EN

Laser HYbrid TEchnology

COMAU

Cutting,
Brazing,
Welding.

Be ready for the
laser revolution.

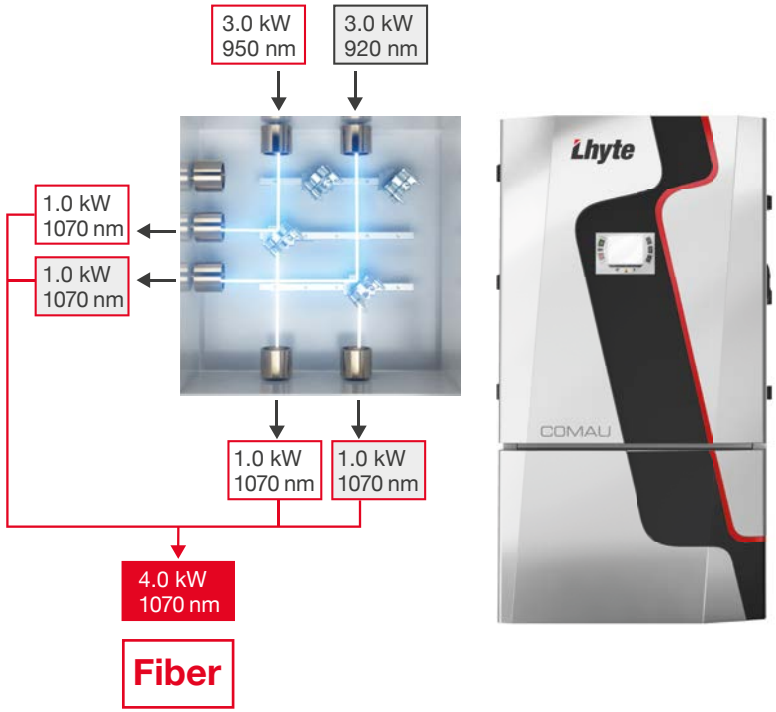
The Culture of Automation

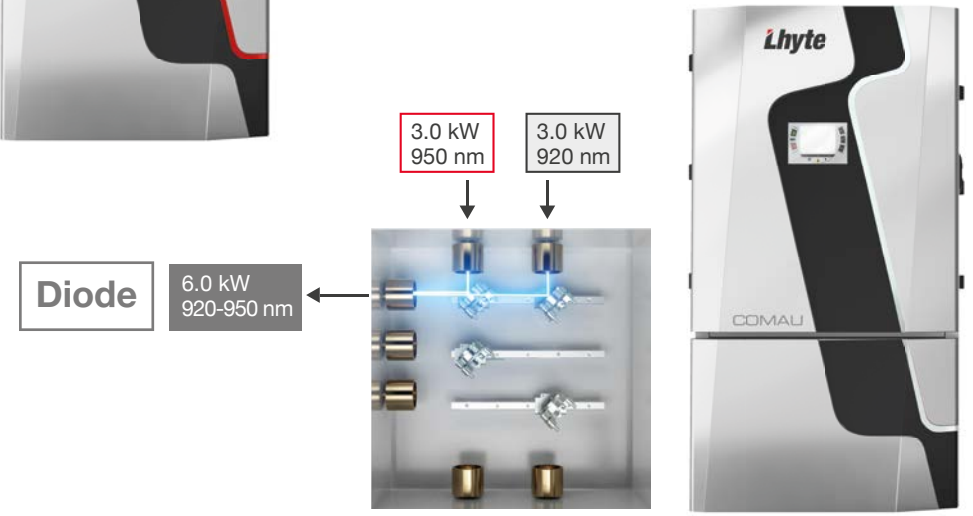
Designing advanced automation solutions means thinking about the industry in a new way, developing new scenarios, designing innovative products and creating ways to streamline production processes.
It requires more than technical competence; it requires a team of professionals whose vision is rooted in a culture of excellence. It also requires a combination of talent, passion and experience that unite to define new trends in automation.

Here at Comau, our passion for our work reflects who we are.

An absolute new concept on the market

Comau presents LHYTE, Laser HYbrid TEchnology, the innovative multi-function laser source conceived to enhance flexibility and to reduce Total Cost of Ownership.





Hybrid

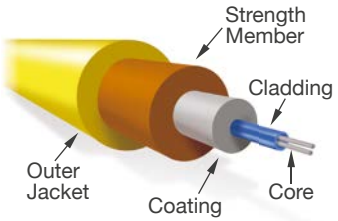
Discover the authentic laser revolution: one power laser source able to operate alternately in two different modes:

- Direct diode lasers (6 kW - BPP 66)
- Fiber laser (4 kW - BPP 4)

Variants and Options:

- ❏ Optical fiber (20 m)
- ❏ Fiber output connectors
  - QD
  - QBH
- ❏ Fieldbus protocol communication:
  - Profibus
  - Profinet
  - EtherNET/IP
  - DeviceNT
- ❏ External chiller (air-water)
- ❏ Beam switch

Optical fiber



QD connector

QBH connector

Technical data

Optical specifications	Hybrid	
	Fiber	Diode
Laser	DL-XX4F	DL-6DXX
Max. output power	4000 W	6000 W
Beam quality	4 mm * mrad	66 mm * mrad
Optical fiber, min.	100 µm, NA 0.22	600 µm, NA 0.22
Power stability	max +/- 2% (over 8h @ Pnom)	
Reaction time	>100 µs CNC >100 ms fieldbus	
Wavelength range	920 nm - 1070 nm	
Pilot laser	635 nm, class II	
Mechanical specifications		
Weight	approx. 900 kg (chiller included)	
Dimensions	960x990x2050 mm (chiller included)	
Connection data		
Voltage	400-480 V, 3 phase, PE, 50 or 60 Hz	
Power connector	CEE 32 A - 6h	
Power consumption	27,6 kW	
Operating conditions		
Temperature	10 - 42 °C operational	
Humidity	95 RH%	

Improved backup strategy and floor space saving

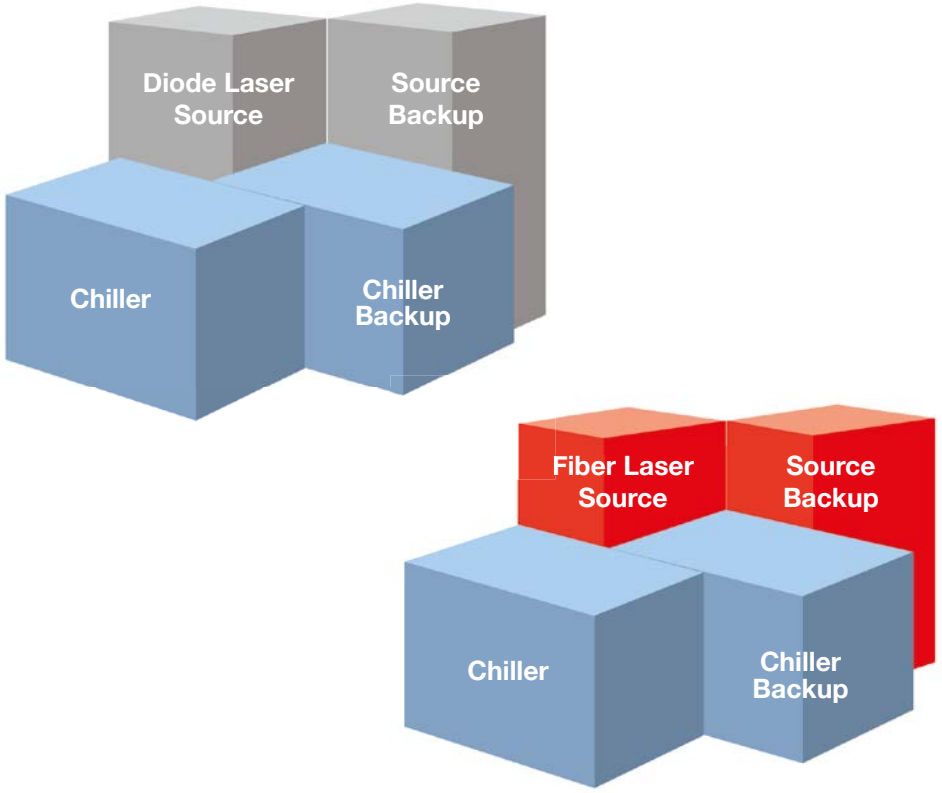
The failure of a laser source and its cooling system is an event that can cause prolonged production losses, and dedicated backup systems are often installed to reduce the MTTR of the production line.

This solution is cumbersome, however, in terms of floor space consumption and hardware redundancy, both of which are doubled when DIODE and FIBER laser sources are present.

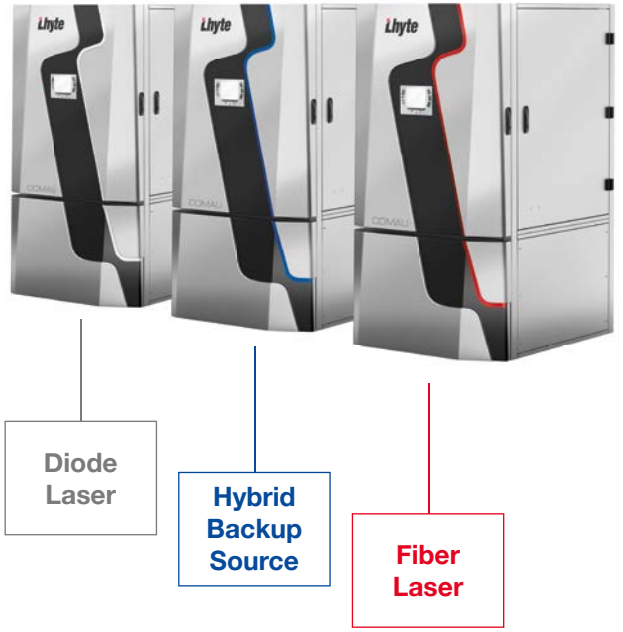
With LHYTE, a single hybrid backup laser source ensures maximum efficiency of the line, thereby increasing the flexibility of the entire solution.

The Comau solution also reduces floor space consumption, improves spare parts management and optimizes the Total Cost of Ownership.

Today solution



Comau solution



- One single backup installed
- No external chiller

Laser source market innovation with unique technology

Features

- Unique product in the market: able to operate **alternately** in two different modes (Direct Diode & Fiber)
- **Modular** design (direct diode - fiber or combined)
- Common hardware for **different applications**
- **Integrated** water-water chiller
- Optical chain architecture: Comau **patented** solution

Benefits

- Every laser application **in one device** (remote welding, cutting, welding, brazing)
- **Simplified** spares management
- Process **effectiveness and flexibility**
- Improved **backup strategy** and **floor space saving**
- One contact for product and process know how

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