

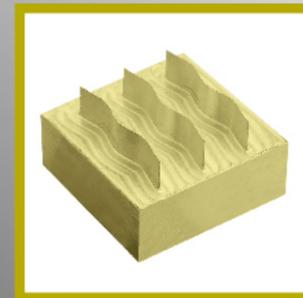
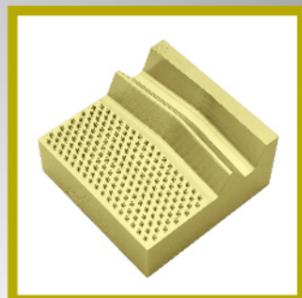
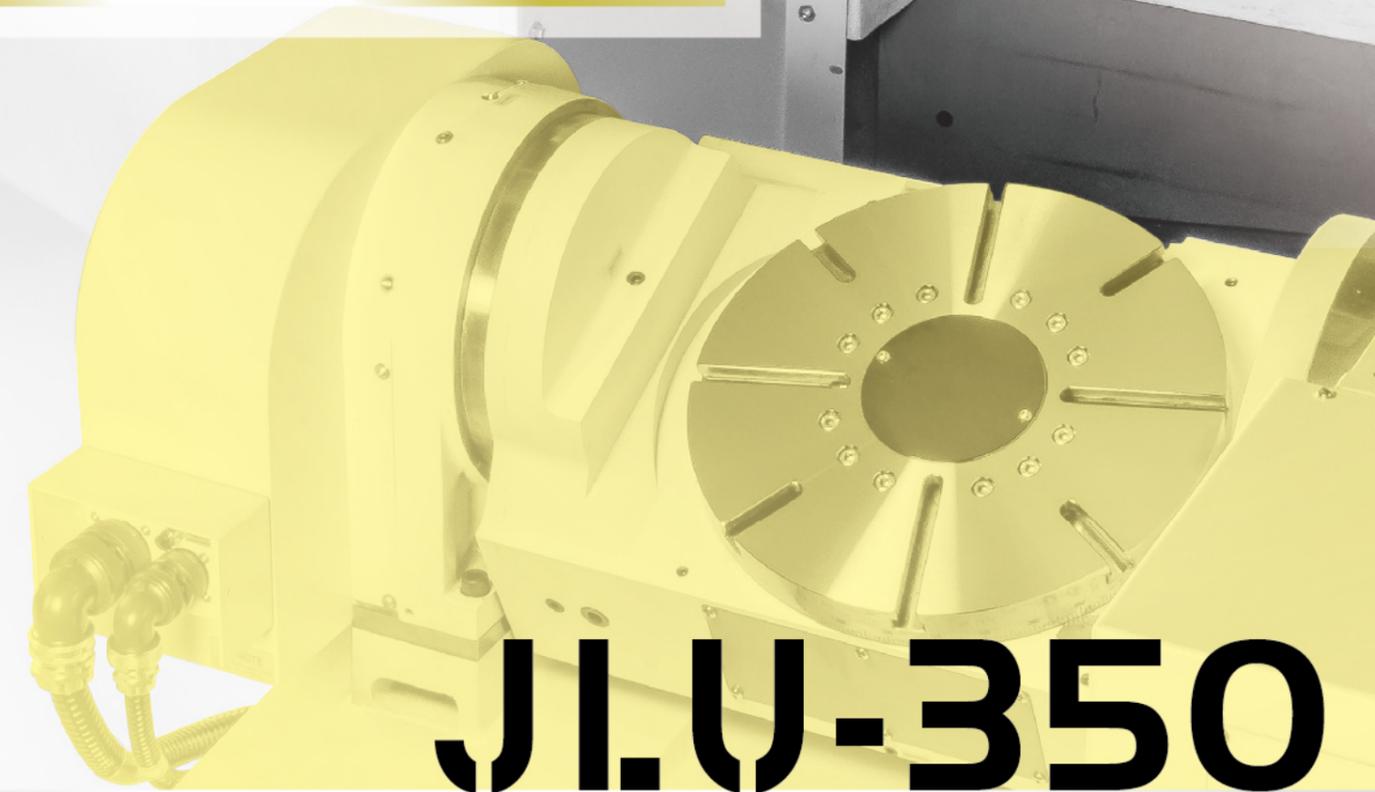
# MILLSTAR

## FIVE AXIS MACHINING CENTER



### TILTING ROTARY TABLE (A axes / C axes)

- A axis tilting angle:  $-120^{\circ} \sim +30^{\circ}$
- C axis rotating angle:  $360^{\circ}$
- Driven by servomotors
- High indexing accuracy



### OUTSTANDING FEATURES

- Compact construction with high stability.
- Heavy-duty roller type linear guide ways on X / Y / Z axes.
- Equipped with a high-precision tilting rotary table (A / C axis).
- 5 axis simultaneous machining allows for machining complex parts with high efficiency and high accuracy.
- 12,000 rpm direct drive spindle features low vibration, low noise, and low thermal growth.
- BT-40 spindle taper.
- Rapid traverse rates on X / Y / Z axes 36 m/min.
- Equipped with a 24-tool magazine.

# FIVE AXIS MACHINING CENTER

# TILTING ROTARY TABLE

B axes  
C axes

The tilting rotary table can tilt  $-40^{\circ} \sim +110^{\circ}$  along B axis and rotate  $360^{\circ}$  along C axis.

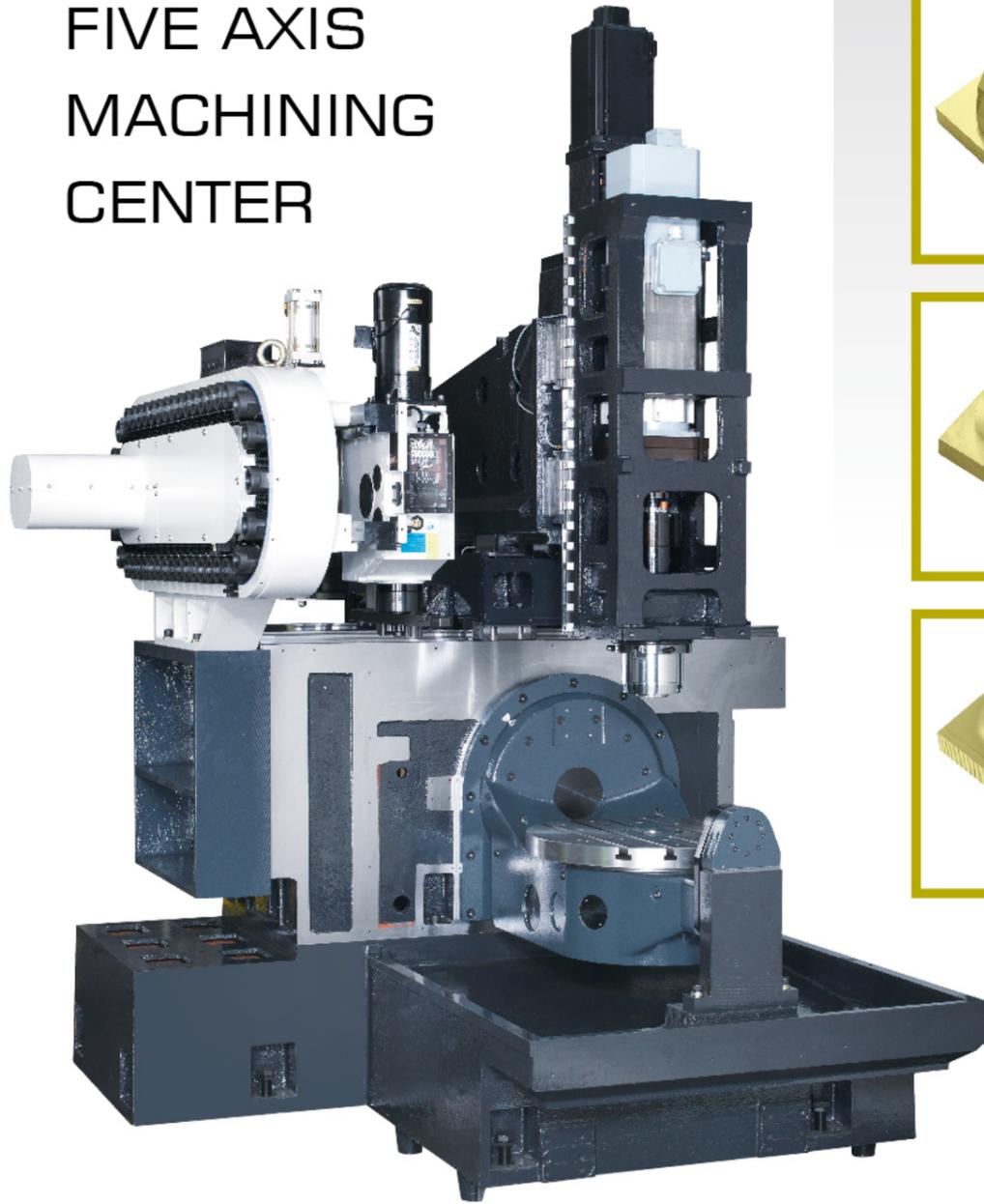
The table tilting and rotating motions are driven by servomotors.

## OUTSTANDING FEATURES

- Traveling column structure for increased efficiency.
- X / Y / Z axes are mounted with heavy duty roller type linear guide ways.
- Tilting rotary table.
- 12,000 rpm direct drive spindle.
- #40 spindle taper (DIN / BT / CAT / HSK-63A).
- Optical encoders for B / C axes (optional).
- Table tilting angle (B axis):  $-40^{\circ} \sim +110^{\circ}$ .
- Table rotating angle (C axis):  $360^{\circ}$  continuous rotation.
- B / C axes are driven by servomotors.
- Rapid traverse rates on X / Y / Z axes: 36 m/min.

# MILLSTAR

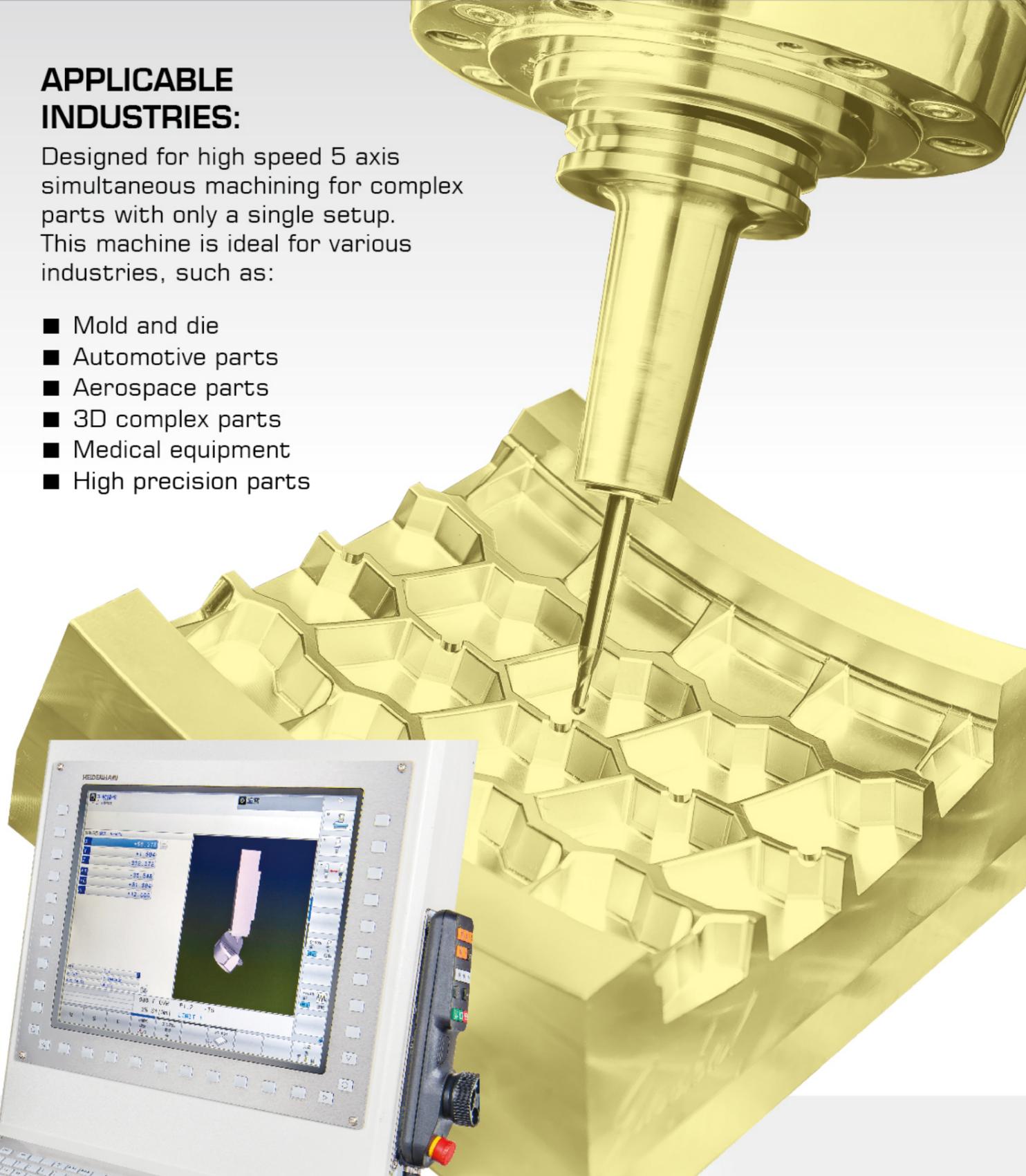
## FIVE AXIS MACHINING CENTER



### APPLICABLE INDUSTRIES:

Designed for high speed 5 axis simultaneous machining for complex parts with only a single setup. This machine is ideal for various industries, such as:

- Mold and die
- Automotive parts
- Aerospace parts
- 3D complex parts
- Medical equipment
- High precision parts



### TILTING ROTARY TABLE (B/C AXES)

The tilting rotary table can tilt  $-40^{\circ} \sim +110^{\circ}$  along B axis and rotate  $360^{\circ}$  along C axis.

The table tilting and rotating motions are driven by servomotors.

### ROLLER TYPE LINEAR WAYS

X/Y/Z axes are all mounted with heavy duty roller type linear guide ways, featuring heavy load resistance, high positioning accuracy, and low friction coefficient.

### SELECTION OF VARIOUS CONTROLLERS

The machine comes equipped with a Heidenhain ITNC 640 CNC controller.

Siemens or Fanuc controllers are available upon request.



### ROLLER TYPE LINEAR WAYS

X/Y/Z axes are all mounted with heavy duty roller type linear guide ways, featuring heavy load resistance, high positioning accuracy, and low friction coefficient.

### SELECTION OF VARIOUS CONTROLLERS

The machine comes equipped with a Heidenhain ITNC 640 CNC controller.

Siemens or Fanuc controllers are available upon request.

# JLU-800

# MILLSTAR GANTRY TYPE 5 AXIS MACHINING CENTER

## OUTSTANDING FEATURES

- Gantry-type machine structure allows large workpieces to be machined with high accuracy and smoothness.
- 5 axis simultaneous machining makes the machine excellent for complex workpiece machining with only one setup.
- High speed tilting rotary table.
- 15,000 rpm built-in type high speed spindle.
- Heavy duty roller type linear guideways on X / Y / Z axes.
- Rapid traverse rates on 3 axes can reach 48 m/min for reducing non-cutting time while increasing productivity.
- Equipped with a 64-tool magazine.
- Heidenhain TNC 640 CNC controller.

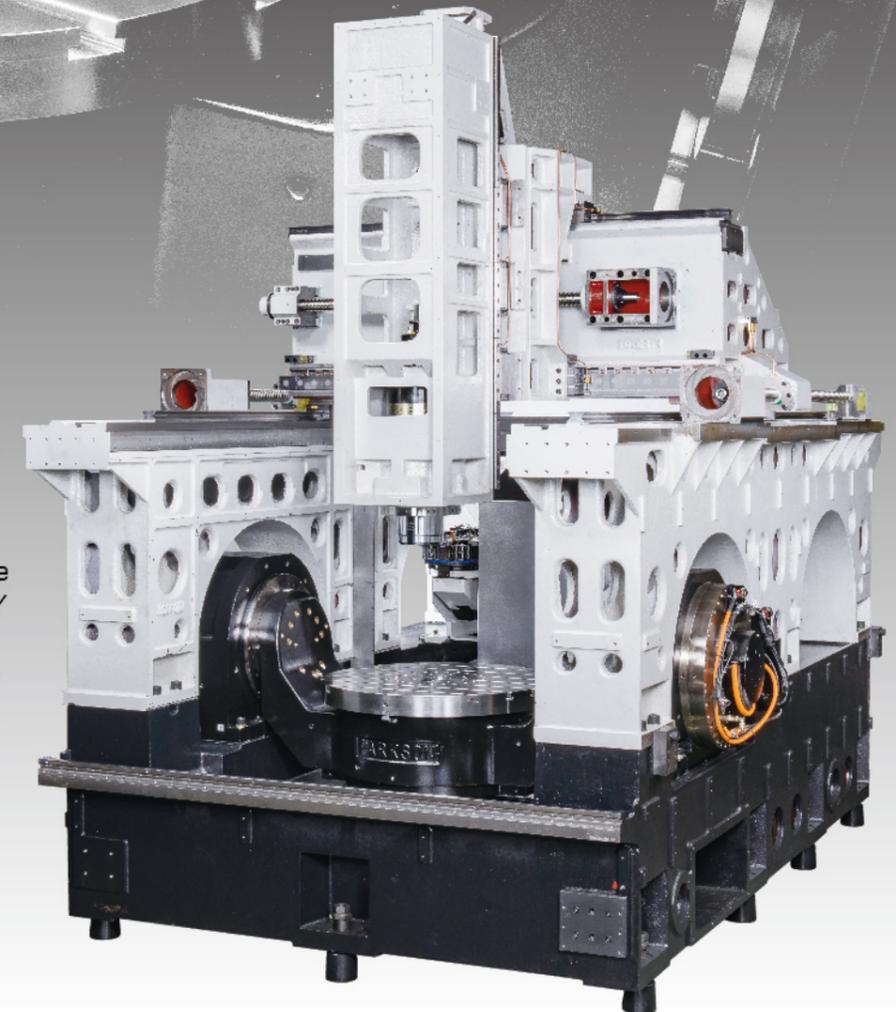


## TILTING ROTARY TABLE (B axes / C axes)

- The tilting rotary table can tilt  $-120^{\circ} \sim +30^{\circ}$  along B axis and rotate  $360^{\circ}$  along C axis.
- Its high positioning accuracy makes the machine excellent for precision machining of complex parts.

## GANTRY TYPE STRUCTURE

The workpiece is fixed, and the spindle head moves on X & Y axes, so that the positioning accuracy on the X & Y axes is not affected by the workpiece weight. This also eliminates table overhang problems.



# JLU-350 SPECIFICATIONS

MODEL	JLU-350	
Travel	X axis Travel	1020 mm
	Y axis Travel	610 mm
	Z axis Travel	510 mm
	Distance from Spindle Nose to Table	100 ~ 610 mm
Table	Table Diameter	350 mm
	Max. Table Load	200 kg
	T-slot Size (No x Size x Pitch)	8 x 12 x 45° mm
Spindle	Spindle Speed	12,000 rpm
	Drive Method	Direct Drive
	Spindle Taper	#40
A axis	TILTING AXIS (A axis)	
	Tilting Angle	-120° ~ +30°
	Max. Speed	40 rpm
	Minimum Split Angle	0.001°
C axis Rotary Table	C axis	
	C axis Rotating Angle	360°
	Max. Speed	33.3 rpm
	Minimum Split Angle	0.001°
ATC	Tool Shank	#40
	TOOL MAGAZING LOADING CAPACITY	
	Tool Magazine Loading Capacity	24 pcs
	Rapid Feed Rates (X / Y / Z)	36 / 36 / 36 m/min
	Cutting Feed Rate	1 ~ 20,000 mm/min

## STANDARD ACCESSORIES

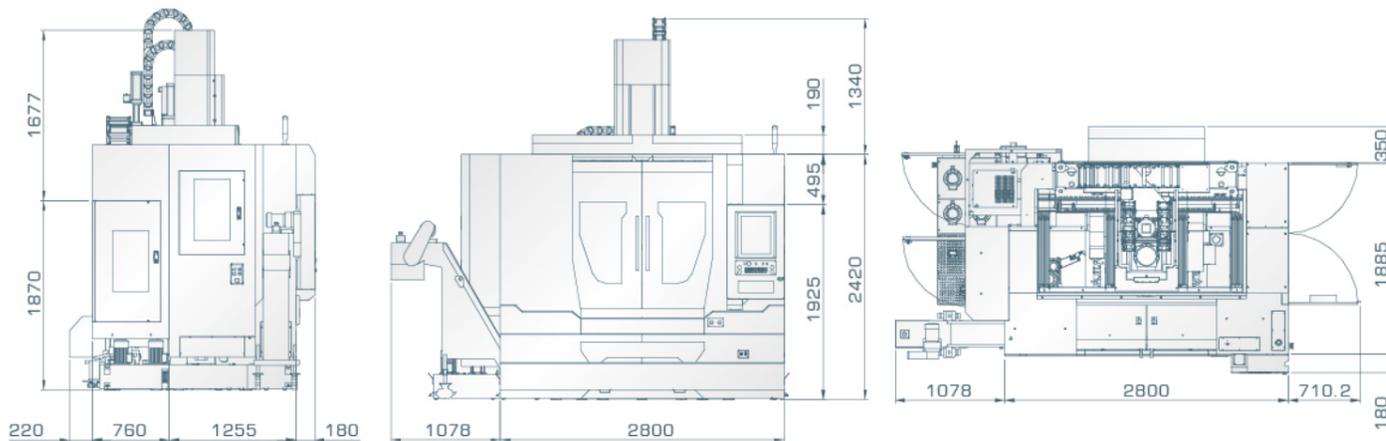
- Lubrication system
- Fully enclosed splashguard
- Manual roof splashguard
- Spindle / AC axis coolant system
- Chip cart
- Chip conveyor
- Air conditioner for electrical cabinet
- LED working lamp
- USB
- Ethernet
- Air gun
- Water gun
- Spindle ring spray, Spindle outside air spray 2 output

## OPTIONAL ACCESSORIES

- Linear scale
- Tool length measurement
- Workpiece measurement
- Oil mist collector
- Auto front door
- Auto roof splashguard
- CE certified
- Coolant through spindle (CTS)
- Spindle thermal displacement compensation
- Whole structure thermal displacement compensation
- Spindle ring spray
- Oil skimmer
- RS-232 interface

- All specifications and designs are subject to change without prior notice.

## JLU-350 DIMENSIONAL DRAWINGS OF MACHINE



# JLU-800 SPECIFICATIONS

MODEL	JLU-800	
Travel	X axis Travel	800 mm
	Y axis Travel	1245 mm
	Z axis Travel	620 mm
	Distance from Spindle Nose to Table Surface	100 ~ 720 mm
Work Table	Work Table Dimension	800 mm
	Max. Table Load (kgs) (Level / Tilt)	1000 / 500 kg
	T-slot (No. x Slot width x Dist)	7 X 14 X 100 mm
Spindle	Spindle	12000 rpm
	Spindle Taper	Built-in
	Spindle KW	21 / 25 kW
A axis	TILTING AXIS (A axis)	
	Tilting Angle	-120° ~ +30°
	Max. Speed	50 rpm
	Minimum Split Angle	0.001°
C axis Rotary Table	C axis	
	Rotating Angle	360°
	Max. Speed	100 rpm
	Minimum Split Angle	0.001°
ATC	Taper Type	
	Other	HSK A63 / 32T
	Max tool Dimension Partial Load / Full Load	125 / 75 mm
	Max Tool Length	300 mm
Feed System	Max Tool Weight	8 kg
	Rapid Feed Rate X / Y / Z	48 / 48 / 48 m/min
	Cutting Feed Rate	1 ~ 20000 mm/min

## STANDARD ACCESSORIES

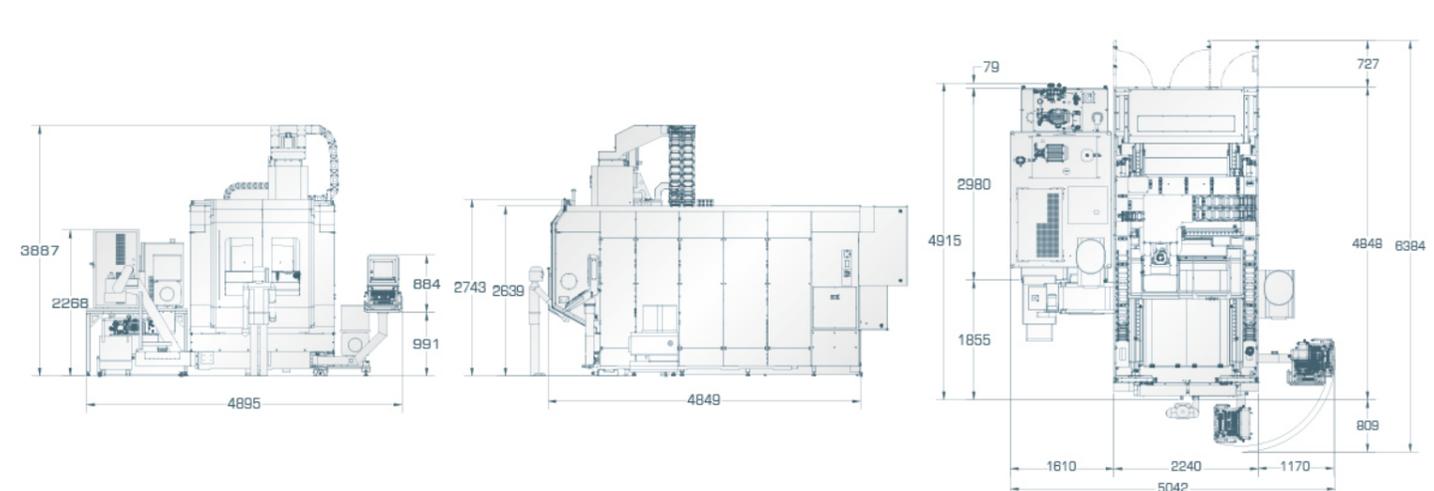
- 12,000rpm Spindle HSK A63
- LHL system
- ATC 32T
- TNC-640
- Spindle/AC axis coolant system
- Linear scale A/C axis
- Pneumatic system Airtac
- Spindle ring spray, Spindle outside air spray 2 outputs
- Spindle Coolant pump
- Chain type chip conveyor
- Water gun
- Air gun

## OPTIONAL ACCESSORIES

- 15,000 rpm Spindle
- ATC BBT40 / CAT40 / DIN40
- ATC 24T / 32T / 48T / 60T / 64T / 96T / 120T
- Controller 840 DSL
- Tool length measurement
- Work piece measurement
- Renishaw / Heidenhain
- CTS 30 / 70 bar
- Spindle ring spray, Spindle outside air spray 4 outputs
- Pneumatic system - SMC / Mindman
- Linear scale X / Y / Z axis

- All specifications and designs are subject to change without prior notice.

## JLU-800 DIMENSIONAL DRAWINGS OF MACHINE



# J1.U-620 SPECIFICATIONS

# FIVE AXIS MACHINING CENTER

JIUH-YEH PRECISION MACHINERY CO., LTD.

# MILLSTAR

MODEL	J1.U-620
Work Table Diameter	500 / 650 mm
Table Indexing	0.001°
Max. Table Loading	300 kg
X / Y / Z 3 Axes Travel	620 x 520 x 460 mm
X / Y / Z 3 Axes Rapid	36 / 36 / 36 m/min
B / C Axes Rapid	25 rpm
B Axis Titring Range	-40 to 110°
Spindle Nose to Table Surface	140 - 600 mm
Center Hold Size	Ø50H7 x 30 mm
T-slot / Pitch / Size	5 x 14h7 x 18 mm
Spindle Speed	12,000 rpm (DDS)
Spindle Taper	DIN-40 / BT-40 / CAT-40 / HSK-63
ATC	32T
Max. Tool Length	250 mm
Max. Tool Diameter	76 mm
Max. Tool Weight	7 kg
Controller	HEIDENHAIN iTNC640
Spindle Motor	QAN-200UH / 260MH
X / Y / Z 3 Axes Motor	6.5 / 5.1 / 6.5 kw (HEIDENHAIN)
B / C Axis Motor	9 / 4.5 kw (HEIDENHAIN)
Machine N.W.	8500 kg
Coolant Tank	380 L
Machine Dimensions (L x W x H)	4,210 x 2,580 x 2,910 mm
Power Requirement	45 KVA
Air Source	6 kg/cm <sup>2</sup>

## STANDARD ACCESSORIES

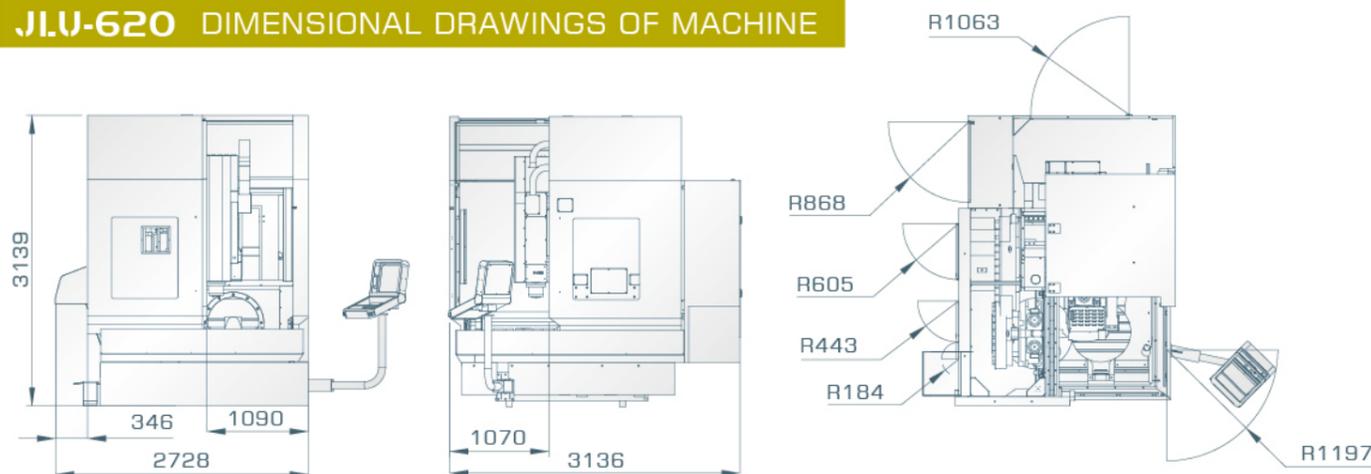
- Heidenhain controller
- Spindle speed 12,000 rpm, direct drive (DDS)
- Spindle taper #40 (DIN, BT, CAT)
- ATC-40 Tools
- Heidenhain 3 axes linear scale
- Roller type linear guide way
- Spindle oil cooler
- Full enclosed splash guard
- Large table size 650 mm
- Z axis motor with brake system
- B / C axis optical encoder
- Chain type chip conveyor & Chip cart
- Heat exchanger for electrical cabinet
- Oil skimmer
- Transformer (Export only)

## OPTIONAL ACCESSORIES

- SIEMENS / FANUC controller
- Coolant through spindle (CTS) 20 / 30 / 50 bar
- Programmable cutting coolant nozzle
- Chip flushing system
- Tool length measurement system
- Workpiece measurement system
- Air supply for clamping fixture
- CE standard
- Air conditioner for electrical cabinet
- HSK-63A, 20,000 rpm spindle (Built-in type)
- 15,000 rpm direct driven spindle
- Software for crash protection

- All specifications and designs are subject to change without prior notice.

## J1.U-620 DIMENSIONAL DRAWINGS OF MACHINE



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J1.U-350

J1.U-620

J1.U-800

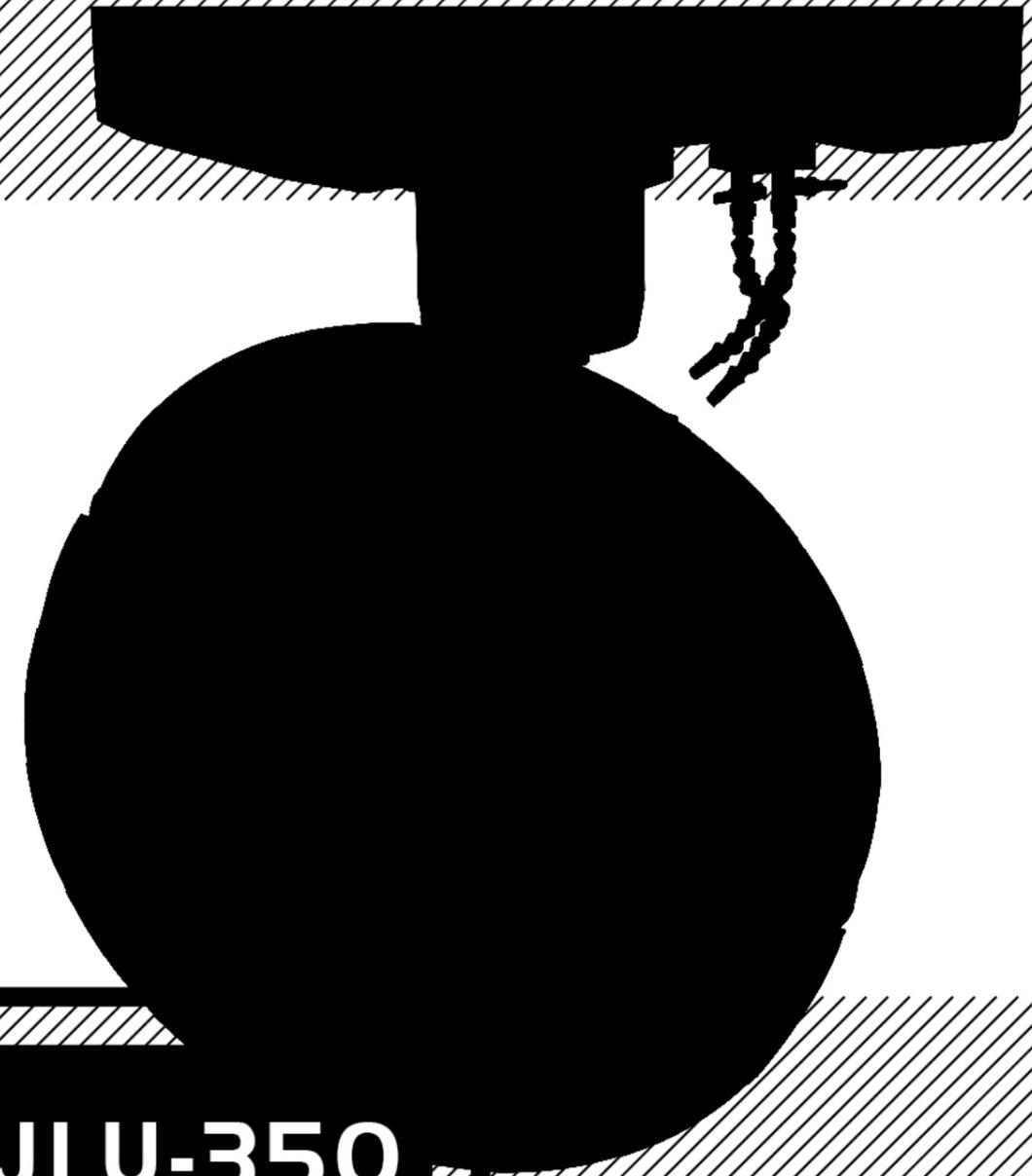
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**JLU-620** SPECIFIC

**FIVE AXIS MACHINING CENTER**

JIUH-YEH PRECISION MACHINERY CO., LTD.

**MILLSTAR**



**JLU-350**

**JLU-620**

**JLU-800**

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JIUH-YEH PRECISION MACHINERY CO., LTD.

**JLU-620**