

MC MACHINERY SYSTEMS, INC.

a subsidiary of  Mitsubishi Corporation

LT-400 **Turning Center Quotation**



*Shows optional Parts Catcher and Chip Conveyor

Specially Prepared for:

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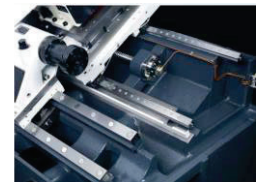
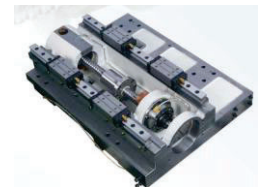
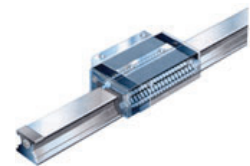
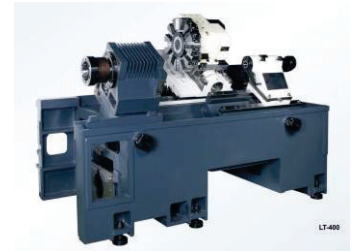
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Machine Features

- **Rigid Meehanite Base:** The main body is a single piece construction. The 30 degree slant bed design provides the spindle head, turret, and tail stock with an excellent supporting base and low center of gravity.
- **Finite Element Analysis** is used to calculate the finest combination of cast iron components and rib structures. This extends the life of the cutting tools.
- **Optimized Contacting Ratio** between the head stock and machine base provides excellent rigidity during heavy cutting loads as well as ensuring the geometric precision of the spindle.
- **Linear Motion Ways** of the heavy duty roller guide type are used on all axes to be able to withstand heavy loading, tolerate high acceleration with rapid movement and ensure precise positioning.
- **High-Speed High-Precision:** X & Z-axis direct drive motors fully eliminates backlash, achieves high-precision and provides stability during high-speed transmission.
- **High Rapid Travel Speeds** of the X & Z-axis are 794 & 944"/min. reducing production time.
- **Collision Protection System:** The machine is equipped with an axis collision detection device which can absorb and reduce the collision force. This design promotes the ability of the machine to maintain accuracy when a malfunction occurs.
- **High Accuracy Transmission System:** A direct drive coupler is used to link the servo motors and high precision C3 grade double anchored ball screws in both the X and Z axes. Additionally, the auto-lube system provides the proper lubrication to both the ball screws and support bearings providing long life and high precision.
- **High-Speed Servo 12-Station Turret** provides a fast .9 second tool to tool time. The large turret shaft and hydraulic clamping design allows for the ultimate in rigidity and precision across a variety of applications.

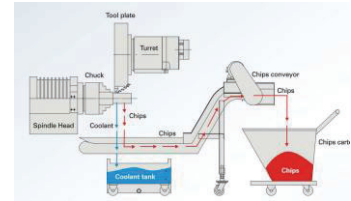


Machine Features (continued)

- **Rigid Tail Stock** provides high accuracy workpiece support even under heavy loads. The quill movement is fully programmable and provides variable thrust force by adjusting the hydraulic pressure setting.



- **High-Efficient Chip Removal System** starts with the chip conveyor system (optional) located under the front side of the machine. The system can easily remove the large volume of chips generated during the cutting process.

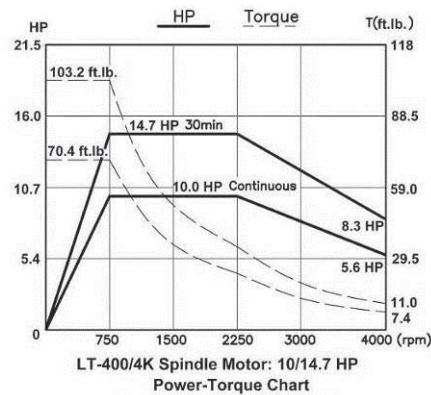


- **Separated Coolant System** includes an isolated tank for easy maintenance. The high pressure pump and large coolant flow capacity can take away the generated heat efficiently.



LT- 400 Spindle Specifications

- **High-Performance 4,000 RPM Spindle:** The main spindle motor has both high torque and high speed characteristics.



LT-400

Mitsubishi M80L Control Features

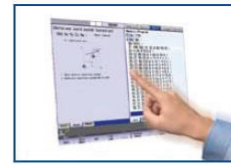
INTUITIVE USABILITY



Touch operation provides you unprecedented ease of use.



Drag



Program edit (flick)



Pinch-In/Pinch-out



Menu scroll (flick)

Smartphone-like intuitive touch operation

The display features a capacitive touchscreen that is commonly used in smartphones and tablets, allowing for intuitive and easy operation. With a simple flick of the finger, for instance, you can monitor the desired part of program, or view and select a menu key on the next page without the need for tedious key operation. In 3D graphic check, you can view a 3D model at any desired size, in any desired position.

Advanced universal design with a focus on ease of use

The easy-to-use interface has further advanced, leading to greater visibility and usability. Iconized features and operation menus are easy to recognize, and readily available for anyone to use. The Simple Monitor screen displays the information required for lathes and machining centers respectively in an enlarged view. The icons on the screen tell you the status of tools and spindles.

Usability in lathe improved through tool icons, 3D work simulation for turning and other dedicated features

One of the highlights in M80 Series is improved usability in a lathe. The tool icons indicate the tool shape and bit direction in an easy manner, which can satisfy both inexperienced and experienced operators. The 3D graphic check supports for both turning and milling, so even a complex program can easily be checked through the 3D simulation.

Reducing leakage of defects caused by human errors

M80 Series has a feature called "User level-based data protection", which allows you to set multiple levels of access permission. Permissible operation range can be set for each operator according to their roles in production. This can ever more effectively prevent operation errors and other human errors, resulting in less defective parts.

Tools displayed by icons

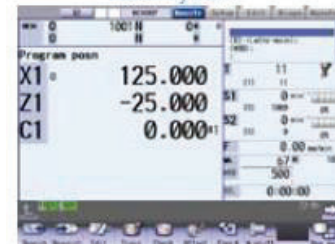


8.4-type/10.4-type



Various features and operation menus are indicated using easy-to-recognize icons. Tool icons tell you the tool type, left- or right-hand, lifetime and other information at a glance.

Lathe system



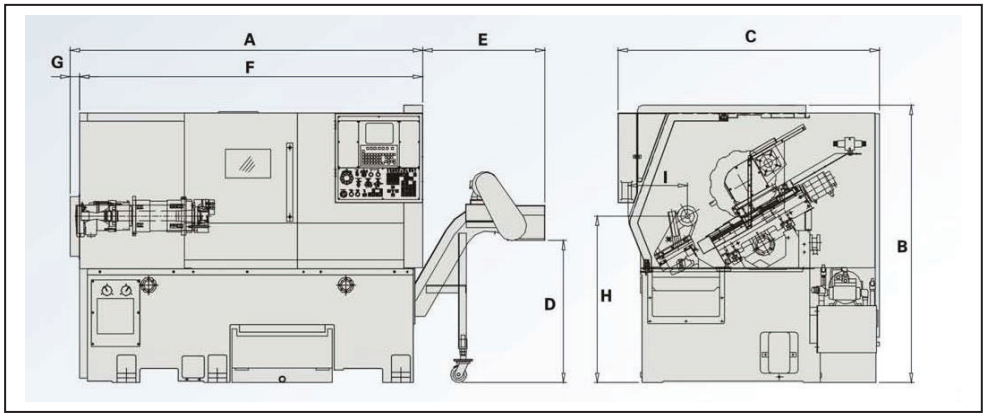
Simple screen with narrowed-down information is easy to see from a distance.

LT- 400 Machine Specifications

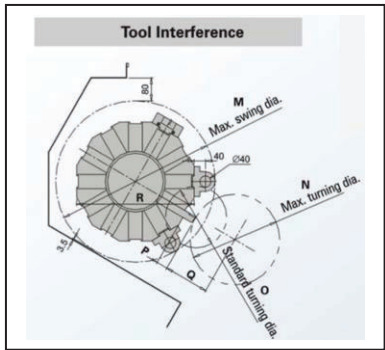
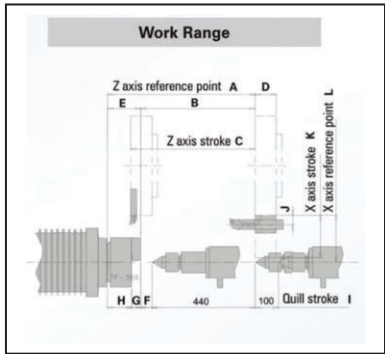
Specification	Unit	LT- 400
Travel		
X Axis Travel	Inch (mm)	7.09" (180)
Z Axis Travel	Inch (mm)	20.87" (530)
Spindle		
Spindle Speed	rpm	30-4,000
Spindle Nose		A2-6
Front Bearing Diameter	Inch (mm)	3.94" (100)
Thru Hole Diameter	Inch (mm)	2.48 (63)
Capacity		
Chuck Size	Inch (mm)	8" (203)
Swing Over Bed	Inch (mm)	15.75" (400)
Swing Over Slide	Inch (mm)	12.6" (320)
Center Distance	Inch (mm)	25.39" (645)
Standard Turning Diameter	Inch (mm)	8.5" (216)
Max. Turning Diameter	Inch (mm)	12.6" (320)
Max. Turning Length	Inch (mm)	20.86" (530)
Bar Capacity	Inch (mm)	2.05" (52)
Turret		
No. of Stations		12
Size of Holder (Square)	Inch (mm)	1" or (25)
Boring Holder Dia.	Inch (mm)	1.5" or (40)
Tailstock		
Travel	Inch (mm)	17.13" (435)
Quill Stroke	Inch (mm)	3.94" (100)
Size of Taper		MT5
Quill Diameter	Inch (mm)	3.54" (90)
Feedrates		
X Rapid Speed	in/min	794"
Z Rapid Speed	in/min	944"
Motors		
Spindle Motor Peak	Hp (kw)	15 (11)
X-Servo Motor	Hp (kw)	1.6 (1.2)
Z-Servo Motor	Hp (kw)	3.3 (2.5)
Controller / Screen Size	Mitsubishi	M80L / 10.4"
Miscellaneous		
Positioning Accuracy (J1S B6338)	inch	0.0002 / ft.
Repeatability(J1S B6338)	inch	±0.00012
Machine weight	lb.	9,482
Power requirement	V / KVA	208 ±5 / 15
Compressed Air Requirement	PSI/cu.ft./min	70~100 / 56.5
Coolant capacity	gal	53
Air source	psi	85
Machine Foot Print W, D, H	inch	88.6 x 69.7 x 65.75

LT-400

LT- 400 Machine Layout Drawing



Dimension	Inch	Metric
"A"	88.58"	2250
"B"	69.7"	1770
"C"	65.75"	1670
"D"	30.06"	916
"E"	42.09"	1069
"F"	84.25"	2140
"G"	7.09"	180
"H"	41.73"	1060
"I"	11.81"	300



Dimension	Inch	Metric
"A"	24.8"	630
"B"	19.21"	488
"C"	20.87"	530
"D"	3.54"	90
"E"	5.59"	142
"F"	1.89"	48
"G"	1.50"	38
"H"	4.09"	104
"I"	3.94"	100
"J"	1.57"	40
"K"	7.09"	180
"L"	7.87"	200
"M"	22.44"	570
"N"	12.60"	320
"O"	8.58"	218
"P"	1.57"	40
"Q"	6.3"	160
"R"	16.54"	420
"S"	1.57"	40
"T"	1.57"	40

LT-400