

ExactCut 430

High-Precision Laser Cutting

The ExactCut is a compact laser fine cutting system for processing thin and thick metals and alloys, as well as brittle materials like sapphire, PCD, and ceramics. Built on a high-precision granite motion module and powered by the latest fiber laser technology the ExactCut offers an all-in-one solution including dedicated processes out of one hand - ready to use and easy to operate. It comes with a powerful CAD/CAM operating software for quick setup. The system is easy to integrate into existing product lines. Remote diagnostics, predictive maintenance, worldwide service and training programs ensure maximum system uptime and highly efficient production.



FEATURES & BENEFITS

- Industry 4.0 & IIoT ready
- Powered by reliable fiber laser technology
- Class 1 laser housing meets highest ergonomic standards
- Large working chamber and pneumatic lifting door
- Easy to use and intuitive system software
- Quick set-up due to powerful CAD/CAM software
- Return To Operations (RTO) in shortest time with remote diagnostics

APPLICATIONS

- Cutting of brittle materials
- Cutting of metals, also delicate ones such as titanium and nitinol
- From simple to very complex geometries
- Individual design, prototypes and single-unit productions

TECHNICAL SPECIFICATIONS		ExactCut
Interface	Display and Operation Data Interfaces	17" touch screen + keyboard USB device, RJ45 connection
INSTALLATION		
Dimensions (L x W x H)		1900 x 2200 x 2130 mm (74.8 x 86.6 x 83.9 in.)
Weight (w/o Laser)		1800 kg (3968 lbs.)
Maximum Payload		40 kg (88 lbs.)
ELECTRIC		
Energy (VAC)		400
Frequency (Hz)		50/60
Current (A)		16
POWER CONSUMPTION		
Effective Power (kW)		1.4
Standby (kW)		0.88
PNEUMATIC		
Compressed Air		6 bar
INSTALLATION CONDITIONS		
Laser Protection Class (according to EN60825-1:2015)		Laser Protection Class 1
Description		Precise axis module on a granite base Flexible platform for different laser systems Maximum 5 axis driven system



PRECISION MODULE	
XY-Axis Travel (mm)	500 x 400 mm (19.7 x 15.75 in.)
Drive	Linear motion drive
Maximum Acceleration (g)	1.0
Positioning Accuracy (mm)	±0.002
Repeatability Accuracy (mm)	±0.001
Z-Axis Travel	200 mm (7.875 in.)
Motion System	Spindle axis with servo motor
Positioning Accuracy (mm)	±0.04
Repeatability Accuracy (mm)	±0.01



INTEGRATED LASER SOURCE StarFiber P

- Pulsed fiber laser
- 150 W / 300 W
- High peak power 1.5 kW / 3.0 kW
- High peak power combined with high pulse energy and high beam quality
- Fast and precise cutting
- Also cuts thick, hard and brittle materials like sapphire, PCD, or ceramics



HIGH PRECISION CUTTING HEAD

- The most precise cutting head
- Unmatched stability
- Focal position adjustable even under full pressure
- Easy change of protection glass

OPTIONS



Max. 5 Axis
3 standard axes in X/Y/Z-direction, additionally with A and B axis available



Cutting Box
Cutting box for precision clamping (pneumatically) of flat sheet materials



CCD Camera
CCD camera with integrated crosshair generator for easy positioning



Cutting Head
Travel ± 15 mm
Linear motion system
Control unit

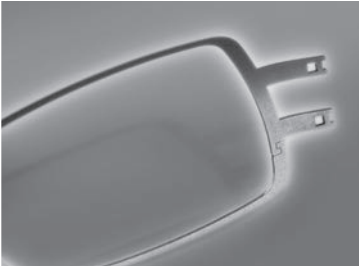
APPLICATIONS



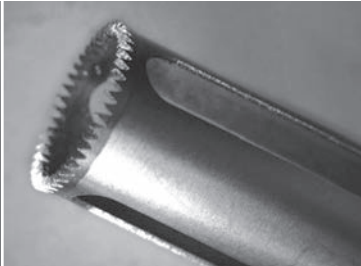
Flat Sheet
From simple to very complex geometries and sizes



Ceramics
Crack, chipping and oxide-free cutting edges on ceramics such as sapphire



Spectacle Frames
Individual design, prototypes and single-unit productions

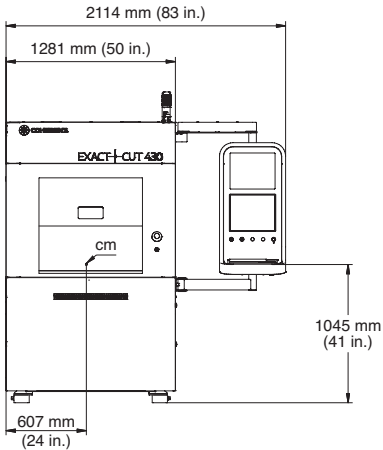


Medical Devices
High cutting and edge precision and little postprocessing. Materials like titanium and nitinol can be processed with perfect results.

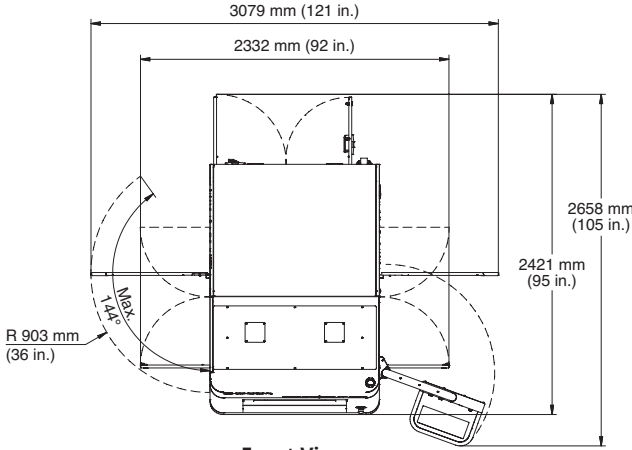
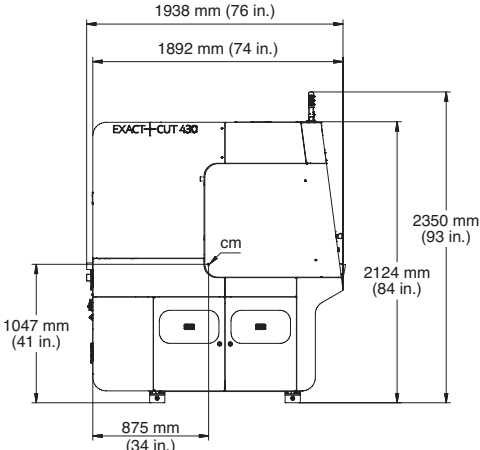
MECHANICAL SPECIFICATIONS

ExactCut 430

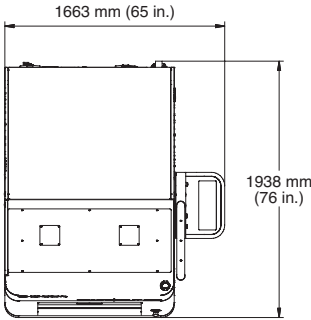
Front View



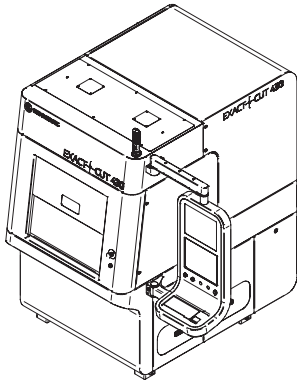
Side View



Front View



Front View for Transport



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Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice. Coherent's scientific and industrial lasers are certified to comply with the Federal Regulations (21 CFR Subchapter J) as administered by the Center for Devices and Radiological Health on all systems ordered for shipment after August 2, 1976.

Coherent offers a limited warranty for all ExactCut 430 Laser Cutting Systems. For full details of this warranty coverage, please refer to the Service section at www.coherent.com or contact your local Sales or Service Representative. MC-016-19-0M0619 Copyright ©2019 Coherent, Inc.