



STEAM TRAP AUDITS

Tundra Process Solutions' factory-trained Service Technicians are here 24/7/365 days to service all of your current and future needs. Tundra's Service Department will ensure your equipment is running efficiently, effectively and safely. We support operations, maintenance and engineering staff with training on new products, solutions & local regulatory requirements.





Steam Traps

Tundra performs steam trap audits in Western Canada using the TLV TrapMan and TrapManager software. The TLV TrapMan is the only third party validated computerized testing technology available, and comes with over 4,000 steam trap signatures stored internally.

Steam traps can be found anywhere a boiler serves to provide steam for mechanical work, heating or sterilization and are commonly the most ignored component of a steam system. This may affect both efficiency and safety.



TLV TRAPMAN

The TLV TrapMan is a precise steam trap testing instrument that uses temperature and the ultrasonic signatures from over 4000 steam trap models to determine the health of a trap. The TrapMan provides unique test results indicating amount of steam loss and corresponding monetary losses.



OUR AUDIT TECHNICIANS

Tundra employs Journeyman Steamfitter/Pipefitters with years of experience testing, reporting, and repairing steam trap installations. Tundra has performed audits in the following facilities: oil & gas, petrochemical, medical (hospital), food & beverage (rendering facilities, breweries), and commercial buildings. To-date, Tundra has tested over 1 million steam traps.



AUDIT REPORTS



The TLV standard TrapMan test results are objective. Trap reports and historical data can be maintained and compared survey vs. survey over several years, assisting with maintenance and preventative maintenance requirements. The TLV TrapMan reports take the guess work out of "good, bad and caution" test results from other systems. The TrapMan provides a detailed analysis of trap operation.

3 TYPES OF STEAM TRAPS



Thermostatic

The operation principle for these traps utilizes the difference in the temperatures of steam and condensate. Also known as 'Temperature Control Traps' or 'Balanced Pressure Traps.'



Mechanical

The operation principle for these steam traps utilizes buoyancy. Also known as 'Float Traps.'



Thermodynamic

The operation principle for these traps utilizes the difference in the thermodynamic properties of condensate and steam. Also known as 'Disc Traps.'

Steam Trap Management Programs are Essential

TO LEARN MORE, CONTACT
TUNDRA PROCESS SOLUTIONS

All steam traps have a finite life span which can be as short as 1-4 years, and they should be tested 1-6x each year (depending on the line pressure and application).

Replacing failed steam traps will improve safety, increase production, improve heating efficiency, reduce maintenance costs and the cost associated with unexpected equipment or piping failure.

Cold or blocked traps are often overlooked, with a focus on leaking traps and associated dollar losses. Cold traps pose a greater risk of freeze up and catastrophic failure in Canada (eg. condensate freezes due to trap blockage and piping breaks). Prevent catastrophic events, injury, or shut-downs by evaluating these traps promptly.

A steam trap should offer these benefits to any steam system:

1. Discharge steam condensate
2. Discharge air and other non-condensing gases
3. Prevent live steam leakage to the return system or grade
4. Provide long-term & robust operation with minimal maintenance requirements.

TUNDRA STEAM TRAP CASE STUDIES

Local Medical Care Facility

Total traps:	~150
In operation:	~150
Good traps:	~106
Failed traps:	~41
Cold traps:	~14
Annual steam losses due to failed traps:	\$20,440/yr.

Local Alberta Refinery

Total traps:	~9000
In operation:	~8000
Good traps:	~4100
Failed traps:	~3300
Cold traps:	~600
Annual steam losses due to failed traps:	\$2,3000,000/yr.

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