



# PCD DRILLING TOOLS

Indexable PCD Drilling tools

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## Overview

We manufacture a complete range of PCD drills and step drills for both rough hole processing and finish cutting. We have developed a variety of pointed geometries to cover all possible applications when drilling pre-cast, through or blind holes. However, there are still other factors that should be considered, such as hole depth, wall thickness, and interrupted or non-interrupted cuts.

Our PCD drills and step drills are widely used for drilling aluminum, magnesium, wood, plastics, CFRP, GRP, and new composite materials, among others. They exhibit excellent wear-resistant properties when machining highly abrasive materials, resulting in an extremely long tool life compared to traditional carbide drills.



### HELITRONIC POWER DIAMOND

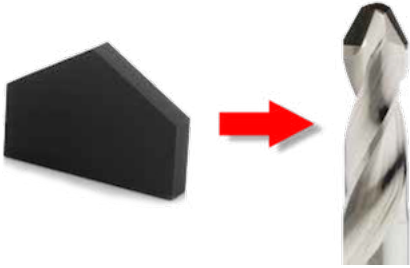
With the help of our machine, we are able to machine spiral flutes in both carbide and PCD materials in a single clamping cycle using a combination of rotary erosion and grinding. This method provides flexibility and produces high-quality tools.



### ZOLLER VENTURION

The device enables us to measure tools automatically, resulting in high precision and efficiency.

## Introduce of PCD Material



### A2DS CHEVRON

#### Coarse grain sizes PCD material

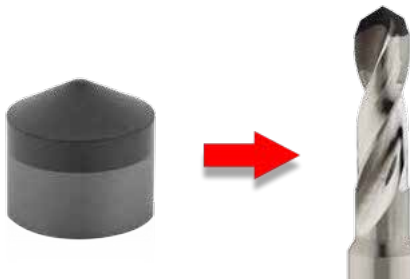
- Tool life extended 10 times longer than Carbide drills
- Half-round disc formats available
- EDM segments available and cut to order



### A3DP PLANAR

#### Fine grain sizes PCD

- The material has almost infinite flexibility in drill point geometry
- Tool life is more than 10 times longer than Tungsten Carbide drills
- Large rake angles possible for lower tool forces



### A3DC CONE

#### Medium grain sizes PCD material

- Significantly increase wear resistance over traditional coated carbide drills
- Consistent performance over the tool life
- Suitable for drilling CFRP stacked with aluminum and/or titanium

## Tooling life of PCD Drill

Over 10 times than carbide drills

100%

## Tooling life of Carbide Drill

10%

## Main Products



### 1.PCD Solid-Nib Spiral Drill

- The solid-nib drill is formed with a solid cylinder PCD material, developed specifically for the drilling of composites and composite/Stack/AL/Ti applications, the solid nib has strong resistance to cracking and chipping, and the stability of the tool is significantly improved.

Process	512.
Material	Carbide Shank Solid PCD Nib
Accuracy	nou-ferrous materials (check ① for more detials)
Treatment	over10000 holder for Sic working



### 2.PCD Mic Twist Drill(Solid-Nib)

- The micro twist drill is a specific type of solid carbide drill. It has a drill tip diameter ranging from 1mm to 2mm, and its tooling life is obviously longer than that of traditional carbide drills.

Process	511.
Material	Carbide Shank Solid PCD Nib
Accuracy	nou-ferrous materials (check ① for more detials)
Treatment	25x than carbide drills



### 3.PCD tipped Twist Drill

- We use the latest material, CHEVRON, to braze onto the top of the carbide body. Then, we machine both the tool body and the PCD area at once using electrical discharge machining (EDM), resulting in consistent tools. These drills are widely used in new composite materials such as aluminum alloy, SiC, carbon fiber, PMMA, and plastic.

Process	521.
Material	Carbide Shank PCD Tip
Accuracy	nou-ferrous materials (check ① for more detials)
Treatment	25x than carbide drills



#### 4. PCD tipped Twist Drill With Coolant

- The PCD diamond brazed onto the entire end of the solid carbide body increases tool life over carbide. Additionally, the internal spiral coolant provides several benefits that save time and offer better tooling life. By reducing the temperature of both the drill and the drilling surface and increasing lubricity, the tool is subject to less wear and tear.

Process	524.
Material	Carbide Shank PCD Tip
Accuracy	non-ferrous materials (check ① for more details)
Treatment	internal coolant



#### 5. PCD Step Drill

- We have tipped the PCD blade on the top and chamfer of the drills. This kind of PCD step drill can directly locate the position of the holes and correctly drill the 45° or 60° chamfers. It helps workers reduce working difficulties and workload.

Process	534.
Material	Carbide Shank PCD Tip
Accuracy	non-ferrous materials (check ① for more details)
Treatment	internal coolant



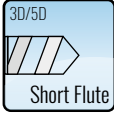

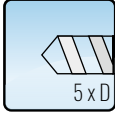
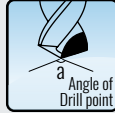

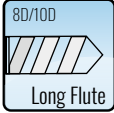

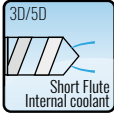
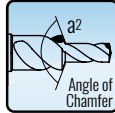
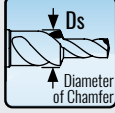
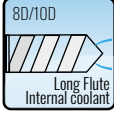
### Common Applications ①

- Aluminum alloys
- Silicon-aluminum alloys
- Brass and bronze alloys
- Copper alloys
- Zinc alloys
- Magnesium alloys
- Presintered tungsten carbide
- Sintered tungsten carbide
- Ceramics (unfired)
- Graphite
- Epoxy resins
- Fiberglass composites
- Carbon-phenolic
- Hard rubber
- Plastics








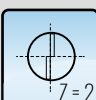





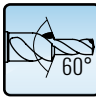



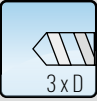





Rule of Order No.

# 5 2 2. 040 . 05D . 130a

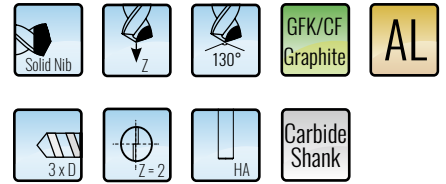
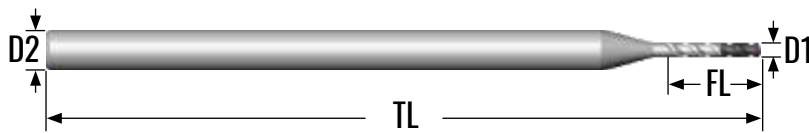
TYPE OF DRILLS	TYPE OF BLADE	TYPE OF FLUTES	DIAMETER OF CUTTING	DRILLING LENGTH (length of flutes)	ANGLE DRILL POINT	ANGLE OF CHAMFER (For Step drill only)	DIAMETER OF CHAMFER (For Step drill only)
 <b>5</b> <b>PCD</b>	 <b>1</b> Solid Nib	 <b>1</b> SHORT FLUTES (3XD 5XD)	 <b>040</b> D1	 <b>05D</b> FL	 <b>130</b> a		
	 <b>2</b> PCD Tiped	 <b>2</b> LONG FLUTES (8XD 10XD)					
	 <b>3</b> PCD Step Drill	 <b>3</b> SHORT FLUTES WITH COOLANT (3XD 5XD)				 <b>60</b> a2	 <b>060</b> Ds
		 <b>4</b> LONG FLUTES WITH COOLANT (8XD 10XD)					

## Graphic Symbols

	The tools are suitable for aluminum and aluminum alloy machining		The angle of drill point is 130 degree
	The tools are suitable for machining the material: Sic and Ceramics		Machining direction:Z Machining in direction X Y and limited in Z direction
	The tools are suitable for machining the material: CFRP,GFRP,Graphite		The tools have internal coolant channel
	The tools are suitable for machining the hardness material: tungsten carbide and non-ferrous hardness materials		The tools have two flutes
	The tools are suitable for machining the material non-ferrous metal:Copper, Brass,wood		Shank design HA
	The tools have carbide shank		Shank design HB
	The PCD material on the top of tools is solid -nib type		Angle of chamfer is 60 degree (Only for the step drills)
	The PCD material is brazed and tipped to the carbide shank		The tools can be reginded
	The tools have one or more chamfers		
	Drilling length / length of flutes(three times of D2)		
	Drilling length / length of flutes(five times of D2)		
	Drilling length / length of flutes(eight times of D2)		
	Drilling length / length of flutes(ten times of D2)		



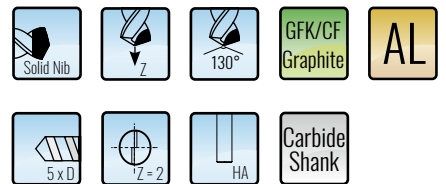
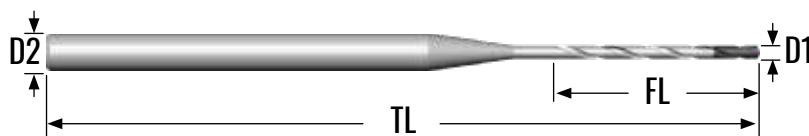
## 511.3D



Order No.	D1 [mm]	D2 [mm]	FL [mm]	TL [mm]	a ANGLE
511.010.03D.130a	1.0	3	9	40	130°
511.011.03D.130a	1.1	3	9	40	130°
511.012.03D.130a	1.2	3	9	40	130°
511.013.03D.130a	1.3	3	9	40	130°
511.014.03D.130a	1.4	3	9	40	130°

Order No.	D1 [mm]	D2 [mm]	FL [mm]	TL [mm]	a ANGLE
511.015.03D.130a	1.5	3	9	40	130°
511.016.03D.130a	1.6	3	9	40	130°
511.017.03D.130a	1.7	3	9	40	130°
511.018.03D.130a	1.8	3	9	40	130°
511.019.03D.130a	1.9	3	9	40	130°

## 511.5D



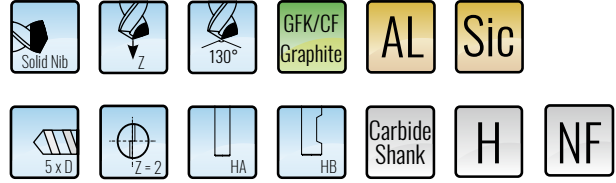
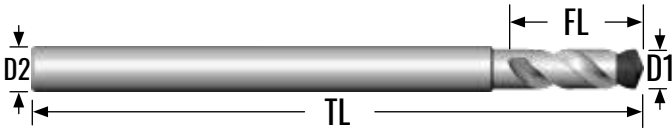
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511.011.05D.130a	1.1	3	15	55	130°
511.012.05D.130a	1.2	3	15	55	130°
511.013.05D.130a	1.3	3	15	55	130°
511.014.05D.130a	1.4	3	15	55	130°

Order No.	D1 [mm]	D2 [mm]	FL [mm]	TL [mm]	a ANGLE
511.015.05D.130a	1.5	3	15	55	130°
511.016.05D.130a	1.6	3	15	55	130°
511.017.05D.130a	1.7	3	15	55	130°
511.018.05D.130a	1.8	3	15	55	130°
511.019.05D.130a	1.9	3	15	55	130°

## Order Note

- Please refer to D 05/06 for PCD Drilling Tools Code Key description.
- To place an order, please refer to the Designation code.
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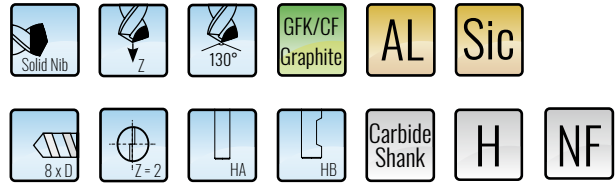
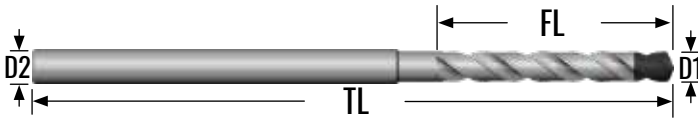
## 511.5D



Order No.	D1 [mm]	D2 [mm]	FL [mm]	TL [mm]	a ANGLE
511.020.05D.130a	2	4	20	60	130°
511.021.05D.130a	2.1	4	20	60	130°
511.022.05D.130a	2.2	4	20	60	130°
511.023.05D.130a	2.3	4	20	60	130°
511.024.05D.130a	2.4	4	20	60	130°
511.025.05D.130a	2.5	4	20	60	130°
511.026.05D.130a	2.6	4	20	60	130°
511.027.05D.130a	2.7	4	20	60	130°
511.028.05D.130a	2.8	4	20	60	130°
511.029.05D.130a	2.9	4	20	60	130°

Order No.	D1 [mm]	D2 [mm]	FL [mm]	TL [mm]	a ANGLE
511.030.05D.130a	3.0	4	20	60	130°
511.031.05D.130a	3.1	4	20	60	130°
511.032.05D.130a	3.2	4	20	60	130°
511.033.05D.130a	3.3	4	20	60	130°
511.034.05D.130a	3.4	4	20	60	130°
511.035.05D.130a	3.5	4	20	60	130°
511.036.05D.130a	3.6	4	20	60	130°
511.037.05D.130a	3.7	4	20	60	130°
511.038.05D.130a	3.8	4	20	60	130°
511.039.05D.130a	3.9	4	20	60	130°

## 512.8D



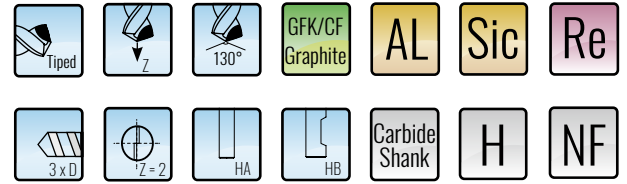
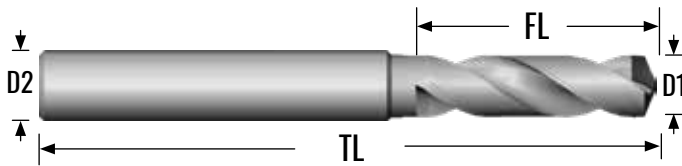
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512.020.08D.130a	2	4	35	75	130°
512.021.08D.130a	2.1	4	35	75	130°
512.022.08D.130a	2.2	4	35	75	130°
512.023.08D.130a	2.3	4	35	75	130°
512.024.08D.130a	2.4	4	35	75	130°
512.025.08D.130a	2.5	4	35	75	130°
512.026.08D.130a	2.6	4	35	75	130°
512.027.08D.130a	2.7	4	35	75	130°
512.028.08D.130a	2.8	4	35	75	130°
512.029.08D.130a	2.9	4	35	75	130°

Order No.	D1 [mm]	D2 [mm]	FL [mm]	TL [mm]	a ANGLE
512.030.08D.130a	3.0	4	35	75	130°
512.031.08D.130a	3.1	4	35	75	130°
512.032.08D.130a	3.2	4	35	75	130°
512.033.08D.130a	3.3	4	35	75	130°
512.034.08D.130a	3.4	4	35	75	130°
512.035.08D.130a	3.5	4	35	75	130°
512.036.08D.130a	3.6	4	35	75	130°
512.037.08D.130a	3.7	4	35	75	130°
512.038.08D.130a	3.8	4	35	75	130°
512.039.08D.130a	3.9	4	35	75	130°

### Order Note

- Please refer to D 05/06 for PCD Drilling Tools Code Key description.
- To place an order, please refer to the Designation code.
- For the item which not on the list pls contact us sales to get the quote.

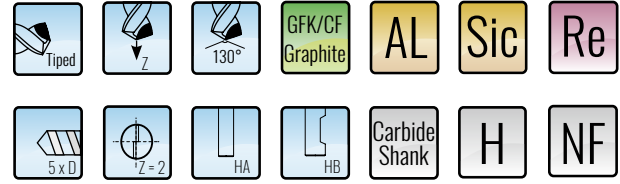
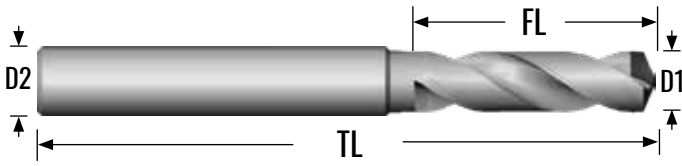
## 521.3D



Order No.	D1 [mm]	D2 [mm]	FL [mm]	TL [mm]	a ANGLE
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521.036.03D.130a	3.6	4	15	55	130°
521.037.03D.130a	3.7	4	15	55	130°
521.038.03D.130a	3.8	4	15	55	130°
521.039.03D.130a	3.9	4	15	55	130°
521.040.03D.130a	4.0	4	15	55	130°
521.041.03D.130a	4.1	6	20	60	130°
521.042.03D.130a	4.2	6	20	60	130°
521.043.03D.130a	4.3	6	20	60	130°
521.044.03D.130a	4.4	6	20	60	130°
521.045.03D.130a	4.5	6	20	60	130°
521.046.03D.130a	4.6	6	20	60	130°
521.047.03D.130a	4.7	6	20	60	130°
521.048.03D.130a	4.8	6	20	60	130°
521.049.03D.130a	4.9	6	20	60	130°
521.050.03D.130a	5.0	6	20	60	130°
521.051.03D.130a	5.1	6	20	60	130°
521.052.03D.130a	5.2	6	20	60	130°
521.053.03D.130a	5.3	6	20	60	130°
521.054.03D.130a	5.4	6	20	60	130°
521.055.03D.130a	5.5	6	20	60	130°
521.056.03D.130a	5.6	6	20	60	130°
521.057.03D.130a	5.7	6	20	60	130°
521.058.03D.130a	5.8	6	20	60	130°
521.059.03D.130a	5.9	6	20	60	130°
521.060.03D.130a	6.0	6	20	60	130°
521.061.03D.130a	6.1	8	25	65	130°
521.062.03D.130a	6.2	8	25	65	130°
521.063.03D.130a	6.3	8	25	65	130°
521.064.03D.130a	6.4	8	25	65	130°
521.065.03D.130a	6.5	8	25	65	130°
521.066.03D.130a	6.6	8	25	65	130°

Order No.	D1 [mm]	D2 [mm]	FL [mm]	TL [mm]	a ANGLE
521.067.03D.130a	6.7	8	25	65	130°
521.068.03D.130a	6.8	8	25	65	130°
521.069.03D.130a	6.9	8	25	65	130°
521.070.03D.130a	7.0	8	25	65	130°
521.071.03D.130a	7.1	8	25	65	130°
521.072.03D.130a	7.2	8	25	65	130°
521.073.03D.130a	7.3	8	25	65	130°
521.074.03D.130a	7.4	8	25	65	130°
521.075.03D.130a	7.5	8	25	65	130°
521.076.03D.130a	7.6	8	25	65	130°
521.077.03D.130a	7.7	8	25	65	130°
521.078.03D.130a	7.8	8	25	65	130°
521.079.03D.130a	7.9	8	25	65	130°
521.080.03D.130a	8.0	8	25	65	130°
521.082.03D.130a	8.2	10	35	75	130°
521.086.03D.130a	8.6	10	35	75	130°
521.088.03D.130a	8.8	10	35	75	130°
521.090.03D.130a	9.0	10	35	75	130°
521.092.03D.130a	9.2	10	35	75	130°
521.096.03D.130a	9.6	10	35	75	130°
521.098.03D.130a	9.8	10	35	75	130°
521.100.03D.130a	10.0	10	35	75	130°
521.102.03D.130a	10.2	12	40	80	130°
521.104.03D.130a	10.4	12	40	80	130°
521.106.03D.130a	10.6	12	40	80	130°
521.108.03D.130a	10.8	12	40	80	130°
521.110.03D.130a	11.0	12	40	80	130°
521.112.03D.130a	11.2	12	40	80	130°
521.114.03D.130a	11.4	12	40	80	130°
521.116.03D.130a	11.6	12	40	80	130°
521.118.03D.130a	11.8	12	40	80	130°
521.120.03D.130a	12.0	12	40	80	130°

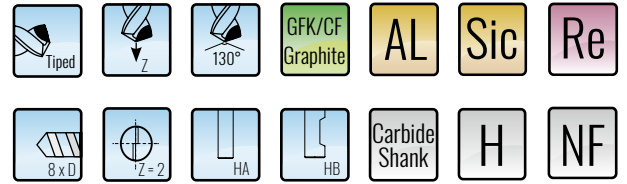
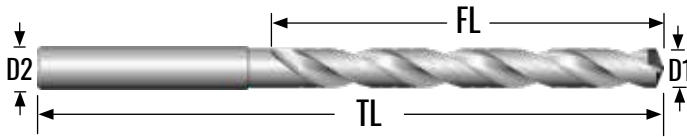
## 521.5D



Order No.	D1 [mm]	D2 [mm]	FL [mm]	TL [mm]	a ANGLE
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521.036.05D.130a	3.6	4	20	60	130°
521.037.05D.130a	3.7	4	20	60	130°
521.038.05D.130a	3.8	4	20	60	130°
521.039.05D.130a	3.9	4	20	60	130°
521.040.05D.130a	4.0	4	20	60	130°
521.041.05D.130a	4.1	6	35	75	130°
521.042.05D.130a	4.2	6	35	75	130°
521.043.05D.130a	4.3	6	35	75	130°
521.044.05D.130a	4.4	6	35	75	130°
521.045.05D.130a	4.5	6	35	75	130°
521.046.05D.130a	4.6	6	35	75	130°
521.047.05D.130a	4.7	6	35	75	130°
521.048.05D.130a	4.8	6	35	75	130°
521.049.05D.130a	4.9	6	35	75	130°
521.050.05D.130a	5.0	6	35	75	130°
521.051.05D.130a	5.1	6	35	75	130°
521.052.05D.130a	5.2	6	35	75	130°
521.053.05D.130a	5.3	6	35	75	130°
521.054.05D.130a	5.4	6	35	75	130°
521.055.05D.130a	5.5	6	35	75	130°
521.056.05D.130a	5.6	6	35	75	130°
521.057.05D.130a	5.7	6	35	75	130°
521.058.05D.130a	5.8	6	35	75	130°
521.059.05D.130a	5.9	6	35	75	130°
521.060.05D.130a	6.0	6	35	75	130°
521.061.05D.130a	6.1	8	40	80	130°
521.062.05D.130a	6.2	8	40	80	130°
521.063.05D.130a	6.3	8	40	80	130°
521.064.05D.130a	6.4	8	40	80	130°
521.065.05D.130a	6.5	8	40	80	130°
521.066.05D.130a	6.6	8	40	80	130°

Order No.	D1 [mm]	D2 [mm]	FL [mm]	TL [mm]	a ANGLE
521.067.05D.130a	6.7	8	40	80	130°
521.068.05D.130a	6.8	8	40	80	130°
521.069.05D.130a	6.9	8	40	80	130°
521.070.05D.130a	7.0	8	40	80	130°
521.071.05D.130a	7.1	8	40	80	130°
521.072.05D.130a	7.2	8	40	80	130°
521.073.05D.130a	7.3	8	40	80	130°
521.074.05D.130a	7.4	8	40	80	130°
521.075.05D.130a	7.5	8	40	80	130°
521.076.05D.130a	7.6	8	40	80	130°
521.077.05D.130a	7.7	8	40	80	130°
521.078.05D.130a	7.8	8	40	80	130°
521.079.05D.130a	7.9	8	40	80	130°
521.080.05D.130a	8.0	8	40	80	130°
521.082.05D.130a	8.2	10	60	100	130°
521.086.05D.130a	8.6	10	60	100	130°
521.088.05D.130a	8.8	10	60	100	130°
521.090.05D.130a	9.0	10	60	100	130°
521.092.05D.130a	9.2	10	60	100	130°
521.096.05D.130a	9.6	10	60	100	130°
521.098.05D.130a	9.8	10	60	100	130°
521.100.05D.130a	10.0	10	60	100	130°
521.102.05D.130a	10.2	12	60	100	130°
521.104.05D.130a	10.4	12	60	100	130°
521.106.05D.130a	10.6	12	60	100	130°
521.108.05D.130a	10.8	12	60	100	130°
521.110.05D.130a	11.0	12	60	100	130°
521.112.05D.130a	11.2	12	60	100	130°
521.114.05D.130a	11.4	12	60	100	130°
521.116.05D.130a	11.6	12	60	100	130°
521.118.05D.130a	11.8	12	60	100	130°
521.120.05D.130a	12.0	12	60	100	130°

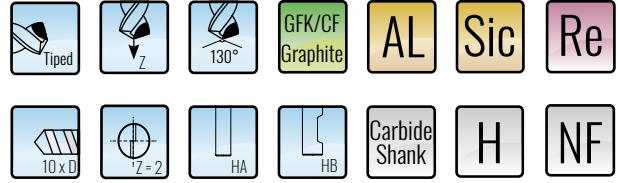
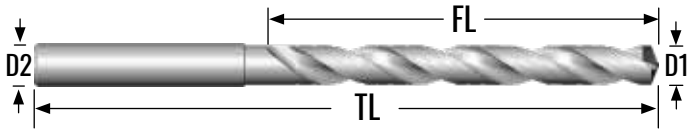
## 522.8D



Order No.	D1 [mm]	D2 [mm]	FL [mm]	TL [mm]	a ANGLE
522.035.08D.130a	3.5	4	35	75	130°
522.036.08D.130a	3.6	4	35	75	130°
522.037.08D.130a	3.7	4	35	75	130°
522.038.08D.130a	3.8	4	35	75	130°
522.039.08D.130a	3.9	4	35	75	130°
522.040.08D.130a	4.0	4	35	75	130°
522.041.08D.130a	4.1	6	60	100	130°
522.042.08D.130a	4.2	6	60	100	130°
522.043.08D.130a	4.3	6	60	100	130°
522.044.08D.130a	4.4	6	60	100	130°
522.045.08D.130a	4.5	6	60	100	130°
522.046.08D.130a	4.6	6	60	100	130°
522.047.08D.130a	4.7	6	60	100	130°
522.048.08D.130a	4.8	6	60	100	130°
522.049.08D.130a	4.9	6	60	100	130°
522.050.08D.130a	5.0	6	60	100	130°
522.051.08D.130a	5.1	6	60	100	130°
522.052.08D.130a	5.2	6	60	100	130°
522.053.08D.130a	5.3	6	60	100	130°
522.054.08D.130a	5.4	6	60	100	130°
522.055.08D.130a	5.5	6	60	100	130°
522.056.08D.130a	5.6	6	60	100	130°
522.057.08D.130a	5.7	6	60	100	130°
522.058.08D.130a	5.8	6	60	100	130°
522.059.08D.130a	5.9	6	60	100	130°
522.060.08D.130a	6.0	6	60	100	130°
522.061.08D.130a	6.1	8	70	110	130°
522.062.08D.130a	6.2	8	70	110	130°
522.063.08D.130a	6.3	8	70	110	130°
522.064.08D.130a	6.4	8	70	110	130°
522.065.08D.130a	6.5	8	70	110	130°
522.066.08D.130a	6.6	8	70	110	130°

Order No.	D1 [mm]	D2 [mm]	FL [mm]	TL [mm]	a ANGLE
522.067.08D.130a	6.7	8	70	110	130°
522.068.08D.130a	6.8	8	70	110	130°
522.069.08D.130a	6.9	8	70	110	130°
522.070.08D.130a	7.0	8	70	110	130°
522.071.08D.130a	7.1	8	70	110	130°
522.072.08D.130a	7.2	8	70	110	130°
522.073.08D.130a	7.3	8	70	110	130°
522.074.08D.130a	7.4	8	70	110	130°
522.075.08D.130a	7.5	8	70	110	130°
522.076.08D.130a	7.6	8	70	110	130°
522.077.08D.130a	7.7	8	70	110	130°
522.078.08D.130a	7.8	8	70	110	130°
522.079.08D.130a	7.9	8	70	110	130°
522.080.08D.130a	8.0	8	70	110	130°
522.082.08D.130a	8.2	10	90	130	130°
522.086.08D.130a	8.6	10	90	130	130°
522.088.08D.130a	8.8	10	90	130	130°
522.090.08D.130a	9.0	10	90	130	130°
522.092.08D.130a	9.2	10	90	130	130°
522.096.08D.130a	9.6	10	90	130	130°
522.098.08D.130a	9.8	10	90	130	130°
522.100.08D.130a	10.0	10	90	130	130°
522.102.08D.130a	10.2	12	120	160	130°
522.104.08D.130a	10.4	12	120	160	130°
522.106.08D.130a	10.6	12	120	160	130°
522.108.08D.130a	10.8	12	120	160	130°
522.110.08D.130a	11.0	12	120	160	130°
522.112.08D.130a	11.2	12	120	160	130°
522.114.08D.130a	11.4	12	120	160	130°
522.116.08D.130a	11.6	12	120	160	130°
522.118.08D.130a	11.8	12	120	160	130°
522.120.08D.130a	12.0	12	120	160	130°

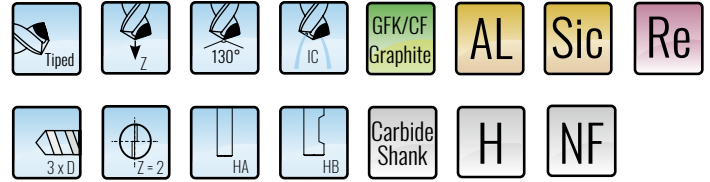
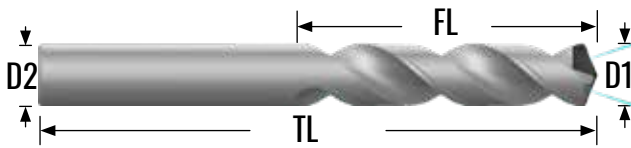
## 522.10D



Order No.	D1 [mm]	D2 [mm]	FL [mm]	TL [mm]	a ANGLE
522.060.10D.130a	6.0	8	90	130	130°
522.061.10D.130a	6.1	8	90	130	130°
522.062.10D.130a	6.2	8	90	130	130°
522.063.10D.130a	6.3	8	90	130	130°
522.064.10D.130a	6.4	8	90	130	130°
522.065.10D.130a	6.5	8	90	130	130°
522.066.10D.130a	6.6	8	90	130	130°
522.067.10D.130a	6.7	8	90	130	130°
522.068.10D.130a	6.8	8	90	130	130°
522.069.10D.130a	6.9	8	90	130	130°
522.070.10D.130a	7.0	8	90	130	130°
522.071.10D.130a	7.1	8	90	130	130°
522.072.10D.130a	7.2	8	90	130	130°
522.073.10D.130a	7.3	8	90	130	130°
522.074.10D.130a	7.4	8	90	130	130°
522.075.10D.130a	7.5	8	90	130	130°
522.076.10D.130a	7.6	8	90	130	130°
522.077.10D.130a	7.7	8	90	130	130°
522.078.10D.130a	7.8	8	90	130	130°
522.079.10D.130a	7.9	8	90	130	130°

Order No.	D1 [mm]	D2 [mm]	FL [mm]	TL [mm]	a ANGLE
522.080.10D.130a	8.0	8	90	130	130°
522.082.10D.130a	8.2	10	120	160	130°
522.086.10D.130a	8.6	10	120	160	130°
522.088.10D.130a	8.8	10	120	160	130°
522.090.10D.130a	9.0	10	120	160	130°
522.092.10D.130a	9.2	10	120	160	130°
522.096.10D.130a	9.6	10	120	160	130°
522.098.10D.130a	9.8	10	120	160	130°
522.100.10D.130a	10.0	10	120	160	130°
522.102.10D.130a	10.2	12	120	160	130°
522.104.10D.130a	10.4	12	120	160	130°
522.106.10D.130a	10.6	12	120	160	130°
522.108.10D.130a	10.8	12	120	160	130°
522.110.10D.130a	11.0	12	120	160	130°
522.112.10D.130a	11.2	12	120	160	130°
522.114.10D.130a	11.4	12	120	160	130°
522.116.10D.130a	11.6	12	120	160	130°
522.118.10D.130a	11.8	12	120	160	130°
522.120.10D.130a	12.0	12	120	160	130°

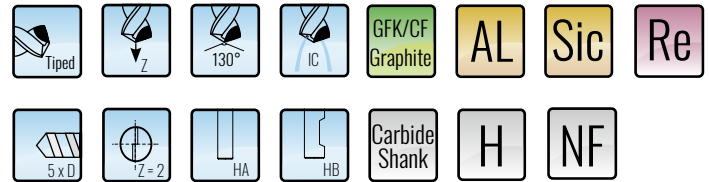
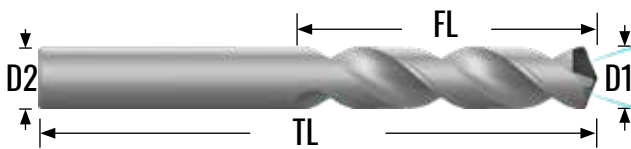
523.3D



Order No.	D1 [mm]	D2 [mm]	FL [mm]	TL [mm]	a ANGLE
523.080.03D.130a	8.0	8	25	65	130°
523.082.03D.130a	8.2	10	35	75	130°
523.086.03D.130a	8.6	10	35	75	130°
523.088.03D.130a	8.8	10	35	75	130°
523.090.03D.130a	9.0	10	35	75	130°
523.092.03D.130a	9.2	10	35	75	130°
523.096.03D.130a	9.6	10	35	75	130°
523.098.03D.130a	9.8	10	35	75	130°
523.100.03D.130a	10.0	10	35	75	130°
523.102.03D.130a	10.2	12	40	80	130°

Order No.	D1 [mm]	D2 [mm]	FL [mm]	TL [mm]	a ANGLE
523.104.03D.130a	10.4	12	40	80	130°
523.106.03D.130a	10.6	12	40	80	130°
523.108.03D.130a	10.8	12	40	80	130°
523.110.03D.130a	11.0	12	40	80	130°
523.112.03D.130a	11.2	12	40	80	130°
523.114.03D.130a	11.4	12	40	80	130°
523.116.03D.130a	11.6	12	40	80	130°
523.118.03D.130a	11.8	12	40	80	130°
523.120.03D.130a	12.0	12	40	80	130°

523.5D



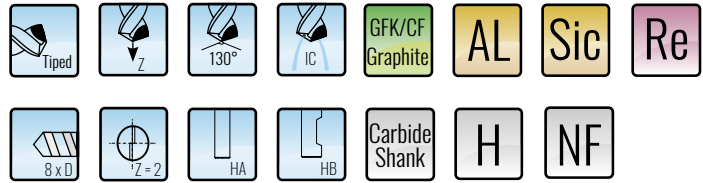
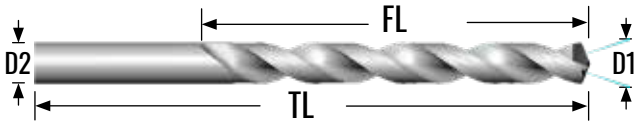
Order No.	D1 [mm]	D2 [mm]	FL [mm]	TL [mm]	a ANGLE
523.080.05D.130a	8.0	8	40	80	130°
523.082.05D.130a	8.2	10	60	100	130°
523.086.05D.130a	8.6	10	60	100	130°
523.088.05D.130a	8.8	10	60	100	130°
523.090.05D.130a	9.0	10	60	100	130°
523.092.05D.130a	9.2	10	60	100	130°
523.096.05D.130a	9.6	10	60	100	130°
523.098.05D.130a	9.8	10	60	100	130°
523.100.05D.130a	10.0	10	60	100	130°
523.102.05D.130a	10.2	12	60	100	130°

Order No.	D1 [mm]	D2 [mm]	FL [mm]	TL [mm]	a ANGLE
523.104.05D.130a	10.4	12	60	100	130°
523.106.05D.130a	10.6	12	60	100	130°
523.108.05D.130a	10.8	12	60	100	130°
523.110.05D.130a	11.0	12	60	100	130°
523.112.05D.130a	11.2	12	60	100	130°
523.114.05D.130a	11.4	12	60	100	130°
523.116.05D.130a	11.6	12	60	100	130°
523.118.05D.130a	11.8	12	60	100	130°
523.120.05D.130a	12.0	12	60	100	130°

Order Note

- Please refer to D 05/06 for PCD Drilling Tools Code Key description.
- To place an order, please refer to the Designation code.
- For the item which not on the list pls contact us sales to get the quote.

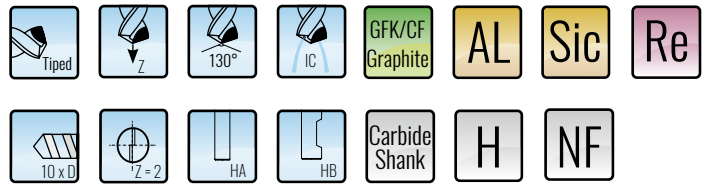
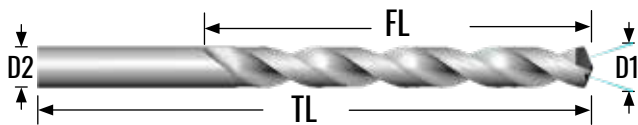
### 524.8D



Order No.	D1 [mm]	D2 [mm]	FL [mm]	TL [mm]	a ANGLE
524.080.08D.130a	8.0	8	70	110	130°
524.082.08D.130a	8.2	10	90	130	130°
524.086.08D.130a	8.6	10	90	130	130°
524.088.08D.130a	8.8	10	90	130	130°
524.090.08D.130a	9.0	10	90	130	130°
524.092.08D.130a	9.2	10	90	130	130°
524.096.08D.130a	9.6	10	90	130	130°
524.098.08D.130a	9.8	10	90	130	130°
524.100.08D.130a	10.0	10	90	130	130°
524.102.08D.130a	10.2	12	120	160	130°

Order No.	D1 [mm]	D2 [mm]	FL [mm]	TL [mm]	a ANGLE
524.104.08D.130a	10.4	12	120	160	130°
524.106.08D.130a	10.6	12	120	160	130°
524.108.08D.130a	10.8	12	120	160	130°
524.110.08D.130a	11.0	12	120	160	130°
524.112.08D.130a	11.2	12	120	160	130°
524.114.08D.130a	11.4	12	120	160	130°
524.116.08D.130a	11.6	12	120	160	130°
524.118.08D.130a	11.8	12	120	160	130°
524.120.08D.130a	12.0	12	120	160	130°

### 524.10D



Order No.	D1 [mm]	D2 [mm]	FL [mm]	TL [mm]	a ANGLE
524.080.10D.130a	8.0	8	90	130	130°
524.082.10D.130a	8.2	10	120	160	130°
524.086.10D.130a	8.6	10	120	160	130°
524.088.10D.130a	8.8	10	120	160	130°
524.090.10D.130a	9.0	10	120	160	130°
524.092.10D.130a	9.2	10	120	160	130°
524.096.10D.130a	9.6	10	120	160	130°
524.098.10D.130a	9.8	10	120	160	130°
524.100.10D.130a	10.0	10	120	160	130°
524.102.10D.130a	10.2	12	120	160	130°

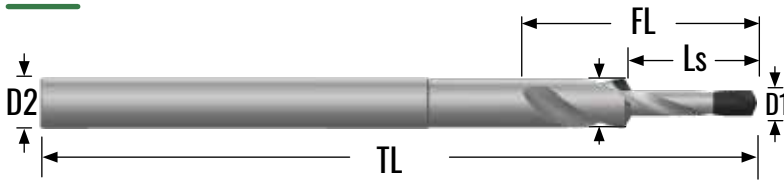
Order No.	D1 [mm]	D2 [mm]	FL [mm]	TL [mm]	a ANGLE
524.104.10D.130a	10.4	12	120	160	130°
524.106.10D.130a	10.6	12	120	160	130°
524.108.10D.130a	10.8	12	120	160	130°
524.110.10D.130a	11.0	12	120	160	130°
524.112.10D.130a	11.2	12	120	160	130°
524.114.10D.130a	11.4	12	120	160	130°
524.116.10D.130a	11.6	12	120	160	130°
524.118.10D.130a	11.8	12	120	160	130°
524.120.10D.130a	12.0	12	120	160	130°

#### Order Note

- Please refer to D 05/06 for PCD Drilling Tools Code Key description.
- To place an order, please refer to the Designation code.
- For the item which not on the list pls contact us sales to get the quote.

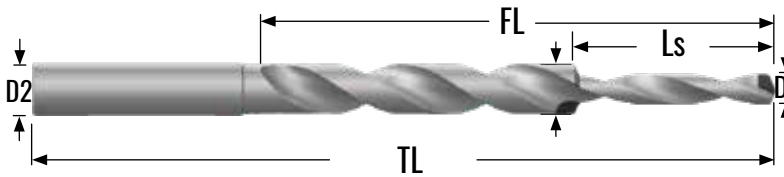


531



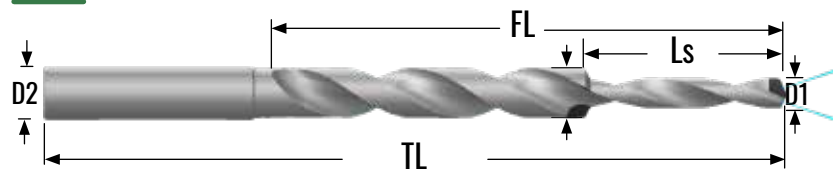
Order No.	D1 [mm]	D2 [mm]	LS [mm]	FL [mm]	a ANGLE	a2 Chamfer	TL [mm]
531.015.06D.130a.60a2.020	1.5	3	5	30	130°	60°	60
531.020.06D.130a.60a2.025	2	3	5	30	130°	60°	60
531.030.06D.130a.60a2.040	3	6	6	40	130°	60°	80
531.035.06D.130a.60a2.040	3.5	6	6	40	130°	60°	80

532



Order No.	D1 [mm]	D2 [mm]	LS [mm]	FL [mm]	a ANGLE	a2 Chamfer	TL [mm]
532.060.10D.130a.60a2.070	6	8	70	90	130°	60°	130
532.080.10D.130a.60a2.090	8	10	90	120	130°	60°	160
532.090.10D.130a.60a2.011	9	12	110	120	130°	60°	160

534



Order No.	D1 [mm]	D2 [mm]	LS [mm]	FL [mm]	a ANGLE	a2 Chamfer	TL [mm]
534.060.10D.130a.60a2.070	6	8	70	90	130°	60°	130
534.080.10D.130a.60a2.090	8	10	90	120	130°	60°	160
534.090.10D.130a.60a2.011	9	12	110	120	130°	60°	160

Order Note

- Please refer to D 05/06 for PCD Drilling Tools Code Key description.
- To place an order, please refer to the Designation code.
- For the item which not on the list pls contact us sales to get the quote.