

## **ALE 990084**

Production Proven 24/7  
Fiber Laser  
Cutting Head

### *Key Features*

- Fiber Laser: up to 1 kW with  $NA \leq 0.15$
- Fiber Receiver for All Major Laser OEMs
- Computer-controlled kerf width  $\geq 10 \mu m$
- Sealed Watertight Design
- Coaxial Camera Viewing
- Adjustable Focus
- High Quality Optics Protected with Cover Glass
- Intelligent and Intuitive to use
- Compact and Lightweight Modular Design



### *Typical Applications*

Automotive	Aerospace	Electronics
Medical Device	Art&Crafts	Manufacturing
Engineering	Plastics	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 cutting heads designed to work with CO<sub>2</sub>, Nd:YAG, and Fiber lasers. It has served a variety of industries, including automotive, aerospace, and defense. Our cutting heads come in various configurations, are versatile and fully customizable to your application.



[www.a-l-e.net](http://www.a-l-e.net)

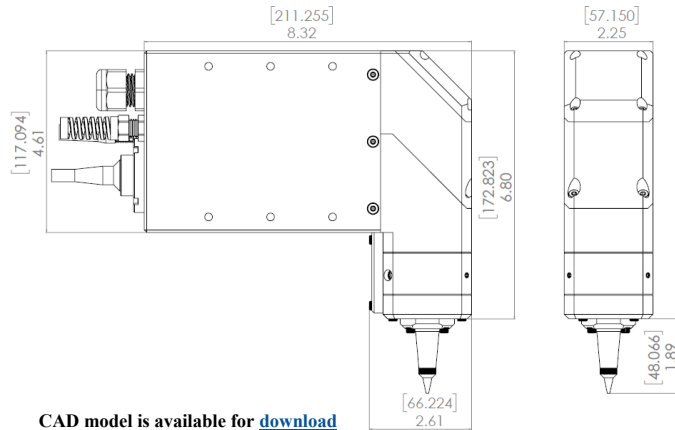
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## Specifications

↳ <b>Dimensions *</b> (WxDxH)	8.3x2.25x6.8 (in) 211x57x173 (mm)
↳ <b>Weight</b>	≥ 6.5 lb (3 kg)
↳ <b>Laser Power</b>	up to 1kW
↳ <b>Laser Wavelength</b>	650 - 1100 nm
↳ <b>Focal Distance</b>	63 to 200 mm
↳ <b>Fiber Connector</b>	all major laser OEM

\* Height without a nozzle retainer



CAD model is available for [download](#)

ALE 990084, an intelligent and intuitive to use laser cutting head, developed at ALE for a broad spectrum of applications, provides a versatile approach to laser cutting. Interchangeable fiber connector makes the head compatible with most OEM lasers. The head comes in a sealed watertight design ideal for applications requiring intensive external cooling under high pressure. For applications requiring full automation, a motorized unit for a dynamic size control is available. Equipped with sensors and requiring minimal maintenance, this reliable process head offers precision, consistency, high repeatability and productivity, and low cost.

## Standard Features

Complete Water Proof Design	Co-axial Air Assist
Through Lens Viewing System	Modular Components
Humidity, Temperature, and Pressure Sensor	Connectors and Collimators Available

Dynamic spot size control features a remotely controlled variability of the kerf width. Theoretical curve below serves as an example of an operator changing the kerf width from nominal value of 10 μm (for 0.01-mm SM fiber and 1:1 lens system):

