AEI TECHNOLOGIES
Metabolic Measurement Systems

MOXUS METABOLIC CART

Using the Legendary S-3A and CD-3A Gas Analyzers

The Leading Metabolic Cart for Research, Teaching, and Clinical Studies in Exercise Testing, and Resting Energy Applications

Exclusive Features:

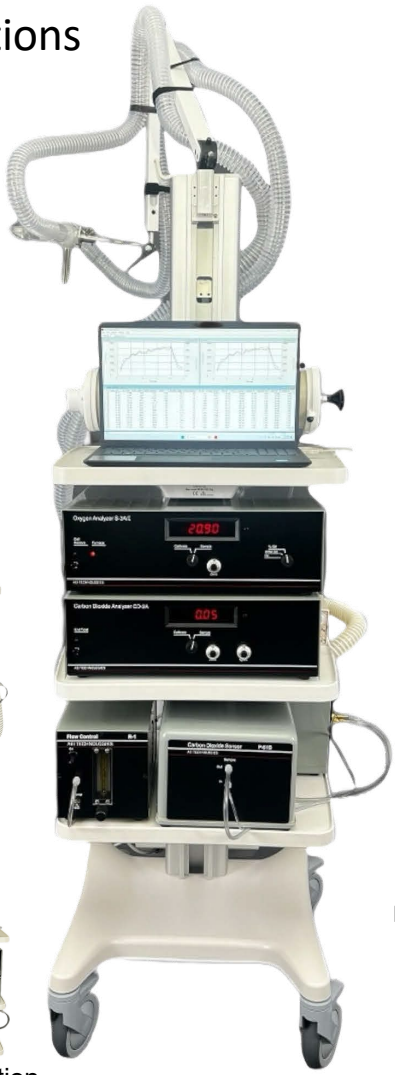
- Most accurate O2 and CO2 Gas Analyzers for superior VO2, VCO2, and RER data
- Easy to use software with fast calibration
- Completely modular design adds flexibility allowing for expansion and novel applications
- Independent O2 and CO2 Gas Analyzers ideal for use with Douglas Bags
- Faster response and improved gas mixing with fan-driven mixing chamber and active breath detection
- Distinctive inspiratory flow measurement and calibration features for unbeatable accuracy and decrease contamination

Available Options:

- Canopy Hood Option for Resting Energy
- Cardiac Output Option using CO2 rebreathing method
- PC-based Stress EKG System
- Spirometer w/ Pulse Oximeter
- Trackmaster Treadmill TMX428P
- Lode Ergometers
- Masks and Mask Kit

Canopy Option

Lode Option + Mask Option



MOXUS

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Visit our Website: www.aeitechnologies.com

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AEI TECHNOLOGIES
Metabolic Measurement System

MOXUS Specifications

The MOXUS Metabolic Cart is a modular metabolic measurement system ideal for research, teaching and clinical applications. The only commercially available metabolic cart incorporating the legendary S-3A Oxygen and CD-3A Carbon Dioxide analyzers to provide unsurpassed accuracy & repeatability.

Standard Features:

· 2 year warranty
· S-3A/I Oxygen Analyzer
· CD-3A Carbon Dioxide Analyzer
· Pneumotach Breath Volume Measurement System
· Sample Pump and Flow Controller
· AEI System Software, Data Acquisition and Interface
· 2 Channels for external analog instruments (0 - 10 Volts DC)
· RS-232 Connection for select Treadmills and Ergometers
· Heart Rate Interface with Polar monitor
· 4.2 Liter Active Mixing Chamber
· Efficient Nafion-based desiccant box with molecular sieve & silica gel indicator
· Two-Way Breathing Valve and Tubing Connections with Headgear and Mouthpieces
· Heavy-Duty Cart with articulating support arm
· Calibration Gases: Two primary laboratory standard gas tanks with regulators
· Real time and continuous Temperature, Humidity & Pressure Monitoring
· 3 liter calibration syringe
· Laptop Computer or Desktop Computer with Monitor

Optional Features and Equipment for MOXUS available from AEI:

· Color Ink Jet Printer
· Canopy System for Resting Energy Measurement
· Cardiac output (CO2 Re-breathe) available [for Research use only]
· Masks + Mask Kits
· EKG monitors
· Spirometers
· Pediatric options available
· Treadmills
· Ergometers
· Extended Warranty
· Factory Maintenance and Service Packages

Specifications for the S-3A/I Oxygen Analyzer

· **Speed of Response:** to 90% of final value in less than 100 milliseconds for a step change in concentration.
· **Accuracy:** ± 0.01% O_2
· **Repeatability:** ± 0.01% O_2
· **Sensitivity:** ± 0.001% O_2
· **Drift or Stability:** Over 24 hrs

· **Resolution:** Digital Display ± 0.01 % O_2
· **Operating Range:** 0 - 100% O_2
· **Analog Output:** 0 to 10 Volts buffered for 0 - 100% O_2
· **Operating Temperature:** 0 - 40°C
· **Sample Flow Rate:** 10 - 500 ml/min, 50 - 200 ml/min recommended for most applications
· **Voltage:** 120 VAC or 240 VAC

Specifications for the CD-3A Carbon Dioxide Analyzer

· **Speed of Response:** to 90% of final value in less than 25 milliseconds for a step change in CO_2 concentration
· **Accuracy:** ± 0.02% CO_2 0 - 7% CO_2 range; 1% of the reading >7 - 15% CO_2 range
· **Repeatability:** ± 0.01% CO_2
· **Sensitivity:** ± 0.001% CO_2
· **Resolution:** Digital Display ± 0.01% of CO_2
· **Operating Range:** 0 - 15% CO_2
· **Analog Output:** 0 to 7.5 Volts buffered for 0 - 15% CO_2
· **Operating Temperature:** 0 - 40°C
· **Sample Flow Rate:** 10 - 500 ml/min
· **Display:** Continuous display of CO_2 concentration or End Tidal CO_2 for each breath
· **Voltage:** 120 VAC or 240 VAC
· **Drift or Stability:** Over 8 hrs

Specifications for the Pneumotach Flow/Volume Measurement

· **Flow Range:** 0 to greater than 800 liters/minute
· **Volume Accuracy:** better than ± 1.0% typical
· **Resistance to Flow:** 2.8 cm H_2O at 400 liters/min

Specifications for the Ambient Temperature/Pressure/Humidity Measurement

· **Temperature:** ±0.5 deg. C
· **Pressure:** ±1 mmHg
· **Humidity:** ±3% rh

Specifications for the Calibration Gases

· E Size Cylinder, Primary Standard, 4% CO_2 , 16% O_2 ,Bal. N2; accuracy: ± 0.02% CO_2 absolute, ±0.02% O2 absolute
· E Size Cylinder, Primary Standard, 0.03% CO2 , 21% O2 , Bal. N2; accuracy: ± 1% of CO2 component,± 0.02% O2 absolute

Dimensions

Width = 36”; Depth = 24”; Height = 48” [add 36” for swing arm]

CONTACT US at SALES@AEITECHNOLOGIES.COM or + 1 630 352 3695 for a QUOTE visit us at www.aeitechnologies.com

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