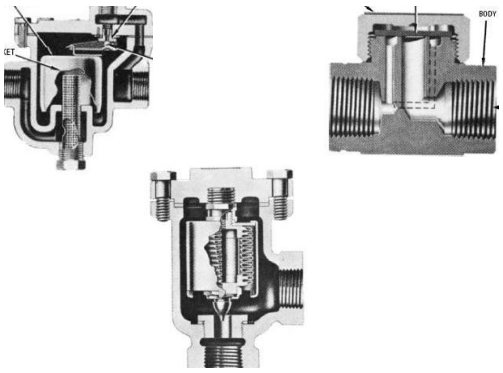
CTRL Systems, Inc. Best Practice



Industry
Power Generation

Application
NDT Steam Trap Testing

System
Steam Piping

Component
Steam Traps except Float and Float & Thermostatic Traps

Current Procedures
There are four common steam trap inspection methods for detecting a bad steam trap, visual, temperature, running to failure and ultra sound. Visual inspection requires an inspector to let a steam trap discharge to atmosphere. However, doing that changes the parameters of the closed system and, therefore, can be unreliable. Temperature is not the most reliable indicator either because of back pressure variables and blockages. Traps that have failed completely are easy to detect, but the object is to find steam traps before they fail completely.

CTRL's Sound Solution.
1. After a short training lesson of familiarization and application of the UL101. The maintenance technician selects the UL101 Receiver, Headset, and solid probe from their case.
2. Attach solid probe and plug in headset to UL101 Receiver.
3. Verify operation of UL101 in accordance with the operator's manual.
4. Turn gain switch to ½ scale (half-moon); adjust potentiometer knob between 1 and 2.
5. Ensure steam plant is aligned and operating properly. Verify if steam trap is hot or cold. If cold, steam trap has no flow, clear blockage to trap. If hot contact solid probe to steam trap housing and listen for operation. Intermittent sound of flow and then no flow indicates a properly operating steam trap. Continuous sound of flow indicates a defective steam trap.
6. Indicate the location of the defective steam trap and issue a work order for repair. Verify repairs with UL101.

Benefit
Although there are several types of steam traps on the market today, all basically have the same function of discharging condensate and non-condensable gases with negligible consumption or loss of live steam.

The UL101 ultra sonic leak detector is the most accurate and up-to-date device available for monitoring steam trap leaks today. The UL101 can be used to listen to the inner workings of the trap and "hear" its operation. Inspecting steam traps for proper operation saves energy by minimizing the loss of working steam.

The UL101 can help determine early indications of steam trap wear with normal use during steam trap monitoring applications. This allows seasoned and junior stationary engineers the ability to predict steam trap maintenance or repair at convenient times. Use UL101's ultrasound indication during steam trap monitoring is not impeded by other operating equipment ambient noise. Once repairs have been made a noticeable reduction in fuel bills will be noticed due to less generation of steam. Monitoring with the UL101 provides instantaneous real-time information.