



DRILLS

DR-LX

High-performance long drills on P, M, N, K, S materials

Index - Drills, For 35 - 68 HRC

Suitable for Material Groups

Adapté pour les matériaux

适用于材料

Geeignet für die Materialgruppen

Adatto per il materiale

P	M	K	N
S	H	O	

EDP Number	Hardness		Type	No. Z	Helix Angle	Coating	Performance	Page Number
662	≤ 35 HRC		DR NC 60°	2	30°	UC	G	443
953			DR NC 60°	2	30°	B0819	G	443
664			DR NC 90°	2	30°	UC	G	444
955			DR NC 90°	2	30°	B0819	G	444
666			DR NC 120°	2	30°	UC	G	445
957			DR NC 120°	2	30°	B0819	G	445
D09	Non Ferrous Metal		DR ALU OF - 3 x Ø	2	30°	UC	P	449
D10			DR ALU OF - 5 x Ø	2	30°	UC	P	450
NEW W16	≤ 35 HRC		EZ Drill - 3 x Ø	2	30°	T8090	G	454
NEW W17			EZ Drill - 5 x Ø	2	30°	T8090	G	456
D07			DR NiTiCo OF - 3 x Ø	2	30°	T8090	P	459
D08			DR NiTiCo OF - 5 x Ø	2	30°	T8090	P	460
C73	≤ 45 HRC		DR VA OF- 3 x Ø	2	30°	T8090	P	464
C77			DR VA OF- 5 x Ø	2	30°	T8090	P	465
W08			DR-S - 3 x Ø	2	30°	T8090	P	469
W09			DR-S - 5 x Ø	2	30°	T8090	P	470
W10			DR-S OF - 3 x Ø	2	30°	T8090	P	471
W11			DR-S OF - 5 x Ø	2	30°	T8090	P	472
H03			DR MINI OF - 5 x Ø, 8x Ø, 12 x Ø, 15x Ø, 20x Ø, 25x Ø, 30x Ø	2	30°	T8090	P	479
NEW W05			DR-LX OF - 12 x Ø, 15x Ø, 20x Ø, 25x Ø, 30x Ø	2	30°	T8090	P	485
F33			DR 45 SB OF - 8 x Ø	2	30°	T8090	P	493
821	≤ 60 HRC		DR 60 - 5 x Ø	2	15°	D0120	P	497
823			DR 60 - 3 x Ø	2	15°	D0120	P	498

G - General P - Performance

FEATURES & BENEFITS

DR-LX



3 Flexible Drilling

Able to drill reliably in continuous and peck drilling

1 Polished Flutes

Smoother chips evacuation and less built-up edge

2 Versatile Machining Condition

Able to drill reliably with various coolant pressure and cutting data

4 T8090 Tip Coating

Low friction, high wear resistance

5 State-of-the-Art Geometry

- For prolonged durability and excellent quality

Wider Flute Shape
- Better chip evacuation

Tougher Core Diameter
- Ensure chip can evacuate smooth yet rigid

GG Point Geometry
- Protect & Reduce Chipping

6 Suitable for Material





1. Polierte Schneide
Verbesserter problemloser Spänefluß
Weniger Aufbauschneiden
2. Vielseitige Bearbeitungsbedingungen
Kann mit verschiedenen Kühlmitteldruck- und
Schnittdaten zuverlässig bohren
3. Flexibles Bohren
Zuverlässiges Bohren im Dauer- und Hackbohren
4. T8090 Beschichtung
Mehrlagen AlTiN-Beschichtung verbessert die
Lebensdauer des Werkzeugs
5. Modernste Geometrie
Für längere Haltbarkeit und hervorragende Qualität

Breitere Flötenform
Bessere Spanabfuhr

Zäherer Kerndurchmesser
Stellen Sie sicher, dass der Chip glatt und dennoch
starr evakuiert werden kann

GG-Punktgeometrie
Absplintern schützen und reduzieren
6. Geeignet für die Materialien P, K, N, M, S



1. 拋光槽
更順暢的排屑。
減少堆積邊緣。
2. 多種加工條件
能夠可靠地進行各種鑽孔冷卻液壓力和切削數據。
3. 卓越的刀具塗層
多層 AlTiN 塗層可提高刀具壽命。
4. T8090 尖端塗層
多層 AlTiN 塗層可提高刀具壽命。
5. 最先進的幾何
延長耐用性和卓越品質。

長笛形狀
更好的排屑。

硬芯直徑
確保切屑能夠排出光滑而剛性的。

GG點幾何
保護和減少碎裂。
6. 适用于材料 P、K、N、M、S



1. Scanalatura levigata
Evacuazione dei trucioli più semplice
Meno formazione di materiale di riporto
2. Condizioni di lavorazione versatili
In grado di perforare in modo affidabile con vari dati di
pressione del refrigerante e di taglio
3. Foratura flessibile Flexible
In grado di perforare in modo affidabile nella
perforazione continua e beccata
4. T8090 Rivestimento della punta
Il rivestimento AlTiN multistrato migliora la durata dello
strumento
5. Geometria all'avanguardia
Per una durata prolungata e una qualità eccellente

Forma di flauto più ampia
Migliore evacuazione del truciolo

Diametro del nucleo più duro
Assicurarsi che il truciolo possa evacuare liscio ma
rigido

Geometria del punto GG
Proteggere e ridurre le scheggiature
6. Adatto per il materiale P, K, N, M, S



1. Goujure polie
Évacuation des copeaux plus fluide
Moins d'accumulation sur les arêtes
2. Condition d'usinage polyvalente
Capable de percer de manière fiable avec diverses
pressions d'arrosage et données de coupe
3. Forage flexible
Capable de percer de manière fiable en forage
continu et en perçage
4. T8090 Rivestimento della punta
Revêtement AlTiN multicouche pour une meilleure
durée de vie de l'outil
5. Géométrie de pointe
Pour une durabilité prolongée et une excellente qualité

Forme de flûte plus large
Meilleure évacuation des copeaux

Diamètre de noyau plus dur
Assurez-vous que la puce peut évacuer en douceur
mais rigide

Géométrie du point GG
Protéger et réduire l'écaillage
6. Adapté aux matériaux P, K, N, M, S



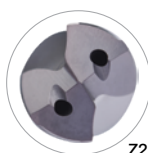
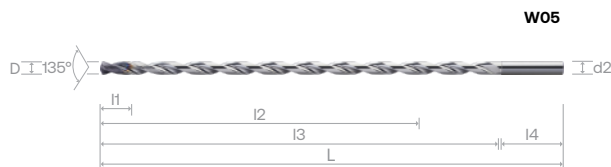
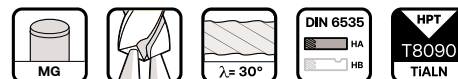
W05

NEW



DR-LX SB OIL FEED TWIST DRILLS - 135° POINT ANGLE -12 X Ø, 15X Ø, 20X Ø, 25X Ø, 30X Ø

- VHM DR-LX SB Kühlkanalbohrer nach 135° Spitzenwinkel, Schaft nach DIN 6535HA 12 x Ø, 15x Ø, 20x Ø, 25x Ø, 30x Ø
- Punte elicoidali DR-LX SB, con foro di lubrificazione, angolo di punta 135°, codolo DIN 6535HA- 12 x Ø, 15x Ø, 20x Ø, 25x Ø, 30x Ø
- Forets hélicoïdaux DR-LX SB à trous d'huile angle de pointe 135°, queue selon DIN 6535HA - 12 x Ø, 15x Ø, 20x Ø, 25x Ø, 30x Ø
- 整体硬质合金 DR-LX SB 系列 内冷孔钻头-相等于2刃, 柄部标准DIN6535HA, 顶角135° 12 x Ø, 15x Ø, 20x Ø, 25x Ø, 30x Ø



Order Number		Dimension (mm)								W05													
		Hole Depth I2/D	D (h7)	I1	I2 (Max. Drilling Depth)	I3	I4	L	d2(h6)		T8090												
DIN 6535																							
W05 0300 12	NEW	12 x D	3.00	15.5	45	50	32	85	3	●	W05 0510 12	*	12 x D	5.10	25.5	72	81	36	120	6	●		
W05 0300 15	NEW	15 x D			50	55	32	90	3	●	W05 0510 15	*	15 x D			79	86	36	125	6	●		
W05 0300 20	NEW	20 x D			64	69	32	105	3	●	W05 0510 20	NEW	20 x D			104	112	36	150	6	○		
W05 0300 25		25 x D			78.5	83	32	120	3	●	W05 0510 25	*	25 x D			129	136	36	175	6	●		
W05 0300 30	NEW	30 x D	3.10	15.5	94	99	32	135	3	●	W05 0510 30	*	30 x D	12 x D	5.20	26.0	154	162	36	200	6	●	
W05 0310 12		12 x D			45	50	32	85	4	●	W05 0520 12	*	72				81	36	120	6	●		
W05 0310 15		15 x D			50	55	32	90	4	○	W05 0530 12	*	72				81	36	120	6	●		
W05 0310 20		20 x D			64	69	32	105	4	○	W05 0540 12	*	72				81	36	120	6	○		
W05 0310 25		25 x D	3.20	16.0	78.5	83	32	120	4	○	W05 0550 12	*	12 x D	5.50	27.5	72	81	36	120	6	○		
W05 0310 30		30 x D			94	99	32	135	4	○	W05 0550 15	*	15 x D			85	93	36	130	6	○		
W05 0320 12		12 x D			45	50	32	85	4	●	W05 0550 20	*	20 x D			112	120	36	160	6	○		
W05 0330 12					45	50	32	85	4	○	W05 0550 25	*	25 x D			139	147	36	185	6	●		
W05 0340 12			3.40	17.0	48	54	32	90	4	○	W05 0550 30	*	30 x D	12 x D	5.60	28.0	166	174	36	215	6	○	
W05 0350 12		12 x D	48	54	32	90	4	○	W05 0560 12	*	72	81	36				120	6	○				
W05 0350 15		15 x D	55	60	32	95	4	○	W05 0570 12	*	72	81	36				120	6	○				
W05 0350 20		20 x D	72	77	32	110	4	●	W05 0580 12	*	72	81	36				120	6	○				
W05 0350 25		25 x D	3.50	17.5	89	94	32	130	4	○	W05 0590 12	*	5.80	29.0	72	81	36	120	6	○			
W05 0350 30		30 x D			106	111	32	145	4	○	W05 0600 12	*	5.90	29.5	72	81	36	120	6	●			
W05 0360 12		12 x D			48	54	32	90	4	○	W05 0600 15	*	15 x D	92	101	36	140	6	○				
W05 0370 12					48	54	32	90	4	○	W05 0600 20	*	20 x D	122	131	36	170	6	○				
W05 0380 12		12 x D	3.60	18.0	57	64	32	100	4	○	W05 0600 25	*	25 x D	6.00	30.0	151	160	36	200	6	○		
W05 0380 15	NEW	15 x D			60	65	32	100	4	○	W05 0600 30	*	30 x D			181	190	36	230	6	○		
W05 0380 20	NEW	20 x D			78	84	32	120	4	○	W05 0610 12	*	12 x D			6.10	30.5	88	97	36	135	8	○
W05 0380 25		25 x D			96	102	32	135	4	○	W05 0620 12	*	12 x D			6.20	31.0	88	97	36	135	8	○
W05 0380 30		30 x D	3.70	18.5	115	121	32	155	4	○	W05 0630 12	*	12 x D	6.30	31.5	88	97	36	135	8	○		
W05 0390 12		12 x D			57	64	32	100	4	○	W05 0630 15	NEW	15 x D			98	108	36	145	8	○		
W05 0400 12		12 x D			57	64	32	100	4	○	W05 0630 20	NEW	20 x D			128	137	36	175	8	○		
W05 0400 15					62	68	32	105	4	●	W05 0630 25	NEW	25 x D			159	168	36	205	8	○		
W05 0400 20		20 x D	4.00	20.0	82	88	32	125	4	●	W05 0630 30	NEW	30 x D	6.40	32.0	190	199	36	240	8	○		
W05 0400 25		25 x D			101	107	32	140	4	●	W05 0640 12	*	12 x D			96	108	36	145	8	○		
W05 0400 30		30 x D			121	127	32	160	4	●	W05 0650 12	*	12 x D			96	108	36	145	8	●		
W05 0410 12		12 x D			57	64	34	100	5	○	W05 0650 15	*	15 x D			100	110	36	150	8	●		
W05 0410 15		15 x D	4.10	20.5	64	70	34	105	5	○	W05 0650 20	*	20 x D	6.50	32.5	132	142	36	180	8	●		
W05 0420 12		12 x D			57	64	34	100	5	○	W05 0650 25	*	25 x D			164	173	36	210	8	○		
W05 0420 15		15 x D			65	71	34	110	5	○	W05 0650 30	*	30 x D			196	206	36	245	8	○		
W05 0420 20	NEW	20 x D			86	92	34	130	5	○	W05 0660 12	*	12 x D			6.60	33.0	96	108	36	145	8	○
W05 0420 25	NEW	25 x D	106	112	34	150	5	○	W05 0670 12	*	6.70	33.5		96	108	36	145	8	○				
W05 0420 30		30 x D	127	133	34	170	5	○	W05 0680 12	*	6.80	34.0		96	108	36	145	8	○				
W05 0430 12		12 x D	57	64	34	100	5	○	W05 0690 12	*	6.90	34.5		96	108	36	145	8	○				
W05 0440 12		12 x D	4.30	21.5	57	64	34	100	5	○	W05 0700 12	*	12 x D	7.00	35.0	96	108	36	145	8	○		
W05 0450 12		12 x D	4.40	22.0	57	64	34	100	5	○	W05 0700 15	*	15 x D			107	118	38	160	8	○		
W05 0450 15		15 x D	70	76	34	115	5	○	W05 0700 20	*	20 x D	142	153			38	195	8	○				
W05 0450 20		20 x D	92	99	34	135	5	○	W05 0700 25	*	25 x D	176	187			38	230	8	○				
W05 0450 25		25 x D	4.40	22.5	114	120	34	155	5	○	W05 0700 30	*	30 x D	7.10	35.5	211	222	38	265	8	○		
W05 0450 30		30 x D			136	143	34	180	5	●	W05 0710 12	*	7.20			36.0	96	108	36	145	8	○	
W05 0460 12		12 x D			57	64	34	100	5	○	W05 0720 12	*	7.30			36.5	96	108	36	145	8	○	
W05 0470 12					57	64	34	100	5	○	W05 0730 12	*	7.40			37.0	96	108	36	145	8	○	
W05 0480 12			67	74	34	110	5	○	W05 0740 12	*	96	108	36	145	8	○							
W05 0490 12			72	81	34	120	5	○	W05 0750 12	*	12 x D	96	108	36	145	8	○						
W05 0500 12		12 x D	5.00	25.0	72	81	34	120	5	○	W05 0750 15	*	15 x D	7.50	37.5	115	126	38	165	8	○		
W05 0500 15		15 x D			77	85	34	120	5	○	W05 0750 20	*	20 x D			152	163	38	205	8	○		
W05 0500 20		20 x D			102	110	34	145	5	○	W05 0750 25	*	25 x D			189	200	38	240	8	○		
W05 0500 25		25 x D			126	134	34	170	5	○	W05 0750 30	*	30 x D			226	237	38	280	8	○		
W05 0500 30		30 x D			151	159	34	195	5	○	W05 0760 12	*	12 x D	7.60	38.0	96	108	36	145	8	○		

DR-LX SB OIL FEED TWIST DRILLS - 135° POINT ANGLE -12 X Ø, 15X Ø, 20X Ø, 25X Ø, 30X Ø

 VHM DR-LX SB Kühlkanalbohrer nach 135° Spitzenwinkel, Schaft nach DIN 6535HA 12 x Ø, 15x Ø, 20x Ø, 25x Ø, 30x Ø

 **Punte elicoidali DR-LX SB, con foro di lubrificazione, angolo di punta 135°, codolo DIN 6535HA- 12 x Ø. 15x Ø. 20x Ø. 25x Ø. 30x Ø**

 **Forêts hélicoïdaux DR-LX SB à trous d'huile angle de pointe 135°, queue selon DIN 6535HA - 12 x Ø. 15x Ø. 20x Ø. 25x Ø. 30x Ø**

 整体硬质合金 DR-LX SB 系列 内冷孔钻头-相等于2刃, 柄部标准DIN6535HA, 顶角135° 12 x Ø, 15 x Ø, 20 x Ø, 25 x Ø, 30 x Ø



Order Number		Dimension (mm)								W05	Order Number		Dimension (mm)								W05
		Hole Depth I2/D	D (h7)	I1	I2 (Max. Drilling Depth)	I3	I4	L	d2(h6)	T8090			Hole Depth I2/D	D (h7)	I1	I2 (Max. Drilling Depth)	I3	I4	L	d2(h6)	T8090
DIN 6535											DIN 6535										
W05 0770 12 *	12 x D	7.70	38.5	96	108	36	145	8	○												
W05 0780 12 *		7.80	39.0	96	108	36	145	8	●												
W05 0790 12 *		7.90	39.5	96	108	36	145	8	●												
W05 0800 12 *		12 x D	8.00	40.0	96	108	36	145	8	●											
W05 0800 15	15 x D	122			134	40	175	8	●												
W05 0800 20	20 x D	162			174	40	215	8	●												
W05 0800 25	25 x D	201			213	40	255	8	●												
W05 0800 30	30 x D			241	253	40	295	8	○												
W05 0810 12 *	12 x D	8.10	40.5	115	127	40	170	10	○												
W05 0820 12 *		8.20	41.0	120	135	40	180	10	○												
W05 0830 12 *		8.30	41.5	120	135	40	180	10	○												
W05 0840 12 *		8.40	42.0	120	135	40	180	10	●												
W05 0850 12 *	12 x D	8.50	42.5	120	135	40	180	10	○												
W05 0850 15 *	15 x D			130	142	40	185	10	○												
W05 0850 20 *	20 x D			172	185	40	230	10	○												
W05 0850 25 *	25 x D			214	226	40	270	10	○												
W05 0850 30 *	30 x D			258	272	40	315	10	●												
W05 0860 12 *	12 x D	8.60	43.0	120	135	40	180	10	○												
W05 0870 12 *	12 x D	8.70	43.5	120	135	40	180	10	○												
W05 0880 12 *	12 x D	8.80	44.0	120	135	40	180	10	○												
W05 0880 15 NEW	15 x D			134	147	40	190	10	○												
W05 0880 20 NEW	20 x D			178	191	40	235	10	○												
W05 0880 25 NEW	25 x D			221	234	40	275	10	○												
W05 0890 12 *	12 x D	8.90	44.5	120	135	40	180	10	○												
W05 0900 12 *	12 x D	9.00	45.0	120	135	40	180	10	○												
W05 0900 15 *	15 x D			137	151	40	195	10	○												
W05 0900 20 *	20 x D			182	196	40	240	10	○												
W05 0900 25 *	25 x D			226	240	40	285	10	○												
W05 0910 12 *	12 x D	9.10	45.5	120	135	40	180	10	○												
W05 0920 12 *		9.20	46.0	120	135	40	180	10	●												
W05 0930 12 *		9.30	46.5	120	135	40	180	10	●												
W05 0940 12 *		12 x D	9.40	47.0	120	135	40	180	10	●											
W05 0950 12 *	12 x D	9.50	47.5	120	135	40	180	10	○												
W05 0950 15 *	15 x D			145	159	40	200	10	○												
W05 0950 20 *	20 x D			192	206	40	250	10	○												
W05 0950 25 NEW	25 x D			239	253	40	295	10	○												
W05 0960 12 *	12 x D	9.60	48.0	120	135	40	180	10	○												
W05 0970 12 *		9.70	48.5	120	135	40	180	10	○												
W05 0980 12 *		12 x D	9.80	49.0	120	135	40	180	10	○											
W05 0980 15 *		15 x D	149	164	40	205	10	○													
W05 0990 12 *	12 x D	9.90	49.5	120	135	40	180	10	●												
W05 1000 12 *	12 x D	10.00	50.0	120	135	40	180	10	○												
W05 1000 15 *	15 x D			152	167	40	210	10	○												
W05 1000 20 *	20 x D			202	217	40	260	10	○												
W05 1000 25 NEW	25 x D			252	267	40	310	10	○												

* - DIN 6535

Remark: I2 is just a guideline for maximum drilling depth, make adjustments accordingly to your machine or workpiece conditions and do not exceed the maximum values. Please find technical info (application) . page 517.

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

Cutting Parameter

487 - 490

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



DR-LX Oil Feed Twist Drills - Point Angle 135°, 12 × D - W05

Working Material	N					
	Wrought Aluminium		Cast Aluminium		Copper Alloy	
Properties	Si < 9%		Si ≥ 9%		-	
D	Vc	fn	Vc	fn	Vc	fn
3.0	120 - 170	0.084	105 - 150	0.083	90 - 140	0.081
4.0		0.120		0.119		0.116
5.0		0.161		0.160		0.155
6.0		0.209		0.203		0.196
7.0		0.259		0.253		0.245
8.0		0.311		0.305		0.298
9.0		0.332		0.323		0.321
10.0		0.351		0.350		0.340
12.0		0.381		0.371		0.365

DR-LX Oil Feed Twist Drills - Point Angle 135°, 12 × D - W05

Working Material	P					
	Carbon Steel		Alloy Steel		Prehardened Steel	
Properties	-		520 < Rm < 1200		35 ≤ HRC < 45	
D	Vc	fn	Vc	fn	Vc	fn
3.0	80 - 120	0.066	65 - 110	0.064	55 - 80	0.063
4.0		0.095		0.092		0.088
5.0		0.126		0.123		0.120
6.0		0.164		0.153		0.153
7.0		0.202		0.189		0.192
8.0		0.245		0.232		0.231
9.0		0.272		0.246		0.249
10.0		0.294		0.263		0.266
12.0		0.339		0.287		0.280

DR-LX Oil Feed Twist Drills - Point Angle 135°, 12 × D - W05

Working Material	K				M			
	Grey Cast Iron		Ductile Cast Iron		Stainless Steel		Stainless Steel	
Properties	-		-		High Machinability		Low Machinability	
D	Vc	fn	Vc	fn	Vc	fn	Vc	fn
3.0	70 - 110	0.067	55 - 80	0.067	50 - 75	0.066	35 - 50	0.062
4.0		0.097		0.094		0.094		0.088
5.0		0.130		0.126		0.122		0.113
6.0		0.164		0.160		0.158		0.147
7.0		0.209		0.200		0.190		0.176
8.0		0.251		0.242		0.234		0.218
9.0		0.262		0.262		0.248		0.224
10.0		0.280		0.273		0.259		0.248
12.0		0.304		0.288		0.298		0.267

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



DR-LX Oil Feed Twist Drills - Point Angle 135°, 12 × D - W05

Working Material	S			
	Titanium alloy		Nickel Alloy	
Properties	-		-	
D	Vc	fn	Vc	fn
3.0	25 - 35	0.062	20 - 30	0.052
4.0		0.088		0.077
5.0		0.112		0.097
6.0		0.158		0.120
7.0		0.190		0.140
8.0		0.234		0.182
9.0		0.242		0.202
10.0		0.252		0.210
12.0		0.280		0.220

DR-LX Oil Feed Twist Drills - Point Angle 135°, 15 × D, 20 × D - W05

Working Material	N					
	Wrought Aluminium		Cast Aluminium		Copper Alloy	
Properties	Si < 9%		Si ≥ 9%		-	
D	Vc	fn	Vc	fn	Vc	fn
3.0	115 - 160	0.102	100 - 140	0.098	85 - 130	0.095
4.0		0.132		0.126		0.123
5.0		0.193		0.186		0.181
6.0		0.227		0.218		0.210
7.0		0.255		0.248		0.248
8.0		0.311		0.304		0.300
9.0		0.340		0.325		0.316
10.0		0.398		0.381		0.370
12.0		0.454		0.437		0.421

DR-LX Oil Feed Twist Drills - Point Angle 135°, 15 × D, 20 × D - W05

Working Material	P					
	Carbon Steel		Alloy Steel		Prehardened Steel	
Properties	-		520 < Rm < 1200		35 ≤ HRC < 45	
D	Vc	fn	Vc	fn	Vc	fn
3.0	75 - 110	0.077	60 - 100	0.076	50 - 70	0.076
4.0		0.101		0.098		0.098
5.0		0.148		0.144		0.144
6.0		0.171		0.168		0.168
7.0		0.193		0.192		0.193
8.0		0.239		0.237		0.242
9.0		0.248		0.256		0.252
10.0		0.295		0.297		0.294
12.0		0.342		0.336		0.336

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



DR-LX Oil Feed Twist Drills - Point Angle 135°, 15 × D, 20 × D - W05

Working Material	K				M			
	Grey Cast Iron		Ductile Cast Iron		Stainless Steel		Stainless Steel	
Properties	-		-		High Machinability		Low Machinability	
D	Vc	fn	Vc	fn	Vc	fn	Vc	fn
3.0	65 - 100	0.081	50 - 70	0.081	45 - 65	0.073	30 - 45	0.060
4.0		0.105		0.105		0.095		0.078
5.0		0.154		0.154		0.140		0.115
6.0		0.179		0.179		0.161		0.133
7.0		0.204		0.204		0.189		0.147
8.0		0.249		0.255		0.231		0.183
9.0		0.260		0.266		0.249		0.186
10.0		0.309		0.309		0.286		0.227
12.0		0.358		0.358		0.322		0.266

DR-LX Oil Feed Twist Drills - Point Angle 135°, 15 × D, 20 × D - W05

Working Material	S			
	Titanium alloy		Nickel Alloy	
Properties	-		-	
D	Vc	fn	Vc	fn
3.0	20 - 30	0.078	15 - 25	0.049
4.0		0.102		0.063
5.0		0.150		0.091
6.0		0.174		0.109
7.0		0.190		0.116
8.0		0.234		0.154
9.0		0.242		0.171
10.0		0.294		0.196
12.0		0.347		0.218

DR-LX Oil Feed Twist Drills - Point Angle 135°, 25 × D, 30 × D - W05

Working Material	N					
	Wrought Aluminium		Cast Aluminium		Copper Alloy	
Properties	Si < 9%		Si ≥ 9%		-	
D	Vc	fn	Vc	fn	Vc	fn
3.0	100 - 130	0.110	85 - 115	0.107	70 - 100	0.104
4.0		0.150		0.146		0.143
5.0		0.209		0.205		0.199
6.0		0.259		0.251		0.242
7.0		0.309		0.301		0.295
8.0		0.373		0.366		0.359
9.0		0.402		0.389		0.383
10.0		0.445		0.435		0.423
12.0		0.493		0.478		0.466

Recommended Cutting Data



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



DR-LX Oil Feed Twist Drills - Point Angle 135°, 25 × D, 30 × D - W05

Working Material	P					
	Carbon Steel		Alloy Steel		Prehardened Steel	
Properties	-		520 < Rm < 1200		35 ≤ HRC < 45	
D	Vc	fn	Vc	fn	Vc	fn
3.0	60 - 85	0.085	45 - 70	0.083	35 - 45	0.082
4.0		0.117		0.114		0.111
5.0		0.162		0.158		0.156
6.0		0.200		0.191		0.191
7.0		0.238		0.228		0.231
8.0		0.291		0.281		0.283
9.0		0.314		0.301		0.300
10.0		0.354		0.333		0.333
12.0		0.408		0.369		0.364

DR-LX Oil Feed Twist Drills - Point Angle 135°, 25 × D, 30 × D - W05

Working Material	K				M			
	Grey Cast Iron		Ductile Cast Iron		Stainless Steel		Stainless Steel	
Properties	-		-		High Machinability		Low Machinability	
D	Vc	fn	Vc	fn	Vc	fn	Vc	fn
3.0	50 - 75	0.088	35 - 45	0.088	30 - 40	0.082	20 - 30	0.073
4.0		0.120		0.118		0.113		0.101
5.0		0.168		0.165		0.155		0.137
6.0		0.204		0.201		0.191		0.169
7.0		0.248		0.242		0.228		0.197
8.0		0.300		0.297		0.279		0.245
9.0		0.313		0.316		0.298		0.250
10.0		0.351		0.346		0.324		0.287
12.0		0.392		0.381		0.370		0.320

DR-LX Oil Feed Twist Drills - Point Angle 135°, 25 × D, 30 × D - W05

Working Material	S			
	Titanium alloy		Nickel Alloy	
Properties	-		-	
D	Vc	fn	Vc	fn
3.0	15 - 25	0.082	15 - 20	0.061
4.0		0.113		0.085
5.0		0.153		0.113
6.0		0.198		0.139
7.0		0.228		0.156
8.0		0.281		0.204
9.0		0.291		0.227
10.0		0.323		0.245
12.0		0.370		0.263

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DR NITCo
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DR-S
DR MINI
DR-LX
DR 45 SB
DR 60