



SMOOTH
TECHNOLOGY

MPP

SERIES

Mazak

Automatic operation system for small volume production

Compact multiple pallet stoker system

The MPP (Multi-Pallet Pool) is a new system to meet the increasing worldwide demand for automation. It is designed to provide high productivity for multiple variety, small lot production.



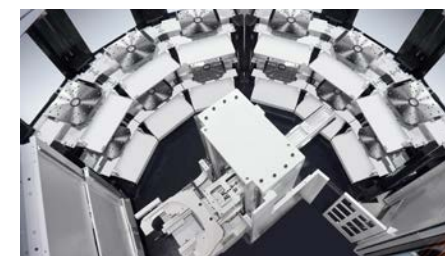
MPP SERIES



Compact floor space for multiple pallet stoker.

Stocker can be expanded after the initial installation of an MPP in response to increased production requirements.

The operation and management of the MPP is performed by the same software used by the Mazak FMS system, which is highly regarded worldwide for its ease of operation and high productivity.



All pallets are located the same distance from the center of the pallet stoker for smooth pallet changing.



Thanks to servo motors on all axes, pallet loading/unloading is fast and stable.



Loading station is designed with ergonomic considerations for excellent accessibility to workpieces.

MPP compatible machines



5-Axis



Horizontal Machining Center

VARIAXIS i-600

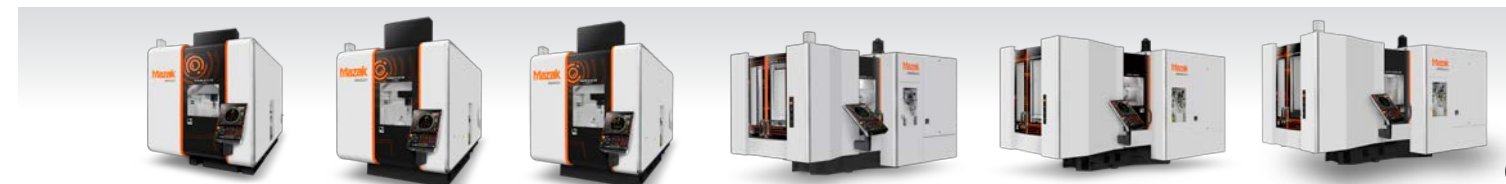
VARIAXIS i-700

VARIAXIS i-700T

HCN-4000
(MAZATROL SmoothG)

HCN-5000
(MAZATROL SmoothG)

HCN-5000/50
(MAZATROL SmoothG)



MPP
can best be
used when:

- Automation is required on a limited scale.
- Limited floor space prevents a system with a horizontal pallet stoker from being installed.
- You need to start with a single machine and add the multiple pallet stoker at a later date.

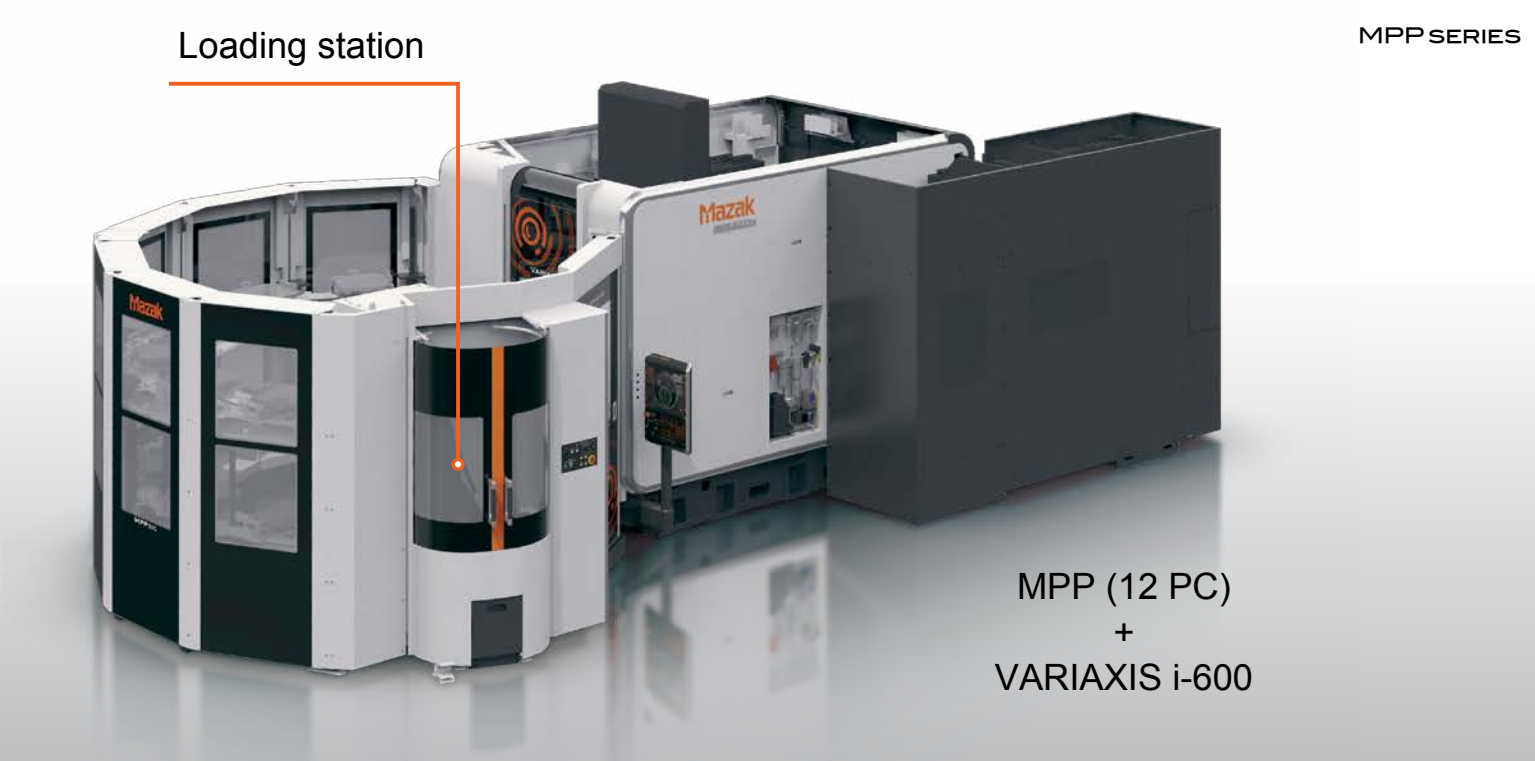


Simultaneous 5-Axis Vertical Machining Center

VARIAXIS i-600

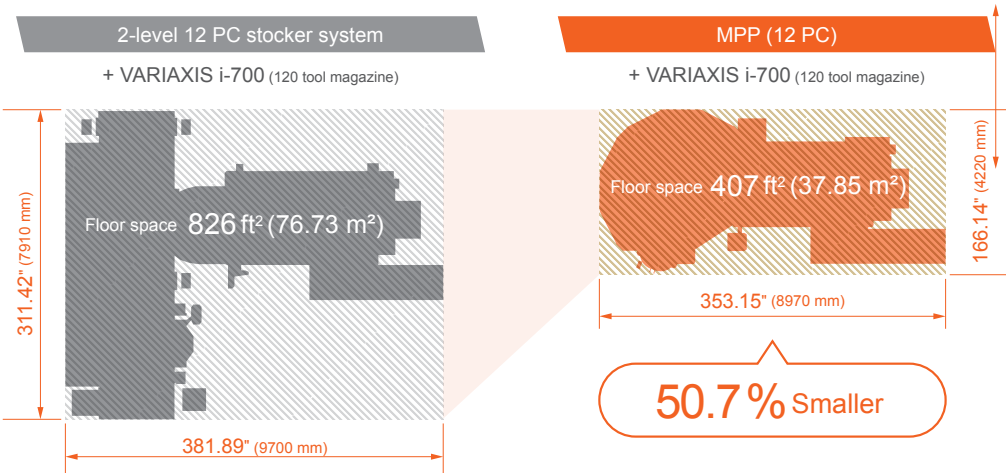
VARIAXIS i-700

VARIAXIS i-700T



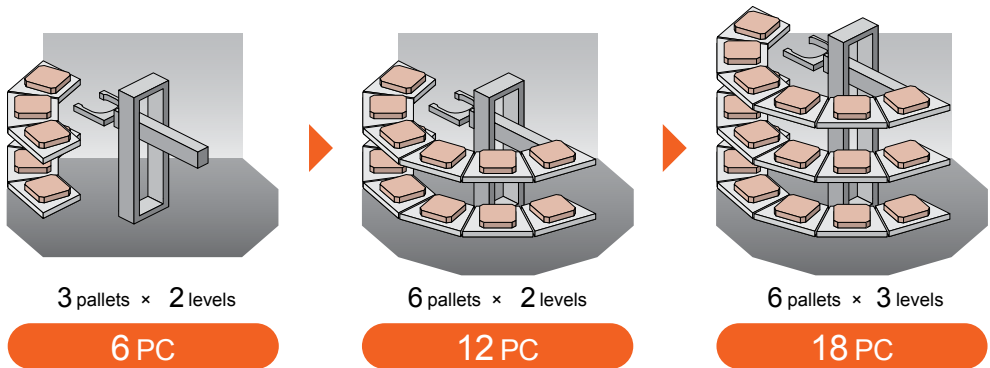
Compact floor space requirement

When compared to systems with horizontal pallet stockers, the same amount of pallets can be stored in a smaller floor space.



Flexible pallet stocker capacity

6, 12 and 18 pallet storage capacities are available.



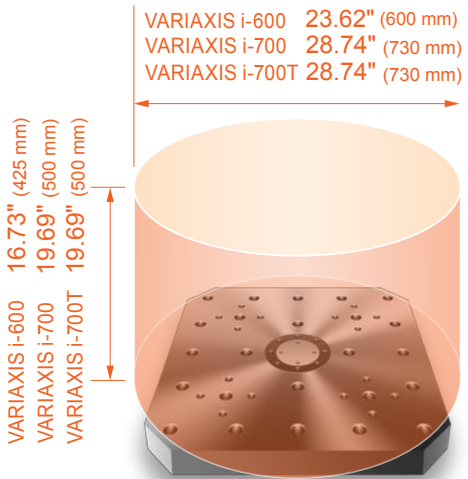
Workpiece specifications

Max. load (without pallet)

VARIAXIS i-600	661 lbs (300 kg)
VARIAXIS i-700 VARIAXIS i-700T	1323 lbs (600 kg)

Max. workpiece size (without pallet)

VARIAXIS i-600	Φ23.62" × 16.73" (Φ600 mm × H425 mm)
VARIAXIS i-700 VARIAXIS i-700T	Φ28.74" × 19.69" (Φ730 mm × H500 mm)



MPP (VARIAXIS i-600, i-700, i-700T) specifications

	VARIAXIS i-600	VARIAXIS i-700	VARIAXIS i-700T
Number of pallets	6/12/18		
Pallet size	15.75" × 15.75" (400 mm × 400 mm)	19.69" × 19.69" (500 mm × 500 mm)	Φ24.02" (Φ610 mm)
Max. load (without pallet)	661 lbs (300 kg)	1323 lbs (600 kg)	
Max. workpiece size (without pallet)	Φ23.62" × 16.73" (Φ600 mm × H425 mm)	Φ28.74" × 19.69" (Φ730 mm × H500 mm)	



High-speed, High-accuracy Horizontal Machining Center

HCN-4000
(MAZATROL SmoothG)

HCN-5000
(MAZATROL SmoothG)

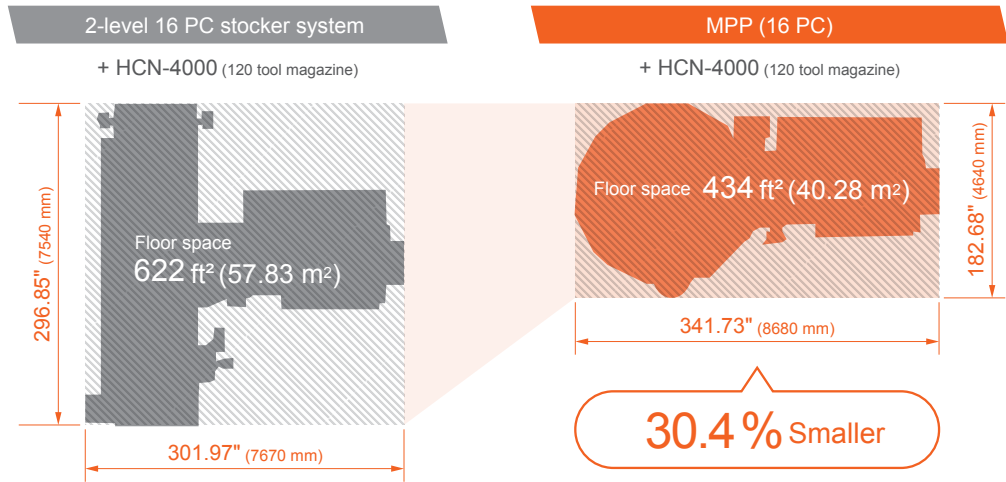
HCN-5000/50
(MAZATROL SmoothG)



MPP (16 PC)
+
HCN-4000

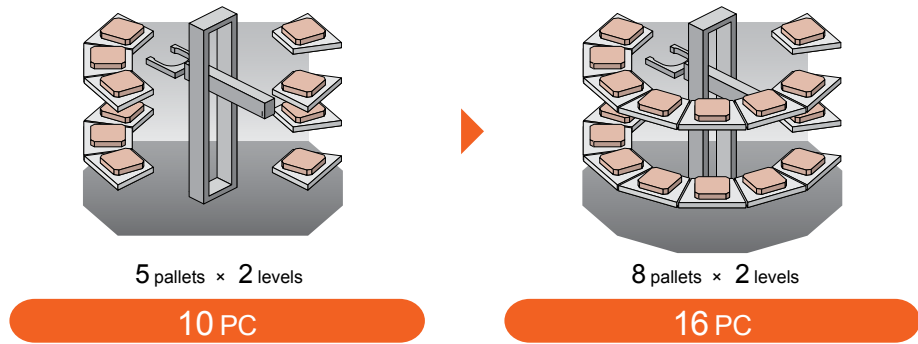
Compact floor space requirement

When compared to systems with horizontal pallet stockers, the same amount of pallets can be stored in a smaller floor space.



Flexible pallet stocker capacity

10 and 16 pallet storage capacities are available.



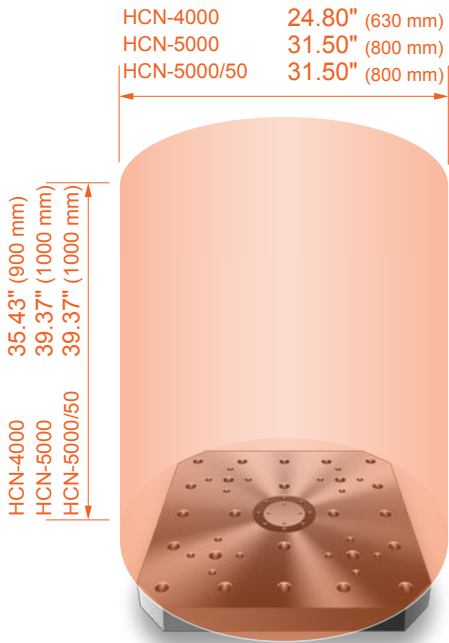
Workpiece specifications

Max. load (without pallet)

HCN-4000	882 lbs (400 kg)
HCN-5000 HCN-5000/50	1543 lbs (700 kg)

Max. workpiece size (without pallet)

HCN-4000	Φ24.8" × 35.43" (Φ630 mm × H900 mm)
HCN-5000 HCN-5000/50	Φ31.50" × 39.37" (Φ800 mm × H1000 mm)



MPP (HCN-4000, HCN-5000, HCN-5000/50) specifications

	HCN-4000	HCN-5000, HCN-5000/50
Number of pallets	10/16	
Pallet size	15.75" × 15.75" (400 mm × 400 mm)	19.69" × 19.69" (500 mm × 500 mm)
Max. load (without pallet)	882 lbs (400 kg)	1543 lbs (700 kg)
Max. workpiece size (without pallet)	Φ24.8" × 35.43" (Φ630 mm × H900 mm)	Φ31.50" × 39.37" (Φ800 mm × H1000 mm)

Management software for multiple-variety,
small-lot production



Once the production schedule is input, operation will be performed automatically. Production results, system utilization and other data can be checked on the MAZATROL SmoothX and SmoothG CNC. If connected to a network (prepared by user), system data are accessible on office PCs, tablets and smartphones.

1 Monitoring

System and production status are displayed visually. Monitoring of system operation is extremely convenient.



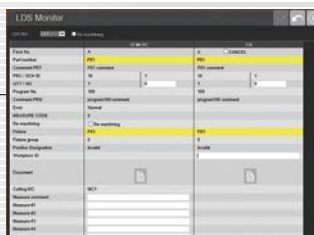
Home screen



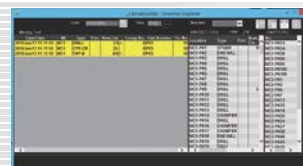
System monitoring screen

2 Instruction display

To assist the operator, displays such as the workpiece loading instructions and the list of missing tools are available.



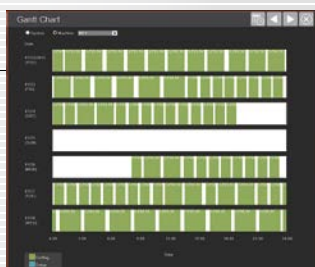
Workpiece loading instructions



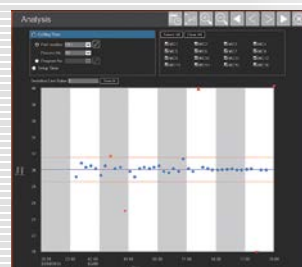
Missing tools display

3 Production results display

A wide variety of graphs display the production results for convenient system utilization analysis.



Gantt chart screen
(One week operation results data)



Analysis screen
(Analysis of machining time and setup time)

Mazak

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