



NOVA NFT650 SERIES VARIABLE ORIFICE STEAM TRAPS

Pressures To 650 PSIG (44.8 barg)
Temperatures to 750°F (400°C)

All Stainless Steel Internal Components — Hardened valves and seats. Extra long life and dependable service. Resists water hammer. Protects against erosion and corrosion.

Erosion Proof — Discharge passage is protected with a stainless steel liner.

Integral Strainer — Stainless Steel screen prevents dirt problems. Blow-down connection provided.

Thermostatic Air Vent — Provided with balanced pressure element for immediate and complete air venting.

Variable Orifice — Condensate is discharged continuously through the seat ring which is modulated by the float. This provides a smooth, even flow without high velocity or steam entrainment.

SLR Orifice — Optional continuous bleed prevents flash steam lockup when it is impossible to install trap at low point in system.

Guarantee — Traps are guaranteed against defects in materials or workmanship for 3 years.

APPLICATIONS

- Steam Lines
- Process Equipment
- Steam Cookers
- Steam Heated Vats
- Pressing Machinery
- Unit Heaters
- Oil Preheaters
- Converters
- Coils
- Rotating Drum

OPTIONS *See page 9*

- SLR - SLR Orifice
- B - Blowdown Valve (contact factory)
- Continuous Bleed Air Vent
- 300# or 600# Flanged Connection* (Raised Face)

*Available on NFT652 and NFT653 only.

Canadian Registration # OE0591.9C

MODELS

- **NFT651**—Low capacity
- **NFT652**—Medium capacity
- **NFT653**—High capacity

Installation Tip: Always install STV Test & Block Valve as part of trap station
SEE PAGE 118

Installation Tip: Add Uniflex Pipe Coupling for ease of maintenance
SEE PAGE 102

OPERATION

On startup, the thermostatic air vent (caged stainless welded bellows) is open, allowing air to flow freely through the vent valve orifice. When condensate flows into the trap, the float rises, allowing condensate to be discharged. Once air and non-condensibles have been evacuated, hot condensate will cause the thermostatic vent to close. Condensate will continue to be discharged as long as condensation occurs.

During normal operation, an increase in the load causes the liquid level in the trap to rise. The float then rises and rolls off the seat ring, allowing more condensate to flow out. The float sinks as the condensate load decreases, moving nearer to the seat ring, decreasing the effective size of the orifice and allowing less condensate to discharge. This provides smooth, continuous operation that reacts instantly to load variation while maintaining a water seal over the seat ring to prevent live steam loss.

