

# DEBURRING SPINDLE MOTOR BARRIQUAN BRQ-EZ01 FOR INDUSTRIAL ROBOT



SUGINO

For Robot/ Axially Floating type BRQ-EZ01

## Robot takes burrs out as you wish



○ Max. 20,000min<sup>-1</sup>

O.D.40 × 246L Compact and high torque servo motor mounted.

○ Quick disconnect of tool



Reduce tool change time due to outside setup. Easy maintenance!

○ 10mm axially floating function

Enable the deburring cutter to follow complicated shapes, and thus prevent the remaining burrs or too deep cuts on the workpiece.

### What is "Float Deburring" which enables automated deburring?

Floating mechanism is the function that uses a spring to press the tool against the workpiece with a certain pressure.

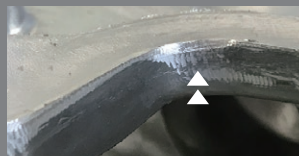
Technical information here!



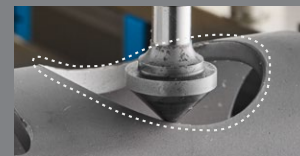
#### Typical deburring problems arise from automation



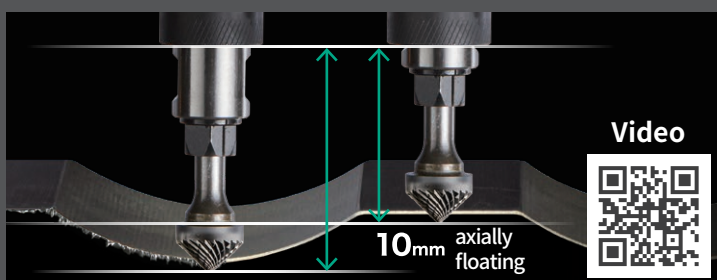
Remaining Burr



Cutting Too Deep



Difficult Programming



Video



#### Load on the robot

With Float Deburring	Without Float Deburring
Load Reduction!	
Max. 30N (Approx. 3kg)	Max. 130N (Approx. 13kg)

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## Quick

## Startup guide

1 Please make sure that the following 3 items are present.

### SPINDLE MOTOR

Rotation Speed 1,000 - 20,000 min<sup>-1</sup>  
Motor Max. Output : 1,400W  
Motor Max. Torque : 1.2N·m  
Weight : 1.64kg



### SERVO CONTROLLER

Rotation command : manual & External signal  
Protocol : Modbus RTU (RS-485)  
Weight : 2.6kg



### INTERMEDIATE CABLE

Min. bendable radius : R48  
Length : 5M( 7M, 10M for Option)  
Signal cable : 1 pce  
Power cable : 1 pce



### Customer preparation

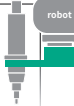
#### Robot

Payload  
7kg or more



#### Connecting plate

Bore : φ40H7  
Thickness : 20mm  
Aluminum



#### Power Supply

Input : 200-240V  
50/60Hz  
12A



#### Compressed air

For cooling motor  
Pressure : 0.3MPa



#### Air supply equipment

Water separator, F.R. unit,  
Pressure switch,  
Air tube(O.D. 6, I.D. 4)

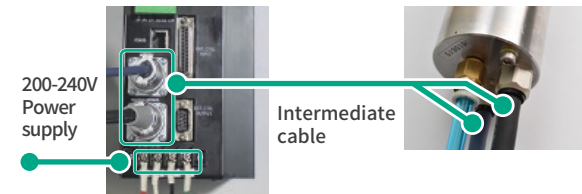
#### Tools

Cutter,  
Brushes, etc.  
About tools  
for BARRIQUAN▶

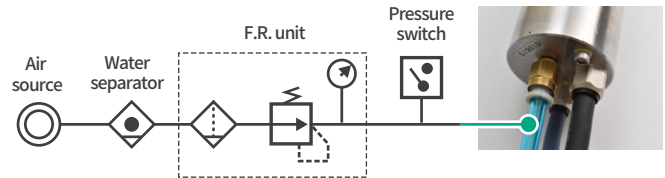


2 Please see pictures below for piping and wiring.

### Electric wiring



### Air piping



3 Rotation speed setting & Rotation/Stop operation

### Manual operation

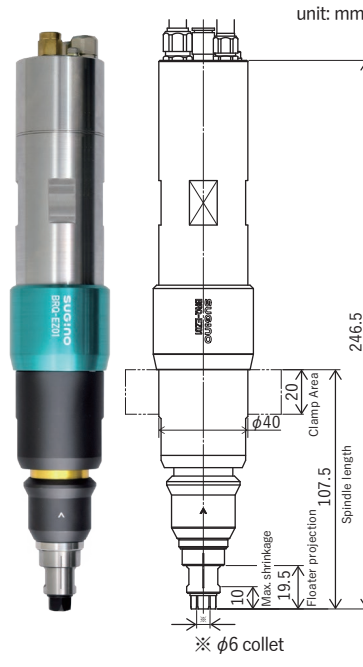
① Rotation speed setting (Displayed value x100)

② Standby ON

③ Rotate / Stop

\*Please refer to Instruction manual for External command.

External dimensions and various spec.



### Specifications

Model	BRQ-EZ01	
O.D. of Clamp area	φ 40	
Collet	φ 6 (standard)	φ 3 (option)
	φ 6.35 (option)	φ 3.175 (option)
Spindle length	107.5mm	
O.D. of Largest part	φ 45	
Weight	1.64kg	
Floating function	Axially 10mm	
Adjustment of preload	Replace spring (3 different load)	
Motor Max. output	1,400W	
Motor Max. torque	1.2N·m	
Motor Max. current value	12A	
Max. Rotation speed	20,000min <sup>-1</sup>	
Controller	Dedicated servo controller	

4 Floater detachment/attachment operation

### Detachment operation

Push in the release trigger to remove the floater.

#### Caution

The floater will pop forward, so remove it while holding the floater in place.



### Attachment operation

Align the mark and insert floater.

Release trigger return to initial position then rocked.



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