LeakMaster
GUARDIAN

CUTTING EDGE LEAK TESTING TECHNOLOGY

MODERN. CONFIGURABLE. LEAK TESTING

Light Mode   Dark Mode

Modern and ultra powerful, the Guardian is a multi-channel capable leak tester that's ideal for a wide range of test methods including pressure decay, vacuum decay, metered volume, mass flow or differential pressure leak testing. Standard, high speed 64-bit processor and 24-bit digital pressure transducer provide stable, repeatable results. Optional **EtherNet/IP** communications make startup and integration quick and efficient.

Key Benefits

- Configurable for all types of air leak testing
- Intuitive 10" touchscreen interface with Light and Dark modes for easy viewing
- High Resolution Pressure Detection
- -14.7 to 380 PSIG pressure ranges
- Automatic Calibration of Programs

- Optional **EtherNet/IP** and standard USB/RS232 communications. LeakMaster exclusive Slave Mode that allows an external PLC to control all functions.
- Self-Test Feature for easy diagnostics of internal manifold
- Large internal manifold porting for quick Fill times

Enclosure
Compact design (12"w x 12"h x 10.25"d)
Mounting holes on the back (4, ¼-20 threaded holes)
Vesa Mounting Pattern
Electrical Connections on Left side of unit
Pneumatic Connections on the bottom of the unit
Designed and built to last in extreme industrial environments

Electrical Requirements
24VDC @ .75A
M12 Euro input connection

Pneumatic Requirements
Clean Dry Air or Nitrogen (.5 Micron Filtration)
Supply pressure must exceed test pressure

Test Port
Single Channel – 1 Port for testing
Optional 2nd Channel (for testing 2 parts at a time)
¼" NPT female CPC quick connect

Discrete I/O
16 inputs (5-32 VDC sourcing)
16 outputs (24 VDC sourcing)

Communications
Optional Ethernet IP® (EDS file supplied)
Optional Profinet
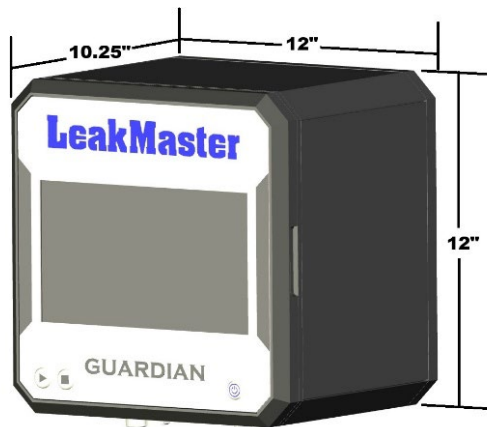USB/RS232 Ascii results output

Color Touch Screen
10" HDMI color touch screen
Touch inputs for programming and setup
Screen turns Green or Red for Pass/Fail status
LED Indicator for Pass/Fail Status
Light/Dark Mode for user selectable viewing preferences

Processor and Resolution
64-bit CPU and 24-bit pressure transducer enables up to 1000 scans per second.
Data points are averaged and interpolated to minimize noise and increase resolution and repeatability.

Graphing
Live Graphing can be viewed during test
Each test is graphed and stored in the results menu
User can zoom in on the graphs to view each step of the leak test cycle to optimize cycle times.
Graphs can be exported to USB as CSV files

Visit our website: leakmasterusa.com

10.25" **12"** **12"**

Test Programs

999 user selectable programs

Program 11 designed for Self-Test Mode

Each program can operate in different modes

Touch screen programmable

Timers, Pressure Limits, and Reject Limits

Calibration Parameters

Units of Measurement

Selectable via user, Ethernet IP®, or Discrete I/O

Import/Export to USB flash drive

Multi-Level Users with Password Protection

Self-Test Program

Allows user to plug the unit to verify the instrument is leak free.

Useful tool for troubleshooting tooling and locating leak sources.

Guardian Available Test Types

Pressure Decay – volumetric leak rate (sccm)

Pressure Decay – pressure loss/time

Vacuum Decay – volumetric leak rate (sccm)

Vacuum Decay – vacuum loss/time

Occlusion Testing

Differential Pressure- volumetric leak rate (sccm)

Differential Pressure- pressure loss/time

Mass Flow

Metered Volume (Volumetric Fill)

Chamber Testing

Program Calibration

Automatic routine teaches the instrument pressure curves of non-leaking part vs. a reject leak condition.

Automatically calculates test volume of the circuit.

Units of Measure

Pressure – PSIG, PSIA, kPa, Pa, Bar, mbar, in. H2O, in. Hg., Kgf/cm2

Flow – sccm, sccs, slpm, slps

Time – seconds (0.001 increments)

All units can be programmed independently per program.

Password Protection

3 Level - Admin, Supervisor, Operator levels

Logged-In User is logged with each result

Data Logging

2,500 tests stored in memory

Exportable to USB flash drive

Each result consists of leak rate, test pressure, units of measure, programmed times, limits and calibration data.

Barcode reader integration capable of storing individual part numbers with leak test data.

Pressure Transducer Options

Range	Measurement	Accuracy	Resolution
0-29 PSIA	-14.7 to 14.7 PSIG	.01% FS	.00001 PSIG
0-15 PSIG	0-15 PSIG	.01%FS	.00001 PSIG
0-60 PSIG	0-60 PSIG	.01%FS	.00001 PSIG
0-150 PSIG	0-150 PSIG	.01%FS	.0002 PSIG
0-380 PSIG	0-380 PSIG	.01%FS	.001 PSIG

Manual Pressure Regulator Ranges

Range: 0-2 PSIG

0-15 PSIG

0-60 PSIG

0-150 PSIG

0-400 PSIG

Two manual regulators maximum

Optional Electronic Pressure Regulator Ranges

Range: 0-14.5 PSIG

0-72.5 PSIG

0-145 PSIG

Higher ranges available upon request

Visit our website: leakmasterusa.com

Custom Automated turnkey leak test system with Guardian leak test instrument testing a UTV split engine block.
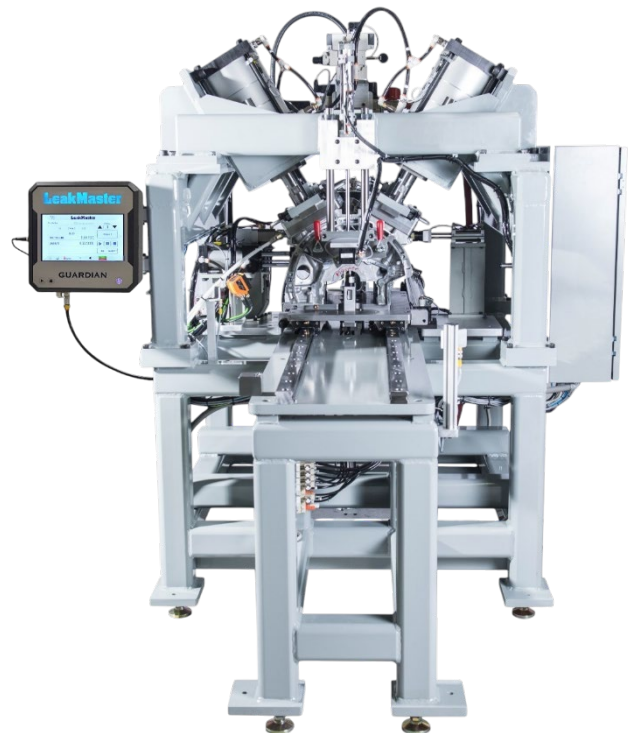
LeakMaster
GUARDIAN

Why Choose Guardian?

Configurable for any type of air leak testing method, and simple **EtherNet/IP** integration make the Guardian leak test instrument the go to choice for integrators and machine builders across the globe.

The Guardian is a modern leak test instrument — engineered for speed, accuracy, seamless integration, and multiple leak testing methods. Its compact size, configurability, and powerful features make it a great value high performance leak testing instrument.

Custom Automated turnkey leak test system with Guardian leak test instrument testing a V6 engine block.

LeakMaster Leak Testing Instrumentation Product Line Up

📞 812.437.8378

Visit our website: **leakmasterusa.com**