



ASECSOLUTIONS PRIVATE LIMITED
TEST & MEASURE

MINIATURE LEAK TESTERS **MODEL: ASEC-MILT**



ASEC SOLUTIONS have been pioneering design and supply of Low Cost Miniature Air Leak Testers. This leak tester works on the Pressure Decay principle and is housed in an Double DIN ABS box with red LED display on the front. We use an imported Pressure Transducer which is the heart of the Leak testing Unit. Besides the Pressure Transducer, the complete design, development and manufacture of Electronics including software are carried out in house.

This Leak Tester can be used for simple Leak testing applications only, where gross leaks need to be identified. Complete pneumatics and fixtures can be supplied. We use the best of pneumatic and sealing components available in the world for integration and control purposes.

Advantages of Electronic Air Leak Testing

The primary advantage of air leak testing is the speed at which the test can be performed, so automatic air leak testing has become an important requirement in production manufacturing. When deciding whether a part is a candidate for air-leak testing, consider the type of liquid or gas used, as well as the intended operating pressure of this liquid or gas. Components that operate with liquid are particularly good candidates.

In automatic testing, electronic leak testing devices are typically used to determine leak rates. Pressure decay leak testing is the simplest most reliable leak testing method available. The tester pressurizes the test part automatically and measures pressure loss caused by leakage. The segregation of OK and NOT OK parts is done automatically, independent of the operator.

Why Leak Testing is required.

In order to check the physical integrity of components it is essential that they are subjected to leak testing before use in further assembly. Cast Components may have porosity or blow holes and it may not be always possible for conventional inspection procedure to pick up the defects.

Electronic Leak testing offer a non destructive and operator independent tool for testing the various parts. It also offers an accurate and highly repeatable method which is also quantifiable.

Principle of Operation

The specimen is pressurized by first opening an electronically actuated solenoid valve. After the desired pressure is achieved or after a preprogrammed fill time is over, the pressure source is cut off. After allowing time for stabilization, which is also programmable, the pressure drop during a programmable test time is measured by a micro controller based instrumentation. The Pressure drop or the computed leak rate is then compared with preset programmable Permissible leak values and pass or fail lamp is switched on.

Application and Technical Support

ASEC have over the years, gained valuable and extensive experience in Leak testing Methods of Pumps / Medical devices / Automotive / Pneumatic / Hydraulic components. We will be able to provide you advice on methods, selection of equipment, evaluation, leak rate specifications and on line production testing.

Applications

We list below some of the components for which Electronic Air Leak testers can be used.
Water Pumps, Medical devices, Hydraulic Pumps, Mufflers, Exhausts Systems, Fuel Cocks., etc.

Technical details:-

Range (mbar)	: 200, 500, 1000, 2000, 3000, 5000, 6000
Resolution	: 200 to 500 mbar (0.01 mbar / 1 Pascal) 1000 to 6,000 mbar (0.1 mbar / 10 Pascal)
Pressure Transducer	: Reliable semiconductor technology.
Processor	: Micro-Controller Based.
Display	: 8 Digit red LED display, seven segment 12.7 mm character height
Channel	: Single
Number of programs	: 10 – selectable through front panel keyboard only.
Limits Settings	: Programmable 3 Limit Settings.
Inputs	: Start and Reset - 24 V DC (2 Amps) supply to be provided at your end.
Outputs	: Two outputs (Pass & Fail) - 24 V DC (2 Amps) supply to be provided at your end.
Buzzer	: Fail condition
Timers	: Software Timers – 3 timers from 1 sec to 250 seconds.
Annunciation LEDs	: Coloured LEDs for Test in progress, Pass and Fail (Fault message)
Operating Temp	: 5 to 45 deg C
Power Supply	: 230 Volts AC, 50 Hz.
Box	: Double DIN ABS Box – Dimensions 192 mm (L) X 200 mm (D) X 96 mm (H)