

# Ball Screw Nut I.D. Groove Stone Lapping Machine

## BSN-80 model

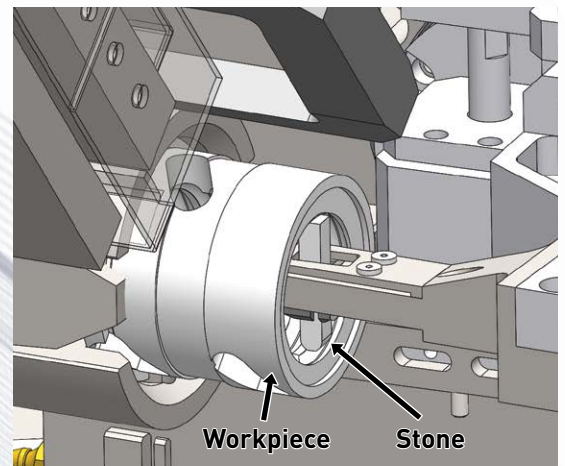
Machinable Range

O.D.  
**φ40~80**  
mm

Length  
**60~120**  
mm

Machining  
length  
**MAX**  
**70**  
mm

1. This model is equipped with an automatic stone changer. By forming lapping stones outside the machine and loading them into a magazine in advance, operations can be performed with minimal downtime.
2. Capable of stone-lapping nut bore screw grooves up to 42mm in diameter.
3. Capable of lead angles up to ±20 degrees.
4. The oscillating axis motion performed by a servo motor enables accurate stone-lapping of spiral ball grooves and other complex shapes. (Patent pending)
5. Next-generation design for easy setup changeover and maintenance for enhanced functionality.



### ■ Main Specifications

Head stock	Main spindle	Drive motor	3.5kW AC servo motor
		Revolution	Max. 1,000r/min
	Work chuck	Cylinder drive	2 fingers + key
Traverse	Drive motor	0.4kW AC servo motor	
	Stroke	168mm	
Stone head	Oscillation unit	Frequency	Max.1,500rpm, Rough/finish multi-step change-over
		Drive motor	2.0kW AC servo motor
		Amplitude	±3°
	Tool in/out	Stroke	271mm
Drive motor		0.4kW AC servo motor	
Vertical unit	Stroke	45mm	
	Drive motor	1.5kW AC servo motor	
Angle adjustment	Lead angle	±15°	
	Drive motor	0.2kW AC servo motor	

Work carrier	Lift unit	Travel amount	54mm
		Drive motor	0.4kW AC servo motor
	Approach unit	Travel amount	198mm
		Drive motor	0.4kW AC servo motor
Back&forth drive unit	Travel amount	398mm	
	Drive motor	0.4kW AC servo motor	
Power	Chuck	3 fingers, In-out simultaneous chuck	
	Power Source	3φ AC 200V 60Hz	
	Control Voltage	AC100V, DC24V	
	Pneumatic	0.4MPa 450NL/min	
Machine Dimension		1400(W)*2800(D)*1800(H)	
Machine Weight		3700kg	

# Ball Screw Shaft O.D. Groove Stone Lapping Machine

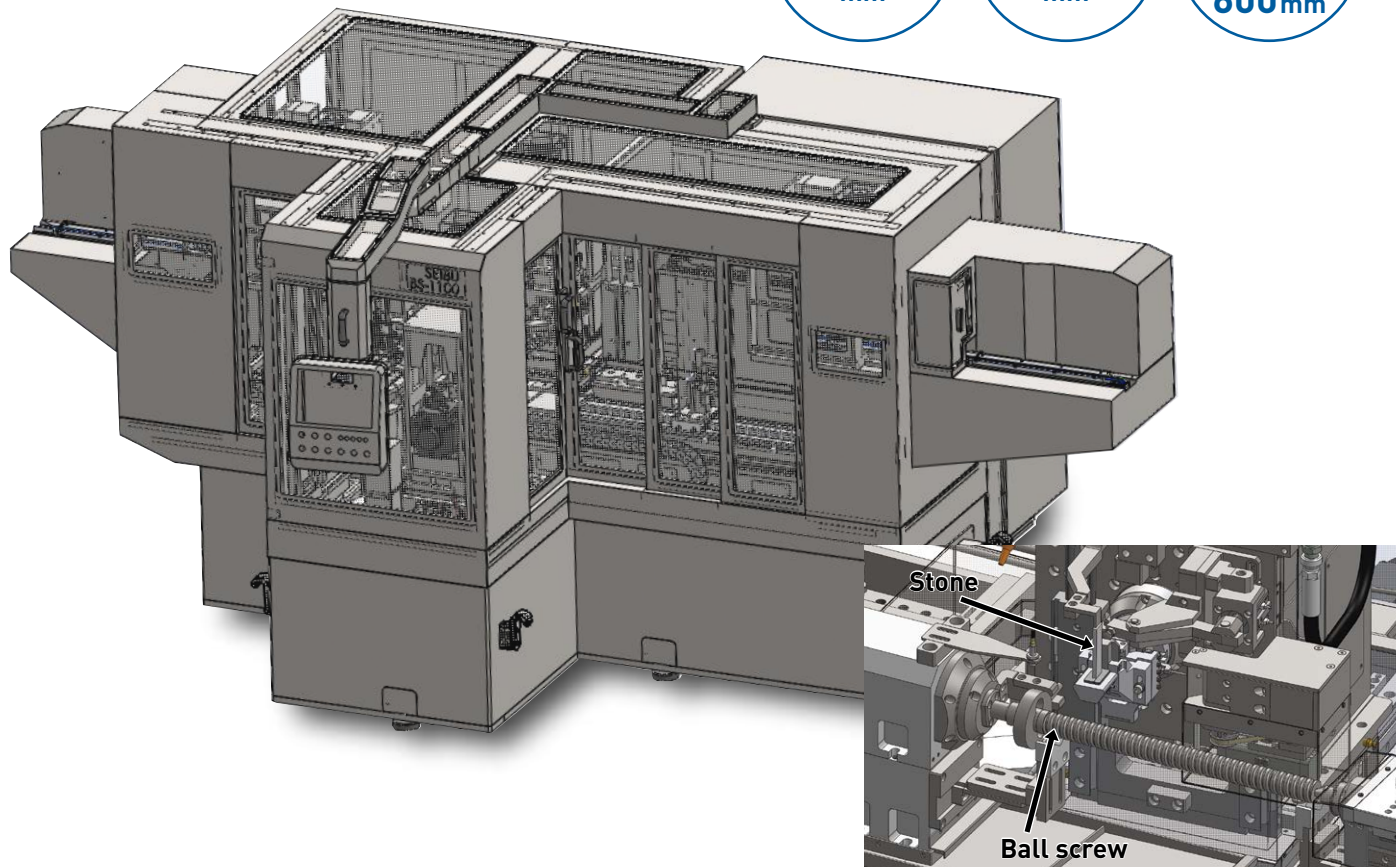
**BS-1100** model

Machinable Range

O.D.  
 $\phi 10 \sim 75$   
mm

Length  
200~1100  
mm

Machining  
length  
**MAX**  
600mm



1. The oscillating axis motion performed by a servo motor enables accurate stone-lapping of spiral ball grooves and other complex shapes. (Patent pending)
2. Capable of stone-lapping ball screw grooves up to 75mm in diameter and 1,100mm in length.
3. Equipped with dual-axis oscillating stone-lapping units to shorten C/T or perform rough and finishing step processes.
4. Next-generation design for easy setup changeover and maintenance for enhanced functionality.
5. An automatic material handling device can be installed as an option, which enables fully automatic continuous operation that contributes to improved productivity.

## ■ Main Specifications

Oscillation	Frequency	Max1500rpm
	Amplitude	$\pm 5^\circ$ (Changeable with servo motor)
Drive motor	Drive motor	2.0kW AC servo motor
	Travel amount	620mm
Drive motor	Drive motor	3.5kW AC servo motor
	Revolution	1000 rpm
Main spindle	Drive motor	3.5kW AC servo motor
	Travel amount	50mm
Tale stock	Horizontal drive motor	0.7kW AC servo motor

In/Out separate handling	Conveyor+Carrier+Chucker	
Work support system	Center support+Auto chuck	
Machining Cycle	Full auto cycle	
Power	Power Source	3 $\phi$ AC 200V 60Hz
	Control Voltage	DC 24V
	Pneumatic	0.4MPa 450NL/min
Machine Dimension	2900(W)*2300(D)*2000(H)mm	
Machine Weight	6000kg	

Please do not hesitate to inquire for further details, such as processing methods, how to select the machine models to achieve your required accuracy, and more economical machining time.

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