



## **TDA-99B Description**

The TDA-99B Protective Mask Test System provides a broad range of testing functions for military and commercial masks and respirators. The system is very easy to use, with full data management capabilities. The modular design enables testing of virtually all protective masks and mask components to a wide variety of test standards. The TDA-99B is ideal for use in manufacturing plants, mask storage depots, cleaning/repair facilities, and any other location where quality assurance testing of masks and respirators is required.

The TDA-99B was designed to replace the antiquated military M14 and commercial TDA-104, TDA-2ENB and TDA-101 test systems that have been in widespread use for decades. The basic system provides aerosol-based leakage testing of protective masks with or without the filter canisters attached. Additionally, the leakage isolation test enables the user to locate leaks normally invisible to the naked eye so that repair/replacement decisions can be made. The touch-screen interface and Pentium® processor-based control system provide maximum data management flexibility. The TDA-99B also includes a built-in aerosol purge and filtration system to eliminate the need for a fume hood.

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## Optional Capabilities

In addition to the basic functionality described above, the TDA-99B can also be configured to provide the following optional protective mask testing capabilities:

**Outlet Valve Test** - The outlet valve can be isolated for airflow leakage under tightly controlled pressure and flow conditions.

**Drink Tube Flow Test** - The drink tube flow and resistance are measured to determine if there is blockage in the tube.

**Drink Tube Valve Test** - The drink tube valve is tested for leakage under controlled pressure conditions.

**Drink Train Leak Test** - The entire drink tube is tested for leakage under controlled pressure conditions.

**Parallel Measurement** - Dual detection systems can provide parallel measurement of leakage in two areas of the mask simultaneously, such as nose cup and eye lens area.

**Hose Testing** - Enables full leakage testing of masks with air supply hoses.

**Fit Testing** - Aerosol-based quantitative fit testing of protective masks on human subjects can be provided with full user-controlled flexibility for setting the number of tests, test length, alarm points, etc.

**Extra Test Heads** - The base TDA-99B includes one medium or small test head with an inflatable peripheral seal. Additional test heads can be provided for testing an extremely wide variety of full-face and neck-seal protective masks.

**Breathing Simulation** - Although typical leakage tests use a constant airflow under negative pressure, the TDA-99B can be integrated with a full-function sinusoidal breathing system to simulate a wide range of human respiratory patterns.

**Mil-Spec Mask Flexing** - If required, the TDA-99B can be easily modified to incorporate Mil-Spec flexing hardware and fittings, with full data logging capability.

Since all TDA-99B Protective Mask Test Systems are made to order, additional testing functionality and options can be designed to meet your specific needs.

**General Specifications**

<b>Size</b>	30" x 36" x 52" (W x L x H)
<b>Weight</b>	150 lbs.
<b>Power Requirements</b>	100 to 250 volts AC @ 50 to 60 Hz
<b>Compressed Air Requirements</b>	70 ± 10 psig @ 3 cfm
<b>Aerosol Simulant</b>	Poly-dispersed oil aerosol (Typically PAO - polyalpha olefin)- 0.1 to 0.5 µm particle size
<b>Aerosol Detection</b>	Near forward light scattering photometry: 0.0005 to 100%

For Additional Information Contact:

**TRADEWAYS**LTD184 Duke of Gloucester Street  
Annapolis, Maryland 21401  
United States of America

TEL: 1-410-295-0813

FAX: 1-410-295-0821

E-MAIL: [Office@TradewaysUSA.com](mailto:Office@TradewaysUSA.com)