

CUT20 CUTTING HEAD

Versatile 2D Cutting Head for Powers up to 20 kW

The CUT20 is a flat-sheet (2D) cutting head designed for fiber lasers from 4 kW to 20 kW (CW). With a maximum NA of 0.15 and 2-4x magnification, it fully harnesses the power of both standard and beam-shaped fiber lasers to deliver the focused spot quality essential for high-speed, high-precision cutting.

It features an adjustable focal plane with autofocus, plus an independently adjustable magnification (zoom) to match varied material process requirements. Built-in EtherCAT communication provides a cost-efficient, streamlined hardware solution, with options for enhanced or backward compatibility—ideal for everything from job shops to highly automated production lines. The mechanical design ensures maximum system compatibility, supporting both flange and quick-exchange connectors.

Building on the proven reliability of the Coherent BIMO series, the CUT20 is easy to service in the field and backed by Coherent's global service and spare parts network. When paired with a Coherent EDGE series fiber laser, the CUT20 delivers an unbeatable combination of performance, economy, and reliability.



FEATURES

- Best in class total cost of ownership
- High degree of serviceability
- IOT ready
- Up to 20 kW of laser power
- All EtherCAT control
- Multi-sensor integrated design

APPLICATIONS

- Thin sheet cutting
- Thick sheet cutting
- All industry segments
- Stand-alone cutting machines
- Connected, automated systems

Specifications ¹		CUT20
Laser Power (kW)		20
Magnification		2; 3; 4
Central Wavelength (nm)		1070 ±15
Numerical Aperture Allowance (NA)		0.15
Focus Position Range (mm)		-60 to 60
Fiber Receiver Type		QF LOE.x compatible QBH QD HLC16 ²
Water Cooling		
Water Flow Rate (l/min)		>1.5
Water Pressure (Mpa)		<0.6
Water Temperature (°C)		+15 to +40 (avoiding due point)
Electronics		
Field BUS		EtherCAT, ProfiNET, Ethernet IP ²
Height Sensing Interface		
Internal		Provides distance signal via EtherCAT
External		Provides distance signal via SMA contact to preamplifier
Environmental		
Storage Temperature (°C)		-20 to +65
Operating Temperature (°C) ¹		+5 to +55
Humidity (%)		<85
IP Certification		IP53
Dimensions and Weight		
Dimension (height) (mm)		385 to 450
Weight (g)		<7000
Environmental Conditions		
Ambient Temperature (°C)		5 → 45
Humidity (%)		35 → 95, non-condensing

Notes:

1. Module performance is not guaranteed beyond the standard operating range (see Section VI). Exceeding the limits below may damage the product permanently.
2. Optional configuration.