



# StarFiber 400/600

## Fiber Laser for Precision Welding, Cutting, and Drilling

The Coherent StarFiber laser is robust, compact, and satisfies all criteria for optimized industrial laser material processing.

For laser joining, StarFiber allows very small seam geometries at very high welding speeds. The welded joints show maximum strength with minimal heat input to the workpiece.

Laser precision cutting and drilling with StarFiber results in clean cuts with low heat affected zones and high edge qualities.

### FEATURES & BENEFITS

- 400 and 600 W
- High efficiency
- Available with scanner and fixed optics
- Coherent SmartWeld™ technology for optimized welding properties
- Easy to integrate
- Convenient operator control through innovative control unit (RCU)

### APPLICATIONS

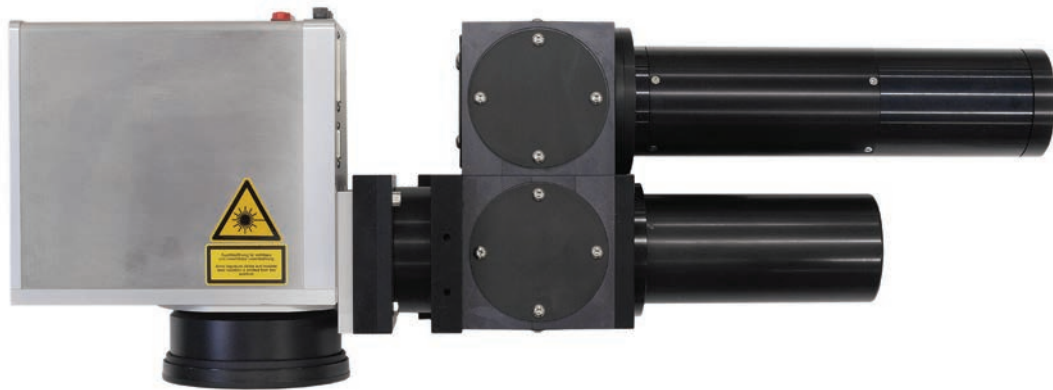
- Precision Welding
- Precision Cutting
- Drilling



SPECIFICATIONS	StarFiber 400	StarFiber 600
Wavelength (nm)	1070	
Output Power (W) (Max.)	400	600
Modulation Frequency (kHz)	0 to 50	0 to 50
Emission Time ( $\mu$ s) (FWHM)	1.0 to CW	1.0 to CW
Beam Diameter (mm) ( $1/e^2$ )	Diverging	Diverging
Beam Divergence (mrad) (full angle)	<150	<140
Beam Quality ( $M^2$ )	<1.1	
Free Fiber Length (m)	4.5	
Fiber Connection	RQB	QBH
ENVIRONMENTAL AND ELECTRICAL OPERATING CONDITIONS		
Supply Voltage (VAC/A)	440 V 1P//N/PE, AC	440 V 3P//N/PE, AC
Line Frequency (Hz)	50/60	
Power Consumption (kW) (Max.)	2.7	3.5
Cooling	Air	
Power Supply Weight	130	250
Power Supply Dimensions (L x W x H)	1149.0 x 575.4 x 1114.0 mm (45.24 x 22.65 x 43.86 in.)	
STANDARDIZED INTERFACES		
Parameter set via 24 V parallel I/O, communication via Ethernet, analog (0 to 10 V)		
Safety shutter according to DIN EN 13849-1		
OPTIONS		
<ul style="list-style-type: none"> <li>- Application packages: <ul style="list-style-type: none"> <li>• Precision welding with scanner or fixed optics</li> <li>• Precision cutting with fixed optics</li> </ul> </li> <li>- Process visualization via camera</li> <li>- Pattern recognition</li> <li>- Remote maintenance</li> </ul>		

AVAILABLE SCANNER AND FIXED OPTICS

Application Package "Precision Welding" (Scanner Optics)



Application Package "Precision Welding" (Fixed Optics)

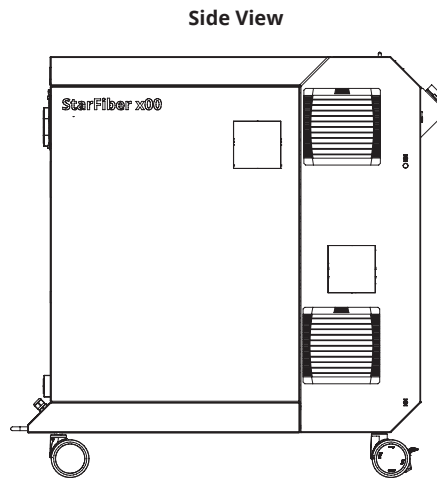
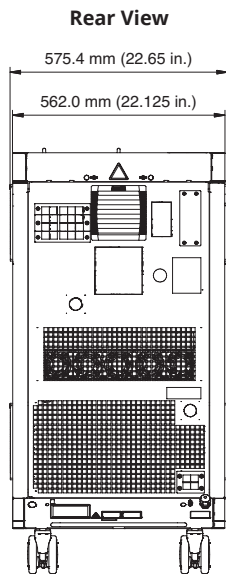
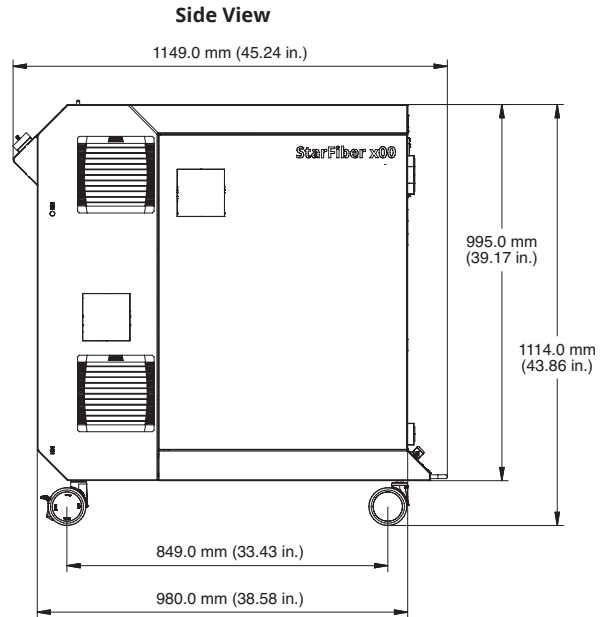
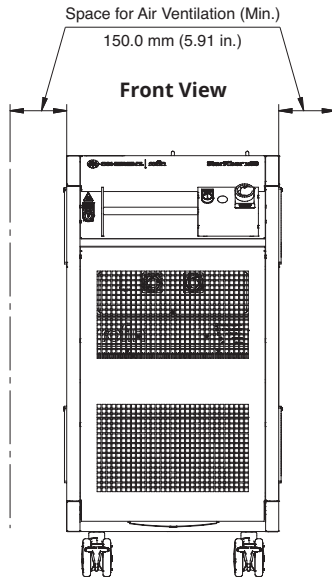


Application Package "Precision Cutting" (Fixed Optics)



## MECHANICAL SPECIFICATIONS

### StarFiber



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Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice.

Coherent offers a limited warranty for all StarFiber 400/600 Lasers. For full details of this warranty coverage, please refer to the Service section at [www.coherent.com](http://www.coherent.com) or contact your local Sales or Service Representative. MC-004-18-0M0522Rev.D Copyright ©2022 Coherent, Inc.

