

# CUT12 CUTTING HEAD

## Versatile 2D Cutting Head for Powers up to 12 kW

CUT12 is a flat sheet (2D) cutting head for use with fiber lasers in the 4 kW to 12 kW (CW) power range. With a maximum NA of 0.15 and a magnification of 2.0, it can utilize the full power of both standard and beam shaping fiber lasers to yield the focused spot characteristics necessary for high-speed, high-quality cutting. Plus, it features an adjustable focal plane to adjust to process demands.

CUT12 also offers connectivity options, including direct EtherCAT controllability, to facilitate use in settings as diverse as job shop and highly integrated automation lines. Additionally, it is mechanically configured for maximum compatibility and can be used with flange connectors as well as quick exchange connectors.

CUT12 builds on the well-established reliability of Coherent BIMO series cutting heads. It has been designed for easy serviceability and is backed by the global Coherent service and spare parts infrastructure.

When paired with a Coherent EDGE series fiber laser, in particular, CUT12 delivers an unbeatable combination of performance, economy, and reliability.



### FEATURES

- Best in class total cost of ownership
- Full serviceability
- IOT ready
- Up to 12 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

## CUT12 Cutting Head

| Specifications <sup>1</sup>                      | CUT12   |
|--|---|
| Laser Power (kW)                                 | 12  |
| Magnification                                    | 2   |
| Central Wavelength (nm)                          | 1070 ±15  |
| Numerical Aperture Allowance (NA)                | 0.15  |
| Focus Position Range (mm)                        | -40 to 40   |
| Fiber Receiver Type                              | QF   LOE.x compatible   QBH <sup>2</sup>   QD <sup>2</sup>  |
| <b>Water Cooling</b>                             |   |
| Water Flow Rate (l/min)                          | >1.5  |
| Water Pressure (Mpa)                             | <0.6  |
| Water Temperature (°C)                           | +15 to +40 (avoiding due point)                             |
| <b>Electronics</b>                               |   |
| Field BUS  | EtherCAT, ProfiNET <sup>2</sup> , Ethernet IP <sup>2</sup>  |
| Height Sensing Interface<br>Internal<br>External | Provides distance signal<br>Via SMA contact to preamplifier |
| <b>Environmental</b>                             |   |
| Storage Temperature (°C)                         | -10 to +70  |
| Operating Temperature (°C)                       | +5 to +55   |
| Humidity (%)                                     | <85   |
| IP Certification                                 | IP53  |
| <b>Dimensions and Weight</b>                     |   |
| Dimension (height) (mm)                          | 385 to 450  |
| Weight (g)                                       | <7900   |
| <b>Environmental Conditions</b>                  |   |
| 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.