



## 110 Automated Filter Tester

The 110P Automatic Filter Tester is a state-of-the-art system for testing medium-flow air filters up to 400 cubic feet per minute (CFM). It is part of the growing ATI family of Modular Automatic Filter Testers which includes the low-flow 100P series testers. The 110P is ideal for testing automotive and airline cabin-air filters, vacuum filters, industrial or commercial ventilation filters, compressed air filters, collective protection military filters, and many other types of medium-flow air filters.

### **Applications:**

Filter Manufacturers,  
Flat Sheet Media Producers,  
Automated Production Environments

## **A Modular Automatic Filter Tester**

The 110P automatically measures the aerosol penetration, filter resistance, and the test flow of the filter. The filter holder assembly is customized to meet your specific needs, and once the filter is placed into the test fixture, the testing sequence is quick and fully automatic. Testing can be performed using the 110P for filters up to 20 by 20 inches square and 22 inches tall, and customized adapter plates can be provided for the full range of filter configurations that you will be testing. Using a highly stable and repeatable oil-based aerosol challenge and a photometric detection system, the 110P provides reliable filter efficiency readings up to 99.9995 percent. (Filter penetrations down to 0.0005 percent) This extraordinary span allows for accurate tests of medium-flow filters HEPA and even ULPA media.

The Operator controls the entire testing process through 4-user-friendly function keys. User-programmed filter testing parameters and alarm points are selected using the function keys and test data is managed through the built-in microprocessor. Test results can be output through a RS-232 serial comm port to a user-supplied computer, or through a User Interface port to ancillary control/monitoring equipment.

Although the 110P has extensive built-in functionality, every unit is built to order and a wide variety of optional features can be included. ATI will thoroughly review your filter requirements before configuring and recommending a system to meet your specific needs.

PRODUCT SPECIFICATIONS	
Aerosol	Technique: Pneumatic nebulization
	Diameter: 0.18 $\mu$ CMD (count median diameter)
	Concentration: 30 milligrams per cubic meter (mg/m <sup>3</sup> )
Detection	Near forward light scattering
	Accuracy: $\pm$ 1%
	Detector Flow Rate: 1 cubic foot per minute from the sample stream
Filter Efficiency	to 99.9995% (0.0005% penetration)
Filter Test Flow	Measurement: Mass Flow meter
	Range*: 40 to 400 cubic feet per minute @ 21.1° C, 760 mm Hg.
Differential Pressure	Measurement: Electronic pressure transducer
	Range*: 0 to 100 millimeters water column (0 to 3.94 inches/WC)
	Accuracy: $\pm$ 1.25% of full scale
Utility Requirements	Power/Blower: 208 VAC, 3 phase, 60 Hertz, 20 Amps
	Power/Controls: 115/230, 1 phase, 50/60 Hertz, 5 amps
	Compressed Air: 10 scfm @ 80 psig
Dimensions	22 feet wide by 5 feet deep by 9 feet high
	* Note: Test flow and pressure measurements can be configured to customer requirements