Drill LINE

DR-S SERIES

HPMT

THE FUTURE OF PRECISION MACHINING

Drills a wide variety of metals with aggressive speed

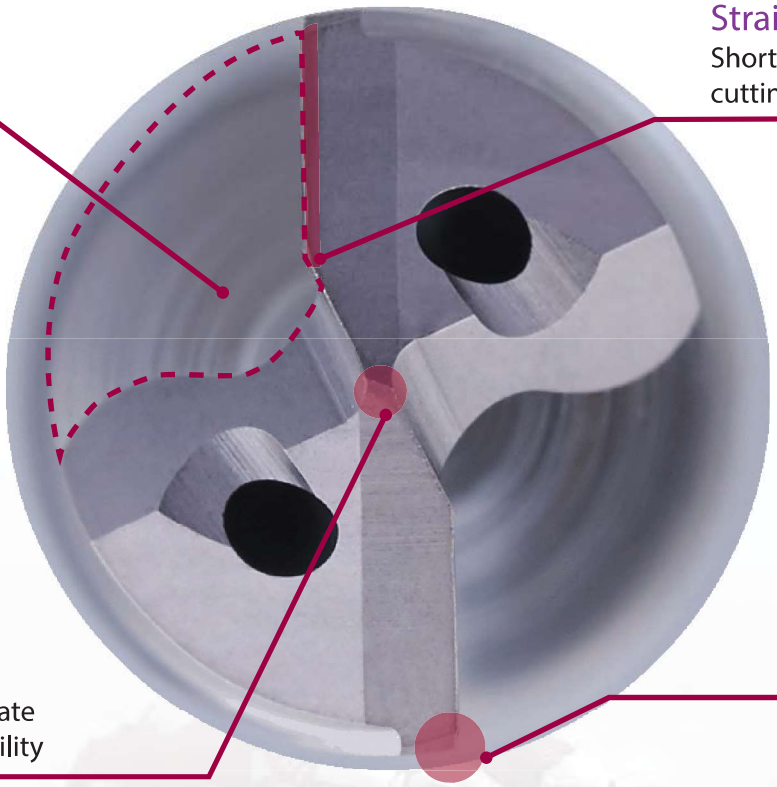
www.hpmt-industries.com

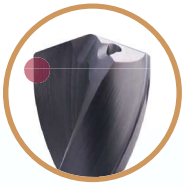
Drill LINE
DR-S SERIES

The DR-S series with advanced high feed technology and its tough tool strength geometry is designed to bring you premium features at cost-effective rates for a more durable tool life.This can only means a higher output for better profitability.

Wider Chip Pocket
Enhances and smoother chip evacuation

Straight Edge Profile
Shorter chip and reinforced cutting edge





Corner Edge Chamfer
Ideal for cast iron and better surface finishing

Bigger K-Value
Suitable for higher feed rate and enhances tool durability

Versatile
Suitable for 5 material groups

P M K N S

APPLICABLE IN VARIOUS INDUSTRIES


Aerospace


Automotive


Medical


Oil and Gas

Drill LINE DR-S SERIES

Cutting Parameter Test

HPMT
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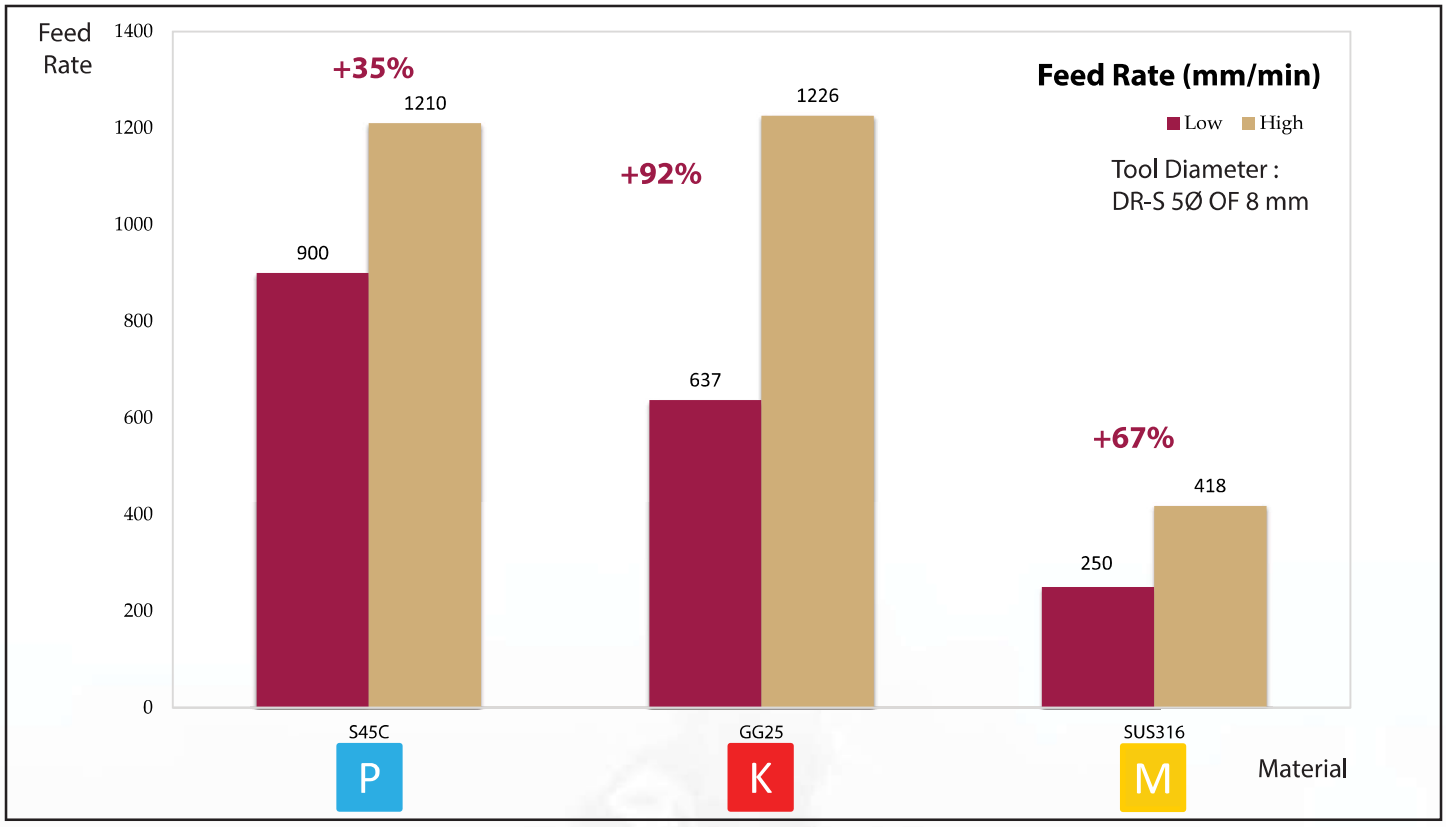
DR-S make for aggressive cutting parameter



SUS 316 P M K

	CONVENTIONAL CUTTING PARAMETER	AGGRESSIVE CUTTING PARAMETER
SURFACE		
CHIPS		

Drill LINE DR-S SERIES

Wear Case Study

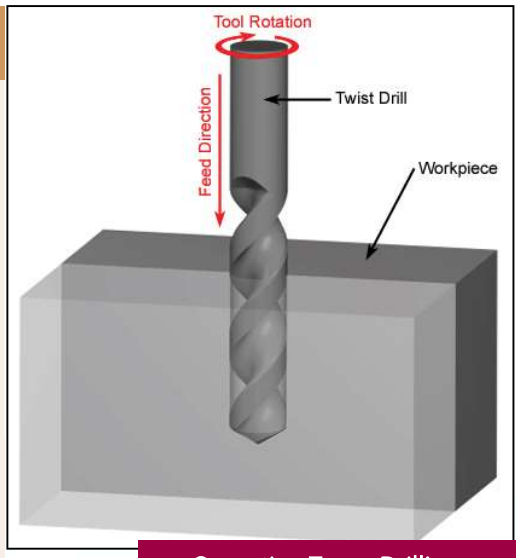
Standard Drill Vs DR-S Drill

HPMT
THE FUTURE OF PRECISION MACHINING

Drill Test Report on Cast Iron GG25

WORK PIECES & TOOL	
Material	Cast Iron GG25
Hardness	22 HRC
Tool Diameter	DR-S 5Ø OF 8 mm

CUTTING CONDITION	
Cutting Speed	S = 3185 rpm (Vc = 80 m/min)
Feed Rate	F = 637 mm/min (0.20 mm/rev)
Depth, Ap	42 mm
Coolant	Internal Through Coolant
Machine	Makino S33



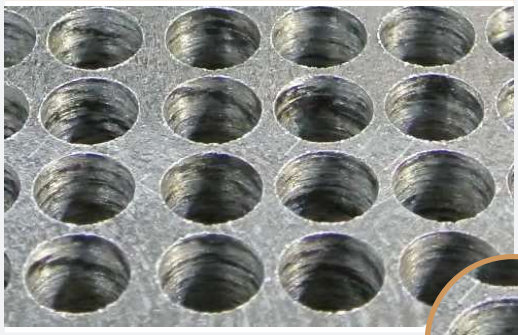
Operation Type : Drilling

After 600 Holes (30m)

STANDARD DRILL

Surface Roughness = 4.821 µm

DR-S DRILL



Surface Roughness = 4.770 µm

Better Surface Finishing

Drill LINE DR-S SERIES

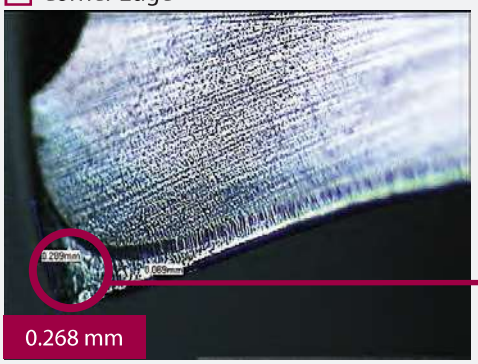
Wear Case Study

Standard Drill Vs DR-S Drill

HPMT
THE FUTURE OF PRECISION MACHINING

STANDARD DRILL

1 Corner Edge

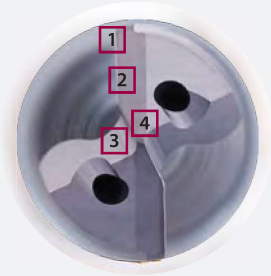


2 Flank

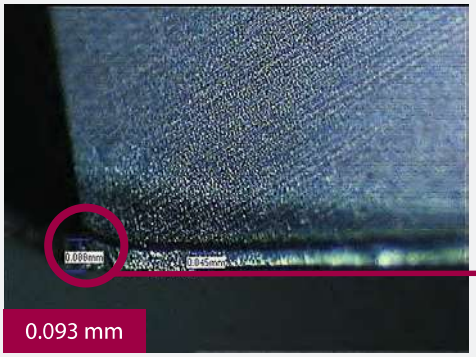
3 Point

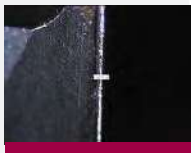
4 Chisel Edge

- Shorter Tool Life than DR-S
- Not Suitable for High Feeds



DR-S DRILL

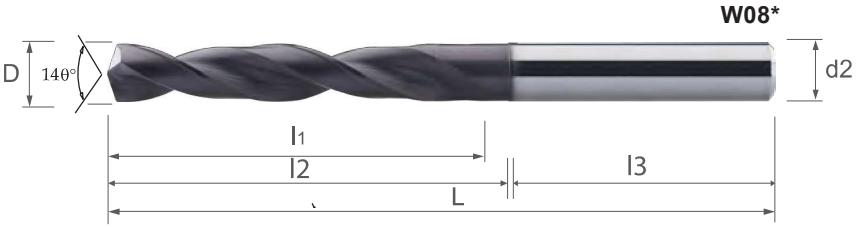


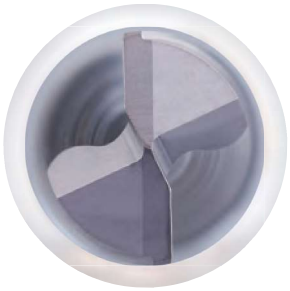


- Chamfer for Edge Protection
- Provides Extended Tool Life
- Enables Higher Feeds

Disclaimer :
Wear Comparison After 600 Holes (30m) Graph are based on cutting condition on page 3

DR-S Twist Drills - DIN 6537K





EDPNo./EDV-Nr./ CODEusine/CodiceEDP	Dimension (mm)						W08*
=*+Ødata	D (m7)	l 1	l 2	l 3	L	d2 (h6)	T8090
0300	3	14	20	36	62	6	●
0310	3.1	14	20	36	62	6	●
0320	3.2	14	20	36	62	6	●
0330	3.3	14	20	36	62	6	●
0340	3.4	14	20	36	62	6	●
0350	3.5	14	20	36	62	6	●
0360	3.6	14	20	36	62	6	●
0370	3.7	14	20	36	62	6	●
0380	3.8	17	24	36	66	6	●
0390	3.9	17	24	36	66	6	●
0400	4	17	24	36	66	6	●
0410	4.1	17	24	36	66	6	●
0420	4.2	17	24	36	66	6	●
0430	4.3	17	24	36	66	6	●
0440	4.4	17	24	36	66	6	●
0450	4.5	17	24	36	66	6	●
0460	4.6	17	24	36	66	6	●
0470	4.7	17	24	36	66	6	●
0480	4.8	20	28	36	66	6	●
0490	4.9	20	28	36	66	6	●
0500	5	20	28	40	66	6	●
0510	5.1	20	28	40	66	6	●
0520	5.2	20	28	40	66	6	●
0530	5.3	20	28	40	66	6	●
0540	5.4	20	28	40	66	6	●
0550	5.5	20	28	40	66	6	●
0560	5.6	20	28	40	66	6	●
0570	5.7	20	28	40	66	6	●
0580	5.8	20	28	40	66	6	●
0590	5.9	20	28	40	66	6	●
0600	6	20	28	40	66	6	●

cont'd ►

Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类

N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O1	O2
●	●	●	●	●	●	●	●	●	●	●	●	●				

Working Material	Cutting Parameter
-	-

TECHNICAL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

DR-S Twist Drills - DIN 6537K

EDPNo./EDV-Nr./ CODEusine/CodiceEDP	Dimension (mm)						W08*
=*+Ødata	D (m7)	l 1	l 2	l 3	L	d2 (h6)	T8090
0610	6.1	24	34	36	79	8	●
0620	6.2	24	34	36	79	8	●
0630	6.3	24	34	36	79	8	●
0640	6.4	24	34	36	79	8	●
0650	6.5	24	34	36	79	8	●
0660	6.6	24	34	36	79	8	●
0670	6.7	24	34	36	79	8	●
0680	6.8	24	34	36	79	8	●
0690	6.9	24	34	36	79	8	●
0700	7	24	34	36	79	8	●
0710	7.1	29	41	36	79	8	●
0720	7.2	29	41	36	79	8	●
0730	7.3	29	41	36	79	8	●
0740	7.4	29	41	36	79	8	●
0750	7.5	29	41	36	79	8	●
0760	7.6	29	41	36	79	8	●
0770	7.7	29	41	36	79	8	●
0780	7.8	29	41	36	79	8	●
0790	7.9	29	41	36	79	8	●
0800	8	29	41	36	79	8	●
0810	8.1	35	47	40	89	10	●
0820	8.2	35	47	40	89	10	●
0830	8.3	35	47	40	89	10	●
0840	8.4	35	47	40	89	10	●
0850	8.5	35	47	40	89	10	●
0860	8.6	35	47	40	89	10	●
0870	8.7	35	47	40	89	10	●
0880	8.8	35	47	40	89	10	●
0890	8.9	35	47	40	89	10	●
0900	9	35	47	40	89	10	●
0910	9.1	35	47	40	89	10	●
0920	9.2	35	47	40	89	10	●
0930	9.3	35	47	40	89	10	●
0940	9.4	35	47	40	89	10	●
0950	9.5	35	47	40	89	10	●
0960	9.6	35	47	40	89	10	●
0970	9.7	35	47	40	89	10	●
0980	9.8	35	47	40	89	10	●
0990	9.9	35	47	40	89	10	●
1000	10	35	47	40	89	10	●
1010	10.1	40	55	45	102	12	●
1020	10.2	40	55	45	102	12	●
1030	10.3	40	55	45	102	12	●
1040	10.4	40	55	45	102	12	●
1050	10.5	40	55	45	102	12	●
1060	10.6	40	55	45	102	12	●
1070	10.7	40	55	45	102	12	●
1080	10.8	40	55	45	102	12	●
1090	10.9	40	55	45	102	12	●

cont'd ►

Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类

N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O1	O2
	●	●	●	●	●	●	●	●	●	●	●	●				

Working Material	Cutting Parameter
-	-

DR-S Twist Drills - DIN 6537K

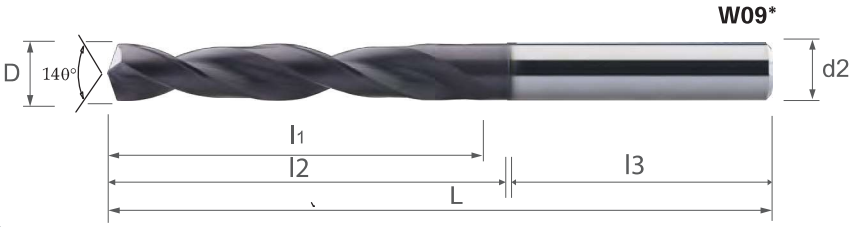
EDPNo./EDV-Nr./ CODEusine/CodiceEDP	Dimension (mm)						W08*
=*+Ødata	D (m7)	l1	l2	l3	L	d2 (h6)	T8090
1100	11	40	55	45	102	12	●
1110	11.1	40	55	45	102	12	●
1120	11.2	40	55	45	102	12	●
1130	11.3	40	55	45	102	12	●
1140	11.4	40	55	45	102	12	●
1150	11.5	40	55	45	102	12	●
1160	11.6	40	55	45	102	12	●
1170	11.7	40	55	45	102	12	●
1180	11.8	40	55	45	102	12	●
1190	11.9	40	55	45	102	12	●
1200	12	40	55	45	102	12	●
1250	12.5	43	60	45	107	14	●
1270	12.7	43	60	45	107	14	●
1300	13	43	60	45	107	14	●
1350	13.5	43	60	45	107	14	●
1370	13.7	43	60	45	107	14	●
1400	14	43	60	45	107	14	●
1450	14.5	65	65	48	115	16	●
1500	15	65	65	48	115	16	●
1550	15.5	65	65	48	115	16	●
1600	16	65	65	48	115	16	●
1650	16.5	73	73	48	123	18	●
1700	17	73	73	48	123	18	●
1750	17.5	73	73	48	123	18	●
1800	18	73	73	48	123	18	●
1850	18.5	79	79	50	131	20	●
1900	19	79	79	50	131	20	●
1950	19.5	79	79	50	131	20	●
2000	20	79	79	50	131	20	●

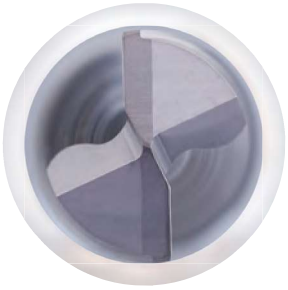
Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类

N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O1	O2
	●	●	●	●	●	●	●	●	●	●	●	●				

Working Material	Cutting Parameter
-	-

DR-S Twist Drills - DIN 6537L





EDPNo./EDV-Nr./ CODEusine/CodiceEDP	Dimension (mm)						W09*
=*+Ødata	D (m7)	l 1	l 2	l 3	L	d2 (h6)	T8090
0300	3	23	28	36	66	6	●
0310	3.1	23	28	36	66	6	○
0320	3.2	23	28	36	66	6	○
0330	3.3	23	28	36	66	6	○
0340	3.4	23	28	36	66	6	○
0350	3.5	23	28	36	66	6	●
0360	3.6	23	28	36	66	6	○
0370	3.7	23	28	36	66	6	○
0380	3.8	29	36	36	74	6	○
0390	3.9	29	36	36	74	6	○
0400	4	29	36	36	74	6	●
0410	4.1	29	36	36	74	6	○
0420	4.2	29	36	36	74	6	○
0430	4.3	29	36	36	74	6	○
0440	4.4	29	36	36	74	6	○
0450	4.5	29	36	36	74	6	●
0460	4.6	29	36	36	74	6	○
0470	4.7	29	36	36	74	6	○
0480	4.8	35	44	36	82	6	○
0490	4.9	35	44	36	82	6	○
0500	5	35	44	36	82	6	●
0510	5.1	35	44	36	82	6	○
0520	5.2	35	44	36	82	6	○
0530	5.3	35	44	36	82	6	○
0540	5.4	35	44	36	82	6	○
0550	5.5	35	44	36	82	6	●
0560	5.6	35	44	36	82	6	○
0570	5.7	35	44	36	82	6	○
0580	5.8	35	44	36	82	6	○
0590	5.9	35	44	36	82	6	○
0600	6	35	44	36	82	6	●

cont'd ►

Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类

N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O1	O2
●	●	●	●	●	●	●	●	●	●	●	●	●				

Working Material	Cutting Parameter
-	-

MODIFICHE TECHICHE POSSIBILI SENZA PREAVVISO

Drill LINE
DR-S SERIES

HPMT
THE FUTURE OF PRECISION MACHINING

DR-S Twist Drills - DIN 6537L

EDPNo./EDV-Nr./ CODEusine/CodiceEDP	Dimension (mm)						W09*
=*+Ødata	D (m7)	l 1	l 2	l 3	L	d2 (h6)	T8090
0610	6.1	43	53	36	91	8	○
0620	6.2	43	53	36	91	8	○
0630	6.3	43	53	36	91	8	○
0640	6.4	43	53	36	91	8	○
0650	6.5	43	53	36	91	8	●
0660	6.6	43	53	36	91	8	○
0670	6.7	43	53	36	91	8	○
0680	6.8	43	53	36	91	8	○
0690	6.9	43	53	36	91	8	○
0700	7	43	53	36	91	8	●
0710	7.1	43	53	36	91	8	○
0720	7.2	43	53	36	91	8	○
0730	7.3	43	53	36	91	8	○
0740	7.4	43	53	36	91	8	○
0750	7.5	43	53	36	91	8	●
0760	7.6	43	53	36	91	8	○
0770	7.7	43	53	36	91	8	○
0780	7.8	43	53	36	91	8	○
0790	7.9	43	53	36	91	8	○
0800	8	43	53	36	91	8	●
0810	8.1	49	61	40	103	10	○
0820	8.2	49	61	40	103	10	○
0830	8.3	49	61	40	103	10	○
0840	8.4	49	61	40	103	10	○
0850	8.5	49	61	40	103	10	●
0860	8.6	49	61	40	103	10	○
0870	8.7	49	61	40	103	10	○
0880	8.8	49	61	40	103	10	○
0890	8.9	49	61	40	103	10	○
0900	9	49	61	40	103	10	●
0910	9.1	49	61	40	103	10	○
0920	9.2	49	61	40	103	10	○
0930	9.3	49	61	40	103	10	○
0940	9.4	49	61	40	103	10	○
0950	9.5	61	61	40	103	10	●
0960	9.6	61	61	40	103	10	○
0970	9.7	61	61	40	103	10	○
0980	9.8	61	61	40	103	10	○
0990	9.9	61	61	40	103	10	○
1000	10	61	61	40	103	10	●
1020	10.2	71	71	45	118	12	○
1050	10.5	71	71	45	118	12	●
1080	10.8	71	71	45	118	12	○
1100	11	71	71	45	118	12	●
1120	11.2	71	71	45	118	12	○
1130	11.3	71	71	45	118	12	○
1150	11.5	71	71	45	118	12	●
1180	11.8	71	71	45	118	12	○
1200	12	71	71	45	118	12	●

cont'd ►

Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类

N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O1	O2
●	●	●	●	●	●	●	●	●	●	●	●	●				

Working Material	Cutting Parameter
-	-

若有技术规格变更，恕不事先通知

DR-S Twist Drills - DIN 6537L

EDPNo./EDV-Nr./ CODEusine/CodiceEDP	Dimension (mm)						W09*
=*+Ødata	D (m7)	l 1	l 2	l 3	L	d2 (h6)	T8090
1220	12.2	77	77	45	124	14	○
1250	12.5	77	77	45	124	14	●
1270	12.7	77	77	45	124	14	○
1280	12.8	77	77	45	124	14	○
1300	13	77	77	45	124	14	●
1330	13.3	77	77	45	124	14	○
1350	13.5	77	77	45	124	14	●
1370	13.7	77	77	45	124	14	○
1380	13.8	77	77	45	124	14	○
1400	14	77	77	45	124	14	●
1450	14.5	83	83	48	133	16	●
1500	15	83	83	48	133	16	●
1530	15.3	83	83	48	133	16	○
1550	15.5	83	83	48	133	16	●
1580	15.8	83	83	48	133	16	○
1600	16	83	83	48	133	16	●
1650	16.5	93	93	48	143	18	●
1700	17	93	93	48	143	18	●
1750	17.5	93	93	48	143	18	●
1800	18	93	93	48	143	18	●
1850	18.5	101	101	50	153	20	●
1900	19	101	101	50	153	20	●
1950	19.5	101	101	50	153	20	●
2000	20	101	101	50	153	20	●

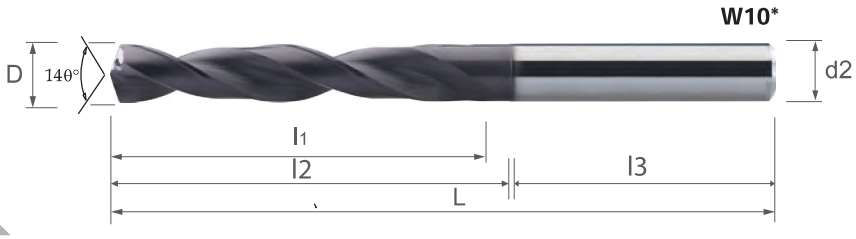
Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类

N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O1	O2
●	●	●	●	●	●	●	●	●	●	●	●	●				

Working Material	Cutting Parameter
-	-

TECHNICAL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

DR-S Oil Feed Twist Drills - DIN 6537K - 3 x Ø



EDPNo./EDV-Nr./ CODEusine/CodiceEDP	Dimension (mm)						W10*
=*+Ødata	D (m7)	l 1	l 2	l 3	L	d2 (h6)	T8090
0300 062 03	3	14	20	36	62	3	●
* 0300	3	14	20	36	62	6	●
0310 062 03	3.1	14	20	36	62	3	●
* 0310	3.1	14	20	36	62	6	●
0320 062 03	3.2	14	20	36	62	3	●
* 0320	3.2	14	20	36	62	6	●
0330	3.3	14	20	36	62	6	●
0340	3.4	14	20	36	62	6	●
0350	3.5	14	20	36	62	6	●
0360	3.6	14	20	36	62	6	●
0370	3.7	14	20	36	62	6	●
0380	3.8	17	24	36	66	6	●
0390	3.9	17	24	36	66	6	●
0400 066 04	4	17	24	36	66	4	●
* 0400	4	17	24	36	66	6	●
0410 066 04	4.1	17	24	36	66	4	●
* 0410	4.1	17	24	36	66	6	●
0420 066 04	4.2	17	24	36	66	4	●
* 0420	4.2	17	24	36	66	6	●
0430	4.3	17	24	36	66	6	●
0440	4.4	17	24	36	66	6	●
0450	4.5	17	24	36	66	6	●
0460	4.6	17	24	36	66	6	●
0470	4.7	17	24	36	66	6	●
0480	4.8	20	28	36	66	6	●
0490	4.9	20	28	36	66	6	●
0500	5	20	28	36	66	6	●
0510	5.1	20	28	36	66	6	●
0520	5.2	20	28	36	66	6	●
0530	5.3	20	28	36	66	6	●
0540	5.4	20	28	36	66	6	●

cont'd ►

* = HPMT STANDARD

Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类

N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O1	O2
●	●	●	●	●	●	●	●	●	●	●	●	●				

Working Material	Cutting Parameter
-	-

TECHNISCHE ÄNDERUNGEN OHNE VORHERIGE INFORMATION VORBEHALTEN

DR-S Oil Feed Twist Drills - DIN 6537K - 3 x Ø

EDPNo./EDV-Nr./ CODEusine/CodiceEDP	Dimension (mm)						W10*
=*+Ødata	D (m7)	l 1	l 2	l 3	L	d2 (h6)	T8090
0550	5.5	20	28	36	66	6	●
0560	5.6	20	28	36	66	6	●
0570	5.7	20	28	36	66	6	●
0580	5.8	20	28	36	66	6	●
0590	5.9	20	28	36	66	6	●
0600	6	20	28	36	66	6	●
* 0610 066 06	6.1	20	28	36	66	6	●
0610	6.1	24	34	36	79	8	●
0620	6.2	24	34	36	79	8	●
0630	6.3	24	34	36	79	8	●
0640	6.4	24	34	36	79	8	●
0650	6.5	24	34	36	79	8	●
0660	6.6	24	34	36	79	8	●
0670	6.7	24	34	36	79	8	●
0680	6.8	24	34	36	79	8	●
0690	6.9	24	34	36	79	8	●
0700	7	24	34	36	79	8	●
0710	7.1	29	41	36	79	8	●
0720	7.2	29	41	36	79	8	●
0730	7.3	29	41	36	79	8	●
0740	7.4	29	41	36	79	8	●
0750	7.5	29	41	36	79	8	●
0760	7.6	29	41	36	79	8	●
0770	7.7	29	41	36	79	8	●
0780	7.8	29	41	36	79	8	●
0790	7.9	29	41	36	79	8	●
0800	8	29	41	36	79	8	●
* 0810 079 08	8.1	29	41	36	79	8	●
0810	8.1	35	47	40	89	10	●
0820	8.2	35	47	40	89	10	●
0830	8.3	35	47	40	89	10	●
0840	8.4	35	47	40	89	10	●
0850	8.5	35	47	40	89	10	●
0860	8.6	35	47	40	89	10	●
0870	8.7	35	47	40	89	10	●
0880	8.8	35	47	40	89	10	●
0890	8.9	35	47	40	89	10	●
0900	9	35	47	40	89	10	●
0910	9.1	35	47	40	89	10	●
0920	9.2	35	47	40	89	10	●
0930	9.3	35	47	40	89	10	●
0940	9.4	35	47	40	89	10	●
0950	9.5	35	47	40	89	10	●
0960	9.6	35	47	40	89	10	●
0970	9.7	35	47	40	89	10	●
0980	9.8	35	47	40	89	10	●
0990	9.9	35	47	40	89	10	●
1000	10	35	47	40	89	10	●
1020	10.2	40	55	45	102	12	●

cont'd ►

* = HPMT STANDARD

Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类

N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O1	O2
	●	●	●	●	●	●	●	●	●	●	●	●				

Working Material	Cutting Parameter
-	-

SPÉCIFICATIONS TECHNIQUES SUJETTES À CHANGEMENT SANS AVIS PRÉALABLE

DR-S Oil Feed Twist Drills - DIN 6537K - 3 x Ø

EDPNo./EDV-Nr./ CODEusine/CodiceEDP	Dimension (mm)						W10*
=*+Ødata	D (m7)	l1	l2	l3	L	d2 (h6)	T8090
1050	10.5	40	55	45	102	12	●
1080	10.8	40	55	45	102	12	●
1100	11	40	55	45	102	12	●
1120	11.2	40	55	45	102	12	●
1130	11.3	40	55	45	102	12	●
1150	11.5	40	55	45	102	12	●
1180	11.8	40	55	45	102	12	●
1200	12	40	55	45	102	12	●
1220	12.2	43	60	45	107	14	●
1250	12.5	43	60	45	107	14	●
1270	12.7	43	60	45	107	14	●
1280	12.8	43	60	45	107	14	●
1300	13	43	60	45	107	14	●
1330	13.3	43	60	45	107	14	●
1350	13.5	43	60	45	107	14	●
1370	13.7	43	60	45	107	14	●
1400	14	43	60	45	107	14	●
1450	14.5	65	65	48	115	16	●
1500	15	65	65	48	115	16	●
1530	15.3	65	65	48	115	16	●
1550	15.5	65	65	48	115	16	●
1580	15.8	65	65	48	115	16	●
1600	16	65	65	48	115	16	●
1650	16.5	73	73	48	123	18	●
1700	17	73	73	48	123	18	●
1750	17.5	73	73	48	123	18	●
1800	18	73	73	48	123	18	●
1850	18.5	79	79	50	131	20	●
1900	19	79	79	50	131	20	●
1950	19.5	79	79	50	131	20	●
2000	20	79	79	50	131	20	●

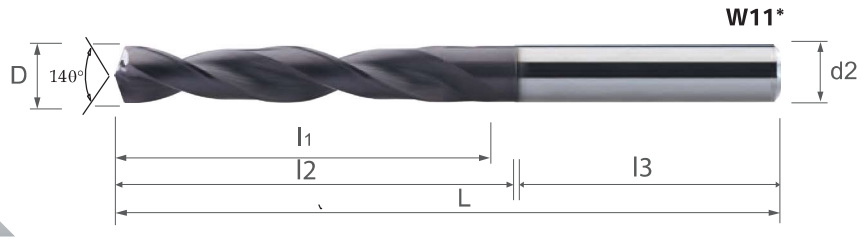
Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类

N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O1	O2
	●	●	●	●	●	●	●	●	●	●	●	●				

Working Material	Cutting Parameter
-	-

MODIFICHE TECHICHE POSSIBILI SENZA PREAVVISO

DR-S Oil Feed Twist Drills - DIN 6537L - 5 x Ø



	EDPNo./EDV-Nr./ CODEusine/CodiceEDP	Dimension (mm)						W11*
	=*+Ødata	D (m7)	l 1	l 2	l 3	L	d2 (h6)	T8090
*	0300 066 03	3	23	28	36	66	3	●
	0300	3	23	28	36	66	6	●
*	0310 066 03	3.1	23	28	36	66	3	●
	0310	3.1	23	28	36	66	6	●
*	0320 066 03	3.2	23	28	36	66	3	●
	0320	3.2	23	28	36	66	6	●
	0330	3.3	23	28	36	66	6	●
	0340	3.4	23	28	36	66	6	●
	0350	3.5	23	28	36	66	6	●
	0360	3.6	23	28	36	66	6	●
	0370	3.7	23	28	36	66	6	●
	0380	3.8	29	36	36	74	6	●
	0390	3.9	29	36	36	74	6	●
*	0400 074 04	4	29	36	36	74	4	●
	0400	4	29	36	36	74	6	●
*	0410 074 04	4.1	29	36	36	74	4	●
	0410	4.1	29	36	36	74	6	●
*	0420 074 04	4.2	29	36	36	74	4	●
	0420	4.2	29	36	36	74	6	●
	0430	4.3	29	36	36	74	6	●
	0440	4.4	29	36	36	74	6	●
	0450	4.5	29	36	36	74	6	●
	0460	4.6	29	36	36	74	6	●
	0470	4.7	29	36	36	74	6	●
	0480	4.8	35	44	36	82	6	●
	0490	4.9	35	44	36	82	6	●
	0500	5	35	44	36	82	6	●
	0510	5.1	35	44	36	82	6	●
	0520	5.2	35	44	36	82	6	●
	0530	5.3	35	44	36	82	6	●
	0540	5.4	35	44	36	82	6	●

cont'd ▶

* = HPMT STANDARD

Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类

N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O1	O2
●	●	●	●	●	●	●	●	●	●	●	●	●				

Working Material	Cutting Parameter
-	-

若有技术规格变更，恕不事先通知

DR-S Oil Feed Twist Drills - DIN 6537L - 5 x Ø

EDPNo./EDV-Nr./ CODEusine/CodiceEDP	Dimension (mm)						W11*
=*+Ødata	D (m7)	l 1	l 2	l 3	L	d2 (h6)	T8090
0550	5.5	35	44	36	82	6	●
0560	5.6	35	44	36	82	6	●
0570	5.7	35	44	36	82	6	●
0580	5.8	35	44	36	82	6	●
0590	5.9	35	44	36	82	6	●
0600	6	35	44	36	82	6	●
* 0610 082 06	6.1	35	44	36	82	6	●
0610	6.1	43	53	36	91	8	●
0620	6.2	43	53	36	91	8	●
0630	6.3	43	53	36	91	8	●
0640	6.4	43	53	36	91	8	●
0650	6.5	43	53	36	91	8	●
0660	6.6	43	53	36	91	8	●
0670	6.7	43	53	36	91	8	●
0680	6.8	43	53	36	91	8	●
0690	6.9	43	53	36	91	8	●
0700	7	43	53	36	91	8	●
0710	7.1	43	53	36	91	8	●
0720	7.2	43	53	36	91	8	●
0730	7.3	43	53	36	91	8	●
0740	7.4	43	53	36	91	8	●
0750	7.5	43	53	36	91	8	●
0760	7.6	43	53	36	91	8	●
0770	7.7	43	53	36	91	8	●
0780	7.8	43	53	36	91	8	●
0790	7.9	43	53	36	91	8	●
0800	8	43	53	36	91	8	●
* 0810 091 08	8.1	43	53	36	91	8	●
0810	8.1	49	61	40	103	10	●
0820	8.2	49	61	40	103	10	●
0830	8.3	49	61	40	103	10	●
0840	8.4	49	61	40	103	10	●
0850	8.5	49	61	40	103	10	●
0860	8.6	49	61	40	103	10	●
0870	8.7	49	61	40	103	10	●
0880	8.8	49	61	40	103	10	●
0890	8.9	49	61	40	103	10	●
0900	9	49	61	40	103	10	●
0910	9.1	49	61	40	103	10	●
0920	9.2	49	61	40	103	10	●
0930	9.3	49	61	40	103	10	●
0940	9.4	49	61	40	103	10	●
0950	9.5	61	61	40	103	10	●
0960	9.6	61	61	40	103	10	●
0970	9.7	61	61	40	103	10	●
0980	9.8	61	61	40	103	10	●
0990	9.9	61	61	40	103	10	●
1000	10	61	61	40	103	10	●
1020	10.2	71	71	45	118	12	●

cont'd ►

* = HPMT STANDARD

Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类

N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O1	O2
●	●	●	●	●	●	●	●	●	●	●	●	●				

Working Material	Cutting Parameter
-	-

DR-S Oil Feed Twist Drills - DIN 6537L - 5 x Ø

EDPNo./EDV-Nr./ CODEusine/CodiceEDP	Dimension (mm)						W11*
=*+Ødata	D (m7)	l 1	l 2	l 3	L	d2 (h6)	T8090
1050	10.5	71	71	45	118	12	●
1080	10.8	71	71	45	118	12	●
1100	11	71	71	45	118	12	●
1120	11.2	71	71	45	118	12	●
1130	11.3	71	71	45	118	12	●
1150	11.5	71	71	45	118	12	●
1180	11.8	71	71	45	118	12	●
1200	12	71	71	45	118	12	●
1220	12.2	77	77	45	124	14	●
1250	12.5	77	77	45	124	14	●
1270	12.7	77	77	45	124	14	●
1280	12.8	77	77	45	124	14	●
1300	13	77	77	45	124	14	●
1330	13.3	77	77	45	124	14	●
1350	13.5	77	77	45	124	14	●
1370	13.7	77	77	45	124	14	●
1380	13.8	77	77	45	124	14	●
1400	14.0	77	77	45	124	14	●
1450	14.5	83	83	48	133	16	●
1500	15.0	83	83	48	133	16	●
1530	15.3	83	83	48	133	16	●
1550	15.5	83	83	48	133	16	●
1580	15.8	83	83	48	133	16	●
1600	16.0	83	83	48	133	16	●
1650	16.5	93	93	48	143	18	●
1700	17.0	93	93	48	143	18	●
1750	17.5	93	93	48	143	18	●
1800	18.0	93	93	48	143	18	●
1850	18.5	101	101	50	153	20	●
1900	19.0	101	101	50	153	20	●
1950	19.5	101	101	50	153	20	●
2000	20.0	101	101	50	153	20	●

Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类

N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O1	O2
●	●	●	●	●	●	●	●	●	●	●	●	●				

Working Material	Cutting Parameter
-	-

TECHNISCHE ÄNDERUNGEN OHNE VORHERIGE INFORMATION VORBEHALTEN

DR-S Internal Coolant - Aggressive Cutting Parameters

Drilling	P						M				K	
Work Material	Carbon Steel		Alloy Steel		Prehardened Steel		Stainless Steel		Prehardened Steel		Grey Cast Iron	
Properties	-		520 < Rm < 1200		35 ≤ HRC < 45		High Machinability		Low Machinability		-	
Diameter, D	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)
3		0.140		0.150		0.120		0.070		0.050		0.170
4		0.164		0.175		0.139		0.085		0.059		0.200
5		0.186		0.198		0.156		0.099		0.067		0.227
6		0.205		0.218		0.172		0.111		0.075		0.252
7		0.224		0.237		0.186		0.124		0.082		0.275
8		0.241		0.255		0.199		0.135		0.088		0.297
9		0.257		0.272		0.212		0.146		0.095		0.317
10	145	0.272	95	0.288	70	0.224	60	0.157	50	0.101	120	0.337
11		0.287		0.303		0.235		0.167		0.106		0.356
12		0.301		0.318		0.246		0.177		0.112		0.374
13		0.315		0.332		0.256		0.187		0.117		0.391
14		0.328		0.346		0.266		0.197		0.122		0.408
15		0.341		0.359		0.276		0.206		0.127		0.425
16		0.353		0.372		0.285		0.215		0.132		0.440
17		0.365		0.384		0.294		0.224		0.137		0.456
18		0.377		0.396		0.303		0.233		0.141		0.471
19		0.389		0.408		0.312		0.242		0.146		0.486
20		0.400		0.420		0.320		0.250		0.150		0.500

Drilling	K		N				S					
Work Material	Ductile Cast Iron		Wrought Aluminium		Cast Aluminium		Copper Alloy		Nickel Alloy		Titanium Alloy	
Properties	-		Si < 9%		Si ≥ 9%		-		-		-	
Diameter, D	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)
3		0.110		0.170		0.170		0.170		0.040		0.040
4		0.134		0.203		0.203		0.203		0.049		0.050
5		0.156		0.233		0.233		0.233		0.057		0.060
6		0.176		0.261		0.261		0.261		0.065		0.069
7		0.196		0.287		0.287		0.287		0.072		0.078
8		0.214		0.312		0.312		0.312		0.079		0.087
9		0.232		0.335		0.335		0.335		0.086		0.095
10	80	0.250	350	0.358	385	0.358	385	0.358	40	0.093	40	0.104
11		0.266		0.380		0.380		0.380		0.099		0.112
12		0.283		0.401		0.401		0.401		0.105		0.120
13		0.298		0.421		0.421		0.421		0.111		0.128
14		0.314		0.441		0.441		0.441		0.117		0.135
15		0.329		0.460		0.460		0.460		0.123		0.143
16		0.344		0.479		0.479		0.479		0.128		0.150
17		0.358		0.497		0.497		0.497		0.134		0.158
18		0.372		0.515		0.515		0.515		0.139		0.165
19		0.386		0.533		0.533		0.533		0.145		0.172
20		0.400		0.550		0.550		0.550		0.150		0.180

DR-S Internal Coolant - Conventional Cutting Parameters

Drilling	P						M				K	
Work Material	Carbon Steel		Alloy Steel		Prehardened Steel		Stainless Steel		Prehardened Steel		Grey Cast Iron	
Properties	-		520 < Rm < 1200		35 ≤ HRC < 45		High Machinability		Low Machinability		-	
Diameter, D	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)
3		0.100		0.100		0.100		0.040		0.030		0.100
4		0.120		0.120		0.116		0.051		0.037		0.124
5		0.138		0.139		0.129		0.062		0.043		0.146
6		0.155		0.156		0.142		0.073		0.050		0.168
7		0.170		0.173		0.153		0.084		0.056		0.188
8		0.185		0.188		0.164		0.094		0.061		0.208
9		0.200		0.203		0.174		0.104		0.067		0.227
10	105	0.213	75	0.217	55	0.183	45	0.114	35	0.072	85	0.245
11		0.227		0.231		0.192		0.124		0.077		0.263
12		0.239		0.244		0.201		0.134		0.082		0.281
13		0.252		0.257		0.209		0.144		0.087		0.298
14		0.264		0.270		0.217		0.154		0.092		0.315
15		0.275		0.282		0.225		0.163		0.097		0.331
16		0.287		0.294		0.232		0.173		0.102		0.348
17		0.298		0.306		0.240		0.182		0.106		0.364
18		0.309		0.317		0.247		0.191		0.111		0.379
19		0.320		0.329		0.253		0.201		0.115		0.395
20		0.330		0.340		0.260		0.210		0.120		0.410

Drilling	K		N				S					
Work Material	Ductile Cast Iron		Wrought Aluminium		Cast Aluminium		Copper Alloy		Nickel Alloy		Titanium Alloy	
Properties	-		Si < 9%		Si ≥ 9%		-		-		-	
Diameter, D	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)
3		0.080		0.100		0.100		0.100		0.020		0.020
4		0.101		0.126		0.126		0.126		0.026		0.027
5		0.120		0.151		0.151		0.151		0.032		0.034
6		0.139		0.175		0.175		0.175		0.039		0.041
7		0.157		0.198		0.198		0.198		0.045		0.048
8		0.174		0.220		0.220		0.220		0.051		0.055
9		0.191		0.242		0.242		0.242		0.057		0.062
10	60	0.208	250	0.263	285	0.263	285	0.263	30	0.062	30	0.069
11		0.224		0.284		0.284		0.284		0.068		0.076
12		0.240		0.305		0.305		0.305		0.074		0.083
13		0.256		0.325		0.325		0.325		0.080		0.090
14		0.271		0.345		0.345		0.345		0.086		0.097
15		0.287		0.365		0.365		0.365		0.092		0.105
16		0.302		0.384		0.384		0.384		0.097		0.112
17		0.317		0.403		0.403		0.403		0.103		0.119
18		0.331		0.422		0.422		0.422		0.109		0.126
19		0.346		0.441		0.441		0.441		0.115		0.133
20		0.360		0.460		0.460		0.460		0.120		0.140

DR-S External Coolant - Aggressive Cutting Parameters

Drilling	P						M				K	
Work Material	Carbon Steel		Alloy Steel		Prehardened Steel		Stainless Steel		Prehardened Steel		Grey Cast Iron	
Properties	-		520 < Rm < 1200		35 ≤ HRC < 45		High Machinability		Low Machinability		-	
Diameter, D	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)
3		0.140		0.150		0.120		0.070		0.050		0.170
4		0.164		0.175		0.139		0.085		0.059		0.200
5		0.186		0.198		0.156		0.099		0.067		0.227
6		0.205		0.218		0.172		0.111		0.075		0.252
7		0.224		0.237		0.186		0.124		0.082		0.275
8		0.241		0.255		0.199		0.135		0.088		0.297
9		0.257		0.272		0.212		0.146		0.095		0.317
10	100	0.272	75	0.288	55	0.224	45	0.157	35	0.101	85	0.337
11		0.287		0.303		0.235		0.167		0.106		0.356
12		0.301		0.318		0.246		0.177		0.112		0.374
13		0.315		0.332		0.256		0.187		0.117		0.391
14		0.328		0.346		0.266		0.197		0.122		0.408
15		0.341		0.359		0.276		0.206		0.127		0.425
16		0.353		0.372		0.285		0.215		0.132		0.440
17		0.365		0.384		0.294		0.224		0.137		0.456
18		0.377		0.396		0.303		0.233		0.141		0.471
19		0.389		0.408		0.312		0.242		0.146		0.486
20		0.400		0.420		0.320		0.250		0.150		0.500

Drilling	K		N					
Work Material	Ductile Cast Iron		Wrought Aluminium		Cast Aluminium		Copper Alloy	
Properties	-		Si < 9%		Si ≥ 9%		-	
Diameter, D	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)
3		0.110		0.170		0.170		0.170
4		0.134		0.203		0.203		0.203
5		0.156		0.233		0.233		0.233
6		0.176		0.261		0.261		0.261
7		0.196		0.287		0.287		0.287
8		0.214		0.312		0.312		0.312
9		0.232		0.335		0.335		0.335
10	60	0.250	280	0.358	270	0.358	270	0.358
11		0.266		0.380		0.380		0.380
12		0.283		0.401		0.401		0.401
13		0.298		0.421		0.421		0.421
14		0.314		0.441		0.441		0.441
15		0.329		0.460		0.460		0.460
16		0.344		0.479		0.479		0.479
17		0.358		0.497		0.497		0.497
18		0.372		0.515		0.515		0.515
19		0.386		0.533		0.533		0.533
20		0.400		0.550		0.550		0.550

DR-S External Coolant - Conventional Cutting Parameters

Drilling	P						M				K	
Work Material	Carbon Steel		Alloy Steel		Prehardened Steel		Stainless Steel		Prehardened Steel		Grey Cast Iron	
Properties	-		520 < Rm < 1200		35 ≤ HRC < 45		High Machinability		Low Machinability		-	
Diameter, D	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)
3		0.100		0.100		0.100		0.040		0.030		0.100
4		0.120		0.120		0.116		0.051		0.037		0.124
5		0.138		0.139		0.129		0.062		0.043		0.146
6		0.155		0.156		0.142		0.073		0.050		0.168
7		0.170		0.173		0.153		0.084		0.056		0.188
8		0.185		0.188		0.164		0.094		0.061		0.208
9		0.200		0.203		0.174		0.104		0.067		0.227
10	85	0.213	65	0.217	45	0.183	35	0.114	25	0.072	65	0.245
11		0.227		0.231		0.192		0.124		0.077		0.263
12		0.239		0.244		0.201		0.134		0.082		0.281
13		0.252		0.257		0.209		0.144		0.087		0.298
14		0.264		0.270		0.217		0.154		0.092		0.315
15		0.275		0.282		0.225		0.163		0.097		0.331
16		0.287		0.294		0.232		0.173		0.102		0.348
17		0.298		0.306		0.240		0.182		0.106		0.364
18		0.309		0.317		0.247		0.191		0.111		0.379
19		0.320		0.329		0.253		0.201		0.115		0.395
20		0.330		0.340		0.260		0.210		0.120		0.410

Drilling	K		N					
Work Material	Ductile Cast Iron		Wrought Aluminium		Cast Aluminium		Copper Alloy	
Properties	-		Si < 9%		Si ≥ 9%		-	
Diameter, D	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)
3		0.080		0.100		0.100		0.100
4		0.101		0.126		0.126		0.126
5		0.120		0.151		0.151		0.151
6		0.139		0.175		0.175		0.175
7		0.157		0.198		0.198		0.198
8		0.174		0.220		0.220		0.220
9		0.191		0.242		0.242		0.242
10	40	0.208	195	0.263	230	0.263	230	0.263
11		0.224		0.284		0.284		0.284
12		0.240		0.305		0.305		0.305
13		0.256		0.325		0.325		0.325
14		0.271		0.345		0.345		0.345
15		0.287		0.365		0.365		0.365
16		0.302		0.384		0.384		0.384
17		0.317		0.403		0.403		0.403
18		0.331		0.422		0.422		0.422
19		0.346		0.441		0.441		0.441
20		0.360		0.460		0.460		0.460

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