

# ■ IPG Photonics Cutting Head

from the World Leader in Fiber Lasers



Applications



Features



Advantages



[www.ipgphotonics.com](http://www.ipgphotonics.com)

■ The Power to Transform®

# IPGCut-D30 Cutting Head

## IPG Photonics' Process Heads



### Standard Features

IPG's D30 cutting heads are designed to provide the highest laser power handling capability in the industry in a completely sealed and lightweight package. The IPGCut-D30 provides effortless integration with IPG lasers and offers precise monitoring of height even under high power and high pressure cutting conditions. Available in multiple configurations with the broadest focus and collimator lens options, the IPGCut-D30 is the ultimate tool to cut a multitude of different material types and thicknesses.



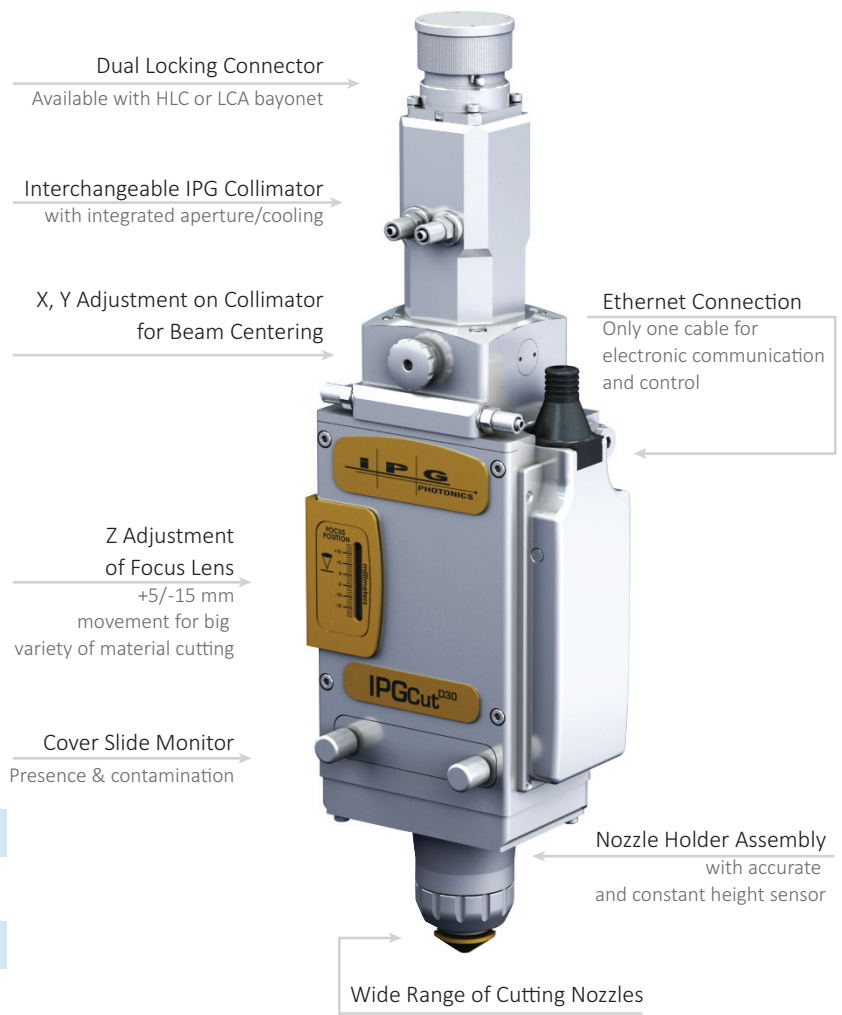
### Specifications

Laser Power Up to 10 kW

Weight (V) <4.7kg

Control Unit IPG CHCE

Z Adjustment on Focus Focus lens movement  
+5/-15 mm



	Configuration	Collimator	Focus	Fiber Receiver	Pierce Sensor
<b>P30-007633</b> Base Part # Motorized Cutting Head	<b>A</b> Vertical	<b>4</b> 100 mm (Water Cooled) * Other options available upon request	<b>A</b> 125 mm	<b>1</b> HLC-8	<b>0</b> No
<b>P30-002788</b> Base Part # Manual Cutting Head			<b>B</b> 200 mm	<b>2</b> LCA	<b>1</b> Yes
			<b>D</b> 150 mm	<b>3</b> HLC-16	

### Example:

#### P30-007633-A4B11:

Vertical Motorized Cutting Head  
100 mm Water Cooled Collimator  
200 mm Focus  
HLC-8 Fiber Receiver  
Pierce Detection Sensor Included

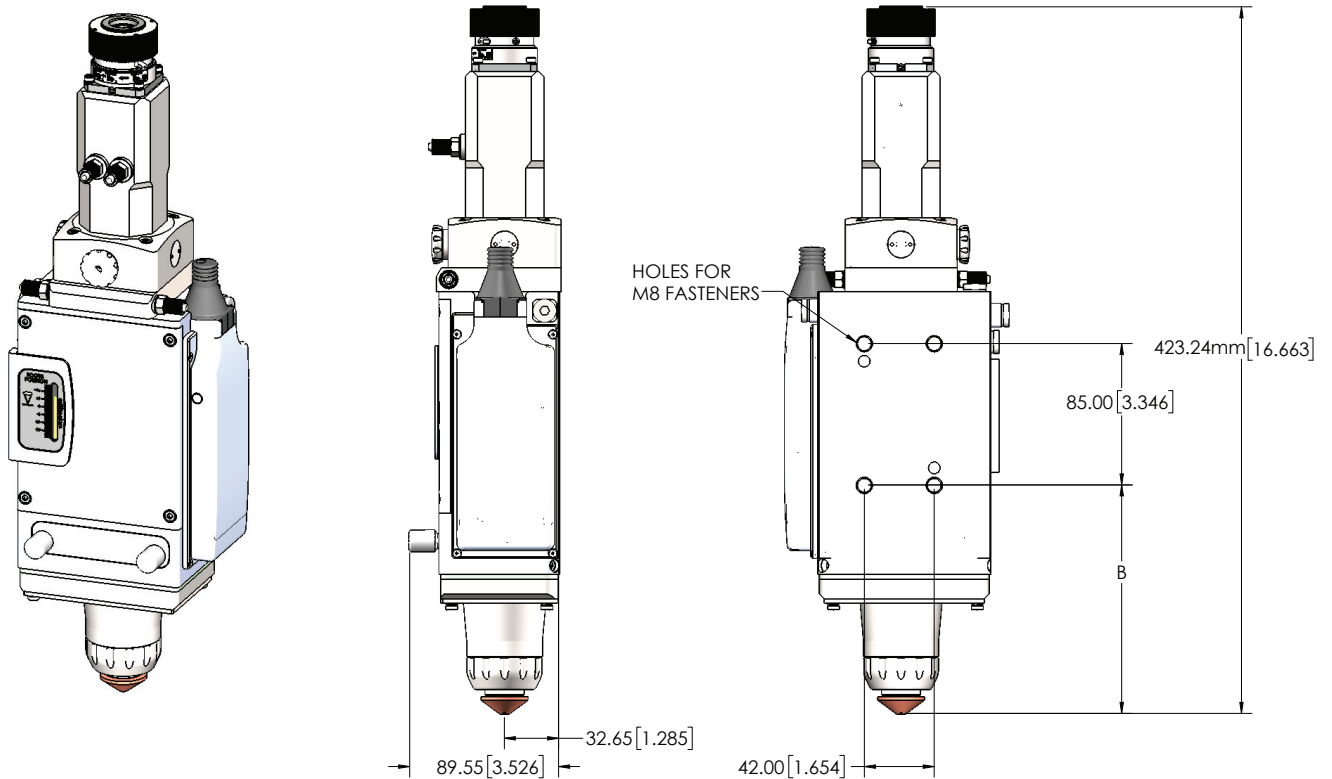


### COMING SOON IPGCut-HP

- The highest power handling in the industry.
- Plug and Play interface with high power IPG lasers



## D30 Configurations



## CUTTING HEAD ACCESSORIES



### Replacement Nozzles

Diameters Available

Wide		Narrow		Dual Gas Passage	
• 0.8 mm	P40-003805-001	• 0.8 mm	P40-007141-004	• 0.8 mm	P40-008038
• 1.0 mm	P40-003805-002	• 1.0 mm	P40-007141-005	• 1.0 mm	P40-008038-001
• 1.2 mm	P40-003805-003	• 1.2 mm	P40-007141-006	• 1.2 mm	P40-008038-002
• 1.5 mm	P40-003805	• 1.5 mm	P40-007141-001	• 1.5 mm	P40-008038-003
• 1.8 mm	P40-003805-004	• 1.8 mm	P40-007141-007	• 1.8 mm	P40-008038-004
• 2.0 mm	P40-003805-005	• 2.0 mm	P40-007141-002	• 2.0 mm	P40-008038-005
• 2.3 mm	P40-003805-006	• 2.3 mm	P40-007141-010	• 2.3 mm	P40-008038-006
• 2.5 mm	P40-003805-007	• 2.5 mm	P40-007141-003	• 2.5 mm	P40-008038-007
• 2.8 mm	P40-003805-008	• 2.8 mm	P40-007141-008	• 3.0 mm	P40-008038-008
• 3.0 mm	P40-003805-009	• 3.0 mm	P40-007141-009	• 5.0 mm	P40-008038-009
• 3.2 mm	P40-003805-010				P40-008038-010
• 3.5 mm	P40-003805-011				P40-008038-011
• 4.0 mm	P40-003805-012				P40-008038-012
• 4.5 mm	P40-003805-013				
• 5.0 mm	P40-003805-014				

### Protective Window

Parts Available

- Full Assembly P30-007654
- Optics P45-012927
- O-Ring P40-009015



Control Electronics (included)



### Nozzle Ceramic Assembly

- Ceramic Assembly P30-007834

# IPGCut - Compact Cutting Head

## IPG Photonics' Process Heads



### Standard Features

IPG's compact cutting heads are the ideal solution for standard flat-bed cutting applications. The combination of IPG's compact cutting heads internal heads optics and its completely sealed architecture provide long term stability of both focal plane and beam quality at lasers up to 4 kW power. IPG's compact cutting heads are plug and play with all IPG lasers providing ease of integration and service. Utilizing all its attributes, IPG compact cutting heads not only provide precise cutting results, but they also maintain its precision cut quality over both time and laser power.



### Specifications

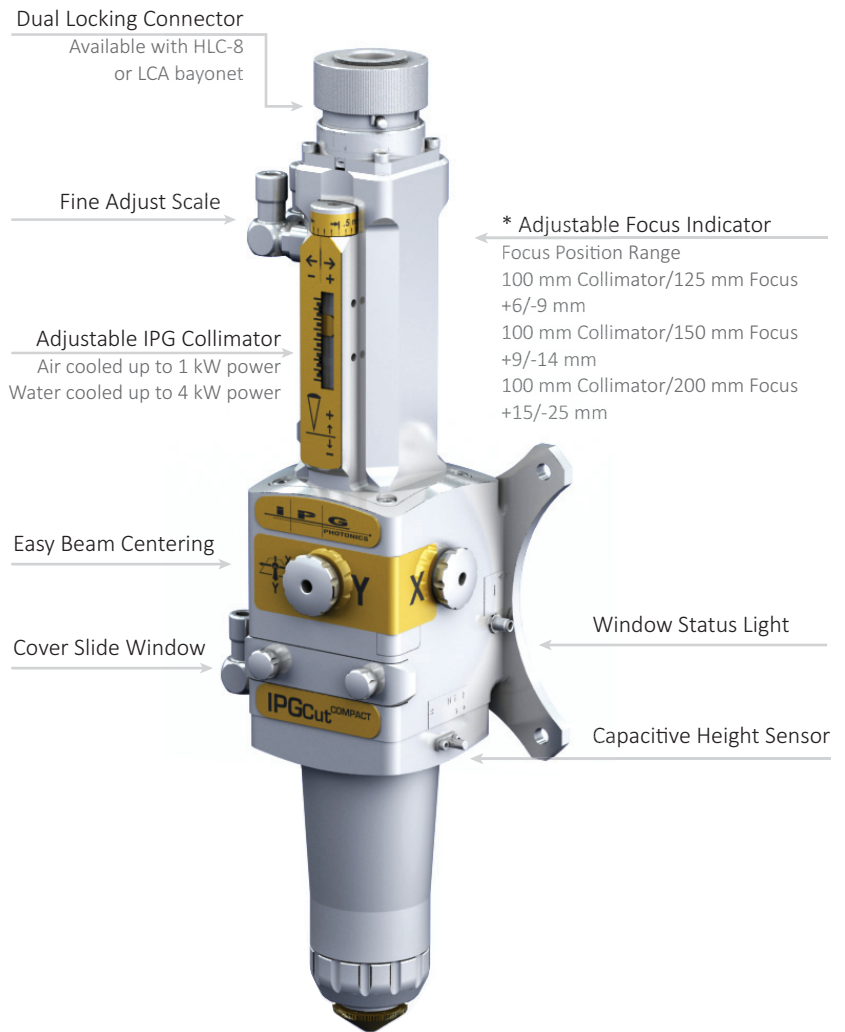
Laser Power Up to 4 kW

Weight (V) <2.5 kg

Control Unit IPG CHCE / External

Z Adjustment on Focus Collimator lens movement

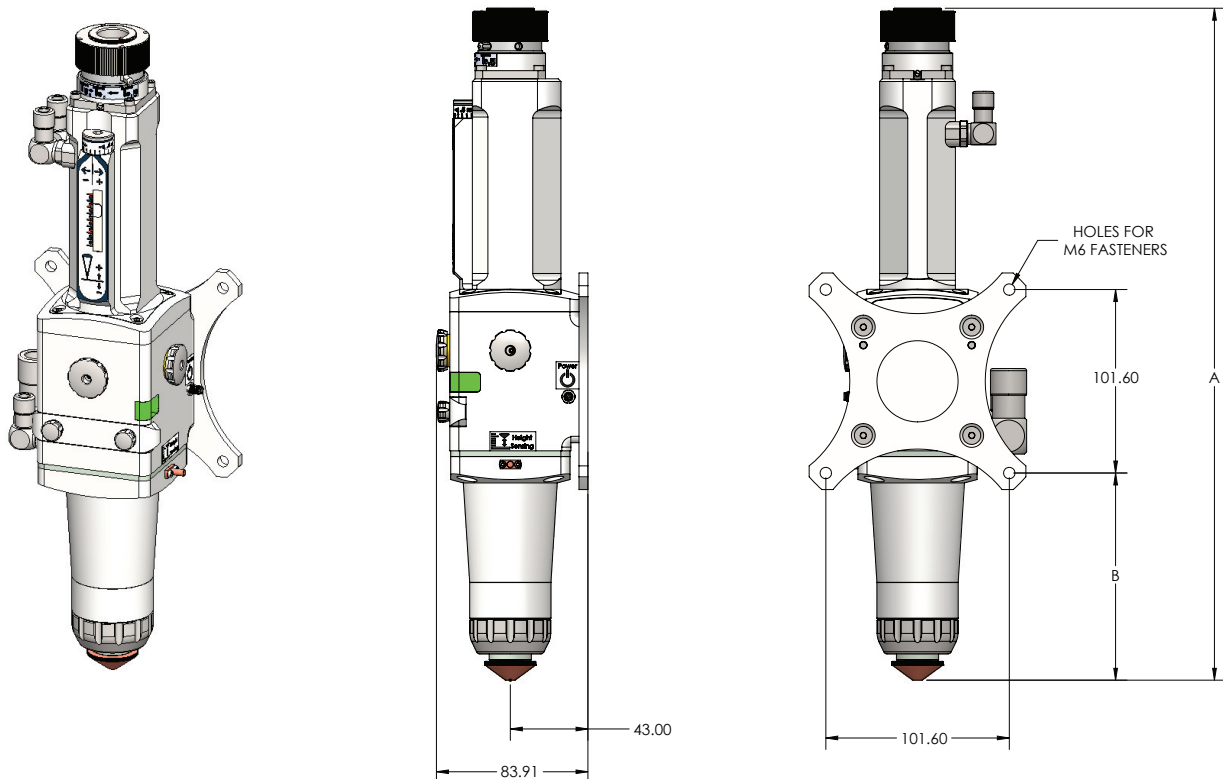
\*See table for details



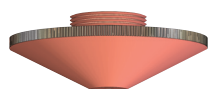
				Nozzle Interchangeable					
	Configuration	Collimator	Focus	Fiber Receiver	Height Sensing Electronics				
<b>P30-004330</b> Base Part # Compact Cutting Head  <b>Example:</b> <b>P30-004330-A4B10:</b> Vertical Compact Cutting Head 100 mm Water Cooled Collimator 200 mm Focus HLC-8 Fiber Receiver No Height Sensing	<b>A</b> Standalone	<b>3</b> 85 mm Water Cooled <b>4</b> 100 mm Water Cooled <b>5</b> 85 mm No Cooling <b>6</b> 100 mm No Cooling	<b>A</b> 125 mm <b>B</b> 200 mm <b>D</b> 150 mm	<b>1</b> HLC-8 <b>2</b> LCA	<b>0</b> No				

# Compact Head Configurations

Focus Lens			
	125	150	200
A	320.99	343.70	372.83
B	65.59	86.30	115.43
millimeters			



## CUTTING HEAD ACCESSORIES



### Replacement Nozzles

Diameters Available

Wide		Narrow		Dual Gas Passage	
• 0.8 mm	P40-003805-001	• 0.8 mm	P40-007141-004	• 0.8 mm	P40-008038-001
• 1.0 mm	P40-003805-002	• 1.0 mm	P40-007141-005	• 1.0 mm	P40-008038-002
• 1.2 mm	P40-003805-003	• 1.2 mm	P40-007141-006	• 1.2 mm	P40-008038-003
• 1.5 mm	P40-003805	• 1.5 mm	P40-007141-001	• 1.5 mm	P40-008038-004
• 1.8 mm	P40-003805-004	• 1.8 mm	P40-007141-007	• 1.8 mm	P40-008038-005
• 2.0 mm	P40-003805-005	• 2.0 mm	P40-007141-002	• 2.0 mm	P40-008038-006
• 2.3 mm	P40-003805-006	• 2.3 mm	P40-007141-010	• 2.3 mm	P40-008038-007
• 2.5 mm	P40-003805-007	• 2.5 mm	P40-007141-003	• 2.5 mm	P40-008038-008
• 2.8 mm	P40-003805-008	• 2.8 mm	P40-007141-008	• 3.0 mm	P40-008038-009
• 3.0 mm	P40-003805-009	• 3.0 mm	P40-007141-009	• 3.5 mm	P40-008038-010
• 3.2 mm	P40-003805-010			• 4.0 mm	P40-008038-011
• 3.5 mm	P40-003805-011			• 4.5 mm	P40-008038-012
• 4.0 mm	P40-003805-012				
• 4.5 mm	P40-003805-013				
• 5.0 mm	P40-003805-014				

### Protective Window

Parts Available

- Optics P45-012927
- O-Ring P40-009015



Control Electronics (included)



### Nozzle Ceramic Assembly

- Ceramic Assembly P30-007834

# IPG Cut Micro Cutting Head

IPG Photonics' Process Heads



## Standard Features

IPG micro cutting heads provide the ideal solution for micro-machining applications which require small spot sizes and high-resolution focus adjustment. The combination of IPG Micro cutting head's internal optics and its completely sealed architecture provide long term stability of both focal plane and beam quality. IPG micro cutting heads are plug and play with all IPG lasers providing ease of integration and service. IPG micro cutting heads not only provide precise cutting results, but they also maintain its precision cut quality over both time and laser power.



## Specifications

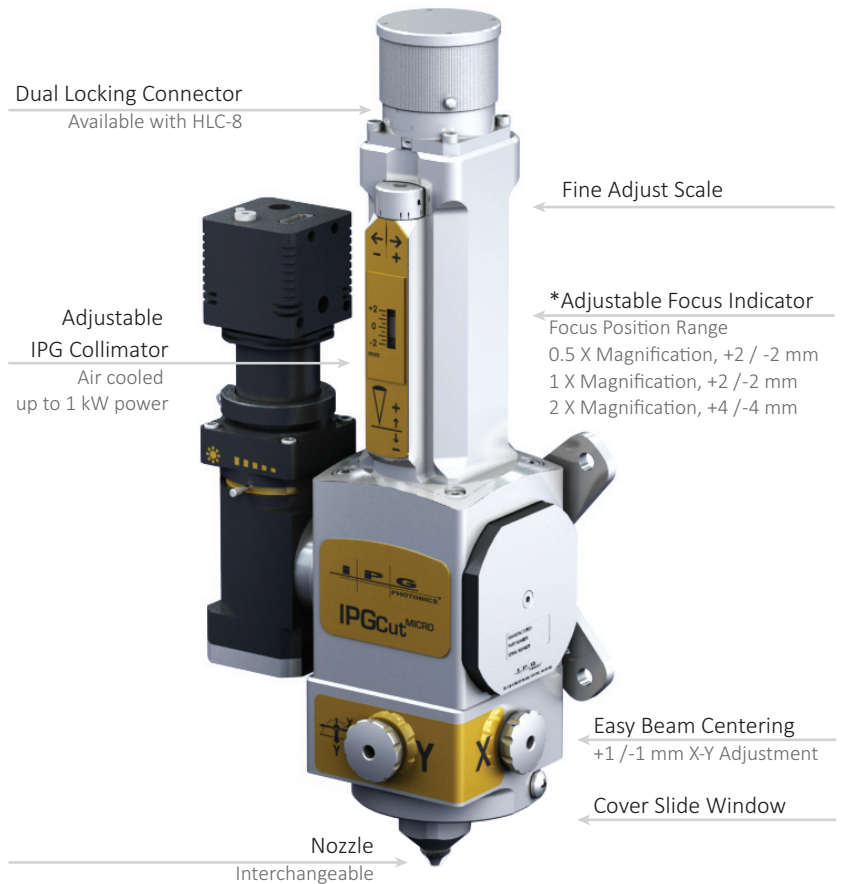
Laser Power Up to 1 kW

Weight (V) <2 kg

Control Unit N/A

Z Adjustment on Focus Collimator lens movement

\*See table for details

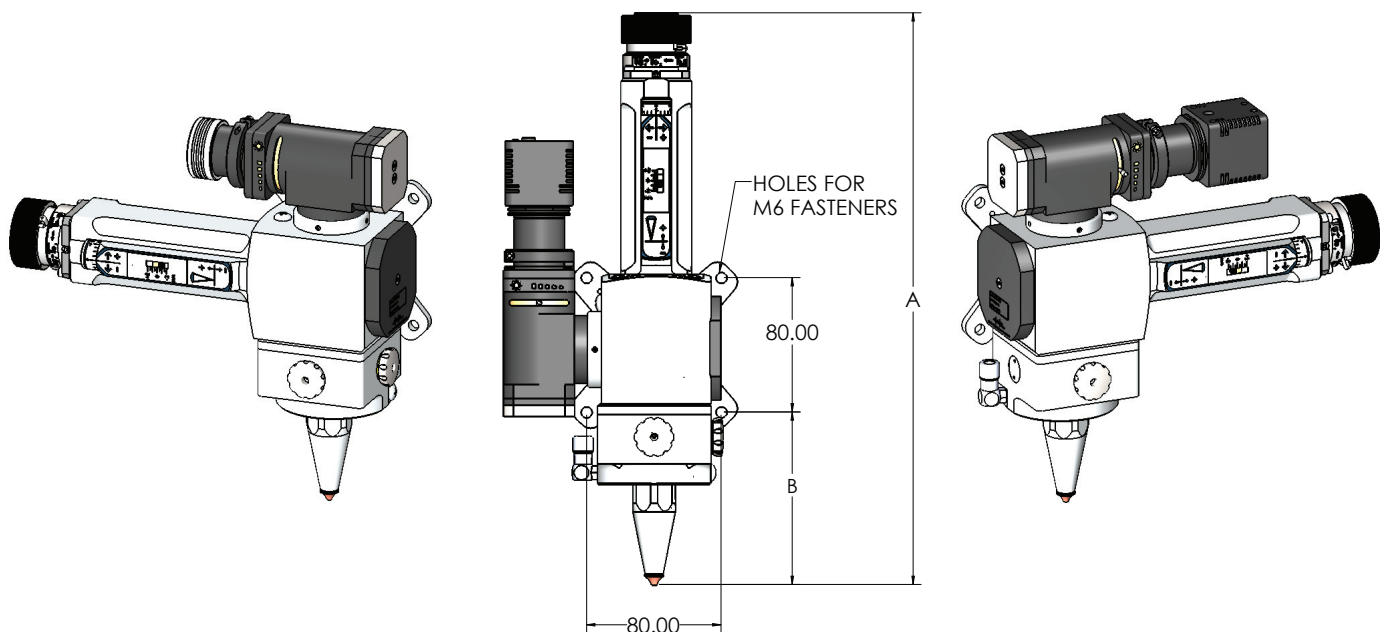


	Configuration	Collimator	Focus	Fiber Receiver
<b>P30-010200</b> Base Part # Micro Cutting Head	<b>R</b> Horizontal (RHS)	<b>1</b> 50 mm	<b>A</b> 50 mm	<b>1</b> HLC-8
	<b>L</b> Horizontal (LHS)	<b>3</b> 85 mm	<b>C</b> 85 mm	
	<b>V</b> Vertical	<b>4</b> 100 mm	<b>D</b> 100 mm	
	<b>S</b> Horizontal Standalone (Vertical no camera mount)			
<b>Example:</b> <b>P30-010200-V3C1:</b> Vertical Micro Cutting Head 85 mm Air Cooled Collimator 85 mm Focus HLC-8 Fiber Receiver				

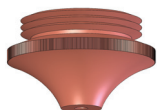
# Micro Head Configurations

## Configurations

Focus Lens	50	85	100
A	306.22	325.52	340.46
B	68.51	87.81	102.75
	millimeters		



## CUTTING HEAD ACCESSORIES



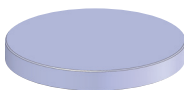
### Replacement Nozzles

Diameters Available

- 0.2 mm P45-017701-001
- 0.3 mm P45-017701-002
- 0.4 mm P45-017701-003
- 0.5 mm P45-017701-004
- 0.8 mm P45-017701-005
- 1.0 mm P45-017701-006
- 1.2 mm P45-017701-007

### Protective Window

Parts Available



- Optic only P45-012927

### Camera Module



P30-002424

### Camera



- HD Camera (HDMI Connection)
  - P40-000125 (1280x720 resolution, 60fps)
  - P40-000128 (Power supply for camera)
  - P40-000130 (Controller for camera)
- PoEHS Camera (Ethernet Connection)
  - P40-000126 (1280x966 resolution, 40fps)
  - P40-000129 (Power supply for camera)





Sales & Service ■  
 Development, Sales & Service ■  
 Manufacturing, Development, Sales & Service ■

## IPG Photonics Corporation

World Headquarters  
 Oxford, MA USA  
 +1 508 373 1100  
[sales.us@ipgphotonics.com](mailto:sales.us@ipgphotonics.com)

## IPG Laser GmbH

European Headquarters  
 Burbach, DE  
 +49 2736 44200  
[sales.europe@ipgphotonics.com](mailto:sales.europe@ipgphotonics.com)

## IRE-Polus Co.

IPG Russia  
 Fryazino, Moscow RU  
 +7 (495) 702 95 89  
[mail@ntoire-polus.ru](mailto:mail@ntoire-polus.ru)

### Brasil

+55 11 4380 9939  
[sales.br@ipgphotonics.com](mailto:sales.br@ipgphotonics.com)

### China

+86 10 6787 3377 ext. 1020  
[sales@ipgbeijing.com](mailto:sales@ipgbeijing.com)

### Czech Republic

+420 241 433 199  
[sales.cz-sk@ipgphotonics.com](mailto:sales.cz-sk@ipgphotonics.com)

### France

+33 (0) 388 674 974  
[sales.france@ipgphotonics.com](mailto:sales.france@ipgphotonics.com)

### India

+91 80 2852 4861  
[sales@ipgphotonics.in](mailto:sales@ipgphotonics.in)

### Italy

+39 0331 170 6900  
[sales.italy@ipgphotonics.com](mailto:sales.italy@ipgphotonics.com)

### Japan

+81 45 716 9831  
[info@ipgphotonics.co.jp](mailto:info@ipgphotonics.co.jp)

### Mexico

+52 81 1354 2540  
[ipgmexico@ipgphotonics.com](mailto:ipgmexico@ipgphotonics.com)

### Poland

+48 32 721 22 20  
[sales.poland@ipgphotonics.com](mailto:sales.poland@ipgphotonics.com)

### Singapore

+65 62722663  
[sales.singapore@ipgphotonics.com](mailto:sales.singapore@ipgphotonics.com)

### South Korea

+82 42 930 2000  
[ipgk@ipgphotonics.com](mailto:ipgk@ipgphotonics.com)

### Spain & Portugal

+34 937 999 971  
[sales.spain@ipgphotonics.com](mailto:sales.spain@ipgphotonics.com)

### Taiwan

+886 2 27 93 3582  
[ahung@ipgphotonics.com](mailto:ahung@ipgphotonics.com)

### Turkey

+90 216 306 0317  
[sales.turkey@ipgphotonics.com](mailto:sales.turkey@ipgphotonics.com)

### United Kingdom & Ireland

+44 0 117 203 4060  
[sales.uk@ipgphotonics.com](mailto:sales.uk@ipgphotonics.com)

[www.ipgphotonics.com](http://www.ipgphotonics.com)

IPG Photonics manufactures a wide range of laser products with laser classifications ranging from Class I to Class IV. Please review the individual product specification for the optical performance characteristics specific to the device. This information typically includes the wavelength range, output power (CW and/or Peak), Pulse Energy, Pulse Repetition Rate, Pulse Width, etc.

VISIBLE AND/OR INVISIBLE  
 LASER RADIATION  
 AVOID EYE OR SKIN EXPOSURE TO  
 DIRECT OR SCATTERED RADIATION  
 CLASS X LASER PRODUCT  
 Per IEC 60825-1: 2007-03; 21 CFR 1040: 10(g)