HPMT

Drill LINE
DR-S SERIES

DR-S LINE

Drill a wide variety of metals with aggressive speed

INDEX

DRILLS

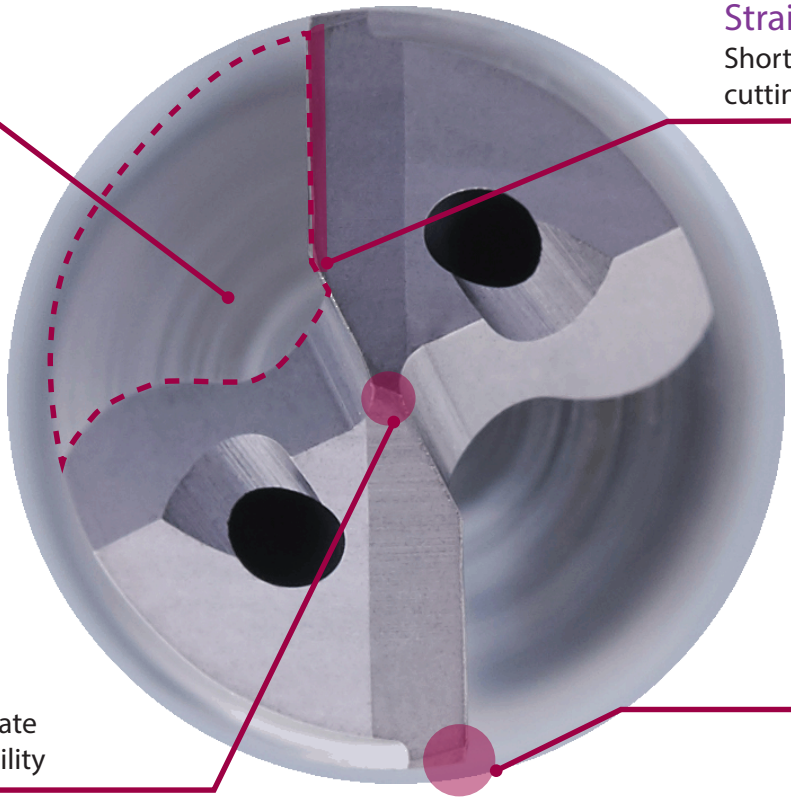
Legend : ● Ex stock ○ Not on stock

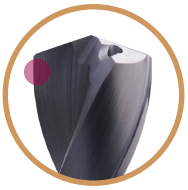
INTRODUCTION

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

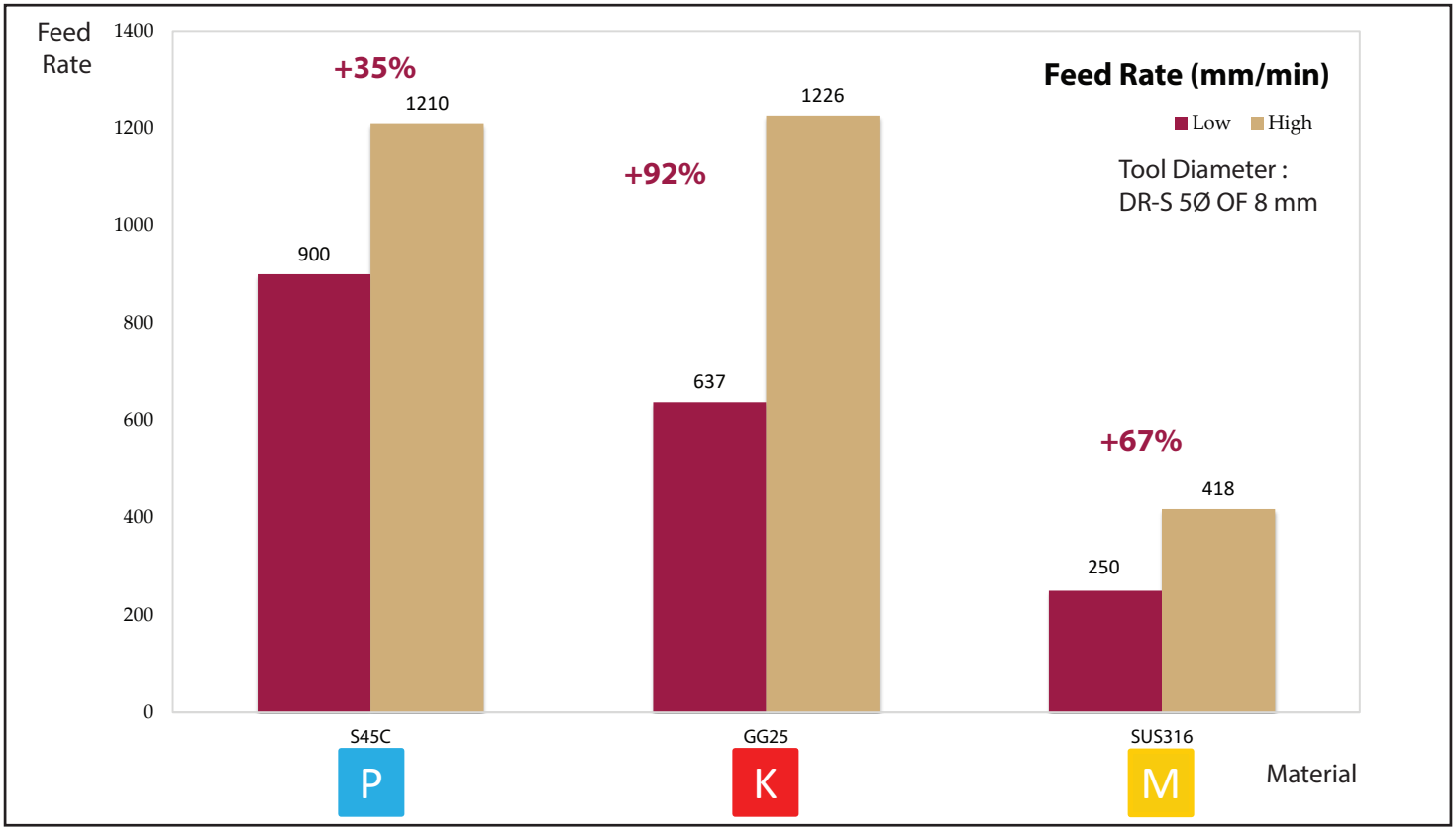
Oil and Gas

CASE STUDY

Cutting Parameter Test

HPMT

DR-S make for aggressive cutting parameter



SUS 316 P M K

CASE STUDY

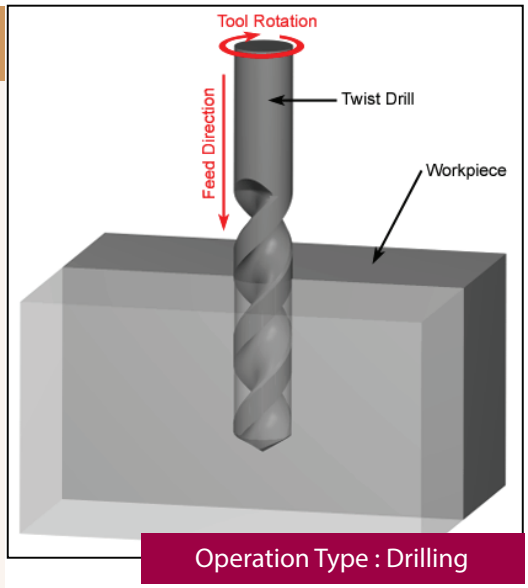
Standard Drill VS DR-S Drill (Wear)

HPMT

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

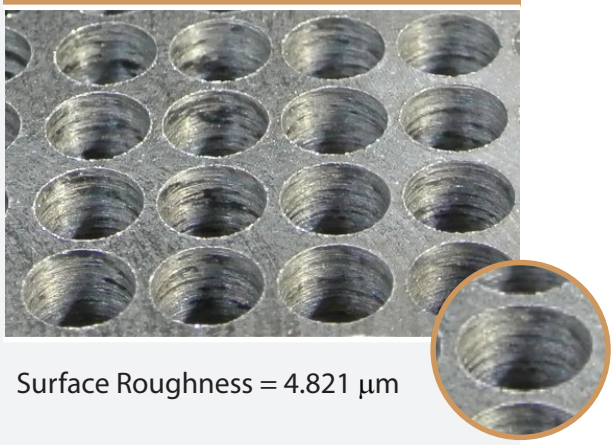
CUTTING CONDITION	
Cutting Speed	S = 3185 rpm (Vc = 80 m/min)
Feed Rate	F = 637 mm/min (0.20 mm/rev)
Depth, Ap	42 mm
Coolant	Internal Through Coolant
Machine	Makino S33



Operation Type : Drilling

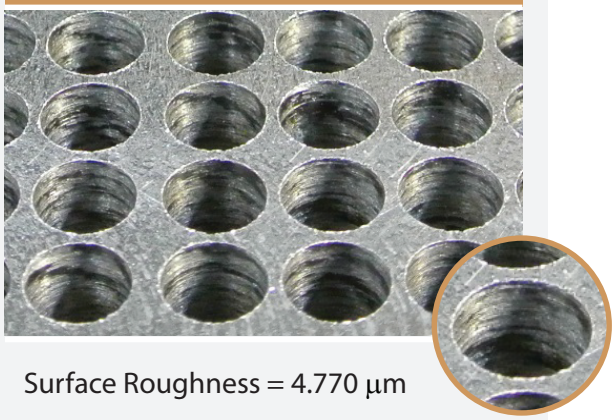
After 600 Holes (30m)

STANDARD DRILL



Surface Roughness = 4.821 µm

DR-S DRILL



Surface Roughness = 4.770 µm

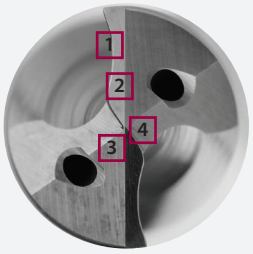
Better Surface Finishing

CASE STUDY

Standard Drill VS DR-S Drill (Wear)

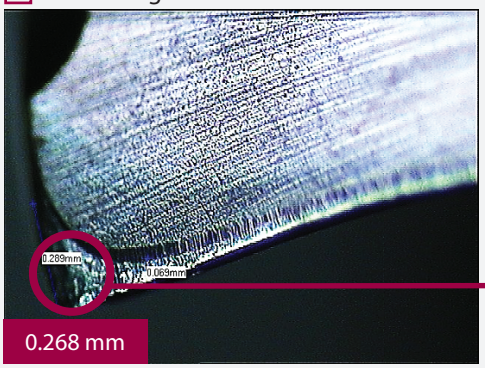
HPMT

Standard Drill Vs DR-S Drill



STANDARD DRILL

1 Corner Edge

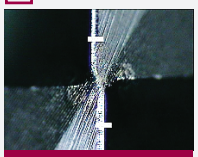


0.268 mm

2 Flank

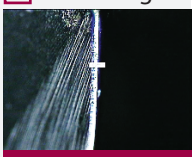
0.038 mm

3 Point



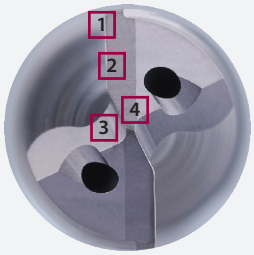
0.039 mm

4 Chisel Edge

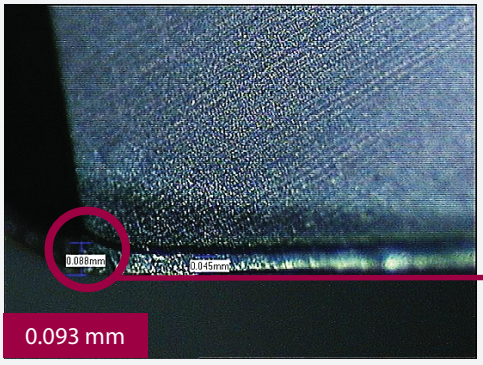


0.033 mm

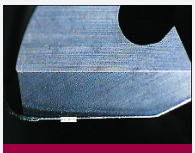
- Shorter Tool Life than DR-S
- Not Suitable for High Feeds



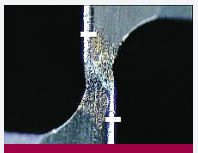
DR-S DRILL



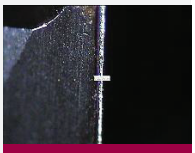
0.093 mm



0.036 mm



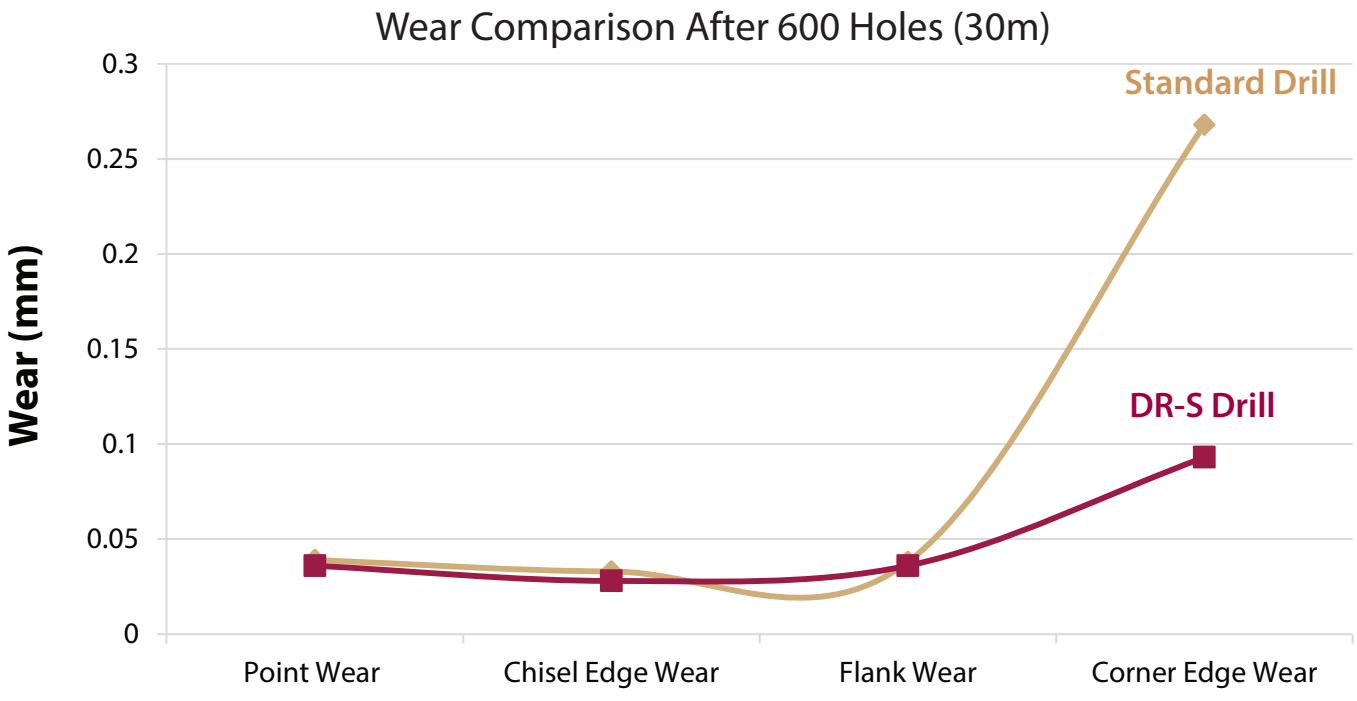
0.036 mm



0.028 mm

- 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



DRILLS

W08 3 X D

W09 5 X D

W10 3 X D With Oil Hole

W11 5 X D With Oil Hole

W12 8 X D With Oil Hole

HPMT Drill LINE DR-S SERIES

01

Wider chip pocket

· Enhances and smoother chip evacuation

02

Straight edge profile

· Shorter chip and reinforced cutting edge

03

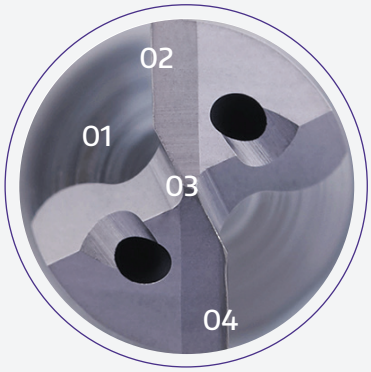
Bigger K-Value

· Suitable for higher feed rate and enhancestool durability

04

Corner edge chamfer

· Ideal for cast iron and better surface finishing



05

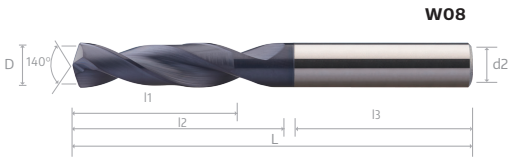
Versatile

· Suitable for Material Groups

P M K N S

W08 DR-S TWIST DRILLS - DIN 6537K - 3 x Ø , 2 FLUTES

HPMT



Order Number DIN 6535	Dimension (mm)						W08
	D	l1	l2	l3	L	d2(h6)	T8090
W08 0300 *	3	14	20	36	62	6	•
W08 0310 *	3.1		20	36	62	6	•
W08 0320 *	3.2		20	36	62	6	•
W08 0330 *	3.3		20	36	62	6	•
W08 0340 *	3.4		20	36	62	6	•
W08 0350 *	3.5		20	36	62	6	•
W08 0360 *	3.6		20	36	62	6	•
W08 0370 *	3.7		20	36	62	6	•
W08 0380 *	3.8	17	24	36	66	6	•
W08 0390 *	3.9		24	36	66	6	•
W08 0400 *	4		24	36	66	6	•
W08 0410 *	4.1		24	36	66	6	•
W08 0420 *	4.2		24	36	66	6	•
W08 0430 *	4.3		24	36	66	6	•
W08 0440 *	4.4		24	36	66	6	•
W08 0450 *	4.5		24	36	66	6	•
W08 0460 *	4.6		24	36	66	6	•
W08 0470 *	4.7		24	36	66	6	•
W08 0480 *	4.8	20	28	36	66	6	•
W08 0490 *	4.9		28	36	66	6	•
W08 0500 *	5		28	36	66	6	•
W08 0510 *	5.1		28	36	66	6	•
W08 0520 *	5.2		28	36	66	6	•
W08 0530 *	5.3		28	36	66	6	•
W08 0540 *	5.4		28	36	66	6	•
W08 0550 *	5.5		28	36	66	6	•
W08 0560 *	5.6		28	36	66	6	•
W08 0570 *	5.7		28	36	66	6	•
W08 0580 *	5.8		28	36	66	6	•
W08 0590 *	5.9		28	36	66	6	•
W08 0600 *	6		28	36	66	6	•
W08 0610 *	6.1	24	34	36	79	8	•
W08 0620 *	6.2		34	36	79	8	•
W08 0630 *	6.3		34	36	79	8	•
W08 0640 *	6.4		34	36	79	8	•
W08 0650 *	6.5		34	36	79	8	•
W08 0660 *	6.6		34	36	79	8	•
W08 0670 *	6.7		34	36	79	8	•
W08 0680 *	6.8		34	36	79	8	•
W08 0690 *	6.9		34	36	79	8	•
W08 0700 *	7		34	36	79	8	•
W08 0710 *	7.1	29	41	36	79	8	•
W08 0720 *	7.2		41	36	79	8	•
W08 0730 *	7.3		41	36	79	8	•
W08 0740 *	7.4		41	36	79	8	•
W08 0750 *	7.5		41	36	79	8	•
W08 0760 *	7.6		41	36	79	8	•
W08 0770 *	7.7		41	36	79	8	•
W08 0780 *	7.8		41	36	79	8	•
W08 0790 *	7.9		41	36	79	8	•
W08 0800 *	8		41	36	79	8	•
W08 0810 *	8.1	35	47	40	89	10	•
W08 0820 *	8.2		47	40	89	10	•
W08 0830 *	8.3		47	40	89	10	•
W08 0840 *	8.4		47	40	89	10	•

Order Number DIN 6535	Dimension (mm)						W08
	D	l1	l2	l3	L	d2(h6)	T8090
W08 0850 *	8.5	35	47	40	89	10	•
W08 0860 *	8.6		47	40	89	10	•
W08 0870 *	8.7		47	40	89	10	•
W08 0880 *	8.8		47	40	89	10	•
W08 0890 *	8.9		47	40	89	10	•
W08 0900 *	9		47	40	89	10	•
W08 0910 *	9.1		47	40	89	10	•
W08 0920 *	9.2		47	40	89	10	•
W08 0930 *	9.3		47	40	89	10	•
W08 0940 *	9.4		47	40	89	10	•
W08 0950 *	9.5		47	40	89	10	•
W08 0960 *	9.6		47	40	89	10	•
W08 0970 *	9.7		47	40	89	10	•
W08 0980 *	9.8		47	40	89	10	•
W08 0990 *	9.9		47	40	89	10	•
W08 1000 *	10		47	40	89	10	•
W08 1010 *	10.1	40	55	45	102	12	•
W08 1020 *	10.2		55	45	102	12	•
W08 1030 *	10.3		55	45	102	12	•
W08 1040 *	10.4		55	45	102	12	•
W08 1050 *	10.5		55	45	102	12	•
W08 1060 *	10.6		55	45	102	12	•
W08 1070 *	10.7		55	45	102	12	•
W08 1080 *	10.8		55	45	102	12	•
W08 1090 *	10.9		55	45	102	12	•
W08 1100 *	11		55	45	102	12	•
W08 1110 *	11.1		55	45	102	12	•
W08 1120 *	11.2		55	45	102	12	•
W08 1130 *	11.3		55	45	102	12	•
W08 1140 *	11.4		55	45	102	12	•
W08 1150 *	11.5		55	45	102	12	•
W08 1160 *	11.6		55	45	102	12	•
W08 1170 *	11.7		55	45	102	12	•
W08 1180 *	11.8		55	45	102	12	•
W08 1190 *	11.9		55	45	102	12	•
W08 1200 *	12		55	45	102	12	•
W08 1250 *	12.5	43	60	45	107	14	•
W08 1270 *	12.7		60	45	107	14	•
W08 1300 *	13		60	45	107	14	•
W08 1350 *	13.5		60	45	107	14	•
W08 1370 *	13.7		60	45	107	14	•
W08 1380 *	13.8		60	45	107	14	○
W08 1400 *	14		60	45	107	14	•
W08 1450 *	14.5	45	65	48	115	16	•
W08 1500 *	15		65	48	115	16	•
W08 1550 *	15.5		65	48	115	16	•
W08 1600 *	16		65	48	115	16	•
W08 1650 *	16.5	51	73	48	123	18	•
W08 1700 *	17		73	48	123	18	•
W08 1750 *	17.5		73	48	123	18	•
W08 1800 *	18		73	48	123	18	•
W08 1850 *	18.5	55	79	50	131	20	•
W08 1900 *	19		79	50	131	20	•
W08 1950 *	19.5		79	50	131	20	•
W08 2000 *	20		79	50	131	20	•

* - DIN 6535

● Ex Stock	ab Lager	De Stock	Da Magazzino	有存库
○ Upon Request	auf Anfrage	à la demande	Su ordinazione	无存库

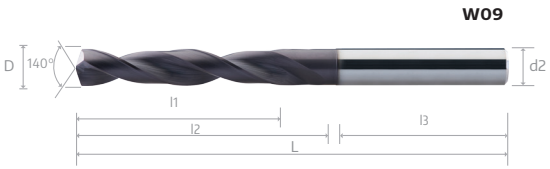
Material Group | Material-Gruppe | Groupe Matiere | Gruppo Materiali | 材质主类

N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O01	O02
○	○	○	●	●	●	●	●	○	○	●	●					

Cutting Parameter

15 - 16

W09 DR-S TWIST DRILLS - DIN 6537L - 5 x Ø , 2 FLUTES



Order Number DIN 6535	Dimension (mm)						W09
	D	l1	l2	l3	L	d2(h6)	T8090
W09 0300 *	3	23	28	36	66	6	•
W09 0310 *	3.1		28	36	66	6	•
W09 0320 *	3.2		28	36	66	6	•
W09 0330 *	3.3		28	36	66	6	•
W09 0340 *	3.4		28	36	66	6	•
W09 0350 *	3.5		28	36	66	6	•
W09 0360 *	3.6		28	36	66	6	•
W09 0370 *	3.7		28	36	66	6	•
W09 0380 *	3.8	29	36	36	74	6	•
W09 0390 *	3.9		36	36	74	6	•
W09 0400 *	4		36	36	74	6	•
W09 0410 *	4.1		36	36	74	6	•
W09 0420 *	4.2		36	36	74	6	•
W09 0430 *	4.3		36	36	74	6	•
W09 0440 *	4.4		36	36	74	6	•
W09 0450 *	4.5		36	36	74	6	•
W09 0460 *	4.6		36	36	74	6	•
W09 0470 *	4.7		36	36	74	6	•
W09 0480 *	4.8	35	44	36	82	6	•
W09 0490 *	4.9		44	36	82	6	•
W09 0500 *	5		44	36	82	6	•
W09 0510 *	5.1		44	36	82	6	•
W09 0520 *	5.2		44	36	82	6	•
W09 0530 *	5.3		44	36	82	6	•
W09 0540 *	5.4		44	36	82	6	•
W09 0550 *	5.5		44	36	82	6	•
W09 0560 *	5.6		44	36	82	6	•
W09 0570 *	5.7		44	36	82	6	•
W09 0580 *	5.8		44	36	82	6	•
W09 0590 *	5.9		44	36	82	6	•
W09 0600 *	6		44	36	82	6	•
W09 0610 *	6.1	43	53	36	91	8	•
W09 0620 *	6.2		53	36	91	8	•
W09 0630 *	6.3		53	36	91	8	•
W09 0640 *	6.4		53	36	91	8	•
W09 0650 *	6.5		53	36	91	8	•
W09 0660 *	6.6		53	36	91	8	•
W09 0670 *	6.7		53	36	91	8	•
W09 0680 *	6.8		53	36	91	8	•
W09 0690 *	6.9		53	36	91	8	•
W09 0700 *	7		53	36	91	8	•
W09 0710 *	7.1		53	36	91	8	•
W09 0720 *	7.2		53	36	91	8	•
W09 0730 *	7.3		53	36	91	8	•
W09 0740 *	7.4		53	36	91	8	•
W09 0750 *	7.5		53	36	91	8	•
W09 0760 *	7.6		53	36	91	8	•
W09 0770 *	7.7		53	36	91	8	•
W09 0780 *	7.8		53	36	91	8	•
W09 0790 *	7.9		53	36	91	8	•
W09 0800 *	8		53	36	91	8	•
W09 0810 *	8.1	49	61	40	103	10	•

Order Number DIN 6535	Dimension (mm)						W09
	D	l1	l2	l3	L	d2(h6)	T8090
W09 0820 *	8.2	49	61	40	103	10	•
W09 0830 *	8.3		61	40	103	10	•
W09 0840 *	8.4		61	40	103	10	•
W09 0850 *	8.5		61	40	103	10	•
W09 0860 *	8.6		61	40	103	10	•
W09 0870 *	8.7		61	40	103	10	•
W09 0880 *	8.8		61	40	103	10	•
W09 0890 *	8.9		61	40	103	10	•
W09 0900 *	9		61	40	103	10	•
W09 0910 *	9.1		61	40	103	10	•
W09 0920 *	9.2		61	40	103	10	•
W09 0930 *	9.3		61	40	103	10	•
W09 0940 *	9.4		61	40	103	10	•
W09 0950 *	9.5		61	40	103	10	•
W09 0960 *	9.6		61	40	103	10	•
W09 0970 *	9.7		61	40	103	10	•
W09 0980 *	9.8		61	40	103	10	•
W09 0990 *	9.9		61	40	103	10	•
W09 1000 *	10		61	40	103	10	•
W09 1020 *	10.2	56	71	45	118	12	•
W09 1050 *	10.5		71	45	118	12	•
W09 1080 *	10.8		71	45	118	12	•
W09 1100 *	11		71	45	118	12	•
W09 1120 *	11.2		71	45	118	12	•
W09 1130 *	11.3		71	45	118	12	•
W09 1150 *	11.5		71	45	118	12	•
W09 1180 *	11.8		71	45	118	12	•
W09 1200 *	12		71	45	118	12	•
W09 1220 *	12.2	60	77	45	124	14	•
W09 1250 *	12.5		77	45	124	14	•
W09 1270 *	12.7		77	45	124	14	•
W09 1280 *	12.8		77	45	124	14	•
W09 1300 *	13		77	45	124	14	•
W09 1330 *	13.3		77	45	124	14	•
W09 1350 *	13.5		77	45	124	14	•
W09 1370 *	13.7		77	45	124	14	•
W09 1380 *	13.8		77	45	124	14	•
W09 1400 *	14		77	45	124	14	•
W09 1450 *	14.5	63	83	48	133	16	•
W09 1500 *	15		83	48	133	16	•
W09 1530 *	15.3		83	48	133	16	•
W09 1550 *	15.5		83	48	133	16	•
W09 1580 *	15.8		83	48	133	16	•
W09 1600 *	16		83	48	133	16	•
W09 1650 *	16.5	71	93	48	143	18	•
W09 1700 *	17		93	48	143	18	•
W09 1750 *	17.5		93	48	143	18	•
W09 1800 *	18		93	48	143	18	•
W09 1850 *	18.5	77	101	50	153	20	•
W09 1900 *	19		101	50	153	20	•
W09 1950 *	19.5		101	50	153	20	•
W09 2000 *	20		101	50	153	20	•

* - DIN 6535

● Ex Stock	ab Lager	De Stock	Da Magazzino	有存库
○ Upon Request	auf Anfrage	à la demande	Su ordinazione	无存库

Material Group | Material-Gruppe | Groupe Matiere | Gruppo Materiali | 材质主类

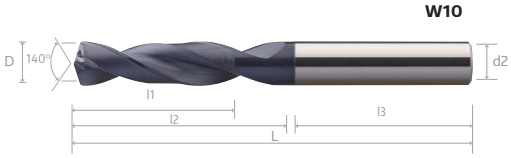
N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O01	O02
○	○	○	●	●	●	●	●	○	○	●	●					

Cutting Parameter

15 - 16

W10 DR-S OIL FEED TWIST DRILLS – DIN 6537K – 3 x Ø , 2 FLUTES

HPMT



Order Number DIN 6535	Dimension (mm)						W10
	D	l1	l2	l3	L	d2(h6)	T8090
W10 0300 *	3	14	20	36	62	6	•
W10 0310 *	3.1		20	36	62	6	○
W10 0320 *	3.2		20	36	62	6	•
W10 0330 *	3.3		20	36	62	6	•
W10 0340 *	3.4		20	36	62	6	•
W10 0350 *	3.5		20	36	62	6	•
W10 0360 *	3.6		20	36	62	6	•
W10 0370 *	3.7		20	36	62	6	•
W10 0380 *	3.8	17	24	36	66	6	•
W10 0390 *	3.9		24	36	66	6	•
W10 0400 *	4		24	36	66	6	•
W10 0410 *	4.1		24	36	66	6	○
W10 0420 *	4.2		24	36	66	6	•
W10 0430 *	4.3		24	36	66	6	•
W10 0440 *	4.4		24	36	66	6	•
W10 0450 *	4.5		24	36	66	6	•
W10 0460 *	4.6		24	36	66	6	•
W10 0470 *	4.7		24	36	66	6	•
W10 0480 *	4.8	20	28	36	66	6	•
W10 0490 *	4.9		28	36	66	6	•
W10 0500 *	5		28	36	66	6	•
W10 0510 *	5.1		28	36	66	6	•
W10 0520 *	5.2		28	36	66	6	•
W10 0530 *	5.3		28	36	66	6	•
W10 0540 *	5.4		28	36	66	6	•
W10 0550 *	5.5		28	36	66	6	•
W10 0560 *	5.6		28	36	66	6	•
W10 0570 *	5.7		28	36	66	6	•
W10 0580 *	5.8		28	36	66	6	•
W10 0590 *	5.9		28	36	66	6	•
W10 0600 *	6		28	36	66	6	•
W10 0610 *	6.1	24	34	36	79	8	•
W10 0620 *	6.2		34	36	79	8	•
W10 0630 *	6.3		34	36	79	8	•
W10 0640 *	6.4		34	36	79	8	•
W10 0650 *	6.5		34	36	79	8	•
W10 0660 *	6.6		34	36	79	8	•
W10 0670 *	6.7		34	36	79	8	•
W10 0680 *	6.8		34	36	79	8	•
W10 0690 *	6.9		34	36	79	8	•
W10 0700 *	7		34	36	79	8	•
W10 0710 *	7.1	29	41	36	79	8	•
W10 0720 *	7.2		41	36	79	8	•
W10 0730 *	7.3		41	36	79	8	•
W10 0740 *	7.4		41	36	79	8	•
W10 0750 *	7.5		41	36	79	8	•
W10 0760 *	7.6		41	36	79	8	•
W10 0770 *	7.7		41	36	79	8	•
W10 0780 *	7.8		41	36	79	8	•
W10 0790 *	7.9		41	36	79	8	•
W10 0800 *	8		41	36	79	8	•
W10 0810 *	8.1	35	47	40	89	10	•

Order Number DIN 6535	Dimension (mm)						W10
	D	l1	l2	l3	L	d2(h6)	T8090
W10 0820 *	8.2	35	47	40	89	10	•
W10 0830 *	8.3		47	40	89	10	•
W10 0840 *	8.4		47	40	89	10	•
W10 0850 *	8.5		47	40	89	10	•
W10 0860 *	8.6		47	40	89	10	•
W10 0870 *	8.7		47	40	89	10	•
W10 0880 *	8.8		47	40	89	10	•
W10 0890 *	8.9		47	40	89	10	•
W10 0900 *	9		47	40	89	10	•
W10 0910 *	9.1		47	40	89	10	•
W10 0920 *	9.2		47	40	89	10	•
W10 0930 *	9.3		47	40	89	10	•
W10 0940 *	9.4		47	40	89	10	•
W10 0950 *	9.5		47	40	89	10	•
W10 0960 *	9.6		47	40	89	10	•
W10 0970 *	9.7		47	40	89	10	•
W10 0980 *	9.8		47	40	89	10	•
W10 0990 *	9.9		47	40	89	10	•
W10 1000 *	10		47	40	89	10	•
W10 1020 *	10.2	40	55	45	102	12	•
W10 1050 *	10.5		55	45	102	12	•
W10 1080 *	10.8		55	45	102	12	•
W10 1100 *	11		55	45	102	12	•
W10 1120 *	11.2		55	45	102	12	•
W10 1130 *	11.3		55	45	102	12	•
W10 1150 *	11.5		55	45	102	12	•
W10 1180 *	11.8		55	45	102	12	•
W10 1200 *	12		55	45	102	12	•
W10 1220 *	12.2	43	60	45	107	14	•
W10 1250 *	12.5		60	45	107	14	•
W10 1270 *	12.7		60	45	107	14	•
W10 1280 *	12.8		60	45	107	14	•
W10 1300 *	13		60	45	107	14	•
W10 1330 *	13.3		60	45	107	14	•
W10 1350 *	13.5		60	45	107	14	•
W10 1370 *	13.7		60	45	107	14	○
W10 1380 *	13.8		60	45	107	14	○
W10 1400 *	14		60	45	107	14	•
W10 1450 *	14.5	45	65	48	115	16	•
W10 1500 *	15		65	48	115	16	•
W10 1530 *	15.3		65	48	115	16	•
W10 1550 *	15.5		65	48	115	16	•
W10 1580 *	15.8		65	48	115	16	•
W10 1600 *	16		65	48	115	16	•
W10 1650 *	16.5	51	73	48	123	18	•
W10 1700 *	17		73	48	123	18	•
W10 1750 *	17.5		73	48	123	18	•
W10 1800 *	18		73	48	123	18	•
W10 1850 *	18.5	55	79	50	131	20	•
W10 1900 *	19		79	50	131	20	•
W10 1950 *	19.5		79	50	131	20	•
W10 2000 *	20		79	50	131	20	•

* - DIN 6535

● Ex Stock	ab Lager	De Stock	Da Magazzino	有存库
○ Upon Request	auf Anfrage	à la demande	Su ordinazione	无存库

Material Group | Material-Gruppe | Groupe Matiere | Gruppo Materiali | 材质主类

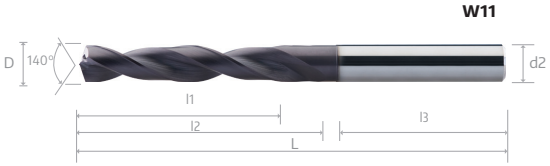
N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O01	O02
○	○	○	●	●	●	●	●	○	○	●	●					

Cutting Parameter

13 - 14

W11 DR-S OIL FEED TWIST DRILLS - DIN 6537L - 5 x Ø , 2 FLUTES

HPMT



Order Number DIN 6535	Dimension (mm)						W11
	D	l1	l2	l3	L	d2(h6)	T8090
W11 0300 066 03	3	23	28	36	66	3	•
W11 0300 *	3		28	36	66	6	•
W11 0310 066 03	3.1		28	36	66	3	•
W11 0310 *	3.1		28	36	66	6	•
W11 0320 066 03	3.2		28	36	66	3	•
W11 0320 *	3.2		28	36	66	6	•
W11 0330 *	3.3		28	36	66	6	•
W11 0340 *	3.4		28	36	66	6	•
W11 0350 *	3.5		28	36	66	6	•
W11 0360 *	3.6		28	36	66	6	•
W11 0370 *	3.7		28	36	66	6	•
W11 0380 *	3.8	29	36	36	74	6	•
W11 0390 *	3.9		36	36	74	6	•
W11 0400 074 04	4		36	36	74	4	•
W11 0400 *	4		36	36	74	6	•
W11 0410 074 04	4.1		36	36	74	4	•
W11 0410 *	4.1		36	36	74	6	•
W11 0420 074 04	4.2		36	36	74	4	•
W11 0420 *	4.2		36	36	74	6	•
W11 0430 *	4.3		36	36	74	6	•
W11 0440 *	4.4		36	36	74	6	•
W11 0450 *	4.5		36	36	74	6	•
W11 0460 *	4.6		36	36	74	6	•
W11 0470 *	4.7		36	36	74	6	•
W11 0480 *	4.8	35	44	36	82	6	•
W11 0490 *	4.9		44	36	82	6	•
W11 0500 *	5		44	36	82	6	•
W11 0510 *	5.1		44	36	82	6	•
W11 0520 *	5.2		44	36	82	6	•
W11 0530 *	5.3		44	36	82	6	•
W11 0540 *	5.4		44	36	82	6	•
W11 0550 *	5.5		44	36	82	6	•
W11 0560 *	5.6		44	36	82	6	•
W11 0570 *	5.7		44	36	82	6	•
W11 0580 *	5.8		44	36	82	6	•
W11 0590 *	5.9		44	36	82	6	•
W11 0600 *	6		44	36	82	6	•
W11 0610 082 06 *	6.1		44	36	82	6	•
W11 0610 *	6.1	43	53	36	91	8	•
W11 0620 *	6.2		53	36	91	8	•
W11 0630 *	6.3		53	36	91	8	•
W11 0640 *	6.4		53	36	91	8	•
W11 0650 *	6.5		53	36	91	8	•
W11 0660 *	6.6		53	36	91	8	•
W11 0670 *	6.7		53	36	91	8	•
W11 0680 *	6.8		53	36	91	8	•
W11 0690 *	6.9		53	36	91	8	•
W11 0700 *	7		53	36	91	8	•
W11 0710 *	7.1		53	36	91	8	•
W11 0720 *	7.2		53	36	91	8	•
W11 0730 *	7.3		53	36	91	8	•
W11 0740 *	7.4		53	36	91	8	•
W11 0750 *	7.5		53	36	91	8	•
W11 0760 *	7.6		53	36	91	8	•
W11 0770 *	7.7		53	36	91	8	•
W11 0780 *	7.8		53	36	91	8	•

Order Number	Dimension (mm)						W11
	D	l1	l2	l3	L	d2(h6)	T8090
W11 0790 *	7.9	43	53	36	91	8	•
W11 0800 *	8		53	36	91	8	•
W11 0810 091 08 *	8.1		53	36	91	8	•
W11 0810 *	8.1	49	61	40	103	10	•
W11 0820 *	8.2		61	40	103	10	•
W11 0830 *	8.3		61	40	103	10	•
W11 0840 *	8.4		61	40	103	10	•
W11 0850 *	8.5		61	40	103	10	•
W11 0860 *	8.6		61	40	103	10	•
W11 0870 *	8.7		61	40	103	10	•
W11 0880 *	8.8		61	40	103	10	•
W11 0890 *	8.9		61	40	103	10	•
W11 0900 *	9		61	40	103	10	•
W11 0910 *	9.1		61	40	103	10	•
W11 0920 *	9.2		61	40	103	10	•
W11 0930 *	9.3		61	40	103	10	•
W11 0940 *	9.4		61	40	103	10	•
W11 0950 *	9.5		61	40	103	10	•
W11 0960 *	9.6		61	40	103	10	•
W11 0970 *	9.7		61	40	103	10	•
W11 0980 *	9.8		61	40	103	10	•
W11 0990 *	9.9		61	40	103	10	•
W11 1000 *	10		61	40	103	10	•
W11 1020 *	10.2	56	71	45	118	12	•
W11 1050 *	10.5		71	45	118	12	•
W11 1080 *	10.8		71	45	118	12	•
W11 1100 *	11		71	45	118	12	•
W11 1120 *	11.2		71	45	118	12	•
W11 1130 *	11.3		71	45	118	12	•
W11 1150 *	11.5		71	45	118	12	•
W11 1180 *	11.8		71	45	118	12	•
W11 1200 *	12		71	45	118	12	•
W11 1220 *	12.2		77	45	124	14	•
W11 1250 *	12.5	60	77	45	124	14	•
W11 1270 *	12.7		77	45	124	14	•
W11 1280 *	12.8		77	45	124	14	•
W11 1300 *	13		77	45	124	14	•
W11 1330 *	13.3		77	45	124	14	•
W11 1350 *	13.5		77	45	124	14	•
W11 1370 *	13.7		77	45	124	14	•
W11 1380 *	13.8		77	45	124	14	•
W11 1400 *	14		77	45	124	14	•
W11 1450 *	14.5	63	83	48	133	16	•
W11 1500 *	15		83	48	133	16	•
W11 1530 *	15.3		83	48	133	16	•
W11 1550 *	15.5		83	48	133	16	•
W11 1580 *	15.8		83	48	133	16	•
W11 1600 *	16		83	48	133	16	•
W11 1650 *	16.5	71	93	48	143	18	•
W11 1700 *	17		93	48	143	18	•
W11 1750 *	17.5		93	48	143	18	•
W11 1800 *	18		93	48	143	18	•
W11 1850 *	18.5	77	101	50	153	20	•
W11 1900 *	19		101	50	153	20	•
W11 1950 *	19.5		101	50	153	20	•
W11 2000 *	20		101	50	153	20	•

* - DIN 6535

● Ex Stock	ab Lager	De Stock	Da Magazzino	有存库
○ Upon Request	auf Anfrage	à la demande	Su ordinazione	无存库

Material Group | Material-Gruppe | Groupe Matiere | Gruppo Materiali | 材质主类

N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O01	O02
○	○	○	●	●	●	●	●	○	○	●	●					

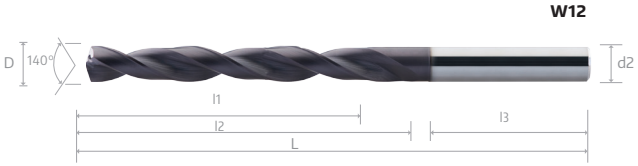
Cutting Parameter

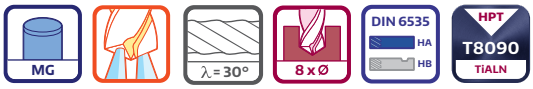
13 - 14

Modifiche Techiche possibili senza preavviso

W12 DR-S OIL FEED TWIST DRILLS - 8 x Ø , 2 FLUTES

HPMT





Order Number DIN 6535	Dimension (mm)						W12
	D	l1	l2	l3	L	d2(h6)	T8090
W12 0300 *	3	32	40	36	85	6	•
W12 0310 *	3.1		40	36	85	6	•
W12 0320 *	3.2		40	36	85	6	•
W12 0330 *	3.3		40	36	85	6	•
W12 0340 *	3.4		40	36	85	6	•
W12 0350 *	3.5		40	36	85	6	•
W12 0360 *	3.6	36	40	36	85	6	•
W12 0370 *	3.7		40	36	85	6	•
W12 0380 *	3.8		40	36	85	6	•
W12 0390 *	3.9		40	36	85	6	•
W12 0400 *	4	38	46	36	85	6	•
W12 0410 *	4.1		46	36	85	6	•
W12 0420 *	4.2		46	36	85	6	•
W12 0430 *	4.3	40	46	36	97	6	•
W12 0440 *	4.4		46	36	97	6	○
W12 0450 *	4.5	44	46	36	97	6	•
W12 0460 *	4.6		46	36	97	6	•
W12 0470 *	4.7		46	36	97	6	•
W12 0480 *	4.8		46	36	97	6	•
W12 0490 *	4.9		46	36	97	6	○
W12 0500 *	5	48	57	36	97	6	•
W12 0510 *	5.1		57	36	97	6	•
W12 0520 *	5.2		57	36	97	6	•
W12 0530 *	5.3		57	36	97	6	•
W12 0540 *	5.4		57	36	97	6	○
W12 0550 *	5.5		57	36	97	6	•
W12 0560 *	5.6		57	36	97	6	•
W12 0570 *	5.7		57	36	97	6	•
W12 0580 *	5.8		57	36	97	6	•
W12 0590 *	5.9		57	36	97	6	•
W12 0600 *	6		57	36	97	6	•
W12 0610 *	6.1	64	76	36	116	8	•
W12 0620 *	6.2		76	36	116	8	•
W12 0630 *	6.3		76	36	116	8	•
W12 0640 *	6.4		76	36	116	8	•
W12 0650 *	6.5		76	36	116	8	•
W12 0660 *	6.6		76	36	116	8	•
W12 0670 *	6.7		76	36	116	8	•
W12 0680 *	6.8		76	36	116	8	•
W12 0690 *	6.9		76	36	116	8	•
W12 0700 *	7		76	36	116	8	•
W12 0710 *	7.1		76	36	116	8	•
W12 0720 *	7.2		76	36	116	8	•
W12 0730 *	7.3		76	36	116	8	•
W12 0740 *	7.4		76	36	116	8	•
W12 0750 *	7.5		76	36	116	8	•
W12 0760 *	7.6		76	36	116	8	○
W12 0770 *	7.7		76	36	116	8	•
W12 0780 *	7.8		76	36	116	8	•
W12 0790 *	7.9		76	36	116	8	•
W12 0800 *	8		76	36	116	8	•
W12 0810 *	8.1	80	95	40	142	10	•
W2 0820 *	8.2		95	40	142	10	•

Order Number DIN 6535	Dimension (mm)						W12
	D	l1	l2	l3	L	d2(h6)	T8090
W12 0830 *	8.3	80	95	40	142	10	•
W12 0840 *	8.4		95	40	142	10	○
W12 0850 *	8.5		95	40	142	10	•
W12 0860 *	8.6		95	40	142	10	•
W12 0870 *	8.7		95	40	142	10	•
W12 0880 *	8.8		95	40	142	10	•
W12 0890 *	8.9		95	40	142	10	○
W12 0900 *	9		95	40	142	10	•
W12 0910 *	9.1		95	40	142	10	•
W12 0920 *	9.2		95	40	142	10	•
W12 0930 *	9.3		95	40	142	10	•
W12 0940 *	9.4		95	40	142	10	○
W12 0950 *	9.5		95	40	142	10	•
W12 0960 *	9.6		95	40	142	10	•
W12 0970 *	9.7		95	40	142	10	○
W12 0980 *	9.8		95	40	142	10	•
W12 0990 *	9.9		95	40	142	10	○
W12 1000 *	10		95	40	142	10	•
W12 1020 *	10.2	96	114	45	163	12	•
W12 1030 *	10.3		114	45	163	12	○
W12 1050 *	10.5		114	45	163	12	•
W12 1080 *	10.8		114	45	163	12	•
W12 1100 *	11		114	45	163	12	•
W12 1120 *	11.2		114	45	163	12	•
W12 1130 *	11.3		114	45	163	12	•
W12 1150 *	11.5		114	45	163	12	•
W12 1180 *	11.8		114	45	163	12	•
W12 1200 *	12		114	45	163	12	•
W12 1220 *	12.2	112	133	45	182	14	•
W12 1250 *	12.5		133	45	182	14	•
W12 1270 *	12.7		133	45	182	14	○
W12 1280 *	12.8		133	45	182	14	○
W12 1300 *	13		133	45	182	14	•
W12 1330 *	13.3		133	45	182	14	○
W12 1350 *	13.5		133	45	182	14	•
W12 1370 *	13.7		133	45	182	14	○
W12 1380 *	13.8		133	45	182	14	○
W12 1400 *	14		133	45	182	14	•
W12 1450 *	14.5	128	152	48	204	16	•
W12 1500 *	15		152	48	204	16	•
W12 1530 *	15.3		152	48	204	16	○
W12 1550 *	15.5		152	48	204	16	•
W12 1580 *	15.8		152	48	204	16	○
W12 1600 *	16		152	48	204	16	•
W12 1650 *	16.5	144	171	48	222	18	○
W12 1700 *	17		171	48	222	18	○
W12 1750 *	17.5		171	48	222	18	○
W12 1800 *	18		171	48	222	18	○
W12 1850 *	18.5	160	190	50	243	20	○
W12 1900 *	19		190	50	243	20	○
W12 1950 *	19.5		190	50	243	20	○
W12 2000 *	20		190	50	243	20	○

* - DIN 6535

• Ex Stock	ab Lager	De Stock	Da Magazzino	有存库
○ Upon Request	auf Anfrage	à la demande	Su ordinazione	无存库

Material Group | Material-Gruppe | Groupe Matiere | Gruppo Materiali | 材质主类

N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O01	O02
○	○	○	•	•	•	•	•	○	○	•	•					

Cutting Parameter

17 - 18

若有技术规格变更，恕不事先通知

DR-S nternal Coolant - Aggressive Cutting Parameter, 2 Flute - W10, W11

Drilling	P01		P02		P03		M01		M02		K01		K02		S01		S02	
Working Material	Carbon Steel		Alloy Steel		Prehardened Steel		Stainless Steel				Grey Cast iron		Ductile Cast Iron		Titanium Alloy		Nickel Alloy	
Properties	-		520 < Rm < 1200		35 ≤ HRC < 45		High Machinability		Low Machinability		-		-		-		-	
D (mm)	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)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)
3		0.063		0.068		0.080		0.048		0.054		0.073		0.071		0.047		0.026
4		0.090		0.098		0.110		0.067		0.075		0.104		0.099		0.066		0.039
5		0.119		0.132		0.143		0.085		0.094		0.136		0.128		0.085		0.048
6		0.151		0.171		0.178		0.106		0.115		0.172		0.160		0.105		0.058
7		0.185		0.214		0.215		0.125		0.135		0.211		0.194		0.126		0.075
8		0.222		0.261		0.253		0.150		0.160		0.252		0.230		0.156		0.086
9		0.262		0.312		0.294		0.168		0.178		0.297		0.268		0.173		0.092
10	175	0.304	120	0.368	65	0.337	60	0.190	50	0.206	140	0.344	105	0.308	40	0.208	35	0.108
11		0.349		0.427		0.382		0.217		0.220		0.394		0.351		0.233		0.118
12		0.396		0.491		0.429		0.250		0.236		0.447		0.395		0.255		0.130
13		0.417		0.503		0.457		0.267		0.254		0.472		0.415		0.280		0.133
14		0.437		0.511		0.484		0.279		0.275		0.495		0.433		0.270		0.150
15		0.454		0.515		0.509		0.292		0.291		0.517		0.449		0.289		0.150
16		0.470		0.514		0.534		0.317		0.320		0.537		0.463		0.313		0.157
17		0.484		0.509		0.557		0.308		0.320		0.554		0.475		0.313		0.157
18		0.496		0.499		0.578		0.336		0.344		0.570		0.485		0.300		0.157
19		0.506		0.485		0.599		0.327		0.344		0.585		0.494		0.329		0.183
20		0.514		0.466		0.618		0.350		0.375		0.597		0.500		0.314		0.183

Drilling	N01		N02		N03	
Working Material	Wrought Aluminium		Cast Aluminium		Copper Alloy	
Properties	-		520 < Rm < 1200		35 ≤ HRC < 45	
D (mm)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)
3		0.076		0.073		0.077
4		0.107		0.102		0.107
5		0.140		0.134		0.139
6		0.176		0.169		0.172
7		0.216		0.204		0.206
8		0.256		0.244		0.245
9		0.301		0.287		0.281
10	310	0.347	220	0.327	190	0.324
11		0.397		0.377		0.369
12		0.446		0.424		0.408
13		0.471		0.450		0.434
14		0.486		0.461		0.452
15		0.505		0.483		0.472
16		0.516		0.500		0.499
17		0.522		0.505		0.513
18		0.536		0.526		0.531
19		0.544		0.532		0.548
20		0.540		0.525		0.549

 P M K S N  P K

Recommended Cutting Data
Note: These recommended cutting data indicators are just for reference. They should be adjusted according to the different cutting condition.

DR-S Internal Coolant - Conventional Cutting Parameter, 2 Flute - W10, W11

Drilling	P01		P02		P03		M01		M02		K01		K02		S01		S02	
Working Material	Carbon Steel		Alloy Steel		Prehardened Steel		Stainless Steel				Grey Cast iron		Ductile Cast Iron		Titanium Alloy		Nickel Alloy	
Properties	-		520 < Rm < 1200		35 ≤ HRC < 45		High Machinability		Low Machinability		-		-		-		-	
D (mm)	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)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)
3		0.069		0.065		0.073		0.039		0.044		0.058		0.046		0.046		0.038
4		0.099		0.095		0.100		0.057		0.067		0.081		0.063		0.067		0.058
5		0.131		0.128		0.130		0.074		0.080		0.104		0.081		0.080		0.070
6		0.166		0.166		0.162		0.089		0.100		0.128		0.100		0.108		0.088
7		0.204		0.208		0.196		0.113		0.121		0.156		0.120		0.118		0.100
8		0.244		0.253		0.230		0.129		0.142		0.185		0.142		0.156		0.133
9		0.288		0.303		0.268		0.146		0.164		0.210		0.165		0.175		0.133
10	110	0.334	80	0.357	40	0.307	35	0.158	30	0.180	85	0.239	65	0.186	22	0.188	15	0.160
11		0.384		0.414		0.348		0.182		0.211		0.276		0.211		0.214		0.160
12		0.436		0.476		0.390		0.200		0.225		0.309		0.222		0.250		0.200
13		0.459		0.488		0.416		0.222		0.225		0.333		0.250		0.250		0.200
14		0.481		0.496		0.440		0.250		0.257		0.345		0.267		0.250		0.200
15		0.499		0.499		0.463		0.238		0.243		0.353		0.279		0.300		0.200
16		0.517		0.498		0.486		0.271		0.283		0.388		0.300		0.280		0.267
17		0.532		0.493		0.507		0.271		0.283		0.406		0.300		0.280		0.267
18		0.546		0.484		0.526		0.257		0.267		0.394		0.317		0.350		0.267
19		0.557		0.471		0.545		0.300		0.267		0.413		0.345		0.350		0.267
20		0.565		0.452		0.562		0.283		0.300		0.429		0.336		0.325		0.233

Drilling	N01		N02		N03	
Working Material	Wrought Aluminium		Cast Aluminium		Copper Alloy	
Properties	-		520 < Rm < 1200		35 ≤ HRC < 45	
D (mm)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)
3		0.069		0.065		0.050
4		0.097		0.091		0.073
5		0.127		0.120		0.098
6		0.159		0.150		0.126
7		0.195		0.184		0.158
8		0.232		0.216		0.191
9		0.273		0.254		0.226
10	240	0.314	200	0.292	160	0.269
11		0.359		0.334		0.306
12		0.406		0.370		0.351
13		0.431		0.400		0.365
14		0.451		0.417		0.381
15		0.475		0.437		0.400
16		0.492		0.460		0.406
17		0.511		0.474		0.417
18		0.521		0.489		0.414
19		0.532		0.506		0.426
20		0.541		0.522		0.419

P M K S N | P K

Recommended Cutting Data
Note: These recommended cutting data indicators are just for reference. They should be adjusted according to the different cutting condition.

DR-S External Coolant - Aggressive Cutting Parameter, 2 Flute - W08, W09

Drilling	P01		P02		P03		M01		M02		K01		K02		S01		S02	
Working Material	Carbon Steel		Alloy Steel		Prehardened Steel		Stainless Steel				Grey Cast iron		Ductile Cast Iron		Titanium Alloy		Nickel Alloy	
Properties	-		520 < Rm < 1200		35 ≤ HRC < 45		High Machinability		Low Machinability		-		-		-		-	
D (mm)	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)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)
3		0.072		0.061		0.060		0.049		0.042		0.070		0.052		0.037		0.036
4		0.100		0.085		0.083		0.069		0.061		0.095		0.073		0.055		0.056
5		0.128		0.111		0.107		0.088		0.074		0.120		0.096		0.069		0.069
6		0.157		0.138		0.132		0.109		0.095		0.145		0.119		0.086		0.082
7		0.188		0.166		0.157		0.132		0.113		0.170		0.144		0.100		0.090
8		0.221		0.197		0.184		0.156		0.136		0.200		0.171		0.130		0.125
9		0.250		0.230		0.212		0.173		0.146		0.226		0.200		0.144		0.125
10	105	0.285	80	0.264	50	0.241	40	0.208	35	0.167	95	0.252	70	0.230	25	0.175	20	0.143
11		0.319		0.300		0.272		0.233		0.182		0.282		0.263		0.175		0.167
12		0.361		0.338		0.303		0.255		0.200		0.308		0.296		0.200		0.167
13		0.385		0.357		0.323		0.280		0.222		0.333		0.314		0.200		0.200
14		0.413		0.375		0.342		0.270		0.250		0.359		0.332		0.233		0.200
15		0.422		0.391		0.360		0.300		0.238		0.371		0.348		0.233		0.200
16		0.457		0.406		0.377		0.325		0.271		0.405		0.365		0.260		0.250
17		0.475		0.419		0.394		0.313		0.271		0.428		0.379		0.260		0.250
18		0.489		0.431		0.409		0.313		0.257		0.447		0.393		0.260		0.250
19		0.511		0.442		0.423		0.343		0.300		0.469		0.406		0.260		0.250
20		0.529		0.452		0.437		0.329		0.283		0.463		0.418		0.300		0.225

Drilling	N01		N02		N03	
Working Material	Wrought Aluminium		Cast Aluminium		Copper Alloy	
Properties	-		520 < Rm < 1200		35 ≤ HRC < 45	
D (mm)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)
3		0.058		0.063		0.062
4		0.081		0.087		0.085
5		0.104		0.111		0.110
6		0.128		0.138		0.136
7		0.155		0.164		0.165
8		0.183		0.194		0.194
9		0.211		0.222		0.224
10	200	0.241	165	0.254	140	0.257
11		0.272		0.287		0.290
12		0.300		0.321		0.318
13		0.322		0.339		0.339
14		0.335		0.357		0.361
15		0.349		0.368		0.378
16		0.365		0.391		0.393
17		0.374		0.409		0.399
18		0.383		0.412		0.418
19		0.394		0.429		0.426
20		0.406		0.432		0.430

Recommended Cutting Data
Note: These recommended cutting data indicators are just for reference. They should be adjusted according to the different cutting condition.

DR-S External Coolant - Conventional Cutting Parameter, 2 Flute - W08, W09

Drilling	P01		P02		P03		M01		M02		K01		K02		S01		S02	
Working Material	Carbon Steel		Alloy Steel		Prehardened Steel		Stainless Steel				Grey Cast iron		Ductile Cast Iron		Titanium Alloy		Nickel Alloy	
Properties	-		520 < Rm < 1200		35 ≤ HRC < 45		High Machinability		Low Machinability		-		-		-		-	
D (mm)	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)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)
3		0.060		0.055		0.040		0.044		0.041		0.061		0.039		0.032		0.023
4		0.084		0.076		0.055		0.063		0.060		0.083		0.055		0.050		0.040
5		0.110		0.099		0.071		0.075		0.075		0.104		0.072		0.062		0.050
6		0.135		0.124		0.088		0.100		0.093		0.126		0.089		0.073		0.057
7		0.162		0.149		0.105		0.114		0.108		0.149		0.108		0.090		0.083
8		0.194		0.177		0.123		0.142		0.140		0.174		0.128		0.113		0.100
9		0.221		0.206		0.142		0.155		0.156		0.197		0.150		0.113		0.100
10	80	0.254	60	0.237	40	0.161	30	0.180	25	0.188	75	0.219	70	0.172	20	0.143	12	0.150
11		0.283		0.269		0.182		0.200		0.188		0.246		0.196		0.167		0.150
12		0.318		0.303		0.203		0.225		0.214		0.268		0.221		0.167		0.150
13		0.345		0.320		0.216		0.225		0.214		0.290		0.235		0.200		0.200
14		0.358		0.336		0.229		0.257		0.250		0.313		0.248		0.200		0.200
15		0.394		0.351		0.240		0.243		0.233		0.324		0.261		0.200		0.200
16		0.406		0.364		0.252		0.283		0.280		0.353		0.273		0.250		0.167
17		0.427		0.376		0.263		0.283		0.280		0.373		0.284		0.250		0.167
18		0.420		0.387		0.274		0.267		0.260		0.389		0.294		0.250		0.167
19		0.443		0.397		0.283		0.267		0.260		0.408		0.304		0.250		0.167
20		0.462		0.406		0.292		0.300		0.300		0.403		0.313		0.225		0.200

Drilling	N01		N02		N03	
Working Material	Wrought Aluminium		Cast Aluminium		Copper Alloy	
Properties	-		520 < Rm < 1200		35 ≤ HRC < 45	
D (mm)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)
3		0.055		0.062		0.060
4		0.077		0.085		0.082
5		0.100		0.109		0.106
6		0.124		0.135		0.131
7		0.149		0.161		0.158
8		0.177		0.190		0.187
9		0.204		0.218		0.215
10	150	0.235	130	0.249	100	0.246
11		0.266		0.281		0.278
12		0.300		0.314		0.306
13		0.319		0.332		0.326
14		0.329		0.350		0.347
15		0.350		0.360		0.363
16		0.363		0.383		0.377
17		0.369		0.401		0.383
18		0.385		0.403		0.401
19		0.388		0.421		0.409
20		0.408		0.423		0.413

Recommended Cutting Data
Note: These recommended cutting data indicators are just for reference. They should be adjusted according to the different cutting condition.

DR-S Internal Coolant - Conventional Cutting Parameter, 8 x Ø, 2 Flute - W12

Drilling	P01		P02		P03		M01		M02		K01		K02		S01		S02	
Working Material	Carbon Steel		Alloy Steel		Prehardened Steel		Stainless Steel				Grey Cast iron		Ductile Cast Iron		Titanium Alloy		Nickel Alloy	
Properties	-		520 < Rm < 1200		35 ≤ HRC < 45		High Machinability		Low Machinability		-		-		-		-	
D (mm)	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)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)
3		0.057		0.052		0.059		0.038		0.044		0.062		0.058		0.041		0.038
4		0.081		0.079		0.086		0.050		0.060		0.087		0.084		0.056		0.050
5		0.109		0.105		0.112		0.065		0.075		0.115		0.105		0.069		0.060
6		0.139		0.134		0.134		0.081		0.086		0.148		0.130		0.082		0.075
7		0.169		0.169		0.163		0.100		0.108		0.181		0.163		0.100		0.086
8		0.204		0.208		0.186		0.108		0.130		0.214		0.192		0.138		0.100
9		0.235		0.246		0.226		0.127		0.144		0.256		0.226		0.138		0.100
10	95	0.277	70	0.291	35	0.250	30	0.150	25	0.163	75	0.293	55	0.256	20	0.157	15	0.120
11		0.316		0.340		0.294		0.156		0.163		0.330		0.288		0.200		0.120
12		0.361		0.387		0.323		0.188		0.186		0.382		0.329		0.200		0.175
13		0.378		0.395		0.349		0.188		0.186		0.397		0.341		0.240		0.150
14		0.398		0.400		0.363		0.200		0.217		0.415		0.357		0.240		0.150
15		0.411		0.403		0.387		0.200		0.200		0.438		0.385		0.220		0.150
16		0.434		0.400		0.400		0.233		0.240		0.453		0.382		0.275		0.200
17		0.428		0.370		0.390		0.222		0.238		0.439		0.363		0.245		0.187
18		0.441		0.372		0.380		0.210		0.224		0.455		0.385		0.245		0.187
19		0.451		0.373		0.443		0.210		0.224		0.474		0.371		0.245		0.187
20		0.438		0.338		0.420		0.238		0.263		0.502		0.397		0.228		0.163

Drilling	N01		N02		N03	
Working Material	Wrought Aluminium		Cast Aluminium		Copper Alloy	
Properties	-		520 < Rm < 1200		35 ≤ HRC < 45	
D (mm)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)
3		0.060		0.053		0.066
4		0.084		0.075		0.090
5		0.110		0.097		0.117
6		0.138		0.125		0.146
7		0.170		0.150		0.175
8		0.201		0.180		0.207
9		0.237		0.211		0.241
10	200	0.272	175	0.241	135	0.277
11		0.312		0.275		0.306
12		0.346		0.309		0.350
13		0.369		0.328		0.360
14		0.380		0.340		0.386
15		0.391		0.347		0.403
16		0.408		0.363		0.423
17		0.424		0.382		0.428
18		0.436		0.397		0.452
19		0.449		0.401		0.460
20		0.462		0.418		0.468


P M K S N

P K

Recommended Cutting Data
Note: These recommended cutting data indicators are just for reference. They should be adjusted according to the different cutting condition.

DR-S Internal Coolant - Aggresive Cutting Parameter, 8 x Ø, 2 Flute - W12

Drilling	P01		P02		P03		M01		M02		K01		K02		S01		S02	
Working Material	Carbon Steel		Alloy Steel		Prehardened Steel		Stainless Steel				Grey Cast iron		Ductile Cast Iron		Titanium Alloy		Nickel Alloy	
Properties	-		520 < Rm < 1200		35 ≤ HRC < 45		High Machinability		Low Machinability		-		-		-		-	
D (mm)	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)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)
3		0.051		0.056		0.066		0.041		0.047		0.059		0.058		0.037		0.022
4		0.073		0.083		0.091		0.055		0.066		0.084		0.082		0.054		0.033
5		0.097		0.111		0.117		0.072		0.081		0.110		0.103		0.065		0.040
6		0.124		0.141		0.143		0.089		0.100		0.141		0.131		0.084		0.050
7		0.151		0.178		0.173		0.109		0.116		0.173		0.161		0.106		0.057
8		0.182		0.220		0.209		0.125		0.138		0.206		0.189		0.129		0.067
9		0.211		0.258		0.240		0.144		0.147		0.242		0.222		0.138		0.073
10	150	0.248	100	0.309	55	0.272	50	0.169	40	0.177	120	0.277	90	0.255	35	0.158	30	0.090
11		0.282		0.359		0.319		0.180		0.192		0.320		0.281		0.182		0.100
12		0.325		0.407		0.353		0.200		0.209		0.366		0.325		0.200		0.113
13		0.338		0.416		0.371		0.215		0.230		0.377		0.330		0.222		0.100
14		0.349		0.426		0.385		0.225		0.230		0.396		0.348		0.238		0.114
15		0.369		0.418		0.417		0.245		0.244		0.419		0.365		0.225		0.114
16		0.387		0.430		0.445		0.270		0.275		0.438		0.383		0.257		0.133
17		0.383		0.426		0.436		0.260		0.275		0.443		0.394		0.257		0.133
18		0.400		0.417		0.470		0.289		0.275		0.450		0.406		0.243		0.133
19		0.400		0.406		0.460		0.278		0.314		0.462		0.388		0.267		0.133
20		0.421		0.394		0.511		0.313		0.300		0.470		0.400		0.250		0.160

Drilling	N01		N02		N03	
Working Material	Wrought Aluminium		Cast Aluminium		Copper Alloy	
Properties	-		520 < Rm < 1200		35 ≤ HRC < 45	
D (mm)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)	Vc (m/min)	fn (mm/rev)
3		0.064		0.059		0.064
4		0.090		0.083		0.089
5		0.117		0.109		0.116
6		0.148		0.138		0.145
7		0.179		0.166		0.173
8		0.214		0.199		0.203
9		0.252		0.231		0.235
10	260	0.290	190	0.266	160	0.273
11		0.329		0.307		0.302
12		0.375		0.343		0.340
13		0.392		0.362		0.360
14		0.403		0.375		0.376
15		0.416		0.388		0.400
16		0.431		0.405		0.416
17		0.441		0.411		0.433
18		0.450		0.424		0.438
19		0.450		0.431		0.456
20		0.450		0.426		0.462


P M K S N

P K

Recommended Cutting Data
Note: These recommended cutting data indicators are just for reference. They should be adjusted according to the different cutting condition.

Certificate

Standard **ISO 9001:2015**

Certificate Registr. No. **01 100 053515**

Certificate Holder:

HPMT Industries Sdn. Bhd.
No. 5, Jalan Sungai Kayu Ara 32/39, Taman Berjaya,
Seksyen 32, Shah Alam, Selangor Darul Ehsan, Malaysia

Scope: Design and Manufacturing of Standard and Custom-made Metal Removing Cutting Tools

Proof has been furnished by means of an audit that the requirements of ISO 9001:2015 are met.

Validity: The certificate is valid from 2021-08-15 until 2024-08-14.
First certification 2005

2021-12-13

TÜV Rheinland Cert GmbH
Am Grauen Stein · 51105 Köln

HPMT

HPMT INDUSTRIES SDN BHD
5 Jalan Sungai Kayu Ara 32/39
Taman Berjaya, Seksyen 32
40460 Shah Alam,
Selangor Darul Ehsan, Malaysia
T + 603 5740 2218
F + 603 5740 2238
E info@hpmt-industries.com
W www.hpmt-industries.com

HERROZ SDN BHD
5 Jalan Sungai Kayu Ara 32/39
Taman Berjaya, Seksyen 32
40460 Shah Alam,
Selangor Darul Ehsan, Malaysia
T + 603 5740 2838 (Selangor)
+ 607 351 9910 (Johor)
F + 603 5740 2822 (Selangor)
+ 603 5740 2823 (Selangor)
+ 607 355 2461 (Johor)
E info@herroz.com
W www.herroz.com

MTC TOOLING SYSTEMS LTD
204-5 Fook Hong Ind Bldg
19 Shueng Yuet Road
Kowloon Bay, Hong Kong
T 00852 2305 4838
F 00852 2798 8789
E info@mtc-tools.com

HPMT (SHEN ZHEN) LTD
1223, Kerry Centre
2008 Renminnan Road
ShenZhen China
T +86-755 2518 1722
F +86-755 2518 1728
E info@hpmt-industries.com.cn
W www.hpmt-industries.com.cn

HPMT DEUTSCHLAND GMBH
Vorkamp 6, D-23879 Mölln
T + 49 (0) 45 42 / 84 21 10
F + 49 (0) 45 42 / 84 21 08
E info@hpmt-deutschland.de
W www.hpmt-deutschland.de

hpmt-industries.com/

linkedin.com/company/
hpmt-industries-sdn-bhd

facebook.com/
HighPrecisionMachiningTools