

AIRBORNE ULTRASOUND

LEAK MANAGEMENT: FIND-AND-FIX LEAKS



1



Pre-Survey Checks



Safety:

Check safety policies. Check working environment for hazards. Intrinsically safe equipment required?



Review compressed air system layout/drawings.



Check gauge for expected pressures.



Inspect the area, locate pipes, valves and fittings.



Equipment Check:

1. Personal Protective Equipment (PPE)
2. Ultrasound instrument
3. Headphones
4. Extended distance sensor
5. Flexible sensor
6. Parabolic sensor
7. Shielding cloth
8. Tags and marker/pen
9. Defect log
10. Flashlight

2



Start Survey



Adjust headphone and instrument volume to the minimum necessary for the job. Protect from hearing damage!



Sweep target area from left to right and top to bottom.



Locate any leaks.



Adjust instrument amplification "sensitivity" as required.



Re-adjust headphone and instrument volume if leak is nearby.



Control your measurement position.

3



Pinpoint and Tag

Pinpoint the exact location of the leak by moving closer to the source, if safe to do so.



Reduce instrument amplification "sensitivity" as you approach leak.



Control any background noise or sound with shielding techniques.



Manage your reflections: Verify that the true source of the leak is being detected and that the signal is not being reflected off nearby objects or walls.



Create a survey and document your leaks in pictures with the LEAKReporter app.



Manage repairs and evaluate costs on leakreporter.sdtultrasound.com

4



Repair and Document



Safety:

Isolate system to be worked on. Lock-out and tag-out system machines.



Bleed off any excess system pressure.



Repair defect to eliminate leak.



Update the status of the repaired leaks in your LEAKReporter app.



Notify supervision and operations that repair task is completed.



Once system is back online re-survey the area and record the new value (dBuV) for documentation.