MODEL: JUPITER JHL3020MYS HEAVY DUTY MILL/TURNING CENTER



The JUPITER JHL-MY series of turning centers is a fleavy duty, premium machine tool, designed to feature maximum capacity and performance in many demanding industries. With bar capacity up to Ø 3.0", subspindle or tailstock options this series offers great flexibility. The high performance, no-compromise platform satisfies Medical, Aerospace, Energy, and job shops requiring high productivity and robust applications.

The JHL-MY series is engineered in a 30 Degree Slant Bed for an excellent foundation. The Y axis rides on a 15-degree slant for maximum power and space savings. FEA designed Meehanite casting structure can withstand greater stress without deforming and provides ultimate vibration damping. High Precision integral box ways for maximum rigidity and accuracy.

Ground pre-tensioned ball screws for reliable precision on all linear axes. The available subspindle and parts catcher bring quick automation to your next job. All MY series machines include a BMT60 live tool servo turret to increase your production flexibility with 6hp and 6,000 rpm.

Price Includes: Standard Features

Fanuc 0iTF Plus CNC Control System 15" LCD touchscreen

Fanuc Manual Guide I Conversational Package w/ 3d Graphics

Fanuc Tool Life Management

Bar Feeder Interface

Spindle Power 20 HP (15kW), (30 min rating)

Fanuc α Spindle / Servo Motors and α amplifiers

Travel of X / Y / Z / ZB / C1 / C2: (310 / 110 / 620 / 650mm / 360° / 360°)

Rapid Rate X / Y / Z / ZB: 787ipm (20m/min)

Max Turning Diameter: Ø18.11" (460mm)

Max Turning Length: 21.6" (548mm)

Turning Spindle Bar Capacity (Main): Ø3.0" (77mm)

Turning Spindle Nose (Main): A2-8, 3,500rpm max

Turning Spindle Bar Capacity (Sub): Ø2.0" (52mm)

Turning Spindle Nose (Sub): A2-5, 6,000rpm max

Ø10" Hydraulic 3-Jaw Chuck (Main) / Ø6" Hydraulic 3-Jaw Chuck (Sub)

Servo Driven Tool Turret: 12 position BMT60, 6hp, 6,000rpm max

Programmable / Syncing C1 and C2 axis with .001° indexing and full contouring

Parts Catcher (Sub-spindle)

Parts Ejector (Sub-spindle)

Automatic Centralized Lubrication System

Oil Skimmer

Flood Coolant System with 300psi (20bar)

Sub-spindle coolant thru

Dual LED Work Light

Renishaw Auto Tool Setter

Pendant Mounted MPG

Machine Status Light

Air Blow for Spindle (Main and Sub)

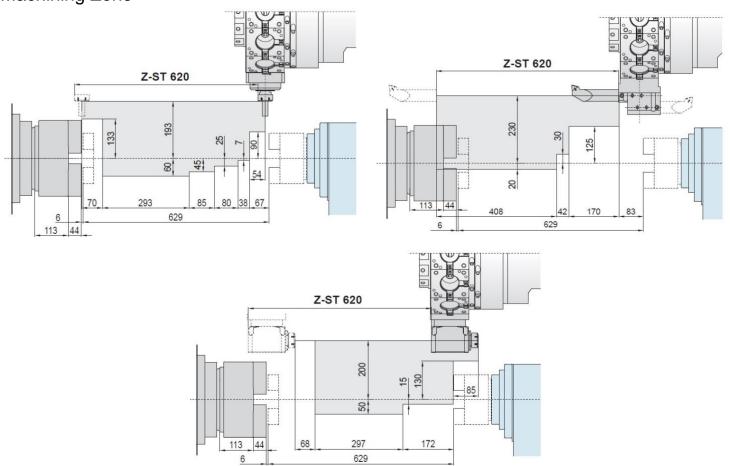
Link Belt Style Chip Conveyor

3 OD Tool Holders (1.00")

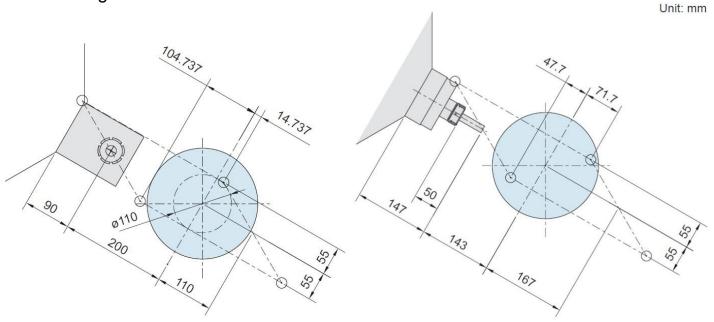
1 Face Holder (1.00")

3 Boring Bar Holders (1.75"), 1 Set Boring Bar Bushings

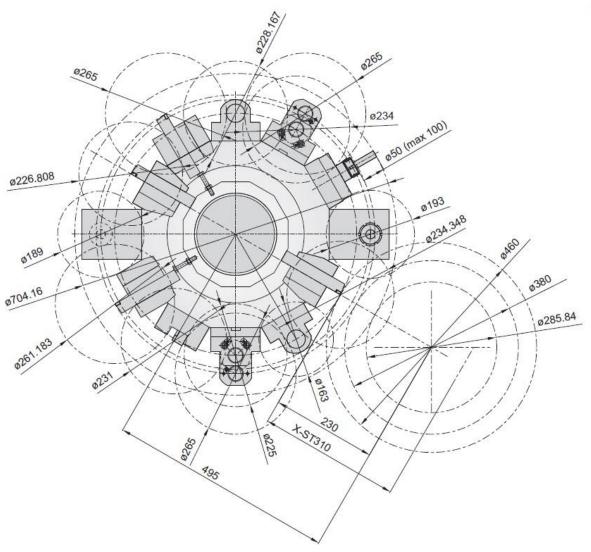
Machining Zone



Y Axis Milling Area



Tool Interference





The space within the machining zone has been maximized to prevent any tool interference and provide the utmost flexibility and substantially reduce any chance of collision between the cutting tools and the machine.

Machine Specifications

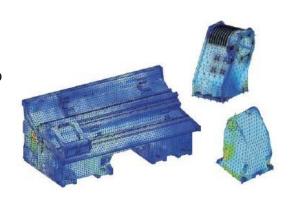
Specifications		JHL3020MYS
Turning Range	,	
X-axis Travel	mm (inch)	310 (12.2")
Y-axis Travel	mm (inch)	110 (4.33")
Z-axis Travel	mm (inch)	620 (24.4")
Swing Over Bed	mm (inch)	600 (23.6")
Bar Capacity	mm (inch)	77 (3.03")
Turret		
Tool Stations		12 (BMT60)
Shank Height of Square Tool	inch	1.00"
Shank Dia of Boring Bar	inch	1.75"
Live Tooling		
Mounting Interface		BMT60
Spindle Speed	rpm	6,000
Spindle Motor	kW (hp)	4.5 (6)
Live Stations		12
Spindle and Headstock		Belt Driven
Spindle Lubrication		Grease
Chuck Diameter	inch	10"
Spindle Nose		A2-8
Spindle Speed	step	3,500
CF Axis		+/-360° in .001°
Spindle Motor	kW (hp)	15 (20) (Fanuc α22/6000)
Main / Sub Syncing		Turning / Positioning / CF
Subspindle and Misc		
Subspindle Travel (ZB)	mm (inch)	650 (25.6")
Chuck Diameter	inch	6"
Spindle Nose		A2-5
Spindle Speed	rpm	6,000
Bed Slant	degree	30
Power Requirements	kVA	40 kVA @ 220V 3PH
Machine Dimensions	mm (inch)	3876 (153") / 1992 (78.5") / 2130 (84")
Machine Weight	kg (lb.)	8,350 (18,370)

Complete Finite Elements Analysis (FEA) and Rigid Structure

FEA Techniques are used to design and analyze structure deformation, stress and cutting forces to assure an optimum structure.

High rigidity Meehanite castings and true slant bed construction for highest performance.

Low center of gravity for easy access and workpiece changeovers. Improved chip flow improves production and helps prevent thermal deformation.





Inspection and Alignment

Complete machine tests and laser calibration are done on every machine. Geometric accuracy is laser verified (Straightness, Perpendicularity, Flatness, and Squareness). Finally, circularity is checked by ball-bar in 2 planes.

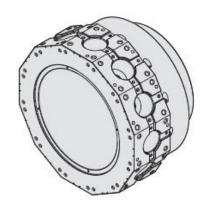


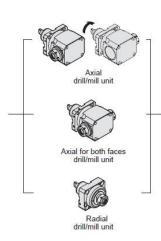


Available Turret

High- rigidity BMT60 power turret and toolholder is fixed using four bolts and a positioning key for the ultimate in stable cutting. This unit uses an oversized curved tooth (curvic) coupling to enhance rigidity and accuracy of cutting tools during machining.







Index on the fly permits tool changes at any location with appropriate settings. YOU have the option to require safe positions, or rotate at any location, or even while moving. When safely utilized, this allows tremendous cycle time savings on your high-volume parts.

Tooling System

Machine comes equipped with:

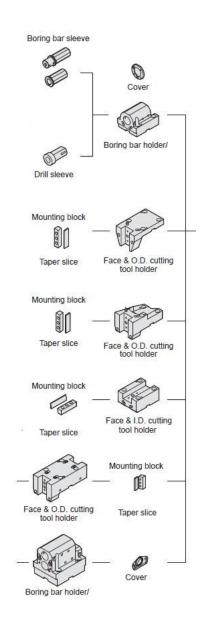
3x OD toolholder and shim block (1")

1x Face toolholder and shim block (1")

3x Boring bar holders (1.75")

1x Tandem Boring Bar Holder (MYS only)

1 Set of boring bar bushings



Remote MPG

A pendant mounted "Manual Pulse Generator" (MPG) lets each axis move in increments of x1, x10 or x100 for easy fixture or part alignment.

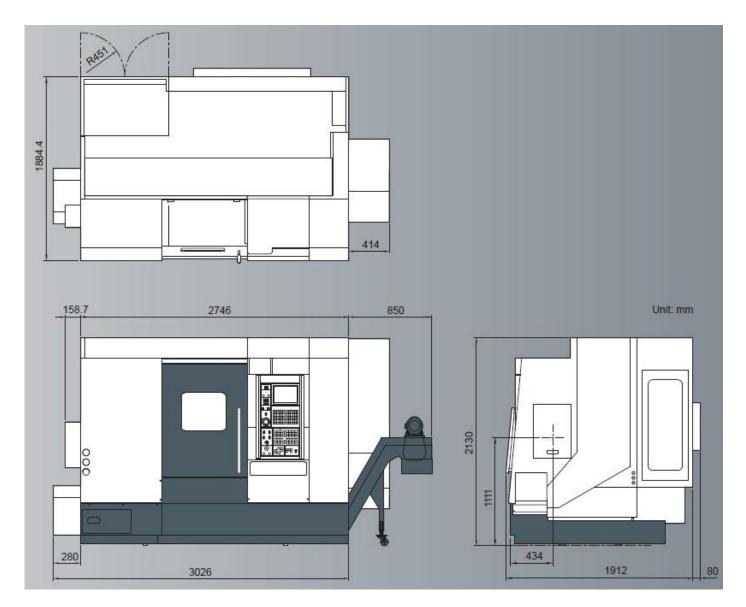


Chip Conveyor

The JHL-3020 is equipped with a belt link type chip conveyor as standard equipment. Different types of chip conveyors are optional and can be chosen based on customer's application.

Footprint

Machine weight with accessories is 18,370lbs. Foundation drawings can be provided, if required, with order placement.



* Proper foundation and environmental controls are required



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