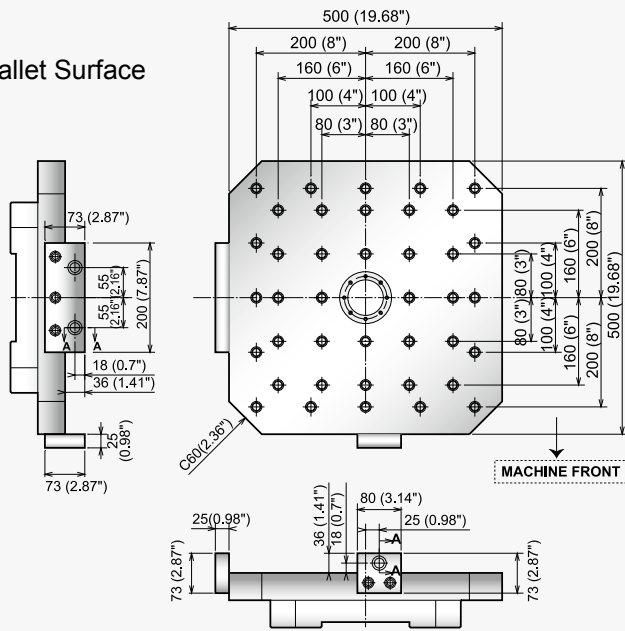


H.Plus-500

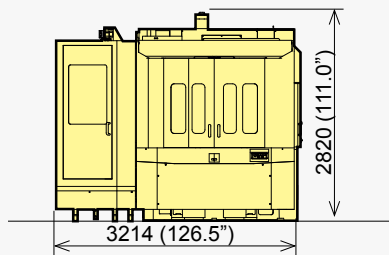


H.Plus-500 Pallet / Outline / Floor Plan

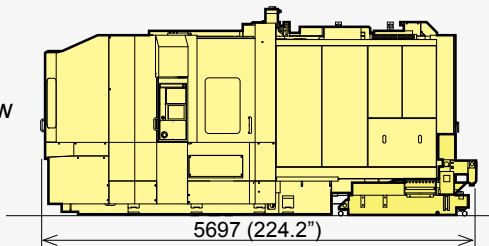
Pallet Surface



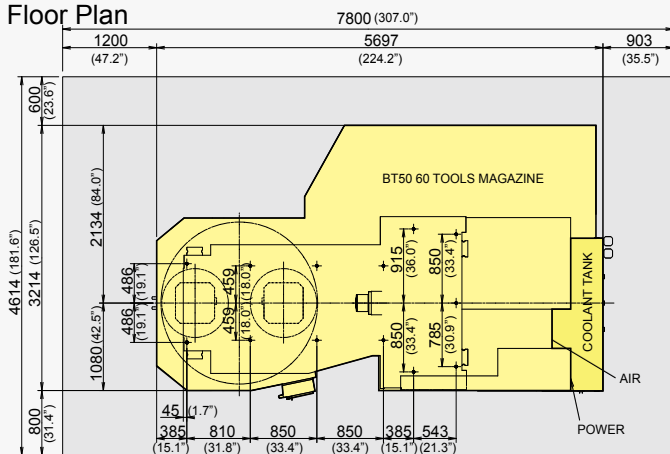
Front Side View



Left Side View



Floor Plan



H.Plus-500 Standard Machine Specification

■ Movement and Ranges

X-axis Travel	800 mm (31.49 in.)
Y-axis Travel	800 mm (31.49 in.)
Z-axis Travel	800 mm (31.49 in.)

■ Pallet

Pallet Size	500 x 500 mm (19.68 x 19.68 in.)
Max. Workload on Pallet	500 kg (1,102 lb.)
Max. Work Size	ø850 x H900 mm (33.46 x 35.43 in.)

■ Spindle (BT50)

Spindle Speed	50 ~ 10,000 min ⁻¹
Spindle Inner Bearing Diameter	ø90 mm (3.53 in.)
Spindle Motor Power(cont./50% ED)	22/ 30 kW (40HP)
Spindle Motor Torque	254.3 Nm / 900 min ⁻¹

■ Feedrate

Rapid Traverse/Feedrate :X/Y/Z	50,000 mm/min (1968.50 ipm)
Rapid Traverse Acc./Dec. :X/Y/Z	0.66 / 0.89 / 0.82 G
Min. Movement Increment :X/Y/Z	0.001 mm (0.000039 in.)
Min. Movement Increment :B	1 deg

■ Automatic Tool Changer

Type of Tool Shank	JIS B 6339 50T
Type of Tool Knob	JIS B 6339 50P
Number of Tools	60 (chain magazine)
Max. Adjacent Tool Diameter	110 mm (4.33 in.)
Max. Tool Dia. (both side pockets are empty)	230 mm (9.05 in.)
Max. Tool Length	500 mm (19.68 in.)
Max. Tool Weight	20 kg (44 lb.)
Tool Changing Time : Tool to Tool	2.0 sec : Tool less than 10 kg / 3.6 sec : Tool more than 10 kg
Tool Changing Time : Chip to Chip	4.2 sec

■ Auto Pallet Changer

Number of Pallets	2
Pallet Changing Time :Pallet to Pallet	7.9 sec

■ NC System

Matsura G-Tech 30i
Matsura G-Tech 840Di

■ Standard Accessories

01. Total Enclosure Guard	11. Spindle Overload Protection
02. Synchronised Tapping Function	12. M-Code Counter (9-M code)
03. AD-TAP Function	13. Work Light
04. IPC Function	14. Standard Mechanical Tools and Tool Box
05. Spindle Oil Cooler	15. Machine Color Paint
06. Auto Grease Supply Unit	16. Levelling plate and bolts(not foundation pad)
07. Swarf Rear Disposal	17. Handy Man II F/Y
08. Standard Coolant Unit	18. Install CD-R for Program/Edit on Memory
09. Chip Flush	Card only for Matsura G-Tech 30i
10. Spiral Chip Conveyors	19. Safety Interlock



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Giving Customers the Flexibility to Machine Large/Small Components

Designed from the ground up, the new **H.Plus-500** will sit in the middle of our range of globally acclaimed **H.Plus Series** Horizontals, giving customers the flexibility to machine large or small components - at high speed & high accuracy with immense power from the Matsuura designed & built BT50 Spindle, achieving phenomenal metal removal rates.

Stable, Reliable, Highly Rigid Structure

- Rib Configuration Optimized by FEM Analysis
- High Speed, Low Noise Type Ballscrew
- Larger Diameter Ballscrews & Class 1 Linear Guides

Simultaneous ATC / APC Operation

- Dynamic Rapid Traverse - Latest Digital Servo Technology

Rapid Traverse (X/Y/Z) : 50 m/min (1,968.5 ipm)

Rapid Traverse Acc./Dec. : 0.9 G

Feedrate (X/Y/Z) : 50 m/min (1,968.5 ipm)

Feedrate Acc./Dec. : 0.5 G

- New Proven Design - High Speed ATC / APC Driven by CAM System
- Superb, Reliable ATC Magazine Performance - Reduced Indexing Time
- ATC Time (chip-to-chip) Reduced by Simultaneous Motion of the ATC Arm & ATC door <Patent Pending>
- ATC / APC Simultaneous Operation - Reduced Non-Cutting & Idle Time^{*1}

Tool Changing Time (Chip to Chip) : 4.2 sec.

Pallet Changing Time (Pallet to Pallet) : 7.9 sec.

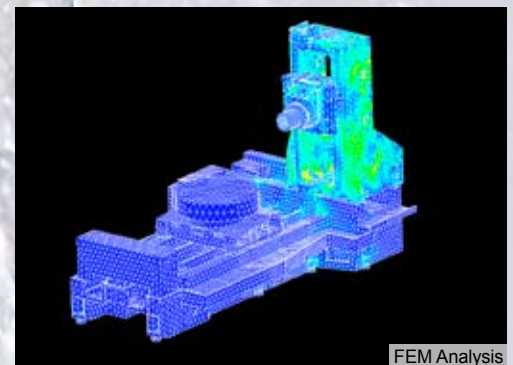
Tool Calling Time (Min. / Max.) : 0.7 / 9.1 sec.

Wide Range of Options

Spindles		
BT50	: 10,000 min ⁻¹ : AC22/30 kW (40 HP)	STD.
BT40	: 12,000 / 20,000 / 30,000 min ⁻¹	OPT.

No. of Tools			
Chain Magazine		Matrix Magazine	
BT50 : 60	STD.		
BT50 : 120	OPT.	BT50 : 150~240	OPT.
BT40 : 51, 80	OPT.	BT40 : 120~240	OPT.

PC System		
5-Pallet Changer	: PC5	OPT.
10-Pallet Changer	: PC10	OPT.
Linear Pallet System	: PC17	OPT.



FEM Analysis



High Speed ATC



Matsuura Hi-Tech Spindle



60 Tool Magazine

^{*1} : In this instance, the max tool length is limited to 345mm.

User Friendly : Easy Access to the Machine

A : Distance from the pallet center to the spindle edge

BT40 : 90 ~ 890mm (3.54 ~ 35.03 in.)

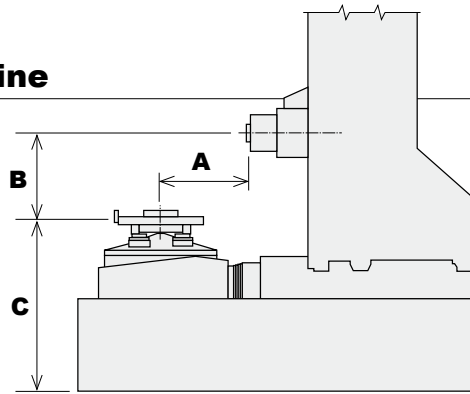
BT50 : 120 ~ 920mm (4.72 ~ 36.22 in.)

B : Distance from the pallet surface to the spindle center line

80 ~ 880mm (3.14 ~ 34.64 in.)

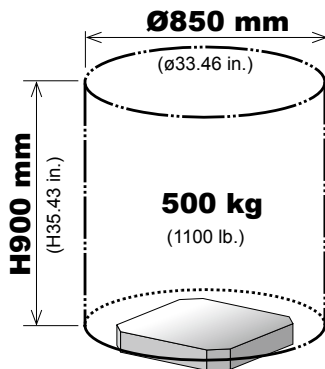
C : Height from floor to the table surface

1,020mm (40.15 in.)



Largest Work Size in its Class

Safe, Rigid Clamping of Large, Oversized Billets



- Larger workpieces can be accommodated. Please call Matsuura for details.



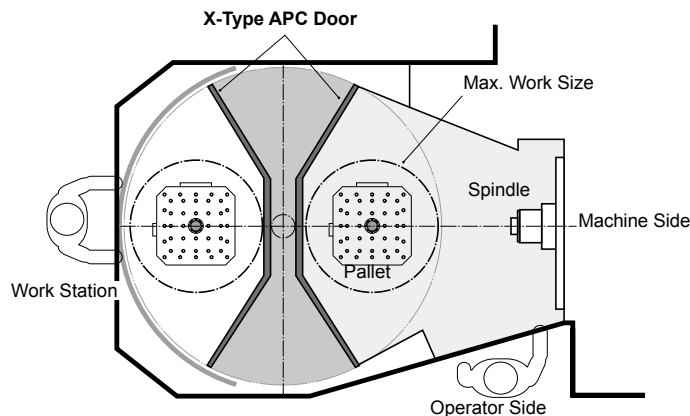
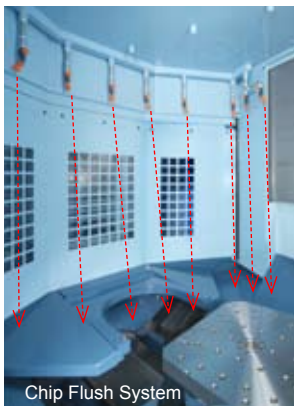
- Door Open Width of APC Work Station : 1,005 mm



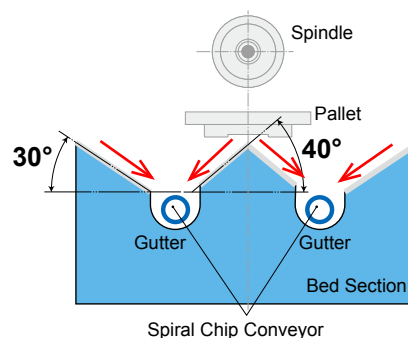
- By utilizing tempered glass in the main viewing window, clearer vision for longer periods is achieved.

Unique, Matsuura Designed X Type Door (Patent Pending)

- The unique, Matsuura designed X Type door removes all opportunity for swarf to become trapped & build up. The design itself forces swarf into the path of the coolant shower / chip flush system.



- 30~40-degree, Angled Z axis Covers.
- Powerful Left & Right Spiral Chip Conveyors.
- Optional Lift-Up Type Chip Conveyor Available
- Fully Automated Swarf Management.



Section View from the Machine Front

Chip Flush System	STD.
Spiral Chip Conveyor	OPT.
Lift-Up Chip Conveyor	OPT.



Flow of Swarf