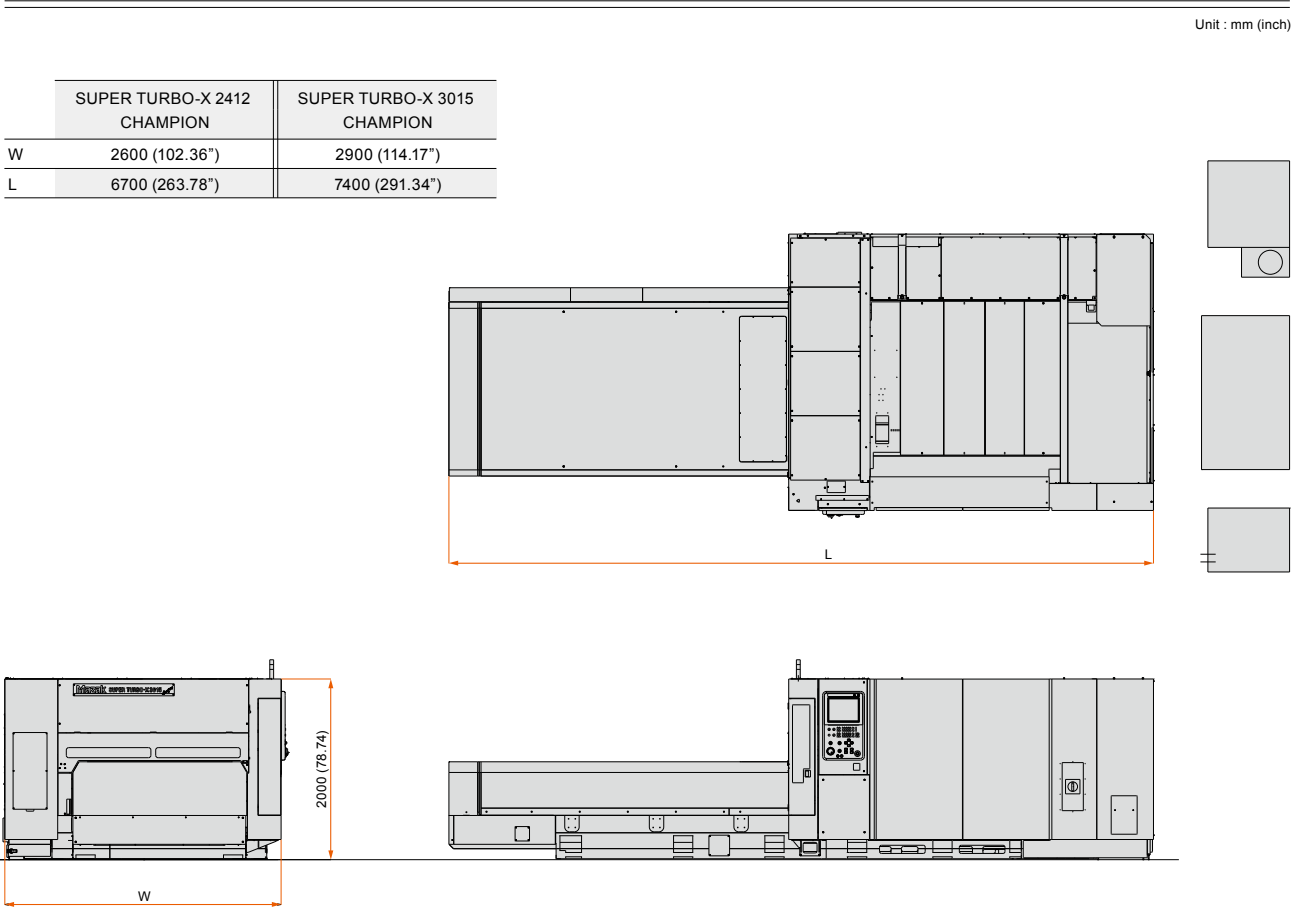


SUPER TURBO-X CHAMPION floor space requirement

Floor space



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■ Specifications are subject to change without notice.
■ This product is subject to all applicable export control laws and regulations.
The accuracy data and other data presented in this catalogue were obtained under specific conditions.
■ They may not be duplicated under different conditions. (room temperature, workpiece materials, tool material, cutting conditions, etc.)

SUPER TURBO-X CHAMPION 15.03.5000 R 99J440815E0

SUPER TURBO-X CHAMPION SERIES



SUPER TURBO-X
CHAMPION
S E R I E S

2412
3015

Designed to Provide You the Maximum Value —

Exclusive constant-beam length for uniform and high accuracy cutting performance anywhere on the machine table

Table feed system — designed for excellent table access, ease of operation, and convenient processing of a wide variety of workpieces in small size lots

Equipped with the advanced MAZATROL PREVIEW 3 CNC system



SUPER TURBO-X 3015 CHAMPION

Fastest rapid traverse
in this machine class

X-, Y-axes
50 m/min (1969 IPM)

SUPER TURBO-X 2412 CHAMPION
SUPER TURBO-X 3015 CHAMPION

Higher Productivity

Unique SUPER TURBO-X CHAMPION capability — cut all these different materials with no change of machine setup

Non-stop cutting of different materials and material thicknesses.
Continuous laser cutting without changing lenses or nozzles even when materials
and thicknesses change thanks to the optimum laser beam.



Higher Accuracy

Mazak's unique constant-beam length system, ensures uniform high accuracy cutting anywhere on machine table

The laser beam is directed from the laser resonator to the cutting torch using
Mazak's exclusive constant-beam length delivery system.
Stable production is realized thanks to the constant-beam length that provides
uniform cutting performance anywhere on the table. Additionally,
the resonator is integrated with the machine proper to minimize optical
axis adjustments as well as reducing floor space requirements



High-Performance CNC System



Designed for ease of operation

Optimized button layout with ergonomic design

15" touch screen

Screen layout organized for convenient operation

Fast access to frequently used displays, such as command screen, position screen and programming screen

Unsurpassed speed of operation
with touch screen CNC

MAZATROL **preview 3**

Higher productivity by high-speed, high-accuracy CNC system

Advanced hardware

- State of the art CPU for unsurpassed operation speed
- High-response, high-speed machine motion

Optimum acceleration / deceleration for the reduction of cutting time

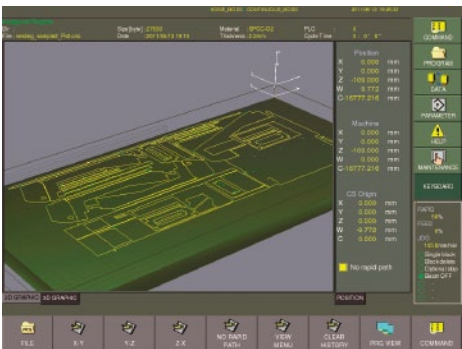
- Tolerance control ensures high-speed corner cutting
- ACTIVE VIBRATION CONTROL for stable, high-speed cutting

Improved laser operation response

- Laser control is improved to generate optimum laser power in the minimum time
- Improved performance for fly cutting and sharp edge cutting

Graphics screen

3D display of cutting path can be displayed after entering data

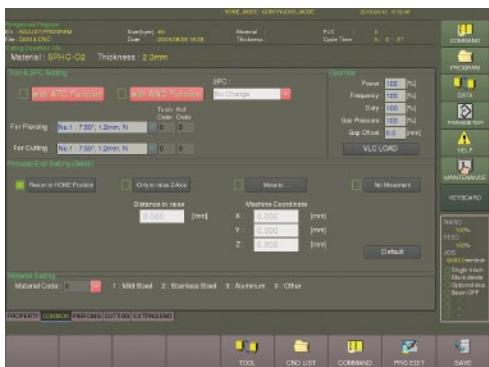


Automatic determination of processing conditions

The required lens, nozzle, feedrate and laser output are automatically determined by the CNC for different materials and thicknesses.

Cutting conditions can be edited while monitoring operation and registered in the CNC.

The next time the same material is processed, the new cutting conditions will automatically be used



Ease of Operation

Table feed system — designed for excellent table access, ease of operation, and convenient processing of a wide variety of workpieces in small size lots

Small pieces of material can be easily loaded on the table and workpieces quickly unloaded after completion of cutting.



Totally enclosed cover STANDARD

The total machine cover, which covers the entire processing area, protects operators from the laser beam and cutting spatter. Safe operation, no matter what position the laser head is in, as well as excellent accessibility to the machine table are ensured.



Storage box STANDARD

Manuals and tools can be conveniently stored.



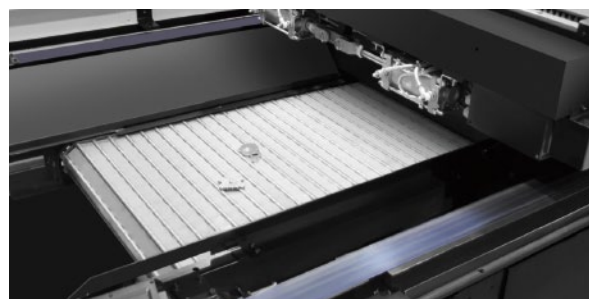
Work lifter OPTION

For convenient material positioning



Scrap conveyor STANDARD

After cutting, scrap can automatically be discharged.



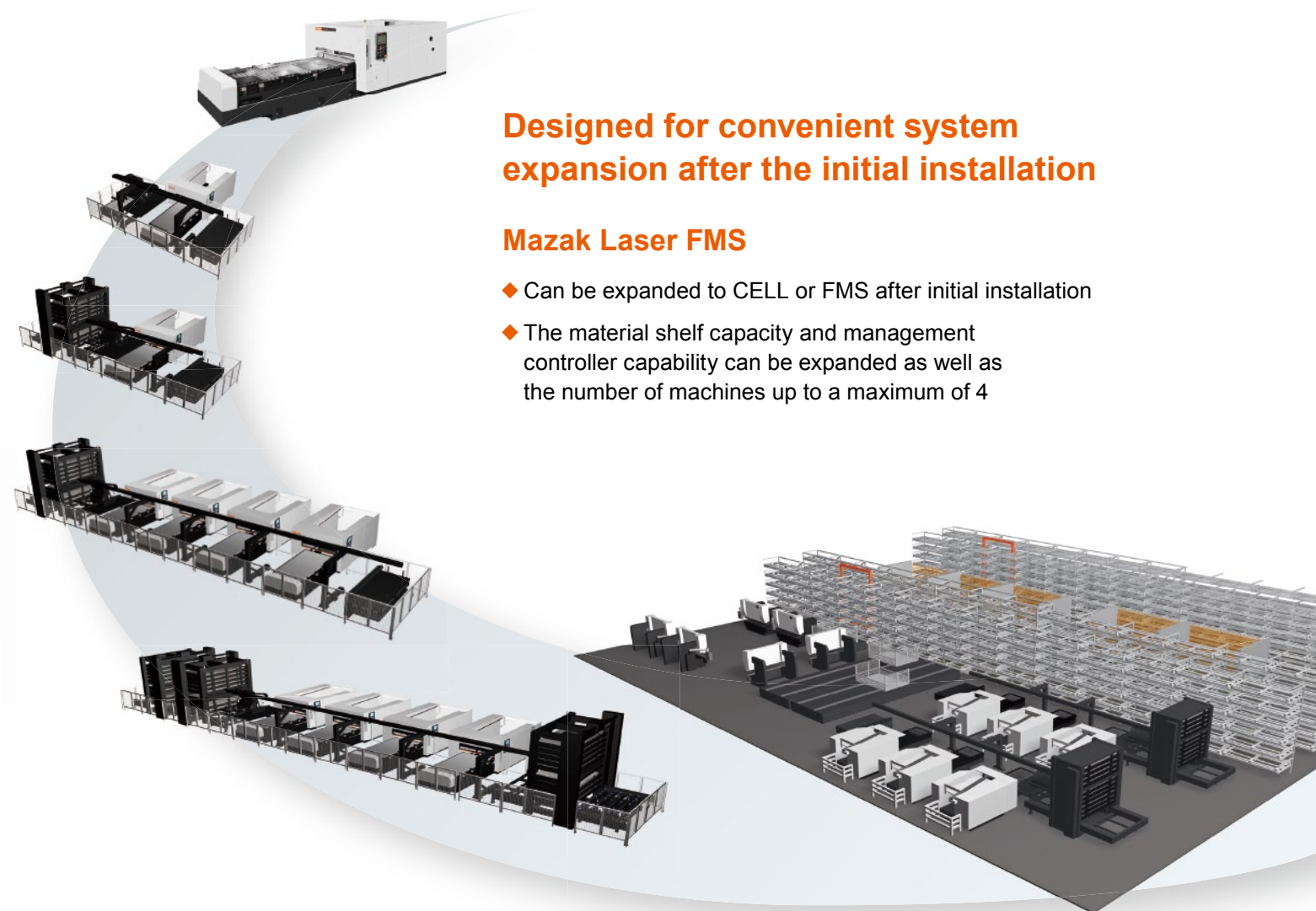
Automation

MAZAK Laser FMS EXTENSIBLE MANUFACTURING CELL

Designed for convenient system expansion after the initial installation

Mazak Laser FMS

- ◆ Can be expanded to CELL or FMS after initial installation
- ◆ The material shelf capacity and management controller capability can be expanded as well as the number of machines up to a maximum of 4



High-productivity

- ◆ Processing can be controlled according to the production schedule
- ◆ Worksheets up to 25 mm (0.98") can be transported for convenient loading/unloading time

Machine specifications

		SUPER TURBO-X 2412 CHAMPION	SUPER TURBO-X 3015 CHAMPION
Max. workpiece size		1250 mm × 2500 mm (49.21" × 98.43")	1525 mm × 3050 mm (60.04" × 120.08")
Work table height		900 mm (35.43")	
Axis travel	X-axis	2520 mm (99.21")	3070 mm (120.87")
	Y-axis	1270 mm (50")	1545 mm (60.83")
	Z-axis	90 mm (3.54")	
Rapid traverse rate		X , Y : 50 m/min (1969 IPM) Z : 25 m/min (984 IPM)	
Max. feedrate		50 m/min (1969 IPM)	
Positioning accuracy		±0.01 mm / 500 mm (±0.0004"/ 19.69") ±0.01 mm / 100 mm (±0.0004"/ 3.94")	
Repeatability		±0.005 mm (±0.0002") (X , Y , Z-axes)	
Machine weight		11,000 kg (24250 lbs)	12,700 kg (27998 lbs)
Electrical requirement		47.0 kVA	
Sound*		Less than 80 dB	

* : Equivalent continuous sound pressure level at operator position (dependent on equipment options)

Specifications of Laser Oscillator

Resonator	2.5 kW
Laser gas	He , Ne and CO ₂
Gas consumption rate*	10 L/h (2.5 kW)

* : During continuous operation

CNC standard specifications

MAZATROL PREVIEW 3	
CPU	64 bit
Control method	Preview control
Minimum program increment unit	0.001 mm (0.0001")
Programming method	EIA / ISO
Display	15"color LCD (TFT)

Standard and optional equipment

		● : Standard ○ : Option	
		SUPER TURBO-X 2412 CHAMPION	SUPER TURBO-X 3015 CHAMPION
Machine	Auto nozzle cleaning	●	●
	Non-profiler with retry function	●	●
	Workpiece clamps (4) & locator	●	●
	Manual clamp (1)	○	○
	Side air blast	○	○
	Automatic open/close cover	●	●
	Work light	●	●
	Oscillator status indicator light	●	●
	Chiller unit	●	●
	Knife edge (100 mm pitch)	●	●
Torch	Knife edge (50 mm pitch)	○	○
	5" manual adjustable torch without lens	○	○
	7.5" manual adjustable torch with lens	●	●
	7.5" manual adjustable torch without lens	○	○
	Automatic adjustable torch without lens	○	○
Lens	5" Mazak high accuracy lens (2.5 MPa)	○	○
	7.5" Mazak high accuracy lens (2.5 MPa)	○	○
Nozzle	Nozzle ø1.5 , 2.0 , 3.0 mm (1 each)	●	●
	Nozzle ø1.2 , 1.5 , 2.0 , 2.5 , 3.0 , 3.5 , 4.0 mm (3 for 1 set)	○	○
Assist gas	3rd assist gas piping (Supply 3.0 MPa)	●	●
	4th assist gas piping (Supply 3.0 MPa)	○	○
	High pressure air supply system	○	○
	Assist gas selector (3 types)	●	●
	Assist gas pressure NC control	●	●
Factory automation	Auto power off	●	●
	Preparation for FMS installation	○	○
	Work lifter	○	○
	Scrap conveyor	●	●
	Dust collector	○	○
CNC	Preparation for dust collector	●	●
	MAZATROL PREVIEW 3	●	●
	LAN interface for external communication	●	●
	USB port for PC	●	●
	NC retry function	○	○
Others	Manuals	●	●
	Additional manuals	○	○