

Laser Cutting Head

The laser cutting head is a part of laser cutting machine that focuses the laser beam onto the material that wants to be cut. Its components include a reflecting mirror, focal lens, a nozzle and a gas or water jet.

The laser cutting head could be used in laser cutting machine to reflect and focus the expanded beam into a small spot. It can be used to cut various materials such as acrylic, paper, cloth and many others.

Each laser cutting head consists of:

- 1.5" reflecting mirror, reflectivity >99.5%
- Adjustable reflecting mirror mount
- Focal lens with focal length of your choice
- Built in water/air cooling device
- Linear guider
- Nozzle and gas jet port

Specifications	
Maximum Power	<500W or more but customized
Cooling	Water or Air Cooled
Concentricity after WD adjustment	+/-0.mm
Working distance adjustable range	0mm-40mm
Nozzle adjustable range in X/Y	+/-1mm
Nozzle adjustable range in Z	+/-1mm
Maximum input beam diameter	24mm
Mirror tilt angle	Adjustable, +/-3 degree



LCH Series - Single FL Cutting Head

Part No.	Focal Length (mm)	Lens Dia (mm)	Mirror Size (mm)	Wavelength
LCH-10.6-2.0	50.8	25.4	38.1	10.6μm
LCH-10.6-2.5	63.5	25.4	38.1	10.6μm
LCH-10.6-5.0	127.0	25.4	38.1	10.6μm
LCH-1064-100	127.0	25.4	50*3	1064nm

NOTE: Customized Laser cutting head is available upon request

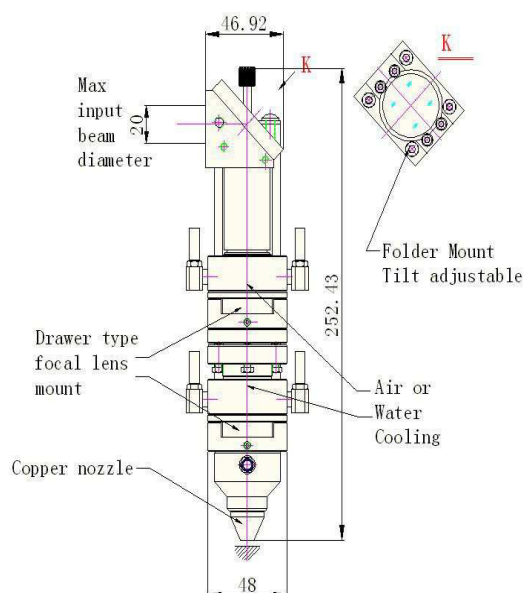
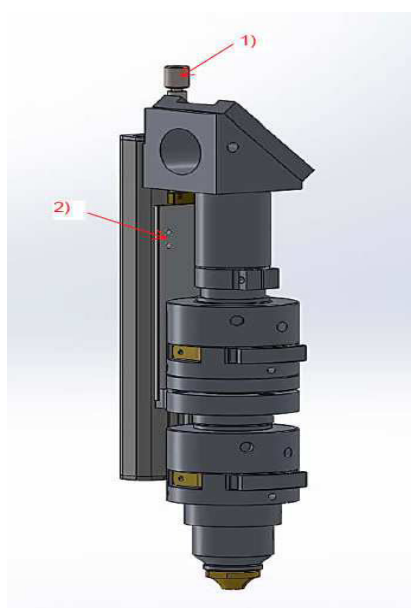
LDH Series—Switchable FL Laser Cutting Head

Application

The Switchable FL Cutting Head is mainly used in CO₂ cutting machines for thin metal boards or thick acrylic/wooden boards. A short focal length will be used for thin metal boards, while a long focal length will be used for thick boards. Changing of focal length is simply done by inserting the appropriate focal lens into the drawer-type mount.

Each unit of the Switchable FL Cutting Head consists of:

- 1.5" reflecting mirror, reflectivity >99.5%
- Adjustable mount for reflecting mirror
- Switchable focal lens, each with different focal length
- Drawer-type focal lens mount
- Nozzle and gas jet port
- Built in water/air cooling device



Part No.	Focal Length (mm)	Lens Dia (mm)	Mirror Size (mm)	Wavelength
LDH-10.6-2.0/2.5	50.8/63.5	25.4	38.1	10.6μm
LDH-10.6-2.5/5	63.5/127	25.4	38.1	10.6μm

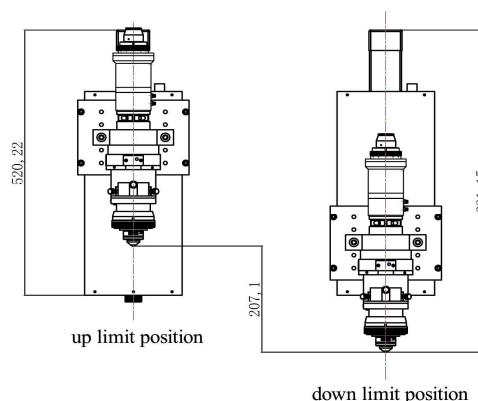
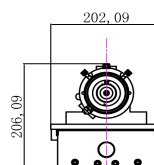
NOTE: Laser cutting head for 1064nm ND:YAG is available upon request

Fiber XY Laser Cutting Head

The Fiber XY laser cutting head is used to focus a collimated beam from a fiber laser to perform cutting and drilling operations. It is equipped with a height sensor unit (HSU) allowing for the working distance to be automatically maintained.

Each Fiber XY laser cutting head consists of:

- Multiple clamp end capable of accepting IPG, SPI and Raycus fiber laser output tip
- Focal length of 120mm
- Adjustment screw for the distance between the focal lens and the tip
- Sensor nozzle and gas jet port
- Linear guider with servo motor
- Height sensor unit (HSU)



Specifications	
Maximum Power	1000W
Input Diameter	<40mm
Cooling Method	Water cooled
Maximum Input Beam Diameter	35mm
Focal Lens Size	Dia40mm, ET3mm
Protective Window	40mm x 3mm
Power Supply of Height Controller	150V-220V (to be specify)

Part No.	Focal Length (mm)	Lens Dia (mm)	Wavelength
FXY-120	120.0	40.0	1060-1070nm

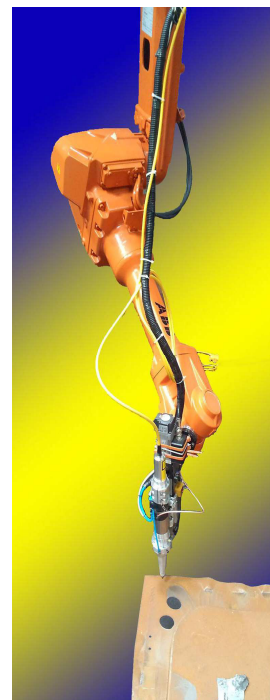
Fiber Smart Laser Cutting Head

The FIBER Smart Laser Cutting Head can be used in robot arm fiber laser cutting machine to focalize the collimated beam from fiber to do the cutting work or drill work.

Each laser cutting head consists of :

- Multiple clamp end suitable for IPG, SPI and Raycus fiber laser output tip.
- Focal lens with focal length of 100mm.
- Distance between focal lens and tip could be adjusted by screw.
- Sensor nozzle and gas jet port.
- Linear guider with servo motor
- HSU

Specifications	
Maximum Power	200W
Input Diameter	<40mm
Cooling Method	Water cooled
Maximum Input Beam Diameter	20mm
Focal Lens Size	Dia25mm, ET3mm
Protective Window	25mm x 3mm
Power Supply of Height Controller	150V-220V (to be specify)



* Head mounted on motion system – the linear guider and the servo motor



* Suitable HSU

Part No.	Focal Length (mm)	Lens Dia (mm)	Wavelength
FSMT-100	100	25	1060~1080 nm