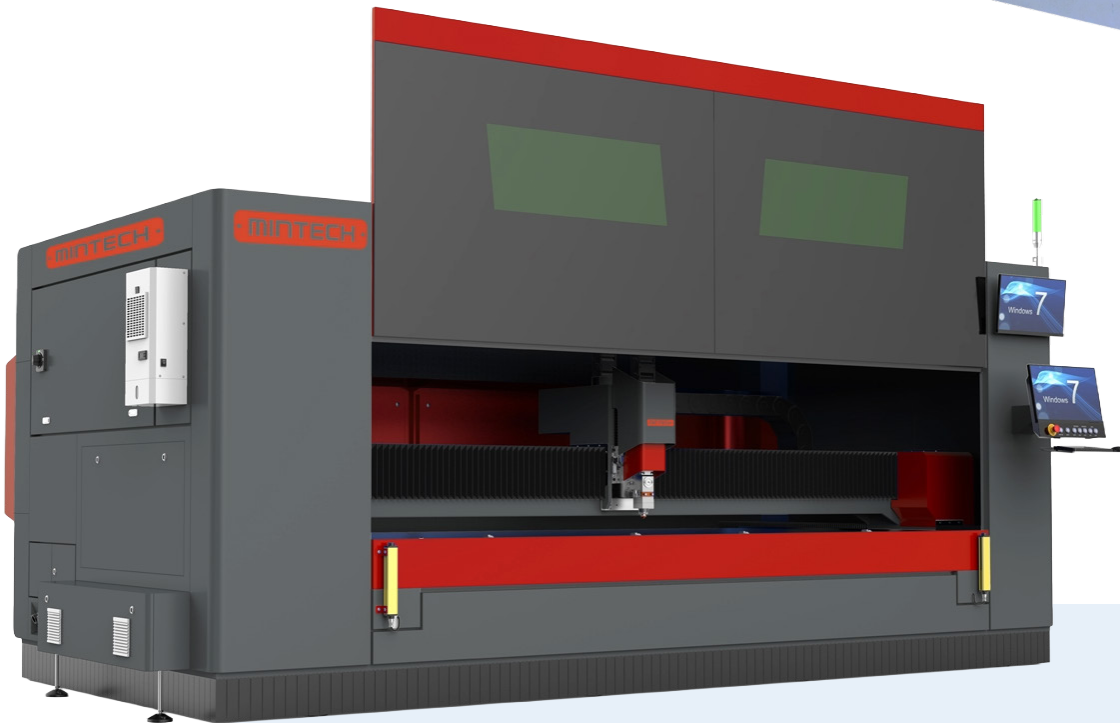


Model MF44



Model MF510



FIBER LASER CUTTER MF SERIES



Product Overview

Mintech's MF Series fiber laser cutting system represents cutting-edge technology in high-precision metal fabrication. Engineered for industrial applications requiring exceptional speed, accuracy, and material versatility. It is a high-performance, space-saving metal cutting solution. Featuring a fully enclosed protective enclosure for operator safety and a retractable work surface for optimal space utilization, the MF Series offers a wide range of laser power options, including 1500W, 2000W, 3000W, and 6000W, suitable for a wide range of metal cutting applications.

Key Features:

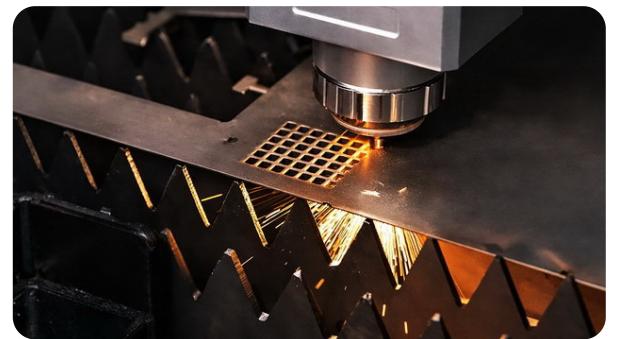
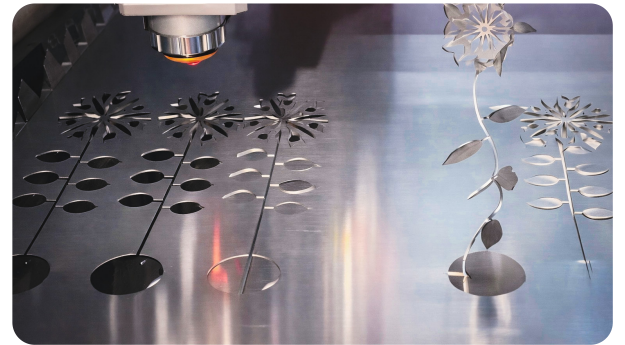
- Fully enclosed protection design – ensures operator safety and effectively reduces laser radiation and dust diffusion.
- Retractable work surface – saves space and improves equipment utilization.
- Flexible laser power configuration – 1500W, 2000W, 3000W, and 6000W are available to meet different processing needs.
- Compact and versatile – available in two standard models:
 - MF44: 51" × 51" (1300 × 1300 mm) working table, compact and efficient.
 - MF510: 60" × 120" (1500 × 3000mm) working table, suitable for large-format cutting.
- Single-phase power supply option – The MF44 (1500W and 2000W) can support single-phase or three-phase power supply to adapt to various power environments.

Applications:

- Sheet Metal Processing
 - Suitable for efficient cutting of metal materials such as carbon steel, stainless steel, aluminum alloy, and copper sheet.
- Machinery Manufacturing
 - Suitable for processing metal structural parts in industries such as construction machinery, agricultural machinery, and textile machinery.
- Hardware Products Processing
 - Suitable for processing hardware accessories, lamps, metal furniture, and other hardware needs.
- Advertising Signage Industry
 - Suitable for cutting metal signs such as stainless steel lettering, hollow carvings, and advertising light boxes.

Applicable Materials

- **Carbon Steel —**
 - Primary cutting material for fabrication, structural parts, brackets, enclosures, and general manufacturing.
- **Stainless Steel —**
 - Ideal for signage, food-grade equipment, architectural components, and corrosion-resistant applications.
- **Galvanized Steel —**
 - Suitable for HVAC, ducting, and coated sheet metal applications.
- **Aluminum —**
 - Supports cutting of aluminum sheet and plate for industrial, automotive, and commercial parts.
- **Brass & Copper —**
 - Light cutting and engraving of non-ferrous metals used in electrical, decorative, and precision components.



Technical Specifications

Model	MF44	MF510
Working area	51" × 51" (1300 × 1300 mm)	60" × 120" (1500 × 3000 mm)
Countertop weight	≤ 616lbs (≤280KG)	≤ 2200lbs (≤1000KG)
Dimensions	109" × 82" × 80" (2778 × 2100 × 2040 mm)	187" × 101" × 82" (4744 × 2554 × 2070 mm)
Weight	4400 lbs	10000 lbs
Power and Utility Requirements	• 220V, 60Hz, three-phase, 150A • MF44 (1500W and 2000W) can support single-phase or three-phase power supply	
Control System	BOCHU FSCUT2000E	
Communication interface	USB, RJ45, u-disk	
Environmental Requirements	• Temperature: 10°C- 30°C (50°F - 86°F) • Humidity: ≤ 70%	
Laser Class	CLASS IV	
Cooling method	Water Cooling	
Air Requirements	• Air: 6 - 10 bar / 0.5 – 3 m³/h (0.3- 2CFM) • O₂: 6 - 12 bar / 3 - 10m³/h (2 - 6CFM) • N₂: 6 - 10 bar / 10 - 20 bar / 5 - 30m³/h (3 - 18CFM)	
Transmission mode	Helical rack & square guide rail	
Focusing method	Automatic	
Optical system	Fiber optic transmission	
Maximum acceleration	1.2G (39ft / s², 12m / s²)	
Maximum speed	336ft / min (120m / min)	
Positioning accuracy	±0.003" / ft (±0.05 mm / m)	
Repeatability	±0.001" (±0.03 mm)	
Laser life	Two-year warranty	
Available Configurations	• 1500W Fiber Laser Power • 2000W Fiber Laser Power • 3000W Fiber Laser Power • 4000W Fiber Laser Power • 6000W Fiber Laser Power • Optional high-resolution CCD camera for precise positioning	
Optional equipment	• Air compressor for optical fiber cutting machine • Fume collection system	

Maximum Cutting Thickness — MF Series:

Material	1500W	2000W	3000W	4000W	6000W
Mild Steel	12 mm (0.47")	16 mm (0.63")	22 mm (0.87")	25 mm (0.98")	25 mm (0.98")
Stainless Steel	6 mm (0.24")	8 mm (0.32")	10 mm (0.40")	12 mm (0.47")	20 mm (0.79")
Aluminum	5 mm (0.20")	6 mm (0.24")	8 mm (0.32")	10 mm (0.40")	16 mm (0.63")
Brass	5 mm (0.20")	6 mm (0.24")	6 mm (0.24")	8 mm (0.32")	12 mm (0.47")