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**NEW!**

**INTERACTIVE PDF**

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# WIDIN DRILL SERIES

**NEW** *Power max Drill* Drill for High Speed cutting ~HRc55

**NEW** *Power Drill* Drills for general speed cutting ~HRc35

**NEW** *Solid Spiral Drill* Drills for Multi -purpose

**NEW** *Centering Tools*



## SELECTION GUIDE

EDP. NO	APPEARANCE	FLUTE	FEATURE		LENGTH					INTERNAL COOLANT	STANDARD RANGE (Ø)		PAGE
			RELIEF	FACET	3xD	5xD	8xD	10xD	20xD		MIN	MAX	

### Power max Drill Series (~HRC55) ... Drill for High Speed cutting (Alloy steel, Cast Iron, Stainless Steel, Pre-Hardened Steel)

<b>PF503</b>	◆◇		2		○	○						2	20	<u>4</u>
<b>PF505</b>	◆◇		2		○		○					3	20	<u>4</u>
<b>HP503</b>	◆◇		2		○	○						3	16	<u>16</u>
<b>HPI 503</b>	◆◇		2		○	○				○		3	20	<u>22</u>
<b>HPI 505</b>	◆◇		2		○		○			○		3	20	<u>22</u>
<b>HPI 508N</b>	◆◇		2		○			○		○		3	20	<u>22</u>
<b>SF503</b>	◆◇		2		○	○						3	20	<u>38</u>
<b>SF505</b>	◆◇		2		○		○					3.1	20	<u>38</u>
<b>SF510</b>	◆◇		2		○				○			3	11.5	<u>38</u>
<b>SF520</b>	◆◇		2		○					○		3.97	10	<u>38</u>

### Power Drill Series (~HRC35) ... Drills for general speed cutting (Carbon Steel, Alloy Steel, Cast Iron)

<b>PDS</b>	◇		2	○		○						1	24	<u>55</u>
<b>PDM</b>	◇		2		○		○					1	24	<u>55</u>
<b>PDSI</b>	◇		2		○	○				○		3	20	<u>66</u>
<b>PDML</b>	◇		2		○		○			○		3	20	<u>66</u>

### Solid Spiral Drill Series ... Drills for Multi-purpose & Aluminum (Non-ferrous & Aluminum)

<b>SSD</b>	◇		2		○		○					1	13	<u>76</u>
<b>SSDL</b>	◇		2		○			○				3	10	<u>78</u>
<b>SSTD</b>	◇		2		○	○						0.5	13	<u>79</u>
<b>APF505</b>	◆◇		3		○		○					3	16	<u>82</u>

### Centering Tools

<b>LDA</b>	◆		2									3/32	1/2	<u>86</u>
<b>LDS</b>	◇		2									3	20	<u>88</u>

## APPLICABLE WORKING MATERIAL

CARBON STEELS LOW (1010, 1018)	CARBON STEELS MED (1025, 1045)	CARBON STEELS HIGH (1065)	ALLOY STEELS (4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6A14V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
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○ : GOOD ◎ : BEST

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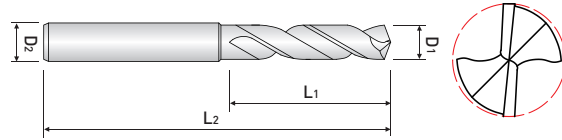
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**PF503, PF505 SERIES**

3xD & 5xD

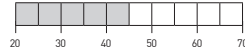
DRILLS / 2 FLUTES / 3xD & 5xD / SOLID CARBIDE / SINGLE MARGIN / TiAlN-HH COATING



**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
 D1 = +0 / -0.018 (D1 = 3.1 to 6)  
 D1 = +0 / -0.022 (D1 = 6.1 to 10)  
 D1 = +0 / -0.027 (D1 = 10.1 to 18)  
 D1 = +0 / -0.033 (D1 > 18)  
 D2 = h6

**HARDNESS (HRc)**

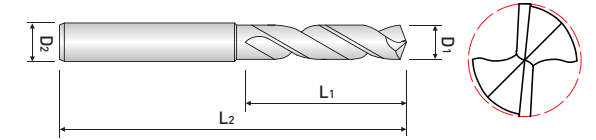


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**PF503, PF505 SERIES**

3xD & 5xD

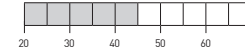
DRILLS / 2 FLUTES / 3xD & 5xD / SOLID CARBIDE / SINGLE MARGIN / TiAlN-HH COATING



**TOLERANCE (Metric)**

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 D1 = +0 / -0.018 (D1 = 3.1 to 6)  
 D1 = +0 / -0.022 (D1 = 6.1 to 10)  
 D1 = +0 / -0.027 (D1 = 10.1 to 18)  
 D1 = +0 / -0.033 (D1 > 18)  
 D2 = h6

**HARDNESS (HRc)**



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Power max Drill Series	EDP NO.		Cutting Diameter			Cutting Length	Overall Length	Shank Diameter
	2 Flute							
	TiAlN-HH							
	Helix 30°							
3xD		5xD		D1	L1	L2	D2	
PF503	PF505	Decimal	Fraction					Metric
<a href="#">PF503020</a>	-	0.0787"	-	2.000	14.00	50.00	3.00	
<a href="#">PF503021</a>	-	0.0827"	-	2.100	14.00	50.00	3.00	
<a href="#">PF503022</a>	-	0.0866"	-	2.200	14.00	50.00	3.00	
<a href="#">PF503023</a>	-	0.0906"	-	2.300	14.00	50.00	3.00	
<a href="#">PF503024</a>	-	0.0945"	-	2.400	14.00	50.00	3.00	
<a href="#">PF503025</a>	-	0.0984"	-	2.500	14.00	50.00	3.00	
<a href="#">PF503026</a>	-	0.1024"	-	2.600	14.00	50.00	3.00	
<a href="#">PF503027</a>	-	0.1063"	-	2.700	14.00	50.00	3.00	
<a href="#">PF503028</a>	-	0.1102"	-	2.800	14.00	50.00	3.00	
<a href="#">PF503029</a>	-	0.1142"	-	2.900	14.00	50.00	3.00	
<a href="#">PF503030</a>	-	0.1181"	-	3.000	18.00	60.00	3.00	
-	<a href="#">PF505030</a>	0.1181"	-	3.000	25.00	60.00	3.00	
<a href="#">PF503031</a>	-	0.1220"	-	3.100	20.00	60.00	4.00	
-	<a href="#">PF505031</a>	0.1220"	-	3.100	27.00	60.00	4.00	
<a href="#">PF50303175</a>	-	0.1250"	1/8"	3.175	20.00	60.00	4.00	
-	<a href="#">PF50503175</a>	0.1250"	1/8"	3.175	27.00	60.00	4.00	
<a href="#">PF503032</a>	-	0.1260"	-	3.200	20.00	60.00	4.00	
-	<a href="#">PF505032</a>	0.1260"	-	3.200	27.00	60.00	4.00	
<a href="#">PF50303264</a>	-	0.1285"	#30	3.264	20.00	60.00	4.00	
-	<a href="#">PF50503264</a>	0.1285"	#30	3.264	27.00	60.00	4.00	
<a href="#">PF503033</a>	-	0.1299"	-	3.300	20.00	60.00	4.00	
-	<a href="#">PF505033</a>	0.1299"	-	3.300	27.00	60.00	4.00	
<a href="#">PF503034</a>	-	0.1339"	-	3.400	22.00	60.00	4.00	
-	<a href="#">PF505034</a>	0.1339"	-	3.400	30.00	65.00	4.00	
<a href="#">PF503035</a>	-	0.1378"	-	3.500	22.00	60.00	4.00	
-	<a href="#">PF505035</a>	0.1378"	-	3.500	30.00	65.00	4.00	
<a href="#">PF50303572</a>	-	0.1406"	9/64"	3.572	22.00	60.00	4.00	
-	<a href="#">PF50503572</a>	0.1406"	9/64"	3.572	30.00	65.00	4.00	
<a href="#">PF503036</a>	-	0.1417"	-	3.600	22.00	60.00	4.00	
-	<a href="#">PF505036</a>	0.1417"	-	3.600	30.00	65.00	4.00	
<a href="#">PF503037</a>	-	0.1457"	-	3.700	22.00	60.00	4.00	
-	<a href="#">PF505037</a>	0.1457"	-	3.700	30.00	65.00	4.00	
<a href="#">PF503038</a>	-	0.1496"	-	3.800	24.00	60.00	4.00	
-	<a href="#">PF505038</a>	0.1496"	-	3.800	33.00	71.00	4.00	

**Applicable Working Material**

SERIES	CARBON STEELS LOW (100-170)	CARBON STEELS MED (170-200)	CARBON STEELS HIGH (200)	ALLOY STEELS (40-60)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME	
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST

Power max Drill Series	EDP NO.		Cutting Diameter			Cutting Length	Overall Length	Shank Diameter
	2 Flute							
	TiAlN-HH							
	Helix 30°							
3xD		5xD		D1	L1	L2	D2	
PF503	PF505	Decimal	Fraction					Metric
<a href="#">PF503039</a>	-	0.1535"	-	3.900	24.00	60.00	4.00	
-	<a href="#">PF505039</a>	0.1535"	-	3.900	33.00	71.00	4.00	
<a href="#">PF503040</a>	-	0.1575"	-	4.000	24.00	60.00	4.00	
-	<a href="#">PF505040</a>	0.1575"	-	4.000	33.00	71.00	4.00	
<a href="#">PF50304039</a>	-	0.1590"	#21	4.039	24.00	60.00	4.00	
-	<a href="#">PF50504039</a>	0.1590"	#21	4.039	33.00	71.00	5.00	
<a href="#">PF503041</a>	-	0.1614"	-	4.100	24.00	60.00	4.00	
-	<a href="#">PF505041</a>	0.1614"	-	4.100	33.00	71.00	5.00	
<a href="#">PF503042</a>	-	0.1654"	-	4.200	26.00	62.00	5.00	
-	<a href="#">PF505042</a>	0.1654"	-	4.200	33.00	71.00	5.00	
<a href="#">PF503043</a>	-	0.1693"	-	4.300	26.00	62.00	5.00	
-	<a href="#">PF505043</a>	0.1693"	-	4.300	36.00	71.00	5.00	
<a href="#">PF503044</a>	-	0.1732"	-	4.400	26.00	62.00	5.00	
-	<a href="#">PF505044</a>	0.1732"	-	4.400	36.00	71.00	5.00	
<a href="#">PF503045</a>	-	0.1772"	-	4.500	26.00	62.00	5.00	
-	<a href="#">PF505045</a>	0.1772"	-	4.500	36.00	71.00	5.00	
<a href="#">PF503046</a>	-	0.1811"	-	4.600	26.00	62.00	5.00	
-	<a href="#">PF505046</a>	0.1811"	-	4.600	36.00	71.00	5.00	
<a href="#">PF503047</a>	-	0.1850"	-	4.700	26.00	62.00	5.00	
-	<a href="#">PF505047</a>	0.1850"	-	4.700	36.00	71.00	5.00	
<a href="#">PF50304763</a>	-	0.1875"	3/16"	4.763	26.00	62.00	5.00	
-	<a href="#">PF50504763</a>	0.1875"	3/16"	4.763	39.00	71.00	5.00	
<a href="#">PF503048</a>	-	0.1890"	-	4.800	26.00	62.00	5.00	
-	<a href="#">PF505048</a>	0.1890"	-	4.800	39.00	71.00	5.00	
<a href="#">PF503049</a>	-	0.1929"	-	4.900	26.00	62.00	5.00	
-	<a href="#">PF505049</a>	0.1929"	-	4.900	39.00	71.00	5.00	
<a href="#">PF503050</a>	-	0.1969"	-	5.000	26.00	62.00	5.00	
-	<a href="#">PF505050</a>	0.1969"	-	5.000	39.00	71.00	5.00	
<a href="#">PF503051</a>	-	0.2008"	-	5.100	26.00	62.00	5.00	
-	<a href="#">PF505051</a>	0.2008"	-	5.100	39.00	83.00	6.00	
<a href="#">PF50305159</a>	-	0.2031"	13/64"	5.159	28.00	66.00	6.00	
-	<a href="#">PF50505159</a>	0.2031"	13/64"	5.159	39.00	83.00	6.00	
<a href="#">PF503052</a>	-	0.2047"	-	5.200	28.00	66.00	6.00	
-	<a href="#">PF505052</a>	0.2047"	-	5.200	39.00	83.00	6.00	

**Applicable Working Material**

SERIES	CARBON STEELS LOW (100-170)	CARBON STEELS MED (170-200)	CARBON STEELS HIGH (200)	ALLOY STEELS (40-60)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME	
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

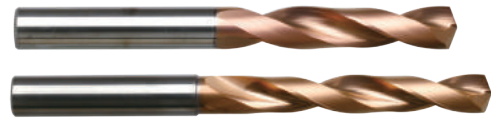
○:GOOD ◎:BEST



**PF503, PF505 SERIES**

3xD & 5xD

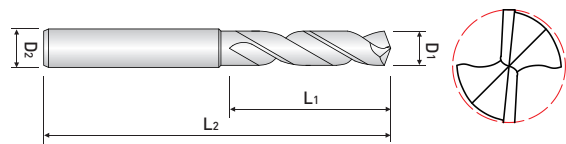
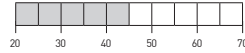
DRILLS / 2 FLUTES / 3xD & 5xD / SOLID CARBIDE / SINGLE MARGIN / TiAlN-HH COATING



TOLERANCE (Metric)

D1 = +0 / -0.014 (D1 ≤ 3)  
D1 = +0 / -0.018 (D1 = 3.1 to 6)  
D1 = +0 / -0.022 (D1 = 6.1 to 10)  
D1 = +0 / -0.027 (D1 = 10.1 to 18)  
D1 = +0 / -0.033 (D1 > 18)  
D2 = h6

HARDNESS (HRc)



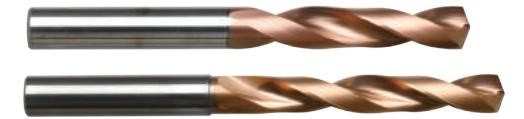
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**PF503, PF505 SERIES**

3xD & 5xD

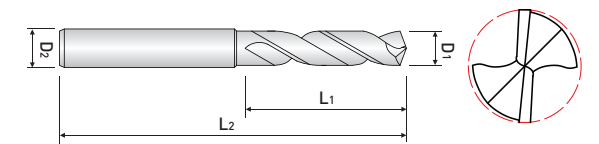
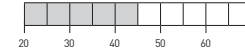
DRILLS / 2 FLUTES / 3xD & 5xD / SOLID CARBIDE / SINGLE MARGIN / TiAlN-HH COATING



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D1 = +0 / -0.022 (D1 = 6.1 to 10)  
D1 = +0 / -0.027 (D1 = 10.1 to 18)  
D1 = +0 / -0.033 (D1 > 18)  
D2 = h6

HARDNESS (HRc)



>>Continue

Power max Drill Series	EDP NO.		Cutting Diameter			Cutting Length	Overall Length	Shank Diameter
	2 Flute							
	TiAlN-HH							
	Helix 30°							
3xD	5xD	D1			L1	L2	D2	
PF503	PF505	Decimal	Fraction	Metric				
PF503053	-	0.2087"	-	5.300	28.00	66.00	6.00	
-	PF505053	0.2087"	-	5.300	39.00	83.00	6.00	
PF503054	-	0.2126"	-	5.400	28.00	66.00	6.00	
-	PF505054	0.2126"	-	5.400	43.00	83.00	6.00	
PF503055	-	0.2165"	-	5.500	28.00	66.00	6.00	
-	PF505055	0.2165"	-	5.500	43.00	83.00	6.00	
PF50305558	-	0.2188"	7/32"	5.558	30.00	66.00	6.00	
-	PF50505558	0.2188"	7/32"	5.558	43.00	83.00	6.00	
PF503056	-	0.2205"	-	5.600	30.00	66.00	6.00	
-	PF505056	0.2205"	-	5.600	43.00	83.00	6.00	
PF503057	-	0.2244"	-	5.700	30.00	66.00	6.00	
-	PF505057	0.2244"	-	5.700	43.00	83.00	6.00	
PF503058	-	0.2283"	-	5.800	30.00	66.00	6.00	
-	PF505058	0.2283"	-	5.800	43.00	83.00	6.00	
PF503059	-	0.2323"	-	5.900	30.00	66.00	6.00	
-	PF505059	0.2323"	-	5.900	43.00	83.00	6.00	
PF50305953	-	0.2344"	15/64"	5.953	30.00	66.00	6.00	
-	PF50505953	0.2344"	15/64"	5.953	43.00	83.00	6.00	
PF503060	-	0.2362"	-	6.000	30.00	66.00	6.00	
-	PF505060	0.2362"	-	6.000	43.00	83.00	6.00	
PF503061	-	0.2402"	-	6.100	30.00	66.00	6.00	
-	PF505061	0.2402"	-	6.100	47.00	87.00	7.00	
PF503062	-	0.2441"	-	6.200	34.00	74.00	7.00	
-	PF505062	0.2441"	-	6.200	47.00	87.00	7.00	
PF503063	-	0.2480"	-	6.300	34.00	74.00	7.00	
-	PF505063	0.2480"	-	6.300	47.00	87.00	7.00	
PF5030635	-	0.2500"	1/4"	6.350	34.00	74.00	7.00	
-	PF5050635	0.2500"	-	6.350	47.00	87.00	7.00	
PF503064	-	0.2520"	-	6.400	34.00	74.00	7.00	
-	PF505064	0.2520"	-	6.400	47.00	87.00	7.00	
PF503065	-	0.2559"	-	6.500	34.00	74.00	7.00	
-	PF505065	0.2559"	-	6.500	47.00	87.00	7.00	
PF503066	-	0.2598"	-	6.600	34.00	74.00	7.00	
-	PF505066	0.2598"	-	6.600	47.00	87.00	7.00	

Applicable Working Material

Series	Carbon Steels Low (100-190)	Carbon Steels Med (190-280)	Carbon Steels High (280-400)	Alloy Steels (40-60)	Die Steels	Stainless Steels 300	Stainless Steels 400	Stainless Steels 17-4 PH	Cast Iron	Aluminum (6061, 7075)	Aluminum Castings	Nickel Alloys (Inconel)	Titanium (6Al4V)	Hardened Steels 35-45 HRC	Hardened Steels 45-50 HRC	Hardened Steels 50-70 HRC	Magnesium	Brass Bronze	Graphite	Cobalt Chrome	
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST

Power max Drill Series	EDP NO.		Cutting Diameter			Cutting Length	Overall Length	Shank Diameter
	2 Flute							
	TiAlN-HH							
	Helix 30°							
3xD	5xD	D1			L1	L2	D2	
PF503	PF505	Decimal	Fraction	Metric				
PF503067	-	0.2638"	-	6.700	37.00	74.00	7.00	
-	PF505067	0.2638"	-	6.700	47.00	87.00	7.00	
PF50306747	-	0.2656"	17/64"	6.747	37.00	74.00	7.00	
-	PF50506747	0.2656"	17/64"	6.747	47.00	87.00	7.00	
PF503068	-	0.2677"	-	6.800	37.00	74.00	7.00	
-	PF505068	0.2677"	-	6.800	47.00	87.00	7.00	
PF503069	-	0.2717"	-	6.900	37.00	74.00	7.00	
-	PF505069	0.2717"	-	6.900	47.00	87.00	7.00	
PF503070	-	0.2756"	-	7.000	37.00	74.00	7.00	
-	PF505070	0.2756"	-	7.000	47.00	87.00	7.00	
PF503071	-	0.2795"	-	7.100	37.00	74.00	7.00	
-	PF505071	0.2795"	-	7.100	52.00	92.00	8.00	
PF50307145	-	0.2813"	9/32"	7.145	40.00	79.00	8.00	
-	PF50507145	0.2813"	9/32"	7.145	52.00	92.00	8.00	
PF503072	-	0.2835"	-	7.200	40.00	79.00	8.00	
-	PF505072	0.2835"	-	7.200	52.00	92.00	8.00	
PF503073	-	0.2874"	-	7.300	40.00	79.00	8.00	
-	PF505073	0.2874"	-	7.300	52.00	92.00	8.00	
PF503074	-	0.2913"	-	7.400	40.00	79.00	8.00	
-	PF505074	0.2913"	-	7.400	52.00	92.00	8.00	
PF503075	-	0.2953"	-	7.500	40.00	79.00	8.00	
-	PF505075	0.2953"	-	7.500	52.00	92.00	8.00	
PF50307541	-	0.2969"	19/64"	7.541	40.00	79.00	8.00	
-	PF50507541	0.2969"	19/64"	7.541	52.00	92.00	8.00	
PF503076	-	0.2992"	-	7.600	40.00	79.00	8.00	
-	PF505076	0.2992"	-	7.600	52.00	92.00	8.00	
PF503077	-	0.3031"	-	7.700	40.00	79.00	8.00	
-	PF505077	0.3031"	-	7.700	52.00	92.00	8.00	
PF503078	-	0.3071"	-	7.800	40.00	79.00	8.00	
-	PF505078	0.3071"	-	7.800	52.00	92.00	8.00	
PF503079	-	0.3110"	-	7.900	40.00	79.00	8.00	
-	PF505079	0.3110"	-	7.900	52.00	92.00	8.00	
PF50307938	-	0.3125"	5/16"	7.938	40.00	79.00	8.00	
-	PF50507938	0.3125"	5/16"	7.938	52.00	92.00	8.00	

Applicable Working Material

Series	Carbon Steels Low (100-190)	Carbon Steels Med (190-280)	Carbon Steels High (280-400)	Alloy Steels (40-60)	Die Steels	Stainless Steels 300	Stainless Steels 400	Stainless Steels 17-4 PH	Cast Iron	Aluminum (6061, 7075)	Aluminum Castings	Nickel Alloys (Inconel)	Titanium (6Al4V)	Hardened Steels 35-45 HRC	Hardened Steels 45-50 HRC	Hardened Steels 50-70 HRC	Magnesium	Brass Bronze	Graphite	Cobalt Chrome
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST





**PF503, PF505 SERIES**

3xD & 5xD

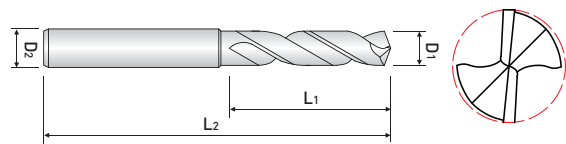
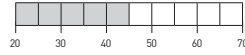
DRILLS / 2 FLUTES / 3xD & 5xD / SOLID CARBIDE / SINGLE MARGIN / TiAlN-HH COATING



**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
D1 = +0 / -0.018 (D1 = 3.1 to 6)  
D1 = +0 / -0.022 (D1 = 6.1 to 10)  
D1 = +0 / -0.027 (D1 = 10.1 to 18)  
D1 = +0 / -0.033 (D1 > 18)  
D2 = h6

**HARDNESS (HRc)**



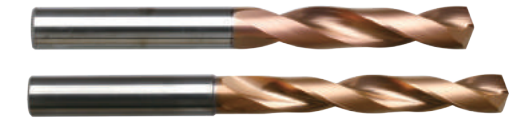
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**PF503, PF505 SERIES**

3xD & 5xD

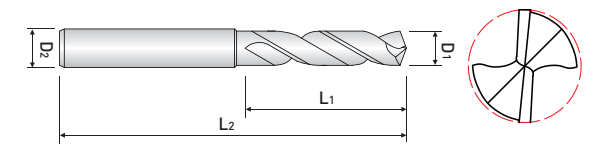
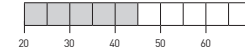
DRILLS / 2 FLUTES / 3xD & 5xD / SOLID CARBIDE / SINGLE MARGIN / TiAlN-HH COATING



**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
D1 = +0 / -0.018 (D1 = 3.1 to 6)  
D1 = +0 / -0.022 (D1 = 6.1 to 10)  
D1 = +0 / -0.027 (D1 = 10.1 to 18)  
D1 = +0 / -0.033 (D1 > 18)  
D2 = h6

**HARDNESS (HRc)**



>>Continue

Power max Drill Series	EDP NO.		Cutting Diameter			Cutting Length	Overall Length	Shank Diameter
	2 Flute							
	TiAlN-HH							
	Helix 30°							
3xD	5xD	D1			L1	L2	D2	
PF503	PF505	Decimal	Fraction	Metric				
<a href="#">PF503080</a>	-	0.3150"	-	8.000	40.00	79.00	8.00	
-	<a href="#">PF505080</a>	0.3150"	-	8.000	52.00	92.00	8.00	
<a href="#">PF503081</a>	-	0.3189"	-	8.100	40.00	79.00	8.00	
-	<a href="#">PF505081</a>	0.3189"	-	8.100	56.00	96.00	9.00	
<a href="#">PF503082</a>	-	0.3228"	-	8.200	43.00	84.00	9.00	
-	<a href="#">PF505082</a>	0.3228"	-	8.200	56.00	96.00	9.00	
<a href="#">PF503083</a>	-	0.3268"	-	8.300	43.00	84.00	9.00	
-	<a href="#">PF505083</a>	0.3268"	-	8.300	56.00	96.00	9.00	
<a href="#">PF50308334</a>	-	0.3281"	21/64"	8.334	43.00	84.00	9.00	
-	<a href="#">PF50508334</a>	0.3281"	21/64"	8.334	56.00	96.00	9.00	
<a href="#">PF503084</a>	-	0.3307"	-	8.400	43.00	84.00	9.00	
-	<a href="#">PF505084</a>	0.3307"	-	8.400	56.00	96.00	9.00	
<a href="#">PF503085</a>	-	0.3346"	-	8.500	43.00	84.00	9.00	
-	<a href="#">PF505085</a>	0.3346"	-	8.500	56.00	96.00	9.00	
<a href="#">PF503086</a>	-	0.3386"	-	8.600	43.00	84.00	9.00	
-	<a href="#">PF505086</a>	0.3386"	-	8.600	56.00	96.00	9.00	
<a href="#">PF503087</a>	-	0.3425"	-	8.700	43.00	84.00	9.00	
-	<a href="#">PF505087</a>	0.3425"	-	8.700	56.00	96.00	9.00	
<a href="#">PF50308733</a>	-	0.3438"	11/32"	8.733	43.00	84.00	9.00	
-	<a href="#">PF50508733</a>	0.3438"	11/32"	8.733	56.00	96.00	9.00	
<a href="#">PF503088</a>	-	0.3465"	-	8.800	43.00	84.00	9.00	
-	<a href="#">PF505088</a>	0.3465"	-	8.800	56.00	96.00	9.00	
<a href="#">PF503089</a>	-	0.3504"	-	8.900	43.00	84.00	9.00	
-	<a href="#">PF505089</a>	0.3504"	-	8.900	56.00	96.00	9.00	
<a href="#">PF503090</a>	-	0.3543"	-	9.000	43.00	84.00	9.00	
-	<a href="#">PF505090</a>	0.3543"	-	9.000	56.00	96.00	9.00	
<a href="#">PF503091</a>	-	0.3583"	-	9.100	43.00	84.00	9.00	
-	<a href="#">PF505091</a>	0.3583"	-	9.100	62.00	105.00	10.00	
<a href="#">PF50309129</a>	-	0.3594"	23/64"	9.129	47.00	89.00	10.00	
-	<a href="#">PF50509129</a>	0.3594"	23/64"	9.129	62.00	105.00	10.00	
<a href="#">PF503092</a>	-	0.3622"	-	9.200	47.00	89.00	10.00	
-	<a href="#">PF505092</a>	0.3622"	-	9.200	62.00	105.00	10.00	
<a href="#">PF503093</a>	-	0.3661"	-	9.300	47.00	89.00	10.00	
-	<a href="#">PF505093</a>	0.3661"	-	9.300	62.00	105.00	10.00	

Applicable Working Material

○:GOOD ◎:BEST

SERIES	CARBON STEELS LOW (100-170)	CARBON STEELS MED (170-200)	CARBON STEELS HIGH (200)	ALLOY STEELS (4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME	
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

Power max Drill Series	EDP NO.		Cutting Diameter			Cutting Length	Overall Length	Shank Diameter
	2 Flute							
	TiAlN-HH							
	Helix 30°							
3xD	5xD	D1			L1	L2	D2	
PF503	PF505	Decimal	Fraction	Metric				
<a href="#">PF50309347</a>	-	0.3680"	-	9.347	47.00	89.00	10.00	
<a href="#">PF503094</a>	-	0.3701"	-	9.400	47.00	89.00	10.00	
-	<a href="#">PF505094</a>	0.3701"	-	9.400	62.00	105.00	10.00	
<a href="#">PF503095</a>	-	0.3740"	-	9.500	47.00	89.00	10.00	
-	<a href="#">PF505095</a>	0.3740"	-	9.500	62.00	105.00	10.00	
<a href="#">PF50309525</a>	-	0.3750"	3/8"	9.525	47.00	89.00	10.00	
-	<a href="#">PF50509525</a>	0.3750"	3/8"	9.525	62.00	105.00	10.00	
<a href="#">PF503096</a>	-	0.3780"	-	9.600	47.00	89.00	10.00	
-	<a href="#">PF505096</a>	0.3780"	-	9.600	62.00	105.00	10.00	
<a href="#">PF503097</a>	-	0.3819"	-	9.700	47.00	89.00	10.00	
-	<a href="#">PF505097</a>	0.3819"	-	9.700	62.00	105.00	10.00	
<a href="#">PF503098</a>	-	0.3858"	-	9.800	47.00	89.00	10.00	
-	<a href="#">PF505098</a>	0.3858"	-	9.800	62.00	105.00	10.00	
<a href="#">PF503099</a>	-	0.3898"	-	9.900	47.00	89.00	10.00	
-	<a href="#">PF505099</a>	0.3898"	-	9.900	62.00	105.00	10.00	
-	<a href="#">PF50509921</a>	0.3906"	25/64"	9.921	62.00	105.00	10.00	
<a href="#">PF50309921</a>	-	0.3906"	25/64"	9.921	47.00	89.00	10.00	
<a href="#">PF503100</a>	-	0.3937"	-	10.000	47.00	89.00	10.00	
-	<a href="#">PF505100</a>	0.3937"	-	10.000	62.00	105.00	10.00	
<a href="#">PF503101</a>	-	0.3976"	-	10.100	47.00	89.00	10.00	
-	<a href="#">PF505101</a>	0.3976"	-	10.100	68.00	115.00	11.00	
<a href="#">PF503102</a>	-	0.4016"	-	10.200	51.00	95.00	11.00	
-	<a href="#">PF505102</a>	0.4016"	-	10.200	68.00	115.00	11.00	
<a href="#">PF503103</a>	-	0.4055"	-	10.300	51.00	95.00	11.00	
-	<a href="#">PF505103</a>	0.4055"	-	10.300	68.00	115.00	11.00	
<a href="#">PF5031032</a>	-	0.4063"	13/32"	10.320	51.00	95.00	11.00	
-	<a href="#">PF5051032</a>	0.4063"	13/32"	10.320	68.00	115.00	11.00	
<a href="#">PF503104</a>	-	0.4094"	-	10.400	51.00	95.00	11.00	
-	<a href="#">PF505104</a>	0.4094"	-	10.400	68.00	115.00	11.00	
<a href="#">PF503105</a>	-	0.4134"	-	10.500	51.00	95.00	11.00	
-	<a href="#">PF505105</a>	0.4134"	-	10.500	68.00	115.00	11.00	
<a href="#">PF503106</a>	-	0.4173"	-	10.600	51.00	95.00	11.00	
-	<a href="#">PF505106</a>	0.4173"	-	10.600	68.00	115.00	11.00	
<a href="#">PF503107</a>	-	0.4213"	-	10.700	51.00	95.00	11.00	

Applicable Working Material

○:GOOD ◎:BEST

SERIES	CARBON STEELS LOW (100-170)	CARBON STEELS MED (170-200)	CARBON STEELS HIGH (200)	ALLOY STEELS (4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME	
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

**PF503, PF505 SERIES**

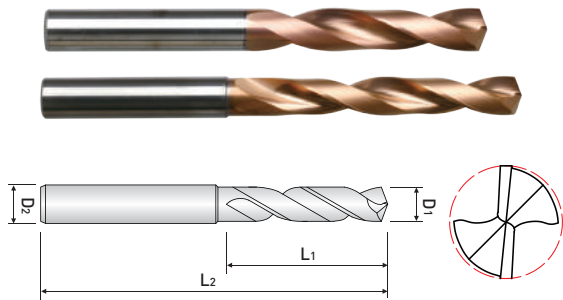
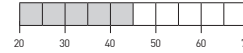
3xD & 5xD

DRILLS / 2 FLUTES / 3xD & 5xD / SOLID CARBIDE / SINGLE MARGIN / TiAlN-HH COATING

TOLERANCE (Metric)

D1 = +0 / -0.014 (D1 ≤ 3)  
D1 = +0 / -0.018 (D1 = 3.1 to 6)  
D1 = +0 / -0.022 (D1 = 6.1 to 10)  
D1 = +0 / -0.027 (D1 = 10.1 to 18)  
D1 = +0 / -0.033 (D1 > 18)  
D2 = h6

HARDNESS (HRc)



>>Continue

**PF503, PF505 SERIES**

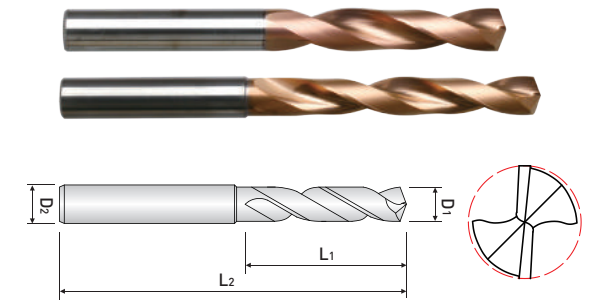
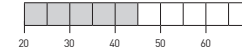
3xD & 5xD

DRILLS / 2 FLUTES / 3xD & 5xD / SOLID CARBIDE / SINGLE MARGIN / TiAlN-HH COATING

TOLERANCE (Metric)

D1 = +0 / -0.014 (D1 ≤ 3)  
D1 = +0 / -0.018 (D1 = 3.1 to 6)  
D1 = +0 / -0.022 (D1 = 6.1 to 10)  
D1 = +0 / -0.027 (D1 = 10.1 to 18)  
D1 = +0 / -0.033 (D1 > 18)  
D2 = h6

HARDNESS (HRc)



>>Continue

Power max Drill Series	EDP NO.		Cutting Diameter	Cutting Length	Overall Length	Shank Diameter	
	2 Flute						
	TiAlN-HH						
	Helix 30°						
3xD	5xD	D1			L1	L2	D2
PF503	PF505	Decimal	Fraction	Metric			
-	<a href="#">PF505107</a>	0.4213"	-	10.700	68.00	115.00	11.00
<a href="#">PF50310716</a>	-	0.4219"	27/64"	10.716	51.00	95.00	11.00
-	<a href="#">PF50510716</a>	0.4219"	27/64"	10.716	68.00	115.00	11.00
<a href="#">PF503108</a>	-	0.4252"	-	10.800	51.00	95.00	11.00
-	<a href="#">PF505108</a>	0.4252"	-	10.800	68.00	115.00	11.00
<a href="#">PF503109</a>	-	0.4291"	-	10.900	51.00	95.00	11.00
-	<a href="#">PF505109</a>	0.4291"	-	10.900	68.00	115.00	11.00
<a href="#">PF503110</a>	-	0.4331"	-	11.000	51.00	95.00	11.00
-	<a href="#">PF505110</a>	0.4331"	-	11.000	68.00	115.00	11.00
<a href="#">PF503111</a>	-	0.4370"	-	11.100	51.00	95.00	11.00
-	<a href="#">PF505111</a>	0.4370"	-	11.100	71.00	121.00	12.00
<a href="#">PF50311113</a>	-	0.4375"	7/16"	11.113	54.00	102.00	12.00
-	<a href="#">PF50511113</a>	0.4375"	7/16"	11.113	71.00	121.00	12.00
<a href="#">PF503112</a>	-	0.4409"	-	11.200	54.00	102.00	12.00
-	<a href="#">PF505112</a>	0.4409"	-	11.200	71.00	121.00	12.00
<a href="#">PF503113</a>	-	0.4449"	-	11.300	54.00	102.00	12.00
-	<a href="#">PF505113</a>	0.4449"	-	11.300	71.00	121.00	12.00
<a href="#">PF503114</a>	-	0.4488"	-	11.400	54.00	102.00	12.00
-	<a href="#">PF505114</a>	0.4488"	-	11.400	71.00	121.00	12.00
<a href="#">PF503115</a>	-	0.4528"	-	11.500	54.00	102.00	12.00
-	<a href="#">PF505115</a>	0.4528"	-	11.500	71.00	121.00	12.00
<a href="#">PF503116</a>	-	0.4567"	-	11.600	54.00	102.00	12.00
-	<a href="#">PF505116</a>	0.4567"	-	11.600	71.00	121.00	12.00
<a href="#">PF503117</a>	-	0.4606"	-	11.700	54.00	102.00	12.00
-	<a href="#">PF505117</a>	0.4606"	-	11.700	71.00	121.00	12.00
<a href="#">PF503118</a>	-	0.4646"	-	11.800	54.00	102.00	12.00
-	<a href="#">PF505118</a>	0.4646"	-	11.800	71.00	121.00	12.00
<a href="#">PF503119</a>	-	0.4685"	-	11.900	54.00	102.00	12.00
-	<a href="#">PF505119</a>	0.4685"	-	11.900	71.00	121.00	12.00
<a href="#">PF50311908</a>	-	0.4688"	15/32"	11.908	54.00	102.00	12.00
-	<a href="#">PF50511908</a>	0.4688"	15/32"	11.908	71.00	121.00	12.00
<a href="#">PF503120</a>	-	0.4724"	-	12.000	54.00	102.00	12.00
-	<a href="#">PF505120</a>	0.4724"	-	12.000	71.00	121.00	12.00
<a href="#">PF503121</a>	-	0.4764"	-	12.100	54.00	102.00	12.00

Applicable Working Material

ALL	CARBON STEELS LOW (100-170)	CARBON STEELS MED (170-200)	CARBON STEELS HIGH (200)	ALLOY STEELS (40-60)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST

Power max Drill Series	EDP NO.		Cutting Diameter	Cutting Length	Overall Length	Shank Diameter	
	2 Flute						
	TiAlN-HH						
	Helix 30°						
3xD	5xD	D1			L1	L2	D2
PF503	PF505	Decimal	Fraction	Metric			
-	<a href="#">PF505121</a>	0.4764"	-	12.100	75.00	125.00	13.00
<a href="#">PF503122</a>	-	0.4803"	-	12.200	57.00	102.00	13.00
-	<a href="#">PF505122</a>	0.4803"	-	12.200	75.00	125.00	13.00
<a href="#">PF503123</a>	-	0.4843"	-	12.300	57.00	102.00	13.00
-	<a href="#">PF505123</a>	0.4843"	-	12.300	75.00	125.00	13.00
<a href="#">PF50312304</a>	-	0.4844"	31/64"	12.304	57.00	102.00	13.00
-	<a href="#">PF50512304</a>	0.4844"	31/64"	12.304	75.00	125.00	13.00
<a href="#">PF503124</a>	-	0.4882"	-	12.400	57.00	102.00	13.00
-	<a href="#">PF505124</a>	0.4882"	-	12.400	75.00	125.00	13.00
<a href="#">PF503125</a>	-	0.4921"	-	12.500	57.00	102.00	13.00
-	<a href="#">PF505125</a>	0.4921"	-	12.500	75.00	125.00	13.00
<a href="#">PF503126</a>	-	0.4961"	-	12.600	57.00	102.00	13.00
-	<a href="#">PF505126</a>	0.4961"	-	12.600	75.00	125.00	13.00
<a href="#">PF503127</a>	-	0.5000"	1/2"	12.700	57.00	102.00	13.00
-	<a href="#">PF505127</a>	0.5000"	1/2"	12.700	75.00	125.00	13.00
<a href="#">PF503128</a>	-	0.5039"	-	12.800	57.00	102.00	13.00
-	<a href="#">PF505128</a>	0.5039"	-	12.800	75.00	125.00	13.00
<a href="#">PF503129</a>	-	0.5079"	-	12.900	57.00	102.00	13.00
-	<a href="#">PF505129</a>	0.5079"	-	12.900	75.00	125.00	13.00
<a href="#">PF503130</a>	-	0.5118"	-	13.000	57.00	102.00	13.00
-	<a href="#">PF505130</a>	0.5118"	-	13.000	75.00	125.00	13.00
<a href="#">PF50313096</a>	-	0.5156"	33/64"	13.096	57.00	102.00	13.00
-	<a href="#">PF50513096</a>	0.5156"	33/64"	13.096	80.00	134.00	14.00
<a href="#">PF503131</a>	-	0.5157"	-	13.100	57.00	102.00	13.00
-	<a href="#">PF505131</a>	0.5157"	-	13.100	80.00	134.00	14.00
<a href="#">PF503132</a>	-	0.5197"	-	13.200	60.00	107.00	14.00
-	<a href="#">PF505132</a>	0.5197"	-	13.200	80.00	134.00	14.00
<a href="#">PF503133</a>	-	0.5236"	-	13.300	60.00	107.00	14.00
-	<a href="#">PF505133</a>	0.5236"	-	13.300	80.00	134.00	14.00
<a href="#">PF503134</a>	-	0.5276"	-	13.400	60.00	107.00	14.00
-	<a href="#">PF505134</a>	0.5276"	-	13.400	80.00	134.00	14.00
<a href="#">PF50313494</a>	-	0.5313"	17/32"	13.494	60.00	107.00	14.00
-	<a href="#">PF50513494</a>	0.5313"	17/32"	13.494	80.00	134.00	14.00
<a href="#">PF503135</a>	-	0.5315"	-	13.500	60.00	107.00	14.00

Applicable Working Material

ALL	CARBON STEELS LOW (100-170)	CARBON STEELS MED (170-200)	CARBON STEELS HIGH (200)	ALLOY STEELS (40-60)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

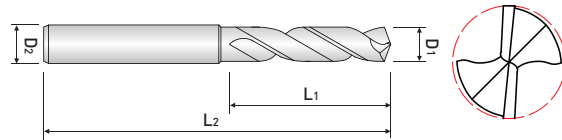
○:GOOD ◎:BEST



**PF503, PF505 SERIES**

3xD & 5xD

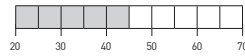
DRILLS / 2 FLUTES / 3xD & 5xD / SOLID CARBIDE / SINGLE MARGIN / TiAlN-HH COATING



**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
D1 = +0 / -0.018 (D1 = 3.1 to 6)  
D1 = +0 / -0.022 (D1 = 6.1 to 10)  
D1 = +0 / -0.027 (D1 = 10.1 to 18)  
D1 = +0 / -0.033 (D1 > 18)  
D2 = h6

**HARDNESS (HRc)**



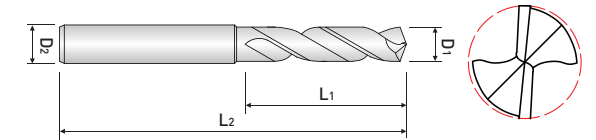
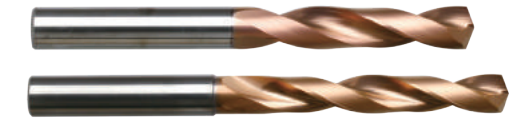
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**PF503, PF505 SERIES**

3xD & 5xD

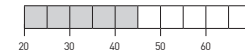
DRILLS / 2 FLUTES / 3xD & 5xD / SOLID CARBIDE / SINGLE MARGIN / TiAlN-HH COATING



**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
D1 = +0 / -0.018 (D1 = 3.1 to 6)  
D1 = +0 / -0.022 (D1 = 6.1 to 10)  
D1 = +0 / -0.027 (D1 = 10.1 to 18)  
D1 = +0 / -0.033 (D1 > 18)  
D2 = h6

**HARDNESS (HRc)**



>>Continue

Power max Drill Series	EDP NO.		Cutting Diameter			Cutting Length	Overall Length	Shank Diameter
	2 Flute							
	TiAlN-HH							
	Helix 30°							
3xD	5xD	D1			L1	L2	D2	
PF503	PF505	Decimal	Fraction	Metric				
-	<a href="#">PF505135</a>	0.5315"	-	13.500	80.00	134.00	14.00	
<a href="#">PF503136</a>	-	0.5354"	-	13.600	60.00	107.00	14.00	
-	<a href="#">PF505136</a>	0.5354"	-	13.600	80.00	134.00	14.00	
<a href="#">PF503137</a>	-	0.5394"	-	13.700	60.00	107.00	14.00	
-	<a href="#">PF505137</a>	0.5394"	-	13.700	80.00	134.00	14.00	
<a href="#">PF503138</a>	-	0.5433"	-	13.800	60.00	107.00	14.00	
-	<a href="#">PF505138</a>	0.5433"	-	13.800	80.00	134.00	14.00	
<a href="#">PF50313891</a>	-	0.5469"	35/64"	13.891	60.00	107.00	14.00	
-	<a href="#">PF50513891</a>	0.5469"	35/64"	13.891	80.00	134.00	14.00	
<a href="#">PF503139</a>	-	0.5472"	-	13.900	60.00	107.00	14.00	
-	<a href="#">PF505139</a>	0.5472"	-	13.900	80.00	134.00	14.00	
<a href="#">PF503140</a>	-	0.5512"	-	14.000	60.00	107.00	14.00	
-	<a href="#">PF505140</a>	0.5512"	-	14.000	80.00	134.00	14.00	
<a href="#">PF503141</a>	-	0.5551"	-	14.100	60.00	107.00	14.00	
-	<a href="#">PF505141</a>	0.5551"	-	14.100	83.00	143.00	15.00	
<a href="#">PF503142</a>	-	0.5591"	-	14.200	62.00	111.00	15.00	
-	<a href="#">PF505142</a>	0.5591"	-	14.200	83.00	143.00	15.00	
<a href="#">PF50314288</a>	-	0.5625"	9/16"	14.288	62.00	111.00	15.00	
-	<a href="#">PF50514288</a>	0.5625"	9/16"	14.288	83.00	143.00	15.00	
<a href="#">PF503143</a>	-	0.5630"	-	14.300	62.00	111.00	15.00	
-	<a href="#">PF505143</a>	0.5630"	-	14.300	83.00	143.00	15.00	
<a href="#">PF503144</a>	-	0.5669"	-	14.400	62.00	111.00	15.00	
-	<a href="#">PF505144</a>	0.5669"	-	14.400	83.00	143.00	15.00	
<a href="#">PF503145</a>	-	0.5709"	-	14.500	62.00	111.00	15.00	
-	<a href="#">PF505145</a>	0.5709"	-	14.500	83.00	143.00	15.00	
<a href="#">PF503146</a>	-	0.5748"	-	14.600	62.00	111.00	15.00	
-	<a href="#">PF505146</a>	0.5748"	-	14.600	83.00	143.00	15.00	
<a href="#">PF503147</a>	-	0.5787"	-	14.700	62.00	111.00	15.00	
-	<a href="#">PF505147</a>	0.5787"	-	14.700	83.00	143.00	15.00	
<a href="#">PF503148</a>	-	0.5827"	-	14.800	62.00	111.00	15.00	
-	<a href="#">PF505148</a>	0.5827"	-	14.800	83.00	143.00	15.00	
<a href="#">PF503149</a>	-	0.5866"	-	14.900	62.00	111.00	15.00	
-	<a href="#">PF505149</a>	0.5866"	-	14.900	83.00	143.00	15.00	
<a href="#">PF503150</a>	-	0.5906"	-	15.000	62.00	111.00	15.00	

**Applicable Working Material**

Series	Carbon Steels Low (100-170)	Carbon Steels Med (170-200)	Carbon Steels High (200)	Alloy Steels (40-60)	Die Steels	Stainless Steels 300	Stainless Steels 400	Stainless Steels 17-4 PH	Cast Iron	Aluminum (6061, 7075)	Aluminum Castings	Nickel Alloys (Inconel)	Titanium (6Al4V)	Hardened Steels 35 HRC	Hardened Steels 35-45 HRC	Hardened Steels 45-50 HRC	Hardened Steels 50-70 HRC	Magnesium	Brass Bronze	Graphite	Cobalt Chrome
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST

Power max Drill Series	EDP NO.		Cutting Diameter			Cutting Length	Overall Length	Shank Diameter
	2 Flute							
	TiAlN-HH							
	Helix 30°							
3xD	5xD	D1			L1	L2	D2	
PF503	PF505	Decimal	Fraction	Metric				
-	<a href="#">PF505150</a>	0.5906"	-	15.000	83.00	143.00	15.00	
<a href="#">PF50315081</a>	-	0.5937"	19/32"	15.081	62.00	111.00	15.00	
-	<a href="#">PF50515081</a>	0.5937"	19/32"	15.081	90.00	152.00	16.00	
<a href="#">PF503151</a>	-	0.5945"	-	15.100	62.00	111.00	15.00	
-	<a href="#">PF505151</a>	0.5945"	-	15.100	90.00	152.00	16.00	
<a href="#">PF503152</a>	-	0.5984"	-	15.200	64.00	115.00	16.00	
-	<a href="#">PF505152</a>	0.5984"	-	15.200	90.00	152.00	16.00	
<a href="#">PF503153</a>	-	0.6024"	-	15.300	64.00	115.00	16.00	
<a href="#">PF503154</a>	-	0.6063"	-	15.400	64.00	115.00	16.00	
-	<a href="#">PF505154</a>	0.6063"	-	15.400	90.00	152.00	16.00	
<a href="#">PF503155</a>	-	0.6102"	-	15.500	64.00	115.00	16.00	
-	<a href="#">PF505155</a>	0.6102"	-	15.500	90.00	152.00	16.00	
<a href="#">PF503156</a>	-	0.6142"	-	15.600	64.00	115.00	16.00	
-	<a href="#">PF505156</a>	0.6142"	-	15.600	90.00	152.00	16.00	
<a href="#">PF503157</a>	-	0.6181"	-	15.700	64.00	115.00	16.00	
-	<a href="#">PF505157</a>	0.6181"	-	15.700	90.00	152.00	16.00	
<a href="#">PF503158</a>	-	0.6220"	-	15.800	64.00	115.00	16.00	
-	<a href="#">PF505158</a>	0.6220"	-	15.800	90.00	152.00	16.00	
<a href="#">PF50315875</a>	-	0.6250"	5/8"	15.875	64.00	115.00	16.00	
-	<a href="#">PF50515875</a>	0.6250"	5/8"	15.875	90.00	152.00	16.00	
<a href="#">PF503160</a>	-	0.6299"	-	16.000	64.00	115.00	16.00	
-	<a href="#">PF505160</a>	0.6299"	-	16.000	90.00	152.00	16.00	
<a href="#">PF503161</a>	-	0.6339"	-	16.100	64.00	115.00	16.00	
-	<a href="#">PF505161</a>	0.6339"	-	16.100	95.00	155.00	17.00	
<a href="#">PF503163</a>	-	0.6417"	-	16.300	66.00	119.00	17.00	
-	<a href="#">PF505163</a>	0.6417"	-	16.300	95.00	155.00	17.00	
<a href="#">PF503165</a>	-	0.6496"	-	16.500	66.00	119.00	17.00	
-	<a href="#">PF505165</a>	0.6496"	-	16.500	95.00	155.00	17.00	
<a href="#">PF50316667</a>	-	0.6562"	21/32"	16.667	66.00	119.00	17.00	
-	<a href="#">PF50516667</a>	0.6562"	21/32"	16.667	95.00	155.00	17.00	
<a href="#">PF503170</a>	-	0.6693"	-	17.000	66.00	119.00	17.00	
-	<a href="#">PF505170</a>	0.6693"	-	17.000	95.00	155.00	17.00	
<a href="#">PF503171</a>	-	0.6732"	-	17.100	66.00	119.00	17.00	
-	<a href="#">PF505171</a>	0.6732"	-	17.100	100.00	157.00	18.00	

**Applicable Working Material**

Series	Carbon Steels Low (100-170)	Carbon Steels Med (170-200)	Carbon Steels High (200)	Alloy Steels (40-60)	Die Steels	Stainless Steels 300	Stainless Steels 400	Stainless Steels 17-4 PH	Cast Iron	Aluminum (6061, 7075)	Aluminum Castings	Nickel Alloys (Inconel)	Titanium (6Al4V)	Hardened Steels 35 HRC	Hardened Steels 35-45 HRC	Hardened Steels 45-50 HRC	Hardened Steels 50-70 HRC	Magnesium	Brass Bronze	Graphite	Cobalt Chrome
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

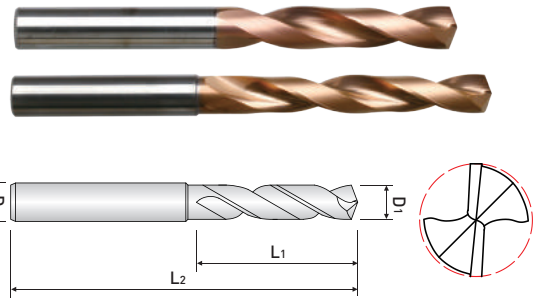
○:GOOD ◎:BEST



**PF503, PF505 SERIES**

3xD & 5xD

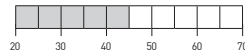
DRILLS / 2 FLUTES / 3xD & 5xD / SOLID CARBIDE / SINGLE MARGIN / TiAlN-HH COATING



**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
 D1 = +0 / -0.018 (D1 = 3.1 to 6)  
 D1 = +0 / -0.022 (D1 = 6.1 to 10)  
 D1 = +0 / -0.027 (D1 = 10.1 to 18)  
 D1 = +0 / -0.033 (D1 > 18)  
 D2 = h6

**HARDNESS (HRC)**



EDP NO.		Cutting Diameter			Cutting Length	Overall Length	Shank Diameter
2 Flute		D1					
TiAlN-HH							
Helix 30°							
3xD	5xD	D1			L1	L2	D2
PF503	PF505	Decimal	Fraction	Metric			
PF503172	-	0.6772"	-	17.200	66.00	123.00	18.00
-	PF505172	0.6772"	-	17.200	100.00	157.00	18.00
PF50317463	-	0.6875"	11/16"	17.463	66.00	123.00	18.00
-	PF50517463	0.6875"	11/16"	17.463	100.00	157.00	18.00
PF503175	-	0.6890"	-	17.500	66.00	123.00	18.00
-	PF505175	0.6890"	-	17.500	100.00	157.00	18.00
PF503177	-	0.6969"	-	17.700	66.00	123.00	18.00
-	PF505177	0.6969"	-	17.700	100.00	157.00	18.00
PF503178	-	0.7008"	-	17.800	66.00	123.00	18.00
-	PF505178	0.7008"	-	17.800	100.00	157.00	18.00
PF503180	-	0.7087"	-	18.000	66.00	123.00	18.00
-	PF505180	0.7087"	-	18.000	100.00	157.00	18.00
PF503181	-	0.7126"	-	18.100	66.00	123.00	18.00
-	PF505181	0.7126"	-	18.100	105.00	160.00	19.00
PF503182	-	0.7165"	-	18.200	70.00	127.00	19.00
-	PF505182	0.7165"	-	18.200	105.00	160.00	19.00
PF503185	-	0.7283"	-	18.500	70.00	127.00	19.00
-	PF505185	0.7283"	-	18.500	105.00	160.00	19.00
PF503190	-	0.7480"	-	19.000	70.00	127.00	19.00
-	PF505190	0.7480"	-	19.000	105.00	160.00	19.00
PF503191	-	0.7520"	-	19.100	70.00	127.00	19.00
-	PF505191	0.7520"	-	19.100	110.00	163.00	20.00
PF503195	-	0.7677"	-	19.500	70.00	131.00	20.00
-	PF505195	0.7677"	-	19.500	110.00	163.00	20.00
PF503197	-	0.7756"	-	19.700	70.00	131.00	20.00
-	PF505197	0.7756"	-	19.700	110.00	163.00	20.00
PF503200	-	0.7874"	-	20.000	70.00	131.00	20.00
-	PF505200	0.7874"	-	20.000	110.00	163.00	20.00

**Applicable Working Material**

SERIES	CARBON STEELS LOW (HRC) (10-18)	CARBON STEELS MED (HRC) (18-22)	CARBON STEELS HIGH (HRC) (22-60)	ALLOY STEELS (HRC) (40-60)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (B01,7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (B14V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST

**PF503, PF505 SERIES**

Work Material	Carbon Steels (C<0.3%) Alloy Steels < HB240, GG25			Carbon Steels (C≥0.3%) Alloy Steel < HB300, GG40			52100-AISI440			Hardened Steels 34 ~ 43 HRC		
	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)
Drilling Speed (V)	80-125m/min			80-125m/min			63-80m/min			40-63m/min		
Cutting Diameter (metric)	2	3	4	5	6	8	10	12	14	16	18	20
2	12,000	0.06-0.08	0.003	12,000	0.06-0.08	0.003	11,000	0.06-0.08	0.003	8,000	0.06-0.08	0.003
3	9,600	0.09-0.12	0.004	9,600	0.09-0.12	0.004	7,500	0.09-0.12	0.004	5,300	0.09-0.12	0.004
4	8,000	0.10-0.15	0.005	8,000	0.10-0.15	0.005	5,650	0.10-0.15	0.005	4,000	0.10-0.15	0.005
5	6,400	0.12-0.18	0.006	6,400	0.12-0.18	0.006	4,550	0.12-0.18	0.006	3,300	0.12-0.18	0.006
6	5,300	0.14-0.20	0.007	5,300	0.14-0.20	0.007	3,800	0.14-0.20	0.007	2,750	0.14-0.20	0.007
8	4,000	0.16-0.24	0.008	4,000	0.16-0.24	0.008	2,850	0.16-0.24	0.008	2,100	0.16-0.24	0.008
10	3,200	0.18-0.27	0.009	3,200	0.18-0.27	0.009	2,250	0.18-0.27	0.009	1,700	0.18-0.27	0.009
12	2,650	0.20-0.30	0.010	2,650	0.20-0.30	0.010	1,900	0.20-0.30	0.010	1,400	0.20-0.30	0.010
14	2,300	0.22-0.35	0.011	2,300	0.22-0.35	0.011	1,600	0.22-0.35	0.011	1,200	0.22-0.35	0.011
16	2,000	0.25-0.36	0.012	2,000	0.25-0.36	0.012	1,400	0.25-0.36	0.012	1,050	0.25-0.36	0.012
18	1,800	0.28-0.38	0.013	1,800	0.28-0.38	0.013	1,250	0.28-0.38	0.013	920	0.28-0.38	0.013
20	1,600	0.30-0.40	0.014	1,600	0.30-0.40	0.014	1,150	0.30-0.40	0.014	850	0.30-0.40	0.014
Work Material	Hardened Steels 43 ~ 48 HRC			Hardened Steels 48 ~ 53 HRC			Cast Iron 250 ~ 350 N/mm2			Cast Iron-Ductile 400 ~ 500 N/mm2		
Drilling Speed (V)	32-45m/min			25-36m/min			80-125m/min			63-90m/min		
Cutting Diameter (metric)	2	3	4	5	6	8	10	12	14	16	18	20
2	6,000	0.05-0.07	0.002	4,500	0.03-0.06	0.002	15,000	0.06-0.08	0.003	11,000	0.06-0.08	0.003
3	4,000	0.07-0.11	0.004	3,200	0.05-0.09	0.003	10,000	0.09-0.12	0.004	7,600	0.09-0.12	0.004
4	3,000	0.08-0.13	0.004	2,600	0.06-0.10	0.003	8,000	0.10-0.15	0.005	6,000	0.10-0.15	0.005
5	2,400	0.10-0.15	0.005	2,000	0.08-0.12	0.004	6,400	0.12-0.18	0.006	4,800	0.12-0.18	0.006
6	2,000	0.12-0.18	0.006	1,700	0.09-0.15	0.005	5,300	0.14-0.20	0.007	4,000	0.14-0.20	0.007
8	1,500	0.14-0.22	0.007	1,300	0.12-0.20	0.006	4,000	0.16-0.24	0.008	3,000	0.16-0.24	0.008
10	1,200	0.15-0.25	0.008	1,000	0.13-0.23	0.007	3,200	0.18-0.27	0.009	2,400	0.18-0.27	0.009
12	1,000	0.17-0.26	0.008	850	0.14-0.24	0.007	2,700	0.20-0.30	0.010	2,000	0.20-0.30	0.010
14	860	0.18-0.30	0.009	730	0.15-0.26	0.008	2,300	0.22-0.35	0.011	1,700	0.22-0.35	0.011
16	760	0.20-0.32	0.010	640	0.16-0.26	0.008	2,000	0.25-0.36	0.012	1,500	0.25-0.36	0.012
18	670	0.23-0.33	0.011	570	0.18-0.28	0.009	1,800	0.28-0.38	0.013	1,350	0.28-0.38	0.013
20	600	0.25-0.35	0.012	500	0.20-0.30	0.010	1,600	0.30-0.40	0.014	1,200	0.30-0.40	0.014

RPM=rev./min.  
FEED=mm/rev.  
IPR=inch/rev.

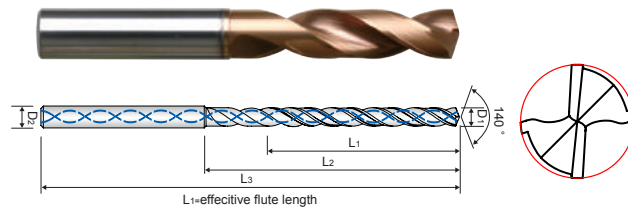




**HP503 SERIES**

3xD

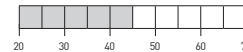
DRILLS / 2 FLUTES / 3xD / SOLID CARBIDE / DOUBLE MARGIN / TiAlN-HH COATING



**TOLERANCE (Metric)**

D1 = +0.012 / 0.002 (D1 ≤ 3)  
D1 = +0.016 / 0.004 (D1 = 3.1 to 6)  
D1 = +0.021 / 0.006 (D1 = 6.1 to 10)  
D1 = +0.025 / 0.007 (D1 ≥ 10.1)  
D2 = h6

**HARDNESS (HRc)**



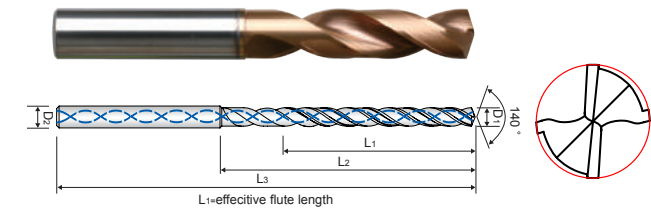
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**HP503 SERIES**

3xD

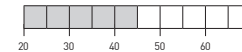
DRILLS / 2 FLUTES / 3xD / SOLID CARBIDE / DOUBLE MARGIN / TiAlN-HH COATING



**TOLERANCE (Metric)**

D1 = +0.012 / 0.002 (D1 ≤ 3)  
D1 = +0.016 / 0.004 (D1 = 3.1 to 6)  
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D1 = +0.025 / 0.007 (D1 ≥ 10.1)  
D2 = h6

**HARDNESS (HRc)**



>>Continue

EDP NO.	Cutting Diameter		Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter		
							2 Flute	
							TiAlN-HH	
							Helix 30°	
3xD	D1		L1	L2	L3	D2		
HP503	Decimal	Metric						
HP503030	0.1181"	3.00	14.00	20.00	62.00	6.00		
HP503031	0.1220"	3.10	14.00	20.00	62.00	6.00		
HP503032	0.1260"	3.20	14.00	20.00	62.00	6.00		
HP503033	0.1299"	3.30	14.00	20.00	62.00	6.00		
HP503034	0.1339"	3.40	14.00	20.00	62.00	6.00		
HP503035	0.1378"	3.50	14.00	20.00	62.00	6.00		
HP503036	0.1417"	3.60	14.00	20.00	62.00	6.00		
HP503037	0.1457"	3.70	14.00	20.00	62.00	6.00		
HP503038	0.1496"	3.80	17.00	24.00	66.00	6.00		
HP503039	0.1535"	3.90	17.00	24.00	66.00	6.00		
HP503040	0.1575"	4.00	17.00	24.00	66.00	6.00		
HP503041	0.1614"	4.10	17.00	24.00	66.00	6.00		
HP503042	0.1654"	4.20	17.00	24.00	66.00	6.00		
HP503043	0.1693"	4.30	17.00	24.00	66.00	6.00		
HP503044	0.1732"	4.40	17.00	24.00	66.00	6.00		
HP503045	0.1772"	4.50	17.00	24.00	66.00	6.00		
HP503046	0.1811"	4.60	17.00	24.00	66.00	6.00		
HP503047	0.1850"	4.70	17.00	24.00	66.00	6.00		
HP503048	0.1890"	4.80	20.00	28.00	66.00	6.00		
HP503049	0.1929"	4.90	20.00	28.00	66.00	6.00		
HP503050	0.1969"	5.00	20.00	28.00	66.00	6.00		
HP503051	0.2008"	5.10	20.00	28.00	66.00	6.00		
HP503052	0.2047"	5.20	20.00	28.00	66.00	6.00		
HP503053	0.2087"	5.30	20.00	28.00	66.00	6.00		
HP503054	0.2126"	5.40	20.00	28.00	66.00	6.00		
HP503055	0.2165"	5.50	20.00	28.00	66.00	6.00		
HP503056	0.2205"	5.60	20.00	28.00	66.00	6.00		
HP503057	0.2244"	5.70	20.00	28.00	66.00	6.00		
HP503058	0.2283"	5.80	20.00	28.00	66.00	6.00		
HP503059	0.2323"	5.90	20.00	28.00	66.00	6.00		
HP503060	0.2362"	6.00	20.00	28.00	66.00	6.00		
HP503061	0.2402"	6.10	24.00	34.00	79.00	8.00		

Applicable Working Material

○:GOOD ◎:BEST

SERIES	CARBON STEELS LOW (10-17.0%)	CARBON STEELS MED (17.0-20%)	CARBON STEELS HIGH (20-25%)	ALLOY STEELS (4140)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6AL4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME	
HP503	○	○	○	◎	◎	◎	◎	◎	○	○	○	○	○	○	○	○	○	○	○	○	○	○

EDP NO.	Cutting Diameter		Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter		
							2 Flute	
							TiAlN-HH	
							Helix 30°	
3xD	D1		L1	L2	L3	D2		
HP503	Decimal	Metric						
HP503062	0.2441"	6.20	24.00	34.00	79.00	8.00		
HP503063	0.2480"	6.30	24.00	34.00	79.00	8.00		
HP503064	0.2520"	6.40	24.00	34.00	79.00	8.00		
HP503065	0.2559"	6.50	24.00	34.00	79.00	8.00		
HP503066	0.2598"	6.60	24.00	34.00	79.00	8.00		
HP503067	0.2638"	6.70	24.00	34.00	79.00	8.00		
HP503068	0.2677"	6.80	24.00	34.00	79.00	8.00		
HP503069	0.2717"	6.90	24.00	34.00	79.00	8.00		
HP503070	0.2756"	7.00	24.00	34.00	79.00	8.00		
HP503071	0.2795"	7.10	29.00	41.00	79.00	8.00		
HP503072	0.2835"	7.20	29.00	41.00	79.00	8.00		
HP503073	0.2874"	7.30	29.00	41.00	79.00	8.00		
HP503074	0.2913"	7.40	29.00	41.00	79.00	8.00		
HP503075	0.2953"	7.50	29.00	41.00	79.00	8.00		
HP503076	0.2992"	7.60	29.00	41.00	79.00	8.00		
HP503077	0.3031"	7.70	29.00	41.00	79.00	8.00		
HP503078	0.3071"	7.80	29.00	41.00	79.00	8.00		
HP503079	0.3110"	7.90	29.00	41.00	79.00	8.00		
HP503080	0.3150"	8.00	29.00	41.00	79.00	8.00		
HP503081	0.3189"	8.10	35.00	47.00	89.00	10.00		
HP503082	0.3228"	8.20	35.00	47.00	89.00	10.00		
HP503083	0.3268"	8.30	35.00	47.00	89.00	10.00		
HP503084	0.3307"	8.40	35.00	47.00	89.00	10.00		
HP503085	0.3346"	8.50	35.00	47.00	89.00	10.00		
HP503086	0.3386"	8.60	35.00	47.00	89.00	10.00		
HP503087	0.3425"	8.70	35.00	47.00	89.00	10.00		
HP503088	0.3465"	8.80	35.00	47.00	89.00	10.00		
HP503089	0.3504"	8.90	35.00	47.00	89.00	10.00		
HP503090	0.3543"	9.00	35.00	47.00	89.00	10.00		
HP503091	0.3583"	9.10	35.00	47.00	89.00	10.00		
HP503092	0.3622"	9.20	35.00	47.00	89.00	10.00		
HP503093	0.3661"	9.30	35.00	47.00	89.00	10.00		

Applicable Working Material

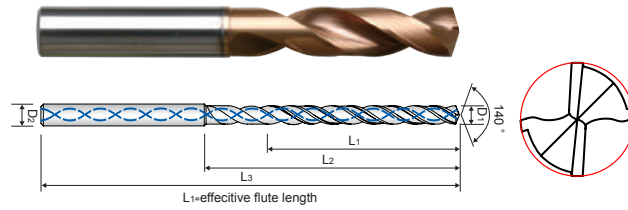
○:GOOD ◎:BEST

SERIES	CARBON STEELS LOW (10-17.0%)	CARBON STEELS MED (17.0-20%)	CARBON STEELS HIGH (20-25%)	ALLOY STEELS (4140)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6AL4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME	
HP503	○	○	○	◎	◎	◎	◎	◎	○	○	○	○	○	○	○	○	○	○	○	○	○	○

**HP503 SERIES**

3xD

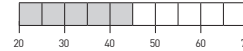
DRILLS / 2 FLUTES / 3xD / SOLID CARBIDE / DOUBLE MARGIN / TiAlN-HH COATING



**TOLERANCE (Metric)**

D1 = +0.012 / 0.002 (D1 ≤ 3)  
D1 = +0.016 / 0.004 (D1 = 3.1 to 6)  
D1 = +0.021 / 0.006 (D1 = 6.1 to 10)  
D1 = +0.025 / 0.007 (D1 ≥ 10.1)  
D2 = h6

**HARDNESS (HRC)**

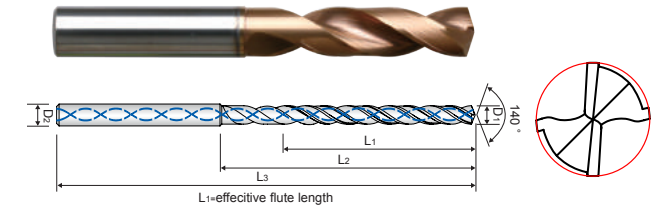


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**HP503 SERIES**

3xD

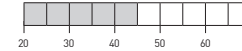
DRILLS / 2 FLUTES / 3xD / SOLID CARBIDE / DOUBLE MARGIN / TiAlN-HH COATING



**TOLERANCE (Metric)**

D1 = +0.012 / 0.002 (D1 ≤ 3)  
D1 = +0.016 / 0.004 (D1 = 3.1 to 6)  
D1 = +0.021 / 0.006 (D1 = 6.1 to 10)  
D1 = +0.025 / 0.007 (D1 ≥ 10.1)  
D2 = h6

**HARDNESS (HRC)**



Power max Drill Series	EDP NO.	Cutting Diameter		Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter
	2 Flute						
	TiAlN-HH						
	Helix 30°						
3xD	D1		L1	L2	L3	D2	
HP503	Decimal	Metric					
<a href="#">HP503094</a>	0.3701"	9.40	35.00	47.00	89.00	10.00	
<a href="#">HP503095</a>	0.3740"	9.50	35.00	47.00	89.00	10.00	
<a href="#">HP503096</a>	0.3780"	9.60	35.00	47.00	89.00	10.00	
<a href="#">HP503097</a>	0.3819"	9.70	35.00	47.00	89.00	10.00	
<a href="#">HP503098</a>	0.3858"	9.80	35.00	47.00	89.00	10.00	
<a href="#">HP503099</a>	0.3898"	9.90	35.00	47.00	89.00	10.00	
<a href="#">HP503100</a>	0.3937"	10.00	35.00	47.00	89.00	10.00	
<a href="#">HP503101</a>	0.3976"	10.10	40.00	55.00	102.00	12.00	
<a href="#">HP503102</a>	0.4016"	10.20	40.00	55.00	102.00	12.00	
<a href="#">HP503103</a>	0.4055"	10.30	40.00	55.00	102.00	12.00	
<a href="#">HP503104</a>	0.4094"	10.40	40.00	55.00	102.00	12.00	
<a href="#">HP503105</a>	0.4134"	10.50	40.00	55.00	102.00	12.00	
<a href="#">HP503106</a>	0.4173"	10.60	40.00	55.00	102.00	12.00	
<a href="#">HP503107</a>	0.4213"	10.70	40.00	55.00	102.00	12.00	
<a href="#">HP503108</a>	0.4252"	10.80	40.00	55.00	102.00	12.00	
<a href="#">HP503109</a>	0.4291"	10.90	40.00	55.00	102.00	12.00	
<a href="#">HP503110</a>	0.4331"	11.00	40.00	55.00	102.00	12.00	
<a href="#">HP503111</a>	0.4370"	11.10	40.00	55.00	102.00	12.00	
<a href="#">HP503112</a>	0.4409"	11.20	40.00	55.00	102.00	12.00	
<a href="#">HP503113</a>	0.4449"	11.30	40.00	55.00	102.00	12.00	
<a href="#">HP503114</a>	0.4488"	11.40	40.00	55.00	102.00	12.00	
<a href="#">HP503115</a>	0.4528"	11.50	40.00	55.00	102.00	12.00	
<a href="#">HP503116</a>	0.4567"	11.60	40.00	55.00	102.00	12.00	
<a href="#">HP503117</a>	0.4606"	11.70	40.00	55.00	102.00	12.00	
<a href="#">HP503118</a>	0.4646"	11.80	40.00	55.00	102.00	12.00	
<a href="#">HP503119</a>	0.4685"	11.90	40.00	55.00	102.00	12.00	
<a href="#">HP503120</a>	0.4724"	12.00	40.00	55.00	102.00	12.00	
<a href="#">HP503121</a>	0.4764"	12.10	43.00	60.00	107.00	14.00	
<a href="#">HP503122</a>	0.4803"	12.20	43.00	60.00	107.00	14.00	
<a href="#">HP503123</a>	0.4843"	12.30	43.00	60.00	107.00	14.00	
<a href="#">HP503124</a>	0.4882"	12.40	43.00	60.00	107.00	14.00	
<a href="#">HP503125</a>	0.4921"	12.50	43.00	60.00	107.00	14.00	

**Applicable Working Material**

SERIES	CARBON STEELS LOW (10-17.0)	CARBON STEELS MED (17.0-20.9)	CARBON STEELS HIGH (20.9-27.9)	ALLOY STEELS (41-42)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
HP503	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

Power max Drill Series	EDP NO.	Cutting Diameter		Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter
	2 Flute						
	TiAlN-HH						
	Helix 30°						
3xD	D1		L1	L2	L3	D2	
HP503	Decimal	Metric					
<a href="#">HP503126</a>	0.4961"	12.60	43.00	60.00	107.00	14.00	
<a href="#">HP503127</a>	0.5000"	12.70	43.00	60.00	107.00	14.00	
<a href="#">HP503128</a>	0.5039"	12.80	43.00	60.00	107.00	14.00	
<a href="#">HP503129</a>	0.5079"	12.90	43.00	60.00	107.00	14.00	
<a href="#">HP503130</a>	0.5118"	13.00	43.00	60.00	107.00	14.00	
<a href="#">HP503131</a>	0.5157"	13.10	43.00	60.00	107.00	14.00	
<a href="#">HP503132</a>	0.5197"	13.20	43.00	60.00	107.00	14.00	
<a href="#">HP503133</a>	0.5236"	13.30	43.00	60.00	107.00	14.00	
<a href="#">HP503135</a>	0.5315"	13.50	43.00	60.00	107.00	14.00	
<a href="#">HP503137</a>	0.5394"	13.70	43.00	60.00	107.00	14.00	
<a href="#">HP503140</a>	0.5512"	14.00	43.00	60.00	107.00	14.00	
<a href="#">HP503142</a>	0.5591"	14.20	45.00	65.00	115.00	16.00	
<a href="#">HP503143</a>	0.5630"	14.30	45.00	65.00	115.00	16.00	
<a href="#">HP503145</a>	0.5709"	14.50	45.00	65.00	115.00	16.00	
<a href="#">HP503146</a>	0.5748"	14.60	45.00	65.00	115.00	16.00	
<a href="#">HP503148</a>	0.5827"	14.80	45.00	65.00	115.00	16.00	
<a href="#">HP503150</a>	0.5906"	15.00	45.00	65.00	115.00	16.00	
<a href="#">HP503155</a>	0.6102"	15.50	45.00	65.00	115.00	16.00	
<a href="#">HP503157</a>	0.6181"	15.70	45.00	65.00	115.00	16.00	
<a href="#">HP503160</a>	0.6299"	16.00	45.00	65.00	115.00	16.00	

**Applicable Working Material**

SERIES	CARBON STEELS LOW (10-17.0)	CARBON STEELS MED (17.0-20.9)	CARBON STEELS HIGH (20.9-27.9)	ALLOY STEELS (41-42)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
HP503	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

**HP503 SERIES**

INCH

METRIC

Power max Drill Series

Power Drill Series

Solid Spiral Drill Series

Centering Tools

RPM=rev./min.  
FEED=min/rev.  
IPR=inch/rev.

Work Material	Carbon Steels (C<0.3%) Alloy Steels < HB240, GG25			Carbon Steels (C≥0.3%) Alloy Steel < HB300, GG40			52100-AISI440			Hardened Steels 34 ~ 43 HRc		
	Drilling Speed (V)	80~125m/min			80~125m/min			63~80m/min			40~63m/min	
Cutting Diameter (metric)	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)
2	12,000	0.06-0.08	0.003	12,000	0.06-0.08	0.003	11,000	0.06-0.08	0.003	8,000	0.06-0.08	0.003
3	9,600	0.09-0.12	0.004	9,600	0.09-0.12	0.004	7,500	0.09-0.12	0.004	5,300	0.09-0.12	0.004
4	8,000	0.10-0.15	0.005	8,000	0.10-0.15	0.005	5,650	0.10-0.15	0.005	4,000	0.10-0.15	0.005
5	6,400	0.12-0.18	0.006	6,400	0.12-0.18	0.006	4,550	0.12-0.18	0.006	3,300	0.12-0.18	0.006
6	5,300	0.14-0.20	0.007	5,300	0.14-0.20	0.007	3,800	0.14-0.20	0.007	2,750	0.14-0.20	0.007
8	4,000	0.16-0.24	0.008	4,000	0.16-0.24	0.008	2,850	0.16-0.24	0.008	2,100	0.16-0.24	0.008
10	3,200	0.18-0.27	0.009	3,200	0.18-0.27	0.009	2,250	0.18-0.27	0.009	1,700	0.18-0.27	0.009
12	2,650	0.20-0.30	0.010	2,650	0.20-0.30	0.010	1,900	0.20-0.30	0.010	1,400	0.20-0.30	0.010
14	2,300	0.22-0.35	0.011	2,300	0.22-0.35	0.011	1,600	0.22-0.35	0.011	1,200	0.22-0.35	0.011
16	2,000	0.25-0.36	0.012	2,000	0.25-0.36	0.012	1,400	0.25-0.36	0.012	1,050	0.25-0.36	0.012
18	1,800	0.28-0.38	0.013	1,800	0.28-0.38	0.013	1,250	0.28-0.38	0.013	920	0.28-0.38	0.013
20	1,600	0.30-0.40	0.014	1,600	0.30-0.40	0.014	1,150	0.30-0.40	0.014	850	0.30-0.40	0.014
Work Material	Hardened Steels 43 ~ 48 HRc			Hardened Steels 48 ~ 53 HRc			Cast Iron 250 ~ 350 N/mm2			Cast Iron-Ductile 400 ~ 500 N/mm2		
Drilling Speed (V)	32~45m/min			25~36m/min			80~125m/min			63~90m/min		
Cutting Diameter (metric)	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)
2	6,000	0.05-0.07	0.002	4,500	0.03-0.06	0.002	15,000	0.06-0.08	0.003	11,000	0.06-0.08	0.003
3	4,000	0.07-0.11	0.004	3,200	0.05-0.09	0.003	10,000	0.09-0.12	0.004	7,600	0.09-0.12	0.004
4	3,000	0.08-0.13	0.004	2,600	0.06-0.10	0.003	8,000	0.10-0.15	0.005	6,000	0.10-0.15	0.005
5	2,400	0.10-0.15	0.005	2,000	0.08-0.12	0.004	6,400	0.12-0.18	0.006	4,800	0.12-0.18	0.006
6	2,000	0.12-0.18	0.006	1,700	0.09-0.15	0.005	5,300	0.14-0.20	0.007	4,000	0.14-0.20	0.007
8	1,500	0.14-0.22	0.007	1,300	0.12-0.20	0.006	4,000	0.16-0.24	0.008	3,000	0.16-0.24	0.008
10	1,200	0.15-0.25	0.008	1,000	0.13-0.23	0.007	3,200	0.18-0.27	0.009	2,400	0.18-0.27	0.009
12	1,000	0.17-0.26	0.008	850	0.14-0.24	0.007	2,700	0.20-0.30	0.010	2,000	0.20-0.30	0.010
14	860	0.18-0.30	0.009	730	0.15-0.26	0.008	2,300	0.22-0.35	0.011	1,700	0.22-0.35	0.011
16	760	0.20-0.32	0.010	640	0.16-0.26	0.008	2,000	0.25-0.36	0.012	1,500	0.25-0.36	0.012
18	670	0.23-0.33	0.011	570	0.18-0.28	0.009	1,800	0.28-0.38	0.013	1,350	0.28-0.38	0.013
20	600	0.25-0.35	0.012	500	0.20-0.30	0.010	1,600	0.30-0.40	0.014	1,200	0.30-0.40	0.014

**HPI, SF SERIES (HPI DRILL SHOWN)**

**General Features**

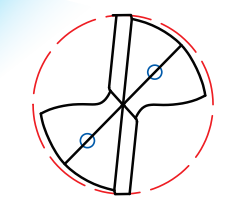
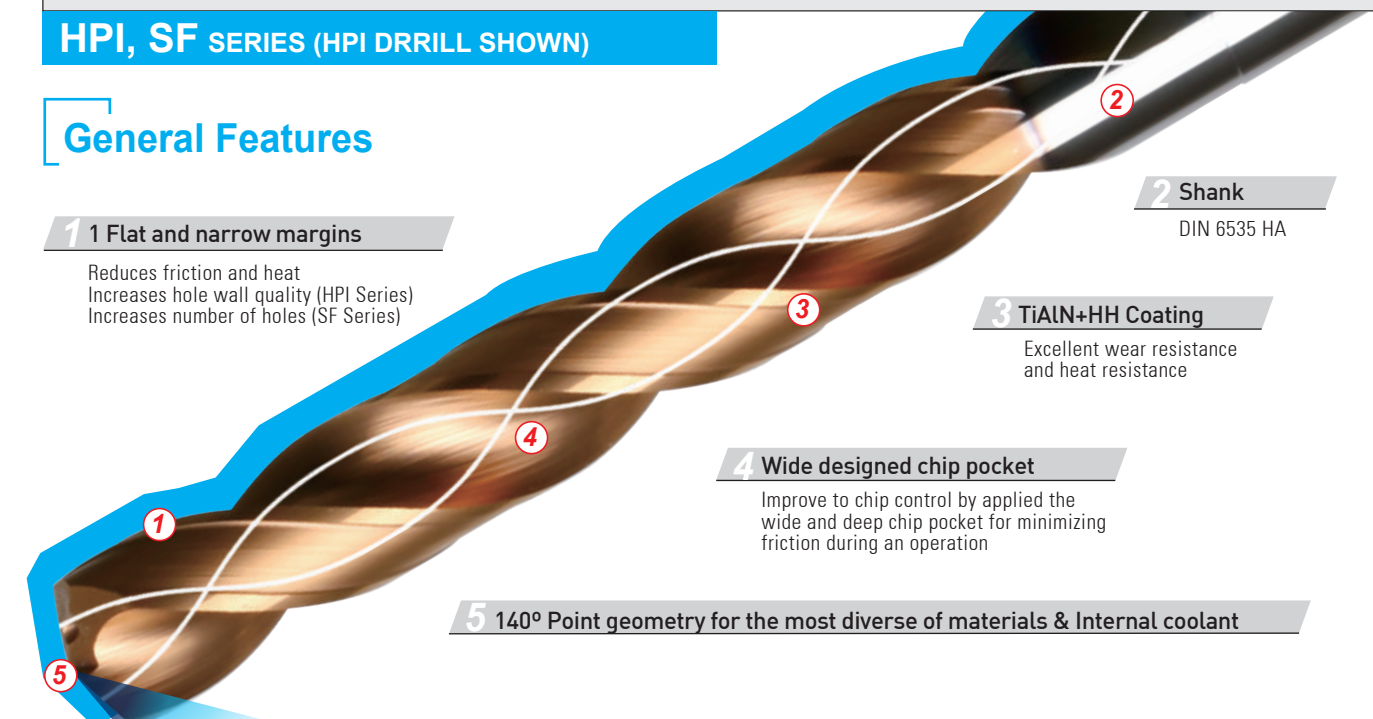
**1 Flat and narrow margins**  
Reduces friction and heat  
Increases hole wall quality (HPI Series)  
Increases number of holes (SF Series)

**2 Shank**  
DIN 6535 HA

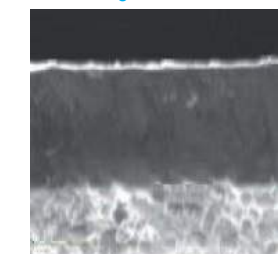
**3 TiAlN+HH Coating**  
Excellent wear resistance  
and heat resistance

**4 Wide designed chip pocket**  
Improve to chip control by applied the wide and deep chip pocket for minimizing friction during an operation

**5 140° Point geometry for the most diverse of materials & Internal coolant**



▼ Coating Structure



TiSiN coating layer, Improves heat-resistance from friction condition  
TiAlSiN coating multilayer, Improves high wear resistance and oxidation resistance.  
Substrate

**Advantages**

- Flute design for superior chip evacuation
- Applied special thinning to minimize cutting resistance
- Wide product line from 3xD to 20xD
- Tool life improvement & Suitable for high speed application with up to date coating
- Realize precision hole tolerance
- Adoped double margin to minimize vibration and chattering
- Stable materials and latest coating provides improved heat resistance and wear resistance at increased speeds

**Specification Line-up**

※ Various choices as per aspect ratio



**HPI Series - Internal Coolant**

- HPI503 - Possible to drill to 3XD ▶ Ø3 ~ Ø20
- HPI505 - Possible to drill to 5XD ▶ Ø3 ~ Ø20
- HPI508 - Possible to drill to 8XD ▶ Ø3 ~ Ø20



**SF Series - Internal Coolant**

- SF503 - Possible to drill to 3XD ▶ Ø3 ~ Ø20
- SF505 - Possible to drill to 5XD ▶ Ø3.1 ~ Ø20
- SF510 - Possible to drill to 10XD ▶ Ø3 ~ Ø13
- SF520 - Possible to drill to 20XD ▶ Ø3.97 ~ Ø10

INCH

METRIC

Power max Drill Series

Power Drill Series

Solid Spiral Drill Series

Centering Tools

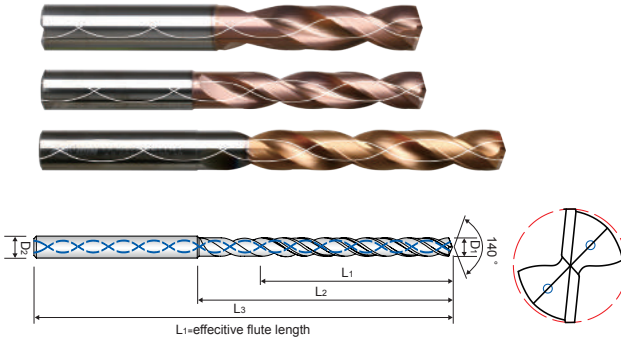


## HPI503, HPI505, HPI508N SERIES

>>Continue

3xD, 5xD & 8xD

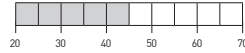
DRILLS / 2 FLUTES / 3xD, 5xD & 8xD / INTERNAL COOLANT / DOUBLE MARGIN / TiAlN-HH COATING



TOLERANCE (Metric)

D1 = +0.016 / 0.004 (D1 ≤ 6)  
D1 = +0.021 / 0.006 (D1 = 6.1 to 10)  
D1 = +0.025 / 0.007 (D1 = 10.1 to 18)  
D1 = +0.029 / 0.008 (D1 > 18)  
D2 = h6

HARDNESS (HRC)

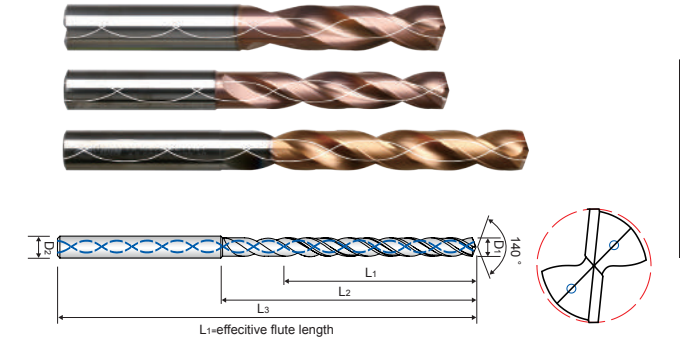


## HPI503, HPI505, HPI508N SERIES

>>Continue

3xD, 5xD & 8xD

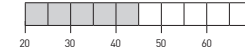
DRILLS / 2 FLUTES / 3xD, 5xD & 8xD / INTERNAL COOLANT / DOUBLE MARGIN / TiAlN-HH COATING



TOLERANCE (Metric)

D1 = +0.016 / 0.004 (D1 ≤ 6)  
D1 = +0.021 / 0.006 (D1 = 6.1 to 10)  
D1 = +0.025 / 0.007 (D1 = 10.1 to 18)  
D1 = +0.029 / 0.008 (D1 > 18)  
D2 = h6

HARDNESS (HRC)



EDP NO.			Cutting Diameter	Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter		
2 Flute									
TiAlN-HH Helix 30°									
3xD	5xD	8xD	D1			L1	L2	L3	D2
HPI503	HPI505	HPI508N	Decimal	Fraction	Metric				
HPI503030	-	-	.1181"	-	3	14	20	62	6
-	HPI505030	-	.1181"	-	3	24	30	66	6
-	-	HPI508030N	.1181"	-	3	37	43	80	6
HPI503031	-	-	.1220"	-	3.1	14	20	62	6
-	HPI505031	-	.1220"	-	3.1	24	30	66	6
-	-	HPI508031N	.1220"	-	3.1	37	43	80	6
HPI50303175	-	-	.1250"	1/8"	3.175	14	20	62	6
-	HPI50503175	-	.1250"	1/8"	3.175	24	30	66	6
-	-	HPI50803175N	.1250"	1/8"	3.175	37	43	80	6
HPI503032	-	-	.1260"	-	3.2	14	20	62	6
-	HPI505032	-	.1260"	-	3.2	24	30	66	6
-	-	HPI508032N	.1260"	-	3.2	37	43	80	6
HPI50303264	-	-	.1285"	#30	3.264	14	20	62	6
-	HPI50503264	-	.1285"	#30	3.264	24	30	66	6
-	-	HPI50803264N	.1285"	#30	3.264	37	43	80	6
HPI503033	-	-	.1299"	-	3.3	14	20	62	6
-	HPI505033	-	.1299"	-	3.3	24	30	66	6
-	-	HPI508033N	.1299"	-	3.3	37	43	80	6
HPI503034	-	-	.1339"	-	3.4	14	20	62	6
-	HPI505034	-	.1339"	-	3.4	24	30	66	6
-	-	HPI508034N	.1339"	-	3.4	37	43	80	6
HPI503035	-	-	.1378"	-	3.5	14	20	62	6
-	HPI505035	-	.1378"	-	3.5	24	30	66	6
-	-	HPI508035N	.1378"	-	3.5	37	43	80	6
HPI50303572	-	-	.1406"	9/64"	3.572	14	20	62	6
-	HPI50503572	-	.1406"	9/64"	3.572	24	30	66	6
-	-	HPI50803572N	.1406"	9/64"	3.572	37	43	80	6
HPI503036	-	-	.1417"	-	3.6	14	20	62	6
-	HPI505036	-	.1417"	-	3.6	24	30	66	6
-	-	HPI508036N	.1417"	-	3.6	37	43	80	6
HPI503037	-	-	.1457"	-	3.7	14	20	62	6
-	HPI505037	-	.1457"	-	3.7	24	30	66	6
-	-	HPI508037N	.1457"	-	3.7	37	43	80	6
HPI503038	-	-	.1496"	-	3.8	17	24	66	6
-	HPI505038	-	.1496"	-	3.8	29	36	74	6
-	-	HPI508038N	.1496"	-	3.8	41	49	87	6

Applicable Working Material

○:GOOD ◎:BEST

SERIES	CARBON STEELS LOW (100-170)	CARBON STEELS MED (170-200)	CARBON STEELS HIGH (200)	ALLOY STEELS (40-60)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

EDP NO.			Cutting Diameter	Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter		
2 Flute									
TiAlN-HH Helix 30°									
3xD	5xD	8xD	D1			L1	L2	L3	D2
HPI503	HPI505	HPI508N	Decimal	Fraction	Metric				
HPI503039	-	-	.1535"	-	3.9	17	24	66	6
-	HPI505039	-	.1535"	-	3.9	29	36	74	6
-	-	HPI508039N	.1535"	-	3.9	41	49	87	6
HPI5030397	-	-	.1563"	5/32"	3.97	17	24	66	6
-	HPI5050397	-	.1563"	5/32"	3.97	29	36	74	6
-	-	HPI5080397N	.1563"	5/32"	3.97	41	49	87	6
HPI503040	-	-	.1575"	-	4	17	24	66	6
-	HPI505040	-	.1575"	-	4	29	36	74	6
-	-	HPI508040N	.1575"	-	4	41	49	87	6
HPI50304039	-	-	.1590"	#21	4.039	17	24	66	6
-	HPI50504039	-	.1590"	#21	4.039	29	36	74	6
-	-	HPI50804039N	.1590"	#21	4.039	41	49	87	6
HPI503041	-	-	.1614"	-	4.1	17	24	66	6
-	HPI505041	-	.1614"	-	4.1	29	36	74	6
-	-	HPI508041N	.1614"	-	4.1	41	49	87	6
HPI503042	-	-	.1654"	-	4.2	17	24	66	6
-	HPI505042	-	.1654"	-	4.2	29	36	74	6
-	-	HPI508042N	.1654"	-	4.2	41	49	87	6
HPI503043	-	-	.1693"	-	4.3	17	24	66	6
-	HPI505043	-	.1693"	-	4.3	29	36	74	6
-	-	HPI508043N	.1693"	-	4.3	41	49	87	6
HPI50304366	-	-	.1719"	11/64"	4.336	17	24	66	6
-	HPI5050404366	-	.1719"	11/64"	4.336	29	36	74	6
-	-	HPI50804366N	.1719"	11/64"	4.336	41	49	87	6
HPI503044	-	-	.1732"	-	4.4	17	24	66	6
-	HPI505044	-	.1732"	-	4.4	29	36	74	6
-	-	HPI508044N	.1732"	-	4.4	41	49	87	6
HPI503045	-	-	.1772"	-	4.5	17	24	66	6
-	HPI505045	-	.1772"	-	4.5	29	36	74	6
-	-	HPI508045N	.1772"	-	4.5	41	49	87	6
HPI5030458	-	-	.1803"	-	4.58	17	24	66	6
-	HPI5050458	-	.1803"	-	4.58	29	36	74	6
-	-	HPI5080458N	.1803"	-	4.58	41	49	87	6
HPI503046	-	-	.1811"	-	4.6	17	24	66	6
-	HPI505046	-	.1811"	-	4.6	29	36	74	6
-	-	HPI508046N	.1811"	-	4.6	41	49	87	6
-	HPI50504623	-	.1820"	-	4.623	29	36	74	6
HPI503047	-	-	.1850"	-	4.7	17	24	66	6
-	HPI505047	-	.1850"	-	4.7	29	36	74	6

Applicable Working Material

○:GOOD ◎:BEST

SERIES	CARBON STEELS LOW (100-170)	CARBON STEELS MED (170-200)	CARBON STEELS HIGH (200)	ALLOY STEELS (40-60)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○





**HPI503, HPI505, HPI508N SERIES**

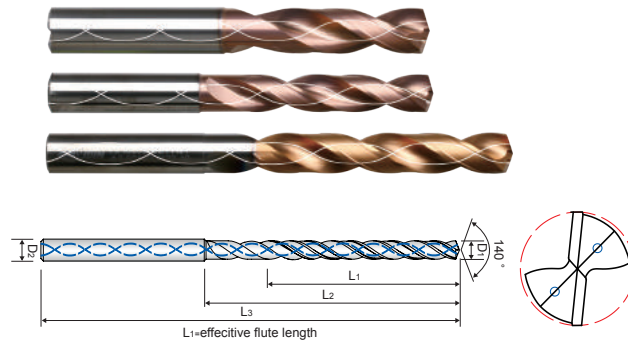
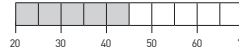
3xD, 5xD & 8xD

DRILLS / 2 FLUTES / 3xD, 5xD & 8xD / INTERNAL COOLANT / DOUBLE MARGIN / TiAlN-HH COATING

**TOLERANCE (Metric)**

D1 = +0.016 / 0.004 (D1 ≤ 6)  
D1 = +0.021 / 0.006 (D1 = 6.1 to 10)  
D1 = +0.025 / 0.007 (D1 = 10.1 to 18)  
D1 = +0.029 / 0.008 (D1 > 18)  
D2 = h6

**HARDNESS (HRC)**



>>Continue

EDP NO.			Cutting Diameter	Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter		
2 Flute									
TiAlN-HH									
Helix 30°									
3xD	5xD	8xD	D1			L1	L2	L3	D2
HPI503	HPI505	HPI508N	Decimal	Fraction	Metric				
		<a href="#">HPI508047N</a>	.1850"	-	4.7	41	49	87	6
<a href="#">HPI50304763</a>		-	.1875"	3/16"	4.763	20	28	66	6
	<a href="#">HPI50504763</a>	-	.1875"	3/16"	4.763	35	44	82	6
		<a href="#">HPI50804763N</a>	.1875"	3/16"	4.763	48	56	94	6
<a href="#">HPI503048</a>		-	.1890"	-	4.8	20	28	66	6
	<a href="#">HPI505048</a>	-	.1890"	-	4.8	35	44	82	6
		<a href="#">HPI508048N</a>	.1890"	-	4.8	48	56	94	6
<a href="#">HPI503049</a>		-	.1929"	-	4.9	20	28	66	6
	<a href="#">HPI505049</a>	-	.1929"	-	4.9	35	44	82	6
		<a href="#">HPI508049N</a>	.1929"	-	4.9	48	56	94	6
<a href="#">HPI503050</a>		-	.1969"	-	5	20	28	66	6
	<a href="#">HPI505050</a>	-	.1969"	-	5	35	44	82	6
		<a href="#">HPI508050N</a>	.1969"	-	5	48	56	94	6
<a href="#">HPI503051</a>		-	.2008"	-	5.1	20	28	66	6
	<a href="#">HPI505051</a>	-	.2008"	-	5.1	35	44	82	6
		<a href="#">HPI508051N</a>	.2008"	-	5.1	48	56	94	6
<a href="#">HPI50305159</a>		-	.2031"	13/64"	5.159	20	28	66	6
	<a href="#">HPI50505159</a>	-	.2031"	13/64"	5.159	35	44	82	6
		<a href="#">HPI50805159N</a>	.2031"	13/64"	5.159	48	56	94	6
<a href="#">HPI503052</a>		-	.2047"	-	5.2	20	28	66	6
	<a href="#">HPI505052</a>	-	.2047"	-	5.2	35	44	82	6
		<a href="#">HPI508052N</a>	.2047"	-	5.2	48	56	94	6
<a href="#">HPI503053</a>		-	.2087"	-	5.3	20	28	66	6
	<a href="#">HPI505053</a>	-	.2087"	-	5.3	35	44	82	6
		<a href="#">HPI508053N</a>	.2087"	-	5.3	48	56	94	6
<a href="#">HPI503054</a>		-	.2126"	-	5.4	20	28	66	6
	<a href="#">HPI505054</a>	-	.2126"	-	5.4	35	44	82	6
		<a href="#">HPI508054N</a>	.2126"	-	5.4	48	56	94	6
	<a href="#">HPI5050541</a>	-	.2130"	-	5.41	35	44	82	6
<a href="#">HPI503055</a>		-	.2165"	-	5.5	20	28	66	6
	<a href="#">HPI505055</a>	-	.2165"	-	5.5	35	44	82	6
		<a href="#">HPI508055N</a>	.2165"	-	5.5	48	56	94	6
<a href="#">HPI50305558</a>		-	.2188"	7/32"	5.558	20	28	66	6
	<a href="#">HPI50505558</a>	-	.2188"	7/32"	5.558	35	44	82	6
		<a href="#">HPI50805558N</a>	.2188"	7/32"	5.558	48	56	94	6
<a href="#">HPI503056</a>		-	.2205"	-	5.6	20	28	66	6

Applicable Working Material

ALL	CARBON STEELS LOW (100-170)	CARBON STEELS MED (170-200)	CARBON STEELS HIGH (200)	ALLOY STEELS (4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST



**HPI503, HPI505, HPI508N SERIES**

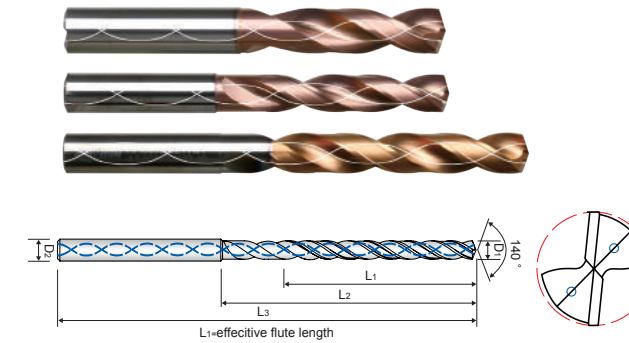
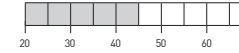
3xD, 5xD & 8xD

DRILLS / 2 FLUTES / 3xD, 5xD & 8xD / INTERNAL COOLANT / DOUBLE MARGIN / TiAlN-HH COATING

**TOLERANCE (Metric)**

D1 = +0.016 / 0.004 (D1 ≤ 6)  
D1 = +0.021 / 0.006 (D1 = 6.1 to 10)  
D1 = +0.025 / 0.007 (D1 = 10.1 to 18)  
D1 = +0.029 / 0.008 (D1 > 18)  
D2 = h6

**HARDNESS (HRC)**



>>Continue

EDP NO.			Cutting Diameter	Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter		
2 Flute									
TiAlN-HH									
Helix 30°									
3xD	5xD	8xD	D1			L1	L2	L3	D2
HPI503	HPI505	HPI508N	Decimal	Fraction	Metric				
		-	.2205"	-	5.6	35	44	82	6
	<a href="#">HPI505056</a>	-	.2205"	-	5.6	48	56	94	6
<a href="#">HPI503057</a>		<a href="#">HPI508056N</a>	.2205"	-	5.6	20	28	66	6
	<a href="#">HPI505057</a>	-	.2244"	-	5.7	35	44	82	6
		<a href="#">HPI508057N</a>	.2244"	-	5.7	48	56	94	6
<a href="#">HPI503058</a>		-	.2283"	-	5.8	20	28	66	6
	<a href="#">HPI505058</a>	-	.2283"	-	5.8	35	44	82	6
		<a href="#">HPI508058N</a>	.2283"	-	5.8	48	56	94	6
<a href="#">HPI503059</a>		-	.2323"	-	5.9	20	28	66	6
	<a href="#">HPI505059</a>	-	.2323"	-	5.9	35	44	82	6
		<a href="#">HPI508059N</a>	.2323"	-	5.9	48	56	94	6
<a href="#">HPI50305953</a>		-	.2344"	15/64"	5.953	20	28	66	6
	<a href="#">HPI50505953</a>	-	.2344"	15/64"	5.953	35	44	82	6
		<a href="#">HPI50805953N</a>	.2344"	15/64"	5.953	48	56	94	6
<a href="#">HPI503060</a>		-	.2362"	-	6	20	28	66	6
	<a href="#">HPI505060</a>	-	.2362"	-	6	35	44	82	6
		<a href="#">HPI508060N</a>	.2362"	-	6	48	56	94	6
<a href="#">HPI503061</a>		-	.2402"	-	6.1	24	34	79	8
	<a href="#">HPI505061</a>	-	.2402"	-	6.1	43	53	91	8
		<a href="#">HPI508061N</a>	.2402"	-	6.1	57	67	105	8
<a href="#">HPI503062</a>		-	.2441"	-	6.2	24	34	79	8
	<a href="#">HPI505062</a>	-	.2441"	-	6.2	43	53	91	8
		<a href="#">HPI508062N</a>	.2441"	-	6.2	57	67	105	8
<a href="#">HPI503063</a>		-	.2480"	-	6.3	24	34	79	8
	<a href="#">HPI505063</a>	-	.2480"	-	6.3	43	53	91	8
		<a href="#">HPI508063N</a>	.2480"	-	6.3	57	67	105	8
<a href="#">HPI5030635</a>		-	.2500"	1/4"	6.35	24	34	79	8
	<a href="#">HPI5050635</a>	-	.2500"	1/4"	6.35	43	53	91	8
		<a href="#">HPI5080635N</a>	.2500"	1/4"	6.35	57	67	105	8
<a href="#">HPI503064</a>		-	.2520"	-	6.4	24	34	79	8
	<a href="#">HPI505064</a>	-	.2520"	-	6.4	43	53	91	8
		<a href="#">HPI508064N</a>	.2520"	-	6.4	57	67	105	8
<a href="#">HPI503065</a>		-	.2559"	-	6.5	24	34	79	8
	<a href="#">HPI505065</a>	-	.2559"	-	6.5	43	53	91	8
		<a href="#">HPI508065N</a>	.2559"	-	6.5	57	67	105	8
	<a href="#">HPI50506528</a>	-	.2570"	F	6.528	43	53	91	8

Applicable Working Material

ALL	CARBON STEELS LOW (100-170)	CARBON STEELS MED (170-200)	CARBON STEELS HIGH (200)	ALLOY STEELS (4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST



**HPI503, HPI505, HPI508N SERIES**

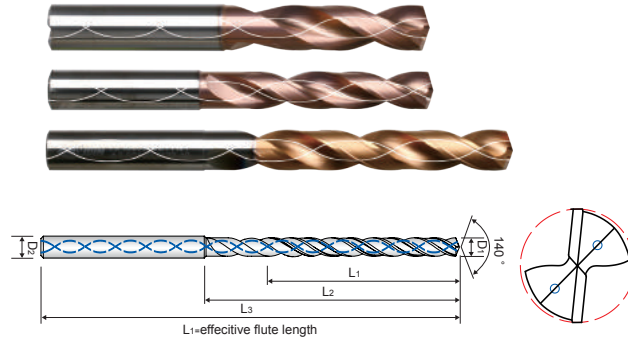
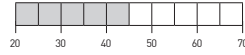
3xD, 5xD & 8xD

DRILLS / 2 FLUTES / 3xD, 5xD & 8xD / INTERNAL COOLANT / DOUBLE MARGIN / TiAlN-HH COATING

**TOLERANCE (Metric)**

D1 = +0.016 / 0.004 (D1 ≤ 6)  
D1 = +0.021 / 0.006 (D1 = 6.1 to 10)  
D1 = +0.025 / 0.007 (D1 = 10.1 to 18)  
D1 = +0.029 / 0.008 (D1 > 18)  
D2 = h6

**HARDNESS (HRC)**



>>Continue

EDP NO.			Cutting Diameter	Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter		
2 Flute									
TiAlN-HH									
Helix 30°									
3xD	5xD	8xD	D1			L1	L2	L3	D2
HPI503	HPI505	HPI508N	Decimal	Fraction	Metric				
HPI503066		-	.2598"	-	6.6	24	34	79	8
	HPI505066	-	.2598"	-	6.6	43	53	91	8
		HPI508066N	.2598"	-	6.6	57	67	105	8
HPI503067		-	.2638"	-	6.7	24	34	79	8
	HPI505067	-	.2638"	-	6.7	43	53	91	8
		HPI508067N	.2638"	-	6.7	57	67	105	8
HPI50306747		-	.2656"	17/64"	6.747	24	34	79	8
	HPI50506747	-	.2656"	17/64"	6.747	43	53	91	8
		HPI50806747N	.2656"	17/64"	6.747	57	67	105	8
HPI503068		-	.2677"	-	6.8	24	34	79	8
	HPI505068	-	.2677"	-	6.8	43	53	91	8
		HPI508068N	.2677"	-	6.8	57	67	105	8
HPI503069		-	.2717"	-	6.9	24	34	79	8
	HPI505069	-	.2717"	-	6.9	43	53	91	8
		HPI508069N	.2717"	-	6.9	57	67	105	8
	HPI50506909	-	.2720"	1	6.909	43	53	91	8
HPI503070		-	.2756"	-	7	24	34	79	8
	HPI505070	-	.2756"	-	7	43	53	91	8
		HPI508070N	.2756"	-	7	65	76	116	8
HPI503071		-	.2795"	-	7.1	29	41	79	8
	HPI505071	-	.2795"	-	7.1	43	53	91	8
		HPI508071N	.2795"	-	7.1	65	76	116	8
HPI50307145		-	.2813"	9/32"	7.145	29	41	79	8
	HPI50507145	-	.2813"	9/32"	7.145	43	53	91	8
		HPI50807145N	.2813"	9/32"	7.145	65	76	116	8
HPI503072		-	.2835"	-	7.2	29	41	79	8
	HPI505072	-	.2835"	-	7.2	43	53	91	8
		HPI508072N	.2835"	-	7.2	65	76	116	8
HPI503073		-	.2874"	-	7.3	29	41	79	8
	HPI505073	-	.2874"	-	7.3	43	53	91	8
		HPI508073N	.2874"	-	7.3	65	76	116	8
HPI503074		-	.2913"	-	7.4	29	41	79	8
	HPI505074	-	.2913"	-	7.4	43	53	91	8
		HPI508074N	.2913"	-	7.4	65	76	116	8
HPI503075		-	.2953"	-	7.5	29	41	79	8
	HPI505075	-	.2953"	-	7.5	43	53	91	8

**Applicable Working Material**

ALL	CARBON STEELS LOW (100-170)	CARBON STEELS MED (170-200)	CARBON STEELS HIGH (200)	ALLOY STEELS (4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST



**HPI503, HPI505, HPI508N SERIES**

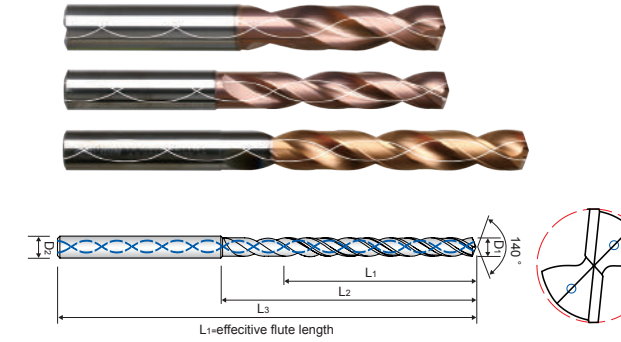
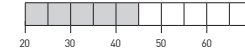
3xD, 5xD & 8xD

DRILLS / 2 FLUTES / 3xD, 5xD & 8xD / INTERNAL COOLANT / DOUBLE MARGIN / TiAlN-HH COATING

**TOLERANCE (Metric)**

D1 = +0.016 / 0.004 (D1 ≤ 6)  
D1 = +0.021 / 0.006 (D1 = 6.1 to 10)  
D1 = +0.025 / 0.007 (D1 = 10.1 to 18)  
D1 = +0.029 / 0.008 (D1 > 18)  
D2 = h6

**HARDNESS (HRC)**



>>Continue

EDP NO.			Cutting Diameter	Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter		
2 Flute									
TiAlN-HH									
Helix 30°									
3xD	5xD	8xD	D1			L1	L2	L3	D2
HPI503	HPI505	HPI508N	Decimal	Fraction	Metric				
		HPI508075N	.2953"	-	7.5	65	76	116	8
HPI50307541		-	.2969"	19/64"	7.541	29	41	79	8
	HPI50507541	-	.2969"	19/64"	7.541	43	53	91	8
		HPI50807541N	.2969"	19/64"	7.541	65	76	116	8
HPI503076		-	.2992"	-	7.6	29	41	79	8
	HPI505076	-	.2992"	-	7.6	43	53	91	8
		HPI508076N	.2992"	-	7.6	65	76	116	8
HPI503077		-	.3031"	-	7.7	29	41	79	8
	HPI505077	-	.3031"	-	7.7	43	53	91	8
		HPI508077N	.3031"	-	7.7	65	76	116	8
HPI503078		-	.3071"	-	7.8	29	41	79	8
	HPI505078	-	.3071"	-	7.8	43	53	91	8
		HPI508078N	.3071"	-	7.8	65	76	116	8
HPI503079		-	.3110"	"	7.9	29	41	79	8
	HPI505079	-	.3110"	"	7.9	43	53	91	8
		HPI508079N	.3110"	"	7.9	65	76	116	8
HPI50307938		-	.3125"	5/16"	7.938	29	41	79	8
	HPI50507938	-	.3125"	5/16"	7.938	43	53	91	8
		HPI50807938N	.3125"	5/16"	7.938	65	76	116	8
HPI503080		-	.3150"	-	8	29	41	79	8
	HPI505080	-	.3150"	-	8	43	53	91	8
		HPI508080N	.3150"	-	8	65	76	116	8
HPI503081		-	.3189"	-	8.1	35	47	89	10
	HPI505081	-	.3189"	-	8.1	49	61	103	10
		HPI508081N	.3189"	-	8.1	74	87	131	10
HPI503082		-	.3228"	-	8.2	35	47	89	10
	HPI505082	-	.3228"	-	8.2	49	61	103	10
		HPI508082N	.3228"	-	8.2	74	87	131	10
HPI503083		-	.3268"	-	8.3	35	47	89	10
	HPI505083	-	.3268"	-	8.3	49	61	103	10
		HPI508083N	.3268"	-	8.3	74	87	131	10
HPI50308334		-	.3281"	21/64"	8.334	35	47	89	10
	HPI50508334	-	.3281"	21/64"	8.334	49	61	103	10
		HPI50808334N	.3281"	21/64"	8.334	74	87	131	10
HPI503084		-	.3307"	-	8.4	35	47	89	10
	HPI505084	-	.3307"	-	8.4	49	61	103	10

**Applicable Working Material**

ALL	CARBON STEELS LOW (100-170)	CARBON STEELS MED (170-200)	CARBON STEELS HIGH (200)	ALLOY STEELS (4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

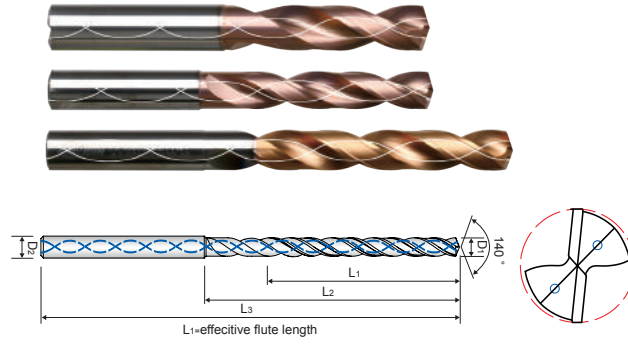
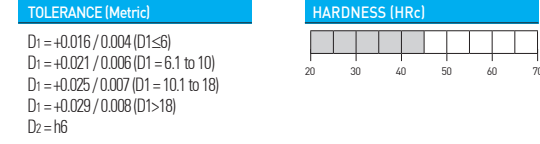
○:GOOD ◎:BEST



**HPI503, HPI505, HPI508N SERIES**

3xD, 5xD & 8xD

DRILLS / 2 FLUTES / 3xD, 5xD & 8xD / INTERNAL COOLANT / DOUBLE MARGIN / TiAlN-HH COATING



>>Continue

EDP NO.			Cutting Diameter		Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter	
2 Flute			D1						
TiAlN-HH					L1	L2	L3	D2	
Helix 30°									
3xD	5xD	8xD	Decimal	Fraction	Metric				
HPI503	HPI505	HPI508N	.3307"	-	8.4	74	87	131	10
	HPI50508433	-	.3320"	0	8.433	49	61	103	10
HPI503085	HPI505085	-	.3346"	-	8.5	35	47	89	10
	HPI505085N	-	.3346"	-	8.5	49	61	103	10
HPI503086	HPI505086	HPI508085N	.3346"	-	8.5	74	87	131	10
	HPI505086	-	.3386"	-	8.6	35	47	89	10
	HPI505086	-	.3386"	-	8.6	49	61	103	10
HPI503087	HPI505087	HPI508086N	.3386"	-	8.6	74	87	131	10
	HPI505087	-	.3425"	-	8.7	35	47	89	10
	HPI505087	-	.3425"	-	8.7	49	61	103	10
HPI50308733	HPI50508733	HPI508087N	.3425"	-	8.7	74	87	131	10
	HPI50508733	-	.3438"	11/32"	8.733	35	47	89	10
	HPI50508733	-	.3438"	11/32"	8.733	49	61	103	10
HPI503088	HPI505088	HPI50808733N	.3438"	11/32"	8.733	74	87	131	10
	HPI505088	-	.3465"	-	8.8	35	47	89	10
	HPI505088	-	.3465"	-	8.8	49	61	103	10
HPI503089	HPI505089	HPI508088N	.3465"	-	8.8	74	87	131	10
	HPI505089	-	.3504"	-	8.9	35	47	89	10
	HPI505089	-	.3504"	-	8.9	49	61	103	10
HPI503090	HPI505090	HPI508089N	.3504"	-	8.9	74	87	131	10
	HPI505090	-	.3543"	-	9	35	47	89	10
	HPI505090	-	.3543"	-	9	49	61	103	10
HPI503091	HPI505091	HPI508090N	.3543"	-	9	74	87	131	10
	HPI505091	-	.3583"	-	9.1	35	47	89	10
	HPI505091	-	.3583"	-	9.1	49	61	103	10
HPI50309129	HPI50509129	HPI508091N	.3583"	-	9.1	81	95	139	10
	HPI50509129	-	.3594"	23/64"	9.129	35	47	89	10
	HPI50509129	-	.3594"	23/64"	9.129	49	61	103	10
HPI503092	HPI505092	HPI50809129N	.3594"	23/64"	9.129	81	95	139	10
	HPI505092	-	.3622"	-	9.2	35	47	89	10
	HPI505092	-	.3622"	-	9.2	49	61	103	10
HPI503093	HPI505093	HPI508092N	.3622"	-	9.2	81	95	139	10
	HPI505093	-	.3661"	-	9.3	35	47	89	10
	HPI505093	-	.3661"	-	9.3	49	61	103	10
HPI50309347	HPI50509347	HPI508093N	.3661"	-	9.3	81	95	139	10
	HPI50509347	-	.3680"	U	9.347	49	61	103	10

Applicable Working Material

ALL	CARBON STEELS LOW	CARBON STEELS MED	CARBON STEELS HIGH	ALLOY STEELS	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

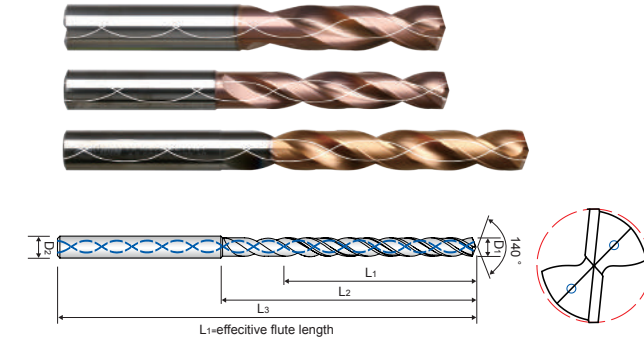
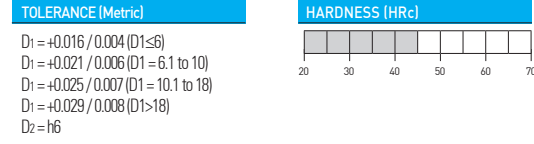
○:GOOD ◎:BEST



**HPI503, HPI505, HPI508N SERIES**

3xD, 5xD & 8xD

DRILLS / 2 FLUTES / 3xD, 5xD & 8xD / INTERNAL COOLANT / DOUBLE MARGIN / TiAlN-HH COATING



>>Continue

EDP NO.			Cutting Diameter		Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter	
2 Flute			D1						
TiAlN-HH					L1	L2	L3	D2	
Helix 30°									
3xD	5xD	8xD	Decimal	Fraction	Metric				
HPI503094	HPI505094	HPI508094N	.3701"	-	9.4	35	47	89	10
	HPI505094	-	.3701"	-	9.4	49	61	103	10
HPI503095	HPI505095	HPI508094N	.3701"	-	9.4	81	95	139	10
	HPI505095	-	.3740"	-	9.5	35	47	89	10
	HPI505095	-	.3740"	-	9.5	49	61	103	10
HPI50309525	HPI50509525	HPI508095N	.3740"	-	9.5	81	95	139	10
	HPI50509525	-	.3750"	3/8"	9.525	35	47	89	10
	HPI50509525	-	.3750"	3/8"	9.525	49	61	103	10
HPI503096	HPI505096	HPI50809525N	.3750"	3/8"	9.525	81	95	139	10
	HPI505096	-	.3780"	-	9.6	35	47	89	10
	HPI505096	-	.3780"	-	9.6	49	61	103	10
HPI503097	HPI505097	HPI508096N	.3780"	-	9.6	81	95	139	10
	HPI505097	-	.3819"	-	9.7	35	47	89	10
	HPI505097	-	.3819"	-	9.7	49	61	103	10
HPI503098	HPI50509703	HPI508097N	.3819"	-	9.7	81	95	139	10
	HPI50509746	-	.3820"	-	9.703	49	61	103	10
	HPI50509746	-	.3837"	-	9.746	49	61	103	10
HPI503098	HPI505098	HPI508097N	.3837"	-	9.746	49	61	103	10
	HPI505098	-	.3858"	-	9.8	35	47	89	10
	HPI505098	-	.3858"	-	9.8	49	61	103	10
HPI503099	HPI505099	HPI508098N	.3858"	-	9.8	81	95	139	10
	HPI505099	-	.3858"	-	9.8	35	47	89	10
	HPI505099	-	.3858"	-	9.8	49	61	103	10
HPI50309921	HPI50509921	HPI508099N	.3858"	-	9.8	81	95	139	10
	HPI50509921	-	.3898"	-	9.9	35	47	89	10
	HPI50509921	-	.3898"	-	9.9	49	61	103	10
HPI503100	HPI505100	HPI50809921N	.3898"	-	9.9	81	95	139	10
	HPI505100	-	.3906"	25/64"	9.921	35	47	89	10
	HPI505100	-	.3906"	25/64"	9.921	49	61	103	10
HPI503101	HPI505101	HPI50809921N	.3906"	25/64"	9.921	81	95	139	10
	HPI505101	-	.3937"	-	10	35	47	89	10
	HPI505101	-	.3937"	-	10	49	61	103	10
HPI503102	HPI505102	HPI508100N	.3937"	-	10	81	95	139	10
	HPI505102	-	.3976"	-	10.1	40	55	105	12
	HPI505102	-	.3976"	-	10.1	56	71	118	12
HPI503103	HPI505103	HPI508101N	.3976"	-	10.1	90	106	155	12
	HPI505103	-	.4016"	-	10.2	40	55	105	12
	HPI505103	-	.4016"	-	10.2	56	71	118	12
HPI503103	HPI505103	HPI508102N	.4016"	-	10.2	90	106	155	12
	HPI505103	-	.4055"	-	10.3	40	55	105	12

Applicable Working Material

ALL	CARBON STEELS LOW	CARBON STEELS MED	CARBON STEELS HIGH	ALLOY STEELS	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST



**HPI503, HPI505, HPI508N SERIES**

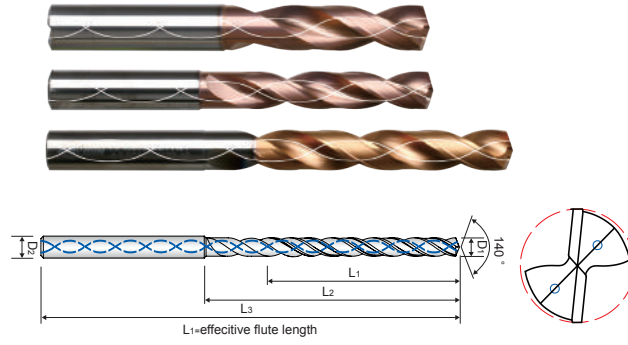
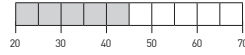
3xD, 5xD & 8xD

DRILLS / 2 FLUTES / 3xD, 5xD & 8xD / INTERNAL COOLANT / DOUBLE MARGIN / TiAlN-HH COATING

**TOLERANCE (Metric)**

D1 = +0.016 / 0.004 (D1 ≤ 6)  
D1 = +0.021 / 0.006 (D1 = 6.1 to 10)  
D1 = +0.025 / 0.007 (D1 = 10.1 to 18)  
D1 = +0.029 / 0.008 (D1 > 18)  
D2 = h6

**HARDNESS (HRc)**



>>Continue

EDP NO.			Cutting Diameter	Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter		
2 Flute									
TiAlN-HH									
Helix 30°									
3xD	5xD	8xD	D1			L1	L2	L3	D2
HPI503	HPI505	HPI508N	Decimal	Fraction	Metric				
	<a href="#">HPI505103</a>	-	.4055"	-	10.3	56	71	118	12
		<a href="#">HPI508103N</a>	.4055"	-	10.3	90	106	155	12
<a href="#">HPI5031032</a>		-	.4063"	13/32"	10.32	40	55	105	12
	<a href="#">HPI5051032</a>	-	.4063"	13/32"	10.32	56	71	118	12
		<a href="#">HPI5081032N</a>	.4063"	13/32"	10.32	90	106	155	12
<a href="#">HPI503104</a>		-	.4094"	-	10.4	40	55	105	12
	<a href="#">HPI505104</a>	-	.4094"	-	10.4	56	71	118	12
		<a href="#">HPI508104N</a>	.4094"	-	10.4	90	106	155	12
<a href="#">HPI503105</a>		-	.4134"	-	10.5	40	55	105	12
	<a href="#">HPI505105</a>	-	.4134"	-	10.5	56	71	118	12
		<a href="#">HPI508105N</a>	.4134"	-	10.5	90	106	155	12
<a href="#">HPI503106</a>		-	.4173"	"	10.6	40	55	105	12
	<a href="#">HPI505106</a>	-	.4173"	"	10.6	56	71	118	12
<a href="#">HPI503107</a>		-	.4213"	-	10.7	40	55	105	12
	<a href="#">HPI505107</a>	-	.4213"	-	10.7	56	71	118	12
		<a href="#">HPI508107N</a>	.4213"	-	10.7	90	106	155	12
<a href="#">HPI50310716</a>		-	.4219"	27/64"	10.716	40	55	105	12
	<a href="#">HPI50510716</a>	-	.4219"	27/64"	10.716	56	71	118	12
		<a href="#">HPI50810716N</a>	.4219"	27/64"	10.716	90	106	155	12
<a href="#">HPI503108</a>		-	.4252"	-	10.8	40	55	105	12
	<a href="#">HPI505108</a>	-	.4252"	-	10.8	56	71	118	12
		<a href="#">HPI508108N</a>	.4252"	-	10.8	90	106	155	12
<a href="#">HPI503109</a>		-	.4291"	-	10.9	40	55	105	12
	<a href="#">HPI505109</a>	-	.4291"	-	10.9	56	71	118	12
		<a href="#">HPI508109N</a>	.4291"	-	10.9	90	106	155	12
<a href="#">HPI503110</a>		-	.4331"	-	11	40	55	105	12
	<a href="#">HPI505110</a>	-	.4331"	-	11	56	71	118	12
		<a href="#">HPI508110N</a>	.4331"	-	11	90	106	155	12
<a href="#">HPI503111</a>		-	.4370"	-	11.1	40	55	105	12
	<a href="#">HPI505111</a>	-	.4370"	-	11.1	56	71	118	12
		<a href="#">HPI508111N</a>	.4370"	-	11.1	97	114	163	12
<a href="#">HPI50311113</a>		-	.4375"	7/16"	11.113	40	55	105	12
	<a href="#">HPI50511113</a>	-	.4375"	7/16"	11.113	56	71	118	12
		<a href="#">HPI50811113N</a>	.4375"	7/16"	11.113	97	114	163	12
<a href="#">HPI503112</a>		-	.4409"	-	11.2	40	55	105	12
	<a href="#">HPI505112</a>	-	.4409"	-	11.2	56	71	118	12

**Applicable Working Material**

Series	Carbon Steels Low (1045, 1048)	Carbon Steels Med (1045, 1048)	Carbon Steels High (1045, 1048)	Alloy Steels (4140, 4340)	Die Steels	Stainless Steels 300	Stainless Steels 400	Stainless Steels 17-4 PH	Cast Iron	Aluminum (6061, 7075)	Aluminum Castings	Nickel Alloys (Inconel)	Titanium (6Al4V)	Hardened Steels 35 HRc	Hardened Steels 35-45 HRc	Hardened Steels 45-50 HRc	Hardened Steels 50-70 HRc	Magnesium	Brass Bronze	Graphite	Cobalt Chrome
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST



**HPI503, HPI505, HPI508N SERIES**

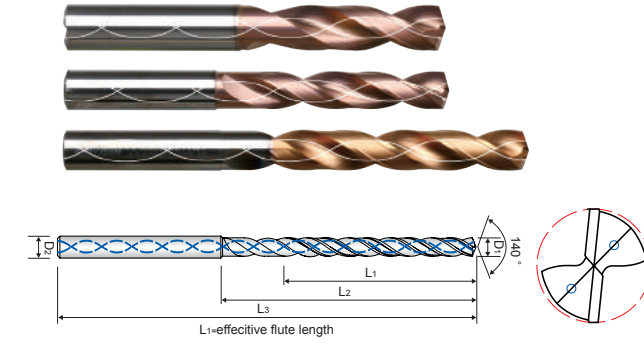
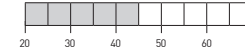
3xD, 5xD & 8xD

DRILLS / 2 FLUTES / 3xD, 5xD & 8xD / INTERNAL COOLANT / DOUBLE MARGIN / TiAlN-HH COATING

**TOLERANCE (Metric)**

D1 = +0.016 / 0.004 (D1 ≤ 6)  
D1 = +0.021 / 0.006 (D1 = 6.1 to 10)  
D1 = +0.025 / 0.007 (D1 = 10.1 to 18)  
D1 = +0.029 / 0.008 (D1 > 18)  
D2 = h6

**HARDNESS (HRc)**



>>Continue

EDP NO.			Cutting Diameter	Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter		
2 Flute									
TiAlN-HH									
Helix 30°									
3xD	5xD	8xD	D1			L1	L2	L3	D2
HPI503	HPI505	HPI508N	Decimal	Fraction	Metric				
		<a href="#">HPI508112N</a>	.4409"	-	11.2	97	114	163	12
<a href="#">HPI503113</a>		-	.4449"	-	11.3	40	55	105	12
	<a href="#">HPI505113</a>	-	.4449"	-	11.3	56	71	118	12
		<a href="#">HPI508113N</a>	.4449"	-	11.3	97	114	163	12
<a href="#">HPI503114</a>		-	.4488"	-	11.4	40	55	105	12
	<a href="#">HPI505114</a>	-	.4488"	-	11.4	56	71	118	12
		<a href="#">HPI508114N</a>	.4488"	-	11.4	97	114	163	12
<a href="#">HPI503115</a>		-	.4528"	-	11.5	40	55	105	12
	<a href="#">HPI505115</a>	-	.4528"	-	11.5	56	71	118	12
		<a href="#">HPI508115N</a>	.4528"	-	11.5	97	114	163	12
<a href="#">HPI50311509</a>		-	.4531"	29/64"	11.509	40	55	105	12
	<a href="#">HPI50511509</a>	-	.4531"	29/64"	11.509	56	71	118	12
		<a href="#">HPI50811509N</a>	.4531"	29/64"	11.509	97	114	163	12
<a href="#">HPI503116</a>		-	.4567"	-	11.6	40	55	105	12
	<a href="#">HPI505116</a>	-	.4567"	-	11.6	56	71	118	12
		<a href="#">HPI508116N</a>	.4567"	-	11.6	97	114	163	12
<a href="#">HPI503117</a>		-	.4606"	-	11.7	40	55	105	12
	<a href="#">HPI505117</a>	-	.4606"	-	11.7	56	71	118	12
		<a href="#">HPI508117N</a>	.4606"	-	11.7	97	114	163	12
<a href="#">HPI503118</a>		-	.4646"	-	11.8	40	55	105	12
	<a href="#">HPI505118</a>	-	.4646"	-	11.8	56	71	118	12
		<a href="#">HPI508118N</a>	.4646"	-	11.8	97	114	163	12
<a href="#">HPI503119</a>		-	.4685"	-	11.9	40	55	105	12
	<a href="#">HPI505119</a>	-	.4685"	-	11.9	56	71	118	12
		<a href="#">HPI508119N</a>	.4685"	-	11.9	97	114	163	12
<a href="#">HPI50311908</a>		-	.4688"	15/32"	11.908	40	55	105	12
	<a href="#">HPI50511908</a>	-	.4688"	15/32"	11.908	56	71	118	12
		<a href="#">HPI50811908N</a>	.4688"	15/32"	11.908	97	114	163	12
<a href="#">HPI503120</a>		-	.4724"	-	12	40	55	105	12
	<a href="#">HPI505120</a>	-	.4724"	-	12	56	71	118	12
		<a href="#">HPI508120N</a>	.4724"	-	12	97	114	163	12
<a href="#">HPI503121</a>		-	.4764"	-	12.1	43	60	107	14
	<a href="#">HPI505121</a>	-	.4764"	-	12.1	60	77	124	14
<a href="#">HPI503122</a>		-	.4803"	-	12.2	43	60	107	14
	<a href="#">HPI505122</a>	-	.4803"	-	12.2	60	77	124	14
<a href="#">HPI503123</a>		-	.4843"	-	12.3	43	60	107	14

**Applicable Working Material**

Series	Carbon Steels Low (1045, 1048)	Carbon Steels Med (1045, 1048)	Carbon Steels High (1045, 1048)	Alloy Steels (4140, 4340)	Die Steels	Stainless Steels 300	Stainless Steels 400	Stainless Steels 17-4 PH	Cast Iron	Aluminum (6061, 7075)	Aluminum Castings	Nickel Alloys (Inconel)	Titanium (6Al4V)	Hardened Steels 35 HRc	Hardened Steels 35-45 HRc	Hardened Steels 45-50 HRc	Hardened Steels 50-70 HRc	Magnesium	Brass Bronze	Graphite	Cobalt Chrome
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST



**HPI503, HPI505, HPI508N SERIES**

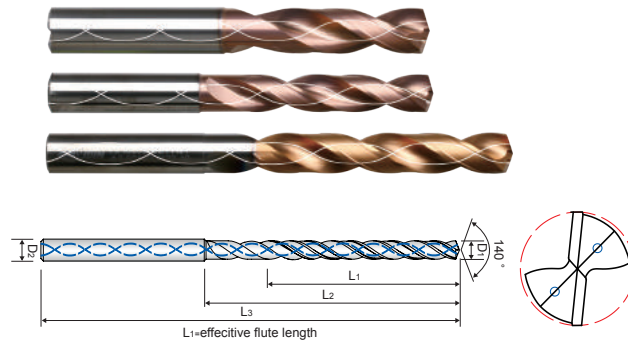
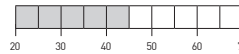
3xD, 5xD & 8xD

DRILLS / 2 FLUTES / 3xD, 5xD & 8xD / INTERNAL COOLANT / DOUBLE MARGIN / TiAlN-HH COATING

TOLERANCE (Metric)

D1 = +0.016 / 0.004 (D1 ≤ 6)  
D1 = +0.021 / 0.006 (D1 = 6.1 to 10)  
D1 = +0.025 / 0.007 (D1 = 10.1 to 18)  
D1 = +0.029 / 0.008 (D1 > 18)  
D2 = h6

HARDNESS (HRc)



>>Continue

EDP NO.			Cutting Diameter	Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter		
2 Flute									
TiAlN-HH									
Helix 30°									
3xD	5xD	8xD	D1			L1	L2	L3	D2
HPI503	HPI505	HPI508N	Decimal	Fraction	Metric				
	<a href="#">HPI505123</a>	-	.4843"	-	12.3	60	77	124	14
<a href="#">HPI50312304</a>		-	.4844"	31/64"	12.304	43	60	107	14
	<a href="#">HPI50512304</a>	-	.4844"	31/64"	12.304	60	77	124	14
		<a href="#">HPI50812304N</a>	.4844"	31/64"	12.304	113	133	182	14
	<a href="#">HPI505124</a>	-	.4882"	-	12.4	60	77	124	14
<a href="#">HPI503125</a>		-	.4921"	-	12.5	43	60	107	14
	<a href="#">HPI505125</a>	-	.4921"	-	12.5	60	77	124	14
		<a href="#">HPI508125N</a>	.4921"	-	12.5	113	133	182	14
<a href="#">HPI503126</a>		-	.4961"	-	12.6	43	60	107	14
	<a href="#">HPI505126</a>	-	.4961"	-	12.6	60	77	124	14
<a href="#">HPI503127</a>		-	.5000"	1/2"	12.7	43	60	107	14
	<a href="#">HPI505127</a>	-	.5000"	1/2"	12.7	60	77	124	14
		<a href="#">HPI508127N</a>	.5000"	1/2"	12.7	113	133	182	14
<a href="#">HPI503128</a>		-	.5039"	-	12.8	43	60	107	14
	<a href="#">HPI505128</a>	-	.5039"	-	12.8	60	77	124	14
		<a href="#">HPI508128N</a>	.5039"	-	12.8	113	133	182	14
<a href="#">HPI503129</a>		-	.5079"	-	12.9	43	60	107	14
	<a href="#">HPI505129</a>	-	.5079"	-	12.9	60	77	124	14
	<a href="#">HPI50512903</a>	-	.5080"	-	12.903	60	77	124	14
<a href="#">HPI503130</a>		-	.5118"	-	13	43	60	107	14
	<a href="#">HPI505130</a>	-	.5118"	-	13	60	77	124	14
		<a href="#">HPI508130N</a>	.5118"	-	13	113	133	182	14
	<a href="#">HPI50513096</a>	-	.5156"	33/64"	13.096	60	77	124	14
	<a href="#">HPI505131</a>	-	.5157"	-	13.1	60	77	124	14
<a href="#">HPI503132</a>		-	.5197"	-	13.2	43	60	107	14
	<a href="#">HPI505132</a>	-	.5197"	-	13.2	60	77	124	14
<a href="#">HPI503133</a>		-	.5236"	-	13.3	43	60	107	14
	<a href="#">HPI505133</a>	-	.5236"	-	13.3	60	77	124	14
	<a href="#">HPI505134</a>	-	.5276"	-	13.4	60	77	124	14
<a href="#">HPI50313494</a>		-	.5313"	17/32"	13.494	43	60	107	14
	<a href="#">HPI50513494</a>	-	.5313"	17/32"	13.494	60	77	124	14
		<a href="#">HPI50813494N</a>	.5313"	17/32"	13.494	113	133	182	14

Applicable Working Material

Series	Carbon Steels Low	Carbon Steels Med	Carbon Steels High	Alloy Steels	Die Steels	Stainless Steels 300	Stainless Steels 400	Stainless Steels 17-4 PH	Cast Iron	Aluminum (6061, 7075)	Aluminum Castings	Nickel Alloys (Inconel)	Titanium (Ti6Al4V)	Hardened Steels 35 HRC	Hardened Steels 35-45 HRC	Hardened Steels 45-50 HRC	Hardened Steels 50-70 HRC	Magnesium	Brass Bronze	Graphite	Cobalt Chrome
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST

**HPI503, HPI505, HPI508N SERIES**

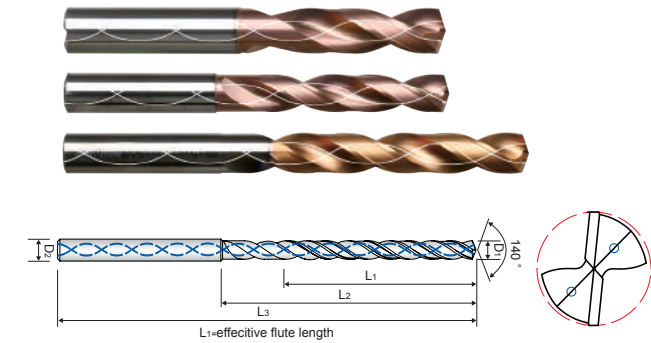
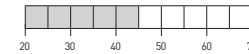
3xD, 5xD & 8xD

DRILLS / 2 FLUTES / 3xD, 5xD & 8xD / INTERNAL COOLANT / DOUBLE MARGIN / TiAlN-HH COATING

TOLERANCE (Metric)

D1 = +0.016 / 0.004 (D1 ≤ 6)  
D1 = +0.021 / 0.006 (D1 = 6.1 to 10)  
D1 = +0.025 / 0.007 (D1 = 10.1 to 18)  
D1 = +0.029 / 0.008 (D1 > 18)  
D2 = h6

HARDNESS (HRc)



>>Continue

EDP NO.			Cutting Diameter	Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter		
2 Flute									
TiAlN-HH									
Helix 30°									
3xD	5xD	8xD	D1			L1	L2	L3	D2
HPI503	HPI505	HPI508N	Decimal	Fraction	Metric				
<a href="#">HPI503135</a>		-	.5315"	-	13.5	43	60	107	14
	<a href="#">HPI505135</a>	-	.5315"	-	13.5	60	77	124	14
		<a href="#">HPI508135N</a>	.5315"	-	13.5	113	133	182	14
<a href="#">HPI503137</a>		-	.5394"	-	13.7	43	60	107	14
	<a href="#">HPI505137</a>	-	.5394"	-	13.7	60	77	124	14
	<a href="#">HPI505138</a>	-	.5433"	-	13.8	60	77	124	14
<a href="#">HPI50313891</a>		-	.5469"	35/64"	13.891	43	60	107	14
	<a href="#">HPI50513891</a>	-	.5469"	35/64"	13.891	60	77	124	14
<a href="#">HPI503140</a>		-	.5512"	-	14	43	60	107	14
	<a href="#">HPI505140</a>	-	.5512"	-	14	60	77	124	14
		<a href="#">HPI508140N</a>	.5512"	-	14	113	133	182	14
<a href="#">HPI503141</a>		-	.5551"	-	14.1	45	65	115	16
	<a href="#">HPI505141</a>	-	.5551"	-	14.1	63	83	133	16
<a href="#">HPI503142</a>		-	.5591"	-	14.2	45	65	115	16
	<a href="#">HPI505142</a>	-	.5591"	-	14.2	63	83	133	16
<a href="#">HPI50314288</a>		-	.5625"	9/16"	14.288	45	65	115	16
	<a href="#">HPI50514288</a>	-	.5625"	9/16"	14.288	63	83	133	16
		<a href="#">HPI50814288N</a>	.5625"	9/16"	14.288	129	152	204	16
<a href="#">HPI503145</a>		-	.5709"	-	14.5	45	65	115	16
	<a href="#">HPI505145</a>	-	.5709"	-	14.5	63	83	133	16
		<a href="#">HPI508145N</a>	.5709"	-	14.5	129	152	204	16
<a href="#">HPI503146</a>		-	.5748"	-	14.6	45	65	115	16
	<a href="#">HPI505146</a>	-	.5748"	-	14.6	63	83	133	16
<a href="#">HPI503147</a>		-	.5787"	-	14.7	45	65	115	16
	<a href="#">HPI505147</a>	-	.5787"	-	14.7	63	83	133	16
	<a href="#">HPI505148</a>	-	.5787"	-	14.7	63	83	133	16
	<a href="#">HPI505149</a>	-	.5866"	-	14.9	63	83	133	16
<a href="#">HPI503150</a>		-	.5906"	-	15	45	65	115	16
	<a href="#">HPI505150</a>	-	.5906"	-	15	63	83	133	16
		<a href="#">HPI508150N</a>	.5906"	-	15	129	152	204	16
<a href="#">HPI50315081</a>		-	.5937"	19/32"	15.081	45	65	115	16
	<a href="#">HPI50515081</a>	-	.5937"	19/32"	15.081	63	83	133	16

Applicable Working Material

Series	Carbon Steels Low	Carbon Steels Med	Carbon Steels High	Alloy Steels	Die Steels	Stainless Steels 300	Stainless Steels 400	Stainless Steels 17-4 PH	Cast Iron	Aluminum (6061, 7075)	Aluminum Castings	Nickel Alloys (Inconel)	Titanium (Ti6Al4V)	Hardened Steels 35 HRC	Hardened Steels 35-45 HRC	Hardened Steels 45-50 HRC	Hardened Steels 50-70 HRC	Magnesium	Brass Bronze	Graphite	Cobalt Chrome
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST



**HPI503, HPI505, HPI508N SERIES**

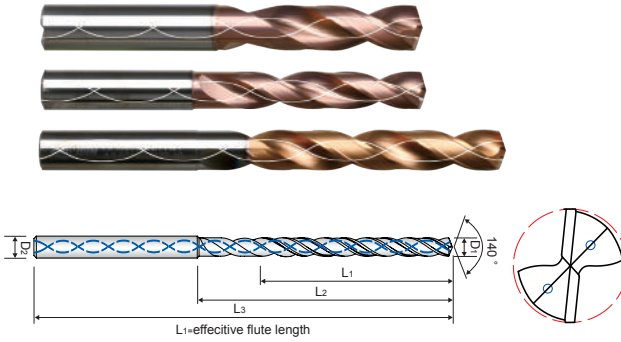
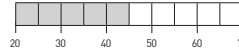
3xD, 5xD & 8xD

DRILLS / 2 FLUTES / 3xD, 5xD & 8xD / INTERNAL COOLANT / DOUBLE MARGIN / TiAlN-HH COATING

**TOLERANCE (Metric)**

D1 = +0.016 / 0.004 (D1 ≤ 6)  
D1 = +0.021 / 0.006 (D1 = 6.1 to 10)  
D1 = +0.025 / 0.007 (D1 = 10.1 to 18)  
D1 = +0.029 / 0.008 (D1 > 18)  
D2 = h6

**HARDNESS (HRC)**



>>Continue



**HPI503, HPI505, HPI508N SERIES**

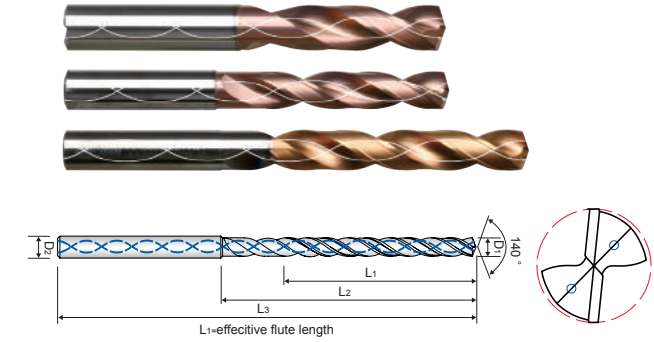
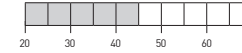
3xD, 5xD & 8xD

DRILLS / 2 FLUTES / 3xD, 5xD & 8xD / INTERNAL COOLANT / DOUBLE MARGIN / TiAlN-HH COATING

**TOLERANCE (Metric)**

D1 = +0.016 / 0.004 (D1 ≤ 6)  
D1 = +0.021 / 0.006 (D1 = 6.1 to 10)  
D1 = +0.025 / 0.007 (D1 = 10.1 to 18)  
D1 = +0.029 / 0.008 (D1 > 18)  
D2 = h6

**HARDNESS (HRC)**



>>Continue

Power max Drill Series	EDP NO.			Cutting Diameter	Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter	
	2 Flute								
	TiAlN-HH								
	Helix 30°								
3xD	5xD	8xD	D1			L1	L2	L3	D2
HPI503	HPI505	HPI508N	Decimal	Fraction	Metric				
	<a href="#">HPI505151</a>	-	.5945"	-	15.1	63	83	133	16
		<a href="#">HPI508151N</a>	.5945"	-	15.1	129	152	204	16
	<a href="#">HPI505152</a>	-	.5984"	-	15.2	63	83	133	16
		<a href="#">HPI508152N</a>	.5984"	-	15.2	129	152	204	16
		<a href="#">HPI508153N</a>	.6024"	-	15.3	129	152	204	16
<a href="#">HPI503155</a>	-	-	.6102"	-	15.5	45	65	115	16
	<a href="#">HPI505155</a>	-	.6102"	-	15.5	63	83	133	16
		<a href="#">HPI508155N</a>	.6102"	-	15.5	129	152	204	16
	<a href="#">HPI505156</a>	-	.6142"	-	15.6	63	83	133	16
<a href="#">HPI503157</a>	-	-	.6181"	-	15.7	45	65	115	16
	<a href="#">HPI505157</a>	-	.6181"	-	15.7	63	83	133	16
<a href="#">HPI503158</a>	-	-	.6220"	-	15.8	45	65	115	16
	<a href="#">HPI505158</a>	-	.6220"	-	15.8	63	83	133	16
		<a href="#">HPI508158N</a>	.6220"	-	15.8	129	152	204	16
<a href="#">HPI50315875</a>	-	-	.6250"	5/8"	15.875	45	65	115	16
	<a href="#">HPI50515875</a>	-	.6250"	5/8"	15.875	63	83	133	16
		<a href="#">HPI50815875N</a>	.6250"	5/8"	15.875	129	152	204	16
	<a href="#">HPI505159</a>	-	.6260"	-	15.9	63	83	133	16
<a href="#">HPI503160</a>	-	-	.6299"	-	16	45	65	115	16
	<a href="#">HPI505160</a>	-	.6299"	-	16	63	83	133	16
		<a href="#">HPI508160N</a>	.6299"	-	16	129	152	204	16
	<a href="#">HPI50516078</a>	-	.6330"	-	16.078	71	93	143	18
		<a href="#">HPI50816078N</a>	.6330"	-	16.078	145.35	171	223	18
<a href="#">HPI503162</a>	-	-	.6378"	-	16.2	51	73	123	18
	<a href="#">HPI505162</a>	-	.6378"	-	16.2	71	93	143	18
		<a href="#">HPI508162N</a>	.6378"	-	16.2	145	171	223	18
<a href="#">HPI503163</a>	-	-	.6457"	-	16.4	51	73	123	18
	<a href="#">HPI505164</a>	-	.6457"	-	16.4	71	93	143	18
<a href="#">HPI503165</a>	-	-	.6496"	-	16.5	51	73	123	18
	<a href="#">HPI505165</a>	-	.6496"	-	16.5	71	93	143	18
		<a href="#">HPI508165N</a>	.6496"	-	16.5	145	171	223	18
	<a href="#">HPI505166</a>	-	.6535"	-	16.6	71	93	143	18

**Applicable Working Material**

ALL	CARBON STEELS LOW (100-170)	CARBON STEELS MED (170-200)	CARBON STEELS HIGH (180)	ALLOY STEELS (4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST

Power max Drill Series	EDP NO.			Cutting Diameter	Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter	
	2 Flute								
	TiAlN-HH								
	Helix 30°								
3xD	5xD	8xD	D1			L1	L2	L3	D2
HPI503	HPI505	HPI508N	Decimal	Fraction	Metric				
	<a href="#">HPI50516667</a>	-	.6562"	21/32"	16.667	71	93	143	18
<a href="#">HPI503167</a>	-	-	.6575"	-	16.7	51	73	123	18
	<a href="#">HPI505167</a>	-	.6575"	-	16.7	71	93	143	18
<a href="#">HPI503168</a>	-	-	.6614"	-	16.8	51	73	123	18
<a href="#">HPI503170</a>	-	-	.6693"	-	17	51	73	123	18
	<a href="#">HPI505170</a>	-	.6693"	-	17	71	93	143	18
		<a href="#">HPI508170N</a>	.6693"	-	17	145	171	223	18
<a href="#">HPI503171</a>	-	-	.6732"	-	17.1	51	73	123	18
	<a href="#">HPI505171</a>	-	.6732"	-	17.1	71	93	143	18
	<a href="#">HPI505172</a>	-	.6772"	-	17.2	71	93	143	18
	<a href="#">HPI505173</a>	-	.6811"	-	17.3	71	93	143	18
<a href="#">HPI50317463</a>	-	-	.6875"	11/16"	17.463	51	73	123	18
	<a href="#">HPI50517463</a>	-	.6875"	11/16"	17.463	71	93	143	18
		<a href="#">HPI50817463N</a>	.6875"	11/16"	17.463	145	171	223	18
<a href="#">HPI503175</a>	-	-	.6890"	-	17.5	51	73	123	18
	<a href="#">HPI505175</a>	-	.6890"	-	17.5	71	93	143	18
		<a href="#">HPI508175N</a>	.6890"	-	17.5	145	171	223	18
	<a href="#">HPI505176</a>	-	.6929"	-	17.6	71	93	143	18
	<a href="#">HPI505177</a>	-	.6969"	-	17.7	71	93	143	18
	<a href="#">HPI505178</a>	-	.7008"	-	17.8	71	93	143	18
	<a href="#">HPI505179</a>	-	.7047"	-	17.9	71	93	143	18
<a href="#">HPI503180</a>	-	-	.7087"	-	18	51	73	123	18
	<a href="#">HPI505180</a>	-	.7087"	-	18	71	93	143	18
		<a href="#">HPI508180N</a>	.7087"	-	18	145	171	223	18
	<a href="#">HPI505184</a>	-	.7244"	-	18.4	77	101	153	20
<a href="#">HPI503185</a>	-	-	.7283"	-	18.5	55	79	131	20
	<a href="#">HPI505185</a>	-	.7283"	-	18.5	77	101	153	20
		<a href="#">HPI508185N</a>	.7283"	-	18.5	162	191	244	20
	<a href="#">HPI505186</a>	-	.7323"	-	18.6	77	101	153	20
	<a href="#">HPI505188</a>	-	.7402"	-	18.8	77	101	153	20
	<a href="#">HPI505189</a>	-	.7441"	-	18.9	77	101	153	20
<a href="#">HPI503190</a>	-	-	.7480"	-	19	55	79	131	20

**Applicable Working Material**

ALL	CARBON STEELS LOW (100-170)	CARBON STEELS MED (170-200)	CARBON STEELS HIGH (180)	ALLOY STEELS (4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

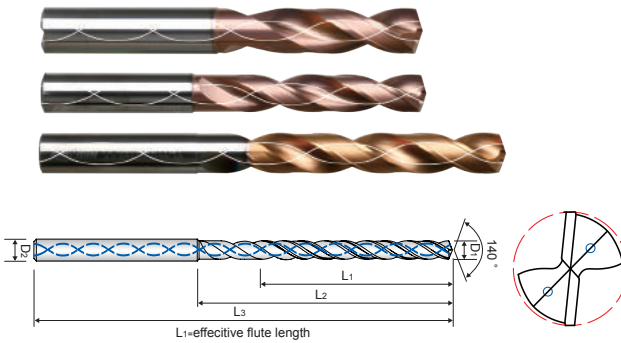
○:GOOD ◎:BEST



**HPI503, HPI505, HPI508N SERIES**

3xD, 5xD & 8xD

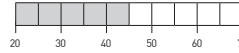
DRILLS / 2 FLUTES / 3xD, 5xD & 8xD / INTERNAL COOLANT / DOUBLE MARGIN / TiAlN-HH COATING



**TOLERANCE (Metric)**

D1 = +0.016 / 0.004 (D1 ≤ 6)  
D1 = +0.021 / 0.006 (D1 = 6.1 to 10)  
D1 = +0.025 / 0.007 (D1 = 10.1 to 18)  
D1 = +0.029 / 0.008 (D1 > 18)  
D2 = h6

**HARDNESS (HRC)**



EDP NO.			Cutting Diameter	Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter		
2 Flute									
TiAlN-HH									
Helix 30°									
3xD	5xD	8xD	D1			L1	L2	L3	D2
HPI503	HPI505	HPI508N	Decimal	Fraction	Metric				
	<a href="#">HPI505190</a>	-	.7480"	-	19	77	101	153	20
		<a href="#">HPI508190N</a>	.7480"	-	19	162	191	244	20
<a href="#">HPI5031905</a>		-	.7500"	3/4"	19.05	55	79	131	20
	<a href="#">HPI5051905</a>	-	.7500"	3/4"	19.05	77	101	153	20
		<a href="#">HPI5081905N</a>	.7500"	3/4"	19.05	162	191	244	20
	<a href="#">HPI505192</a>	-	.7559"	-	19.2	77	101	153	20
	<a href="#">HPI50519253</a>	-	.7580"	-	19.253	77	101	153	20
		<a href="#">HPI50819253N</a>	.7580"	-	19.253	162	191	244	20
	<a href="#">HPI50519446</a>	-	.7656"	49/64"	19.446	77	101	153	20
	<a href="#">HPI505195</a>	-	.7677"	-	19.5	77	101	153	20
	<a href="#">HPI505197</a>	-	.7756"	-	19.7	77	101	153	20
		<a href="#">HPI508198N</a>	.7795"	-	19.8	162	191	244	20
	<a href="#">HPI50519844</a>	-	.7813"	-	19.844	77	101	153	20
<a href="#">HPI503200</a>		-	.7874"	-	20	55	79	131	20
	<a href="#">HPI505200</a>	-	.7874"	-	20	77	101	153	20
		<a href="#">HPI508200N</a>	.7874"	-	20	162	191	244	20

**HPI503, HPI505, HPI508N SERIES**

RPM=rev./min.  
FEED=min/rev.  
IPR=inch/rev.

Work Material	Non-Alloyed Steels			Alloy Steels			Soft Cast Iron			Strong Cast Iron		
	~ HRC 20			HRC 20 ~			~ 240 BHN			300 BHN ~		
Strength	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)
3	16,000	0.16	0.006	14,500	0.16	0.006	26,000	0.16	0.006	17,000	0.16	0.006
4	12,000	0.17	0.007	11,000	0.17	0.007	20,000	0.17	0.007	13,000	0.17	0.007
5	9,550	0.18	0.007	8,600	0.18	0.007	16,000	0.18	0.007	10,000	0.18	0.007
6	8,000	0.20	0.008	7,200	0.20	0.008	13,000	0.20	0.008	8,500	0.20	0.008
7	6,800	0.22	0.009	6,100	0.22	0.009	11,500	0.22	0.009	7,300	0.22	0.009
8	6,000	0.24	0.009	5,400	0.24	0.009	9,900	0.24	0.009	6,400	0.24	0.009
9	5,300	0.27	0.011	4,800	0.27	0.011	8,800	0.27	0.011	5,700	0.27	0.011
10	4,800	0.30	0.012	4,300	0.30	0.012	8,000	0.30	0.012	5,100	0.30	0.012
12	4,000	0.33	0.013	3,600	0.33	0.013	6,600	0.33	0.013	4,250	0.33	0.013
14	3,400	0.36	0.014	3,050	0.36	0.014	5,700	0.36	0.014	3,650	0.36	0.014
16	3,000	0.39	0.015	2,700	0.39	0.015	5,000	0.39	0.015	3,200	0.39	0.015
18	2,650	0.42	0.017	2,400	0.42	0.017	4,400	0.42	0.017	2,850	0.42	0.017
20	2,400	0.45	0.018	2,150	0.45	0.018	4,000	0.45	0.018	2,550	0.45	0.018

Applicable Working Material

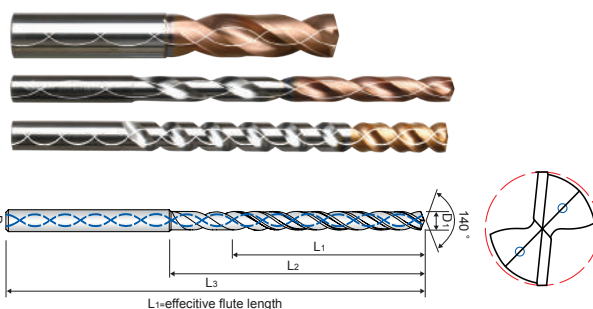
○:GOOD ◎:BEST

SERIES	CARBON STEELS LOW (H01, H02)	CARBON STEELS MED (H03, H04)	CARBON STEELS HIGH (H05, H06)	ALLOY STEELS (H07, H08)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (B01, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (N01, INCONEL)	TITANIUM (B014V)	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

**SF503, SF505, SF510 & SF520 SERIES**

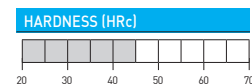
3xD, 5xD, 10xD & 20xD

DRILLS / 2 FLUTES / 3xD, 5xD, 10xD & 20xD / INTERNAL COOLANT / SINGLE MARGIN / TiAlN-HH COATING



**TOLERANCE (Metric)**

D<sub>1</sub> = +0 / -0.014 (D<sub>1</sub> ≤ 3)  
D<sub>1</sub> = +0 / -0.018 (D<sub>1</sub> = 3.1 to 6)  
D<sub>1</sub> = +0 / -0.022 (D<sub>1</sub> = 6.1 to 10)  
D<sub>1</sub> = +0 / -0.027 (D<sub>1</sub> = 10.1 to 18)  
D<sub>1</sub> = +0 / -0.033 (D<sub>1</sub> > 18)  
D<sub>2</sub> = h6

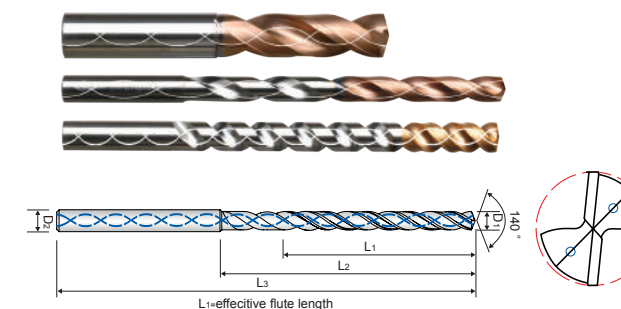


>>Continue

**SF503, SF505, SF510 & SF520 SERIES**

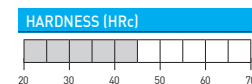
3xD, 5xD, 10xD & 20xD

DRILLS / 2 FLUTES / 3xD, 5xD, 10xD & 20xD / INTERNAL COOLANT / SINGLE MARGIN / TiAlN-HH COATING



**TOLERANCE (Metric)**

D<sub>1</sub> = +0 / -0.014 (D<sub>1</sub> ≤ 3)  
D<sub>1</sub> = +0 / -0.018 (D<sub>1</sub> = 3.1 to 6)  
D<sub>1</sub> = +0 / -0.022 (D<sub>1</sub> = 6.1 to 10)  
D<sub>1</sub> = +0 / -0.027 (D<sub>1</sub> = 10.1 to 18)  
D<sub>1</sub> = +0 / -0.033 (D<sub>1</sub> > 18)  
D<sub>2</sub> = h6



>>Continue

EDP NO.				Cutting Diameter	Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter		
2 Flute										
TiAlN-HH										
Helix 30°										
3xD	5xD	10xD	20xD	D1			L1	L2	L3	D2
SF503	SF505	SF510	SF520	Decimal	Fraction	Metric				
SF503030	-	-	-	0.1181"	-	3.000	-	18.00	60.00	3.00
-	-	SF510030	-	0.1181"	-	3.000	25.000	39.00	87.00	3.00
SF503031	-	-	-	0.1220"	-	3.100	-	20.00	60.00	4.00
-	SF505031	-	-	0.1220"	-	3.100	-	27.00	74.00	4.00
-	-	SF510031	-	0.1220"	-	3.100	27.000	46.00	94.00	4.00
SF50303175	-	-	-	0.1250"	1/8"	3.175	-	20.00	60.00	4.00
-	SF50503175	-	-	0.1250"	1/8"	3.175	-	27.00	74.00	4.00
SF503032	-	-	-	0.1260"	-	3.200	-	20.00	60.00	4.00
-	SF505032	-	-	0.1260"	-	3.200	-	27.00	74.00	4.00
-	-	SF510032	-	0.1260"	-	3.200	27.000	46.00	94.00	4.00
SF50303264	-	-	-	0.1285"	#30	3.264	-	20.00	60.00	4.00
-	SF50503264	-	-	0.1285"	#30	3.264	-	27.00	74.00	4.00
SF503033	-	-	-	0.1299"	-	3.300	-	20.00	60.00	4.00
-	SF505033	-	-	0.1299"	-	3.300	-	27.00	74.00	4.00
-	-	SF510033	-	0.1299"	-	3.300	27.000	46.00	94.00	4.00
SF503034	-	-	-	0.1339"	-	3.400	-	22.00	60.00	4.00
-	SF505034	-	-	0.1339"	-	3.400	-	30.00	74.00	4.00
-	-	SF510034	-	0.1339"	-	3.400	30.000	46.00	94.00	4.00
SF503035	-	-	-	0.1378"	-	3.500	-	22.00	60.00	4.00
-	SF505035	-	-	0.1378"	-	3.500	-	30.00	74.00	4.00
-	-	SF510035	-	0.1378"	-	3.500	30.000	46.00	94.00	4.00
SF50303572	-	-	-	0.1406"	9/64"	3.572	-	22.00	60.00	4.00
-	SF50503572	-	-	0.1406"	9/64"	3.572	-	30.00	74.00	4.00
SF503036	-	-	-	0.1417"	-	3.600	-	22.00	60.00	4.00
-	SF505036	-	-	0.1417"	-	3.600	-	30.00	74.00	4.00
-	-	SF510036	-	0.1417"	-	3.600	30.000	52.00	101.00	4.00
SF503037	-	-	-	0.1457"	-	3.700	-	22.00	60.00	4.00
-	SF505037	-	-	0.1457"	-	3.700	-	30.00	74.00	4.00
-	-	SF510037	-	0.1457"	-	3.700	30.000	52.00	101.00	4.00
SF503038	-	-	-	0.1496"	-	3.800	-	24.00	60.00	4.00
-	SF505038	-	-	0.1496"	-	3.800	-	33.00	74.00	4.00
-	-	SF510038	-	0.1496"	-	3.800	33.000	52.00	101.00	4.00

Applicable Working Material

SERIES	CARBON STEELS LOW (100L, 100S)	CARBON STEELS MED (100L, 100S)	CARBON STEELS HIGH (100S)	ALLOY STEELS (A40, A50)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (B414V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST

EDP NO.				Cutting Diameter	Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter		
2 Flute										
TiAlN-HH										
Helix 30°										
3xD	5xD	10xD	20xD	D1			L1	L2	L3	D2
SF503	SF505	SF510	SF520	Decimal	Fraction	Metric				
SF503039	-	-	-	0.1535"	-	3.900	-	24.00	60.00	4.00
-	SF505039	-	-	0.1535"	-	3.900	-	33.00	74.00	4.00
-	-	SF510039	-	0.1535"	-	3.900	33.000	52.00	101.00	4.00
-	-	-	SF5200397	0.1563"	-	3.970	33.000	92.00	134.00	5.00
SF503040	-	-	-	0.1575"	-	4.000	-	24.00	60.00	4.00
-	SF505040	-	-	0.1575"	-	4.000	-	33.00	74.00	4.00
-	-	SF510040	-	0.1575"	-	4.000	33.000	52.00	101.00	4.00
SF50304039	-	-	-	0.1590"	#21	4.039	-	24.00	62.00	5.00
-	SF50504039	-	-	0.1590"	#21	4.039	-	33.00	80.00	5.00
SF503041	-	-	-	0.1614"	-	4.100	-	24.00	62.00	5.00
-	SF505041	-	-	0.1614"	-	4.100	-	33.00	80.00	5.00
-	-	SF510041	-	0.1614"	-	4.100	33.000	59.00	108.00	5.00
-	-	-	SF520041	0.1614"	-	4.100	33.000	104.00	155.00	5.00
SF503042	-	-	-	0.1654"	-	4.200	-	26.00	62.00	5.00
-	SF505042	-	-	0.1654"	-	4.200	-	33.00	80.00	5.00
-	-	SF510042	-	0.1654"	-	4.200	33.000	59.00	108.00	5.00
-	-	-	SF520042	0.1654"	-	4.200	33.000	104.00	155.00	5.00
SF503043	-	-	-	0.1693"	-	4.300	-	26.00	62.00	5.00
-	SF505043	-	-	0.1693"	-	4.300	-	36.00	80.00	5.00
-	-	SF510043	-	0.1693"	-	4.300	36.000	59.00	108.00	5.00
-	-	-	SF520043	0.1693"	-	4.300	36.000	104.00	155.00	5.00
SF503044	-	-	-	0.1732"	-	4.400	-	26.00	62.00	5.00
-	SF505044	-	-	0.1732"	-	4.400	-	36.00	80.00	5.00
-	-	SF510044	-	0.1732"	-	4.400	36.000	59.00	108.00	5.00
-	-	-	SF520044	0.1732"	-	4.400	36.000	104.00	155.00	5.00
SF503045	-	-	-	0.1772"	-	4.500	-	26.00	62.00	5.00
-	SF505045	-	-	0.1772"	-	4.500	-	36.00	80.00	5.00
-	-	SF510045	-	0.1772"	-	4.500	36.000	59.00	108.00	5.00
-	-	-	SF520045	0.1772"	-	4.500	36.000	104.00	155.00	5.00
SF503046	-	-	-	0.1811"	-	4.600	-	26.00	62.00	5.00
-	SF505046	-	-	0.1811"	-	4.600	-	36.00	80.00	5.00
-	-	SF510046	-	0.1811"	-	4.600	36.000	66.00	117.00	5.00

Applicable Working Material

SERIES	CARBON STEELS LOW (100L, 100S)	CARBON STEELS MED (100L, 100S)	CARBON STEELS HIGH (100S)	ALLOY STEELS (A40, A50)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (B414V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST

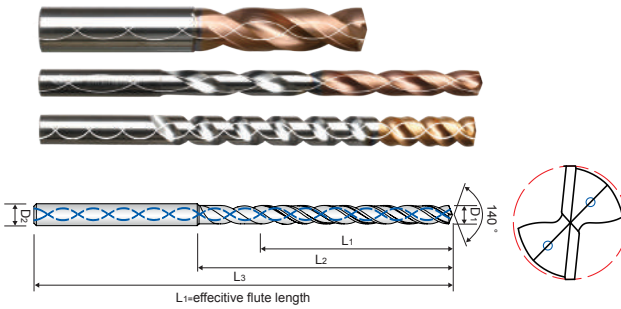




**SF503, SF505, SF510 & SF520 SERIES**

3xD, 5xD, 10xD & 20xD

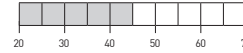
DRILLS / 2 FLUTES / 3xD, 5xD, 10xD & 20xD / INTERNAL COOLANT / SINGLE MARGIN / TiAlN-HH COATING



**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
D1 = +0 / -0.018 (D1 = 3.1 to 6)  
D1 = +0 / -0.022 (D1 = 6.1 to 10)  
D1 = +0 / -0.027 (D1 = 10.1 to 18)  
D1 = +0 / -0.033 (D1 > 18)  
D2 = h6

**HARDNESS (HRC)**



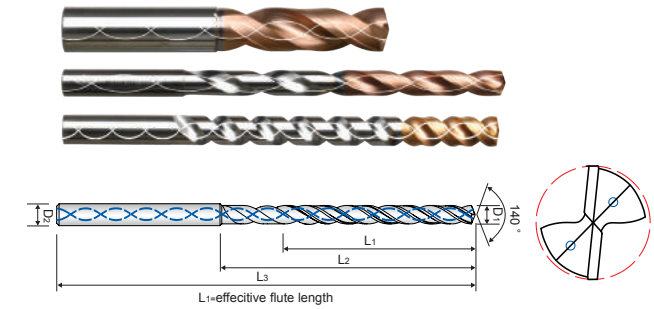
>>Continue



**SF503, SF505, SF510 & SF520 SERIES**

3xD, 5xD, 10xD & 20xD

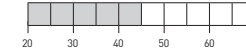
DRILLS / 2 FLUTES / 3xD, 5xD, 10xD & 20xD / INTERNAL COOLANT / SINGLE MARGIN / TiAlN-HH COATING



**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
D1 = +0 / -0.018 (D1 = 3.1 to 6)  
D1 = +0 / -0.022 (D1 = 6.1 to 10)  
D1 = +0 / -0.027 (D1 = 10.1 to 18)  
D1 = +0 / -0.033 (D1 > 18)  
D2 = h6

**HARDNESS (HRC)**



>>Continue

INCH  
METRIC

Power max Drill Series

Power Drill Series

Solid Spiral Drill Series

Centering Tools

EDP NO.				Cutting Diameter	Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter		
2 Flute										
TiAlN-HH										
Helix 30°										
3xD	5xD	10xD	20xD	D1			L1	L2	L3	D2
SF503	SF505	SF510	SF520	Decimal	Fraction	Metric				
-	-	-	<a href="#">SF520046</a>	0.1811"	-	4.600	36.000	116.00	167.00	5.00
<a href="#">SF503047</a>	-	-	-	0.1850"	-	4.700	-	26.00	62.00	5.00
-	<a href="#">SF505047</a>	-	-	0.1850"	-	4.700	-	36.00	80.00	5.00
-	-	<a href="#">SF510047</a>	-	0.1850"	-	4.700	36.000	66.00	117.00	5.00
-	-	-	<a href="#">SF520047</a>	0.1850"	-	4.700	36.000	116.00	167.00	5.00
<a href="#">SF50304763</a>	-	-	-	0.1875"	3/16"	4.763	-	26.00	62.00	5.00
-	<a href="#">SF50504763</a>	-	-	0.1875"	3/16"	4.763	-	36.00	80.00	5.00
<a href="#">SF503048</a>	-	-	-	0.1890"	-	4.800	-	26.00	62.00	5.00
-	<a href="#">SF505048</a>	-	-	0.1890"	-	4.800	-	39.00	80.00	5.00
-	-	<a href="#">SF510048</a>	-	0.1890"	-	4.800	39.000	66.00	117.00	5.00
-	-	-	<a href="#">SF520048</a>	0.1890"	-	4.800	39.000	116.00	167.00	5.00
<a href="#">SF503049</a>	-	-	-	0.1929"	-	4.900	-	26.00	62.00	5.00
-	<a href="#">SF505049</a>	-	-	0.1929"	-	4.900	-	39.00	80.00	5.00
-	-	<a href="#">SF510049</a>	-	0.1929"	-	4.900	39.000	66.00	117.00	5.00
-	-	-	<a href="#">SF520049</a>	0.1929"	-	4.900	39.000	116.00	167.00	5.00
<a href="#">SF503050</a>	-	-	-	0.1969"	-	5.000	-	26.00	62.00	5.00
-	<a href="#">SF505050</a>	-	-	0.1969"	-	5.000	-	39.00	80.00	5.00
-	-	<a href="#">SF510050</a>	-	0.1969"	-	5.000	39.000	66.00	117.00	5.00
-	-	-	<a href="#">SF520050</a>	0.1969"	-	5.000	39.000	116.00	167.00	5.00
<a href="#">SF503051</a>	-	-	-	0.2008"	-	5.100	-	28.00	66.00	6.00
-	<a href="#">SF505051</a>	-	-	0.2008"	-	5.100	-	39.00	87.00	6.00
-	-	<a href="#">SF510051</a>	-	0.2008"	-	5.100	39.000	72.00	123.00	6.00
-	-	-	<a href="#">SF520051</a>	0.2008"	-	5.100	39.000	127.00	178.00	6.00
<a href="#">SF50305159</a>	-	-	-	0.2031"	13/64"	5.159	-	28.00	66.00	6.00
-	<a href="#">SF50505159</a>	-	-	0.2031"	13/64"	5.159	-	39.00	87.00	6.00
<a href="#">SF503052</a>	-	-	-	0.2047"	-	5.200	-	28.00	66.00	6.00
-	<a href="#">SF505052</a>	-	-	0.2047"	-	5.200	-	39.00	87.00	6.00
-	-	<a href="#">SF510052</a>	-	0.2047"	-	5.200	39.000	72.00	123.00	6.00
-	-	-	<a href="#">SF520052</a>	0.2047"	-	5.200	39.000	127.00	178.00	6.00
<a href="#">SF503053</a>	-	-	-	0.2087"	-	5.300	-	28.00	66.00	6.00
-	<a href="#">SF505053</a>	-	-	0.2087"	-	5.300	-	39.00	87.00	6.00
-	-	<a href="#">SF510053</a>	-	0.2087"	-	5.300	39.000	72.00	123.00	6.00

Applicable Working Material

ALL	CARBON STEELS LOW (100-170)	CARBON STEELS MED (170-200)	CARBON STEELS HIGH (100)	ALLOY STEELS (4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST

INCH  
METRIC

Power max Drill Series

Power Drill Series

Solid Spiral Drill Series

Centering Tools

EDP NO.				Cutting Diameter	Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter		
2 Flute										
TiAlN-HH										
Helix 30°										
3xD	5xD	10xD	20xD	D1			L1	L2	L3	D2
SF503	SF505	SF510	SF520	Decimal	Fraction	Metric				
-	-	-	<a href="#">SF520053</a>	0.2087"	-	5.300	39.000	127.00	178.00	6.00
<a href="#">SF503054</a>	-	-	-	0.2126"	-	5.400	-	28.00	66.00	6.00
-	<a href="#">SF505054</a>	-	-	0.2126"	-	5.400	-	43.00	87.00	6.00
-	-	<a href="#">SF510054</a>	-	0.2126"	-	5.400	43.000	72.00	123.00	6.00
-	-	-	<a href="#">SF520054</a>	0.2126"	-	5.400	43.000	127.00	178.00	6.00
<a href="#">SF503055</a>	-	-	-	0.2165"	-	5.500	-	28.00	66.00	6.00
-	<a href="#">SF505055</a>	-	-	0.2165"	-	5.500	-	43.00	87.00	6.00
-	-	<a href="#">SF510055</a>	-	0.2165"	-	5.500	43.000	72.00	123.00	6.00
-	-	-	<a href="#">SF520055</a>	0.2165"	-	5.500	43.000	127.00	178.00	6.00
<a href="#">SF50305558</a>	-	-	-	0.2188"	7/32"	5.558	-	28.00	66.00	6.00
-	<a href="#">SF50505558</a>	-	-	0.2188"	7/32"	5.558	-	43.00	87.00	6.00
<a href="#">SF503056</a>	-	-	-	0.2205"	-	5.600	-	30.00	66.00	6.00
-	<a href="#">SF505056</a>	-	-	0.2205"	-	5.600	-	43.00	87.00	6.00
-	-	<a href="#">SF510056</a>	-	0.2205"	-	5.600	43.000	79.00	130.00	6.00
-	-	-	<a href="#">SF520056</a>	0.2205"	-	5.600	43.000	139.00	190.00	6.00
<a href="#">SF503057</a>	-	-	-	0.2244"	-	5.700	-	30.00	66.00	6.00
-	<a href="#">SF505057</a>	-	-	0.2244"	-	5.700	-	43.00	87.00	6.00
-	-	<a href="#">SF510057</a>	-	0.2244"	-	5.700	43.000	79.00	130.00	6.00
-	-	-	<a href="#">SF520057</a>	0.2244"	-	5.700	43.000	139.00	190.00	6.00
<a href="#">SF503058</a>	-	-	-	0.2283"	-	5.800	-	30.00	66.00	6.00
-	<a href="#">SF505058</a>	-	-	0.2283"	-	5.800	-	43.00	87.00	6.00
-	-	<a href="#">SF510058</a>	-	0.2283"	-	5.800	43.000	79.00	130.00	6.00
-	-	-	<a href="#">SF520058</a>	0.2283"	-	5.800	43.000	139.00	190.00	6.00
<a href="#">SF503059</a>	-	-	-	0.2323"	-	5.900	-	30.00	66.00	6.00
-	<a href="#">SF505059</a>	-	-	0.2323"	-	5.900	-	43.00	87.00	6.00
-	-	<a href="#">SF510059</a>	-	0.2323"	-	5.900	43.000	79.00	130.00	6.00
-	-	-	<a href="#">SF520059</a>	0.2323"	-	5.900	43.000	139.00	190.00	6.00
<a href="#">SF50305953</a>	-	-	-	0.2344"	15/64"	5.953	-	30.00	66.00	6.00
-	<a href="#">SF50505953</a>	-	-	0.2344"	15/64"	5.953	-	43.00	87.00	6.00
<a href="#">SF503060</a>	-	-	-	0.2362"	-	6.000	-	30.00	66.00	6.00
-	<a href="#">SF505060</a>	-	-	0.2362"	-	6.000	-	43.00	87.00	6.00
-	-	<a href="#">SF510060</a>	-	0.2362"	-	6.000	43.000	79.00	130.00	6.00

Applicable Working Material

ALL	CARBON STEELS LOW (100-170)	CARBON STEELS MED (170-200)	CARBON STEELS HIGH (100)	ALLOY STEELS (4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

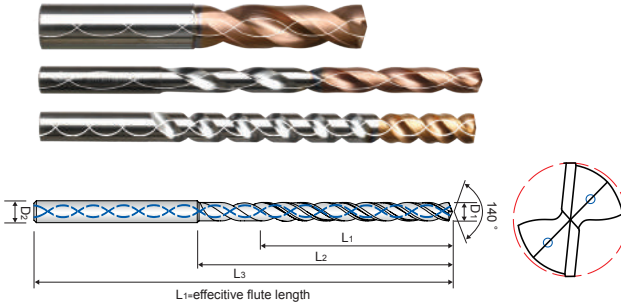
○:GOOD ◎:BEST



**SF503, SF505, SF510 & SF520 SERIES**

3xD, 5xD, 10xD & 20xD

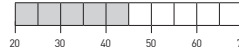
DRILLS / 2 FLUTES / 3xD, 5xD, 10xD & 20xD / INTERNAL COOLANT / SINGLE MARGIN / TiAlN-HH COATING



**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
D1 = +0 / -0.018 (D1 = 3.1 to 6)  
D1 = +0 / -0.022 (D1 = 6.1 to 10)  
D1 = +0 / -0.027 (D1 = 10.1 to 18)  
D1 = +0 / -0.033 (D1 > 18)  
D2 = h6

**HARDNESS (HRC)**



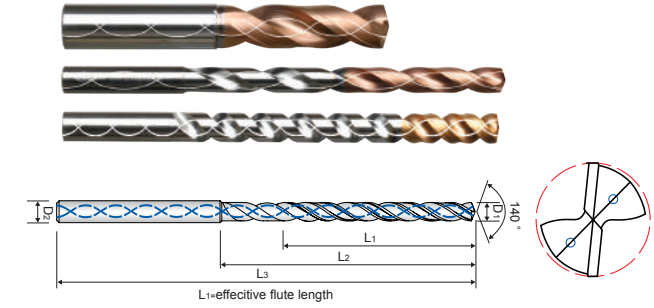
>>Continue



**SF503, SF505, SF510 & SF520 SERIES**

3xD, 5xD, 10xD & 20xD

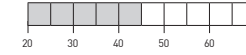
DRILLS / 2 FLUTES / 3xD, 5xD, 10xD & 20xD / INTERNAL COOLANT / SINGLE MARGIN / TiAlN-HH COATING



**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
D1 = +0 / -0.018 (D1 = 3.1 to 6)  
D1 = +0 / -0.022 (D1 = 6.1 to 10)  
D1 = +0 / -0.027 (D1 = 10.1 to 18)  
D1 = +0 / -0.033 (D1 > 18)  
D2 = h6

**HARDNESS (HRC)**



>>Continue

EDP NO.				Cutting Diameter	Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter		
2 Flute										
TiAlN-HH										
Helix 30°										
3xD	5xD	10xD	20xD	D1			L1	L2	L3	D2
SF503	SF505	SF510	SF520	Decimal	Fraction	Metric				
-	-	-	<a href="#">SF520060</a>	0.2362"	-	6.000	43.000	139.00	190.00	6.00
<a href="#">SF503061</a>	-	-	-	0.2402"	-	6.100	-	34.00	74.00	7.00
-	<a href="#">SF505061</a>	-	-	0.2402"	-	6.100	-	47.00	95.00	7.00
-	-	<a href="#">SF510061</a>	-	0.2402"	-	6.100	47.000	85.00	138.00	7.00
-	-	-	<a href="#">SF520061</a>	0.2402"	-	6.100	47.000	150.00	203.00	7.00
<a href="#">SF503062</a>	-	-	-	0.2441"	-	6.200	-	34.00	74.00	7.00
-	<a href="#">SF505062</a>	-	-	0.2441"	-	6.200	-	47.00	95.00	7.00
-	-	<a href="#">SF510062</a>	-	0.2441"	-	6.200	47.000	85.00	138.00	7.00
-	-	-	<a href="#">SF520062</a>	0.2441"	-	6.200	47.000	150.00	203.00	7.00
<a href="#">SF503063</a>	-	-	-	0.2480"	-	6.300	-	34.00	74.00	7.00
-	<a href="#">SF505063</a>	-	-	0.2480"	-	6.300	-	47.00	95.00	7.00
-	-	<a href="#">SF510063</a>	-	0.2480"	-	6.300	47.000	85.00	138.00	7.00
-	-	-	<a href="#">SF520063</a>	0.2480"	-	6.300	47.000	150.00	203.00	7.00
<a href="#">SF5030635</a>	-	-	-	0.2500"	1/4"	6.350	-	34.00	74.00	7.00
-	<a href="#">SF5050635</a>	-	-	0.2500"	1/4"	6.350	-	47.00	95.00	7.00
<a href="#">SF503064</a>	-	-	-	0.2520"	-	6.400	-	34.00	74.00	7.00
-	<a href="#">SF505064</a>	-	-	0.2520"	-	6.400	-	47.00	95.00	7.00
-	-	<a href="#">SF510064</a>	-	0.2520"	-	6.400	47.000	85.00	138.00	7.00
-	-	-	<a href="#">SF520064</a>	0.2520"	-	6.400	47.000	150.00	203.00	7.00
<a href="#">SF503065</a>	-	-	-	0.2559"	-	6.500	-	34.00	74.00	7.00
-	<a href="#">SF505065</a>	-	-	0.2559"	-	6.500	-	47.00	95.00	7.00
-	-	<a href="#">SF510065</a>	-	0.2559"	-	6.500	47.000	85.00	138.00	7.00
-	-	-	<a href="#">SF520065</a>	0.2559"	-	6.500	47.000	150.00	203.00	7.00
<a href="#">SF503066</a>	-	-	-	0.2598"	-	6.600	-	34.00	74.00	7.00
-	<a href="#">SF505066</a>	-	-	0.2598"	-	6.600	-	47.00	95.00	7.00
-	-	<a href="#">SF510066</a>	-	0.2598"	-	6.600	47.000	92.00	145.00	7.00
-	-	-	<a href="#">SF520066</a>	0.2598"	-	6.600	47.000	162.00	215.00	7.00
<a href="#">SF503067</a>	-	-	-	0.2638"	-	6.700	-	37.00	74.00	7.00
-	<a href="#">SF505067</a>	-	-	0.2638"	-	6.700	-	47.00	95.00	7.00
-	-	<a href="#">SF510067</a>	-	0.2638"	-	6.700	47.000	92.00	145.00	7.00
-	-	-	<a href="#">SF520067</a>	0.2638"	-	6.700	47.000	162.00	215.00	7.00
<a href="#">SF50306747</a>	-	-	-	0.2656"	17/64"	6.747	-	37.00	74.00	7.00

Applicable Working Material

ALL	CARBON STEELS LOW (100-170)	CARBON STEELS MED (170-200)	CARBON STEELS HIGH (180)	ALLOY STEELS (4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (B414V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST

EDP NO.				Cutting Diameter	Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter		
2 Flute										
TiAlN-HH										
Helix 30°										
3xD	5xD	10xD	20xD	D1			L1	L2	L3	D2
SF503	SF505	SF510	SF520	Decimal	Fraction	Metric				
-	<a href="#">SF50506747</a>	-	-	0.2656"	17/64"	6.747	-	47.00	95.00	7.00
<a href="#">SF503068</a>	-	-	-	0.2677"	-	6.800	-	37.00	74.00	7.00
-	<a href="#">SF505068</a>	-	-	0.2677"	-	6.800	-	47.00	95.00	7.00
-	-	<a href="#">SF510068</a>	-	0.2677"	-	6.800	47.000	92.00	145.00	7.00
-	-	-	<a href="#">SF520068</a>	0.2677"	-	6.800	47.000	162.00	215.00	7.00
<a href="#">SF503069</a>	-	-	-	0.2717"	-	6.900	-	37.00	74.00	7.00
-	<a href="#">SF505069</a>	-	-	0.2717"	-	6.900	-	47.00	95.00	7.00
-	-	<a href="#">SF510069</a>	-	0.2717"	-	6.900	47.000	92.00	145.00	7.00
-	-	-	<a href="#">SF520069</a>	0.2717"	-	6.900	47.000	162.00	215.00	7.00
<a href="#">SF503070</a>	-	-	-	0.2756"	-	7.000	-	37.00	74.00	7.00
-	<a href="#">SF505070</a>	-	-	0.2756"	-	7.000	-	47.00	95.00	7.00
-	-	<a href="#">SF510070</a>	-	0.2756"	-	7.000	47.000	92.00	145.00	7.00
-	-	-	<a href="#">SF520070</a>	0.2756"	-	7.000	47.000	162.00	215.00	7.00
<a href="#">SF503071</a>	-	-	-	0.2795"	-	7.100	-	40.00	79.00	8.00
-	<a href="#">SF505071</a>	-	-	0.2795"	-	7.100	-	52.00	103.00	8.00
-	-	<a href="#">SF510071</a>	-	0.2795"	-	7.100	52.000	98.00	153.00	8.00
-	-	-	<a href="#">SF520071</a>	0.2795"	-	7.100	52.000	173.00	228.00	8.00
<a href="#">SF50307145</a>	-	-	-	0.2813"	9/32"	7.145	-	40.00	79.00	8.00
-	<a href="#">SF50507145</a>	-	-	0.2813"	9/32"	7.145	-	52.00	103.00	8.00
<a href="#">SF503072</a>	-	-	-	0.2835"	-	7.200	-	40.00	79.00	8.00
-	<a href="#">SF505072</a>	-	-	0.2835"	-	7.200	-	52.00	103.00	8.00
-	-	<a href="#">SF510072</a>	-	0.2835"	-	7.200	52.000	98.00	153.00	8.00
-	-	-	<a href="#">SF520072</a>	0.2835"	-	7.200	52.000	173.00	228.00	8.00
<a href="#">SF503073</a>	-	-	-	0.2874"	-	7.300	-	40.00	79.00	8.00
-	<a href="#">SF505073</a>	-	-	0.2874"	-	7.300	-	52.00	103.00	8.00
-	-	<a href="#">SF510073</a>	-	0.2874"	-	7.300	52.000	98.00	153.00	8.00
-	-	-	<a href="#">SF520073</a>	0.2874"	-	7.300	52.000	173.00	228.00	8.00
<a href="#">SF503074</a>	-	-	-	0.2913"	-	7.400	-	40.00	79.00	8.00
-	<a href="#">SF505074</a>	-	-	0.2913"	-	7.400	-	52.00	103.00	8.00
-	-	<a href="#">SF510074</a>	-	0.2913"	-	7.400	52.000	98.00	153.00	8.00
-	-	-	<a href="#">SF520074</a>	0.2913"	-	7.400	52.000	173.00	228.00	8.00
<a href="#">SF503075</a>	-	-	-	0.2953"	-	7.500	-	40.00	79.00	8.00

Applicable Working Material

ALL	CARBON STEELS LOW (100-170)	CARBON STEELS MED (170-200)	CARBON STEELS HIGH (180)	ALLOY STEELS (4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (B414V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

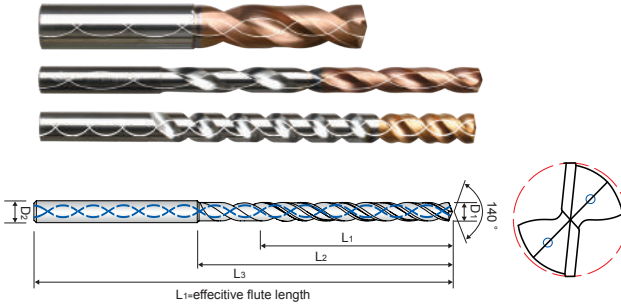
○:GOOD ◎:BEST



**SF503, SF505, SF510 & SF520 SERIES**

3xD, 5xD, 10xD & 20xD

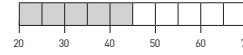
DRILLS / 2 FLUTES / 3xD, 5xD, 10xD & 20xD / INTERNAL COOLANT / SINGLE MARGIN / TiAlN-HH COATING



**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
D1 = +0 / -0.018 (D1 = 3.1 to 6)  
D1 = +0 / -0.022 (D1 = 6.1 to 10)  
D1 = +0 / -0.027 (D1 = 10.1 to 18)  
D1 = +0 / -0.033 (D1 > 18)  
D2 = h6

**HARDNESS (HRC)**



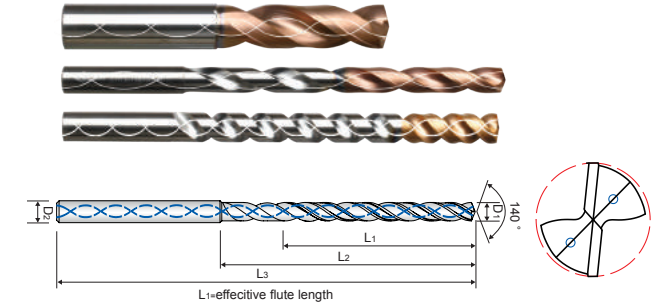
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**SF503, SF505, SF510 & SF520 SERIES**

3xD, 5xD, 10xD & 20xD

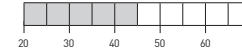
DRILLS / 2 FLUTES / 3xD, 5xD, 10xD & 20xD / INTERNAL COOLANT / SINGLE MARGIN / TiAlN-HH COATING



**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
D1 = +0 / -0.018 (D1 = 3.1 to 6)  
D1 = +0 / -0.022 (D1 = 6.1 to 10)  
D1 = +0 / -0.027 (D1 = 10.1 to 18)  
D1 = +0 / -0.033 (D1 > 18)  
D2 = h6

**HARDNESS (HRC)**



>>Continue

INCH  
METRIC

INCH  
METRIC

Power max Drill Series

Power Drill Series

Solid Spiral Drill Series

Centering Tools

Power max Drill Series

Power Drill Series

Solid Spiral Drill Series

Centering Tools

EDP NO.				Cutting Diameter	Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter		
2 Flute										
TiAlN-HH										
Helix 30°										
3xD	5xD	10xD	20xD	D1			L1	L2	L3	D2
SF503	SF505	SF510	SF520	Decimal	Fraction	Metric				
-	<a href="#">SF505075</a>	-	-	0.2953"	-	7.500	-	52.00	103.00	8.00
-	-	<a href="#">SF510075</a>	-	0.2953"	-	7.500	52.000	98.00	153.00	8.00
-	-	-	<a href="#">SF520075</a>	0.2953"	-	7.500	52.000	173.00	228.00	8.00
<a href="#">SF50307541</a>	-	-	-	0.2969"	19/64"	7.541	-	40.00	79.00	8.00
-	<a href="#">SF50507541</a>	-	-	0.2969"	19/64"	7.541	-	52.00	103.00	8.00
<a href="#">SF503076</a>	-	-	-	0.2992"	-	7.600	-	40.00	79.00	8.00
-	<a href="#">SF505076</a>	-	-	0.2992"	-	7.600	-	52.00	103.00	8.00
-	-	<a href="#">SF510076</a>	-	0.2992"	-	7.600	52.000	105.00	160.00	8.00
-	-	-	<a href="#">SF520076</a>	0.2992"	-	7.600	52.000	185.00	240.00	8.00
<a href="#">SF503077</a>	-	-	-	0.3031"	-	7.700	-	40.00	79.00	8.00
-	<a href="#">SF505077</a>	-	-	0.3031"	-	7.700	-	52.00	103.00	8.00
-	-	<a href="#">SF510077</a>	-	0.3031"	-	7.700	52.000	105.00	160.00	8.00
-	-	-	<a href="#">SF520077</a>	0.3031"	-	7.700	52.000	185.00	240.00	8.00
<a href="#">SF503078</a>	-	-	-	0.3071"	-	7.800	-	40.00	79.00	8.00
-	<a href="#">SF505078</a>	-	-	0.3071"	-	7.800	-	52.00	103.00	8.00
-	-	<a href="#">SF510078</a>	-	0.3071"	-	7.800	52.000	105.00	160.00	8.00
-	-	-	<a href="#">SF520078</a>	0.3071"	-	7.800	52.000	185.00	240.00	8.00
<a href="#">SF503079</a>	-	-	-	0.3110"	-	7.900	-	40.00	79.00	8.00
-	<a href="#">SF505079</a>	-	-	0.3110"	-	7.900	-	52.00	103.00	8.00
-	-	<a href="#">SF510079</a>	-	0.3110"	-	7.900	52.000	105.00	160.00	8.00
-	-	-	<a href="#">SF520079</a>	0.3110"	-	7.900	52.000	185.00	240.00	8.00
<a href="#">SF50307938</a>	-	-	-	0.3125"	5/16"	7.938	-	40.00	79.00	8.00
-	<a href="#">SF50507938</a>	-	-	0.3125"	5/16"	7.938	-	52.00	103.00	8.00
<a href="#">SF503080</a>	-	-	-	0.3150"	-	8.000	-	40.00	79.00	8.00
-	<a href="#">SF505080</a>	-	-	0.3150"	-	8.000	-	52.00	103.00	8.00
-	-	<a href="#">SF510080</a>	-	0.3150"	-	8.000	52.000	105.00	160.00	8.00
-	-	-	<a href="#">SF520080</a>	0.3150"	-	8.000	52.000	185.00	240.00	8.00
<a href="#">SF503081</a>	-	-	-	0.3189"	-	8.100	-	43.00	84.00	9.00
-	<a href="#">SF505081</a>	-	-	0.3189"	-	8.100	-	56.00	105.00	9.00
-	-	<a href="#">SF510081</a>	-	0.3189"	-	8.100	56.000	111.00	166.00	9.00
-	-	-	<a href="#">SF520081</a>	0.3189"	-	8.100	56.000	196.00	251.00	9.00
<a href="#">SF503082</a>	-	-	-	0.3228"	-	8.200	-	43.00	84.00	9.00

Applicable Working Material

ALL	CARBON STEELS LOW (1045, 1070)	CARBON STEELS MED (1020, 1045)	CARBON STEELS HIGH (1045, 1080)	ALLOY STEELS (4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST

Applicable Working Material

ALL	CARBON STEELS LOW (1045, 1070)	CARBON STEELS MED (1020, 1045)	CARBON STEELS HIGH (1045, 1080)	ALLOY STEELS (4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

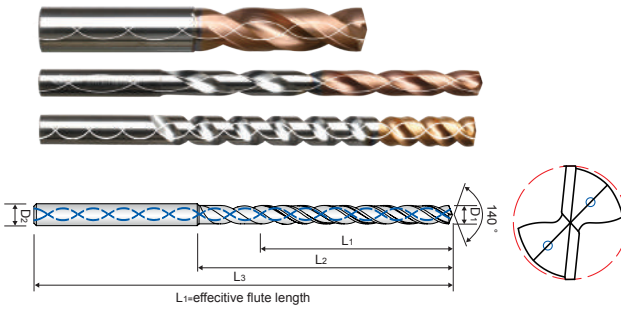
○:GOOD ◎:BEST



**SF503, SF505, SF510 & SF520 SERIES**

3xD, 5xD, 10xD & 20xD

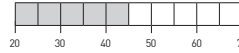
DRILLS / 2 FLUTES / 3xD, 5xD, 10xD & 20xD / INTERNAL COOLANT / SINGLE MARGIN / TiAlN-HH COATING



**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
D1 = +0 / -0.018 (D1 = 3.1 to 6)  
D1 = +0 / -0.022 (D1 = 6.1 to 10)  
D1 = +0 / -0.027 (D1 = 10.1 to 18)  
D1 = +0 / -0.033 (D1 > 18)  
D2 = h6

**HARDNESS (HRC)**



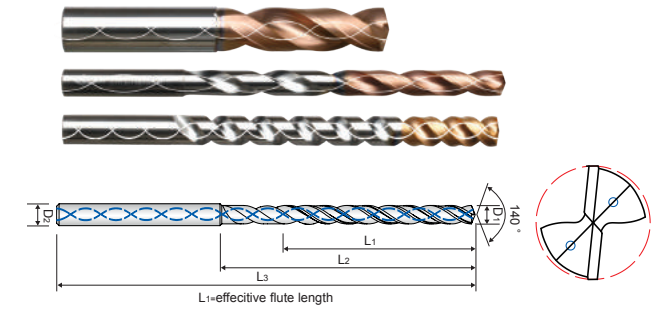
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**SF503, SF505, SF510 & SF520 SERIES**

3xD, 5xD, 10xD & 20xD

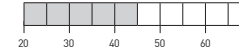
DRILLS / 2 FLUTES / 3xD, 5xD, 10xD & 20xD / INTERNAL COOLANT / SINGLE MARGIN / TiAlN-HH COATING



**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
D1 = +0 / -0.018 (D1 = 3.1 to 6)  
D1 = +0 / -0.022 (D1 = 6.1 to 10)  
D1 = +0 / -0.027 (D1 = 10.1 to 18)  
D1 = +0 / -0.033 (D1 > 18)  
D2 = h6

**HARDNESS (HRC)**



>>Continue

EDP NO.				Cutting Diameter	Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter		
2 Flute										
TiAlN-HH										
Helix 30°										
3xD	5xD	10xD	20xD	D1			L1	L2	L3	D2
SF503	SF505	SF510	SF520	Decimal	Fraction	Metric				
-	<a href="#">SF505089</a>	-	-	0.3504"	-	8.900	-	56.00	105.00	9.00
-	-	<a href="#">SF510089</a>	-	0.3504"	-	8.900	56.000	118.00	173.00	9.00
-	-	-	<a href="#">SF520089</a>	0.3504"	-	8.900	56.000	208.00	263.00	9.00
<a href="#">SF503090</a>	-	-	-	0.3543"	-	9.000	-	43.00	84.00	9.00
-	<a href="#">SF505090</a>	-	-	0.3543"	-	9.000	-	56.00	105.00	9.00
-	-	<a href="#">SF510090</a>	-	0.3543"	-	9.000	56.000	118.00	173.00	9.00
-	-	-	<a href="#">SF520090</a>	0.3543"	-	9.000	56.000	208.00	263.00	9.00
<a href="#">SF503091</a>	-	-	-	0.3583"	-	9.100	-	47.00	89.00	10.00
-	<a href="#">SF505091</a>	-	-	0.3583"	-	9.100	-	62.00	108.00	10.00
-	-	<a href="#">SF510091</a>	-	0.3583"	-	9.100	62.000	124.00	179.00	10.00
-	-	-	<a href="#">SF520091</a>	0.3583"	-	9.100	62.000	219.00	274.00	10.00
<a href="#">SF50309129</a>	-	-	-	0.3594"	23/64"	9.129	-	47.00	89.00	10.00
-	<a href="#">SF50509129</a>	-	-	0.3594"	23/64"	9.129	-	62.00	108.00	10.00
<a href="#">SF503092</a>	-	-	-	0.3622"	-	9.200	-	47.00	89.00	10.00
-	<a href="#">SF505092</a>	-	-	0.3622"	-	9.200	-	62.00	108.00	10.00
-	-	<a href="#">SF510092</a>	-	0.3622"	-	9.200	62.000	124.00	179.00	10.00
-	-	-	<a href="#">SF520092</a>	0.3622"	-	9.200	62.000	219.00	274.00	10.00
<a href="#">SF503093</a>	-	-	-	0.3661"	-	9.300	-	47.00	89.00	10.00
-	<a href="#">SF505093</a>	-	-	0.3661"	-	9.300	-	62.00	108.00	10.00
-	-	<a href="#">SF510093</a>	-	0.3661"	-	9.300	62.000	124.00	179.00	10.00
-	-	-	<a href="#">SF520093</a>	0.3661"	-	9.300	62.000	219.00	274.00	10.00
<a href="#">SF503094</a>	-	-	-	0.3701"	-	9.400	-	47.00	89.00	10.00
-	<a href="#">SF505094</a>	-	-	0.3701"	-	9.400	-	62.00	108.00	10.00
-	-	<a href="#">SF510094</a>	-	0.3701"	-	9.400	62.000	124.00	179.00	10.00
-	-	-	<a href="#">SF520094</a>	0.3701"	-	9.400	62.000	219.00	274.00	10.00
<a href="#">SF503095</a>	-	-	-	0.3740"	-	9.500	-	47.00	89.00	10.00
-	<a href="#">SF505095</a>	-	-	0.3740"	-	9.500	-	62.00	108.00	10.00
-	-	<a href="#">SF510095</a>	-	0.3740"	-	9.500	62.000	124.00	179.00	10.00
-	-	-	<a href="#">SF520095</a>	0.3740"	-	9.500	62.000	219.00	274.00	10.00
<a href="#">SF50309525</a>	-	-	-	0.3750"	3/8"	9.525	-	47.00	89.00	10.00
-	<a href="#">SF50509525</a>	-	-	0.3750"	3/8"	9.525	-	62.00	108.00	10.00
<a href="#">SF503096</a>	-	-	-	0.3780"	-	9.600	-	47.00	89.00	10.00

Applicable Working Material

ALL	CARBON STEELS LOW (100-170)	CARBON STEELS MED (170-200)	CARBON STEELS HIGH (200)	ALLOY STEELS (4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME	
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST

EDP NO.				Cutting Diameter	Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter		
2 Flute										
TiAlN-HH										
Helix 30°										
3xD	5xD	10xD	20xD	D1			L1	L2	L3	D2
SF503	SF505	SF510	SF520	Decimal	Fraction	Metric				
-	<a href="#">SF505096</a>	-	-	0.3780"	-	9.600	-	62.00	108.00	10.00
-	-	<a href="#">SF510096</a>	-	0.3780"	-	9.600	62.000	131.00	186.00	10.00
-	-	-	<a href="#">SF520096</a>	0.3780"	-	9.600	62.000	231.00	286.00	10.00
<a href="#">SF503097</a>	-	-	-	0.3819"	-	9.700	-	47.00	89.00	10.00
-	<a href="#">SF505097</a>	-	-	0.3819"	-	9.700	-	62.00	108.00	10.00
-	-	<a href="#">SF510097</a>	-	0.3819"	-	9.700	62.000	131.00	186.00	10.00
-	-	-	<a href="#">SF520097</a>	0.3819"	-	9.700	62.000	231.00	286.00	10.00
<a href="#">SF503098</a>	-	-	-	0.3858"	-	9.800	-	47.00	89.00	10.00
-	<a href="#">SF505098</a>	-	-	0.3858"	-	9.800	-	62.00	108.00	10.00
-	-	<a href="#">SF510098</a>	-	0.3858"	-	9.800	62.000	131.00	186.00	10.00
-	-	-	<a href="#">SF520098</a>	0.3858"	-	9.800	62.000	231.00	286.00	10.00
<a href="#">SF503099</a>	-	-	-	0.3898"	-	9.900	-	47.00	89.00	10.00
-	<a href="#">SF505099</a>	-	-	0.3898"	-	9.900	-	62.00	108.00	10.00
-	-	<a href="#">SF510099</a>	-	0.3898"	-	9.900	62.000	131.00	186.00	10.00
-	-	-	<a href="#">SF520099</a>	0.3898"	-	9.900	62.000	231.00	286.00	10.00
<a href="#">SF50309921</a>	-	-	-	0.3906"	25/64"	9.921	-	47.00	89.00	10.00
-	<a href="#">SF50509921</a>	-	-	0.3906"	25/64"	9.921	-	62.00	108.00	10.00
<a href="#">SF503100</a>	-	-	-	0.3937"	-	10.000	-	47.00	89.00	10.00
-	<a href="#">SF505100</a>	-	-	0.3937"	-	10.000	-	62.00	108.00	10.00
-	-	<a href="#">SF510100</a>	-	0.3937"	-	10.000	62.000	131.00	186.00	10.00
-	-	-	<a href="#">SF520100</a>	0.3937"	-	10.000	62.000	231.00	286.00	10.00
<a href="#">SF503101</a>	-	-	-	0.3976"	-	10.100	-	51.00	95.00	11.00
-	<a href="#">SF505101</a>	-	-	0.3976"	-	10.100	-	68.00	125.00	11.00
-	-	<a href="#">SF510101</a>	-	0.3976"	-	10.100	68.000	138.00	193.00	11.00
<a href="#">SF503102</a>	-	-	-	0.4016"	-	10.200	-	51.00	95.00	11.00
-	<a href="#">SF505102</a>	-	-	0.4016"	-	10.200	-	68.00	125.00	11.00
-	-	<a href="#">SF510102</a>	-	0.4016"	-	10.200	68.000	138.00	193.00	11.00
<a href="#">SF503103</a>	-	-	-	0.4055"	-	10.300	-	51.00	95.00	11.00
-	<a href="#">SF505103</a>	-	-	0.4055"	-	10.300	-	68.00	125.00	11.00
-	-	<a href="#">SF510103</a>	-	0.4055"	-	10.300	68.000	138.00	193.00	11.00
<a href="#">SF5031032</a>	-	-	-	0.4063"	13/32"	10.320	-	51.00	95.00	11.00
-	<a href="#">SF5051032</a>	-	-	0.4063"	13/32"	10.320	-	68.00	125.00	11.00

Applicable Working Material

ALL	CARBON STEELS LOW (100-170)	CARBON STEELS MED (170-200)	CARBON STEELS HIGH (200)	ALLOY STEELS (4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME	
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST

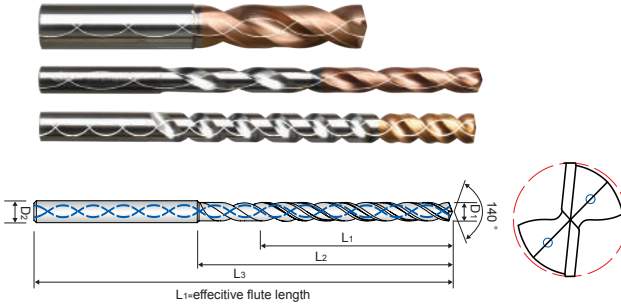




**SF503, SF505, SF510 & SF520 SERIES**

3xD, 5xD, 10xD & 20xD

DRILLS / 2 FLUTES / 3xD, 5xD, 10xD & 20xD / INTERNAL COOLANT / SINGLE MARGIN / TiAlN-HH COATING



TOLERANCE (Metric)	HARDNESS (HRC)
D1 = +0 / -0.014 (D1 ≤ 3)	
D1 = +0 / -0.018 (D1 = 3.1 to 6)	
D1 = +0 / -0.022 (D1 = 6.1 to 10)	
D1 = +0 / -0.027 (D1 = 10.1 to 18)	
D1 = +0 / -0.033 (D1 > 18)	
D2 = h6	

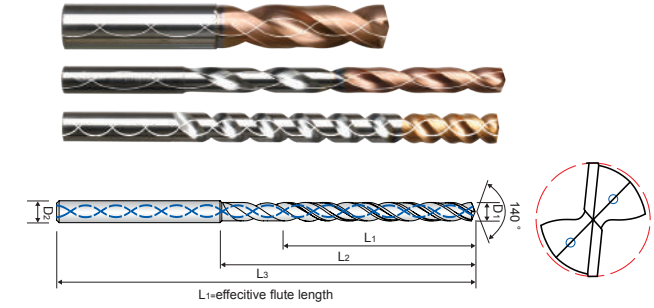
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**SF503, SF505, SF510 & SF520 SERIES**

3xD, 5xD, 10xD & 20xD

DRILLS / 2 FLUTES / 3xD, 5xD, 10xD & 20xD / INTERNAL COOLANT / SINGLE MARGIN / TiAlN-HH COATING



TOLERANCE (Metric)	HARDNESS (HRC)
D1 = +0 / -0.014 (D1 ≤ 3)	
D1 = +0 / -0.018 (D1 = 3.1 to 6)	
D1 = +0 / -0.022 (D1 = 6.1 to 10)	
D1 = +0 / -0.027 (D1 = 10.1 to 18)	
D1 = +0 / -0.033 (D1 > 18)	
D2 = h6	

>>Continue

EDP NO.				Cutting Diameter	Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter		
2 Flute										
TiAlN-HH										
Helix 30°										
3xD	5xD	10xD	20xD	D1			L1	L2	L3	D2
SF503	SF505	SF510	SF520	Decimal	Fraction	Metric				
SF503104	-	-	-	0.4094"	-	10.400	-	51.00	95.00	11.00
-	SF505104	-	-	0.4094"	-	10.400	-	68.00	125.00	11.00
-	-	SF510104	-	0.4094"	-	10.400	68.000	138.00	193.00	11.00
SF503105	-	-	-	0.4134"	-	10.500	-	51.00	95.00	11.00
-	SF505105	-	-	0.4134"	-	10.500	-	68.00	125.00	11.00
-	-	SF510105	-	0.4134"	-	10.500	68.000	138.00	193.00	11.00
SF503106	-	-	-	0.4173"	-	10.600	-	51.00	95.00	11.00
-	SF505106	-	-	0.4173"	-	10.600	-	68.00	125.00	11.00
-	-	SF510106	-	0.4173"	-	10.600	68.000	144.00	205.00	11.00
SF503107	-	-	-	0.4213"	-	10.700	-	51.00	95.00	11.00
-	SF505107	-	-	0.4213"	-	10.700	-	68.00	125.00	11.00
-	-	SF510107	-	0.4213"	-	10.700	68.000	144.00	205.00	11.00
SF50310716	-	-	-	0.4219"	27/64"	10.716	-	51.00	95.00	11.00
-	SF50510716	-	-	0.4219"	27/64"	10.716	-	68.00	125.00	11.00
SF503108	-	-	-	0.4252"	-	10.800	-	51.00	95.00	11.00
-	SF505108	-	-	0.4252"	-	10.800	-	68.00	125.00	11.00
-	-	SF510108	-	0.4252"	-	10.800	68.000	144.00	205.00	11.00
SF503109	-	-	-	0.4291"	-	10.900	-	51.00	95.00	11.00
-	SF505109	-	-	0.4291"	-	10.900	-	68.00	125.00	11.00
-	-	SF510109	-	0.4291"	-	10.900	68.000	144.00	205.00	11.00
SF503110	-	-	-	0.4331"	-	11.000	-	51.00	95.00	11.00
-	SF505110	-	-	0.4331"	-	11.000	-	68.00	125.00	11.00
-	-	SF510110	-	0.4331"	-	11.000	68.000	144.00	205.00	11.00
SF503111	-	-	-	0.4370"	-	11.100	-	54.00	102.00	12.00
-	SF505111	-	-	0.4370"	-	11.100	-	71.00	133.00	12.00
-	-	SF510111	-	0.4370"	-	11.100	71.000	151.00	212.00	12.00
SF50311113	-	-	-	0.4375"	7/16"	11.113	-	54.00	102.00	12.00
-	SF50511113	-	-	0.4375"	7/16"	11.113	-	71.00	133.00	12.00
SF503112	-	-	-	0.4409"	-	11.200	-	54.00	102.00	12.00
-	SF505112	-	-	0.4409"	-	11.200	-	71.00	133.00	12.00
-	-	SF510112	-	0.4409"	-	11.200	71.000	151.00	212.00	12.00
SF503113	-	-	-	0.4449"	-	11.300	-	54.00	102.00	12.00

Applicable Working Material

ALL	CARBON STEELS LOW (100-170)	CARBON STEELS MED (170-200)	CARBON STEELS HIGH (180)	ALLOY STEELS (4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST

EDP NO.				Cutting Diameter	Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter		
2 Flute										
TiAlN-HH										
Helix 30°										
3xD	5xD	10xD	20xD	D1			L1	L2	L3	D2
SF503	SF505	SF510	SF520	Decimal	Fraction	Metric				
-	SF505113	-	-	0.4449"	-	11.300	-	71.00	133.00	12.00
-	-	SF510113	-	0.4449"	-	11.300	71.000	151.00	212.00	12.00
SF503114	-	-	-	0.4488"	-	11.400	-	54.00	102.00	12.00
-	SF505114	-	-	0.4488"	-	11.400	-	71.00	133.00	12.00
-	-	SF510114	-	0.4488"	-	11.400	71.000	151.00	212.00	12.00
SF503115	-	-	-	0.4528"	-	11.500	-	54.00	102.00	12.00
-	SF505115	-	-	0.4528"	-	11.500	-	71.00	133.00	12.00
-	-	SF510115	-	0.4528"	-	11.500	71.000	151.00	212.00	12.00
SF503116	-	-	-	0.4567"	-	11.600	-	54.00	102.00	12.00
-	SF505116	-	-	0.4567"	-	11.600	-	71.00	133.00	12.00
-	-	SF510116	-	0.4567"	-	11.600	71.000	157.00	218.00	12.00
SF503117	-	-	-	0.4606"	-	11.700	-	54.00	102.00	12.00
-	SF505117	-	-	0.4606"	-	11.700	-	71.00	133.00	12.00
-	-	SF510117	-	0.4606"	-	11.700	71.000	157.00	218.00	12.00
SF503118	-	-	-	0.4646"	-	11.800	-	54.00	102.00	12.00
-	SF505118	-	-	0.4646"	-	11.800	-	71.00	133.00	12.00
-	-	SF510118	-	0.4646"	-	11.800	71.000	157.00	218.00	12.00
SF503119	-	-	-	0.4685"	-	11.900	-	54.00	102.00	12.00
-	SF505119	-	-	0.4685"	-	11.900	-	71.00	133.00	12.00
-	-	SF510119	-	0.4685"	-	11.900	71.000	157.00	218.00	12.00
SF50311908	-	-	-	0.4688"	15/32"	11.908	-	54.00	102.00	12.00
-	SF50511908	-	-	0.4688"	15/32"	11.908	-	71.00	133.00	12.00
SF503120	-	-	-	0.4724"	-	12.000	-	54.00	102.00	12.00
-	SF505120	-	-	0.4724"	-	12.000	-	71.00	133.00	12.00
-	-	SF510120	-	0.4724"	-	12.000	71.000	157.00	218.00	12.00
SF503121	-	-	-	0.4764"	-	12.100	-	57.00	102.00	13.00
-	SF505121	-	-	0.4764"	-	12.100	-	75.00	137.00	13.00
-	-	SF510121	-	0.4764"	-	12.100	75.000	164.00	225.00	13.00
SF503122	-	-	-	0.4803"	-	12.200	-	57.00	102.00	13.00
-	SF505122	-	-	0.4803"	-	12.200	-	75.00	137.00	13.00
-	-	SF510122	-	0.4803"	-	12.200	75.000	164.00	225.00	13.00
SF503123	-	-	-	0.4843"	-	12.300	-	57.00	102.00	13.00

Applicable Working Material

ALL	CARBON STEELS LOW (100-170)	CARBON STEELS MED (170-200)	CARBON STEELS HIGH (180)	ALLOY STEELS (4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

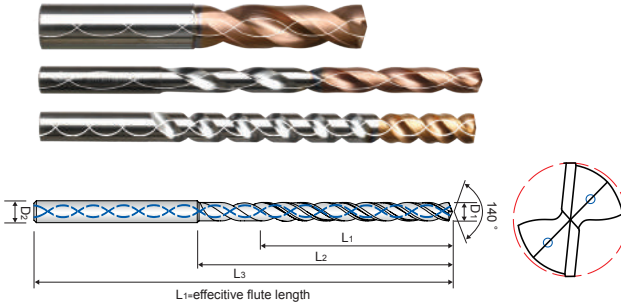
○:GOOD ◎:BEST



**SF503, SF505, SF510 & SF520 SERIES**

3xD, 5xD, 10xD & 20xD

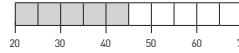
DRILLS / 2 FLUTES / 3xD, 5xD, 10xD & 20xD / INTERNAL COOLANT / SINGLE MARGIN / TiAlN-HH COATING



**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
D1 = +0 / -0.018 (D1 = 3.1 to 6)  
D1 = +0 / -0.022 (D1 = 6.1 to 10)  
D1 = +0 / -0.027 (D1 = 10.1 to 18)  
D1 = +0 / -0.033 (D1 > 18)  
D2 = h6

**HARDNESS (HRc)**



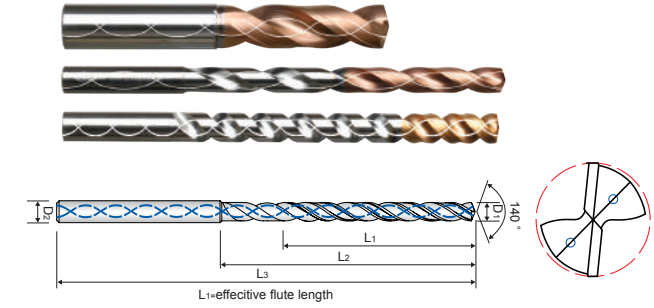
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**SF503, SF505, SF510 & SF520 SERIES**

3xD, 5xD, 10xD & 20xD

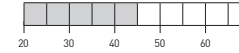
DRILLS / 2 FLUTES / 3xD, 5xD, 10xD & 20xD / INTERNAL COOLANT / SINGLE MARGIN / TiAlN-HH COATING



**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
D1 = +0 / -0.018 (D1 = 3.1 to 6)  
D1 = +0 / -0.022 (D1 = 6.1 to 10)  
D1 = +0 / -0.027 (D1 = 10.1 to 18)  
D1 = +0 / -0.033 (D1 > 18)  
D2 = h6

**HARDNESS (HRc)**



>>Continue

EDP NO.				Cutting Diameter	Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter		
2 Flute										
TiAlN-HH										
Helix 30°										
3xD	5xD	10xD	20xD	D1			L1	L2	L3	D2
SF503	SF505	SF510	SF520	Decimal	Fraction	Metric				
-	<a href="#">SF505123</a>	-	-	0.4843"	-	12.300	-	75.00	137.00	13.00
-	-	<a href="#">SF510123</a>	-	0.4843"	-	12.300	75.000	164.00	225.00	13.00
<a href="#">SF50312304</a>	-	-	-	0.4844"	31/64"	12.304	-	57.00	102.00	13.00
-	<a href="#">SF50512304</a>	-	-	0.4844"	31/64"	12.304	-	75.00	137.00	13.00
<a href="#">SF503124</a>	-	-	-	0.4882"	-	12.400	-	57.00	102.00	13.00
-	<a href="#">SF505124</a>	-	-	0.4882"	-	12.400	-	75.00	137.00	13.00
-	-	<a href="#">SF510124</a>	-	0.4882"	-	12.400	75.000	164.00	225.00	13.00
<a href="#">SF503125</a>	-	-	-	0.4921"	-	12.500	-	57.00	102.00	13.00
-	<a href="#">SF505125</a>	-	-	0.4921"	-	12.500	-	75.00	137.00	13.00
-	-	<a href="#">SF510125</a>	-	0.4921"	-	12.500	75.000	164.00	225.00	13.00
<a href="#">SF503126</a>	-	-	-	0.4961"	-	12.600	-	57.00	102.00	13.00
-	<a href="#">SF505126</a>	-	-	0.4961"	-	12.600	-	75.00	137.00	13.00
-	-	<a href="#">SF510126</a>	-	0.4961"	-	12.600	75.000	170.00	236.00	13.00
<a href="#">SF503127</a>	-	-	-	0.5000"	1/2"	12.700	-	57.00	102.00	13.00
-	<a href="#">SF505127</a>	-	-	0.5000"	1/2"	12.700	-	75.00	137.00	13.00
-	-	<a href="#">SF510127</a>	-	0.5000"	1/2"	12.700	75.000	170.00	236.00	13.00
<a href="#">SF503128</a>	-	-	-	0.5039"	-	12.800	-	57.00	102.00	13.00
-	<a href="#">SF505128</a>	-	-	0.5039"	-	12.800	-	75.00	137.00	13.00
-	-	<a href="#">SF510128</a>	-	0.5039"	-	12.800	75.000	170.00	236.00	13.00
<a href="#">SF503129</a>	-	-	-	0.5079"	-	12.900	-	57.00	102.00	13.00
-	<a href="#">SF505129</a>	-	-	0.5079"	-	12.900	-	75.00	137.00	13.00
-	-	<a href="#">SF510129</a>	-	0.5079"	-	12.900	75.000	170.00	236.00	13.00
<a href="#">SF503130</a>	-	-	-	0.5118"	-	13.000	-	57.00	102.00	13.00
-	<a href="#">SF505130</a>	-	-	0.5118"	-	13.000	-	75.00	137.00	13.00
-	-	<a href="#">SF510130</a>	-	0.5118"	-	13.000	75.000	170.00	236.00	13.00
<a href="#">SF50313096</a>	-	-	-	0.5156"	33/64"	13.096	-	60.00	107.00	14.00
-	<a href="#">SF50513096</a>	-	-	0.5156"	33/64"	13.096	-	80.00	142.00	14.00
<a href="#">SF503131</a>	-	-	-	0.5157"	-	13.100	-	60.00	107.00	14.00
-	<a href="#">SF505131</a>	-	-	0.5157"	-	13.100	-	80.00	142.00	14.00
<a href="#">SF503132</a>	-	-	-	0.5197"	-	13.200	-	60.00	107.00	14.00
-	<a href="#">SF505132</a>	-	-	0.5197"	-	13.200	-	80.00	142.00	14.00
<a href="#">SF503133</a>	-	-	-	0.5236"	-	13.300	-	60.00	107.00	14.00

Applicable Working Material

○:GOOD	◎:BEST
SERIES CARBON STEELS LOW (100L-100B) CARBON STEELS MED (100C-100E) CARBON STEELS HIGH (100F) ALLOY STEELS (40L-60E) DIE STEELS STAINLESS STEELS 300 STAINLESS STEELS 400 STAINLESS STEELS 17-4 PH CAST IRON ALUMINUM (6061, 7075) ALUMINUM CASTINGS NICKEL ALLOYS (INCONEL) TITANIUM (6Al4V) HARDENED STEELS 35-45 HRc HARDENED STEELS 45-50 HRc HARDENED STEELS 50-70 HRc MAGNESIUM BRASS BRONZE GRAPHITE COBALT CHROME	○:GOOD ◎:BEST CARBON STEELS LOW (100L-100B) CARBON STEELS MED (100C-100E) CARBON STEELS HIGH (100F) ALLOY STEELS (40L-60E) DIE STEELS STAINLESS STEELS 300 STAINLESS STEELS 400 STAINLESS STEELS 17-4 PH CAST IRON ALUMINUM (6061, 7075) ALUMINUM CASTINGS NICKEL ALLOYS (INCONEL) TITANIUM (6Al4V) HARDENED STEELS 35-45 HRc HARDENED STEELS 45-50 HRc HARDENED STEELS 50-70 HRc MAGNESIUM BRASS BRONZE GRAPHITE COBALT CHROME

EDP NO.				Cutting Diameter	Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter		
2 Flute										
TiAlN-HH										
Helix 30°										
3xD	5xD	10xD	20xD	D1			L1	L2	L3	D2
SF503	SF505	SF510	SF520	Decimal	Fraction	Metric				
-	<a href="#">SF505133</a>	-	-	0.5236"	-	13.300	-	80.00	142.00	14.00
<a href="#">SF503134</a>	-	-	-	0.5276"	-	13.400	-	60.00	107.00	14.00
-	<a href="#">SF505134</a>	-	-	0.5276"	-	13.400	-	80.00	142.00	14.00
<a href="#">SF50313494</a>	-	-	-	0.5313"	17/32"	13.494	-	60.00	107.00	14.00
-	<a href="#">SF50513494</a>	-	-	0.5313"	17/32"	13.494	-	80.00	142.00	14.00
<a href="#">SF503135</a>	-	-	-	0.5315"	-	13.500	-	60.00	107.00	14.00
-	<a href="#">SF505135</a>	-	-	0.5315"	-	13.500	-	80.00	142.00	14.00
<a href="#">SF503136</a>	-	-	-	0.5354"	-	13.600	-	60.00	107.00	14.00
-	<a href="#">SF505136</a>	-	-	0.5354"	-	13.600	-	80.00	142.00	14.00
<a href="#">SF503137</a>	-	-	-	0.5394"	-	13.700	-	60.00	107.00	14.00
-	<a href="#">SF505137</a>	-	-	0.5394"	-	13.700	-	80.00	142.00	14.00
<a href="#">SF503138</a>	-	-	-	0.5433"	-	13.800	-	60.00	107.00	14.00
-	<a href="#">SF505138</a>	-	-	0.5433"	-	13.800	-	80.00	142.00	14.00
<a href="#">SF50313891</a>	-	-	-	0.5469"	35/64"	13.891	-	60.00	107.00	14.00
-	<a href="#">SF50513891</a>	-	-	0.5469"	35/64"	13.891	-	80.00	142.00	14.00
<a href="#">SF503139</a>	-	-	-	0.5472"	-	13.900	-	60.00	107.00	14.00
-	<a href="#">SF505139</a>	-	-	0.5472"	-	13.900	-	80.00	142.00	14.00
<a href="#">SF503140</a>	-	-	-	0.5512"	-	14.000	-	60.00	107.00	14.00
-	<a href="#">SF505140</a>	-	-	0.5512"	-	14.000	-	80.00	142.00	14.00
<a href="#">SF503141</a>	-	-	-	0.5551"	-	14.100	-	62.00	111.00	15.00
-	<a href="#">SF505141</a>	-	-	0.5551"	-	14.100	-	83.00	148.00	15.00
<a href="#">SF503142</a>	-	-	-	0.5591"	-	14.200	-	62.00	111.00	15.00
-	<a href="#">SF505142</a>	-	-	0.5591"	-	14.200	-	83.00	148.00	15.00
<a href="#">SF50314288</a>	-	-	-	0.5625"	9/16"	14.288	-	62.00	111.00	15.00
-	<a href="#">SF50514288</a>	-	-	0.5625"	9/16"	14.288	-	83.00	148.00	15.00
<a href="#">SF503143</a>	-	-	-	0.5630"	-	14.300	-	62.00	111.00	15.00
-	<a href="#">SF505143</a>	-	-	0.5630"	-	14.300	-	83.00	148.00	15.00
<a href="#">SF503144</a>	-	-	-	0.5669"	-	14.400	-	62.00	111.00	15.00
-	<a href="#">SF505144</a>	-	-	0.5669"	-	14.400	-	83.00	148.00	15.00
<a href="#">SF503145</a>	-	-	-	0.5709"	-	14.500	-	62.00	111.00	15.00
-	<a href="#">SF505145</a>	-	-	0.5709"	-	14.500	-	83.00	148.00	15.00
<a href="#">SF503146</a>	-	-	-	0.5748"	-	14.600	-	62.00	111.00	15.00

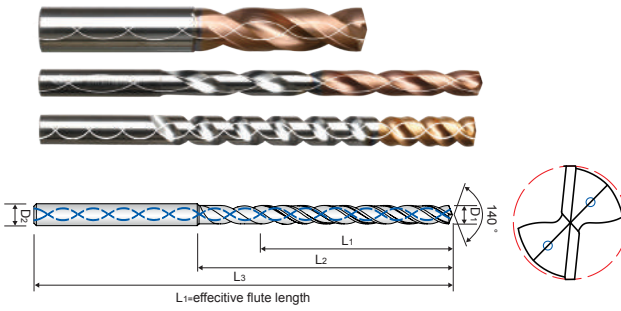
Applicable Working Material

○:GOOD	◎:BEST
SERIES CARBON STEELS LOW (100L-100B) CARBON STEELS MED (100C-100E) CARBON STEELS HIGH (100F) ALLOY STEELS (40L-60E) DIE STEELS STAINLESS STEELS 300 STAINLESS STEELS 400 STAINLESS STEELS 17-4 PH CAST IRON ALUMINUM (6061, 7075) ALUMINUM CASTINGS NICKEL ALLOYS (INCONEL) TITANIUM (6Al4V) HARDENED STEELS 35-45 HRc HARDENED STEELS 45-50 HRc HARDENED STEELS 50-70 HRc MAGNESIUM BRASS BRONZE GRAPHITE COBALT CHROME	○:GOOD ◎:BEST CARBON STEELS LOW (100L-100B) CARBON STEELS MED (100C-100E) CARBON STEELS HIGH (100F) ALLOY STEELS (40L-60E) DIE STEELS STAINLESS STEELS 300 STAINLESS STEELS 400 STAINLESS STEELS 17-4 PH CAST IRON ALUMINUM (6061, 7075) ALUMINUM CASTINGS NICKEL ALLOYS (INCONEL) TITANIUM (6Al4V) HARDENED STEELS 35-45 HRc HARDENED STEELS 45-50 HRc HARDENED STEELS 50-70 HRc MAGNESIUM BRASS BRONZE GRAPHITE COBALT CHROME

**SF503, SF505, SF510 & SF520 SERIES**

3xD, 5xD, 10xD & 20xD

DRILLS / 2 FLUTES / 3xD, 5xD, 10xD & 20xD / INTERNAL COOLANT / SINGLE MARGIN / TiAlN-HH COATING



**TOLERANCE (Metric)**  
 D1 = +0 / -0.014 (D1 ≤ 3)  
 D1 = +0 / -0.018 (D1 = 3.1 to 6)  
 D1 = +0 / -0.022 (D1 = 6.1 to 10)  
 D1 = +0 / -0.027 (D1 = 10.1 to 18)  
 D1 = +0 / -0.033 (D1 > 18)  
 D2 = h6

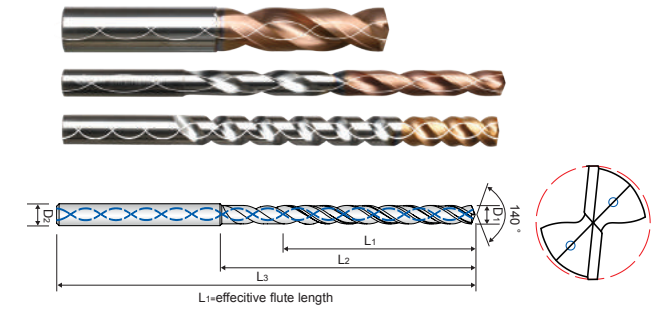


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**SF503, SF505, SF510 & SF520 SERIES**

3xD, 5xD, 10xD & 20xD

DRILLS / 2 FLUTES / 3xD, 5xD, 10xD & 20xD / INTERNAL COOLANT / SINGLE MARGIN / TiAlN-HH COATING



**TOLERANCE (Metric)**  
 D1 = +0 / -0.014 (D1 ≤ 3)  
 D1 = +0 / -0.018 (D1 = 3.1 to 6)  
 D1 = +0 / -0.022 (D1 = 6.1 to 10)  
 D1 = +0 / -0.027 (D1 = 10.1 to 18)  
 D1 = +0 / -0.033 (D1 > 18)  
 D2 = h6



Power max Drill Series	EDP NO.				Cutting Diameter	Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter	
	2 Flute									
	TiAlN-HH									
	Helix 30°									
3xD	5xD	10xD	20xD	D1			L1	L2	L3	D2
SF503	SF505	SF510	SF520	Decimal	Fraction	Metric				
-	<a href="#">SF505146</a>	-	-	0.5748"	-	14.600	-	83.00	148.00	15.00
<a href="#">SF503147</a>	-	-	-	0.5787"	-	14.700	-	62.00	111.00	15.00
-	<a href="#">SF505147</a>	-	-	0.5787"	-	14.700	-	83.00	148.00	15.00
<a href="#">SF503148</a>	-	-	-	0.5827"	-	14.800	-	62.00	111.00	15.00
-	<a href="#">SF505148</a>	-	-	0.5827"	-	14.800	-	83.00	148.00	15.00
<a href="#">SF503149</a>	-	-	-	0.5866"	-	14.900	-	62.00	111.00	15.00
-	<a href="#">SF505149</a>	-	-	0.5866"	-	14.900	-	83.00	148.00	15.00
<a href="#">SF503150</a>	-	-	-	0.5906"	-	15.000	-	62.00	111.00	15.00
-	<a href="#">SF505150</a>	-	-	0.5906"	-	15.000	-	83.00	148.00	15.00
<a href="#">SF50315081</a>	-	-	-	0.5937"	19/32"	15.081	-	64.00	115.00	16.00
-	<a href="#">SF50515081</a>	-	-	0.5937"	19/32"	15.081	-	90.00	152.00	16.00
<a href="#">SF503151</a>	-	-	-	0.5945"	-	15.100	-	64.00	115.00	16.00
-	<a href="#">SF505151</a>	-	-	0.5945"	-	15.100	-	90.00	152.00	16.00
<a href="#">SF503152</a>	-	-	-	0.5984"	-	15.200	-	64.00	115.00	16.00
-	<a href="#">SF505152</a>	-	-	0.5984"	-	15.200	-	90.00	152.00	16.00
<a href="#">SF503154</a>	-	-	-	0.6063"	-	15.400	-	64.00	115.00	16.00
-	<a href="#">SF505154</a>	-	-	0.6063"	-	15.400	-	90.00	152.00	16.00
<a href="#">SF503155</a>	-	-	-	0.6102"	-	15.500	-	64.00	115.00	16.00
-	<a href="#">SF505155</a>	-	-	0.6102"	-	15.500	-	90.00	152.00	16.00
<a href="#">SF503156</a>	-	-	-	0.6142"	-	15.600	-	64.00	115.00	16.00
-	<a href="#">SF505156</a>	-	-	0.6142"	-	15.600	-	90.00	152.00	16.00
<a href="#">SF503157</a>	-	-	-	0.6181"	-	15.700	-	64.00	115.00	16.00
-	<a href="#">SF505157</a>	-	-	0.6181"	-	15.700	-	90.00	152.00	16.00
<a href="#">SF503158</a>	-	-	-	0.6220"	-	15.800	-	64.00	115.00	16.00
-	<a href="#">SF505158</a>	-	-	0.6220"	-	15.800	-	90.00	152.00	16.00
<a href="#">SF50315875</a>	-	-	-	0.6250"	5/8"	15.875	-	64.00	115.00	16.00
-	<a href="#">SF50515875</a>	-	-	0.6250"	5/8"	15.875	-	90.00	152.00	16.00
<a href="#">SF503160</a>	-	-	-	0.6299"	-	16.000	-	64.00	115.00	16.00
-	<a href="#">SF505160</a>	-	-	0.6299"	-	16.000	-	90.00	152.00	16.00
<a href="#">SF503161</a>	-	-	-	0.6339"	-	16.100	-	66.00	119.00	17.00
-	<a href="#">SF505161</a>	-	-	0.6339"	-	16.100	-	95.00	155.00	17.00
<a href="#">SF503163</a>	-	-	-	0.6417"	-	16.300	-	66.00	119.00	17.00

Applicable Working Material

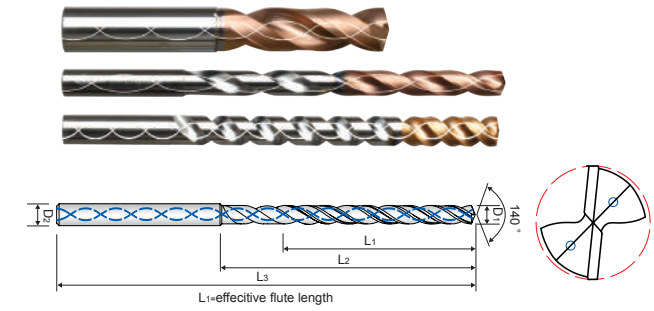
SERIES	CARBON STEELS LOW (100L-100)	CARBON STEELS MED (100L-100)	CARBON STEELS HIGH (100L-100)	ALLOY STEELS (4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST

**SF503, SF505, SF510 & SF520 SERIES**

3xD, 5xD, 10xD & 20xD

DRILLS / 2 FLUTES / 3xD, 5xD, 10xD & 20xD / INTERNAL COOLANT / SINGLE MARGIN / TiAlN-HH COATING



**TOLERANCE (Metric)**  
 D1 = +0 / -0.014 (D1 ≤ 3)  
 D1 = +0 / -0.018 (D1 = 3.1 to 6)  
 D1 = +0 / -0.022 (D1 = 6.1 to 10)  
 D1 = +0 / -0.027 (D1 = 10.1 to 18)  
 D1 = +0 / -0.033 (D1 > 18)  
 D2 = h6



Power max Drill Series	EDP NO.				Cutting Diameter	Effective Cutting Length	Cutting Length	Overall Length	Shank Diameter	
	2 Flute									
	TiAlN-HH									
	Helix 30°									
3xD	5xD	10xD	20xD	D1			L1	L2	L3	D2
SF503	SF505	SF510	SF520	Decimal	Fraction	Metric				
-	<a href="#">SF505163</a>	-	-	0.6417"	-	16.300	-	95.00	155.00	17.00
<a href="#">SF503165</a>	-	-	-	0.6496"	-	16.500	-	66.00	119.00	17.00
-	<a href="#">SF505165</a>	-	-	0.6496"	-	16.500	-	95.00	155.00	17.00
<a href="#">SF50316667</a>	-	-	-	0.6562"	21/32"	16.667	-	66.00	119.00	17.00
-	<a href="#">SF50516667</a>	-	-	0.6562"	21/32"	16.667	-	95.00	155.00	17.00
<a href="#">SF503170</a>	-	-	-	0.6693"	-	17.000	-	66.00	119.00	17.00
-	<a href="#">SF505170</a>	-	-	0.6693"	-	17.000	-	95.00	155.00	17.00
<a href="#">SF503171</a>	-	-	-	0.6732"	-	17.100	-	66.00	123.00	18.00
-	<a href="#">SF505171</a>	-	-	0.6732"	-	17.100	-	100.00	157.00	18.00
<a href="#">SF503172</a>	-	-	-	0.6772"	-	17.200	-	66.00	123.00	18.00
-	<a href="#">SF505172</a>	-	-	0.6772"	-	17.200	-	100.00	157.00	18.00
<a href="#">SF50317463</a>	-	-	-	0.6875"	11/16"	17.463	-	66.00	123.00	18.00
-	<a href="#">SF50517463</a>	-	-	0.6875"	11/16"	17.463	-	100.00	157.00	18.00
<a href="#">SF503175</a>	-	-	-	0.6890"	-	17.500	-	66.00	123.00	18.00
-	<a href="#">SF505175</a>	-	-	0.6890"	-	17.500	-	100.00	157.00	18.00
<a href="#">SF503177</a>	-	-	-	0.6969"	-	17.700	-	66.00	123.00	18.00
-	<a href="#">SF505177</a>	-	-	0.6969"	-	17.700	-	100.00	157.00	18.00
<a href="#">SF503178</a>	-	-	-	0.7008"	-	17.800	-	66.00	123.00	18.00
-	<a href="#">SF505178</a>	-	-	0.7008"	-	17.800	-	100.00	157.00	18.00
<a href="#">SF503180</a>	-	-	-	0.7087"	-	18.000	-	66.00	123.00	18.00
-	<a href="#">SF505180</a>	-	-	0.7087"	-	18.000	-	100.00	157.00	18.00
<a href="#">SF503181</a>	-	-	-	0.7126"	-	18.100	-	70.00	127.00	19.00
-	<a href="#">SF505181</a>	-	-	0.7126"	-	18.100	-	105.00	160.00	19.00
<a href="#">SF503182</a>	-	-	-	0.7165"	-	18.200	-	70.00	127.00	19.00
-	<a href="#">SF505182</a>	-	-	0.7165"	-	18.200	-	105.00	160.00	19.00
<a href="#">SF503185</a>	-	-	-	0.7283"	-	18.500	-	70.00	127.00	19.00
-	<a href="#">SF505185</a>	-	-	0.7283"	-	18.500	-	105.00	160.00	19.00
<a href="#">SF503190</a>	-	-	-	0.7480"	-	19.000	-	70.00	127.00	19.00
-	<a href="#">SF505190</a>	-	-	0.7480"	-	19.000	-	105.00	160.00	19.00
<a href="#">SF503191</a>	-	-	-	0.7520"	-	19.100	-	70.00	131.00	20.00
-	<a href="#">SF505191</a>	-	-	0.7520"	-	19.100	-	110.00	163.00	20.00
<a href="#">SF503195</a>	-	-	-	0.7677"	-	19.500	-	70.00	131.00	20.00
-	<a href="#">SF505195</a>	-	-	0.7677"	-	19.500	-	110.00	163.00	20.00
<a href="#">SF503197</a>	-	-	-	0.7756"	-	19.700	-	70.00	131.00	20.00
-	<a href="#">SF505197</a>	-	-	0.7756"	-	19.700	-	110.00	163.00	20.00
<a href="#">SF503200</a>	-	-	-	0.7874"	-	20.000	-	70.00	131.00	20.00
-	<a href="#">SF505200</a>	-	-	0.7874"	-	20.000	-	110.00	163.00	20.00

Applicable Working Material

SERIES	CARBON STEELS LOW (100L-100)	CARBON STEELS MED (100L-100)	CARBON STEELS HIGH (100L-100)	ALLOY STEELS (4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST

**SF503, SF505 SERIES**

RPM=rev./min.  
FEED=min/rev.  
IPR=inch/rev.

Work Material	Carbon Steels (C<0.3%) Alloy Steel < HB240, GG25			Carbon Steels (C≥0.3%) Alloy Steel < HB300, GG40			52100-AISI440			Hardened Steels 34 ~ 43 HRc		
	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)
3	12,000	0.09-0.12	0.004	13,000	0.09-0.12	0.004	7,600	0.09-0.12	0.004	6,400	0.09-0.12	0.004
4	9,500	0.10-0.15	0.005	10,000	0.10-0.15	0.005	5,700	0.10-0.15	0.005	4,800	0.10-0.15	0.005
5	7,600	0.12-0.18	0.006	8,000	0.12-0.18	0.006	4,600	0.12-0.18	0.006	3,800	0.12-0.18	0.006
6	6,400	0.14-0.20	0.007	6,600	0.14-0.20	0.007	3,800	0.14-0.20	0.007	3,200	0.14-0.20	0.007
8	4,800	0.16-0.24	0.008	5,000	0.16-0.24	0.008	2,900	0.16-0.24	0.008	2,400	0.16-0.24	0.008
10	3,800	0.18-0.27	0.009	4,000	0.18-0.27	0.009	2,300	0.18-0.27	0.009	1,900	0.18-0.27	0.009
12	3,200	0.20-0.30	0.010	3,300	0.20-0.30	0.010	1,900	0.20-0.30	0.010	1,600	0.20-0.30	0.010
14	2,700	0.22-0.35	0.011	2,800	0.22-0.35	0.011	1,600	0.22-0.35	0.011	1,350	0.22-0.35	0.011
16	2,400	0.25-0.36	0.012	2,500	0.25-0.36	0.012	1,400	0.25-0.36	0.012	1,200	0.25-0.36	0.012
18	2,100	0.28-0.38	0.013	2,200	0.28-0.38	0.013	1,300	0.28-0.38	0.013	1,100	0.28-0.38	0.013
20	1,900	0.30-0.40	0.014	2,000	0.30-0.40	0.014	1,150	0.30-0.40	0.014	1,000	0.30-0.40	0.014

**SF510, SF520 SERIES**

RPM=rev./min.  
FEED=min/rev.  
IPR=inch/rev.

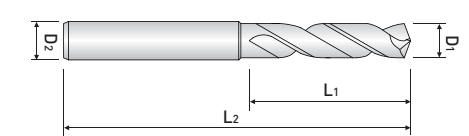
Work Material	Carbon Steels (C≥0.3%) Alloy Steel < HB300, GG40			Cast Iron 250-350N/mm <sup>2</sup>			Ductile Cast Iron 400-500N/mm <sup>2</sup>		
	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)
3	7,500	0.06 ~ 0.12	0.004	7,500	0.06 ~ 0.12	0.004	7,500	0.06 ~ 0.12	0.004
4	6,400	0.08 ~ 0.16	0.005	6,400	0.08 ~ 0.16	0.005	5,600	0.08 ~ 0.16	0.005
5	5,800	0.10 ~ 0.20	0.006	5,800	0.10 ~ 0.20	0.006	4,500	0.10 ~ 0.20	0.006
6	4,800	0.12 ~ 0.24	0.007	4,800	0.12 ~ 0.24	0.007	3,800	0.12 ~ 0.24	0.007
8	3,600	0.16 ~ 0.28	0.009	3,600	0.16 ~ 0.28	0.009	2,800	0.16 ~ 0.28	0.009
10	2,900	0.20 ~ 0.35	0.011	2,900	0.20 ~ 0.35	0.011	2,300	0.20 ~ 0.35	0.011
12	2,900	0.24 ~ 0.42	0.013	2,400	0.24 ~ 0.42	0.013	1,900	0.24 ~ 0.42	0.013
14	2,050	0.28 ~ 0.46	0.015	2,050	0.28 ~ 0.46	0.015	1,600	0.28 ~ 0.46	0.015



**PDS, PDM SERIES**

3xD & 5xD

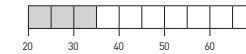
DRILLS / 2 FLUTES / 3xD & 5xD / SOLID CARBIDE / TiAlN COATING



TOLERANCE (Metric)

D1 = +0 / -0.014 (D1≤3)  
D1 = +0 / -0.018 (D1 = 3.1 to 6)  
D1 = +0 / -0.022 (D1 = 6.1 to 10)  
D1 = +0 / -0.027 (D1 = 10.1 to 18)  
D1 = +0 / -0.033 (D1>18)  
D2 = h6

HARDNESS (HRc)



EDP NO.	Cutting Diameter	Cutting Length	Overall Length	Shank Diameter	
					3xD
PDS010	-	1.00	8.00	38.00	3.00
PDS011	-	1.10	10.00	42.00	3.00
PDS012	-	1.20	10.00	42.00	3.00
PDS013	-	1.30	10.00	42.00	3.00
PDS014	-	1.40	11.00	42.00	3.00
PDS015	-	1.50	11.00	42.00	3.00
PDS016	-	1.60	12.00	42.00	3.00
PDS017	-	1.70	12.00	42.00	3.00
PDS018	-	1.80	13.00	42.00	3.00
PDS019	-	1.90	13.00	42.00	3.00
PDS020	-	2.00	14.00	50.00	3.00
PDS021	-	2.10	14.00	50.00	3.00
PDS022	-	2.20	14.00	50.00	3.00
PDS023	-	2.30	14.00	50.00	3.00
PDS024	-	2.40	14.00	50.00	3.00
PDS025	-	2.50	14.00	50.00	3.00
PDS026	-	2.60	14.00	50.00	3.00
PDS027	-	2.70	14.00	50.00	3.00
PDS028	-	2.80	14.00	50.00	3.00
PDS029	-	2.90	14.00	50.00	3.00
PDS030	-	3.00	18.00	60.00	3.00
-	PDM030	3.00	25.00	60.00	3.00
PDS031	-	3.10	20.00	60.00	4.00
-	PDM031	3.10	27.00	60.00	4.00
PDS032	-	3.20	20.00	60.00	4.00
-	PDM032	3.20	27.00	60.00	4.00
PDS033	-	3.30	20.00	60.00	4.00
-	PDM033	3.30	27.00	60.00	4.00
PDS034	-	3.40	22.00	60.00	4.00
-	PDM034	3.40	30.00	65.00	4.00
PDS035	-	3.50	22.00	60.00	4.00
-	PDM035	3.50	30.00	65.00	4.00
PDS036	-	3.60	22.00	60.00	4.00
-	PDM036	3.60	30.00	65.00	4.00

Applicable Working Material

SERIES	CARBON STEELS LOW TENSILE	CARBON STEELS MED TENSILE	CARBON STEELS HIGH TENSILE	ALLOY STEELS (AISI 4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (B414V)	HARDENED STEELS 35 HRc	HARDENED STEELS 35-45 HRc	HARDENED STEELS 45-50 HRc	HARDENED STEELS 50-70 HRc	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST

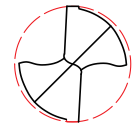
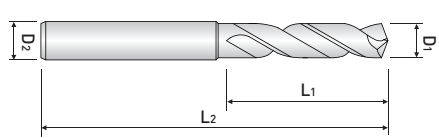




**PDS, PDM SERIES**

3xD & 5xD

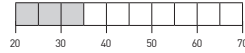
DRILLS / 2 FLUTES / 3xD & 5xD / SOLID CARBIDE / TiAlN COATING



TOLERANCE (Metric)

D1 = +0 / -0.014 (D1 ≤ 3)  
 D1 = +0 / -0.018 (D1 = 3.1 to 6)  
 D1 = +0 / -0.022 (D1 = 6.1 to 10)  
 D1 = +0 / -0.027 (D1 = 10.1 to 18)  
 D1 = +0 / -0.033 (D1 > 18)  
 D2 = h6

HARDNESS (HRC)



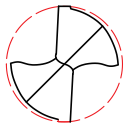
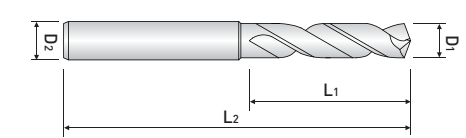
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**PDS, PDM SERIES**

3xD & 5xD

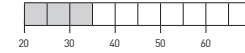
DRILLS / 2 FLUTES / 3xD & 5xD / SOLID CARBIDE / TiAlN COATING



TOLERANCE (Metric)

D1 = +0 / -0.014 (D1 ≤ 3)  
 D1 = +0 / -0.018 (D1 = 3.1 to 6)  
 D1 = +0 / -0.022 (D1 = 6.1 to 10)  
 D1 = +0 / -0.027 (D1 = 10.1 to 18)  
 D1 = +0 / -0.033 (D1 > 18)  
 D2 = h6

HARDNESS (HRC)



>>Continue

EDP NO.	2 Flute		Cutting Diameter	Cutting Length	Overall Length	Shank Diameter
	TiAlN					
	Helix 30°					
	3xD	5xD				
PDS	PDM	D1	L1	L2	D2	
PDS037	-	3.70	22.00	60.00	4.00	
-	PDM037	3.70	30.00	65.00	4.00	
PDS038	-	3.80	24.00	60.00	4.00	
-	PDM038	3.80	33.00	71.00	4.00	
PDS039	-	3.90	24.00	60.00	4.00	
-	PDM039	3.90	33.00	71.00	4.00	
PDS040	-	4.00	24.00	60.00	4.00	
-	PDM040	4.00	33.00	71.00	4.00	
PDS041	-	4.10	24.00	62.00	5.00	
-	PDM041	4.10	33.00	71.00	5.00	
PDS042	-	4.20	26.00	62.00	5.00	
-	PDM042	4.20	33.00	71.00	5.00	
PDS043	-	4.30	26.00	62.00	5.00	
-	PDM043	4.30	36.00	71.00	5.00	
PDS044	-	4.40	26.00	62.00	5.00	
-	PDM044	4.40	36.00	71.00	5.00	
PDS045	-	4.50	26.00	62.00	5.00	
-	PDM045	4.50	36.00	71.00	5.00	
PDS046	-	4.60	26.00	62.00	5.00	
-	PDM046	4.60	36.00	71.00	5.00	
PDS047	-	4.70	26.00	62.00	5.00	
-	PDM047	4.70	36.00	71.00	5.00	
PDS048	-	4.80	26.00	62.00	5.00	
-	PDM048	4.80	39.00	71.00	5.00	
PDS049	-	4.90	26.00	62.00	5.00	
-	PDM049	4.90	39.00	71.00	5.00	
PDS050	-	5.00	26.00	62.00	5.00	
-	PDM050	5.00	39.00	71.00	5.00	
PDS051	-	5.10	28.00	66.00	6.00	
-	PDM051	5.10	39.00	83.00	6.00	
PDS052	-	5.20	28.00	66.00	6.00	
-	PDM052	5.20	39.00	83.00	6.00	
PDS053	-	5.30	28.00	66.00	6.00	
-	PDM053	5.30	39.00	83.00	6.00	

Applicable Working Material

Series	Carbon Steels Low (100-170)	Carbon Steels Med (170-200)	Carbon Steels High (180)	Alloy Steels (40-60)	Die Steels	Stainless Steels 300	Stainless Steels 400	Stainless Steels 17-4 PH	Cast Iron	Aluminum (6061, 7075)	Aluminum Castings	Nickel Alloys (Inconel)	Titanium (6Al4V)	Hardened Steels 35 HRC	Hardened Steels 35-45 HRC	Hardened Steels 45-50 HRC	Hardened Steels 50-70 HRC	Magnesium	Brass Bronze	Graphite	Cobalt Chrome	
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST

EDP NO.	2 Flute		Cutting Diameter	Cutting Length	Overall Length	Shank Diameter
	TiAlN					
	Helix 30°					
	3xD	5xD				
PDS	PDM	D1	L1	L2	D2	
PDS054	-	5.40	28.00	66.00	6.00	
-	PDM054	5.40	43.00	83.00	6.00	
PDS055	-	5.50	28.00	66.00	6.00	
-	PDM055	5.50	43.00	83.00	6.00	
PDS056	-	5.60	30.00	66.00	6.00	
-	PDM056	5.60	43.00	83.00	6.00	
PDS057	-	5.70	30.00	66.00	6.00	
-	PDM057	5.70	43.00	83.00	6.00	
PDS058	-	5.80	30.00	66.00	6.00	
-	PDM058	5.80	43.00	83.00	6.00	
PDS059	-	5.90	30.00	66.00	6.00	
-	PDM059	5.90	43.00	83.00	6.00	
PDS060	-	6.00	30.00	66.00	6.00	
-	PDM060	6.00	43.00	83.00	6.00	
PDS061	-	6.10	34.00	74.00	7.00	
-	PDM061	6.10	47.00	87.00	7.00	
PDS062	-	6.20	34.00	74.00	7.00	
-	PDM062	6.20	47.00	87.00	7.00	
PDS063	-	6.30	34.00	74.00	7.00	
-	PDM063	6.30	47.00	87.00	7.00	
PDS064	-	6.40	34.00	74.00	7.00	
-	PDM064	6.40	47.00	87.00	7.00	
PDS065	-	6.50	34.00	74.00	7.00	
-	PDM065	6.50	47.00	87.00	7.00	
PDS066	-	6.60	34.00	74.00	7.00	
-	PDM066	6.60	47.00	87.00	7.00	
PDS067	-	6.70	37.00	74.00	7.00	
-	PDM067	6.70	47.00	87.00	7.00	
PDS068	-	6.80	37.00	74.00	7.00	
-	PDM068	6.80	47.00	87.00	7.00	
PDS069	-	6.90	37.00	74.00	7.00	
-	PDM069	6.90	47.00	87.00	7.00	
PDS070	-	7.00	37.00	74.00	7.00	
-	PDM070	7.00	47.00	87.00	7.00	

Applicable Working Material

Series	Carbon Steels Low (100-170)	Carbon Steels Med (170-200)	Carbon Steels High (180)	Alloy Steels (40-60)	Die Steels	Stainless Steels 300	Stainless Steels 400	Stainless Steels 17-4 PH	Cast Iron	Aluminum (6061, 7075)	Aluminum Castings	Nickel Alloys (Inconel)	Titanium (6Al4V)	Hardened Steels 35 HRC	Hardened Steels 35-45 HRC	Hardened Steels 45-50 HRC	Hardened Steels 50-70 HRC	Magnesium	Brass Bronze	Graphite	Cobalt Chrome	
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

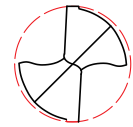
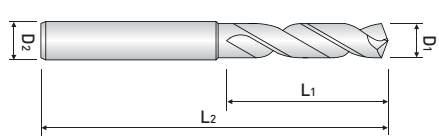
○:GOOD ◎:BEST



**PDS, PDM SERIES**

3xD & 5xD

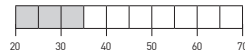
DRILLS / 2 FLUTES / 3xD & 5xD / SOLID CARBIDE / TiAlN COATING



TOLERANCE (Metric)

D1 = +0 / -0.014 (D1 ≤ 3)  
D1 = +0 / -0.018 (D1 = 3.1 to 6)  
D1 = +0 / -0.022 (D1 = 6.1 to 10)  
D1 = +0 / -0.027 (D1 = 10.1 to 18)  
D1 = +0 / -0.033 (D1 > 18)  
D2 = h6

HARDNESS (HRC)



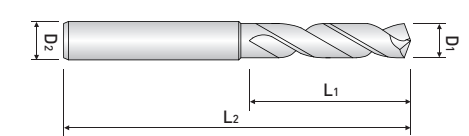
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**PDS, PDM SERIES**

3xD & 5xD

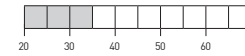
DRILLS / 2 FLUTES / 3xD & 5xD / SOLID CARBIDE / TiAlN COATING



TOLERANCE (Metric)

D1 = +0 / -0.014 (D1 ≤ 3)  
D1 = +0 / -0.018 (D1 = 3.1 to 6)  
D1 = +0 / -0.022 (D1 = 6.1 to 10)  
D1 = +0 / -0.027 (D1 = 10.1 to 18)  
D1 = +0 / -0.033 (D1 > 18)  
D2 = h6

HARDNESS (HRC)



>>Continue

Power max Drill Series	EDP NO.		Cutting Diameter	Cutting Length	Overall Length	Shank Diameter
	2 Flute					
	TiAlN					
	Helix 30°					
	3xD	5xD	D1	L1	L2	D2
	PDS	PDM				
	<a href="#">PDS071</a>	-	7.10	40.00	79.00	8.00
	-	<a href="#">PDM071</a>	7.10	52.00	92.00	8.00
	<a href="#">PDS072</a>	-	7.20	40.00	79.00	8.00
	-	<a href="#">PDM072</a>	7.20	52.00	92.00	8.00
	<a href="#">PDS073</a>	-	7.30	40.00	79.00	8.00
	-	<a href="#">PDM073</a>	7.30	52.00	92.00	8.00
	<a href="#">PDS074</a>	-	7.40	40.00	79.00	8.00
	-	<a href="#">PDM074</a>	7.40	52.00	92.00	8.00
	<a href="#">PDS075</a>	-	7.50	40.00	79.00	8.00
	-	<a href="#">PDM075</a>	7.50	52.00	92.00	8.00
	<a href="#">PDS076</a>	-	7.60	40.00	79.00	8.00
	-	<a href="#">PDM076</a>	7.60	52.00	92.00	8.00
	<a href="#">PDS077</a>	-	7.70	40.00	79.00	8.00
	-	<a href="#">PDM077</a>	7.70	52.00	92.00	8.00
	<a href="#">PDS078</a>	-	7.80	40.00	79.00	8.00
	-	<a href="#">PDM078</a>	7.80	52.00	92.00	8.00
	<a href="#">PDS079</a>	-	7.90	40.00	79.00	8.00
	-	<a href="#">PDM079</a>	7.90	52.00	92.00	8.00
	<a href="#">PDS080</a>	-	8.00	40.00	79.00	8.00
	-	<a href="#">PDM080</a>	8.00	52.00	92.00	8.00
	<a href="#">PDS081</a>	-	8.10	43.00	84.00	9.00
	-	<a href="#">PDM081</a>	8.10	56.00	96.00	9.00
	<a href="#">PDS082</a>	-	8.20	43.00	84.00	9.00
	-	<a href="#">PDM082</a>	8.20	56.00	96.00	9.00
	<a href="#">PDS083</a>	-	8.30	43.00	84.00	9.00
	-	<a href="#">PDM083</a>	8.30	56.00	96.00	9.00
	<a href="#">PDS084</a>	-	8.40	43.00	84.00	9.00
	-	<a href="#">PDM084</a>	8.40	56.00	96.00	9.00
	<a href="#">PDS085</a>	-	8.50	43.00	84.00	9.00
	-	<a href="#">PDM085</a>	8.50	56.00	96.00	9.00
	<a href="#">PDS086</a>	-	8.60	43.00	84.00	9.00
	-	<a href="#">PDM086</a>	8.60	56.00	96.00	9.00
	<a href="#">PDS087</a>	-	8.70	43.00	84.00	9.00
	-	<a href="#">PDM087</a>	8.70	56.00	96.00	9.00

Applicable Working Material

○:GOOD ◎:BEST

SERIES	CARBON STEELS LOW (1018, 1020)	CARBON STEELS MED (1045, 1050)	CARBON STEELS HIGH (1080)	ALLOY STEELS (4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME	
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

Power max Drill Series	EDP NO.		Cutting Diameter	Cutting Length	Overall Length	Shank Diameter
	2 Flute					
	TiAlN					
	Helix 30°					
	3xD	5xD	D1	L1	L2	D2
	PDS	PDM				
	<a href="#">PDS088</a>	-	8.80	43.00	84.00	9.00
	-	<a href="#">PDM088</a>	8.80	56.00	96.00	9.00
	<a href="#">PDS089</a>	-	8.90	43.00	84.00	9.00
	-	<a href="#">PDM089</a>	8.90	56.00	96.00	9.00
	<a href="#">PDS090</a>	-	9.00	43.00	84.00	9.00
	-	<a href="#">PDM090</a>	9.00	56.00	96.00	9.00
	<a href="#">PDS091</a>	-	9.10	47.00	89.00	10.00
	-	<a href="#">PDM091</a>	9.10	62.00	105.00	10.00
	<a href="#">PDS092</a>	-	9.20	47.00	89.00	10.00
	-	<a href="#">PDM092</a>	9.20	62.00	105.00	10.00
	<a href="#">PDS093</a>	-	9.30	47.00	89.00	10.00
	-	<a href="#">PDM093</a>	9.30	62.00	105.00	10.00
	<a href="#">PDS094</a>	-	9.40	47.00	89.00	10.00
	-	<a href="#">PDM094</a>	9.40	62.00	105.00	10.00
	<a href="#">PDS095</a>	-	9.50	47.00	89.00	10.00
	-	<a href="#">PDM095</a>	9.50	62.00	105.00	10.00
	<a href="#">PDS096</a>	-	9.60	47.00	89.00	10.00
	-	<a href="#">PDM096</a>	9.60	62.00	105.00	10.00
	<a href="#">PDS097</a>	-	9.70	47.00	89.00	10.00
	-	<a href="#">PDM097</a>	9.70	62.00	105.00	10.00
	<a href="#">PDS098</a>	-	9.80	47.00	89.00	10.00
	-	<a href="#">PDM098</a>	9.80	62.00	105.00	10.00
	<a href="#">PDS099</a>	-	9.90	47.00	89.00	10.00
	-	<a href="#">PDM099</a>	9.90	62.00	105.00	10.00
	<a href="#">PDS100</a>	-	10.00	47.00	89.00	10.00
	-	<a href="#">PDM100</a>	10.00	62.00	105.00	10.00
	<a href="#">PDS101</a>	-	10.10	51.00	95.00	11.00
	-	<a href="#">PDM101</a>	10.10	68.00	115.00	11.00
	<a href="#">PDS102</a>	-	10.20	51.00	95.00	11.00
	-	<a href="#">PDM102</a>	10.20	68.00	115.00	11.00
	<a href="#">PDS103</a>	-	10.30	51.00	95.00	11.00
	-	<a href="#">PDM103</a>	10.30	68.00	115.00	11.00
	<a href="#">PDS104</a>	-	10.40	51.00	95.00	11.00
	-	<a href="#">PDM104</a>	10.40	68.00	115.00	11.00

Applicable Working Material

○:GOOD ◎:BEST

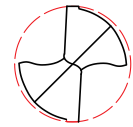
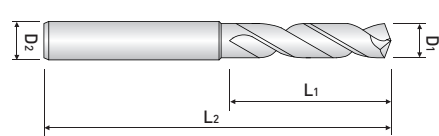
SERIES	CARBON STEELS LOW (1018, 1020)	CARBON STEELS MED (1045, 1050)	CARBON STEELS HIGH (1080)	ALLOY STEELS (4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME	
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○



**PDS, PDM SERIES**

3xD & 5xD

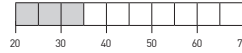
DRILLS / 2 FLUTES / 3xD & 5xD / SOLID CARBIDE / TiAlN COATING



**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
D1 = +0 / -0.018 (D1 = 3.1 to 6)  
D1 = +0 / -0.022 (D1 = 6.1 to 10)  
D1 = +0 / -0.027 (D1 = 10.1 to 18)  
D1 = +0 / -0.033 (D1 > 18)  
D2 = h6

**HARDNESS (HRC)**



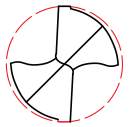
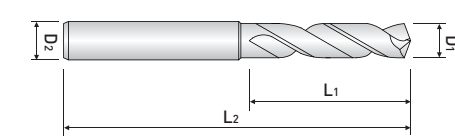
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**PDS, PDM SERIES**

3xD & 5xD

DRILLS / 2 FLUTES / 3xD & 5xD / SOLID CARBIDE / TiAlN COATING



**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
D1 = +0 / -0.018 (D1 = 3.1 to 6)  
D1 = +0 / -0.022 (D1 = 6.1 to 10)  
D1 = +0 / -0.027 (D1 = 10.1 to 18)  
D1 = +0 / -0.033 (D1 > 18)  
D2 = h6

**HARDNESS (HRC)**



>>Continue

INCH  
METRIC

Power max Drill Series

Power Drill Series

Solid Spiral Drill Series

Centering Tools

EDP NO.		Cutting Diameter	Cutting Length	Overall Length	Shank Diameter
2 Flute					
TiAlN					
Helix 30°					
3xD	5xD	D1	L1	L2	D2
PDS	PDM				
PDS105	-	10.50	51.00	95.00	11.00
-	PDM105	10.50	68.00	115.00	11.00
PDS106	-	10.60	51.00	95.00	11.00
-	PDM106	10.60	68.00	115.00	11.00
PDS107	-	10.70	51.00	95.00	11.00
-	PDM107	10.70	68.00	115.00	11.00
PDS108	-	10.80	51.00	95.00	11.00
-	PDM108	10.80	68.00	115.00	11.00
PDS109	-	10.90	51.00	95.00	11.00
-	PDM109	10.90	68.00	115.00	11.00
PDS110	-	11.00	51.00	95.00	11.00
-	PDM110	11.00	68.00	115.00	11.00
PDS111	-	11.10	54.00	102.00	12.00
-	PDM111	11.10	71.00	121.00	12.00
PDS112	-	11.20	54.00	102.00	12.00
-	PDM112	11.20	71.00	121.00	12.00
PDS113	-	11.30	54.00	102.00	12.00
-	PDM113	11.30	71.00	121.00	12.00
PDS114	-	11.40	54.00	102.00	12.00
-	PDM114	11.40	71.00	121.00	12.00
PDS115	-	11.50	54.00	102.00	12.00
-	PDM115	11.50	71.00	121.00	12.00
PDS116	-	11.60	54.00	102.00	12.00
-	PDM116	11.60	71.00	121.00	12.00
PDS117	-	11.70	54.00	102.00	12.00
-	PDM117	11.70	71.00	121.00	12.00
PDS118	-	11.80	54.00	102.00	12.00
-	PDM118	11.80	71.00	121.00	12.00
PDS119	-	11.90	54.00	102.00	12.00
-	PDM119	11.90	71.00	121.00	12.00
PDS120	-	12.00	54.00	102.00	12.00
-	PDM120	12.00	71.00	121.00	12.00
PDS121	-	12.10	57.00	102.00	13.00
-	PDM121	12.10	75.00	125.00	13.00

Applicable Working Material

ALL	CARBON STEELS LOW (100-170)	CARBON STEELS MED (170-200)	CARBON STEELS HIGH (200)	ALLOY STEELS (40-60)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST

INCH  
METRIC

Power max Drill Series

Power Drill Series

Solid Spiral Drill Series

Centering Tools

EDP NO.		Cutting Diameter	Cutting Length	Overall Length	Shank Diameter
2 Flute					
TiAlN					
Helix 30°					
3xD	5xD	D1	L1	L2	D2
PDS	PDM				
PDS122	-	12.20	57.00	102.00	13.00
-	PDM122	12.20	75.00	125.00	13.00
PDS123	-	12.30	57.00	102.00	13.00
-	PDM123	12.30	75.00	125.00	13.00
PDS124	-	12.40	57.00	102.00	13.00
-	PDM124	12.40	75.00	125.00	13.00
PDS125	-	12.50	57.00	102.00	13.00
-	PDM125	12.50	75.00	125.00	13.00
PDS126	-	12.60	57.00	102.00	13.00
-	PDM126	12.60	75.00	125.00	13.00
PDS127	-	12.70	57.00	102.00	13.00
-	PDM127	12.70	75.00	125.00	13.00
PDS128	-	12.80	57.00	102.00	13.00
-	PDM128	12.80	75.00	125.00	13.00
PDS129	-	12.90	57.00	102.00	13.00
-	PDM129	12.90	75.00	125.00	13.00
PDS130	-	13.00	57.00	102.00	13.00
-	PDM130	13.00	75.00	125.00	13.00
PDS131	-	13.10	60.00	107.00	14.00
-	PDM131	13.10	80.00	134.00	14.00
PDS132	-	13.20	60.00	107.00	14.00
-	PDM132	13.20	80.00	134.00	14.00
PDS133	-	13.30	60.00	107.00	14.00
-	PDM133	13.30	80.00	134.00	14.00
PDS134	-	13.40	60.00	107.00	14.00
-	PDM134	13.40	80.00	134.00	14.00
PDS135	-	13.50	60.00	107.00	14.00
-	PDM135	13.50	80.00	134.00	14.00
PDS136	-	13.60	60.00	107.00	14.00
-	PDM136	13.60	80.00	134.00	14.00
PDS137	-	13.70	60.00	107.00	14.00
-	PDM137	13.70	80.00	134.00	14.00
PDS138	-	13.80	60.00	107.00	14.00
-	PDM138	13.80	80.00	134.00	14.00

Applicable Working Material

ALL	CARBON STEELS LOW (100-170)	CARBON STEELS MED (170-200)	CARBON STEELS HIGH (200)	ALLOY STEELS (40-60)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

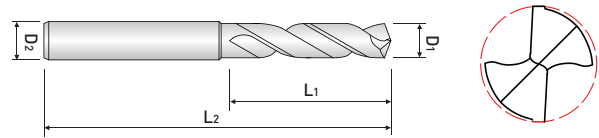
○:GOOD ◎:BEST



**PDS, PDM SERIES**

3xD & 5xD

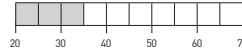
DRILLS / 2 FLUTES / 3xD & 5xD / SOLID CARBIDE / TiAlN COATING



**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
 D1 = +0 / -0.018 (D1 = 3.1 to 6)  
 D1 = +0 / -0.022 (D1 = 6.1 to 10)  
 D1 = +0 / -0.027 (D1 = 10.1 to 18)  
 D1 = +0 / -0.033 (D1 > 18)  
 D2 = h6

**HARDNESS (HRc)**



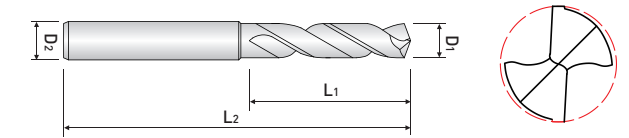
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**PDS, PDM SERIES**

3xD & 5xD

DRILLS / 2 FLUTES / 3xD & 5xD / SOLID CARBIDE / TiAlN COATING



**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
 D1 = +0 / -0.018 (D1 = 3.1 to 6)  
 D1 = +0 / -0.022 (D1 = 6.1 to 10)  
 D1 = +0 / -0.027 (D1 = 10.1 to 18)  
 D1 = +0 / -0.033 (D1 > 18)  
 D2 = h6

**HARDNESS (HRc)**



>>Continue

INCH

METRIC

Power max Drill Series

Power Drill Series

Solid Spiral Drill Series

Centering Tools

INCH

METRIC

Power max Drill Series

Power Drill Series

Solid Spiral Drill Series

Centering Tools

EDP NO.		Cutting Diameter	Cutting Length	Overall Length	Shank Diameter
2 Flute					
TiAlN					
Helix 30°					
3xD	5xD	D1	L1	L2	D2
PDS	PDM				
<a href="#">PDS139</a>	-	13.90	60.00	107.00	14.00
-	<a href="#">PDM139</a>	13.90	80.00	134.00	14.00
<a href="#">PDS140</a>	-	14.00	60.00	107.00	14.00
-	<a href="#">PDM140</a>	14.00	80.00	134.00	14.00
<a href="#">PDS141</a>	-	14.10	62.00	111.00	15.00
-	<a href="#">PDM141</a>	14.10	83.00	143.00	15.00
<a href="#">PDS142</a>	-	14.20	62.00	111.00	15.00
-	<a href="#">PDM142</a>	14.20	83.00	143.00	15.00
<a href="#">PDS143</a>	-	14.30	62.00	111.00	15.00
-	<a href="#">PDM143</a>	14.30	83.00	143.00	15.00
<a href="#">PDS144</a>	-	14.40	62.00	111.00	15.00
-	<a href="#">PDM144</a>	14.40	83.00	143.00	15.00
<a href="#">PDS145</a>	-	14.50	62.00	111.00	15.00
-	<a href="#">PDM145</a>	14.50	83.00	143.00	15.00
<a href="#">PDS146</a>	-	14.60	62.00	111.00	15.00
-	<a href="#">PDM146</a>	14.60	83.00	143.00	15.00
<a href="#">PDS147</a>	-	14.70	62.00	111.00	15.00
-	<a href="#">PDM147</a>	14.70	83.00	143.00	15.00
<a href="#">PDS148</a>	-	14.80	62.00	111.00	15.00
-	<a href="#">PDM148</a>	14.80	83.00	143.00	15.00
<a href="#">PDS149</a>	-	14.90	62.00	111.00	15.00
-	<a href="#">PDM149</a>	14.90	83.00	143.00	15.00
<a href="#">PDS150</a>	-	15.00	62.00	111.00	15.00
-	<a href="#">PDM150</a>	15.00	83.00	143.00	15.00
<a href="#">PDS151</a>	-	15.10	64.00	115.00	16.00
-	<a href="#">PDM151</a>	15.10	90.00	152.00	16.00
<a href="#">PDS152</a>	-	15.20	64.00	115.00	16.00
-	<a href="#">PDM152</a>	15.20	90.00	152.00	16.00
<a href="#">PDS154</a>	-	15.40	64.00	115.00	16.00
-	<a href="#">PDM154</a>	15.40	90.00	152.00	16.00
<a href="#">PDS155</a>	-	15.50	64.00	115.00	16.00
-	<a href="#">PDM155</a>	15.50	90.00	152.00	16.00
<a href="#">PDS156</a>	-	15.60	64.00	115.00	16.00
-	<a href="#">PDM156</a>	15.60	90.00	152.00	16.00

Applicable Working Material

○:GOOD ◎:BEST

SERIES	CARBON STEELS LOW (1018, 1020)	CARBON STEELS MED (1045, 1050)	CARBON STEELS HIGH (1080)	ALLOY STEELS (4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

EDP NO.		Cutting Diameter	Cutting Length	Overall Length	Shank Diameter
2 Flute					
TiAlN					
Helix 30°					
3xD	5xD	D1	L1	L2	D2
PDS	PDM				
<a href="#">PDS157</a>	-	15.70	64.00	115.00	16.00
-	<a href="#">PDM157</a>	15.70	90.00	152.00	16.00
<a href="#">PDS158</a>	-	15.80	64.00	115.00	16.00
-	<a href="#">PDM158</a>	15.80	90.00	152.00	16.00
<a href="#">PDS159</a>	-	15.90	64.00	115.00	16.00
<a href="#">PDS160</a>	-	16.00	64.00	115.00	16.00
-	<a href="#">PDM160</a>	16.00	90.00	152.00	16.00
<a href="#">PDS161</a>	-	16.10	66.00	119.00	17.00
-	<a href="#">PDM161</a>	16.10	95.00	155.00	17.00
<a href="#">PDS163</a>	-	16.30	66.00	119.00	17.00
-	<a href="#">PDM163</a>	16.30	95.00	155.00	17.00
<a href="#">PDS164</a>	-	16.40	66.00	119.00	17.00
<a href="#">PDS165</a>	-	16.50	66.00	119.00	17.00
-	<a href="#">PDM165</a>	16.50	95.00	155.00	17.00
<a href="#">PDS170</a>	-	17.00	66.00	119.00	17.00
-	<a href="#">PDM170</a>	17.00	95.00	155.00	17.00
<a href="#">PDS171</a>	-	17.10	66.00	123.00	18.00
-	<a href="#">PDM171</a>	17.10	100.00	157.00	18.00
<a href="#">PDS172</a>	-	17.20	66.00	123.00	18.00
-	<a href="#">PDM172</a>	17.20	100.00	157.00	18.00
<a href="#">PDS173</a>	-	17.30	66.00	123.00	18.00
<a href="#">PDS175</a>	-	17.50	66.00	123.00	18.00
-	<a href="#">PDM175</a>	17.50	100.00	157.00	18.00
<a href="#">PDS177</a>	-	17.70	66.00	123.00	18.00
-	<a href="#">PDM177</a>	17.70	100.00	157.00	18.00
<a href="#">PDS178</a>	-	17.80	66.00	123.00	18.00
-	<a href="#">PDM178</a>	17.80	100.00	157.00	18.00
<a href="#">PDS180</a>	-	18.00	66.00	123.00	18.00
-	<a href="#">PDM180</a>	18.00	100.00	157.00	18.00
<a href="#">PDS181</a>	-	18.10	70.00	127.00	19.00
-	<a href="#">PDM181</a>	18.10	105.00	160.00	19.00
<a href="#">PDS182</a>	-	18.20	70.00	127.00	19.00
-	<a href="#">PDM182</a>	18.20	105.00	160.00	19.00
<a href="#">PDS185</a>	-	18.50	70.00	127.00	19.00

Applicable Working Material

○:GOOD ◎:BEST

SERIES	CARBON STEELS LOW (1018, 1020)	CARBON STEELS MED (1045, 1050)	CARBON STEELS HIGH (1080)	ALLOY STEELS (4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

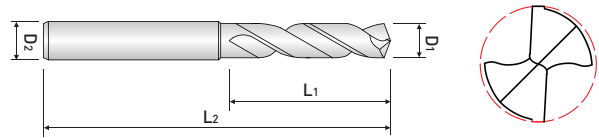




**PDS, PDM SERIES**

3xD & 5xD

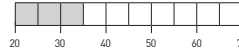
DRILLS / 2 FLUTES / 3xD & 5xD / SOLID CARBIDE / TiAlN COATING



**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
 D1 = +0 / -0.018 (D1 = 3.1 to 6)  
 D1 = +0 / -0.022 (D1 = 6.1 to 10)  
 D1 = +0 / -0.027 (D1 = 10.1 to 18)  
 D1 = +0 / -0.033 (D1 > 18)  
 D2 = h6

**HARDNESS (HRc)**



EDP NO.		Cutting Diameter	Cutting Length	Overall Length	Shank Diameter
2 Flute					
TiAlN					
Helix 30°					
3xD	5xD	D1	L1	L2	D2
PDS	PDM				
-	<a href="#">PDM185</a>	18.50	105.00	160.00	19.00
<a href="#">PDS186</a>	-	18.60	70.00	127.00	19.00
<a href="#">PDS190</a>	-	19.00	70.00	127.00	19.00
-	<a href="#">PDM190</a>	19.00	105.00	160.00	19.00
<a href="#">PDS191</a>	-	19.10	70.00	131.00	20.00
-	<a href="#">PDM191</a>	19.10	110.00	163.00	20.00
<a href="#">PDS192</a>	-	19.20	70.00	131.00	20.00
<a href="#">PDS193</a>	-	19.30	70.00	131.00	20.00
<a href="#">PDS195</a>	-	19.50	70.00	131.00	20.00
-	<a href="#">PDM195</a>	19.50	110.00	163.00	20.00
<a href="#">PDS197</a>	-	19.70	70.00	131.00	20.00
-	<a href="#">PDM197</a>	19.70	110.00	163.00	20.00
<a href="#">PDS200</a>	-	20.00	70.00	131.00	20.00
-	<a href="#">PDM200</a>	20.00	110.00	163.00	20.00
<a href="#">PDS220</a>	-	22.00	75.00	131.00	22.00
<a href="#">PDS225</a>	-	22.50	80.00	131.00	23.00
<a href="#">PDS230</a>	-	23.00	86.00	140.00	23.00
<a href="#">PDS235</a>	-	23.50	86.00	140.00	24.00
<a href="#">PDS240</a>	-	24.00	86.00	140.00	24.00

**Applicable Working Material**

Series	Carbon Steels (low (100-170))	Carbon Steels (med (170-190))	Carbon Steels (high (190))	Alloy Steels (40, 42, 45, 50)	Die Steels	Stainless Steels 300	Stainless Steels 400	Stainless Steels 17-19 PH	Cast Iron	Aluminum (6061, 7075)	Aluminum Castings	Nickel Alloys (Inconel)	Titanium (6Al4V)	Hardened Steels 35 HRc	Hardened Steels 35-45 HRc	Hardened Steels 45-50 HRc	Hardened Steels 50-70 HRc	Magnesium	Brass Bronze	Graphite	Cobalt Chrome
	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST

**PDS SERIES**

RPM=rev./min.  
FEED=mm/rev.  
IPR=inch/rev.

Work Material			Mild Steels Alloy Steels, Carbon Steels			Alloy Steels Forged Steels			High Hardened Steels		
Strength			≤ 25 HRc			25 ~ 35 HRc			35 ~ 45 HRc		
Type	Cutting Diameter	Code	V (m/min)	Feed (mm/rev)	IPR (inch/rev)	V (m/min)	Feed (mm/rev)	IPR (inch/rev)	V (m/min)	Feed (mm/rev)	IPR (inch/rev)
Solid Type	Ø3-5	<a href="#">PDS030-050</a>	40-70	0.15-0.25	0.008	35-55	0.10-0.20	0.004	15-25	0.05-0.15	0.004
Solid Type	Ø5-8	<a href="#">PDS051-080</a>	50-75	0.20-0.30	0.010	45-60	0.15-0.25	0.008	15-30	0.10-0.20	0.006
Solid Type	Ø8-10	<a href="#">PDS081-100</a>	50-75	0.25-0.35	0.012	45-60	0.15-0.30	0.009	20-35	0.10-0.20	0.006
Solid Type	Ø10-12	<a href="#">PDS101-120</a>	50-75	0.25-0.35	0.012	45-60	0.15-0.30	0.009	20-35	0.10-0.25	0.007
Solid Type	Ø12-14	<a href="#">PDS121-140</a>	55-80	0.25-0.40	0.013	50-70	0.20-0.35	0.011	20-35	0.10-0.25	0.007
Solid Type	Ø14-20	<a href="#">PDS141-200</a>	55-80	0.30-0.45	0.015	50-70	0.20-0.35	0.011	20-35	0.10-0.30	0.008
Work Material			Stainless Steels			Cast Iron-Ductile			Cast Iron		
Strength			-			-			-		
Type	Cutting Diameter	Code	V (m/min)	Feed (mm/rev)	IPR (inch/rev)	V (m/min)	Feed (mm/rev)	IPR (inch/rev)	V (m/min)	Feed (mm/rev)	IPR (inch/rev)
Solid Type	Ø3-5	<a href="#">PDS030-050</a>	15-25	0.05-0.15	0.004	35-70	0.15-0.25	0.008	45-75	0.15-0.30	0.009
Solid Type	Ø5-8	<a href="#">PDS051-080</a>	15-30	0.10-0.20	0.006	45-75	0.20-0.35	0.011	55-85	0.20-0.40	0.012
Solid Type	Ø8-10	<a href="#">PDS081-100</a>	15-30	0.10-0.20	0.006	45-75	0.25-0.40	0.013	55-85	0.20-0.40	0.013
Solid Type	Ø10-12	<a href="#">PDS101-120</a>	15-30	0.10-0.25	0.007	45-75	0.25-0.40	0.013	55-85	0.20-0.45	0.014
Solid Type	Ø12-14	<a href="#">PDS121-140</a>	15-30	0.10-0.25	0.007	50-80	0.25-0.45	0.014	60-90	0.25-0.50	0.015
Solid Type	Ø14-20	<a href="#">PDS141-200</a>	15-30	0.10-0.25	0.007	50-80	0.25-0.50	0.015	60-100	0.25-0.55	0.016

**PDM SERIES**

RPM=rev./min.  
FEED=mm/rev.  
IPR=inch/rev.

Work Material			Mild Steels Alloy Steels, Carbon Steels			Alloy Steels Forged Steels			High Hardened Steels		
Strength			≤ 25 HRc			25 ~ 35 HRc			35 ~ 45 HRc		
Type	Cutting Diameter	Code	V (m/min)	Feed (mm/rev)	IPR (inch/rev)	V (m/min)	Feed (mm/rev)	IPR (inch/rev)	V (m/min)	Feed (mm/rev)	IPR (inch/rev)
Solid Type	Ø3-5	<a href="#">PDM030-050</a>	40-70	0.15-0.25	0.008	35-55	0.10-0.20	0.004	15-25	0.05-0.15	0.004
Solid Type	Ø5-8	<a href="#">PDM051-080</a>	50-75	0.20-0.30	0.010	45-60	0.15-0.25	0.008	15-30	0.10-0.20	0.006
Solid Type	Ø8-10	<a href="#">PDM081-100</a>	50-75	0.25-0.35	0.012	45-60	0.15-0.30	0.009	20-35	0.10-0.20	0.006
Solid Type	Ø10-12	<a href="#">PDM101-120</a>	50-75	0.25-0.35	0.012	45-60	0.15-0.30	0.009	20-35	0.10-0.25	0.007
Solid Type	Ø12-14	<a href="#">PDM121-140</a>	55-80	0.25-0.40	0.013	50-70	0.20-0.35	0.011	20-35	0.10-0.25	0.007
Solid Type	Ø14-20	<a href="#">PDM141-200</a>	55-80	0.30-0.45	0.015	50-70	0.20-0.35	0.011	20-35	0.10-0.30	0.008
Work Material			Stainless Steels			Cast Iron-Ductile			Cast Iron		
Strength			-			-			-		
Type	Cutting Diameter	Code	V (m/min)	Feed (mm/rev)	IPR (inch/rev)	V (m/min)	Feed (mm/rev)	IPR (inch/rev)	V (m/min)	Feed (mm/rev)	IPR (inch/rev)
Solid Type	Ø3-5	<a href="#">PDM030-050</a>	15-25	0.05-0.15	0.004	35-70	0.15-0.25	0.008	45-75	0.15-0.30	0.009
Solid Type	Ø5-8	<a href="#">PDM051-080</a>	15-30	0.10-0.20	0.006	45-75	0.20-0.35	0.011	55-85	0.20-0.40	0.012
Solid Type	Ø8-10	<a href="#">PDM081-100</a>	15-30	0.10-0.20	0.006	45-75	0.25-0.40	0.013	55-85	0.20-0.40	0.013
Solid Type	Ø10-12	<a href="#">PDM101-120</a>	15-30	0.10-0.25	0.007	45-75	0.25-0.40	0.013	55-85	0.20-0.45	0.014
Solid Type	Ø12-14	<a href="#">PDM121-140</a>	15-30	0.10-0.25	0.007	50-80	0.25-0.45	0.014	60-90	0.25-0.50	0.015
Solid Type	Ø14-20	<a href="#">PDM141-200</a>	15-30	0.10-0.25	0.007	50-80	0.25-0.50	0.015	60-100	0.25-0.55	0.016

**PDSI, PDMI SERIES**

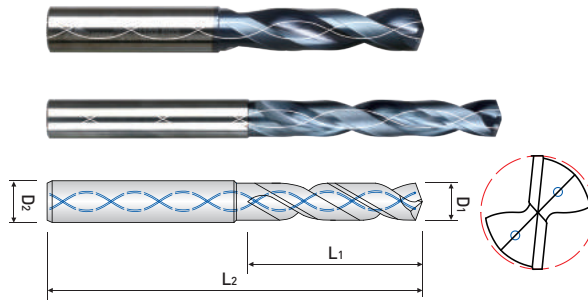
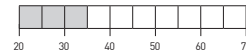
3xD & 5xD

DRILLS / 2 FLUTES / 3xD & 5xD / INTERNAL COOLANT / TiAlN COATING

**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
 D1 = +0 / -0.018 (D1 = 3.1 to 6)  
 D1 = +0 / -0.022 (D1 = 6.1 to 10)  
 D1 = +0 / -0.027 (D1 = 10.1 to 18)  
 D1 = +0 / -0.033 (D1 > 18)  
 D2 = h6

**HARDNESS (HRC)**



>>Continue

EDP NO.		Cutting Diameter	Cutting Length	Overall Length	Shank Diameter
2 Flute					
TiAlN					
Helix 30°					
3xD	5xD	D1	L1	L2	D2
PDSI	PDMI				
PDSI030	-	3.0	18.0	60.0	3.0
PDSI031	-	3.1	20.0	60.0	4.0
-	PDMI031	3.1	27.0	74.0	4.0
PDSI032	-	3.2	20.0	60.0	4.0
-	PDMI032	3.2	27.0	74.0	4.0
PDSI033	-	3.3	20.0	60.0	4.0
-	PDMI033	3.3	27.0	74.0	4.0
PDSI034	-	3.4	22.0	60.0	4.0
-	PDMI034	3.4	30.0	74.0	4.0
PDSI035	-	3.5	22.0	60.0	4.0
-	PDMI035	3.5	30.0	74.0	4.0
PDSI036	-	3.6	22.0	60.0	4.0
-	PDMI036	3.6	30.0	74.0	4.0
PDSI037	-	3.7	22.0	60.0	4.0
-	PDMI037	3.7	30.0	74.0	4.0
PDSI038	-	3.8	24.0	60.0	4.0
-	PDMI038	3.8	33.0	74.0	4.0
PDSI039	-	3.9	24.0	60.0	4.0
-	PDMI039	3.9	33.0	74.0	4.0
PDSI040	-	4.0	24.0	60.0	4.0
-	PDMI040	4.0	33.0	74.0	4.0
PDSI041	-	4.1	24.0	62.0	5.0
-	PDMI041	4.1	33.0	80.0	5.0
PDSI042	-	4.2	26.0	62.0	5.0
-	PDMI042	4.2	33.0	80.0	5.0
PDSI043	-	4.3	26.0	62.0	5.0
-	PDMI043	4.3	36.0	80.0	5.0
PDSI044	-	4.4	26.0	62.0	5.0
-	PDMI044	4.4	36.0	80.0	5.0
PDSI045	-	4.5	26.0	62.0	5.0
-	PDMI045	4.5	36.0	80.0	5.0
PDSI046	-	4.6	26.0	62.0	5.0
-	PDMI046	4.6	36.0	80.0	5.0
PDSI047	-	4.7	26.0	62.0	5.0

**Applicable Working Material**

Series	Carbon Steels Low (100-170)	Carbon Steels Med (170-200)	Carbon Steels High (200)	Alloy Steels (40-60)	Die Steels	Stainless Steels 300	Stainless Steels 400	Stainless Steels 17-4 PH	Cast Iron	Aluminum (6061, 7075)	Aluminum Castings	Nickel Alloys (Inconel)	Titanium (6Al4V)	Hardened Steels 35 HRC	Hardened Steels 35-45 HRC	Hardened Steels 45-50 HRC	Hardened Steels 50-70 HRC	Magnesium	Brass Bronze	Graphite	Cobalt Chrome
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST

**PDSI, PDMI SERIES**

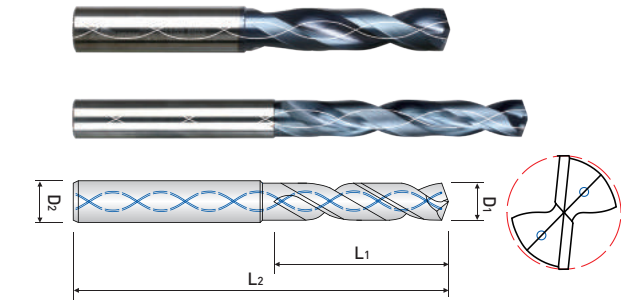
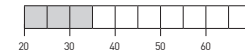
3xD & 5xD

DRILLS / 2 FLUTES / 3xD & 5xD / INTERNAL COOLANT / TiAlN COATING

**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
 D1 = +0 / -0.018 (D1 = 3.1 to 6)  
 D1 = +0 / -0.022 (D1 = 6.1 to 10)  
 D1 = +0 / -0.027 (D1 = 10.1 to 18)  
 D1 = +0 / -0.033 (D1 > 18)  
 D2 = h6

**HARDNESS (HRC)**



>>Continue

EDP NO.		Cutting Diameter	Cutting Length	Overall Length	Shank Diameter
2 Flute					
TiAlN					
Helix 30°					
3xD	5xD	D1	L1	L2	D2
PDSI	PDMI				
-	PDMI047	4.7	36.0	80.0	5.0
PDSI048	-	4.8	26.0	62.0	5.0
-	PDMI048	4.8	39.0	80.0	5.0
PDSI049	-	4.9	26.0	62.0	5.0
-	PDMI049	4.9	39.0	80.0	5.0
PDSI050	-	5.0	26.0	62.0	5.0
-	PDMI050	5.0	39.0	80.0	5.0
PDSI051	-	5.1	28.0	66.0	6.0
-	PDMI051	5.1	39.0	87.0	6.0
PDSI052	-	5.2	28.0	66.0	6.0
-	PDMI052	5.2	39.0	87.0	6.0
PDSI053	-	5.3	28.0	66.0	6.0
-	PDMI053	5.3	39.0	87.0	6.0
PDSI054	-	5.4	28.0	66.0	6.0
-	PDMI054	5.4	43.0	87.0	6.0
PDSI055	-	5.5	28.0	66.0	6.0
-	PDMI055	5.5	43.0	87.0	6.0
PDSI056	-	5.6	30.0	66.0	6.0
-	PDMI056	5.6	43.0	87.0	6.0
PDSI057	-	5.7	30.0	66.0	6.0
-	PDMI057	5.7	43.0	87.0	6.0
PDSI058	-	5.8	30.0	66.0	6.0
-	PDMI058	5.8	43.0	87.0	6.0
PDSI059	-	5.9	30.0	66.0	6.0
-	PDMI059	5.9	43.0	87.0	6.0
PDSI060	-	6.0	30.0	66.0	6.0
-	PDMI060	6.0	43.0	87.0	6.0
PDSI061	-	6.1	34.0	74.0	7.0
-	PDMI061	6.1	47.0	95.0	7.0
PDSI062	-	6.2	34.0	74.0	7.0
-	PDMI062	6.2	47.0	95.0	7.0
PDSI063	-	6.3	34.0	74.0	7.0
-	PDMI063	6.3	47.0	95.0	7.0
PDSI064	-	6.4	34.0	74.0	7.0

**Applicable Working Material**

Series	Carbon Steels Low (100-170)	Carbon Steels Med (170-200)	Carbon Steels High (200)	Alloy Steels (40-60)	Die Steels	Stainless Steels 300	Stainless Steels 400	Stainless Steels 17-4 PH	Cast Iron	Aluminum (6061, 7075)	Aluminum Castings	Nickel Alloys (Inconel)	Titanium (6Al4V)	Hardened Steels 35 HRC	Hardened Steels 35-45 HRC	Hardened Steels 45-50 HRC	Hardened Steels 50-70 HRC	Magnesium	Brass Bronze	Graphite	Cobalt Chrome
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST

**PDSI, PDMI SERIES**

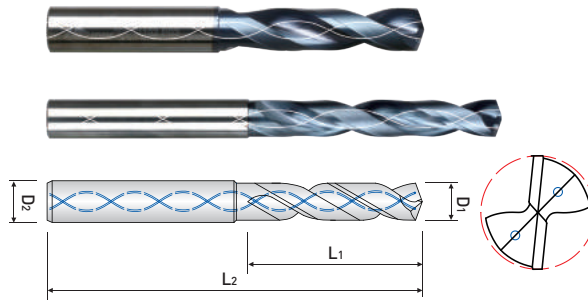
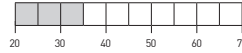
3xD & 5xD

DRILLS / 2 FLUTES / 3xD & 5xD / INTERNAL COOLANT / TiAlN COATING

**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
 D1 = +0 / -0.018 (D1 = 3.1 to 6)  
 D1 = +0 / -0.022 (D1 = 6.1 to 10)  
 D1 = +0 / -0.027 (D1 = 10.1 to 18)  
 D1 = +0 / -0.033 (D1 > 18)  
 D2 = h6

**HARDNESS (HRC)**



>>Continue

EDP NO.		Cutting Diameter	Cutting Length	Overall Length	Shank Diameter
2 Flute					
TiAlN					
Helix 30°					
3xD	5xD	D1	L1	L2	D2
PDSI	PDMI				
-	PDMI064	6.4	47.0	95.0	7.0
PDSI065	-	6.5	34.0	74.0	7.0
-	PDMI065	6.5	47.0	95.0	7.0
PDSI066	-	6.6	34.0	74.0	7.0
-	PDMI066	6.6	47.0	95.0	7.0
PDSI067	-	6.7	37.0	74.0	7.0
-	PDMI067	6.7	47.0	95.0	7.0
PDSI068	-	6.8	37.0	74.0	7.0
-	PDMI068	6.8	47.0	95.0	7.0
PDSI069	-	6.9	37.0	74.0	7.0
-	PDMI069	6.9	47.0	95.0	7.0
PDSI070	-	7.0	37.0	74.0	7.0
-	PDMI070	7.0	47.0	95.0	7.0
PDSI071	-	7.1	40.0	79.0	8.0
-	PDMI071	7.1	52.0	103.0	8.0
PDSI072	-	7.2	40.0	79.0	8.0
-	PDMI072	7.2	52.0	103.0	8.0
PDSI073	-	7.3	40.0	79.0	8.0
-	PDMI073	7.3	52.0	103.0	8.0
PDSI074	-	7.4	40.0	79.0	8.0
-	PDMI074	7.4	52.0	103.0	8.0
PDSI075	-	7.5	40.0	79.0	8.0
-	PDMI075	7.5	52.0	103.0	8.0
PDSI076	-	7.6	40.0	79.0	8.0
-	PDMI076	7.6	52.0	103.0	8.0
PDSI077	-	7.7	40.0	79.0	8.0
-	PDMI077	7.7	52.0	103.0	8.0
PDSI078	-	7.8	40.0	79.0	8.0
-	PDMI078	7.8	52.0	103.0	8.0
PDSI079	-	7.9	40.0	79.0	8.0
-	PDMI079	7.9	52.0	103.0	8.0
PDSI080	-	8.0	40.0	79.0	8.0
-	PDMI080	8.0	52.0	103.0	8.0
PDSI081	-	8.1	43.0	84.0	9.0

**Applicable Working Material**

○:GOOD ◎:BEST

SERIES	CARBON STEELS LOW (100-170)	CARBON STEELS MED (180-200)	CARBON STEELS HIGH (200)	ALLOY STEELS (40-60)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

**PDSI, PDMI SERIES**

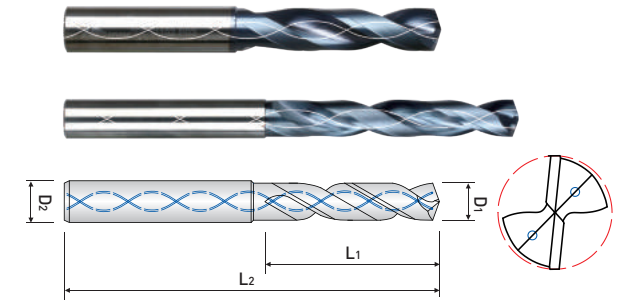
3xD & 5xD

DRILLS / 2 FLUTES / 3xD & 5xD / INTERNAL COOLANT / TiAlN COATING

**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
 D1 = +0 / -0.018 (D1 = 3.1 to 6)  
 D1 = +0 / -0.022 (D1 = 6.1 to 10)  
 D1 = +0 / -0.027 (D1 = 10.1 to 18)  
 D1 = +0 / -0.033 (D1 > 18)  
 D2 = h6

**HARDNESS (HRC)**



>>Continue

EDP NO.		Cutting Diameter	Cutting Length	Overall Length	Shank Diameter
2 Flute					
TiAlN					
Helix 30°					
3xD	5xD	D1	L1	L2	D2
PDSI	PDMI				
-	PDMI081	8.1	56.0	105.0	9.0
PDSI082	-	8.2	43.0	84.0	9.0
-	PDMI082	8.2	56.0	105.0	9.0
PDSI083	-	8.3	43.0	84.0	9.0
-	PDMI083	8.3	56.0	105.0	9.0
PDSI084	-	8.4	43.0	84.0	9.0
-	PDMI084	8.4	56.0	105.0	9.0
PDSI085	-	8.5	43.0	84.0	9.0
-	PDMI085	8.5	56.0	105.0	9.0
PDSI086	-	8.6	43.0	84.0	9.0
-	PDMI086	8.6	56.0	105.0	9.0
PDSI087	-	8.7	43.0	84.0	9.0
-	PDMI087	8.7	56.0	105.0	9.0
PDSI088	-	8.8	43.0	84.0	9.0
-	PDMI088	8.8	56.0	105.0	9.0
PDSI089	-	8.9	43.0	84.0	9.0
-	PDMI089	8.9	56.0	105.0	9.0
PDSI090	-	9.0	43.0	84.0	9.0
-	PDMI090	9.0	56.0	105.0	9.0
PDSI091	-	9.1	47.0	89.0	10.0
-	PDMI091	9.1	62.0	108.0	10.0
PDSI092	-	9.2	47.0	89.0	10.0
-	PDMI092	9.2	62.0	108.0	10.0
PDSI093	-	9.3	47.0	89.0	10.0
-	PDMI093	9.3	62.0	108.0	10.0
PDSI094	-	9.4	47.0	89.0	10.0
-	PDMI094	9.4	62.0	108.0	10.0
PDSI095	-	9.5	47.0	89.0	10.0
-	PDMI095	9.5	62.0	108.0	10.0
PDSI096	-	9.6	47.0	89.0	10.0
-	PDMI096	9.6	62.0	108.0	10.0
PDSI097	-	9.7	47.0	89.0	10.0
-	PDMI097	9.7	62.0	108.0	10.0
PDSI098	-	9.8	47.0	89.0	10.0

**Applicable Working Material**

○:GOOD ◎:BEST

SERIES	CARBON STEELS LOW (100-170)	CARBON STEELS MED (180-200)	CARBON STEELS HIGH (200)	ALLOY STEELS (40-60)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

**PDSI, PDMI SERIES**

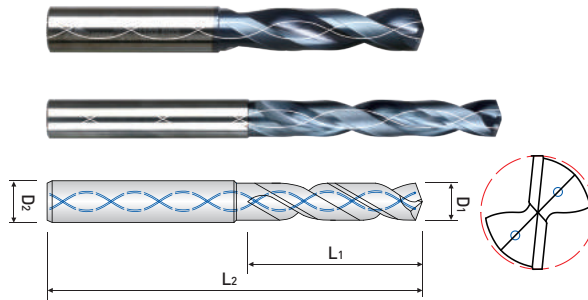
3xD & 5xD

DRILLS / 2 FLUTES / 3xD & 5xD / INTERNAL COOLANT / TiAlN COATING

**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
 D1 = +0 / -0.018 (D1 = 3.1 to 6)  
 D1 = +0 / -0.022 (D1 = 6.1 to 10)  
 D1 = +0 / -0.027 (D1 = 10.1 to 18)  
 D1 = +0 / -0.033 (D1 > 18)  
 D2 = h6

**HARDNESS (HRC)**



>>Continue

EDP NO.		Cutting Diameter	Cutting Length	Overall Length	Shank Diameter
2 Flute					
TiAlN					
Helix 30°					
3xD	5xD	D1	L1	L2	D2
PDSI	PDMI				
-	<a href="#">PDMI098</a>	9.8	62.0	108.0	10.0
<a href="#">PDSI099</a>	-	9.9	47.0	89.0	10.0
-	<a href="#">PDMI099</a>	9.9	62.0	108.0	10.0
<a href="#">PDSI100</a>	-	10.0	47.0	89.0	10.0
-	<a href="#">PDMI100</a>	10.0	62.0	108.0	10.0
<a href="#">PDSI101</a>	-	10.1	51.0	95.0	11.0
-	<a href="#">PDMI101</a>	10.1	68.0	125.0	11.0
<a href="#">PDSI102</a>	-	10.2	51.0	95.0	11.0
-	<a href="#">PDMI102</a>	10.2	68.0	125.0	11.0
<a href="#">PDSI103</a>	-	10.3	51.0	95.0	11.0
-	<a href="#">PDMI103</a>	10.3	68.0	125.0	11.0
<a href="#">PDSI104</a>	-	10.4	51.0	95.0	11.0
-	<a href="#">PDMI104</a>	10.4	68.0	125.0	11.0
<a href="#">PDSI105</a>	-	10.5	51.0	95.0	11.0
-	<a href="#">PDMI105</a>	10.5	68.0	125.0	11.0
<a href="#">PDSI106</a>	-	10.6	51.0	95.0	11.0
-	<a href="#">PDMI106</a>	10.6	68.0	125.0	11.0
<a href="#">PDSI107</a>	-	10.7	51.0	95.0	11.0
-	<a href="#">PDMI107</a>	10.7	68.0	125.0	11.0
<a href="#">PDSI108</a>	-	10.8	51.0	95.0	11.0
-	<a href="#">PDMI108</a>	10.8	68.0	125.0	11.0
<a href="#">PDSI109</a>	-	10.9	51.0	95.0	11.0
-	<a href="#">PDMI109</a>	10.9	68.0	125.0	11.0
<a href="#">PDSI110</a>	-	11.0	51.0	95.0	11.0
-	<a href="#">PDMI110</a>	11.0	68.0	125.0	11.0
<a href="#">PDSI111</a>	-	11.1	54.0	102.0	12.0
-	<a href="#">PDMI111</a>	11.1	71.0	133.0	12.0
<a href="#">PDSI112</a>	-	11.2	54.0	102.0	12.0
-	<a href="#">PDMI112</a>	11.2	71.0	133.0	12.0
<a href="#">PDSI113</a>	-	11.3	54.0	102.0	12.0
-	<a href="#">PDMI113</a>	11.3	71.0	133.0	12.0
<a href="#">PDSI114</a>	-	11.4	54.0	102.0	12.0
-	<a href="#">PDMI114</a>	11.4	71.0	133.0	12.0
<a href="#">PDSI115</a>	-	11.5	54.0	102.0	12.0

**Applicable Working Material**

ALL	CARBON STEELS LOW (1045, 1048)	CARBON STEELS MED (1045, 1048)	CARBON STEELS HIGH (1045, 1048)	ALLOY STEELS (4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST

**PDSI, PDMI SERIES**

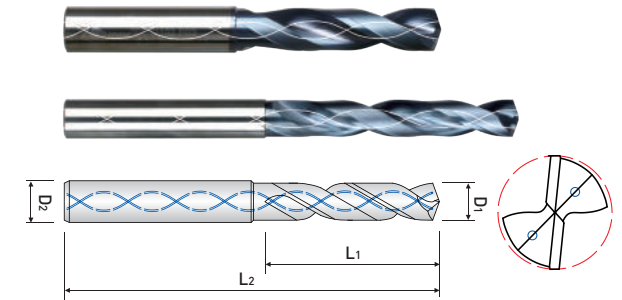
3xD & 5xD

DRILLS / 2 FLUTES / 3xD & 5xD / INTERNAL COOLANT / TiAlN COATING

**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
 D1 = +0 / -0.018 (D1 = 3.1 to 6)  
 D1 = +0 / -0.022 (D1 = 6.1 to 10)  
 D1 = +0 / -0.027 (D1 = 10.1 to 18)  
 D1 = +0 / -0.033 (D1 > 18)  
 D2 = h6

**HARDNESS (HRC)**



>>Continue

EDP NO.		Cutting Diameter	Cutting Length	Overall Length	Shank Diameter
2 Flute					
TiAlN					
Helix 30°					
3xD	5xD	D1	L1	L2	D2
PDSI	PDMI				
-	<a href="#">PDMI115</a>	11.5	71.0	133.0	12.0
<a href="#">PDSI116</a>	-	11.6	54.0	102.0	12.0
-	<a href="#">PDMI116</a>	11.6	71.0	133.0	12.0
<a href="#">PDSI117</a>	-	11.7	54.0	102.0	12.0
-	<a href="#">PDMI117</a>	11.7	71.0	133.0	12.0
<a href="#">PDSI118</a>	-	11.8	54.0	102.0	12.0
-	<a href="#">PDMI118</a>	11.8	71.0	133.0	12.0
<a href="#">PDSI119</a>	-	11.9	54.0	102.0	12.0
-	<a href="#">PDMI119</a>	11.9	71.0	133.0	12.0
<a href="#">PDSI120</a>	-	12.0	54.0	102.0	12.0
-	<a href="#">PDMI120</a>	12.0	71.0	133.0	12.0
<a href="#">PDSI121</a>	-	12.1	57.0	102.0	13.0
-	<a href="#">PDMI121</a>	12.1	75.0	137.0	13.0
<a href="#">PDSI122</a>	-	12.2	57.0	102.0	13.0
-	<a href="#">PDMI122</a>	12.2	75.0	137.0	13.0
<a href="#">PDSI123</a>	-	12.3	57.0	102.0	13.0
-	<a href="#">PDMI123</a>	12.3	75.0	137.0	13.0
<a href="#">PDSI124</a>	-	12.4	57.0	102.0	13.0
-	<a href="#">PDMI124</a>	12.4	75.0	137.0	13.0
<a href="#">PDSI125</a>	-	12.5	57.0	102.0	13.0
-	<a href="#">PDMI125</a>	12.5	75.0	137.0	13.0
<a href="#">PDSI126</a>	-	12.6	57.0	102.0	13.0
-	<a href="#">PDMI126</a>	12.6	75.0	137.0	13.0
<a href="#">PDSI127</a>	-	12.7	57.0	102.0	13.0
-	<a href="#">PDMI127</a>	12.7	75.0	137.0	13.0
<a href="#">PDSI128</a>	-	12.8	57.0	102.0	13.0
-	<a href="#">PDMI128</a>	12.8	75.0	137.0	13.0
<a href="#">PDSI129</a>	-	12.9	57.0	102.0	13.0
-	<a href="#">PDMI129</a>	12.9	75.0	137.0	13.0
<a href="#">PDSI130</a>	-	13.0	57.0	102.0	13.0
-	<a href="#">PDMI130</a>	13.0	75.0	137.0	13.0
<a href="#">PDSI131</a>	-	13.1	60.0	107.0	14.0
-	<a href="#">PDMI131</a>	13.1	80.0	142.0	14.0
<a href="#">PDSI132</a>	-	13.2	60.0	107.0	14.0

**Applicable Working Material**

ALL	CARBON STEELS LOW (1045, 1048)	CARBON STEELS MED (1045, 1048)	CARBON STEELS HIGH (1045, 1048)	ALLOY STEELS (4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST



**PDSI, PDMI SERIES**

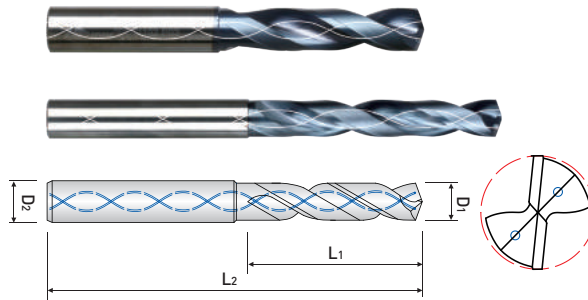
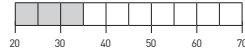
3xD & 5xD

DRILLS / 2 FLUTES / 3xD & 5xD / INTERNAL COOLANT / TiAlN COATING

**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
 D1 = +0 / -0.018 (D1 = 3.1 to 6)  
 D1 = +0 / -0.022 (D1 = 6.1 to 10)  
 D1 = +0 / -0.027 (D1 = 10.1 to 18)  
 D1 = +0 / -0.033 (D1 > 18)  
 D2 = h6

**HARDNESS (HRC)**



>>Continue

EDP NO.		Cutting Diameter	Cutting Length	Overall Length	Shank Diameter
2 Flute					
TiAlN					
Helix 30°					
3xD	5xD	D1	L1	L2	D2
PDSI	PDMI				
-	<a href="#">PDMI132</a>	13.2	80.0	142.0	14.0
<a href="#">PDSI133</a>	-	13.3	60.0	107.0	14.0
-	<a href="#">PDMI133</a>	13.3	80.0	142.0	14.0
<a href="#">PDSI134</a>	-	13.4	60.0	107.0	14.0
-	<a href="#">PDMI134</a>	13.4	80.0	142.0	14.0
<a href="#">PDSI135</a>	-	13.5	60.0	107.0	14.0
-	<a href="#">PDMI135</a>	13.5	80.0	142.0	14.0
<a href="#">PDSI136</a>	-	13.6	60.0	107.0	14.0
-	<a href="#">PDMI136</a>	13.6	80.0	142.0	14.0
<a href="#">PDSI137</a>	-	13.7	60.0	107.0	14.0
-	<a href="#">PDMI137</a>	13.7	80.0	142.0	14.0
<a href="#">PDSI138</a>	-	13.8	60.0	107.0	14.0
-	<a href="#">PDMI138</a>	13.8	80.0	142.0	14.0
<a href="#">PDSI139</a>	-	13.9	60.0	107.0	14.0
-	<a href="#">PDMI139</a>	13.9	80.0	142.0	14.0
<a href="#">PDSI140</a>	-	14.0	60.0	107.0	14.0
-	<a href="#">PDMI140</a>	14.0	80.0	142.0	14.0
<a href="#">PDSI141</a>	-	14.1	62.0	111.0	15.0
-	<a href="#">PDMI141</a>	14.1	83.0	148.0	15.0
<a href="#">PDSI142</a>	-	14.2	62.0	111.0	15.0
-	<a href="#">PDMI142</a>	14.2	83.0	148.0	15.0
<a href="#">PDSI143</a>	-	14.3	62.0	111.0	15.0
-	<a href="#">PDMI143</a>	14.3	83.0	148.0	15.0
<a href="#">PDSI144</a>	-	14.4	62.0	111.0	15.0
-	<a href="#">PDMI144</a>	14.4	83.0	148.0	15.0
<a href="#">PDSI145</a>	-	14.5	62.0	111.0	15.0
-	<a href="#">PDMI145</a>	14.5	83.0	148.0	15.0
<a href="#">PDSI146</a>	-	14.6	62.0	111.0	15.0
-	<a href="#">PDMI146</a>	14.6	83.0	148.0	15.0
<a href="#">PDSI147</a>	-	14.7	62.0	111.0	15.0
-	<a href="#">PDMI147</a>	14.7	83.0	148.0	15.0
<a href="#">PDSI148</a>	-	14.8	62.0	111.0	15.0
-	<a href="#">PDMI148</a>	14.8	83.0	148.0	15.0
<a href="#">PDSI149</a>	-	14.9	62.0	111.0	15.0

**Applicable Working Material**

○:GOOD ◎:BEST

SERIES	CARBON STEELS LOW (100-170)	CARBON STEELS MED (170-200)	CARBON STEELS HIGH (200)	ALLOY STEELS (40-60)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

**PDSI, PDMI SERIES**

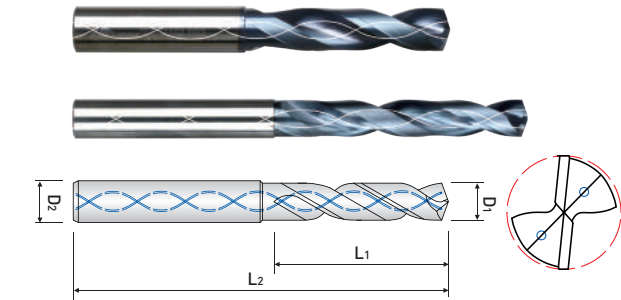
3xD & 5xD

DRILLS / 2 FLUTES / 3xD & 5xD / INTERNAL COOLANT / TiAlN COATING

**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
 D1 = +0 / -0.018 (D1 = 3.1 to 6)  
 D1 = +0 / -0.022 (D1 = 6.1 to 10)  
 D1 = +0 / -0.027 (D1 = 10.1 to 18)  
 D1 = +0 / -0.033 (D1 > 18)  
 D2 = h6

**HARDNESS (HRC)**



>>Continue

EDP NO.		Cutting Diameter	Cutting Length	Overall Length	Shank Diameter
2 Flute					
TiAlN					
Helix 30°					
3xD	5xD	D1	L1	L2	D2
PDSI	PDMI				
-	<a href="#">PDMI149</a>	14.9	83.0	148.0	15.0
<a href="#">PDSI150</a>	-	15.0	62.0	111.0	15.0
-	<a href="#">PDMI150</a>	15.0	83.0	148.0	15.0
<a href="#">PDSI151</a>	-	15.1	64.0	115.0	16.0
-	<a href="#">PDMI151</a>	15.1	90.0	152.0	16.0
<a href="#">PDSI152</a>	-	15.2	64.0	115.0	16.0
-	<a href="#">PDMI152</a>	15.2	90.0	152.0	16.0
<a href="#">PDSI154</a>	-	15.4	64.0	115.0	16.0
-	<a href="#">PDMI154</a>	15.4	90.0	152.0	16.0
<a href="#">PDSI155</a>	-	15.5	64.0	115.0	16.0
-	<a href="#">PDMI155</a>	15.5	90.0	152.0	16.0
<a href="#">PDSI156</a>	-	15.6	64.0	115.0	16.0
-	<a href="#">PDMI156</a>	15.6	90.0	152.0	16.0
<a href="#">PDSI157</a>	-	15.7	64.0	115.0	16.0
-	<a href="#">PDMI157</a>	15.7	90.0	152.0	16.0
<a href="#">PDSI158</a>	-	15.8	64.0	115.0	16.0
-	<a href="#">PDMI158</a>	15.8	90.0	152.0	16.0
<a href="#">PDSI160</a>	-	16.0	64.0	115.0	16.0
-	<a href="#">PDMI160</a>	16.0	90.0	152.0	16.0
<a href="#">PDSI161</a>	-	16.1	66.0	119.0	17.0
-	<a href="#">PDMI161</a>	16.1	95.0	155.0	17.0
<a href="#">PDSI163</a>	-	16.3	66.0	119.0	17.0
-	<a href="#">PDMI163</a>	16.3	95.0	155.0	17.0
<a href="#">PDSI165</a>	-	16.5	66.0	119.0	17.0
-	<a href="#">PDMI165</a>	16.5	95.0	155.0	17.0
<a href="#">PDSI170</a>	-	17.0	66.0	119.0	17.0
-	<a href="#">PDMI170</a>	17.0	95.0	155.0	17.0
<a href="#">PDSI171</a>	-	17.1	66.0	123.0	18.0
-	<a href="#">PDMI171</a>	17.1	100.0	157.0	18.0
<a href="#">PDSI172</a>	-	17.2	66.0	123.0	18.0
-	<a href="#">PDMI172</a>	17.2	100.0	157.0	18.0
<a href="#">PDSI175</a>	-	17.5	66.0	123.0	18.0
-	<a href="#">PDMI175</a>	17.5	100.0	157.0	18.0
<a href="#">PDSI177</a>	-	17.7	66.0	123.0	18.0

**Applicable Working Material**

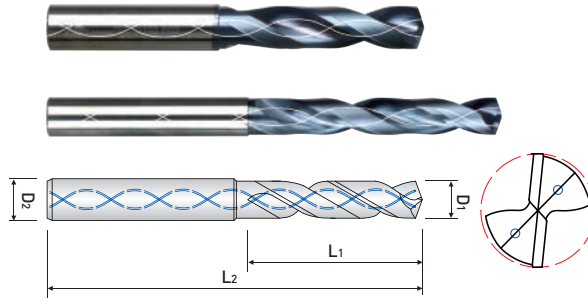
○:GOOD ◎:BEST

SERIES	CARBON STEELS LOW (100-170)	CARBON STEELS MED (170-200)	CARBON STEELS HIGH (200)	ALLOY STEELS (40-60)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
All	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

**PDSI, PDMI SERIES**

3xD & 5xD

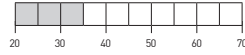
DRILLS / 2 FLUTES / 3xD & 5xD / INTERNAL COOLANT / TiAlN COATING



**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
 D1 = +0 / -0.018 (D1 = 3.1 to 6)  
 D1 = +0 / -0.022 (D1 = 6.1 to 10)  
 D1 = +0 / -0.027 (D1 = 10.1 to 18)  
 D1 = +0 / -0.033 (D1 > 18)  
 D2 = h6

**HARDNESS (HRC)**



EDP NO.		Cutting Diameter	Cutting Length	Overall Length	Shank Diameter
2 Flute					
TiAlN					
Helix 30°					
3xD	5xD	D1	L1	L2	D2
PDSI	PDMI				
-	PDMI177	17.7	100.0	157.0	18.0
PDSI178	-	17.8	66.0	123.0	18.0
-	PDMI178	17.8	100.0	157.0	18.0
PDSI180	-	18.0	66.0	123.0	18.0
-	PDMI180	18.0	100.0	157.0	18.0
PDSI181	-	18.1	70.0	127.0	19.0
-	PDMI181	18.1	105.0	160.0	19.0
PDSI182	-	18.2	70.0	127.0	19.0
-	PDMI182	18.2	105.0	160.0	19.0
PDSI185	-	18.5	70.0	127.0	19.0
-	PDMI185	18.5	105.0	160.0	19.0
PDSI190	-	19.0	70.0	127.0	19.0
-	PDMI190	19.0	105.0	160.0	19.0
PDSI191	-	19.1	70.0	131.0	20.0
-	PDMI191	19.1	110.0	163.0	20.0
PDSI195	-	19.5	70.0	131.0	20.0
-	PDMI195	19.5	110.0	163.0	20.0
PDSI197	-	19.7	70.0	131.0	20.0
-	PDMI197	19.7	110.0	163.0	20.0
PDSI200	-	20.0	70.0	131.0	20.0
-	PDMI200	20.0	110.0	163.0	20.0

**PDSI, PDMI SERIES**

RPM=rev./min.  
FEED=mm/rev.  
IPR=inch/rev.

Work Material	Mild Steels Alloy Steels, Carbon Steels			Alloy Steels Forged Steels			High Hardened Steels			
	V (m/min)	f (mm/rev)	IPR (inch/rev)	V (m/min)	f (mm/rev)	IPR (inch/rev)	V (m/min)	f (mm/rev)	IPR (inch/rev)	
Strength	≤ 25 HRc			25 ~ 35 HRc			35 ~ 45 HRc			
Cutting Diameter	7-8	8-10	10-12	12-16	16-20	7-8	8-10	10-12	12-16	16-20
	80-110	90-120	100-130	110-140	120-150	70-100	80-110	90-120	100-130	110-140
	0.15-0.25	0.20-0.30	0.25-0.35	0.25-0.35	0.25-0.40	0.15-0.25	0.15-0.30	0.20-0.30	0.25-0.35	0.25-0.35
	0.008	0.010	0.012	0.012	0.013	0.008	0.009	0.010	0.012	0.012
	50-80	60-90	70-100	80-100	90-110	50-80	60-90	70-100	80-100	90-110
	0.10-0.20	0.15-0.25	0.20-0.30	0.20-0.30	0.20-0.30	0.10-0.20	0.15-0.25	0.20-0.30	0.20-0.30	0.20-0.30
	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Work Material	Stainless Steels			Cast Iron-Ductile			Cast Iron			
Strength	-			-			-			
Cutting Diameter	7-8	8-10	10-12	12-16	16-20	7-8	8-10	10-12	12-16	16-20
	30-60	30-70	30-70	40-70	40-70	50-80	60-90	70-100	80-110	90-120
	0.10-0.20	0.10-0.20	0.10-0.20	0.15-0.25	0.15-0.30	0.15-0.25	0.20-0.30	0.25-0.35	0.30-0.40	0.30-0.40
	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	80-120	100-130	110-140	120-150	130-160	80-120	100-130	110-140	120-150	130-160
	0.15-0.30	0.25-0.35	0.25-0.35	0.30-0.40	0.30-0.40	0.15-0.30	0.25-0.35	0.25-0.35	0.30-0.40	0.30-0.40
	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

Applicable Working Material

○:GOOD ◎:BEST

SERIES	CARBON STEELS (LOW SPEED)	CARBON STEELS (MED SPEED)	CARBON STEELS (HIGH SPEED)	ALLOY STEELS (AISI, EN)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
All	◎	◎	◎	◎	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○





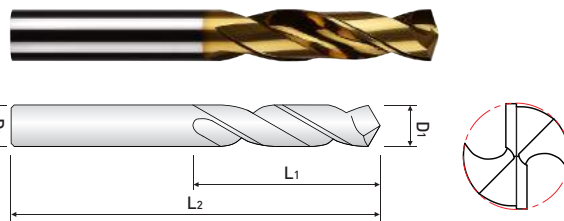




**SSTD SERIES**

3xD

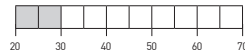
DRILL / 2 FLUTES / X-LONG JOBBER LENGTH / TIN COATING



**TOLERANCE (Metric)**

D1 = +0 / -0.014 (D1 ≤ 3)  
 D1 = +0 / -0.018 (D1 = 3.1 to 6)  
 D1 = +0 / -0.022 (D1 = 6.1 to 10)  
 D1 = +0 / -0.027 (D1 > 10)  
 Dz = h7

**HARDNESS (HRC)**



EDP NO.	Cutting Diameter (metric)	Cutting Length (metric)	Overall Length (metric)	Shank Diameter (metric)		
					2 Flute	
					TiN	
					Helix 30°	
SSTD	D1	L1	L2	D2		
SSTD070	7.00	45.00	80.00	7.00		
SSTD071	7.10	45.00	80.00	7.10		
SSTD072	7.20	45.00	80.00	7.20		
SSTD073	7.30	45.00	80.00	7.30		
SSTD074	7.40	45.00	80.00	7.40		
SSTD075	7.50	45.00	80.00	7.50		
SSTD076	7.60	50.00	85.00	7.60		
SSTD077	7.70	50.00	85.00	7.70		
SSTD078	7.80	50.00	85.00	7.80		
SSTD079	7.90	50.00	85.00	7.90		
SSTD080	8.00	50.00	85.00	8.00		
SSTD081	8.10	50.00	85.00	8.10		
SSTD082	8.20	50.00	85.00	8.20		
SSTD083	8.30	50.00	85.00	8.30		
SSTD084	8.40	50.00	85.00	8.40		
SSTD085	8.50	50.00	85.00	8.50		
SSTD086	8.60	50.00	95.00	8.60		
SSTD087	8.70	50.00	95.00	8.70		
SSTD088	8.80	50.00	95.00	8.80		
SSTD089	8.90	50.00	95.00	8.90		
SSTD090	9.00	50.00	95.00	9.00		
SSTD091	9.10	50.00	95.00	9.10		
SSTD092	9.20	50.00	95.00	9.20		
SSTD093	9.30	50.00	95.00	9.30		
SSTD094	9.40	50.00	95.00	9.40		
SSTD095	9.50	50.00	95.00	9.50		
SSTD096	9.60	50.00	95.00	9.60		
SSTD097	9.70	50.00	95.00	9.70		
SSTD098	9.80	50.00	95.00	9.80		
SSTD099	9.90	55.00	100.00	9.90		
SSTD100	10.00	55.00	100.00	10.00		
SSTD101	10.10	55.00	115.00	10.10		
SSTD102	10.20	55.00	115.00	10.20		
SSTD103	10.30	55.00	115.00	10.30		
SSTD104	10.40	55.00	115.00	10.40		

EDP NO.	Cutting Diameter (metric)	Cutting Length (metric)	Overall Length (metric)	Shank Diameter (metric)		
					2 Flute	
					TiN	
					Helix 30°	
SSTD	D1	L1	L2	D2		
SSTD105	10.50	55.00	115.00	10.50		
SSTD106	10.60	60.00	115.00	10.60		
SSTD107	10.70	60.00	115.00	10.70		
SSTD108	10.80	60.00	115.00	10.80		
SSTD109	10.90	60.00	115.00	10.90		
SSTD110	11.00	60.00	115.00	11.00		
SSTD111	11.10	65.00	120.00	11.10		
SSTD112	11.20	65.00	120.00	11.20		
SSTD113	11.30	65.00	120.00	11.30		
SSTD115	11.50	65.00	120.00	11.50		
SSTD118	11.80	65.00	120.00	11.80		
SSTD119	11.90	65.00	120.00	11.90		
SSTD120	12.00	65.00	120.00	12.00		
SSTD124	12.40	70.00	125.00	12.40		
SSTD125	12.50	70.00	125.00	12.50		
SSTD130	13.00	75.00	130.00	13.00		

Applicable Working Material

SERIES	CARBON STEELS LOW (1008, 1009)	CARBON STEELS MID (1020, 1025)	CARBON STEELS HIGH (1045, 1050)	ALLOY STEELS (4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (B414)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
SSTD	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST

**SSD, SSDL, SSTD SERIES**

RPM=rev./min.  
 FEED=min/rev.  
 IPR=inch/rev.

Work Material	Tool Steels Alloy Steels			Aluminum Rolled Aluminum Alloys		
	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)
3	4,000~7,000	0.02	0.001	10,000~12,000	0.03	0.001
5	2,400~4,200	0.03	0.001	6,000~8,000	0.05	0.002
8	1,500~2,600	0.05	0.002	3,700~5,000	0.08	0.003
12	1,000~1,700	0.06	0.002	2,500~3,200	0.12	0.005
Work Material	Brass Bronze			Epoxy Resin		
Cutting Diameter (metric)	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)
3	7,000~10,000	0.02	0.001	9,000~12,000	0.08	0.003
5	4,200~6,000	0.04	0.002	5,400~7,200	0.08	0.003
8	2,600~3,700	0.08	0.003	3,400~4,500	0.09	0.004
12	1,700~2,500	0.12	0.005	2,200~3,000	0.11	0.004





**APF505 SERIES**

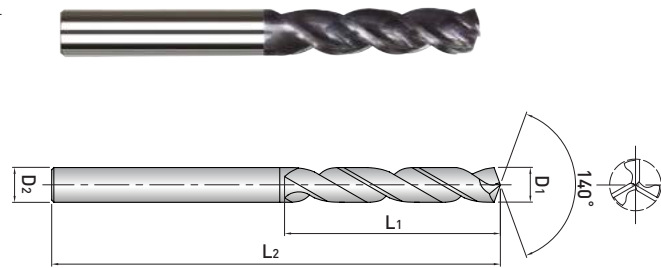
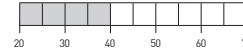
5xD

DRILLS / 3 FLUTES / 5xD / DLC COATING

TOLERANCE (Metric)

D1 = +0 / -0.012  
D2 = +0 / -0.008 (D2<6)  
D2 = +0 / -0.009 (D2≥6)

HARDNESS (HRC)



EDP NO.	Cutting Diameter			Cutting Length	Overall Length	Shank Diameter
	3 Flute	DLC	Helix 30°			
5xD	D1			L1	L2	D2
APF505	Decimal	Fraction	Metric			
<a href="#">APF505110</a>	0.4331	-	11.000	68.00	114.00	11.00
<a href="#">APF50511112</a>	0.4375	7/16"	11.112	2 13/16"	4 3/4"	12.00
<a href="#">APF505115</a>	0.4528	-	11.500	70.00	120.00	12.00
<a href="#">APF50511508</a>	0.4531	29/64"	11.508	2 7/8"	4 3/4"	12.00
<a href="#">APF50511907</a>	0.4688	15/32"	11.907	2 7/8"	4 3/4"	12.00
<a href="#">APF505120</a>	0.4724	-	12.000	73.00	120.00	12.00
<a href="#">APF50512303</a>	0.4844	31/64"	12.303	3	5 5/16"	13.00
<a href="#">APF505125</a>	0.4921	-	12.500	75.00	135.00	13.00
<a href="#">APF505127</a>	0.5000	1/2"	12.700	3 1/16"	5 3/8"	13.00
<a href="#">APF505130</a>	0.5118	-	13.000	78.00	136.00	13.00
<a href="#">APF50513096</a>	0.5156	33/64"	13.096	3 1/8"	5 3/8"	14.00
<a href="#">APF50513492</a>	0.5312	17/32"	13.492	3 5/16"	5 11/16"	14.00
<a href="#">APF50513891</a>	0.5469	35/64"	13.891	3 3/8"	5 13/16"	14.00
<a href="#">APF505140</a>	0.5512	-	14.000	86.00	148.00	14.00
<a href="#">APF50514287</a>	0.5625	9/16"	14.287	3 1/2"	5 15/16"	15.00
<a href="#">APF50514683</a>	0.5781	37/64"	14.683	3 1/2"	6	15.00
<a href="#">APF505150</a>	0.5906	-	15.000	90.00	152.00	15.00
<a href="#">APF50515082</a>	0.5938	19/32"	15.082	3 9/16"	6	16.00
<a href="#">APF50515478</a>	0.6094	39/64"	15.478	3 11/16"	6 3/16"	16.00
<a href="#">APF50515875</a>	0.6250	5/8"	15.875	3 3/4"	6 5/16"	16.00
<a href="#">APF505160</a>	0.6299	-	16.000	95.00	160.00	16.00

**APF505 SERIES**

Work Material	Aluminum Alloy	Cast Aluminum	Magnesium	Copper & Brass	Titanium
Type	6061	380	-	-	6Al-4V
SFM	450 ~ 650	300 ~ 500	250 ~ 500	250 ~ 400	100 ~ 300
Cutting Diameter (Inch)	Chip Load per Flute (Fz)				
3/16	0.0020 ~ 0.0040	0.0015 ~ 0.0030	0.0015 ~ 0.0030	0.0010 ~ 0.0020	0.0010 ~ 0.0020
1/4	0.0025 ~ 0.0050	0.0020 ~ 0.0040	0.0020 ~ 0.0040	0.0020 ~ 0.0030	0.0020 ~ 0.0030
5/16	0.0035 ~ 0.0060	0.0030 ~ 0.0050	0.0030 ~ 0.0050	0.0020 ~ 0.0030	0.0020 ~ 0.0030
3/8	0.0045 ~ 0.0070	0.0030 ~ 0.0060	0.0030 ~ 0.0060	0.0020 ~ 0.0040	0.0020 ~ 0.0040
1/2	0.0055 ~ 0.0080	0.0035 ~ 0.0070	0.0035 ~ 0.0070	0.0030 ~ 0.0050	0.0030 ~ 0.0050
5/8	0.0065 ~ .01000	0.0040 ~ 0.0080	0.0040 ~ 0.0080	0.0030 ~ 0.0060	0.0030 ~ 0.0060
Work Material	Aluminum Alloy	Cast Aluminum	Magnesium	Copper & Brass	Titanium
Type	6061	380	-	-	6Al-4V
V (m/min)	140 ~ 200	90 ~ 150	75 ~ 150	75 ~ 120	30 ~ 90
Cutting Diameter (Metric)	Chip Load per Flute (Fz)				
4	0.050 ~ 0.100	0.038 ~ 0.078	0.038 ~ 0.075	0.025 ~ 0.060	0.025 ~ 0.050
6	0.065 ~ 0.125	0.050 ~ 0.100	0.050 ~ 0.100	0.050 ~ 0.075	0.050 ~ 0.075
8	0.090 ~ 0.150	0.075 ~ 0.125	0.075 ~ 0.125	0.050 ~ 0.075	0.050 ~ 0.075
10	0.115 ~ 0.175	0.075 ~ 0.150	0.075 ~ 0.150	0.050 ~ 0.100	0.050 ~ 0.100
12	0.150 ~ 0.200	0.090 ~ 0.175	0.090 ~ 0.175	0.075 ~ 0.125	0.075 ~ 0.125
16	0.165 ~ 0.250	0.100 ~ 0.200	0.100 ~ 0.200	0.075 ~ 0.150	0.075 ~ 0.150

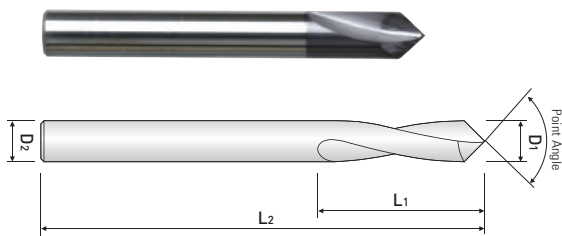
Applicable Working Material

SERIES	CARBON STEELS LOW (1045, 1048)	CARBON STEELS MED (1050, 1045)	CARBON STEELS HIGH (1045, 1048)	ALLOY STEELS (4140, 4340)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35-45 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
APF505										○	○								○		

○:GOOD ◎:BEST

**LDA SERIES**

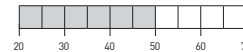
NC SPOT DRILLS / 2 FLUTES / SINGLE ENDED / 90°, 120° & 142° / TiAlN COATING



**TOLERANCE (Inch)**

D1 = +0.0004 / -0.0004  
D2 = h6

**HARDNESS (HRC)**



EDP NO.	Cutting Diameter (inch)	Cutting Length (inch)	Overall Length (inch)	Shank Diameter (inch)	Point Angle	
						TiAlN
						Helix 12°
LDA	D1	L1	L2	D2	Degree	
LDA006A	3/32	3/8	2	3/32	90°	
LDA006B	3/32	3/8	2	3/32	120°	
LDA006C	3/32	3/8	2	3/32	142°	
LDA008A	1/8	3/8	2	1/8	90°	
LDA008B	1/8	3/8	2	1/8	120°	
LDA008C	1/8	3/8	2	1/8	142°	
LDA012A	3/16	3/4	3	3/16	90°	
LDA012B	3/16	3/4	3	3/16	120°	
LDA012C	3/16	3/4	3	3/16	142°	
LDA016A	1/4	3/4	3	1/4	90°	
LDA016B	1/4	3/4	3	1/4	120°	
LDA016C	1/4	3/4	3	1/4	142°	
LDA020A	5/16	1	3	5/16	90°	
LDA020B	5/16	1	3	5/16	120°	
LDA020C	5/16	1	3	5/16	142°	
LDA024A	3/8	1	3	3/8	90°	
LDA024B	3/8	1	3	3/8	120°	
LDA024C	3/8	1	3	3/8	142°	
LDA028A	7/16	1	4	7/16	90°	
LDA028B	7/16	1	4	7/16	120°	
LDA028C	7/16	1	4	7/16	142°	
LDA032A	1/2	1	4	1/2	90°	
LDA032B	1/2	1	4	1/2	120°	
LDA032C	1/2	1	4	1/2	142°	

**Applicable Working Material**

SERIES	CARBON STEELS LOW (1045, 1046)	CARBON STEELS MED (1045, 1046)	CARBON STEELS HIGH (1045, 1046)	ALLOY STEELS (4140, 4142)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
LDA	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST

**LDA SERIES**

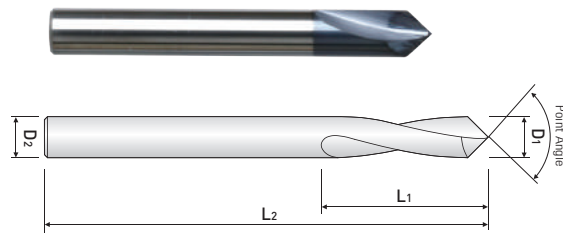
RPM=rev./min.  
FEED=min/rev.  
IPR=inch/rev.

Work Material	Low Carbon Steel 1015-A36 ~500N/mm²		Medium Carbon Steel 1045, 1046		Alloy Steel 4140, 4142		Alloy tool steel H13 ~ HRC28		
	RPM (rev/min)	IPR (inch/rev)	RPM (rev/min)	IPR (inch/rev)	RPM (rev/min)	IPR (inch/rev)	RPM (rev/min)	IPR (inch/rev)	
Drilling Speed(V)	2,480-3,150 inch/min		1,575-2,362 inch/min		1,260-1,969 inch/min		787-1,102 inch/min		
Cutting Diameter (metric)	3/32	7,500	0.0016-0.0032	5,500	0.0016-0.0032	4,500	0.0016-0.0032	2,500	0.0016-0.0032
	1/8	7,500	0.0016-0.0032	5,500	0.0016-0.0032	4,500	0.0016-0.0032	2,500	0.0016-0.0032
	3/16	5,700	0.002-0.004	4,100	0.002-0.004	3,300	0.002-0.004	1,900	0.002-0.004
	1/4	3,800	0.0024-0.0048	2,700	0.0024-0.0048	2,300	0.0024-0.0048	1,250	0.0024-0.0048
	5/16	2,800	0.0031-0.0059	2,000	0.0031-0.0059	1,700	0.0031-0.0059	950	0.0031-0.0059
	3/8	2,300	0.004-0.007	1,700	0.004-0.007	1,400	0.004-0.007	750	0.004-0.007
	7/16	1,900	0.0047-0.0083	1,400	0.0047-0.0083	1,200	0.0047-0.0083	650	0.0047-0.0083
	1/2	1,900	0.0047-0.0083	1,400	0.0047-0.0083	1,200	0.0047-0.0083	650	0.0047-0.0083
Work Material	Alloy tool steel H13 ~ HRC34		Cast Iron No 35 B ~ HRC24		Aluminum Alloy 355				
	630-866 inch/min		2,480-3,937 inch/min		3,149-6,299 inch/min				
Cutting Diameter (metric)	3/32	1,500	0.0016-0.0032	8,000	0.002-0.0035	12,000	0.0039-0.0087		
	1/8	1,500	0.0016-0.0032	8,000	0.002-0.0035	12,000	0.0039-0.0087		
	3/16	1,100	0.002-0.004	6,500	0.0028-0.0047	9,500	0.0047-0.0098		
	1/4	750	0.0024-0.0048	4,300	0.0047-0.007	6,400	0.0055-0.011		
	5/16	550	0.0031-0.0059	3,200	0.005-0.0079	4,800	0.007-0.0126		
	3/8	450	0.004-0.007	2,600	0.0067-0.0098	3,800	0.0087-0.0142		
	7/16	370	0.0047-0.0083	2,200	0.0083-0.0118	3,200	0.0098-0.0157		
	1/2	370	0.0047-0.0083	2,200	0.0083-0.0118	3,200	0.0098-0.0157		



**LDS SERIES**

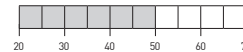
NC SPOT DRILLS / 2 FLUTES / SINGLE ENDED / 90° , 120° / TiAlN COATING



**TOLERANCE (Metric)**

D1 = +0.01 / -0.01  
D2 = h6

**HARDNESS (HRC)**



EDP NO.	Cutting Diameter (metric)	Cutting Length (metric)	Overall Length (metric)	Shank Diameter (metric)	Point Angle	
						TiAlN
						Helix 12°
LDS	D1	L1	L2	D2	Degree	
LDS030	3.00	9.00	50.00	3.00	90°	
LDS030L	3.00	10.00	100.00	3.00	90°	
LDS030A	3.00	9.00	50.00	3.00	120°	
LDS040	4.00	10.00	50.00	4.00	90°	
LDS040L	4.00	12.00	100.00	4.00	90°	
LDS040A	4.00	10.00	50.00	4.00	120°	
LDS050	5.00	12.00	50.00	5.00	90°	
LDS050A	5.00	12.00	50.00	5.00	120°	
LDS060	6.00	13.00	60.00	6.00	90°	
LDS060L	6.00	18.00	110.00	6.00	90°	
LDS060A	6.00	13.00	60.00	6.00	120°	
LDS080	8.00	23.00	70.00	8.00	90°	
LDS080L	8.00	23.00	150.00	8.00	90°	
LDS080A	8.00	23.00	70.00	8.00	120°	
LDS100	10.00	24.00	80.00	10.00	90°	
LDS100L	10.00	24.00	150.00	10.00	90°	
LDS100A	10.00	24.00	80.00	10.00	120°	
LDS120	12.00	28.00	80.00	12.00	90°	
LDS120L	12.00	24.00	150.00	12.00	90°	
LDS120A	12.00	28.00	80.00	12.00	120°	
LDS160	16.00	32.00	90.00	16.00	90°	
LDS160A	16.00	32.00	90.00	16.00	120°	
LDS200	20.00	35.00	100.00	20.00	90°	
LDS200A	20.00	35.00	100.00	20.00	120°	

**Applicable Working Material**

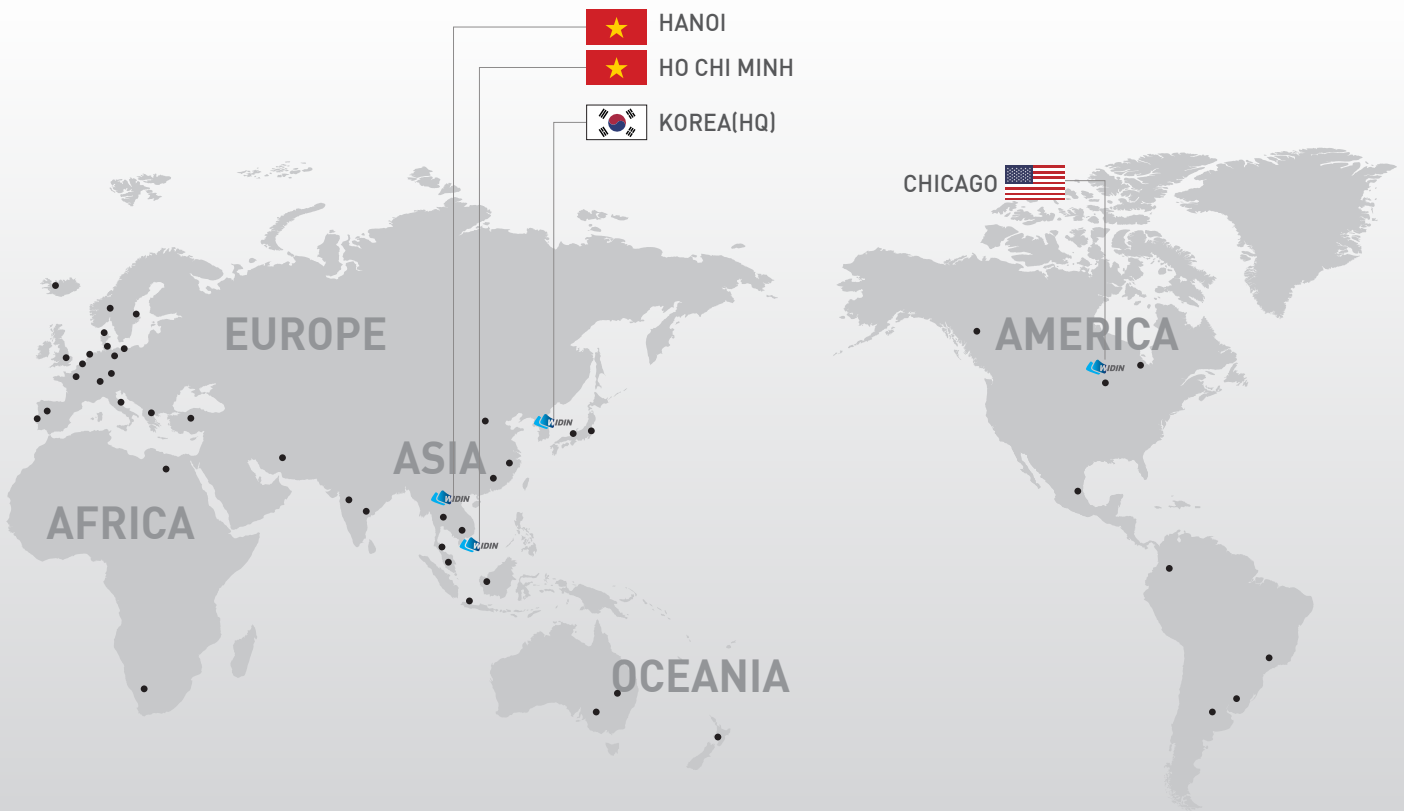
SERIES	CARBON STEELS LOW (1015-1045)	CARBON STEELS MED (1045-1046)	CARBON STEELS HIGH (4140, 4142)	ALLOY STEELS (4140, 4142)	DIE STEELS	STAINLESS STEELS 300	STAINLESS STEELS 400	STAINLESS STEELS 17-4 PH	CAST IRON	ALUMINUM (6061, 7075)	ALUMINUM CASTINGS	NICKEL ALLOYS (INCONEL)	TITANIUM (6Al4V)	HARDENED STEELS 35 HRC	HARDENED STEELS 35-45 HRC	HARDENED STEELS 45-50 HRC	HARDENED STEELS 50-70 HRC	MAGNESIUM	BRASS BRONZE	GRAPHITE	COBALT CHROME
LDS	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○:GOOD ◎:BEST

**LDS SERIES**

RPM=rev./min.  
FEED=mm/rev.  
IPR=inch/rev.

Work Material	Low Carbon Steel 1015-A36 ~500N/mm²			Medium Carbon Steel 1045, 1046			Alloy Steel 4140, 4142			Alloy tool steel H13 ~ HRC28		
	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)	RPM (rev/min)	FEED (mm/rev)	IPR (inch/rev)
Drilling Speed(V)	2,480-3,150 inch/min			1,575-2,362 inch/min			1,260-1,969 inch/min			787-1,102 inch/min		
3	7,500	0.04-0.08	0.0016-0.0031	5,500	0.0016-0.0031	0.002	4,500	0.0016-0.0031	0.002	2,500	0.0016-0.0031	0.002
4	5,700	0.05-0.10	0.002-0.0039	4,100	0.002-0.0039	0.003	3,300	0.002-0.0039	0.003	1,900	0.002-0.0039	0.003
6	3,800	0.06-0.12	0.0024-0.0047	2,700	0.0024-0.0047	0.004	2,300	0.0024-0.0047	0.004	1,250	0.0024-0.0047	0.004
8	2,800	0.08-0.15	0.0031-0.0061	2,000	0.0031-0.0061	0.005	1,700	0.0031-0.0061	0.005	950	0.0031-0.0061	0.005
10	2,300	0.10-0.18	0.0039-0.0071	1,700	0.0039-0.0071	0.006	1,400	0.0039-0.0071	0.006	750	0.0039-0.0071	0.006
12	1,900	0.12-0.21	0.0047-0.0083	1,400	0.0047-0.0083	0.007	1,200	0.0047-0.0083	0.007	650	0.0047-0.0083	0.007
16	1,400	0.16-0.28	0.0063-0.011	1,000	0.0063-0.011	0.009	900	0.0063-0.011	0.009	500	0.0063-0.011	0.009
20	1,150	0.20-0.34	0.008-0.013	820	0.008-0.013	0.011	700	0.008-0.013	0.011	400	0.008-0.013	0.011
Work Material	Alloy tool steel H13 ~ HRC34			Cast Iron No 35 B ~ HRC24			Aluminum Alloy 355					
Drilling Speed(V)	630-866 inch/min			2,480-3,937 inch/min			3,149-6,299 inch/min					
3	1,500	0.0016-0.0031	0.002	8,000	0.05-0.09	0.002-0.0035	12,000	0.10-0.22	0.0039-0.0087			
4	1,100	0.002-0.0039	0.003	6,500	0.07-0.12	0.0028-0.0047	9,500	0.12-0.25	0.0047-0.0098			
6	750	0.0024-0.0047	0.004	4,300	0.12-0.18	0.0047-0.007	6,400	0.14-0.28	0.0055-0.011			
8	550	0.0031-0.0061	0.005	3,200	0.13-0.20	0.05-0.0079	4,800	0.18-0.32	0.0071-0.0126			
10	450	0.0039-0.0071	0.006	2,600	0.17-0.25	0.0067-0.0098	3,800	0.22-0.36	0.0087-0.014			
12	370	0.0047-0.0083	0.007	2,200	0.21-0.30	0.0083-0.0118	3,200	0.25-0.40	0.010-0.0157			
16	280	0.0063-0.011	0.009	1,600	0.24-0.32	0.0094-0.0126	2,400	0.32-0.48	0.0126-0.019			
20	220	0.008-0.013	0.011	1,300	0.26-0.40	0.01-0.0157	1,900	0.40-0.60	0.0157-0.0236			



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