Retrofit Co² to Fiber Laser

Bystronic - Trumpf

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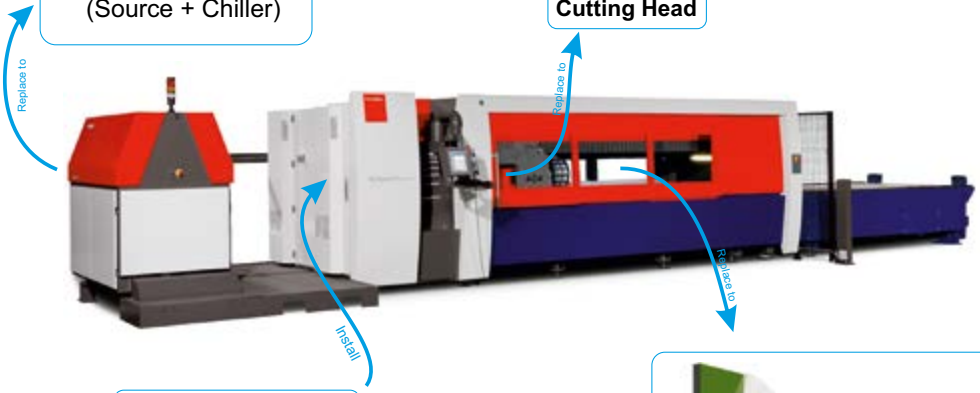
Overview

All in One
(Source + Chiller)

Cutting Head



Interflace controller

Fiber laser safety window

Byspeed 3015

Retrofit from CO2 Laser to Fiber laser - technology

Retrofit on existing CNC "CO2 laser cutting machine"

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Overview

All in One
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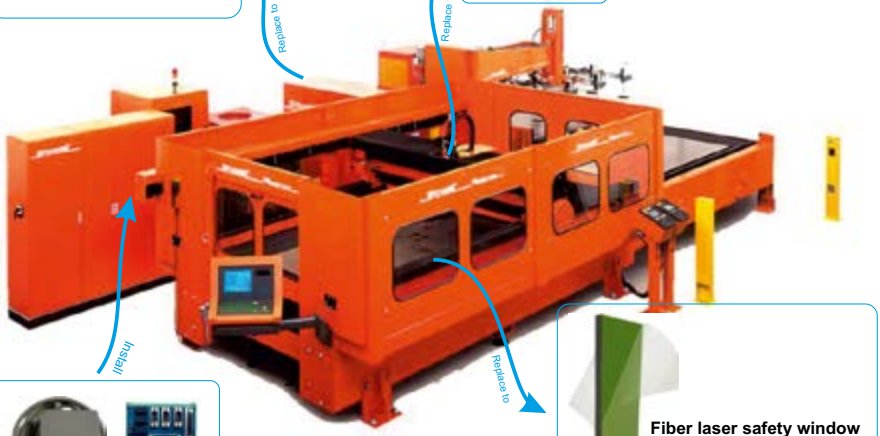
Cutting Head

Replace to

Replace to



Install

Replace to

Interface controller

Fiber laser safety window

Bysprint 3015

Upgrade your old Co² Laser Bystronic to Fiber Laser

Retrofit on existing CNC "CO2 laser cutting machine"

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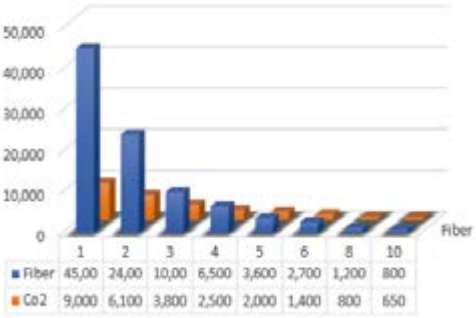
Efficiency is not magic

The CO2 laser has dominated industry in the past. However, this trend could not prevail because fiber laser technology has been on the advance for many years. Your existing machinery is usually still in good condition, but has deficits in its core technology. This is where we start and replace the laser source and the laser head as well as other components and can then use the many advantages of fiber laser technology in the existing system.
By switching to a fiber laser, you can reduce costs on multiple levels at once.

Your advantages

- One cutting head for all thicknesses
- Laser ready at 10 seconds
- No laser gas consumption (Helium)
- **Electricity cost reduction by around 80%**
- 2-step pulse piercing
- Automatic focus
- Without any mirrors
- No laser repair and maintenance costs
- Maintenance costs saved on average around 40,000 euros per year

Cutting Speed(mm/min)



	1	2	3	4	5	6	8	10
Fiber	45,00	24,00	10,00	6,500	3,600	2,700	1,200	800
Co2	9,000	6,100	3,800	2,500	2,000	1,400	800	650

Laser source - but which one?

We advise you comprehensively and competently when choosing the right laser source!

Choosing the right laser source has a lot to do with your product portfolio and less with the statement of maximum performance.

Service & retrofit

Before the conversion, we visit you with our specialists and clarify in detail what options there are and what exactly we are converting on your existing system. Here we deal with all points, laser source, cooler, optical components, processing head, laser security, software, filter technology, and much more.

Can I retrofit my machine?

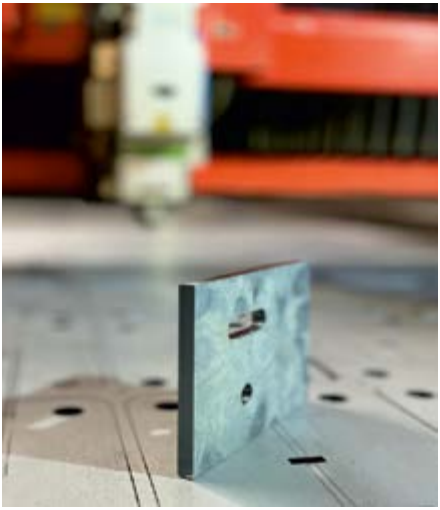
Talk to us, we will check your system!

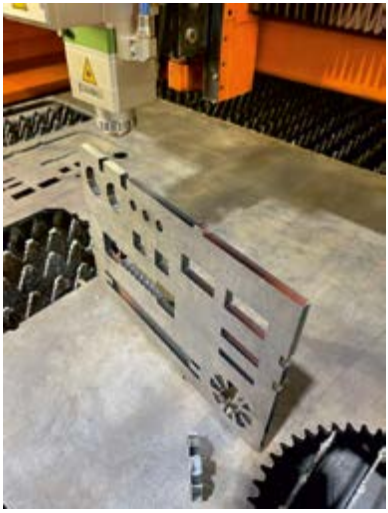
Upgrade

Co2 to Fiber

Our company "Laserkammer GmbH" in Germany did this for the first time in 2018, and after 2 years of research and development, now are doing this for all types of Bystronic CO2 machines around the world…

With our team, we check very carefully in advance whether the retrofit on your machine is possible. In principle, any CO2 laser system can be converted (1.5 to 20) KW.





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Overview

TruLaser 5030

Let us advise you in detail!

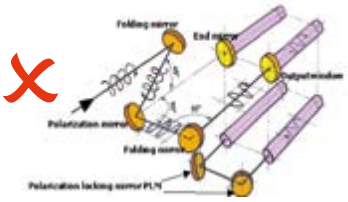
Cutting Speed

The fiber lasers enable High cutting speeds which reduces operating costs.
Fiber lasers are significantly faster than CO2 lasers, particularly when cutting stainless steel.
The obvious benefit of this is that the faster you can cut material, the cheaper the per-item cost of your cut pieces.

Physical size

By removing the Resonator, High voltage and Chiller and turning them into a box, you need less space.

Overall, Fiber laser equipment take up less physical space than their CO2 equivalents.



Maintenance

The mirrors on a CO2 laser easily destroyed and often need replacing. Mirror and lens cleaning, beam realignment and ongoing maintenance are all needed on CO2 lasers.

Whereas in fiber, there is simply a fiber optic cable routing the laser to the cutting surface.
Less maintenance and downtime mean more efficiency and cost savings.

Ongoing cost savings

CO2 lasers utilize helium gas, which is becoming increasingly more expensive.
Upgrading a CO2 to a fiber laser will therefore reduce your energy, and gas consumption.

This will further reduce your per/part costs, and is also more environmentally friendly too.

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But is the replacement of an old CO2 with a fiber laser machine really worth it?

Let's compare the power consumption of both machines.

Let's say a six-kilowatt CO2 machine runs 3600 hours per year at a 65% rate of cutting, while the average power consumption is 65 kilowatts.

By the end of the year, you used 152,100 kilowatt hours.

A new six-kilowatt fiber laser operates with the same amount of time and rate of cutting.

Now, here's the Clue.

The average power consul motion of a fiber laser equals 22 kilowatts, which results in a 51,480-kilowatt hour power consumption per year.

More than 100.000 kilowatt hours saved in just one year!

In fact, due to its higher productivity, one laser system replaces the equivalent of two CO2 lasers at once.

Start to save money by switching to fiber laser.

For a more energy efficient future.

Laser Retrofit - Funding

Up to 40% funding is possible in some countries on the conversion costs to fiber lasers.

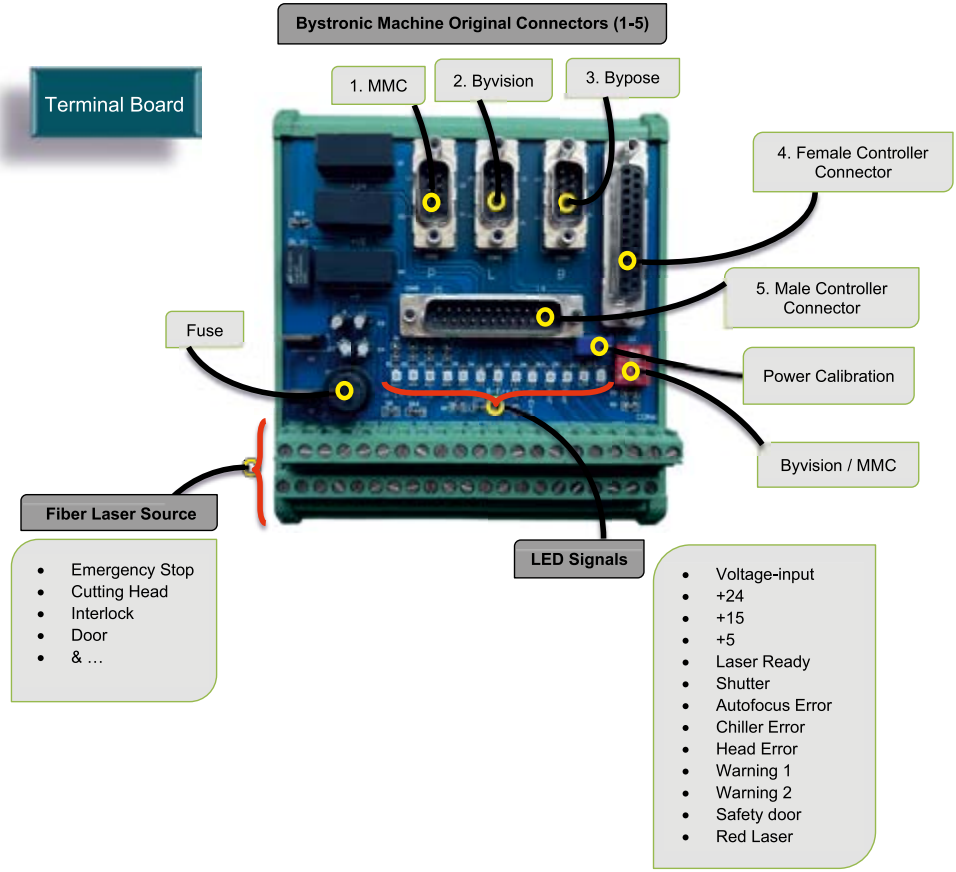
Decide and benefit from a substantial amount of funding!

State funding:
With the decision to retrofit your existing CO2 laser system to efficient fiber laser technology, you can also benefit from a subsidy from the state subsidies. By saving energy due to the high efficiency, you also save a large amount of CO2 and thus contribute to active environmental and climate protection.

Reducing CO2 emissions is one of the most urgent factors when it comes to reducing greenhouse gas emissions. Also - we need to keep our businesses running more energy efficient. In times of energy crisis, we should get rid of energy guzzlers like old CO2 lasers and exchange them with new machines.

WHY CHOOSE US?

- Using modern technology of Germany
- Wiring drawing for installation
- CNC software upgrading to latest version
- Can be installed on MMC and Byvision CNC Software
- Laser Ready Command message on CNC software.
- Interlock Command
- Automatic focus
- 2-step pulse piercing (Change focus at each step of piercing and cutting)
- Laser, chiller and cutting head error messages on the machine's original software
- Command to turn on and off the automatic laser source through the machine software (such as Biovision)
- The red light turns off when the door is opened to Centering nozzle
- One year Warranty



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