

Mazak

FT-150 FIBER



Laser Processing Machine for high-speed cutting of small diameter pipe material

FT-150 FIBER

Higher productivity thanks to high-speed and high-quality cutting

Reduce in-process time of pipe workpieces

Previous
processing

Cutting by
Saw

Punch
press

Deburring

Hole
Tapping

Material handling /
Queuing, etc

FT-150
FIBER

Complete all processes
in same machine

Faster cycle times thanks to high-speed and high-accuracy cutting functions

Bundle loader enables continuous operation for high productivity

Both raw material loading and finished workpiece unloading are performed at the machine front for increased efficiency

*Loader 6.5 m (21.3') / Unloader 4.5 m (14.8') (Option) shown

Wide variety of functions for high-speed and high-quality cutting

Just load material into loading station, and material handling, laser cutting and unloading of finished workpieces are all performed automatically.

Designed for high efficiency

Loading and unloading of material and finished workpieces are performed at the machine front to minimize the distance that has to be moved by the operator.

Higher speed cutting

- Fiber laser realizes higher speed feedrates
- High-speed acceleration and accuracy functions for small diameter material
- Fast chuck indexing and high-speed feedrate
- Reduced time required for piercing

Higher productivity

- Large capacity bundle loader enables continuous operation over extended periods of time
- Unloader automatically unloads finished workpieces
- Auto-profiler calibration, nozzle cleaning, and other automatic functions



Automatic unloading of finished workpieces

Unloaded parts can be unloaded on belt conveyor (option) with sorting functions for higher productivity

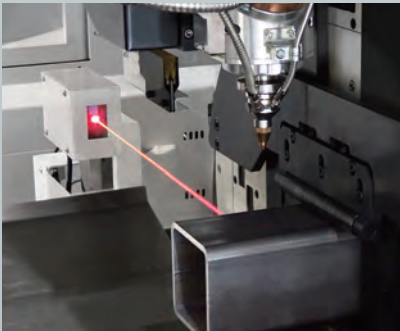
Large capacity bundle loader for material

The bundle stocker / lifter ensures only one piece of pipe material is loaded at a time - other material shapes are loaded manually.

High accuracy cutting

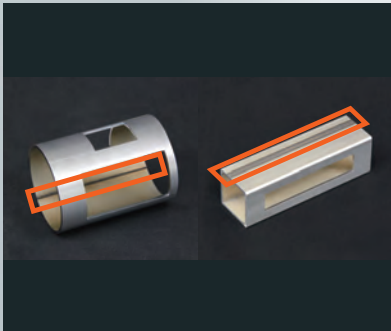


The support units prevent long material from sagging from their own weight to ensure high speed cutting with high accuracy.



OPTION

Measures the OD of pipe material and automatically compensates for material distortion to ensure high precision positioning.



OPTION

The weld seam of pipe material can be detected on the machine to determine the required radial position for cutting.

High quality cutting



The laser head B-axis provides the ability to perform high accuracy bevel cutting.



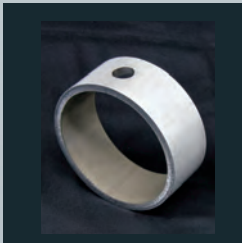
OPTION

In addition to tapping holes, the optional rotary-tool spindle unit can also perform thermal drilling.



OPTION

The internal spatter guard prevents spatter from adhering and laser burning to the internal workpiece surface.



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The internal spatter guard prevents spatter from adhering and laser burning to the internal workpiece surface.

Designed for safe operation

Fully enclosed cover

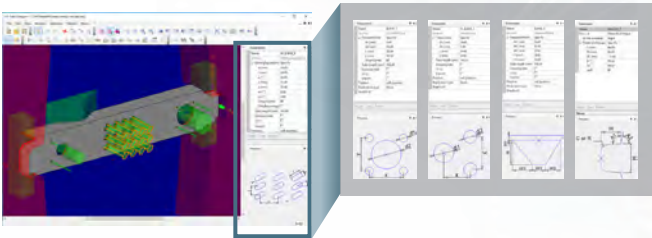
The enclosed cover, which covers not only the entire cutting area but also the internal loading / unloading area, protects operators from the laser beam. The enclosed cover can be automatically opened and closed for chuck jaw adjustment, maintenance and cleaning.



CAD/CAM, CNC program

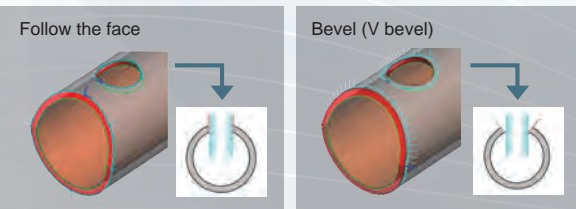
Pattern input

The parametric pattern menu is prepared for easier model generation.



High versatility

NC programs for cutting holes can be made with the wall surfaces parallel or beveled.



Convenient input of production schedule

Scheduling

Production schedule can be created by utilizing nesting programs generated by Mazak software.

Program made by FX TUBE CAM

Scheduling

SCHEDULE_LIST - FOREGROUND -														Setting Value of WorkCheck : "0" -> NOT FIN. "1" -> FIN			
No.	Work Check	File Name	Material	Thick. (mm)	Shape	Length (mm)	Load	Qty	Fin	Total Parts	Parts	CutTime/Pipe					
1	NOT FIN	H300x300.nc	STEEL	15	300x300x10x15	8000	AUTO	1	0	1	0	6M35S					
2	NOT FIN	L100x50.nc	STEEL	6	L100x50x6	5500	AUTO	1	0	10	0	6M35S					
3																	

Continuous operation by schedule

QR code reader (option) OPTION

The FX TUBE software can print out a QR code* that contains a cutting program name. When this QR code is scanned at the CNC, the program will be automatically called up from the CNC memory and by pressing the cycle start button, cutting will start. This function can reduce the time spent searching for cutting programs as well as preventing operator error.

(*QR code is a registered trademark of DENSO WAVE INCORPORATED.)

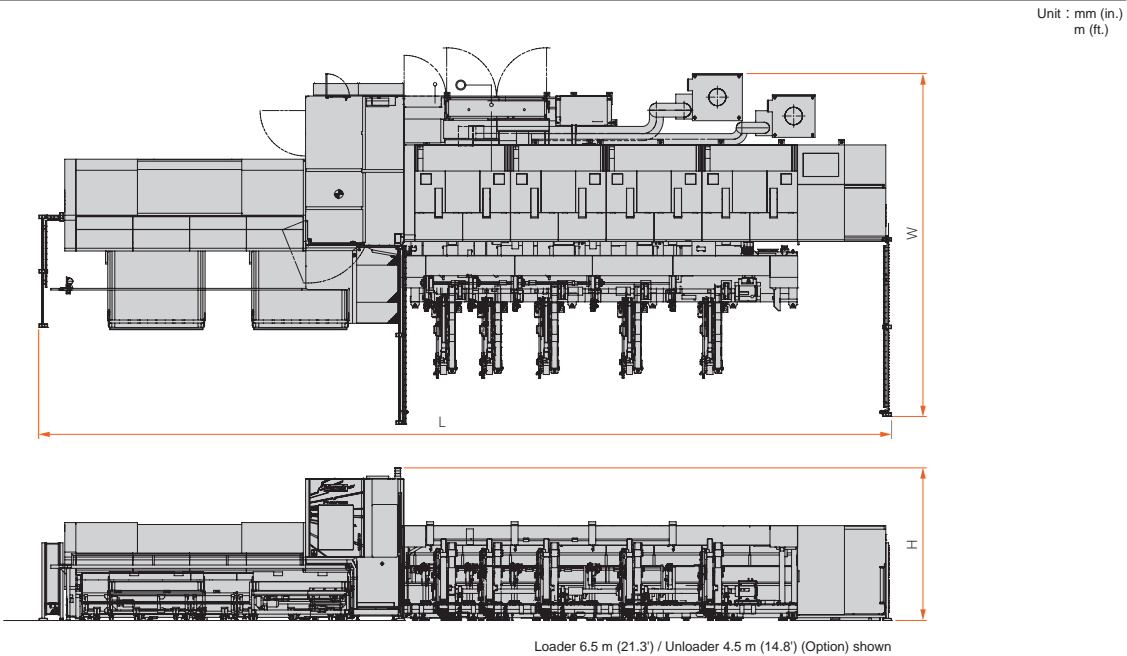


Machine specifications

Unit : mm (in.) m (ft.)				
		FT-150 FIBER		
Model		6.5 m / 3 m (21.3' / 9.8')	6.5 m / 4.5 m (21.3' / 14.8')Option	8 m / 3 m (26.2' / 9.8') Option
Workpiece shape*1		round, square, rectangle pipe		
Workpiece material		mild steel, stainless, copper, brass, aluminum		
Workpiece diameter	round pipe	Φ20 mm ~ Φ152.4 mm (Φ 0.79" ~ Φ 6.0")		
	square pipe	20 mm × 20 mm ~ 125 mm × 125 mm (0.79" × 0.79" ~ 4.92" × 4.92")		
Max. material length for loading		6500 mm (255.91")	6500 mm (255.91")	8000 mm (314.96")
Min. material length for loading		2500 mm, 1500 mm (98.43" , 59.06") Option		
Max. material length for unloading		3000 mm (118.11")	4500 mm (177.17")	3000 mm (118.11")
Max. workpiece weight		25 kg/m (55 lbs/39.37")		
Max. total weight capacity of bundle loader		4000 kg (8818 lbs)		
Machine weight		23000 kg (50705 lbs)	24000 kg (52910 lbs)	25000 kg (55115 lbs)
Resonator		3.0 kW		
Electrical Power consumption*2	Max. electrical power consumption	43 kW/h		
	Consumption at stand-by	18 kW/h		
Sound*3		Less than 80 dB (A)		

*1 Other material shapes are loaded manually.
*2 Power consumption is reference value. Dust collector not included (option).
*3 Equivalent continuous sound pressure level at operator position (dependent on equipment options)

Floor spare



FT-150 FIBER				
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Length	L	14400 (566.93")	15600 (614.17")	17300 (681.10")
	W	6000 (236.22")		
	H	2800 (110.24")		

*Standard specifications may vary by market.

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