

FAIR FRIEND • ENGINEERING • EXCELLENCE • LEADERSHIP • EXPERTISE • RELIABILITY



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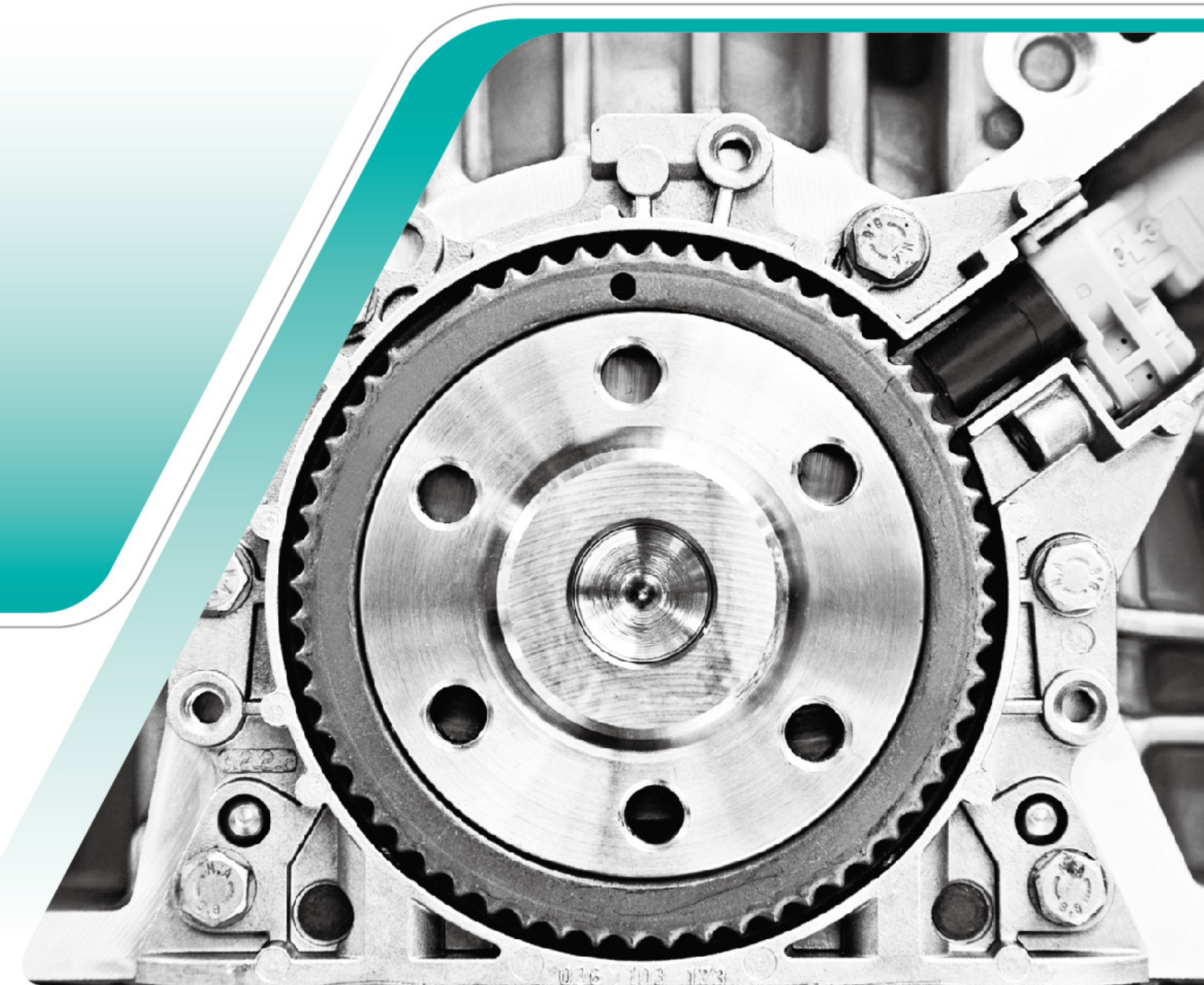
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# SHM SERIES

CNC Horizontal Boring & Milling Machine



# FEELER CNC HORIZONTAL BORING & MILLING MACHINE

## Stability, Rigidity & High accuracy

With over 30 years experience on boring machine. FEELER has built a solid reputation for quality and reliability.

Up to now, products are well known around the world and keep working on innovation, marketing, quality improvement and service support.

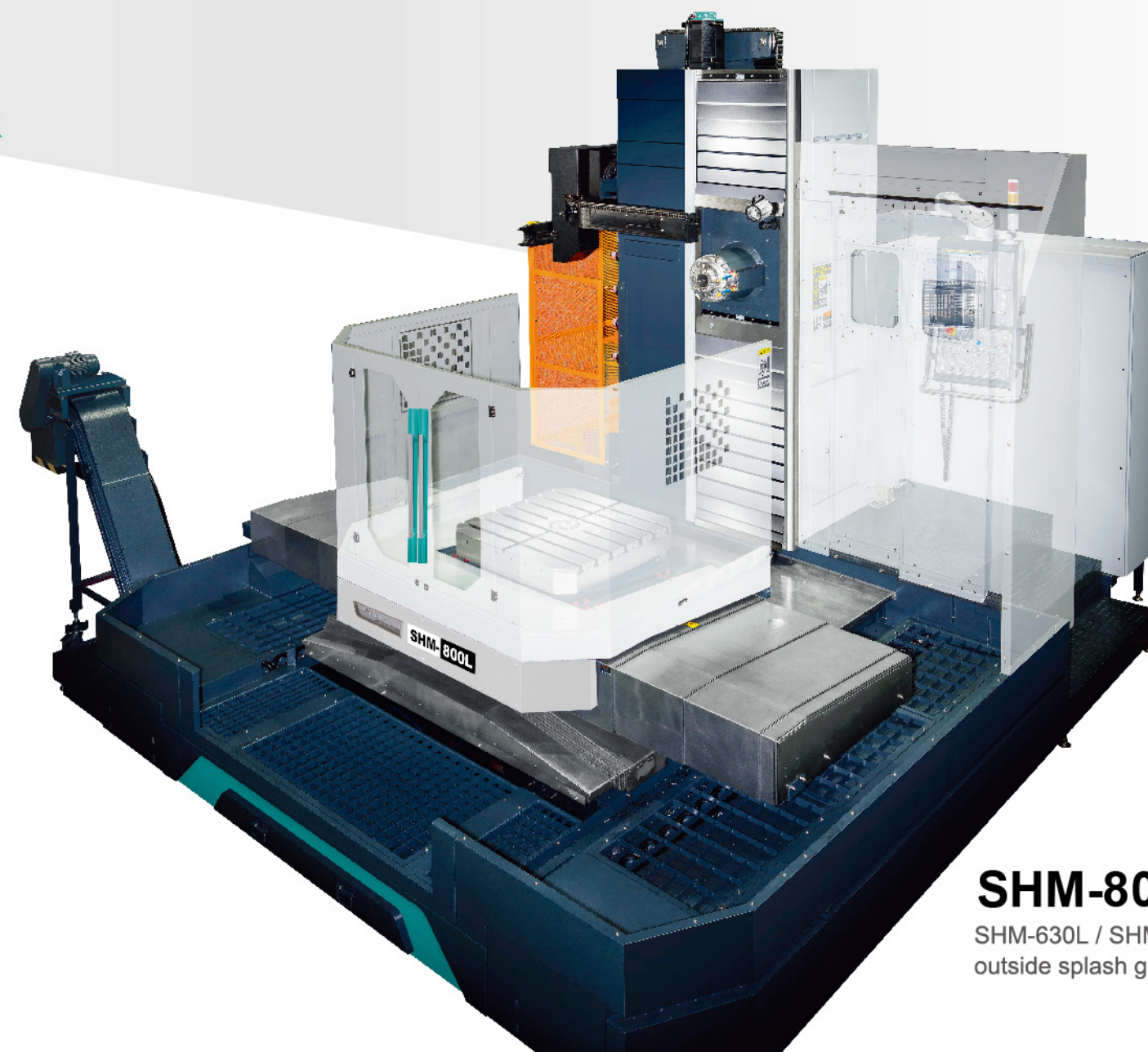
FEELER provide full range specification of boring machine to meet the requirement of diversification application.

With high rigidity structure design, showing excellent high rigidity and processing stability. The high precision rotary table provides axial indexing positions, could completely meet the requirement on processing accuracy.



### SHM-800

Outside splash guard (opt) & working table fully splash guard (opt)



### SHM-800L

SHM-630L / SHM-800L  
outside splash guard (opt)

## Most Professional Manufacturing Technology

FEELER boring and milling machine produced by skillful engineer. During the machine assembly process, every procedure, have to pay the greatest attention! Every machine should pass strict quality inspection before shipped to ensure the best quality and performance.



# SHM-630L

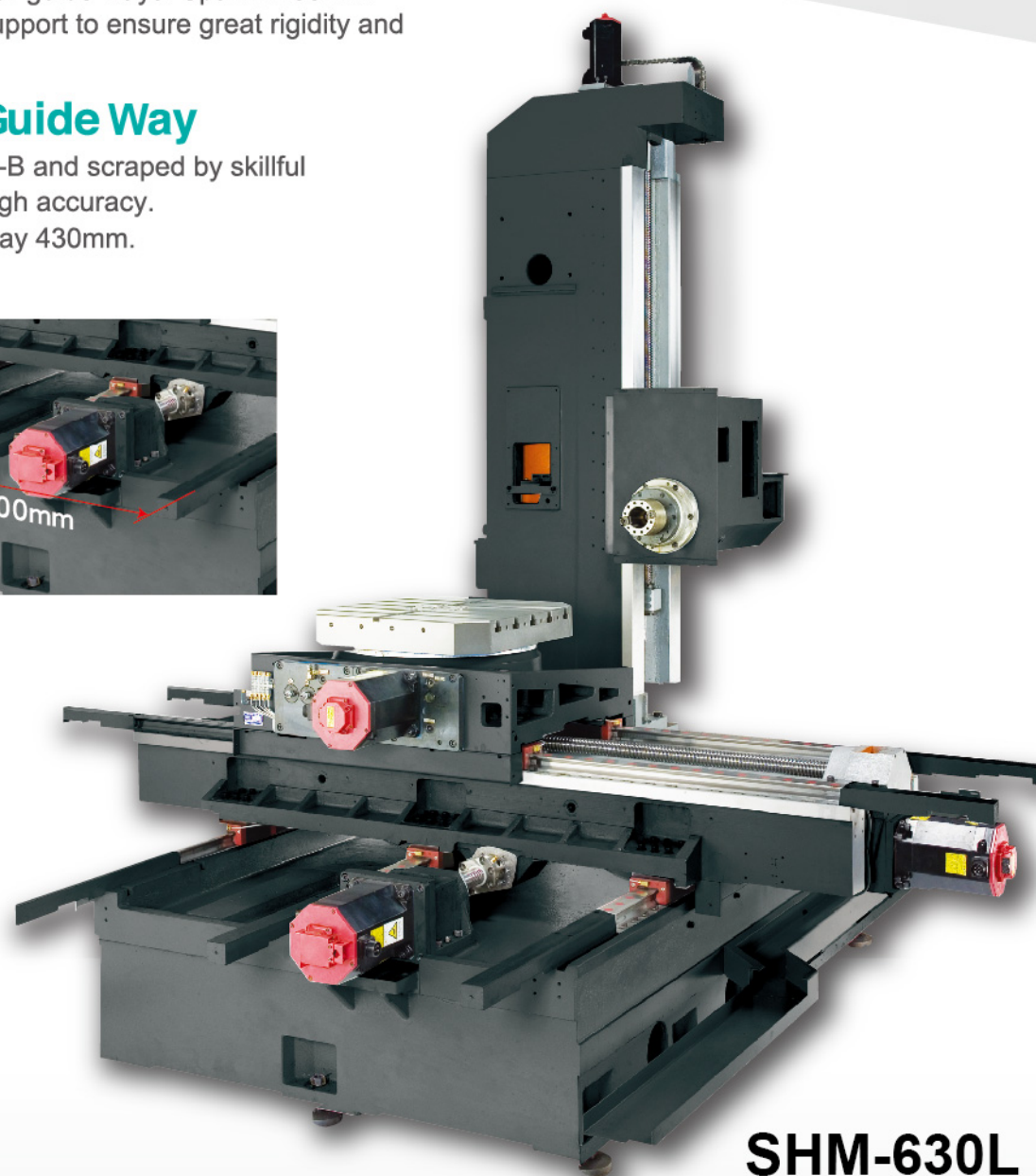
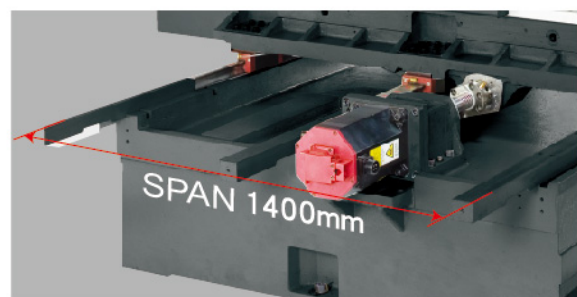
**X axis, Two Linear Guide Ways**  
**Z axis, Three Linear Guide Ways**

Imported roller type linear guideways with high rigidity and high precision.

Z axis with three linear guide ways. Span :1400mm  
Working table fully support to ensure great rigidity and high accuracy.

## Y axis Box Guide Way

Attaches with Turcite-B and scraped by skillful technician to show high accuracy.  
Span between box way 430mm.



**SHM-630L**

## Rotary Table (Std.)

Rotary table uses high quality Clutch Gears to improve high index positioning.

- SHM-630L** table size 630x630mm  
indexing 1°, loading capacity 1500 kgs
- SHM-800L** table size 800x800mm  
indexing 1°, loading capacity 3000 kgs

## Hydraulic Counterbalance

The spindle uses hydraulic counterbalance to ensure moving smoothly and good stability.

# SHM-800L

**X axis Two Linear Guide Ways**  
**Z axis Four Linear Guide Ways**

Imported roller type linear guide ways with high rigidity and high precision.

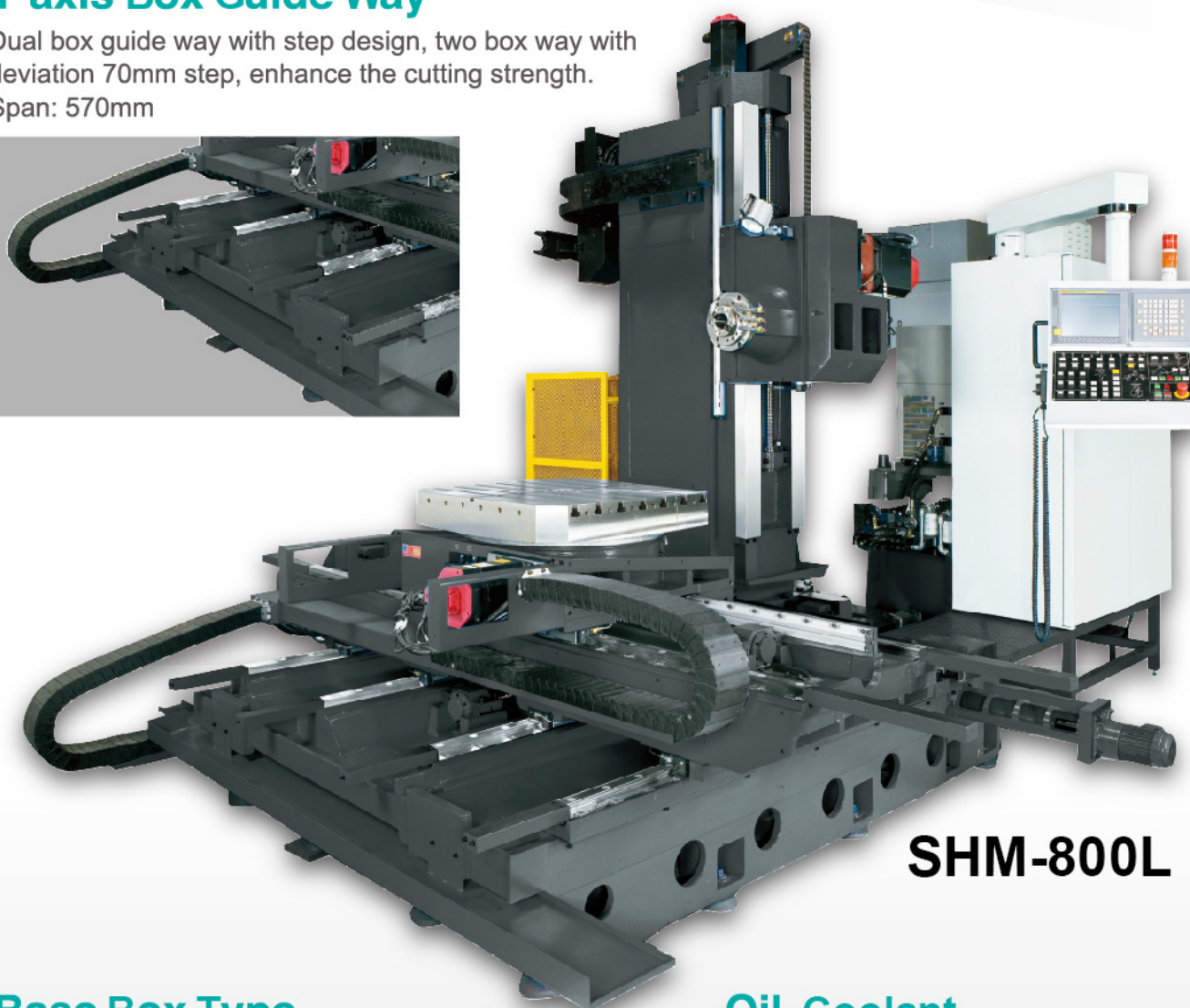
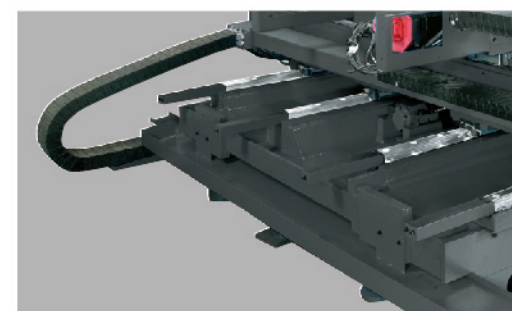
Low friction, long life, ensure good accuracy after years.

Z axis with four linear guide ways, span: 1900mm

Working table fully support to ensure great rigidity and high accuracy.

## Y axis Box Guide Way

Dual box guide way with step design, two box way with deviation 70mm step, enhance the cutting strength.  
Span: 570mm



**SHM-800L**

## Base Box Type Structure Design

Provide the most stable support base for large workpiece.  
Three axes fully support without overhanging.

# SHM-800

**Three Axis Box Way.**

One piece base designed with two Main guide ways and Two Sub guide ways

Provide table fully support to ensure greatest machining stability for big-size work piece.

Y axis box guide way span 570mm  
Z axis Main guide way span 855mm  
Z axis Sub guide ways span 1980mm

## Oil-Coolant Separated Design

Oil-coolant separation design, avoid cutting liquid deteriorated.



## Standard Accessories

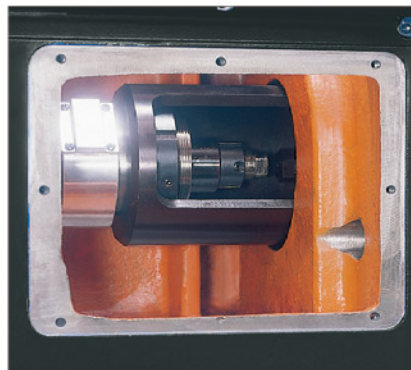


### High rigidity Spindle Ram

The distance between the spindle nose and the table center is only 225mm.

Effectively improve processing efficiency.

Equipped with ZF gear box to provide high torque.



### Floating Type Unclamping System

Avoid the spindle bearing damaged by unclamping. To improve the spindle life, protect the bearing and ensure spindle accuracy.



### High Precision Spindle

Spindle is machined from high quality alloy steel, equipped with high-precision, high rigidity and precision bearings.

Ensure precise boring job.

Equipped with oil cooler system to ensure the spindle running at constant temperature.

Spindle speed: 4000(std.)/ 6000rpm(opt.)



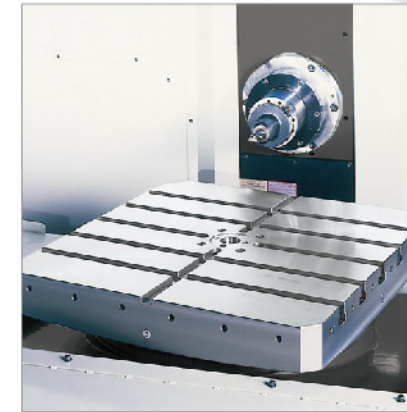
### High performance Electrical Cabinet

Equipped with a fully enclosed circulated heat exchanger which maintains constant temperature in the electrical cabinet.

Air conditioner available as optional.

Electric wiring in the electrical cabinet meets international standards, increasing service life of the control components and safety.

## Optional Accessories



### Indexing Rotary table

SHM-630L Table size: 700x700mm, 700x900mm

SHM-800/ SHM-800L Table size: 1000x800mm, 1000x10

Indexing: 1° or 0.001°



### Chain Type Magazine

ATC 40 (Standard )

ATC 60 (Optional )

Random tool selection mode.



P.S:ATC Magazine with  
Splash guard  
(Standard for CE)



### Square Block

Different dimension to meet different requirement.





# Machine Specifications

Items	Unit	SHM-630L	SHM-800L	SHM-800
<b>TABLE</b>				
Size	mm	630 x 630(700 x 700 / 700 x 900)	800 x 800( 800 x 1,000 / 1,000 x 1,000)	800 x 800( 800 x 1,000 )
T- Slots	mm	20 x5	22 x7	22 x7
Maximun Load	kg	1,500	3,000	3,000
Height from Ground	mm	1,130	1,190	1,200
Indexing Degree	°	1° / 360	1° / 360	1° / 360
Clamping Force	kg-m	5,000	5,000	5,000
<b>TRAVEL</b>				
X Axis Travel	mm	1,400 (1,200)	1,500	2,000
Y Axis Travel	mm	1,150 (950)	1,600 (1,180)	1,100(1,500)
Z Axis Travel	mm	1,000 (800)	1,200 (1,000)	1,200
<b>DISTANCE</b>				
Spindle Nose to Table Center	mm	300~1,300(300~1,100)	225~1,425(225~1,225)	300~1,500(300~1,700)
Spindle Center to Table Top	mm	0~1,150(0~950)	0~1,600(0~1,200)	0~1,100(0~1,500)
<b>SPINDLE</b>				
Spindle Taper	mm	BT/DIN/CAT 50	BT/DIN/CAT 50	BT/DIN/CAT 50
Spindle Speed	rpm	4000 (6000)	4,000 (6,000)	4,000 (6,000)
<b>FEED RATE</b>				
X/Y/Z Rapid Traverse	m/min	15/15/15	24/24/24	10/10/10
Cutting Feed Rate	mm/min	1~5,000	1~5,000	1~5,000
Minimum Input	mm	0.001	0.001	0.001
<b>ATC</b>				
No. of Tools	tool	40 (60)	40 (60)	40 (60)
Max. Tool Length	mm	400	400	400
Max. Tool Weight	kg	35	35	35
Max. Tool Diameter	mm	ø125(with adjacent tool)/ ø245 (without tool)		
Tool selection		fixed type	fixed type	fixed type
Tool Change Time	sec	14	14	14
<b>MOTORS</b>				
Spindle Motor	kW	11/15(15/18.5)	11/15(15/18.5)	11/15(15/18.5)
X/Y/Z/B Motors	kW	3/3/4/4	4/4/4/4	4/4/4/4
Lubricator Motor	kW	0.025	0.025	0.025
Hydraulic Pump	kW	6	6	4.5
<b>MISCELLANEOUS</b>				
Air Consumption	kg/cm <sup>2</sup>	6	6	6
Power Required	kVA	40	40	40
Hydraulic Tank Volume	L	40	70	70
Spindle Oil Cooler	L	4.6	4.6	4.6
Coolant Tank Volume	L	300	400	400
<b>MACHINE DIMENSION</b>				
Machine Outline	mm	4,250 x 5,350 x3,200 (3,400)	5,300 x 5,300 x 3,750	6,400 x 5,400 x 3,800 (3370)
Machine Weight	kg	12,000	14,000	14,600

- ★ Y-axis with Motor Brake and counterweight lupm.
- ★ ( ) As Option
- ★ Specifications are subject to change without prior notice.

## STANDARD ACCESSORIES

- Spindle speed: 4000rpm
- Spindle motor: α12i(11/15kW)
- Spindle air blast system
- Programmable coolant system
- Lubricator system
- Hydraulic system
- M.P.G.
- Heat Exchanger in cabinet
- Auto power off
- Work light 、 Alarm lamp
- Chip auger & chain type chip conveyor
- Machine inspection lists 、 Operation manuals 、 Controller manuals and circuit diagram
- Leveling screws and pads
- Tools box for machine adjustment
- RS-232C / RJ-45 interface
- AICC II ((200 Block / 30m)(FANUC)
- X/Y/Z axis linear scales
- Horizontal with ATC 40 tools
- Rotary table 630mmx630mmx360D(SHM-630L)
- Rotary table 800mmx800mmx360D(SHM-800/800L)

## OPTIONAL ACCESSORIES

- Positioning block for Oil-Feed Holder
- Indexing table 0.001°
- Variety of controllers  
(FANUC/MITSUBISHI/SIEMENS/HEIDENHAIN)
- Coolant through spindle
- Auxiliary work table
- ATC 60 tools