# HVAC MONITORING SOLUTIONS FOR COMPOUNDING PHARMACIES





# COMPOUND MEDICATIONS WITH CONFIDENCE

#### **TSI-Proven Leader**

Already installed in more than 100,000 hospitals and pharmacies around the world, trust TSI's Particle Monitoring Solutions for most effective, accurate and complete monitoring of a compounding environment. For over 40 years, TSI is considered the leader in particle monitoring and counting instrumentation, being recognized as the worldwide standard. Compound medications with confidence when you choose TSI's Particle Monitoring Solutions.

#### **Safety and Compliance**

You understand that safety, compliance and contamination prevention are crucial considerations. TSI's Particle Monitoring Solutions for compounding environments are perfect for monitoring the airborne particle counts of sterile spaces to verify required air cleanliness. Let TSI's particle monitoring and counting instrumentation provide the confidence you need to comply with major industry guidelines and regulations in order to ensure and document a safe environment. Specifically designed for compounding environments, TSI's instruments warn of conditions that could result in unsafe drugs.

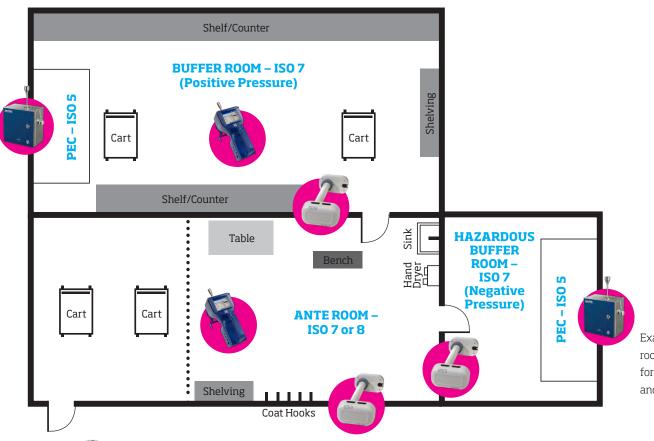
#### **Real-Time Feedback Counts**

When contamination occurs, you need to know – immediately. TSI's Particle Monitoring Solutions provide the instant feedback necessary to enable faster response to adverse conditions, mitigating risk of product sterility. With the ability to trend data over time, it's easy to demonstrate continuous compliance to relevant standards and regulations. Proving control, knowing particle concentration levels, increases the likelihood that a facility will pass the re-certification inspection process that takes place very six months.

Prove environmental cleanliness during compounding activities

Determine required level of corrective action after HVAC system fluctuations Warn of high particle concentrations before costly certification failures

# TSI: THE COMPLETE PARTICLE COUNTING SOLUTIONS PROVIDER



Example of a clean room floor plan suitable for high-risk level CSPs and Hazardous Drugs



# AeroTrak<sup>®</sup> Remote Particle Counter with Integrated Pump

- + Measures concentration of 0.5  $\mu m$  and 5  $\mu m$  particles
- + ISO 21501-4 compliant calibration for use in cleanrooms

+ Quiet



# PresSura™ Room Sensor

- + Measures pressure differential
- + Most stable and accurate measurement at low pressures



### PresSura™ Room Monitor

- + Large, flush-mount monitor displays pressure, particulates, temperature and humidity
- + Visual and audible alarms
- + Seamless integration into BAS for data logging



### Building Automation System + Trend data

+ Generate reports

# TSI: THE COMPLETE PARTICLE COUNTING SOLUTIONS PROVIDER

#### **Remote Particle Counting – Long-Standing Leader**

The TSI AeroTrak® 6510 Remote Particle Counter with Integrated Pump provides for continuous monitoring of 0.5µm (Channel A) and 5.0µm (Channel B) particles to easily meet compliance requirements within compounding environments.

- + 1 CFM (28.3 L/min) flow rate, up to four channels of particle data including 0.5µm and 5µm per EU and US FDA Aseptic Processing Guidelines
- + ISO 21501-4 compliant calibration delivers consistent instrument counting and sizing performance

With an integrated pump, the AeroTrak 6510 Remote Particle Counter provides a cost-effective option for counting airborne particles, requiring no central vacuum system. Additionally, a hot-swap optical sensor and pump slide out as a single assembly for fast and easy maintenance, requiring no tools. Communicating with the PresSure Room Pressure Monitor, it is the most advanced method of monitoring airborne particle concentrations in compounding environments – providing 24/7 peace of mind.

### Handheld Particle Counting – Pinpoint Accuracy

TSI's AeroTrak 9306 Particle Counter is an excellent choice for verifying cleanliness of the buffer and ante rooms – providing pass/ fail reporting on the ISO 14644-1 standard. When used as a survey tool, the AeroTrak 9306 Particle Counter is a great place to start when looking for early identification of problem areas, helping you save time and money.





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### **Room Pressure Monitoring – Most Trusted**

With >50,000 PresSure Room Pressure Products already installed in healthcare facilities around the world, TSI's PresSura PRM20-CC Room Pressure Monitor for compounding environments is great for meeting compliance requirements and providing alarms to unsafe conditions – with an easy-to-read, color-coded display. It monitors all important parameters (along with the AeroTrak 6510 Remote Particle Counter), including room pressure differential, temperature humidity, ventilation (ACH) and particle concentration (0.5µm and 5.0µm). Once communicating, a facility's BAS Sytem can monitor, data log and trend these parameters with the ability to interface with BACnet® protocols.

#### 0.025 **Pressure Sensor True Accuracy** Over Time 0.01" 0.02 Pressure Transducer A (Accuracy of 0.5% FS) Low Reading Pressure Transducer A (Accuracy of 0.5% FS) High Reading Pressure Differential (Inches W.C. Pressure Transducer B 0.015 (Accuracy of 0.8% FS) Low Reading Pressure Transducer B (Accuracy of 0.8% FS) Low Reading Through the Wall Sensor (10% of Actual Reading) Low Reading 0.01 Through the Wall Sensor (10% of Actual Reading) High Reading ····· Baseline Reading - Minimum Pressure 0.005 Differential Allowed 0 End of End of End of End of Vear 1 Year 2 Year 3 Year 4 Day 1 -0.005

The best-in-class stability of TSI's unique room pressure sensor lets you avoid time-consuming sensor recalibrations.

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# Room Pressure Sensor Technology – Accurate By Design

P/N 5001903 RevA

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Printed in U.S.A.