



**PRESTON
PHIPPS**

Since // depuis 1933

Industrial Steam Systems Agenda

DAY 1

8:30 Opening Remarks – Mark Paulin

9:00 Steam Basics – Rino Forgione

- Properties of Steam
- Heat Value of Steam
- The Perfect Steam System
- Steam Distribution
- Typical System Design
- Condensation in Steam Systems
- Effect of Flash on Condensate Return
- Steam Tables
- Steam System Efficiency and Flooded Systems

11:00 Steam System Design – Sylvain Munger

- Engineering vs Reality
- Line sizing, Drip Sizing
- HP vs LP
- Superheat
- Cascading Systems
- Contamination in Steam Systems
- Vacuum Barrel

11:45 Shop Walkdown

1:00 Steam Trapping – Randy Waldrum / Louis P Beauchemin

- Trap Types
- Trap Application and Selection
- Trap Selection and Orifice Sizing
- Safety Factors
- Trap Testing and Monitoring
- Trap Management System (Sage and UMT)

- Why We Return Condensate
- Types of Return Pump
- Steam Driven Pump (both pump traps and blowcases)
- Pump Demo
- Electric Pumps
- Dealing with Flash on Condensate Returns
- Returning Over Temp Condensate

3:30 Water Hammer – Brian Pyke / Alexis Tremblay

- Types of Water hammer
- Eliminating Water hammer risk
- Results of water hammer
- Water Hammer examples



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Day 2

9:00 Tracing Systems & Critical Temperature Maintains – Adolfo Allegro

- System Options (Electric, Steam, Oil, Glycol)
- Jacketed Pipe vs. ControTrace vs. Tube Tracing
- Tracing Demo
- Proper System Design
- Controheats
- System Operation and Isolation
- Freeze and Thaw
- The Effect of Temperature
- Leak repairs

10:30 Heat Exchange and Condensate Management – Sylvain Munger

- Steam Process Control (Pressure vs Level Control)
- Demo Heat Exchanger
- Coils
- Heat Exchanger Operation and Problems

1:30 Effective Management in Utility Systems – Brian Pyke

- The Effects of Steam Trap Condition
- Cost of Steam vs. Cost of Maintenance
- Freeze and Thaw
- Steam Valves
- Trap valve stations
- Universal Connectors
- Maintenance Programs
- Maintenance in Design
- Winterization
- The Effects Steam Trap Condition
- Trap valve stations and Manifold
- Trap Change our Demo
- Maintenance Programs

3:30 Closing Comments – Mark Paulin