

# MASK INTEGRITY TEST ACCESSORY (MITA) MODEL 8120

START WITH THE HIGHEST  
LEVEL OF PROTECTION

Designed by the leaders in quantitative fit testing technology, the TSI Mask Integrity Test Accessory (MITA) 8120 works in tandem with a PortaCount® Respirator Fit Tester to test full face respirators for leaks and ensure they are functioning as designed.



MITA assesses the overall integrity of masks by performing an aerosol leak test utilizing the PortaCount Respirator Fit Tester as a particle detector. While under conditions of negative pressure and constant flow, the mask is tested on a full head form with an enhanced bladder seal system to provide a tight seal for most gas mask and full face respirator types and sizes. Testing the mask on this full head form configuration allows for use of the mask's head harness, mimicking a real-life application and providing better representative results.

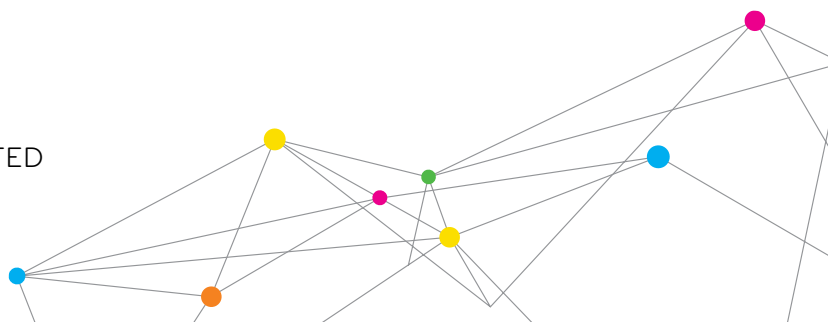
When a leak is detected during the assessment, the integrated aerosol wand and generator is used to pinpoint invisible leaks for quick evaluation and repair. The operator uses the aerosol wand to direct a stream of concentrated particles at specific locations around the mask until the single-particle counting capability of the PortaCount Respirator Fit Tester detects the suddenly elevated particle concentration and alerts the operator. Additionally, MITA is capable of testing the integrity of a mask's exhalation valve and drink tube when applicable.

## Features and Benefits

- + Separate tests for overall mask integrity (Protection Factor), exhalation valve and drink tube
- + Integrated aerosol wand pinpoints leak locations, allowing for immediate evaluation and repair
- + Full head form configuration allows for use of the mask's head harness, mimicking real-life application and providing better representative results
- + Single head form with an enhanced bladder seal system creates a tight seal for most gas mask and full face respirator types and sizes
- + Easy-to-read display provides an intuitive step-by-step test sequence, requiring minimal operator training
- + Streamlined menu structure and no-nonsense keypad eliminate redundant button pushing
- + Quick setup/teardown process saves time
- + Efficient test sequence allows for 12 masks per hour or more throughput
- + Packaged for ease of transport with one carrying case for the instrument and all components



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# SPECIFICATIONS

## MASK INTEGRITY TEST ACCESSORY (MITA) MODEL 8120

### Overall Mask Integrity Test

Technique Aerosol leak test on head form  
 Aerosol Detector PortaCount Respirator Fit Tester models; 8020, 8020M, 8030 or 8038 (sold separately)  
 Protection Factor Range 1 to 999,000  
 Mask Flow Rate Adjustable, 10 to 25 lpm  
 Test Pressure\*\*\* Adjustable, -1 to -6 in. H<sub>2</sub>O

### Exhalation Valve Test

Technique Pressure decay  
 Pass/Fail Criterion Adjustable, 5 to 50 cm<sup>3</sup>/min  
 Test Pressure\*\*\* Adjustable, 0.5 to 1.5 in. H<sub>2</sub>O

### Drink Tube Leak Test

Technique Pressure decay  
 Pass/Fail Criterion Adjustable, 0.2 to 1 cm<sup>3</sup>/min  
 Test Pressure\*\*\* Adjustable, 4 to 6 in. H<sub>2</sub>O

### Drink Tube Flow Test

Technique Pressure-drop measured at known flow rate  
 Pass/Fail Criterion Adjustable, 0.5 to 3 in. H<sub>2</sub>O  
 Test Flow Rate Adjustable, 1.5 to 2.5 lpm

### Leak Location Detection

Technique Aerosol generation with aerosol wand and particle counter  
 Aerosol Emery Oil (PAO)  
 Aerosol Detector PortaCount Respirator Fit Tester models; 8020, 8020M, 8030 and 8038 (sold separately)

### Operating/Storage Conditions

Operating Temperature 32° to 120° F (0° to 38° C)  
 Operating Humidity 0 to 90% RH  
 Max. Operating Altitude 10,000 ft. (3,000 m)  
 Storage Temperature -40° to 160° F (-40° to 70° C)

### User Interface

Display 5.7 in. diagonal (320 x 240 pixels) monochrome LCD (backlit)  
 Keypad Membrane switch  
 LED Indicators Power, pass, fail, aerosol, and alert

### Physical (not including PortaCount fit tester)

Instrument Size 26 in. wide x 20 in. deep x 16 in. high (66 cm wide x 50 cm deep x 40 cm high) carrying case top lid with headform installed  
 Carrying Case Size ATA certified, 26 in. x 20 in. x 22 in. (66 cm x 50 cm, x 56 cm)  
 Weight 65 lbs (29.5 kg) with carrying case & accessories  
 Power 100 to 240 VAC, 50/60 Hz, also supplies power to PortaCount fit tester

### Data Storage Capabilities Range

4,000 mask tests and 100 Self Check tests

### MITA Communicator Software

User programmable mask test protocols and logged data downloading. Minimum PC hardware requirements are Microsoft® Windows® XP, or Windows® 7® (32 and 64-bit) software.

Specifications subject to change without notice. Model 8120 Mask Integrity Tester is patented under U.S. Patent No. 8,312,761 and 8,621,914. Additional patents pending. TSI, the TSI logo, and PortaCount are registered trademarks of TSI Incorporated. Microsoft®, Windows® XP, Windows® 7, are trademarks of Microsoft Corporation.

\* The MITA requires connection to a PortaCount Respirator Fit Tester (sold separately).

\*\* Other fixtures and adapters to accommodate additional gas masks and full face respirators are possible. Contact TSI for further information.

\*\*\* Test pressure values are available in a variety of user selectable units including: in. H<sub>2</sub>O, Pa, hPa, kPa, mm. Hg, cm. Hg, in. Hg, mm. H<sub>2</sub>O, or cm. H<sub>2</sub>O

### MITA Kit Includes

- + Universal AC Adapter with Line Cord
- + Headform
- + Headform Mask Sample Plug
- + #1 Rubber Stopper Mixer Port Stopper
- + Mask Bypass Hose
- + Twin Tube with 1 in. relief cut
- + Aerosol Wand
- + Aerosol Generator Assembly
- + Aerosol Containment Hood
- + Aerosol Mixer
- + Mask Filter Plug
- + HEPA Filter Canister (x2)
- + Drink Tube Sampling Hose
- + DT & EV Bypass Hose
- + Emery Oil (500 ml)
- + PortaCount® Fit Tester Interface Cable (for Model 8030/8038 only)
- + MITA Computer Cable
- + Isolated USB to Serial Converter
- + MITA Communicator Software CD
- + Quick Start Guide
- + Self Check Components Reference Card
- + Operator's Manual
- + Calibration Certificate
- + One-Year Warranty

### MITA Mask Adapters Kits

Part Number	Applicable Mask Models
8125-01	M40, FR-M40, M45, MCU2P, Millennium
8125-02	M50, C50
8125-03	M53, FM12
8125-04	C4
8125-05	MSA Ultra Elite (w/ 40mm Threaded, Slide-and Push-To-Connect, CBRN Versions); MSA Advantage 3000
8125-06	3M 6000 Series, 7000 Series, 7800S, 7800B CBRN Versions
8125-07	Scott AV2000, AV3000
8125-08	Draeger Panorama Nova; MSA Ultra Twin
8125-09	North Series 5400 and 7600



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