

EDGE CUT1.5

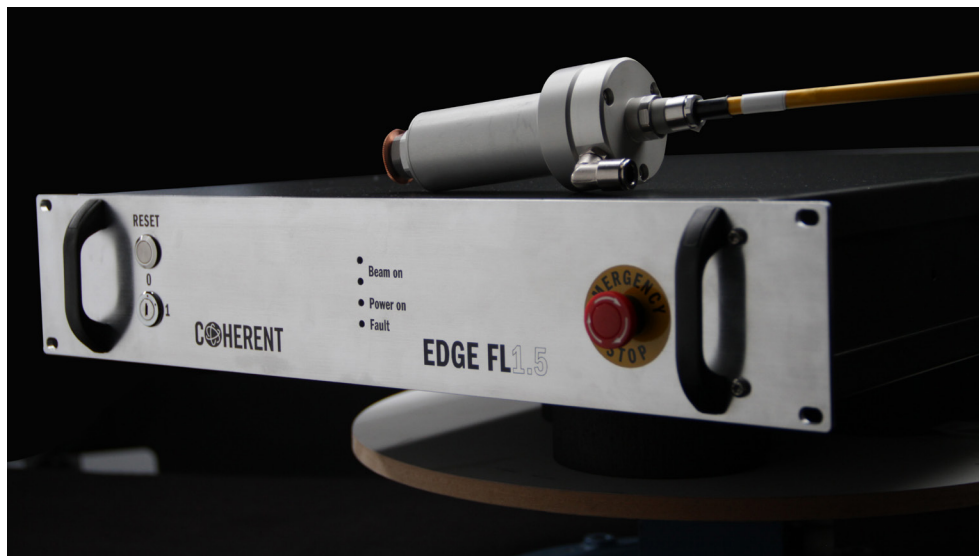
Laser Cutting Made Simple

The EDGE CUT1.5 is a unique integrated laser cutting system combining Coherent's application knowhow with focus on innovation.

The CUT1.5 compact cutting heads enable high-speed fiber laser cutting of thin sheet mild steel in its most economical and simplest form – no laser cutting expert required. Optimal value is provided by leveraging unique Coherent innovations in beam delivery components, optical designs, and manufacturing scale.

Only available in combination with Coherent's EDGE FL 1.5 kW Fiber laser product line, every cutting head is integrated, aligned and tested prior to shipment, simplifying user experience as no fiber connectors—prone to contamination and damage—are required.

A unique optical design addressing back reflection management enables air cooled operation of the entire beam delivery system up to 1.5 kW of laser power, further simplifying the ease of use. Its ultra compact form factor also enables simplified cutting table systems.



FEATURES

- Up to 1.5 kW of laser power
- Air cooled beam delivery system
- Ultra compact & integrated design
- Optimal total cost of ownership

APPLICATIONS

- Thin Sheet Cutting
- White Goods Manufacturing

EDGE CUT1.5

Specifications (Cutting Head)		EDGE CUT1.5
Laser Power (kW)		1.5
Spot Diameter (µm) (at focal point)		105
Cooling and Cutting Gas Handling		
Cooling		No water supply needed
Permissible Cutting Gas Pressure (Bar)		min. 3 Bar, max. 6 Bar
Gas Connector Diameter (mm)		8
Cutting Gas Requirements		Inert (e.g. N ₂) or Active (e.g. O ₂), oil and water- free, filtered, 40 µm max., pressure dew point approx. 5°C
Cutting Nozzle Thread		M11 x 0.75
Fiber Delivery System		
Interface		Integrated, no connector
Length (m)		10 (other lengths upon request)
Minimum Bending Radius (mm)		
Static (non-moving)		100
Dynamic (robotic)		150
Dimensions and Weight		
Dimension (L x max. diameter) (mm)		112 x 58
Weight (g)		<500
Environmental Conditions		
Maximum Acceleration (g)		2 (in X/Y/Z)
Ambient Temperature (°C)		5 → 45
Humidity (%)		35 → 95, non-condensing
Specifications (Laser)		
Nominal Power (kW)		1.5
Beam Quality - BPP (mm x mrad), at end of cutting head		Standard: 1.5, HB variant: 0.5
Operation Mode		CW/Modulated
Power Stability (%)		±1.5
Power Range (%)		5 to 100
Pulse Frequency Range (kHz)		CW – 5 (full depth modulation)
Wavelength (nm)		1070 ±10
Electrical Ratings		
Supply Voltage		230 ±10% VAC, Single Phase
Power Consumption (kW)		<4.5
Cooling		
Medium		Water
Water Cooling Temperature (°C)		20 → 30, non-condensing
Water Flow (l/min.)		>15
Dimensions and Weight		
Dimensions (L x W x H) (mm)		685 x 482.6 x 88
Weight (kg)		42
Environmental Conditions		
Ambient Temperature (°C)		5 → 40
Humidity (%)		35 → 95, non-condensing