



THE WORLD'S MOST ADVANCED  
INSTRUMENTS FOR TEXTILE AND BIOPHYSICAL TESTING

## THERMAL MANIKIN - ACCESSORY BREATHING SYSTEM

Thermetrics' Breathing System allows you to add realistic respiratory functions to your thermal manikin or test instrument. The self contained breathing system has computer controlled breathing profiles and optional humidified breath with a heated exhale tube to prevent condensation during use.

The Breathing System connects to the manikin with two hoses for inhale and exhale. Multiple manikin

configurations are available to support breathing. To configure a system that fits your application, contact Thermetrics at [sales@thermetrics.com](mailto:sales@thermetrics.com).

Thermetrics' Breathing System integrates with ThermDAC software to provide a single user interface for your breathing manikin.





**Breathing System Specifications**

- Optimal power requirements: 210 V to 240 V
- Temperature range for humidified option: 0° C to 45° C
- Operational breathing rate: 0 to 50 bpm
- Maximum breath volume: 4L
- External dimensions: 17.69 in. W x 42.19 in. L x 26.22 in. H (44.93 cm x 107.15 cm x 66.60 cm)
- Weight: approx. 160 lbs.

**Base Products Include:**

- Breathing system
- Inhale and exhale hoses
- Laptop loaded with ThermDAC control software
- Power and control cabling
- Standard one-year warranty

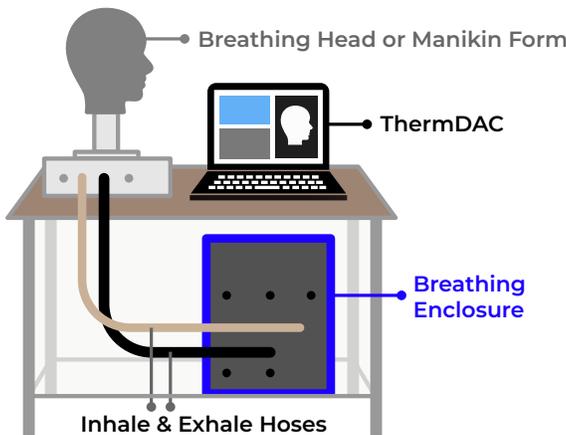
**Breathing System Feature Highlights & Benefits**

- Pneumatic cylinder that is cycled in and out by a servo linear actuator to replicate the cycle, frequency, and volume of human breathing
- Temperature controlled exhale tube to maintain breath humidity during use in cold environments
- Wheeled unit for easy transport
- Breathing profiles can be adjusted for breath volume, inhale and exhale rate, and programmable breath hold durations

**ThermDAC Control Software**

ThermDAC is an engineered user interface for thermal manikin systems providing real-time device control, automated testing, and flexible display and logging capabilities, including:

- Manikin control by skin temperature, constant heat flux, comfort equation, ManikinPC
- User-programmable test configurations, stability criteria, linked work cycles
- Automatic steady-state detection
- Color-coded manikin pictorial displays, selectable for any manikin variable
- Zoomable time-history graph of multiple device and ambient variables
- Real-time statistical analysis over any user-selected time range
- Logging of raw data, statistical analysis, user-reports
- Device calibration and fault detection



Breathing system components

Breathing System	Item #	Description	Product Name
Semi-Custom Base Product	19-00001	Non-Humidified Breathing System	—
	19-00002	Humidified Breathing System	—

*Don't see what you need above? Contact Thermetrics to customize your perfect system. Keep your Breathing System in tip-top shape. Discuss service plan options and point-of-sale discounts with us at [sales@thermetrics.com](mailto:sales@thermetrics.com).*