



# redPOWER® QUBE

## Multi kW Laser

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

- Built with single modules of 1.5kW output power.
- Combined output power options of 3kW, 4.5kW & 6kW.
- Patented back reflection protection.
- Integrated pierce detection as standard.
- Simple integration into existing equipment.
- Field replaceable delivery fiber.
- Process monitoring capability via back reflected radiation signal.
- Floor standing cabinet.
- Integrated pulse shaping capability.
- High frequency modulation.

## 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.
- Detachable delivery fiber option for peace of mind in dynamic, robotic applications.



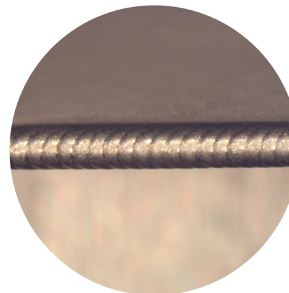
**Welding**

304 Stainless Steel



**Cutting**

Brass, Stainless Steel,  
Copper, Aluminium



**Welding**

Stainless Steel

## Benefits

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

## Key features

- 3kW, 4.5kW or 6kW
- Patented back reflection protection in industry standard QBH compatible fiber connector
- Range of delivery fiber options
- Pierce detection signal
- 50kHz Modulation rate
- Integral pulse shaping
- Easy control integration

## Applications

- High Speed Cutting
- Thick Section Welding
- Cladding
- Flat Sheet Cutting

## Industries

- General fabrication
- Automotive
- White goods manufacture

## Product Selection Parameters

Model	3kW	4.5kW	6kW
<b>Performance Data</b>			
Mode Of Operation	CW and Modulated		
Output Power Range	10 -105% of specified power		
Long Term Output Power Stability <sup>(1)</sup>	± 2% peak		
Wavelength (nm)	1080		
Linewidth (nm)	<10		
Polarisation	Un-polarised		
Min. Rise / Fall Time (µs)	<5 / <6		
Max. Modulation Frequency (kHz)	≤50		
<b>Fiber Optic Beam Delivery</b>			
50 µm Fiber	2.1mm mrad BPP <sup>(2)</sup>	X	X
100µm Fiber	Enhanced, 3.3mm.mrad BPP <sup>(2)</sup>		
100 µm Fiber	4.5mm mrad BPP <sup>(2)</sup>		
Alignment Laser Wavelength (nm)	630 – 680 (Class 2)		
<b>Electrical</b>			
Voltage Range	Standard: 380-415 ± 10%, 3 Phase + Neutral		
	Option 1: 380-480V, 3 Phase + Neutral		
	Option 2: 380-480V, 3 Phase only		
Max. Current (A)	29-32	43-47	58-63
<b>Environment / Cooling</b>			
Ambient Temperature (°C)	5-45		
Coolant Flow Rate (litres / min) <sup>(3)</sup>	42	61	76
Max. Relative Humidity	85% (20°C), 50% (40°C)		
<b>Module Dimensions</b>			
Height (mm)	875	1235	
Width (mm)	793		
Depth (mm)	945		

### Notes

1. Constant Temperature
2. Beam Parameter Product = beam radius x half angle divergence
3. At Maximum 30°C Temperature

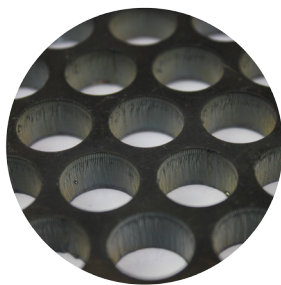
### Terms and conditions

Some specific combinations of product and optional accessory may not be available. These units are Class 4 Lasers designed as components for incorporation or integration into other equipment. All product information is believed to be accurate and subject to change without notice. A complete product 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 product or its application.

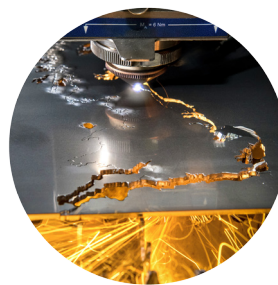
## Applications



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



**Cutting**  
Mild Steel



**Cutting**  
Stainless Steel



**Thick Metal Cutting**  
Mild Steel

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