

Speedmaster Laser Cutting Machine



Overview

- Laser cutting works by directing the output of a high-power laser, by computer, at the material to be cut. The material then either melts, burns, vaporizes away, or is blown away by a jet of gas, leaving an edge with a high-quality surface finish.

Source

- We offer two types of lasers used in the Speedmaster. The CO2 laser is suited for cutting, boring, and engraving. The fiber laser is effective in cutting, welding, and folding metals.

Features and Benefits

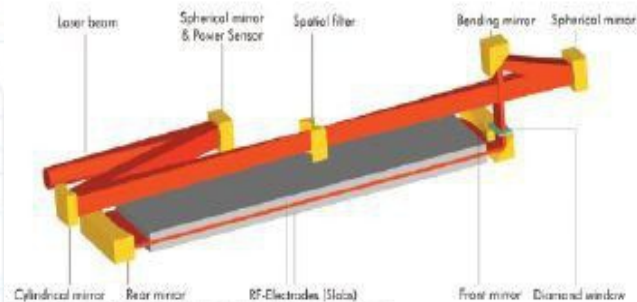
- Compact & Modular Design



- High process efficiency due to optimum beam focusing.



- Two-mirror beam delivery system ensures cutting stability over the entire working length.



source: Rofin Sinar, Prinzip of CO₂ Slab-Laser Technology

- Cutting of various metallic materials such as alloy and structural steels, bronze, titanium.



Speedmaster Features

- Integrated laser beam power control.
- Max. travel speed 150 m/ min (5,850"/min) linear drives.
- Repeated cut on a previously cut contour with zero-return.
- RTX pipe cutting system – can be installed alongside of the machine table. Standard machine version allows cutting pipes having diameter within the range of 20-250 mm (0.75-9.75"). Pipes with 20 -105 mm (0.75-4.1") diameter may have max length of 6 m (234"); pipes with 105 -250 mm (4.1-9.75") diameter have a max. length of 3m (117").
- Hydraulic pallet clamping system.
- Special design laser head Precitec HP 1.5".
- Easier access to the working area for service and maintenance according to European safety standards.
- State-of-the-art lens cooling system.
- No environmental emission of laser radiation due to fully sealed laser head and beam pathway.
- High speed high accuracy 2D contour cutting.
- Partial extraction of fumes and gases.
- High-performance CNC Siemens 840 D
- Low power consumption.
- Easy maintenance.
- Possible integration of welding operations.
- Indexing pallet system: Allows a work-piece of 2000×6000 mm (78×234") to be loaded onto two pallets coupled to each other even when the laser head travel is limited to working area of 2000×3000 mm (78×117"). This feature enables the processing of work-pieces up to 2000×6000 mm (78×234").

Standard Configuration

- CNC Siemens 840 D (RAM 3 Mb, Hard disc 2Gb).
- Resonator ROFIN SINAR DC 020 (200–2000 W).
- Telescopic laser optics.
- Advanced gas delivery system mixing of gases and gas pressure adjustment from 0 to 22 Bar (0-310 psi).
- CNC-based laser head control from integrated operator's control panel.
- Laser cutting head Precitec 1.5" with lenses 5" and 7.5".
- Safety class 1.
- State-of-the-art lens cooling system.
- Slag removal conveyor.
- Torit system DFPRO fume extraction and filtering system.
- Hydraulic pallet changer (load capacity 900 kg (1,900lbs)).
- RTX pipe cutting system.
- Water-cooled laser plant.
- High speed Siemens linear motor drives.

Available Options

- Resonator ROFIN SINAR DC (2500W up to 6000W).
- Network card SIN DNC.
- Air drying filter.
- Remote diagnostics Siemens S7.
- Graphics and 2D laser cutting application software: Lantek (for Windows).
- LPM system: Laser Piercing Monitor with plasma monitoring.
- Sheet material orientation system.
- Function of repeated cutting on a previously cut contour and more.

Specifications

Technical Specifications		SPEEDMASTER
Axis Travel	X	3000 mm (117")
	Y	1500 mm (58")
	Z	100 mm (3.9")
Max. positioning speed		150 m / min (5,850"/min)
Max. feed rate		40 m / min (1,560"/min)
Positioning accuracy		±0.05 per 500 mm (0.002" per 20")
Repeatability		±0.025 mm (0.001")
Positioning accuracy at change of direction		±0.015 mm (0.0006")
Laser		ROFIN SINAR DC 010 CO2 Laser 1.0 kW
Beam power		1.0 kW
Voltage		400 V (±10%), 50 Hz
Grounding		5 hm or less
Air pressure		6 bar (85 psi)

Specifications

Technical Specifications	SPEEDMASTER
Laser power consumption	35 kW
Voltage	380V, 50Hz (460V, 3ph, 60Hz)
Grounding	5 Ohm or less
Air pressure	6 bar (85 psi)
Optics Water Cooling	
Min. pressure	6 bar (85 psi)
Water flow rate lens cooling	12 l / min (3.1 gal/min)
Max. temperature	25°
Total power consumption	50 kW
Weight	16500 kg (36,300 lbs)

Availability

- Our designers are ready and able to design any type of laser (CO2 and Fiber laser) cutting system according to your technical design specifications.

[Click Here to Request a Quote Today!](#)

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For More Information
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