

# TE-WILBUR



## PM<sub>2.5</sub> or PM<sub>10</sub> Ambient Air Monitoring



The Tisch Environmental TE-Wilbur is the most advanced particulate collection system in the industry. The TE-Wilbur can be configured for TSP, PM<sub>10</sub>, PM<sub>2.5</sub>, PM<sub>c</sub> as well as any other particulate separation device with a flow rate between 1-25 SLPM. Featuring modern, industrially hardened components paired with innovative design and state of the art manufacturing practices, the TE-Wilbur is the future of particulate collection. The TE-Wilbur is ideal for Environmental Monitoring, Fence Line Monitoring and Industrial Monitoring. The TE-Wilbur is designed to operate in any environment and is set up for quick and easy deployment. The TE-Wilbur exceeds all performance specifications set forth by the USEPA for low-volume particulate collection.

The TE-Wilbur user interface is a full-color 5.7" touchscreen which utilizes intuitive navigation menus. The system was developed specifically to satisfy the recommendations of instrumentation operators. The TE-Wilbur features easy to access menus, step by step calibration and on screen status alerts. The TE-Wilbur control is provided by our industrialized programmable logic controller (PLC) whose programming is USB downloadable and MODBUS compatible. Volumetric flow is controlled through an integrated mass flow meter and on-board ambient temperature and pressure sensors. Filter set-up and exchange is achieved through the Tisch-designed filter exchange mechanism which allows easy one handed operation. In addition, the filter exchange mechanism does not require continual adjustment to seal your filter against leaks. Data can be retrieved through any MODBUS compatible data acquisition system or can be easily downloaded and transported with your filter on a USB drive.

- ⓘ Exceeds USEPA 40 cfr part 53, 50 appendix L
- ⓘ 5.7 inch color touch screen with intuitive navigation menus
- ⓘ Multi-language Support
- ⓘ Data retrieval via USB and MODBUS
- ⓘ Preprogrammed for USEPA sample schedules
- ⓘ Integrated Uninterrupted power supply
- ⓘ Low maintenance / cost to operate
- ⓘ Brushless DC pump
- ⓘ Industrial PLC control
- ⓘ Integrated step by step calibration
- ⓘ No adjustment Tisch filter exchange mechanism
- ⓘ Manufactured in a ISO 9001 facility
- ⓘ Made in the USA

## General Specifications

### Particulate Size:

TSP, PM<sub>10</sub>, PM<sub>2.5</sub>, PM<sub>c</sub>, and any size selectable inlet which operates between 1-25 slpm

### Sampling Interval:

Preprogrammed USEPA 1 in 3, 1 in 6, 1 in 12, 24hr sampling  
User defined sampling intervals  
Meteorological sampling triggers

## Environmental Specifications

### Operating Temperature:

-25 °C to 50 °C

### Ambient Temperature Sensor:

Sensor: PT100 RTD  
Accuracy: ±0.15 °C  
Resolution: 0.01 °C

### Filter Temperature Sensor:

Sensor: PT100 RTD  
Accuracy: ±0.15 °C  
Resolution: 0.01 °C

### Barometric Pressure Sensor:

Range: 450 mmHg to 1238 mmHg  
Accuracy: ±10.00 mmHg  
Resolution: 0.75 mmHg

### Flow Control Specification:

Brushless DC Pump:  
Range: 0-25 Liters per minute  
Accuracy: ±3% of full scale (0.75 LPM)  
Repeatability: ±1% of full scale (0.25 LPM)  
Resolution: 0.01 LPM

## Electrical Specifications

### Power Requirements:

120/240V  
50/60Hz

### Power Consumption:

40 watt (peak)

### Optional:

Solar, wind, or extended battery operation

### Barometric Pressure Sensor:

Range: 450 mmHg to 1238 mmHg  
Accuracy: ±10.00 mmHg  
Resolution: 0.75 mmHg

## Applications

### Regulatory Monitoring:

#### USEPA:

Ambient Particulate Reference Method Sampling for TSP, PM<sub>10</sub>, PM<sub>2.5</sub>, PM<sub>c</sub>

Any Size Selectable Inlet Which Operates Between 1-25 SLPM

Remote Monitoring

#### Dust Control Monitoring:

Site Development  
Bulk Transport  
Employee Safety

Fence Line Monitoring

## Communication Specifications

### Included I/O:

MODBUS: for gathering data into a data acquisition system

USB: for data download of runtime data and history data

RJ45 Ethernet: full Ethernet remote control, samples can be monitored and setup from a remote location using any internet browser

## Physical Specifications

### Weight:

47lbs /21.3kg without stand  
40lbs/18.1kg without removable battery pack and stand

### Dimensions:

20"W x 20"H x 10"D  
508mm x 508mm x 254mm

## Contact Information

### Tisch Environmental

145 S. Miami Ave  
Cleveland, OH 45002  
513-467-9000  
sales@tisch-env.com