



## condensed catalog



the single source  
for high performance,  
high quality, sanitary valves

Steriflow is the single source for high performance, high quality, sanitary valves. Steriflow has earned its reputation for quality through nearly two decades of success in bio-pharmaceutical, pharmaceutical, food, cosmetics, and clean process industries. We have the most experience in designing and manufacturing valves and steam traps in the industry.

**Purity**

From the documented raw materials we incorporate into our products, to the exacting applications of our customers, Steriflow represents purity you can count on.

**Complete documentation**

The following documentation is shipped with each order at no charge:

- Steriflow Unicert
  - Certificate of Material Compliance with Traceable Material Heat Number for body and ferrules
  - Certificate of Compliance to FDA and USP Class VI
  - Certificate of Surface Finish
- Final Test Reports, Certificate of Origin, and any other required documentation available upon request at time of order

**Extensive applications**

Steriflow valves are typically used in the following biopharm applications:

- Sterile Process
- Process Gases
- Clean Filtered Air
- Fermenters
- Separators
- Homogenizer
- Bioreactors
- Lyophilisers
- SIP/CIP Systems

Clean Utilities

- Clean Steam
- CIP
- Acids, Solvents, Alcohol
- CDA

Process Additives

- Buffers
- Sparge Gas
- Blanketing Gas
- WFI



**CERTIFICATE OF COMPLIANCE**

Customer Name: PHARMA VALVE CO. Steriflow Model Number: MK96-100-6L  
 Customer's PD Number: 5562-QZ Figure Number (SN): AKANTVAHJLAA  
 Steriflow Order Number: 2000176 Quantity: 1  
 Serial Number: 2000176A Customer Tag Numbers: PROJ# PHARMA-3

**HEAT NUMBER INFORMATION**

Heat Code / Number	Part Description	Material Type / Spec	Size
E60339	BODY	316L SST ASME-A479	6"
415806	FERRULE	316L SST ASME-A479	1"

A copy of the Certified Material Test Report or the Certificate of Compliance is attached for the item(s) listed above.

**CERTIFICATION OF SURFACE FINISH TO DIN 50 049 2.2:** The interior, wettable surfaces of the valve bodies furnished on the above-referenced order have a maximum surface finish of 200ra and the exterior, non-wettable surfaces have a maximum surface finish of 63Ra. All wettable components have been electro-polished.

**CERTIFICATION TO FDA & USP CLASS VI:** STERIFLOW by Jordan Valve certifies that the elastomer, Teflon, PTFE-resin and perfluoropolymer compounds utilized in our MK93, MK95, MK96, and MK97B sanitary valves have been manufactured in accordance with prescribed procedures for pharmaceutical products and have been tested and certified to be in compliance with:

- Title 21, Paragraph 177.2600 of the FDA Code Federal Regulations for rubber and rubber-like materials for repeated use in contact with food
- U.S. Pharmacopeia XXVIII Class VI, Section 88 Biological Reactivity Test in Vivo.

EDA APPROVED MATERIAL	USP VI APPROVED MATERIAL
BUNA-N <input type="checkbox"/>	EPDM <input type="checkbox"/>
EPDM <input type="checkbox"/>	FLUORAZ <input type="checkbox"/>
IGLON <input type="checkbox"/>	IGLON <input type="checkbox"/>
NITRILE <input type="checkbox"/>	KALRIZ <input type="checkbox"/>
POLYURETHANE <input type="checkbox"/>	SIHUPNE <input type="checkbox"/>
TEFLON <input type="checkbox"/>	TEFLON <input type="checkbox"/>



### **Precision**

Over the years, Steriflow has sold thousands of sanitary control valves and pressure regulators into the most demanding applications. From buffer control and lyophiliser steam regulation, to flow control of biological media, the world's premier pharmaceutical and biotech firms call on Steriflow to help them research, develop and mass produce their cutting-edge products.

### **Customization**

Steriflow gives you the invaluable benefit of customization. Our products feature the convenience of standard sanitary features plus the ability to customize to benefit a particular application or process.

### **State-of-the-art manufacturing**

At Steriflow, we take highly engineered, feature-filled designs and develop them into specialized valves via advanced manufacturing processes. From the latest in CNC machining technology, to automated surface polishing equipment, and computer controlled fusion welding; Steriflow adds value at every step in the transformation of raw materials to finished valves.



### **Control**

Steriflow's regulators and control valves utilize the Jorlon diaphragm which has been tested up to one million full stroke cycles on 338°F steam service. Steriflow warrants the Jorlon diaphragm for the life of the valve. This means you will never have to worry about the diaphragm in your pressure regulator or control valve failing during sterilization or processing ever again. Select Steriflow and forget about how long (or how high - up to 450°F) the heat has been on your diaphragm.

### **The simplicity of one source**

When sanitary process control is required, Steriflow provides a complete range of valves that conform to the latest ASME BPE design standards while meeting FDA and USP requirements. Steriflow simply makes life easier for engineers who spec our valves. You can work with just one manufacturer for your project because we offer the broadest product line in the biopharm industry including pressure regulators, back pressure regulators, control valves, ball valves, steam traps, gas distribution manifolds, sight glasses and sample coolers. This single source allows you to streamline your documentation. With the widest range of the highest quality products on the market today and a simplified documentation process, Steriflow is the smart choice.



### **Product performance**

The product line-up offered by Steriflow delivers the first class performance that you demand. Minimal subcooling, high capacity clean steam traps. High rangeability, precision pressure regulators. Extreme duty cycle life, high capacity, true characterized sanitary control valves. Superior performance is the standard at Steriflow – delivered for the life of your process.



## Sanitary Control Valves

### Mark 978 Series Sanitary Control Valve

The Mark 978 sanitary control valve is designed to meet the rigid specifications for all sterile process control applications. ASME BPE compliance makes it suitable for a wide variety of applications in the bio-pharmaceutical, pharmaceutical, cosmetic, dairy and food & beverage industries.

High rangeability, true characterized trim, high capacities, superior temperature and pressure ratings along with a lifetime diaphragm warranty make the Mark 978 the sanitary control valve for all of your sanitary liquid, gas and clean steam services.

Clean steam. WFI. Process gas, buffer or biologic media. The Mark 978 has the user in mind so purity, precision and control are assured.



### Key Features

- Lifetime warranty on Jorlon diaphragm
- All stem guiding above the diaphragm (wet process) to eliminate particulate generation
- Self-draining geometry in either vertical or horizontal orientation allows installation flexibility
- Contoured plug design for true equal percentage or linear flow characteristics throughout entire stroke length
- Bolted bonnet provides enhanced strength and safety over clamped bonnet
- Corrosion resistant SST Namur yoke assembly suitable for washdown, permitting easy mounting of positioners
- Solid ASME A479 316L barstock construction offers excellent chemical resistance, ensures consistent material integrity and surface finish
- INLINE designs offered as standard product
- Corrosion resistant actuator coating with SST fasteners
- Extended PEEK guide bushing ensures smooth, stable movement throughout entire stroke length
- FDA/USP Class VI Jorlon diaphragm resistant to aggressive chemicals, suitable for indefinite steam service, offers unsurpassed service life

### Quick Specs

- Sizes: 1/2" – 3" (DN15 – DN80) with Jorlon diaphragm; 1/2" – 2" (DN15 – DN50) with O-Ring
- End Connections: Tri-Clamp® fitting, tube weld and extended tube weld end, DIN/ISO sanitary connections
- Body and all wetted material: ASTM A479 316L SST barstock
- Seat materials: Integral 316L SST; FDA & USP Class VI Teflon/PEEK optional
- Diaphragm materials: Jorlon, EPDM, Silicone, TFE/Viton; FDA and USP Class VI – standard
- O-ring materials: EPDM, Viton, Buna-N, Silicone, Kalrez, TFE encapsulated; FDA and USP Class VI – standard
- Shutoff: to ANSI Class VI
- SF5 (20 Ra µin electropolish) standard internal finish



## Sanitary Control Valves

### Mark 978LF Sanitary Low Flow Control Valves

The Mark 978LF Sanitary Low Flow Control Valve is designed to meet the stringent specifications for low flow sterile processes. Steriflow's strict adherence to ASME BPE make these low flow control valves suitable for a wide variety of sterile liquid media. The Mark 978LF is ideal for use with sparge gas, WFI, buffers or ingredient addition to sanitary and aseptic processes in the pharmaceutical, biotechnology, cosmetic, dairy, and food & beverage industries.

Whether the need is to control pressure, temperature, flow pH, level or other variables, the Mark 978LF's true characterized trims and excellent repeatability make it the right choice for your sanitary process applications.



### Key Features

- All stem guiding above the diaphragm (wetted process) to eliminate particulate generation
- No threads in contact with service media – prevents accumulation of contaminants
- Self-draining – when mounted in vertical or horizontal orientations
- Wetted parts made of 100% 316L Stainless Steel barstock
- Maintenance friendly – easy to perform maintenance with simple disassembly, reassembly and steam-in-place/clean-in-place capabilities
- Epoxy coated multi-spring actuators provide excellent corrosion resistance during washdown
- SF5 (20 Ra  $\mu$ m electropolish) standard; 8 Ra optional
- FDA and USP Class VI conformity on all process seal materials

### Quick Specs

- Sizes: 1/2" & 3/4" (DN15 & DN20)
- Cv's: 0.03 – 0.1
- End Connections: Tri-Clamp®, tube weld, consult factory for other options
- Body and all wetted material: ASTM A479 316L SST barstock
- SF5 (20 Ra  $\mu$ m electropolish) standard internal finish
- Body/Bolt Seal: Teflon® gasket (FDA/USP Class VI)
- O-ring materials: EPDM, Viton, Silicone, Flouraz, Kalrez (all FDA/USP Class VI)
- Shutoff: ANSI Class III
- Maximum pressure 200 psi @ 300°F



## Sanitary Pressure Regulators

### Mark 96 & Mark 96C Series Sanitary Pressure Regulators

The Mark 96 Series are ASME BPE compliant pressure reducing valves. The Mark 96 is a bolted bonnet design and offered in sizes from 3/4" – 3". The Mark 96C is a 1/2" – 1" clamped body design. Both valves regulate downstream pressure of process and clean utility applications in sanitary and aseptic systems.

Both Series operate by sensing pressure under the diaphragm after the medium has entered the valve from the bottom inlet port. As the downstream pressure approaches the setpoint, the force caused by the pressure acting on the diaphragm overcomes the force of the range spring, and the plug begins to move up toward closed. This reduces the downstream pressure and maintains the setpoint as the flow exits the valve from the side outlet port.



### Key Features

- Lifetime warranty on Jorlon diaphragm
- All stem guiding above the diaphragm (wet process) to eliminate particulate generation
- Soft seat for ANSI Class VI shutoff available
- Corrosion resistant 316 SST housing and T-handle
- Spring cylinder contains spring when disassembled, improving safety and retaining setpoint (clamped version only)
- Body and all wetted material: ASTM A479 316L SST barstock
- Diaphragm restraint standard – supports diaphragm during vacuum service
- Body/ferrule heat numbers on bottom surface for material traceability
- Large Jorlon diaphragm area
- Minimal stroke

### Quick Specs

- Mark 96 Series in sizes 3/4" – 3"; Mark 96C Series in sizes 1/2" – 1"
- End Connections: Tri-Clamp® fitting, tube weld end, and DIN/ISO sanitary connections optional
- Body and all wetted material: ASTM A479 316L SST barstock
- SF5 (20 Ra  $\mu$ m electropolished) standard internal finish; 8 Ra  $\mu$ m electropolished (internal or external) optional for clean room installations
- Seat material: Standard hard seat – integral 316L SST; Optional soft seat – FDA & USP Class VI compliant Teflon, PEEK
- Diaphragm material: Jorlon FDA & USP Class VI compliant, EPDM/Nylon, SS
- O-ring material: FDA & USP Class VI compliant EPDM, Buna-N, Viton, Silicone, Teflon-Encapsulated Viton, Teflon-Encapsulated Silicone
- Shutoff: ANSI Class III hard seat or Class VI soft seat
- Setpoint spring ranges: 2 – 135 psi (0,14 – 9,3 bar) across 5 ranges



## Sanitary Pressure Regulators – Automated

### Mark 96AA Series Air Augmented Pressure Regulators

The Mark 96 with air augmentation (AA) option offers the same line sizes, Cv choices and, seats. Along with an advantage with the great low droop characteristics. By connecting an air pressure signal to the 1/4" FNPT dome fitting via an air regulator or I/P, the set point can be changed remotely by "sending an air signal instead of a technician".

The Mark 96AA gives users the ability to change pressure set points to any point in excess of the springs minimum set point (135 psi max). Users adjust the regulator's spring to the lowest set point, or to the lowest set pressure that the regulator will operate at (sterilization steam pressure for example). To achieve a higher pressure set point (CIP or WFI flush), air pressure is added to the regulator dome.



### Key Features

- Lifetime diaphragm warranty
- All stem guiding above the diaphragm (wet process) to eliminate particulate generation
- **Automate existing manual installations.** MK 96AA upgrade kits available for Mark 96 regulators
- Reduce project CapEx. Remote regulator operation reduces the time required for steam pressure balancing, commissioning and validation of SIP and CIP routines
- Remote operation and finish options make MK96AA ideal for clean room installations
- Complete range of products for any size or Cv requirement. The available sizes and Cv's are the same as the current Mark 96 product range
- With preset spring, users maintain control in the event of power (air failure). Valve will return to manual preset
- Minimal droop when compared with all other spring loaded and air operated products, especially at higher set points
- Extended permissible operating range when compared with all spring loaded and air loaded regulators

### Quick Specs

- Sizes: 3/4" – 3" (DN20 – DN80)
- End Connections: Tri-Clamp® fitting, tube weld end and DIN/ISO sanitary connections available
- Body and all wetted material: ASTM A479 316L SST barstock
- Seat material: Standard hard seat – integral 316L SST; Optional soft seat – Teflon, PEEK (FDA & USP Class VI compliant)
- Diaphragm material: Jorlon, to FDA and USP Class VI specification
- O-ring material: EPDM, Buna-N, Viton, Silicone, Teflon-Encapsulated Viton, Teflon-Encapsulated Silicone FDA and USP Class VI
- SF5 (20 Ra  $\mu$ m electropolished) standard internal finish; 8 Ra  $\mu$ m electropolished (internal or external) optional for clean room installations
- Shutoff: ANSI Class III hard seat or Class VI soft seat



## Sanitary Pressure Regulators – Automated-Compact

### Mark 96A Series Air Loaded Pressure Regulators

The Mark 96A is a compact air loaded sanitary pressure reducing valve designed to permit the user to change setpoints remotely via a cabinet/panel mounted air regulator or through a distributed control system and an I-P transducer.

The Mark 96A is an ideal choice for automating the SIP/CIP process in tight locations where a Mark 96AA does not fit. By adjusting (increasing) the air pressure loaded to the dome, the valve will fully open during CIP to ensure all downstream components are thoroughly sanitized. At the end of the CIP cycle, the dome pressure can be reduced so that the valve returns to its previous position.



### Key Features

- Compact design for space-constrained installations
- Air loaded for remote setpoint adjustment
- 316L Stainless Steel, or light weight anodized aluminum spring housing
- All stem guiding above the diaphragm (wet process) to eliminate particulate generation
- Remote operation and finish options make MK96A ideal for clean room installations
- Optimized diaphragm area for minimal offset and extended life
- Light bias spring for stable operation at low flows
- Jorlon diaphragm delivers extreme longevity
- Soft sealing for ANSI Class VI shutoff

### Quick Specs

- Sizes: 1" (DN25), 1-1/2" (DN40), 2" (DN50)
- End Connections: Tri-Clamp®, tube weld end
- Body and all wetted material: ASTM A479 316L SST barstock
- Seat material: Teflon®, PEEK (FDA and USP Class VI approved)
- Diaphragm material: Jorlon (FDA and USP Class VI approved)
- O-ring material: FDA and USP Class VI approved Teflon-Encapsulated Viton
- Shutoff: to ANSI Class VI
- Maximum setpoint: 100 psi (6,9 bar) / minimum setpoint: 20 psi
- SF5 (20 Ra  $\mu$ m electropolished) standard internal finish; 8 Ra  $\mu$ m electropolished (internal or external) optional for clean room installations





## Sanitary Back Pressure Regulators

### Mark 95 & Mark 95FT Series Back Pressure Regulators

The Mark 95 is designed to regulate or relieve the upstream pressure in continuous circulation loops. It prevents overpressure situations from occurring which could damage valuable equipment or disturb the process. WFI or CIP loops commonly utilize the Mark 95 to bypass dead head flow.

The Mark 95 is specifically intended for clean, bio-pharmaceutical systems where sterility and precision are required. Available with a hard or soft seat and a variety of diaphragm and seal materials, the Mark 95 is ideally suited for virtually any sterile back pressure application.

The Mark 95FT has all the features and benefits of the Mark 95, but offers an additional connection to allow straight through flow when the valve is closed. Primarily intended for pump by-pass loops, the FT option reduces space and cost of the associated system.



### Key Features

- Lifetime warranty on Jorlon diaphragm
- Guiding above diaphragm area, not in seat/orifice, to eliminate metal-to-metal particulate generation
- 316L Stainless Steel spring housing
- 100% ASTM A479 316L body and trim
- T-handle screw for easy handling and setpoint adjustments
- Thumblock for securing and retaining setpoint
- Bolted bonnet for increased safety and pressure/temperature rating
- SF5 (20 Ra  $\mu$ m electropolished) standard internal finish; 8 Ra  $\mu$ m electropolished (internal or external) optional for clean room installations

### Quick Specs

- Sizes: 3/4" – 3" (DN20 – DN80)
- End Connections: Tri-Clamp®, tube weld end, DIN/ISO sanitary connections
- Body and trim material: 316L Stainless Steel (ASTM A479)
- Seat Materials: Integral 316L SST – standard; Jorlon, PEEK or TFE – optional
- Diaphragm materials: Jorlon FDA & USP Class VI, 316L SST, EPDM/Nylon
- O-ring materials: EPDM, Buna-N, Viton, Silicone, Teflon-Encapsulated Viton, Teflon-Encapsulated Silicon – FDA & USP Class VI
- Shutoff: ANSI Class III hard seat or Class VI soft seat



## Sanitary Gas Regulators

### J-Pure Series High Purity Pressure Regulators

The J-Pure regulator is ideally suited for reducing the pressure of high purity gases, or clean dry air, commonly found in biotech and pharmaceutical applications.

This compact regulator was the first in its class to be designed and built specifically for biopharm gas applications and with ASME BPE in mind.



### Key Features

- Designed for ASME BPE services: minimized internal volume and crevices
- Body, stem, and bonnet materials ASTM A479 316L suitable for any environment and washdown
- SF5 (20 Ra  $\mu$ m electropolish) – standard internal and external finish suitable for clean room installation
- ASTM A479 316L body, stem, seat and bonnet
- FDA/USP Class VI seat material for ANSI Class VI shutoff
- Fine thread pitch for precision setpoint adjustments
- Jorlon diaphragm FDA and USP Class VI compliant; unsurpassed life
- Sanitary clamp connections 1/2" – 3/4" Tri-Clamp®, weld end, NPT or BSPT
- Bottom mounting
- Five minute trim change via standard inline maintainability

### Quick Specs

- Sizes: 1/2" & 3/4" (DN15 & DN20); larger sizes in development
- End Connections: Clamp or tube weld ends – standard; NPT – optional
- Cv 0.5, 0.8
- Body, stem, seal and bonnet material: ASTM A479 316L
- Diaphragm material: PTFE-based Jorlon FDA & USP Class VI compliant
- Maximum Inlet Pressure: 150 psig (10,5 bar)
- Adjustable range: 4 – 125 psi (0,28 – 8,6 bar) across 2 ranges
- SF5 (20 Ra  $\mu$ m electropolish) standard internal and external)
- Options: panel mounting, captured vent, self relieving



## Sanitary Ball Valves

### Mark 9020 Sanitary Ball Valves

The Mark 9020 Series ball valves take ASME BPE guidelines to heart. This valve was designed from the beginning to meet every aspect of ASME BPE 2007. The Mark 9020 Series was designed for the rigors of clean steam, but can be used in a variety of applications including CIP fluids, CDA acids, solvents and buffers or any viscous media where inline valve cleaning is desired. From the materials chosen for seats and seals to the final marking and documentation, you can trust the Steriflow name.



### Key Features

- ASME BPE 2007 compliance
- Traceable industry grade high density 316L body, ball, stem and end caps with <3% ferrite standard, 1% optional
- Certified TFM 1600 body seal, seat, thrust washer, and packing material meet: FDA 21 CFR 177 and final form materials certified to meet USP <88> Class VI (in-vivo), and USP <87> (in-vitro) testing requirements
- Documented surface finish on all wettable components is SF1 (20 Ra mechanical polish), SF4 (15 Ra  $\mu$ m mechanical/electropolish optional)
- Ball port has identical ID as inlet/outlet tubing to prevent holdup
- Pressure ratings up to 1000 psig @ 100°F
- Anti-blowout stem design
- Integral lockout/tagout facility
- Live loaded packing to insure against leaks or contaminant ingress

### Quick Specs

- Sizes: 1/2" – 4" (DN15 – DN100)
- End Connections: Tri-clamp® ends, extended tube weld ends – standard
- Body material: CF3M 3% Ferrite (standard), CF3M 1% Ferrite (optional)
- SF1 (20 Ra  $\mu$ m Mechanical Polish) standard internal finish, SF4 (15 Ra mechanical/electropolish) optional
- 4" (100mm) stem extensions available
- Manual or automation packages available



## Sanitary Steam Traps

### Mark 93 Series Sanitary Steam Traps

The Mark 93 is a thermostatic steam trap designed specifically for use in bio pharm clean steam systems. It features a SF1 (20 Ra) internal finish, and a self-draining design for both vertical and horizontal installations, to minimize the possibility of medium entrapment and bacterial growth.

Two designs are featured in the Mark 93 Series – the standard Mark 93 for differential pressures up to 65 psi (4,5 bar), and the Mark 93HP, for differential pressures ranging from 50–90 psi (3,4–6,2 bar). Both designs are rated to 90 psi (6,2 bar) but provide industry best subcooling performance when used within their differential pressure ratings.



### Key Features

- 1 – 3°F warranted subcooled operation is industry best
- 5 year warranty against material and workmanship defects
- Thermostatic steam trap in 316L stainless steel that is designed for clean steam tracing, drip-leg and process applications
- All A479 316L housing and barstock internal compounds
- Polished components – body interior and exterior are mechanically polished to SF1 (20 Ra  $\mu$ m), electropolished body is optional
- Sanitary Tri-Clamp®, and extended tube weld ends are standard. Threaded, ISO and DIN are available upon request
- Self draining vertical and horizontal design
- Impossible to put element in backwards; one element standard for all traps (excluding HC trap)
- Interchangeable orientations

### Quick Specs

- Sizes: 1/2", 3/4", 1" (DN15, DN20, DN25)
- Available installation orientations: vertical, horizontal or both
- End Connections: Sanitary Tri-Clamp and tube ends – standard; DIN/ISO, and threaded – optional
- Body inlet/outlet material: ASTM A479 316L Stainless Steel
- O-ring materials: Viton, Teflon, Encapsulated (FDA and USP Class VI approved)



## Subcooled Condenser

### SSC Series

#### Project CAPEX savings

- Significant TIC Cost (Total Installed Cost) reduction for SIP sensor/trap assemblies
  - 80% reduction in SIP assembly tubing length
  - One purchase order for SIP assembly tubing, fittings, valves, temp sensor, temp transmitter, and steam trap
  - Installation labor savings: everything pre-assembled, sealed in a plastic bag. No on site tube bending/assembly/weld/polish/work inspection labor costs
- Process skid height reduction – lower skid material/labor costs
- Reduces SIP retrofit expense in height constrained installations



#### Increased Process Availability

- Reduces average annual SIP time by minimizing the probability of wetted temperature sensor faults and reducing SIP heat-up time
  - The SSC has more than 5 times the condensate capacity and 5 times the effective cooling capacity as a 3/4" SIP downcomer, ensuring no condensate backup
- Optional preassembly with steam trap, valves, SIP sensor, t-well or transmitter
- Twelve installation configurations
- Constructed from certified ASTM A479 316L barstock
- Fully drainable in full size, or compact versions
- Certified SF1 (20 Ra  $\mu\text{in}$ ) internal surface finish standard. SF 5 (20 Ra  $\mu\text{in}$ ) electropolish optional

#### Quick Specs

- 3/4" Tri-Clamp® end connections standard
- ASTM A479 316L barstock construction
- Teflon/stainless or Silverback™ gaskets certified to FDA 21 CFR 177, and USP <88> Class VI
- SF1 (20 Ra  $\mu\text{in}$ ) internal finish standard/ SF 5 (20 Ra  $\mu\text{in}$ ) electropolish optional
- Maximum water flow capacity: 24773 #/hr @ 15 psid



## Clean Steam Disc Traps

### CSDT Series Clean Steam Disc Traps

The CSDT Series is a 316L polished, stainless steel, thermodynamic disc trap, that is compact with a lightweight design and Tri-Clamp® end connections.

Though non-sanitary in the traditional sense, the exterior is polished to 20 Ra and can be used in clean washdown environments. The thermodynamic action meets the requirements of quick response and higher capacity applications in the steam system. Condensate entry below the disc, concentric to the disc/seat ensures a clean parallel lift of the disc with reference to the seat, eliminating localized wear and tear.

The CSDT is ideal for fluctuating loads and pressures and higher capacity applications. It is virtually maintenance free with a one year replacement warranty.



## Sample Coolers

### Sample Coolers

Steriflow's range of sample coolers allow clean steam and high purity water samples to be taken quickly and easily while maintaining a sterile testing environment. The SC50 and SC60 units are designed to be mounted at the sampling point, while the SC30 is a free-standing portable unit. All models can be operated with either mains or chilled water as the cooling medium.

Where the quality of the cooling water may cause fouling of the coil, the HSC50 can be easily disassembled to allow cleaning. A wide range of ancillary products are available for use with all models of sample cooler.



## Clean Gas Distribution Manifolds

### CGDM Series Clean Gas Distribution Manifold

The CGDM Series is a soft seated, straight through ported multi-valve gas distribution manifold. It is used in place of conventional field fabricated manifold assemblies for the distribution of clean purge gas or as a distribution point for air/gas actuated valves and production equipment in a clean environment. Six or twelve outlet models are standard with Tri-Clamp® or threaded connections. If additional outlets are required, simply attach another CGDM with appropriate sanitary fittings or nipples (model dependent).



## In-Line Sight Glasses

### Sight Glasses

The in-line sight glasses offered by Steriflow are suitable for a wide range of applications in high purity tubing systems typically found in the biopharmaceutical and pharmaceutical industry.

The double window design ensures optimum viewing area and eliminates the need for a back light. The bore of the glass and end fittings match the corresponding tubing size, and prevent the possibility of fluid retention, even when units are installed horizontally.

The units combine 316L stainless steel end connections with a toughened borosilicate viewing glass making them suitable for both clean-in-place (CIP) and sterilization-in-place (SIP) operations. Standard units are available in 1/2" to 4" sizes with Tri-Clamp® compatible connections. Alternative sizes and connection types can also be supplied.



purity      precision      control



3170 Wasson Road • Cincinnati, Ohio 45209 • P: 513.533.5600 • F: 513.871.0105  
steriflow@richardsind.com • www.steriflowvalve.com