

CBRN DEFENSE

Mask Integrity Test Accessory



A quick and easy way to verify the integrity of respirator face pieces.

Features and Benefits

- Separate tests for overall mask integrity (PF), outlet valve and drink tube
- Easy to use with minimal training
- Quick setup/teardown
- Up to 12 masks per hour throughput
- Single head form fits most respirator types and sizes
- Line replaceable unit (LRU) contains all key electronics and sensors
- Integrated particle wand pinpoints leak locations

Mask Integrity Test Accessory (MITA)

The new TSI Mask Integrity Test Accessory (MITA) works in tandem with the Assessment Test System (PATS) or PORTACOUNT® Respirator Fit Tester to quickly test for leaks in military gas masks and/or commercial respirators. The MITA has been packaged for ease of use and ease of transport. The top of the carrying case holds the instrument while enclosed in the bottom is the accessory compartment. The head form provides a tight seal for most gas mask and respirator types and sizes. Masks attach to the head form using their head harness. The essential components needing calibration are now integrated into an LRU that can be easily replaced in the field.

The Mask Integrity Test Accessory (MITA) is designed to work along with the PATS or PORTACOUNT Respirator Fit Tester to verify that a respirator is in perfect operating condition. The PORTACOUNT fit tester serves as a particle detector for determining the overall integrity of the mask by performing an aerosol mask leak test. The mask is tested on the head form while under conditions of high vacuum and constant flow. The integrated particle wand/aerosol generator is used to pinpoint invisible leaks so they can be repaired quickly. The operator uses the particle wand to direct a stream of concentrated particles at specific locations around the mask. When the particle stream is near the leak, the single-particle counting capability of the PORTACOUNT fit tester detects the suddenly



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Mask Integrity Test Accessory

Specifications

Mask Integrity Test Accessory (MITA)

Overall Mask Integrity Test

Technique	Aerosol leak test on head form under vacuum and flow*
PF Range	1 to 40,000 typical
Mask Flow Rate	Adjustable – 16 lpm typical
Test Vacuum	Adjustable up to 6 in. H ₂ O

Outlet Valve Test

Technique	Pressure decay
Pass/fail Criterion	Adjustable - 15 cm ³ /min typical
Test Pressure	Adjustable - 1 in. H ₂ O typical

Drink Tube Leak Test

Technique	Pressure decay
Pass/fail Criterion	Adjustable - 0.5 cm ³ /min typical
Test Vacuum	Adjustable - 6 in. H ₂ O typical

Drink Tube Flow Test

Technique	Pressure-drop measured at fixed flow rate
Pass/fail Criterion	Adjustable - Fail if pressure drop greater than 2.2 in. H ₂ O or if 2.0 lpm cannot be reached typical
Test flow Rate	Adjustable - 2.0 lpm typical

Leak Point Detection

Technique	Particle wand and particle counter*
Aerosol	Oil (PAO)

Test Aerosol Generation

Technique	Atomizer using oil (PAO)
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Aerosol Detector

Protection Assessment Test System (PATS) or PORTACOUNT Plus (supplied by user)

Pressure Sensors

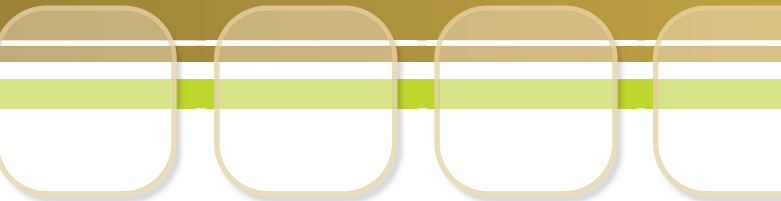
Technique	Solid state transducer
Range	-15 to +15 in. H ₂ O
Accuracy	2% of full scale

User Interface

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

Physical (not including PATS or PORTACOUNT tester)

Instrument Size	25.5 in. wide x 19.3 in. deep x 17 in. high (9.5 in. high w/o head form)
Line Replaceable Unit Size	9.3 in. wide x 13.3 in. deep x 4.3 in. high
Carrying Case Size	25.5 in. wide x 19.3 in. deep x 18.3 in. high
Weight	65 lbs (with carrying case & accessories)
Power	100 to 240 VAC, 50/60 Hz, also supplies power to PATS or PORTACOUNT fit tester



elevated particle concentration and alerts the operator. The MITA also tests the integrity of the mask outlet valve (exhalation valve) and drink tube train (if present).

Test personnel need minimal training. The easy-to-read display on the MITA prompts the operator through the intuitive step-by-step test sequence. Experienced operators appreciate the streamlined menu structure and no-nonsense keypad that eliminates redundant button pushing. Troubleshooting defective masks is made quick and easy using the integrated aerosol wand to pinpoint leaks, repair them if possible, and re-test.



Standard Accessories

- Head form (stored in carrying case)
- Particle wand and aerosol generator
- Outlet valve test fixture**
- Drink tube coupler**
- Filter plug
- Filter Canister
- Go/No-Go test fixture
- Instruction manual

Specifications subject to change without notice.

** The MITA is an accessory that works along with the Protective Assessment Test System or PORTACOUNT Plus Respirator Fit Tester supplied by the user.*

*** It may be necessary to design outlet valve test fixtures and drink tube couplers to accommodate specific gas masks and respirators. Contact factory.*

Note: The MITA requires connection to a user-supplied PATS or PORTACOUNT Plus Respirator Fit Tester.

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