

ULTRASONIC IMAGING

LEAK MANAGEMENT: FIND-AND-FIX LEAKS



LUDECA

1



Pre-Survey Checks



Safety:

Check safety policies.
Check work environment for hazards.



Equipment Check:

1. Personal Protective Equipment (PPE)
2. Ultrasound Imaging instrument
3. Headphones (Optional/May be required for safety)
4. Tags and marker/pen
5. Defect log
6. Flashlight



Review compressed air, gas, or steam system layout/drawings.



Check gauges for expected pressures.



Locate pipes, valves and fittings within the target area.

2



Start Survey



Select ideal location that allows you to scan target area safely.



Adjust instrument threshold to the minimum necessary for the job, just above ambient signal power level.



Adjust survey distance setting (Near, Far, or Auto) accordingly.



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



Leaks are identified on screen as a colorful bright spot.



Adjust instrument range setting as required to enhance image.

3



Pinpoint and Tag



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



Reduce distance setting as you approach leak. Maintain minimum distance as listed in instrument specifications.



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.



Record your findings by capturing an image or video of the source.



Place a leak tag, if (and only if!) safe to do so detailing the value of the leak.

4



Repair and Document



Safety:

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



Bleed off any excess system pressure.



Verify leak location.



Repair defect to eliminate leak.



Notify supervision and operations that repair task is complete.



Once system is back in service re-survey the area to verify the leak has been repaired.