

## Operational convenience for greater productivity and efficiency

The precise cutting system and the practical clamping concept also allow working on sheets as small as 50x300mm, giving a very high degree of material utilization.

The sheet metal is clamped by a freely selectable number (max. up to 4) of pneumatic clamps guided on a ball screw. The whole cutting unit travels and positions via a rack-and-pinion drive in the X-axis.

For the operator it is also an advantage that the maintenance opening for the laser head (for example for changing the nozzle) is arranged on the front, reducing the down time of the machine and increasing productivity. The laser head is moved and positioned quickly and precisely in the Y axis with a drive combination of ball screw spindle and linear guides.

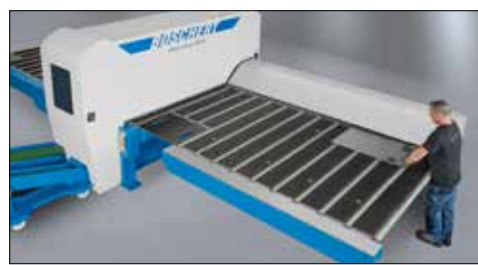


Utilize small remnants



User friendly clamping concept

## Different loading possibilities



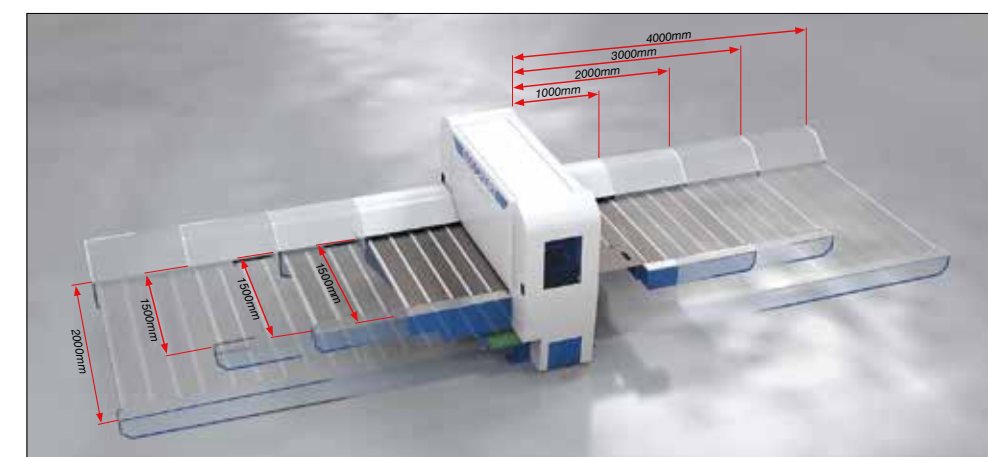
## Laser safety

Complete cover of Laser with safety glass sight window to view the cutting result.



## Variable machine sizes

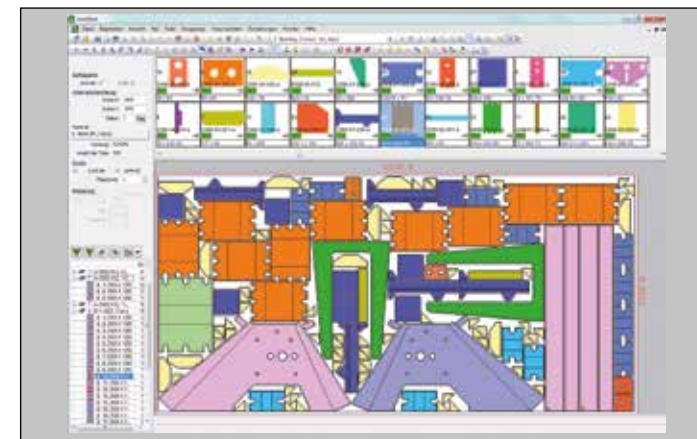
In addition to the standard machine sizes of 3015/4020, **BOSCHERT** offers many smaller travels that conserve floor space.



## Optional Components

### CNC/CAD Software BG-Cut

Our CNC / CAD solution offers a versatile and powerful support for **BOSCHERT** punching and laser machines. We also offer Auto- Nesting program for optimal sheet utilization.



### **BOSCHERT** FiberLaser advantages are:

- Residual sheet processing from a size of 50x300 mm is possible
- Small parts disposal up to a size of 350x1500 mm / 350x2000mm possible during processing.
- Small parts transport with conveyor belt to the operator.
- Perfect accessibility during loading and unloading
- Low space requirement, since no pallet changing is required
- Aspiration of gases and vapors
- Waste disposal of the slag via steel conveyor belt to the operator
- Maintenance opening for the fiber laser on the operator's side



## Part removal options



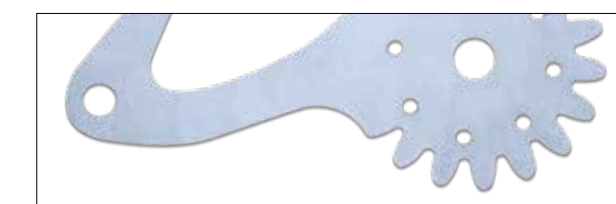
Additional conveyor to unloading point



Double conveyor to unloading point



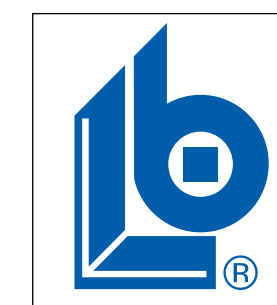
Part removal to the left



# FiberLaser

more than just light

## Laser Cutting Marking



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*simply better!*





FiberLaser 3015

**Fiber laser in a compact design with many practical advantages**

The **BOSCHERT** FiberLaser is available in two sizes, 3015 and 4020 with a working range of 1500x3000 mm or 2000x4000 mm. Selectively these can be equipped with a 1kW, 2kW or a 4kW FiberLaser.

The unique design results in very good accessibility when loading and unloading the machine table. Workpieces up to 350x1500mm (350x2000mm) are reliably discharged over the entire table width.

Our design minimizes the problematic tipping of small, cut workpieces! In addition, waste products are transported via a second conveyor belt into a waste container which is located on the operator side.



Open working area



Nozzle change at Laserhead



Part chute



Standard conveyor for disposal of slag and waste of sheets



Part sorting

**Dust collection for FiberLaser:**

To ensure a safe work environment, it is necessary to have direct extraction of the pollutants in their development area. Full coverage of the dust is possible only at a small distance between the cutting point and extraction point. To that end, **BOSCHERT** has ensured optimal and effective integration of the extraction system on our FiberLaser.



Dust collection for FiberLaser

**Repositioning**

A repositioning up to 10m\* is possible. Side tables on request. \* max. sheet weight 360Kg



Repositioning cylinders open



Repositioning Cylinders closed



Table extension left and right as option

**Quality and separating cuts 1kW, 2kW, 4kW**

In close cooperation with our long term partner, Kjellberg Finsterwalde, we at **BOSCHERT** developed a PunchCombi machine with FiberLaser XFocus. This includes a FiberLaser from IPG and cutting head from Precitec



Cutting head from Precitec

The **BOSCHERT** CNC has a built-in technology database covering the entire range of materials.

**Integrated technology database:**

- selection of the optimum cutting parameters from up to nine different cutting speeds depending on material and thickness
- Integrated pierce and corner system
- Automatic adjustment of the motorized focus system of the laser head and the gas pressures from the database.



Cooling unit for Laser 2kW/4kW



Kjellberg XFocus 1000



Kjellberg XFocus 4000

**Our system Components:**

**FiberLaser**  
Solid-state laser XFocus 1000 / 2000 / 4000

**LC (Laser-Control)**  
Automatic adjustment of parameters according to selection at the **BOSCHERT** control.

**Gas control LGV (Laser-Gas-Supply)**  
Provision of gases according to parameter selection type and pressure

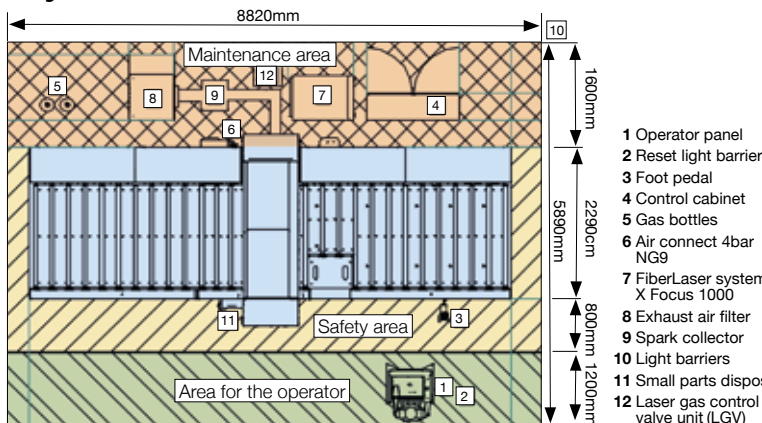
- LPH (Laser Processing Head)**
- Laser cutting head with automatic focus position
  - Display of protection glasses dirtiness at LC menu
  - Cutting and marking with the same consumables
  - Axis with height control unit KHC 4 LAS
  - Integrated cooling system

**Technical data**

<b>Working area</b>	
FiberLaser 3015	3000x1500mm
FiberLaser 4020	4000x2000mm
<b>Laser data</b>	
FaserLaser	Festkörper Laser XFocus
	1000 2000 4000
Max. power	1kW 2kW 4kW
<b>Cutting performance</b>	
Mild steel	max. 10mm 12mm 15mm*
	recommended 0,5-6mm 10mm 12mm
Stainless steel	max. 5mm 8mm 12mm
	recommended 0,3-4mm 6mm 8mm
Aluminium	max. 3mm 6mm 10mm
	recommended 1-3mm 4mm 6mm
<b>Space requirements<sup>1</sup></b>	
FiberLaser 3015 (LxBxH)	8820x5890x2200mm
FiberLaser 4020 (LxBxH)	10820x6390x2200mm
<b>Weight</b>	
FiberLaser 3015	8000 Kg
FiberLaser 4020	9500 Kg
<b>Speed</b>	
Simultan (X und Y)	100m/min
<b>Accuracy</b>	
Positioning difference	+/-0,05mm
Repeatability	+/-0,03mm
<b>Control</b>	
Typ	S-Box III Touch
Display	19" TFT Touchscreen
Data transfer	RJ45 und USB
<b>Part chute</b>	
	350x1500mm 350x2000mm
<b>Max. sheet weight with 4 clamps</b>	
	360 kg
<b>Colour</b>	
Blue	RAL 5017
Light grey	RAL 7035
<b>Electrical power supply</b>	
Faser Laser	7 kVA oder 14 kVA (4kW)
Machine +dust collection	5 kVA
Cooling for 2kW / 4kW	7 kVA / 13 kVA

<sup>1</sup> The exact values can be found in each specific layout plan  
\* The maximum clamp opening is 15mm. Therefore is for 4 kW Laser the clamp opening the maximum not the cutting range.

**Layout FiberLaser 3015 1kW**



- 1 Operator panel
- 2 Reset light barrier
- 3 Foot pedal
- 4 Control cabinet
- 5 Gas bottles
- 6 Air connect 4bar NG9
- 7 FiberLaser system X Focus 1000
- 8 Exhaust air filter
- 9 Spark collector
- 10 Light barriers
- 11 Small parts disposal
- 12 Laser gas control valve unit (LGV)