



redPOWER cube

Multi kW Laser 12kW - 30kW

Providing exceptional levels of power and control for industrial applications.

CW / Modulated Fiber Laser.



Key benefits and features

Our Fiber Laser range offers a definitive solution for a variety of industrial manufacturing and precision applications, combining excellent beam quality, high efficiency and small footprint.

Full feature list

- Based on combined output from individual modules.
- Output power options of up to 30kW.
- Patented back reflection protection.
- Integrated pierce detection as standard.
- Simple integration into existing equipment.
- Floor standing cabinet.
- Integrated pulse shaping capability.
- High frequency modulation.
- variMODE option for real-time variation of Beam Quality.

Optimised for...

- High throughput industrial Laser processing.
- Ease of integration onto production lines, welding & cutting systems.
- Flexible control of welding operations through integrated temporal pulse shape generator.



Welding
304 Stainless Steel



Cutting
Brass, Stainless Steel,
Copper, Aluminium



Thick Metal Cutting
Mild Steel

Benefits

- Back reflection protection
- Lower energy bills
- High reliability
- Low maintenance

Key features

- Pierce detection signal
- PIPA-D fiber termination with industry standard opto-mechanical compatibility
- Integral patented back reflection protection
- Range of delivery fiber options
- 15kHz Modulation rate
- Integral pulse shaping
- Easy control integration

Applications

- Thick section cutting
- High speed cutting
- Deep penetration welding
- High speed welding
- High deposition rate cladding

Industries

- General fabrication
- Automotive power train
- Heavy industry
- Construction

Model Selection Parameters

Model	12kW	15kW	20kW	25kW	30kW
Performance Data					
Mode Of Operation	CW and Modulated				
Output Power Range	10 -100% of specified power				
Long Term Output Power Stability ⁽¹⁾	± 2% peak				
Wavelength (nm)	1071 ± 2				
Linewidth (nm)	<10				
Polarisation	Un-polarised				
Min. Rise / Fall Time (µs)	<5/ <6				
Max. Modulation Frequency (kHz)	≤15				
Fiber Optic Beam Delivery					
100µm Enhanced	3.3±0.6mm.mrad BPP ⁽²⁾				
100µm	4.5±0.6mm.mrad BPP ⁽²⁾				
150µm	7±1mm.mrad BPP ⁽²⁾				
200µm	9±2mm.mrad BPP ⁽²⁾				
300µm	13±4mm.mrad BPP ⁽²⁾				
Output Fiber Length Options	10m, 15m, 20m, 30m				
Electrical					
Voltage Range	380-480V				
Supply	3 Phase + Neutral				
Max. Current Range (A)	70-90	90-115	125-160	150-190	180-230
Environment / Cooling					
Ambient Temperature (°C)	5-45				
Coolant Flow Rate (litres / min) ⁽³⁾	110	140	170	210	260
Max. Relative Humidity	85% (20°C), 50% (40°C)				
Cabinet Dimensions					
Height (m)	1.3				
Width (m)	1.2	1.4	1.7	2.0	2.3
Depth (m)	1.2				

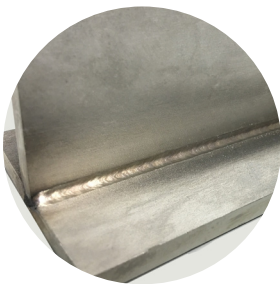
Notes

1. Constant Temperature
2. Beam Parameter Product = beam radius x half angle divergance
3. At 20°C Water Temperature

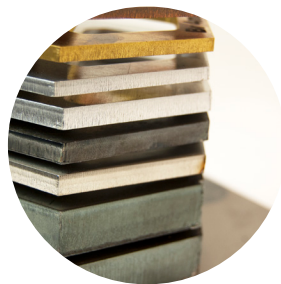
Terms and conditions

Some specific combinations of module specifications and optional accessory may not be available. These Lasers are designed as units for incorporation or integration into other equipment. All module information is believed to be accurate and subject to change without notice. A complete module specification will be issued on request and also at time of order acknowledgement. The user assumes all risks and liability whatsoever in connection with the use of the module or its application.

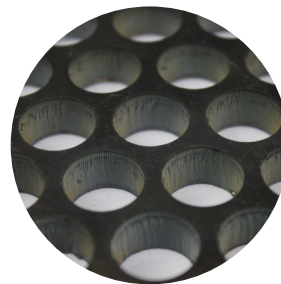
Applications



Welding
Stainless Steel



Cutting
Aluminium, Mild Steel,
Brass, Copper &
Stainless Steel



Cutting
Mild Steel



Cutting
Sheet Steel

