



LASER MACHINES FOR CUTTING, ENGRAVING AND MARKING

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NEONA FIBER
FIBER LASER CUTTING MACHINES

TECHNICAL DATA SHEET



PRESENTED MODELS:

NEONA FIBER 1500
NEONA FIBER 3000

DESCRIPTION:

The laser machines NEONA FIBER are designed for cutting any kind of metal. The pulse modulated laser sources are especially suitable for cutting thin metals (up to 2 – 8 mm) with high precision and minimal thermal distortion of the material.

TECHNICAL DATA:

MODEL	NEONA FIBER 1500	NEONA FIBER 1500
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Base

base	electro welded iron base with polymer concrete	
overall dimensions	1800 x 3330 x h1700 mm	
approximate net weight	2000 kg	
table	aluminum lamelas (W-type) on drawer	
max table load	200 kg	

Mechanical data

working area XY	2000 x 1000 mm	
Z stroke	80 mm	
max sheet size	2200 x ∞	
motion system	Bosch-Rexroth / ball screws, sliding blocks and slideways	
motors	AC servomotors	
feedback	pulsecoder 160000 ppt	
positioning accuracy	+/- 0.02 mm	
repeatability	+/- 0.01 mm	
max rapid feedrate	XY 50 m/min	
max cutting speed	XY: 20 m/min	
max speed Z	12 m/min	
acceleration	0.5g - 1g	
Z control	capacitive sensor with autofocus / programmable 0.4 - 10 mm	
lubricating system	10 000 km per axis tank	

Laser

laser source	IPG Photonics Ytterbium Fiber laser	
emission mode	pulsed / CW	
peak power (pulsed mode)	1500W	3000W
max power (CW mode)	250W	300W
max beam energy	15J	30J
emission wavelength	1070 nm	
focal length	125 mm (optional 100mm, 150mm)	
beam spot size	83 μm (optional 67 μm, 100 μm)	
cooling method	air cooled	
red dot laser power	0.1 - 1.0 mW	
core fiber	50 μm	
optics protection	protective window anti-reflex coating	

Electrical data

power requirement	(380/400 V AC 3Ph/15A) or (220/240 V AC 1Ph/30A)	
max consumption	4.25kW	4.85kW

Gas

gas inlets	3 types - for N ₂ , O ₂ and Compressed Air
max gass pressure	0 - 30 bar
gas choise	manual or programmable
pressure control	manual or programmable
typical gas flow	200 l/min (depends on gas pressure and nozzle choise)
nozzle size	1.5 mm (optional 0.8mm, 1.0mm)
gas requirement	dry, oil-filtered, dust-filtered

Software

computer control	EMC2, Linux based
CAM Software	Sheet CAM
programing accuracy	0.001 mm
PC connection	TCP/IP
operator console	15" touch screen monitor and operator panel

Exhaust

exhaust type	external fan or suction unit (not in the package)
outlet diameter	200 mm
Volume	min 3000 m3/h
scrap storage	two tanks on wheels
built-in filters	N/A

Safety

casing	closed casing with laser protective filters
optical density at 1070 nm	OD6, CE compliant
laser head protection	crash protection (magnetic or mechanical)
laser safety class	class 4 - when open front door
interlocks	upon request

Operation requirements

operating environment temperature	10°C - 35°C
Humidity	10 - 90 %

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