



# StarFiber 100/200/400/600

## Fiber Laser for Fine 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 fine cutting and drilling with StarFiber results in clean cuts with low heat affected zones and high edge qualities.

### FEATURES & BENEFITS

- 100 to 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

- Fine Welding
- Fine Cutting
- Drilling



SPECIFICATIONS	StarFiber 100	StarFiber 200	StarFiber 400	StarFiber 600
Wavelength (nm)	1070			
Output Power (W) (Max.)	100	200	400	600
Pulse Frequency (kHz)	Single-Shot up to 170	Single-Shot up to 170	Single-Shot up to 50	Single-Shot up to 50
Pulse Width ( $\mu$ s) (FWHM)	0.5 to CW	0.5 to CW	1.0 to CW	1.0 to CW
Beam Diameter (mm) ( $1/e^2$ )	5.0 $\pm$ 0.5	5.0 $\pm$ 0.5	Diverging	Diverging
Beam Divergence (mrad) (full angle)	Collimated	Collimated	<150	<140
Beam Quality ( $M^2$ )	<1.1			
Free Fiber Length (m)	4.5			
Fiber Connection	QCS	QCS	RQB	QBH
ENVIRONMENTAL AND ELECTRICAL OPERATING CONDITIONS				
Supply Voltage (VAC/A)	208 to 240 V 1P//N/PE, AC	208 to 240 V 1P//N/PE, AC	440 V 3P//N/PE, AC	440 V 3P//N/PE, AC
Line Frequency (Hz)	50/60			
Power Consumption (kW) (Max.)	1.5	2.25	2.7	3.5
Cooling	Air			
Power Supply Weight	120	120	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 (0-10 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>• Fine welding with scanner or fixed optics</li> <li>• Fine 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 "Fine Welding" (Scanner Optics)



Application Package "Fine Welding" (Fixed Optics)

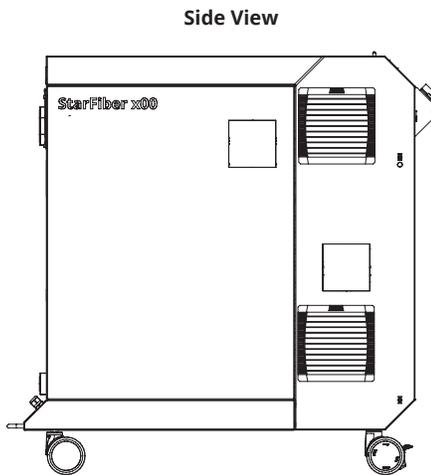
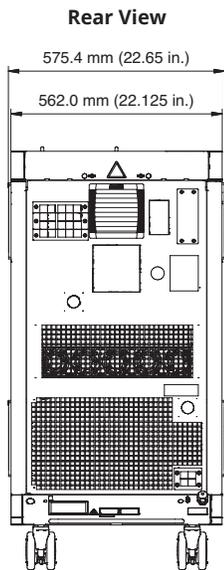
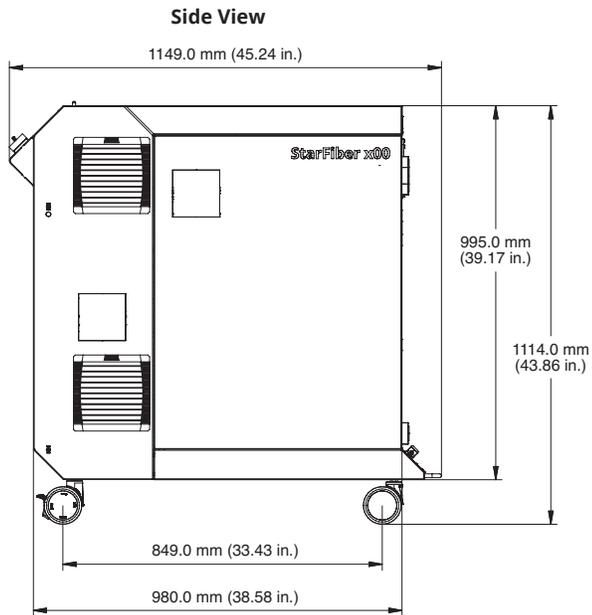
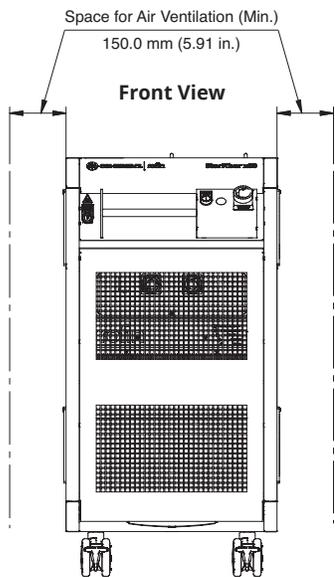


Application Package "Fine Cutting" (Fixed Optics)



## MECHANICAL SPECIFICATIONS

StarFiber



Coherent, Inc.,  
5100 Patrick Henry Drive Santa Clara, CA 95054  
p. (800) 527-3786 | (408) 764-4983  
f. (408) 764-4646

[tech.sales@Coherent.com](mailto:tech.sales@Coherent.com) [www.coherent.com](http://www.coherent.com)

Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice.  
Coherent offers a limited warranty for all StarFiber 100/200/400/600 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-004-18-0M0318Rev.A Copyright ©2019 Coherent, Inc.

