Suggested Yearly Testing Frequency of Steam Traps

Best Practice Tip 113

In steam systems that have not been maintained for 3 to 5 years, between 15% to 30% of the installed steam traps may have failed—thus allowing live steam to escape into the condensate return system. In systems with a regularly scheduled maintenance program, leaking traps should account for less than 5% of the trap population. If your steam distribution system includes more than 500 traps, a steam trap survey will probably reveal significant steam losses.

Operating Pressure	Suggested Yearly Testing Frequency					
	Drip	Tracer	Critical Drip & Tracer	Coil	Process	Critical Coil & Process
0-100 psig 0-7 barg	1	1	4 or Continuous Real Time Monitoring	2	3	4 or Continuous Real Time Monitoring
101-250 psig 7-16 barg	2	2	4 or Continuous Real Time Monitoring	2	3	4 or Continuous Real Time Monitoring
251-450 psig 17-30 barg	2	2	4 or Continuous Real Time Monitoring	3	4	4 or Continuous Real Time Monitoring
450 psig & above 30 barg +	3	3	4 or Continuous Real Time Monitoring	4	4	4 or Continuous Real Time Monitoring

Steam Trap Testing Facts

Steam traps are tested to determine if they are functioning properly and not cold plugging or failing in an open position and allowing live steam to escape into the condensate return system. There are four basic ways to test steam traps: temperature, sound, visual and electronic.

Suggested Actions

Steam traps are tested primarily to determine whether they are functioning properly and not allowing live steam to blow through.

- Establish a program for the regular systematic inspection, testing and repair of steam traps.
- Include a reporting mechanism to ensure thoroughness and to provide a means of documenting energy and dollar savings.
- Consider online monitoring of the most important steam traps or those associated with your most important processes to quickly identify steam loss trends.

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