



Airborne contaminants generated by high power laser processing applications can be diverted with **SPAWR's CROSSFLOW AIRSHIELD**.

Using small quantities of compressed air, a pneumatic low-pressure zone is generated near the optical path, of the high power beam, creating the transverse flow of very large volumes of ambient air to divert airborne particulate matter traveling longitudinal to the beam. Contaminating particles that might impinge on the optical surface are deflected away.

The CROSSFLOW AIRSHIELD is adaptable to the SPAWR welding or cutting nozzle and also the SPAWR Focus Module for a complete beam delivery system. Prices for complete beam delivery systems are available upon request.

#### **ORDERING INFORMATION**

**Large Model Cat. No. CFAL**

**Small Model Cat. No. CFAS**

**Custom design pricing is available on request.**

**DELIVERY: Stock to 3 weeks ARO**

#### **How It Works**

The CROSSFLOW AIRSHIELD works through the artificial creation of a low-pressure area in a venturi. Compressed air or gas, at approximately 15 PSI, is passed through a small aperture that produces an annular shaped column of air that follows the side walls of the venturi. This produces a low-pressure area in the center of the venturi, which draws in large volumes of outside air that pass through the laser beam path. The flowing air diverts particulate matter away from the optics and out through the exhaust.

#### Dimensions for Large Model

Length x width x height 5.3" x 2.8" x 2.0"

Optical Aperture 1.2" Diameter

Minimum 15 PSI required

#### Dimensions for Small Model

Length x width x height 3.3" x 1.8" x 1.3"

Optical Aperture 0.6" Diameter

Minimum 10 PSI required

All models work with either compressed air or any selected gas for purging contaminating particles from the laser beam path.