

Specifications of machine

		3D FABRI GEAR 220 II		3D FABRI GEAR 400 II	
Material	Shape	Round, square and other pipe shapes. Structural material such as H, I and L beams			
	Material	Mild steel / Stainless steel			
Material length range* ¹		3450 ~ 8000 mm (136" ~ 315")			
Max. material diameter* ²		Round pipe $\varnothing 20 \sim 220$ mm (0.8" ~ 8.6")		Round pipe $\varnothing 20 \sim 406.4$ mm (0.8" ~ 16")	
		Square pipe $\square 20 \sim 152.4$ mm ($\square 0.8" \sim 6"$)		Square pipe $\square 20 \sim 300$ mm ($\square 0.8" \sim 11.8"$)	
Max. workpiece weight / piece		330 kg (727 lbs)		480 kg (1058 lbs)	
Height of chuck center		950 mm (37.41")		1100 mm (43.31")	
Stroke	X Chuck left / right	8955 mm (352.6")		8750 mm (344.49")	
	U Chuck left / right	8779 mm (345.6")		9300 mm (366.14")	
	V Chuck left / right	2315 mm (91.14")		2515 mm (99.02")	
	Y Head back / forth	985 mm (38.78")		1270 mm (50.0")	
	Z Head up / down	370 mm (14.57")		370 mm (14.57")	
	A Head rotation	$\pm 99999.999^\circ$		$\pm 99999.999^\circ$	
	B Head swing	$\pm 135^\circ$		$\pm 135^\circ$	
	Max. traverse rate	X, U, V	100 m / min (3937 IPM)		30 m / min (1181 IPM)
Y		36 m / min (1417 IPM)		24 m / min (945 IPM)	
Z		30 m / min (1181 IPM)		24 m / min (945 IPM)	
A, B		9600° / min		9600° / min	
C		20000° / min		6000° / min	
Machine weight		26700 kg (58862 lbs) (2.5 kW)	27000 kg (59523 lbs) (4.0 kW)	36200 kg (79806 lbs) (2.5 kW)	36500 kg (80467 lbs) (4.0 kW)
	Electrical requirement* ³	62 kVA (2.5 kW)	81 kVA (4.0 kW)	64 kVA (2.5 kW)	83 kVA (4.0 kW)
Sound	Equivalent continuous sound pressure level at operator position (dependent on equipment options)	Less than 80 dB			

*1 Standard max. workpiece length is 8 m (315"). Other workpiece lengths - 6 m (236"), 12 m (472"), 15 m (590"), available on request

*2 Depending on material diameter, jaws are to be changed.

*3 Base machine

Specifications of loaders / unloaders

Specifications of conveyors

		3D FABRI GEAR 220 II		3D FABRI GEAR 400 II	
Loader units				3	
Unloader units				5	
Max. workpiece length	For loading * ⁴	3450 ~ 8000 mm (135.8"~315")			
	For unloading	700 ~ 8000 mm (27.6"~315")			
Max. quantity of pipe				5	
Transfer stroke		1003.3 mm (39.5")		1828.8 mm (72.0")	
Transfer speed		6.4 m / min (252 IPM)		3 m / min (118 IPM)	

*4 With an additional loader (total of 4), material from 2200 mm (86.6") to 3450 mm (135.8") can be transferred

Specifications of arm

		3D FABRI GEAR 220 II		3D FABRI GEAR 400 II	
Max. transfer material number		1		1	
Max. transfer material weight		330 kg (727 lbs)		480 kg (1058 lbs)	
Strokes (Loading side)	X, Y, Z	685 mm (27.0")		925 mm (36.4")	
	U, V, W	250 mm (9.8")		326 mm (12.8")	
Strokes (Unloading side)	X, Y, Z, A	685 mm (27.0")		925 mm (36.4")	
	U, V, W, B	250 mm (9.8")		326 mm (12.8")	
Rapid traverse (Loading side)	X, Y, Z	60 m / min (2362 IPM)		20 m / min (787 IPM)	
	U, V, W	15 m / min (590 IPM)		15 m / min (590 IPM)	
Rapid traverse (Unloading side)	X, Y, Z, A	60 m / min (2362 IPM)		20 m / min (787 IPM)	
	U, V, W, B	15 m / min (590 IPM)		15 m / min (590 IPM)	

Specifications of laser resonator

Laser resonator output	2.5 kW / 4.0 kW
Laser gas	He , N ₂ , CO ₂
Laser gas consumption* ⁵	10 L / H / 15 L / H

*⁵ When continuous operation

Specifications of CNC

Model	MAZAK FX
CPU	64 bit
Controlled axes	30
Minimum program increment	0.001 mm (0.0001 inch)
Programming method	EIA / ISO
Monitor	15" color LCD

Standard equipment

7.5" non-contact profile torch (M5)
Automatic loading system
Automatic unloading system
Material support function
Safety fence & area sensor
Nozzle pointer
Parts catcher
3rd. assist gas piping (Supply 3.0 MPa)
Auto power off
Assist gas selector (3 types / stepless)
Assist gas pressure NC control
Profiling retry function
Spare nozzle (For 3D Ø1.2 mm [3], Ø1.5 mm [4], Ø2.0 mm [4], Ø3.0 mm [1])
Chiller unit

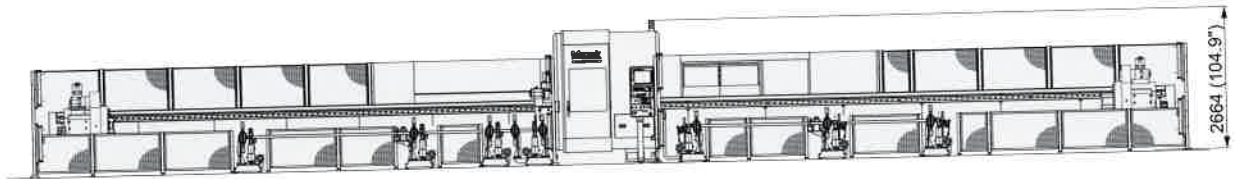
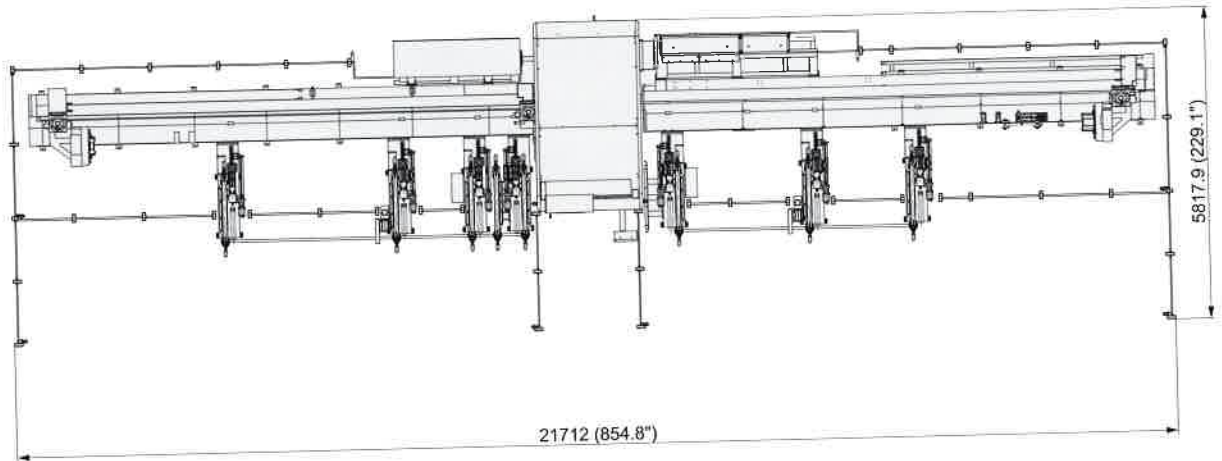
Optional equipment

Touch sensor
Additional loading system (For 2200 mm long material)
Tapping unit (Max. number of taps: 6) (Max. M12)
Auto workpiece length measurement function (L 2200 mm - 8000 mm)
Seam detector
4th high-pressure gas piping (Supply 3.0 MPa)
5" non-contact profile torch (M5) (3D FABRI GEAR 220 II only)
Preparation for dust collector
Dust collector
Short material carrying function

Machine dimensions

3D FABRI GEAR 220 II

Unit : mm (inch)



Note) Dust collector, chiller and transformer not shown