LASER-PLASMA CUTTING

OVERFIBER

FIBERLINE

SOITAAB®
cutting at the highest levels

FIBERLINE

FIBERLINE is a High Accuracy Fiber Laser cutting system for cutting of materials as mild steel, stainless steel, brass and Aluminum.
This powerful and flexible machine can be supplied with an additional carriage for plasma cutting application on higher thickness materials. All the safety requirements has been fully filled in this system by covering the entire cutting area with a safety cabinet with easy access to the cutting table for inspection.
A shuttle table is part of the system for safe loading and unloading of the sheets and to reduce to the minimum the dead time due to material handling.

Innovation and technology.
FIBERLINE complies with the high quality standards of the cutting machines which is the feature of all Soitaab products.
Soitaab is an ISO 9001:2008 certified company.

LONGITUDINAL AND TANSVERSAL MOTION

The longitudinal motion is ensured by means of twin brushless motors with gantry control, and high precision helical tooth rack and pinion coupling.

The transverse motion is ensured by Brushless motor and high precision helical tooth rack and pinion coupling as well.

THE BEAM (PORTAL)

The Portal design beam is made of a welded and rigid Aluminium structure. 2 transverse linear guides for the guiding of the Transverse Master Carriage are then mounted on the beam on the front side and are protected against dust and dross.

THE FRAME

Made from structural square profile beams, in a modular design; Basic module and several extensions to reach the wished cutting length.

The frame is also built to carry:
- The longitudinal cable track chain with the guiding support
- Longitudinal linear guides and the high precision rack allowing a fluid motion.

SAFETY DEVICE

The machine's cutting area is completely closed by a cabinet to avoid any beam reflection risk.
You can access to the cutting table from the front side and from the left side. The left side opening is servo controlled.

MASTER CARRIAGE

The master carriage is made from aluminium alloy, with transversal movement (X axis) by means of rack and pinion and brushless motors. Master carriage can be equipped with both technologies, laser head and plasma torch.

CUTTING TABLE

A built in cutting table is completely stand free (is not connected to the machine's moving structure) and is divided in sectors in order to concentrate the fume extraction only in the area interested by the cutting operation and by means of 2 lateral channelsand dumpers which are automatically opened by the CNC according to the portal position.
The bed then is made of plate support with S shape. The modules are of 800 or 1600 mm. Inside the cutting table are placed scrap containers which allow an easy scrap evacuation by means of lateral extraction.

AUTOMATIC PALLET CHANGER (PALLET SHUTTLE)

To allow an easy loading and unloading, the system has a pallet changer that could be integrated with an automatic handling and storage system to improve the machine's productivity.

CUTTING HEAD HP SSL with electronics Lasermatic® (Precitec)

The HP SSL cutting head is ideal for use in flat bed systems and pipe-cutting machines with fiber-coupled lasers.
Has integrated distance sensor with extremely durable stability and a monitored protective glass cartridge.

Preadjustable cartridges enable ultra-fast replacement when cutting different workpiece thicknesses.

- fast change of protective glass and attendance check of protective glass cartridge
- temperature monitoring of the sensor insert
- Non-contact cartridge detection system is integrated into the cutting head.
- collimator 100 mm
- focal 200 mm or 125 mm
- fiber 50micron
- fiber 100micron

MOTORIZED LENS AVAILABLE

The motorized lens allows the automatic regulation of the focal point position.

With this option you can:

- Cut different materials and thicknesses without pause to manually adjust the focus position
- Faster piercing
- Better marking quality
- Increase the machine productivity (you will avoid also part of the initial setup).

All the system has been designed to allow a maximum gas cutting pressure of 25 bar (useful to have stainless steel dross free pieces).

- Max. Laser Power: 6 kW (with wave lengths of 900 to 1080 nm)
- Electronics: Lasermatic®
- Lens diameter: 30 mm
- Max. free aperture: 26 mm
- Vertical adjustment range: -10 to +5 mm

FIBER DELIVERY SYSTEM

- Interface: QBH / QD
- Diameter: 100 µm
- Type: Step index fiber incl. RSY safety system
- Length: 20 m
- Accessories: Fiber-Fiber-Coupler

GENERAL TECHNICAL DATA AND REQUIREMENTS

- Voltage: 3 x 400 V ±10% o; 50/60 Hz; PE
- Connected load: 8.5 kVA / 11.4 kVA / 14.6 kVA
- Effective power @ nominal power: 7.8 kW / 10.4 kW /13.4 kW

CUSTOMER INTERFACE

- Laser operating elements: Touch screen

LASER SOURCE, ROFIN FL020-FL030-FL040

- Technical Data: (Multi Mode)
- Nominal power: 2000 W / 3000 W / 4000 W
- Power range: 10 - 100 %
- Laser beam quality @ collimator: ≤ 2.5 mm mrad for 100 µm fiber
- Power stability: ± 2%
- Pulse frequency range: CW - 5 kHz
- Wavelength: 1.08 µm ± 10 nm
- Excitation: Laser diodes

WATER COOLER

- Cooling capacity: ≥ 8 kW
- Flow rate: ≥ 6500 l/h (depends on configuration)
- Temperature tolerance range: ± 1°C
- Supply pressure: 6000 - 7000 hPa (6-7 bar)
- Voltage: 3 x 400 V ±10% o; 50/60 Hz; PE
- Effective max power: 8.7 kW

SOITAAB CNC II

- Numerical control: Soitaab
- Operative system: Ownership
- Video: 12,1", 800x600 colour (SVGA)
- Input: 75 Buttons keyboard and Touch Screen
- Disk: Disk on chip (4 M Byte of Flash memory and 512Mb Compact Flash)
- Communication: RS232, Ethernet 10/100 with TCP-IP protocol, USB port, CF port
- Programming: ISO and parametric figures on board Cutting parameters set up by CAM and CNC

Cutting area (mm)	1500 x 3000	2000 x 4000	2000 x 6000
Max Speed	60 (m/min)		
Acceleration	4 m/s2		
Reposition accuracy	i+0,03 mm		

Soitaab reserves the right to modify without any prior notice, the technical characteristics of each of its models.
All data included in the present catalogue are to be considered indicative and not binding.

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