

ALE 010034

Production Proven 24/7
High Power Fiber Laser
Welding Head

Key Features

- Fiber Laser: up to 4 kW with $NA \leq 0.15$
- Fiber Receiver for All Major Laser OEMs
- Coaxial Camera Viewing
- Lens Cartridge System
- High Quality Optics
- Fully Customizable
- Compact and Lightweight Modular Design
- Broad Range of Accessories
- Low Cost



Typical Applications

Spot Welding	Laser Deposit Welding	Welding of Polymers
Seam Welding	Micro-Precision Welding	Profile Welding
Tube Welding	Dissimilar Metal Welding	and many more...

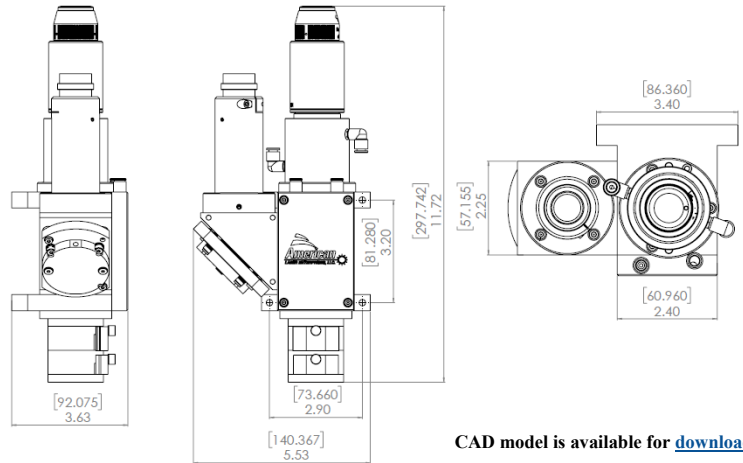
American Laser Enterprises, LLC has decades of combined experience in optical, electrical, and mechanical design of laser applications and systems. We pride ourselves on the ability to provide our clients with specialized services from application engineering and system prototyping to large quantity component production orders.

We offer a family of laser welding heads designed to work with CO₂, Nd:YAG, and Fiber lasers. It has served a variety of industries, including automotive, aerospace, and defense. Our welding heads come in various configurations, are versatile and fully customizable to your application.



Specifications

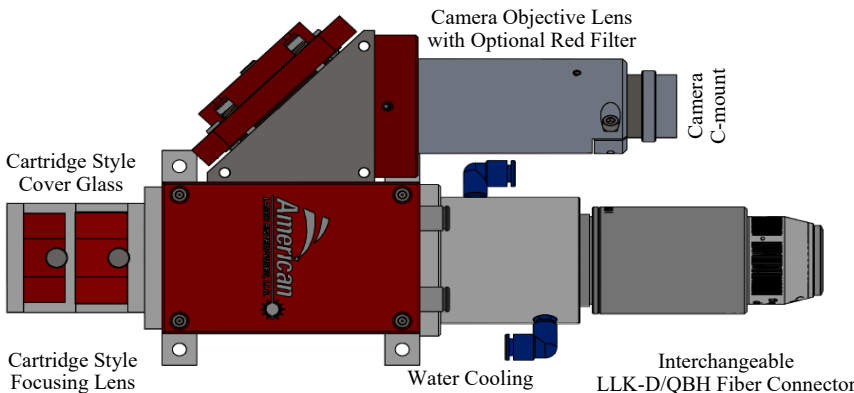
↳ Dimensions (WxDxH)	5.5x3.6x11.7 (in) 140x92x298 (mm)
↳ Weight	≥ 5 lb (2.3 kg)
↳ Laser Power	up to 6kW
↳ Laser Wavelength	650 - 1100 nm
↳ Focal Distance	50 to 1000 mm
↳ Fiber Connector	all major laser OEM



CAD model is available for [download](#)

ALE 010034, the high-power laser welding head, developed at ALE for a broad spectrum of welding applications, provides a versatile approach to laser welding. Interchangeable fiber connector makes the head compatible with most OEM lasers. The cartridge style focusing lens allows for immediate in-the-field service or replacement with standard off-the-shelf optics. Requiring minimal maintenance, this reliable process head offers precision, consistency, high repeatability and productivity, and low cost.

Standard Features



- Cross Jet
- Horizontal or Vertical Configuration
- Through Lens Viewing System
- Modular Components
- Aluminum Construction
- No Special Tools Required
- Connectors and Collimators Available
- Water Cooling

Optional Accessories

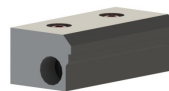
Customizable
USB or PoE Camera



Coaxial Nozzle
with Purge



Air Knife



Dynamic Spot
Size Control

