Machine specifications

		OPTIPLEX 3015 FIBER III	OPTIPLEX 4020 FIBER III
Max. workpiece size		1525 mm × 3050 mm (60.04" × 120.08")	2000 mm × 4000 mm (78.74" × 157.48")
Axis travel	X-axis	3110 mm (122.44")	4085 mm (160.83")
	Y-axis	1595 mm (62.80")	2070 mm (81.50")
	Z-axis	110 mm (4.33")	
Rapid traverse rate	X-axis	120 m/min (4724 IPM)	
	Y-axis	120 m/min (4724 IPM)	
	Z-axis	60 m/min (2362 IPM)	
	Vectorial (X & Y)	170 m/min (6693 IPM)	
Positioning accuracy	X-axis	±0.05 mm / 500 mm (±0.002" / 19.69")	
	Y-axis	±0.05 mm / 500 mm (±0.002" / 19.69")	
	Z-axis	±0.01 mm / 100 mm (±0.0004" / 3.94")	
Repeatability	X-axis	±0.03 mm (±0.0012")	
	Y-axis	±0.03 mm (±0.0012")	
	Z-axis	±0.03 mm (±0.0012")	
Machine weight (including chiller, transformer, resonator and 2-pallet changer)	10.0 kW	15620 kg (34436 lbs)	21420 kg (47222 lbs)
Electrical power requirement*1	10.0 kW	81.0 kVA	82.0 kVA
Sound*2		Less than 80 dB	

*1 Total electrical power requirement does not include optional equipment.
*2 Equivalent continuous sound pressure level at operator position (dependent on equipment options)

Specifications of laser resonator

Resonator	10.0 kW
Wave length	1070 nm (Center wave)

CNC standard specifications

CNC	MAZATROL PreviewG
CPU	64 bit
Control method	Preview control
Minimum program increment unit	0.001 mm (0.0001")
Programming method	EIA / ISO
Display	19" color LCD (TFT)

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OPTIPLEX FIBER III 18.09.0 A 99J451018E0

OPTIPLEX FIBER III SERIES

Mazak

OPTIPLEX FIBER III

SERIES

[10.0 kW]

Laser Processing machine with 10.0 kW fiber laser

The Multi-Control Torch and the variety of Intelligent Functions provide incomparable operator support for exceptional ease of operation and the optimum machine efficiency.

Equipped with MAZATROL PreviewG CNC 19” touch panel for increased ease of operation.

OPTIPLEX 3015 FIBER III

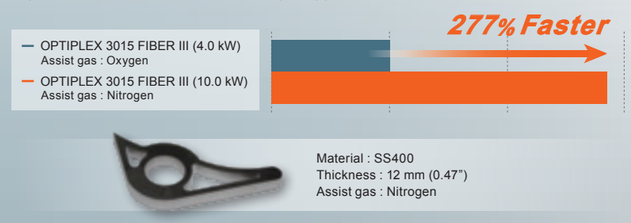
Fiber laser processing machine

OPTIPLEX FIBER III SERIES

Higher productivity thanks to cutting of mild steel mid-thickness worksheets with nitrogen assist gas

The OPTIPLEX FIBER III series is available with fiber lasers from 2.0 kW to 8.0 kW and can cut 12 mm (0.47”) mild steel with oxygen assist gas. The OPTIPLEX FIBER III with 10.0 kW fiber laser can cut 12 mm (0.47”) mild steel with nitrogen assist gas that ensures high speed cutting for higher productivity and higher quality of the cutting surface.

■ Cutting speed comparison of OPTIPLEX 3015 FIBER III (10.0 kW) and OPTIPLEX 3015 FIBER III (4.0 kW)
(Material : SS400 Thickness : 12 mm (0.47"))



Material : SS400
Thickness : 12 mm (0.47”)
Assist gas : Nitrogen

Thick worksheet cutting by high power laser

Material : SUS304
Thickness : 30 mm (1.18”)
Assist gas : Nitrogen

Multi-Control Torch and Intelligent Functions

Optimum cutting with high-speed and high-accuracy can be performed by automatic setup - effective for both thin worksheets and thick plates. A variety of unique technologies has been developed that incorporate the expertise of experienced machine operators that realizes unsurpassed productivity and higher accuracy.

MULTI CONTROL TORCH

INTELLIGENT SET-UP FUNCTIONS

ISF

A wide variety of automation functions is available for ease of operation and reduced setup time.

- Beam Diameter Control
- Focus Detection
- Auto Nozzle Changing
- Auto Focus Positioning
- Auto Profiler Calibration
- Auto Nozzle Cleaning

INTELLIGENT MONITORING FUNCTIONS

IMF

Operation status of laser processing can be monitored. The laser processing head is equipped with a sensor to check piercing and to detect defects (burning or plasma). If any defect is detected, the operation is corrected or paused to realize optimum cutting.

- Pierce Detection
- Burn Detection
- Plasma Detection

INTELLIGENT CUTTING FUNCTIONS

ICF

Automatic functions incorporating Mazak's expertise accumulated over many years that ensure high quality and high efficiency laser cutting.

- Fine Power Ramping
- Flash Cut