Steam traps and steam specialty products for critical applications

Nicholson™ Steam Traps and Steam Specialty Products
Portfolio includes mechanical, orifice, thermostatic, thermodynamic, variable orifice and clean steam product designs in addition to condensate pumps, piping specialties and other accessories
Thermostatic Steam Trap

Applications

- Unit Heaters
- Laundry Equipment
- Steam Tracing
- Plating Tanks
- Drip Legs

- Platen Presses
- Tire Presses
- Cooking Equipment
- Air Vents

EASILY MAINTAINED
Four bolt cover permits easy in-line rebuilding for less than the cost of replacement.

EXCELLENT ENERGY SAVINGS
Positive shutoff and thermostatic action assure no loss of steam during normal operation.

DURABILITY AND LONG SERVICE LIFE
Stainless steel body and cover with stainless steel welded actuator for maximum corrosion, thermal and hydraulic shock resistance.

RAPID STARTUP WITH OUTSTANDING AIR HANDLING
Thermostatic action responds quickly to eliminate air and other non-condensibles. Large startup capacity.

WATER TIGHT SEAL
Hardened stainless steel valve and seat lapped as a matched set assure tight seal and long life.

FITs ALL UNIVERSAL CONNECTORS
Liquidator body will replace any manufacturers’ universal mount trap body.

EASILY REPLACED
Two bolt design permits rapid removal without breaking pipe connections.

FREEZE PROOF
Self draining when installed vertically.

OPTIONAL INTEGRAL STRAINER
Helps prevent dirt and scale build-up on valve seat.
### Thermostatic Traps

#### N125 and N25 Series
- Welded stainless steel bellows
- Repairable in-line
- Freeze proof
- For low-to-medium condensate tracing and process
  - Pressures to 125 PSIG
  - Temperatures to 400°F
  - NPT 1/2" or 3/4"

#### N450 Series
- Welded stainless steel bellows
- Repairable in-line
- Freeze proof
- For process and for tracer and drip leg
  - Pressures to 450 PSIG
  - Temperatures to 600°F
  - NPT or socket weld 1/2" or 3/4"

#### Liquidator 450 Series
- Universal two bolt swivel mount for simple installation
- Repairable in-line
- Freeze proof
- Welded stainless steel bellows
  - For tracer, drip leg and medium process
  - Pressures to 450 PSIG
  - Temperatures to 600°F
  - Mounting block in NPT or socket weld 1/2", 3/4", 1"

#### TA500 Series
- Welded stainless steel bellows
- 316L stainless steel body
- Maintenance free
- Freeze proof
- For tracer, drip leg and medium process
  - Pressures to 650 PSIG
  - Temperatures to 750°F
  - NPT or socket weld 3/8", 1/2", 3/4", 1"

#### N650 Series
- Integral stainless steel strainer and blowdown valve
- Welded stainless steel bellows
- Repairable in-line
- Freeze proof
  - For tracer, drip leg and process
  - Pressures to 650 PSIG
  - Temperatures to 750°F
  - NPT or socket weld 1/2" or 3/4"

#### A Series
- Welded stainless steel bellows
- Repairable in-line
- Freeze proof
  - For process equipment
  - Pressures to 200 PSIG
  - Temperatures to 400°F
  - NPT 1/2" to 1"

#### B Series
- Welded stainless steel bellows
- Repairable in-line
- Freeze proof
  - For unit and hot water heaters, coils, steam mains and large heat exchangers
  - Pressures to 250 PSIG
  - Temperatures to 450°F
  - NPT 1/2" to 2"

#### C Series
- Welded stainless steel bellows
- Repairable in-line
- Freeze proof
  - For unit and hot water heaters, coil, steam mains, dryers and large heat exchangers
  - Pressures to 300 PSIG
  - Temperatures to 500°F
  - NPT or socket weld 1/2" to 2"
  - Cast iron or cast steel body
Thermodynamic Steam Trap

Applications

• Unit Heaters
• Laundry Equipment
• Steam Tracing
• Plating Tanks

• Drip Legs
• Platen Presses
• Tire Presses
• Cooking Equipment

EASILY MAINTAINED

Four bolt cover permits easy in-line rebuilding for less than the cost of replacement.

OPTIONAL INTEGRAL STRAINER

Helps prevent dirt and scale buildup on valve seat.

EXCELLENT ENERGY SAVINGS

Positive shutoff assures no loss of steam during normal operation.

FITS ALL UNIVERSAL CONNECTORS

Liquidator body will replace any manufacturers’ universal mount trap body.

EASILY REPLACED

Two bolt design permits rapid removal without breaking pipe connections.

FREEZE PROOF

Self draining when installed vertically.

DURABILITY AND LONG SERVICE LIFE

Stainless steel body and cover with stainless steel Celtron® Cartridge for maximum corrosion, thermal and hydraulic shock resistance.

UNAFFECTED BY AMBIENT CONDITIONS

Steam jacketing minimizes steam loss.

BLAST DISCHARGE

Clears away dirt and scale.
Thermodynamic Traps

NTD600 Series
• Conventional thermodynamic trap
• Optional strainer and/or blowdown valve
• All stainless steel construction
• Repairable in-line
• Freeze resistant

• For tracer and drip leg
• Pressures to 600 PSIG
• Temperatures to 800°F
• NPT or socket weld 3/8" to 1"

Liquidator UMT-TD Series
• Universal two bolt swivel mount for simple installation
• Repairable in-line with Celtron® cartridge
• Freezeproof
• For tracer, drip leg and light process

• Pressures to 450 PSIG
• Temperatures to 650°F
• Mounting block in NPT or socket weld 1/2", 3/4", 1"
Inverted Bucket Steam Trap

Applications

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

EASY TO MAINTAIN
Working parts lift out with top for quick inspection and maintenance.

RESISTS CORROSION
Stainless steel bucket provides maximum service life with minimum deterioration.

MINIMIZES EFFECTS OF WATER HAMMER
Open bucket design avoids collapse typical of sealed floats.

SUITABLE FOR WIDE VARIETY OF LOADS/APPLICATIONS
Horizontal and vertical models in thirteen body sizes are one of the most comprehensive inverted bucket trap lines available.

WITHSTANDS SEVERE CONDITIONS
Heavy wall cast iron cover and body provide many years of trouble free service.

SMOOTH ACTION AND TIGHT SHUTOFF
Stainless steel linkage, valve and seats are precision manufactured to ensure optimal performance.

IDEAL FOR “DIRTY” SYSTEMS
Valve and seat located at top of trap and stainless steel strainers available on most horizontal models ensure long service

MAXIMUM COMPATIBILITY WITH EXISTING INSTALLATIONS
Pressure change assemblies are interchangeable with Armstrong which guarantees maximum flexibility when stocking repair parts.
Inverted Bucket Traps

**Dura-Flo Series**
- Conventional inverted bucket trap
- Integral strainer
- All stainless steel internals
- Horizontal and vertical models
- Repairable in-line
- For drip leg and process
- Pressures to 250 PSIG
- Temperatures to 450°F
- NPT 1/2" to 2-1/2" in 13 body configurations

**Stainless Steel Dura-Flo**
- NPT horizontal and Universal Mount inverted bucket trap
- Stainless Steel body and internals
- Inexpensive, low maintenance and disposable
- For drip leg and process applications
- Pressure to 650 PSIG
- Temperatures to 497°F
- NPT 1/2" to 1" in three body configurations
- Universal mount, two-bolt swivel connection, 1/2" to 1"
Variable Orifice Traps

Applications

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

STAINLESS STEEL STRAINER
with large screen area prevents dirt problems

CONNECTIONS
Sizes 1/2" to 2" screwed NPT (BSPT optional) Sizes 1 1/2" and 2" flanged optional ANSI 250

BOTTOM AND SIDE
Blowdown Connections for preventative maintenance

PROVEN CAGED STAINLESS STEEL BALANCED PRESSURE THERMOSTATIC AIR VENT
automatically discharges air and non-condensables

WEIGHTED STAINLESS STEEL BALL
multi-contact surface area modulates orifice discharge to provide smooth, continuous discharge and immediate response to load variations

STAINLESS STEEL SLEEVE
eliminates body erosion

STAINLESS STEEL SEAT
full bore prevents choking and permits ample capacities

LIQUID LEVEL
maintains seal over orifice to prevent live steam loss
Variable Orifice Traps

**Nova NFT250 Series**
- No mechanical linkage
- Modulating continuous discharge
- All stainless steel internals including bellows, float and strainer
- Repairable in-line
- For heavy load process
- Pressures to 250 PSIG
- Temperatures to 450°F
- NPT or flanged 1/2" to 2"

**Nova NFT650 Series**
- No mechanical linkage
- Modulating continuous discharge
- All stainless steel internals including bellows, float and strainer
- Repairable in-line
- For heavy load process
- Pressures to 650 PSIG
- Temperatures to 750°F
- NPT, socket weld and flanged (#300, #600) 1/2" to 2"

Float and Thermostatic Traps

**FTN Series**
- Conventional F and T
- All stainless steel internals
- Universal four port design available
- Repairable in-line
- For process applications
- Pressures to 125 PSIG
- Temperatures to 450°F
- NPT 3/4" to 2"

**Max-Flo HC Series**
- High capacity F and T
- All stainless steel internals
- Two port “C” configuration
- Repairable in-line
- For heavy load process
- Pressures to 175 PSIG
- Temperatures to 377°F
- NPT 1 1/4" to 2-1/2"

**FTE In-Line Series**
- In-line configuration F and T trap
- All Stainless Steel internals
- Cast iron, ductile iron or cast steel bodies and covers
- In-line repairable
- For process applications
- Pressure to 464 PSIG
- Temperatures to 850°F
- NPT, BSPT, DIN, socket weld, flanged and ANSI connections
- Sizes: 1/2" to 2"
Condensate Pump

Applications

- Collection of condensate
- Where electrical service is unavailable
- Submerged or remote sumps and manholes
- Hazardous fluids and process fluids
- Low pressure and vacuum systems
- High back pressure systems
- High capacity process applications

**INLET SUPPLY AND VENT VALVES**
Lapped valves and seats for tight shutoff
Stainless steel construction resists corrosion
Floating ball design and hardened sealing surface of supply valve provide long service life
Floating disk and ball valves feature an infinite number of seating surfaces
Self centering design assures reliable performance

**CYCLE COUNTER**
Accurately depicts number of cycles and assists in maintenance scheduling

**UNIQUE SINGLE SPRING MECHANISM**
Eliminates pump breakdown due to spring failure
Snap acting mechanism actuates the valve
Heavy duty spring operating in compression carries lifetime warranty
Unaffected by turbulence
Stainless steel construction maximizes reliability and service life
Valve and linkage positioning above condensate level minimizes

**RETROFIT MECHANISM AVAILABLE**
Head assembly fits many manufacturer’s tanks

**ASME CODE STAMPED TANK**
Fabricated steel tank is standard on most models
Condensate Pumps

Condensate Commander Pump
- Powered by steam or compressed gas
- ASME Code stamped tank
- All stainless steel snap acting mechanism retrofits many manufacturers’ units
- For condensate pumping where electricity is impractical
  - Pressures to 250 PSIG
  - Temperatures to 650°F
  - Capacities exceed 48,000 lbs/hr
  - Vertical and horizontal models
  - NPT or flanged 1” x 1” to 4” x 4”

Condensate Commander Skid System
- Standard system includes one or more pumps, receiver tank and all connections
- Customized systems to meet unique space and/or capacity requirements
  - Prefabricated system facilitates quick installation
  - Capacities exceed 200,000 lbs/hr

Gasketed Unions

Uniflex Union
- No leak seal equivalent to flange with ease of NPT connection
- Spiral wound gasket ensures a leak-tight seal
- For all process and industrial applications
  - Pressures to 3000 PSIG
  - Temperatures to 850°F
  - NPT or socket weld 1/2” to 2”

Vacuum Breakers

Vacu-Break Series
- Improved System Efficiency
- Maintenance free
- Brass Body, Stainless Steel Spring EPDM Seat
- Cracking Pressure 0.36 PSIG
  - Pressures to 125 PSIG
  - Temperatures to 350°F
  - NPT 1/8”, 1/2” and 3/4” Sizes
Clean Steam

CDS Series
- 316L Stainless Steel Bellows
- Free draining, fail open
- Self centering conical valve
- Sanitary clamp for easy disassembly
- For CIP/SIP and sterilization
- Pressures to 100 PSIG
- Temperatures to 338°F
- Sanitary clamp 1/2" to 1 1/2"

CDH Series
- 316L Stainless Steel Bellows
- Free draining, fail open
- Swivel connections
- Self centering conical valve
- Sanitary clamp for easy disassembly
- For CIP/SIP and sterilization
- Pressures to 100 PSIG
- Temperatures to 338°F
- Sanitary clamp 1/2" and 3/4"

DS100 Series Steam Trap
- Welded 316L Stainless Steel Bellows
- Free draining, fail open
- Maintenance free
- For CIP/SIP and sterilization
- Pressures to 150 PSIG
- Temperatures to 366°F
- Sanitary clamp or tube 1/2" to 1"

Combo Condensate Measuring Elbow Sanitary Steam Trap
- CMV - Vertical configuration
- 6" Condensate Cooling Elbow
- CDS Series Steam Trap features
- 2 to 3°F Subcool
- Pressures to 40 PSIG
- Temperatures to 292°F

DS200 Series Steam Trap
- 316L Stainless Steel Bellows
- Self centering conical valve
- Free draining, fail open
- Maintenance free
- For drip leg and sterilization
- Pressures to 100 PSIG
- Temperatures to 338°F
- NPT 3/8" to 1"

NLD / NAV
- Effective removal of liquids from air or steam systems
- Effective positive venting of Air/Gas under pressure
- Pressures to 400 PSIG
- Temperatures to 500°F
- Loads to 2000 lb./hr
- NPT
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# Piping Specialties

## TAV Thermostatic Air Vent
- Removes air from steam systems
- Isopropyl filled stainless steel bellows
- 316L stainless steel body
- Maintenance free and freeze proof
- Pressures to 650 PSIG
- Temperatures to 750°F
- NPT or socket weld 3/8” to 1”

## Mini-Drain and Drain Air
- Removes condensate from compressed air systems
- Compact, durable, lightweight
- Muffler reduces noise and diffuses moisture
- Pressures to 600 PSIG
- Temperatures to 220°F
- NPT 1/8” or 1/2”

## Pneumatic Muffler
- Compact, durable, lightweight, non-corrosive
- Reduces noise levels to OSHA standards
- For exhaust air in pneumatic systems
- Pressures to 600 PSIG
- Temperatures to 220°F
- Male NPT 1/8” to 1/2”

## STV Trap Test and Blocking Valve
- Provides for quick visual check of steam trap operation
- Bottom loaded stem and packing nut
- Compact body is easy to install
- Pressures to 250 PSIG
- Temperatures to 406°F
- NPT 1/2” and 3/4”
- Cast Steel or Stainless Steel with locking handles

## SS600
- Diffuses High Velocity Discharge from Steam Traps
- Dampens the Level of Noise Associated with Steam Trap Discharge
- Porous Stainless Steel Baffle Allows Condensate Discharge Without Back Pressure
- NPT 3/8” to 3/4” – Stainless Steel Construction

## UMTVS-BB “Big Block”
- Isolation valves, test ports, strainer and blowdown valve combined in one “Big Block” for easy installation
- Universal two bolt swivel trap mount installs permanently into system, simplifying installation and removal of trap
- Available with Inverted Bucket, Thermodynamic or Thermostatic Trap
- Pressures to 1440 PSI
- Temperatures to 750°F
Nicholson™ steam traps and steam specialty products