

XEBEC Back Burr Cutter & Path Setup Guide

Glossary

■ XEBEC Back Burr Cutter (Cutter)

The spherical cutter specially designed for deburring

■ XEBEC Path (Path)

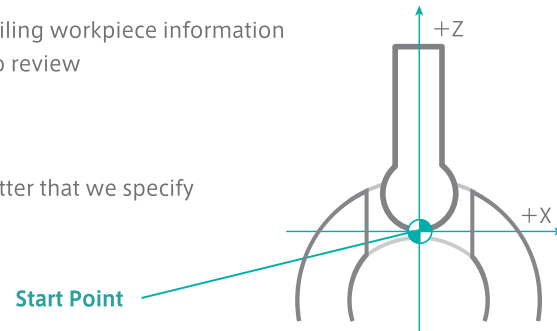
The custom-made NC data set (XYZ points' data) generated for optimal deburring

■ Path Code Sheet

The confirmation sheet detailing workpiece information and the Start Point for you to review

■ Start Point

The initial position of the Cutter that we specify



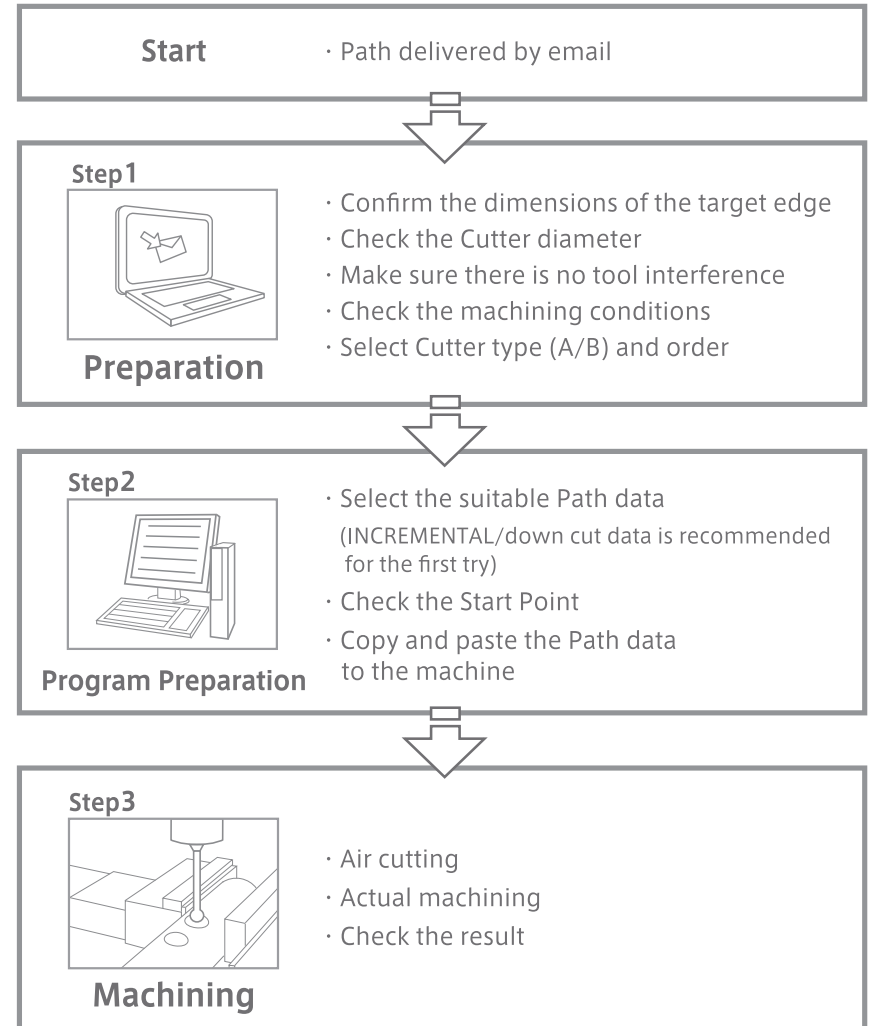
Product component

■ Path (delivered by email)

- Text data
- Instruction manual
- Path Code Sheet

■ Cutter (sold separately)

Steps



How to use XEBEC Back Burr Cutter & Path

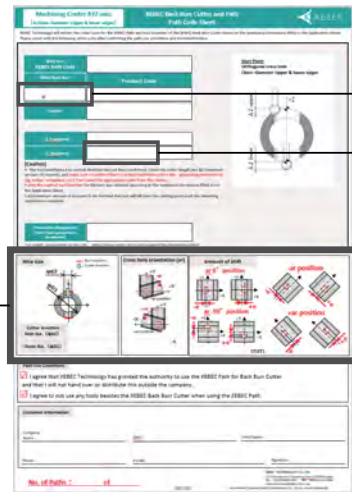
Step 1 Preparation

Please check the followings.

1 Details of the target edge

The dimensions/workpiece orientation

Path Code Sheet



2 The Cutter diameter

3 Tool interference

Check the cutter length and its maximum amount of descent (from the Start Point).
Make sure there is no tool interference.

4 The Cutter type

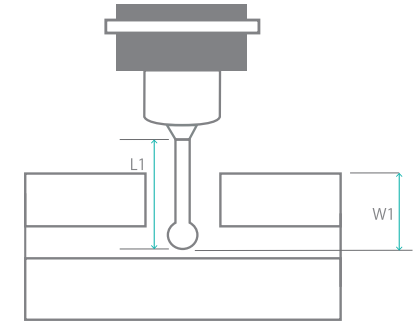
Select the suitable cutter type.

W1 < L1 = Regular type (XC-XX-A),

W1 > L1 = Straight type (XC-XX-B)

*Straight type is not available for some cutter sizes

*Please select the cutter type considering the interference with the surroundings.



W1: Thickness of the workpiece
+ the Cutter's maximum amount of descent
L1: Length under the neck of regular type Cutter (type A)

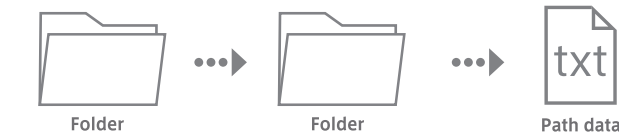
5 Machining conditions

Please refer to the instruction manual Page 8-9.

*If the maximum rotational speed and/or feed rate of the machine is below the standard conditions, reduce the rotational speed and feed rate at an equal rate.

Step 2 Program preparation

1 Select the suitable Path data



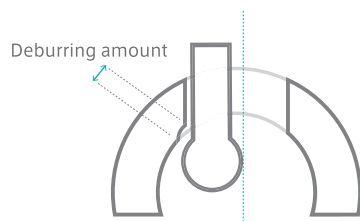
Choose the target edge
(Upper, Lower, etc.)

Choose the command
mode (INC/ABS)
and cutting direction
(Up Cut/Down Cut)
INC: Incremental command
ABS: Absolute command

Select the deburring amount

File name
01_0.20_EdgeBreakAmount
→ The path data for deburring
amount 0.20

Note: The example above is
for Standard Path.
The number of the text data
offered may be limited
for the customized path.



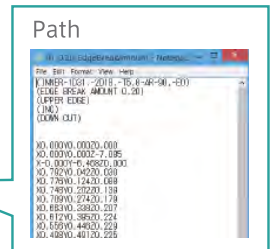
2 Check the Start Point

Check the Start Point in the Path Code Sheet



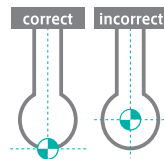
3 Copy and paste the Path data to the machine

Deburring process START
▽
Call Cutter
▽
Move Cutter to the Start Point
▽
Call Path
▽
Machining end



For details, please refer to the instruction manual Page 13-14.

*Setting position for Tool Length Offset



The Path data is calculated
at the tip of the Cutter.
Please make sure to set tool
length offset at the tip of the Cutter.

Step 3 Machining

Air cutting → Actual machining → Check the result

Before performing actual machining,
please make sure there is no interference.
Check the machining conditions and set the Start Point
and the tool length offset correctly.