# AUTOMATED FILTER TESTER MODEL 8150 TAKING HIGH PERFORMANCE FROM THE LAB TO THE PRODUCTION LINE

The Automated Filter Tester Model 8150 is for 100% quality assurance testing of P100, FFP3 and similar respiratory filters and cartridges directly in the production line. The 8150 is a highly compact automated filter tester that can easily be retrofitted into any existing production line. Using much of the same technologies, it provides matching results to the model 8130A while being optimized for high-volume throughput and round-the-clock remote operation.

TSI's Automated Filter Testers have been used in quality control and manufacturing for more than 35 years. The model 8130A is used by the leading filter and filter media manufacturers, test laboratories, and government agencies around the world due to its proven performance, durability and reliability.

The model 8150 is an evolution of the 8130A, that has been optimized for demanding in-line production testing applications, giving you faster measurement and cycle times for high-throughput. It incorporates two simultaneously measuring photometers - upstream and downstream of the filter - to eliminate measurement uncertainties due to any change in aerosol concentration. The 8150 also utilizes an innovative concept for aerosol delivery that reduces the number of valves and improves uptime. For especially tight spaces, the photometer box can be split from the base unit or two units can be stacked. The 8150 operates through a PLC driven interface and contains a comprehensive set of internal diagnostics to provide you with complete confidence of your filter efficiency measurements.

## **Features and Benefits**

- + Fast measurement & cycle times for high-throughput
- + Excellent comparability of results to the model 8130A that is used for certification
- + Small footprint for easy integration into existing and new production lines
- + Two simultaneously measuring photometers for best performance

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- + Fast recovery time after detecting defective filters to minimize subsequent false failures
- + Supports compliance with standards such as US 42 CFR 84, GB2626, and EN143/EN149
- + Intelligent design for increased uptime



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## **SPECIFICATIONS**

## AUTOMATED FILTER TESTER **MODEL 8150**

## **Aerosol Detection**

Technique

Dynamic Range

### Performance

**Operating Range** Oil Only Tester

Up to 99.9995% efficiency Compatible with DOP,

1.0 µg/m<sup>3</sup> to >200 mg/m<sup>3</sup>

Two simultaneously measuring

light-scattering laser photometers

Test time

Paraffin, PAO & DEHS Contact your TSI representative

#### **Pressure Measurement** Technique

Range

Accuracy

#### Aerosol Flow (external vacuum flow required) Volumetric flow

Flow Rate Range Flow Rate

Accuracy

**Operating Range** 

Ambient pressure Ambient temperature Operating humidity

Electronic pressure transducer 0 to 250 mm  $H_2$ 0 (0 to 2500 Pa), other ranges available upon request ±1% of full scale

TSI Model 4045 flow meter with pressure and temperature Adjustable from 10 to 120 L/min Monitored and adjusted automatically to setpoint ±2% of reading or 0.05 Std L/min, whichever is greater

#### 75 to 110 kPa (absolute) 10°C to 35°C 0% to 95%, non-condensing

#### Automation Interface

- + Modbus-based command set via Ethernet
- + Serial commands via RS-232

#### Pump / Filter Holder

Not included, custom designs and considerations are in the hands of the customer/integrator

#### **Utility Requirements and Physical Parameters** 90 VAC to 250 VAC, 50 Hz to 60 Hz, 10 A max.

Compressed Air Dimensions (L x W x H)

Power

Weight

80 psig, 7 scfm (550 kPa, 200 std. L/min average, 250 std. L/min max.) 64.5 cm × 55.5 cm × 104.5 cm (25.4 in. × 21.9 in. × 41.2 in.) 100 kg (220 lbs)

#### **Accessories and Options**

- + Built-in neutralizer
- + Automatic aerosol generator refill
- + External pump (110V/220V)
- + Control unit with reference filter chuck for operating the 8150 outside the production line

#### Compliance

CE\*, RoHS, North America Safety Mark (NRTL), optional CSA

\*Partly completed machinery according to EC - Directive for Machines 2006/42/EC, Annex II, 1. B, requires proper integration into production line especially regarding safety considerations

#### ΤO ORDER Auto

Automated Fliter Testing	
Description	
Automated filter tester	
8150 with neutralizer	
8150 with automatic refill	
8150 with neutralizer & automatic refill	

## Accessories

Specify 8130A-18631 Description External pump 8150-P500 8150-MKIT Control unit Maintenance parts kit

#### Service and Support

- + Field Installation and Training (subject to location) + Training for user-serviceable photometer on-site/at TSI
- + Service Contracts
- + Field Service

Specifications are subject to change without notice.

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TSI Incorporated - Visit our website www.tsi.com for more information.

USA Tel: +1 800 874 2811 India Tel: +91 80 67877200 **Tel:** +44 149 4 459200 **Tel:** +33 1 41 19 21 99 UK China Tel: +86 10 8219 7688 Singapore Tel: +65 6595 6388 France Tel: +49 241 523030 Germany

Contact your TSI representative for more details