



XEBEC Back Burr Cutter and Path™

Spherical deburring cutter and custom-made tool path

The combination of the spherical deburring cutter and the custom-made tool path enables hole deburring on a 3D curved edge in your CNC machine. High-speed and excellent quality deburring is achieved while maximizing the tool life. The tool path data can be used as soon as being installed on a NC program, saving your time to make your own program.

XEBEC Back Burr Cutter

- Micro-grain cemented carbide: Sharp and long lasting
- Highly heat-resistant AlTiC₂N coating: Support materials from non-ferrous (e.g. aluminum) to difficult-to cut materials (e.g. titanium and inconel)
- Helical blade: Cleaner cutting edge and prevents secondary burrs



XEBEC Path

Custom-made tool path (point group data)

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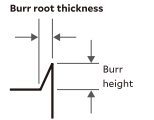
01_020_EdgeBreakAmount - Notepad
File Edit Format View Help
{INNER-1031,-2018,-15.8-AR-90,-ED}
(EDGE BREAK AMOUNT 0.20)
(UPPER EDGE)
(INC)
(DOWN CUT)

X0.000Y0.000Z0.000
X0.000Y0.000Z-7.085
X-0.000Y-8.488Z0.000
X0.792Y0.042Z0.030
X0.779Y0.124Z0.088
X0.749Y0.202Z0.139
X0.703Y0.274Z0.179
    
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XEBEC Back Burr Cutter and Path™ Patented

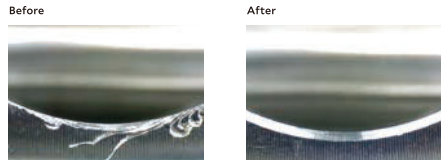
Perfect for deburring both front and back of a drilled hole

Target burr size
Burr root thickness of 0.2mm or less (Burr is bent with a fingernail)



High quality

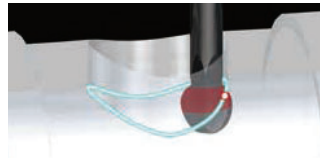
- Uniform edge shape thanks to an optimal tool path
- Inhibits secondary burrs by calculating optimal cutting angles



5 deburring amounts are provided for each Path. Refer to P33.

Long tool life

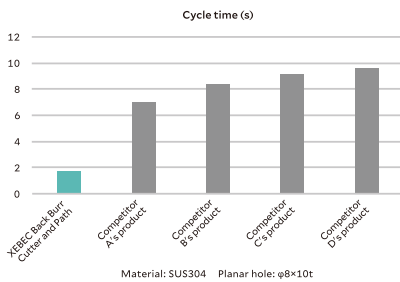
- Using the entire cutting blade by constantly shifting its contact point achieves longer tool life



● Range of blade use

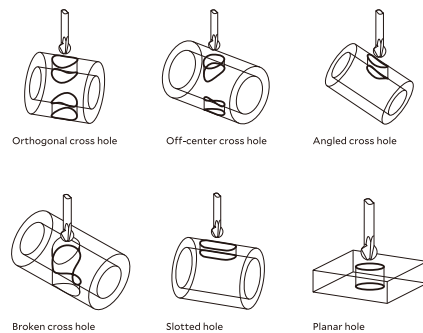
Super high-speed machining

- Cycle time is reduced because of single edge-contouring operation (5 to 10 times faster than conventional tools)



Applicable to various edge shapes

- 1 size of a Cutter supports various edges in different sizes and shapes. The cycle time is shortened by minimizing the number of tools used.



Product component

Spherical deburring cutter and custom-made tool Path. Refer to P33 on how to order XEBEC Path.

Applicable equipment

The tool can be mounted on machining center (XYZ-axis) or combined lathe (XZY or XZC-axis). 3-axis simultaneous control is required.



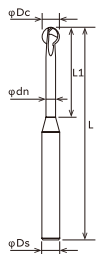
Machining center



Combined lathe

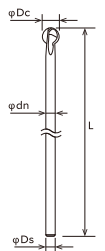
Regular type

Product code	Cutter diameter Dc (mm)	Cutter radius R (mm)	Neck diameter dn (mm)	Shank diameter Ds (mm)	Length under the neck L1 (mm)	Overall length L (mm)	Number of blades
XC-08-A	φ 0.8	0.4	φ 0.48	φ 3	5	60	2
XC-13-A	φ 1.3	0.65	φ 0.78	φ 3	8	60	2
XC-18-A	φ 1.8	0.9	φ 1.1	φ 3	10	60	2
XC-23-A	φ 2.3	1.15	φ 1.4	φ 3	12.5	70	2
XC-28-A	φ 2.8	1.4	φ 1.7	φ 4	15	70	2
XC-33-A	φ 3.3	1.65	φ 2.0	φ 4	17.5	70	2
XC-38-A	φ 3.8	1.9	φ 2.4	φ 4	20	70	2
XC-48-A	φ 4.8	2.4	φ 3.0	φ 4	25	70	2
XC-58-A	φ 5.8	2.9	φ 3.5	φ 4	30	70	2
XC-78-A	φ 7.8	3.9	φ 4.7	φ 8	40	100	3
XC-98-A	φ 9.8	4.9	φ 5.9	φ 10	50	120	3



Straight type

Product code	Cutter diameter Dc (mm)	Cutter radius R (mm)	Neck diameter dn (mm)	Shank diameter Ds (mm)	Overall length L (mm)	Number of blades
XC-18-B	φ 1.8	0.9	φ 1.1	φ 1.1	50	2
XC-23-B	φ 2.3	1.15	φ 1.4	φ 1.4	60	2
XC-28-B	φ 2.8	1.4	φ 1.7	φ 1.7	70	2
XC-33-B	φ 3.3	1.65	φ 2.0	φ 2.0	80	2
XC-38-B	φ 3.8	1.9	φ 2.4	φ 2.4	85	2
XC-48-B	φ 4.8	2.4	φ 3.0	φ 3.0	105	2
XC-58-B	φ 5.8	2.9	φ 3.5	φ 3.5	120	2



Precautions for Use

- XEBEC Back Burr Cutter is designed for NC machines. Never use it as a hand tool.

Caution

- Advanced preview control function can reduce edge-shape error.
- The processing error of the hole position must be kept as small as possible.

Usage instructions on P33