

CTRL Systems, Inc. Best Practice

Industry

Manufacturing / Production

Application

NDT Leak Detection

System

Mobile Container Shelter Systems

Component

Welds and Seams

Current Procedures

Before a shelter system is built within a sealed container the container goes through a simulated rain storm to verify the welds and seams do not leak. If a water leak is found the container is dried, repaired and retested until all leaks are fixed.



CTRL's Solution.

1. Select UL101 Receiver, UT200, Headset, Mini-Concentrator, and 1-Inch Acoustic Tip from case.
2. Attach Mini-Concentrator and plug in headset to UL101 Receiver.
3. Verify operation of UL101 and UT2000 in accordance with operators manual.
4. On the UL101 turn the gain switch to ½ scale (half-moon); adjust potentiometer knob between 1 and 2. With the head set on, point UL101 in direction of UT2000 and listen for its sound.
5. Place UT2000 inside container, close container.
6. Begin at one end of the container. Point the UL101 receiver in the direction of the welds and seams walk along while scanning.
7. A leak is indicated by a jump in the meter and the UT2000 sound through the headset.
8. Once a leak or leaks are detected, pinpoint by switching the Mini-Concentrator attachment with the 1-Inch Acoustic Tip. If needed, adjust the potentiometer down to locate the exact location of the leak.
9. Indicate leak location and repair. Verify repairs with UL101.

Benefit

The purpose of detecting leaks on mobile container shelter systems welds and seams is to keep expensive equipment contained within dry and air tight to prolong shelf life and service.

When used in conjunction with the rain test as a control in the QC process, the UL101 is faster at finding leaks than placing each container through a simulated rain storm. Production technicians do not have to dry containers before repairs and retest. Leak location and identification is not impeded by ambient noise. All leaks can be found and properly identified for repair with one NDT test.

This allows the company to focus more on labor and production rather than quality control.