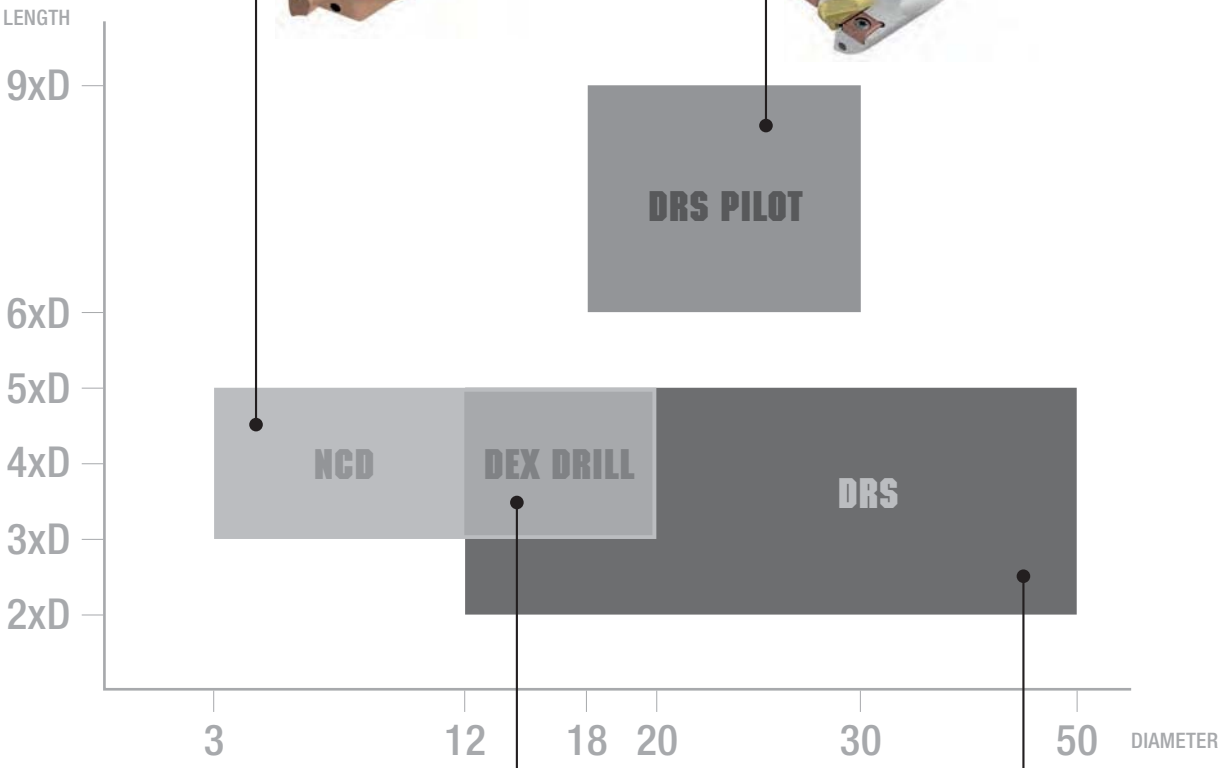
Ø18÷Ø30 6xD, 9xD

P M K N



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P M K N S

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