

NEW

2022.3 RELEASE

Cutter exclusively developed for Float Deburring

C-BF01

[Back-Deburring]

Back Conical Cutter Suitable for Back-Deburring!

Applicable Models

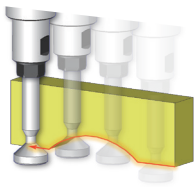
Sugino BARRIQUAN Series
for Back-Deburring



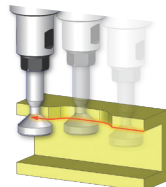
BCT10-10
for CNC Machine

BCT10-40M
for Robotic Arms

What is **Float Deburring** which enables automated deburring?



Compensate positional
difference in Z direction.



Compensate positional
difference in X and Y directions.

The Float Deburring is the machining process which prevents non-deburred or excessive-deburred parts, with floating function to compensate the positional difference generated by clamping, programming, or workpiece tolerance.

Comparison with ordinary cutter

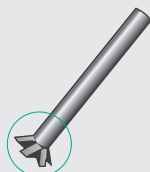
Sugino C-BF01 is newly developed to solve below problems.

Typical problems with ordinary cutter

Chamfering Cutter

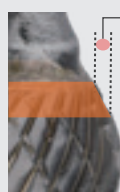


Chattering Finish



Unstable cutter shape causes
chattering.

Ball Cutter

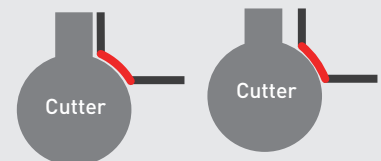


Deburring range
is limited approx. to
±0.25mm



Cutter may not be able to contact
deburring points due to limited
deburring range.

Ball Cutter



Depending on contact area of
ball, the deburred shape
changes.

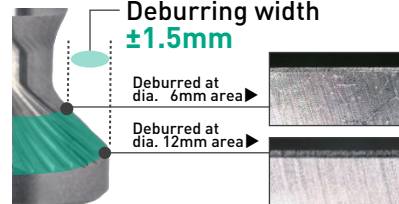
Sugino C-BF01 solves above problems



Stable Finish



Suitable shape for
back-deburring enables stable
deburred finish.

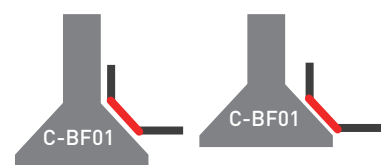


Deburring width
±1.5mm

Deburred at
dia. 6mm area

Deburred at
dia. 12mm area

Wide range can compensate the
positional difference.



The stable chamfered shape
achievable even when contact
area of cutter changes.

Combined solution including deburring machine

Combined with CNC machine



Cutter	Floating Holder	Machine
C-BF01	BARRIQUAN BCT10-10	CNC Machine

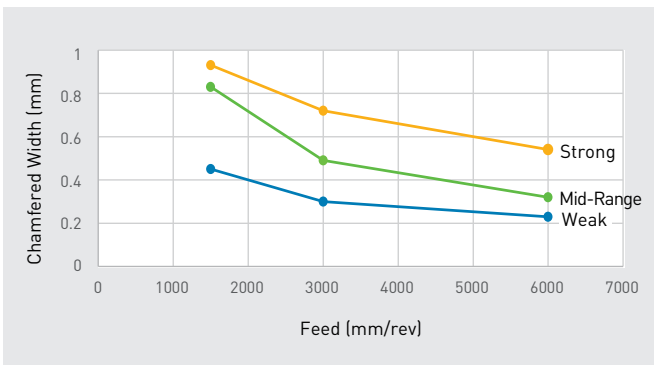
Combined with Robotic Arms



Cutter	Float Spindle Motor	Machine
C-BF01	BARRIQUAN BCT10-40M	Robotic Arms

Machining Parameters and Chamfering Size

The 3 kinds of spring are available

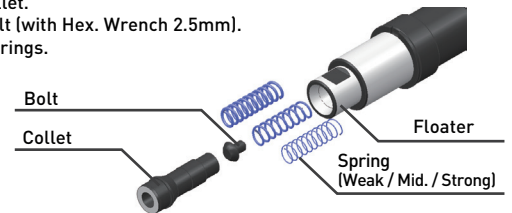


Working Condition

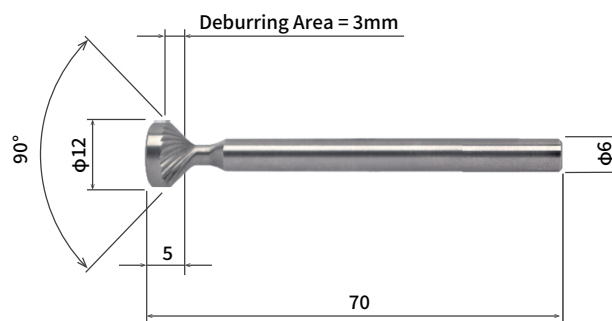
CNC Machine = Sugino Self-Center SC-V30a
 Workpiece Material = Steel (JIS SS400)
 Spindle Speed = 8000min⁻¹

How to change springs

- (1) Detach Collet.
- (2) Loosen Bolt (with Hex. Wrench 2.5mm).
- (3) Change Springs.



Dimension (mm)



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