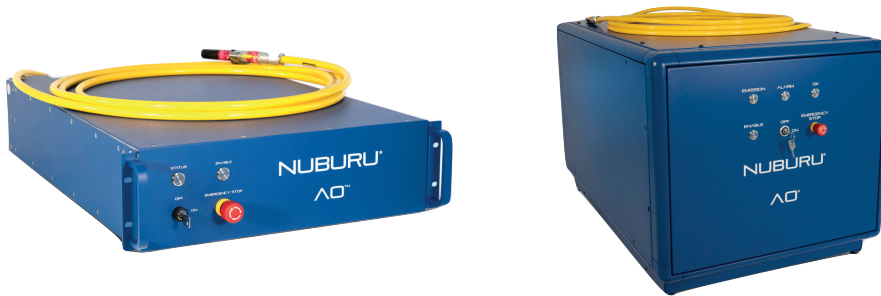


HIGH-POWER, HIGH-BRIGHTNESS BLUE LASERS



Based on NUBURU's patented proprietary technology, our AO® lasers enable defect-free and spatter-free copper welding for a large range of metal processing applications. This technology also delivers improved processing speeds of 2× to more than 20× that of current infrared lasers (1µm). The product portfolio ranges from 200 Watts (AO-200) to 650 Watts (AO-650) and to 1.3kW (combining two AO-650 through a single welding lens).

Features/Benefits

- Blue dramatically improves or enables impossible process windows with IR
- Blue wavelength is superior to green even at equal power
- Enables
 - SPATTER FREE™ welding process
 - Conduction mode weld in yellow metals

Applications

- Welding: Lithium-ion Battery, Electronics Packaging, Consumer Electronics, PV, Automotive Interconnects, Cu–Au–Al–Ni–SS and Others
- Cladding, Brazing, LMD
- Additive Manufacturing
- Solid State Laser Pumping (Ti:Sapphire–Alexandrite...)
- Projection Display



eMobility/Energy Storage



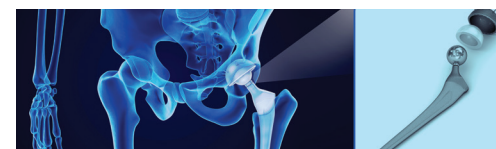
Consumer Electronics



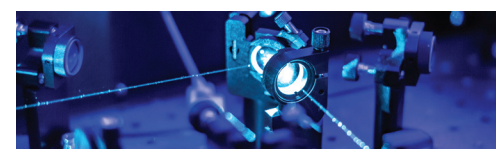
Automotive



Aerospace



Healthcare



Research

AO Product Line

Optical	Units	AO-200 Typical	AO-650 Typical
Wavelength	nm	~450	~450
Bandwidth	nm	~10	~10
Output Power	W	200	650
Power Adjustment	%	0 - 100	Automated Power Control Mode
Power Stability (8 hours)	%	<3% at full power	<3% at full power
Fiber Diameter (Core)	μm	200	400
Fiber Numerical Aperture	NA	0.22	0.22
Beam Product Parameter	mm-mrad	<15	<30
Standard Fiber Length - Connector Type	m	5 - QBH	5 - QBH
Electrical	Units	AO-200 Typical	AO-650 Typical
Operating Current	A	6	<20
Operating Voltage	V	200-240 (50/60Hz single Φ)	200-240 (50/60Hz single Φ)
External Control Inputs			
Laser Enable (High on)	V	+5	+5/+24
CW Analog Control	V	0 - 10	0 - 10
Modulation	kHz	50	0.5
TTL Control (Pulse line)	V	+5	+5
Communications		RS-232	Ethernet
Safety Interlocks			
Interlock Voltage (Laser Enable)	V	24	24
Open Circuit (Laser Shut-down)	V	0	0
Mechanical	Units	AO-200 Typical	AO-650 Typical
Height	mm (inches)	129.5 (5.1)	600 (23.6)
Width	mm (inches)	443 (17.5)	610 (24)
Depth	mm (inches)	640 (25.2)	975 (38.4)
Weight	Kg (Lbs.)	28 (62)	150 (330)
IP Rating		NEMA 12	IP 52/NEMA 12
Operating Conditions	Units	AO-200 Typical	AO-650 Typical
Temperature	Degrees C°	20 - 30	20 - 30
Relative Humidity	%	0 - 90	0 - 90
Storage and Transport ²	Units	AO-200 Typical	AO-650 Typical
Shock (3 axis, 11 ms)	g	± 2	± 2
Vibration, MIL_STD-810 G		T-43A (737)	T-43A (737)
Temperature	Degrees C°	-10 to +60	-10 to +60
Cooling ¹	Units	AO-200 Typical	AO-650 Typical
Heat Load	kW	0.9	4
Min Flow Rate	Lpm/gpm	7.7/2.0	26/6.9
Supply Temperature Range	Degrees C°	22 - 25	22 - 25
Max Pressure Range	Bar / psi	5.5/80	5.5/80

1. Non condensing

2. Unit must be drained and purged with clean dry air prior to storage

* The user assumes all risks and liability whatsoever in connection with use of this product or its application

** Contact NUBURU for all requirements



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NUBURU
The Blue Laser Company™

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