



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



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**ISO 9001
ISO 14001**



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QMP *SERIES*

Vertical Machining Center

QMP SERIES

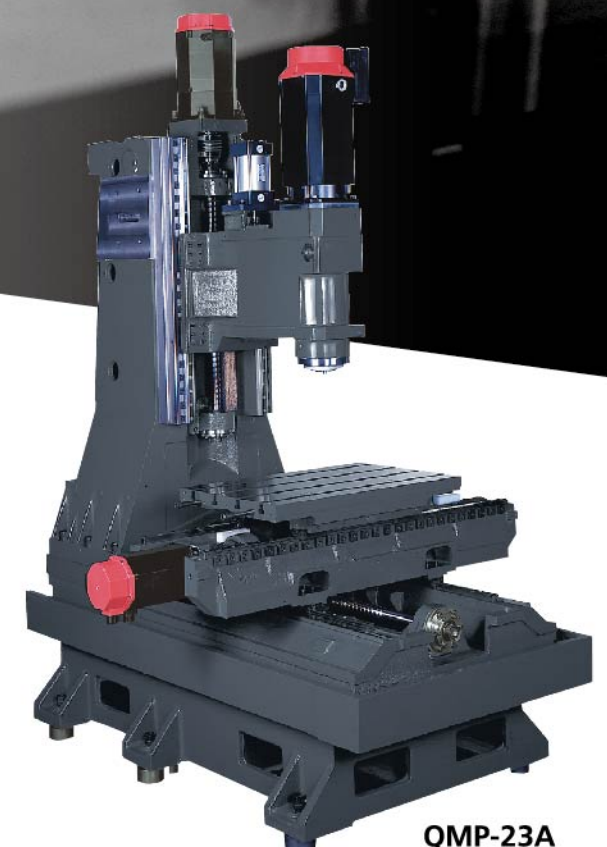
Direct-driven spindle motor ensures better torque transmission, decreased noise and reduced vibration.

QMP-23A is equipped with a standard BT-30 spindle which can accelerate from 0 ~ 12,000 rpm in only two seconds. 15,000, 30,000 rpm and BT-40 spindles are also available as option.

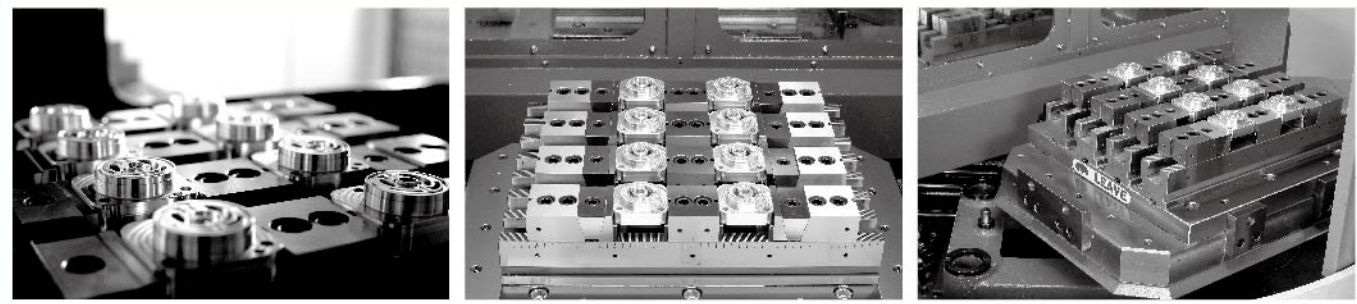


QMP-40A

The Arm Type ATC is equipped with a unique roller cam mechanism. Together with the simultaneous unclamping system, the QMP-23A is able to achieve a smooth and rapid tool change in one second (tool to tool). The rapid traverse of 48 m/min (0.8 G) for all three axes contributes to high productivity.



QMP-23A



Utilizing the Hydraulic Rotary Mechanism, QMP series can perform fast, stable, and reliable pallet changing. X/Y rapid traverse (G00) is 48 m/min.



QMP-32Aapc



QMP-23Aapc



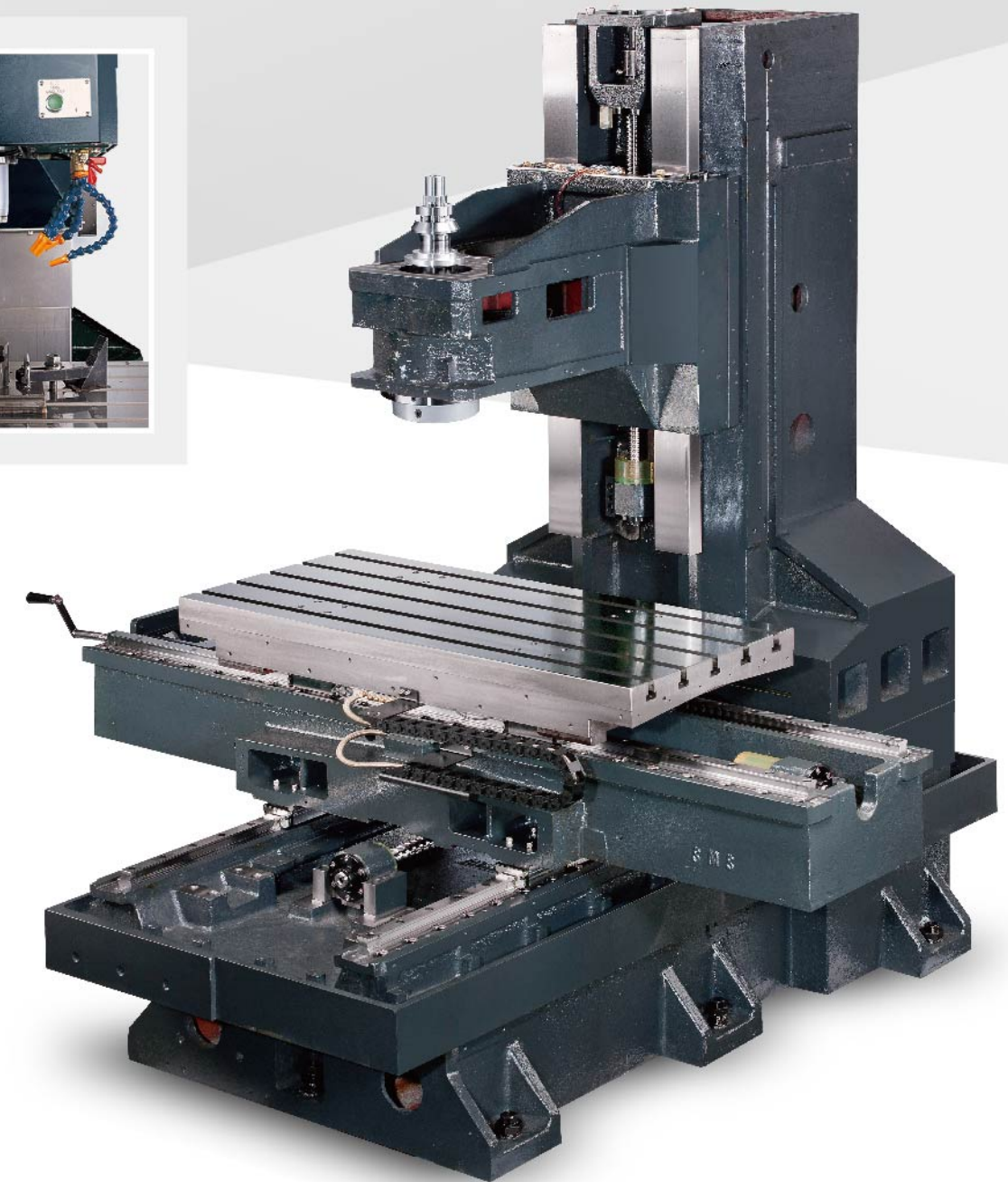
6-Second APC Changing Time. (QMP-23Aapc)

Compact design of the QMP-Series occupies the least amount of floor space and contributes to space saving.

X and Y axis are equipped with roof-type telescopic covers for rapid traverse. The roof-type telescopic cover is uniquely designed for metal chips to fall off easily. Z axis is also equipped with a telescopic cover to protect linear guideways and ballscrews.

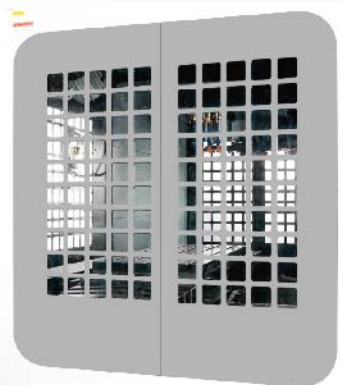
Increased Power and Performance

QMP-32A / QMP-40A

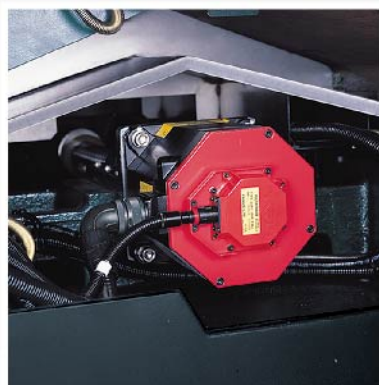


Work Samples:

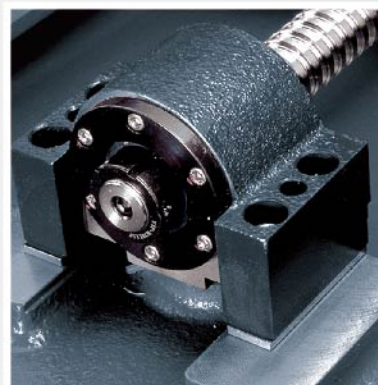




Oversized side-window openings for convenient maintenance of the X-axis servomotor, linear guideways and ballscrews.



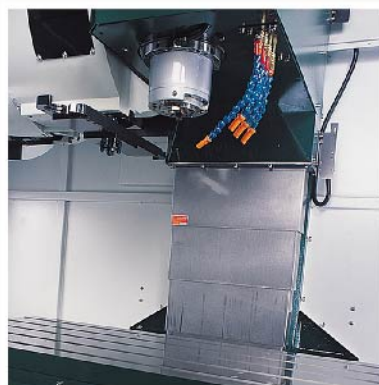
Rear installation of the Y-axis servomotor provides a convenient maintenance space.



Ballscrews in all three axes are pre-tensioned to increase accuracy.



Oil/coolant separation device is attached to the base. No separate leveling adjustment is required.

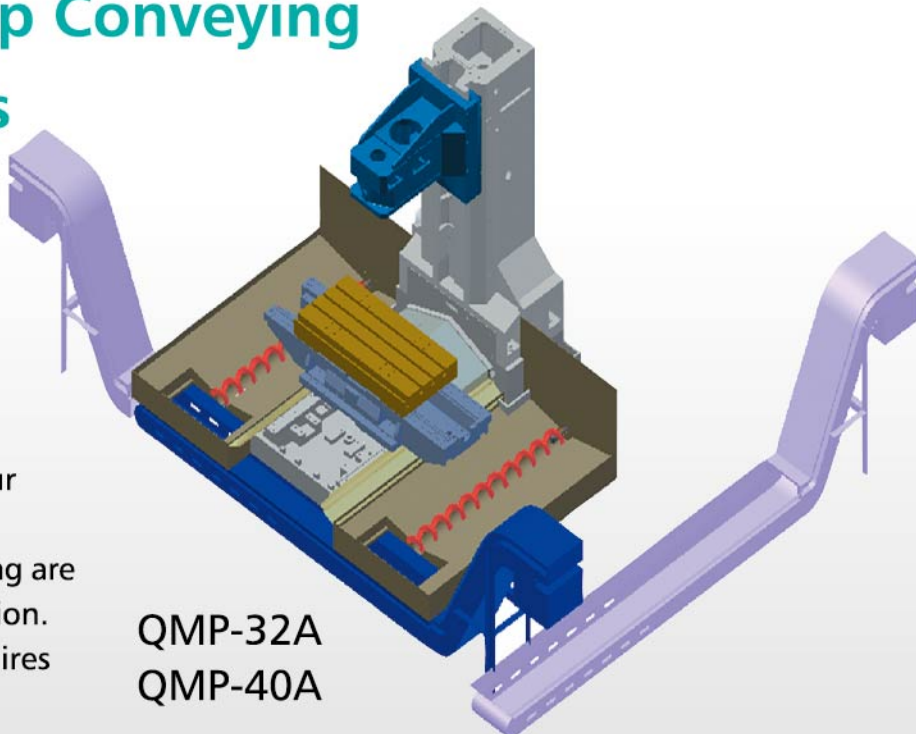


Integrated sheet metal fabrication, with large chip disposal openings, contributes to convenient chip cleaning.

Diversified Chip Conveying Configurations

Multiple chip conveying configurations to meet your diversified needs (option). Left, right and rear conveying are all available for your selection. Adding chip conveyor requires no change of coolant tank.

QMP-32A
QMP-40A



Efficient Tooling and Spindle Systems for Increased Productivity.



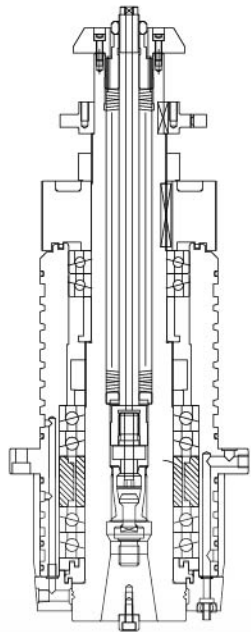
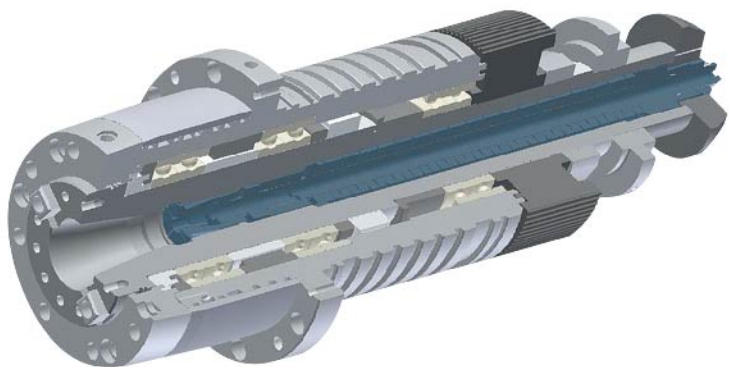
AUTOMATIC TOOL CHANGING SYSTEM

The arm-type, high-speed, high-efficiency tool changing system undergoes 1 million cycles of uninterrupted durability and stability testing.



High Speed ATC+Rapid Traverse+High Acceleration=
High Productivity ➔ **High Profits**

Utilizing a high-rigidity spindle greatly increases the metal removal rate. FEELER's performance-proven spindle design also improves the machining accuracy and extends operational life!



Cutting Capacity Example

Workpiece Material: Medium Carbon Steel (S45C)

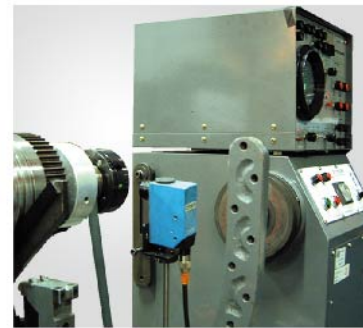
Machining Types		
Drilling	Tapping	Face Milling
Tool Diam. (mm) x Feed (mm/rev)	Tool Diam. (mm) x Pitch (mm/rev)	Width (mm) x Depth (mm) x Feed (mm/min)
Ø40 x 0.1	M24 x 3.5	308 c.c. 80 x 3.5 x 1100

Rigorous Quality Control and Inspection System



ZEISS 3-D Coordinate Measurement Machine (CMM)

This equipment is utilized to ensure the quality and precision of all major components.



Spindle Dynamic Balancing

Besides being tested and adjusted in the dynamic balancing machine, the spindle is also tested in the machine tool to measure vibration during high speed operation.



Laser Inspection System

This test inspects the precision of the axial movement over the full stroke in order to obtain the correct positioning accuracy.



Ball Bar Test

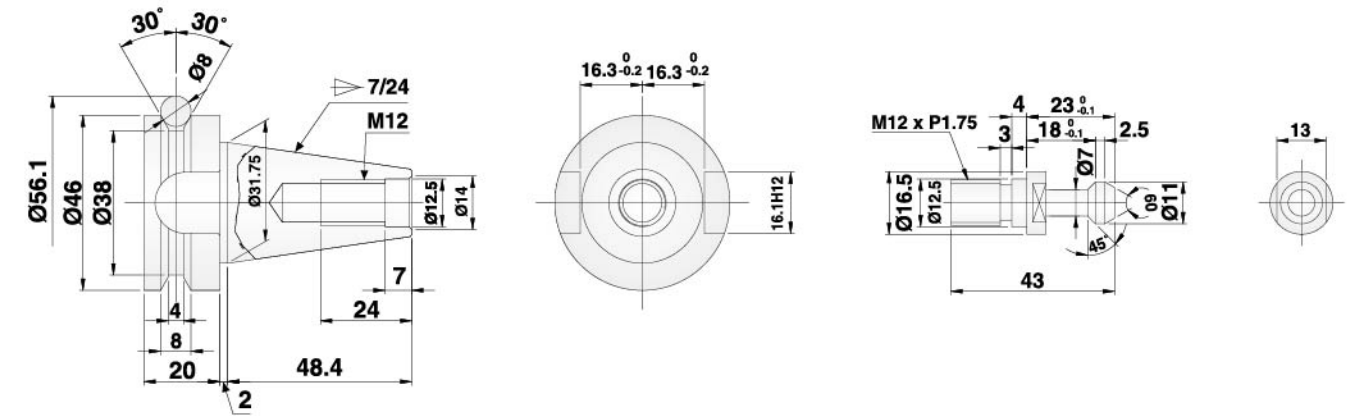
This test inspects the X-Y plane circularity to assure curvature accuracy.

Static Accuracy

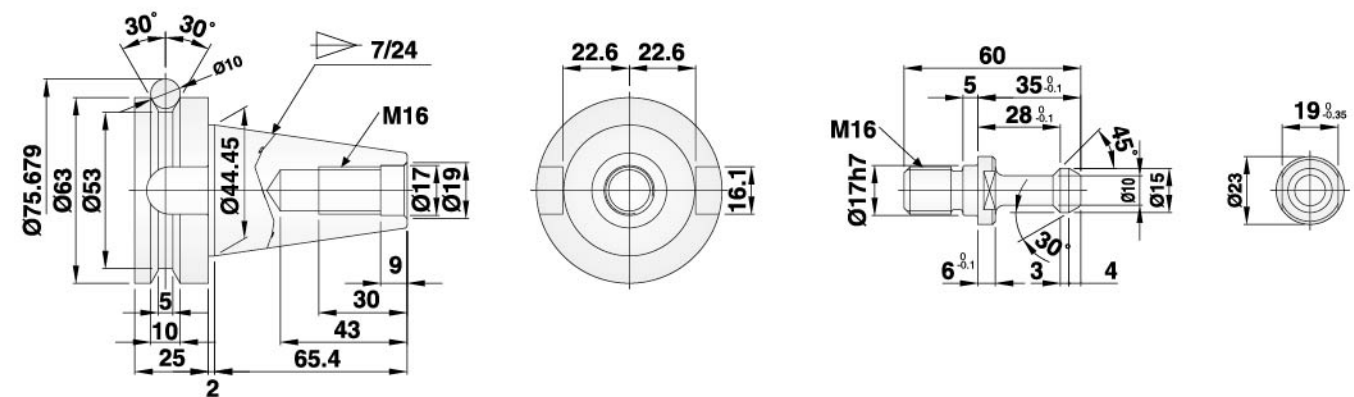
	Measured Plane	Permissible (mm / 300 mm)	Measured (mm / 300 mm)
Perpendicularity	X - Y	0.015	0.008
	Y - Z	0.015	0.009
	Z - X	0.015	0.009
	Measured Plane	Permissible (mm / Full Stroke)	Measured (mm / Full Stroke)
Positioning Accuracy	X	0.010	0.007
	Y	0.010	0.007
	Z	0.010	0.007
	Measured Plane	Permissible (mm)	Measured (mm)
Repeatability	X	0.006	0.004
	Y	0.006	0.004
	Z	0.006	0.004
	Measured Plane	Permissible (mm)	Measured (mm)
Circularity	X - Y	0.015	0.008

TOOL SHANK SPECIFICATIONS

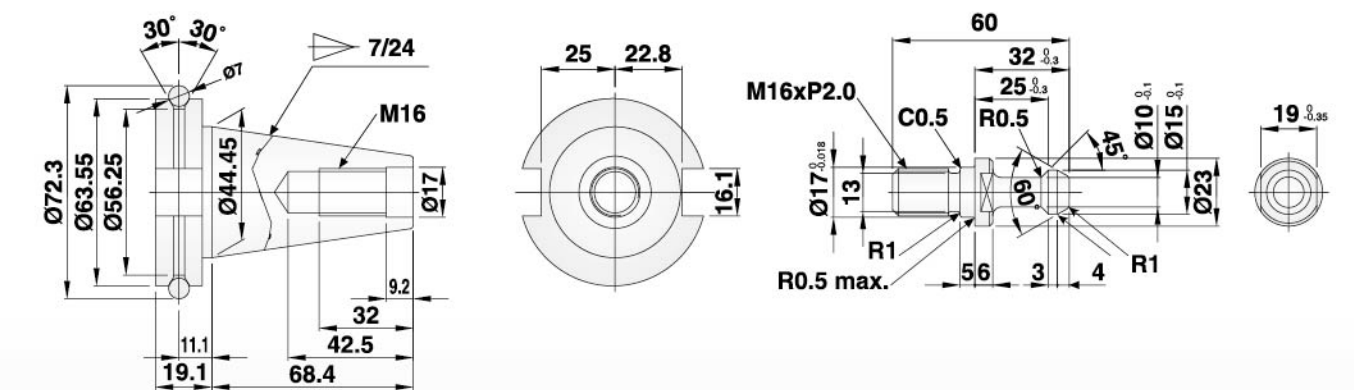
BT-30



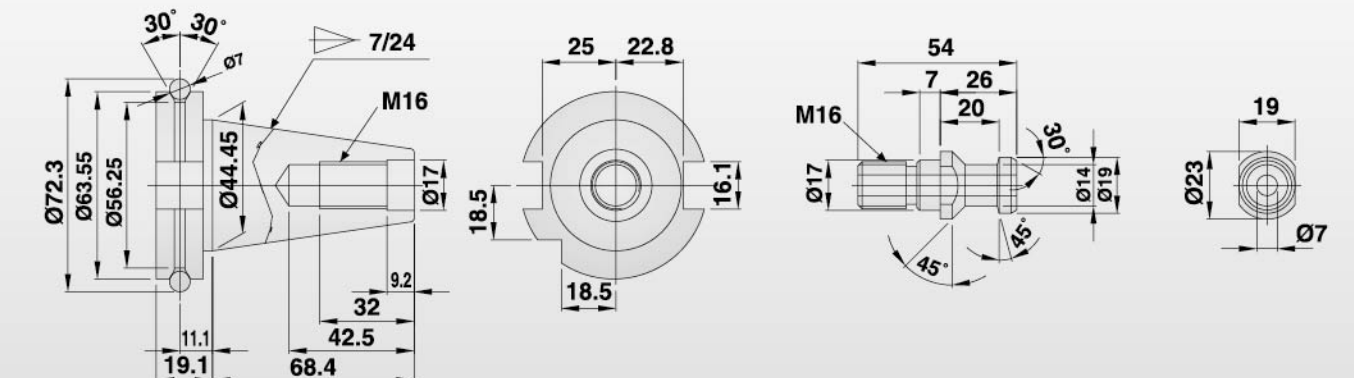
BT-40



CAT-40



DIN-40



Machine Dimensions

Machine Dimensions

Table Dimensions

The technical drawings show the machine and table dimensions. The machine dimensions include a height of 2520 mm (MAX), a width of 2630 mm, and a depth of 2075 mm. The table dimensions include a width of 240 mm, a depth of 410 mm, and a grid of 35-M12XP1.75 holes.

The technical drawings include:

- Machine Dimensions (Left):** A side view of the machine with a height dimension of 2850 and a width dimension of 2185.
- Machine Dimensions (Middle):** A front view of the machine with a base width dimension of 2665 and a main body width dimension of 2530.
- Working Capacity (Right):** An isometric view of the working area with dimensions 820 (width), 505 (depth), and 520 (base depth).
- Table Dimensions (Far Right):** A detailed view of the table surface with a length of 950, a thickness of 37, and various mounting hole specifications including C 1.0, 18, 30, and 142.

The technical drawings include:

- Machine Dimensions (Left):** A side view of the machine with a width of 2530 and a depth of 3175.
- Machine Dimensions (Middle):** A front view of the machine with a height of 2950, a base width of 2870, and a total width of 3300.
- Working Capacity (Third):** A 3D perspective view of the machine's working area, showing a height of 700, a depth of 500, and a width of 500.
- Table Dimensions (Right):** A top view of the table with a total width of 700 and a total depth of 500. The table has a grid of 10x10 holes. The distance between the center of two adjacent holes is 100. The distance from the center of a hole to the nearest edge is 50. The table has a thickness of 60. A detail view of a hole shows a diameter of 18, a thread of M16xP2x33L, and a depth of 33. The angle of the hole is 118°.

Machine Dimensions: 2850 (height), 2185 (width)

Machine Dimensions: 2800 (width)

Working Capacity: 1020 (length), 505 (height), 520 (width)

Table Dimensions: 1150 (length), 18 (thickness), 37 (height), 12 (width), 30 (width), 1.0 (width), 1000 (length), 200 (width)

MODEL	UNIT	QMP-23A (#30)	QMP-23Aapc (#30)	QMP-30A (#30)	QMP-32A	QMP-32Aapc	QMP-40A
TRAVEL							
X-axis Travel	mm	580		760	820	800	1,020
Y-axis Travel	mm	420		420	520		
Z-axis travel	mm	510		510	505		
Spindle Nose to Table Surface	mm	80 - 590	135 - 645	80 - 590	130 - 635	148 - 653	100 -605
Spindle Center to Column Surface	mm	510			560		
Table Surface to Floor	mm	820	915	820	940	1,025	970
Table Center to Column Surface	mm	245 - 665			300 - 820		
TABLE							
Table Dimension	mm	650 x 420	580 x 410	890 x 420	520 x 950	500 x 700	520 x 1,150
Maximum Load	kg	300	120	300	800	200	800
T-slot		14mm x 4 x 100mm	35-M12 x P1.75	14mm x 4 x 100mm	18mm x 5 x 100mm	35 - M16 x P2.0	18mm x 5 x 100mm
Spindle Speed	rpm	50 - 12,000			10,000		
Spindle Taper		7 / 24 taper No. 30			7 / 24 taper No. 40		
Spindle Power	kW	3.7 / 5.5			15 / 18.5 (7.5 / 11)		
FEED RATE							
X-axis Rapid Traverse	m/min	48			48		
Y-axis Rapid Traverse	m/min	48			48		
Z-axis Rapid Traverse	m/min	48			30		
ATC							
Tool Changing Time (tool-to-tool)	sec / Hz	1.0 / 60			1.7 / 60		
		1.25 / 50			2.0 / 50		
Tool Changer	m/min	Arm Type			Arm Type		
Tool Selection Method		Random			Random		
Numbers of Tools		20			24		
Pull Stud		P - 30T (45°)			P - 40T (45°)		
Maximum Tool Weight	kg	4			8		
Maximum Tool Length	mm	200			300		
Maximum Tool Diameter	mm	Ø63			Ø80		
Maximum Tool Diameter (Non-Adjacent Tool)	mm	Ø100			Ø150		
OTHER							
Floor Space	mm	1,900 x 2,230	1,900 x 2,630	2,100 x 2,230	2,665 x 2,185	3,300 x 3,175	2,800 x 2,185
Machine Weight	kg	3,000	3,800	3,300	6,300	7,500	6,600
Maximum Machine Height	mm	3,270	2,520	2,370	2,850	2,950	2,850
Power Capacity	KVA	20			25	25	25
Air Source	bar	6-8			6-8		
AUTOMATIC PALLET CHANGER							
Change Time	sec	---	6	---	---	10	---
APC Type		---	Rotary	---	---	Rotary	---
* Specifications are subject to change without prior notice. * Available Controls: FANUC / MITSUBISHI.							

				● Standard ○ Optional — N/A			
FEATURE	QMP-23/30	QMP-32Aapc	QMP-32A / 40A	FEATURE	QMP-23/30	QMP-32Aapc	QMP-32A / 40A
Heat Exchanger	●	●	●	3-axis Linear Scale	—	—	○
3-axis Pre-tensioned Balls-screw	●	●	●	Coolant Through Spindle	○	○	○
Automatic Lubrication System	●	●	●	Tool Measuring System	○	○	○
Enclosed Splash Guard	●	●	●	Automatic Tool Length Measure and Breakage Detection	○	○	○
Dust-tight Electrical Cabinet	●	●	●	Chip Conveyor	○	○	○
Spindle Air Sealing	●	●	●	High Speed Spindle	○	○	○
3-color Signal Light	●	●	●	Spindle Oil Cooler	○	○	○
Rapid Tapping	●	●	●	Chip Screw	—	○	○
Operation and Maintenance Manual	●	●	●	Flushing System Coolant Gun	○	●	●
				12,000 rpm DDS Spindle	● (only#30)	○	○
				15,000 rpm DDS Spindle	○ (only#30)	○	○