Purair® Automated Optical Inspection Enclosure

Optimize Production and Quality Control

Automated Optical Inspection (AOI) is primarily used to test for defects in printed circuit board assemblies, permitting enhanced quality control and inspection speed. AOI enables fast and accurate inspection to ensure that products are built correctly with no manufacturing defects. Maintaining an environment free of contamination is critical to the success of the AOI system.

The Air Science® Automated Optical Inspection Enclosure incorporates Purair vertical laminar flow technology along with innovative **Multiplex™ ULPA Filtration**. This creates a clean work environment and delivers flexible access to the work zone during the Automated Optical Inspection process.

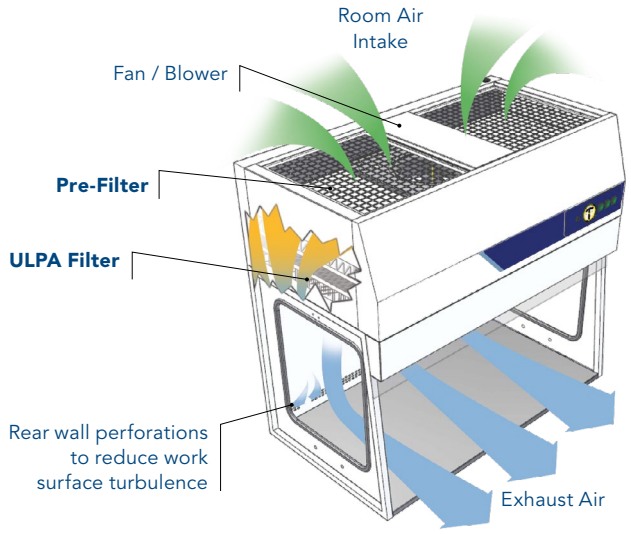
Employing external rotor blowers, the energy-efficient design of the Air Science AOI Enclosure reduces operating costs, noise output and vibration levels. A high-capacity air handling system delivers a flow velocity of 0.4-0.5 m/s (80-100 fpm). At the same time, the perforated rear wall of the enclosure is engineered to minimize work surface turbulence by removing some of the airflow to the rear.

An **ULPA filter**, mounted above the work surface, provides a taller and deeper workspace, permitting larger equipment in the work zone without interrupting airflow. A Minihelic ULPA pressure gauge measures filter condition. Filters are easy to access and replace when necessary. A compact LED cabinet lamp, located away from the laminar flow area, provides stable lighting to assist the inspection process.

Contact us for additional information on the Purair Automated Optical Inspection Enclosure.

AIR SCIENCE AUTOMATED OPTICAL INSPECTION ENCLOSURE

The Purair AOI Enclosure laminar flow cabinet is designed to protect the contents and interior of the work zone from particulate contamination. Air Science technology delivers a cost-effective, sterile work environment necessary for the critical Automated Optical Inspection process.



Vertical Airflow:

1. *Room air enters from the top of the cabinet through a disposable pre-filter; this traps larger particles and increases filter life.*

2. *Air is forced evenly across the ULPA filter in a stream of clean, uniform air within the work zone. This dilutes and flushes airborne contaminants from the interior.*

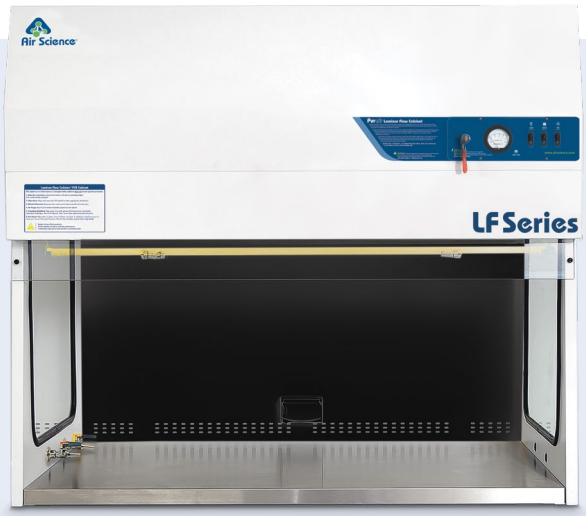
3. *A nominal filter face velocity of 0.4 m/s - 0.5 m/s (80 - 100 fpm) ensures a sufficient number of air changes to maintain cleanliness within the work zone.*

4. *The purified air travels down to the work zone in a vertical, unidirectional downflow stream, exiting the work zone across the entire open cabinet front area after deflecting off the work surface. Rear wall perforations are designed to reduce work surface turbulence and minimize the possibility of dead air corners in the work zone.*

Purair LF Series®

MODEL	VLF-48	VLF-72
Nominal Width	48" / 1219 mm	72" / 1829 mm
Internal Height	28.25" / 718 mm	28.25" / 718 mm
Internal Depth	28.25" / 718 mm	28.25" / 718 mm
External Dimensions (W x D x H)	52.4" × 29.25" × 47.25" 1331 × 743 × 1200 mm	76.4" × 29.25" × 47.25" 1941 × 743 × 1200 mm

LEARN MORE



Model VLF-48

Air Science®

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ENERGY STAR PARTNER

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