

Machine specifications

Item		TV-30
Travel	X-axis travel (Longitudinal movement of table) mm (in.)	420 (16.5)
	Y-axis travel (Cross movement of saddle) mm (in.)	300 + 60 (11.8 + 2.4)
	Z-axis travel (Vertical movement of spindle head) mm (in.)	250 (9.8)
Table	Working surface mm (in.)	800 × 340 (23.6 × 13.4)
	Loading capacity kg (lb.)	150 (330)
Spindle	Max. spindle speed min ⁻¹	8,000
	Type of spindle taper hole	No. 30
Feedrate	Rapid traverse rate mm/min (ipm)	X, Y, Z: 48,000 (1,890)
	Feedrate mm/min (ipm)	12,000 (472.4)
	Jog feedrate mm/min (ipm)	0 - 1,260 (0 - 50)
Automatic tool changer	Type of tool shank	BT 30
	Type of retention knob	MAS-P30T-1 (45°)
	Tool storage capacity	10
	Max. tool diameter mm (in.)	80 (3.1)
	Max. tool length mm (in.)	200 (7.9)
	Max. tool mass kg (lb.)	3 (6.6)/tool, 20 (44)/10 tool
	Tool changing time (tool-to-tool) sec	1.4 (MAS)
Motor	Tool changing time (chip-to-chip) sec	2.3 (MAS)
	Spindle drive motor (15 kW/20hp) kW (HP)	3.7/2.2 (5/3)
Power source	Feed motor kW (HP)	X: 1.5 (2) Y: 1.5 (2) Z: 2.0 (2.7)
	Electrical power supply (Max./nom) kVA	20.4/12.4
Tank capacity	Compressed air supply MPa (psig), L/min (gpm)	0.5 (7.1), 100 (26.4) (ANR*)
	Coolant tank capacity L (gal)	100/200 (26.4/52.8) : option
Machine size	Machine height mm (in.)	2,258 (88.9)
	Floor space mm (in.)	1,200 × 1,720 (47.2 × 67.7)
	Mass of machine kg (lb.)	2,000 (4,400)

*ANR refers to a standard atmospheric state; i.e., temperature at 20°C (68°F); absolute pressure at 101.3 kPa (760 mmHg); and relative humidity at 65%.

Standard features

- Built-in worklight
- Automatic power-off system
- Leveling block
- Safety features
 - Full cover
 - Door interlock system (incl. mechanical lock)

Optional features

- Coolant system (Tank capacity: 100L/200L with chip coolant)
 - Sub-table (T-slot)
 - Sub-table (Tap: inch/metric)
 - Forced oil lubrication system
 - Signal indicator
 - Oil-hole drill coolant system
 - Mist collector
 - Coolant gun
 - Automatic door
 - Coolant flow sensor system
 - High-output spindle (5.5/3.7 kW (7.5/5 HP))
- Some options are not available in particular regions. For details contact Mori Seiki.

● Specifications, accessories, safety devices, and functions are available upon request.

NC unit specifications

Item		MSC-802
Controls	Simultaneously controllable axes	3 axes: X, Y, Z Simultaneously controllable axes: 3 axes (positioning and linear interpolation) 2 axes (circular interpolation)
	Least command increment	0.001 mm (0.0001")
Spindle functions	Least input increment	0.001 mm (0.0001")
	Spindle speed command	S5 digit direct command
	Spindle speed override	50 - 120% (in 10% increments)
	Feedrate override	0 - 150% (in 10% increments)
Feed functions	Dwell	Slop time command: G04
	Zero return	Return to machine zero point: G27 - G30
	Pulse handle feed	Manual pulse generator: 0.001, 0.01, 0.1 mm/pulse (0.0001", 0.001", 0.01"/pulse)
	Manual jog feed	0 - 1,260 mm/min (0 - 50 ipm) (15 steps)
Tool functions	Dry run	Moves at jog feedrate regardless of feed command
	Rapid traverse rate override	F0 (fine feed), 25/50/100%
	Tool No. command	T4 digit
	Cutter radius offset	G40 - G42
Programming functions	Tool length offset	G43/G44/G49
	Number of tool offset	200 sets (length, radius)
	Tool life management function	Manages tool life by groups
	Absolute/Incremental programming	G90/G91
	Canned cycle	G73/G74/G76/G80 - G89
	Decimal point input	Inputs values with decimal point
	Inch/Metric conversion	G20/G21
	Circular interpolation by radius programming	Circular arc is designated by radius instead of I, J and K
	Sub program	Up to 4 nestings
	Work coordinate system selection	G54 - G59
	Local/Machine coordinate system	G52/G53
	Maximum commandable value	± 99,999,999 mm (± 9,999,999")
M function	M3-digit	
Custom macro	200 common variables	
Tape function	Input code	ISO/EIA automatic discrimination
	I/O interface	RS-232-C
Other functions	Memory card interface	PCMCIA interface
	Part program storage	320 m (1,050')
Other functions	Stored programs	299
	Search function	Sequence number search, Program number search, Address search
	MDI/CRT unit	640 × 480 dots LCD with backlight, touch panel
	Programmable data input	Tool offset amount and work offset are entered by programming G10
	Auxiliary function lock	Ignoring of M, S and T code commands
	Machine lock	Machine lock (for programming check)
	Synchronized tapping	Synchronization with spindle rotation and Z-axis feed
	Uni-directional approach	Positioning is always executed in uni-direction by G80 command
	Conversational programming input	Conversational programming function for hole processing
	High-speed tapping	Shorten tapping time by optimum acceleration/deceleration control
	High-speed drilling	Shorten drilling time by optimum cutting path
	Stored stroke check 1, 2	Overtravel controlled by software
	Background editing	Part program storage and editing during automatic operation
	Alarm history display	Displays up to 24 NC alarms stored in memory
Load meter display	Spindle and Z-axis servo motor's loads are displayed on screen	
Servo and spindle monitor	Displays load electric current of servo motor, spindle motor and position error	
Mirror image	Reverse of axis movements during automatic operation	