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# Hurricane Drill



*Mastercut's new Hurricane Drill is a high-performance drill with a common shank. This new drill can be ordered in either Coolant Through or Non-Coolant Through style.*

The Hurricane Drill is good for general purpose use and is offered in Metric 3XD, 5XD, and 8XD diameter dimensions.

The shanks are available in 8 sizes with a wide array of overall Metric cutting diameters.

Shank sizes offered: 6, 8, 10, 12, 14, 16, 18, 20

Inch sizes coming soon.

#### Coatings offered:

Bright	TiN
PowerA	TiCN
PowerZ	Power DLC

#### Technical Specifications:

2FL  
140° Point  
30° Helix  
Coolant Through or  
Non-Coolant Through



Cutting Edge Technology  
Made in the U.S.A.

# Hurricane Drill



## Mastercut High-Performance Coatings

With today's coating technologies, you can make your tools last longer and run harder than ever before. At Mastercut Tool Corp. we offer a full range of coatings including Titanium Nitride, Titanium Aluminum Nitride, and many more.

### PowerA Coating

PowerA is Mastercut Tool Corp's new proprietary coating that surpasses the proven performance of TiAlN for superior extreme machining results. With a thermal stability above 1,600°F (900°C), this coating excels in high speed dry machining applications. Harder than our original TiAlN by 1000 HV and with an increase in thermal stability of 200°F (100°C), PowerA will ensure that heat buildup, friction, and edge breakdown are all greatly reduced, resulting in better cutting performance and longer tool life. As with its predecessor, PowerA will be an excellent coating for

applications involving tough-to-cut tool steels, stainless, cast iron and non-ferrous material, and it can also be used very effectively for interrupted cuts. PowerA can be run at more aggressive speeds and feeds than other coatings, and can be run without coolant in specific applications.

**PowerA continues to be the coating of choice for tough-to-cut materials.**

Hardness: 3800 HV  
Coating Thickness: 2-4 Microns  
Thermal Stability: 1,650°F or 900°C

### PowerA



Consider **PowerA** coatings to run more aggressive speeds and feeds!

### PowerT Titanium Nitride (TiN) Coating

PowerT Titanium Nitride (TiN) Coating is bright gold in color, has an ambient temperature hardness in the 2800 Vickers (low 80Rc) range, a coefficient of friction under 0.5, and a thermal

stability up to about 1000°F. TiN meets FDA requirements for surgical tools and food applications. Cutting speeds, feeds, wear resistance and tool life generally improve.

### PowerT



### PowerZ Zirconium Based (ZrN) Coating

PowerZ Zirconium Nitride (ZrN) Coating has proven itself over the years in many industries. ZrN's characteristics have made it suitable for applications where TiN has not performed well. It has excellent erosion resistance, good lubricity and ductility, combined with an attractive appearance to make it stand out from the all the rest. This coating has worked well in all non-ferrous applications.

Recommended applications: Aluminum, Brass, Cast Iron, Graphite, Ni Alloys, Ti Alloys, 300/PH Series Stainless Zinc, Glass-filled Plastics (Not recommended for carbon steels). Coating Characteristics: Thickness (2-5 microns), Hardness (2800 Vickers), Thermal 1,049°F (550°C), Lubricity (0.5 coefficient of friction).

### POWERZ



Also available:

### Titanium Carbon Nitride (TiCN) Coating

Titanium Carbon Nitride (TiCN) Coating has an ambient temperature hardness in the 4000 Vickers (low 90Rc) range. It's use is particularly advantageous when cutting cast iron, silicon

aluminum, certain non-ferrous and other abrasive materials. Tool life can be extended using the right combination of speeds, feeds and coolant.



### Why use a Coating?

- Carbide tool's life increased 2 to 5 times. Deposition temperatures as low as 480°-840°F [250°-450°C] protect carbide's binder from deterioration, by comparison with the CVD process applied at more than 1,850°F (1,000°C).
- Isolates the tool from the part, avoids edge buildup and tool cratering.
- Reduces friction against workpiece and chips, reduces spindle torque, less vibrations, better finish.
- Speed and Feed increased from 10 to 50 percent.
- Reduces or eliminates coolant [with specific coatings].
- Repeatable, stable performance of the coatings between batches.

Material to Machine	PowerT	TiCN	PowerA	PowerZ
Aluminum, Low Silicon < 10%		☼	☼	☼
Aluminum, High Silicon > 10%		☼	☼	☼
Copper, Copper Alloys	☼	☼	☼	☼
Ductile, Malleable Cast Iron	☼	☼	☼	☼
Carbon Steel, 1000 Series	☼	☼	☼	☼
Alloy Steel, 4 to 9000 Series	☼	☼	☼	☼
Tool Steel	☼	☼	☼	☼
SS Steel, 300 Series	☼	☼	☼	☼
SS Steel, 400 Series	☼	☼	☼	☼
SS PH Series	☼	☼	☼	☼
Titanium, Titanium Alloys	☼	☼	☼	☼
Nickel, Nickel Alloys, Cobalt	☼	☼	☼	☼
Wood, Paper	☼	☼	☼	☼
Composites, Plastics	☼	☼	☼	☼