

Leak Testing Technical Components

B M C Controls Ltd.

Although we are best known for our range of blow moulded bottle leak testers and on-line check-weighers, we have produced many “special testers” for non-packaging applications. Applications to test Rotary moulded, two part Injection moulded components are just a small fraction of such systems.

Many of these testers required the part to be hand loaded into a simple holding fixture, others were fully automatic. We have also integrated the leak test operation into other equipment, for example trimming machines, printers, flame- treaters etc.

KEY FEATURES

1. Menu driven display makes adjustments, diagnostics and test results easy to see and set.
2. Either pressure decay or vacuum testing, depending on the application.
3. Auto-Calibrate feature ensures highest sensitivity without constant adjustment.
4. Non-contact dual start systems, eliminates RSI.
5. Plenty of spare inputs and outputs that allow for integration with existing hardware.
6. Intel/Microsoft™ technology gives the highest level of “future proofing”
7. Password protection prevents unauthorized changing of critical settings.
8. Multi language Display.

BMC Controls can supply a test system to suit your requirements:

1. **Complete system ready to use.**
2. **‘Kit’ to integrate into your own assembly**
3. **Control unit only .**



Leak testing a water heater

This tester was designed to test at 8 bar to simulate high water pressure found in some regions. To prevent operator fatigue from packing “failed” components the tester has to be reset to allow the faulty product to be released.

Because of the critical applications that "Technical" components are often used in, it is important that leak testing equipment is capable of detecting the smallest holes without rejecting good parts. The following points should be observed to get the best performance from leak testing equipment:

Parts should be as near ambient temperature as possible, if necessary, build a queue between the machine and tester.

Set the tester to the longest possible test time. This gives the greatest pressure differential if there is a tiny hole.

Have the QC department check the tester at regular intervals with a calibrated orifice for repeatable results.

Ensure operators fully understand the equipment. Most leak tester problems are related to incorrect settings.



Operator Control Panel

AccuSense[®] Operator control unit. All settings, test results and diagnostics are displayed on a clear back-lit screen.



Leak Tester For Brake Fluid Reservoir

This container was produced by welding the two injection moulded components together. The purpose of the tester was to check the weld had a perfect seal. The use of the two test positions enables the operator to load and unload one station while the other station is performing the leak test. Although hand-loaded, the operation was able to be carried out without the need for any additional personnel.



Leak Tester For Microwave Components

The shuttle design of this leak tester system allows the operator to load two components while two are being tested. Due to the rigidity of the component, the sensitivity was better than 0.1mm. The product being tested is a satellite UNB, the purpose for this test was to ensure that rain-water did not enter the sensitive electronics.

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