



# DIXON

SANITARY FLUID HANDLING PRODUCTS

DIXON  
SANITARY

DS617

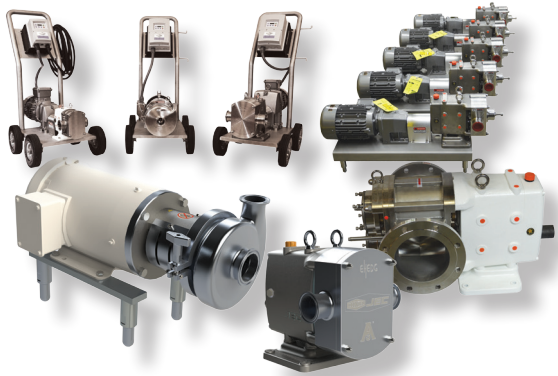
DS617



The Right Connection®

DIXONVALVE.COM  
800.789.1718

## Pumps



A

## Sanitary Valves



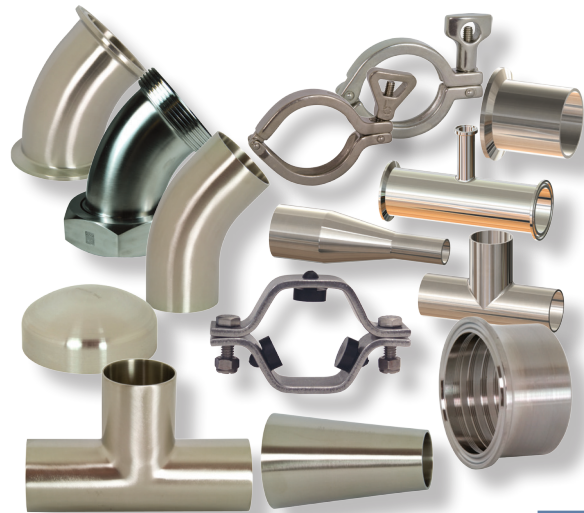
B

## Fluid Handling Accessories



E

## Fittings



F

## Cam and Groove



I

## Industrial Valves



J

## Actuation



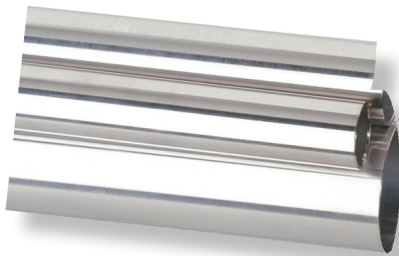
C

## Strainers



D

## Tubing and Accessories



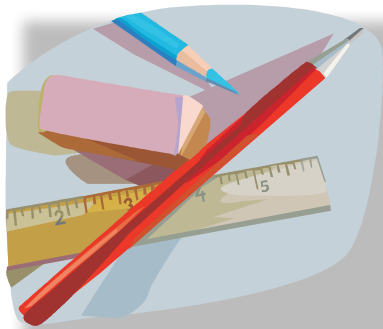
G

## Instrumentation



H

## Technical Information



K

A

B

C

D

E

F

G

H

I




J


K




L



## Dixon Sanitary Quality: maintaining the standards







3-A Sanitary Standards, Inc. (3-A SSI) is a non-profit association representing equipment manufacturers, processors, regulatory sanitarians and other public health professionals. Through many decades of cooperation, these groups have established a comprehensive inventory of 3-A Sanitary Standards and 3-A Accepted Practices now known around the world for dairy and food processing equipment and systems.

Dixon Sanitary has earned its  symbols through the  Third Party Verification (TPV) program, requiring a professional assessment rather than voluntary compliance, making certain each product conforms in all respects to the published standards. The  Standards are accepted by USDA and FDA.

Dixon Sanitary holds the following  certification:

- Dixon Sanitary Fittings including BPE meet  Sanitary Standards for Sanitary Fittings, Number 63-03 (Authorization number 621).
- Dixon Sanitary Check Valves meet  Sanitary Standards for Vacuum Breakers and Check Valves, Number 58-00 (Authorization number 1447).
- Dixon Sanitary Pumps meet  Sanitary Standards for Centrifugal Pumps, Number 02-10 (Authorization number 1537).
- Dixon Sanitary Filter/Strainers meet  Sanitary Standards for Filters Using Single Service Media, Number 10-04 (Authorization number 1446).
- Dixon Sanitary Seat Valves meet  Sanitary Standards for Compression - Type Valves, Number 53-06 (Authorization number 1655)

We carry  material from other suppliers who have also earned their  authorizations through the TPV Program:

- United (Authorization 331) Metal Tubing meets  Sanitary Standards for Metal Tubing, Number 33-02.
- CSE (Authorization 850) Gauges meet  Sanitary Standards for Sensors and Sensor Fittings and Connections, Number 74-03.
- JEC (Authorization 1397) Centrifugal and Positive Rotary Pumps meets  Sanitary Standards for Centrifugal and Positive Rotary Pumps Number 02-11.
- Rieger (Authorization 1631) Double-Seat Mixproof Valves meets  Sanitary Standards for Double-Seat Mixproof Valves, Number 85-03.
- Rieger (Authorization 1547) Compression-Type Valves meets  Sanitary Standards for Compression Type-Valves, Number 53-06.
- SED Flow Control (Authorization 1300) Diaphragm-Type Valves meets  Sanitary Standards for Diaphragm-type Valves, Number 54-02.

Visit [dixonvalve.com](http://dixonvalve.com), to download certificates in PDF format or call Dixon Sanitary at 800.789.1718.

**Positive Displacement Pumps A-4 to A-7**

JRZL series ..... A-4 to A-6  
 JRZF series ..... A-7  
 JRZW series ..... A-7  
 JRZA series ..... A-7

**Centrifugal Pumps ..... A-8 to A-9**

BC/BP series ..... A-8  
 ExD series ..... A-9

**Pump services and mounting options ..... A-10**

## JRZL - Series Rotary Lobe Pumps

### Applications:

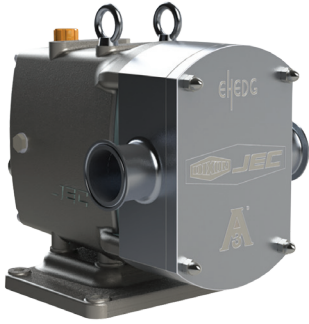
- food processing, dairy, beverage, pharmaceutical, personal care and industrial markets

### Materials:

- product contact: 316L stainless steel
- elastomers: EPDM (standard), Buna and FKM
- stainless steel gear box standard except 400 series - white epoxy painted cast iron

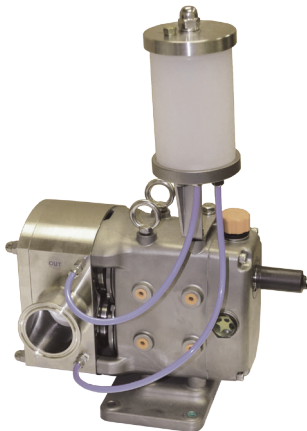
### Features:

- front loading seal options:
  - single(standard)and double mechanical seals, TC vs TC (standard)
  - single and double O-ring seals
  - triple lip seal
  - flush option available on all seal types
- rotors:
  - bi-wing (standard)
  - single wing
  - bi-lobe
  - tri-lobe
  - multi-lobe
  - heli-lobe
  - hot clearance for temperatures above **248°F (120°C)**
  - viscosity range: 0 - 1,000,000 cP
- connection: clamp (standard), others available upon request
- repair kits available



Port Size	Gal / Rev	PSI	Model
1"	0.005	<b>300</b>	<b>JRZL105</b>
1"	0.01	<b>300</b>	<b>JRZL110</b>
1½"	0.03	<b>175</b>	<b>JRZL115</b>
2"	0.06	<b>115</b>	<b>JRZL120</b>
2"	0.11	<b>175</b>	<b>JRZL220</b>
2½"	0.16	<b>115</b>	<b>JRZL225</b>
3"	0.27	<b>175</b>	<b>JRZL330</b>
4"	0.38	<b>115</b>	<b>JRZL340</b>
4"	0.60	<b>175</b>	<b>JRZL440</b>
5"	0.88	<b>115</b>	<b>JRZL450</b>

## Self Contained Flushing System



### Features:

- no additional piping needed
- easy maintenance
- available for all JRZL-Series pumps with either glass or acrylic chambers

## JRZL - Series Rotary Lobes

Pumps

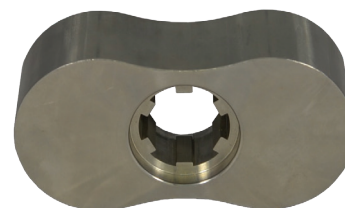
A



Bi-wing



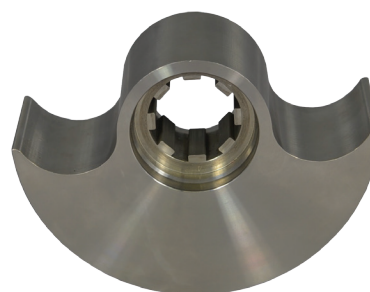
Heli-lobe



Bi-lobe



Tri-lobe



Single-wing

### Maximum Speed (RPM)

Model	Bi-wing	Heli-lobe <sup>1</sup>	Bi-lobe	Tri-lobe	Single-wing	Multi-lobe
<b>JRZL105</b>	1000	1600	800	800	100	1000
<b>JRZL110</b>	1000	1600	800	800	100	1000
<b>JRZL115</b>	1000	1600	800	800	100	1000
<b>JRZL120</b>	800	1600	800	800	100	800
<b>JRZL220</b>	700	1400	700	700	100	400
<b>JRZL225</b>	700	1400	700	700	100	400
<b>JRZL330</b>	600	1200	600	600	100	NA
<b>JRZL340</b>	600	1200	600	600	100	NA
<b>JRZL440</b>	500	1000	500	500	100	NA
<b>JRZL450</b>	500	1000	500	500	100	NA

<sup>1</sup> Pulsation free heli-lobe rotors give the pump increased capacity through higher speed limits

## JRZL - Series Rotary Lobe Pump Options



### Thermal Jacket Pumps

Designed for products that require temperature control such as sugars, chocolate, corn syrup and brewer's yeast with easy attachment to pump front cover and/or casing.



### Rectangular Inlet

Enlarged rectangular inlet allows highly viscous products such as semi-solid pastes or mixtures containing semi-solid pieces to be pumped.



### Pressure Relief Valve

The pressure relief valve protects the system from pressure peaks or restrictions in the discharge, providing a pressure relief valve loop from discharge to the suction areas up to **145 PSI**.



### Ultra Clean Pumps

Fully self-draining pump head and external rotor fixing can eliminate any contaminations and internal crevices. Excellent for sterile pharmaceuticals, ultra-hygienic food processing and aseptic manufacturing. Available in all sizes.



### High Pressure Pumps

High pressure pumps have a front bearing cover to support shafts on front and back position. The well-balanced shaft design can handle pressures up to **435 PSI** without shaft deflection.



### Acculab

Specially designed for superior metering accuracy with multi-lobe rotors or spur gear rotors which allow minimum pulsation, precise volumetric dosing and packaging, lab and pilot plants or manufacturing applications as well as general fluid transfer.



## JRZF 500 - Series Rotary Lobe Pumps

### Materials:

- product contact: 316L stainless steel
- elastomers: EPDM (standard) and FKM
- gear box: white epoxy painted cast iron

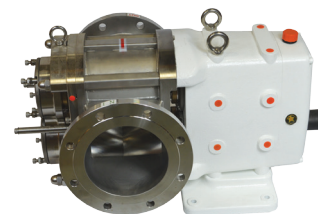
### Features:

- front loading seal options: single (standard) & double mechanical seals, TC vs TC (standard)
- rotor: heli-lobe
- connection: flanged

Port Size	Gal / Rev	PSI	Max. Speed RPM	Model
8"	1.85	<b>435</b>	500	<b>JRZF580</b>
10"	2.64	<b>435</b>	500	<b>JRZF5100</b>
12"	3.17	<b>435</b>	500	<b>JRZF5120</b>



JRZF5100



JRZF580



## JRZW 120 Series Rotary Lobe Pump - The Wine Pump

### Applications:

- must and lees
- transfer
- bottling

### Size:

- 2" clamp

### Materials:

- 316L
- heli-lobe rotor: EPDM rubber
- gear box: white epoxy painted cast iron
- elastomers: EPDM (standard) & FKM

### Features:

Wine Pump

- flow and pressure: maximum flow: **66 GPM**, maximum working pressure: **87 PSI**
- single mechanical seal (standard) TC vs TC
- double mechanical seal
- triple lip-seal with ceramic coated sleeve

### Optional Pump Cart

- pumps can be mounted on a cart with flat free wheels or casters
- Nord adjustable speed gearmotor is standard
- complete range of VFD options available



## JRZA Acculab Series Rotary Lobe Pump

### Applications:

- designed for superior metering accuracy with minimum pulsation
- precise volumetric dosing and packaging
- lab and pilot plants
- general fluid transfer

### Materials:

- 316L stainless steel
- gear box: stainless steel
- elastomers: EPDM (standard) and FKM

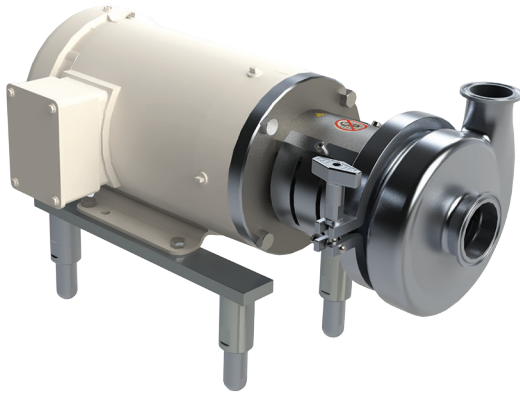
### Features:

- rotor information: multi-lobe rotor
- viscosity range: up to 100,000 cPs
- noise level: 60 ~ 80 dB
- seal options: single mechanical seal (standard) TC vs TC and double mechanical seal
- maximum displacement: 3.5 gpm @ 900 rpm (water at **0 PSI**)



pump shown with integral gear motor

## BC/BP Series Sanitary Centrifugal Pump



### Sizes:

- inlet: 1½" to 6"
- outlet: 1½" to 4"

### Materials:

- product contact: 316L stainless steel
- adapter/guard set: 304 stainless steel
- optional leg kit: 304 stainless steel
- rotary seal: carbon and silicon carbide
- 'DG' seal seat material: silicon carbide, ceramic and tungsten carbide
- elastomers: Buna, EPDM, silicone and FKM

### Features:

- seal types: externally balanced 'D' and 'DG' with clamped in seat, F flush seal (cascade)
- finish: sanitary polish 32R<sub>a</sub>
- optional casing drain
- optional hot oil shaft configuration
- BC-Series features impeller retainer
- BP-Series features threaded impeller nut
- connections: clamp (standard), others available upon request
- nominal capacity: up to 1200 GPM
- nominal speed: up to 3450 RPM – 60 Hz

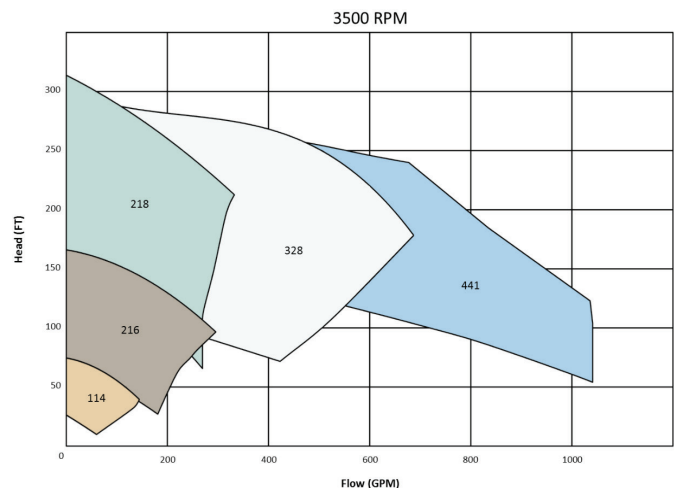
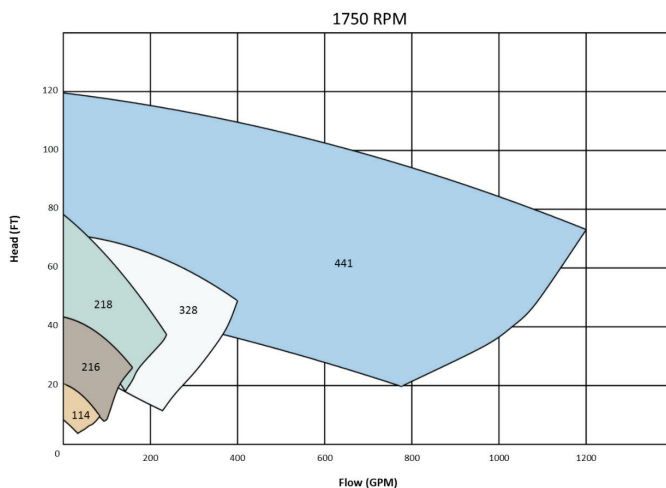
### Specifications:

- temperature: 32°F to 212°F (0°C to 100°C), call Dixon Sanitary 800.789.1718 for other temperatures
- motors: standard C-Face, 1750 and 3450 RPM, TEFC, washdown, foot mounted, additional motor types available upon request
- mounting: wet end mounted to a C-Face motor
- mounting options: adjustable legs, base plate and pump cart

### Family of Curves

#### Specifications:

- based on H<sub>2</sub>O at 70°F (21°C)
- frequency: 60HZ



## ExD Series Sanitary Centrifugal Pump



### Sizes:

- inlet: 1" to 4"
- outlet: 1" to 2½"

### Materials:

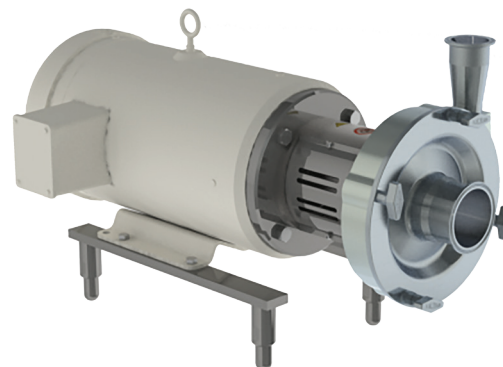
- product contact: 316L stainless steel and fully traceable
- non-product contact: 304 stainless steel
- stationary seal seat material: silicon carbide, ceramic or tungsten carbide
- rotary seal material: carbon or silicon carbide
- elastomers: Buna, EPDM, silicone or FKM
- optional leg kit: 304 stainless steel

### Features:

- available in 4 sizes
- pump casing and front cover precision machined from solid bar
- modular 2-piece adapter with interchangeable Nema motor flanges
- slotted adapter allows casing outlet to be rotated from 90° to 180° without disassembly
- modular stub shaft design with interchangeable Nema motor shaft sleeves
- unique stub shaft leak chamber allows for immediate external identification of seal wear
- mechanical seal components interchangeable with BC-series seals
- compact and maintenance friendly adapter guard set
- efficient semi-open impeller design
- seal type: externally balanced single mechanical seal
- finish: sanitary polish 32R<sub>a</sub> (other finishes available)
- pump casing machined with external flats for easy casing drain addition
- connections: clamp (standard), others available upon request
- nominal capacity: up to 500 GPM
- maximum head: 225 feet
- nominal speed: up to 3450 RPM – 60 Hz

### Specifications:

- temperature: **32°F to 212°F (0°C to 100°C)**, call Dixon Sanitary 800.789.1718 for other temperatures
- motor: standard C-Face, 1750 and 3450 RPM, TEFC, washdown, foot mounted, additional motor types available upon request
- mounting: wet end mounted to a C-Face motor
- mounting options: adjustable legs or pump cart



## Dixon Sanitary Pump Services and Mounting Options

*Service*

*Solutions*

*Selection*

Pumps

A

### In-House Application Engineering Services:

- pump sizing and selection
- troubleshooting support
- CAD drawings and 3D models

### In-House Base Mount and Cart Packages:

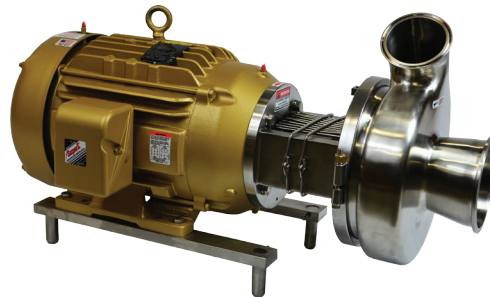
- custom engineered packages
- made and assembled in the USA
- many options available



sanitary pump carts for both positive displacement and centrifugal pumps



JRZL pumps mounted on stainless steel bases with adjustable legs



BC/BP pump with optional adjustable leg kit

**SV Series Valves ..... B-2 to B-4**

Single seat hygienic.....	B-2
Long stroke.....	B-3
Aseptic.....	B-4

**MP Series Mix Proof Valves..... B-5****Control Valves..... B-6 to B-8**

FC series hygienic.....	B-6
FC series aseptic.....	B-7
Characterized V seat 2-way .....	B-8

**Diaphragm Valves ..... B-9 to B-10**

High purity BioPharm.....	B-9 to B-10
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**Pressure Relief Valves..... B-11 to B-14**

SPR series.....	B-11
SRV series manual control .....	B-12
SOV series manual control.....	B-13
SOV series pneumatic control.....	B-14

**Ball Valves ..... B-15 to B-21**

Technical information.....	B-15
BV2C series.....	B-16 to B-17
BV3/4 series .....	B-18 to B-20
BV2G series .....	B-21

**Butterfly Valves..... B-22 to B-28**

B5101 series butterfly.....	B-22 to B-26
Butterfly automation.....	B-26
B5102 series butterfly.....	B-27
B5115 series.....	B-28

**Check Valves ..... B-29 to B-34**

HSC series .....	B-29
B45BY series.....	B-30
B45 series air blow .....	B-31
BARV series air relief .....	B-32
TVS series air and vacuum relief tank vent.....	B-33
TVP series air and vacuum relief tank vent.....	B-34

**Sample Valves..... B-35 to B-36**

BSV series 3A.....	B-35
W series.....	B-36



Sanitary Valves

### SV Series Single Seat Hygienic Valve

The SV series single seat valves offer a true hygienic design to meet your most demanding process applications. The SV series valves are offered in 316L stainless steel with a variety of body configurations, seat and stem seal materials to fit your specific needs. This valve series is designed to shut off or divert the flow in your process either remotely by using air or locally using a manual operating device. The rugged design of the actuator and valve body allow the valve to stand up to the harsh environments often found in the sanitary industry.

**Sizes:**

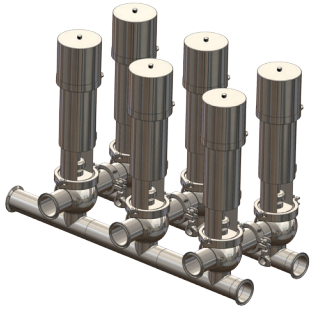
- 1" thru 4"

**Materials:**

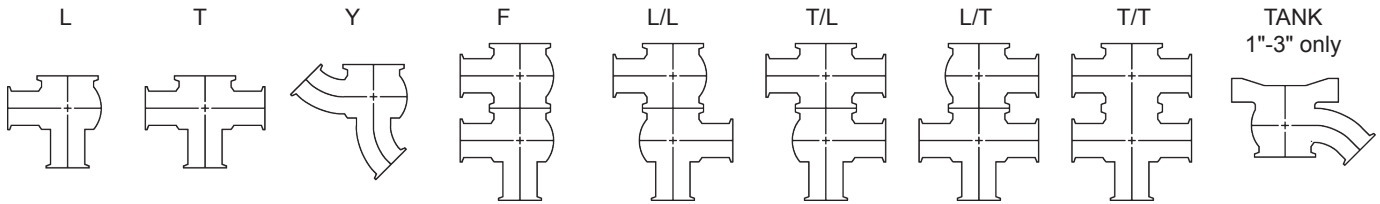
- body: 316L stainless steel
- actuator: 304 stainless steel
- manual operating device: 304 stainless steel
- stem seal: Buna, EPDM, FKM
- seat seal: Buna, EPDM, FKM, PTFE

**Features:**

- options: manual, actuated (spring return, double acting), control tops
- temperature range: **-50°F to 212°F (-45°C to 100°C)**
- surface finish: <math><32R\_a</math> standard
- air pressure: **80 to 120 PSI**
- air connections: 1/8" FNPT



#### Body Configurations



## SV Series Long Stroke Valves

**Applications:**

- Used in dairy, beverage and food plants where the product contains particles, has high viscosity, or pressure differential is an issue

**Sizes:**

- 1" thru 4"

**Materials:**

- product contact surfaces: 316L, 32R<sub>a</sub>, optional surface finishes available
- non product contact: 304, 68R<sub>a</sub>
- O-rings: EPDM (FDA) and FKM (others available upon request)

**Features:**

- valve body from solid bar; no dead space; drainable when mounted in various positions
- high-grade inner surfaces; no dome or sump in product space
- change of seals without special tools
- modular assembly
- O.D.-Tube (DIN 11866 C)

**Specifications:**

- maximum standard operating temperature: **266°F (130°C)**
- sterilization temperature: **300°F (149°C)**<sup>1</sup>
- standard pressure: maximum **87 PSI (6 bar)**
- actuator air pressure: minimum **87 PSI (6 bar)**, maximum **145 PSI (10 bar)**

<sup>1</sup>approximately 20 minutes dependent upon operating conditions



SV series long stroke shut off valve



SV series long stroke divert valve



RIEGER

**A**  
**3**  
 53-06

## SV Series Aseptic Valves

Sanitary Valves

**Sizes:**

- 1" thru 4"

**Materials:**

- product contact surfaces: 316L, 32R<sub>a</sub>, optional surface finishes available
- non product contact: 1.4301/AISI304, 68R<sub>a</sub>

**Features:**

- solid housing
- no dead spaces
- fully drainable
- many built-in positions possible
- complete separation from environment
- no dome or sump in product space
- change of seals without special tools
- long life PTFE bellows
- low spare parts costs
- O.D.-Tube (DIN 11866 C)

**Specifications:**

- maximum standard operating temperature: **250°F (121°C)**
- sterilization temperature: **275°F (135°C)**<sup>1</sup>
- closure pressure: max. **87 PSI (6 bar)**
- actuator air pressure: minimum **87 PSI (6 bar)**, maximum. **145 PSI (10 bar)**

<sup>1</sup>approximately 20 minutes dependent upon operating conditions



## MP Series Mix Proof Valves



RIEGER

Sanitary Valves

B

**Applications:**

- in food and beverage industries when the need to separate non-compatible liquids is required

**Sizes:**

- 1" thru 6"

**Materials:**

- product contact surfaces: 316L, 32R<sub>a</sub>, optional surface finishes available
- o-rings: EPDM, others upon request
- non product contact: 304, 68R<sub>a</sub>

**Features:**

- options:
  - Mix Proof Piggable Double Seal Valves
  - Mix Proof PMO (Pasteurized Milk Ordinance) Valves
- vacuum safe
- balanced valve discs
- radial sealing of both valve seats
- no impact between valve disc and body
- no need of impact buffering cylinder
- no soiling behind the O-rings
- waterhammer safe up to **435 PSI (30 bar)**
- change of seals without special tools
- service without danger (spring in cage)
- service possible without compressed air
- lower requirement for controlled air pressure
- valve insert completely removable
- easy cleaning by lifting of both discs
- standard O-rings
- standard-actuator with lift function
- only 4 seals
- K<sub>v</sub>-value cleaning 1,4 m<sup>3</sup>/h
- low pressure loss: **0,8 PSI**

**Specifications:**

- maximum standard operating temperature: **266°F (130°C)**
- sterilization temperature: **300°F (149°C)**<sup>1</sup>
- closure: maximum **145 PSI (10 bar)**
- actuator air pressure: minimum **87 PSI (6 bar)**, maximum **145 PSI (10 bar)**



<sup>1</sup>approximately 20 minutes dependent upon operating conditions



# RIEGER <sup>A</sup>3 FC Series Hygienic Control Valves

53-06

Sanitary Valves

B



### Applications:

- the process control head is fitted for the controlling of pneumatically operated process valves
- used in dairy, food & beverage, pharmaceutical and chemical industries

### Sizes:

- 1" thru 4"

### Materials:

- product contact surfaces: 316L, 32R<sub>a</sub>, optional surface finishes available
- non product contact: 304, 68R<sub>a</sub>
- O-rings and profile washer: EPDM (other materials upon request)

### Features:

- valve body from solid bar
- no dead space
- drainable when mounted in various positions
- high-grade inner surfaces
- no dome or sump in product space
- change of seals without special tools
- optimum cleanability
- modular assembly system
- low spare part costs
- O.D.-Tube (DIN 11866 C)

### Specifications:

- maximum standard operating temperature: **266°F (130°C)**
- sterilization temperature: **300°F (149°C)**<sup>1</sup>
- standard pressure: maximum **87 PSI (6 bar)**
- actuator air pressure: minimum **87 PSI (6 bar)**, maximum **145 PSI (10 bar)**
- controlled air pressure: maximum **145 PSI (10 bar)**

<sup>1</sup>approximately 20 minutes dependent upon operating conditions

## FC Series Aseptic Control Valves



RIEGER

Sanitary Valves

B

**Applications:**

- The process control head is fitted for the controlling of pneumatically operated process valves. The design of the valve body eliminates dead space, a prerequisite for sterile process engineering. When working with high sterilization temperatures this valve fulfills demands for operational security and reliable function.

**Sizes:**

- 1" thru 4"

**Materials:**

- product contact surfaces: 316L, 32R<sub>a</sub>, optional surface finishes available
- non product contact: 304, 68R<sub>a</sub>
- bellows: PTFE

**Features:**

- valve body made from solid bar
- no dead spaces
- drainable when mounted in various positions
- complete separation from environment
- no dome or sump in product space
- change of seals without special tools
- minimum 500,000 strokes
- optimum cleanability
- long life of the PTFE bellows
- low spare part costs
- O.D.-Tube (DIN 11866 C)

**Specifications:**

- maximum standard operating temperature: **250°F (121°C)**
- sterilization temperature: **275°F (135°C)**<sup>1</sup>
- standard pressure: maximum **87 PSI (6 bar)**
- actuator air pressure: minimum **87 PSI (6 bar)**, maximum **145 PSI (10 bar)**



<sup>1</sup>approximately 20 minutes dependent upon operating conditions

**Characterized V Seat 2-Way Sanitary Stainless Steel Control Valves**

Sanitary Valves



**Sizes:**

- ½" thru 4"

**Features:**

- compact design for areas with tight space restrictions
- full port design offer high flow capacity
- balanced encapsulated construction minimizes cold-flow of seats
- precise control
- bubble tight shut off
- interchangeable V port characterized seats
- precision stainless steel balls reduce torque and friction losses while extending seat life
- other characterized seats available
- blow-out proof stem
- live-loaded stem packing
- ISO 5211 mounting pad
- lock out, tag out
- ID polish is R<sub>a</sub> 32 minimum

**Specifications:**

- maximum pressure rating: ½" - 2" **1000 PSI WOG**, 2½" - 4" **800 PSI WOG**

B

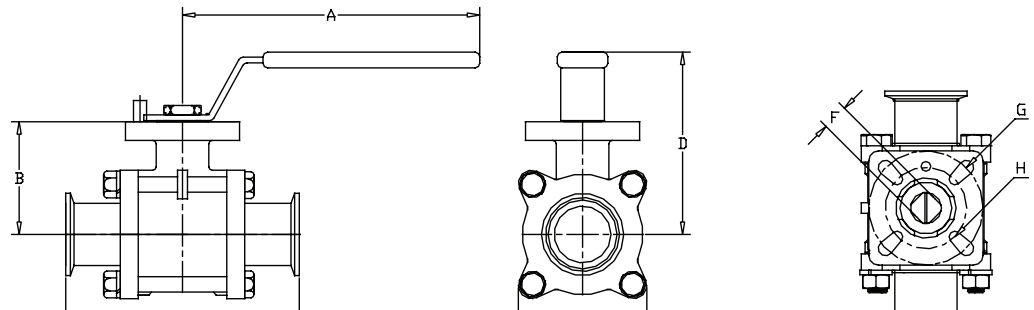


L = 60° V seat



M = 30° V seat

**Dimensions**



Size	A	B	C	D	E	F (mm)	G	H	Part Number
½"	4.9	1.5	4.3	3.0	1.9	9	F04	F03	<b>BV2"L OR M"-050CC-A</b>
¾"	4.9	1.8	4.7	3.3	2.2	9	F04	F03	<b>BV2"L OR M"-075CC-A</b>
1"	5.6	2.1	4.9	3.6	2.4	11	F05	F04	<b>BV2"L OR M"-100CC-A</b>
1½"	9.5	2.7	5.6	4.4	3.1	14	F07	F05	<b>BV2"L OR M"-150CC-A</b>
2"	9.5	3.1	6.4	4.8	3.7	14	F07	F05	<b>BV2"L OR M"-200CC-A</b>
2½"	18.0	3.8	7.8	5.2	4.8	17	F10	F07	<b>BV2"L OR M"-250CC-A</b>
3"	18.0	4.2	9.0	5.7	5.4	17	F10	F07	<b>BV2"L OR M"-300CC-A</b>
4"	18.0	5.3	9.5	6.8	8.8	22	F12	F10	<b>BV2"L OR M"-400CC-A</b>

**Seat Material Codes**

Code	Description	Food Grade Material
V	virgin PTFE	yes
G	RTFE	yes
C	25% carbon PTFE	no
S	stainless reinforced PTFE	yes
U	UHMW	yes

Dimensions are approximate. Engineering dimensions are available upon request.  
Specifications are subject to change without notice.






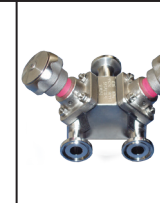
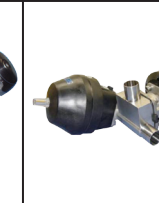

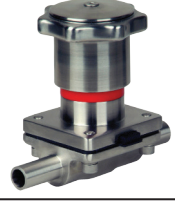



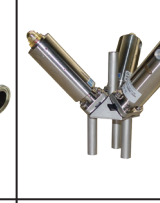
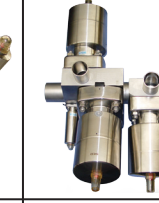




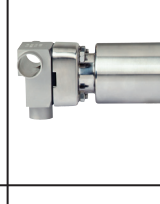
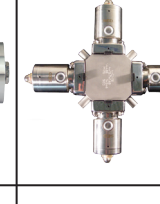
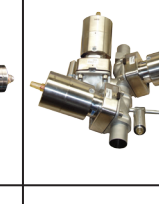



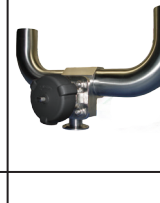

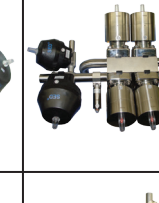


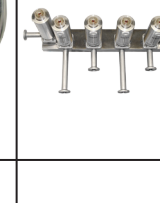
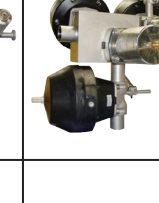

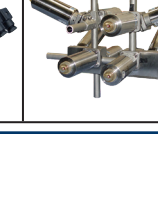
## High Purity BioPharm Aseptic Diaphragm Valves

**Applications:**

- pharmaceutical, bio-processing, cosmetics, food and beverage, fine chemicals and semi-conductor industries where aseptic and hygienic conditions are required
- product offering of standard 2-way valves, innovative custom fabrications and modular block body designs solve the more demanding process problems

**Features:**

- quick turn around
- 3D models
- application engineering service
- sterility, reduced contact surface and hold up volume, optimized drainability, elimination of cross contamination and customer-specific process designs
- processes: highly sterile media, ultra-pure water, WFI (Water for Injection), ultra-pure chemicals, intermediate and end products in the pharmaceutical and bio-processing industries

Bio Series 1/4" - 1/2"	Fractional 1/2" - 3/4"	Sterile Access and L Pattern Fabrications	Standard 1" - 4"	Zero Static Tees and U Bends	Multi-Port Divert Valves	Multi-Cluster Valve Assemblies
						
						
						
						
						
						

## Bodies

### Materials:

- 316L – manufactured to ASME BPE Table DT-3
- bodies: standard 316L, forged or machined

### Features:

- full material traceability standard
- cast bodies are available when acceptable

## Bonnets

### Materials:

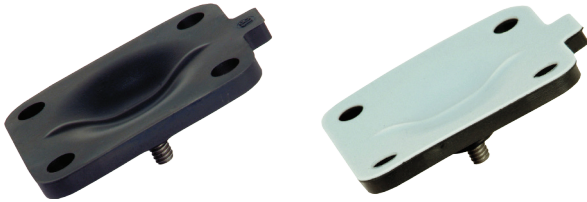
- stainless steel
- thermoplastic
- combination of both

### Features:

- manual and actuated
- three different styles
  - manual hand wheel
  - piston actuator
  - diaphragm actuator



## Diaphragms



### Materials:

- EPDM
- modified PTFE (TFM)/EPDM

### Approvals:

- all diaphragms are FDA Compliant and conform to USP Class VI

## SPR Series Pressure Relief Valves



### Applications:

- suitable for liquids and gas

### Materials:

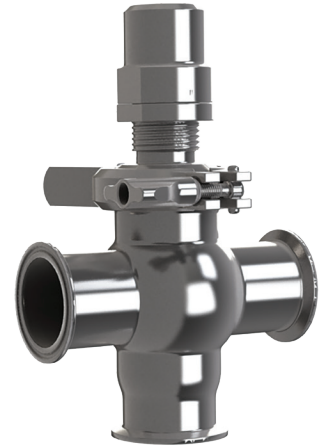
- product contact surfaces: 316L, 32Ra, other surface finishes available
- non product contact: 304
- product contact O-ring: EPDM or FKM

### Features:

- valve opens when the set pressure is reached to prevent excess pressure in piping or systems
- valve body made from solid bar
- patented squeeze clamp
- low spare part cost
- various pressure ranges
- standard connections clamp, others on request

### Specifications:

- temperatures:
  - maximum standard operating temperature: **266°F (130°C)**
  - sterilization temperature: **300°F (149°C)** maximum 20 min
- pressure ranges: **0-50 PSI, 50-100 PSI, 100-300 PSI**



T body

Size Tube OD	Part Number	Body Style	End	Seat(*)	Spring Set Range PSI	Actuation
1.5"	<b>SPR-TC*1A150</b>	T-Body	Clamp	V = FKM E = EPDM	<b>0-50</b>	Manual
	<b>SPR-TC*2A150</b>				<b>50-100</b>	
	<b>SPR-TC*3A150</b>				<b>100-300</b>	
	<b>SPR-LC*1A150</b>	L-Body			<b>0-50</b>	
	<b>SPR-LC*2A150</b>				<b>50-100</b>	
	<b>SPR-LC*3A150</b>				<b>100-300</b>	
2"	<b>SPR-TC*1A200</b>	T-Body	Clamp	V = FKM E = EPDM	<b>0-50</b>	Manual
	<b>SPR-TC*2A200</b>				<b>50-100</b>	
	<b>SPR-TC*3A200</b>				<b>100-300</b>	
	<b>SPR-LC*1A200</b>	L-Body			<b>0-50</b>	
	<b>SPR-LC*2A200</b>				<b>50-100</b>	
	<b>SPR-LC*3A200</b>				<b>100-300</b>	



L body



RIEGER

## SRV Series Manual Control Valve

**Applications:**

- Safety valve prevents excess pressure of gaseous media in pipelines and vessels. The set pressure is always higher than the operating pressure. As soon as the pressure is reached, the valve opens against the force of the spring. The pressure excess is relieved as soon as the pressure is 10% higher than the set pressure.

**Sizes:**

- 1" thru 4"

**Materials:**

- product contact surfaces: 316L, 32R<sub>a</sub>, optional surface finishes available
- non product contact: 304, 68R<sub>a</sub>
- O-rings: EPDM or FKM

**Features:**

- valve body made from solid bar
- no dead spaces
- drainable
- high-grade inner surfaces
- no sump, no dome
- change of seals without special tools
- safety: closed spring cap
- optimum cleanability
- modular assembly systems
- connections suitable for orbital welding
- low spare part cost
- adjustable set pressure
- weld ends combined with concentrically reduced inch clamp ferrules

**Specifications:**

- maximum standard operating temperature: **266°F (130°C)**
- sterilization temperature: **300°F (149°C)**<sup>1</sup>
- set pressure: **22 PSI to 116 PSI** resp. **29 PSI to 116 PSI**
- controlled air pressure: minimum **87 PSI**, maximum **145 PSI**
- 3A not available

<sup>1</sup>approximately 20 minutes dependent upon operating conditions



## SOV Series Manual Control Valve

**Applications:**

- Valve opens when the set pressure is reached to prevent excess pressure in piping or systems. The lever allows lifting by hand for seat cleaning purposes. They are suitable for liquids, steam and gas.

**Sizes:**

- 1" thru 4"

**Materials:**

- product contact surfaces: 316L, 32R<sub>a</sub>, optional surface finishes available
- non product contact: 304, 68R<sub>a</sub>
- O-rings: EPDM or FKM

**Features:**

- valve body made from solid bar
- no dead spaces
- drainable when mounted in various positions
- high-grade inner surfaces
- no sump, no dome
- clamp union between housing and actuator
- optimum cleanability
- low spare part cost
- O.D.-Tube (DIN 11866 C)

**Specifications:**

- maximum standard operating temperature: **266°F (130°C)**
- sterilization temperature: **300°F (149°C)**<sup>1</sup>
- set pressure: **8 PSI to 87 PSI (0.5 bar to 6 bar)** higher pressures on request
- 3A not available

<sup>1</sup>approximately 20 minutes dependent upon operating conditions





# RIEGER

## SOV Series Pneumatic Control Valve

Sanitary Valves

### Applications:

- Valve opens when the set pressure is reached to prevent excess pressure in piping or systems. They are suitable for liquids, steam and gas.

### Sizes:

- 1" thru 3"

### Material:

- product contact surfaces: 316L, 32R<sub>a</sub>, optional surface finishes available
- non product contact: 340, 68R<sub>a</sub>
- hygienic EPDM O-rings
- aseptic PTFE Bellows

### Features:

- valve body made from solid bar
- no dead spaces
- drainable when mounted in various positions
- high-grade inner surfaces
- no sump, no dome
- clamp union between valve body and actuator
- modular assembly system – easy change between hygienic and aseptic type
- standards seals
- O.D.-Tube (DIN 11866 C)

### Specifications:

- maximum standard operating temperature EPDM: **266°F (130°C)**
- maximum standard operating temperature PTFE: **250°F (121°C)**
- sterilization temperature EPDM: **300°F (149°C)<sup>1</sup>**
- sterilization temperature PTFE: **275°F (135°C)<sup>1</sup>**
- possible set pressure for O-ring version: **8 PSI to 87 PSI (0.5 bar to 6 bar)**  
**22 PSI to 87 PSI (1.5 bar to 6 bar)**
- PTFE-bellows version pressure range depends on spring control air pressure:  
minimum **87 PSI**, maximum **145 PSI** (minimum **6 bar**, maximum **10 bar**)

<sup>1</sup>approximately 20 minutes dependent upon operating conditions



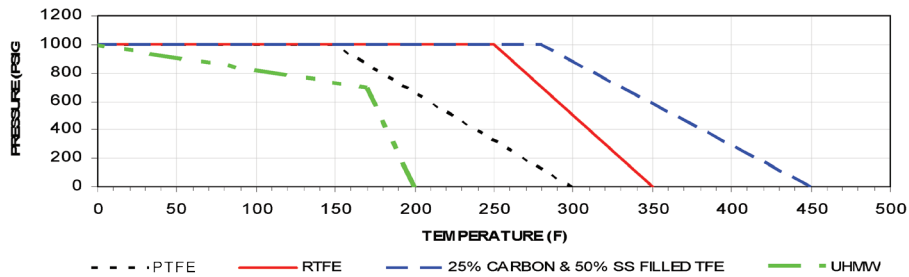
Technical Information

Seal Materials

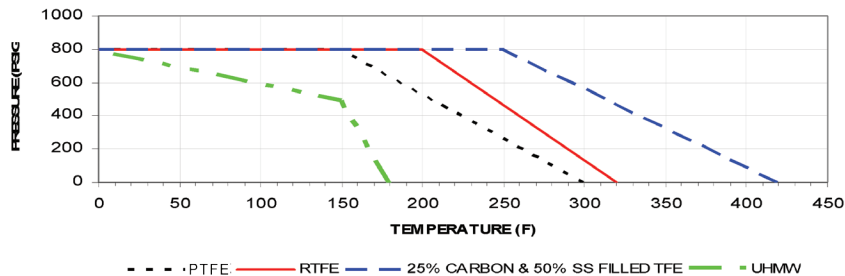
Code	Designation	Material	Applications
V	Virgin PTFE	Virgin polytetrafluoroethylene	100% PTFE- Our standard seat material. Ideal for most sanitary services. Specified for applications requiring a low co-efficient of friction. <b>Food Grade Material</b>
G	RTFE	15% glass reinforced tetrafluoroethylene	15% glass filled + 85% PTFE - Slightly higher temperature and pressure rating than PTFE. Specified for applications requiring higher cycle life than PTFE. <b>Food Grade Material</b>
C	25% Carbon PTFE	25% carbon reinforced tetrafluoroethylene	25% carbon +75% PTFE - Specified for higher temperature pressure applications. Ideal for steam and thermal fluid applications. Higher cycle life than RTFE.
S	Stainless Steel PTFE	50% stainless steel filled tetrafluoroethylene	50% stainless steel + 50% PTFE - Specified for higher temperature pressure applications in a sanitary process. <b>Food Grade Material</b>
U	UHMW	Ultra-high molecular weight polyethylene	Specified for its low modulus of abrasion and minimal property degradation when exposed to moderate levels of radiation. Ideal for applications where fluorocarbons are not acceptable. <b>Food Grade Material</b>

Pressure Temperature Charts

1/2" - 2" VALVES



2 1/2" - 4" VALVES



## BV2C Series 2-Way Encapsulated Sanitary 3 Piece Stainless Steel Ball Valves

Sanitary Valves



**Sizes:**

- ½" thru 4"

**Materials:**

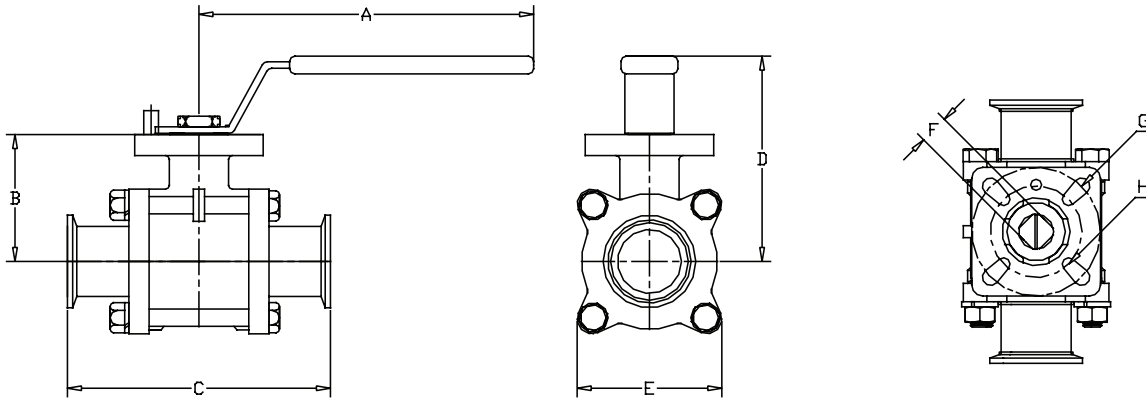
- body, ends and ball: CF8M stainless
- seats: virgin PTFE, 15% glass reinforced RTFE, 25% carbon reinforced PTFE, 50% stainless steel reinforced PTFE or UHMW

**Features:**

- live-loaded stem packing
- precision stainless steel balls reduce torque and friction losses while extending seat life
- integral ISO 5211 mounting pad
- ID polish is R<sub>a</sub> 32 minimum
- lockable handle can prevent accidental actuation
- standard internal entry blow out proof stem design
- full port design matches ball and seat ports to tube ID for lower pressure drop and less turbulent flow
- compact design for areas with tight space restrictions
- fully encapsulated construction produces bubble tight seal
- identification tagging available
- balanced encapsulated construction minimizes cold flow

**Specifications:**

- maximum pressure rating: ½" - 2" **1000 PSI WOG**, 2½" - 4" **800 PSI WOG**



Size	A	B	C	D	E	F (mm)	G	H
½"	4.9	1.5	4.3	3.0	1.9	9	F04	F03
¾"	4.9	1.8	4.7	3.3	2.2	9	F04	F03
1"	5.5	2.1	4.9	3.6	2.4	11	F05	F04
1½"	9.5	2.7	5.6	4.4	3.2	14	F07	F05
2"	9.5	3.1	6.4	4.8	3.8	14	F07	F05
2½"	17.6	3.8	7.8	5.2	4.9	17	F10	F07
3"	18.0	4.2	9.0	5.7	5.4	17	F10	F07
4"	18.2	5.3	9.6	6.8	8.8	22	F12	F10

Dimensions are approximate. Engineering dimensions are available upon request.  
Specifications are subject to change without notice.

**Handle Kits**

**Repair Kits**

Size	Part Number
½" - ¾"	<b>BV-23-HA050-075</b>
1"	<b>BV-23-HA100</b>
1½" - 2"	<b>BV-23-HA150-200</b>
2½"	<b>BV-23-HA250</b>
3" - 4"	<b>BV-23-HA300-400</b>

Kit contains:  
(1) lock washer  
(1) handle  
(1) nut

Kit contains:  
(1) O-ring  
(1) thrust washer  
(3) stem packings  
(2) encapsulated seats  
(2) body seals

- see page B-17 for part numbers

## BV2C Series 2-Way Encapsulated Sanitary 3 Piece Stainless Steel Ball Valves

Sanitary Valves

Size	Ball Valve Part Number	Repair Kit Part Number	Break Torque (in-lb)	Code ID	Seat Material
½"	<i>BV2CV-050CC-A</i>	<i>BV-2C-VK050</i>	31	V	Virgin PTFE
¾"	<i>BV2CV-075CC-A</i>	<i>BV-2C-VK075</i>	47		
1"	<i>BV2CV-100CC-A</i>	<i>BV-2C-VK100</i>	105		
1½"	<i>BV2CV-150CC-A</i>	<i>BV-2C-VK150</i>	238		
2"	<i>BV2CV-200CC-A</i>	<i>BV-2C-VK200</i>	256		
2½"	<i>BV2CV-250CC-A</i>	<i>BV-2C-VK250</i>	900		
3"	<i>BV2CV-300CC-A</i>	<i>BV-2C-VK300</i>	1650		
4"	<i>BV2CV-400CC-A</i>	<i>BV-2C-VK400</i>	2027		
½"	<i>BV2CG-050CC-A</i>	<i>BV-2C-GK050</i>	34	G	15% glass reinforced RTFE
¾"	<i>BV2CG-075CC-A</i>	<i>BV-2C-GK075</i>	51		
1"	<i>BV2CG-100CC-A</i>	<i>BV-2C-GK100</i>	116		
1½"	<i>BV2CG-150CC-A</i>	<i>BV-2C-GK150</i>	261		
2"	<i>BV2CG-200CC-A</i>	<i>BV-2C-GK200</i>	281		
2½"	<i>BV2CG-250CC-A</i>	<i>BV-2C-GK250</i>	990		
3"	<i>BV2CG-300CC-A</i>	<i>BV-2C-GK300</i>	1815		
4"	<i>BV2CG-400CC-A</i>	<i>BV-2C-GK400</i>	2229		
½"	<i>BV2CC-050CC-A</i>	<i>BV-2C-CK050</i>	37	C	25% carbon reinforced PTFE
¾"	<i>BV2CC-075CC-A</i>	<i>BV-2C-CK075</i>	57		
1"	<i>BV2CC-100CC-A</i>	<i>BV-2C-CK100</i>	127		
1½"	<i>BV2CC-150CC-A</i>	<i>BV-2C-CK150</i>	287		
2"	<i>BV2CC-200CC-A</i>	<i>BV-2C-CK200</i>	309		
2½"	<i>BV2CC-250CC-A</i>	<i>BV-2C-CK250</i>	1089		
3"	<i>BV2CC-300CC-A</i>	<i>BV-2C-CK300</i>	1997		
4"	<i>BV2CC-400CC-A</i>	<i>BV-2C-CK400</i>	2452		
½"	<i>BV2CS-050CC-A</i>	<i>BV-2C-SK050</i>	41	S	50% stainless steel reinforced PTFE
¾"	<i>BV2CS-075CC-A</i>	<i>BV-2C-SK075</i>	62		
1"	<i>BV2CS-100CC-A</i>	<i>BV-2C-SK100</i>	140		
1½"	<i>BV2CS-150CC-A</i>	<i>BV-2C-SK150</i>	316		
2"	<i>BV2CS-200CC-A</i>	<i>BV-2C-SK200</i>	340		
2½"	<i>BV2CS-250CC-A</i>	<i>BV-2C-SK250</i>	1198		
3"	<i>BV2CS-300CC-A</i>	<i>BV-2C-SK300</i>	2196		
4"	<i>BV2CS-400CC-A</i>	<i>BV-2C-SK400</i>	2698		
½"	<i>BV2CU-050CC-A</i>	<i>BV-2C-UK050</i>	31	U	UHMW
¾"	<i>BV2CU-075CC-A</i>	<i>BV-2C-UK075</i>	47		
1"	<i>BV2CU-100CC-A</i>	<i>BV-2C-UK100</i>	105		
1½"	<i>BV2CU-150CC-A</i>	<i>BV-2C-UK150</i>	238		
2"	<i>BV2CU-200CC-A</i>	<i>BV-2C-UK200</i>	256		
2½"	<i>BV2CU-250CC-A</i>	<i>BV-2C-UK250</i>	900		
3"	<i>BV2CU-300CC-A</i>	<i>BV-2C-UK300</i>	1650		
4"	<i>BV2CU-400CC-A</i>	<i>BV-2C-UK400</i>	2027		

B

**BV3/4 Series Multi-port Sanitary Stainless Steel Ball Valves**

Sanitary Valves



**Sizes:**

- ½" thru 4"

**Materials:**

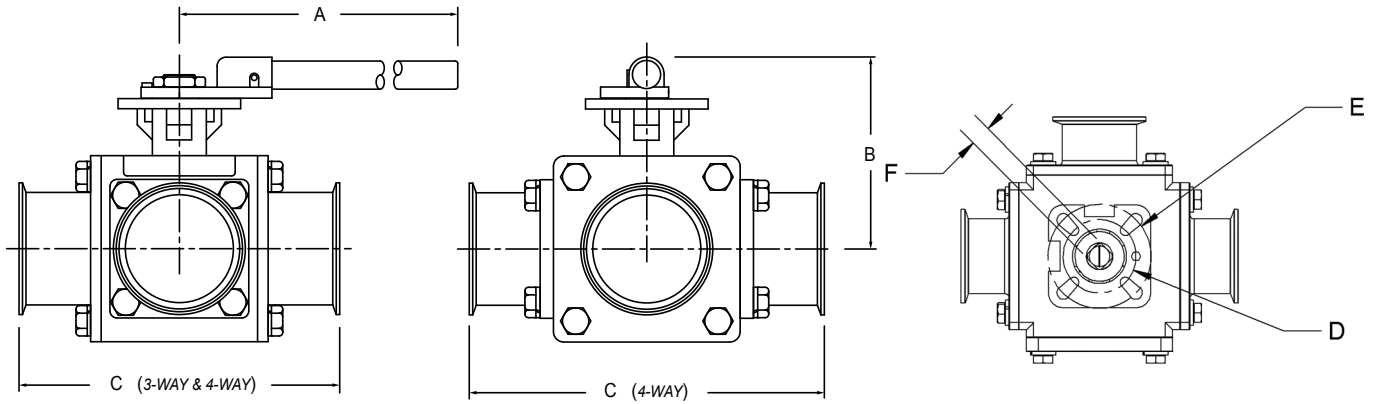
- body, ends and ball: CF8M stainless
- seats: virgin PTFE, 15% glass reinforced RTFE, 25% carbon reinforced PTFE, 50% stainless steel reinforced PTFE or UHMW

**Features:**

- full port design on ½" thru 3"
- reduced port design on 4"
- blow-out proof stem
- live-loaded stem packing
- ISO 5211 mounting pad
- lock-out, tag out

**Specifications:**

- maximum pressure rating: ½" - 2" **1000 PSI WOG**, 2½" - 4" **800 PSI WOG**



Size	A (in.)	B (in.)	C (in.)	D	E	F (mm)	Weight (lbs.)
½"	4.9	1.7	4.6	F03	F04	9.0	3.6
¾"	5.0	1.9	5.0	F03	F04	9.0	4.3
1"	5.3	2.3	6.0	F04	F05	11.0	6.8
1½"	9.5	2.9	6.9	F05	F07	14.0	12.6
2"	9.5	3.2	7.5	F05	F07	14.0	21.6
2½"	18.0	3.9	8.4	F07	F10	17.0	33.7
3"	18.3	4.9	9.6	F10	F12	22.0	56.4
4"	18.3	5.4	11.4	F10	F12	22.0	85.4

Dimensions are approximate. Engineering dimensions are available upon request.  
Specifications are subject to change without notice.

**Handle Kits**

Size	Part Number	Kit contains:
½" - ¾"	<b>BV-23-HA050-075</b>	(1) lock washer
1"	<b>BV-23-HA100</b>	(1) handle
1½" - 2"	<b>BV-23-HA150-200</b>	(1) nut
2½"	<b>BV-23-HA250</b>	
3" - 4"	<b>BV-23-HA300-400</b>	

**Repair Kits**

- Kit contains:
- (2) encapsulated seat small
  - (2) encapsulated seat large
  - (2) body seals
  - (1) thrust washer
  - (1) O-ring
  - (3) stem packings
  - (1) plug (3-way only)

- see page B-19 for part numbers

## BV3/4 Series Multi-port Sanitary Stainless Steel Ball Valves

Size	"L" port Ball Valve Part Number	"T" port Ball Valve Part Number	Repair Kit Part Number	"L" Port Break Torque (in-lb)	"T" Port Break Torque (in-lb)	Code ID	Seat Material
1/2"	<i>BV3SVLF050C-A</i>	<i>BV3SVTF050C-A</i>	<i>BV-3SVFRK050</i>	65	44	V	Virgin PTFE
3/4"	<i>BV3SVLF075C-A</i>	<i>BV3SVTF075C-A</i>	<i>BV-3SVFRK075</i>	76	76		
1"	<i>BV3SVLF100C-A</i>	<i>BV3SVTF100C-A</i>	<i>BV-3SVFRK100</i>	171	171		
1 1/2"	<i>BV3SVLF150C-A</i>	<i>BV3SVTF150C-A</i>	<i>BV-3SVFRK150</i>	356	297		
2"	<i>BV3SVLF200C-A</i>	<i>BV3SVTF200C-A</i>	<i>BV-3SVFRK200</i>	553	553		
2 1/2"	<i>BV3SVLF250C-A</i>	<i>BV3SVTF250C-A</i>	<i>BV-3SVFRK250</i>	1114	1114		
3"	<i>BV3SVLF300C-A</i>	<i>BV3SVTF300C-A</i>	<i>BV-3SVFRK300</i>	1875	1400		
4"	<i>BV3SVLR400C-A</i>	<i>BV3SVTR400C-A</i>	<i>BV-3SVRRK400</i>	2241	2050		
1/2"	<i>BV3SGLF050C-A</i>	<i>BV3SGTF050C-A</i>	<i>BV-3SGRK050</i>	71	48	G	15% glass reinforced RTFE
3/4"	<i>BV3SGLF075C-A</i>	<i>BV3SGTF075C-A</i>	<i>BV-3SGRK075</i>	83	84		
1"	<i>BV3SGLF100C-A</i>	<i>BV3SGTF100C-A</i>	<i>BV-3SGRK100</i>	188	188		
1 1/2"	<i>BV3SGLF150C-A</i>	<i>BV3SGTF150C-A</i>	<i>BV-3SGRK150</i>	392	327		
2"	<i>BV3SGLF200C-A</i>	<i>BV3SGTF200C-A</i>	<i>BV-3SGRK200</i>	608	608		
2 1/2"	<i>BV3SGLF250C-A</i>	<i>BV3SGTF250C-A</i>	<i>BV-3SGRK250</i>	1226	1225		
3"	<i>BV3SGLF300C-A</i>	<i>BV3SGTF300C-A</i>	<i>BV-3SGRK300</i>	2063	1540		
4"	<i>BV3SGLR400C-A</i>	<i>BV3SGTR400C-A</i>	<i>BV-3SGRK400</i>	2465	2255		
1/2"	<i>BV3SCLF050C-A</i>	<i>BV3SCTF050C-A</i>	<i>BV-3SCRK050</i>	78	53	C	25% carbon reinforced PTFE
3/4"	<i>BV3SCLF075C-A</i>	<i>BV3SCTF075C-A</i>	<i>BV-3SCRK075</i>	91	92		
1"	<i>BV3SCLF100C-A</i>	<i>BV3SCTF100C-A</i>	<i>BV-3SCRK100</i>	207	207		
1 1/2"	<i>BV3SCLF150C-A</i>	<i>BV3SCTF150C-A</i>	<i>BV-3SCRK150</i>	431	359		
2"	<i>BV3SCLF200C-A</i>	<i>BV3SCTF200C-A</i>	<i>BV-3SCRK200</i>	669	669		
2 1/2"	<i>BV3SCLF250C-A</i>	<i>BV3SCTF250C-A</i>	<i>BV-3SCRK250</i>	1348	1348		
3"	<i>BV3SCLF300C-A</i>	<i>BV3SCTF300C-A</i>	<i>BV-3SCRK300</i>	2269	1694		
4"	<i>BV3SCLR400C-A</i>	<i>BV3SCTR400C-A</i>	<i>BV-3SCRK400</i>	2712	2481		
1/2"	<i>BV3SSLF050C-A</i>	<i>BV3SSTF050C-A</i>	<i>BV-3SSRK050</i>	86	59	S	50% stainless steel reinforced PTFE
3/4"	<i>BV3SSLF075C-A</i>	<i>BV3SSTF075C-A</i>	<i>BV-3SSRK075</i>	101	101		
1"	<i>BV3SSLF100C-A</i>	<i>BV3SSTF100C-A</i>	<i>BV-3SSRK100</i>	228	228		
1 1/2"	<i>BV3SSLF150C-A</i>	<i>BV3SSTF150C-A</i>	<i>BV-3SSRK150</i>	474	395		
2"	<i>BV3SSLF200C-A</i>	<i>BV3SSTF200C-A</i>	<i>BV-3SSRK200</i>	736	736		
2 1/2"	<i>BV3SSLF250C-A</i>	<i>BV3SSTF250C-A</i>	<i>BV-3SSRK250</i>	1483	1483		
3"	<i>BV3SSLF300C-A</i>	<i>BV3SSTF300C-A</i>	<i>BV-3SSRK300</i>	2496	1863		
4"	<i>BV3SSLR400C-A</i>	<i>BV3SSTR400C-A</i>	<i>BV-3SSRK400</i>	2983	2729		
1/2"	<i>BV3SULF050C-A</i>	<i>BV3SUTF050C-A</i>	<i>BV-3SURK050</i>	65	44	U	UHMW
3/4"	<i>BV3SULF075C-A</i>	<i>BV3SUTF075C-A</i>	<i>BV-3SURK075</i>	76	76		
1"	<i>BV3SULF100C-A</i>	<i>BV3SUTF100C-A</i>	<i>BV-3SURK100</i>	171	171		
1 1/2"	<i>BV3SULF150C-A</i>	<i>BV3SUTF150C-A</i>	<i>BV-3SURK150</i>	356	297		
2"	<i>BV3SULF200C-A</i>	<i>BV3SUTF200C-A</i>	<i>BV-3SURK200</i>	553	553		
2 1/2"	<i>BV3SULF250C-A</i>	<i>BV3SUTF250C-A</i>	<i>BV-3SURK250</i>	1114	1114		
3"	<i>BV3SULF300C-A</i>	<i>BV3SUTF300C-A</i>	<i>BV-3SURK300</i>	1875	1400		
4"	<i>BV3SULR400C-A</i>	<i>BV3SUTR400C-A</i>	<i>BV-3SURK400</i>	2241	2050		

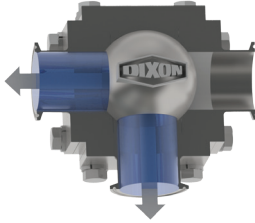
• 4-way available upon request

**BV3/4 Series Multi-port Sanitary Stainless Steel Ball Valves**

Sanitary Valves

**Flow Paths**

3-way 'L'-port  
*position A*



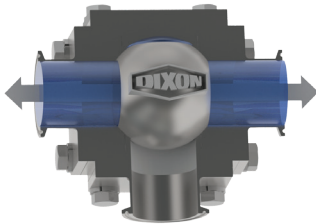
3-way 'L'-port  
*position B*



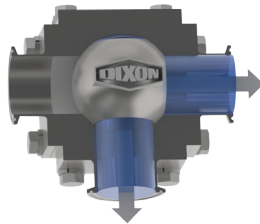
3-way 'L'-port  
*position C*



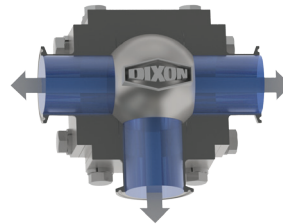
3-way 'T'-port  
*position A*



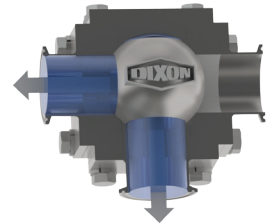
3-way 'T'-port  
*position B*



3-way 'T'-port  
*position C*



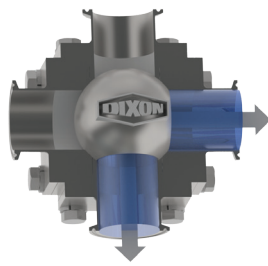
3-way 'T'-port  
*position D*



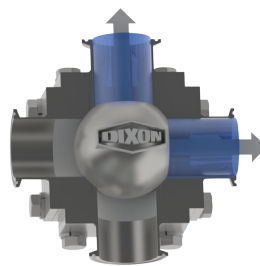
4-way 'L'-port  
*position A*



4-way 'L'-port  
*position B*



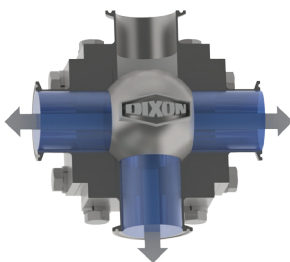
4-way 'L'-port  
*position C*



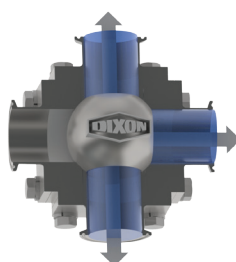
4-way 'L'-port  
*position D*



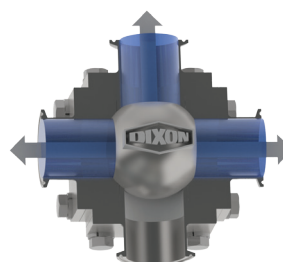
4-way 'T'-port  
*position A*



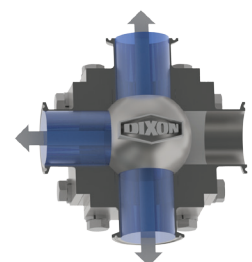
4-way 'T'-port  
*position B*



4-way 'T'-port  
*position C*



4-way 'T'-port  
*position D*





## BV2G Non-Encapsulated 2-way 3 Piece Stainless Steel Ball Valves

### Sizes:

- ½" thru 4"

### Materials:

- body, ends and ball: CF8M stainless
- seats: 15% glass reinforced PTFE

### Features:

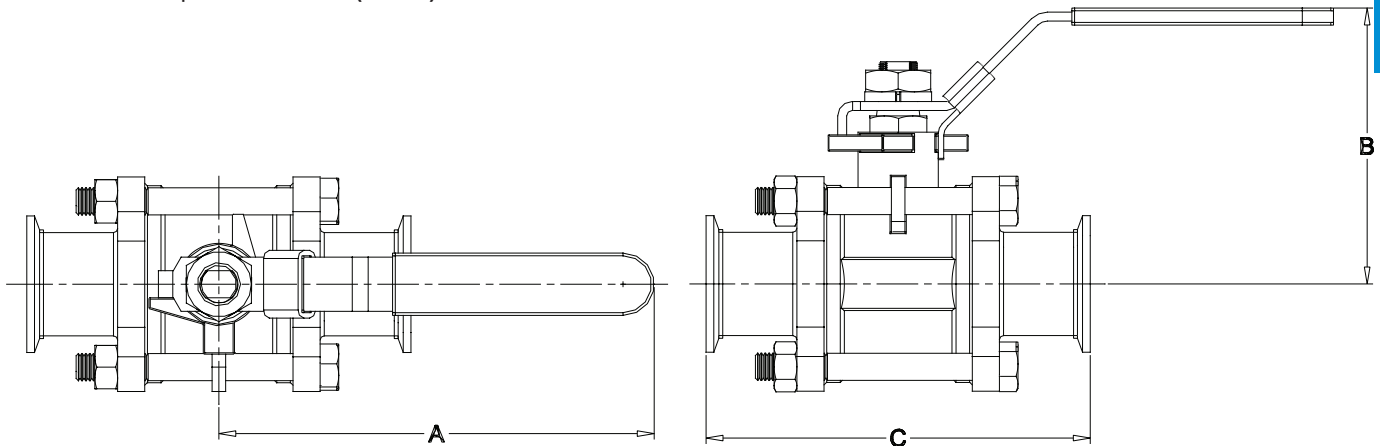
- blow-out proof stem
- live-loaded stem packing
- ID polish is  $R_a$  32
- lockable handle

### Specifications:

- maximum pressure rating: ½" - 2" **1000 PSI WOG**, 2½" - 4" **800 PSI WOG**
- maximum temperature: **300°F (149°C)**



Sanitary Valves



B

Size	A	B	C	316 Stainless Steel Part Number
½"	4.1	2.3	4.6	<b>BV2GG-050CC-A</b>
¾"	4.1	2.5	4.7	<b>BV2GG-075CC-A</b>
1"	5.0	2.8	4.9	<b>BV2GG-100CC-A</b>
1½"	6.1	3.5	5.6	<b>BV2GG-150CC-A</b>
2"	7.6	3.9	6.4	<b>BV2GG-200CC-A</b>
2½"	7.6	4.4	7.8	<b>BV2GG-250CC-A</b>
3"	10.9	4.9	9.0	<b>BV2GG-300CC-A</b>
4"	13.2	6.6	9.6	<b>BV2GG-400CC-A</b>

Dimensions are approximate. Engineering dimensions are available upon request.  
Specifications are subject to change without notice.

### Repair Kits

Repair kit contains:

- (2) RTFE seats
- (2) RTFE gaskets
- (1) RTFE thrust washer
- (3) RTFE stem packing

Size	Part Number
½"	<b>BV-2G-GK050</b>
¾"	<b>BV-2G-GK075</b>
1"	<b>BV-2G-GK100</b>
1½"	<b>BV-2G-GK150</b>
2"	<b>BV-2G-GK200</b>
2½"	<b>BV-2G-GK250</b>
3"	<b>BV-2G-GK300</b>
4"	<b>BV-2G-GK400</b>

## B5101 Series Sanitary Butterfly Valves



trigger handle

**Sizes:**

- ½" thru 8"

**Materials:**

- body and disc: 316L
- seat: EPDM, FKM, (6" EPDM and silicone, 8" EPDM only)

**Features:**

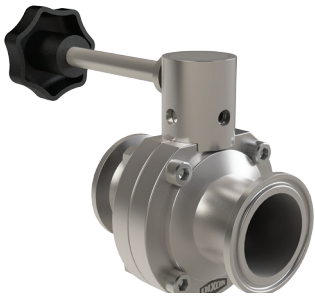
- low resistance to flow
- bi-directions flow
- gentle to media
- suitable for low and medium viscosity fluids
- can be serviced in the field
- self-draining
- various manual or automatic operators available
- optional wing nut kit is available for easy assembly and disassembly
- 100% hydraulic tested / 100% inspected

**Specifications:**

- vacuum rating: 0.4 inches Hg at **68°F (20°C)**
- operating temperature range: **15°F to 200°F (-9°C to 93°C)**



standard handle



infinite handle

**B5101 Series Butterfly Valve with Pull Handle****Clamp End**

Size	316L stainless steel with Silicone seats	316L stainless steel with EPDM seats	316L stainless steel with FKM seats
½"	<b>B5101S050CC-A</b>	<b>B5101E050CC-A</b>	<b>B5101V050CC-A</b>
¾"	<b>B5101S075CC-A</b>	<b>B5101E075CC-A</b>	<b>B5101V075CC-A</b>
1"	<b>B5101S100CC-A</b>	<b>B5101E100CC-A</b>	<b>B5101V100CC-A</b>
1½"	<b>B5101S150CC-A</b>	<b>B5101E150CC-A</b>	<b>B5101V150CC-A</b>
2"	<b>B5101S200CC-A</b>	<b>B5101E200CC-A</b>	<b>B5101V200CC-A</b>
2½"	<b>B5101S250CC-A</b>	<b>B5101E250CC-A</b>	<b>B5101V250CC-A</b>
3"	<b>B5101S300CC-A</b>	<b>B5101E300CC-A</b>	<b>B5101V300CC-A</b>
4" <sup>1</sup>	<b>B5101S400CC-A</b>	<b>B5101E400CC-A</b>	<b>B5101V400CC-A</b>
6"	<b>B5101S600CC-A</b>	<b>B5101E600CC-A</b>	---
8"	---	<b>B5101E800CC-A</b>	---

<sup>1</sup> high pressure 4" butterfly is available, call Dixon Sanitary 800.789.1718 for more information

Note: Handle is not assembled when shipped. Please request handle to be assembled on the valve when placing your order.



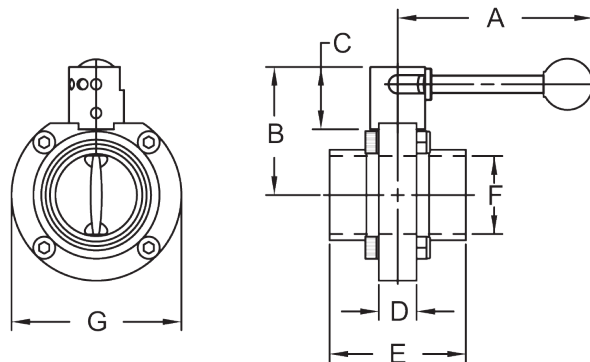
Sanitary Valves

B

**Weld End**

Size	316L stainless steel with Silicone seats	316L stainless steel with EPDM seats	316L stainless steel with FKM seats
½"	<b>B5101S050BB-A</b>	<b>B5101E050BB-A</b>	<b>B5101V050BB-A</b>
¾"	<b>B5101S075BB-A</b>	<b>B5101E075BB-A</b>	<b>B5101V075BB-A</b>
1"	<b>B5101S100BB-A</b>	<b>B5101E100BB-A</b>	<b>B5101V100BB-A</b>
1½"	<b>B5101S150BB-A</b>	<b>B5101E150BB-A</b>	<b>B5101V150BB-A</b>
2"	<b>B5101S200BB-A</b>	<b>B5101E200BB-A</b>	<b>B5101V200BB-A</b>
2½"	<b>B5101S250BB-A</b>	<b>B5101E250BB-A</b>	<b>B5101V250BB-A</b>
3"	<b>B5101S300BB-A</b>	<b>B5101E300BB-A</b>	<b>B5101V300BB-A</b>
4"	<b>B5101S400BB-A</b>	<b>B5101E400BB-A</b>	<b>B5101V400BB-A</b>
6"	<b>B5101S600BB-A</b>	<b>B5101E600BB-A</b>	---
8"	---	<b>B5101E800BB-A</b>	---

Note: Handle is not assembled when shipped. Please request handle to be assembled on the valve when placing your order.

**Dimensions**

Size	A	B	C	D	E (Clamp)	E (Weld)	F	G
½"	4.4	2.6	1.4	0.9	3.5	1.9	0.37	3.1
¾"	4.4	2.6	1.4	0.9	3.5	1.9	0.62	3.1
1"	4.4	2.6	1.4	0.9	3.5	1.9	0.87	3.1
1½"	4.4	2.6	1.4	0.9	3.5	1.9	1.37	3.1
2"	4.4	3.1	1.4	0.9	3.8	2.0	1.87	3.9
2½"	4.4	3.5	1.4	0.9	3.8	2.1	2.37	4.6
3"	6.2	3.8	1.3	1.2	4.1	2.5	2.87	5.2
4"	6.2	4.5	1.3	1.2	4.8	3.1	3.83	6.7
6"	11.5	5.5	1.3	1.2	5.5	5.5	5.78	8.5
8"	18.0	6.9	1.6	1.2	4.9	4.9	7.76	11.2

All dimensions are approximate. Engineering dimensions are available upon request. Specifications are subject to change without notice.

**B5101 Series Butterfly Valve with Infinite Handle**

**Clamp End**

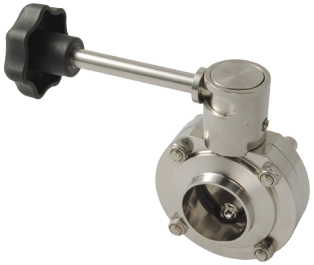
Sanitary Valves



Size	316L stainless steel with Silicone seats	316L stainless steel with EPDM seats	316L stainless steel with FKM seats
1/2"	<b>B5101S050CC-B</b>	<b>B5101E050CC-B</b>	<b>B5101V050CC-B</b>
3/4"	<b>B5101S075CC-B</b>	<b>B5101E075CC-B</b>	<b>B5101V075CC-B</b>
1"	<b>B5101S100CC-B</b>	<b>B5101E100CC-B</b>	<b>B5101V100CC-B</b>
1 1/2"	<b>B5101S150CC-B</b>	<b>B5101E150CC-B</b>	<b>B5101V150CC-B</b>
2"	<b>B5101S200CC-B</b>	<b>B5101E200CC-B</b>	<b>B5101V200CC-B</b>
2 1/2"	<b>B5101S250CC-B</b>	<b>B5101E250CC-B</b>	<b>B5101V250CC-B</b>
3"	<b>B5101S300CC-B</b>	<b>B5101E300CC-B</b>	<b>B5101V300CC-B</b>
4"	<b>B5101S400CC-B</b>	<b>B5101E400CC-B</b>	<b>B5101V400CC-B</b>

Note: Handle is not assembled when shipped. Please request handle to be assembled on the valve when placing your order.

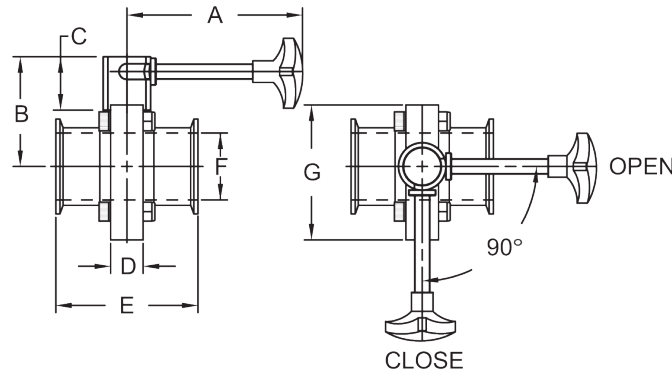
**Weld End**



Size	316L stainless steel with Silicone seats	316L stainless steel with EPDM seats	316L stainless steel with FKM seats
1/2"	<b>B5101S050BB-B</b>	<b>B5101E050BB-B</b>	<b>B5101V050BB-B</b>
3/4"	<b>B5101S075BB-B</b>	<b>B5101E075BB-B</b>	<b>B5101V075BB-B</b>
1"	<b>B5101S100BB-B</b>	<b>B5101E100BB-B</b>	<b>B5101V100BB-B</b>
1 1/2"	<b>B5101S150BB-B</b>	<b>B5101E150BB-B</b>	<b>B5101V150BB-B</b>
2"	<b>B5101S200BB-B</b>	<b>B5101E200BB-B</b>	<b>B5101V200BB-B</b>
2 1/2"	<b>B5101S250BB-B</b>	<b>B5101E250BB-B</b>	<b>B5101V250BB-B</b>
3"	<b>B5101S300BB-B</b>	<b>B5101E300BB-B</b>	<b>B5101V300BB-B</b>
4"	<b>B5101S400BB-B</b>	<b>B5101E400BB-B</b>	<b>B5101V400BB-B</b>

Note: Handle is not assembled when shipped. Please request handle to be assembled on the valve when placing your order.

**Dimensions**



Size	A	B	C	D	E (Clamp)	E (Weld)	F	G
1/2"	4.3	2.6	1.3	0.9	3.5	1.9	0.37	3.1
3/4"	4.3	2.6	1.3	0.9	3.5	1.9	0.62	3.1
1"	4.3	2.6	1.3	0.9	3.5	1.9	0.87	3.1
1 1/2"	4.3	2.6	1.3	0.9	3.5	1.9	1.37	3.1
2"	4.3	2.9	1.3	0.9	3.8	2.0	1.87	3.1
2 1/2"	4.3	3.3	1.3	0.9	3.8	2.1	2.37	4.6
3"	6.4	3.6	1.3	1.2	4.1	2.5	2.87	5.2
4"	6.4	4.4	1.3	1.2	4.8	3.1	3.83	6.7

All dimensions are approximate. Engineering dimensions are available upon request. Specifications are subject to change without notice.

## B5101 Series Butterfly Valve with Trigger Handle

### Clamp End

**Feature:**

- lockout / tagout handle

Size	316L stainless steel with Silicone seats	316L stainless steel with EPDM seats	316L stainless steel with FKM seats
½"	<b>B5101S050CC-C</b>	<b>B5101E050CC-C</b>	<b>B5101V050CC-C</b>
¾"	<b>B5101S075CC-C</b>	<b>B5101E075CC-C</b>	<b>B5101V075CC-C</b>
1"	<b>B5101S100CC-C</b>	<b>B5101E100CC-C</b>	<b>B5101V100CC-C</b>
1½"	<b>B5101S150CC-C</b>	<b>B5101E150CC-C</b>	<b>B5101V150CC-C</b>
2"	<b>B5101S200CC-C</b>	<b>B5101E200CC-C</b>	<b>B5101V200CC-C</b>
2½"	<b>B5101S250CC-C</b>	<b>B5101E250CC-C</b>	<b>B5101V250CC-C</b>
3"	<b>B5101S300CC-C</b>	<b>B5101E300CC-C</b>	<b>B5101V300CC-C</b>
4"	<b>B5101S400CC-C</b>	<b>B5101E400CC-C</b>	<b>B5101V400CC-C</b>

Note: Handle is not assembled when shipped. Please request handle to be assembled on the valve when placing your order.



Sanitary Valves

### Weld End

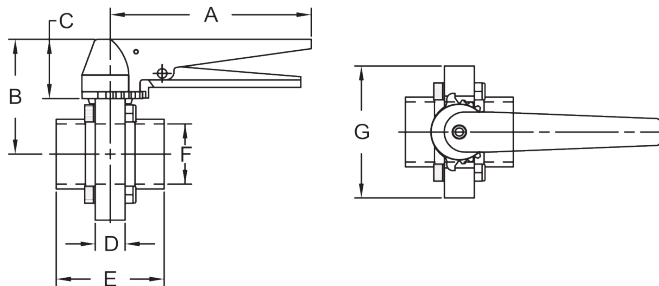
Size	316L stainless steel with Silicone seats	316L stainless steel with EPDM seats	316L stainless steel with FKM seats
½"	<b>B5101S050BB-C</b>	<b>B5101E050BB-C</b>	<b>B5101V050BB-C</b>
¾"	<b>B5101S075BB-C</b>	<b>B5101E075BB-C</b>	<b>B5101V075BB-C</b>
1"	<b>B5101S100BB-C</b>	<b>B5101E100BB-C</b>	<b>B5101V100BB-C</b>
1½"	<b>B5101S150BB-C</b>	<b>B5101E150BB-C</b>	<b>B5101V150BB-C</b>
2"	<b>B5101S200BB-C</b>	<b>B5101E200BB-C</b>	<b>B5101V200BB-C</b>
2½"	<b>B5101S250BB-C</b>	<b>B5101E250BB-C</b>	<b>B5101V250BB-C</b>
3"	<b>B5101S300BB-C</b>	<b>B5101E300BB-C</b>	<b>B5101V300BB-C</b>
4"	<b>B5101S400BB-C</b>	<b>B5101E400BB-C</b>	<b>B5101V400BB-C</b>

Note: Handle is not assembled when shipped. Please request handle to be assembled on the valve when placing your order.



B

### Dimensions



Size	A	B	C	D	E (Clamp)	E (Weld)	F	G
½"	6.6	3.0	1.7	0.9	3.5	1.9	0.37	3.1
¾"	6.6	3.0	1.7	0.9	3.5	1.9	0.62	3.1
1"	6.6	3.0	1.7	0.9	3.5	1.9	0.9	3.1
1½"	6.6	3.0	1.7	0.9	3.5	1.9	1.4	3.1
2"	6.6	3.5	1.7	0.9	3.8	2.0	1.9	3.1
2½"	6.6	3.7	1.7	0.9	3.8	2.1	2.4	4.6
3"	6.6	3.9	1.7	1.2	4.1	2.5	2.9	5.2
4"	6.6	4.8	1.7	1.2	4.8	3.1	3.8	6.7

All dimensions are approximate. Engineering dimensions are available upon request. Specifications are subject to change without notice.

Repair Kit contains:  
 (1) seat  
 (2) bushings

## B5101 Series Butterfly Valve

### Repair Kits

Size	Red Silicone	Black EPDM	Brown FKM
½"-1"	<b>B5101-RKS100</b>	<b>B5101-RKE100</b>	<b>B5101-RKV100</b>
1½"	<b>B5101-RKS150</b>	<b>B5101-RKE150</b>	<b>B5101-RKV150</b>
2"	<b>B5101-RKS200</b>	<b>B5101-RKE200</b>	<b>B5101-RKV200</b>
2½"	<b>B5101-RKS250</b>	<b>B5101-RKE250</b>	<b>B5101-RKV250</b>
3"	<b>B5101-RKS300</b>	<b>B5101-RKE300</b>	<b>B5101-RKV300</b>
4"	<b>B5101-RKS400</b>	<b>B5101-RKE400</b>	<b>B5101-RKV400</b>
6"	<b>B5101-RKS600</b>	<b>B5101-RKE600</b>	---
8"	---	<b>B5107-RKE800</b>	---

## Butterfly Valve Automation

### Butterfly Valve with Stainless Steel Vertical Spring Return Actuation

**Sizes:**

- ½" thru 4"

**Features:**

- pneumatic canister style actuator
- silicone and FKM elastomers also available
- other connections are available upon request

#### Butterfly Valve With EPDM Seats, Vertical Spring Return Normally Closed

Valve Size	Style B5101 Part Number
½"	<b>B5101E050CC-G</b>
¾"	<b>B5101E075CC-G</b>
1"	<b>B5101E100CC-G</b>
1½"	<b>B5101E150CC-G</b>
2"	<b>B5101E200CC-G</b>
2½"	<b>B5101E250CC-G</b>
3"	<b>B5101E300CC-G</b>
4"	<b>B5101E400CC-G</b>

#### Butterfly Valve With EPDM Seats, Vertical Spring Return Normally Open

Valve Size	Style B5101 Part Number
½"	<b>B5101E050CC-F</b>
¾"	<b>B5101E075CC-F</b>
1"	<b>B5101E100CC-F</b>
1½"	<b>B5101E150CC-F</b>
2"	<b>B5101E200CC-F</b>
2½"	<b>B5101E250CC-F</b>
3"	<b>B5101E300CC-F</b>
4"	<b>B5101E400CC-F</b>

#### Butterfly Valve With EPDM Seats, Vertical Double Acting

Valve Size	Style B5101 Part Number
½"	<b>B5101E050CC-H</b>
¾"	<b>B5101E075CC-H</b>
1"	<b>B5101E100CC-H</b>
1½"	<b>B5101E150CC-H</b>
2"	<b>B5101E200CC-H</b>
2½"	<b>B5101E250CC-H</b>
3"	<b>B5101E300CC-H</b>
4"	<b>B5101E400CC-H</b>



## B5102 Series Butterfly Valves

### Sizes:

- 1" thru 4"

### Materials:

- contact product surfaces: sanitary finish 316L stainless steel
- seat: silicone, EPDM, FKM

### Features:

- all sizes use only  $\frac{3}{4}$ " of line space
- the grooved clamp housing connects directly to the corresponding sanitary clamp size
- PTFE valve disc bushings reduce friction and increase cycle life
- 3-position reversible handle
- 100% tested / 100% inspected
- can be serviced in field (no special tools required)
- can be modified for lockout / tagout
- various automated options available

### Specifications:

- vacuum rating: 0.4 inches Hg @ 68°F (20°C)
- operating temperature range: 15°F to 200°F (-9°C to 93°C)



Size	316L stainless steel with Silicone seats	316L stainless steel with EPDM seats	316L stainless steel with FKM seats
1"	<b>B5102S100-A</b>	<b>B5102E100-A</b>	<b>B5102V100-A</b>
1½"	<b>B5102S150-A</b>	<b>B5102E150-A</b>	<b>B5102V150-A</b>
2"	<b>B5102S200-A</b>	<b>B5102E200-A</b>	<b>B5102V200-A</b>
2½"	<b>B5102S250-A</b>	<b>B5102E250-A</b>	<b>B5102V250-A</b>
3"	<b>B5102S300-A</b>	<b>B5102E300-A</b>	<b>B5102V300-A</b>
4"	<b>B5102S400-A</b>	<b>B5102E400-A</b>	<b>B5102V400-A</b>

### Repair Kits

Repair kit contains:

- (1) seat
- (2) bushings

Size	Red Silicone	Black EPDM	Brown FKM
1"	<b>B5102-RKS100</b>	<b>B5102-RKE100</b>	<b>B5102-RKV100</b>
1½"	<b>B5102-RKS150</b>	<b>B5102-RKE150</b>	<b>B5102-RKV150</b>
2"	<b>B5102-RKS200</b>	<b>B5102-RKE200</b>	<b>B5102-RKV200</b>
2½"	<b>B5102-RKS250</b>	<b>B5102-RKE250</b>	<b>B5102-RKV250</b>
3"	<b>B5102-RKS300</b>	<b>B5102-RKE300</b>	<b>B5102-RKV300</b>
4"	<b>B5102-RKS400</b>	<b>B5102-RKE400</b>	<b>B5102-RKV400</b>

**B5115 Series - 304 Stainless Steel Butterfly Valves**  
Clamp End with Trigger Handle

Sanitary Valves

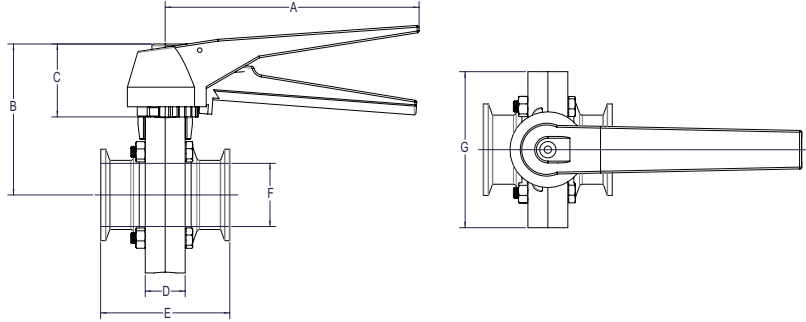
**Features:**

- 100% tested / 100% inspected
- product contact are sanitary finish to <math><32R\_a</math>
- can be serviced in field
- silicone seats
- blue trigger handle
- operating temperature range: 15°F to 200°F (-9°C to 93°C)
- maximum operating pressure: 110 PSI

**B**

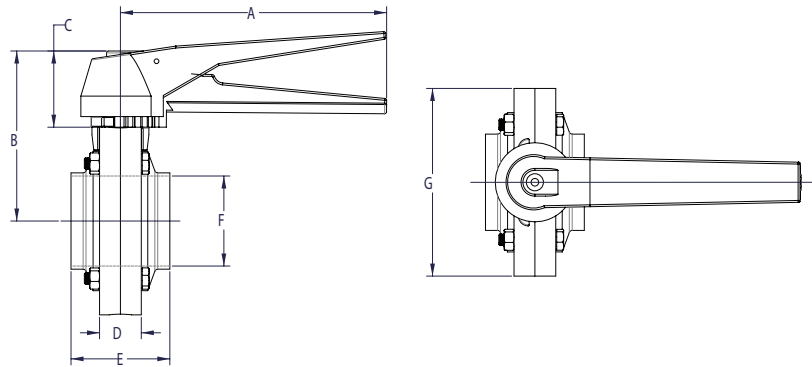
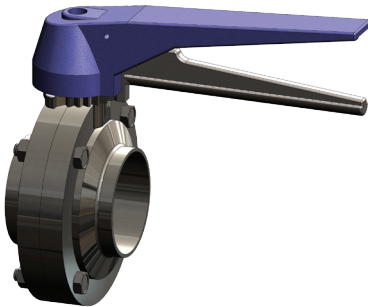


**Clamp End**



Size	Dimensions							304 Stainless Steel
	A	B	C	D	E	F	G	Part Number
1½"	5.70	3.40	1.60	0.87	2.80	1.40	3.40	<b>B5115S150CC-C</b>
2"	5.70	3.60	1.60	0.87	3.00	1.90	3.90	<b>B5115S200CC-C</b>
3"	5.70	4.20	1.60	0.87	3.30	2.90	5.00	<b>B5115S300CC-C</b>
4"	6.89	5.51	1.60	0.87	3.62	3.83	6.89	<b>B5115S400CC-C</b>

**Weld End**



Size	Dimensions							304 Stainless Steel
	A	B	C	D	E	F	G	Part Number
1½"	5.70	3.40	1.60	0.87	1.97	1.40	3.40	<b>B5115S150BB-C</b>
2"	5.70	3.60	1.60	0.87	2.05	1.90	3.90	<b>B5115S200BB-C</b>
3"	5.70	4.20	1.60	0.87	2.12	2.90	5.00	<b>B5115S300BB-C</b>
4"	6.89	5.51	1.60	0.87	2.52	3.83	6.89	<b>B5115S400BB-C</b>

**Replacement Seats**

Size	Part Number
1½"	<b>B5115-RKS150</b>
2"	<b>B5115-RKS200</b>
3"	<b>B5115-RKS300</b>
4"	<b>B5115-RKS400</b>

Note: Cannot be actuated and is supplied with silicone seats only.



## HSC Series Spring Check Valve


  
58-01

Sanitary Valves

**Sizes:**

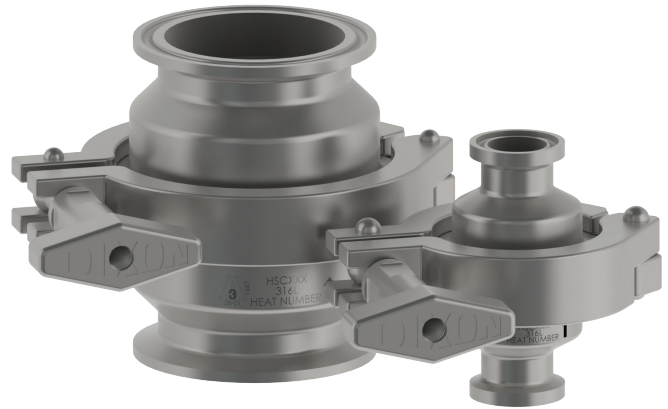
- ½" to 4"

**Material:**

- product contact: 316L stainless steel

**Features:**

- single piece upper body spider design
- machined from solid bar
- standard O-ring and gasket seal design
- can be serviced in field (no special tools required)
- finish: sanitary polish 32 R<sub>a</sub>
- suitable for low and medium viscosity fluids
- connection: clamp (standard), others available upon request



Size	Pressure Rating	Cracking Pressure (PSI)	Operating Temperature	Part Number
½"	145 PSI	10.0	15°F to 200°F (-9°C to 93°C)	HSC*050
¾"		4.0		HSC*075
1"		2.5		HSC*100
1½"		1.0		HSC*150
2"		1.5		HSC*200
2½"		0.8		HSC*250
3"		0.5		HSC*300
4"		0.4		HSC*400

\*V=FKM or E=EPDM

## Repair Kits

½"-¾" Repair Kit Contains:

- (1) body gasket
- (1) plunger O-ring
- (1) spider O-ring

1"-4" Repair Kit Contains:

- (1) body gasket
- (1) plunger O-ring

Size	Part Number
½"	HSC-RK*050
¾"	HSC-RK*075
1"	HSC-RK*100
1½"	HSC-RK*150
2"	HSC-RK*200
2½"	HSC-RK*250
3"	HSC-RK*300
4"	HSC-RK*400

\*V=FKM or E=EPDM

## Dimensions

Size	A (in)
½"	2.7
¾"	2.7
1"	3.3
1½"	3.4
2"	3.4
2½"	3.4
3"	3.4
4"	4.1



All dimensions are approximate. Engineering dimensions are available upon request.  
Specifications are subject to change without notice.



### B45BY Series Y - Ball Check Valve



**Applications:**

- When liquid flows through the valve, the ball is forced into the branch of the valve allowing full fluid flow. When the liquid stops, equalizing the pressure, the ball drops back into the seat, preventing backflow. Should reverse flow occur, the differential pressure will cause the ball to seal firmly against the seat preventing leakage.

**Sizes:**

- 1½" thru 3"

**Materials:**

- ball: PTF
- product contact surfaces: 316L stainless steel

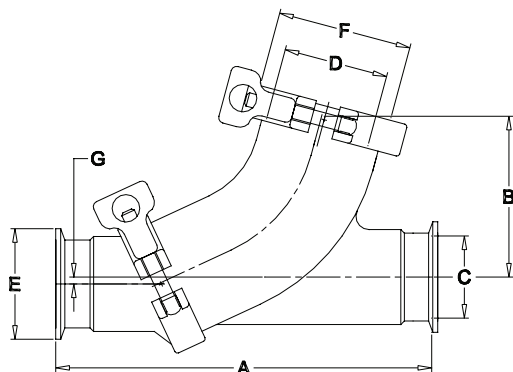
**Features:**

- two-piece construction
- replaceable seat
- can be serviced in field (no special tools required)

**Specifications:**

- operating temperature range: **15°F to 200°F (-9°C to 93°C)**
- maximum operating pressure: **150 PSI**

**Dimensions**



Valve Size	Clamp & Cap Size	A	B	C	D	E	F	G	Ball Diameter	Weight (lbs)	316L Stainless Steel Part Number
1½"	2"	7.50	3.30	1.36	1.87	1.98	2.51	0.16	1.6	4.9	<b>B45BY-R150</b>
2"	2½"	8.50	3.90	1.86	2.33	2.51	3.04	0.16	2.1	6.6	<b>B45BY-R200</b>
2½"	3"	10.00	4.50	2.37	2.87	3.04	3.57	0.16	2.7	10.5	<b>B45BY-R250</b>
3"	4"	11.50	5.30	2.87	3.83	3.57	4.68	0.16	3.6	17.5	<b>B45BY-R300</b>

All dimensions are approximate. Engineering dimensions are available upon request. Specifications are subject to change without notice.

**Repair and Seal Kits**

Repair kit contains:

- (1) EPDM cap gasket
- (1) PTFE ball
- (1) EPDM/CF8M seat

Seal kit contains:

- (1) EPDM cap gasket
- (1) EPDM/CF8M seat

FKM Seal kit contains:

- (1) FKM cap gasket
- (1) FKM /CF8M seat

Size	Repair Kit Part Number	Seal Kit Part Number	FKM Seal Kit Part Number	Replacement Ball Only Part Number
1½"	<b>B45BY-RK150</b>	<b>B45BY-SK150</b>	<b>B45BY-SKV150</b>	<b>B45BY-TB150</b>
2"	<b>B45BY-RK200</b>	<b>B45BY-SK200</b>	<b>B45BY-SKV200</b>	<b>B45BY-TB200</b>
2½"	<b>B45BY-RK250</b>	<b>B45BY-SK250</b>	<b>B45BY-SKV250</b>	<b>B45BY-TB250</b>
3"	<b>B45BY-RK300</b>	<b>B45BY-SK300</b>	<b>B45BY-SKV300</b>	<b>B45BY-TB300</b>

### B45 Air Blow Check Valves



Sanitary Valves

**Sizes:**

- 1" thru 4"

**Materials:**

- 316L stainless steel
- stem seat and gasket: EPDM

**Features:**

- Conforms to 3A standards for filtration of air entering tanks or pipelines with optional filter disc
- filter discs sold separately in packs of 50

**Specifications:**

- maximum operating temperature: **212°F (100°C)**
- maximum operating pressure: **145 PSI**

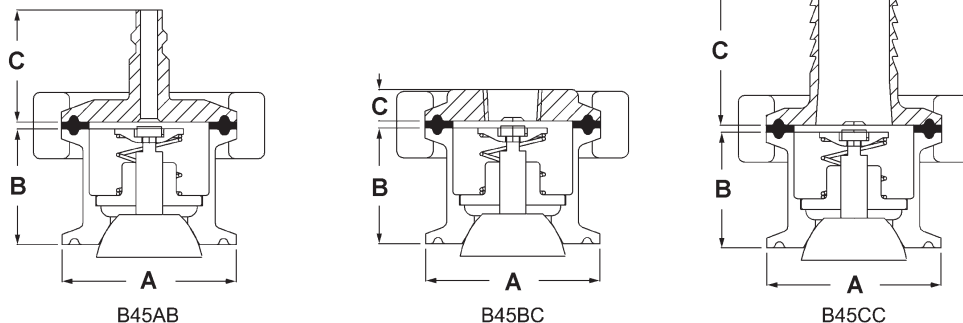


Can be used on the Dixon® B45BY Series Y-Ball Check Valves



Size	Quick-Connect Plug Part Number	Female NPT Part Number	Hose Barb Part Number
1" - 1½"	<b>B45AB-R100150</b>	<b>B45BC-R100150</b>	<b>B45CC-R100150</b>
2"	<b>B45AB-R200</b>	<b>B45BC-R200</b>	<b>B45CC-R200</b>
2½"	<b>B45AB-R250</b>	<b>B45BC-R250</b>	<b>B45CC-R250</b>
3"	<b>B45AB-R300</b>	<b>B45BC-R300</b>	<b>B45CC-R300</b>
4"	<b>B45AB-R400</b>	<b>B45BC-R400</b>	<b>B45CC-R400</b>

**Dimensions**



Size	A	B	C Plug	C FNPT	C Hose Barb
1"-1½"	1.984	1.30	1.26	.6	1.7
2"	2.516	1.30	1.26	.6	1.7
2½"	3.047	1.30	1.26	.6	1.7
3"	3.579	1.30	1.26	.6	1.7
4"	4.682	1.30	1.26	.6	1.7

All dimensions are approximate. Engineering dimensions are available upon request. Specifications are subject to change without notice.

**Repair Kit**

- Repair kit, **B45AB-RK**, contains:
- (1) EPDM / 316L stainless perforated disc
  - (1) 304 stainless spring retainer
  - (1) 304 stainless spring
  - (1) nylon stem guide
  - (1) 316L / EPDM stem and plug

**Sizing Chart**

When using air blow check valves with ball check valves, refer to the sizing chart below.

Ball Check Valve size	Air Blow Check Valve size
1½"	2"
2"	2½"
2½"	3"
3"	4"



**A**  
3  
58-00  
1447

Sanitary Valves



### BARV Series Air Relief Valves

**Applications:**

- Bleeding of a line where an air pocket has formed. This application calls for installation at the top of the line.
- Bleeding of a tube on the suction side of a pump. The suction side is bled automatically, before the pump starts, establishing a vacuum. Binding of air to liquid will be prevented, and so will subsequent cavitation. In this application the valve is mounted in front of the pump, on the top of the inlet tube.
- Air relief valve allows air to be removed from a line or container without the liquid flowing out. Its design does not allow air to enter the line or container, even if subjected to a negative pressure. It is a double-seated valve with a free moving polypropylene ball. The ball, which is lighter than water, closes against the upper or lower seat, depending on the pressure conditions.

**Features:**

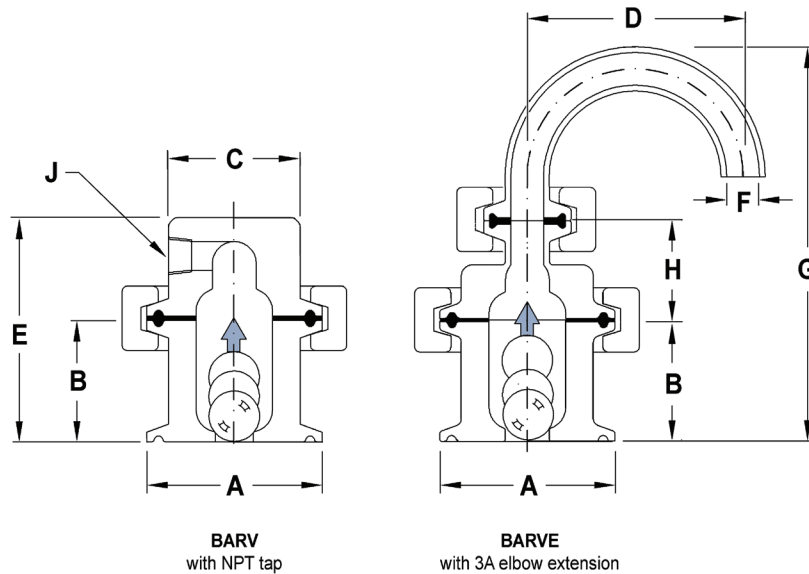
- no special tools required
- ball and gaskets are replaceable
- the valve seals for both pressure and vacuum
- all product contact surfaces have a radius of 1/4" or better
- PTFE valve ball is available
- other gasket materials available

**Specifications:**

- maximum operating temperature: **212°F (100°C)**
- maximum: **145 PSI**

**Approvals:**

- 3A Standards 58-00 with elbow extension, check valves and vacuum breakers
- the valve ball is constructed of FDA, 3A approved polypropylene



Description	A	B	C	D	E	F	G	H	J	304 Stainless Steel Part Number
1½" air relief valve with tapped blind end	1.98	1.40	1.50	---	2.60	---	---	---	1/8" NPT	<b>BARV-G150</b>
2" air relief valve with tapped blind end	2.52	1.40	1.50	---	2.60	---	---	---	1/8" NPT	<b>BARV-G200</b>
1½" air relief valve with 180° elbow	1.98	1.40	---	1.50	---	0.37	4.10	1.10	---	<b>BARVE-G150</b>
2" air relief valve with 180° elbow	2.52	1.40	---	1.50	---	0.37	4.10	1.10	---	<b>BARVE-G200</b>

All dimensions are approximate. Engineering dimensions are available upon request. Specifications are subject to change without notice.

## TVS Series Stainless Steel Air & Vacuum Relief Tank Vent Valve

### Applications:

- When product filling or emptying a tank, this valve is used to relieve pressure or vacuum

### Sizes:

- 2", 3" or 4" – clamp connection standard

### Features:

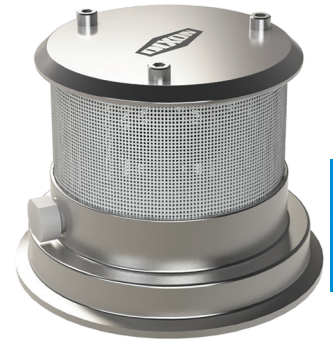
- Triple Action:
  - valve relieves pressure as the fluid level rises while filling a tank
  - valve relieves vacuum as the fluid level drops while emptying a tank
  - seals under equal pressure
- stainless steel screen surrounds the entire vacuum and pressure flow area
- other sanitary connections optional
- 1/4" FNPT connection for gas inlet, plug also supplied
- repair kits available

### Materials:

- 304 stainless steel, EPDM elastomer

### Specifications:

- vacuum break: 2" water column, 0.1 PSI
- pressure relief: 22" water column, 0.8 PSI
- maximum temperature and pressure rating: **3 PSI @ 70°F (21°C)**
- maximum flow rate: 500 GPM

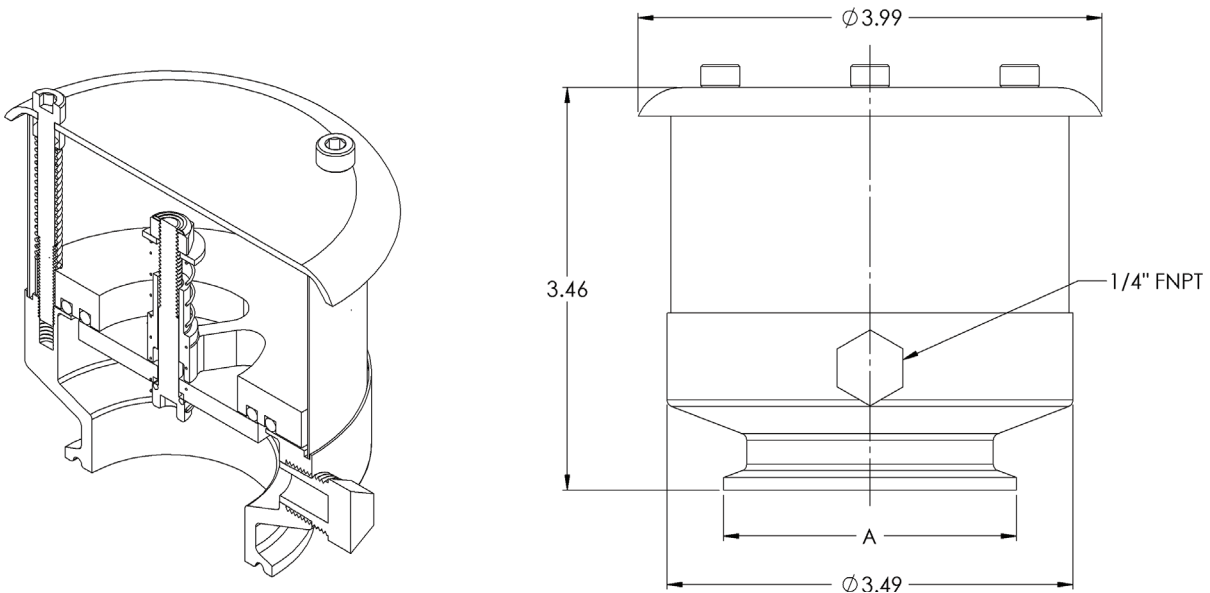


Tube OD	DIM "A"	Part Number
2"	2.52	<b>TVSEC-G200</b>
3"	3.58	<b>TVSEC-G300</b>
4"	4.68	<b>TVSEC-G400</b>

Due to the impossible determination of whether a tank was damaged due to the tank vent or the lack of opening the upper manhole during product transfer, Dixon Sanitary assumes no liability for tank damage or product loss.



### Dimensions



All dimensions are approximate. Engineering dimensions are available upon request. Specifications are subject to change without notice.

## TVP Series Air and Vacuum Relief Tank Vent Valve


**Applications:**

- When product filling or emptying a tank, this valve is used to relieve pressure or vacuum

**Sizes:**

- 2" and 3" clamp connections on the same valve

**Material:**

- light weight, robust PVC and 304 stainless steel construction

**Features:**

- dome helps in preventing external contamination
- can use any clamp gasket

**Specifications:**

- maximum flow rate: 500 GPM
- vacuum break: 0.1 PSI
- pressure relief: 0.1 PSI


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 Part Number
 

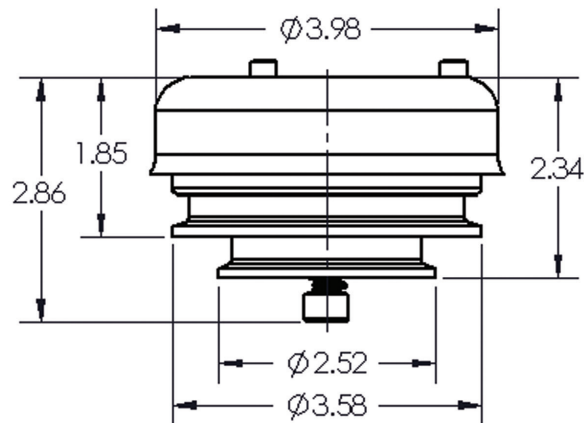
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***TVPC200-300***


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 Due to the impossible determination of whether a tank was damaged due to the tank vent or the lack of opening the upper manhole during product transfer, Dixon Sanitary assumes no liability for tank damage or product loss.

### Dimensions



All dimensions are approximate. Engineering dimensions are available upon request.  
Specifications are subject to change without notice.

## BSV Series 3A Sample Valves


  
1447

Sanitary Valves

**Applications:**

- The 3A sample valve allows easy and safe sampling of liquids from closed systems such as vessels and pipelines
- These valves are located in the pharmaceutical, bio-pharmaceutical, biochemical, cosmetic, food, dairy and beverage markets

**Sizes:**

- ½" thru 4"

**Materials:**

- product contact surfaces: 316L, 32Ra, optional surface finishes available
- non product contact: 304, 68Ra
- product contact seals: PTFE bellows

**Features:**

- no dead space
- drainable
- connections suitable for orbital welding
- available with single or dual ports
- hermetically sealed against environment
- optimum cleanability
- change of seals without special tools
- long life of the PTFE-bellows
- low spare part costs
- options for pneumatic actuator: no lever, with self-closing lever and with lever for open position
- manual actuator (hand wheel)
- optional pneumatic actuator - call Dixon Sanitary 800.789.1718

**Specifications:**

- closing tension operating pressure: maximum **116 PSI**
- hand wheel version operating pressure: minimum **87 PSI**, maximum **232 PSI**
- controlled air pressure: maximum **145 PSI**

Clamp Valve Size	Weld Port Size	Single Port Part Number	Dual Port Part Number
½"	¼"	<i>BSVS-HC050B025</i>	<i>BSVD-HC050B025</i>
	⅜"	<i>BSVS-HC050B375</i>	<i>BSVD-HC050B375</i>
	½"	<i>BSVS-HC050B050</i>	<i>BSVD-HC050B050</i>
1"	¼"	<i>BSVS-HC100B025</i>	<i>BSVD-HC100B025</i>
	⅜"	<i>BSVS-HC100B375</i>	<i>BSVD-HC100B375</i>
	½"	<i>BSVS-HC100B050</i>	<i>BSVD-HC100B050</i>
1½"	¼"	<i>BSVS-HC150B025</i>	<i>BSVD-HC150B025</i>
	⅜"	<i>BSVS-HC150B375</i>	<i>BSVD-HC150B375</i>
	½"	<i>BSVS-HC150B050</i>	<i>BSVD-HC150B050</i>
2"	¼"	<i>BSVS-HC200B025</i>	<i>BSVD-HC200B025</i>
	⅜"	<i>BSVS-HC200B375</i>	<i>BSVD-HC200B375</i>
	½"	<i>BSVS-HC200B050</i>	<i>BSVD-HC200B050</i>
2½"	¼"	<i>BSVS-HC250B025</i>	<i>BSVD-HC250B025</i>
	⅜"	<i>BSVS-HC250B375</i>	<i>BSVD-HC250B375</i>
	½"	<i>BSVS-HC250B050</i>	<i>BSVD-HC250B050</i>
3"	¼"	<i>BSVS-HC300B025</i>	<i>BSVD-HC300B025</i>
	⅜"	<i>BSVS-HC300B375</i>	<i>BSVD-HC300B375</i>
	½"	<i>BSVS-HC300B050</i>	<i>BSVD-HC300B050</i>
4"	¼"	<i>BSVS-HC400B025</i>	<i>BSVD-HC400B025</i>
	⅜"	<i>BSVS-HC400B375</i>	<i>BSVD-HC400B375</i>
	½"	<i>BSVS-HC400B050</i>	<i>BSVD-HC400B050</i>



single port actuated

B



single port



dual port

W Series Sample Valves - BSVW

Sanitary Valves



NPT



clamp



weld

Features:

- silicone or PTFE seat ensures a leak-proof shut-off
- surface finish polished to sanitary standards

Materials:

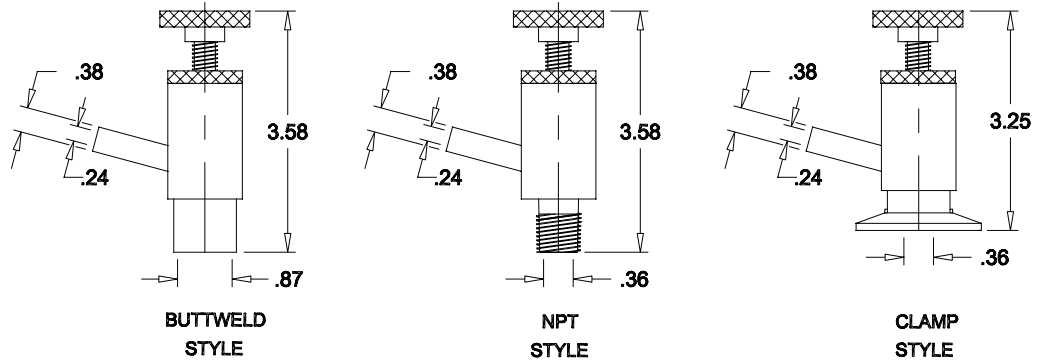
- 304 stainless steel
- o-rings: double silicone

Specifications:

- temperature rating: 300°F (149°C) at 200 PSI

Size	Style	Seat Material	Weight (lbs)	304 Stainless Steel Part Number
3/8"	NPT	silicone	0.72	<b>BSVWNS-G375</b>
		PTFE	0.72	<b>BSVWNP-G375</b>
1"	clamp	silicone	0.88	<b>BSVWCS-G100</b>
		PTFE	0.88	<b>BSVWCP-G100</b>
1"	weld	silicone	0.72	<b>BSVWBS-G100</b>
		PTFE	0.72	<b>BSVWBP-G100</b>

Dimensions



ALL VALVES ARE SHOWN FULLY OPEN

All dimensions are approximate. Engineering dimensions are available upon request. Specifications are subject to change without notice.

Repair Kits

**BSVW-RKS** repair kit contains:

- (2) silicone O-rings
- (1) silicone seat

**BSVW-RKP** repair kit contains:

- (2) silicone O-rings
- (1) PTFE seat



**Rack and pinion actuators ..C-2 to C-5**

RP-BS series .....	C-2
RP-BA series .....	C-3
RP-MA series.....	C-4
RT-TP series.....	C-5

**Vertical canister actuators ..... C-6****Electric actuators.....C-7 to C-8**

BEO series .....	C-7
BES series.....	C-8

**Manual operators..... C-9****Limit switches .....C-10 to C-13**

XLS-B4 series.....	C-10
XLS-C4 series .....	C-11
XLS-C7 series .....	C-12
XLS-S4 series.....	C-13

**SV-series solenoids ..... C-14****Positioners .....C-15 to C-18**

XPO-P4F series.....	C-15
XPD series.....	C-16
XPB series.....	C-17
PS-AE series .....	C-18

**Control tops .....C-19 to C-21**

CT series .....	C-19
BT series .....	C-20
MT series.....	C-21

**Actuation accessories.....C-22 to C-24**

Actuator sleeve inserts .....	C-22
Coupler kits.....	C-23
Bracket and coupling kit .....	C-23
Breather vents .....	C-23
Air fittings.....	C-24

## Rack and Pinion Actuators

### RP-BS Series Horizontal Rack and Pinion Stainless Steel Actuators

Actuation



RP-BS series rack and pinion actuators can be used on Dixon® butterfly and ball valves.



#### Material:

- 304 stainless steel construction for excellent chemical and corrosion resistance

#### Features:

- replaceable top and bottom PTFE pinion bearings ensure low friction
- travel stops provide  $\pm 4^\circ$  travel adjustment
- precision cast pistons are guided through full face engagement with the pinion and piston
- NAMUR slotted shaft is standard to provide a self-centering positive drive for positioners or a variety of switches
- one-piece drive pinion shaft with precision machined gear teeth for precise control
- ISO 5211 mounting

#### Specifications:

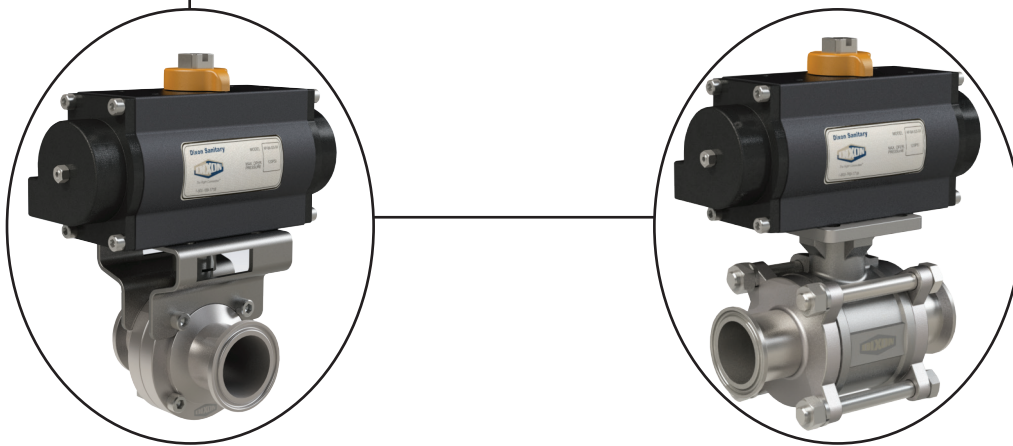
- temperature range:  $-4^\circ\text{ F}$  to  $200^\circ\text{ F}$  ( $-20^\circ\text{ C}$  to  $93^\circ\text{ C}$ ) with Buna elastomers (standard)
- temperature range:  $-4^\circ\text{ F}$  to  $400^\circ\text{ F}$  ( $-20^\circ\text{ C}$  to  $204^\circ\text{ C}$ ) with FKM elastomers (optional)
- air to open / air to close (ATO/ATC)
- air to open / spring to close (ATO/STC)
- spring to open / air to close (STO/ATC)

## Rack and Pinion Actuators

### RP-BA Series Aluminum Rack and Pinion Actuators



RP-BA series rack and pinion actuators can be used on Dixon® butterfly and ball valves.



#### Materials:

- body: extruded anodized aluminum alloy, provides wear and corrosion resistance and reduced friction
- heavy duty springs: high tensile steel springs with retainer and guide for safe and easy assembly
- pistons: die-cast aluminum alloy fitted with nylon bushing guides and Buna-N seals
- end caps: epoxy-coated die-cast aluminum alloy for maximum resistance to corrosive environments
- pinion: electroless nickel plated carbon steel for maximum corrosion and wear resistance
- indicator: high visibility polyethylene

#### Features:

- twin rack and pinion design
- rotation adjustment: full  $\pm 5^\circ$  travel adjustment in open and closed positions, standard on all sizes
- open / close indication is standard on all models
- tested to one million cycles
- solenoid interface: international NAMUR solenoid mounting interface is standard on all units
- female double square output shaft
- ISO 5211 bolt patterns
- piston and pinion lubrication: Shell Darina R2
- range of rotation adjustment:  $80^\circ$  to  $100^\circ$
- operating media: dry or lubricated non-corrosive gas
- size range: 40 in. lb. 16,500 in. lb.

#### Specifications:

- operating pressure: **40 to 120 PSI**
- maximum pressure rating: **150 PSI**
- temperature range:  **$-4^\circ\text{F}$  to  $200^\circ\text{F}$  ( $-20^\circ\text{C}$  to  $93^\circ\text{C}$ )**
- FKM seal maximum temperature  **$350^\circ\text{F}$  ( $177^\circ\text{C}$ )**
- air to open / air to close (ATO/ATC)
- air to open / spring to close (ATO/STC)
- spring to open / air to close (STO/ATC)

## Rack and Pinion Actuators

### RP-MA Series 180° Aluminum Rack and Pinion Actuators

Actuation



RP-MA Series 180° rack and pinion actuator can be used on Dixon® multiport ball valves.



#### Material:

- body: extruded aluminum

#### Features:

- twin rack and pinion design
- standard angle of rotation is 180°, additional travel rotations of 120°, 135°, 150° are available
- MA016 and larger sizes feature a travel stop with  $\pm 10^\circ$  adjustment in both open and close directions (international patent)
- all pinions are supplied with anti-blowout retention in both directions
- body is internally machined and lapped to exact specifications with all internal and external surfaces anodized for corrosion resistance
- actuator can be epoxy coated for additional corrosion resistance
- an external open/closed indicator is standard and available for all rotations
- all units are permanently lubricated at the factory with non-silicone grease
- all units are factory pressure and leak tested
- female double square output shaft
- ISO 5211 bolt patterns
- piston and pinion lubrication: non-silicone grease
- range of rotation adjustment: 170° to 190°
- operating media: dry or lubricated non-corrosive gas
- water, nitrogen and compatible hydraulic fluids may be used to power the actuator

#### Specifications:

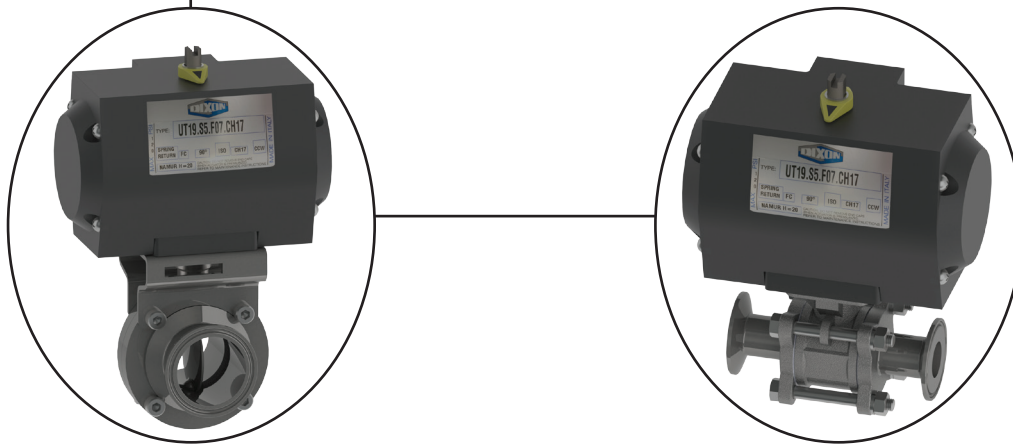
- air pressure operation from **40 to 150 PSI**
- operating pressure: **40 to 120 PSI**
- maximum pressure rating: **150 PSI**
- temperature range: **-40°F to 176°F (-40°C to 80°C)**
- air to open / air to close (ATO/ATC)
- air to open / spring to close (ATO/STC)
- spring to open / air to close (STO/ATC)

## Rack and Pinion Actuators

### RP-TP Series Technopolymer Actuators



RP-TP series rack and pinion actuators can be used on Dixon® butterfly and ball valves.



#### Materials:

- housing: polyamide base
- spring cartridges: non-metallic material
- pinions and fasteners: stainless steel

#### Features:

- design withstands most corrosive environmental environments
- 3 sizes available
- double acting or spring return housings available
- high cycle life spring cartridges
- blow out proof pinions ensure safe and effective operation
- all actuators standard with ISO 5211 female output drive
- all actuators are 100% tested before shipping
- NAMUR mountable solenoid and a limit switch box can be added

#### Specification:

- working temperature range of **-4°F to 176°F (-20°C to 80°C)**

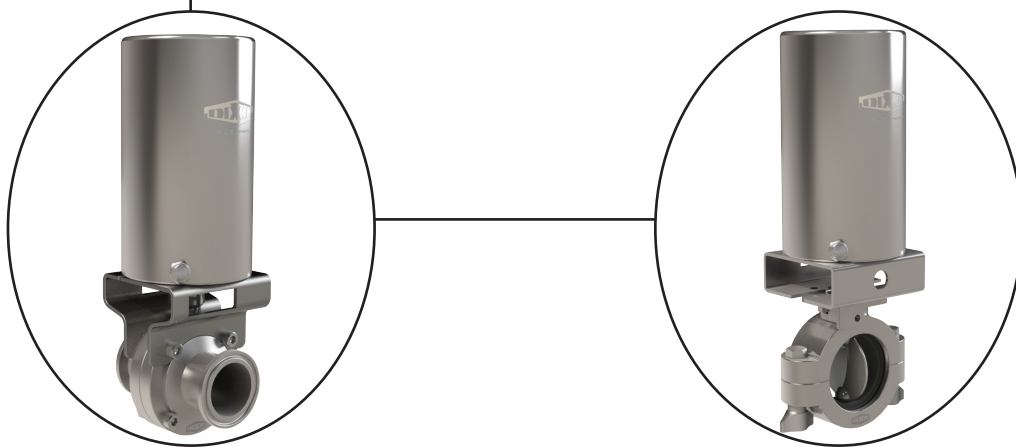
## Vertical Canister Actuators

### VC Series Pneumatic Vertical Stainless Steel Canister Actuator

Actuation



VC Series pneumatic vertical canister actuators can be used on Dixon® B5101 and B5102 butterfly valves.



**Features:**

- excellent protection and corrosion resistance
- tested to one million cycles
- 100% fully tested
- backed by one year manufacturer's warranty
- can be mounted on all butterfly valves up to 4"
- encapsulated spring set

**Specification:**

- available in ATO/ATC, ATO/STC, STO/ATC

**Specifications**

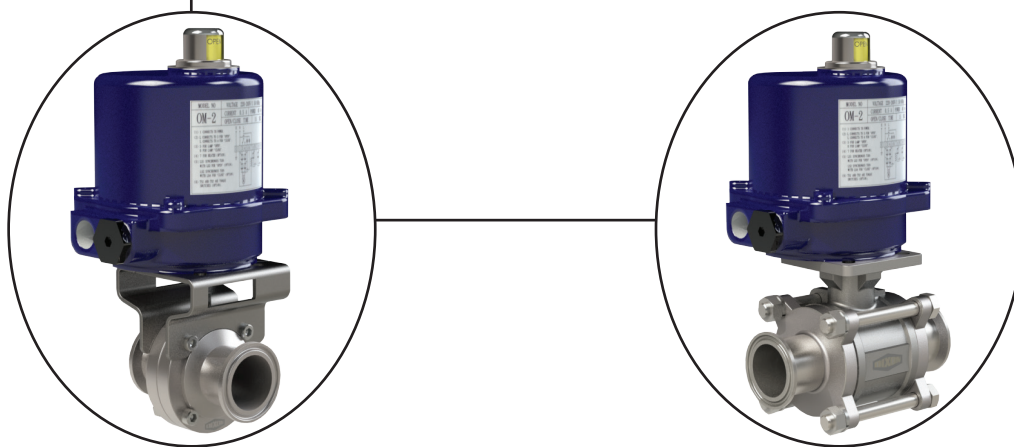
Part Number	Description	Wt. (lbs.)	Air Consumption (in <sup>3</sup> )		Max. Temp. Rating	Min. Temp. Rating	Output Torque (in-lb)	Max. Pressure Rating	Supply Pressure Required	Dia.	Ht.	Air Fitting Ports
			down stroke CW	up stroke CCW								
<b>VC-NR-100-DA</b>	double acting	5.1	8.5	20.0	<b>250°F</b>	<b>- 4°F</b>	550	<b>120 PSI</b>	<b>80-100 PSI</b>	3.35"	5.83"	1/8" NPT
<b>VC-NR-100-SR</b>	spring return	6.0	8.5	18.5	<b>250°F</b>	<b>- 4°F</b>	550	<b>120 PSI</b>	<b>80-100 PSI</b>	3.35"	5.83"	1/8" NPT

## Electric Actuators

### BEO Series Electric Actuation



BEO series electric actuators can be used on Dixon® butterfly and ball valves.



#### Materials:

- enclosure: lightweight powder coated aluminum alloy with plastic cover (larger model enclosure: aluminum cover)
- gear train: high alloy steel

#### Features:

- built by an ISO9001 certified manufacturer
- extended duty cycle induction motor
- H-insulation class motor OM-1 and OM-A Class F on OM-2 to OM-4
- built in thermal protection prevents motor burn out
- position indicators on top of unit
- non-clutch design allows manual operation in a power outage
- fail-safe does not allow manual operation when electric motor is operating
- some units feature a hand wheel for manual operation
- gear train provides self-locking function to avoid valve back drive
- factory installed high temperature lubricant, reduces maintenance
- tested to one million cycles
- one year manufacturer's warranty
- OM-1 and larger include heater to reduce condensation

#### Approvals:

- enclosure is NEMA 4 and 4X waterproof and dust proof
- enclosure is ROHS compliant
- conforms to CSA-C for outdoor use

## Electric Actuators

### BES Series Heavy Duty Spring Return Electric Actuators

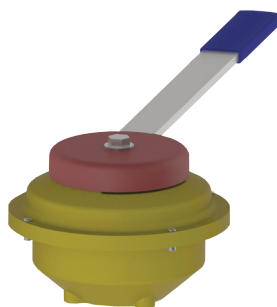
Actuation

**Features:**

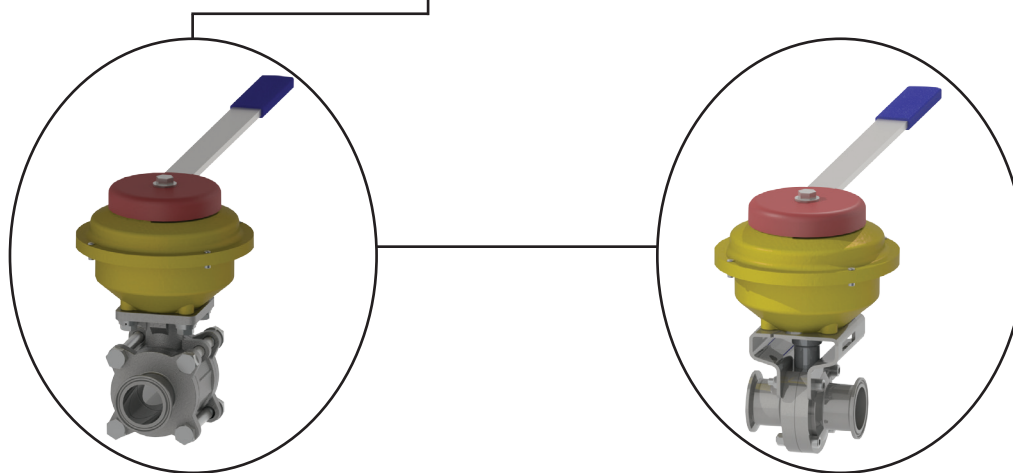
- designed to provide fail-safe positioning of valves upon loss of power; a mechanical spring set positions the valve in either the OPEN or CLOSED position without any external power source
- a mechanical buffer is utilized at the end of the spring stroke to reduce dynamic effects
- designed for load requirements up to 2100 in. lb.
- standard with ISO5211 mounting systems for easy mounting on complying valves
- available with or without a manual over-ride



## Manual Operators



Manual fail safe spring return handles can be mounted to Dixon® ball and butterfly valves.



### Materials:

- spring case: die cast zinc alloy with epoxy finish
- shaft: stainless steel
- cover shield: nylon
- lever: stainless steel

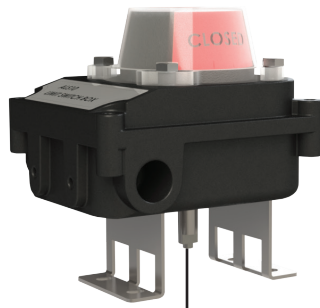
### Features:

- fail safe handles for ball valves and butterfly valves
- manual unit cannot be left in the wrong position
- reliable low stress clock style springs
- weatherproof sealed spring housing
- clockwise or counter-clockwise rotation available
- tough corrosion resistant epoxy paint
- ISO mount allows for direct mounting

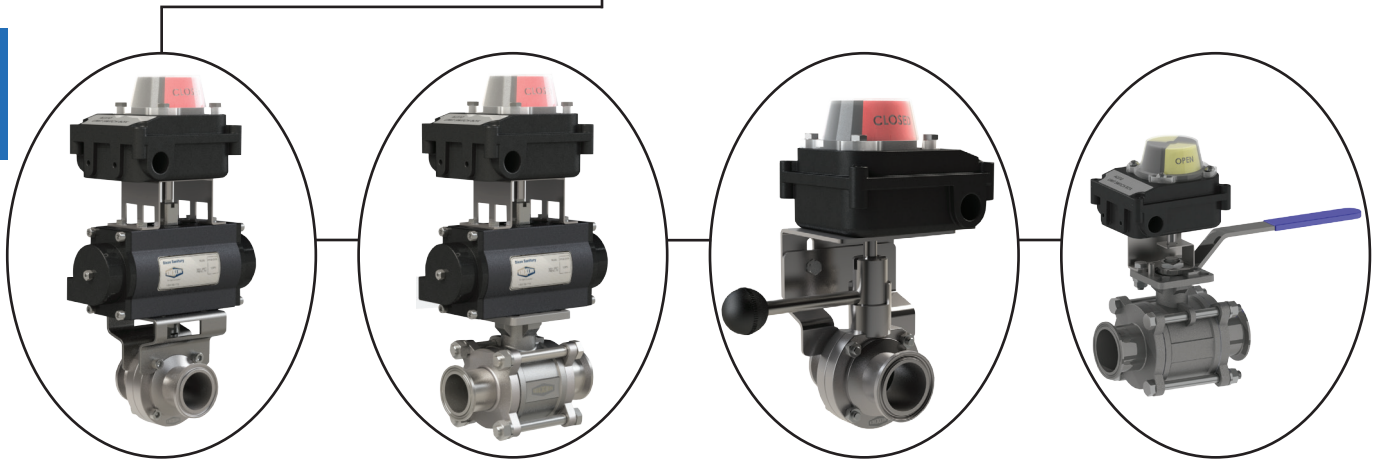
## Limit Switches

### XLS-B4 Series Limit Switch

Actuation



XLS-B4 series limit switch can be used on Dixon® rack and pinion actuators or manual butterfly and ball valves.



#### Material:

- bracket: stainless steel

#### Features:

- compact, cost-efficient, low profile limit switches for both local and remote indication of valve and/or actuator position
- visual position indicator
- quick-set cam
- multipoint terminal strip
- dual wire potting
- captive cover bolts
- enclosure: weatherproof, IP67
- cable entry: 2 x ½" NPT
- terminal strip: 8 points
- position indicator: 0 - 90: open - yellow, close - red, L and T flow indication
- painting: black polyester powder coating

#### Specifications:

- temperature range: -4°F to 185°F (-20°C to 85°C)
- NEMA 4/4X
- standard NAMUR mounting
- switch type: 2 SPDT mechanical switches

#### Approvals:

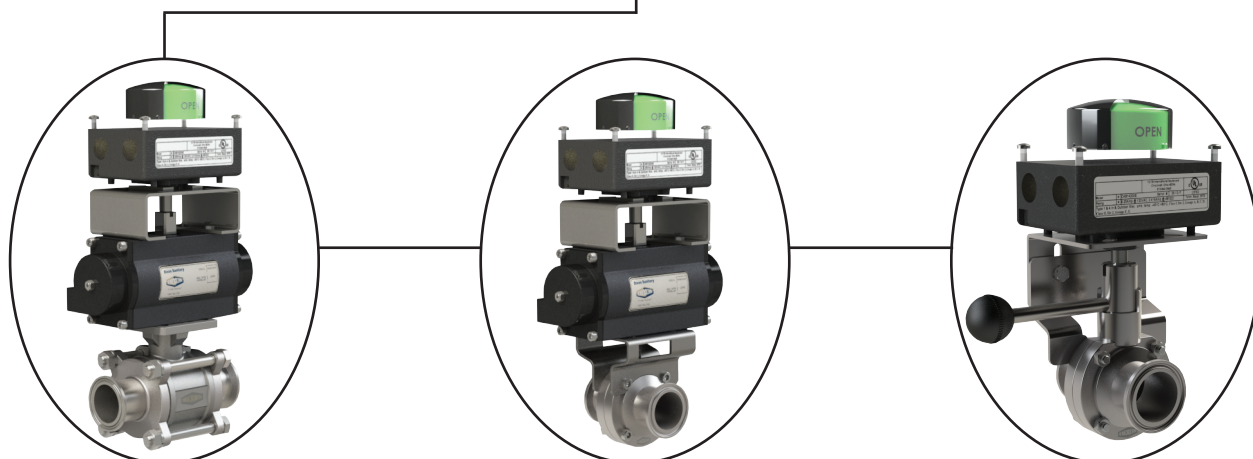
- UL and CENELEC approved

## Limit Switches

### XLS-C4 Series Limit Switch



XLS-C4 series limit switch can be used on Dixon® rack and pinion actuators or manual ball and butterfly valves.



#### Materials:

- housing: aluminum, polyester coated or stainless steel
- cover: polycarbonate, aluminum or stainless steel
- shaft: stainless steel
- cam / splines: UV resistant polycarbonate
- 3D rotor: UV resistant polycarbonate
- terminal block: stainless steel screws and PVC housing

#### Features:

- polyester powder coating inside and outside and stainless steel shaft, make this unit ideal for use in hostile environments
- compact body design is ideal for use on all size actuators including very small units
- multiple switch options include mechanical, proximity and inductive
- visual position indication on 3D rotor provides high visibility confirmation of valve/actuator position
- "easy-set" cams are splined, spring loaded and independently adjustable offering tool-free calibration and positive vibration resistant engagement
- multiple cable entries are standard with two ½" NPT cable entries and an option for a third entry

#### Specifications:

- temperature range: 32°F to 176°F (0°C to 80°C)
- weight: 1¼ lbs.

#### Approvals:

- UL and CUL, NEMA 4, 4X also CENELEC IP65 Class I & II Division 2 Groups A, B, C, D, F & G

## Limit Switches

### XLS-C7 Series Limit Switch for Hazardous Environments

Actuation



XLS-C7 series limit switch can be used on Dixon® rack and pinion actuators or manual butterfly and ball valves.



#### Materials:

- indicator dome: UV resistant and 94-V0 polycarbonate
- shaft: stainless steel
- fasteners: stainless steel

#### Features:

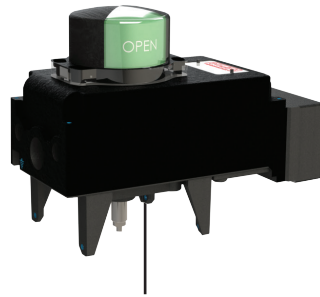
- provides an effective solution for both visual and remote electrical indication of valve/actuator position
- heavy-duty design and wide variety of options make this the ideal limit switch for use in NEMA 7 and 9 applications
- wide variety of switch options are available
- visual position indicator
- quick-set cam
- multipoint terminal strip
- dual wire potting
- captive cover bolts
- standard NAMUR mounting
- cable entry: 2 x ½" NPT
- terminal strip: 8 points
- position indicator: 0 - 90: open - yellow, close - red; 0-180° L and T flow indication
- painting: black polyester powder coating
- options:
  - bracket: stainless steel
  - for NAMUR proximity switches for intrinsically safe applications
  - AS-i digital communication interface card

#### Specifications:

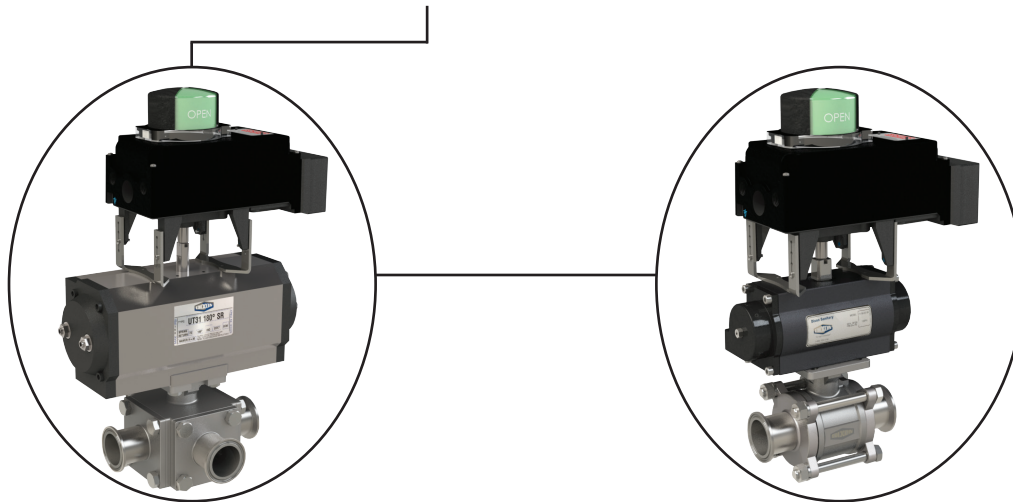
- NEMA 4, 4X, 7 and 9
- operating temperature range DIV1 **-13°F to 176°F (-25°C to 80°C)**, temperature range may vary due to switch range and switch approvals
- operating temperature range DIV2 **-40°F to 176°F (-40°C to 80°C)**
- electrical: according to switch option
- switch approvals:
  - Class I Division 1 Groups C, D
  - Class I Division 2 Groups A, B, C, D (proximity sensors only)
  - Class II Division 1 Groups E, F, G
  - Class II Division 2 Groups F, G
- UL and CENEFLEC approved

## Limit Switches

### XLS-S4 Series Limit Switch with Integral Solenoids



XLS-S4 series limit switch can be used on Dixon® rack and pinion actuators.



#### Materials:

- body and cover: epoxy coated aluminium
- indicator dome: UV resistant and V0 polycarbonate
- pneumatic connection plate: anodized aluminium
- seals: NBR
- shaft: stainless steel
- fasteners: stainless steel

#### Features:

- design combines a compact enclosure with limit switches, visual indication and integral solenoids for position indication plus valve actuator control or 3-position control for 3-way ball valves and 180 degree actuators
- NAMUR proximity switch options and EEx ia solenoid valve make the S-series suitable for use in intrinsically safe applications
- integral single and double 5-way solenoid valves
- pneumatic connections are ¼" NPT
- position indicator: 0 – 90°: open – yellow, close – red 0-180° L and T flow indication
- easy-set cams are splined, spring loaded and independently adjustable providing a tool free calibration and positive vibration resistant engagement
- weatherproof IP67 and NEMA 4/4X
- air supply: filtered, lubricated or non lubricated compressed air, also dried to a dew point of -4°F (-20°C)
- electrical: according to switch option

#### Specifications:

- ambient temperature range
- general purpose execution: 30°F to 122°F (-1°C to 50°C)
- intrinsically safe execution: 0°F to 140°F (-18°C to 60°C)
- operating pressure: minimum 37 PSI, maximum 120 PSI
- temperature range may vary due to switch type

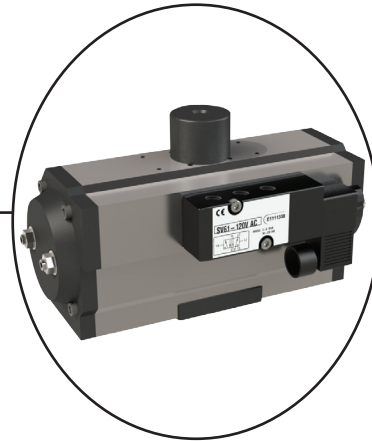
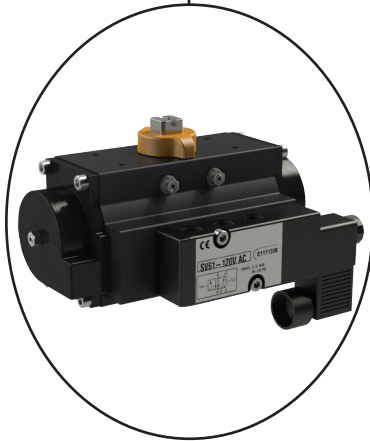
## SV-Series Solenoids

### XSO Series NAMUR Mount Solenoid Valves

Actuation



Can be used with Dixon® rack and pinion actuators.



#### Materials:

- body: powder epoxy coated extruded aluminum
- spool: electroless nickel plated
- spring: stainless steel
- O-ring: Buna-N, FKM optional
- DIN connector: Technopolymer

#### Features:

- compact IP65 rated NAMUR mount solenoid valve
- lightweight and easy to use
- 4-way standard
- NEMA 4/4X coil
- manual override (locking type)
- 1/4" NPT inlet and exhaust ports
- field interchangeable for DA or SR actuators
- DC coil voltage: 12V, 24V
- AC coil voltage 60Hz: 24V, 120V, 220V
- electrical connection: 1/2" NPT DIN connector
- coil insulation: Class F
- duty cycle = 100%

#### Specifications:

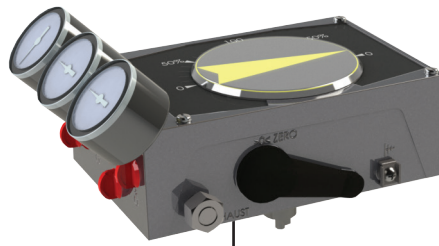
- standard protection class: IP65, NEMA 4 (DIN connector, as shown)
- supply air and environment temperature limits: -4°F to 158°F (-20°C to 70°C)
- FKM seal temperature range: 0°F to 250°F (-18°C to 121°C)
- air supply connection = 1/4" NPT
- operating pressure = **30 to 120 PSI**
- weight = 0.80 lb
- flow factor = Kv 10.5
- options:
  - dual coil
  - lighted DIN connector
  - explosion proof
  - intrinsically safe
  - stainless steel body
  - voltages; 220VAC, 120VAC, 24VAC, 24VDC, 12VDC

#### Approval:

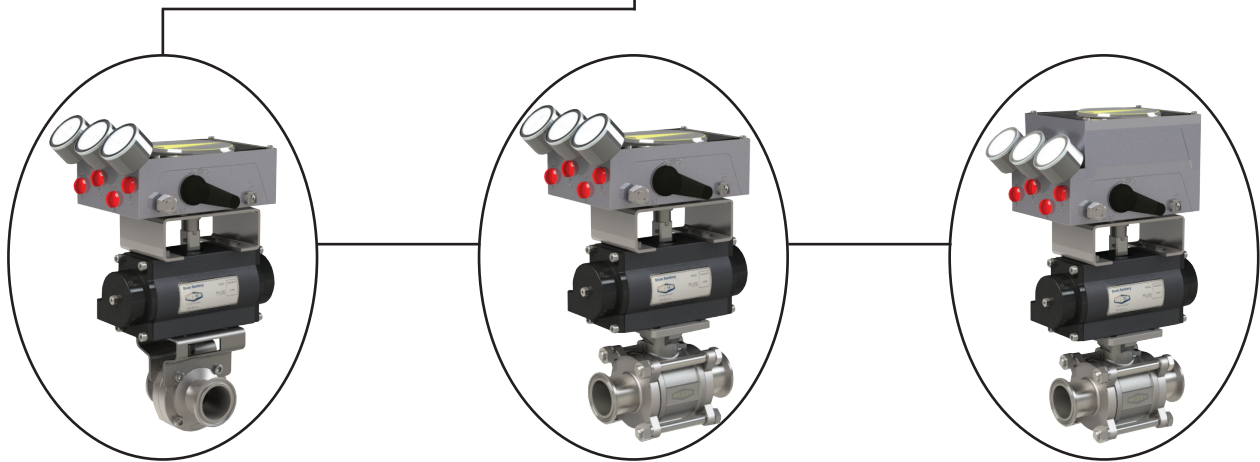
- CE approval

## Positioners

### XPO-P4F Series Pneumatic and Electro-Pneumatic



XPO-P4F series positioners can be used on Dixon® rack and pinion actuators.



#### Materials:

- NEMA 4X housing: cast aluminum with electrostatically applied polyester coating
- coating: powder polyester

#### Features:

- cam characterized and force balanced
- operates on a standard **3-15 PSI** signal (**12 PSI** span, optional **24 PSI**), 4-20mA signal, 0-10VDC
- pressure gauge blocks built into the unit
- large indicator has scaling to operate in direct and reverse directions
- air connections: 1/4" NPT
- gauge port: 1/8" NPT
- ingress and corrosion protection: NEMA 4X and IP66
- options:
  - pneumatic / electro-pneumatic
  - enclosure: Nema 4/4x / Nema 7 / Intrinsically safe / Fail Freeze
  - indicator: flat / raised
  - material: cast aluminum w/polyester coating / Turfram impregnated / nickel plated
  - feedback module

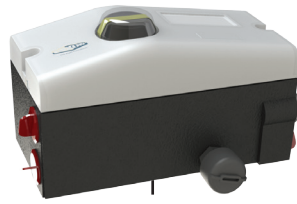
#### Specifications:

- input range: **3-15 PSI**
- maximum supply pressure: **145 PSI**
- temperature range: **-40°F to 185°F (-40°C to 85°C)**
- weight: 3½ lbs.

## Positioners

### XPD Series Digital Positioner

Actuation



XPD Series positioners can be used on Dixon® rack and pinion actuators



#### Material:

- housing: aluminum

#### Features:

- NEMA 4X IP65 housing enclosure standard
- microprocessor based valve positioner
- user friendly, menu-driven programming with LCD display, multi-lingual
- local push button configuration - no hand held device or PC necessary
- low air consumption and dependable mechanical modular design
- rotation: 25-120 degrees
- options:
  - explosion proof
  - intrinsically safe / non-incendive
  - Hart
  - no communications
  - foundation fieldbus
  - profibus
  - gauge block with gauges
  - micro switches
  - 4-20ma transmitter
  - filter regulator - coalescing
  - fail freeze

#### Specifications:

- connections: 1/4" NPT air, 1/2" NPT cable
- maximum air supply: **90 PSI**
- air delivery: 6.0 SCFM @ **90 PSI**
- ambient temperature: **-40°F to 185°F (-40°C to 85°C)**
- stroke: .4 to 4" (longer strokes - POA)
- air consumption: .015 SCFM
- characteristic curves: linear, equal %, 1:25, 1:50, 25:1, 50:1 or user configurable with 20 reference points
- characteristic deviation: ≤ 0.5%
- deadband 0.1%, adjustable to 10%
- resolution (A/D conversion): 4000 steps, Hart: 16,000 steps, FF and PA
- vibration influence: ≤ 1% up to 10 G and 80 Hz
- sample rate: 20 msec

#### Approval:

- ATEX, FM, CSA, IEC and EX approvals available



## Positioners

### XPB Series Digital Electro-Pneumatic Positioner

**Materials:**

- body: PPS, stainless steel
- cover: PC
- sealing: EPDM

**Features:**

- compact design
- graphic display with backlight
- easy start-up by automatic X-Tune function
- comprehensive range of additional software functions
- internal control air routing
- enclosure: SS, PPD

**Specification:**

- Profibus DPV1 or DeviceNet communication (option)

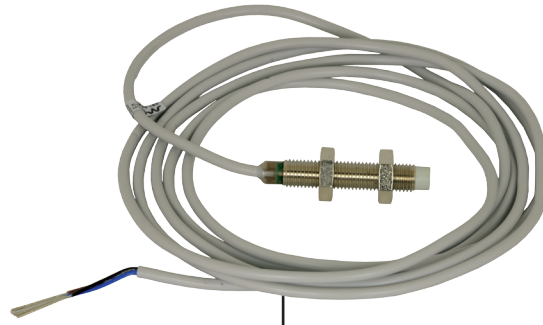
**Approvals:**

- CE according to EMV 2004/108/EG
- Protection Class, IP65 and IP67 according to EN 60529

## Positioners

### PS-AE Series Inductive Proximity Sensors

Actuation



Can be used with Dixon®  
vertical canister actuator and butterfly valve.

**Features:**

- 20 standard length models available
- compact metal housing
- housing: shielded / un-shielded
- complete overload protection
- LED status indicators are visible 360 degrees around the cylinder

**Specifications:**

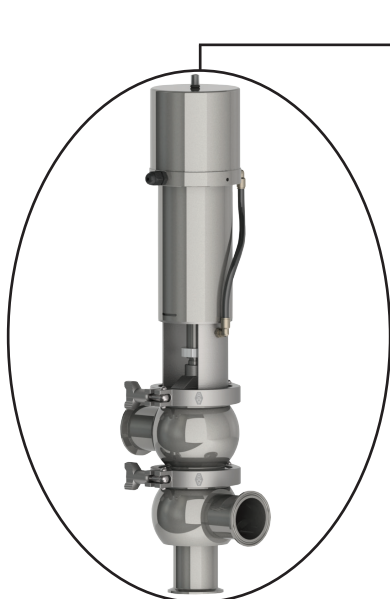
- voltages: 10-30 VDC / 20-253VAC
- logic: NPN / PNP
- axial cable or quick-disconnect models
- IP67 rated

## Control Tops

### CT Series



Can be used on Dixon® SV Series Hygienic Single Seat Valve.



#### Materials:

- enclosure: 304 stainless steel
- cable gland: Poly
- seat materials: NBR

#### Features:

- Nema 4/4X water proof / dust proof, class IP67 enclosure
- easy maintenance and assembly
- options:
  - 110VAC and 24VDC solenoid options
  - switches; mechanical / proximity
  - Logic; PNP / NPN

#### Specifications:

- temperature range: **-40°F to 140°F (-40°C to 60°C)**
- maximum voltage: 250VAC, 48VDC
- push-in connector (1/4" tube)

## Control Tops

### BT Series Control Head

Actuation



BT Series Control Heads can be used on Dixon® pneumatically actuated linear valves.



#### Application:

- designed for automation of pneumatic process valves

#### Features:

- contact-free inductive valve position registration (Teach function)
- colored illuminated status display
- integrated control air routing

#### Specifications:

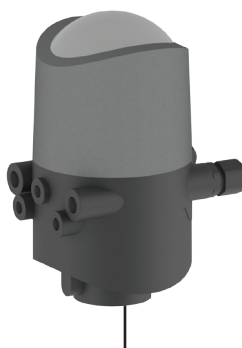
- maximum pressure: **101 PSI**
- temperature range: **20°F to 131°F (-7°C to 55°C)**
- protection type: IP65/IP67 according to EN 60529, Type 4X according to NEMA 250 standard
- power supply: 24VDC
- options:
  - communication: without, ASI, Device Net
  - electrical connection: multipol or cable gland

#### Approval:

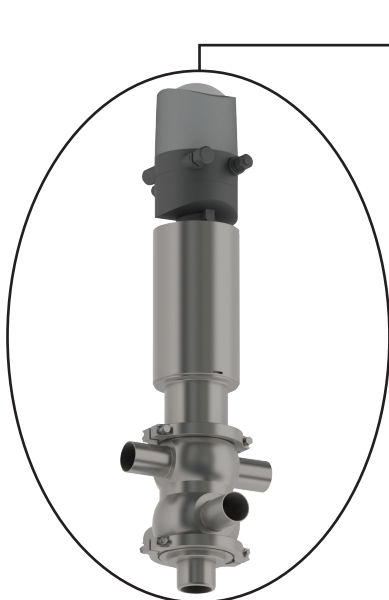
- ATEX II cat. 3%/DcULus Ceert. No. 238719

## Control Tops

### MT Series Control Head



Can be used on Dixon® / Rieger MP Series Mix proof valves.



#### Application:

- designed for automation of the Dixon/Rieger MP Series Mix proof valves

#### Features:

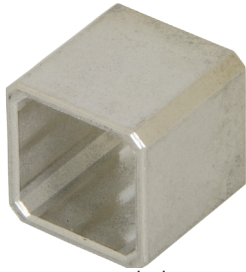
- universal attachment for hygienic process valves
- contactless position measurement system with 3 switching points (Teach-In function)
- color status display
- manual override to be used with closed housing

#### Specifications:

- maximum pressure: **116 PSI**
- temperature range: **14°F to 131°F (-10°C to 55°C)**
- protection type: IP65/IP67 according to EN 60529
- conformity: Aacc. To CE in compliance with EMV2004/108/EG
- power supply: 24VDC
- options:
  - communication: without, ASI, DeviceNet
  - electrical connection: multipol or cable gland

## Actuator Sleeve Inserts

Actuation



square design



star design

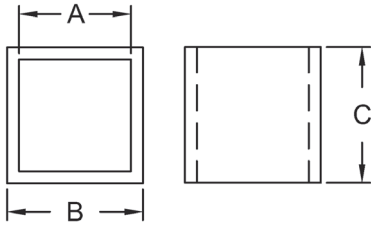
**Material:**

- 304 stainless steel

**Features:**

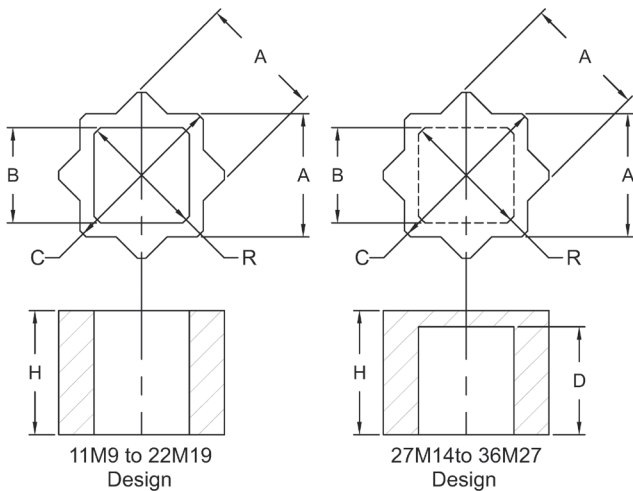
- fits all pneumatic actuators
- reduces actuator ISO 5211 output drive for direct assembly with smaller square valve stems and couplers
- double square sleeve – high strength iron-based powdered metal
- multiple size reductions possible with one sleeve

### Square Design Dimensions



	XB51-SVA 11/14	XB51-SVB 14/17	XB51-SVC 17/22	XB51-SVD 9/11	XB51-SVE 22/27
A	11	14	17	9	22
B	14	17	22	11	27
C	16	17	22	11	27

### Star Design Dimensions



Insert Part Number	36A36	B	C	D	H	R
<b>XB51-STVD</b>	11	9	15.0	N/A	17.0	12.5
<b>XB51-SVH</b>	14	9	19.1	N/A	20.0	12.5
<b>XB51-STVA</b>	14	11	19.1	N/A	20.0	14.5
<b>XB51-SVQ</b>	17	9	23.1	N/A	24.0	12.5
<b>XB51-SV1</b>	17	11	23.1	N/A	24.0	14.5
<b>XB51-STVB</b>	17	14	23.1	N/A	24.0	19.2
<b>XB51-SVJ</b>	22	11	29.6	N/A	30.0	14.5
<b>XB51-SVK</b>	22	14	29.6	N/A	30.0	19.2
<b>XB51-STVC</b>	22	17	29.6	N/A	30.0	23.3
<b>XB51-SVR</b>	22	19	29.6	N/A	30.0	25.8
<b>XB51-SVL</b>	27	14	36.0	27.0	29.0	19.2
<b>XB51-SVM</b>	27	17	36.0	27.0	29.0	23.3
<b>XB51-STVE</b>	27	22	36.0	27.0	29.0	30.0
<b>XB51-STS</b>	36	19	48.0	33.0	35.0	25.8
<b>XB51-SVP</b>	36	27	48.0	33.0	35.0	37.0

## Coupler Kit for Rack and Pinion and Electric Actuators

**Feature:**

- for mounting a rack and pinion or electric actuator to the B5101 series butterfly valve

**Coupler Kits**

Size	Series	Part Number
1/2" - 1½"	B5101	<i>B5101-ISO100150</i>
2" - 2½"	B5101	<i>B5101-ISO200250</i>
3" - 4"	B5101	<i>B5101-ISO300400</i>
6"	B5101	<i>B5101-ISO600</i>
8"	B5101	<i>B5101-ISO800</i>



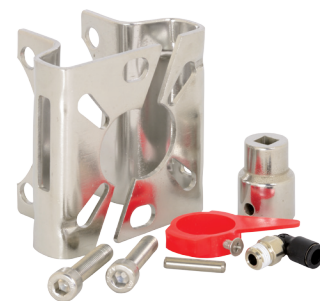
Actuation

## Butterfly Bracket and Coupling Kit for Vertical Stainless Steel Actuators

**Features:**

- kit includes everything required to assemble butterfly valve sizes ½" - 4" to the VC series actuator
- convenient for stocking various sizes of butterfly valves for future actuation, or converting a manual valve
- three kits cover valve sizes from ½" to 4"

Size	Series	Part Number
½" - 1½"	B5101	<i>B5101-VC100-150</i>
2" - 2½"	B5101	<i>B5101-VC200-250</i>
3" - 4"	B5101	<i>B5101-VC300-400</i>



## Breather Vents

**Application:**

- used on single acting canister style actuators to prevent dirt and foreign particles from entering ports open to the atmosphere

**Materials:**

- insert: nickel plated steel
- filter: bronze

**Features:**

- standard pipe thread connections for quick assembly and removal for cleaning
- 40 micron filter element

**Specifications:**

- maximum operating pressure: **150 PSI**
- temperature range: **35°F to 300°F (2°C to 149°C)**



NPT Thread	Overall Length	Part Number
½"	7/16"	<i>VC-NR-AF</i>

## Air Fittings

Actuation



male elbow



male swivel elbow

### Applications:

- Push-to-connect forged fittings are nickel plated and have an FKM seal making them suitable to use with liquids and gaseous fluids.
- Fittings are plated with a high phosphorous FDA nickel plate allowing them to be used in applications where exposure to harsh environments is present.
- applications include: food industry, packaging, robotics, pulp and paper and wash down

### Materials:

- body: high phosphorous FDA nickel plated brass
- back-up washer: high phosphorous FDA nickel plated brass
- collet: high phosphorous FDA nickel plated brass
- O-ring: FKM fluoroelastomer conforming to FDA standards
- base: high phosphorous FDA nickel plated brass

### Features:

- vacuum capability: 28" HG
- full flow
- excellent resistance to abrasion and corrosion
- silicone free
- available in fractional and metric sizes
- thread sealant is intentionally left off product so the appropriate sealant for the application can be applied

### Specifications:

- temperature range: **-4°F to 302°F (-20°C to 150°C)**
- pressure range: up to **435 PSI**

### Approval:

- FDA compliant

Tube OD	Male NPT	Part Number	Optional Qty
1/4"	1/8"	<b>32095611</b>	10
1/4"	1/4"	<b>31095614</b>	---



**Sanitary Strainers..... D-2 to D-8**

- Inline strainer .....D-3 to D-4
- Side entry strainer .....D-5 to D-6
- Side-outlet reverse strainer .....D-7 to D-8

**Filters..... D-9**

- 316 stainless wire cloth mesh over screens ..... D-9

**Dual Strainers ..... D-10**



## Dixon Sanitary Strainers

Strainers


**Size:**

- 1" - 3" clamp

**Material:**

- 316L stainless steel

**Features:**

- Various types:
  - Inline
  - Short
  - Long
  - Long side entry
  - Long side outlet
  - Dual

### What Are Strainers Used For?

**Strainer Definition:**

A strainer is a device used to separate solids from fluids. Here it is used for larger particulate matter from liquid or gas. It uses cleanable media.

**Filter Definition:**

A filter uses a disposable media to remove finer particulate from the stream. Dixon Sanitary holds Authorization Number 1446 for the 3A Sanitary Standard for Filters using Single Service Filter Media, Number: 10-4. Vertical mounting is necessary to meet 3A 10-04 requirements for minimal product clingage.



Full Flow Coarse Strainers -  
 $\frac{1}{4}$ " or  $\frac{1}{8}$ " perforations. ( $\frac{1}{8}$ " not 3A)

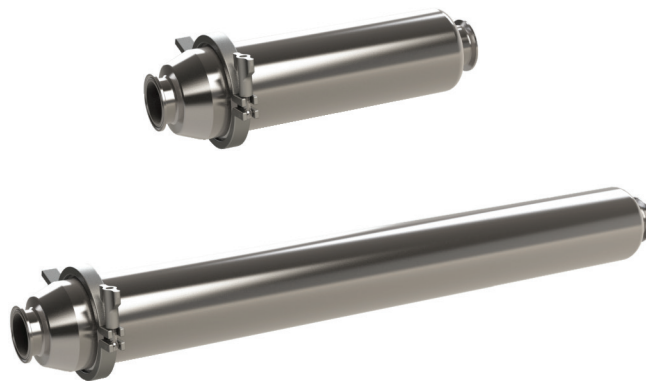
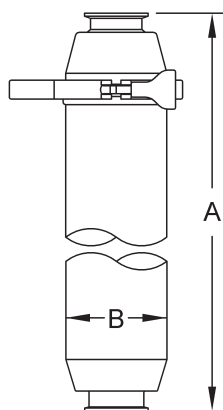


Full Flow Fine/Medium Strainers -  
 Can be equipped with a variety of mesh screens for removing finer particles (20 to 100 mesh).  
 See chart on page D-9. (not 3A)



Full Flow Filters -  
 Can be equipped with a variety of filtering media, down to 40 microns, media includes polyester, cotton cheesecloth and nylon mesh. See chart on page D-9.

## Inline Strainer - BSCCQ



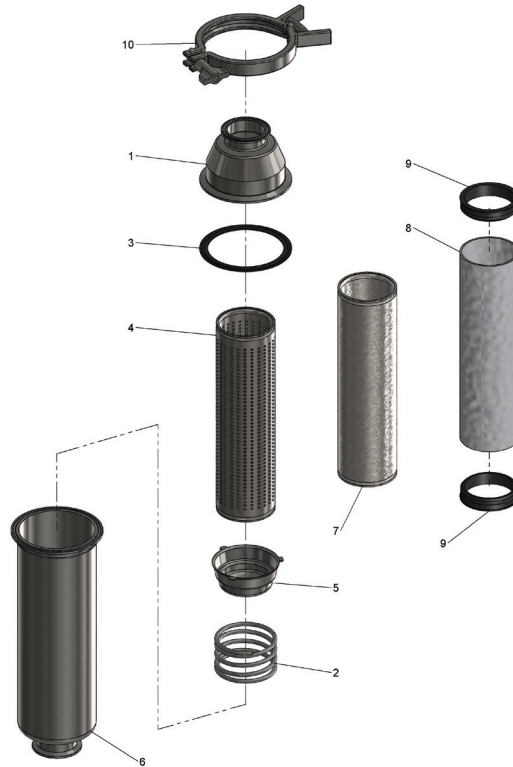
### Features:

- bevel seat, I-line and weld ends available, call Dixon Sanitary 800.789.1718 for information
- Inline units ship standard with the following: spring, distributor cap, clamp gasket, ¼" perforated back-up tube, inlet and outlet bodies and squeeze clamp
- ⅝" perforated back-up tube available, must specify when ordering (not 3A certified)
- must be vertical mount for 3A usage

Size	A short	A long	B	Short 316L Stainless Steel Part Number	Long 316L Stainless Steel Part Number
1"	15.75	--	4.00	<b>BSCCQ1-R100</b>	---
1½"	15.75	35.375	4.00	<b>BSCCQ1-R150</b>	<b>BSCCQ2-R150</b>
2"	15.75	35.375	4.00	<b>BSCCQ1-R200</b>	<b>BSCCQ2-R200</b>
2½"	15.75	--	4.50	<b>BSCCS1-R250</b>	---
3"	15.75	35.375	4.50	<b>BSCCS1-R300</b>	<b>BSCCS2-R300</b>

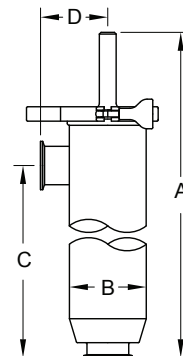
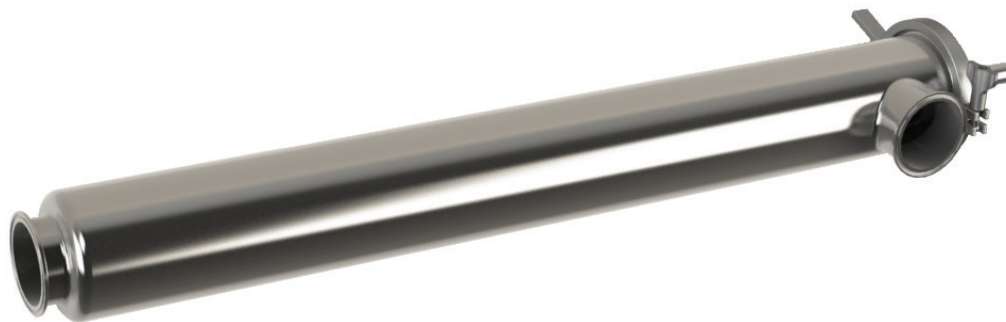
Bill of Materials

Strainers



Item #	Description	Short Part Number	Long Part Number	Material	Qty
1	1" strainer outlet	<b>BS-01-R100</b>	---	316L stainless steel	1
	1½" strainer outlet	<b>BS-01-R150</b>			
	2" strainer outlet	<b>BS-01-R200</b>			
	2½" strainer outlet	<b>BS-01-R250</b>	---		
	3" strainer outlet	<b>BS-01-R300</b>			
2	1" - 2" strainer spring	<b>BS-02-R100-200</b>		316L stainless steel	1
	2½" - 3" strainer spring	<b>BS-02-R250-300</b>			
3	1" - 2" (4") clamp gasket	<b>40MP-U400</b>		Buna	1
	2½" - 3" (4") schedule 5 clamp gasket	<b>40MPV-U400</b>			
4	1" - 2" back-up tube with ⅛" perforations	<b>BS-1418-R100200</b>	<b>BS-2418-R100200</b>	316L stainless steel	1
	2½" - 3" back-up tube with ⅛" perforations	<b>BS-1418-R250300</b>	<b>BS-2418-R250300</b>		
	1" - 2" back-up tube with ¼" perforations	<b>BS-1425-R100200</b>	<b>BS-2425-R100200</b>		
	2½" - 3" back-up tube with ¼" perforations	<b>BS-1425-R250300</b>	<b>BS-2425-R250300</b>		
5	1" - 2" strainer cap	<b>BS-05-R100-200</b>		316L stainless steel	1
	2½" - 3" strainer cap	<b>BS-05-R250-300</b>			
6	1" strainer inlet	<b>BS-16-R100</b>	---	316L stainless steel	1
	1½" strainer inlet	<b>BS-16-R150</b>	<b>BS-26-R150</b>		
	2" strainer inlet	<b>BS-16-R200</b>	<b>BS-26-R200</b>		
	2½" strainer inlet	<b>BS-16-R250</b>	---		
	3" strainer inlet	<b>BS-16-R300</b>	<b>BS-26-R300</b>		
7	1" - 3" various mesh over screens (short/long)	part number on page D-9		316 stainless steel	1
8	1" - 3" various filter bag (short/long)	part number on page D-9		various	1
9	1" - 2" retaining ring used with filter bags	<b>BS-09-U100-200</b>		Buna	2
	2½" - 3" retaining ring used with filter bags	<b>BS-09-U250-300</b>			
10	1" - 2" (4") squeeze clamp	<b>13MHHM-Q400</b>		CF8	1
	2½" - 3" (4") schedule 5 squeeze clamp	<b>13MHHV-Q400</b>			

## Side-Entry Strainer - BSCCQ



Strainers

**Features:**

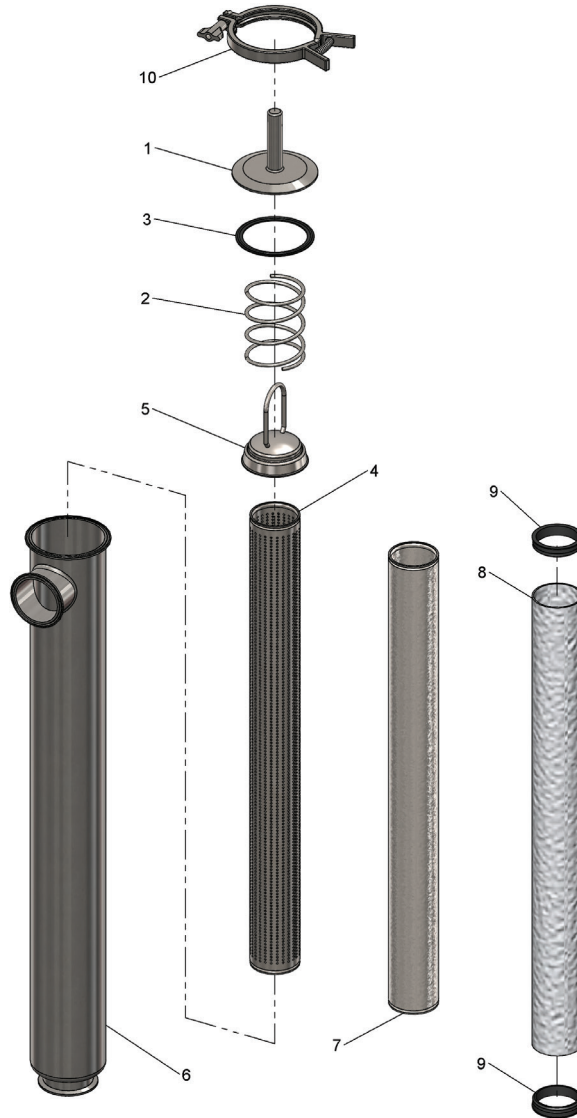
- bevel seat, I-line and weld ends available, call Dixon Sanitary 800.789.1718 for information
- can be serviced in line
- side entry units ship standard with the following: spring, end cap with handle, distributor cap, clamp gasket, 1/4" perforated back-up tube, body and squeeze clamp
- 1/8" perforated back-up tube available, must specify when ordering (not 3A authorized)
- must be vertical mount for 3A usage

D

Size	A	B	C	D	316L Stainless Steel Part Number
1½"	41.90	4.00	35.00	3.50	<b>BSCCQ3-R150</b>
2"	41.90	4.00	35.00	3.50	<b>BSCCQ3-R200</b>
3"	41.90	4.50	35.00	3.75	<b>BSCCQ3-R300</b>

Bill of Materials

Strainers



Item #	Description	1½" and 2" Part Number	3" Part Number	Material	Qty
1	end cap with handle	<b>BS-31-R100-200</b>	<b>BS-31-R250-300</b>	316L stainless steel	1
2	strainer spring	<b>BS-32-R100-200</b>	<b>BS-32-R250-300</b>	316L stainless steel	1
3	clamp gasket	<b>40MP-U400</b>	<b>40MPV-U400</b>	Buna	1
4	back-up tube with 1/8" perforations back-up tube with 1/4" perforations	<b>BS-1418-R100200</b> <b>BS-1425-R100200</b>	<b>BS-2418-R250300</b> <b>BS-2425-R250300</b>	316L stainless steel	1
5	distributor cap	<b>BS-35-R100-200</b>	<b>BS-35-R250-300</b>	316L stainless steel	1
6	1½" strainer body 2" strainer body 3" strainer body	<b>BS-36-R150</b> <b>BS-36-R200</b> ---	--- --- <b>BS-36-R300</b>	316L stainless steel	1
7	various mesh over screens <sup>1</sup>	part number on page D-9		316 stainless steel	1
8	various filter bag <sup>1</sup>	part number on page D-9		various	1
9	retaining ring used with filter bags <sup>1</sup>	<b>BS-09-U100-200</b>	<b>BS-09-U250-300</b>	Buna	2
10	squeeze clamp for assembly	<b>13MHHM-Q400</b>	<b>13MHHV-Q400</b>	CF8	1

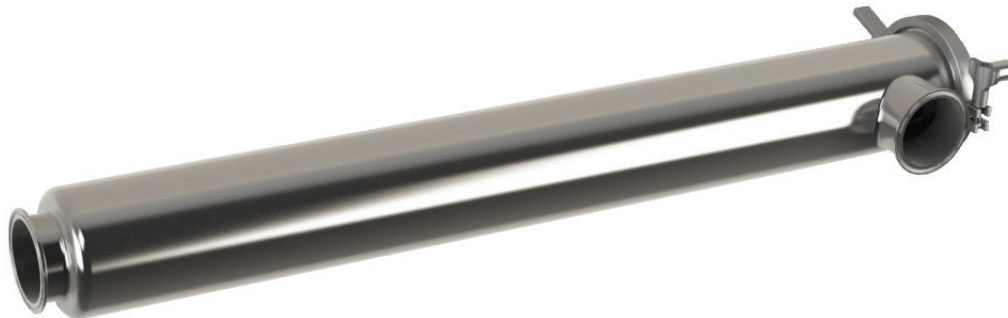
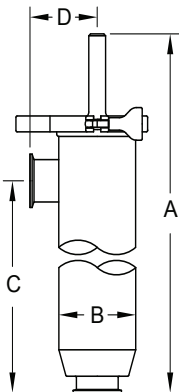
<sup>1</sup> Not included, must be ordered separately

Conversion Kit (to convert side entry to side outlet) - includes item numbers 2, 5, 11 and 12.  
**BS-Q4KIT-100200, BS-Q4KIT-250300**

**Side-Outlet Reverse Strainer - BSCCQ**



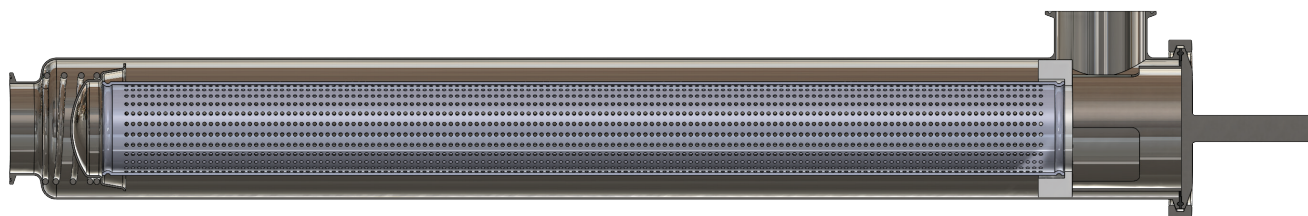
Strainers



**Features:**

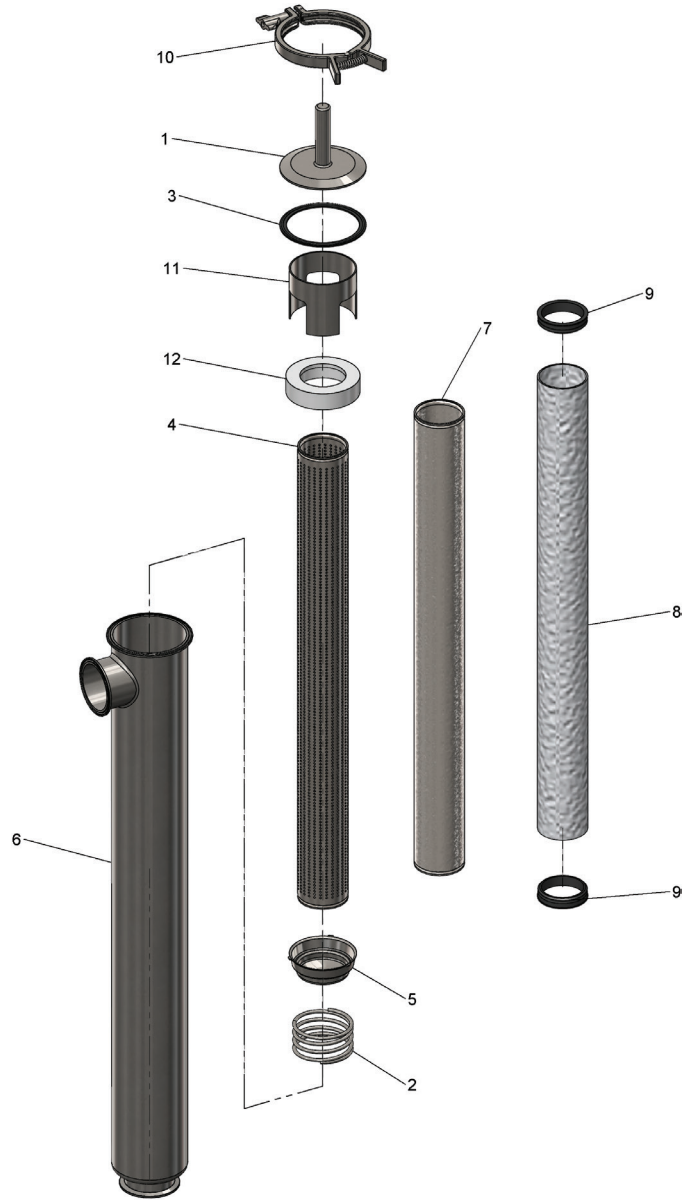
- bevel seat, I-line and weld ends available, call Dixon Sanitary 800.789.1718 for information
- can be serviced in line
- side outlet reverse units ship standard with the following: spring, end cap with handle, distributor cap, clamp gasket, 1/4" perforated back-up tube, body and squeeze clamp
- 1/8" perforated back-up tube available, must specify when ordering (not 3A authorized)
- must be vertical mount for 3A usage

Size	A	B	C	D	316L Stainless Steel Part Number
1 1/2"	41.90	4.00	35.00	3.50	<b>BSCCQ4-R150</b>
2"	41.90	4.00	35.00	3.50	<b>BSCCQ4-R200</b>
3"	41.90	4.50	35.00	3.75	<b>BSCCQ4-R300</b>



Bill of Materials

Strainers



Item #	Description	1½" and 2" Part Number	3" Part Number	Material	Qty
1	end cap with handle	<b>BS-31-R100-200</b>	<b>BS-31-R250-300</b>	316L stainless steel	1
2	strainer spring	<b>BS-02-R100-200</b>	<b>BS-02-R250-300</b>	316L stainless steel	1
3	clamp gasket	<b>40MP-U400</b>	<b>40MPV-U400</b>	Buna	1
4	back-up tube with ⅛" perforations back-up tube with ¼" perforations	<b>BS-1418-R100200</b> <b>BS-1425-R100200</b>	<b>BS-2418-R250300</b> <b>BS-2425-R250300</b>	316L stainless steel	1
5	distributor cap	<b>BS-05-R100-200</b>	<b>BS-05-R250-300</b>	316L stainless steel	1
6	1½" strainer body 2" strainer body 3" strainer body	<b>BS-36-R150</b> <b>BS-36-R200</b> ---	--- --- <b>BS-36-R300</b>	316L stainless steel	1
7	various mesh over screens <sup>1</sup>	part number on page D-9		316 stainless steel	1
8	various filter bag <sup>1</sup>	part number on page D-9		various	1
9	retaining ring used with filter bags <sup>1</sup>	<b>BS-09-U100-200</b>	<b>BS-09-U250-300</b>	Buna	2
10	squeeze clamp for assembly	<b>13MHHM-Q400</b>	<b>13MHHV-Q400</b>	CF8	1
11	stand off tube	<b>BS-411-R100-200</b>	<b>BS-411-R250-300</b>	316L stainless steel	1
12	retainer ring	<b>BS-412-R100-200</b>	<b>BS-412-R250-300</b>	PTFE	1

<sup>1</sup> Not included, must be ordered separately

Conversion Kit (to convert side entry to side outlet) - includes item numbers 2, 5, 11 and 12.  
**BS-Q4KIT-100200, BS-Q4KIT-250300**



**Filters**

**Features:**

- filter medium are special order and minimum quantities apply. (Not included with base unit.)
- filters require retaining ring. See pages D4, D6 and D8 for part numbers.

Size	Micron Rating	Description	Short Part Number	Long/Side Entry/Side Outlet Part Number
1" - 2"	38	nonwoven rayon (glued seam)	<b>BF30A-100-200</b>	---
2½" - 3"	38	nonwoven rayon (glued seam)	<b>BF30A-250-300</b>	---
1" - 2"	513	woven knapped cotton flannel	<b>BF30B-100-200</b>	---
2½" - 3"	513	woven knapped cotton flannel	<b>BF30B-250-300</b>	---
1" - 2"	300	cheese cloth, single thickness cotton	<b>BF30C-100-200</b>	---
2½" - 3"	300	cheese cloth, single thickness cotton	<b>BF30C-250-300</b>	---
1" - 2"	765	nylon, 26/29 mesh, rectangular opening, (.025 x .030)	<b>BF30D-100-200</b>	---
2½" - 3"	765	nylon, 26/29 mesh, rectangular opening, (.025 x .030)	<b>BF30D-250-300</b>	---
1" - 2"	40-42	nonwoven rayon	<b>BF30E-100-200</b>	<b>BF302E-100-200</b>
2½" - 3"	40-42	nonwoven rayon	<b>BF30E-250-300</b>	<b>BF302E-250-300</b>
1" - 2"	40	nonwoven rayon	<b>BF30F-100-200</b>	---
1" - 2"	420	woven nylon, 40 mesh	<b>BF30G-100-200</b>	---
2½" - 3"	420	woven nylon, 40 mesh	<b>BF30G-250-300</b>	<b>BF302G-250-300</b>

Strainers

**316 Stainless Wire Cloth Mesh Over Screens**

**Features:**

- not all sizes are stocked, additional sizes are available (5 piece minimum), call Dixon Sanitary 800.789.1718. (Not included with base unit.)
- not 3A compatible

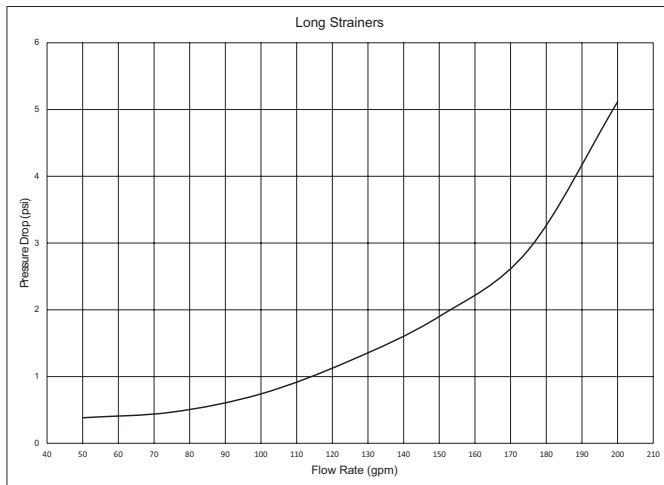
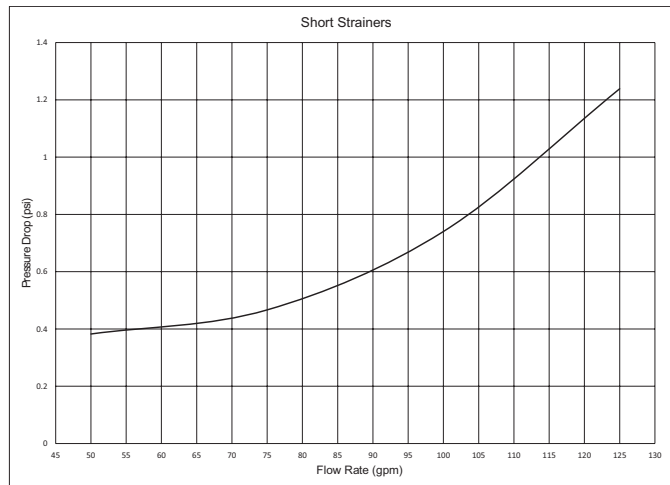
Size	Micron Rating	Square Mesh	Space Between Wires	Percent of Open Area	Short Part Number	Long/Side Entry/Side Outlet Part Number
1" - 2"	864	20	0.034	46.2	<b>BS20-100-200</b>	<b>BS202-100-200</b>
2½" - 3"	864	20	0.034	46.2	<b>BS20-250-300</b>	<b>BS202-250-300</b>
1" - 2"	381	40	0.015	36.0	<b>BS40-100-200</b>	<b>BS402-100-200</b>
2½" - 3"	381	40	0.015	36.0	<b>BS40-250-300</b>	<b>BS402-250-300</b>
1" - 2"	229	60	0.009	30.3	<b>BS60-100-200</b>	<b>BS602-100-200</b>
2½" - 3"	229	60	0.009	30.3	<b>BS60-250-300</b>	<b>BS602-250-300</b>
1" - 2"	178	80	0.007	31.4	<b>BS80-100-200</b>	<b>BS802-100-200</b>
2½" - 3"	178	80	0.007	31.4	<b>BS80-250-300</b>	<b>BS802-250-300</b>
1" - 2"	140	100	0.006	30.3	<b>BS100-100-200</b>	<b>BS1002-100-200</b>
2½" - 3"	140	100	0.006	30.3	<b>BS100-250-300</b>	<b>BS1002-250-300</b>

**Pressure Drop Curves for Strainer**

Water at ambient temperature

**Features:**

- maximum flow for short units is 125 GPM
- maximum flow for long units is 175 GPM



## Dual Strainers

### Application:

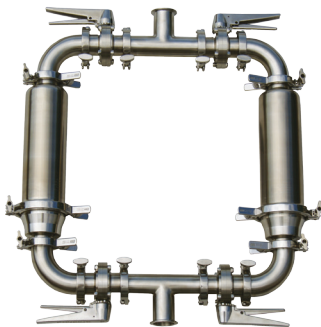
- Use when system needs to be cleaned regularly but product flow needs to be maintained. Short, long, side entry and side outlet dual units are available with manual or actuated valves, contact Dixon Sanitary 800.789.1718 for information.



### Design Using 3-way Ball Valves

Description	Part #	Qty
3-way L port ball valves, sizes 1" - 3"	<b>BV3SVLF</b>	2
squeeze clamps, sizes 1" - 3"	<b>13MHMM-Q</b>	4
single pin clamps, sizes 1" to 3"	<b>13MHMM</b>	4
clamp 90° elbow, sizes 1" - 3"	<b>B2CMP-R</b>	4
clamp gaskets in various materials, sizes 1" - 3"	<b>40MP</b>	8

### Design Using Butterfly Valves



Description	Part #	Qty
butterfly valve, various handles, actuation and seat materials, sizes 1" - 3"	<b>B5101</b>	4
clamp tee, sizes 1" - 3"	<b>B7MP</b>	2
clamp 90° elbow, sizes 1"- 3"	<b>B2CMP</b>	4
squeeze clamps, sizes 1"- 3"	<b>13MHMM-Q</b>	4
single pin clamps, sizes 1" - 3"	<b>13MHMM</b>	8
clamp gaskets in various materials, sizes 1"- 3"	<b>40MP</b>	12

**Sight glasses ..... E-2 to E-3**

Inline sight glasses .....	E-2
Acrylic sight glass end caps .....	E-2
Compact sight glasses .....	E-3

**Spray balls ..... E-4 to E-5**

Rotating spray balls .....	E-4
Stationary spray balls .....	E-5

**Swivels ..... E-6 to E-7**

Straight swivels.....	E-6
Configurations .....	E-7

**Miscellaneous accessories ..... E-8**

Breakaway couplings.....	E-8
Topping gun .....	E-8

**Maintenance ..... E-9**

Jax food grade penetrating oil .....	E-9
PurGel klear.....	E-9
Food grade anti-seize.....	E-9
Stainless steel cleaner & polish.....	E-9

**Custom Fabrication ..... E-10**

## Inline Sight Glasses

**Sizes:**

- 1" - 6" OD tube

**Materials:**

- body: 316L stainless steel
- sight glass: Borosilicate glass or polycarbonate
- gaskets: white Buna or FKM

**Features:**

- 32R<sub>a</sub> sanitary finish, ID and OD



### Inline Sight Glass - B54BMP

**Features:**

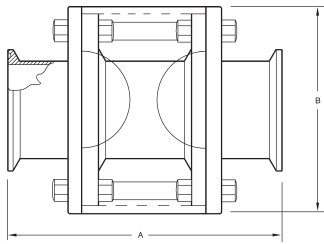
- various end configurations are available: clamp, weld, bevel seat, John Perry, I-Line and Q-Line

**Specification:**

- maximum temperature: 200°F (93°C)

Tube OD	A	B	Working Pressure (PSI)	316L Stainless Steel Borosilicate Glass Part Number	316 Stainless Steel Polycarbonate Part Number
1"	5.625	3.250	145	<b>B54BMP-R100</b>	<b>B54MP-R100LX</b>
1½"	5.625	4.000	145	<b>B54BMP-R150</b>	<b>B54MP-R150LX</b>
2"	5.625	4.250	145	<b>B54BMP-R200</b>	<b>B54MP-R200LX</b>
2½"	6.125	4.750	120	<b>B54BMP-R250</b>	<b>B54MP-R250LX</b>
3"	7.250	5.500	120	<b>B54BMP-R300</b>	<b>B54MP-R300LX</b>
4"	7.375	6.500	95	<b>B54BMP-R400</b>	<b>B54MP-R400LX</b>
6"	7.625	9.500	80	<b>B54BMP-R600</b>	<b>B54MP-R600LX</b>

### Kits and Replacement Parts



Size	Buna Seal Kit Part Number	FKM Seal Kit Part Number	Borosilicate Glass Replacement Part Number	Polycarbonate Replacement Part Number
1"	<b>B54BMP-SK100</b>	<b>B54BMP-VK100</b>	<b>B54G-P100</b>	<b>B54BMP-LX100</b>
1½"	<b>B54BMP-SK150</b>	<b>B54BMP-VK150</b>	<b>B54G-P150</b>	<b>B54BMP-LX150</b>
2"	<b>B54BMP-SK200</b>	<b>B54BMP-VK200</b>	<b>B54G-P200</b>	<b>B54BMP-LX200</b>
2½"	<b>B54BMP-SK250</b>	<b>B54BMP-VK250</b>	<b>B54G-P250</b>	<b>B54BMP-LX250</b>
3"	<b>B54BMP-SK300</b>	<b>B54BMP-VK300</b>	<b>B54G-P300</b>	<b>B54BMP-LX300</b>
4"	<b>B54BMP-SK400</b>	<b>B54BMP-VK400</b>	<b>B54G-P400</b>	<b>B54BMP-LX400</b>
6"	<b>B54BMP-SK600</b>	<b>B54BMP-VK600</b>	<b>B54G-P600</b>	<b>B54BMP-LX600</b>

Seal kit contains: (2) white Buna gaskets

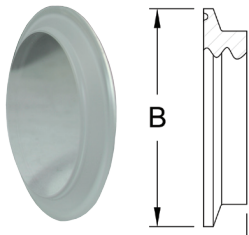
### Acrylic Sight Glass End Caps - B5416MP

**Feature:**

- for use on any line with a clamp and gasket

**Specifications:**

- maximum temperature: 150°F (66°C)
- maximum operating pressure: 100 PSI



Tube OD	A	B	Acrylic Plastic Part Number
1" - 1½"	.438	1.984	<b>B5416MP-A100150</b>
2"	.438	2.516	<b>B5416MP-A200</b>
2½"	.438	3.047	<b>B5416MP-A250</b>
3"	.438	3.579	<b>B5416MP-A300</b>
4"	.438	4.682	<b>B5416MP-A400</b>
6"	.438	6.562	<b>B5416MP-A600</b>

## Compact Sight Glasses - B54BMPS

### Application:

- used widely in the food, dairy and beverage sanitary processes to view products and fluids

### Sizes:

- 1", 1½", 2", 3", 4"

### Materials:

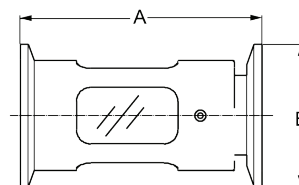
- body: 316L stainless steel
- sight glass: Borosilicate glass or Polycarbonate
- gasket: Buna or FKM

### Features:

- design perfect for hoses
- easier to clean than bolted styles
- less cost to repair than bolted styles
- clamp connections standard

### Specifications:

- maximum temperature: **200°F (93°C)**
- maximum pressure: **100 PSI**



Tube OD	Dimensions		316L Stainless Steel Borosilicate Glass Part Number	316 Stainless Steel Polycarbonate Part Number
	A	B		
1"	3.375	1.980	<b>B54BMPS-R100</b>	<b>B54BMPS-LX100</b>
1½"	3.640	1.980	<b>B54BMPS-R150</b>	<b>B54BMPS-LX150</b>
2"	3.830	2.516	<b>B54BMPS-R200</b>	<b>B54BMPS-LX200</b>
3"	4.130	3.800	<b>B54BMPS-R300</b>	<b>B54BMPS-LX300</b>
4"	4.340	4.680	<b>B54BMPS-R400</b>	<b>B54BMPS-LX400</b>

## Kits and Replacement Parts

Size	Buna Seal Kit Part Number	FKM Seal Kit Part Number	Borosilicate Glass Replacement Part Number	Polycarbonate Replacement Part Number
1"	<b>B54BMPS-SK100</b>	<b>B54BMPS-VK100</b>	<b>B54BMPS-GL100</b>	<b>B54BMPS-LX100</b>
1½"	<b>B54BMPS-SK150</b>	<b>B54BMPS-VK150</b>	<b>B54BMPS-GL150</b>	<b>B54BMPS-LX150</b>
2"	<b>B54BMPS-SK200</b>	<b>B54BMPS-VK200</b>	<b>B54BMPS-GL200</b>	<b>B54BMPS-LX200</b>
3"	<b>B54BMPS-SK300</b>	<b>B54BMPS-VK300</b>	<b>B54BMPS-GL300</b>	<b>B54BMPS-LX300</b>
4"	<b>B54BMPS-SK400</b>	<b>B54BMPS-VK400</b>	<b>B54BMPS-GL400</b>	<b>B54BMPS-LX400</b>

# Spray Balls

**Sizes:**

- ¾" and 1½" NPT
- 1" and 1½" OD tube
- 1½" clamp

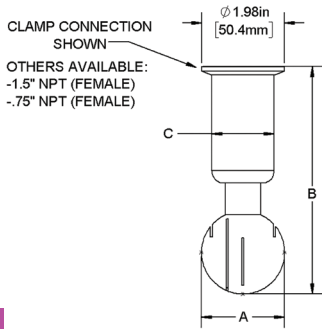
**Materials:**

- 304 stainless steel
- 316L stainless steel

**Feature:**

- mirror-like finish OD

## Rotating Spray Balls - SRH



**Material:**

- ball bearings: stainless steel

**Features:**

- ideal for cleaning all types of tanks and vessels
- cleaning solution used to lubricate unit
- mirror-like finish OD
- spray pattern: 360°

**Specification:**

- connections available: clamp and NPT

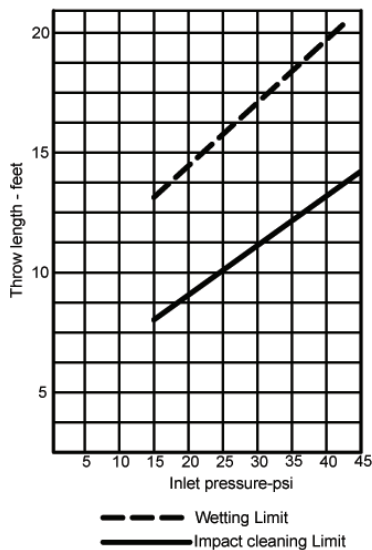
Size	Type	A	B	C	304 Stainless Steel Part Number	316L Stainless Steel Part Number
¾"	NPT	2.08	5.46	1.0	<b>SRH360NPT-G075</b>	---
1½"	NPT	2.54	6.58	1.5	---	<b>SRH360NPT-R150</b>
1½"	Clamp	2.08	5.46	1.0	<b>SRH360CMP-G150</b>	<b>SRH360CMP-R150</b>

Dimensions are approximate. Engineering dimensions are available upon request. Specifications are subject to change without notice.

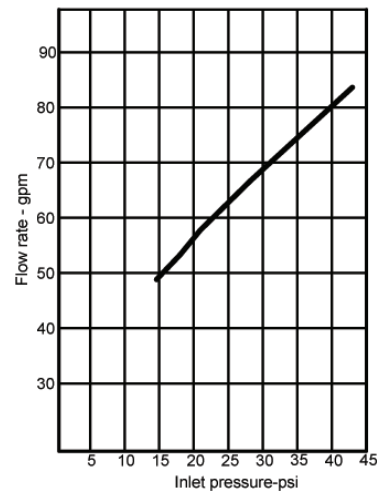


### Technical Data

Cleaning Radius



Flow Rate

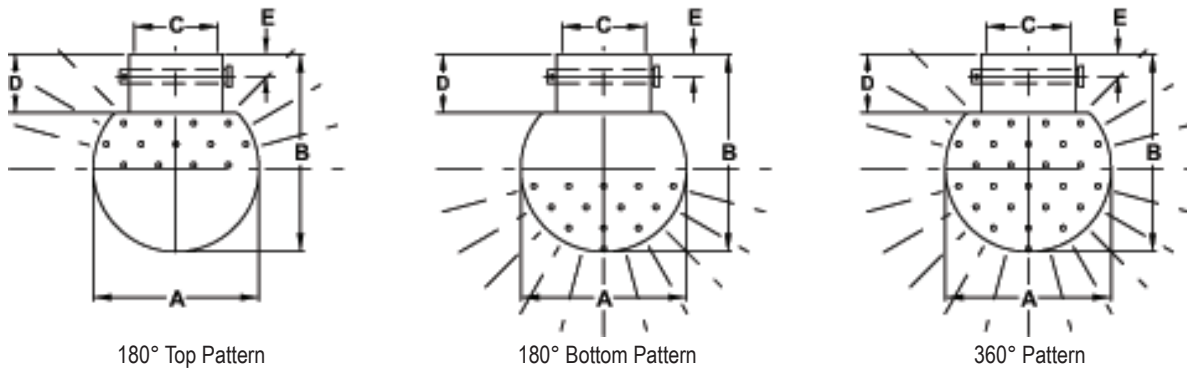


## Stationary Spray Balls - STC

**Features:**

- typically used in food and beverage for cleaning storage tanks
- various spray patterns available (blanks available as special order)
- stationary - designed to be mounted to a tube or pipe
- 2mm spray holes

Size	Pin Length	Spray Pattern	A	B	C	D	E	Pin Size	316L Stainless Steel Part Number
1"	1.47	360°	2.50	3.04	1.005	.975	.445	.226	<b>STC-360-R100</b>
1½"	1.95	360°	2.95	3.55	1.505	1.050	.445	.226	<b>STC-360-R150</b>
1"	1.47	180° bottom	3.54	2.95	1.005	.975	.445	.226	<b>STC-180B-R100</b>
1½"	1.95	180° bottom	3.54	2.95	1.505	.975	.445	.226	<b>STC-180B-R150</b>
1"	1.47	180° top	3.54	2.95	1.005	.975	.445	.226	<b>STC-180T-R100</b>
1½"	1.95	180° top	3.54	2.95	1.505	.975	.445	.226	<b>STC-180T-R150</b>



### Repair Kits

Size	Part Number
1"	<b>STC-RK100</b>
1½"	<b>STC-RK150</b>

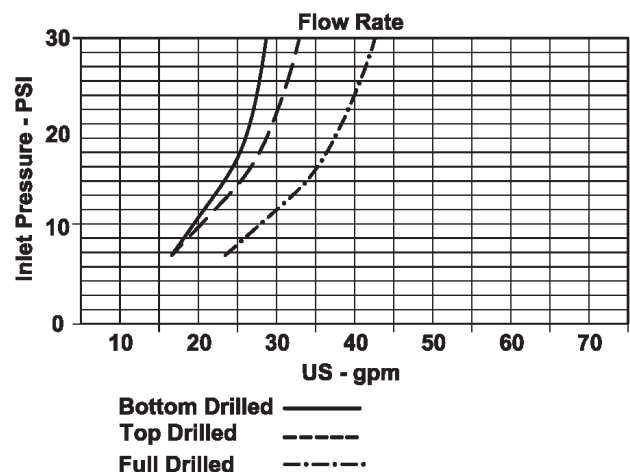
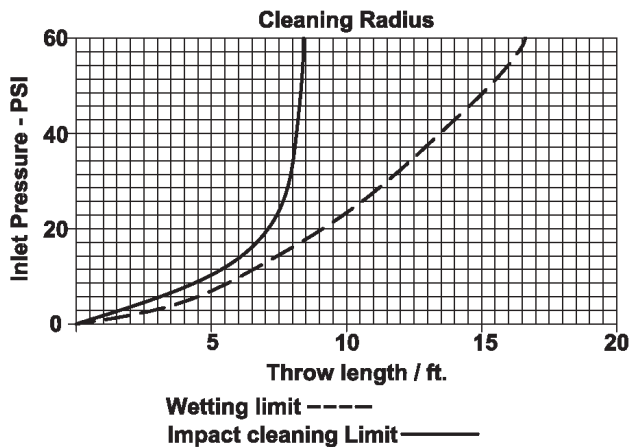
Repair kits contain:

- (1) pin
- (1) R clip

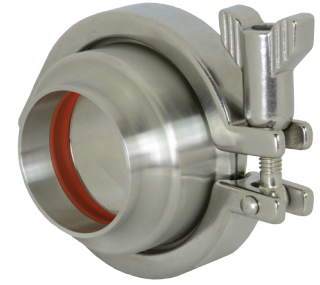
### Cleaning Radius

### Technical Data

### Flow Rate



## Swivels



## Sizes:

- 1" - 4" tube OD

## Materials:

- 316L stainless steel
- seals: PTFE with silicone

## Features:

- sanitary finish ID and OD
- optional elastomers available

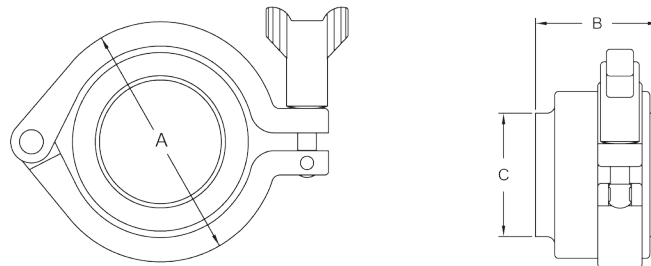
## Specification:

- available in clamp and weld configurations

## Pressure Ratings

Tube OD	PSI at 70°F (21°C)	PSI at 250°F (121°C)
1"	500	300
1½"	500	300
2"	450	250
2½"	400	200
3"	350	175
4"	300	150

## Straight Swivel - SJSS



## Straight Clamp Dimensions - Style 20

Tube OD	A	B	C	Part Number
1"	2.56	3.00	1.00	<i>SJSS100CC-20</i>
1½"	2.56	3.00	1.50	<i>SJSS150CC-20</i>
2"	3.09	3.00	2.00	<i>SJSS200CC-20</i>
2½"	3.44	3.00	2.50	<i>SJSS250CC-20</i>
3"	3.94	3.00	3.00	<i>SJSS300CC-20</i>
4"	5.08	4.19	4.00	<i>SJSS400CC-20</i>

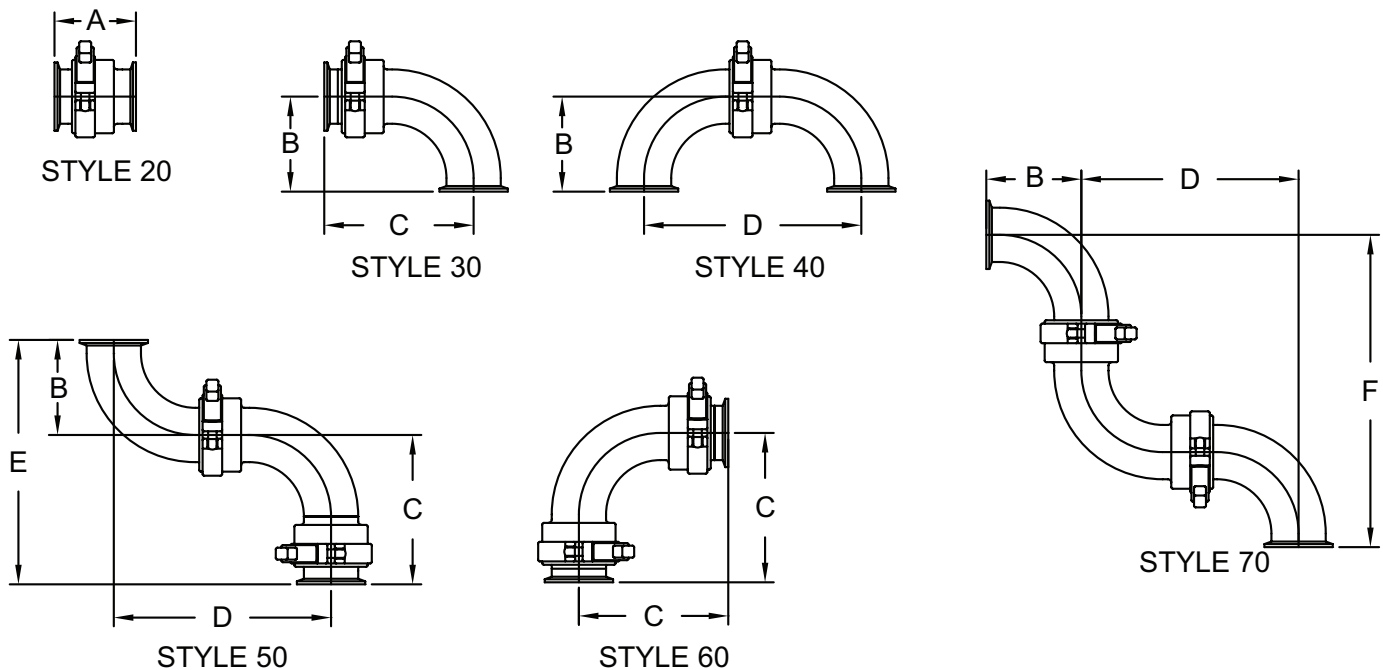
## Straight Weld Connection Dimensions - Style 20

Tube OD	A	B	C	Part Number
1"	2.56	2.00	1.00	<i>SJSS100BB-20</i>
1½"	2.56	2.00	1.50	<i>SJSS150BB-20</i>
2"	3.09	2.00	2.00	<i>SJSS200BB-20</i>
2½"	3.44	2.00	2.50	<i>SJSS250BB-20</i>
3"	3.94	2.00	3.00	<i>SJSS300BB-20</i>
4"	5.08	2.94	4.00	<i>SJSS400BB-20</i>

All dimensions are in inches unless otherwise noted. Engineering dimensions are available upon request. Specifications are subject to change without notice. Product not returnable and no cancellations.



## Configurations



## Clamp Joint Dimensions

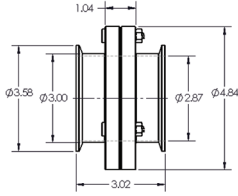
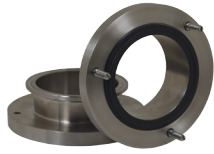
Size	A	B	C	D	E	F	Part Number
1"	3.00	2.00	4.00	5.00	6.00	7.00	<b>SJSS100CC-*</b>
1½"	3.00	2.75	4.75	6.50	7.50	9.25	<b>SJSS150CC-*</b>
2"	3.00	3.50	5.50	8.00	9.00	11.50	<b>SJSS200CC-*</b>
2½"	3.00	4.25	6.25	9.50	10.50	13.75	<b>SJSS250CC-*</b>
3"	3.00	5.00	7.00	11.00	12.00	16.00	<b>SJSS300CC-*</b>
4"	5.19	6.63	9.63	14.94	15.94	21.56	<b>SJSS400CC-*</b>

\* For all other styles, please contact Dixon Sanitary 800.789.1718 for pricing



## Sanitary Breakaway Couplings

Fluid Handling  
Accessories



**SBC-E300CC13**

**Application:**

- minimizes spillage and damage associated with pull away and drive away incidents

**Materials:**

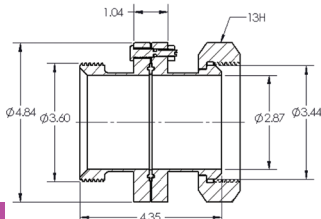
- 316 stainless steel polished to standard  $<32R_a$ , 3A finish
- clamp gasket: EPDM standard, optional material available

**Features:**

- designed to be installed between a fixed point and a hose
- 13kN break load bolts standard, other break loads available
- coupling breaks away with an excessive load
- other sizes/connection available

**Specification:**

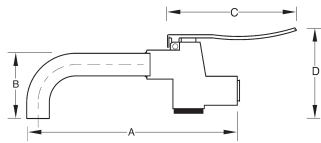
- working pressure: **350 PSI @ 70°F (21°C)**



**SBC-E300TP13**

Clamp End Part Number	Bevel Seat Part Number
<b>SBC-E300CC13</b>	<b>SBC-E300TP13</b>

## Topping Gun - BTG



**Materials:**

- 304 stainless steel
- seals and gaskets: EPDM

**Features:**

- squeeze handle for easy opening and control
- spring loaded trigger for positive shutoff

**Specifications:**

- 1/2" female NPT inlet
- 3/4" OD tube outlet

A	B	C	D	Part Number
8.094	3.375	4.750	4.563	<b>BTG-G50</b>

All dimensions are in inches unless otherwise noted. Engineering dimensions are available upon request. Specifications are subject to change without notice.

## Jax Food Grade Penetrating Oil

**Features:**

- NSF H1 registered for incidental food contact
- colorless, odorless and tasteless
- quickly frees corroded parts
- protects metal from corrosion
- lubricates moving parts

Description	Part Number
16 fl.oz. trigger spray bottle	<b>LUPO-16</b>



## PurGel Klear

**Features:**

- pure white, FDA approved kosher petrolatum for use as a release agent
- use for any assembly, barrier or release applications holding O-rings, gaskets, coating cutting blades or augers

**Approval:**

- meets FDA 21 CFR Part 172: Food Additive Permitted for direct addition to food for human consumption and Part 178: Indirect Food Additives

Description	Part Number
8 oz. squeeze tube	<b>LUPG-08</b>



## Food Grade Anti-Seize

**Features:**

- non-toxic and non-drying
- lubricates threads
- forms leak-proof seals
- prevents corrosion
- resists water and steam

**Approval:**

- NSF H1 registered for incidental food contact

Description	Part Number
8 oz. bottle with brush-top cap	<b>LUAS-08</b>



## Stainless Steel Cleaner & Polish

**Features:**

- repels water – beads up like wax
- provides high-gloss protective shield
- dissolves tarnish
- rubs in completely, with no dust or residue

**Approval:**

- A7 Registered for use in federally-inspected facilities

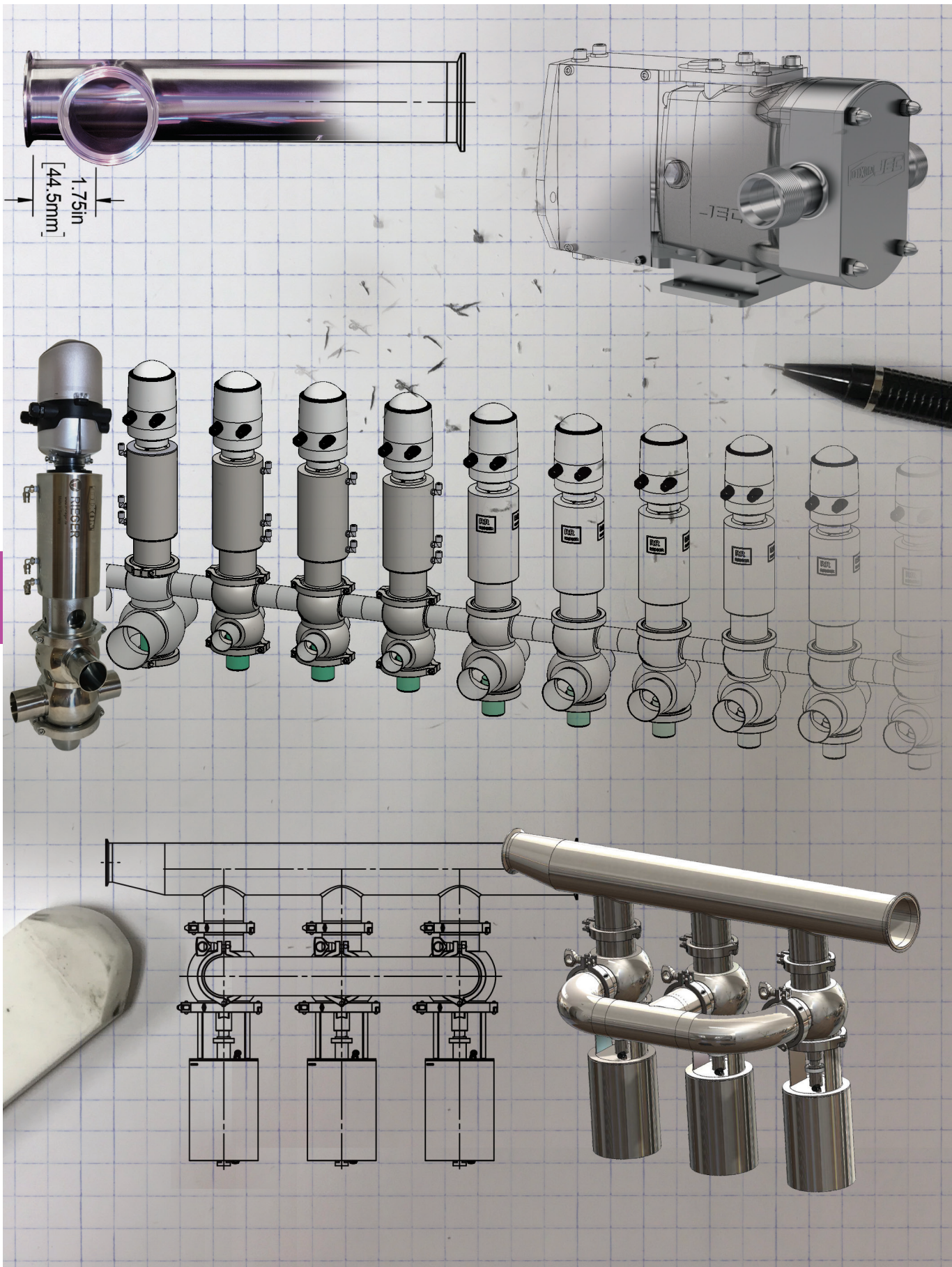
Description	Part Number
14 oz. aerosol can	<b>LUCP-14</b>



All products shipped with MSDS (Material Safety Data Sheets)

## Machined, Welded and Polished Components

Fluid Handling  
Accessories



**Clamp Fittings..... F-2 to F-28**

Single pin squeeze clamps.....	F-3
Single pin heavy duty clamps with cross hole wing nut.....	F-3
Single pin heavy duty clamps with serrated wing nut.....	F-3
Double pin heavy duty clamps.....	F-3
Three segment clamps.....	F-4
Bolted clamps.....	F-4
Toggle clamps.....	F-4
T-bolt clamps.....	F-4
Dairy clamps.....	F-5
Spring loaded nut.....	F-5
Accessories.....	F-5
Clamp ferrules.....	F-6 to F-8
Clamp caps.....	F-8
Clamp adapters.....	F-9 to F-12
Clamp elbows.....	F-13 to F-15
Clamp Tees.....	F-15
Clamp reducers.....	F-16 to F-17
Miscellaneous clamp configurations.....	F-17 to F-18
Gaskets.....	F-19 to F-26
Clamp fitting and gasket sizing guide.....	F-27 to F-28

**Pipe Fittings..... F-29 to F-37**

Clamps.....	F-30
Ferrules.....	F-30 to F-31
End caps.....	F-31
Adapters.....	F-32
Hangers.....	F-33 to F-35
Schedule 5S and 10S pipe size clamp gaskets.....	F-35
Pipe gasket sizing guide.....	F-36 to F-37

**Bevel Seat..... F-38 to F-47**

Nuts.....	F-39
Wrenches.....	F-39
Ferrules.....	F-40 to F-43
Adapters.....	F-43
Elbows.....	F-44
Concentric reducers.....	F-45
Gaskets.....	F-46 to F-47

**I-Line/Q-Line Fittings..... F-48 to F-56**

Clamps.....	F-49 to F-52
End caps.....	F-52
Adapters.....	F-53
Elbows.....	F-54
Gaskets.....	F-55 to F-56

**John Perry Fittings..... F-57 to F-61**

Nuts.....	F-58
Wrenches.....	F-58
Ferrules.....	F-59
End caps.....	F-60
Gaskets.....	F-60 to F-61

**Euro Fittings..... F-62 to F-66**

DIN 11851.....	F-63
SMS.....	F-64
RJT.....	F-65
Gaskets.....	F-66

**Polished Fittings..... F-67 to F-76**

Weld elbows.....	F-68 to F-69
Weld sweep elbows.....	F-70
Weld tees.....	F-71 to F-72
Weld adapters.....	F-73
Weld reducers.....	F-73 to F-74
Clamp ferrules.....	F-75
Weld miscellaneous.....	F-75 to F-76
Weld end covers.....	F-76

**Unpolished Fittings..... F-77 to F-83**

Weld elbows.....	F-78
Weld end caps.....	F-79
Weld adapters.....	F-79
Weld tees.....	F-80
Weld reducers.....	F-81
Weld miscellaneous.....	F-82
Weld end covers.....	F-82
Flanges.....	F-83
Gaskets.....	F-83

**High Purity BioPharm Line..... F-84 to F-96**

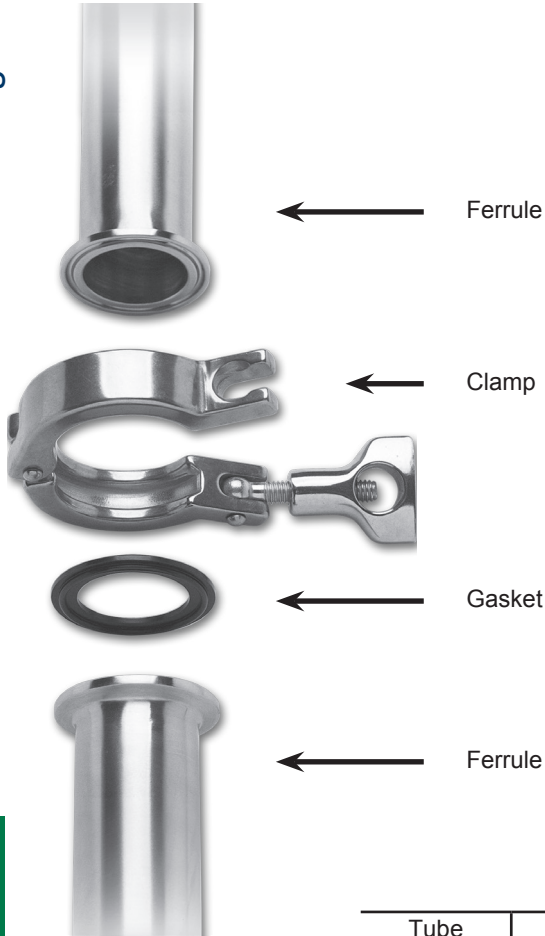
Elbows.....	F-85 to F-86
Tees.....	F-87 to F-91
Concentric reducers.....	F-92 to F-93
Eccentric reducers.....	F-93 to F-94
End caps.....	F-95
Auto weld ferrules.....	F-95
Weld caps.....	F-95
Adapters.....	F-96



### Dixon Sanitary Clamp Fittings

#### A Complete Clamp Connection

Fittings



**Sizes:**

- 1/2" - 12" OD tube

**Materials:**

- G = 304 stainless steel
- R = 316L stainless steel
- other alloys are available

**Features:**

- 3A sanitary finish ID and OD
- other finishes are available

Dimensions of stainless steel tube given in inches


Tube OD	Nominal Wall Thickness (inches)	Gage Number
1/2"	.065	16
3/4"	.065	16
1"	.065	16
1 1/2"	.065	16
2"	.065	16
2 1/2"	.065	16
3"	.065	16
4"	.083	14
5"	.109	12
6"	.109	12
8"	.109	12
10"	.120	10
12"	.120	10

This section contains tube OD materials. Please note in sizes 1/2" through 12" the pipe is known by its nominal inside diameter, which differs from its actual inside diameter. To distinguish pipe sizes from actual measured diameters as used for tube, the terms iron pipe size (IPS) or nominal pipe size (NPS) are usually used. For all pipe sizes, the outside diameter (OD) remains constant; the variations in wall thickness affect the inside diameter (ID).



Pipe size and Tube OD size materials are not interchangeable

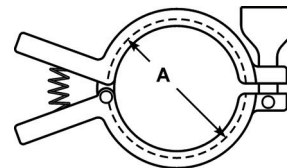
## Clamps

Service pressure ratings are based on the following parameters: matching elastomer gaskets and weld ferrules properly aligned and assembled with the clamps tightened to the required torques. Tests are done hydrostatically with no water hammer or shock loads. Please note the pressure ratings of the described unions may be above the recommended pipe line operating pressures. 

## Single Pin Squeeze Clamps - 13MHHM-Q

Tube OD	Service Pressure Rating @ 70°F (21°C) <sup>1</sup>	Service Pressure Rating @ 250°F (121°C) <sup>1</sup>	A	Part Number
½" - ¾"	1500	1200	1.062	13MHHM-Q75
1" - 1½"	500	300	2.122	13MHHM-Q100150
2"	450	250	2.654	13MHHM-Q200
2½"	400	200	3.185	13MHHM-Q250
3"	350	175	3.717	13MHHM-Q300
4"	300	150	4.820	13MHHM-Q400

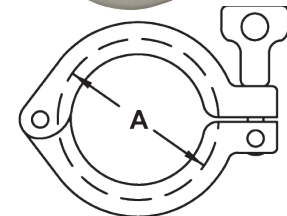
<sup>1</sup> wing nut tightened to 25 in. lb. of torque



## Single Pin Heavy Duty Clamps with Cross Hole Wing Nut - 13MHHM

Tube OD	Service Pressure Rating @ 70°F (21°C) <sup>1</sup>	Service Pressure Rating @ 250°F (121°C) <sup>1</sup>	A	Part Number
½" - ¾"	1500	1200	1.062	13MHHM50-75
1" - 1½"	500	300	2.122	13MHHM100-150
2"	450	250	2.654	13MHHM200
2½"	400	200	3.185	13MHHM250
3"	350	175	3.717	13MHHM300
4"	300	150	4.820	13MHHM400
5"	225	100	5.820	13MHHM500
6"	150	75	6.695	13MHHM600
8"	100	50	8.695	13MHHM800

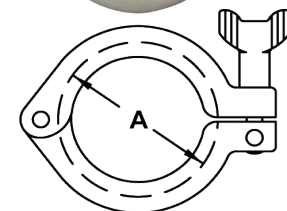
<sup>1</sup> wing nut tightened to 25 in. lb. of torque



## Single Pin Heavy Duty Clamps with Serrated Wing Nut - 13MHHM\*\*\*SN

Tube OD	Service Pressure Rating @ 70°F (21°C) <sup>1</sup>	Service Pressure Rating @ 250°F (121°C) <sup>1</sup>	A	Part Number
½" - ¾"	1500	1200	1.062	13MHHM50-75SN
1" - 1½"	500	300	2.122	13MHHM100-150SN
2"	450	250	2.654	13MHHM200SN
2½"	400	200	3.185	13MHHM250SN
3"	350	175	3.717	13MHHM300SN
4"	300	150	4.820	13MHHM400SN
5"	225	100	5.820	13MHHM500SN
6"	150	75	6.695	13MHHM600SN
8"	100	50	8.695	13MHHM800SN

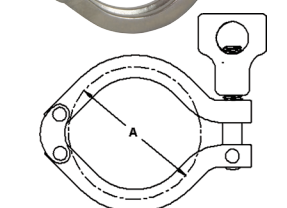
<sup>1</sup> wing nut tightened to 25 in. lb. of torque



## Double Pin Heavy Duty Clamps - 13MHHM-DP

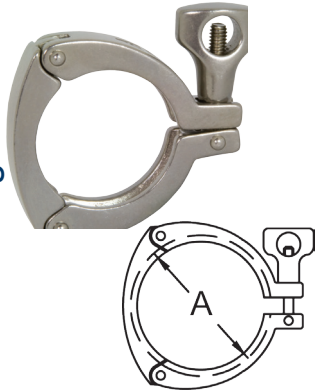
Tube OD	Service Pressure Rating @ 70°F (21°C) <sup>1</sup>	Service Pressure Rating @ 250°F (121°C) <sup>1</sup>	A	Part Number
1" - 1½"	500	300	2.122	13MHHM-DP100150
2"	450	250	2.654	13MHHM-DP200
2½"	400	200	3.185	13MHHM-DP250
3"	350	175	3.717	13MHHM-DP300
4"	300	150	4.820	13MHHM-DP400
10"	100	50	10.740	13MHHM-DP1000

<sup>1</sup> wing nut tightened to 25 in. lb. of torque



Clamps

Fittings

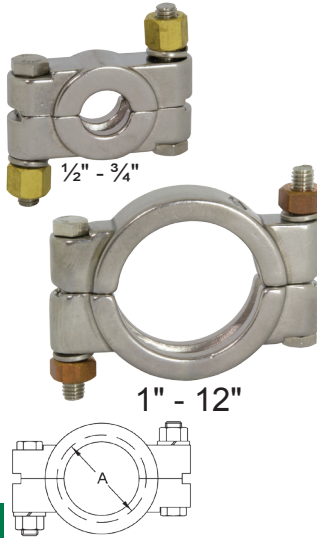


Three Segment Clamps - 13MHHM-3P

Tube OD	Service Pressure Rating @ 70°F (21°C) <sup>1</sup>	Service Pressure Rating @ 250°F (121°C) <sup>1</sup>	A	Part Number
1" - 1½"	600	300	2.122	13MHHM-3P100150
2"	550	275	2.654	13MHHM-3P200
2½"	450	225	3.185	13MHHM-3P250
3"	350	175	3.717	13MHHM-3P300
4"	300	150	4.820	13MHHM-3P400
12"	75	50	12.740	13MHHM-3P1200

<sup>1</sup> wing nut tightened to 25 in. lb. of torque

Bolted Clamps - 13MHP



Tube OD	Service Pressure Rating @ 70°F (21°C) <sup>1</sup>	Service Pressure Rating @ 250°F (121°C) <sup>1</sup>	A	Part Number
½" - ¾"	1500	1200	1.062	13MHP75
1" - 1½"	1500	1200	2.046	13MHP100-150
2"	1000	800	2.578	13MHP200
2½"	1000	800	3.110	13MHP250
3"	1000	800	3.640	13MHP300
4"	800	600	4.744	13MHP400
6"	300	200	6.632	13MHP600
8"	250	150	8.638	13MHP800
10"	200	125	10.740	13MHP1000
12"	150	100	12.740	13MHP1200

<sup>1</sup> all nuts are tightened to 20 ft. lb. of torque

F

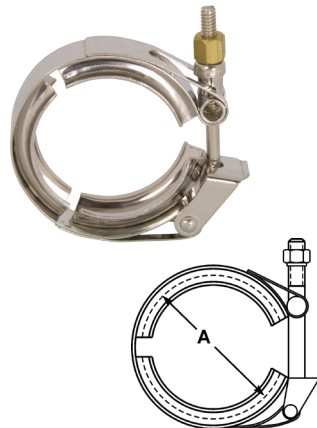
Toggle Clamps - 13MHLA



Tube OD	Service Pressure Rating @ 70°F (21°C) <sup>1</sup>	Service Pressure Rating @ 250°F (121°C) <sup>1</sup>	A	304 Stainless Steel Part Number
1" - 1½"	150	125	2.122	13MHLA100-150
2"	150	125	2.654	13MHLA200
2½"	150	125	3.185	13MHLA250
3"	150	125	3.717	13MHLA300
4"	100	75	4.820	13MHLA400

<sup>1</sup> screw tightened to maximum

T-bolt Clamps - 13MO



Tube OD	Service Pressure Rating @ 70°F (21°C) <sup>1</sup>	Service Pressure Rating @ 250°F (121°C) <sup>1</sup>	A	304 Stainless Steel Part Number
1" - 1½"	500	250	2.080	13MO100-150
2"	350	200	2.610	13MO200
2½"	300	150	3.140	13MO250
3"	200	100	3.670	13MO300
4"	100	75	4.780	13MO400
6"	75	50	6.690	13MO600
8" <sup>2</sup>	50	40	8.690	13MO800
10" <sup>2</sup>	40	30	10.690	13MO1000
12" <sup>2</sup>	30	25	12.690	13MO1200

<sup>1</sup> 1" - 3" nuts tightened to 20 in. lb., 4" to 30 in. lb., 6" to 40 in. lb. and 8" - 12" 50 in. lb. of torque.

<sup>2</sup> 2 bolt configuration



**Clamps**

**Dairy Clamps - 13WGC**

Tube OD	Service Pressure Rating @ 70°F (21°C) <sup>1</sup>	Service Pressure Rating @ 250°F (121°C) <sup>1</sup>	A	304 Stainless Steel Part Number
1" - 1½"	100	75	2.080	<b>13WGC100-150</b>
2"	100	75	2.610	<b>13WGC200</b>
2½"	100	75	3.140	<b>13WGC250</b>
3"	100	75	3.670	<b>13WGC300</b>
4"	100	75	4.780	<b>13WGC400</b>

<sup>1</sup> finger tight



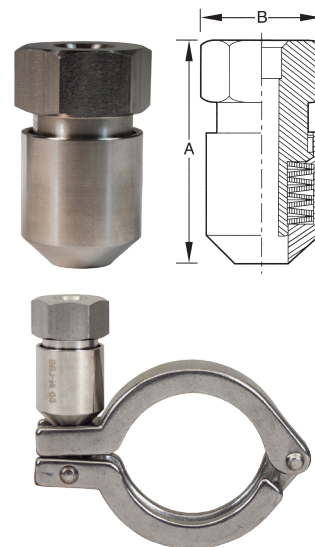
Fittings

**Spring Loaded Nut - 13SLN**

**Features:**

- Lines using PTFE gaskets that are subject to large temperature swings can benefit from this special product. As the PTFE is compressed through the cycling of the lines, the spring loaded will help keep the connection from leaking.
- If the lines suffer from vibration and bolted clamps are not an option, refitting single pin clamps with this nut will keep the connections from leaking for a longer time than the standard wing nuts.
- If you transport material in tanks via truck, the vibrations can loosen the standard single pin clamps - spring loaded nuts can add a level of insurance to the shipment.
- note: can be used on all wing nut style clamps.
- torque to 50 in. lb.

Thread	A	B	304 Stainless Steel Part Number
5/16 - 5/18	1.73	.875	<b>13SLN</b>



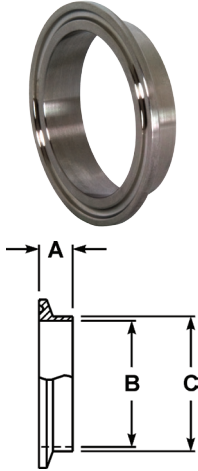
**Accessories**

Description	Part Number
cross hole wing nut 5/16"-18	<b>13WNX</b>
mini cross hole wing nut 5/16"-18 for ½" - ¾" clamps	<b>13WNXM</b>
serrated wing nut 5/16"-18	<b>13WNS</b>
hex wing nut 5/16"-18	<b>13WNH</b>
bronze hex nut 3/8"-16 for bolted clamps	<b>13BN</b>
brass 3/8"-16 nuts used on ½" - ¾" and 10" & 12" bolted clamps	<b>13BNH</b>
stainless steel hex nut for bolted clamps	<b>13SN</b>
3/8" 304 stainless steel lock washer	<b>13LW</b>
bolt 3/8"-16 x 2¼" for ½" - 1½" bolted clamps	<b>13CB-2.25</b>
bolt 3/8"-16 x 2¾" for 2" and 2½" bolted clamps	<b>13CB-2.75</b>
bolt 3/8"-16 x 3¼" for 3" - 12" bolted clamps	<b>13CB-3.25</b>
rivet pin for ½" - 5" single pin clamps 5/16" x 1"	<b>13RP</b>
rivet pin for 6" and 8" single pin clamps 5/16" x 1-1/8"	<b>13RP6</b>
5/16"-18 x 2" threaded eye bolt for ½" - 5" clamps	<b>13IB</b>
5/16"-18 x 2½" threaded eye bolt for 6" - 12" clamps	<b>13IB6</b>



**Clamp Ferrules**

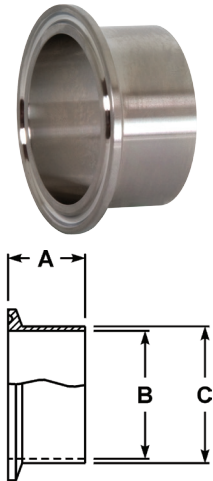
Fittings



**3 Short Weld Ferrules - 14WMP**

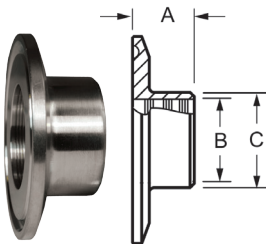
Tube OD	A	B	C	304 Stainless Steel Part Number	316L Stainless Steel Part Number
½"	.500	.370	.500	<b>14WMP-G50</b>	<b>14WMP-R50</b>
¾"	.500	.620	.750	<b>14WMP-G75</b>	<b>14WMP-R75</b>
1"	.500	.870	1.000	<b>14WMP-G100</b>	<b>14WMP-R100</b>
1½"	.500	1.370	1.500	<b>14WMP-G150</b>	<b>14WMP-R150</b>
2"	.500	1.870	2.000	<b>14WMP-G200</b>	<b>14WMP-R200</b>
2½"	.500	2.370	2.500	<b>14WMP-G250</b>	<b>14WMP-R250</b>
3"	.500	2.870	3.000	<b>14WMP-G300</b>	<b>14WMP-R300</b>
4"	.625	3.834	4.000	<b>14WMP-G400</b>	<b>14WMP-R400</b>
5"	.750	4.782	5.000	<b>14WMP-G500</b>	<b>14WMP-R500</b>
6"	.875	5.782	6.000	<b>14WMP-G600</b>	<b>14WMP-R600</b>
8"	.875	7.782	8.000	<b>14WMP-G800</b>	<b>14WMP-R800</b>
10"	.875	9.760	10.000	<b>14WMP-G1000</b>	<b>14WMP-R1000</b>
12"	.875	11.760	12.000	<b>14WMP-G1200</b>	<b>14WMP-R1200</b>

**3 Long Weld Ferrules - L14AM7**



Tube OD	A	B	C	304 Stainless Steel Part Number	316L Stainless Steel Part Number
½"	1.125	.370	.500	<b>L14AM7-G50</b>	<b>L14AM7-R50</b>
¾"	1.125	.620	.750	<b>L14AM7-G75</b>	<b>L14AM7-R75</b>
1"	1.125	.870	1.000	<b>L14AM7-G100</b>	<b>L14AM7-R100</b>
1½"	1.125	1.370	1.500	<b>L14AM7-G150</b>	<b>L14AM7-R150</b>
2"	1.125	1.870	2.000	<b>L14AM7-G200</b>	<b>L14AM7-R200</b>
2½"	1.125	2.370	2.500	<b>L14AM7-G250</b>	<b>L14AM7-R250</b>
3"	1.125	2.870	3.000	<b>L14AM7-G300</b>	<b>L14AM7-R300</b>
4"	1.125	3.834	4.000	<b>L14AM7-G400</b>	<b>L14AM7-R400</b>
5"	1.125	4.782	5.000	<b>L14AM7-G500</b>	<b>L14AM7-R500</b>
6"	1.500	5.782	6.000	<b>L14AM7-G600</b>	<b>L14AM7-R600</b>
8"	1.500	7.782	8.000	<b>L14AM7-G800</b>	<b>L14AM7-R800</b>
10"	1.750	9.760	10.000	<b>L14AM7-G1000</b>	<b>L14AM7-R1000</b>
12"	1.750	11.760	12.000	<b>L14AM7-G1200</b>	<b>L14AM7-R1200</b>

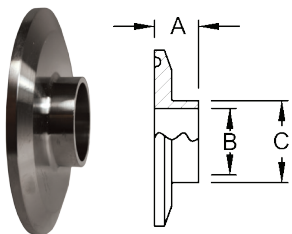
**3\* Reducing Roll-on Ferrules for Expanding - B31RMP**



Clamp End	Tube OD	A	B	C	304 Stainless Steel Part Number
1½"	1"	.750	1.007	1.160	<b>B31RMP-G150100</b>
2"	1"	.750	1.007	1.160	<b>B31RMP-G200100</b>
2"	1½"	1.125	1.507	1.676	<b>B31RMP-G200150</b>

\*Meets 3A Standard Number 63-03 when used to modify or repair existing on-site farm milk handling systems.

**3 Reducing Ferrules - B31WMP**

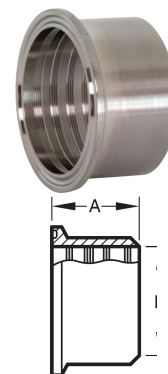


Tube OD	A	B	C	304 Stainless Steel Part Number	316L Stainless Steel Part Number
2" x 1"	.500	.870	1.000	<b>B31WMP-G200100</b>	<b>B31WMP-R200100</b>
2½" x 1½"	.500	1.370	1.500	<b>B31WMP-G250150</b>	<b>B31WMP-R250150</b>
2½" x 2"	.500	1.870	2.000	<b>B31WMP-G250200</b>	<b>B31WMP-R250200</b>
3" x 2"	.500	1.870	2.000	<b>B31WMP-G300200</b>	<b>B31WMP-R300200</b>
3" x 2½"	.500	2.370	2.500	<b>B31WMP-G300250</b>	<b>B31WMP-R300250</b>
4" x 3"	.625	2.870	3.000	<b>B31WMP-G400300</b>	<b>B31WMP-R400300</b>

### Clamp Ferrules

#### Roll-On Ferrules for Expanding - 14RMP

Tube OD	A	B	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	.750	1.005	<b>14RMP-G100</b>	<b>14RMP-R100</b>
1½"	1.125	1.505	<b>14RMP-G150</b>	<b>14RMP-R150</b>
2"	1.312	2.005	<b>14RMP-G200</b>	<b>14RMP-R200</b>
2½"	1.375	2.505	<b>14RMP-G250</b>	<b>14RMP-R250</b>
3"	1.437	3.005	<b>14RMP-G300</b>	<b>14RMP-R300</b>
4"	1.500	4.005	<b>14RMP-G400</b>	<b>14RMP-R400</b>
6"	2.000	6.005	<b>14RMP-G600</b>	---



Fittings

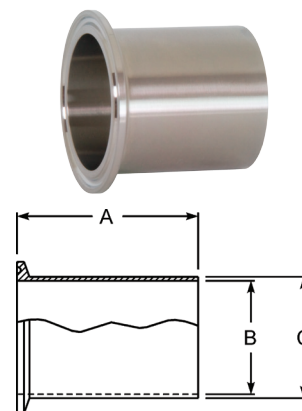
\*Meets 3A Standard Number 63-03 when used to modify or repair existing on-site farm milk handling systems.

#### Automatic Weld Ferrules - TL14AM7

**Approval:**

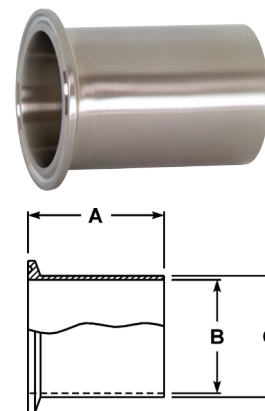
- meets ASME BPE-2012 specifications

Tube OD	A	B	C	316L Stainless Steel Part Number
½"	1.750	.370	.500	<b>TL14AM7-050PL</b>
¾"	1.750	.620	.750	<b>TL14AM7-075PL</b>
1"	1.750	.870	1.000	<b>TL14AM7-100PL</b>
1½"	1.750	1.370	1.500	<b>TL14AM7-150PL</b>
2"	2.250	1.870	2.000	<b>TL14AM7-200PL</b>
2½"	2.250	2.370	2.500	<b>TL14AM7-250PL</b>
3"	2.250	2.870	3.000	<b>TL14AM7-300PL</b>
4"	2.250	3.834	4.000	<b>TL14AM7-400PL</b>
6"	3.000	5.782	6.000	<b>TL14AM7-600PL</b>



#### Tank Ferrules (light duty) - 14WLMP

Tube OD	A	B	C	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	3.000	.870	1.000	<b>14WLMP-G100</b>	<b>14WLMP-R100</b>
1½"	3.000	1.370	1.500	<b>14WLMP-G150</b>	<b>14WLMP-R150</b>
2"	3.000	1.870	2.000	<b>14WLMP-G200</b>	<b>14WLMP-R200</b>
2½"	3.000	2.370	2.500	<b>14WLMP-G250</b>	<b>14WLMP-R250</b>
3"	4.000	2.870	3.000	<b>14WLMP-G300</b>	<b>14WLMP-R300</b>
4"	4.000	3.834	4.000	<b>14WLMP-G400</b>	<b>14WLMP-R400</b>
6"	6.000	5.782	6.000	<b>14WLMP-G600</b>	<b>14WLMP-R600</b>
8"	6.000	7.782	8.000	---	<b>14WLMP-R800</b>
10"	6.000	9.760	10.000	---	<b>14WLMP-R1000</b>
12"	6.000	11.760	12.000	---	<b>14WLMP-R1200</b>

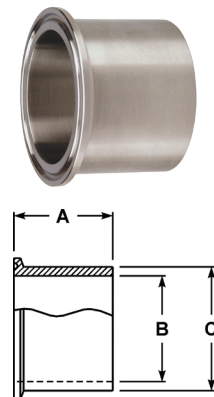


#### Tank Ferrules (heavy duty) - 14MPW

**Specification:**

- certified ASME materials

Tube OD	A	B	C	316L Stainless Steel Part Number
½"	1.625	.321	.502	<b>14MPW-R50</b>
¾"	1.625	.574	.750	<b>14MPW-R75</b>
1"	1.625	.870	1.160	<b>14MPW-R100</b>
1½"	1.625	1.370	1.676	<b>14MPW-R150</b>
2"	1.750	1.870	2.192	<b>14MPW-R200</b>
2½"	1.750	2.370	2.708	<b>14MPW-R250</b>
3"	1.813	2.870	3.224	<b>14MPW-R300</b>
4"	2.125	3.834	4.256	<b>14MPW-R400</b>
6"	2.500	5.758	6.192	<b>14MPW-R600</b>
8"	2.500	7.758	8.192	<b>14MPW-R800</b>



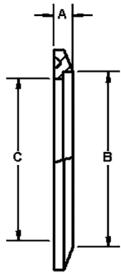
**Clamp Ferrules**

**Quick Weld Ferrules - 14QMP**

**Features:**

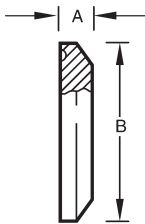
- 304 stainless construction
- just slip onto sanitary OD tube and weld
- no need to butt weld

Fittings



Tube OD	A	B	C	304 Stainless Steel Part Number
1"	.290	1.005	.870	<b>14QMP-G100</b>
1½"	.199	1.505	1.370	<b>14QMP-G150</b>
2"	.205	2.005	1.870	<b>14QMP-G200</b>
2½"	.210	2.505	2.370	<b>14QMP-G250</b>
3"	.257	3.005	2.870	<b>14QMP-G300</b>
4"	.235	4.005	3.834	<b>14QMP-G400</b>
6"	.321	6.005	5.782	<b>14QMP-G600</b>

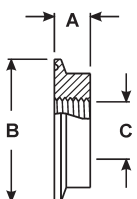
**3 Solid End Caps - 16AMP**



Tube OD	A	B	304 Stainless Steel Part Number	316L Stainless Steel Part Number
½" - ¾"	.187	.992	<b>16AMP-G50-75</b>	<b>16AMP-R50-75</b>
1" - 1½"	.250	1.984	<b>16AMP-G100-150</b>	<b>16AMP-R100-150</b>
2"	.250	2.516	<b>16AMP-G200</b>	<b>16AMP-R200</b>
2½"	.250	3.047	<b>16AMP-G250</b>	<b>16AMP-R250</b>
3"	.250	3.579	<b>16AMP-G300</b>	<b>16AMP-R300</b>
4"	.312	4.682	<b>16AMP-G400</b>	<b>16AMP-R400</b>
5"	.312	5.687	<b>16AMP-G500</b>	<b>16AMP-R500</b>
6"	.437	6.570	<b>16AMP-G600</b>	<b>16AMP-R600</b>
8"	.437	8.570	<b>16AMP-G800</b>	<b>16AMP-R800</b>
10"	.437	10.570	<b>16AMP-G1000</b>	<b>16AMP-R1000</b>
12"	.437	12.570	<b>16AMP-G1200</b>	<b>16AMP-R1200</b>

- specify if you are using a piping system or a tubing system when ordering

**Thermometer Caps -B23BMP**



Tube OD	A	B	C <sup>1</sup>	304 Stainless Steel Part Number	316L Stainless Steel Part Number
½"	.500	.993	¼ NPT	---	<b>B23BMP-R5014</b>
¾"	.500	.993	¼ NPT	---	<b>B23BMP-R7514</b>
1"	.625	1.984	½ NPT	<b>B23BMP-G100</b>	<b>B23BMP-R100</b>
1½"	.625	1.984	¾ NPT	<b>B23BMP-G150</b>	<b>B23BMP-R150</b>
2"	.625	2.516	¾ NPT	<b>B23BMP-G200</b>	<b>B23BMP-R200</b>
2½"	.625	3.047	¾ NPT	<b>B23BMP-G250</b>	<b>B23BMP-R250</b>
3"	.625	3.579	¾ NPT	<b>B23BMP-G300</b>	<b>B23BMP-R300</b>
4"	.625	4.682	¾ NPT	<b>B23BMP-G400</b>	<b>B23BMP-R400</b>

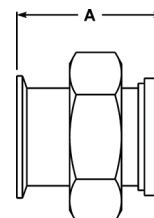
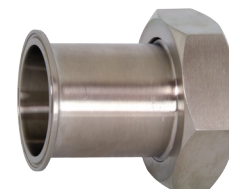
<sup>1</sup> other NPT tap sizes available, call Dixon Sanitary 800.789.1718

### Clamp Adapters

#### Clamp x Plain Bevel Seat Adapters with Hex Nut - 17MP-14

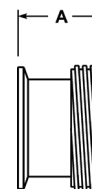
Fittings

Tube OD	A	304 Stainless Steel Part Number
1"	3.000	<b>17MP-14-G100</b>
1½"	3.000	<b>17MP-14-G150</b>
2"	3.000	<b>17MP-14-G200</b>
2½"	3.500	<b>17MP-14-G250</b>
3"	3.750	<b>17MP-14-G300</b>
4"	4.000	<b>17MP-14-G400</b>



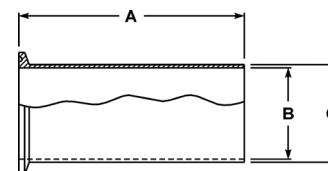
#### Clamp x Threaded Bevel Seat Adapters - 17MP-15

Tube OD	A	304 Stainless Steel Part Number
1"	1.843	<b>17MP-15-G100</b>
1½"	1.843	<b>17MP-15-G150</b>
2"	1.875	<b>17MP-15-G200</b>
2½"	2.000	<b>17MP-15-G250</b>
3"	2.031	<b>17MP-15-G300</b>
4"	2.156	<b>17MP-15-G400</b>



#### Tygon® Hose Adapters - 14MPHT

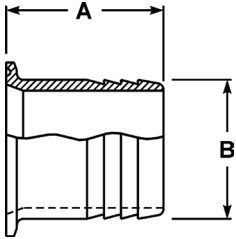
Tube OD	A	B	C	316L Stainless Steel Part Number
½"	4.000	.370	.500	<b>14MPHT-R50</b>
¾"	4.000	.620	.750	<b>14MPHT-R75</b>
1"	4.500	.870	1.000	<b>14MPHT-R100</b>
1½"	4.500	1.370	1.500	<b>14MPHT-R150</b>
2"	4.500	1.870	2.000	<b>14MPHT-R200</b>
2½"	4.500	2.370	2.500	<b>14MPHT-R250</b>
3"	4.500	2.870	3.000	<b>14MPHT-R300</b>
4"	4.625	3.834	4.000	<b>14MPHT-R400</b>
6"	6.000	5.782	6.000	<b>14MPHT-R600</b>



**Clamp Adapters**

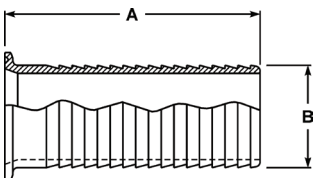
**Rubber Hose Adapters - 14MPHR**

Fittings



Tube OD	Hose Size	A	B	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1/2"	1/8"	1.250	.125	---	<b>14MPHR-R50125</b>
	1/4"	1.500	.250	---	<b>14MPHR-R5025</b>
	3/8"	1.500	.375	---	<b>14MPHR-R50375</b>
	1/2"	1.500	.500	---	<b>14MPHR-R50</b>
	3/4"	1.500	.750	---	<b>14MPHR-R5075</b>
3/4"	1/8"	1.500	.125	---	<b>14MPHR-R75125</b>
	1/4"	1.500	.250	---	<b>14MPHR-R7525</b>
	3/8"	1.500	.375	---	<b>14MPHR-R75375</b>
	1/2"	1.500	.500	---	<b>14MPHR-R7550</b>
	3/4"	1.500	.750	---	<b>14MPHR-R75</b>
1"	3/8"	1.500	.375	<b>14MPHR-G100375</b>	<b>14MPHR-R100375</b>
	1/2"	1.500	.500	<b>14MPHR-G10050</b>	<b>14MPHR-R10050</b>
	3/4"	1.688	.750	<b>14MPHR-G10075</b>	<b>14MPHR-R10075</b>
	1"	1.688	1.000	<b>14MPHR-G100</b>	<b>14MPHR-R100</b>
1 1/2"	1/8"	1.500	.125	<b>14MPHR-G150125</b>	<b>14MPHR-R150125</b>
	1/4"	1.500	.250	---	<b>14MPHR-R15025</b>
	3/8"	1.500	.375	<b>14MPHR-G150375</b>	<b>14MPHR-R150375</b>
	1/2"	1.500	.500	<b>14MPHR-G15050</b>	<b>14MPHR-R15050</b>
	5/8"	1.500	.625	<b>14MPHR-G150625</b>	<b>14MPHR-R150625</b>
	3/4"	1.500	.750	<b>14MPHR-G15075</b>	<b>14MPHR-R15075</b>
	1"	1.687	1.000	<b>14MPHR-G150100</b>	<b>14MPHR-R150100</b>
	1 1/4"	1.689	1.250	---	<b>14MPHR-R150-125</b>
2"	1 1/2"	2.312	1.500	<b>14MPHR-G200150</b>	<b>14MPHR-R200150</b>
	2"	2.312	2.000	<b>14MPHR-G200</b>	<b>14MPHR-R200</b>
2 1/2"	2 1/2"	2.344	2.500	<b>14MPHR-G250</b>	<b>14MPHR-R250</b>
3"	3"	3.094	3.000	<b>14MPHR-G300</b>	<b>14MPHR-R300</b>
4"	4"	3.406	4.000	<b>14MPHR-G400</b>	<b>14MPHR-R400</b>
6"	6"	3.406	6.000	<b>14MPHR-G600</b>	<b>14MPHR-R600</b>
8"	8"	3.406	8.000	<b>14MPHR-G800</b>	<b>14MPHR-R800</b>

**Brewery Hose Barb Adapters - 14MPHRL**



**Feature:**

- suitable for use with band clamps

Size	A	B	304 Stainless Steel Part Number
1"	3.500	1.045	<b>14MPHRL100</b>
1 1/2"	5.000	1.545	<b>14MPHRL150</b>
2"	5.000	2.045	<b>14MPHRL200</b>
2 1/2"	5.500	2.545	<b>14MPHRL250</b>
3"	5.500	3.045	<b>14MPHRL300</b>
4"	5.500	4.045	<b>14MPHRL400</b>

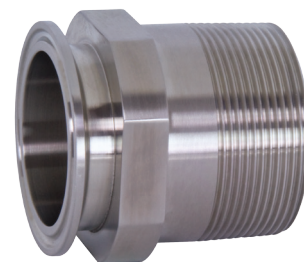


Use of PVC tubing requires special techniques to prevent leakage. All assembly work must be done with heated tube. Cold durometer is 90 as opposed to rubber hose at 65 to 70 durometer. Banding buckles must be at 180° from one another.

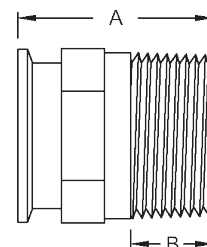
### Clamp Adapters

#### Male NPT Adapters - 21MP

Tube OD	NPT Size	A	B	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1/2"	1/8"	2.000	.392	---	<b>21MP-R50125</b>
	1/4"	2.000	.595	---	<b>21MP-R5025</b>
	3/8"	2.000	.600	---	<b>21MP-R50375</b>
	1/2"	1.625	.782	---	<b>21MP-R50</b>
	3/4"	2.000	.794	---	<b>21MP-R5075</b>
3/4"	1/4"	2.000	.595	---	<b>21MP-R7525</b>
	3/8"	2.000	.600	---	<b>21MP-R75375</b>
	1/2"	2.000	.782	---	<b>21MP-R7550</b>
	3/4"	1.787	.794	---	<b>21MP-R75</b>
	1"	2.250	.985	---	<b>21MP-R75100</b>
1"	1/8"	2.187	.392	<b>21MP-G100-125</b>	<b>21MP-R100-125</b>
	1/4"	2.161	.595	<b>21MP-G10025</b>	<b>21MP-R10025</b>
	3/8"	2.187	.600	<b>21MP-G100375</b>	<b>21MP-R100375</b>
	1/2"	2.187	.782	<b>21MP-G10050</b>	<b>21MP-R10050</b>
	3/4"	2.187	.794	<b>21MP-G10075</b>	<b>21MP-R10075</b>
	1"	2.250	.985	<b>21MP-G100</b>	<b>21MP-R100</b>
	1 1/4"	2.438	1.009	<b>21MP-G100125</b>	<b>21MP-R100125</b>
	1 1/2"	2.438	1.025	<b>21MP-G100150</b>	<b>21MP-R100150</b>
	2"	2.625	1.058	<b>21MP-G100200</b>	<b>21MP-R100200</b>
1 1/2"	1/8"	2.187	.392	---	<b>21MP-R150-125</b>
	1/4"	2.161	.595	<b>21MP-G15025</b>	<b>21MP-R15025</b>
	3/8"	2.187	.600	<b>21MP-G150375</b>	<b>21MP-R150375</b>
	1/2"	2.187	.782	<b>21MP-G15050</b>	<b>21MP-R15050</b>
	3/4"	2.187	.794	<b>21MP-G15075</b>	<b>21MP-R15075</b>
	1"	2.437	.985	<b>21MP-G150100</b>	<b>21MP-R150100</b>
	1 1/4"	2.438	1.009	<b>21MP-G150125</b>	<b>21MP-R150125</b>
	1 1/2"	2.250	1.025	<b>21MP-G150</b>	<b>21MP-R150</b>
	2"	2.625	1.058	<b>21MP-G150200</b>	<b>21MP-R150200</b>
2 1/2"	3.281	1.571	<b>21MP-G150250</b>	<b>21MP-R150250</b>	
2"	1/4"	2.469	1.009	<b>21MP-G200125</b>	<b>21MP-R200125</b>
	1/2"	2.188	.782	<b>21MP-G20050</b>	<b>21MP-R20050</b>
	3/4"	2.188	.794	<b>21MP-G20075</b>	<b>21MP-R20075</b>
	1"	2.469	.985	<b>21MP-G200100</b>	<b>21MP-R200100</b>
	1 1/2"	2.625	1.009	<b>21MP-G200150</b>	<b>21MP-R200150</b>
	2"	2.638	1.058	<b>21MP-G200</b>	<b>21MP-R200</b>
	2 1/2"	3.125	1.571	<b>21MP-G200250</b>	<b>21MP-R200250</b>
	3"	3.500	1.634	<b>21MP-G200300</b>	<b>21MP-R200300</b>
4"	3.500	1.734	<b>21MP-G200400</b>	<b>21MP-R200400</b>	
2 1/2"	1/2"	2.781	.782	<b>21MP-G25050</b>	---
	1"	2.781	.782	<b>21MP-G250100</b>	<b>21MP-R250100</b>
	1 1/2"	2.781	1.025	<b>21MP-G250150</b>	<b>21MP-R250150</b>
	2"	2.781	1.058	<b>21MP-G250200</b>	<b>21MP-R250200</b>
	2 1/2"	2.875	1.571	<b>21MP-G250</b>	<b>21MP-R250</b>
	3"	3.690	1.634	<b>21MP-G250300</b>	<b>21MP-R250300</b>
3"	1"	3.000	.985	<b>21MP-G300100</b>	<b>21MP-R300100</b>
	1 1/2"	3.000	1.009	<b>21MP-G300150</b>	<b>21MP-R300150</b>
	2"	3.000	1.058	<b>21MP-G300200</b>	<b>21MP-R300200</b>
	2 1/2"	3.000	1.571	<b>21MP-G300250</b>	<b>21MP-R300250</b>
	3"	3.070	1.634	<b>21MP-G300</b>	<b>21MP-R300</b>
	4"	3.500	1.734	<b>21MP-G300400</b>	<b>21MP-R300400</b>
4"	3"	3.813	1.634	<b>21MP-G400300</b>	<b>21MP-R400300</b>
	4"	3.155	1.734	<b>21MP-G400</b>	<b>21MP-R400</b>
6"	6"	4.500	1.946	<b>21MP-G600</b>	<b>21MP-R600</b>



Fittings

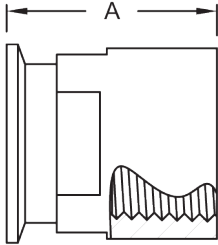
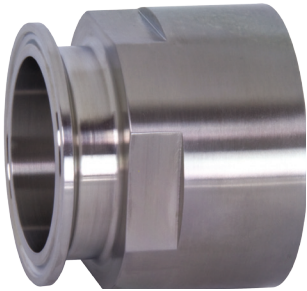


• see pages K-10 to K-11 for Pipe Thread data

**Clamp Adapters**

**Female NPT Adapters - 22MP**

Fittings



Tube OD	NPT Size	A	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1/2"	1/8"	1.250	---	<b>22MP-R50-125</b>
	1/4"	1.500	---	<b>22MP-R5025</b>
	3/8"	1.500	---	<b>22MP-R50375</b>
	1/2"	1.500	---	<b>22MP-R50</b>
	3/4"	1.500	---	<b>22MP-R5075</b>
	1"	1.625	---	<b>22MP-R50100</b>
	1 1/2"	2.250	---	<b>22MP-R50150</b>
3/4"	1/8"	1.250	---	<b>22MP-R75125</b>
	1/4"	1.500	---	<b>22MP-R7525</b>
	3/8"	1.500	---	<b>22MP-R75375</b>
	1/2"	1.625	---	<b>22MP-R7550</b>
	3/4"	1.625	---	<b>22MP-R75</b>
	1"	1.625	---	<b>22MP-R75100</b>
	1"	1/8"	3.281	<b>22MP-G100-125</b>
1/4"		1.625	<b>22MP-G10025</b>	<b>22MP-R10025</b>
3/8"		1.625	<b>22MP-G100375</b>	<b>22MP-R100375</b>
1/2"		1.625	<b>22MP-G10050</b>	<b>22MP-R10050</b>
3/4"		1.625	<b>22MP-G10075</b>	<b>22MP-R10075</b>
1"		1.625	<b>22MP-G100</b>	<b>22MP-R100</b>
1 1/4"		1.625	<b>22MP-G100125</b>	<b>22MP-R100125</b>
1 1/2"		1.625	<b>22MP-G100150</b>	<b>22MP-R100150</b>
2"		2.500	<b>22MP-G100200</b>	<b>22MP-R100200</b>
1 1/2"		1/8"	2.500	<b>22MP-G150-125</b>
	1/4"	1.625	<b>22MP-G15025</b>	<b>22MP-R15025</b>
	3/8"	1.625	<b>22MP-G150375</b>	<b>22MP-R150375</b>
	1/2"	1.625	<b>22MP-G15050</b>	<b>22MP-R15050</b>
	3/4"	1.625	<b>22MP-G15075</b>	<b>22MP-R15075</b>
	1"	2.250	<b>22MP-G150100</b>	<b>22MP-R150100</b>
	1 1/4"	2.250	<b>22MP-G150125</b>	<b>22MP-R150125</b>
	1 1/2"	2.250	<b>22MP-G150</b>	<b>22MP-R150</b>
	2"	2.500	<b>22MP-G150200</b>	<b>22MP-R150200</b>
	2 1/2"	2.500	<b>22MP-G150250</b>	---
2"	3"	2.500	---	<b>22MP-R150300</b>
	1/4"	1.687	<b>22MP-G20025</b>	<b>22MP-R20025</b>
	1/2"	1.687	<b>22MP-G20050</b>	<b>22MP-R20050</b>
	3/4"	1.687	<b>22MP-G20075</b>	<b>22MP-R20075</b>
	1"	1.687	<b>22MP-G200100</b>	<b>22MP-R200100</b>
	1 1/4"	1.656	<b>22MP-G200125</b>	<b>22MP-R200125</b>
	1 1/2"	2.344	<b>22MP-G200150</b>	<b>22MP-R200150</b>
	2"	2.406	<b>22MP-G200</b>	<b>22MP-R200</b>
	2 1/2"	2.406	<b>22MP-G200250</b>	<b>22MP-R200250</b>
2 1/2"	3"	2.406	<b>22MP-G200300</b>	<b>22MP-R200300</b>
	4"	2.406	<b>22MP-G200400</b>	---
	3/4"	1.313	<b>22MP-G25075</b>	<b>22MP-R25075</b>
	1"	1.313	<b>22MP-G250100</b>	<b>22MP-R250100</b>
	1 1/2"	1.656	<b>22MP-G250150</b>	<b>22MP-R250150</b>
	2"	2.093	<b>22MP-G250200</b>	<b>22MP-R250200</b>
3"	2 1/2"	2.187	<b>22MP-G250</b>	<b>22MP-R250</b>
	3"	2.187	<b>22MP-G250300</b>	<b>22MP-R250300</b>
	1"	2.187	<b>22MP-G300100</b>	<b>22MP-R300100</b>
	1 1/2"	2.187	<b>22MP-G300150</b>	<b>22MP-R300150</b>
	2"	2.187	<b>22MP-G300200</b>	<b>22MP-R300200</b>
4"	2 1/2"	2.187	<b>22MP-G300250</b>	---
	3"	2.187	<b>22MP-G300</b>	<b>22MP-R300</b>
	1 1/2"	2.187	<b>22MP-G400150</b>	<b>22MP-R400150</b>
	2"	2.187	<b>22MP-G400200</b>	<b>22MP-R400200</b>
	2 1/2"	2.187	<b>22MP-G400250</b>	<b>22MP-R400250</b>
	3"	2.187	<b>22MP-G400300</b>	<b>22MP-R400300</b>
4"	4"	2.625	<b>22MP-G400</b>	<b>22MP-R400</b>
	6"	3.250	<b>22MP-G400600</b>	---

• see pages K-10 to K-11 for Pipe Thread data



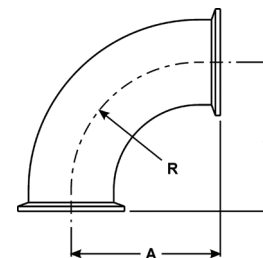
**Clamp Elbows**

90° Clamp Elbows - B2CMP 

Tube OD	A	R	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1/2"	1.625	1.125	---	<b>B2CMP-R50</b>
3/4"	1.625	1.125	---	<b>B2CMP-R75</b>
1/2"	3.500	1.125	---	<b>B2CMPL-R50</b>
3/4"	3.500	1.125	---	<b>B2CMPL-R75</b>
1"	2.000	1.500	<b>B2CMP-G100</b>	<b>B2CMP-R100</b>
1 1/2"	2.750	2.250	<b>B2CMP-G150</b>	<b>B2CMP-R150</b>
2"	3.500	3.000	<b>B2CMP-G200</b>	<b>B2CMP-R200</b>
2 1/2"	4.250	3.750	<b>B2CMP-G250</b>	<b>B2CMP-R250</b>
3"	5.000	4.500	<b>B2CMP-G300</b>	<b>B2CMP-R300</b>
4"	6.625	6.000	<b>B2CMP-G400</b>	<b>B2CMP-R400</b>
6"	9.875	9.000	<b>B2CMP-G600</b>	<b>B2CMP-R600</b>
8"	12.875	12.000	<b>B2CMP-G800</b>	<b>B2CMP-R800</b>
10"	15.875	15.000	<b>B2CMP-G1000</b>	---
12"	18.875	18.000	<b>B2CMP-G1200</b>	---



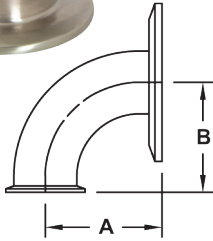
Fittings



Clamp Elbows

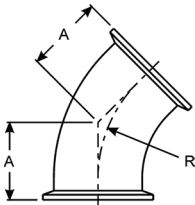
Fittings

 90° Non-Tapered Reducing Clamp Elbows - B2CM31MP




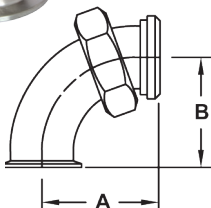
Tube OD	A	B	304 Stainless Steel Part Number	316L Stainless Steel Part Number
2" x 1½"	2.750	2.750	<b>B2CM31MPG200150</b>	<b>B2CM31MPR200150</b>
2½" x 2"	3.500	3.500	<b>B2CM31MPG250200</b>	<b>B2CM31MPR250200</b>
3" x 2"	3.500	3.500	<b>B2CM31MPG300200</b>	<b>B2CM31MPR300200</b>
3" x 2½"	4.250	4.250	<b>B2CM31MPG300250</b>	<b>B2CM31MPR300250</b>

 45° Clamp Elbows - B2KMP



Tube OD	A	R	304 Stainless Steel Part Number	316L Stainless Steel Part Number
½"	.966	1.125	---	<b>B2KMP-R50</b>
¾"	.966	1.125	---	<b>B2KMP-R75</b>
1"	1.125	1.500	<b>B2KMP-G100</b>	<b>B2KMP-R100</b>
1½"	1.437	2.250	<b>B2KMP-G150</b>	<b>B2KMP-R150</b>
2"	1.750	3.000	<b>B2KMP-G200</b>	<b>B2KMP-R200</b>
2½"	2.062	3.750	<b>B2KMP-G250</b>	<b>B2KMP-R250</b>
3"	2.375	4.500	<b>B2KMP-G300</b>	<b>B2KMP-R300</b>
4"	3.125	6.000	<b>B2KMP-G400</b>	<b>B2KMP-R400</b>
6"	4.625	9.000	<b>B2KMP-G600</b>	<b>B2KMP-R600</b>
8"	5.875	12.000	<b>B2KMP-G800</b>	<b>B2KMP-R800</b>
10"	7.125	15.000	<b>B2KMP-G1000</b>	---
12"	8.375	18.000	<b>B2KMP-G1200</b>	---

 90° Clamp by Plain Bevel Seat with Hex Nut Elbows - B2FMP-14

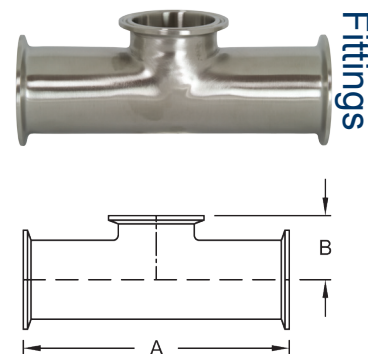


Tube OD	A	B	304 Stainless Steel Part Number
1"	2.218	2.000	<b>B2FMP-14-G100</b>
1½"	2.968	2.750	<b>B2FMP-14-G150</b>
2"	3.750	3.500	<b>B2FMP-14-G200</b>
2½"	4.625	4.250	<b>B2FMP-14-G250</b>
3"	5.406	5.000	<b>B2FMP-14-G300</b>
4"	7.031	6.625	<b>B2FMP-14-G400</b>

### Clamp Tees

#### Short Outlet Tees - B7MPS

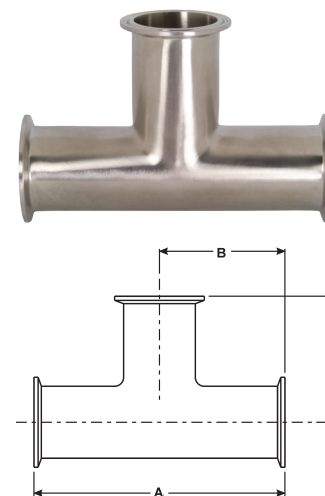
Tube OD	A	B	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	4.750	1.125	<b>B7MPS-G100</b>	<b>B7MPS-R100</b>
1½"	5.500	1.375	<b>B7MPS-G150</b>	<b>B7MPS-R150</b>
2"	7.000	1.625	<b>B7MPS-G200</b>	<b>B7MPS-R200</b>
2½"	7.000	1.875	<b>B7MPS-G250</b>	<b>B7MPS-R250</b>
3"	7.500	2.125	<b>B7MPS-G300</b>	<b>B7MPS-R300</b>
4"	9.000	2.750	<b>B7MPS-G400</b>	<b>B7MPS-R400</b>



Fittings

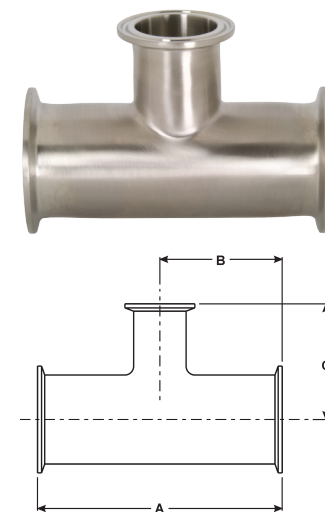
#### Clamp Tees - B7MP

Tube OD	A	B	304 Stainless Steel Part Number	316L Stainless Steel Part Number
½"	4.750	2.375	---	<b>B7MP-R50</b>
¾"	5.000	2.500	---	<b>B7MP-R75</b>
1"	4.750	2.375	<b>B7MP-G100</b>	<b>B7MP-R100</b>
1½"	5.500	2.750	<b>B7MP-G150</b>	<b>B7MP-R150</b>
2"	7.000	3.500	<b>B7MP-G200</b>	<b>B7MP-R200</b>
2½"	7.000	3.500	<b>B7MP-G250</b>	<b>B7MP-R250</b>
3"	7.500	3.750	<b>B7MP-G300</b>	<b>B7MP-R300</b>
4"	9.000	4.500	<b>B7MP-G400</b>	<b>B7MP-R400</b>
6"	13.000	6.500	<b>B7MP-G600</b>	<b>B7MP-R600</b>
8"	15.750	7.875	<b>B7MP-G800</b>	<b>B7MP-R800</b>
10"	18.750	9.735	<b>B7MP-G1000</b>	---
12"	21.750	10.735	<b>B7MP-G1200</b>	---



#### Clamp Reducing Tees - B7RMP

Tube OD	A	B	C	304 Stainless Steel Part Number	316L Stainless Steel Part Number
¾" x ½"	5.000	2.500	2.500	---	<b>B7RMP-R7550</b>
1" x ½"	5.250	2.625	2.625	---	<b>B7RMP-R10050</b>
1" x ¾"	5.250	2.625	2.625	---	<b>B7RMP-R10075</b>
1½" x ½"	5.750	2.875	2.875	---	<b>B7RMP-R15050</b>
1½" x ¾"	5.250	2.875	2.875	---	<b>B7RMP-R15075</b>
1½" x 1"	4.312	2.156	1.875	<b>B7RMP-G150100</b>	<b>B7RMP-R150100</b>
2" x ½"	6.750	3.375	3.125	---	<b>B7RMP-R20050</b>
2" x ¾"	6.750	3.375	3.125	---	<b>B7RMP-R20075</b>
2" x 1"	5.125	2.562	2.125	<b>B7RMP-G200100</b>	<b>B7RMP-R200100</b>
2" x 1½"	5.125	2.562	2.406	<b>B7RMP-G200150</b>	<b>B7RMP-R200150</b>
2½" x 1½"	5.688	2.844	2.656	<b>B7RMP-G250150</b>	<b>B7RMP-R250150</b>
2½" x 2"	5.688	2.844	2.812	<b>B7RMP-G250200</b>	<b>B7RMP-R250200</b>
3" x 1½"	6.188	3.093	2.906	<b>B7RMP-G300150</b>	<b>B7RMP-R300150</b>
3" x 2"	6.188	3.093	3.063	<b>B7RMP-G300200</b>	<b>B7RMP-R300200</b>
3" x 2½"	6.188	3.093	3.093	<b>B7RMP-G300250</b>	<b>B7RMP-R300250</b>
4" x 1½"	8.125	4.063	3.406	<b>B7RMP-G400150</b>	<b>B7RMP-R400150</b>
4" x 2"	8.125	4.063	3.563	<b>B7RMP-G400200</b>	<b>B7RMP-R400200</b>
4" x 2½"	8.125	4.063	3.594	<b>B7RMP-G400250</b>	<b>B7RMP-R400250</b>
4" x 3"	8.125	4.063	3.594	<b>B7RMP-G400300</b>	<b>B7RMP-R400300</b>

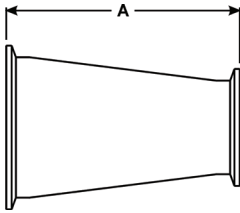


F

**Clamp Reducers**

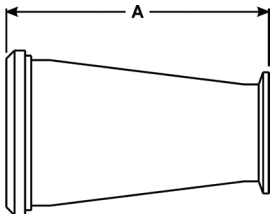
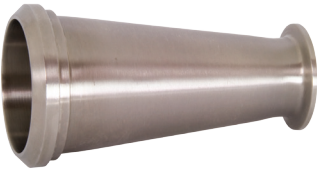
**Clamp Concentric Reducers - B3114MP**

Fittings



Tube OD	A	304 Stainless Steel Part Number	316L Stainless Steel Part Number
3/4" x 1/2"	2.000	---	<b>B3114MP-R7550</b>
1" x 1/2"	3.000	---	<b>B3114MP-R10050</b>
1" x 3/4"	2.000	---	<b>B3114MP-R10075</b>
1 1/2" x 1/2"	5.000	---	<b>B3114MP-R15050</b>
1 1/2" x 3/4"	4.000	---	<b>B3114MP-R15075</b>
1 1/2" x 1"	3.000	<b>B3114MP-G150100</b>	<b>B3114MP-R150100</b>
2" x 1/2"	7.000	---	<b>B3114MP-R20050</b>
2" x 3/4"	6.000	---	<b>B3114MP-R20075</b>
2" x 1"	5.000	<b>B3114MP-G200100</b>	<b>B3114MP-R200100</b>
2" x 1 1/2"	3.000	<b>B3114MP-G200150</b>	<b>B3114MP-R200150</b>
2 1/2" x 1 1/2"	5.000	<b>B3114MP-G250150</b>	<b>B3114MP-R250150</b>
2 1/2" x 2"	3.000	<b>B3114MP-G250200</b>	<b>B3114MP-R250200</b>
3" x 1"	9.000	<b>B3114MP-G300100</b>	<b>B3114MP-R300100</b>
3" x 1 1/2"	7.000	<b>B3114MP-G300150</b>	<b>B3114MP-R300150</b>
3" x 2"	5.000	<b>B3114MP-G300200</b>	<b>B3114MP-R300200</b>
3" x 2 1/2"	3.000	<b>B3114MP-G300250</b>	<b>B3114MP-R300250</b>
4" x 1 1/2"	11.125	<b>B3114MP-G400150</b>	<b>B3114MP-R400150</b>
4" x 2"	9.125	<b>B3114MP-G400200</b>	<b>B3114MP-R400200</b>
4" x 2 1/2"	7.125	<b>B3114MP-G400250</b>	<b>B3114MP-R400250</b>
4" x 3"	5.125	<b>B3114MP-G400300</b>	<b>B3114MP-R400300</b>
6" x 2"	6.875	<b>B3114MP-G600200</b>	<b>B3114MP-R600200</b>
6" x 3"	6.875	<b>B3114MP-G600300</b>	<b>B3114MP-R600300</b>
6" x 4"	7.000	<b>B3114MP-G600400</b>	<b>B3114MP-R600400</b>
8" x 4"	7.500	<b>B3114MP-G800400</b>	<b>B3114MP-R800400</b>
8" x 6"	7.750	<b>B3114MP-G800600</b>	<b>B3114MP-R800600</b>


**Plain Bevel Seat x Clamp Concentric Reducers - B14C31**



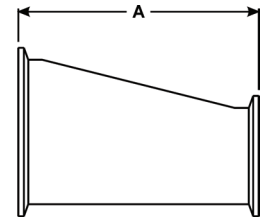
Tube OD	A	304 Stainless Steel Part Number
1 1/2" x 1"	3.218	<b>B14C31-G150100</b> <sup>1</sup>
2" x 1 1/2"	3.250	<b>B14C31-G200150</b>
2 1/2" x 1 1/2"	5.375	<b>B14C31-G250150</b>
2 1/2" x 2"	3.375	<b>B14C31-G250200</b>
3" x 1 1/2"	7.406	<b>B14C31-G300150</b>
3" x 2"	5.406	<b>B14C31-G300200</b>
3" x 2 1/2"	3.406	<b>B14C31-G300250</b>

<sup>1</sup> comes with 13H-G150, hex nut cannot be assembled on fitting after welding

## Clamp Reducers

Clamp Eccentric Reducers - B3214MP 

Tube OD	A	304 Stainless Steel Part Number	316L Stainless Steel Part Number
3/4" x 1/2"	2.000	---	<b>B3214MP-R7550</b>
1" x 1/2"	3.000	---	<b>B3214MP-R10050</b>
1" x 3/4"	2.000	---	<b>B3214MP-R10075</b>
1 1/2" x 1/2"	5.000	---	<b>B3214MP-R15050</b>
1 1/2" x 3/4"	4.000	---	<b>B3214MP-R15075</b>
1 1/2" x 1"	3.000	<b>B3214MP-G150100</b>	<b>B3214MP-R150100</b>
2" x 1 1/2"	7.000	---	<b>B3214MP-R20050</b>
2" x 3/4"	6.000	---	<b>B3214MP-R20075</b>
2" x 1"	5.000	<b>B3214MP-G200100</b>	<b>B3214MP-R200100</b>
2" x 1 1/2"	3.000	<b>B3214MP-G200150</b>	<b>B3214MP-R200150</b>
2 1/2" x 1 1/2"	5.000	<b>B3214MP-G250150</b>	<b>B3214MP-R250150</b>
2 1/2" x 2"	3.000	<b>B3214MP-G250200</b>	<b>B3214MP-R250200</b>
3" x 1"	9.000	<b>B3214MP-G300100</b>	<b>B3214MP-R300100</b>
3" x 1 1/2"	7.000	<b>B3214MP-G300150</b>	<b>B3214MP-R300150</b>
3" x 2"	5.000	<b>B3214MP-G300200</b>	<b>B3214MP-R300200</b>
3" x 2 1/2"	3.000	<b>B3214MP-G300250</b>	<b>B3214MP-R300250</b>
4" x 1 1/2"	11.125	<b>B3214MP-G400150</b>	<b>B3214MP-R400150</b>
4" x 2"	9.125	<b>B3214MP-G400200</b>	<b>B3214MP-R400200</b>
4" x 2 1/2"	7.125	<b>B3214MP-G400250</b>	<b>B3214MP-R400250</b>
4" x 3"	5.125	<b>B3214MP-G400300</b>	<b>B3214MP-R400300</b>
6" x 3"	6.875	<b>B3214MP-G600300</b>	<b>B3214MP-R600300</b>
6" x 4"	7.000	<b>B3214MP-G600400</b>	<b>B3214MP-R600400</b>
8" x 4"	7.500	<b>B3214MP-G800400</b>	<b>B3214MP-R800400</b>
8" x 6"	7.750	<b>B3214MP-G800600</b>	<b>B3214MP-R800600</b>



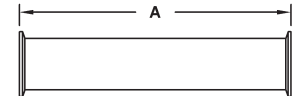
Fittings

## Miscellaneous Clamp Configurations

Spool Assembly - SPOOL 

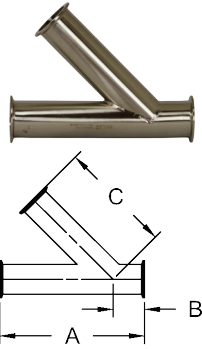
Tube OD	A (minimum length)	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1/2"	2.25	<b>SPOOL*-G050</b>	<b>SPOOL*-R050</b>
3/4"	2.25	<b>SPOOL*-G075</b>	<b>SPOOL*-R075</b>
1"	2.25	<b>SPOOL*-G100</b>	<b>SPOOL*-R100</b>
1 1/2"	2.25	<b>SPOOL*-G150</b>	<b>SPOOL*-R150</b>
2"	2.25	<b>SPOOL*-G200</b>	<b>SPOOL*-R200</b>
2 1/2"	2.25	<b>SPOOL*-G250</b>	<b>SPOOL*-R250</b>
3"	2.25	<b>SPOOL*-G300</b>	<b>SPOOL*-R300</b>
4"	2.25	<b>SPOOL*-G400</b>	<b>SPOOL*-R400</b>
6"	3.00	<b>SPOOL*-G600</b>	<b>SPOOL*-R600</b>

\* overall length in inches



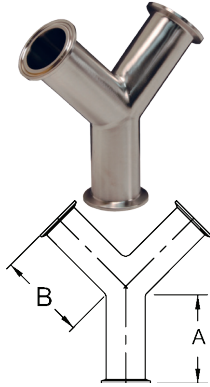
Miscellaneous Clamp Configurations

Fittings



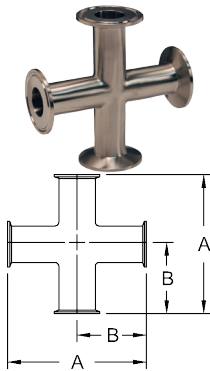
**3** Clamp Laterals - B28AMP

Tube OD	A	B	C	316L Stainless Steel Part Number
1"	7.000	1.500	5.500	<b>B28AMP-R100</b>
1½"	8.375	1.688	6.688	<b>B28AMP-R150</b>
2"	9.750	2.125	7.625	<b>B28AMP-R200</b>
2½"	11.000	2.000	9.000	<b>B28AMP-R250</b>
3"	11.750	2.375	9.375	<b>B28AMP-R300</b>
4"	14.062	2.640	11.312	<b>B28AMP-R400</b>



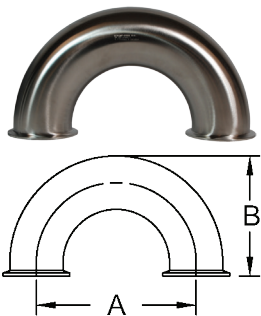
**3** Clamp True Wyes - B28BMP

Tube OD	A	B	316L Stainless Steel Part Number
1"	2.500	2.938	<b>B28BMP-R100</b>
1½"	2.500	2.938	<b>B28BMP-R150</b>
2"	3.125	3.750	<b>B28BMP-R200</b>
2½"	3.870	4.625	<b>B28BMP-R250</b>
3"	4.500	5.375	<b>B28BMP-R300</b>
4"	6.000	6.000	<b>B28BMP-R400</b>



**3** Clamp Crosses - B9MP

Tube OD	A	B	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	4.750	2.375	<b>B9MP-G100</b>	<b>B9MP-R100</b>
1½"	5.500	2.750	<b>B9MP-G150</b>	<b>B9MP-R150</b>
2"	7.000	3.500	<b>B9MP-G200</b>	<b>B9MP-R200</b>
2½"	7.000	3.500	<b>B9MP-G250</b>	<b>B9MP-R250</b>
3"	7.500	3.750	<b>B9MP-G300</b>	<b>B9MP-R300</b>
4"	9.000	4.500	<b>B9MP-G400</b>	<b>B9MP-R400</b>



**3** Clamp 180° Return Bends - B2WUMP

- bends are 1.5 x tube diameter

Tube OD	A	B	316L Stainless Steel Part Number
1"	3.000	2.500	<b>B2WUMP-R100</b>
1½"	4.500	3.500	<b>B2WUMP-R150</b>
2"	6.000	4.500	<b>B2WUMP-R200</b>
2½"	7.500	5.500	<b>B2WUMP-R250</b>
3"	9.000	6.500	<b>B2WUMP-R300</b>
4"	12.000	8.625	<b>B2WUMP-R400</b>

Clamp End Protection Covers - BCC



**Material:**

- vinyl plastic


**Features:**

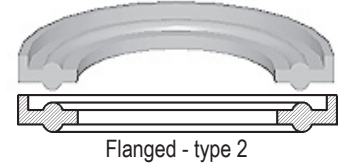
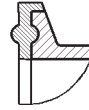
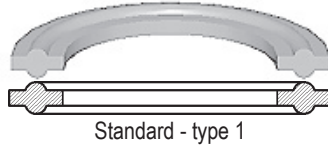
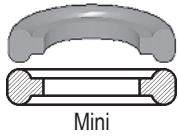
- Use these covers to protect all clamp ends on fittings, valves, filters and pumps.

Size	Part Number
½"	<b>BCC-050</b>
¾"	<b>BCC-075</b>
1"	<b>BCC-100</b>
1½"	<b>BCC-150</b>
2"	<b>BCC-200</b>
2½"	<b>BCC-250</b>
3"	<b>BCC-300</b>
4"	<b>BCC-400</b>
6"	<b>BCC-600</b>
8"	<b>BCC-800</b>

## Clamp Gaskets

**Feature:**

- Gasket material approved by  (3A), USDA and complies with FDA's 21CFR177.2600 and 1550. PSI Service Ratings for the sanitary clamps DO NOT APPLY to connections (1" and above) using any PTFE gaskets, due to the potential for cold flow under normal operating conditions. PTFE gaskets, when used with any clamp, are likely to leak at pressures far below the published service ratings. This restriction does not apply to the fractionally sized 1/2" and 3/4" connections, due to their recessed, fully contained design.



### Buna-N Clamp Gaskets - Black

Size	Part Number
1/2"	<b>42MP-U50</b>
3/4"	<b>42MP-U75</b>
1"	<b>40MP-U100</b>
1 1/2"	<b>40MP-U150</b>
2"	<b>40MP-U200</b>
2 1/2"	<b>40MP-U250</b>
3"	<b>40MP-U300</b>
4"	<b>40MP-U400</b>
5"	<b>40MP-U500</b>
6"	<b>40MP-U600</b>
8"	<b>40MP-U800</b>

**Feature:**

- color code: red dot

**Approval:**

- meets 21CFR 177.2600



Type 1 - Standard  
1" and larger



Type 1 - Standard  
1/2" - 3/4"

### Buna-N Clamp Gaskets - White

Size	Part Number
1/2"	<b>42MP-UW50</b>
3/4"	<b>42MP-UW75</b>
1"	<b>40MP-UW100</b>
1 1/2"	<b>40MP-UW150</b>
2"	<b>40MP-UW200</b>
2 1/2"	<b>40MP-UW250</b>
3"	<b>40MP-UW300</b>
4"	<b>40MP-UW400</b>
6"	<b>40MP-UW600</b>

**Feature:**

- color code: red dot

**Approval:**

- meets 21CFR 177.2600



Type 1 - Standard  
1" and larger



Type 1 - Standard  
1/2" - 3/4"



### EPDM Clamp Gaskets - Black

Size	Part Number
1/2"	<b>42MP-E50</b>
3/4"	<b>42MP-E75</b>
1"	<b>40MP-E100</b>
1 1/2"	<b>40MP-E150</b>
2"	<b>40MP-E200</b>
2 1/2"	<b>40MP-E250</b>
3"	<b>40MP-E300</b>
4"	<b>40MP-E400</b>
5"	<b>40MP-E500</b>
6"	<b>40MP-E600</b>

**Features:**

- color code: three green dots
- peroxide cured

**Approvals:**

- meets 21CFR 177.2600
- passed U.S.P. Class VI Cytotoxicity testing



Type 1 - Standard  
1" and larger



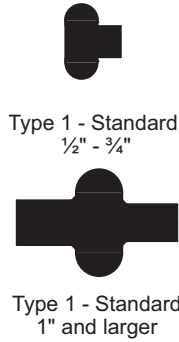
Type 1 - Standard  
1/2" - 3/4"

Note: see pages F-27 and F-28 for sizing charts / refer to pages K-4 to K-6 for compatibility information

Clamp Gaskets

Fittings

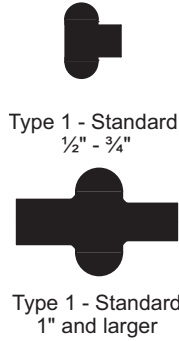
FKM Clamp Gaskets - Black



- Features:**
- color code: one white dot and one yellow dot
  - peroxide cured
- Approvals:**
- meets 21CFR 177.2600
  - passed U.S.P. Class VI Cytotoxicity testing

Size	Part Number
1/2"	42MP-SFY50
3/4"	42MP-SFY75
1"	40MP-SFY100
1 1/2"	40MP-SFY150
2"	40MP-SFY200
2 1/2"	40MP-SFY250
3"	40MP-SFY300
4"	40MP-SFY400
6"	40MP-SFY600

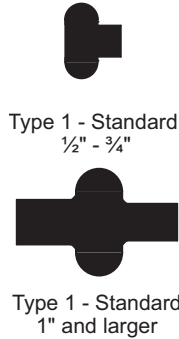
Silicone Clamp Gaskets - White



- Features:**
- color code: pink dot
  - peroxide cured
- Approvals:**
- meets 21CFR 177.2600
  - passed U.S.P. Class VI Cytotoxicity testing

Size	Part Number
1/2"	42MP-XW50
3/4"	42MP-XW75
1"	40MP-XW100
1 1/2"	40MP-XW150
2"	40MP-XW200
2 1/2"	40MP-XW250
3"	40MP-XW300
4"	40MP-XW400
6"	40MP-XW600

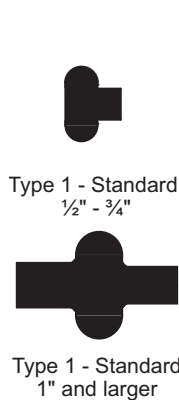
Silicone Clamp Gaskets - Clear



- Features:**
- color code: no dot
  - peroxide cured
- Approval:**
- meets 21CFR 177.2600

Size	Part Number
1/2"	42MP-XC50
3/4"	42MP-XC75
1"	40MP-XC100
1 1/2"	40MP-XC150
2"	40MP-XC200
2 1/2"	40MP-XC250
3"	40MP-XC300
4"	40MP-XC400

PTFE Clamp Gaskets - White



- Features:**
- color code: no dot
  - not recommended for use with bolted clamps
- Approvals:**
- meets 21CFR 177.1550
  - passed U.S.P. Class VI Cytotoxicity testing

Size	Part Number
1/2"	42MP-G50
3/4"	42MP-G75
1"	40MP-G100
1 1/2"	40MP-G150
2"	40MP-G200
2 1/2"	40MP-G250
3"	40MP-G300
4"	40MP-G400
5"	40MP-G500
6"	40MP-G600
8"	40MP-G800
10"	40MP-G1000
12"	40MP-G1200

PTFE is a material subject to plastic flow. When cycled through heat and then cooled down in process lines, PTFE gaskets will not return to the original configuration and it will continue to compress as the cycling continues. This plastic flow will allow leakage if clamp torques are not maintained. See pages F-27 and F-28 for sizing charts / refer to pages K-4 to K-6 for compatibility information





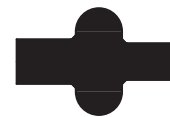
## Metal Detectable Clamp Gaskets

### Materials:

- Metal detectable gaskets are impregnated with stainless steel particles. The addition of stainless steel allows a gasket or gasket pieces to be found with metal detection equipment.



Type 1 - Standard  
1/2" - 3/4"



Type 1 - Standard  
1" and larger

### Buna-N - Metal Detectable Clamp Gaskets

Size	Part Number
1"	<b>40MP-UZ100</b>
1½"	<b>40MP-UZ150</b>
2"	<b>40MP-UZ200</b>
2½"	<b>40MP-UZ250</b>
3"	<b>40MP-UZ300</b>
4"	<b>40MP-UZ400</b>

#### Features:

- good general use where temperature extremes do not exist

#### Specification:

- minimum temperature **-20°F (-29°C)**
- maximum temperature **212°F (100°C)**

### EPDM - Metal Detectable Clamp Gaskets

Size	Part Number
1"	<b>40MP-EZ100</b>
1½"	<b>40MP-EZ150</b>
2"	<b>40MP-EZ200</b>
2½"	<b>40MP-EZ250</b>
3"	<b>40MP-EZ300</b>
4"	<b>40MP-EZ400</b>

#### Features:

- resistant to steam, water and base solutions

#### Specification:

- minimum temperature **-70°F (-57°C)**
- maximum temperature **310°F (154°C)**

### FKM - Metal Detectable Clamp Gaskets

Size	Part Number
1"	<b>40MP-SFYZ100</b>
1½"	<b>40MP-SFYZ150</b>
2"	<b>40MP-SFYZ200</b>
2½"	<b>40MP-SFYZ250</b>
3"	<b>40MP-SFYZ300</b>
4"	<b>40MP-SFYZ400</b>

#### Features:

- resistant to steam, heat and high acid solutions

#### Specification:

- minimum temperature **-20°F (-29°C)**
- maximum temperature **410°F (210°C)**

Note: see pages F-27 and F-28 for sizing charts / refer to pages K-4 to K-6 for compatibility information

## Clamp Flanged Gaskets

### Buna-N - Flanged Clamp Gaskets - Black

Fittings



Type 2 - Flanged  
1" and larger

**Features:**

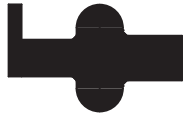
- color code: red dot
- not recommended for use with bolted clamps

**Approval:**

- meets 21CFR 177.2600

Size	Part Number
1"	<b>40MPF-U100</b>
1½"	<b>40MPF-U150</b>
2"	<b>40MPF-U200</b>
2½"	<b>40MPF-U250</b>
3"	<b>40MPF-U300</b>
4"	<b>40MPF-U400</b>
6"	<b>40MPF-U600</b>
8"	<b>40MPF-U800</b>
10"	<b>40MPF-U1000</b>
12"	<b>40MPF-U1200</b>

### Buna-N - Flanged Clamp Gaskets - White



Type 2 - Flanged  
1" and larger

**Features:**

- color code: red dot
- not recommended for use with bolted clamps

**Approval:**

- meets 21CFR 177.2600

Size	Part Number
1"	<b>40MPF-UW100</b>
1½"	<b>40MPF-UW150</b>
2"	<b>40MPF-UW200</b>
2½"	<b>40MPF-UW250</b>
3"	<b>40MPF-UW300</b>
4"	<b>40MPF-UW400</b>
6"	<b>40MPF-UW600</b>
8"	<b>40MPF-UW800</b>

### EPDM - Flanged Clamp Gaskets - Black



Type 2 - Flanged  
1" and larger

**Features:**

- color code: three green dots
- peroxide cured
- not recommended for use with bolted clamps

**Approvals:**

- meets 21CFR 177.2600
- passed U.S.P. Class VI Cytotoxicity testing

Size	Part Number
1"	<b>40MPF-E100</b>
1½"	<b>40MPF-E150</b>
2"	<b>40MPF-E200</b>
2½"	<b>40MPF-E250</b>
3"	<b>40MPF-E300</b>
4"	<b>40MPF-E400</b>
6"	<b>40MPF-E600</b>
8"	<b>40MPF-E800</b>
10"	<b>40MPF-E1000</b>
12"	<b>40MPF-E1200</b>

Note: see pages F-27 and F-28 for sizing charts / refer to pages K-4 to K-6 for compatibility information

## Clamp Flanged Gaskets

### FKM - Flanged Clamp Gaskets - Black

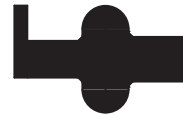
Size	Part Number
1"	<b>40MPF-SFY100</b>
1½"	<b>40MPF-SFY150</b>
2"	<b>40MPF-SFY200</b>
2½"	<b>40MPF-SFY250</b>
3"	<b>40MPF-SFY300</b>
4"	<b>40MPF-SFY400</b>
6"	<b>40MPF-SFY600</b>
8"	<b>40MPF-SFY800</b>
10"	<b>40MPF-SFY1000</b>
12"	<b>40MPF-SFY1200</b>

**Features:**

- color code: one white dot, one yellow dot
- peroxide cured
- not recommended for use with bolted clamps

**Approvals:**

- meets 21CFR 177.2600
- passed U.S.P. Class VI Cytotoxicity testing



Type 2 - Flanged  
1" and larger

Fittings

### Silicone - Flanged Clamp Gaskets - White

Size	Part Number
1"	<b>40MPF-XW100</b>
1½"	<b>40MPF-XW150</b>
2"	<b>40MPF-XW200</b>
2½"	<b>40MPF-XW250</b>
3"	<b>40MPF-XW300</b>
4"	<b>40MPF-XW400</b>
6"	<b>40MPF-XW600</b>
8"	<b>40MPF-XW800</b>
10"	<b>40MPF-XW1000</b>
12"	<b>40MPF-XW1200</b>

**Features:**

- color code: pink dot
- peroxide cured
- not recommended for use with bolted clamps

**Approvals:**

- meets 21CFR 177.2600
- passed U.S.P. Class VI Cytotoxicity testing



Type 2 - Flanged  
1" and larger

F

### Silicone - Flanged Clamp Gaskets - Clear

Size	Part Number
1"	<b>40MPF-XC100</b>
1½"	<b>40MPF-XC150</b>
2"	<b>40MPF-XC200</b>
2½"	<b>40MPF-XC250</b>
3"	<b>40MPF-XC300</b>
4"	<b>40MPF-XC400</b>
6"	<b>40MPF-XC600</b>
8"	<b>40MPF-XC800</b>

**Features:**

- color code: no dot
- peroxide cured
- not recommended for use with bolted clamps

**Approvals:**

- meets 21CFR 177.2600
- passed U.S.P. Class VI Cytotoxicity testing



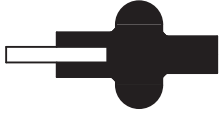
Type 2 - Flanged  
1" and larger

Note: see pages F-27 and F-28 for sizing charts / refer to pages K-4 to K-6 for compatibility information

**Clamp Screened Gaskets**

**Buna-N - Mesh Screen Clamp Gaskets, 316**

Fittings



Type 3 - Mesh

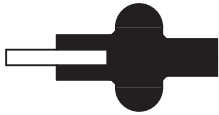
- Material:**
- 10 mesh standard, other mesh available, call Dixon Sanitary 800.789.1718

- Feature:**
- color code: red dot

- Approval:**
- meets 21CFR 177.2600

Size	Part Number
1"	<b>40MPS-U100</b>
1½"	<b>40MPS-U150</b>
2"	<b>40MPS-U200</b>
2½"	<b>40MPS-U250</b>
3"	<b>40MPS-U300</b>
4"	<b>40MPS-U400</b>

**EPDM - Mesh Screen Clamp Gaskets, 316**



Type 3 - Mesh

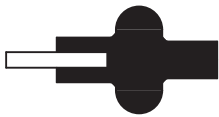
- Material:**
- 10 mesh standard, other materials available, call Dixon Sanitary 800.789.1718

- Features:**
- color code: three green dots
  - peroxide cured

- Approval:**
- meets 21CFR 177.2600

Size	Part Number
1"	<b>40MPS-E100</b>
1½"	<b>40MPS-E150</b>
2"	<b>40MPS-E200</b>
2½"	<b>40MPS-E250</b>
3"	<b>40MPS-E300</b>
4"	<b>40MPS-E400</b>

**FKM - Mesh Screen Clamp Gaskets, 316**



Type 3 - Mesh

- Materials:**
- 10 mesh standard, other mesh available, call Dixon Sanitary 800.789.1718

- Features:**
- color code: one white dot, one yellow dot
  - peroxide cured

- Approval:**
- meets 21CFR 177.2600

Size	Part Number
1"	<b>40MPS-SFY100</b>
1½"	<b>40MPS-SFY150</b>
2"	<b>40MPS-SFY200</b>
2½"	<b>40MPS-SFY250</b>
3"	<b>40MPS-SFY300</b>
4"	<b>40MPS-SFY400</b>

Note: see pages F-27 and F-28 for sizing charts / refer to pages K-4 to K-6 for compatibility information

## Clamp Perforated Gaskets

### Buna-N Perforated Clamp Gaskets - .033" holes

Size	Part Number
1"	<b>40MP-UP100</b>
1½"	<b>40MP-UP150</b>
2"	<b>40MP-UP200</b>
2½"	<b>40MP-UP250</b>
3"	<b>40MP-UP300</b>
4"	<b>40MP-UP400</b>

**Material:**

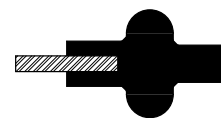
- perforated metal disc 316 stainless steel sheet

**Feature:**

- color code: red dot

**Approval:**

- meets 21CFR 177.2600



Type 3 - Perforated

Fittings

## Clamp Orifice Gaskets

### Buna-N Orifice Clamp Gaskets - Black, .125" hole

Size	Part Number
1"	<b>A80MP-U100</b>
1½"	<b>A80MP-U150</b>
2"	<b>A80MP-U200</b>
2½"	<b>A80MP-U250</b>
3"	<b>A80MP-U300</b>
4"	<b>A80MP-U400</b>

**Material:**

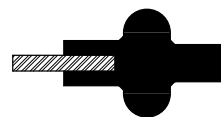
- 316 stainless steel sheet;

**Features:**

- color code: red dot
- other hole sizes available, call Dixon Sanitary 800.789.1718

**Approval:**

- meets 21CFR 177.2600



Type 3

F

### FKM Orifice Clamp Gaskets - .125" hole

Size	Part Number
1"	<b>A80MP-SFY100</b>
1½"	<b>A80MP-SFY150</b>
2"	<b>A80MP-SFY200</b>
2½"	<b>A80MP-SFY250</b>
3"	<b>A80MP-SFY300</b>
4"	<b>A80MP-SFY400</b>

**Material:**

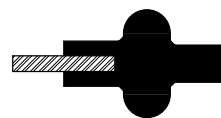
- 316 stainless steel sheet;

**Features:**

- color code: one white dot, one yellow dot
- peroxide cured
- other hole sizes available, call Dixon Sanitary 800.789.1718

**Approval:**

- meets 21CFR 177.2600



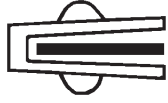
Type 3

Note: see pages F-27 and F-28 for sizing charts / refer to pages K-4 to K-6 for compatibility information

**Clamp Envelope Gaskets**

**PTFE envelope clamp gaskets with EPDM filler**

Fittings



**Features:**

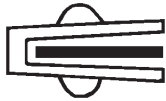
- color code: usually not marked
- peroxide cured EPDM

**Approvals:**

- meets 21CFR 177.1550
- PTFE passed USP Class VI Cytotoxicity testing

Size	Part Number
1/2"	<b>42MP-GRE50</b>
3/4"	<b>42MP-GRE75</b>
1"	<b>40MP-GRE100</b>
1 1/2"	<b>40MP-GRE150</b>
2"	<b>40MP-GRE200</b>
2 1/2"	<b>40MP-GRE250</b>
3"	<b>40MP-GRE300</b>
4"	<b>40MP-GRE400</b>
6"	<b>40MP-GRE600</b>

**PTFE envelope clamp gaskets with FKM filler**



**Features:**

- color code: usually not marked
- peroxide cured FKM

**Approvals:**

- meets 21CFR 177.1550
- PTFE passed USP Class VI Cytotoxicity testing

Size	Part Number
1/2"	<b>42MP-GR50</b>
3/4"	<b>42MP-GR75</b>
1"	<b>40MP-GR100</b>
1 1/2"	<b>40MP-GR150</b>
2"	<b>40MP-GR200</b>
2 1/2"	<b>40MP-GR250</b>
3"	<b>40MP-GR300</b>
4"	<b>40MP-GR400</b>
6"	<b>40MP-GR600</b>
8"	<b>40MP-GR800</b>

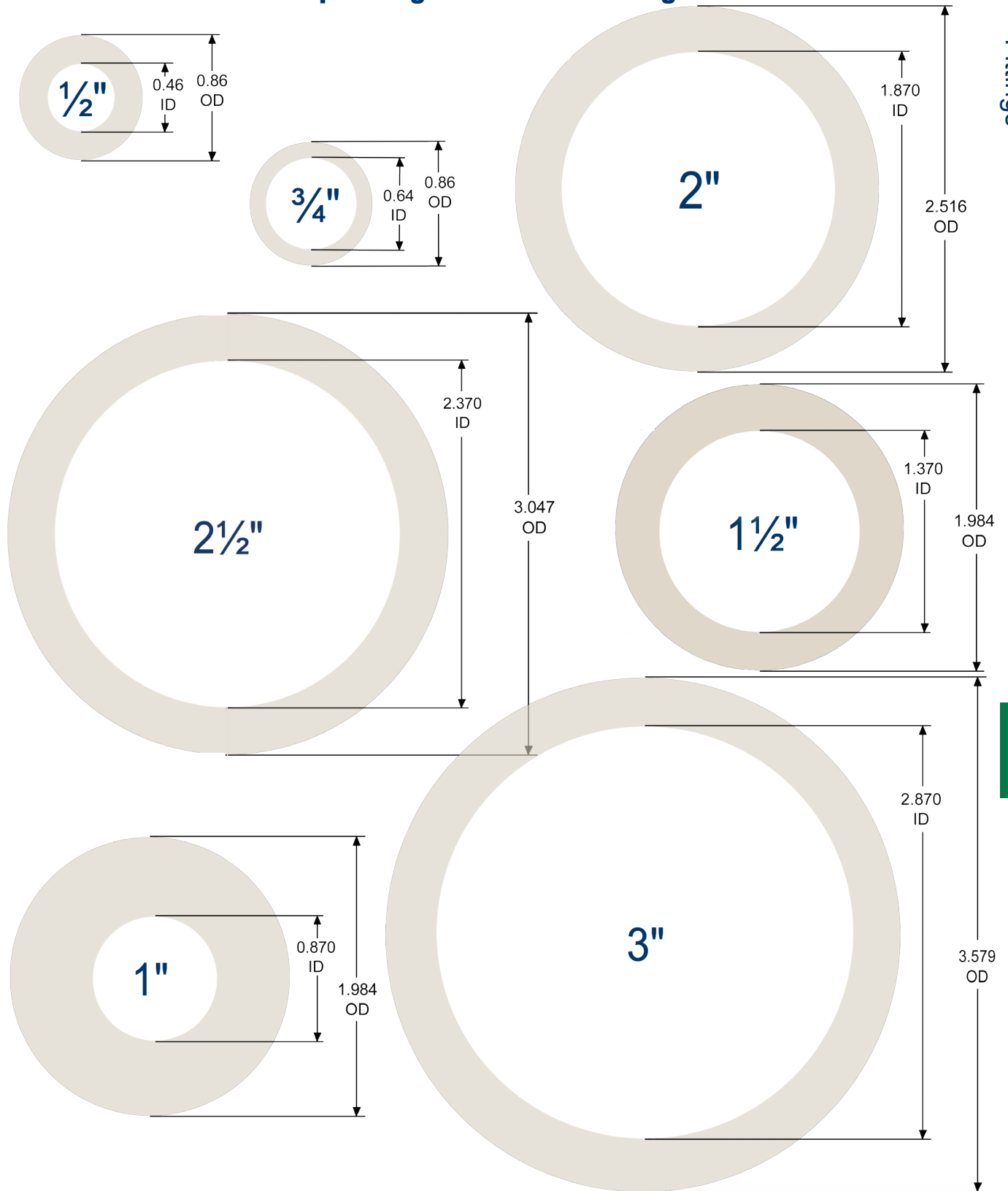


PTFE is a material subject to plastic flow. When cycled through heat and then cooled down in process lines, PTFE gaskets will not return to the original configuration and it will continue to compress as the cycling continues. This plastic flow will allow leakage if clamp torques are not maintained.

Note: see pages F-27 and F-28 for sizing charts / refer to pages K-4 to K-6 for compatibility information

**Clamp Fittings and Gasket Sizing Guide**

Fittings



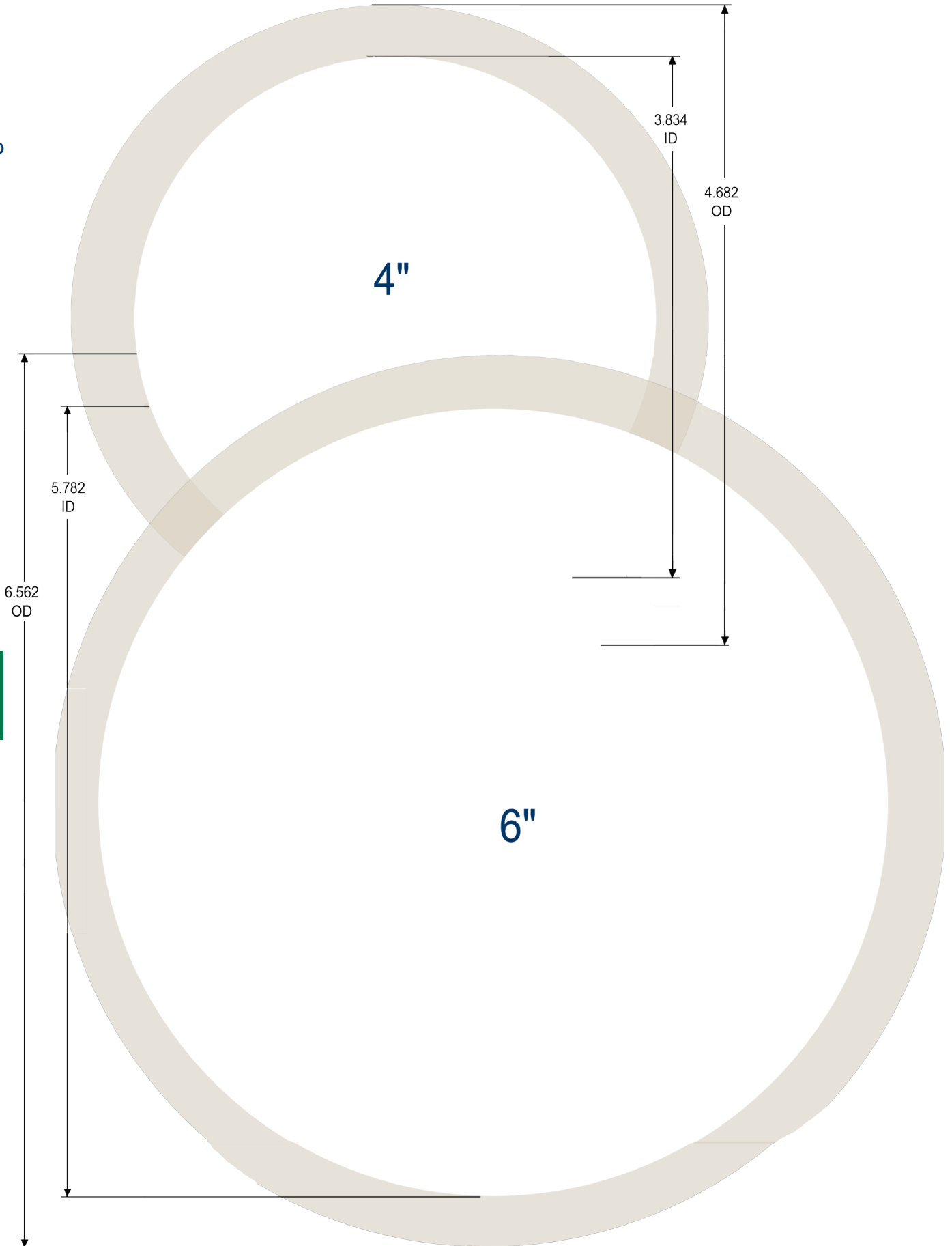
F

Sanitary Size	OD of Clamp End	ID of Fitting
1/2"	0.992	0.370
3/4"	0.992	0.620
1"	1.984	0.870
1 1/2"	1.984	1.370
2"	2.516	1.870
2 1/2"	3.047	2.370

Sanitary Size	OD of Clamp End	ID of Fitting
3"	3.579	2.870
4"	4.682	3.834
6"	6.562	5.782
8"	8.602	7.782
10"	10.570	9.782
12"	12.570	11.760

# Clamp Fittings and Gasket Sizing Guide

Fittings



F



## Dixon Sanitary Pipe Fittings



## A Complete Pipe Clamp Connection

**Sizes:**

- 1" - 6" nominal pipe

**Materials:**

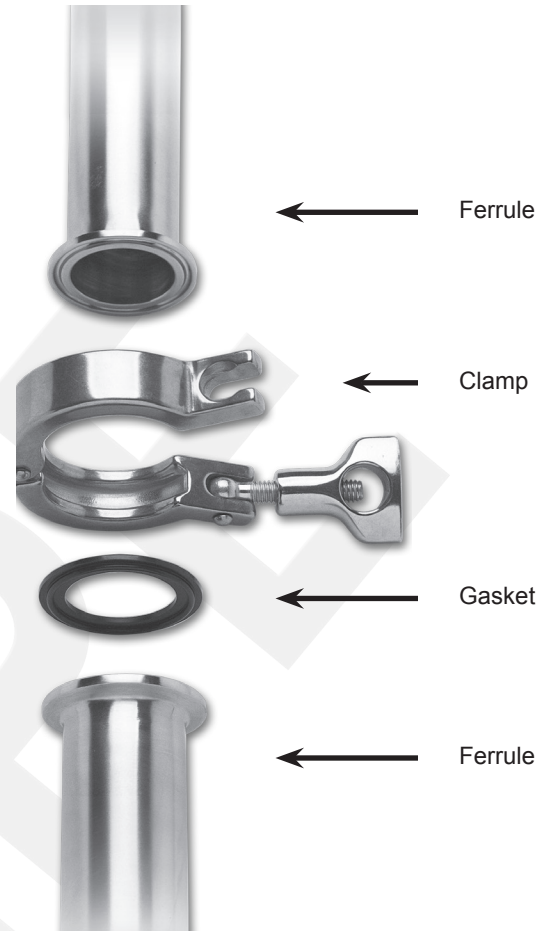
- G = 304 stainless steel
- R = 316L stainless steel
- other alloys are available

**Feature:**

- 3A sanitary finish ID and OD

Dimensions of Stainless Steel Pipe given in inches

Nominal Pipe Size	Outside Diameter	Nominal Wall Thickness (inches)	
		schedule 5S	schedule 10S
1"	1.32	.065	.109
1½"	1.90	.065	.109
2"	2.38	.065	.109
2½"	2.88	.083	.120
3"	3.50	.083	.120
4"	4.50	.083	.120
6"	6.62	.109	.134



This section contains pipe materials. Please note in sizes ½" through 12" pipe is known by its nominal inside diameter, which differs from its actual inside diameter. To distinguish pipe sizes from actual measured diameters as used for tube, the terms iron pipe size (IPS) or nominal pipe size (NPS) are usually used. For all pipe sizes, the outside diameter (OD) remains constant; the variations in wall thickness affect the inside diameter (ID).

Stainless steel schedule numbers from schedule 5S through schedule 80S are published in ANSI B36.19 for sizes through 12". The addition of the letter "S" after the schedule number identifies it as pertaining to stainless steel.

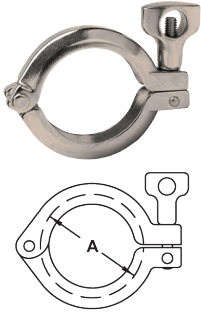
Pipe size and Tube OD size materials are not interchangeable



**Pipe Size Clamps**

**Schedule 5S and 10S Single Pin Heavy Duty Clamps - 13MHHV**

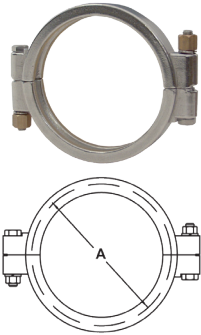
Fittings



Pipe Size	A	Service pressure rating @ 70°F (21°C) <sup>1</sup>	Part Number
1"	2.122	500	<b>13MHHV100</b>
1½"	2.654	450	<b>13MHHV150</b>
2"	3.185	400	<b>13MHHV200</b>
2½"	3.717	350	<b>13MHHV250</b>
3"	4.263	250	<b>13MHHV300</b>
4"	5.263	150	<b>13MHHV400</b>
6"	7.500	100	<b>13MHHV600</b>

<sup>1</sup> wing nut tightened to 25 in. lbs. of torque

**Schedule 5S and 10S Bolted Clamps - 13MHPV**



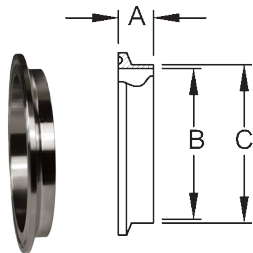
Pipe Size	A	Service pressure rating @ 70°F (21°C) <sup>1</sup>	Part Number
1"	2.046	750	<b>13MHPV100</b>
1½"	2.578	500	<b>13MHPV150</b>
2"	3.110	500	<b>13MHPV200</b>
2½"	3.460	500	<b>13MHPV250</b>
4"	5.188	400	<b>13MHPV400</b>

<sup>1</sup> bronze nuts tightened to 20 ft. lbs. of torque

Note: see page F-29 for pipe size information

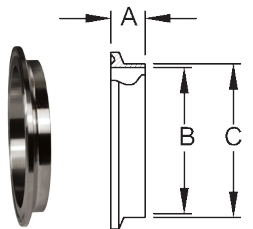
**Pipe Size Ferrules**

**3 Schedule 5S Short Weld Ferrules - 14WMV**



Pipe Size	A	B	C	316L Stainless Steel Part Number
1"	.500	1.185	1.315	<b>14WMV-R100</b>
1½"	.500	1.770	1.900	<b>14WMV-R150</b>
2"	.500	2.245	2.375	<b>14WMV-R200</b>
2½"	.500	2.709	2.875	<b>14WMV-R250</b>
3"	.500	3.334	3.500	<b>14WMV-R300</b>
4"	.625	4.334	4.500	<b>14WMV-R400</b>
6"	.875	6.407	6.625	<b>14WMV-R600</b>

**3 Schedule 10S Short Weld Ferrules - 14WMX**



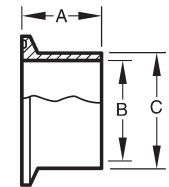
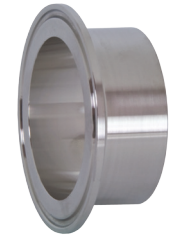
Pipe Size	A	B	C	316L Stainless Steel Part Number
1"	.500	1.097	1.315	<b>14WMX-R100</b>
1½"	.500	1.682	1.900	<b>14WMX-R150</b>
2"	.500	2.157	2.375	<b>14WMX-R200</b>
2½"	.500	2.635	2.875	<b>14WMX-R250</b>
3"	.500	3.260	3.500	<b>14WMX-R300</b>
4"	.625	4.260	4.500	<b>14WMX-R400</b>
6"	.875	6.350	6.625	<b>14WMX-R600</b>

Note: see page F-29 for pipe size information

## Pipe Size Ferrules

Schedule 5S Long Weld Ferrules - L14AM7V 

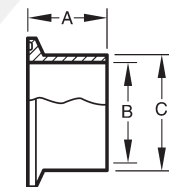
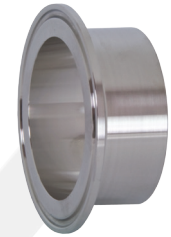
Pipe Size	A	B	C	316L Stainless Steel Part Number
1"	1.125	1.185	1.315	<b>L14AM7V-R100</b>
1½"	1.125	1.770	1.900	<b>L14AM7V-R150</b>
2"	1.125	2.245	2.375	<b>L14AM7V-R200</b>
2½"	1.125	2.709	2.875	<b>L14AM7V-R250</b>
3"	1.125	3.334	3.500	<b>L14AM7V-R300</b>
4"	1.125	4.334	4.500	<b>L14AM7V-R400</b>
6"	1.500	6.407	6.625	<b>L14AM7V-R600</b>



Fittings

Schedule 10S Long Weld Ferrules - L14AM7X 

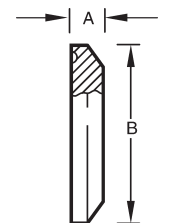
Pipe Size	A	B	C	316L Stainless Steel Part Number
1"	1.125	1.097	1.315	<b>L14AM7X-R100</b>
1½"	1.125	1.682	1.900	<b>L14AM7X-R150</b>
2"	1.125	2.157	2.375	<b>L14AM7X-R200</b>
2½"	1.125	2.635	2.875	<b>L14AM7X-R250</b>
3"	1.125	3.260	3.500	<b>L14AM7X-R300</b>
4"	1.125	4.260	4.500	<b>L14AM7X-R400</b>
6"	1.500	6.350	6.625	<b>L14AM7X-R600</b>



## Pipe Size End Caps

Schedule 5S and 10S Solid End Caps - 16AMV 

Pipe Size	A	B	316L Stainless Steel Part Number
1"	.250	1.984	<b>16AMV-R100</b>
1½"	.250	2.516	<b>16AMV-R150</b>
2"	.250	3.047	<b>16AMV-R200</b>
2½"	.250	3.579	<b>16AMV-R250</b>
3"	.312	4.125	<b>16AMV-R300</b>
4"	.312	5.125	<b>16AMV-R400</b>
6"	.437	7.195	<b>16AMV-R600</b>



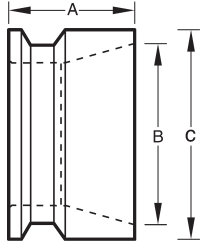
- Specify if you are using a piping system or a tubing system when ordering.

Note: see page F-29 for pipe size information

Pipe Size Adapters

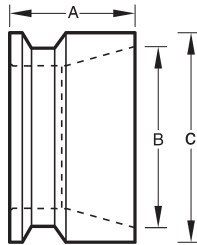
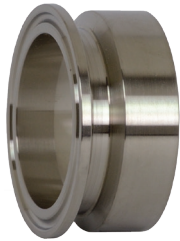
Fittings

**3** Clamp x Schedule 5S Weld Adapters - B19MPV



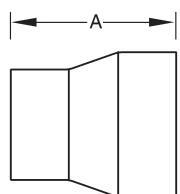
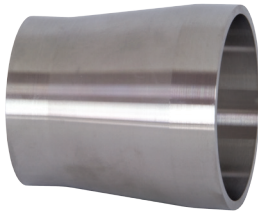
Pipe Size	A	B	C	Pipe Wall Thickness	316L Stainless Steel Part Number
1"	1.125	1.185	1.315	.065	<b>B19MPV-R100</b>
1½"	1.125	1.770	1.900	.065	<b>B19MPV-R150</b>
2"	1.125	2.245	2.375	.065	<b>B19MPV-R200</b>
2½"	1.125	2.709	2.875	.084	<b>B19MPV-R250</b>
3"	1.125	3.334	3.500	.084	<b>B19MPV-R300</b>
4"	1.125	4.334	4.500	.084	<b>B19MPV-R400</b>

**3** Clamp x Schedule 10S Weld Adapters - B19MPX



Pipe Size	A	B	C	Pipe Wall Thickness	316L Stainless Steel Part Number
1"	1.125	1.097	1.315	.109	<b>B19MPX-R100</b>
1½"	1.125	1.682	1.900	.109	<b>B19MPX-R150</b>
2"	1.125	2.157	2.375	.109	<b>B19MPX-R200</b>
2½"	1.125	2.635	2.875	.120	<b>B19MPX-R250</b>
3"	1.125	3.260	3.500	.120	<b>B19MPX-R300</b>
4"	1.125	4.260	4.500	.120	<b>B19MPX-R400</b>

**3** Tube O.D. Weld x Schedule 10S Weld Adapters - B19WX



Pipe Size	A	Tube Wall Thickness	Pipe Wall Thickness	316L Stainless Steel Part Number
1"	2.000	.065	.109	<b>B19WX-R100</b>
1½"	2.500	.065	.109	<b>B19WX-R150</b>
2"	2.500	.065	.109	<b>B19WX-R200</b>
2½"	2.500	.065	.120	<b>B19WX-R250</b>
3"	2.500	.065	.120	<b>B19WX-R300</b>
4"	3.000	.084	.120	<b>B19WX-R400</b>

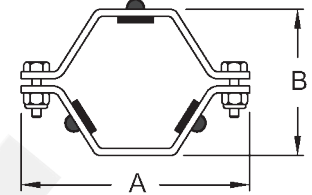
Note: see page F-29 for pipe size information

**Pipe Size Hangers**

Fittings

**Hex Hanger with Rubber Grommets - B24RV<sup>1</sup>**

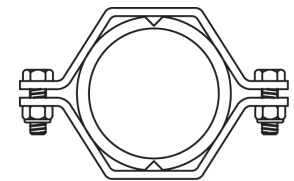
Pipe Size	A	B	304 Stainless Steel Part Number
1"	3.625	2.125	<b>B24RV-G100</b>
1½"	3.625	2.125	<b>B24RV-G150</b>
2"	4.312	2.625	<b>B24RV-G200</b>
2½"	4.875	3.125	<b>B24RV-G250</b>
3"	5.375	3.625	<b>B24RV-G300</b>
4"	6.562	4.750	<b>B24RV-G400</b>
6"	9.000	6.625	<b>B24RV-G600</b>



<sup>1</sup> for coupler option call Dixon Sanitary 800.789.1718

**Hex Hanger with Polypropylene Sleeves - B24PV<sup>1</sup>**

Pipe Size	A	B	304 Stainless Steel Part Number
1"	3.625	2.125	<b>B24PV-G100</b>
1½"	4.312	2.625	<b>B24PV-G150</b>
2"	4.875	3.125	<b>B24PV-G200</b>
2½"	4.812	3.125	<b>B24PV-G250</b>
3"	6.000	4.250	<b>B24PV-G300</b>
4"	7.500	5.625	<b>B24PV-G400</b>
6"	9.750	7.375	<b>B24PV-G600</b>

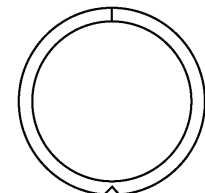


<sup>1</sup> for coupler option call Dixon Sanitary 800.789.1718



**Sleeves - 13PV**

Pipe Size	Polypropylene Part Number
1"	<b>13PV-100</b>
1½"	<b>13PV-150</b>
2"	<b>13PV-200</b>
2½"	<b>13PV-250</b>
3"	<b>13PV-300</b>
4"	<b>13PV-400</b>
6"	<b>13PV-600</b>



Note: see page F-29 for pipe size information

## Pipe Size Uni-Hinge Block Hangers

Fittings



**Applications:**

- clean rooms and mechanical areas; not limited to: biotech, pharmaceutical, food processing.
- low flow and low pressure systems with moderate vibration: WFI, SIP, CIP, process, utility and instrument lines.

**Sizes:**

- 1" - 4"

**Materials:**

- silicone insert - 80 durometer; color: blue
- hardware - 304 & 316 stainless steel

**Features:**

- insulation envelope: reduced OD allows hanger to be buried under the insulation jacket.
- silicone inserts are one piece
- there are no exposed threads or openings in hardware plates

**Specification:**

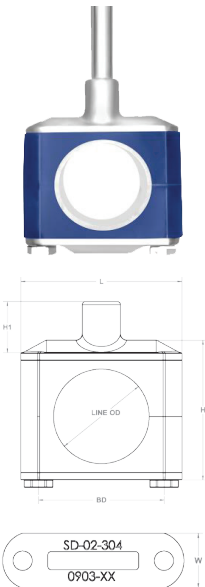
- intermittent temperatures from **-40°F to 320°F (-40°C to 160°C)**

**Approvals:**

- all plates polished, bolts are cleaned and nuts are lubricated with FDA approved product
- hanger threads match MSS SP-69 rod OD requirements

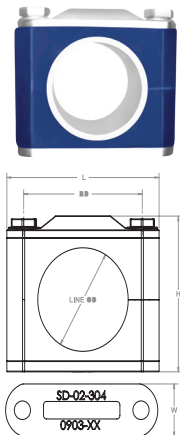
### Hang Plate Block Hanger - B24V-TM

Pipe Size	BD	H	H1	L	Line OD	W	Thread	Part Number
1"	1.94	2.19	0.60	2.49	1.315	0.75	3/8"-16	<b>B24V-TM-G100</b>
1½"	2.44	2.69	0.60	2.99	1.900	0.88	3/8"-16	<b>B24V-TM-G150</b>
2"	2.81	3.22	1.21	3.36	2.375	0.88	1/2"-13	<b>B24V-TM-G200</b>
2½"	3.19	3.66	1.21	3.74	2.875	0.88	1/2"-13	<b>B24V-TM-G250</b>
3"	3.92	4.22	1.32	4.48	3.500	1.00	1/2"-13	<b>B24V-TM-G300</b>
4"	4.92	5.45	1.39	5.48	4.500	1.00	5/8"-11	<b>B24V-TM-G400</b>



### Weld Plate Block Hanger - B24V-WP

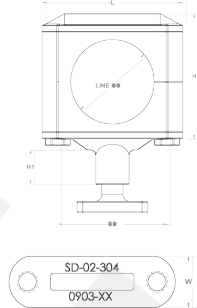
Pipe Size	BD	CL	H	L	Line OD	W	Part Number
1"	1.94	1.03	2.23	2.49	1.315	0.75	<b>B24V-WP-G100</b>
1½"	2.44	1.31	2.75	2.99	1.900	0.88	<b>B24V-WP-G150</b>
2"	2.81	1.55	3.25	3.36	2.375	0.88	<b>B24V-WP-G200</b>
2½"	3.19	1.77	3.68	3.74	2.875	0.88	<b>B24V-WP-G250</b>
3"	3.92	2.06	4.25	4.48	3.500	1.00	<b>B24V-WP-G300</b>
4"	4.92	2.58	5.27	5.48	4.500	1.00	<b>B24V-WP-G400</b>



## Pipe Size Uni-Hinge Block Hangers

### Base Mount Block Hanger - B24V-BM

Pipe Size	BD	H	H1	L	Line OD	W	Thread	Part Number
1"	1.94	2.19	0.47	2.49	1.315	0.75	3/8"-16	<b>B24V-BM-G100</b>
1½"	2.44	2.69	0.47	2.99	1.900	0.88	3/8"-16	<b>B24V-BM-G150</b>
2"	2.81	3.19	0.59	3.36	2.375	0.88	½"-13	<b>B24V-BM-G200</b>
2½"	3.19	3.63	0.59	3.74	2.875	0.88	½"-13	<b>B24V-BM-G250</b>



Fittings

## Schedule 5S and 10S Pipe Size Clamp Gaskets

### Buna-N Pipe Size Clamp Gaskets - Black

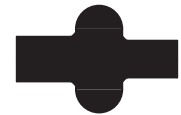
Pipe Size	Part Number
1"	<b>40MPV-U100</b>
1½"	<b>40MPV-U150</b>
2"	<b>40MPV-U200</b>
2½"	<b>40MPV-U250</b>
3"	<b>40MPV-U300</b>
4"	<b>40MPV-U400</b>
6"	<b>40MPV-U600</b>

**Feature:**

- color code: red dot

**Approval:**

- meets 21CFR 177.2600



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### PTFE Pipe Size Clamp Gaskets

Pipe Size	Part Number
1"	<b>40MPV-G100</b>
1½"	<b>40MPV-G150</b>
2"	<b>40MPV-G200</b>
2½"	<b>40MPV-G250</b>
3"	<b>40MPV-G300</b>
4"	<b>40MPV-G400</b>

**Features:**

- color code: no dot
- not recommended for use with bolted clamps

**Approvals:**

- meets 21CFR 177.1550
- passed U.S.P. Class VI Cytotoxicity testing



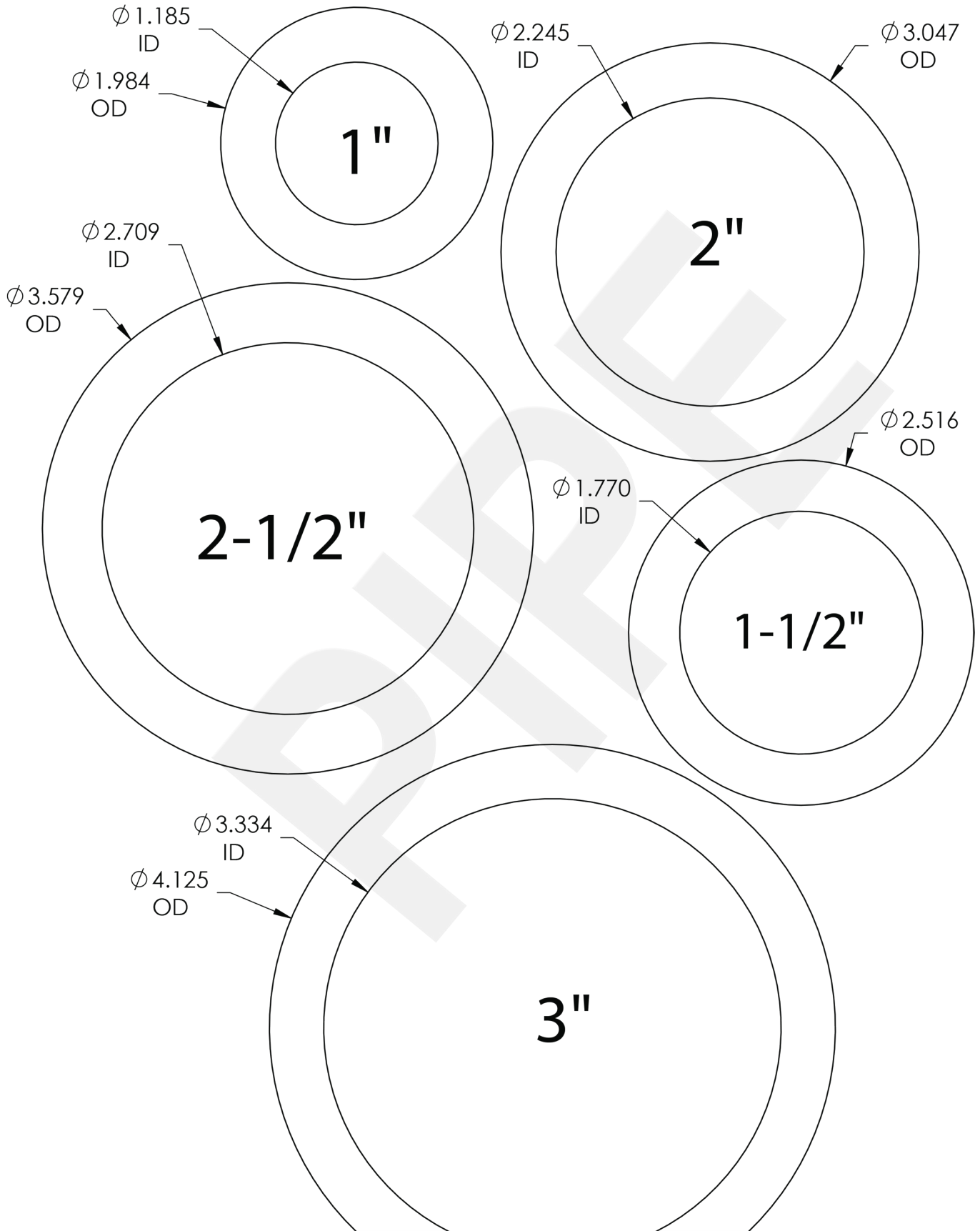
PTFE is a material subject to plastic flow. When cycled through heat and then cooled down in process lines, PTFE gaskets will not return to the original configuration and it will continue to compress as the cycling continues. This plastic flow will allow leakage if clamp torques are not maintained.



Note: refer to pages K-4- to K-6 for compatibility information

Pipe Gasket Sizing Guide

Fittings

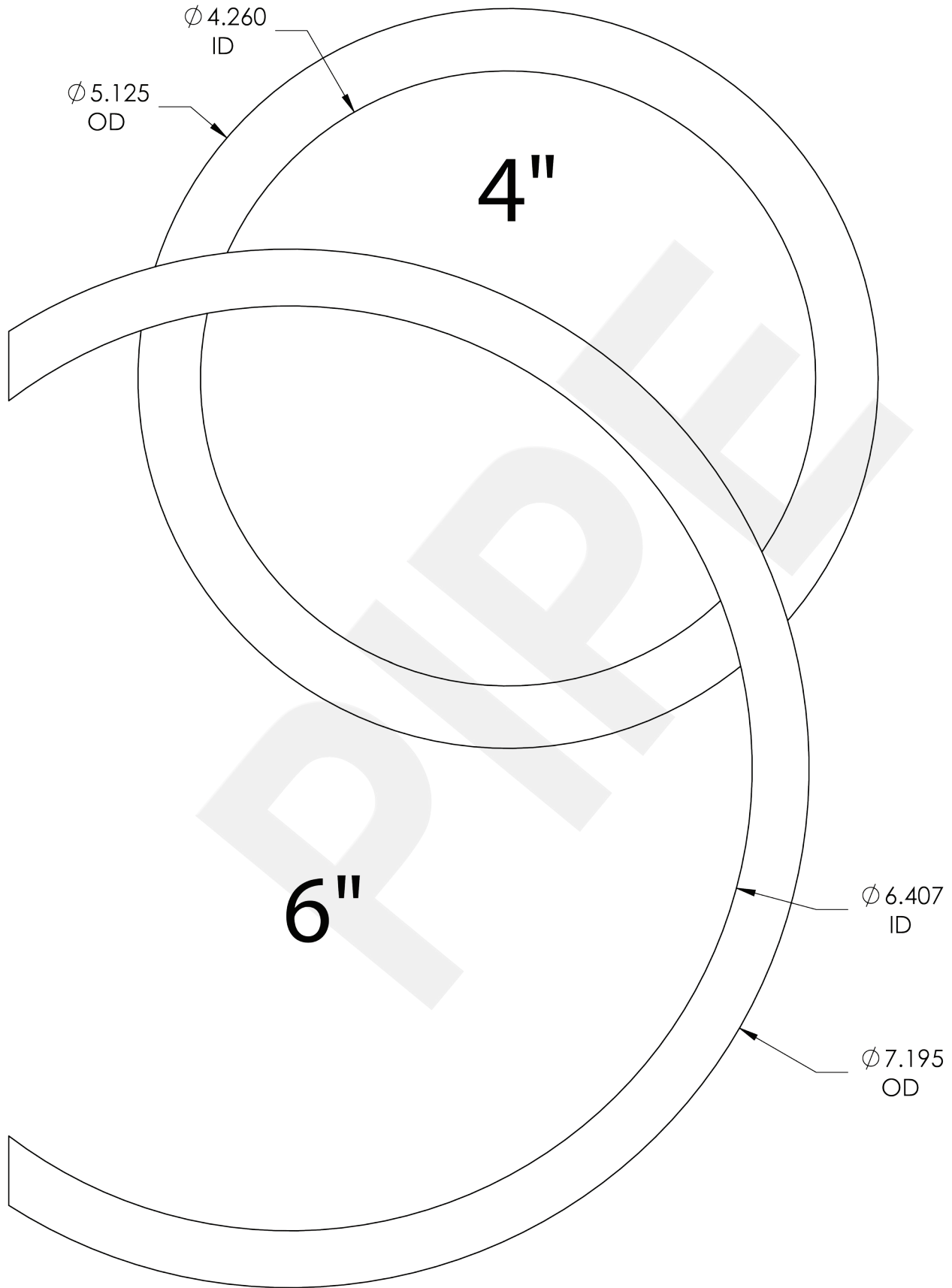


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### Pipe Gasket Sizing Guide

Fittings



F



# Dixon Sanitary Bevel Seat Fittings

A Complete Bevel Seat Connection

Fittings



- ← Threaded Bevel Seat Ferrule
- ← Gasket (optional)
- ← Plain Bevel Seat Ferrule
- ← Hex Nut

**Sizes:**

- 1" - 4" OD tube

**Materials:**

- G = 304 stainless steel
- R = 316L stainless steel
- other alloys are available

**Feature:**

- 3A sanitary finish ID and OD



**Dimensions of stainless steel tube given in inches**

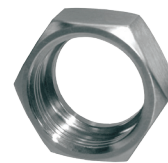
Tube OD	Nominal Wall Thickness (inches)	Gage Number
1"	.065	16
1½"	.065	16
2"	.065	16
2½"	.065	16
3"	.065	16
4"	.083	14

## Bevel Seat Nuts

### Union Hex Nuts - 13H

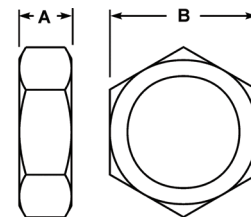
**Specification:**

- maximum pressure: **400 PSI**



Fittings

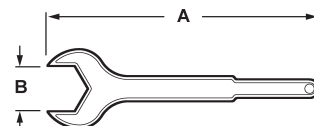
Tube OD	A	B	304 Stainless Steel (CF8) Part Number
1"	.906	1.812	<b>13H-G100</b>
1½"	.968	2.406	<b>13H-G150</b>
2"	1.062	3.000	<b>13H-G200</b>
2½"	1.187	3.594	<b>13H-G250</b>
3"	1.281	4.188	<b>13H-G300</b>
4"	1.500	5.438	<b>13H-G400</b>



## Bevel Seat Wrenches

### Single Side Hex Wrenches - 25H

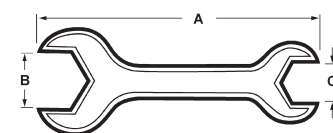
Tube OD	A	B	Weight lbs.	Aluminum Part Number
1"	10.500	1.812	.64	<b>25H-100</b>
1½"	12.000	2.406	.86	<b>25H-150</b>
2"	14.000	3.000	1.76	<b>25H-200</b>
2½"	16.250	3.594	2.40	<b>25H-250</b>
3"	18.500	4.188	3.04	<b>25H-300</b>
4"	19.500	5.438	3.62	<b>25H-400</b>



F

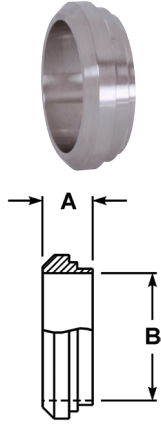
### Two Sided Hex Wrenches - 25H

Tube OD	A	B	C	Weight lbs.	Aluminum Part Number
1½" x 1"	12.000	2.406	1.812	1.00	<b>25H-150100</b>
2" x 1½"	14.000	3.000	2.406	1.75	<b>25H-200150</b>
2½" x 2"	16.500	3.594	3.000	2.80	<b>25H-250200</b>
3" x 2"	18.000	4.188	3.000	3.20	<b>25H-300200</b>
3" x 2½"	18.000	4.188	3.594	3.70	<b>25H-300250</b>



Bevel Seat Ferrules

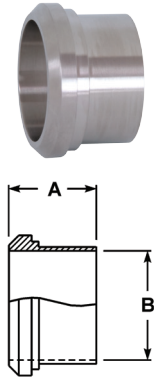
Fittings



**3** Short Plain Bevel Seat Weld Ferrules - 14PRF

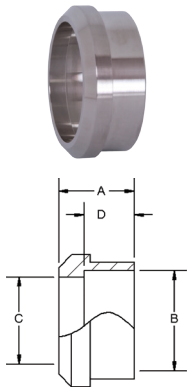
Tube OD	A	B	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	.718	.870	<b>14PRF-G100</b>	<b>14PRF-R100</b>
1½"	.718	1.370	<b>14PRF-G150</b>	<b>14PRF-R150</b>
2"	.750	1.870	<b>14PRF-G200</b>	<b>14PRF-R200</b>
2½"	.875	2.370	<b>14PRF-G250</b>	<b>14PRF-R250</b>
3"	.906	2.870	<b>14PRF-G300</b>	<b>14PRF-R300</b>
4"	1.031	3.834	<b>14PRF-G400</b>	<b>14PRF-R400</b>

**3** Long Plain Bevel Seat Weld Ferrules - 14A



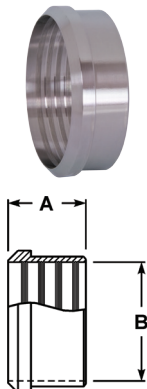
Tube OD	A	B	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	1.375	.870	<b>14A-G100</b>	<b>14A-R100</b>
1½"	1.500	1.370	<b>14A-G150</b>	<b>14A-R150</b>
2"	1.500	1.870	<b>14A-G200</b>	<b>14A-R200</b>
2½"	1.750	2.370	<b>14A-G250</b>	<b>14A-R250</b>
3"	1.750	2.870	<b>14A-G300</b>	<b>14A-R300</b>
4"	1.750	3.834	<b>14A-G400</b>	<b>14A-R400</b>

Recessed Plain Bevel Seat Weld Ferrules - 14



Tube OD	A	B	C	D	304 Stainless Steel Part Number
1"	.750	1.000	.870	.500	<b>14-G100</b>
1½"	.875	1.500	1.370	.625	<b>14-G150</b>
2"	.969	2.000	1.870	.688	<b>14-G200</b>
2½"	1.062	2.500	2.370	.750	<b>14-G250</b>
3"	1.125	3.000	2.870	.813	<b>14-G300</b>
4"	1.250	4.000	3.834	.938	<b>14-G400</b>

**3** Recessless Plain Bevel Seat Ferrules for Expanding - 14R



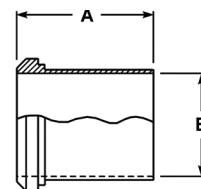
Tube OD	A	B	304 Stainless Steel Part Number
1"	.750	1.000	<b>14R-G100</b>
1½"	1.125	1.500	<b>14R-G150</b>
2"	1.312	2.000	<b>14R-G200</b>
2½"	1.375	2.500	<b>14R-G250</b>
3"	1.437	3.000	<b>14R-G300</b>
4"	1.500	4.000	<b>14R-G400</b>

**3** Meets 3-A Standard Number 63-03 when used to modify or repair existing on-site farm milk handling systems.

**Bevel Seat Ferrules**

**Light Wall Tank Plain Bevel Seat Ferrules - 14WL** 

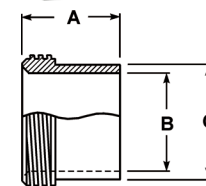
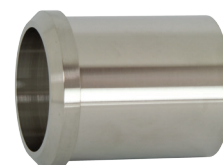
Tube OD	A	B	304 Stainless Steel Part Number
1"	2.000	.870	<b>14WL-G100</b>
1½"	2.250	1.370	<b>14WL-G150</b>
2"	2.500	1.870	<b>14WL-G200</b>
2½"	2.750	2.370	<b>14WL-G250</b>
3"	3.000	2.870	<b>14WL-G300</b>
4"	4.000	3.834	<b>14WL-G400</b>



Fittings

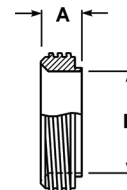
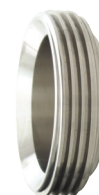
**Heavy Wall Tank Plain Bevel Seat Ferrules - 14W** 

Tube OD	A	B	C	304 Stainless Steel Part Number
1"	2.375	.870	1.160	<b>14W-G100</b>
1½"	2.531	1.370	1.676	<b>14W-G150</b>
2"	2.781	1.870	2.192	<b>14W-G200</b>
2½"	3.062	2.370	2.708	<b>14W-G250</b>
3"	3.531	2.870	3.224	<b>14W-G300</b>
4"	4.312	3.834	4.256	<b>14W-G400</b>



**Short Threaded Bevel Seat Weld Ferrules - 15TRF** 

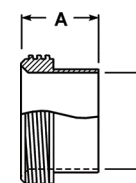
Tube OD	A	B	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	.718	.870	<b>15TRF-G100</b>	<b>15TRF-R100</b>
1½"	.718	1.370	<b>15TRF-G150</b>	<b>15TRF-R150</b>
2"	.750	1.870	<b>15TRF-G200</b>	<b>15TRF-R200</b>
2½"	.875	2.370	<b>15TRF-G250</b>	<b>15TRF-R250</b>
3"	.906	2.870	<b>15TRF-G300</b>	<b>15TRF-R300</b>
4"	1.031	3.834	<b>15TRF-G400</b>	<b>15TRF-R400</b>



F

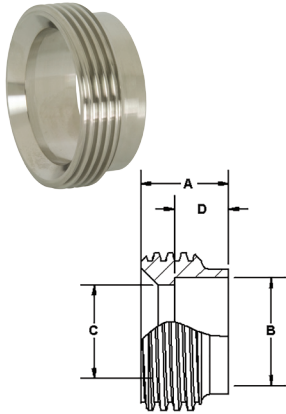
**Long Threaded Bevel Seat Weld Ferrules - 15A** 

Tube OD	A	B	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	1.375	.870	<b>15A-G100</b>	<b>15A-R100</b>
1½"	1.500	1.370	<b>15A-G150</b>	<b>15A-R150</b>
2"	1.500	1.870	<b>15A-G200</b>	<b>15A-R200</b>
2½"	1.750	2.370	<b>15A-G250</b>	<b>15A-R250</b>
3"	1.750	2.870	<b>15A-G300</b>	<b>15A-R300</b>
4"	1.750	3.834	<b>15A-G400</b>	<b>15A-R400</b>



## Bevel Seat Ferrules

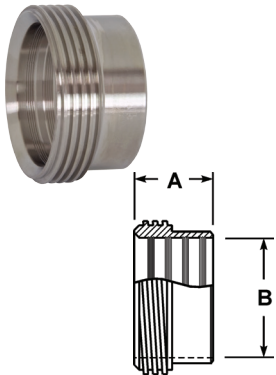
Fittings



### Recessed Threaded Bevel Seat Ferrules - 15

Tube OD	A	B	C	D	304 Stainless Steel Part Number
1"	.812	1.000	.870	.500	<b>15-G100</b>
1½"	.875	1.500	1.370	.625	<b>15-G150</b>
2"	1.031	2.000	1.870	.687	<b>15-G200</b>
2½"	1.125	2.500	2.370	.750	<b>15-G250</b>
3"	1.250	3.000	2.870	.812	<b>15-G300</b>
4"	1.375	4.000	3.834	.937	<b>15-G400</b>

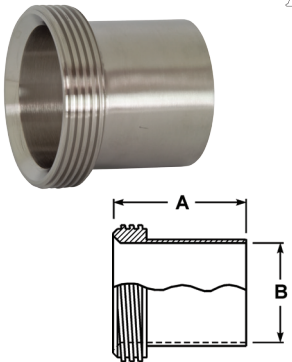
### Recessless Threaded Bevel Seat Ferrules for Expanding - 15R



Tube OD	A	B	304 Stainless Steel Part Number
1"	.812	1.005	<b>15R-G100</b>
1½"	1.125	1.505	<b>15R-G150</b>
2"	1.375	2.005	<b>15R-G200</b>
2½"	1.500	2.505	<b>15R-G250</b>
3"	1.630	3.005	<b>15R-G300</b>
4"	1.675	4.005	<b>15R-G400</b>

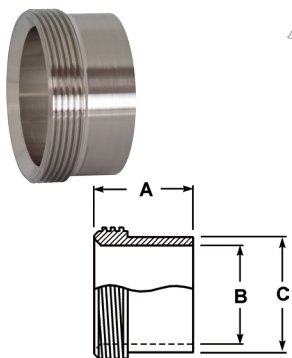
\* Meets 3-A Standard Number 63-03 when used to modify or repair existing on-site farm milk handling systems.

### Light Wall Tank Threaded Bevel Seat Ferrules - 15WL



Tube OD	A	B	304 Stainless Steel Part Number
1"	2.000	.870	<b>15WL-G100</b>
1½"	2.250	1.370	<b>15WL-G150</b>
2"	2.500	1.870	<b>15WL-G200</b>
2½"	2.750	2.370	<b>15WL-G250</b>
3"	3.000	2.870	<b>15WL-G300</b>
4"	4.000	3.834	<b>15WL-G400</b>

### Heavy Wall Tank Threaded Bevel Seat Ferrules - 15W



Tube OD	A	B	C	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	1.500	.870	1.160	<b>15W-G100</b>	<b>15W-R100</b>
1½"	1.625	1.370	1.676	<b>15W-G150</b>	<b>15W-R150</b>
2"	1.750	1.870	2.192	<b>15W-G200</b>	<b>15W-R200</b>
2½"	1.750	2.370	2.708	<b>15W-G250</b>	<b>15W-R250</b>
3"	1.812	2.870	3.224	<b>15W-G300</b>	<b>15W-R300</b>
4"	2.125	3.834	4.256	<b>15W-G400</b>	<b>15W-R400</b>

**Bevel Seat Ferrules**

**Plain Bevel Seat Solid End Caps - 16A** 

Tube OD	A	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	1.312	<b>16A-G100</b>	<b>16A-R100</b>
1½"	1.843	<b>16A-G150</b>	<b>16A-R150</b>
2"	2.375	<b>16A-G200</b>	<b>16A-R200</b>
2½"	2.906	<b>16A-G250</b>	<b>16A-R250</b>
3"	3.437	<b>16A-G300</b>	<b>16A-R300</b>
4"	4.500	<b>16A-G400</b>	<b>16A-R400</b>

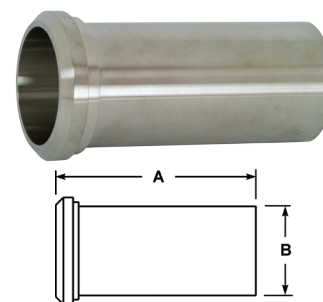


Fittings

**Bevel Seat Adapters**

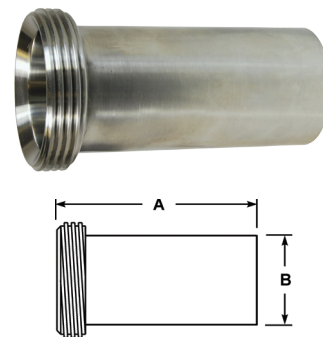
**Plain Bevel Seat Tygon® Hose Adapters - 14AHT**

Tube OD	A	B	304 Stainless Steel Part Number
1"	4.688	1.000	<b>14AHT-G100</b>
1½"	4.719	1.500	<b>14AHT-G150</b>
2"	4.719	2.000	<b>14AHT-G200</b>
2½"	4.844	2.500	<b>14AHT-G250</b>
3"	4.906	3.000	<b>14AHT-G300</b>
4"	5.218	4.000	<b>14AHT-G400</b>



**Threaded Bevel Seat Tygon® Hose Adapters - 15AHT**

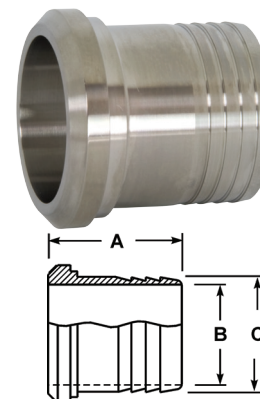
Tube OD	A	B	304 Stainless Steel Part Number
1"	4.500	1.000	<b>15AHT-G100</b>
1½"	4.500	1.500	<b>15AHT-G150</b>
2"	4.500	2.000	<b>15AHT-G200</b>
2½"	4.500	2.500	<b>15AHT-G250</b>
3"	4.500	3.000	<b>15AHT-G300</b>
4"	5.000	4.000	<b>15AHT-G400</b>



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**Plain Bevel Seat Rubber Hose Adapters - 14AHR**

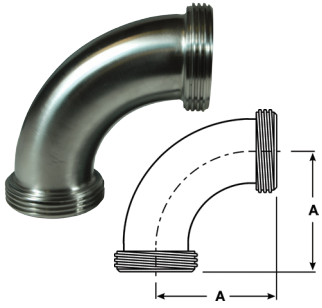
Tube OD	A	B	C	304 Stainless Steel Part Number
1"	1.687	.870	1.000	<b>14AHR-G100</b>
1½"	1.687	1.370	1.500	<b>14AHR-G150</b>
2"	2.312	1.870	2.000	<b>14AHR-G200</b>
2½"	2.343	2.370	2.500	<b>14AHR-G250</b>
3"	3.500	2.870	3.000	<b>14AHR-G300</b>
4"	4.000	3.834	4.000	<b>14AHR-G400</b>



Bevel Seat Elbows

Fittings

**3** Threaded Bevel Seat x Threaded Bevel Seat 90° Elbows - B2C



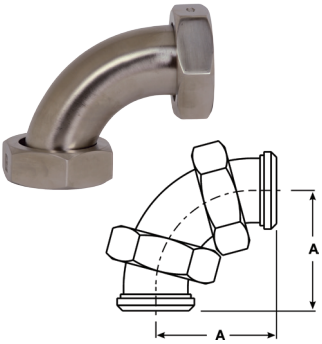
Tube OD	A	304 Stainless Steel Part Number
1"	2.218	<b>B2C-G100</b>
1½"	2.968	<b>B2C-G150</b>
2"	3.750	<b>B2C-G200</b>
2½"	4.625	<b>B2C-G250</b>
3"	5.406	<b>B2C-G300</b>
4"	7.031	<b>B2C-G400</b>

**3** Threaded Bevel Seat x Plain Bevel Seat with Hex Nut 90° Elbows - B2F



Tube OD	A	304 Stainless Steel Part Number
1"	2.218	<b>B2F-G100</b>
1½"	2.968	<b>B2F-G150</b>
2"	3.750	<b>B2F-G200</b>
2½"	4.625	<b>B2F-G250</b>
3"	5.406	<b>B2F-G300</b>
4"	7.031	<b>B2F-G400</b>

**3** Plain Bevel Seat x Plain Bevel Seat with Hex Nut 90° Elbows - B2E



Tube OD	A	304 Stainless Steel Part Number
1"	2.218	<b>B2E-G100</b>
1½"	2.968	<b>B2E-G150</b>
2"	3.750	<b>B2E-G200</b>
2½"	4.625	<b>B2E-G250</b>
3"	5.406	<b>B2E-G300</b>
4"	7.031	<b>B2E-G400</b>

**3** Threaded Bevel Seat x Plain Bevel Seat with Hex Nut 45° Elbows - B2P



Tube OD	A	304 Stainless Steel Part Number
1"	1.343	<b>B2P-G100</b>
1½"	1.655	<b>B2P-G150</b>
2"	2.000	<b>B2P-G200</b>
2½"	2.437	<b>B2P-G250</b>
3"	2.781	<b>B2P-G300</b>
4"	3.531	<b>B2P-G400</b>

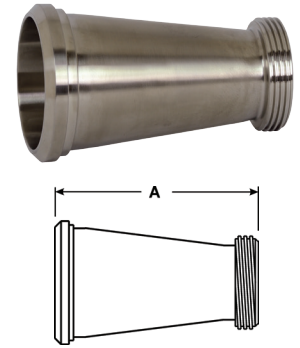


**Bevel Seat Concentric Reducers**

**Plain Bevel Seat x Threaded Bevel Seat Concentric Reducers - B3115F** 

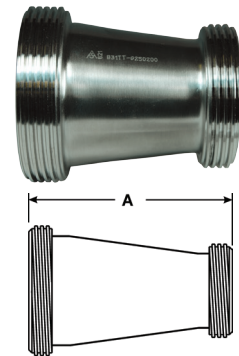
Fittings

Tube OD	A	304 Stainless Steel Part Number
1½" x 1"	3.436	<b>B3115F-G150100</b>
2" x 1½"	3.468	<b>B3115F-G200150</b>
2½" x 2"	3.625	<b>B3115F-G250200</b>
3" x 2"	5.656	<b>B3115F-G300200</b>
3" x 2½"	3.781	<b>B3115F-G300250</b>
4" x 3"	5.937	<b>B3115F-G400300</b>



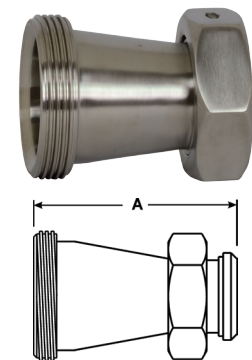
**Threaded Bevel Seat x Threaded Bevel Seat Concentric Reducers - B31TT** 

Tube OD	A	304 Stainless Steel Part Number
1½" x 1"	3.436	<b>B31TT-G150100</b>
2" x 1½"	3.468	<b>B31TT-G200150</b>
2½" x 2"	3.625	<b>B31TT-G250200</b>
3" x 2"	5.656	<b>B31TT-G300200</b>
3" x 2½"	3.781	<b>B31TT-G300250</b>
4" x 3"	5.937	<b>B31TT-G400300</b>



**Threaded Bevel Seat x Plain Bevel Seat with Hex Nut Concentric Reducers - B31TP** 

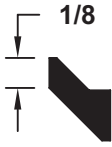
Tube OD	A	304 Stainless Steel Part Number
1½" x 1"	3.436	<b>B31TP-G150100</b>
2" x 1½"	3.468	<b>B31TP-G200150</b>
2½" x 2"	3.625	<b>B31TP-G250200</b>
3" x 2"	5.656	<b>B31TP-G300200</b>
3" x 2½"	3.781	<b>B31TP-G300250</b>
4" x 3"	5.937	<b>B31TP-G400300</b>



F

**Bevel Seat Gaskets**

Fittings



**Buna-N Bevel Seat Gaskets - Black**

- Feature:**
- color code: red dot
- Approval:**
- meets 21CFR 177.2600

Size	Part Number
1"	<b>40BS-O100</b>
1½"	<b>40BS-O150</b>
2"	<b>40BS-O200</b>
2½"	<b>40BS-O250</b>
3"	<b>40BS-O300</b>
4"	<b>40BS-O400</b>

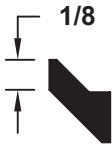
**Buna-N Flat Bevel Seat Gaskets - Black**



- Feature:**
- color code: red dot
- Approval:**
- meets 21CFR 177.2600

Size	Part Number
1"	<b>40BS-F100</b>
1½"	<b>40BS-F150</b>
2"	<b>40BS-F200</b>
2½"	<b>40BS-F250</b>
3"	<b>40BS-F300</b>
4"	<b>40BS-F400</b>

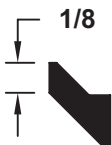
**EPDM Bevel Seat Gaskets - Black**



- Features:**
- color code: three green dots
  - peroxide cured
- Approvals:**
- meets 21CFR 177.2600
  - passed U.S.P. Class VI Cytotoxicity testing

Size	Part Number
1"	<b>40BS-E100</b>
1½"	<b>40BS-E150</b>
2"	<b>40BS-E200</b>
2½"	<b>40BS-E250</b>
3"	<b>40BS-E300</b>
4"	<b>40BS-E400</b>

**FKM Bevel Seat Gaskets - Black**



- Features:**
- color code: one white dot and one yellow dot
  - peroxide cured
- Approvals:**
- meets 21CFR 177.2600
  - passed U.S.P. Class VI Cytotoxicity testing

Size	Part Number
1"	<b>40BS-Y100</b>
1½"	<b>40BS-Y150</b>
2"	<b>40BS-Y200</b>
2½"	<b>40BS-Y250</b>
3"	<b>40BS-Y300</b>
4"	<b>40BS-Y400</b>

Note: refer to pages K-4 to K-6 for compatibility information

## Bevel Seat Gaskets

### Silicone Bevel Seat Gaskets - White

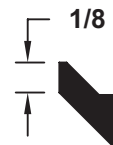
Size	Part Number
1"	<b>40BS-X100</b>
1½"	<b>40BS-X150</b>
2"	<b>40BS-X200</b>
2½"	<b>40BS-X250</b>
3"	<b>40BS-X300</b>
4"	<b>40BS-X400</b>

**Features:**

- color code: no dot
- peroxide cured

**Approvals:**

- meets 21CFR 177.2600
- passed U.S.P. Class VI Cytotoxicity testing



### PTFE Bevel Seat Gaskets - White

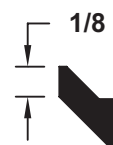
Size	Part Number
1"	<b>40BS-S100</b>
1½"	<b>40BS-S150</b>
2"	<b>40BS-S200</b>
2½"	<b>40BS-S250</b>
3"	<b>40BS-S300</b>
4"	<b>40BS-S400</b>

**Feature:**

- color code: no dot

**Approvals:**

- meets 21CFR 177.1550
- passed U.S.P. Class VI Cytotoxicity testing



### Heavy PTFE Bevel Seat Gaskets - White

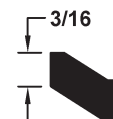
Size	Part Number
1"	<b>40BS-H100</b>
1½"	<b>40BS-H150</b>
2"	<b>40BS-H200</b>
2½"	<b>40BS-H250</b>
3"	<b>40BS-H300</b>
4"	<b>40BS-H400</b>

**Feature:**

- color code: no dot

**Approvals:**

- meets 21CFR 177.1550
- passed U.S.P. Class VI Cytotoxicity testing



PTFE is a material subject to plastic flow. When cycled through heat and then cooled down in process lines, PTFE gaskets will not return to the original configuration and it will continue to compress as the cycling continues. This plastic flow will allow leakage if clamp torques are not maintained.



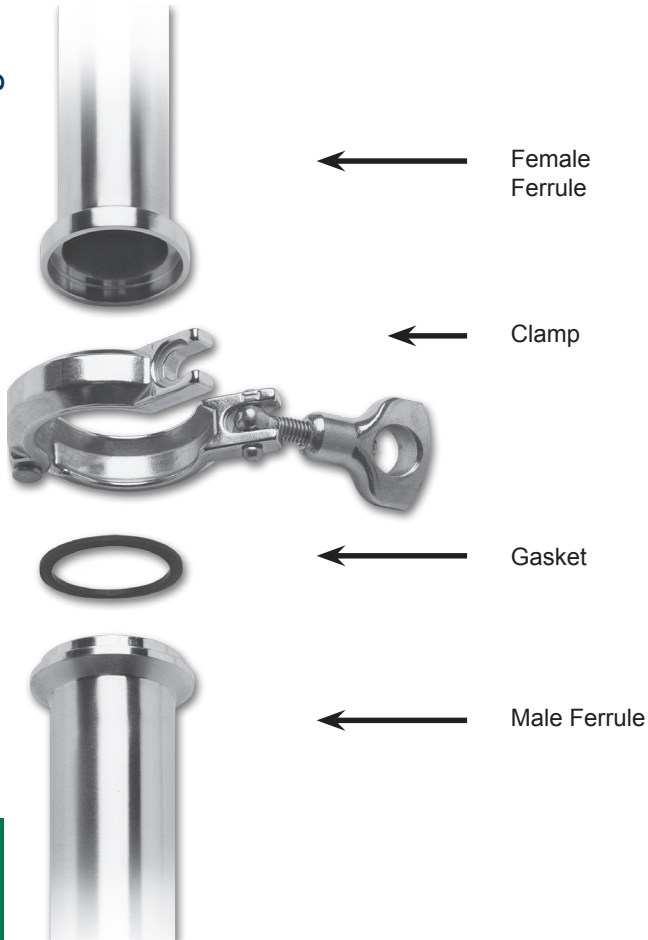
Note: refer to pages K-4 to K-6 for compatibility information



## Dixon Sanitary I-Line/Q-Line Fittings

### A Complete I-Line Connection

Fittings



**Sizes:**

- 1" - 8" OD tube I-line (stock items to 4", 6" & 8" are special order)
- 1" - 4" OD tube Q-Line

**Materials:**

- G = 304 stainless steel
- R = 316L stainless steel
- other alloys are available

**Feature:**

- 3A sanitary finish ID and OD

**Dimensions of stainless steel tube given in inches**

Tube OD	Nominal Wall Thickness (inches)	Gage Number
1"	.065	16
1½"	.065	16
2"	.065	16
2½"	.065	16
3"	.065	16
4"	.083	14
6"	.109	12
8"	.109	12

**I-Line/Q-Line Clamps**

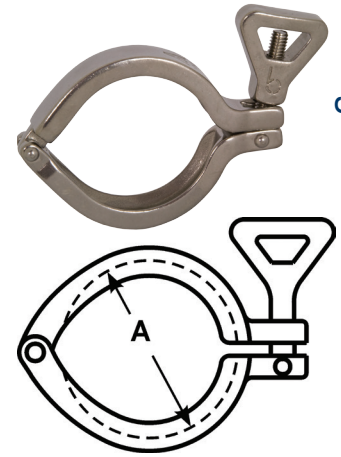
**Heavy Duty Clamps - 13ILH**

**Specification:**

- Q-Line service pressure rating for all sizes: **150 PSI @ 70°F (21°C)** and **125 PSI @ 250°F (121°C)**

Tube OD	Service Pressure Rating @ 70°F (21°C) <sup>1</sup>	Service Pressure Rating @ 250°F (121°C) <sup>1</sup>	A	Part Number
1"- 1½"	<b>700</b>	<b>250</b>	2.122	<b>13ILH100-150</b>
2"	<b>450</b>	<b>250</b>	2.654	<b>13ILH200</b>
2½"	<b>450</b>	<b>200</b>	3.185	<b>13ILH250</b>
3"	<b>350</b>	<b>150</b>	3.717	<b>13ILH300</b>
4"	<b>200</b>	<b>125</b>	4.820	<b>13ILH400</b>
6"	<b>150</b>	<b>100</b>	7.689	<b>13ILH600</b>
8"	<b>125</b>	<b>75</b>	9.689	<b>13ILH800</b>

<sup>1</sup> wing nut tightened to 25 in. lb. of torque

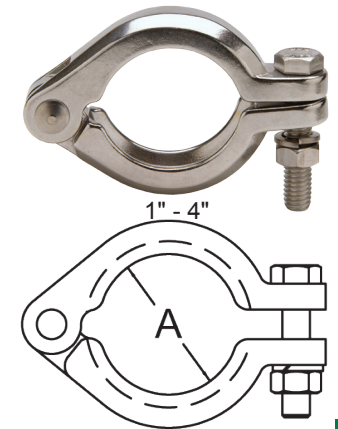


Fittings

**Bolted Clamps - 13ILB**

Tube OD	Service Pressure Rating @ 70°F (21°C) <sup>1</sup>	Service Pressure Rating @ 250°F (121°C) <sup>1</sup>	A	Part Number
1"- 1½"	<b>1220</b>	<b>1100</b>	2.122	<b>13ILB100-150</b>
2"	<b>900</b>	<b>830</b>	2.654	<b>13ILB200</b>
2½"	<b>720</b>	<b>660</b>	3.185	<b>13ILB250</b>
3"	<b>600</b>	<b>550</b>	3.717	<b>13ILB300</b>
4"	<b>570</b>	<b>525</b>	4.820	<b>13ILB400</b>

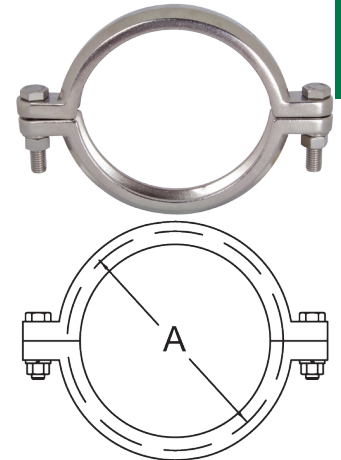
<sup>1</sup> nut tightened to 20 ft. lb. of torque



1" - 4"

Tube OD	Service Pressure Rating @ 70°F (21°C) <sup>1</sup>	Service Pressure Rating @ 250°F (121°C) <sup>1</sup>	A	Part Number
6"	<b>300</b>	<b>200</b>	7.689	<b>13ILB600</b>
8"	<b>250</b>	<b>150</b>	9.689	<b>13ILB800</b>

<sup>1</sup> nut tightened to 20 ft. lb. of torque

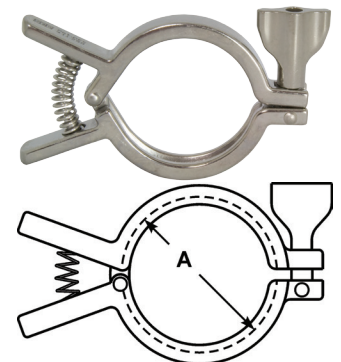


F

**Squeeze Clamps - 13IL-Q**

Tube OD	Service Pressure Rating @ 70°F (21°C) <sup>1</sup>	Service Pressure Rating @ 250°F (121°C) <sup>1</sup>	A	Part Number
1"- 1½"	<b>700</b>	<b>250</b>	2.122	<b>13IL-Q100150</b>
2"	<b>450</b>	<b>250</b>	2.654	<b>13IL-Q200</b>

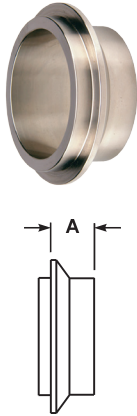
<sup>1</sup> wing nut tightened to 25 in. lb. of torque



I-Line/Q-Line Clamps

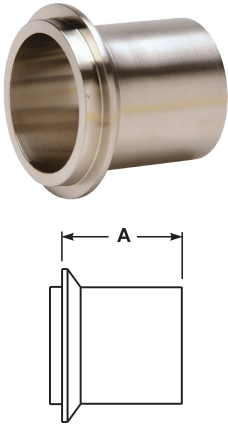
Fittings

**A** Male I-Line Short Weld Ferrules - 14WI



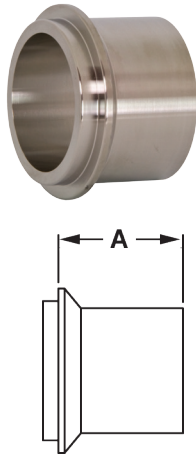
Tube OD	A	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	.600	<b>14WI-G100</b>	<b>14WI-R100</b>
1½"	.765	<b>14WI-G150</b>	<b>14WI-R150</b>
2"	.790	<b>14WI-G200</b>	<b>14WI-R200</b>
2½"	.848	<b>14WI-G250</b>	<b>14WI-R250</b>
3"	.906	<b>14WI-G300</b>	<b>14WI-R300</b>
4"	1.031	<b>14WI-G400</b>	<b>14WI-R400</b>
6"	.940	---	<b>14WI-R600</b>
8"	.940	---	<b>14WI-R800</b>

**A** Male I-Line Long Weld Ferrules - 14WLI



Tube OD	A	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	1.562	<b>14WLI-G100</b>	<b>14WLI-R100</b>
1½"	1.843	<b>14WLI-G150</b>	<b>14WLI-R150</b>
2"	2.062	<b>14WLI-G200</b>	<b>14WLI-R200</b>
2½"	2.188	<b>14WLI-G250</b>	<b>14WLI-R250</b>
3"	2.375	<b>14WLI-G300</b>	<b>14WLI-R300</b>
4"	2.688	<b>14WLI-G400</b>	<b>14WLI-R400</b>
6"	2.688	---	<b>14WLI-R600</b>

**A** Male I-Line Heavy Wall Tank Weld Ferrules - 14WHI

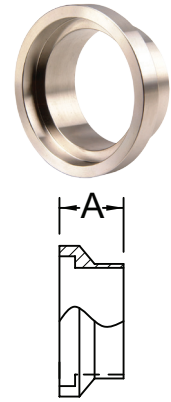


Tube OD	A	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	1.312	<b>14WHI-G100</b>	<b>14WHI-R100</b>
1½"	1.457	<b>14WHI-G150</b>	<b>14WHI-R150</b>
2"	1.500	<b>14WHI-G200</b>	<b>14WHI-R200</b>
2½"	1.437	<b>14WHI-G250</b>	<b>14WHI-R250</b>
3"	1.500	<b>14WHI-G300</b>	<b>14WHI-R300</b>
4"	1.812	<b>14WHI-G400</b>	<b>14WHI-R400</b>

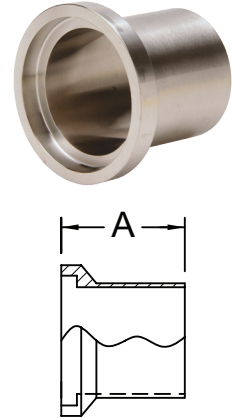
## I-Line/Q-Line Clamps

Female I-Line Short Weld Ferrules - 15WI 

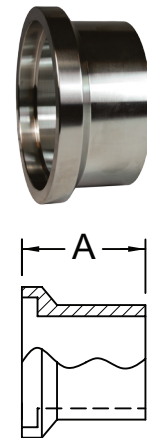
Tube OD	A	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	.785	<b>15WI-G100</b>	<b>15WI-R100</b>
1½"	.950	<b>15WI-G150</b>	<b>15WI-R150</b>
2"	1.040	<b>15WI-G200</b>	<b>15WI-R200</b>
2½"	1.160	<b>15WI-G250</b>	<b>15WI-R250</b>
3"	1.220	<b>15WI-G300</b>	<b>15WI-R300</b>
4"	1.350	<b>15WI-G400</b>	<b>15WI-R400</b>
6"	1.125	---	<b>15WI-R600</b>
8"	1.125	---	<b>15WI-R800</b>

Female I-Line Long Weld Ferrules - 15WLI 

Tube OD	A	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	1.750	<b>15WLI-G100</b>	<b>15WLI-R100</b>
1½"	2.031	<b>15WLI-G150</b>	<b>15WLI-R150</b>
2"	2.312	<b>15WLI-G200</b>	<b>15WLI-R200</b>
2½"	2.500	<b>15WLI-G250</b>	<b>15WLI-R250</b>
3"	2.688	<b>15WLI-G300</b>	<b>15WLI-R300</b>
4"	3.000	<b>15WLI-G400</b>	<b>15WLI-R400</b>
6"	3.000	---	<b>15WLI-R600</b>

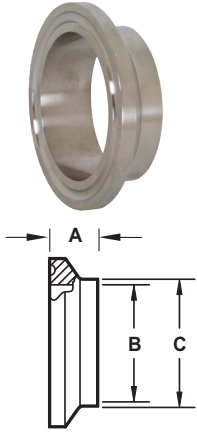
Female I-Line Heavy Wall Tank Weld Ferrules - 15WHI 

Tube OD	A	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	1.500	<b>15WHI-G100</b>	<b>15WHI-R100</b>
1½"	1.625	<b>15WHI-G150</b>	<b>15WHI-R150</b>
2"	1.750	<b>15WHI-G200</b>	<b>15WHI-R200</b>
2½"	1.750	<b>15WHI-G250</b>	<b>15WHI-R250</b>
3"	1.812	<b>15WHI-G300</b>	<b>15WHI-R300</b>
4"	2.125	<b>15WHI-G400</b>	<b>15WHI-R400</b>



I-Line/Q-Line Clamps

Fittings

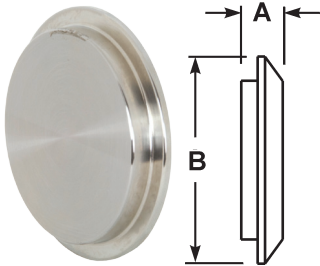


**3** Q-Line Weld Ferrules - 14WQ

Tube OD	A	B	C	304 Stainless Steel Part Number
1"	.531	.870	1.000	<b>14WQ-G100</b>
1½"	.563	1.370	1.500	<b>14WQ-G150</b>
2"	.813	1.870	2.000	<b>14WQ-G200</b>
2½"	.938	2.370	2.500	<b>14WQ-G250</b>
3"	.938	2.870	3.000	<b>14WQ-G300</b>
4"	1.000	3.834	4.000	<b>14WQ-G400</b>

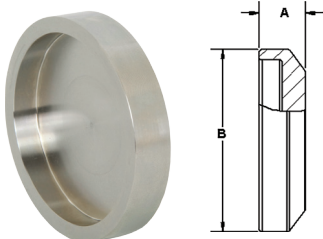
I-line/Q-Line End Caps

**3** Male I-Line Solid End Caps - 16AI-14I



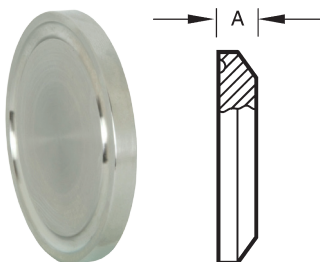
Tube OD	A	B	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	.500	1.985	<b>16AI-14I100</b>	<b>16AI-14I100R</b>
1½"	.500	1.985	<b>16AI-14I150</b>	<b>16AI-14I150R</b>
2"	.562	2.640	<b>16AI-14I200</b>	<b>16AI-14I200R</b>
2½"	.750	3.307	<b>16AI-14I250</b>	<b>16AI-14I250R</b>
3"	.750	3.870	<b>16AI-14I300</b>	<b>16AI-14I300R</b>
4"	.750	4.870	<b>16AI-14I400</b>	<b>16AI-14I400R</b>
6"	.750	7.495	<b>16AI-14I600</b>	<b>16AI-14I600R</b>
8"	.880	9.495	---	<b>16AI-14I800R</b>

**3** Female I-Line Solid End Caps - 16AI-15I



Tube OD	A	B	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	.500	1.985	<b>16AI-15I100</b>	<b>16AI-15I100R</b>
1½"	.500	1.985	<b>16AI-15I150</b>	<b>16AI-15I150R</b>
2"	.562	2.640	<b>16AI-15I200</b>	<b>16AI-15I200R</b>
2½"	.750	3.307	<b>16AI-15I250</b>	<b>16AI-15I250R</b>
3"	.750	3.870	<b>16AI-15I300</b>	<b>16AI-15I300R</b>
4"	.750	4.870	<b>16AI-15I400</b>	<b>16AI-15I400R</b>
6"	.750	7.495	<b>16AI-15I600</b>	<b>16AI-15I600R</b>
8"	.880	9.495	---	<b>16AI-15I800R</b>

**3** Q-Line Solid End Caps - 16AQ



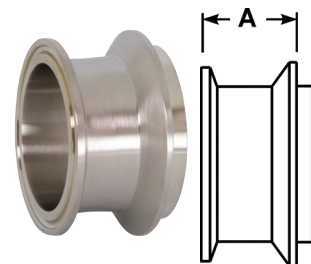
Tube OD	A	304 Stainless Steel Part Number
1"	.313	<b>16AQ-G100</b>
1½"	.313	<b>16AQ-G150</b>
2"	.438	<b>16AQ-G200</b>
2½"	.500	<b>16AQ-G250</b>
3"	.500	<b>16AQ-G300</b>
4"	.625	<b>16AQ-G400</b>



## I-Line/Q-Line Adapters

Male I-Line x Clamp Adapters - 17-14I-14MP 

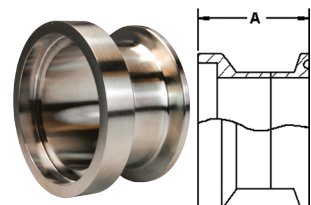
Tube OD	A	304 Stainless Steel Part Number
1"	1.093	<b>17-14I-14MPG100</b>
1½"	1.265	<b>17-14I-14MPG150</b>
2"	1.290	<b>17-14I-14MPG200</b>
2½"	1.312	<b>17-14I-14MPG250</b>
3"	1.406	<b>17-14I-14MPG300</b>
4"	1.656	<b>17-14I-14MPG400</b>



Fittings

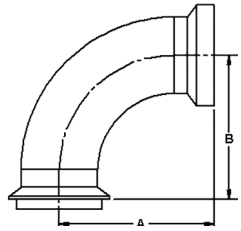
Female I-Line x Clamp Adapters - 17-15I-14MP 

Tube OD	A	304 Stainless Steel Part Number
1"	1.281	<b>17-15I-14MPG100</b>
1½"	1.450	<b>17-15I-14MPG150</b>
2"	1.540	<b>17-15I-14MPG200</b>
2½"	1.625	<b>17-15I-14MPG250</b>
3"	1.718	<b>17-15I-14MPG300</b>
4"	1.968	<b>17-15I-14MPG400</b>



I-Line/Q-Line Elbows

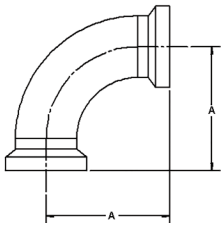
Fittings



**3** 90° Female I-Line x Male I-Line Elbows - B2FI

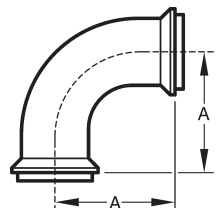
Tube OD	A	B	304 Stainless Steel Part Number
1"	2.281	2.093	<b>B2FI-G100</b>
1½"	3.188	3.000	<b>B2FI-G150</b>
2"	4.031	3.781	<b>B2FI-G200</b>
2½"	4.906	4.593	<b>B2FI-G250</b>
3"	5.718	5.406	<b>B2FI-G300</b>
4"	7.344	7.031	<b>B2FI-G400</b>

**3** 90° Female I-Line Elbows - B2CI



Tube OD	A	304 Stainless Steel Part Number
1"	2.281	<b>B2CI-G100</b>
1½"	3.188	<b>B2CI-G150</b>
2"	4.031	<b>B2CI-G200</b>
2½"	4.906	<b>B2CI-G250</b>
3"	5.718	<b>B2CI-G300</b>
4"	7.344	<b>B2CI-G400</b>

**3** 90° Male I-Line Elbows - B2EI



Tube OD	A	304 Stainless Steel Part Number
1"	2.093	<b>B2EI-G100</b>
1½"	3.000	<b>B2EI-G150</b>
2"	3.781	<b>B2EI-G200</b>
2½"	4.593	<b>B2EI-G250</b>
3"	5.406	<b>B2EI-G300</b>
4"	7.031	<b>B2EI-G400</b>

## I-Line Gaskets

## Buna-N I-Line Gaskets - Black 3/32"

Size	Part Number
1"	<b>40IH100</b>
1½"	<b>40IH150</b>
2"	<b>40IH200</b>
2½"	<b>40IH250</b>
3"	<b>40IH300</b>
4"	<b>40IH400</b>
6"	<b>40IH600</b>
8"	<b>40IH800</b>

**Feature:**

- color code: red dot

**Approval:**

- meets 21CFR 177.2600



## EPDM I-Line Gaskets - White 3/32"

Size	Part Number
1"	<b>40IE100</b>
1½"	<b>40IE150</b>
2"	<b>40IE200</b>
2½"	<b>40IE250</b>
3"	<b>40IE300</b>
4"	<b>40IE400</b>
6"	<b>40IE600</b>
8"	<b>40IE800</b>

**Features:**

- color code: three green dots
- peroxide cured

**Approvals:**

- meets 21CFR 177.2600
- passed U.S.P. Class VI Cytotoxicity testing



## EPDM I-Line Gaskets - White 1/16"

Size	Part Number
1½"	<b>40IE15016</b>
2"	<b>40IE20016</b>
2½"	<b>40IE25016</b>
3"	<b>40IE30016</b>
4"	<b>40IE40016</b>
6"	<b>40IE60016</b>
8"	<b>40IE80016</b>

**Features:**

- color code: three green dots
- peroxide cured

**Approvals:**

- meets 21CFR 177.2600
- passed U.S.P. Class VI Cytotoxicity testing



## FKM I-Line Gaskets - 1/16"

Size	Part Number
1"	<b>40IV100</b>
1½"	<b>40IV150</b>
2"	<b>40IV200</b>
2½"	<b>40IV250</b>
3"	<b>40IV300</b>
4"	<b>40IV400</b>
6"	<b>40IV600</b>
8"	<b>40IV800</b>

**Features:**

- color code: one white dot and one yellow dot
- peroxide cured

**Approvals:**

- meets 21CFR 177.1550
- passed U.S.P. Class VI Cytotoxicity testing



**I-Line Gaskets**

**PTFE I-Line Gaskets - 1/16"**

Fittings



- Feature:**
- color code: no dot
- Approvals:**
- meets 21CFR 177.1550
  - passed U.S.P. Class VI Cytotoxicity testing

Size	Part Number
1"	<b>40IT100</b>
1½"	<b>40IT150</b>
2"	<b>40IT200</b>
2½"	<b>40IT250</b>
3"	<b>40IT300</b>
4"	<b>40IT400</b>
6"	<b>40IT600</b>
8"	<b>40IT800</b>



PTFE is a material subject to plastic flow. When cycled through heat and then cooled down in process lines, PTFE gaskets will not return to the original configuration and it will continue to compress as the cycling continues. This plastic flow will allow leakage if clamp torques are not maintained.

**Q-Line Gaskets**

**Buna-N Q-Line Gaskets - Black**



- Feature:**
- color code: red dot
- Approval:**
- meets 21CFR 177.2600

Size	Part Number
1"	<b>40QH100</b>
1½"	<b>40QH150</b>
2"	<b>40QH200</b>
2½"	<b>40QH250</b>
3"	<b>40QH300</b>
4"	<b>40QH400</b>

**PTFE Q-Line Gaskets - White**



- Feature:**
- color code: no dot
- Approvals:**
- meets 21CFR 177.1550
  - passed U.S.P. Class VI Cytotoxicity testing

Size	Part Number
1"	<b>40QT100</b>
1½"	<b>40QT150</b>
2"	<b>40QT200</b>
2½"	<b>40QT250</b>
3"	<b>40QT300</b>
4"	<b>40QT400</b>



PTFE is a material subject to plastic flow. When cycled through heat and then cooled down in process lines, PTFE gaskets will not return to the original configuration and it will continue to compress as the cycling continues. This plastic flow will allow leakage if clamp torques are not maintained.

Note: refer to pages K-4 to K-6 for compatibility information

Dixon Sanitary John Perry Fittings



A Complete John Perry Connection

Sizes:

- 1" - 4" OD tube

Materials:

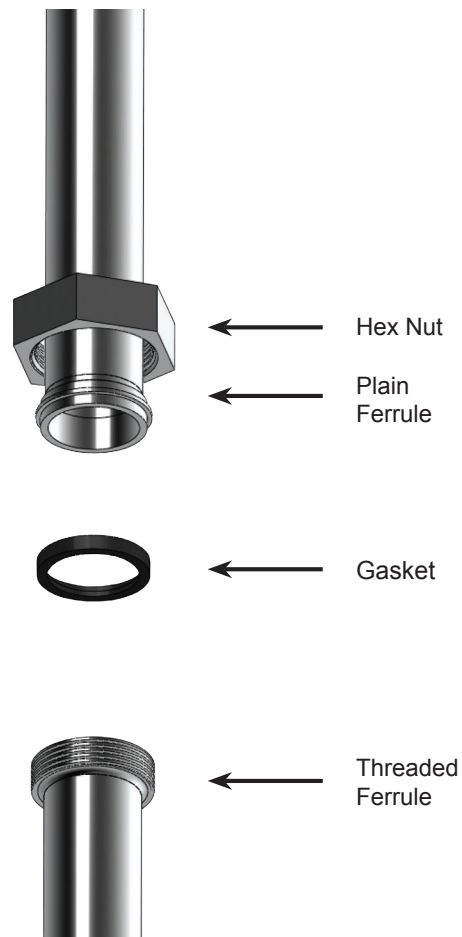
- G = 304 stainless steel
- R = 316L stainless steel
- other alloys are available

Feature:

- 3A sanitary finish ID and OD

Dimensions of stainless steel tube given in inches

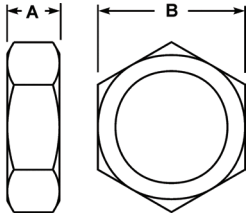
Tube OD	Nominal Wall Thickness (inches)	Gage Number
1"	.065	16
1½"	.065	16
2"	.065	16
2½"	.065	16
3"	.065	16
4"	.083	14



**John Perry Nuts**

**Union Hex Nuts - 13H**

Fittings

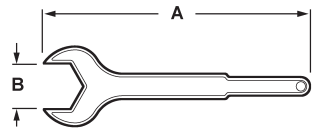


**Specification:**  
 • 400 PSI maximum

Tube OD	A	B	304 Stainless Steel (CF8) Part Number
1"	.906	1.812	<b>13H-G100</b>
1½"	.968	2.406	<b>13H-G150</b>
2"	1.062	3.000	<b>13H-G200</b>
2½"	1.187	3.594	<b>13H-G250</b>
3"	1.281	4.188	<b>13H-G300</b>
4"	1.500	5.438	<b>13H-G400</b>

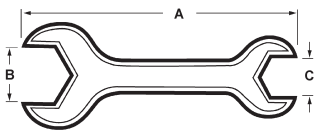
**John Perry Wrenches**

**Single Side Hex Wrenches - 25H**



Tube OD	A	B	Weight lbs.	Aluminum Part Number
1"	10.500	1.812	.64	<b>25H-100</b>
1½"	12.000	2.406	.86	<b>25H-150</b>
2"	14.000	3.000	1.76	<b>25H-200</b>
2½"	16.250	3.594	2.40	<b>25H-250</b>
3"	18.500	4.188	3.04	<b>25H-300</b>
4"	19.500	5.438	3.62	<b>25H-400</b>

**Two Sided Hex Wrenches - 25H**



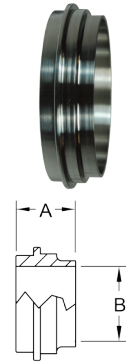
Tube OD	A	B	C	Weight lbs.	Aluminum Part Number
1½" x 1"	12.000	2.406	1.812	1.00	<b>25H-150100</b>
2" x 1½"	14.000	3.000	2.406	1.75	<b>25H-200150</b>
2½" x 2"	16.500	3.594	3.000	2.80	<b>25H-250200</b>
3" x 2"	18.000	4.188	3.000	3.20	<b>25H-300200</b>
3" x 2½"	18.000	4.188	3.594	3.70	<b>25H-300250</b>

## John Perry Ferrules

## John Perry Short Plain Weld Ferrules - 14PRFJP



Tube OD	A	B	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	.719	.870	<b>14PRFJP-G100</b>	<b>14PRFJP-R100</b>
1½"	.719	1.370	<b>14PRFJP-G150</b>	<b>14PRFJP-R150</b>
2"	.750	1.870	<b>14PRFJP-G200</b>	<b>14PRFJP-R200</b>
2½"	.875	2.370	<b>14PRFJP-G250</b>	<b>14PRFJP-R250</b>
3"	.906	2.870	<b>14PRFJP-G300</b>	<b>14PRFJP-R300</b>
4"	1.031	3.834	<b>14PRFJP-G400</b>	<b>14PRFJP-R400</b>

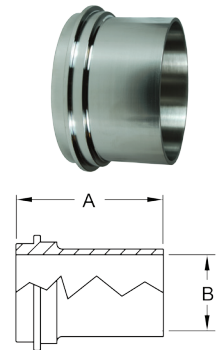


Fittings

## John Perry Long Plain Weld Ferrules - L14AJP



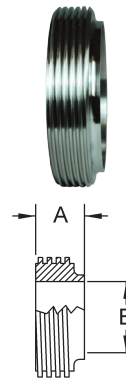
Tube OD	A	B	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	1.375	.870	<b>L14AJP-G100</b>	<b>L14AJP-R100</b>
1½"	1.500	1.370	<b>L14AJP-G150</b>	<b>L14AJP-R150</b>
2"	1.500	1.870	<b>L14AJP-G200</b>	<b>L14AJP-R200</b>
2½"	1.750	2.370	<b>L14AJP-G250</b>	<b>L14AJP-R250</b>
3"	1.750	2.870	<b>L14AJP-G300</b>	<b>L14AJP-R300</b>
4"	1.750	3.834	<b>L14AJP-G400</b>	<b>L14AJP-R400</b>



## John Perry Threaded Short Weld Ferrules - 15TRFJP



Tube OD	A	B	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	.719	.870	<b>15TRFJP-G100</b>	<b>15TRFJP-R100</b>
1½"	.719	1.370	<b>15TRFJP-G150</b>	<b>15TRFJP-R150</b>
2"	.750	1.870	<b>15TRFJP-G200</b>	<b>15TRFJP-R200</b>
2½"	.875	2.370	<b>15TRFJP-G250</b>	<b>15TRFJP-R250</b>
3"	.906	2.870	<b>15TRFJP-G300</b>	<b>15TRFJP-R300</b>
4"	1.031	3.834	<b>15TRFJP-G400</b>	<b>15TRFJP-R400</b>

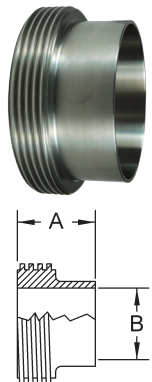


F

## John Perry Threaded Long Weld Ferrules - L15AJP



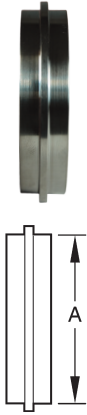
Tube OD	A	B	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	1.375	.870	<b>L15AJP-G100</b>	<b>L15AJP-R100</b>
1½"	1.500	1.370	<b>L15AJP-G150</b>	<b>L15AJP-R150</b>
2"	1.500	1.870	<b>L15AJP-G200</b>	<b>L15AJP-R200</b>
2½"	1.750	2.370	<b>L15AJP-G250</b>	<b>L15AJP-R250</b>
3"	1.750	2.870	<b>L15AJP-G300</b>	<b>L15AJP-R300</b>
4"	1.750	3.834	<b>L15AJP-G400</b>	<b>L15AJP-R400</b>



**John Perry End Caps**

**John Perry Solid End Caps - 16AJP**

Fittings



Tube OD	A	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	1.125	<b>16AJP-G100</b>	<b>16AJP-R100</b>
1½"	1.656	<b>16AJP-G150</b>	<b>16AJP-R150</b>
2"	2.187	<b>16AJP-G200</b>	<b>16AJP-R200</b>
2½"	2.656	<b>16AJP-G250</b>	<b>16AJP-R250</b>
3"	3.187	<b>16AJP-G300</b>	<b>16AJP-R300</b>
4"	4.187	<b>16AJP-G400</b>	<b>16AJP-R400</b>

**John Perry Gaskets**

**Buna 80 Duro John Perry Gaskets**

**Feature:**

- color code: one red dot

**Approval:**

- meets 21CFR 177.2600



Size	Part Number
1"	<b>40JP-U100</b>
1½"	<b>40JP-U150</b>
2"	<b>40JP-U200</b>
2½"	<b>40JP-U250</b>
3"	<b>40JP-U300</b>
4"	<b>40JP-U400</b>

**EPDM John Perry Gaskets**

**Features:**

- color code: three green dots
- peroxide cured

**Approvals:**

- meets 21CFR 177.2600
- passed U.S.P. Class VI Cytotoxicity testing



Size	Part Number
1"	<b>40JP-E100</b>
1½"	<b>40JP-E150</b>
2"	<b>40JP-E200</b>
2½"	<b>40JP-E250</b>
3"	<b>40JP-E300</b>
4"	<b>40JP-E400</b>

Note: refer to pages K-4 to K-6 for compatibility information



## John Perry Gaskets

## FKM John Perry Gaskets

**Features:**

- color code: one white dot and one yellow dot
- peroxide cured

**Approvals:**

- meets 21CFR 177.2600
- passed U.S.P. Class VI Cytotoxicity testing

Size	Part Number
1"	<b>40JP-SFY100</b>
1½"	<b>40JP-SFY150</b>
2"	<b>40JP-SFY200</b>
2½"	<b>40JP-SFY250</b>
3"	<b>40JP-SFY300</b>
4"	<b>40JP-SFY400</b>

## Virgin PTFE John Perry Gaskets

**Feature:**

- color code: no dot

**Approvals:**

- meets 21CFR 177.1550
- passed U.S.P. Class VI Cytotoxicity testing

Size	Part Number
1"	<b>40JP-G100</b>
1½"	<b>40JP-G150</b>
2"	<b>40JP-G200</b>
2½"	<b>40JP-G250</b>
3"	<b>40JP-G300</b>
4"	<b>40JP-G400</b>

PTFE is a material subject to plastic flow. When cycled through heat and then cooled down in process lines, PTFE gaskets will not return to the original configuration and it will continue to compress as the cycling continues. This plastic flow will allow leakage if clamp torques are not maintained.

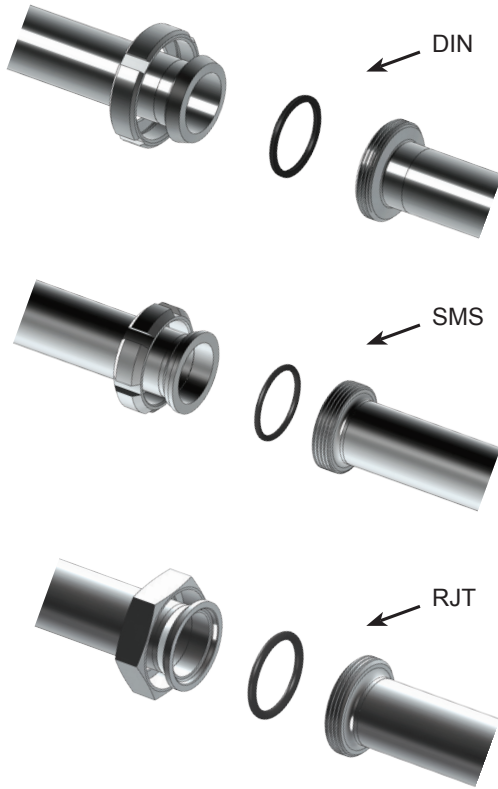


Note: refer to pages K-4 to K-6 for compatibility information

**Dixon Sanitary Euro Fittings**

## European Connections

Fittings

**Sizes:**

- 1" - 4" nominal diameter

**Materials:**

- G = 304 stainless steel
- R = 316 stainless steel

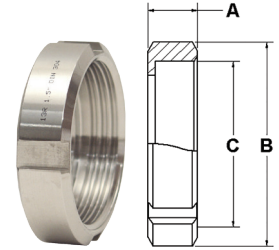
**Feature:**

- 3A sanitary finish ID and OD

## DIN 11851

## DIN Round Nuts - 13R

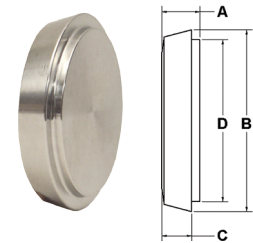
Nominal Size	A (mm)	B (mm)	C (mm)	304 Stainless Steel Part Number
1"	21.0	63.0	52 x 1/6	<b>13R-G100DIN</b>
1½"	21.0	78.0	65 x 1/6	<b>13R-G150DIN</b>
2"	22.0	92.0	78 x 1/6	<b>13R-G200DIN</b>
2½"	25.0	112.0	95 x 1/6	<b>13R-G250DIN</b>
3"	30.0	127.0	110 x 1/4	<b>13R-G300DIN</b>
4"	31.0	148.0	130 x 1/4	<b>13R-G400DIN</b>



Fittings

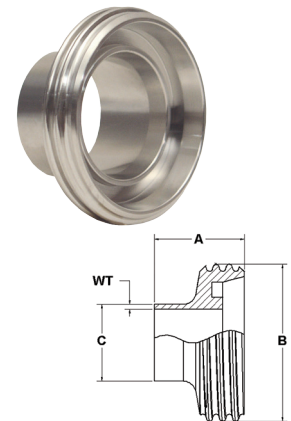
## DIN Blank Caps - 16AMP

Nominal Size	A (mm)	B (mm)	C (mm)	D (mm)	316 Stainless Steel Part Number
1"	13.0	44.0	9.9	35.0	<b>16AMP-R100DIN</b>
1½"	13.0	56.0	9.9	48.0	<b>16AMP-R150DIN</b>
2"	14.0	68.0	10.9	61.0	<b>16AMP-R200DIN</b>
2½"	16.0	86.0	11.9	79.0	<b>16AMP-R250DIN</b>
3"	16.0	100.0	11.9	93.0	<b>16AMP-R300DIN</b>
4"	20.1	120.0	15.0	114.0	<b>16AMP-R400DIN</b>



## DIN Welding Males - 15A

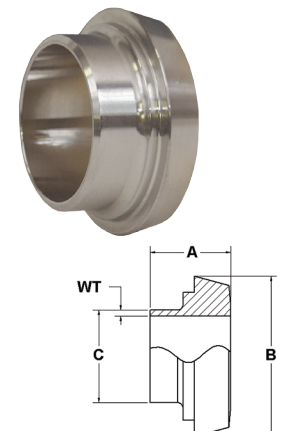
Nominal Size	WT (mm)	A (mm)	B (mm)	C (mm)	316 Stainless Steel Part Number
1"	1.6	29.0	52 x 1/6	25.4	<b>15A-R100DIN</b>
1½"	1.6	33.0	65 x 1/6	38.1	<b>15A-R150DIN</b>
2"	1.7	35.0	78 x 1/6	51.0	<b>15A-R200DIN</b>
2½"	1.6	40.0	95 x 1/6	63.5	<b>15A-R250DIN</b>
3"	1.6	45.0	110 x 1/4	76.2	<b>15A-R300DIN</b>
4"	2.0	54.0	130 x 1/4	101.6	<b>15A-R400DIN</b>



F

## DIN Welding Liners - 14A

Nominal Size	WT (mm)	A (mm)	B (mm)	C (mm)	316 Stainless Steel Part Number
1"	1.6	22.0	44.0	25.4	<b>14A-R100DIN</b>
1½"	1.6	26.0	56.0	38.1	<b>14A-R150DIN</b>
2"	1.7	28.0	68.0	51.0	<b>14A-R200DIN</b>
2½"	1.6	32.0	86.0	63.5	<b>14A-R250DIN</b>
3"	1.6	37.0	100.0	76.2	<b>14A-R300DIN</b>
4"	2.0	44.0	121.0	101.6	<b>14A-R400DIN</b>

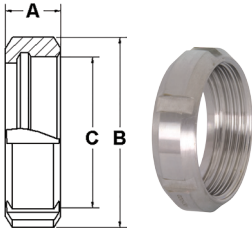


Manufactured in accordance to Imperial DIN 11851

SMS

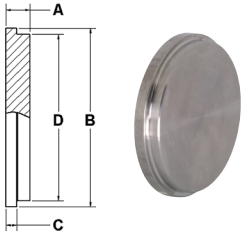
SMS Round Nuts - 13R

Fittings



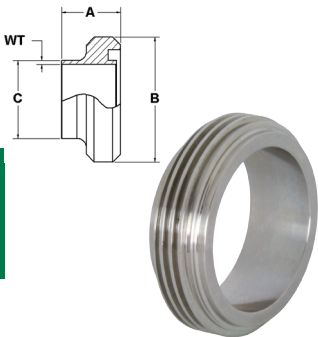
Nominal Size	A (mm)	B (mm)	C (mm)	304 Stainless Steel Part Number
1"	19.0	51.0	40 x 1/6	<b>13R-G100SMS</b>
1½"	23.0	74.0	60 x 1/6	<b>13R-G150SMS</b>
2"	24.0	84.0	70 x 1/6	<b>13R-G200SMS</b>
2½"	28.0	100.0	85 x 1/6	<b>13R-G250SMS</b>
3"	30.0	114.0	98 x 1/6	<b>13R-G300SMS</b>
4"	31.0	138.0	125 x 1/6	<b>13R-G400SMS</b>

SMS Blank Caps - 16AMP



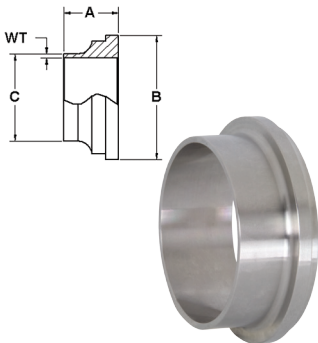
Nominal Size	A (mm)	B (mm)	C (mm)	D (mm)	316 Stainless Steel Part Number
1"	7.5	35.5	3.6	32.0	<b>16AMP-R100SMS</b>
1½"	8.0	55.0	4.1	47.9	<b>16AMP-R150SMS</b>
2"	9.0	65.0	4.1	60.4	<b>16AMP-R200SMS</b>
2½"	9.0	80.0	4.1	73.5	<b>16AMP-R250SMS</b>
3"	11.0	93.0	5.1	86.5	<b>16AMP-R300SMS</b>
4"	11.0	118.0	5.8	112.5	<b>16AMP-R400SMS</b>

SMS Welding Males - 15A



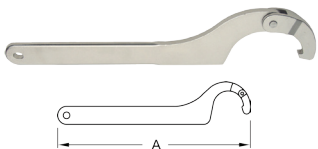
Nominal Size	WT (mm)	A (mm)	B (mm)	C (mm)	316 Stainless Steel Part Number
1"	1.25	19.0	40 x 1/6	25.0	<b>15A-R100SMS</b>
1½"	1.25	23.0	60 x 1/6	38.0	<b>15A-R150SMS</b>
2"	1.25	23.0	70 x 1/6	51.0	<b>15A-R200SMS</b>
2½"	1.50	27.0	85 x 1/6	63.5	<b>15A-R250SMS</b>
3"	1.60	27.0	98 x 1/6	76.1	<b>15A-R300SMS</b>
4"	2.00	30.0	125 x 1/6	101.6	<b>15A-R400SMS</b>

SMS Welding Liners - 14A



Nominal Size	WT (mm)	A (mm)	B (mm)	C (mm)	316 Stainless Steel Part Number
1"	1.25	15.5	35.5	25.0	<b>14A-R100SMS</b>
1½"	1.25	16.0	55.0	38.0	<b>14A-R150SMS</b>
2"	1.25	17.0	65.0	51.0	<b>14A-R200SMS</b>
2½"	1.50	17.0	80.0	63.5	<b>14A-R250SMS</b>
3"	1.60	19.0	93.0	76.1	<b>14A-R300SMS</b>
4"	2.00	19.0	118.0	101.6	<b>14A-R400SMS</b>

DIN and SMS Spanner Wrenches - SP

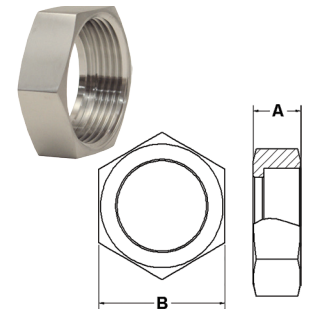


Used On Nominal Size	A (mm)	Nickel Plated Steel Part Number
1" - 1½"	247.7	<b>DIN-SMS-60/90SP</b>
2" - 4"	330.2	<b>DIN-SMS90/155SP</b>

Manufactured in accordance to Swedish Milk Standard ISO 2037 and ISO 2851

**RJT BS:4825****RJT Hex Nuts - 13H**

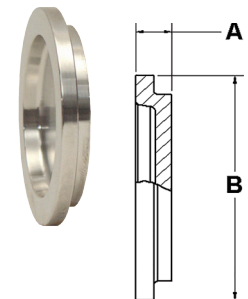
Nominal Size	A (mm)	B (mm)	304 Stainless Steel Part Number
1"	22.2	50.80	<b>13H-G100RJT</b>
1½"	22.2	65.02	<b>13H-G150RJT</b>
2"	22.2	79.25	<b>13H-G200RJT</b>
2½"	22.2	91.95	<b>13H-G250RJT</b>
3"	22.2	104.65	<b>13H-G300RJT</b>
4"	22.2	130.05	<b>13H-G400RJT</b>



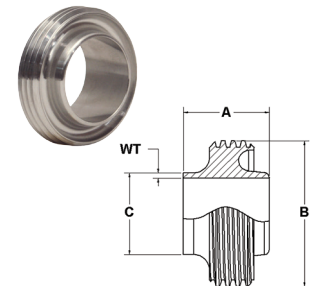
Fittings

**RJT Blank Caps - 13RBN**

Nominal Size	A (mm)	B (mm)	304 Stainless Steel Part Number
1"	8.2	41.3	<b>13RBN-G100RJT</b>
1½"	8.2	54.0	<b>13RBN-G150RJT</b>
2"	8.2	66.7	<b>13RBN-G200RJT</b>
2½"	8.2	79.4	<b>13RBN-G250RJT</b>
3"	8.2	92.1	<b>13RBN-G300RJT</b>
4"	8.2	117.5	<b>13RBN-G400RJT</b>

**RJT Welding Males - 15A**

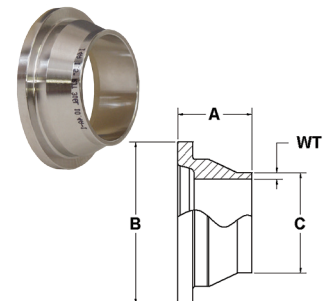
Nominal Size	WT (mm)	A (mm)	B (mm)	C (mm)	316 Stainless Steel Part Number
1"	1.73	27.0	45.72 x 1/8	25.65	<b>15A-R100RJT</b>
1½"	1.73	27.0	58.42 x 1/8	38.35	<b>15A-R150RJT</b>
2"	1.73	27.0	72.72 x 1/6	51.05	<b>15A-R200RJT</b>
2½"	1.73	27.0	85.42 x 1/6	63.75	<b>15A-R250RJT</b>
3"	1.73	27.0	98.12 x 1/6	76.45	<b>15A-R300RJT</b>
4"	2.13	27.0	123.52 x 1/6	101.85	<b>15A-R400RJT</b>



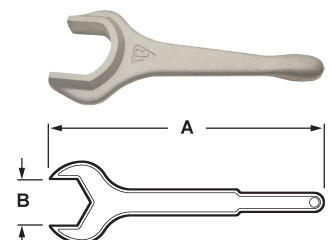
F

**RJT Welding Liners - 14A**

Nominal Size	WT (mm)	A (mm)	B (mm)	C (mm)	316 Stainless Steel Part Number
1"	1.73	19.5	41.3	25.65	<b>14A-R100RJT</b>
1½"	1.73	19.5	54.0	38.35	<b>14A-R150RJT</b>
2"	1.73	19.5	66.7	51.05	<b>14A-R200RJT</b>
2½"	1.73	19.5	79.4	63.75	<b>14A-R250RJT</b>
3"	1.73	19.5	92.1	76.45	<b>14A-R300RJT</b>
4"	2.13	19.5	117.5	101.85	<b>14A-R400RJT</b>

**RJT Spanner Wrenches - SP**

Size	A (mm)	B (mm)	Aluminum Part Number
1"	254.00	50.80	<b>RJT-100SP</b>
1½"	292.10	65.02	<b>RJT-150SP</b>
2"	304.80	79.25	<b>RJT-200SP</b>
2½"	342.80	91.95	<b>RJT-250SP</b>
3"	368.30	104.65	<b>RJT-300SP</b>
4"	444.50	130.05	<b>RJT-400SP</b>



Manufactured in accordance to BS 4825

European Gaskets

Fittings



DIN Buna-N Euro Gaskets - Black

Feature:

- color code: red dot

Approval:

- meets 21CFR 177.2600

Nominal Size	ID (mm)	OD (mm)	DIN 11851 Part Number
1"	29.97	39.88	<b>40MP-U100DIN</b>
1½"	41.91	52.07	<b>40MP-U150DIN</b>
2"	54.10	64.01	<b>40MP-U200DIN</b>
2½"	71.12	81.03	<b>40MP-U250DIN</b>
3"	85.09	95.00	<b>40MP-U300DIN</b>
4"	103.89	114.05	<b>40MP-U400DIN</b>

SMS Buna-N Euro Gaskets - Black

Feature:

- color code: red dot

Approval:

- meets 21CFR 177.2600

Nominal Size	ID (mm)	OD (mm)	L Style Part Number
1"	24.89	32.00	<b>40MP-U100SMS</b>
1½"	37.49	48.00	<b>40MP-U150SMS</b>
2"	50.80	61.00	<b>40MP-U200SMS</b>
2½"	63.50	73.40	<b>40MP-U250SMS</b>
3"	75.95	86.10	<b>40MP-U300SMS</b>
4"	103.89	114.00	<b>40MP-U400SMS</b>

RJT Buna-N Euro Gaskets - Black

Feature:

- color code: red dot

Approval:

- meets 21CFR 177.2600

Nominal Size	ID (mm)	OD (mm)	Part Number
1"	26.92	6.35	<b>40MP-U100RJT</b>
1½"	39.62	6.35	<b>40MP-U150RJT</b>
2"	52.32	6.35	<b>40MP-U200RJT</b>
2½"	65.08	6.35	<b>40MP-U250RJT</b>
3"	77.72	6.35	<b>40MP-U300RJT</b>
4"	103.12	6.35	<b>40MP-U400RJT</b>

Note: refer to pages K-4 to K-6 for compatibility information

## Dixon Sanitary Polished Weld Fittings



### A Complete Weld Connection

**Size range:**

- ½" - 12" OD tube

**Materials:**

- G = 304 stainless steel
- R = 316L stainless steel
- other alloys are available

**Features:**

- 3A sanitary finish ID and OD
- #3, #5 and electropolish finishes are available



← Weld end



← Weld end

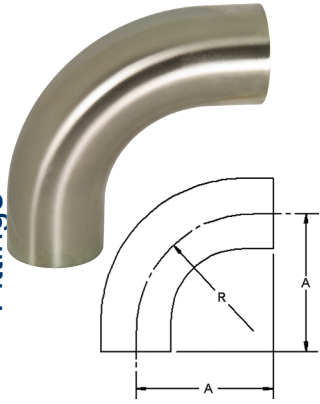
**Dimensions of stainless steel tube given in inches**

Tube OD	Nominal Wall Thickness (inches)	Gage Number
½"	.065	16
¾"	.065	16
1"	.065	16
1½"	.065	16
2"	.065	16
2½"	.065	16
3"	.065	16
4"	.083	14
6"	.109	12
8"	.109	12
10"	.120	10
12"	.120	10



Weld Elbows

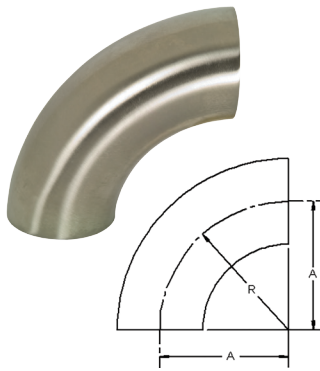
Fittings



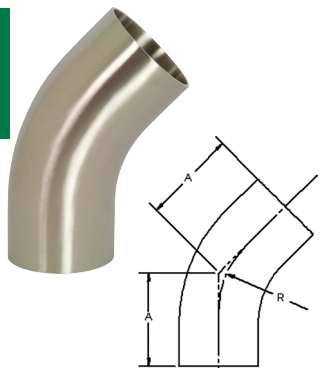
**3** Polished 90° Weld Elbows with Tangents - B2S

Tube OD	A	R	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1/2"	3.000	1.125	.065	---	<b>B2S-R50P</b>
3/4"	3.000	1.125	.065	---	<b>B2S-R75P</b>
1"	2.062	1.500	.065	<b>B2S-G100P</b>	<b>B2S-R100P</b>
1 1/2"	2.937	2.250	.065	<b>B2S-G150P</b>	<b>B2S-R150P</b>
2"	4.062	3.000	.065	<b>B2S-G200P</b>	<b>B2S-R200P</b>
2 1/2"	5.187	3.750	.065	<b>B2S-G250P</b>	<b>B2S-R250P</b>
3"	6.312	4.500	.065	<b>B2S-G300P</b>	<b>B2S-R300P</b>
4"	8.312	6.000	.083	<b>B2S-G400P</b>	<b>B2S-R400P</b>

**3** Polished 90° Weld Elbows - B2WCL



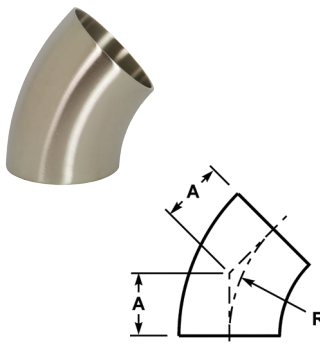
Tube OD	A	R	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1/2"	1.125	1.125	.065	---	<b>B2WCL-R50P</b>
3/4"	1.125	1.125	.065	---	<b>B2WCL-R75P</b>
1"	1.500	1.500	.065	<b>B2WCL-G100P</b>	<b>B2WCL-R100P</b>
1 1/2"	2.250	2.250	.065	<b>B2WCL-G150P</b>	<b>B2WCL-R150P</b>
2"	3.000	3.000	.065	<b>B2WCL-G200P</b>	<b>B2WCL-R200P</b>
2 1/2"	3.750	3.750	.065	<b>B2WCL-G250P</b>	<b>B2WCL-R250P</b>
3"	4.500	4.500	.065	<b>B2WCL-G300P</b>	<b>B2WCL-R300P</b>
4"	6.000	6.000	.083	<b>B2WCL-G400P</b>	<b>B2WCL-R400P</b>
6"	9.000	9.000	.109	<b>B2WCL-G600P</b>	<b>B2WCL-R600P</b>
8"	12.000	12.000	.109	<b>B2WCL-G800P</b>	<b>B2WCL-R800P</b>
10"	15.000	15.000	.120	<b>B2WCL-G1000P</b>	<b>B2WCL-R1000P</b>



**3** Polished 45° Weld Elbows with Tangents - B2KS

Tube OD	A	R	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1/2"	2.250	1.125	.065	---	<b>B2KS-R50P</b>
3/4"	2.250	1.125	.065	---	<b>B2KS-R75P</b>
1"	1.188	1.500	.065	<b>B2KS-G100P</b>	<b>B2KS-R100P</b>
1 1/2"	1.625	2.250	.065	<b>B2KS-G150P</b>	<b>B2KS-R150P</b>
2"	2.312	3.000	.065	<b>B2KS-G200P</b>	<b>B2KS-R200P</b>
2 1/2"	3.000	3.750	.065	<b>B2KS-G250P</b>	<b>B2KS-R250P</b>
3"	3.688	4.500	.065	<b>B2KS-G300P</b>	<b>B2KS-R300P</b>
4"	4.812	6.000	.083	<b>B2KS-G400P</b>	<b>B2KS-R400P</b>

**3** Polished 45° Weld Elbows - B2WK



Tube OD	A	R	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1/2"	.466	1.125	.065	---	<b>B2WK-R50P</b>
3/4"	.466	1.125	.065	---	<b>B2WK-R75P</b>
1"	.625	1.500	.065	<b>B2WK-G100P</b>	<b>B2WK-R100P</b>
1 1/2"	.937	2.250	.065	<b>B2WK-G150P</b>	<b>B2WK-R150P</b>
2"	1.250	3.000	.065	<b>B2WK-G200P</b>	<b>B2WK-R200P</b>
2 1/2"	1.562	3.750	.065	<b>B2WK-G250P</b>	<b>B2WK-R250P</b>
3"	1.875	4.500	.065	<b>B2WK-G300P</b>	<b>B2WK-R300P</b>
4"	2.500	6.000	.083	<b>B2WK-G400P</b>	<b>B2WK-R400P</b>
6"	3.750	9.000	.109	<b>B2WK-G600P</b>	<b>B2WK-R600P</b>
8"	5.000	12.000	.109	<b>B2WK-G800P</b>	<b>B2WK-R800P</b>
10"	6.250	15.000	.120	<b>B2WK-G1000P</b>	<b>B2WK-R1000P</b>
12"	7.500	18.000	.120	<b>B2WK-G1200P</b>	<b>B2WK-R1200P</b>



**Weld Elbows**

**Polished 90° Clamp x Weld Elbows - B2CM** 

Tube OD	A	B	R	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	2.562	2.062	1.500	.065	<b>B2CM-G100</b>	<b>B2CM-R100</b>
1½"	3.438	2.937	2.250	.065	<b>B2CM-G150</b>	<b>B2CM-R150</b>
2"	4.562	4.062	3.000	.065	<b>B2CM-G200</b>	<b>B2CM-R200</b>
2½"	5.688	5.187	3.750	.065	<b>B2CM-G250</b>	<b>B2CM-R250</b>
3"	6.812	6.312	4.500	.065	<b>B2CM-G300</b>	<b>B2CM-R300</b>
4"	8.937	8.312	6.000	.083	<b>B2CM-G400</b>	<b>B2CM-R400</b>



Fittings

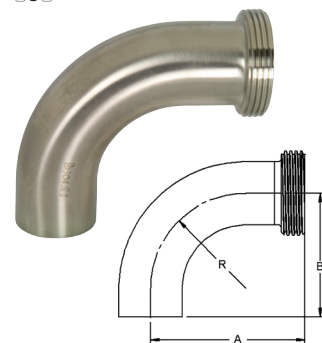
**Polished 45° Clamp x Weld Elbows - B2KM** 

Tube OD	A	B	R	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	1.188	1.688	1.500	.065	<b>B2KM-G100</b>	<b>B2KM-R100</b>
1½"	1.625	2.125	2.250	.065	<b>B2KM-G150</b>	<b>B2KM-R150</b>
2"	2.312	2.812	3.000	.065	<b>B2KM-G200</b>	<b>B2KM-R200</b>
2½"	3.000	3.500	3.750	.065	<b>B2KM-G250</b>	<b>B2KM-R250</b>
3"	3.688	4.188	4.500	.065	<b>B2KM-G300</b>	<b>B2KM-R300</b>
4"	4.812	5.437	6.000	.083	<b>B2KM-G400</b>	<b>B2KM-R400</b>



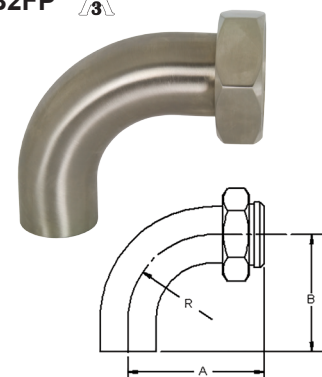
**Polished 90° Threaded Bevel Seat x Weld Elbows - B2T** 

Tube OD	A	B	R	Nominal Wall	304 Stainless Steel Part Number
1"	2.780	2.062	1.500	.065	<b>B2T-G100</b>
1½"	3.656	2.937	2.250	.065	<b>B2T-G150</b>
2"	4.812	4.062	3.000	.065	<b>B2T-G200</b>
2½"	6.062	5.187	3.750	.065	<b>B2T-G250</b>
3"	7.218	6.312	4.500	.065	<b>B2T-G300</b>
4"	9.343	8.312	6.000	.083	<b>B2T-G400</b>



**Polished 90° Plain Bevel Seat with Hex Nut x Weld Elbows - B2FP** 

Tube OD	A	B	R	Nominal Wall	304 Stainless Steel Part Number
1"	2.780	2.062	1.500	.065	<b>B2FP-G100</b>
1½"	3.656	2.937	2.250	.065	<b>B2FP-G150</b>
2"	4.812	4.062	3.000	.065	<b>B2FP-G200</b>
2½"	6.062	5.187	3.750	.065	<b>B2FP-G250</b>
3"	7.218	6.312	4.500	.065	<b>B2FP-G300</b>
4"	9.343	8.312	6.000	.083	<b>B2FP-G400</b>

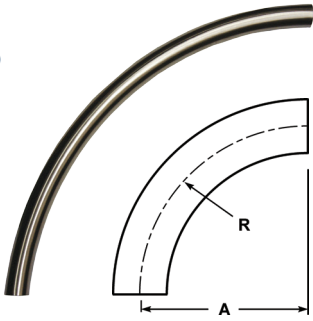


**Weld Sweep Elbows**

- Standard with no tangents. Call Dixon Sanitary 800.789.1718 for tangents, 45° and other radii.

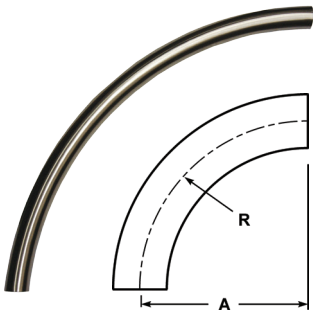
Fittings

**3 Polished 12" 90° Weld Sweep Elbows - B2SXL**



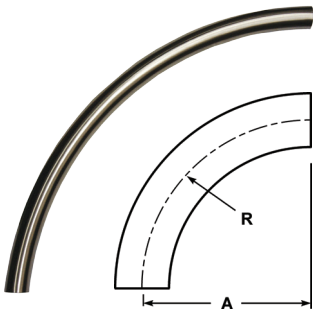
Tube OD	A	R	316L Stainless Steel Part Number
1½"	12.00	12.00	<b>B2SXL12-R150</b>
2"	12.00	12.00	<b>B2SXL12-R200</b>
3"	12.00	12.00	<b>B2SXL12-R300</b>
4"	12.00	12.00	<b>B2SXL12-R400</b>

**3 Polished 18" 90° Weld Sweep Elbows - B2SXL**



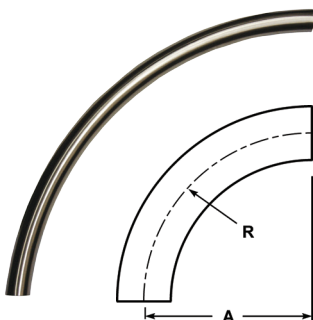
Tube OD	A	R	316L Stainless Steel Part Number
1½"	18.00	18.00	<b>B2SXL18-R150</b>
2"	18.00	18.00	<b>B2SXL18-R200</b>
2½"	18.00	18.00	<b>B2SXL18-R250</b>
3"	18.00	18.00	<b>B2SXL18-R300</b>

**3 Polished 24" 90° Weld Sweep Elbows - B2SXL**



Tube OD	A	R	316L Stainless Steel Part Number
1½"	24.00	24.00	<b>B2SXL24-R150</b>
2"	24.00	24.00	<b>B2SXL24-R200</b>
2½"	24.00	24.00	<b>B2SXL24-R250</b>
3"	24.00	24.00	<b>B2SXL24-R300</b>

**3 Polished 36" 90° Weld Sweep Elbows - B2SXL**

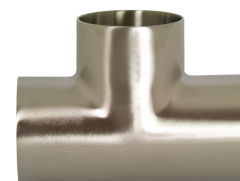


Tube OD	A	R	316L Stainless Steel Part Number
3"	36.00	36.00	<b>B2SXL36-R300</b>
4"	36.00	36.00	<b>B2SXL36-R400</b>

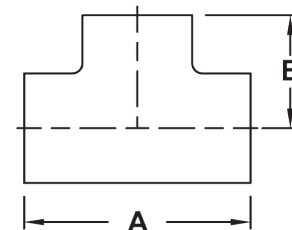
### Weld Tees

#### Polished Short Weld Tees - B7WWW

Tube OD	A	B	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	2.250	1.125	.065	<b>B7WWW-G100P</b>	<b>B7WWW-R100P</b>
1½"	3.312	1.656	.065	<b>B7WWW-G150P</b>	<b>B7WWW-R150P</b>
2"	4.124	2.062	.065	<b>B7WWW-G200P</b>	<b>B7WWW-R200P</b>
2½"	4.688	2.344	.065	<b>B7WWW-G250P</b>	<b>B7WWW-R250P</b>
3"	5.188	2.594	.065	<b>B7WWW-G300P</b>	<b>B7WWW-R300P</b>
4"	6.876	3.438	.083	<b>B7WWW-G400P</b>	<b>B7WWW-R400P</b>

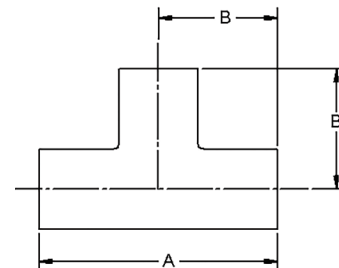
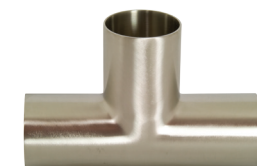


Fittings



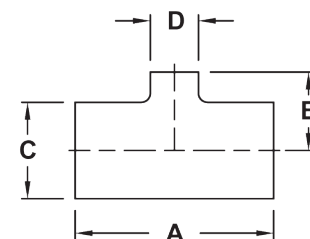
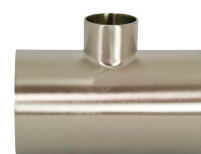
#### Polished Long Weld Tees - B7W

Tube OD	A	B	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
½"	3.750	1.875	.065	---	<b>B7W-R50P</b>
¾"	4.000	2.000	.065	---	<b>B7W-R75P</b>
1"	3.750	1.875	.065	<b>B7W-G100P</b>	<b>B7W-R100P</b>
1½"	4.500	2.250	.065	<b>B7W-G150P</b>	<b>B7W-R150P</b>
2"	6.000	3.000	.065	<b>B7W-G200P</b>	<b>B7W-R200P</b>
2½"	6.000	3.000	.065	<b>B7W-G250P</b>	<b>B7W-R250P</b>
3"	6.500	3.250	.065	<b>B7W-G300P</b>	<b>B7W-R300P</b>
4"	7.750	3.875	.083	<b>B7W-G400P</b>	<b>B7W-R400P</b>
6"	11.250	5.625	.109	<b>B7W-G600P</b>	<b>B7W-R600P</b>
8"	14.000	7.000	.109	<b>B7W-G800P</b>	<b>B7W-R800P</b>



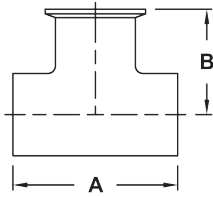
#### Polished Reducing Weld Tees - B7RWWW

Tube OD	A	B	C	D	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
¾" x ½"	4.000	2.000	.750	.500	.065	---	<b>B7RWWW-R7550P</b>
1" x ½"	4.250	2.125	1.000	.500	.065	---	<b>B7RWWW-R10050P</b>
1" x ¾"	4.250	2.125	1.000	.750	.065	---	<b>B7RWWW-R10075P</b>
1½" x ½"	4.750	2.375	1.500	.500	.065	---	<b>B7RWWW-R15050P</b>
1½" x ¾"	4.750	2.375	1.500	.750	.065	---	<b>B7RWWW-R15075P</b>
1½" x 1"	3.312	1.375	1.500	1.000	.065	<b>B7RWWW-G150100P</b>	<b>B7RWWW-R150100P</b>
2" x ½"	5.750	2.625	2.000	.500	.065	---	<b>B7RWWW-R20050P</b>
2" x ¾"	5.750	2.625	2.000	.750	.065	---	<b>B7RWWW-R20075P</b>
2" x 1"	4.124	1.625	2.000	1.000	.065	<b>B7RWWW-G200100P</b>	<b>B7RWWW-R200100P</b>
2" x 1½"	4.124	1.906	2.000	1.500	.065	<b>B7RWWW-G200150P</b>	<b>B7RWWW-R200150P</b>
2½" x 1½"	4.688	2.156	2.500	1.500	.065	<b>B7RWWW-G250150P</b>	<b>B7RWWW-R250150P</b>
2½" x 2"	4.688	2.312	2.500	2.000	.065	<b>B7RWWW-G250200P</b>	<b>B7RWWW-R250200P</b>
3" x 1½"	5.188	2.406	3.000	1.500	.065	<b>B7RWWW-G300150P</b>	<b>B7RWWW-R300150P</b>
3" x 2"	5.188	2.562	3.000	2.000	.065	<b>B7RWWW-G300200P</b>	<b>B7RWWW-R300200P</b>
3" x 2½"	5.188	2.594	3.000	2.500	.083	<b>B7RWWW-G300250P</b>	<b>B7RWWW-R300250P</b>
4" x 1½"	6.876	2.906	4.000	1.500	.083	<b>B7RWWW-G400150P</b>	<b>B7RWWW-R400150P</b>
4" x 2"	6.876	3.062	4.000	2.000	.083	<b>B7RWWW-G400200P</b>	<b>B7RWWW-R400200P</b>
4" x 2½"	6.876	3.094	4.000	2.500	.083	<b>B7RWWW-G400250P</b>	<b>B7RWWW-R400250P</b>
4" x 3"	6.876	3.094	4.000	3.000	.083	<b>B7RWWW-G400300P</b>	<b>B7RWWW-R400300P</b>
6" x 2"	11.250	4.500	6.000	2.000	.109	<b>B7RWWW-G600200P</b>	<b>B7RWWW-R600200P</b>
6" x 3"	11.250	4.875	6.000	3.000	.109	<b>B7RWWW-G600300P</b>	<b>B7RWWW-R600300P</b>
6" x 4"	11.250	5.125	6.000	4.000	.109	<b>B7RWWW-G600400P</b>	<b>B7RWWW-R600400P</b>



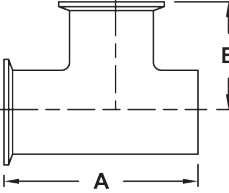
Weld Tees

Fittings



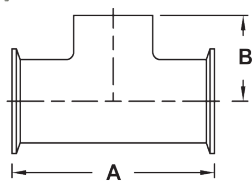
**3** Polished Weld Run x Clamp Branch Tees - B7WWM

Tube OD	A	B	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	2.250	1.625	.065	<b>B7WWM-G100</b>	<b>B7WWM-R100</b>
1½"	3.312	2.156	.065	<b>B7WWM-G150</b>	<b>B7WWM-R150</b>
2"	4.124	2.562	.065	<b>B7WWM-G200</b>	<b>B7WWM-R200</b>
2½"	4.688	2.844	.065	<b>B7WWM-G250</b>	<b>B7WWM-R250</b>
3"	5.188	3.094	.065	<b>B7WWM-G300</b>	<b>B7WWM-R300</b>
4"	6.876	4.063	.083	<b>B7WWM-G400</b>	<b>B7WWM-R400</b>



**3** Polished Weld x Clamp Run x Clamp Branch Tees - B7WMM

Tube OD	A	B	Nominal Wall	304 Stainless Steel Part Number
1"	2.750	1.625	.065	<b>B7WMM-G100</b>
1½"	3.812	2.156	.065	<b>B7WMM-G150</b>
2"	4.624	2.562	.065	<b>B7WMM-G200</b>
2½"	5.188	2.844	.065	<b>B7WMM-G250</b>
3"	5.688	3.094	.065	<b>B7WMM-G300</b>
4"	7.500	4.063	.083	<b>B7WMM-G400</b>



**3** Polished Clamp Run x Weld Branch Tees - B7MMW

Tube OD	A	B	Nominal Wall	304 Stainless Steel Part Number
1"	3.250	1.125	.065	<b>B7MMW-G100</b>
1½"	4.312	1.656	.065	<b>B7MMW-G150</b>
2"	5.124	2.062	.065	<b>B7MMW-G200</b>
2½"	5.688	2.062	.065	<b>B7MMW-G250</b>
3"	6.188	2.594	.065	<b>B7MMW-G300</b>
4"	8.124	3.438	.083	<b>B7MMW-G400</b>

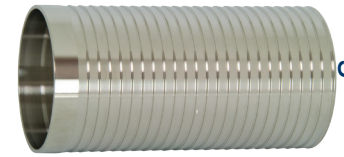
## Weld Adapters

### Long Weld Hose Adapters - 14WHRL

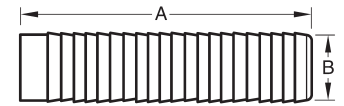
**Feature:**

- suitable for use with band clamps

Tube OD	A	B	Nominal Wall	316L Stainless Steel Part Number
1"	3.000	1.030	.116	<b>14WHRL-R100</b>
1½"	4.500	1.530	.116	<b>14WHRL-R150</b>
2"	4.500	2.030	.116	<b>14WHRL-R200</b>
2½"	5.000	2.530	.116	<b>14WHRL-R250</b>
3"	5.000	3.030	.116	<b>14WHRL-R300</b>
4"	4.875	4.030	.116	<b>14WHRL-R400</b>



Fittings

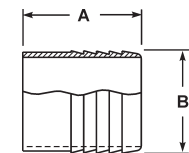


Use of PVC tubing requires special techniques to prevent leakage. All assembly work must be done with heated tube. Cold durometer is 90 as opposed to rubber hose at 65 to 70 durometer. Banding buckles must be at 180° from one another.



### Weld Hose Adapters - 14WHR

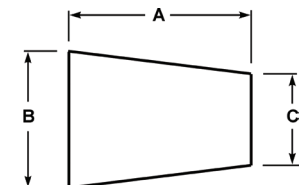
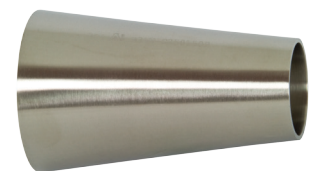
Tube OD	A	B	Nominal Wall	316L Stainless Steel Part Number
½"	1.500	.500	.065	<b>14WHR-R50</b>
¾"	1.500	.750	.065	<b>14WHR-R75</b>
1"	1.688	1.000	.065	<b>14WHR-R100</b>
1½"	1.688	1.500	.065	<b>14WHR-R150</b>
2"	2.312	2.000	.065	<b>14WHR-R200</b>
2½"	2.000	2.500	.065	<b>14WHR-R250</b>
3"	3.093	3.000	.065	<b>14WHR-R300</b>
4"	3.406	4.000	.083	<b>14WHR-R400</b>



## Weld Reducers

### Polished Concentric Weld Reducers - B31W

Tube OD	A	B	C	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
¾" x ½"	1.000	.750	.500	.065	---	<b>B31W-R7550P</b>
1" x ½"	2.000	1.000	.500	.065	---	<b>B31W-R10050P</b>
1" x ¾"	1.000	1.000	.750	.065	---	<b>B31W-R10075P</b>
1½" x ½"	4.000	1.500	.500	.065	---	<b>B31W-R15050P</b>
1½" x ¾"	3.000	1.500	.750	.065	---	<b>B31W-R15075P</b>
1½" x 1"	2.000	1.500	1.000	.065	<b>B31W-G150100P</b>	<b>B31W-R150100P</b>
2" x ½"	6.000	2.000	.500	.065	---	<b>B31W-R20050P</b>
2" x ¾"	5.000	2.000	.750	.065	---	<b>B31W-R20075P</b>
2" x 1"	4.000	2.000	1.000	.065	<b>B31W-G200100P</b>	<b>B31W-R200100P</b>
2" x 1½"	2.000	2.000	1.500	.065	<b>B31W-G200150P</b>	<b>B31W-R200150P</b>
2½" x 1½"	4.000	2.500	1.500	.065	<b>B31W-G250150P</b>	<b>B31W-R250150P</b>
2½" x 2"	2.000	2.500	2.000	.065	<b>B31W-G250200P</b>	<b>B31W-R250200P</b>
3" x 1"	8.000	3.000	1.000	.065	<b>B31W-G300100P</b>	<b>B31W-R300100P</b>
3" x 1½"	6.000	3.000	1.500	.065	<b>B31W-G300150P</b>	<b>B31W-R300150P</b>
3" x 2"	4.000	3.000	2.000	.065	<b>B31W-G300200P</b>	<b>B31W-R300200P</b>
3" x 2½"	2.000	3.000	2.500	.065	<b>B31W-G300250P</b>	<b>B31W-R300250P</b>
4" x 1½"	10.000	4.000	1.500	.083	<b>B31W-G400150P</b>	<b>B31W-R400150P</b>
4" x 2"	8.000	4.000	2.000	.083	<b>B31W-G400200P</b>	<b>B31W-R400200P</b>
4" x 2½"	6.000	4.000	2.500	.083	<b>B31W-G400250P</b>	<b>B31W-R400250P</b>
4" x 3"	4.000	4.000	3.000	.083	<b>B31W-G400300P</b>	<b>B31W-R400300P</b>
6" x 2"	5.500	6.000	2.000	.109	<b>B31W-G600200P</b>	<b>B31W-R600200P</b>
6" x 3"	5.500	6.000	3.000	.109	<b>B31W-G600300P</b>	<b>B31W-R600300P</b>
6" x 4"	5.500	6.000	4.000	.109	<b>B31W-G600400P</b>	<b>B31W-R600400P</b>
8" x 4"	6.000	8.000	4.000	.109	<b>B31W-G800400P</b>	<b>B31W-R800400P</b>
8" x 6"	6.000	8.000	6.000	.109	<b>B31W-G800600P</b>	<b>B31W-R800600P</b>

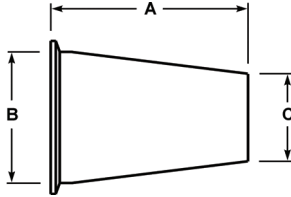


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Weld Reducers

**3** Polished Concentric Clamp x Weld Reducers - B31M

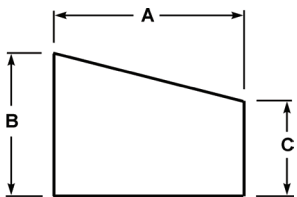
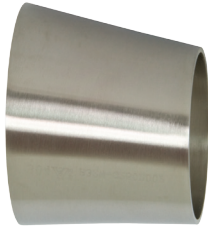
Fittings



Tube OD	A	B	C	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
3/4" x 1/2"	1.500	.750	.500	.065	---	<b>B31M-R7550</b>
1" x 1/2"	2.500	1.000	.500	.065	---	<b>B31M-R10050</b>
1" x 3/4"	1.500	1.000	.750	.065	---	<b>B31M-R10075</b>
1 1/2" x 1/2"	4.500	1.500	.500	.065	---	<b>B31M-R15050</b>
1 1/2" x 3/4"	3.500	1.000	.750	.065	---	<b>B31M-R15075</b>
1 1/2" x 1"	2.500	1.500	1.000	.065	<b>B31M-G150100</b>	<b>B31M-R150100</b>
2" x 1"	4.500	2.000	1.000	.065	<b>B31M-G200100</b>	<b>B31M-R200100</b>
2" x 1 1/2"	2.500	2.000	1.500	.065	<b>B31M-G200150</b>	<b>B31M-R200150</b>
2 1/2" x 1 1/2"	4.500	2.500	1.500	.065	<b>B31M-G250150</b>	<b>B31M-R250150</b>
2 1/2" x 2"	2.500	2.500	2.000	.065	<b>B31M-G250200</b>	<b>B31M-R250200</b>
3" x 1 1/2"	6.500	3.000	1.500	.065	<b>B31M-G300150</b>	<b>B31M-R300150</b>
3" x 2"	4.500	3.000	2.000	.065	<b>B31M-G300200</b>	<b>B31M-R300200</b>
3" x 2 1/2"	2.500	3.000	2.500	.065	<b>B31M-G300250</b>	<b>B31M-R300250</b>
4" x 2"	8.625	4.000	2.000	.083	<b>B31M-G400200</b>	<b>B31M-R400200</b>
4" x 2 1/2"	6.625	4.000	2.500	.083	<b>B31M-G400250</b>	<b>B31M-R400250</b>
4" x 3"	4.625	4.000	3.000	.083	<b>B31M-G400300</b>	<b>B31M-R400300</b>

**3** Polished Eccentric Weld Reducers - B32W

F



Tube OD	A	B	C	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
3/4" x 1/2"	1.000	.750	.500	.065	---	<b>B32W-R7550P</b>
1" x 1/2"	2.000	1.000	.500	.065	---	<b>B32W-R10050P</b>
1" x 3/4"	1.000	1.000	.750	.065	---	<b>B32W-R10075P</b>
1 1/2" x 1/2"	4.000	1.500	.500	.065	---	<b>B32W-R15050P</b>
1 1/2" x 3/4"	3.000	1.500	.750	.065	---	<b>B32W-R15075P</b>
1 1/2" x 1"	2.000	1.500	1.000	.065	<b>B32W-G150100P</b>	<b>B32W-R150100P</b>
2" x 1/2"	6.000	2.000	.500	.065	---	<b>B32W-R20050P</b>
2" x 3/4"	5.000	2.000	.750	.065	---	<b>B32W-R20075P</b>
2" x 1"	4.000	2.000	1.000	.065	<b>B32W-G200100P</b>	<b>B32W-R200100P</b>
2" x 1 1/2"	2.000	2.000	1.500	.065	<b>B32W-G200150P</b>	<b>B32W-R200150P</b>
2 1/2" x 1 1/2"	4.000	2.500	1.500	.065	<b>B32W-G250150P</b>	<b>B32W-R250150P</b>
2 1/2" x 2"	2.000	2.500	2.000	.065	<b>B32W-G250200P</b>	<b>B32W-R250200P</b>
3" x 1"	8.000	3.000	1.000	.065	<b>B32W-G300100P</b>	<b>B32W-R300100P</b>
3" x 1 1/2"	6.000	3.000	1.500	.065	<b>B32W-G300150P</b>	<b>B32W-R300150P</b>
3" x 2"	4.000	3.000	2.000	.065	<b>B32W-G300200P</b>	<b>B32W-R300200P</b>
3" x 2 1/2"	2.000	3.000	2.500	.065	<b>B32W-G300250P</b>	<b>B32W-R300250P</b>
4" x 1 1/2"	10.000	4.000	1.500	.083	<b>B32W-G400150P</b>	<b>B32W-R400150P</b>
4" x 2"	8.000	4.000	2.000	.083	<b>B32W-G400200P</b>	<b>B32W-R400200P</b>
4" x 2 1/2"	6.000	4.000	2.500	.083	<b>B32W-G400250P</b>	<b>B32W-R400250P</b>
4" x 3"	4.000	4.000	3.000	.083	<b>B32W-G400300P</b>	<b>B32W-R400300P</b>
6" x 3"	5.500	6.000	3.000	.109	<b>B32W-G600300P</b>	<b>B32W-R600300P</b>
6" x 4"	5.500	6.000	4.000	.109	<b>B32W-G600400P</b>	<b>B32W-R600400P</b>
8" x 4"	6.000	8.000	4.000	.109	<b>B32W-G800400P</b>	<b>B32W-R800400P</b>
8" x 6"	6.000	8.000	6.000	.109	<b>B32W-G800600P</b>	<b>B32W-R800600P</b>

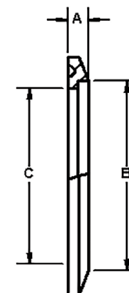
## Clamp Ferrules

### Quick Weld Ferrules- 14QMP

**Features:**

- 304 stainless steel
- just slip onto sanitary OD tube and weld
- no need to butt weld

Tube OD	A	B	C	304 Stainless Steel Part Number
1"	.290	1.005	.870	<b>14QMP-G100</b>
1½"	.199	1.505	1.370	<b>14QMP-G150</b>
2"	.205	2.005	1.870	<b>14QMP-G200</b>
2½"	.210	2.505	2.370	<b>14QMP-G250</b>
3"	.257	3.005	2.870	<b>14QMP-G300</b>
4"	.235	4.005	3.834	<b>14QMP-G400</b>
6"	.321	6.005	5.782	<b>14QMP-G600</b>

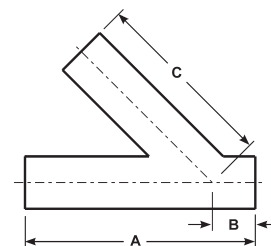
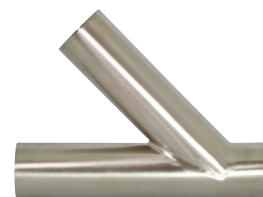


Fittings

## Miscellaneous Weld Configurations

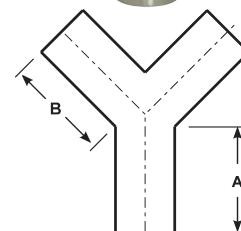
### Polished Weld Laterals - B28WA 3

Tube OD	A	B	C	Nominal Wall	316L Stainless Steel Part Number
1"	6.000	1.000	5.000	.065	<b>B28WA-R100P</b>
1½"	7.375	1.188	6.188	.065	<b>B28WA-R150P</b>
2"	8.750	1.625	7.125	.065	<b>B28WA-R200P</b>
2½"	10.000	1.500	8.500	.065	<b>B28WA-R250P</b>
3"	10.750	1.875	8.875	.065	<b>B28WA-R300P</b>
4"	12.812	2.015	10.750	.083	<b>B28WA-R400P</b>
6"	18.000	3.500	14.500	.109	<b>B28WA-R600P</b>



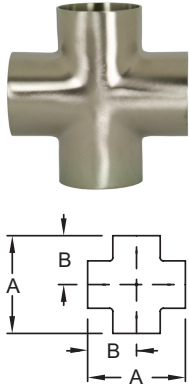
### Polished Weld True Wyes - B28W 3

Tube OD	A	B	Nominal Wall	316L Stainless Steel Part Number
1"	2.000	2.438	.065	<b>B28W-R100P</b>
1½"	2.000	2.438	.065	<b>B28W-R150P</b>
2"	2.625	3.250	.065	<b>B28W-R200P</b>
2½"	3.370	4.125	.065	<b>B28W-R250P</b>
3"	4.000	4.875	.065	<b>B28W-R300P</b>
4"	5.375	5.375	.083	<b>B28W-R400P</b>



Miscellaneous Weld Configurations

Fittings



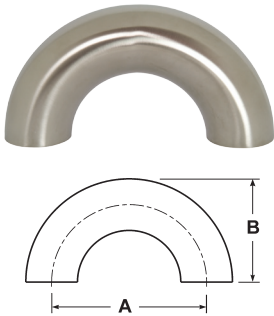
**3 Polished Weld Crosses - B9WWWW**

Tube OD	A	B	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	2.250	1.125	.065	<b>B9WWWW-G100P</b>	<b>B9WWWW-R100P</b>
1½"	3.312	1.656	.065	<b>B9WWWW-G150P</b>	<b>B9WWWW-R150P</b>
2"	4.125	2.062	.065	<b>B9WWWW-G200P</b>	<b>B9WWWW-R200P</b>
2½"	4.687	2.343	.065	<b>B9WWWW-G250P</b>	<b>B9WWWW-R250P</b>
3"	5.187	2.593	.065	<b>B9WWWW-G300P</b>	<b>B9WWWW-R300P</b>
4"	6.875	3.437	.083	<b>B9WWWW-G400P</b>	<b>B9WWWW-R400P</b>

**3 Polished Weld 180° Return Bends - B2WUL**

**Feature:**

- bends are standard 1.5 x tube diameter



Tube OD	A	B	316L Stainless Steel Part Number
1"	3.000	2.000	<b>B2WUL-R100P</b>
1½"	4.500	3.000	<b>B2WUL-R150P</b>
2"	6.000	4.000	<b>B2WUL-R200P</b>
2½"	7.500	5.000	<b>B2WUL-R250P</b>
3"	9.000	6.000	<b>B2WUL-R300P</b>
4"	12.000	8.000	<b>B2WUL-R400P</b>

**Weld End Blue Protection Covers - BCW**

**Material:**

- vinyl plastic

**Feature:**

- use these covers to protect all weld ends on fittings, valves and pumps



Size	Part Number
½"	<b>BCW-050</b>
¾"	<b>BCW-075</b>
1"	<b>BCW-100</b>
1½"	<b>BCW-150</b>
2"	<b>BCW-200</b>
2½"	<b>BCW-250</b>
3"	<b>BCW-300</b>
4"	<b>BCW-400</b>
6"	<b>BCW-600</b>
8"	<b>BCW-800</b>



## Dixon Sanitary Unpolished Weld Fittings

**Sizes:**

- ½" - 12" OD tube

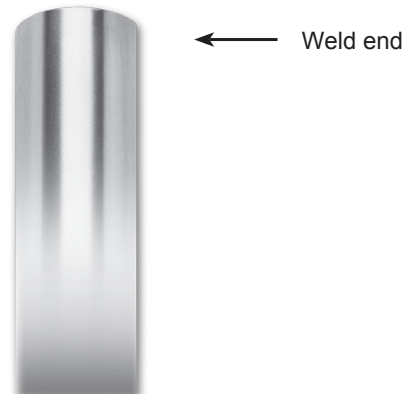
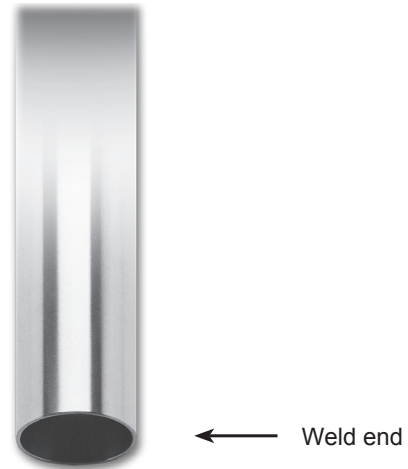
**Materials:**

- G = 304 stainless steel
- R = 316L stainless steel
- other alloys are available

**Feature:**

- unpolished

### A Complete Weld Connection

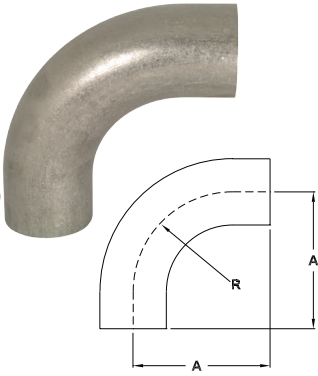


Dimensions of stainless steel tube given in inches

Tube OD	Nominal Wall Thickness (inches)	Gage Number
½"	.065	16
¾"	.065	16
1"	.065	16
1½"	.065	16
2"	.065	16
2½"	.065	16
3"	.065	16
4"	.083	14
6"	.109	12
8"	.109	12
10"	.120	10
12"	.120	10

Unpolished Elbows

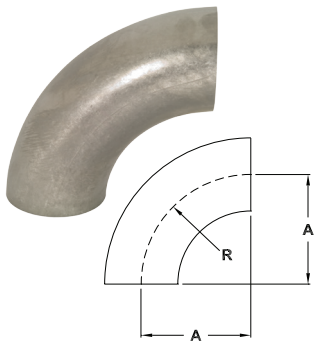
Fittings



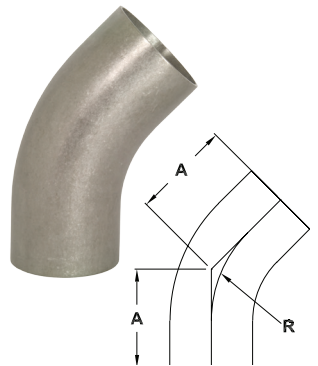
Unpolished 90° Weld Elbows with Tangents - B2S

Tube OD	A	R	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1/2"	3.000	1.125	.065	---	<b>B2S-R50U</b>
3/4"	3.000	1.125	.065	---	<b>B2S-R75U</b>
1"	2.062	1.500	.065	<b>B2S-G100U</b>	<b>B2S-R100U</b>
1 1/2"	2.937	2.250	.065	<b>B2S-G150U</b>	<b>B2S-R150U</b>
2"	4.062	3.000	.065	<b>B2S-G200U</b>	<b>B2S-R200U</b>
2 1/2"	5.187	3.750	.065	<b>B2S-G250U</b>	<b>B2S-R250U</b>
3"	6.312	4.500	.065	<b>B2S-G300U</b>	<b>B2S-R300U</b>
4"	8.312	6.000	.083	<b>B2S-G400U</b>	<b>B2S-R400U</b>

Unpolished 90° Weld Elbows - B2WCL



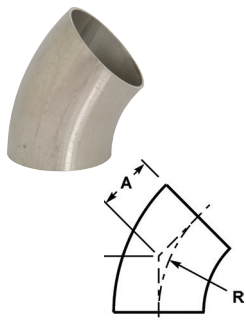
Tube OD	A	R	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1/2"	1.125	1.125	.065	---	<b>B2WCL-R50U</b>
3/4"	1.125	1.125	.065	---	<b>B2WCL-R75U</b>
1"	1.500	1.500	.065	<b>B2WCL-G100U</b>	<b>B2WCL-R100U</b>
1 1/2"	2.250	2.250	.065	<b>B2WCL-G150U</b>	<b>B2WCL-R150U</b>
2"	3.000	3.000	.065	<b>B2WCL-G200U</b>	<b>B2WCL-R200U</b>
2 1/2"	3.750	3.750	.065	<b>B2WCL-G250U</b>	<b>B2WCL-R250U</b>
3"	4.500	4.500	.065	<b>B2WCL-G300U</b>	<b>B2WCL-R300U</b>
4"	6.000	6.000	.083	<b>B2WCL-G400U</b>	<b>B2WCL-R400U</b>
6"	9.000	9.000	.109	<b>B2WCL-G600U</b>	<b>B2WCL-R600U</b>
8"	12.000	12.000	.109	<b>B2WCL-G800U</b>	<b>B2WCL-R800U</b>
10"	15.000	15.000	.120	<b>B2WCL-G1000U</b>	<b>B2WCL-R1000U</b>
12"	18.000	18.000	.120	<b>B2WCL-G1200U</b>	<b>B2WCL-R1200U</b>



Unpolished 45° Weld Elbows with Tangents - B2KS

Tube OD	A	R	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1/2"	2.250	1.125	.065	---	<b>B2KS-R50U</b>
3/4"	2.250	1.125	.065	---	<b>B2KS-R75U</b>
1"	1.188	1.500	.065	<b>B2KS-G100U</b>	<b>B2KS-R100U</b>
1 1/2"	1.625	2.250	.065	<b>B2KS-G150U</b>	<b>B2KS-R150U</b>
2"	2.312	3.000	.065	<b>B2KS-G200U</b>	<b>B2KS-R200U</b>
2 1/2"	3.000	3.750	.065	<b>B2KS-G250U</b>	<b>B2KS-R250U</b>
3"	3.688	4.500	.065	<b>B2KS-G300U</b>	<b>B2KS-R300U</b>
4"	4.812	6.000	.083	<b>B2KS-G400U</b>	<b>B2KS-R400U</b>

Unpolished 45° Weld Elbows - B2WK

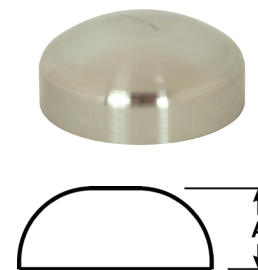


Tube OD	A	R	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1/2"	.466	1.125	.065	---	<b>B2WK-R50U</b>
3/4"	.466	1.125	.065	---	<b>B2WK-R75U</b>
1"	.625	1.500	.065	<b>B2WK-G100U</b>	<b>B2WK-R100U</b>
1 1/2"	.937	2.250	.065	<b>B2WK-G150U</b>	<b>B2WK-R150U</b>
2"	1.250	3.000	.065	<b>B2WK-G200U</b>	<b>B2WK-R200U</b>
2 1/2"	1.562	3.750	.065	<b>B2WK-G250U</b>	<b>B2WK-R250U</b>
3"	1.875	4.500	.065	<b>B2WK-G300U</b>	<b>B2WK-R300U</b>
4"	2.500	6.000	.083	<b>B2WK-G400U</b>	<b>B2WK-R400U</b>
6"	3.750	9.000	.109	<b>B2WK-G600U</b>	<b>B2WK-R600U</b>
8"	5.000	12.000	.109	<b>B2WK-G800U</b>	<b>B2WK-R800U</b>
10"	6.250	15.000	.120	<b>B2WK-G1000U</b>	<b>B2WK-R1000U</b>
12"	7.500	18.000	.120	<b>B2WK-G1200U</b>	<b>B2WK-R1200U</b>

## Unpolished End Caps

## Unpolished End Caps - B16W

Tube OD	A	304 Stainless Steel Part Number	316L Stainless Steel Part Number
½"	.250	---	<b>B16W-R50</b>
¾"	.312	---	<b>B16W-R75</b>
1"	.375	<b>B16W-G100</b>	<b>B16W-R100</b>
1½"	.562	<b>B16W-G150</b>	<b>B16W-R150</b>
2"	.750	<b>B16W-G200</b>	<b>B16W-R200</b>
2½"	1.000	<b>B16W-G250</b>	<b>B16W-R250</b>
3"	1.250	<b>B16W-G300</b>	<b>B16W-R300</b>
4"	1.500	<b>B16W-G400</b>	<b>B16W-R400</b>
6"	1.875	<b>B16W-G600</b>	<b>B16W-R600</b>
8"	2.500	<b>B16W-G800</b>	<b>B16W-R800</b>



Fittings

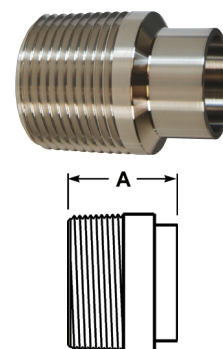
## Unpolished Adapters

## Feature:

- 32R<sub>a</sub> finish ID

## Male NPT x Weld End Adapters - B19WB

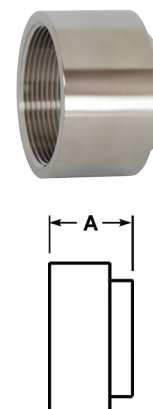
Tube OD	A	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
½"	1.625	.065	---	<b>B19WB-R50</b>
¾"	1.625	.065	---	<b>B19WB-R75</b>
1"	1.750	.065	<b>B19WB-G100</b>	<b>B19WB-R100</b>
1½"	1.750	.065	<b>B19WB-G150</b>	<b>B19WB-R150</b>
2"	1.812	.065	<b>B19WB-G200</b>	<b>B19WB-R200</b>
2½"	2.312	.065	<b>B19WB-G250</b>	<b>B19WB-R250</b>
3"	2.500	.065	<b>B19WB-G300</b>	<b>B19WB-R300</b>
4"	2.562	.083	<b>B19WB-G400</b>	<b>B19WB-R400</b>



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## Female NPT x Weld End Adapters - B22WB

Tube OD	A	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
½"	1.250	.065	---	<b>B22WB-R50</b>
¾"	1.625	.065	---	<b>B22WB-R75</b>
1"	1.750	.065	<b>B22WB-G100</b>	<b>B22WB-R100</b>
1½"	1.750	.065	<b>B22WB-G150</b>	<b>B22WB-R150</b>
2"	1.812	.065	<b>B22WB-G200</b>	<b>B22WB-R200</b>
2½"	2.312	.065	<b>B22WB-G250</b>	<b>B22WB-R250</b>
3"	2.500	.065	<b>B22WB-G300</b>	<b>B22WB-R300</b>
4"	2.500	.083	<b>B22WB-G400</b>	<b>B22WB-R400</b>

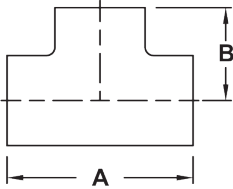


Note: see pages K-10 to K-11 for pipe thread information

Unpolished Tees

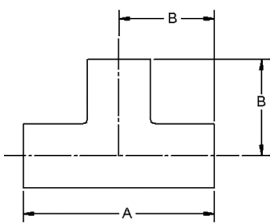
Unpolished Short Weld Tees - B7WWW

Fittings



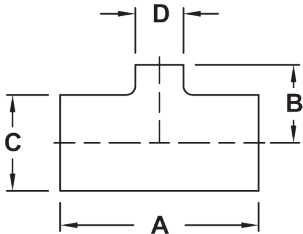
Tube OD	A	B	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	2.250	1.125	.065	<b>B7WWW-G100U</b>	<b>B7WWW-R100U</b>
1½"	3.312	1.656	.065	<b>B7WWW-G150U</b>	<b>B7WWW-R150U</b>
2"	4.124	2.062	.065	<b>B7WWW-G200U</b>	<b>B7WWW-R200U</b>
2½"	4.688	2.344	.065	<b>B7WWW-G250U</b>	<b>B7WWW-R250U</b>
3"	5.188	2.594	.065	<b>B7WWW-G300U</b>	<b>B7WWW-R300U</b>
4"	6.876	3.438	.083	<b>B7WWW-G400U</b>	<b>B7WWW-R400U</b>

Unpolished Long Weld Tees - B7W



Tube OD	A	B	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
½"	3.750	1.875	.065	---	<b>B7W-R50U</b>
¾"	4.000	2.000	.065	---	<b>B7W-R75U</b>
1"	3.750	1.875	.065	<b>B7W-G100U</b>	<b>B7W-R100U</b>
1½"	4.500	2.250	.065	<b>B7W-G150U</b>	<b>B7W-R150U</b>
2"	6.000	3.000	.065	<b>B7W-G200U</b>	<b>B7W-R200U</b>
2½"	6.000	3.000	.065	<b>B7W-G250U</b>	<b>B7W-R250U</b>
3"	6.500	3.250	.065	<b>B7W-G300U</b>	<b>B7W-R300U</b>
4"	7.750	3.875	.083	<b>B7W-G400U</b>	<b>B7W-R400U</b>
6"	11.250	5.625	.109	<b>B7W-G600U</b>	<b>B7W-R600U</b>
8"	14.000	7.000	.109	<b>B7W-G800U</b>	<b>B7W-R800U</b>

Unpolished Reducing Weld Tees - B7RWWW

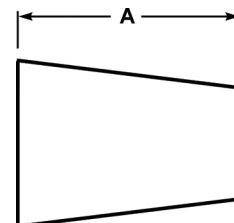


Tube OD	A	B	C	D	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1½" x ¾"	4.750	2.375	1.50	.75	.065	---	<b>B7RWWW-R15075U</b>
1½" x 1"	3.312	1.375	1.50	1.00	.065	<b>B7RWWW-G150100U</b>	<b>B7RWWW-R150100U</b>
2" x ½"	5.750	2.625	2.00	.50	.065	---	<b>B7RWWW-R20050U</b>
2" x ¾"	5.750	2.625	2.00	.75	.065	---	<b>B7RWWW-R20075U</b>
2" x 1"	4.124	1.625	2.00	1.00	.065	<b>B7RWWW-G200100U</b>	<b>B7RWWW-R200100U</b>
2" x 1½"	4.124	1.906	2.00	1.50	.065	<b>B7RWWW-G200150U</b>	<b>B7RWWW-R200150U</b>
2½" x 1½"	4.688	2.156	2.50	1.50	.065	<b>B7RWWW-G250150U</b>	<b>B7RWWW-R250150U</b>
2½" x 2"	4.688	2.312	2.50	2.00	.065	<b>B7RWWW-G250200U</b>	<b>B7RWWW-R250200U</b>
3" x 1½"	5.188	2.406	3.00	1.50	.065	<b>B7RWWW-G300150U</b>	<b>B7RWWW-R300150U</b>
3" x 2"	5.188	2.562	3.00	2.00	.065	<b>B7RWWW-G300200U</b>	<b>B7RWWW-R300200U</b>
3" x 2½"	5.188	2.594	3.00	2.50	.065	<b>B7RWWW-G300250U</b>	<b>B7RWWW-R300250U</b>
4" x 1½"	6.876	2.906	4.00	1.50	.083	<b>B7RWWW-G400150U</b>	<b>B7RWWW-R400150U</b>
4" x 2"	6.876	3.062	4.00	2.00	.083	<b>B7RWWW-G400200U</b>	<b>B7RWWW-R400200U</b>
4" x 2½"	6.876	3.094	4.00	2.50	.083	<b>B7RWWW-G400250U</b>	<b>B7RWWW-R400250U</b>
4" x 3"	6.876	3.094	4.00	3.00	.083	<b>B7RWWW-G400300U</b>	<b>B7RWWW-R400300U</b>

## Unpolished Reducers

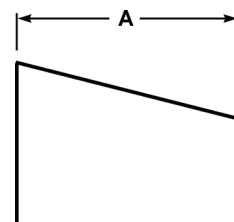
## Unpolished Concentric Weld Reducers - B31W

Tube OD	A	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
¾" x ½"	1.000	.065	---	<b>B31W-R7550U</b>
1" x ½"	2.000	.065	---	<b>B31W-R10050U</b>
1" x ¾"	1.000	.065	---	<b>B31W-R10075U</b>
1½" x ½"	4.000	.065	---	<b>B31W-R15050U</b>
1½" x ¾"	3.000	.065	---	<b>B31W-R15075U</b>
1½" x 1"	2.000	.065	<b>B31W-G150100U</b>	<b>B31W-R150100U</b>
2" x ¾"	5.000	.065	---	<b>B31W-R20075U</b>
2" x 1"	4.000	.065	<b>B31W-G200100U</b>	<b>B31W-R200100U</b>
2" x 1½"	2.000	.065	<b>B31W-G200150U</b>	<b>B31W-R200150U</b>
2½" x 1½"	4.000	.065	<b>B31W-G250150U</b>	<b>B31W-R250150U</b>
2½" x 2"	2.000	.065	<b>B31W-G250200U</b>	<b>B31W-R250200U</b>
3" x 1"	8.000	.109	<b>B31W-G300100U</b>	<b>B31W-R300100U</b>
3" x 1½"	6.000	.065	<b>B31W-G300150U</b>	<b>B31W-R300150U</b>
3" x 2"	4.000	.065	<b>B31W-G300200U</b>	<b>B31W-R300200U</b>
3" x 2½"	2.000	.065	<b>B31W-G300250U</b>	<b>B31W-R300250U</b>
4" x 1½"	10.000	.083	<b>B31W-G400150U</b>	<b>B31W-R400150U</b>
4" x 2"	8.000	.109	<b>B31W-G400200U</b>	<b>B31W-R400200U</b>
4" x 2½"	6.000	.083	<b>B31W-G400250U</b>	<b>B31W-R400250U</b>
4" x 3"	4.000	.083	<b>B31W-G400300U</b>	<b>B31W-R400300U</b>
6" x 3"	5.500	.109	<b>B31W-G600300U</b>	<b>B31W-R600300U</b>
6" x 4"	5.500	.109	<b>B31W-G600400U</b>	<b>B31W-R600400U</b>
8" x 4"	6.000	.109	<b>B31W-G800400U</b>	<b>B31W-R800400U</b>
8" x 6"	6.000	.109	<b>B31W-G800600U</b>	<b>B31W-R800600U</b>



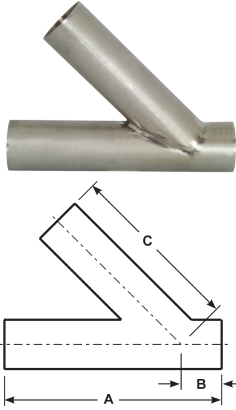
## Unpolished Eccentric Weld Reducers - B32W

Tube OD	A	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
¾" x ½"	1.000	.065	---	<b>B32W-R7550U</b>
1" x ½"	2.000	.065	---	<b>B32W-R10050U</b>
1" x ¾"	1.000	.065	---	<b>B32W-R10075U</b>
1½" x ½"	4.000	.065	---	<b>B32W-R15050U</b>
1½" x ¾"	3.000	.065	---	<b>B32W-R15075U</b>
1½" x 1"	2.000	.065	<b>B32W-G150100U</b>	<b>B32W-R150100U</b>
2" x ¾"	5.000	.065	---	<b>B32W-R20075U</b>
2" x 1"	4.000	.065	<b>B32W-G200100U</b>	<b>B32W-R200100U</b>
2" x 1½"	2.000	.065	<b>B32W-G200150U</b>	<b>B32W-R200150U</b>
2½" x 2"	2.000	.065	<b>B32W-G250200U</b>	<b>B32W-R250200U</b>
3" x 1½"	6.000	.065	<b>B32W-G300150U</b>	<b>B32W-R300150U</b>
3" x 2"	4.000	.065	<b>B32W-G300200U</b>	<b>B32W-R300200U</b>
3" x 2½"	2.000	.065	<b>B32W-G300250U</b>	<b>B32W-R300250U</b>
4" x 1½"	10.000	.083	<b>B32W-G400150U</b>	<b>B32W-R400150U</b>
4" x 2"	8.000	.109	<b>B32W-G400200U</b>	<b>B32W-R400200U</b>
4" x 3"	4.000	.083	<b>B32W-G400300U</b>	<b>B32W-R400300U</b>
6" x 4"	5.500	.109	<b>B32W-G600400U</b>	<b>B32W-R600400U</b>
8" x 6"	6.000	.109	<b>B32W-G800600U</b>	<b>B32W-R800600U</b>



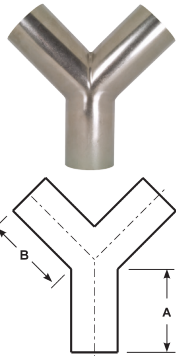
Miscellaneous Unpolished Configurations

Fittings



Unpolished Weld Laterals - B28WA

Tube OD	A	B	C	Nominal Wall	316L Stainless Steel Part Number
1"	6.000	1.000	5.000	.065	<b>B28WA-R100U</b>
1½"	7.375	1.188	6.188	.065	<b>B28WA-R150U</b>
2"	8.750	1.625	7.125	.065	<b>B28WA-R200U</b>
2½"	10.000	1.500	8.500	.065	<b>B28WA-R250U</b>
3"	10.750	1.875	8.875	.065	<b>B28WA-R300U</b>
4"	12.812	2.015	10.750	.083	<b>B28WA-R400U</b>
6"	18.000	3.000	14.500	.109	<b>B28WA-R600U</b>



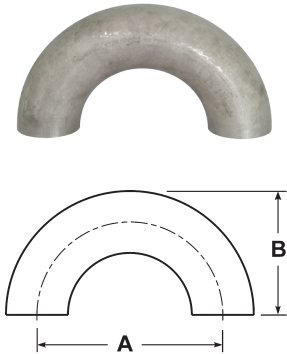
Unpolished Weld True Wyes - B28W

Tube OD	A	B	Nominal Wall	316L Stainless Steel Part Number
1"	2.000	2.438	.065	<b>B28W-R100U</b>
1½"	2.000	2.438	.065	<b>B28W-R150U</b>
2"	2.625	3.250	.065	<b>B28W-R200U</b>
2½"	3.370	4.125	.065	<b>B28W-R250U</b>
3"	4.000	4.875	.065	<b>B28W-R300U</b>
4"	5.375	5.375	.083	<b>B28W-R400U</b>

Unpolished Weld 180° Return Bends - B2WUL

Feature:

- bends are standard 1.5 x tube diameter



Tube OD	A	B	Nominal Wall	316L Stainless Steel Part Number
1"	3.000	2.000	.065	<b>B2WUL-R100U</b>
1½"	4.500	3.000	.065	<b>B2WUL-R150U</b>
2"	6.000	4.000	.065	<b>B2WUL-R200U</b>
2½"	7.500	5.000	.065	<b>B2WUL-R250U</b>
3"	9.000	6.000	.065	<b>B2WUL-R300U</b>
4"	12.000	8.000	.083	<b>B2WUL-R400U</b>

Weld End Blue Protection Covers - BCW

Material:

- vinyl plastic

Feature:

- use these covers to protect all weld ends on fittings, valves and pumps

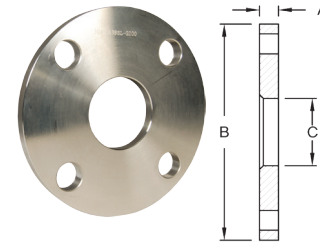


Size	Part Number
½"	<b>BCW-050</b>
¾"	<b>BCW-075</b>
1"	<b>BCW-100</b>
1½"	<b>BCW-150</b>
2"	<b>BCW-200</b>
2½"	<b>BCW-250</b>
3"	<b>BCW-300</b>
4"	<b>BCW-400</b>
6"	<b>BCW-600</b>
8"	<b>BCW-800</b>

### Unpolished Flanges

#### Unpolished Slip-On 150# Flanges - B38SL

Tube OD	A	B	C	Number & Diameter Bolt Holes	Bolt Circle	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	.375	4.250	1.063	4/.625	3.125	<b>B38SL-G100</b>	<b>B38SL-R100</b>
1½"	.375	5.000	1.563	4/.625	3.875	<b>B38SL-G150</b>	<b>B38SL-R150</b>
2"	.437	6.000	2.063	4/.750	4.750	<b>B38SL-G200</b>	<b>B38SL-R200</b>
2½"	.437	7.000	2.563	4/.750	5.500	<b>B38SL-G250</b>	<b>B38SL-R250</b>
3"	.500	7.500	3.063	4/.750	6.000	<b>B38SL-G300</b>	<b>B38SL-R300</b>
4"	.562	9.000	4.063	8/.750	7.500	<b>B38SL-G400</b>	<b>B38SL-R400</b>
6"	.562	11.000	6.063	8/.875	9.500	<b>B38SL-G600</b>	<b>B38SL-R600</b>
8"	.687	13.500	8.063	8/.875	11.750	<b>B38SL-G800</b>	<b>B38SL-R800</b>
10"	.687	16.000	10.063	12/1.000	14.250	<b>B38SL-G1000</b>	<b>B38SL-R1000</b>

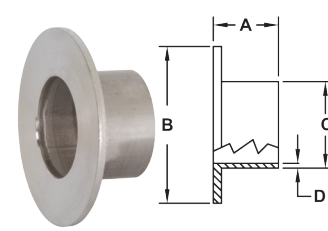


Fittings

#### Unpolished Type A Stub Ends - 14VB

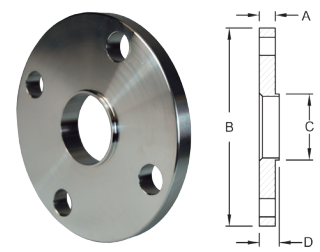
• typically used with B38SL flanges

Tube OD	A	B	C	D	316L Stainless Steel Part Number
1"	1.625	2.000	1.000	.065	<b>14VB-R100</b>
1½"	1.750	2.875	1.500	.065	<b>14VB-R150</b>
2"	1.500	3.625	2.000	.065	<b>14VB-R200</b>
2½"	2.000	4.125	2.500	.065	<b>14VB-R250</b>
3"	2.250	5.000	3.000	.065	<b>14VB-R300</b>
4"	2.625	6.187	4.000	.084	<b>14VB-R400</b>
6"	3.000	8.500	6.000	.109	<b>14VB-R600</b>
8"	3.000	10.625	8.000	.120	<b>14VB-R800</b>
10"	3.500	12.450	10.000	.109	<b>14VB-R1000</b>



#### Unpolished Weld Neck Flanges - B38W

Tube OD	A	B	C	D	Number & Diameter Bolt Holes	Bolt Circle	316L Stainless Steel Part Number
1"	.375	4.250	1.000	.500	4/.625	3.125	<b>B38W-R100</b>
1½"	.375	5.000	1.500	.500	4/.625	3.875	<b>B38W-R150</b>
2"	.500	6.000	2.000	.625	4/.750	4.750	<b>B38W-R200</b>
2½"	.500	7.000	2.500	.625	4/.750	5.500	<b>B38W-R250</b>
3"	.500	7.500	3.000	.625	4/.750	6.000	<b>B38W-R300</b>
4"	.500	9.000	4.000	.625	8/.750	7.500	<b>B38W-R400</b>
6"	.500	11.000	6.000	.625	8/.875	9.500	<b>B38W-R600</b>
8"	.500	13.500	8.000	.625	8/.875	11.750	<b>B38W-R800</b>
10"	.500	16.000	10.000	.625	12/1.000	14.250	<b>B38W-R1000</b>



F

### Flange Gaskets

Size	Part Number
1"	<b>NG10</b>
1¼"	<b>NG15</b>
1½"	<b>NG20</b>
2"	<b>NG25</b>
2½"	<b>NG30</b>
3"	<b>NG35</b>
4"	<b>NG40</b>
5"	<b>NG50</b>
6"	<b>NG60</b>
8"	<b>NG80</b>

**Material:**

- neoprene

**Feature:**

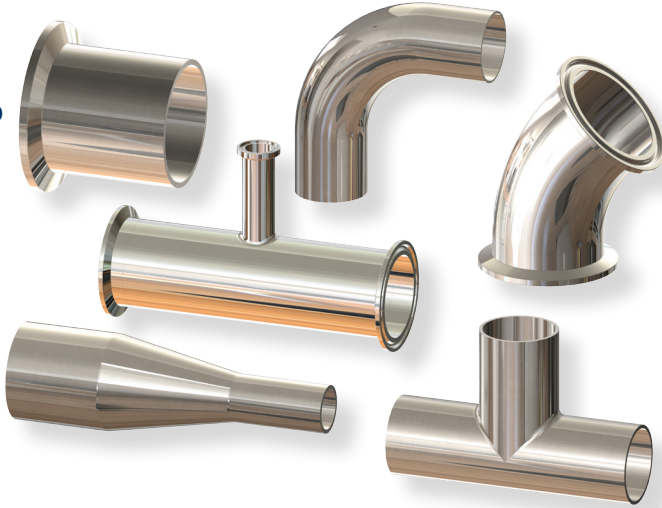
- standard drop-ring type all 1/16" thick



## High Purity BioPharm Line

## BioPharm Line

Fittings

**Sizes:**

- ½" - 6" OD tube

**Material:**

- 316L stainless steel

**Feature:**

- PL finish - SF1
- PM finish - SF4

**Dimensions of stainless steel tube given in inches**

Tube OD	Nominal Wall Thickness (inches)	Gage Number
½"	.065	16
¾"	.065	16
1"	.065	16
1½"	.065	16
2"	.065	16
2½"	.065	16
3"	.065	16
4"	.083	14
6"	.109	12

All fittings are manufactured to meet the latest edition of the ASME BPE International Standard, Bioprocessing Equipment.

316L stainless steel material and dimensions meet all orbital welding specifications with controlled sulphur.

Note: Not all sizes and finishes are stocked

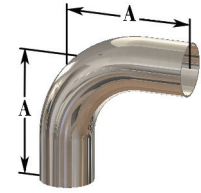


**High Purity BioPharm Line**



**90° Weld Elbows - T2S**

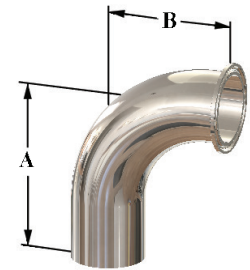
Tube OD	A	PL Finish - SF1	PM Finish - SF4
1/2"	3.000	<i>T2S-050PL</i>	<i>T2S-050PM</i>
3/4"	3.000	<i>T2S-075PL</i>	<i>T2S-075PM</i>
1"	3.000	<i>T2S-100PL</i>	<i>T2S-100PM</i>
1 1/2"	3.750	<i>T2S-150PL</i>	<i>T2S-150PM</i>
2"	4.750	<i>T2S-200PL</i>	<i>T2S-200PM</i>
2 1/2"	5.500	<i>T2S-250PL</i>	<i>T2S-250PM</i>
3"	6.250	<i>T2S-300PL</i>	<i>T2S-300PM</i>
4"	8.000	<i>T2S-400PL</i>	<i>T2S-400PM</i>
6"	11.500	<i>T2S-600PL</i>	<i>T2S-600PM</i>



BPE Table DT-4.1.1-1

**90° Clamp x Weld Elbows - T2CM**

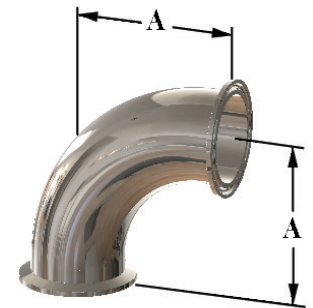
Tube OD	A	B	PL Finish - SF1	PM Finish - SF4
1/2"	3.000	1.625	<i>T2CM-050PL</i>	<i>T2CM-050PM</i>
3/4"	3.000	1.625	<i>T2CM-075PL</i>	<i>T2CM-075PM</i>
1"	3.000	2.000	<i>T2CM-100PL</i>	<i>T2CM-100PM</i>
1 1/2"	3.750	2.750	<i>T2CM-150PL</i>	<i>T2CM-150PM</i>
2"	4.750	3.500	<i>T2CM-200PL</i>	<i>T2CM-200PM</i>
2 1/2"	5.500	4.250	<i>T2CM-250PL</i>	<i>T2CM-250PM</i>
3"	6.250	5.000	<i>T2CM-300PL</i>	<i>T2CM-300PM</i>
4"	8.000	6.625	<i>T2CM-400PL</i>	<i>T2CM-400PM</i>
6"	11.500	10.500	<i>T2CM-600PL</i>	<i>T2CM-600PM</i>



BPE Table DT-4.1.1-2

**90° Clamp x Clamp Elbows - T2CMP**

Tube OD	A	PL Finish - SF1	PM Finish - SF4
1/2"	1.625	<i>T2CMP-050PL</i>	<i>T2CMP-050PM</i>
3/4"	1.625	<i>T2CMP-075PL</i>	<i>T2CMP-075PM</i>
1"	2.000	<i>T2CMP-100PL</i>	<i>T2CMP-100PM</i>
1 1/2"	2.750	<i>T2CMP-150PL</i>	<i>T2CMP-150PM</i>
2"	3.500	<i>T2CMP-200PL</i>	<i>T2CMP-200PM</i>
2 1/2"	4.250	<i>T2CMP-250PL</i>	<i>T2CMP-250PM</i>
3"	5.000	<i>T2CMP-300PL</i>	<i>T2CMP-300PM</i>
4"	6.625	<i>T2CMP-400PL</i>	<i>T2CMP-400PM</i>
6"	10.500	<i>T2CMP-600PL</i>	<i>T2CMP-600PM</i>

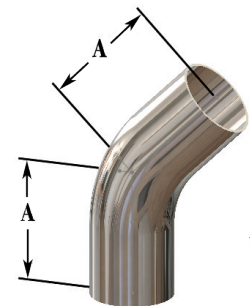


BPE Table DT-4.1.1-3



**45° Weld Elbows - T2KS**

Tube OD	A	PL Finish - SF1	PM Finish - SF4
1/2"	2.250	<i>T2KS-050PL</i>	<i>T2KS-050PM</i>
3/4"	2.250	<i>T2KS-075PL</i>	<i>T2KS-075PM</i>
1"	2.250	<i>T2KS-100PL</i>	<i>T2KS-100PM</i>
1 1/2"	2.500	<i>T2KS-150PL</i>	<i>T2KS-150PM</i>
2"	3.000	<i>T2KS-200PL</i>	<i>T2KS-200PM</i>
2 1/2"	3.375	<i>T2KS-250PL</i>	<i>T2KS-250PM</i>
3"	3.625	<i>T2KS-300PL</i>	<i>T2KS-300PM</i>
4"	4.500	<i>T2KS-400PL</i>	<i>T2KS-400PM</i>
6"	6.250	<i>T2KS-600PL</i>	<i>T2KS-600PM</i>



BPE Table DT-4.1.1-4

PL Finish – SF1  
 OD = 32R<sub>a</sub> Mechanically Polished  
 ID = 20R<sub>a</sub> Mechanically Polished

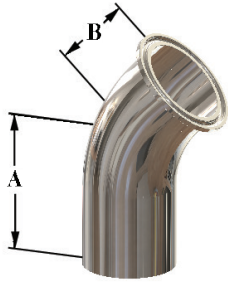
PM Finish – SF4  
 OD = 32R<sub>a</sub> Mechanically Polished  
 ID = 15R<sub>a</sub> Mechanically Polished and Electropolished



**High Purity BioPharm Line**

**45° Clamp x Weld Elbows - T2KM**

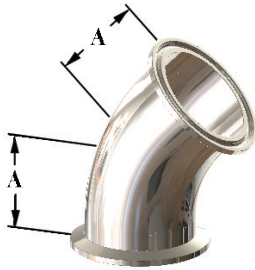
Fittings



BPE Table DT-4.1.1-5

Tube OD	A	B	PL Finish - SF1	PM Finish - SF4
1/2"	2.250	1.000	<i>T2KM-050PL</i>	<i>T2KM-050PM</i>
3/4"	2.250	1.000	<i>T2KM-075PL</i>	<i>T2KM-075PM</i>
1"	2.250	1.125	<i>T2KM-100PL</i>	<i>T2KM-100PM</i>
1 1/2"	2.500	1.438	<i>T2KM-150PL</i>	<i>T2KM-150PM</i>
2"	3.000	1.750	<i>T2KM-200PL</i>	<i>T2KM-200PM</i>
2 1/2"	3.375	2.063	<i>T2KM-250PL</i>	<i>T2KM-250PM</i>
3"	3.625	2.380	<i>T2KM-300PL</i>	<i>T2KM-300PM</i>
4"	4.500	3.125	<i>T2KM-400PL</i>	<i>T2KM-400PM</i>
6"	6.250	5.250	<i>T2KM-600PL</i>	<i>T2KM-600PM</i>

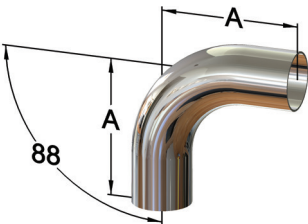
**45° Clamp x Clamp Elbows - T2KMP**



BPE Table DT-4.1.1-6

Tube OD	A	PL Finish - SF1	PM Finish - SF4
1/2"	1.000	<i>T2KMP-050PL</i>	<i>T2KMP-050PM</i>
3/4"	1.000	<i>T2KMP-075PL</i>	<i>T2KMP-075PM</i>
1"	1.125	<i>T2KMP-100PL</i>	<i>T2KMP-100PM</i>
1 1/2"	1.438	<i>T2KMP-150PL</i>	<i>T2KMP-150PM</i>
2"	1.750	<i>T2KMP-200PL</i>	<i>T2KMP-200PM</i>
2 1/2"	2.063	<i>T2KMP-250PL</i>	<i>T2KMP-250PM</i>
3"	2.375	<i>T2KMP-300PL</i>	<i>T2KMP-300PM</i>
4"	3.125	<i>T2KMP-400PL</i>	<i>T2KMP-400PM</i>
6"	5.250	<i>T2KMP-600PL</i>	<i>T2KMP-600PM</i>

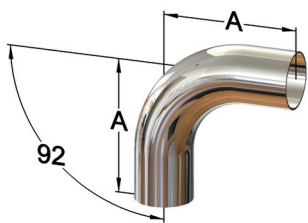
**88° Weld Elbows - T2S88**



BPE Table DT-4.1.1-1

Tube OD	A	PL Finish - SF1	PM Finish - SF4
1/2"	3.065	<i>T2S88-050PL</i>	<i>T2S88-050PM</i>
3/4"	3.065	<i>T2S88-075PL</i>	<i>T2S88-075PM</i>
1"	3.050	<i>T2S88-100PL</i>	<i>T2S88-100PM</i>
1 1/2"	3.800	<i>T2S88-150PL</i>	<i>T2S88-150PM</i>
2"	4.810	<i>T2S88-200PL</i>	<i>T2S88-200PM</i>
2 1/2"	5.560	<i>T2S88-250PL</i>	<i>T2S88-250PM</i>
3"	6.310	<i>T2S88-300PL</i>	<i>T2S88-300PM</i>
4"	8.070	<i>T2S88-400PL</i>	<i>T2S88-400PM</i>
6"	11.580	<i>T2S88-600PL</i>	<i>T2S88-600PM</i>

**92° Weld Elbows - T2S92**



BPE Table DT-4.1.1-1

Tube OD	A	PL Finish - SF1	PM Finish - SF4
1/2"	2.930	<i>T2S92-050PL</i>	<i>T2S92-050PM</i>
3/4"	2.930	<i>T2S92-075PL</i>	<i>T2S92-075PM</i>
1"	2.950	<i>T2S92-100PL</i>	<i>T2S92-100PM</i>
1 1/2"	3.700	<i>T2S92-150PL</i>	<i>T2S92-150PM</i>
2"	4.690	<i>T2S92-200PL</i>	<i>T2S92-200PM</i>
2 1/2"	5.440	<i>T2S92-250PL</i>	<i>T2S92-250PM</i>
3"	6.190	<i>T2S92-300PL</i>	<i>T2S92-300PM</i>
4"	7.930	<i>T2S92-400PL</i>	<i>T2S92-400PM</i>
6"	11.410	<i>T2S92-600PL</i>	<i>T2S92-600PM</i>

PL Finish – SF1  
 OD = 32R<sub>a</sub> Mechanically Polished  
 ID = 20R<sub>a</sub> Mechanically Polished

PM Finish – SF4  
 OD = 32R<sub>a</sub> Mechanically Polished  
 ID = 15R<sub>a</sub> Mechanically Polished and Electropolished

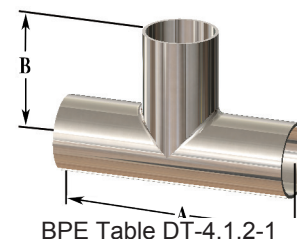
**High Purity BioPharm Line**



Fittings

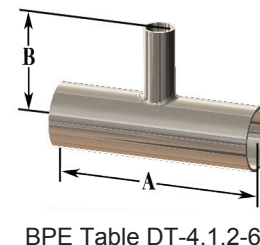
**Weld x Weld x Weld Tees - T7WWW**

Tube OD	A	B	PL Finish - SF1	PM Finish - SF4
½"	3.750	1.875	<i>T7WWW-050PL</i>	<i>T7WWW-050PM</i>
¾"	4.000	2.000	<i>T7WWW-075PL</i>	<i>T7WWW-075PM</i>
1"	4.250	2.125	<i>T7WWW-100PL</i>	<i>T7WWW-100PM</i>
1½"	4.750	2.375	<i>T7WWW-150PL</i>	<i>T7WWW-150PM</i>
2"	5.750	2.875	<i>T7WWW-200PL</i>	<i>T7WWW-200PM</i>
2½"	6.250	3.125	<i>T7WWW-250PL</i>	<i>T7WWW-250PM</i>
3"	6.750	3.375	<i>T7WWW-300PL</i>	<i>T7WWW-300PM</i>
4"	8.250	4.125	<i>T7WWW-400PL</i>	<i>T7WWW-400PM</i>
6"	11.250	5.625	<i>T7WWW-600PL</i>	<i>T7WWW-600PM</i>



**Weld x Weld x Weld Reducing Tees - T7RWWW**

Tube OD	A	B	PL Finish - SF1	PM Finish - SF4
¾" x ½"	4.000	2.000	<i>T7RWWW-075050PL</i>	<i>T7RWWW-075050PM</i>
1" x ½"	4.250	2.125	<i>T7RWWW-100050PL</i>	<i>T7RWWW-100050PM</i>
1" x ¾"	4.250	2.125	<i>T7RWWW-100075PL</i>	<i>T7RWWW-100075PM</i>
1½" x ½"	4.750	2.375	<i>T7RWWW-150050PL</i>	<i>T7RWWW-150050PM</i>
1½" x ¾"	4.750	2.375	<i>T7RWWW-150075PL</i>	<i>T7RWWW-150075PM</i>
1½" x 1"	4.750	2.375	<i>T7RWWW-150100PL</i>	<i>T7RWWW-150100PM</i>
2" x ½"	5.750	2.625	<i>T7RWWW-200050PL</i>	<i>T7RWWW-200050PM</i>
2" x ¾"	5.750	2.625	<i>T7RWWW-200075PL</i>	<i>T7RWWW-200075PM</i>
2" x 1"	5.750	2.625	<i>T7RWWW-200100PL</i>	<i>T7RWWW-200100PM</i>
2" x 1½"	5.750	2.625	<i>T7RWWW-200150PL</i>	<i>T7RWWW-200150PM</i>
2½" x ¾"	6.250	2.875	<i>T7RWWW-250075PL</i>	<i>T7RWWW-250075PM</i>
2½" x 1"	6.250	2.875	<i>T7RWWW-250100PL</i>	<i>T7RWWW-250100PM</i>
2½" x 1½"	6.250	2.875	<i>T7RWWW-250150PL</i>	<i>T7RWWW-250150PM</i>
2½" x 2"	6.250	2.875	<i>T7RWWW-250200PL</i>	<i>T7RWWW-250200PM</i>
3" x ½"	6.750	3.125	<i>T7RWWW-300050PL</i>	<i>T7RWWW-300050PM</i>
3" x ¾"	6.750	3.125	<i>T7RWWW-300075PL</i>	<i>T7RWWW-300075PM</i>
3" x 1"	6.750	3.125	<i>T7RWWW-300100PL</i>	<i>T7RWWW-300100PM</i>
3" x 1½"	6.750	3.125	<i>T7RWWW-300150PL</i>	<i>T7RWWW-300150PM</i>
3" x 2"	6.750	3.125	<i>T7RWWW-300200PL</i>	<i>T7RWWW-300200PM</i>
3" x 2½"	6.750	3.125	<i>T7RWWW-300250PL</i>	<i>T7RWWW-300250PM</i>
4" x ½"	8.250	3.625	<i>T7RWWW-400050PL</i>	<i>T7RWWW-400050PM</i>
4" x ¾"	8.250	3.625	<i>T7RWWW-400075PL</i>	<i>T7RWWW-400075PM</i>
4" x 1"	8.250	3.625	<i>T7RWWW-400100PL</i>	<i>T7RWWW-400100PM</i>
4" x 1½"	8.250	3.625	<i>T7RWWW-400150PL</i>	<i>T7RWWW-400150PM</i>
4" x 2"	8.250	3.875	<i>T7RWWW-400200PL</i>	<i>T7RWWW-400200PM</i>
4" x 2½"	8.250	3.875	<i>T7RWWW-400250PL</i>	<i>T7RWWW-400250PM</i>
4" x 3"	8.250	3.875	<i>T7RWWW-400300PL</i>	<i>T7RWWW-400300PM</i>
6" x 3"	11.250	4.875	<i>T7RWWW-600300PL</i>	<i>T7RWWW-600300PM</i>
6" x 4"	11.250	5.125	<i>T7RWWW-600400PL</i>	<i>T7RWWW-600400PM</i>



PL Finish – SF1  
 OD = 32R<sub>a</sub> Mechanically Polished  
 ID = 20R<sub>a</sub> Mechanically Polished

PM Finish – SF4  
 OD = 32R<sub>a</sub> Mechanically Polished  
 ID = 15R<sub>a</sub> Mechanically Polished and Electropolished

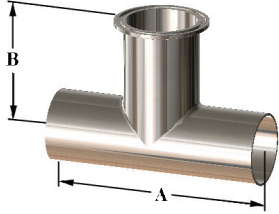




**High Purity BioPharm Line**

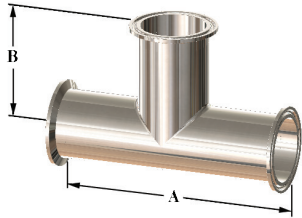
**Weld x Weld x Clamp Tees - T7WWM**

Fittings



Tube OD	A	B	PL Finish - SF1	PM Finish - SF4
1/2"	3.750	2.250	<i>T7WWM-050PL</i>	<i>T7WWM-050PM</i>
3/4"	4.000	2.375	<i>T7WWM-075PL</i>	<i>T7WWM-075PM</i>
1"	4.250	2.625	<i>T7WWM-100PL</i>	<i>T7WWM-100PM</i>
1 1/2"	4.750	2.875	<i>T7WWM-150PL</i>	<i>T7WWM-150PM</i>
2"	5.750	3.375	<i>T7WWM-200PL</i>	<i>T7WWM-200PM</i>
2 1/2"	6.250	3.625	<i>T7WWM-250PL</i>	<i>T7WWM-250PM</i>
3"	6.750	3.875	<i>T7WWM-300PL</i>	<i>T7WWM-300PM</i>
4"	8.250	4.750	<i>T7WWM-400PL</i>	<i>T7WWM-400PM</i>
6"	11.250	7.125	<i>T7WWM-600PL</i>	<i>T7WWM-600PM</i>

**Clamp x Clamp x Clamp Tees - T7MP**



BPE Table DT-4.1.2-4

Tube OD	A	B	PL Finish - SF1	PM Finish - SF4
1/2"	4.500	2.250	<i>T7MP-050PL</i>	<i>T7MP-050PM</i>
3/4"	4.750	2.375	<i>T7MP-075PL</i>	<i>T7MP-075PM</i>
1"	5.250	2.625	<i>T7MP-100PL</i>	<i>T7MP-100PM</i>
1 1/2"	5.750	2.875	<i>T7MP-150PL</i>	<i>T7MP-150PM</i>
2"	6.750	3.375	<i>T7MP-200PL</i>	<i>T7MP-200PM</i>
2 1/2"	7.250	3.625	<i>T7MP-250PL</i>	<i>T7MP-250PM</i>
3"	7.750	3.875	<i>T7MP-300PL</i>	<i>T7MP-300PM</i>
4"	9.500	4.750	<i>T7MP-400PL</i>	<i>T7MP-400PM</i>
6"	14.250	7.125	<i>T7MP-600PL</i>	<i>T7MP-600PM</i>

PL Finish – SF1  
 OD = 32R<sub>a</sub> Mechanically Polished  
 ID = 20R<sub>a</sub> Mechanically Polished

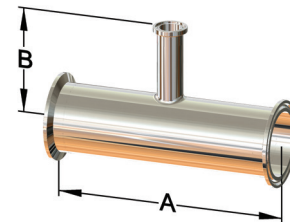
PM Finish – SF4  
 OD = 32R<sub>a</sub> Mechanically Polished  
 ID = 15R<sub>a</sub> Mechanically Polished and Electropolished



### High Purity BioPharm Line

#### Clamp x Clamp x Clamp Reducing Tees - T7RMP

Tube OD	A	B	PL Finish - SF1	PM Finish - SF4
¾" x ½"	5.000	2.500	<i>T7RMP-075050PL</i>	<i>T7RMP-075050PM</i>
1" x ½"	5.250	2.625	<i>T7RMP-100050PL</i>	<i>T7RMP-100050PM</i>
1" x ¾"	5.250	2.625	<i>T7RMP-100075PL</i>	<i>T7RMP-100075PM</i>
1½" x ½"	5.750	2.875	<i>T7RMP-150050PL</i>	<i>T7RMP-150050PM</i>
1½" x ¾"	5.750	2.875	<i>T7RMP-150075PL</i>	<i>T7RMP-150075PM</i>
1½" x 1"	5.750	2.875	<i>T7RMP-150100PL</i>	<i>T7RMP-150100PM</i>
2" x ½"	6.750	3.125	<i>T7RMP-200050PL</i>	<i>T7RMP-200050PM</i>
2" x ¾"	6.750	3.125	<i>T7RMP-200075PL</i>	<i>T7RMP-200075PM</i>
2" x 1"	6.750	3.125	<i>T7RMP-200100PL</i>	<i>T7RMP-200100PM</i>
2" x 1½"	6.750	3.125	<i>T7RMP-200150PL</i>	<i>T7RMP-200150PM</i>
2½" x ½"	7.250	3.375	<i>T7RMP-250050PL</i>	<i>T7RMP-250050PM</i>
2½" x ¾"	7.250	3.375	<i>T7RMP-250075PL</i>	<i>T7RMP-250075PM</i>
2½" x 1"	7.250	3.375	<i>T7RMP-250100PL</i>	<i>T7RMP-250100PM</i>
2½" x 1½"	7.250	3.375	<i>T7RMP-250150PL</i>	<i>T7RMP-250150PM</i>
2½" x 2"	7.250	3.375	<i>T7RMP-250200PL</i>	<i>T7RMP-250200PM</i>
3" x ½"	7.750	3.625	<i>T7RMP-300050PL</i>	<i>T7RMP-300050PM</i>
3" x ¾"	7.750	3.625	<i>T7RMP-300075PL</i>	<i>T7RMP-300075PM</i>
3" x 1"	7.750	3.625	<i>T7RMP-300100PL</i>	<i>T7RMP-300100PM</i>
3" x 1½"	7.750	3.625	<i>T7RMP-300150PL</i>	<i>T7RMP-300150PM</i>
3" x 2"	7.750	3.625	<i>T7RMP-300200PL</i>	<i>T7RMP-300200PM</i>
3" x 2½"	7.750	3.625	<i>T7RMP-300250PL</i>	<i>T7RMP-300250PM</i>
4" x ½"	9.500	4.125	<i>T7RMP-400050PL</i>	<i>T7RMP-400050PM</i>
4" x ¾"	9.500	4.125	<i>T7RMP-400075PL</i>	<i>T7RMP-400075PM</i>
4" x 1"	9.500	4.125	<i>T7RMP-400100PL</i>	<i>T7RMP-400100PM</i>
4" x 1½"	9.500	4.125	<i>T7RMP-400150PL</i>	<i>T7RMP-400150PM</i>
4" x 2"	9.500	4.125	<i>T7RMP-400200PL</i>	<i>T7RMP-400200PM</i>
4" x 2½"	9.500	4.125	<i>T7RMP-400250PL</i>	<i>T7RMP-400250PM</i>
4" x 3"	9.500	4.125	<i>T7RMP-400300PL</i>	<i>T7RMP-400300PM</i>
6" x 3"	14.250	5.375	<i>T7RMP-600300PL</i>	<i>T7RMP-600300PM</i>
6" x 4"	14.250	5.750	<i>T7RMP-600400PL</i>	<i>T7RMP-600400PM</i>

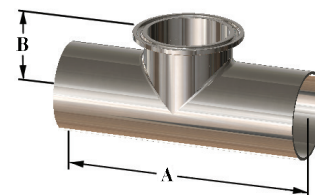


BPE Table DT-4.1.2-8



#### Weld x Weld x Clamp Short Outlet Tees - T7WWMS

Tube OD	A	B	PL Finish - SF1	PM Finish - SF4
½"	3.750	1.000	<i>T7WWMS-050PL</i>	<i>T7WWMS-050PM</i>
¾"	4.000	1.125	<i>T7WWMS-075PL</i>	<i>T7WWMS-075PM</i>
1"	4.250	1.125	<i>T7WWMS-100PL</i>	<i>T7WWMS-100PM</i>
1½"	4.750	1.375	<i>T7WWMS-150PL</i>	<i>T7WWMS-150PM</i>
2"	5.750	1.625	<i>T7WWMS-200PL</i>	<i>T7WWMS-200PM</i>
2½"	6.250	1.875	<i>T7WWMS-250PL</i>	<i>T7WWMS-250PM</i>
3"	6.750	2.125	<i>T7WWMS-300PL</i>	<i>T7WWMS-300PM</i>
4"	8.250	2.750	<i>T7WWMS-400PL</i>	<i>T7WWMS-400PM</i>
6"	11.250	4.625	<i>T7WWMS-600PL</i>	<i>T7WWMS-600PM</i>



BPE Table DT-4.1.2-2

PL Finish – SF1  
 OD = 32R<sub>a</sub> Mechanically Polished  
 ID = 20R<sub>a</sub> Mechanically Polished

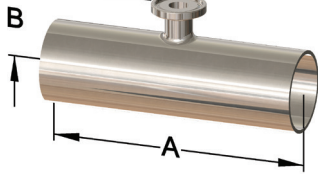
PM Finish – SF4  
 OD = 32R<sub>a</sub> Mechanically Polished  
 ID = 15R<sub>a</sub> Mechanically Polished and Electropolished



High Purity BioPharm Line

Weld x Weld x Clamp Short Outlet Reducing Tees - T7RWWMS

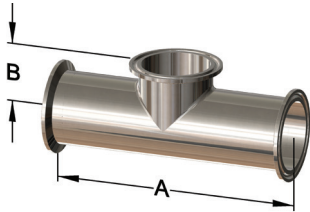
Fittings



BPE Table DT-4.1.2-7

Tube OD	A	B	PL Finish - SF1	PM Finish - SF4
3/4" x 1/2"	4.000	1.000	T7RWWMS075050PL	T7RWWMS075050PM
1" x 1/2"	4.250	1.125	T7RWWMS100050PL	T7RWWMS100050PM
1" x 3/4"	4.250	1.125	T7RWWMS100075PL	T7RWWMS100075PM
1 1/2" x 1/2"	4.750	1.375	T7RWWMS150050PL	T7RWWMS150050PM
1 1/2" x 3/4"	4.750	1.375	T7RWWMS150075PL	T7RWWMS150075PM
1 1/2" x 1"	4.750	1.375	T7RWWMS150100PL	T7RWWMS150100PM
2" x 1/2"	5.750	1.625	T7RWWMS200050PL	T7RWWMS200050PM
2" x 3/4"	5.750	1.625	T7RWWMS200075PL	T7RWWMS200075PM
2" x 1"	5.750	1.625	T7RWWMS200100PL	T7RWWMS200100PM
2" x 1 1/2"	5.750	1.625	T7RWWMS200150PL	T7RWWMS200150PM
2 1/2" x 1/2"	6.250	1.875	T7RWWMS250050PL	T7RWWMS250050PM
2 1/2" x 3/4"	6.250	1.875	T7RWWMS250075PL	T7RWWMS250075PM
2 1/2" x 1"	6.250	1.875	T7RWWMS250100PL	T7RWWMS250100PM
2 1/2" x 1 1/2"	6.250	1.875	T7RWWMS250150PL	T7RWWMS250150PM
2 1/2" x 2"	6.250	1.875	T7RWWMS250200PL	T7RWWMS250200PM
3" x 1/2"	6.750	2.125	T7RWWMS300050PL	T7RWWMS300050PM
3" x 3/4"	6.750	2.125	T7RWWMS300075PL	T7RWWMS300075PM
3" x 1"	6.750	2.125	T7RWWMS300100PL	T7RWWMS300100PM
3" x 1 1/2"	6.750	2.125	T7RWWMS300150PL	T7RWWMS300150PM
3" x 2"	6.750	2.125	T7RWWMS300200PL	T7RWWMS300200PM
3" x 2 1/2"	6.750	2.125	T7RWWMS300250PL	T7RWWMS300250PM
4" x 1/2"	8.250	2.625	T7RWWMS400050PL	T7RWWMS400050PM
4" x 3/4"	8.250	2.625	T7RWWMS400075PL	T7RWWMS400075PM
4" x 1"	8.250	2.625	T7RWWMS400100PL	T7RWWMS400100PM
4" x 1 1/2"	8.250	2.625	T7RWWMS400150PL	T7RWWMS400150PM
4" x 2"	8.250	2.625	T7RWWMS400200PL	T7RWWMS400200PM
4" x 2 1/2"	8.250	2.625	T7RWWMS400250PL	T7RWWMS400250PM
4" x 3"	8.250	2.625	T7RWWMS400300PL	T7RWWMS400300PM
6" x 3"	11.250	3.625	T7RWWMS600300PL	T7RWWMS600300PM
6" x 4"	11.250	3.750	T7RWWMS600400PL	T7RWWMS600400PM

Clamp x Clamp x Clamp Short Outlet Tees - T7MPS



BPE Table DT-4.1.2-5

Tube OD	A	B	PL Finish - SF1	PM Finish - SF4
1/2"	4.500	1.000	T7MPS-050PL	T7MPS-050PM
3/4"	4.750	1.125	T7MPS-075PL	T7MPS-075PM
1"	5.250	1.125	T7MPS-100PL	T7MPS-100PM
1 1/2"	5.750	1.375	T7MPS-150PL	T7MPS-150PM
2"	6.750	1.625	T7MPS-200PL	T7MPS-200PM
2 1/2"	7.250	1.875	T7MPS-250PL	T7MPS-250PM
3"	7.750	2.125	T7MPS-300PL	T7MPS-300PM
4"	9.500	2.750	T7MPS-400PL	T7MPS-400PM
6"	14.250	4.625	T7MPS-600PL	T7MPS-600PM

PL Finish – SF1  
 OD = 32R<sub>a</sub> Mechanically Polished  
 ID = 20R<sub>a</sub> Mechanically Polished

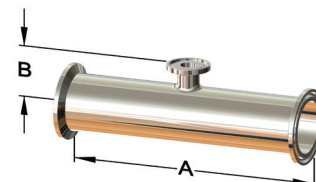
PM Finish – SF4  
 OD = 32R<sub>a</sub> Mechanically Polished  
 ID = 15R<sub>a</sub> Mechanically Polished and Electropolished

**High Purity BioPharm Line**



**Clamp x Clamp x Clamp Short Outlet Reducing Tees - T7RMPS**

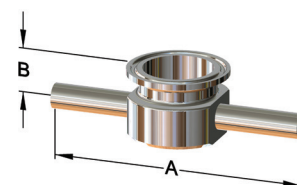
Tube OD	A	B	PL Finish - SF1	PM Finish - SF4
3/4" x 1/2"	5.000	1.000	T7RMPS-075050PL	T7RMPS-075050PM
1" x 1/2"	5.125	1.125	T7RMPS-100050PL	T7RMPS-100050PM
1" x 3/4"	5.125	1.125	T7RMPS-100075PL	T7RMPS-100075PM
1 1/2" x 1/2"	5.750	1.375	T7RMPS-150050PL	T7RMPS-150050PM
1 1/2" x 3/4"	5.750	1.375	T7RMPS-150075PL	T7RMPS-150075PM
1 1/2" x 1"	5.750	1.375	T7RMPS-150100PL	T7RMPS-150100PM
2" x 1/2"	6.750	1.625	T7RMPS-200050PL	T7RMPS-200050PM
2" x 3/4"	6.750	1.625	T7RMPS-200075PL	T7RMPS-200075PM
2" x 1"	6.750	1.625	T7RMPS-200100PL	T7RMPS-200100PM
2" x 1 1/2"	6.750	1.625	T7RMPS-200150PL	T7RMPS-200150PM
2 1/2" x 1/2"	7.250	1.875	T7RMPS-250050PL	T7RMPS-250050PM
2 1/2" x 3/4"	7.250	1.875	T7RMPS-250075PL	T7RMPS-250075PM
2 1/2" x 1"	7.250	1.875	T7RMPS-250100PL	T7RMPS-250100PM
2 1/2" x 1 1/2"	7.250	1.875	T7RMPS-250150PL	T7RMPS-250150PM
2 1/2" x 2"	7.250	1.875	T7RMPS-250200PL	T7RMPS-250200PM
3" x 1/2"	7.750	2.125	T7RMPS-300050PL	T7RMPS-300050PM
3" x 3/4"	7.750	2.125	T7RMPS-300075PL	T7RMPS-300075PM
3" x 1"	7.750	2.125	T7RMPS-300100PL	T7RMPS-300100PM
3" x 1 1/2"	7.750	2.125	T7RMPS-300150PL	T7RMPS-300150PM
3" x 2"	7.750	2.125	T7RMPS-300200PL	T7RMPS-300200PM
3" x 2 1/2"	7.750	2.125	T7RMPS-300250PL	T7RMPS-300250PM
4" x 1/2"	9.500	2.625	T7RMPS-400050PL	T7RMPS-400050PM
4" x 3/4"	9.500	2.625	T7RMPS-400075PL	T7RMPS-400075PM
4" x 1"	9.500	2.625	T7RMPS-400100PL	T7RMPS-400100PM
4" x 1 1/2"	9.500	2.625	T7RMPS-400150PL	T7RMPS-400150PM
4" x 2"	9.500	2.625	T7RMPS-400200PL	T7RMPS-400200PM
4" x 2 1/2"	9.500	2.625	T7RMPS-400250PL	T7RMPS-400250PM
4" x 3"	9.500	2.625	T7RMPS-400300PL	T7RMPS-400300PM
6" x 3"	14.250	3.625	T7RMPS-600300PL	T7RMPS-600300PM
6" x 4"	14.250	3.750	T7RMPS-600400PL	T7RMPS-600400PM



BPE Table DT-4.1.2-9

**Weld x Weld x Clamp Instrument Tees - T7IWWMS**

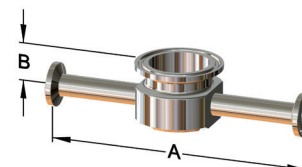
Tube OD	A	B	PL Finish - SF1	PM Finish - SF4
1/2" x 1/2"	5.000	.875	T7IWWMS050150PL	T7IWWMS050150PM
3/4" x 1/2"	5.000	1.000	T7IWWMS075150PL	T7IWWMS075150PM
1" x 1/2"	5.000	1.125	T7IWWMS100150PL	T7IWWMS100150PM
1/2" x 2"	5.500	1.000	T7IWWMS050200PL	T7IWWMS050200PM
3/4" x 2"	5.500	1.125	T7IWWMS075200PL	T7IWWMS075200PM
1" X 2"	5.500	1.250	T7IWWMS100200PL	T7IWWMS100200PM
1 1/2" X 2"	5.500	1.500	T7IWWMS150200PL	T7IWWMS150200PM



BPE Table DT-4.1.2-10

**Clamp x Clamp x Clamp Instrument Tees - T7IMPS**

Tube OD	A	B	PL Finish - SF1	PM Finish - SF4
1/2" x 1/2"	6.000	.875	T7IMPS-050150PL	T7IMPS-050150PM
3/4" x 1/2"	6.000	1.000	T7IMPS-075150PL	T7IMPS-075150PM
1" x 1/2"	6.000	1.125	T7IMPS-100150PL	T7IMPS-100150PM
1/2" x 2"	6.500	1.000	T7IMPS-050200PL	T7IMPS-050200PM
3/4" x 2"	6.500	1.125	T7IMPS-075200PL	T7IMPS-075200PM
1" X 2"	6.500	1.250	T7IMPS-100200PL	T7IMPS-100200PM
1 1/2" X 2"	6.500	1.500	T7IMPS150200PL	T7IMPS150200PM



BPE Table DT-4.1.2-11

PL Finish – SF1  
 OD = 32R<sub>a</sub> Mechanically Polished  
 ID = 20R<sub>a</sub> Mechanically Polished

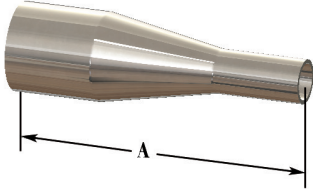
PM Finish – SF4  
 OD = 32R<sub>a</sub> Mechanically Polished  
 ID = 15R<sub>a</sub> Mechanically Polished and Electropolished



**High Purity BioPharm Line**

**Weld x Weld Concentric Reducers - T31W**

Fittings

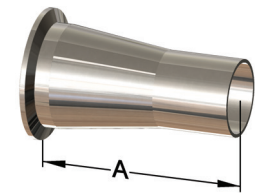


BPE Table DT-4.1.3-1(a)

Tube OD	A	PL Finish - SF1	PM Finish - SF4
3/4" x 1/2"	4.00	T31W-075050PL	T31W-075050PM
1" x 1/2"	4.50	T31W-100050PL	T31W-100050PM
1" x 3/4"	4.00	T31W-100075PL	T31W-100075PM
1 1/2" x 1/2"	5.50	T31W-150050PL	T31W-150050PM
1 1/2" x 3/4"	5.00	T31W-150075PL	T31W-150075PM
1 1/2" x 1"	5.00	T31W-150100PL	T31W-150100PM
2" x 1/2"	7.75	T31W-200050PL	T31W-200050PM
2" x 3/4"	7.25	T31W-200075PL	T31W-200075PM
2" x 1"	7.25	T31W-200100PL	T31W-200100PM
2" x 1 1/2"	5.25	T31W-200150PL	T31W-200150PM
2 1/2" x 1/2"	9.750	T31W-250050PL	T31W-250050PM
2 1/2" x 3/4"	9.250	T31W-250075PL	T31W-250075PM
2 1/2" x 1"	9.250	T31W-250100PL	T31W-250100PM
2 1/2" x 1 1/2"	7.250	T31W-250150PL	T31W-250150PM
2 1/2" x 2"	5.500	T31W-250200PL	T31W-250200PM
3" x 1"	11.250	T31W-300100PL	T31W-300100PM
3" x 1 1/2"	9.250	T31W-300150PL	T31W-300150PM
3" x 2"	7.500	T31W-300200PL	T31W-300200PM
3" x 2 1/2"	5.500	T31W-300250PL	T31W-300250PM
4" x 1"	15.500	T31W-400100PL	T31W-400100PM
4" x 1 1/2"	13.500	T31W-400150PL	T31W-400150PM
4" x 2"	11.750	T31W-400200PL	T31W-400200PM
4" x 2 1/2"	9.750	T31W-400250PL	T31W-400250PM
4" x 3"	7.750	T31W-400300PL	T31W-400300PM
6" x 3"	10.000	T31W-600300PL	T31W-600300PM
6" x 4"	10.000	T31W-600400PL	T31W-600400PM

**Clamp x Weld Concentric Reducers - T31M**

Tube OD	A	PL Finish - SF1	PM Finish - SF4
3/4" x 1/2"	3.000	T31M-075050PL	T31M-075050PM
1" x 1/2"	3.500	T31M-100050PL	T31M-100050PM
1" x 3/4"	3.000	T31M-100075PL	T31M-100075PM
1 1/2" x 1/2"	4.500	T31M-150050PL	T31M-150050PM
1 1/2" x 3/4"	4.000	T31M-150075PL	T31M-150075PM
1 1/2" x 1"	4.000	T31M-150100PL	T31M-150100PM
2" x 1/2"	6.500	T31M-200050PL	T31M-200050PM
2" x 3/4"	6.000	T31M-200075PL	T31M-200075PM
2" x 1"	6.000	T31M-200100PL	T31M-200100PM
2" x 1 1/2"	4.000	T31M-200150PL	T31M-200150PM
2 1/2" x 1/2"	8.500	T31M-250050PL	T31M-250050PM
2 1/2" x 3/4"	8.000	T31M-250075PL	T31M-250075PM
2 1/2" x 1"	8.000	T31M-250100PL	T31M-250100PM
2 1/2" x 1 1/2"	6.000	T31M-250150PL	T31M-250150PM
2 1/2" x 2"	4.250	T31M-250200PL	T31M-250200PM
3" x 1"	10.000	T31M-300100PL	T31M-300100PM
3" x 1 1/2"	8.000	T31M-300150PL	T31M-300150PM
3" x 2"	6.250	T31M-300200PL	T31M-300200PM
3" x 2 1/2"	4.250	T31M-300250PL	T31M-300250PM
4" x 1"	14.125	T31M-400100PL	T31M-400100PM
4" x 1 1/2"	12.125	T31M-400150PL	T31M-400150PM
4" x 2"	10.375	T31M-400200PL	T31M-400200PM
4" x 2 1/2"	8.375	T31M-400250PL	T31M-400250PM
4" x 3"	6.375	T31M-400300PL	T31M-400300PM
6" x 3"	9.000	T31M-600300PL	T31M-600300PM
6" x 4"	9.000	T31M-600400PL	T31M-600400PM



BPE Table DT-4.1.3-2(a)

PL Finish – SF1  
 OD = 32R<sub>a</sub> Mechanically Polished  
 ID = 20R<sub>a</sub> Mechanically Polished

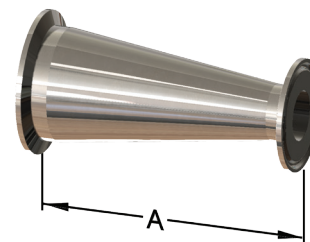
PM Finish – SF4  
 OD = 32R<sub>a</sub> Mechanically Polished  
 ID = 15R<sub>a</sub> Mechanically Polished and Electropolished



### High Purity BioPharm Line

#### Clamp x Clamp Concentric Reducers - T3114MP

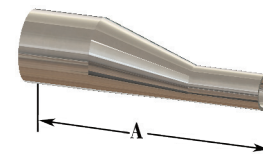
Tube OD	A	PL Finish - SF1	PM Finish - SF4
¾" x ½"	2.000	T3114MP075050PL	T3114MP075050PM
1" x ½"	2.500	T3114MP100050PL	T3114MP100050PM
1" x ¾"	2.000	T3114MP100075PL	T3114MP100075PM
1½" x ½"	3.500	T3114MP150050PL	T3114MP150050PM
1½" x ¾"	3.000	T3114MP150075PL	T3114MP150075PM
1½" x 1"	3.000	T3114MP150100PL	T3114MP150100PM
2" x ½"	5.500	T3114MP200050PL	T3114MP200050PM
2" x ¾"	5.000	T3114MP200075PL	T3114MP200075PM
2" x 1"	5.000	T3114MP200100PL	T3114MP200100PM
2" x 1½"	3.000	T3114MP200150PL	T3114MP200150PM
2½" x ½"	7.500	T3114MP250050PL	T3114MP250050PM
2½" x ¾"	7.000	T3114MP250075PL	T3114MP250075PM
2½" x 1"	7.000	T3114MP250100PL	T3114MP250100PM
2½" x 1½"	5.000	T3114MP250150PL	T3114MP250150PM
2½" x 2"	3.000	T3114MP250200PL	T3114MP250200PM
3" x 1"	9.000	T3114MP300100PL	T3114MP300100PM
3" x 1½"	7.000	T3114MP300150PL	T3114MP300150PM
3" x 2"	5.000	T3114MP300200PL	T3114MP300200PM
3" x 2½"	3.000	T3114MP300250PL	T3114MP300250PM
4" x 1"	13.125	T3114MP400100PL	T3114MP400100PM
4" x 1½"	11.125	T3114MP400150PL	T3114MP400150PM
4" x 2"	9.125	T3114MP400200PL	T3114MP400200PM
4" x 2½"	7.125	T3114MP400250PL	T3114MP400250PM
4" x 3"	5.125	T3114MP400300PL	T3114MP400300PM
6" x 3"	7.625	T3114MP600300PL	T3114MP600300PM
6" x 4"	7.625	T3114MP600400PL	T3114MP600400PM



BPE Table DT-4.1.3-3(a)

#### Weld x Weld Eccentric Reducers - T32W

Tube OD	A	PL Finish - SF1	PM Finish - SF4
¾" x ½"	4.000	T32W-075050PL	T32W-075050PM
1" x ½"	4.500	T32W-100050PL	T32W-100050PM
1" x ¾"	4.000	T32W-100075PL	T32W-100075PM
1½" x ½"	5.500	T32W-150050PL	T32W-150050PM
1½" x ¾"	5.000	T32W-150075PL	T32W-150075PM
1½" x 1"	5.000	T32W-150100PL	T32W-150100PM
2" x ½"	7.750	T32W-200050PL	T32W-200050PM
2" x ¾"	7.250	T32W-200075PL	T32W-200075PM
2" x 1"	7.250	T32W-200100PL	T32W-200100PM
2" x 1½"	5.250	T32W-200150PL	T32W-200150PM
2½" x ½"	9.750	T32W-250050PL	T32W-250050PM
2½" x ¾"	9.250	T32W-250075PL	T32W-250075PM
2½" x 1"	9.250	T32W-250100PL	T32W-250100PM
2½" x 1½"	7.250	T32W-250150PL	T32W-250150PM
2½" x 2"	5.500	T32W-250200PL	T32W-250200PM
3" x 1"	11.250	T32W-300100PL	T32W-300100PM
3" x 1½"	9.250	T32W-300150PL	T32W-300150PM
3" x 2"	7.500	T32W-300200PL	T32W-300200PM
3" x 2½"	5.500	T32W-300250PL	T32W-300250PM
4" x 1"	15.500	T32W-400100PL	T32W-400100PM
4" x 1½"	13.500	T32W-400150PL	T32W-400150PM
4" x 2"	11.750	T32W-400200PL	T32W-400200PM
4" x 2½"	9.750	T32W-400250PL	T32W-400250PM
4" x 3"	7.750	T32W-400300PL	T32W-400300PM
6" x 3"	9.750	T32W-600300PL	T32W-600300PM
6" x 4"	10.000	T32W-600400PL	T32W-600400PM



BPE Table DT-4.1.3-1(a)

PL Finish – SF1  
 OD = 32R<sub>a</sub> Mechanically Polished  
 ID = 20R<sub>a</sub> Mechanically Polished

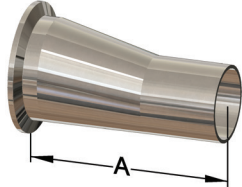
PM Finish – SF4  
 OD = 32R<sub>a</sub> Mechanically Polished  
 ID = 15R<sub>a</sub> Mechanically Polished and Electropolished



**High Purity BioPharm Line**

**Clamp x Weld Eccentric Reducers - T32M**

Fittings

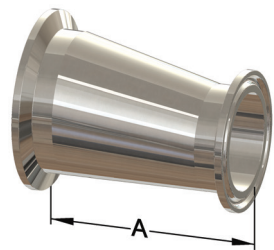


BPE Table DT-4.1.3-2(a)

Tube OD	A	PL Finish - SF1	PM Finish - SF4
3/4" x 1/2"	3.000	T32M-075050PL	T32M-075050PM
1" x 1/2"	3.500	T32M-100050PL	T32M-100050PM
1" x 3/4"	3.000	T32M-100075PL	T32M-100075PM
1 1/2" x 1/2"	4.500	T32M-150050PL	T32M-150050PM
1 1/2" x 3/4"	4.000	T32M-150075PL	T32M-150075PM
1 1/2" x 1"	4.000	T32M-150100PL	T32M-150100PM
2" x 1/2"	6.500	T32M-200050PL	T32M-200050PM
2" x 3/4"	6.000	T32M-200075PL	T32M-200075PM
2" x 1"	6.000	T32M-200100PL	T32M-200100PM
2" x 1 1/2"	4.000	T32M-200150PL	T32M-200150PM
2 1/2" x 1/2"	8.500	T32M-250050PL	T32M-250050PM
2 1/2" x 3/4"	8.000	T32M-250075PL	T32M-250075PM
2 1/2" x 1"	8.000	T32M-250100PL	T32M-250100PM
2 1/2" x 1 1/2"	6.000	T32M-250150PL	T32M-250150PM
2 1/2" x 2"	4.250	T32M-250200PL	T32M-250200PM
3" x 1"	10.000	T32M-300100PL	T32M-300100PM
3" x 1 1/2"	8.000	T32M-300150PL	T32M-300150PM
3" x 2"	6.250	T32M-300200PL	T32M-300200PM
3" x 2 1/2"	4.250	T32M-300250PL	T32M-300250PM
4" x 1"	14.125	T32M-400100PL	T32M-400100PM
4" x 1 1/2"	12.125	T32M-400150PL	T32M-400150PM
4" x 2"	10.375	T32M-400200PL	T32M-400200PM
4" x 2 1/2"	8.375	T32M-400250PL	T32M-400250PM
4" x 3"	6.375	T32M-400300PL	T32M-400300PM
6" x 3"	8.750	T32M-600300PL	T32M-600300PM
6" x 4"	9.000	T32M-600400PL	T32M-600400PM

**Clamp x Clamp Eccentric Reducers - T3214MP**

Tube OD	A	PL Finish - SF1	PM Finish - SF4
3/4" x 1/2"	2.000	T3214MP075050PL	T3214MP075050PM
1" x 1/2"	2.500	T3214MP100050PL	T3214MP100050PM
1" x 3/4"	2.000	T3214MP100075PL	T3214MP100075PM
1 1/2" x 1/2"	3.500	T3214MP150050PL	T3214MP150050PM
1 1/2" x 3/4"	3.000	T3214MP150075PL	T3214MP150075PM
1 1/2" x 1"	3.000	T3214MP150100PL	T3214MP150100PM
2" x 1/2"	5.500	T3214MP200050PL	T3214MP200050PM
2" x 3/4"	5.000	T3214MP200075PL	T3214MP200075PM
2" x 1"	5.000	T3214MP200100PL	T3214MP200100PM
2" x 1 1/2"	3.000	T3214MP200150PL	T3214MP200150PM
2 1/2" x 1/2"	7.500	T3214MP250050PL	T3214MP250050PM
2 1/2" x 3/4"	7.000	T3214MP250075PL	T3214MP250075PM
2 1/2" x 1"	7.000	T3214MP250100PL	T3214MP250100PM
2 1/2" x 1 1/2"	5.000	T3214MP250150PL	T3214MP250150PM
2 1/2" x 2"	3.000	T3214MP250200PL	T3214MP250200PM
3" x 1"	9.000	T3214MP300100PL	T3214MP300100PM
3" x 1 1/2"	7.000	T3214MP300150PL	T3214MP300150PM
3" x 2"	5.000	T3214MP300200PL	T3214MP300200PM
3" x 2 1/2"	3.000	T3214MP300250PL	T3214MP300250PM
4" x 1"	13.125	T3214MP400100PL	T3214MP400100PM
4" x 1 1/2"	11.125	T3214MP400150PL	T3214MP400150PM
4" x 2"	9.125	T3214MP400200PL	T3214MP400200PM
4" x 2 1/2"	7.125	T3214MP400250PL	T3214MP400250PM
4" x 3"	5.125	T3214MP400300PL	T3214MP400300PM
6" x 3"	7.500	T3214MP600300PL	T3214MP600300PM
6" x 4"	7.625	T3214MP600400PL	T3214MP600400PM



BPE Table DT-4.1.3-3(a)

PL Finish – SF1

OD = 32R<sub>a</sub> Mechanically Polished

ID = 20R<sub>a</sub> Mechanically Polished

PM Finish – SF4

OD = 32R<sub>a</sub> Mechanically Polished

ID = 15R<sub>a</sub> Mechanically Polished and Electropolished

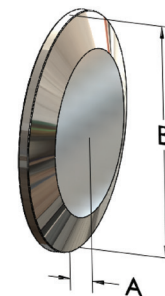
**High Purity BioPharm Line**



Fittings

**Solid End Caps - T16AMP**

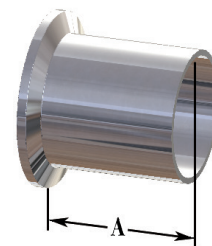
Tube OD	B	PL Finish - SF1	PM Finish - SF4
0.190	1.000	<i>T16AMP-050075PL</i>	<i>T16AMP-050075PM</i>
0.250	1.990	<i>T16AMP-100150PL</i>	<i>T16AMP-100150PM</i>
0.250	2.520	<i>T16AMP-200PL</i>	<i>T16AMP-200PM</i>
0.250	3.050	<i>T16AMP-250PL</i>	<i>T16AMP-250PM</i>
0.250	3.580	<i>T16AMP-300PL</i>	<i>T16AMP-300PM</i>
0.310	4.690	<i>T16AMP-400PL</i>	<i>T16AMP-400PM</i>
0.440	6.560	<i>T16AMP-600PL</i>	<i>T16AMP-600PM</i>



BPE Table DT-4.1.5-2

**Auto Weld Ferrules - TL14AM7**

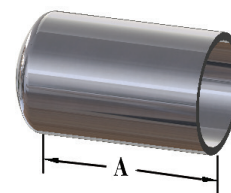
Tube OD	A	PL Finish - SF1	PM Finish - SF4
1/2"	1.750	<i>TL14AM7-050PL</i>	<i>TL14AM7-050PM</i>
3/4"	1.750	<i>TL14AM7-075PL</i>	<i>TL14AM7-075PM</i>
1"	1.750	<i>TL14AM7-100PL</i>	<i>TL14AM7-100PM</i>
1 1/2"	1.750	<i>TL14AM7-150PL</i>	<i>TL14AM7-150PM</i>
2"	2.250	<i>TL14AM7-200PL</i>	<i>TL14AM7-200PM</i>
2 1/2"	2.250	<i>TL14AM7-250PL</i>	<i>TL14AM7-250PM</i>
3"	2.250	<i>TL14AM7-300PL</i>	<i>TL14AM7-300PM</i>
4"	2.250	<i>TL14AM7-400PL</i>	<i>TL14AM7-400PM</i>
6"	3.000	<i>TL14AM7-600PL</i>	<i>TL14AM7-600PM</i>



BPE Table DT-4.1.4-1

**Weld Caps - T16W**

Tube OD	A	PL Finish - SF1	PM Finish - SF4
1/2"	1.500	<i>T16W-050PL</i>	<i>T16W-050PM</i>
3/4"	1.500	<i>T16W-075PL</i>	<i>T16W-075PM</i>
1"	1.500	<i>T16W-100PL</i>	<i>T16W-100PM</i>
1 1/2"	1.500	<i>T16W-150PL</i>	<i>T16W-150PM</i>
2"	1.500	<i>T16W-200PL</i>	<i>T16W-200PM</i>
2 1/2"	1.500	<i>T16W-250PL</i>	<i>T16W-250PM</i>
3"	1.500	<i>T16W-300PL</i>	<i>T16W-300PM</i>
4"	2.000	<i>T16W-400PL</i>	<i>T16W-400PM</i>
6"	2.500	<i>T16W-600PL</i>	<i>T16W-600PM</i>



BPE Table DT-4.1.5-1

PL Finish – SF1  
 OD = 32R<sub>a</sub> Mechanically Polished  
 ID = 20R<sub>a</sub> Mechanically Polished

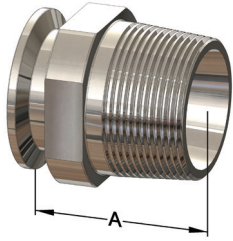
PM Finish – SF4  
 OD = 32R<sub>a</sub> Mechanically Polished  
 ID = 15R<sub>a</sub> Mechanically Polished and Electropolished



**High Purity BioPharm Line**

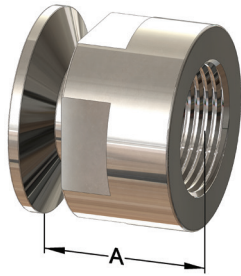
**Clamp Adapter x Male NPT - T21MP**

Fittings



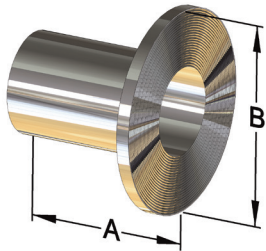
Tube OD	A	PL Finish - SF1
1/2" x 1/4"	2.000	T21MP-050025PL
1/2" x 3/8"	2.000	T21MP-050375PL
1/2"	1.625	T21MP-050PL
1/2" x 3/4"	2.000	T21MP-050075PL
3/4" x 1/4"	2.000	T21MP-075025PL
3/4" x 3/8"	2.000	T21MP-075375PL
3/4" x 1/2"	2.000	T21MP-075050PL
3/4"	2.250	T21MP-075PL
1"	2.250	T21MP-100PL
1 1/2"	2.250	T21MP-150PL
2"	2.638	T21MP-200PL
2 1/2"	2.875	T21MP-250PL
3"	3.070	T21MP-300PL
4"	3.155	T21MP-400PL

**Clamp Adapter x Female NPT - T22MP**



Tube OD	A	PL Finish - SF1
1/2" x 1/8"	1.250	T22MP-050125PL
1/2" x 1/4"	1.500	T22MP-050025PL
1/2" x 3/8"	1.500	T22MP-050375PL
1/2"	1.500	T22MP-050PL
1/2" x 3/4"	1.500	T22MP-050075PL
3/4" x 1/4"	1.500	T22MP-075025PL
3/4" x 3/8"	1.500	T22MP-075375PL
3/4" x 1/2"	1.625	T22MP-075050PL
3/4"	1.625	T22MP-075PL
1"	1.625	T22MP-100PL
1 1/2"	2.250	T22MP-150PL
2"	2.406	T22MP-200PL
2 1/2"	2.187	T22MP-250PL
3"	2.187	T22MP-300PL
4"	2.625	T22MP-400PL

**Stub Adapters - T14VB**



Tube OD	A	B	PL Finish - SF1
1/2"	2.000	1.625	T14VB-050PL
3/4"	2.000	1.687	T14VB-075PL
1"	2.000	2.000	T14VB-100PL
1 1/2"	2.000	2.875	T14VB-150PL
2"	2.500	2.625	T14VB-200PL
2 1/2"	2.500	4.125	T14VB-250PL
3"	2.500	5.000	T14VB-300PL
4"	2.500	6.187	T14VB-400PL
6"	3.000	8.500	T14VB-600PL

PL Finish – SF1  
 OD = 32R<sub>a</sub> Mechanically Polished  
 ID = 20R<sub>a</sub> Mechanically Polished

PM Finish – SF4  
 OD = 32R<sub>a</sub> Mechanically Polished  
 ID = 15R<sub>a</sub> Mechanically Polished and Electropolished

**Tubing ..... G-2 to G-3**

ASTM-270 polished ..... G-3

ASTM-269 unpolished ..... G-3

**Tube Hangers..... G-4 to G-10**

Tube hex hangers..... G-5 to G-8

Tube uni-hinge block ..... G-10

**Wall Flanges..... G-10**



### Dixon Sanitary Tubing

Tubing and Accessories



**Size:**

- ½" - 6" OD tube

**Materials:**

- G = 304 stainless steel
- R = 316L stainless steel
- 3A sanitary finish ID and OD; Typical 20Ra ID, 32Ra OD
- unpolished
- BPE finishes are available

Tube OD	Nominal Wall Thickness (inches)	Gage Number	Wt. Pounds per Ft.
½"	.065	16	0.31
¾"	.065	16	0.49
1"	.065	16	0.67
1½"	.065	16	1.02
2"	.065	16	1.36
2½"	.065	16	1.71
3"	.065	16	2.06
4"	.083	14	3.45
6"	.109	12	6.92

- Surcharges change MONTHLY.
- Tubing available in 20' lengths only.
- Broken box charges apply.
- Tubing only ships via truck.
- Tubing is NOT returnable.
- Call Dixon Sanitary 800.789.1718 for pricing, full freight allowance and other sizes available.

#### Operating Pressures

*304 Stainless Steel Tube*

Tube OD	Nominal Wall Thickness (inches)	Pressure (PSI)		
		<i>working</i>	<i>yield</i>	<i>burst</i>
½"	.065	<b>4,870</b>	<b>7,800</b>	<b>19,500</b>
¾"	.065	<b>3,250</b>	<b>5,200</b>	<b>13,000</b>
1"	.065	<b>2,440</b>	<b>3,900</b>	<b>9,800</b>
1½"	.065	<b>1,630</b>	<b>2,600</b>	<b>6,500</b>
2"	.065	<b>1,220</b>	<b>2,000</b>	<b>4,900</b>
2½"	.065	<b>980</b>	<b>1,600</b>	<b>3,900</b>
3"	.065	<b>810</b>	<b>1,300</b>	<b>3,300</b>
4"	.083	<b>780</b>	<b>1,200</b>	<b>3,100</b>
6"	.109	<b>680</b>	<b>1,090</b>	<b>2,720</b>

*316L Stainless Steel Tube*

Tube OD	Nominal Wall Thickness (inches)	Pressure (PSI)		
		<i>working</i>	<i>yield</i>	<i>burst</i>
½"	.065	<b>3,250</b>	<b>6,500</b>	<b>19,500</b>
¾"	.065	<b>2,167</b>	<b>4,330</b>	<b>13,000</b>
1"	.065	<b>2,280</b>	<b>3,300</b>	<b>9,100</b>
1½"	.065	<b>1,520</b>	<b>2,200</b>	<b>6,100</b>
2"	.065	<b>1,140</b>	<b>1,600</b>	<b>4,600</b>
2½"	.065	<b>910</b>	<b>1,300</b>	<b>3,600</b>
3"	.065	<b>760</b>	<b>1,100</b>	<b>3,000</b>
4"	.083	<b>730</b>	<b>1,000</b>	<b>2,900</b>
6"	.109	<b>635</b>	<b>900</b>	<b>2,540</b>

The pressures shown in the table above are calculated using Barlow's Formula and the following properties:

- material: 304 stainless steel
- yield strength (PSI): **30,000**
- tensile strength (PSI): **75,000**

Working Pressure = ¼ of Burst Pressure, these calculate from **-20°F to 100°F (-29°C to 38°C)**.

The pressures shown in the table above are calculated using Barlow's Formula and the following properties:

- material: 316L stainless steel
- yield strength (PSI): **25,000**
- tensile strength (PSI): **70,000**

Working Pressure = ¼ of Burst Pressure, these calculate from **-20°F to 100°F (-29°C to 38°C)**.



Pipe size and Tube OD size materials are not interchangeable

## ASTM-A270 Polished ID and OD Tubing



### Polished ID and OD - ASTM-A270

**Feature:**

- ASTM-A270-02 welded austenitic stainless steel sanitary tubing

Size	Packaged	304 Stainless Steel Part Number	316L Stainless Steel Part Number
½"	100'	---	<b>A270-R50P</b>
¾"	100'	---	<b>A270-R75P</b>
1"	280'	<b>A270-G100P</b>	<b>A270-R100P</b>
1½"	340'	<b>A270-G150P</b>	<b>A270-R150P</b>
2"	340'	<b>A270-G200P</b>	<b>A270-R200P</b>
2½"	220'	<b>A270-G250P</b>	<b>A270-R250P</b>
3"	220'	<b>A270-G300P</b>	<b>A270-R300P</b>
4"	100'	<b>A270-G400P</b>	<b>A270-R400P</b>
6"	40'	<b>A270-G600P</b>	<b>A270-R600P</b>



### Tolerances for Welded Tubing - ASTM-A270

Tube OD	Nominal Wall Thickness (inches)	OD Tolerance	Wall Thickness Tolerance	Ovality Allowance
½"	.065	+ .002 / - .008	± .008	± .010
¾"	.065	+ .002 / - .008	± .008	± .010
1"	.065	+ .002 / - .008	± .008	± .010
1½"	.065	+ .002 / - .008	± .008	± .020
2"	.065	+ .002 / - .011	± .008	± .020
2½"	.065	+ .002 / - .011	± .008	± .020
3"	.065	+ .003 / - .012	± .008	± .020
4"	.083	+ .003 / - .015	± .010	± .020
6"	.109	+ .030 / - .030	± .014	± .030

## ASTM-A269 Unpolished ID and OD Tubing

### Unpolished ID and OD - ASTM-A269

**Feature:**

- ASTM-A269-02 welded austenitic stainless steel sanitary tubing for general service

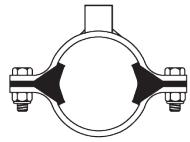
Size	Packaged	304 Stainless Steel Part Number	316 Stainless Steel Part Number
1"	280'	<b>A269-G100U</b>	<b>A269-R100U</b>
1½"	340'	<b>A269-G150U</b>	<b>A269-R150U</b>
2"	340'	<b>A269-G200U</b>	<b>A269-R200U</b>
2½"	220'	<b>A269-G250U</b>	<b>A269-R250U</b>
3"	220'	<b>A269-G300U</b>	<b>A269-R300U</b>
4"	100'	<b>A269-G400U</b>	<b>A269-R400U</b>
6"	40'	<b>A269-G600U</b>	<b>A269-R600U</b>



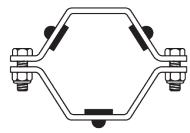
### Tolerances for Welded Tubing - ASTM-A269

Tube OD	Nominal Wall Thickness (inches)	OD Tolerance	Wall Thickness Tolerance	Ovality Allowance
1"	.065	± .005	± .006	± .010
1½"	.065	± .010	± .006	± .020
2"	.065	± .010	± .006	± .020
2½"	.065	± .010	± .006	± .020
3"	.065	± .010	± .006	± .020
4"	.083	± .015	± .008	± .030
6"	.109	± .030	± .010	± .030

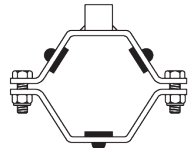
# Dixon Sanitary Tube Hangers



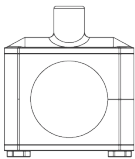
round hanger with coupler



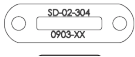
hex hanger



hex hanger with coupler



block hanger



hex hanger with sleeve

**Sizes:**

- ½" - 12" OD tube

**Materials:**

- hanger base: 304 stainless steel
- hanger inserts:
  - nitrile rated to 230°F (110°C)
  - ABS (sleeve) rated to 230°F (110°C)
  - FKM rated to 400°F (204°C)
  - Polypropylene rated to 212°F (100°C)
  - Polysulfone rated to 325°F (163°C)
  - Silicone rated to 320°F (160°C)

Tube OD	Nominal Wall Thickness (inches)	Gage Number
½"	.065	16
¾"	.065	16
1"	.065	16
1½"	.065	16
2"	.065	16
2½"	.065	16
3"	.065	16
4"	.083	14
5"	.109	12
6"	.109	12
8"	.120	12
10"	.109	10
12"	.120	10

## Support Recommendations

Lines are not to be rigidly anchored to equipment. Lines must be allowed to float. Temperatures cause expansion and contraction and if mounted incorrectly will cause distortion and possibly leakage.

**Proper Installation:**

- straight sections need support every 10 feet
- each side of every valve (as close as possible to the connection) needs support
- support each change of directions



## Tube Hex Hangers

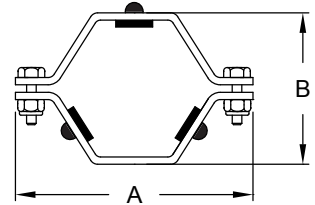
### Hex Hanger with Nitrile Grommets - B24RG

**Features:**

- all hex and round style hangers can be equipped with the following coupler options:
  - 3/8 NPT
  - all thread: 3/8-16 or 1/2-13

**Specification:**

- nitrile grommets maximum temperature: **230°F (110°C)**



Tube OD	A	B	304 Stainless Steel Part Number
1/2" - 3/4"	3.425	1.450	<b>B24RG-G75</b>
1"	3.425	1.450	<b>B24RG-G100</b>
1 1/2"	4.000	2.125	<b>B24RG-G150</b>
2"	4.500	2.500	<b>B24RG-G200</b>
2 1/2"	4.950	3.125	<b>B24RG-G250</b>
3"	5.500	3.750	<b>B24RG-G300</b>
4"	6.950	4.750	<b>B24RG-G400</b>
5"	8.000	5.625	<b>B24RG-G500</b>
6"	9.250	6.625	<b>B24RG-G600</b>
8"	11.500	8.625	<b>B24RG-G800</b>
10"	14.500	10.500	<b>B24RG-G1000</b>
12"	16.750	12.625	<b>B24RG-G1200</b>

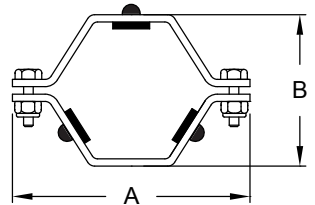
### Hex Hanger with FKM Grommets - B24RGSFY

**Features:**

- all hex and round style hangers can be equipped with the following coupler options:
  - 3/8 NPT
  - all thread: 3/8-16 or 1/2-13

**Specification:**

- FKM grommets maximum temperature: **392°F (200°C)**



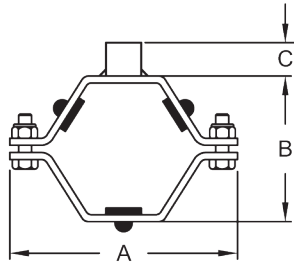
Tube OD	A	B	304 Stainless Steel Part Number
1/2"	3.625	2.125	<b>B24RGSFY-G50</b>
3/4"	3.625	2.125	<b>B24RGSFY-G75</b>
1"	3.625	2.125	<b>B24RGSFY-G100</b>
1 1/2"	3.625	2.125	<b>B24RGSFY-G150</b>
2"	4.313	2.625	<b>B24RGSFY-G200</b>
2 1/2"	4.875	3.125	<b>B24RGSFY-G250</b>
3"	5.375	3.625	<b>B24RGSFY-G300</b>
4"	6.563	4.750	<b>B24RGSFY-G400</b>
6"	9.000	6.625	<b>B24RGSFY-G600</b>
8"	11.250	8.750	<b>B24RGSFY-G800</b>
10"	14.500	10.500	<b>B24RGSFY-G1000</b>
12"	16.750	12.625	<b>B24RGSFY-G1200</b>



### Tube Hex Hangers

#### Hex Hanger with Nitrile Grommets and All Thread Coupler - B24RGC16

Tubing and Accessories



**Feature:**

- coupler is all thread 3/8-16

**Specification:**

- nitrile grommets maximum temperature: 230°F (110°C)

Tube OD	A	B	C	304 Stainless Steel Part Number
1/2" - 3/4"	3.425	1.450	.750	<b>B24RGC16-G75</b>
1"	3.425	1.450	.750	<b>B24RGC16-G100</b>
1 1/2"	4.000	2.125	.750	<b>B24RGC16-G150</b>
2"	4.500	2.500	.750	<b>B24RGC16-G200</b>
2 1/2"	4.750	3.125	.750	<b>B24RGC16-G250</b>
3"	5.500	3.750	.750	<b>B24RGC16-G300</b>
4"	6.750	4.750	.750	<b>B24RGC16-G400</b>
6"	9.250	6.625	.750	<b>B24RGC16-G600</b>
8"	11.500	8.625	.750	<b>B24RGC16-G800</b>

#### Nuts and Bolts - 13NHN



**Features:**

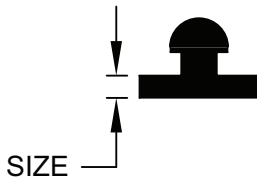
- all sizes hex hangers with grommets and round hangers 1" to 4" use **13NHN-G100-600** fastener sets
- 1/2" and 3/4" round and sleeved hangers use **13NHN-G75** fastener sets
- 2 nuts and bolts supplied to a set

Size	Description	304 Stainless Steel Part Number
1/2" - 3/4"	1/4-20 x 3/4" bolt with nylock nut	<b>13NHN-G75</b>
1" - 12"	5/16-18 x 1" bolt with nylock nut	<b>13NHN-G100-600</b>

#### Grommets - 13RG

**Specifications:**

- nitrile grommets maximum temperature: 230°F (110°C)
- FKM grommets maximum temperature: 392°F (200°C)



Size	Nitrile Part Number	FKM Part Number
1/8" <sup>1</sup>	<b>13RG18</b>	<b>13RGV18</b>
1/4"	<b>13RG14</b>	<b>13RGV14</b>
1/2"	<b>13RG12</b>	<b>13RGV12</b>
3/8" <sup>2</sup>	<b>13RG3/8</b>	<b>13RGV38</b>
5/8"	<b>13RG58</b>	<b>13RGV58</b>

<sup>1</sup> for 1" hangers and larger

<sup>2</sup> for 1/2" and 3/4" hangers

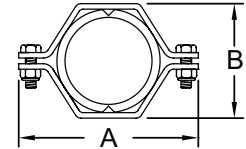
## Tube Hex Hangers

### Hex Hanger with ABS Sleeve - B24PS

**Specification:**

- ABS sleeve maximum temperature: **230°F (110°C)**

Tube OD	A	B	304 Stainless Steel Part Number
1/2"	2.800	1.150	<b>B24PS-G50</b>
3/4"	2.800	1.150	<b>B24PS-G75</b>
1"	3.425	1.450	<b>B24PS-G100</b>
1 1/2"	4.000	2.125	<b>B24PS-G150</b>
2"	4.500	2.500	<b>B24PS-G200</b>
2 1/2"	4.950	3.125	<b>B24PS-G250</b>
3"	5.500	3.750	<b>B24PS-G300</b>
4"	6.950	4.750	<b>B24PS-G400</b>
5"	8.063	5.625	<b>B24PS-G500</b>
6"	9.250	6.625	<b>B24PS-G600</b>
8"	11.500	8.625	<b>B24PS-G800</b>
10"	14.500	10.500	<b>B24PS-G1000</b>
12"	16.625	13.000	<b>B24PS-G1200</b>

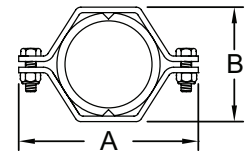


### Hex Hanger with High Temperature Polysulfone Sleeve - B24HS

**Specification:**

- high temperature sleeve maximum temperature: **325°F (163°C)**

Tube OD	A	B	304 Stainless Steel Part Number
1/2"	2.375	1.062	<b>B24HS-G50</b>
3/4"	2.625	1.188	<b>B24HS-G75</b>
1"	2.688	1.563	<b>B24HS-G100</b>
1 1/2"	3.625	2.125	<b>B24HS-G150</b>
2"	4.625	2.625	<b>B24HS-G200</b>
2 1/2"	4.813	3.125	<b>B24HS-G250</b>
3"	5.375	3.625	<b>B24HS-G300</b>
4"	6.625	4.625	<b>B24HS-G400</b>
6"	9.000	6.625	<b>B24HS-G600</b>



## Tube Hex Hangers

### Sleeves - 13\*S

**Specifications:**

- ABS sleeve maximum temperature: 230°F (110°C)
- high temperature sleeve maximum temperature: 325°F (163°C)



Size	ABS Part Number	High Temperature Part Number
1/2"	<b>13PS-50</b>	<b>13HS-50</b>
3/4"	<b>13PS-75</b>	<b>13HS-75</b>
1"	<b>13PS-100</b>	<b>13HS-100</b>
1 1/2"	<b>13PS-150</b>	<b>13HS-150</b>
2"	<b>13PS-200</b>	<b>13HS-200</b>
2 1/2"	<b>13PS-250</b>	<b>13HS-250</b>
3"	<b>13PS-300</b>	<b>13HS-300</b>
4"	<b>13PS-400</b>	<b>13HS-400</b>
5"	<b>13PS-500</b>	---
6"	<b>13PS-600</b>	<b>13HS-600</b>
8"	<b>13PS-800</b>	---
10"	<b>13PS-1000</b>	---
12"	<b>13PS-1200</b>	---

### Round Hanger with Nitrile Inserts - B24RPH

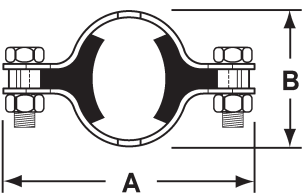


**Features:**

- all hex and round style hangers can be equipped with the following coupler options: 3/8 NPT or all thread: 3/8-16 or 1/2-13

**Specification:**

- nitrile inserts maximum temperature: 230°F (110°C)



Tube OD	A	B	304 Stainless Steel Part Number
1/2"	2.750	1.125	<b>B24RPH-G50</b>
3/4"	2.750	1.125	<b>B24RPH-G75</b>
1"	3.310	1.500	<b>B24RPH-G100</b>
1 1/2"	3.810	2.000	<b>B24RPH-G150</b>
2"	4.250	2.562	<b>B24RPH-G200</b>
2 1/2"	5.000	3.000	<b>B24RPH-G250</b>
3"	5.500	3.562	<b>B24RPH-G300</b>
4"	6.500	4.688	<b>B24RPH-G400</b>

## Tube Uni-Hinge Block Hangers

**Applications:**

- clean rooms and mechanical areas; not limited to: biotech, pharmaceutical, food processing.
- low flow and low pressure systems with moderate vibration: WFI, SIP, CIP, process, utility and instrument lines.

**Sizes:**

- support range: 1/2" - 4", optional 6" - contact Dixon Sanitary 800.789.1718

**Materials:**

- silicone insert - 80 durometer; color: blue
- hardware - 304 & 316 stainless steel

**Features:**

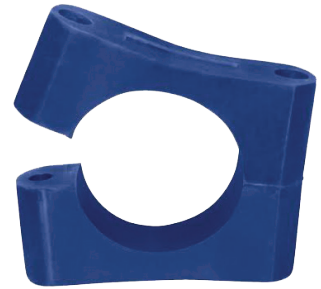
- insulation envelope: reduced OD allows hanger to be buried under the insulation jacket.
- silicone inserts are one piece
- there are no exposed threads or openings in hardware plates

**Specification:**

- intermittent temperatures from -40°F to 320°F (-40°C to 160°C)

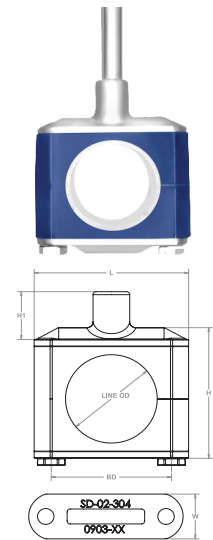
**Approvals:**

- all plates polished, bolts are cleaned and nuts are lubricated with FDA approved product
- hanger threads match MSS SP-69 rod OD requirements



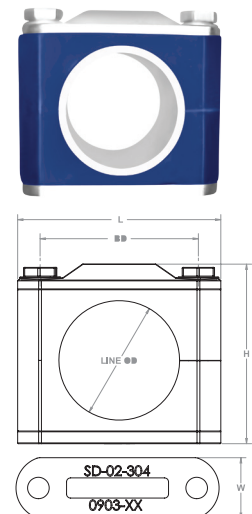
### Hang Plate Block Hanger - B24-HP

Tube OD	BD	H	H1	L	Line OD	W	Thread	Part Number
1/2"	1.44	1.69	0.60	1.93	0.50	0.75	3/8"-16	<b>B24-HP-G050</b>
3/4"	1.44	1.69	0.60	1.93	0.75	0.75	3/8"-16	<b>B24-HP-G075</b>
1"	1.44	1.69	0.60	1.93	1.00	0.75	3/8"-16	<b>B24-HP-G100</b>
1 1/2"	1.94	2.19	0.60	2.49	1.50	0.75	3/8"-16	<b>B24-HP-G150</b>
2"	2.44	2.69	0.60	2.99	2.00	0.88	1/2"-13	<b>B24-HP-G200</b>
2 1/2"	2.81	3.22	1.21	3.36	2.50	0.88	1/2"-13	<b>B24-HP-G250</b>
3"	3.44	3.97	1.21	3.99	3.00	0.88	1/2"-13	<b>B24-HP-G300</b>
4"	4.55	4.85	1.39	5.10	4.00	1.00	5/8"-11	<b>B24-HP-G400</b>



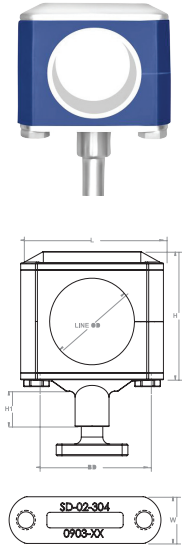
### Weld Plate Block Hanger - B24-WP

Tube OD	BD	CL	H	L	Line OD	W	Part Number
1/2"	1.44	0.79	1.73	1.93	0.50	0.75	<b>B24-WP-G050</b>
3/4"	1.44	0.79	1.73	1.93	0.75	0.75	<b>B24-WP-G075</b>
1"	1.44	0.79	1.73	1.93	1.00	0.75	<b>B24-WP-G100</b>
1 1/2"	1.94	1.03	2.23	2.49	1.50	0.75	<b>B24-WP-G150</b>
2"	2.44	1.31	2.75	2.99	2.00	0.88	<b>B24-WP-G200</b>
2 1/2"	2.81	1.55	3.25	3.36	2.50	0.88	<b>B24-WP-G250</b>
3"	3.44	1.93	3.68	3.99	3.00	0.88	<b>B24-WP-G300</b>
4"	4.55	2.39	4.87	5.10	4.00	1.00	<b>B24-WP-G400</b>



### Tube Uni-Hinge Block Hangers

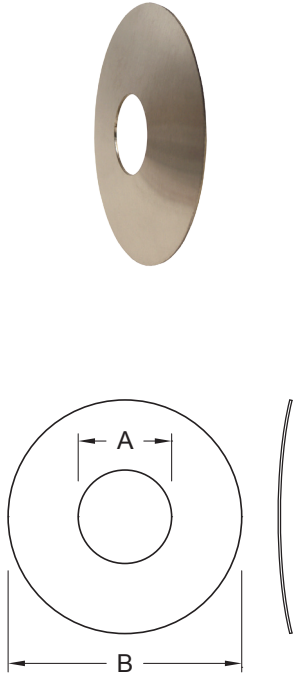
#### Base Mount Block Hanger - B24-BM



Tube OD	BD	H	H1	L	Line OD	W	Thread	Part Number
1/2"	1.44	1.70	0.47	1.93	0.50	0.75	3/8"-16	<b>B24-BM-G050</b>
3/4"	1.44	1.70	0.47	1.93	0.75	0.75	3/8"-16	<b>B24-BM-G075</b>
1"	1.44	1.70	0.47	1.93	1.00	0.75	3/8"-16	<b>B24-BM-G100</b>
1 1/2"	1.94	2.19	0.47	2.49	1.50	0.75	3/8"-16	<b>B24-BM-G150</b>
2"	2.44	2.69	0.47	2.99	2.00	0.88	1/2"-13	<b>B24-BM-G200</b>
2 1/2"	2.81	3.19	0.59	3.36	2.50	0.88	1/2"-13	<b>B24-BM-G250</b>
3"	3.44	3.97	0.59	3.99	3.00	0.88	1/2"-13	<b>B24-BM-G300</b>

### Wall Flanges

#### Flanges - B25



Tube OD	A	B <sup>1</sup>	Wall Thickness	304 Stainless Steel Part Number
1/2"	.50	3.00	.065	<b>B25-G050300</b>
	.50	5.00		<b>B25-G050500</b>
3/4"	.75	3.00		<b>B25-G075300</b>
	.75	5.00		<b>B25-G075500</b>
1"	1.00	3.00		<b>B25-G100300</b>
	1.00	5.00		<b>B25-G100500</b>
1 1/2"	1.50	5.00		<b>B25-G150500</b>
2"	2.00	5.00		<b>B25-G200500</b>
2 1/2"	2.50	5.00		<b>B25-G250500</b>
3"	3.00	6.00		<b>B25-G300600</b>
4"	4.00	7.00		<b>B25-G400700</b>
5"	5.00	8.00		<b>B25-G500800</b>
6"	6.00	10.00	<b>B25-G6001000</b>	
8"	8.00	12.00	<b>B25-G8001200</b>	
10"	10.00	14.00	<b>B25-G10001400</b>	
12"	12.00	16.00	<b>B25-G12001600</b>	

<sup>1</sup> square wall flanges are also available, call Dixon Sanitary 800.789.1718 for information

**Pressure gauges ..... H-2 to H-7**

- Sanitary pressure gauges.....H-2 to H-4
- Pharmaceutical pressure gauges ..... H-5
- Homogenizer pressure gauges .....H-6 to H-7

**Temperature gauges..... H-8 to H-10**

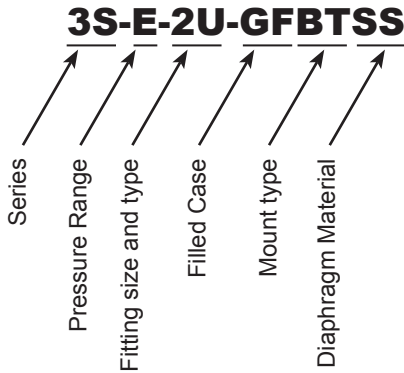
- Sanitary digital thermometers..... H-8
- Sanitary RTDs and temperature transmitters .....H-9 to H-10





## Dixon Sanitary Gauges

### Model Number Breakdown



#### Sizes:

- 1½", 2", 2½" or 3"

#### Material:

- 316L stainless steel

#### Features:

- finishes: 3A sanitary
- finishes: pharmaceutical

---

### Ordering Information

#### Series

- 3S** ..... 3½" Sanitary pressure gauge
- 5S** ..... 5" Sanitary pressure gauge
- 3P** ..... 3½" Pharmaceutical pressure gauge
- 5P** ..... 5" Pharmaceutical pressure gauge

#### Pressure Range <sup>1</sup>

- B** ..... 0 to 30 PSI (2 BAR)
- C** ..... 0 to 60 PSI (4 BAR)
- D** ..... 0 to 100 PSI (7 BAR)
- E** ..... 0 to 160 PSI (11 BAR)
- F** ..... 0 to 200 PSI (14 BAR)
- G** ..... 0 to 300 PSI (21 BAR)
- H** ..... 0 to 400 PSI (28 BAR)
- I** ..... 0 to 600 PSI (41 BAR)
- K** ..... 0 to 1,000 PSI (70 BAR)

#### Fitting Type <sup>2</sup>

specify size in inches: 15, 2, 25 or 3

- I** ..... male I-Line
- J** ..... female I-Line
- R** ..... RJT
- S** ..... #15 Bevel Seat sanitary male thread
- T** ..... #13H captive nut and #14 Bevel Seat
- U** ..... clamp
- DIN** ..... DIN according to DIN 11851 (*specify DIN40 or DIN50*)
- SMS** ..... SMS (*specify SMS38 or SMS51*)

<sup>2</sup> specify size then type, i.e. 1½" = 15

#### Filled Case

- GF** ..... glycerine filled
- NF** ..... no fill (dry)

#### Mount type

- BT** ..... bottom
- RT** ..... right side
- LF** ..... left side
- TP** ..... top
- BK** ..... back

#### Diaphragm Material

- SS** ..... stainless steel

<sup>1</sup> Standard scales are in PSI only. For dual scales, add the letter B for PSI/BAR after the pressure range letter.



## Sanitary Pressure Gauges

**Sizes:**

- dial size: 3½" or 5" diameter

**Materials:**

- case: 304 stainless steel
- lens: polycarbonate

**Features:**

- accuracy: ± 1.5% of full scale
- over range capacity: 30%
- product contact: 316L stainless steel
- surface finishes (product contact): R<sub>a</sub> max = 25 microinches
- standard fill: food grade glycerin
- rezero feature: standard on pointer
- shipping weight: approximately 3 lbs. (1.3 kg)

**Specifications:**

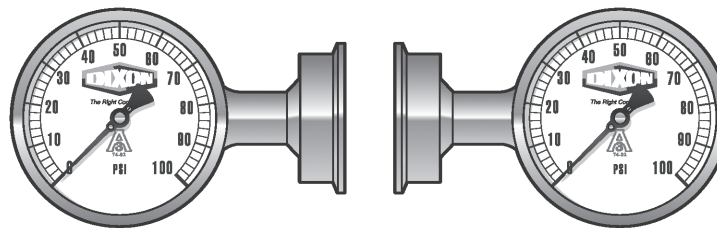
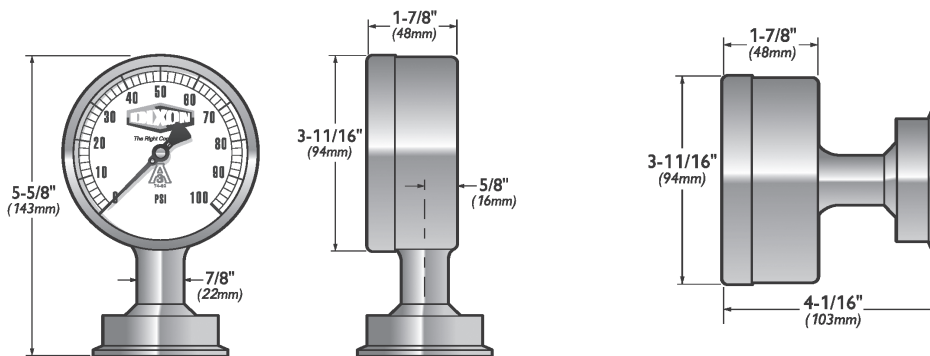
- temperature limits: 0°F to 250°F (-18°C to 121°C)



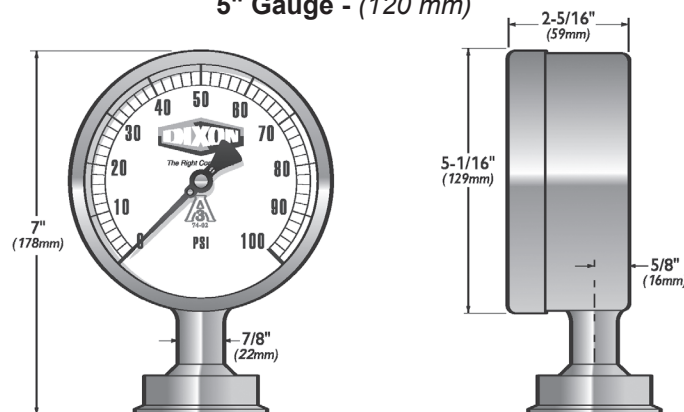
3S-EB-2U-GFBTSS

Instrumentation

### 3½" Gauge - (90 mm)



### 5" Gauge - (120 mm)



shown with 2" clamp

Product not returnable and no cancellations.



Sanitary Pressure Gauges

Instrumentation



Part Number	Dial Size	Pressure Range (PSI)	Clamp Size	Mount	
3S-B-15U-GFBTSS	3.5"	0-30	1½"	bottom	
3S-C-15U-GFBTSS		0-60			
3S-D-15U-GFBTSS		0-100			
3S-E-15U-GFBTSS		0-160			
3S-F-15U-GFBTSS		0-200			
3S-G-15U-GFBTSS		0-300			
3S-B-15U-GFBKSS		0-30	1½"	back	
3S-C-15U-GFBKSS		0-60			
3S-D-15U-GFBKSS		0-100			
3S-E-15U-GFBKSS		0-160			
3S-F-15U-GFBKSS		0-200			
3S-G-15U-GFBKSS		0-300			
3S-B-2U-GFBTSS		3.5"	0-30	2"	bottom
3S-C-2U-GFBTSS			0-60		
3S-D-2U-GFBTSS	0-100				
3S-E-2U-GFBTSS	0-160				
3S-F-2U-GFBTSS	0-200				
3S-G-2U-GFBTSS	0-300				
3S-B-2U-GFBKSS	0-30		2"	back	
3S-C-2U-GFBKSS	0-60				
3S-D-2U-GFBKSS	0-100				
3S-E-2U-GFBKSS	0-160				
3S-F-2U-GFBKSS	0-200				
3S-G-2U-GFBKSS	0-300				

Product not returnable and no cancellations.

## Pharmaceutical Pressure Gauges

### Sizes:

- dial size: 3½" or 5" diameter
- dial size: 3½" diameter

### Materials:

- lens: polycarbonate
- case: 304 stainless steel

### Features:

- accuracy:  $\pm 0.75\%$  of full scale
- over range capacity: 30%
- product contact: 316L stainless steel
- surface finishes (product contact):  $R_a$  max = 8 microinches
- standard fill: food grade glycerin
- rezero feature: standard on pointer
- shipping weight: approximately 3 lbs. (1.3 kg)

### Specifications:

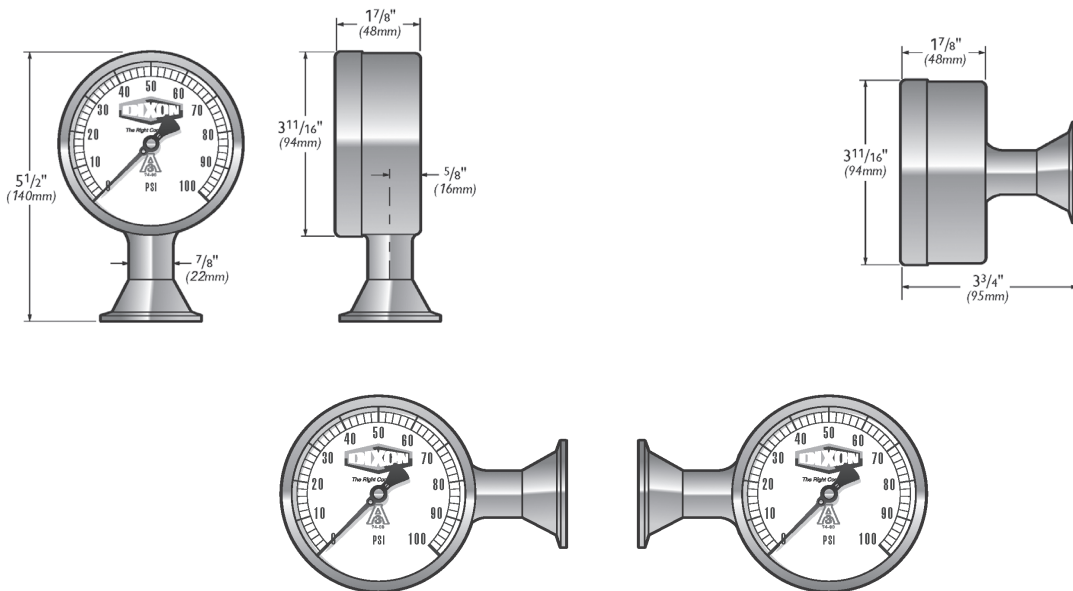
- temperature limits: 0°F to 250°F (-18°C to 121°C)



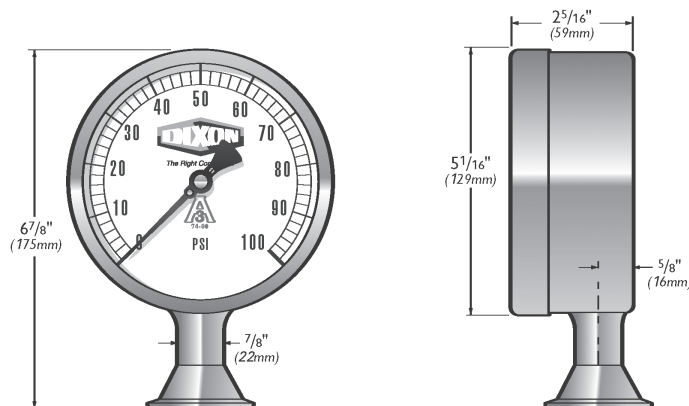
3P-D-15U-GFBT

Instrumentation

### 3½" Gauge - (90 mm)



### 5" Gauge - (120 mm)



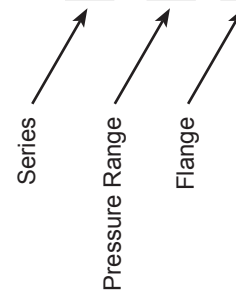
Product not returnable and no cancellations.

## Homogenizer Pressure Gauges



### Model Number Breakdown

**5H - V - 03**



### Ordering Information

#### Series

**5H** .....5" Sani-Flow Homogenizer Pressure Gauge

#### Pressure Range <sup>1</sup>

**K** .....0 to 1,000 PSI (70 BAR)

**T** .....0 to 2,500 PSI (170 BAR)

**U** .....0 to 3,000 PSI (205 BAR)

**V** .....0 to 5,000 PSI (350 BAR)

**Y** .....0 to 7,500 PSI (520 BAR)

**W** .....0 to 10,000 PSI (700 BAR)

**X** .....0 to 15,000 PSI (1000 BAR)

#### Flange

**01** .....no flange

**02** ..... $\frac{7}{8}$ " thick 2 bolt flange

**03** .....1 $\frac{1}{8}$ " thick 2 bolt flange

**04** .....Waukesha 1/2" thick 4 bolt flange

**05** .....Waukesha 3/4" thick 4 bolt flange

**09** .....1.66" thick laboratory homogenizer flange

<sup>1</sup> Standard scales are in PSI only. For dual scales, after the pressure range add the letter B for PSI/BAR, K for PSI/Kg/cm<sup>3</sup>, P for PSI/KPa ( see examples below).

#### Examples

**5H-V-03** - describes a 5" sani-flow homogenizer pressure gauge, 0 to 5,000 PSI, a 1- $\frac{1}{8}$ " thick flange, and a glycerine filled case

**5H-WB-01** - describes a 5" sani-flow homogenizer pressure gauge, dual scale 0 to 10,000 PSI/0 to 700 BAR, no flange, and a glycerine filled case

## Homogenizer Pressure Gauges

### Size:

- dial size: 5"

### Materials:

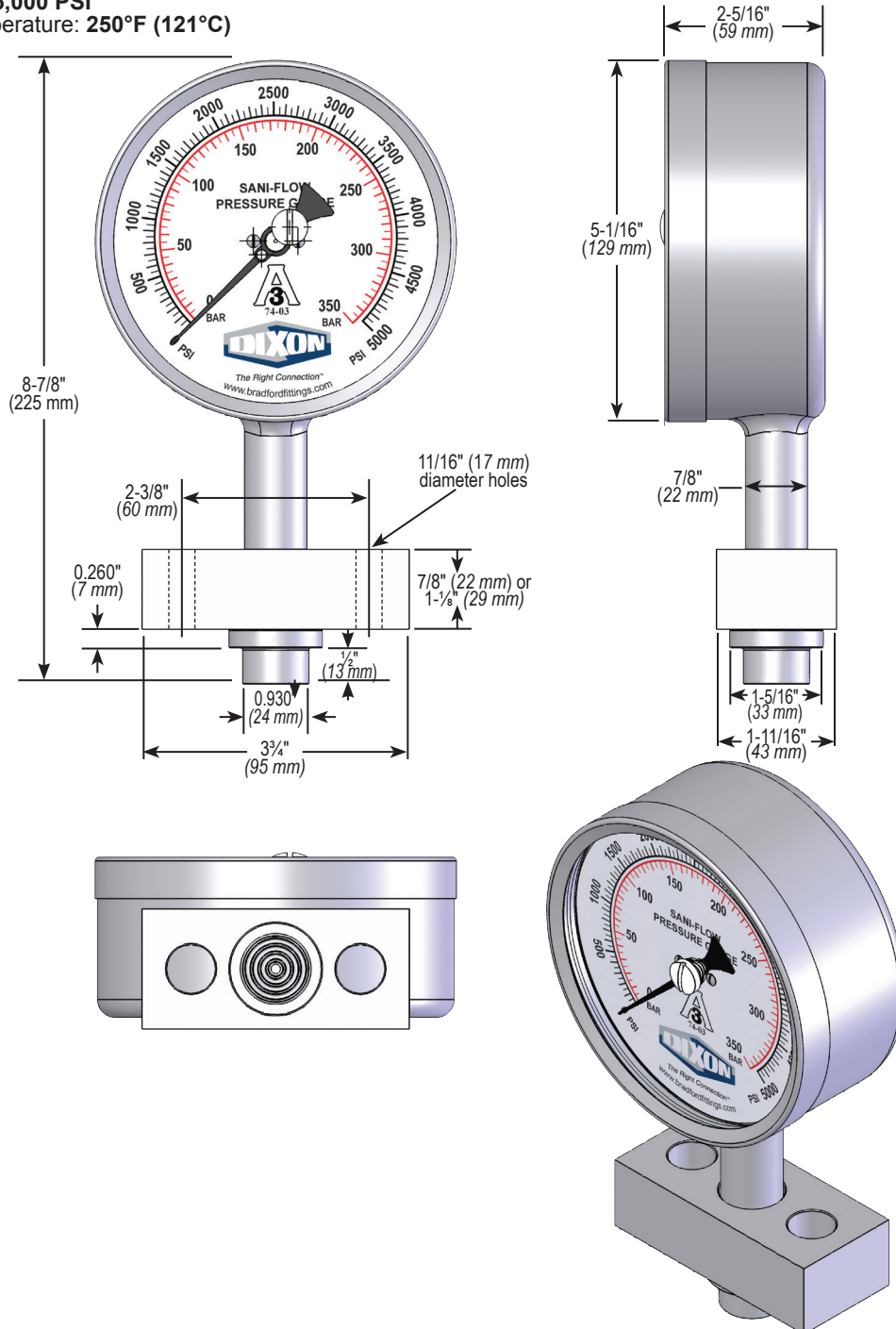
- product contact: 316L stainless steel
- case: 304 stainless steel
- lens: Lexan®

### Features:

- Lexan® lens virtually impervious to cracks and breakage
- unique pulsation dampening system insulates the gauge movement from the punishing pulsations of a homogenizer
- glycerine fill standard
- waterproof construction
- CIP-able
- true zero with re-zero standard

### Specifications:

- ranges up to **15,000 PSI**
- maximum temperature: **250°F (121°C)**



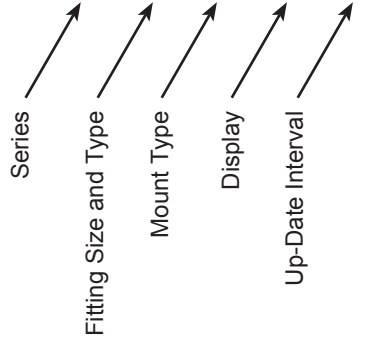
Product not returnable and no cancellations.

# Sanitary Digital Thermometers

Instrumentation

### Model Number Breakdown

**DT-2U-BT-DF-10**



### Sizes:

- dial size: 3 1/2" diameter
- LCD display: 0.6"

### Materials:

- product contact: 316L stainless steel
- case: 304 stainless steel
- lens: 1/4" polycarbonate

### Features:

- accuracy: ±1°
- surface finish: R<sub>a</sub> max. is 8 microinches
- battery size / life: standard AAA/3 years
- shipping weight: approximately 3 lbs.

### Specifications:

- temperature limits: -58°F to 302°F (-50°C to 150°C)
- ambient operating limits: -4°F to 140°F (-20°C to 60°C)
- resolution: 0.1° (-58° thru 199.9°)

### Ordering Information



#### Series

**DT**.....Sanitary digital thermometer

#### Fitting Type <sup>1</sup>

sizes available: 75, 15, 2, 25, 3 and 4

- I**.....male I-Line
- T**.....#13H captive nut and #14 bevel seat
- U**.....clamp

<sup>1</sup> specify size then type, i.e. 1 1/2" = 15U

#### Mount type

- BT**.....bottom
- RT**.....right side
- LF**.....left side
- TP**.....top
- BK**.....back
- BTR**.....remote fitting

#### Display

- DF**.....F (Fahrenheit) *standard*
- DC**.....C (Celsius)

#### Up-Date Interval

- 1**.....one second (1 year battery life)
- 10**.....ten second (3 year battery life)

### Dimensions

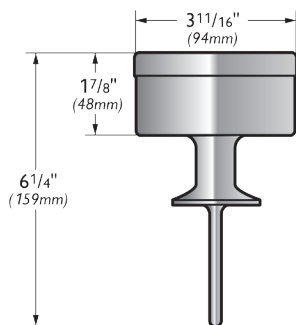
#### LEFT SIDE MOUNT



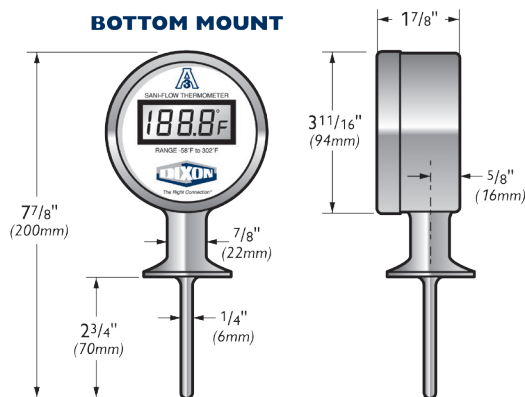
#### RIGHT SIDE MOUNT



#### BACK MOUNT



#### BOTTOM MOUNT



Ordering code shown with clamp configuration "U". See ordering information for other types available.

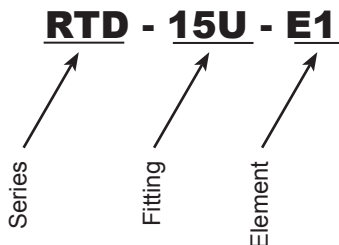
Size	Probe Length <sup>2</sup>	Code
3/4"	2 3/8"	75U
1"	2 5/8"	1U
1 1/2"	2 3/4"	15U
2"	3 1/2"	2U
2 1/2"	3 1/2"	25U
3"	3 3/4"	3U
4"	4 1/2"	4U

<sup>2</sup> custom probe lengths are available

Product not returnable and no cancellations.

## Sanitary RTDs and Temperature Transmitters

### Model Number Breakdown



### Ordering Information

#### Series

- RTD**.....Sani-Flow resistive temperature device  
**TT**.....Sani-Flow temperature transmitter

#### Sanitary Fittings

fittings available in 5, 75, 15, 20, 25, 30 and 40

- H**.....G & H 'H' line male  
**I**.....Cherry-Burrell male I-line  
**K**.....APC 'K' clamp  
**Q**.....Cherry-Burrell Q-line  
**T**.....#13H captive nut and #14 bevel seat  
**U**.....Tri-clamp®

- Specify size, then adapter type such as 15U for 1½" Tri-clamp® adapter
- For special probes add SP and the required probe length at the end of the part number; such as SP2.75 for a 2¾" long probe.

#### Other Fittings

Specify probe length

- A**.....air space  
**M**.....umbrella fittings  
**NPT**.....¼", ⅜", ½", ⅝" or ¾" pipe thread  
**PW**.....projectile well with 1¼"-18 UNEF male thread  
**SP**.....split ferrule  
**VP**.....VAT well fitting with #13H captive nut  
**OF**.....no fitting

#### Element <sup>1</sup>

- E1**.....single element  
**E2**.....dual element

<sup>1</sup> available for RTD only

**Sanitary RTDs & Temperature Transmitters**

Instrumentation



sanitary RTD



temperature transmitter

**Materials:**

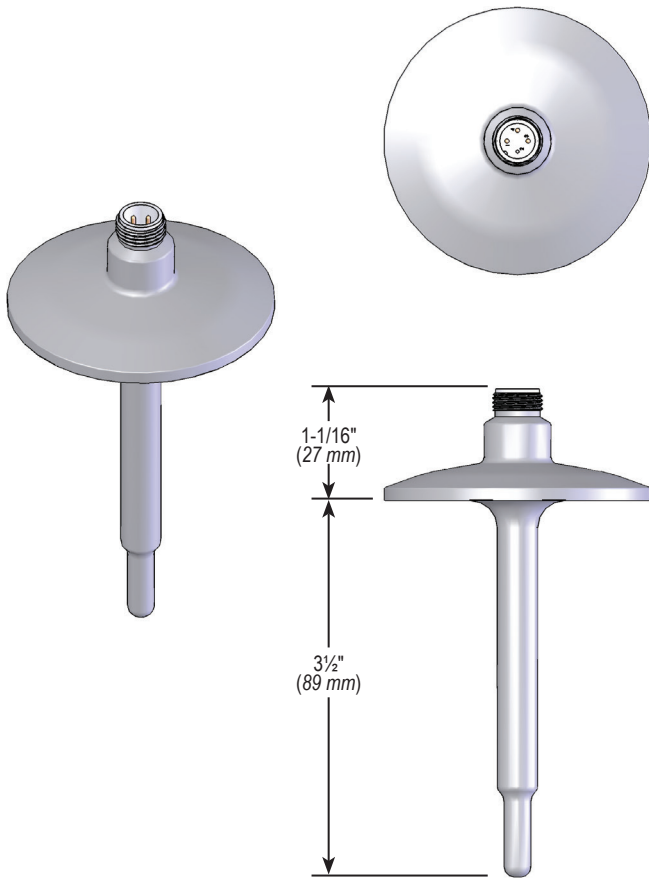
- product contact: 316L stainless
- exterior surfaces 316L with a near mirror finish

**Features:**

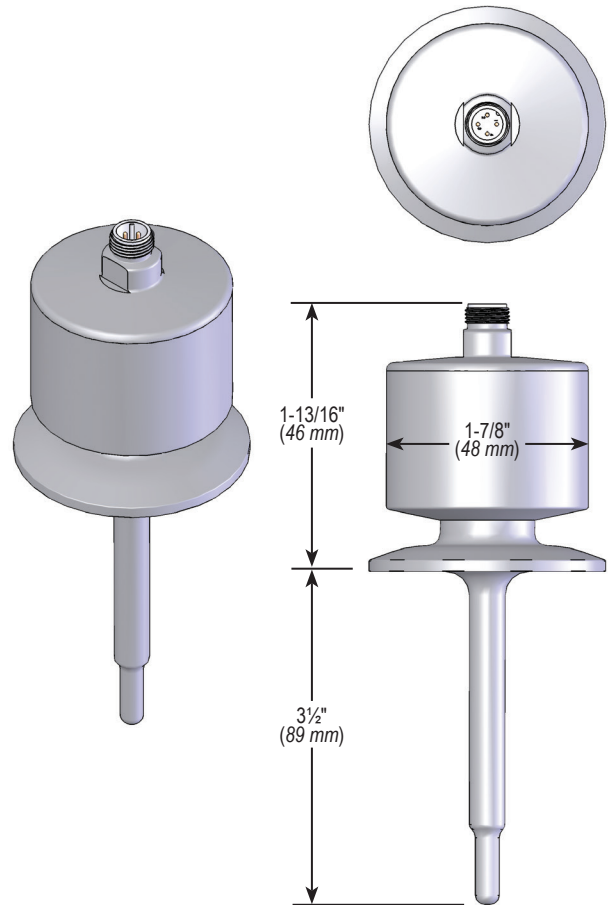
- standard 12mm industrial connector with gold plated contacts for maximum corrosion resistance and cleanability
- sensor elements are accurate up to +/-0.1C

**Specifications:**

- RTD – temperature range: **-58°F to 392°F (-50°C to 200°C)**
- TT – temperature range: **-22°F to 302°F (-30°C to 150°C)**



RTD-20GI-38



TT-20-G1

• Note: custom lengths are available

Product not returnable and no cancellations.



**Adapters..... I-2 to I-4**

Cam and Groove .....	I-2 to I-3
Coupler x clamp end RC.....	I-4
Adapter x clamp end RE.....	I-4
Dixon® weld to tube .....	I-4
Boss-Lock™ coupler x weld to tube end.....	I-4
Adapter x weld to tube end .....	I-4

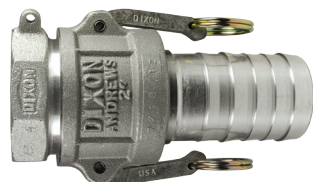
**Global Type ..... I-5 to I-7**

Global type A adapters .....	I-5
Global type E adapters .....	I-5
Global type F adapters .....	I-5
Global type DP dust plugs.....	I-6
Global type B couplers .....	I-6
Global type C couplers .....	I-6
Global type D couplers .....	I-6
Global type dust caps.....	I-7

**Gaskets ..... I-7 to I-8**

## Dixon® Cam and Groove

Cam and Groove



**Sizes:**

- 1" - 4"

**Materials:**

- 316L stainless steel
- (316) CF8M

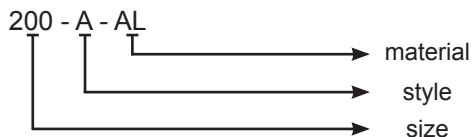
**Features:**

- precision machined to rigid tolerances
- durable stainless steel cam arm pins will not rust or bind, for greater strength and safety
- recess holds gasket firmly in place - ensures proper placement
- long shank design allows proper banding, thus eliminating the major cause of hose damage

**Specifications:**

- Dixon® cam and groove couplers and adapters are produced to interchange with all product produced to Commercial Item Description A-A-59326B.
- no standard exists for the 1/2" and 8" fittings, and generally these sizes do not interchange with other manufacturers.
- dust caps and dust plugs are not to be used in pressure applications for safety and environmental reasons.
- designed for use with liquids, consult Dixon® for specific recommendations.

### Ordering System



Size represents the coupler or adapter and hose or pipe end. (i.e. 200 = 2") If the coupling is a reducing size, the coupler or adapter is the first size. (i.e. 4030-C is 4" coupler to 3" hose shank).

### Operation of Cam and Groove

1. To make connection, simply slide the adapter into the coupler and with normal hand pressure, press the cam levers down.
2. Uncoupling is as quick and simple as coupling. Just lift the cam arms and remove the adapter.

**Pressure Ratings:**



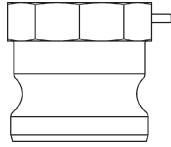
Recommendations based on the use of mating Dixon® fittings at ambient temperature **70°F (21°C)** with standard Buna-N Seal installed. For use at elevated temperature or other unusual operating conditions, consult the factory. Dixon®, Boss-Lock and EZ Boss-Lock couplers and adapters maximum working pressure are as follows:

Size	1/2"	3/4" thru 2"	2 1/2"	3"	4"	5" and 6"	8"
PSI	150	250	150	125	100	75	50
PSI (working pressure with King Crimp™ ferrule system)	150	250	150	150	150	75	50

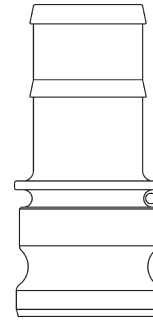
All dimensions are in inches unless otherwise noted. Engineering dimensions are available upon request. Specifications are subject to change without notice.

## Cam and Groove Line Drawings

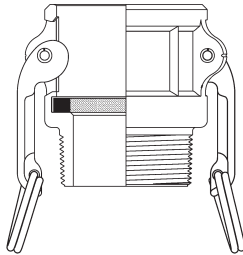
Line drawings are representative of the Dixon® line of cam and groove.



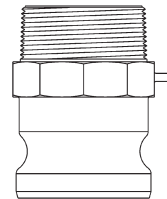
**Type A**  
female NPT x male adapter



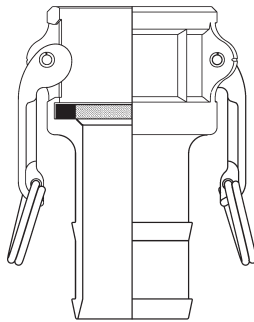
**Type E**  
hose shank x male adapter



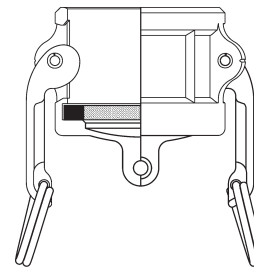
**Type B**  
female coupler x male NPT



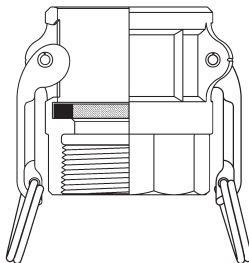
**Type F**  
male NPT x male adapter



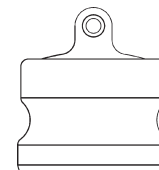
**Type C**  
female coupler x hose shank



**Type DC**  
dust cap



**Type D**  
female coupler x female NPT



**Type DP**  
dust plug

Dust caps and dust plugs are not to be used in pressure applications for safety and environmental reasons.

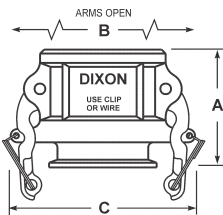


**Under no circumstances** should cam and groove couplings be used for compressed air or steam service!



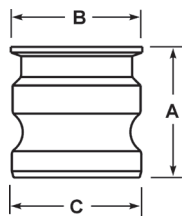
## Cam and Groove Adapters

Cam and Groove



Coupler x Clamp End - RC

Tube OD	A	B	C	316 Stainless Steel Part Number
1½"	2.687	7.875	3.937	<b>RC150SE</b>
2"	2.812	8.250	4.312	<b>RC200SE</b>
3"	3.000	10.000	5.625	<b>RC300SE</b>



Adapter x Clamp End - RE

Tube OD	A	B	C	316 Stainless Steel Part Number
1½"	2.281	2.000	2.093	<b>RE150SE</b>
2"	2.593	2.500	2.468	<b>RE200SE</b>
3"	2.750	3.562	3.593	<b>RE300SE</b>

## Dixon® Weld to Tube Cam and Groove

**Material:**

- 316 stainless steel investment casting

**Feature:**

- designed to be welded to standard sanitary tubing

Boss-Lock™ Coupler x Weld to Tube End



Size	316 Stainless Steel Part Number
1"	<b>RC100BT</b>
1½"	<b>RC150BT</b>
2"	<b>RC200BT</b>
3"	<b>RC300BT</b>

Adapter x Weld to Tube End



Size	316 Stainless Steel Part Number
1"	<b>RE100BT</b>
1½"	<b>RE150BT</b>
2"	<b>RE200BT</b>
3"	<b>RE300BT</b>

Global Type A Adapters

Size	316 Investment Cast Stainless Steel Part Number
1/2"	---
3/4"	G75-A-SS
1"	G100-A-SS
1 1/4"	G125-A-SS
1 1/2"	G150-A-SS
2"	G200-A-SS
2 1/2"	G250-A-SS
3"	G300-A-SS
4"	G400-A-SS



Global Type E Adapters

Size	316 Investment Cast Stainless Steel Part Number
1/2"	---
3/4"	G75-E-SS
1"	G100-E-SS
1 1/4"	G125-E-SS
1 1/2"	G150-E-SS
2"	G200-E-SS
2 1/2"	G250-E-SS
3"	G300-E-SS
4"	G400-E-SS



Global Type F Adapters

Size	316 Investment Cast Stainless Steel Part Number
1/2"	---
3/4"	G75-F-SS
1"	G100-F-SS
1 1/4"	G125-F-SS
1 1/2"	G150-F-SS
2"	G200-F-SS
2 1/2"	G250-F-SS
3"	G300-F-SS
4"	G400-F-SS





Global Type DP Dust Plugs

Size	316 Investment Cast Stainless Steel Part Number
1/2"	---
3/4"	<b>G75-DP-SS</b>
1"	<b>G100-DP-SS</b>
1 1/4"	<b>G125-DP-SS</b>
1 1/2"	<b>G150-DP-SS</b>
2"	<b>G200-DP-SS</b>
2 1/2"	<b>G250-DP-SS</b>
3"	<b>G300-DP-SS</b>
4"	<b>G400-DP-SS</b>

Global Type B Couplers



Size	316 Investment Cast Stainless Steel Part Number
1/2"	---
3/4"	<b>G75-B-SS</b>
1"	<b>G100-B-SS</b>
1 1/4"	<b>G125-B-SS</b>
1 1/2"	<b>G150-B-SS</b>
2"	<b>G200-B-SS</b>
2 1/2"	<b>G250-B-SS</b>
3"	<b>G300-B-SS</b>
4"	<b>G400-B-SS</b>

Global Type C Couplers



Size	316 Investment Cast Stainless Steel Part Number
1/2"	---
3/4"	<b>G75-C-SS</b>
1"	<b>G100-C-SS</b>
1 1/4"	<b>G125-C-SS</b>
1 1/2"	<b>G150-C-SS</b>
2"	<b>G200-C-SS</b>
2 1/2"	<b>G250-C-SS</b>
3"	<b>G300-C-SS</b>
4"	<b>G400-C-SS</b>

Global Type D Couplers



Size	316 Investment Cast Stainless Steel Part Number
1/2"	---
3/4"	<b>G75-D-SS</b>
1"	<b>G100-D-SS</b>
1 1/4"	<b>G125-D-SS</b>
1 1/2"	<b>G150-D-SS</b>
2"	<b>G200-D-SS</b>
2 1/2"	<b>G250-D-SS</b>
3"	<b>G300-D-SS</b>
4"	<b>G400-D-SS</b>

### Global Type DC Dust Caps

Size	316 Investment Cast Stainless Steel Part Number
½"	---
¾"	<b>G75-DC-SS</b>
1"	<b>G100-DC-SS</b>
1¼"	<b>G125-DC-SS</b>
1½"	<b>G150-DC-SS</b>
2"	<b>G200-DC-SS</b>
2½"	<b>G250-DC-SS</b>
3"	<b>G300-DC-SS</b>
4"	<b>G400-DC-SS</b>



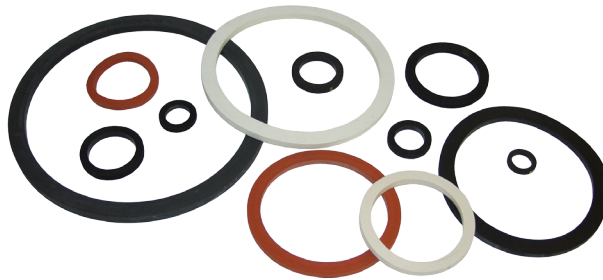
<sup>1</sup> does not interchange in the ½" size with Dixon or Boss-Lock style cam and groove

<sup>2</sup> come with stainless steel handles

### Cam and Groove Gaskets

**Feature:**

- White neoprene and white Buna-N gaskets all contain FDA approved materials

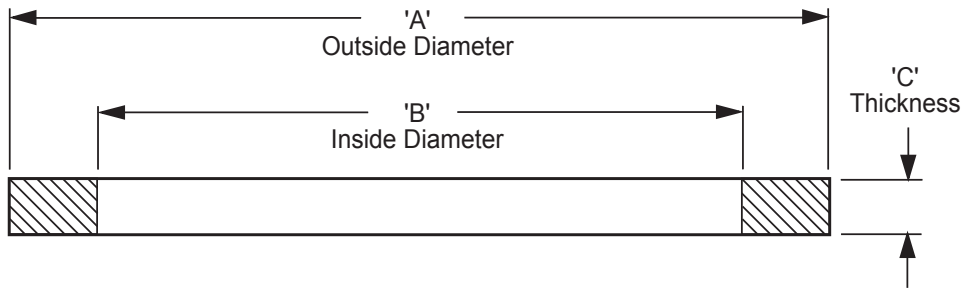


Size	Buna-N Part Number	FKM Part Number	Neoprene Part Number	white Neoprene Part Number	white Buna-N Part Number	Silicone Part Number
½"	<b>50-G-BU</b>	<b>50-G-VI</b>	---	---	---	---
¾"	<b>75-G-BU</b>	<b>75-G-VI</b>	<b>75-G-NE</b>	---	---	---
1"	<b>100-G-BU</b>	<b>100-G-VI</b>	<b>100-G-NE</b>	---	---	---
1¼"	<b>125-G-BU</b>	<b>125-G-VI</b>	<b>125-G-NE</b>	---	---	---
1½"	<b>150-G-BU</b>	<b>150-G-VI</b>	<b>150-G-NE</b>	<b>150-G-WNE</b>	---	<b>150-G-SIL</b>
2"	<b>200-G-BU</b>	<b>200-G-VI</b>	<b>200-G-NE</b>	<b>200-G-WNE</b>	---	<b>200-G-SIL</b>
2½"	<b>250-G-BU</b>	<b>250-G-VI</b>	<b>250-G-NE</b>	---	---	---
3"	<b>300-G-BU</b>	<b>300-G-VI</b>	<b>300-G-NE</b>	<b>300-G-WNE</b>	<b>300-G-WB</b>	<b>300-G-SIL</b>
4"	<b>400-G-BU</b>	<b>400-G-VI</b>	<b>400-G-NE</b>	<b>400-G-WNE</b>	<b>400-G-WB</b>	<b>400-G-SIL</b>

## Cam and Groove Gaskets

Cam and Groove


### Dixon® Cam and Groove Gasket Dimensions



#### Specifications:


- the following are the nominal dimensions for Dixon®'s elastomeric cam and groove gaskets
- the ID's of the PTFE envelope gaskets and the PTFE accordion gaskets are 1/16" smaller than the ID's for the elastomeric gaskets shown below
- thickness of PTFE accordion gaskets may vary from chart below

Size	Part Number	'A'	'B'	'C'
1/2"	<b>50-G</b> <sup>1</sup>	1 <sup>1</sup> / <sub>32</sub> "	1 <sup>1</sup> / <sub>16</sub> "	<sup>39</sup> / <sub>250</sub> "
3/4"	<b>75-G</b>	1 <sup>3</sup> / <sub>8</sub> "	7/8"	<sup>109</sup> / <sub>500</sub> "
1"	<b>100-G</b>	1 <sup>9</sup> / <sub>16</sub> "	1 <sup>1</sup> / <sub>16</sub> "	1/4"
1 1/4"	<b>125-G</b>	1 <sup>15</sup> / <sub>16</sub> "	1 <sup>23</sup> / <sub>64</sub> "	1/4"
1 1/2"	<b>150-G</b>	2 <sup>3</sup> / <sub>16</sub> "	1 <sup>5</sup> / <sub>8</sub> "	1/4"
2"	<b>200-G</b>	2 <sup>5</sup> / <sub>8</sub> "	2"	1/4"
2 1/2"	<b>250-G</b>	3 <sup>1</sup> / <sub>8</sub> "	2 <sup>3</sup> / <sub>8</sub> "	1/4"
3"	<b>300-G</b>	3 <sup>23</sup> / <sub>32</sub> "	3"	1/4"
4"	<b>400-G</b>	4 <sup>7</sup> / <sub>8</sub> "	4"	1/4"

 <sup>1</sup> No interchange standard exists for the 1/2" fittings. Generally, these sizes do not interchange with other manufacturer's products. As such, the gaskets in these sizes are not suitable for use in other manufacturers' couplings.

### Dixon® Cam and Groove Gasket Color Codes

Gasket Code	Gasket Material	Material Color	Color code stripes (appear on the OD of the gasket or filler)
-BU	Buna-N (standard in all metal fittings)	black	1 blue
-VI	FKM	black	1 yellow
-NE	Neoprene	black	1 red
-WNE	White Neoprene, FDA approved material	white	none
-WB	White Buna N, FDA approved material	white	blue
-SIL	Silicone	red	none

 Since other manufacturer's coding systems vary, this chart should not be used as a reference in identifying gaskets of unknown origin.



**Ball Valves ..... J-2 to J-9**

Technical Information .....	J-2
BV2I series 3-piece stainless steel .....	J-3
BV2H series 2-piece stainless steel .....	J-4
BV2IC series stainless steel wafer .....	J-5
BV31 series 3-way stainless steel .....	J-6
SSBV series full port stainless steel .....	J-7
BV2B series 2-piece brass .....	J-8
BV3B series 3-way brass .....	J-9

**Butterfly Valves..... J-10 to J-12**

B51 series butterfly .....	J-10 to J-12
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## Industrial Ball Valves

Industrial Valves

**Sizes:**

- 1/2" - 4" OD tube
- 1/4" - 4" nominal pipe

**Materials:**

- CF8M stainless steel
- brass

## BV2I Series 3-Piece Industrial Stainless Steel Ball Valves

**Materials:**

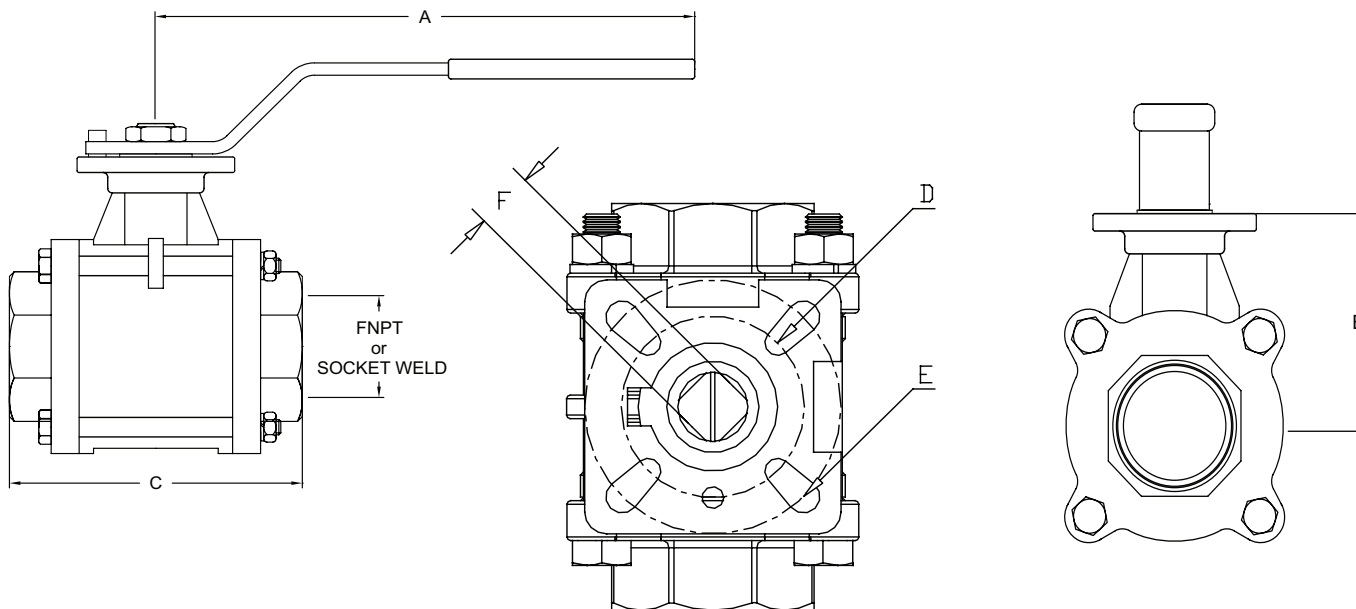
- body and ball: CF8M stainless steel
- stem: 316 stainless steel
- seat: RTFE or 25% carbon PTFE

**Features:**

- full port ball valves with FNPT ends or socket weld
- blow-out proof stem
- live-loaded stem packing
- swing out design for easy maintenance
- ISO 5211 mounting pad

**Specifications:**

- maximum pressure: 1/4" - 2" **1,000 PSI** WOG at 65°F, 2 1/2" - 3" **800 PSI** WOG at 65°F, 4" **600 PSI** WOG at 65°F
- maximum temperature: **400°F (204°C)**



Size	A	B	C	D	E	F	FNPT	Socket Weld	FNPT Part Number	Socket Weld Part Number
1/4"	4.72	1.52	2.51	F03	F04	9	0.25	n/a	<b>BV2I*N02511-A</b>	<b>BV2I*N02533-A</b>
3/8"	4.72	1.52	2.51	F03	F04	9	0.38	0.71	<b>BV2I*N03811-A</b>	<b>BV2I*N03833-A</b>
1/2"	4.72	1.67	2.84	F03	F04	9	0.50	0.88	<b>BV2I*N05011-A</b>	<b>BV2I*N05033-A</b>
3/4"	4.72	1.91	3.11	F03	F04	9	0.75	1.09	<b>BV2I*N07511-A</b>	<b>BV2I*N07533-A</b>
1"	5.35	2.17	3.29	F04	F05	11	1.00	1.35	<b>BV2I*N10011-A</b>	<b>BV2I*N10033-A</b>
1 1/4"	5.35	2.35	4.14	F04	F05	11	1.25	1.70	<b>BV2I*N12511-A</b>	<b>BV2I*N12533-A</b>
1 1/2"	9.17	2.77	4.41	F05	F07	14	1.50	1.94	<b>BV2I*N15011-A</b>	<b>BV2I*N15033-A</b>
2"	9.17	3.38	5.13	F05	F07	14	2.00	2.44	<b>BV2I*N20011-A</b>	<b>BV2I*N20033-A</b>
2 1/2"	17.32	4.29	6.64	F07	F10	17	2.50	3.01	<b>BV2I*N25011-A</b>	<b>BV2I*N25033-A</b>
3"	17.32	4.67	7.34	F07	F10	17	3.00	3.52	<b>BV2I*N30011-A</b>	<b>BV2I*N30033-A</b>
4"	17.32	4.54	8.88	F07	F10	17	4.00	4.52	<b>BV2I*N40011-A</b>	<b>BV2I*N40033-A</b>

\* Use G or C; G = RTFE, C = 25% Carbon PTFE

Dimensions are approximate. Engineering dimensions are available upon request. Specifications are subject to change without notice.



**BV2H Series 2-Piece Industrial Stainless Steel Ball Valves**

Industrial Valves



**Materials:**

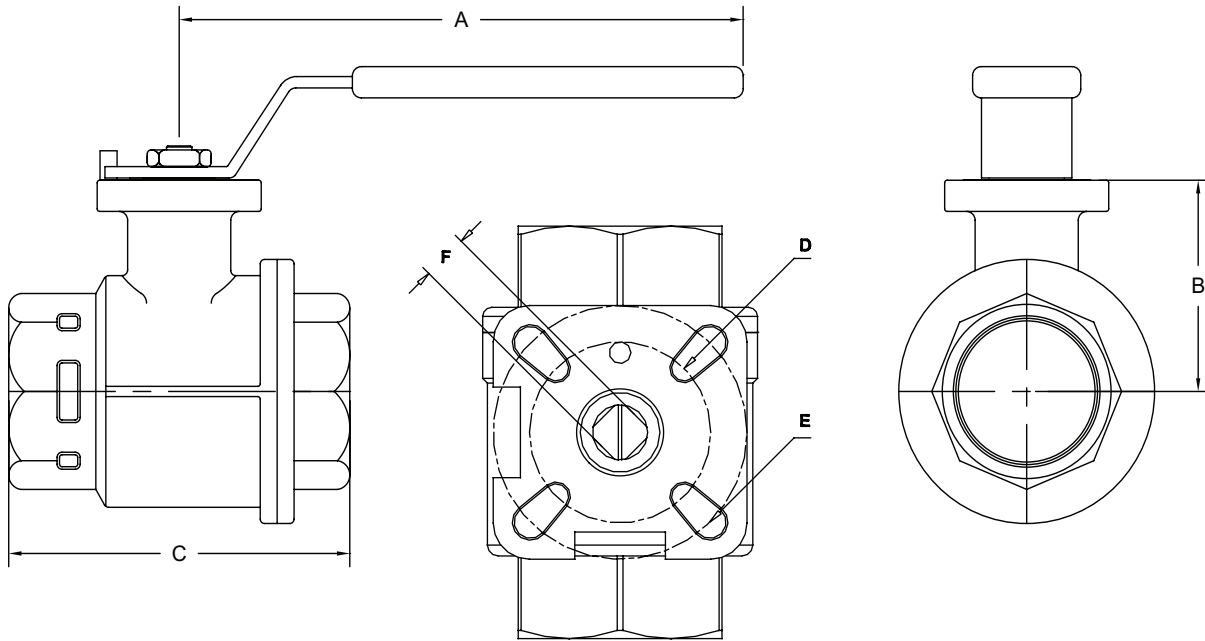
- body, ends and ball: CF8M stainless
- seats: RTFE
- seals: PTFE

**Features:**

- full port stainless steel ball valves with FNPT ends
- blow-out proof stem
- ISO 5211 mounting pad

**Specifications:**

- maximum pressure: 1/4" - 2" **1,000 PSI WOG**, 2 1/2" - 3" **800 PSI WOG**
- maximum temperature: **350°F (177°C)**



Size	A	B	C	D	E	F (mm)	Weight (lbs.)	Stainless Steel Part Number
1/4"	n/a	1.06	2.17	F03	F04	9	0.53	<b>BV2HG-02511-A</b>
3/8"	n/a	1.06	2.17	F03	F04	9	0.53	<b>BV2HG-03811-A</b>
1/2"	n/a	1.18	2.41	F03	F04	9	0.66	<b>BV2HG-05011-A</b>
3/4"	n/a	1.29	2.99	F03	F04	9	1.12	<b>BV2HG-07511-A</b>
1"	n/a	1.72	3.43	F04	F05	9	1.87	<b>BV2HG-10011-A</b>
1 1/4"	5.35	1.86	3.93	F04	F05	9	2.76	<b>BV2HG-12511-A</b>
1 1/2"	9.17	2.34	4.48	F05	F07	11	4.45	<b>BV2HG-15011-A</b>
2"	9.17	2.74	5.21	F05	F07	11	6.30	<b>BV2HG-20011-A</b>
2 1/2"	17.32	3.29	6.33	F07	F10	14	11.62	<b>BV2HG-25011-A</b>
3"	17.32	4.67	7.34	F07	F10	17	24.69	<b>BV2HG-30011-A</b>

Dimensions are approximate. Engineering dimensions are available upon request.  
Specifications are subject to change without notice.

## BV2IC Series Industrial Stainless Steel Wafer Ball Valve

**Materials:**

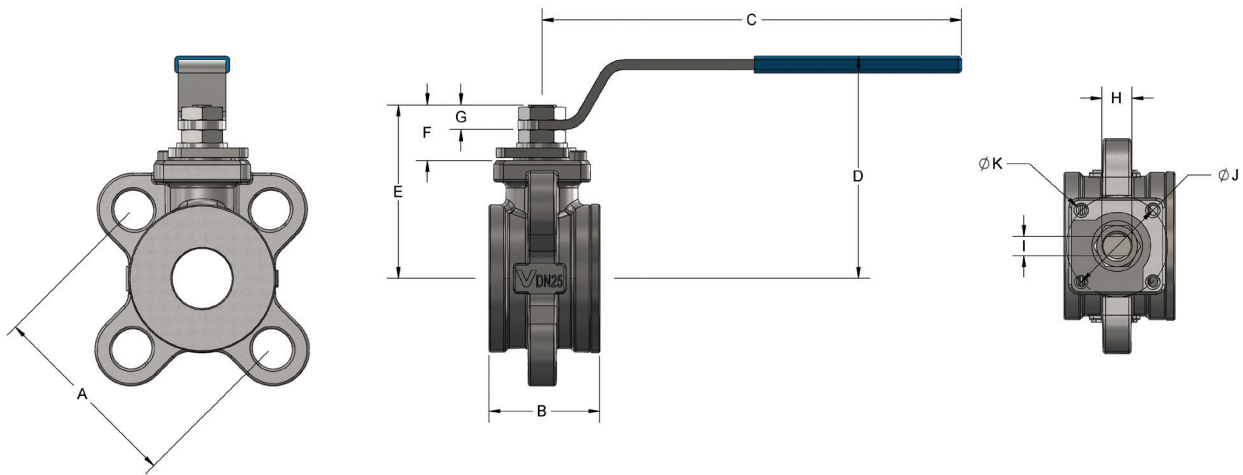
- body: CF8M
- ball and end connection: 316 stainless steel
- elastomers: FKM
- stem seal: PTFE - optional RTFE

**Features:**

- ANSI Class 150 wafer style ball valve
- full port, sizes 1" to 4"
- blow out proof stem
- ideal option to high performance butterfly valves
- space saving design
- antistatic stem design
- locking plate included

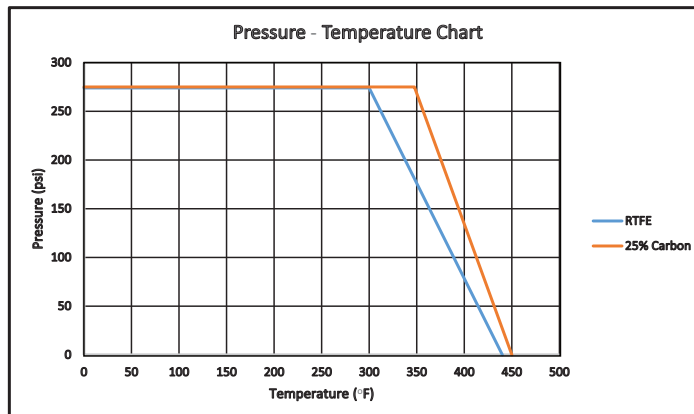


Industrial Valves



Size	A	B	C	D	E	F	G	H	I	J	K	Part Number
1"	ANSI 150	1.81	6.85	3.58	2.81	0.90	0.41	M12	0.31	F04	4xM5	<b>BV2IC-100WW-A</b>
1 1/4"	ANSI 150	2.12	6.85	3.74	2.95	0.90	0.41	M12	0.31	F04	4xM5	<b>BV2IC-125WW-A</b>
1 1/2"	ANSI 150	2.50	9.84	4.33	3.34	1.10	0.59	M16	0.39	F05	4xM6	<b>BV2IC-150WW-A</b>
2"	ANSI 150	3.23	9.84	4.68	3.68	1.10	0.59	M16	0.39	F05	4xM6	<b>BV2IC-200WW-A</b>
2 1/2"	ANSI 150	4.05	12.63	5.70	4.78	1.31	0.70	M20	0.55	F07	4xM8	<b>BV2IC-250WW-A</b>
3"	ANSI 150	4.80	12.63	6.06	5.15	1.31	0.70	M20	0.55	F07	4xM8	<b>BV2IC-300WW-A</b>
4"	ANSI 150	5.60	12.53	6.57	5.67	1.31	0.70	M20	0.55	F10	4xM8	<b>BV2IC-400WW-A</b>

Note: also option for RTFE (BV2IG)



Dimensions are approximate. Engineering dimensions are available upon request.  
Specifications are subject to change without notice.



## BV3I Series 3-Way Industrial Stainless Steel Ball Valves



**Materials:**

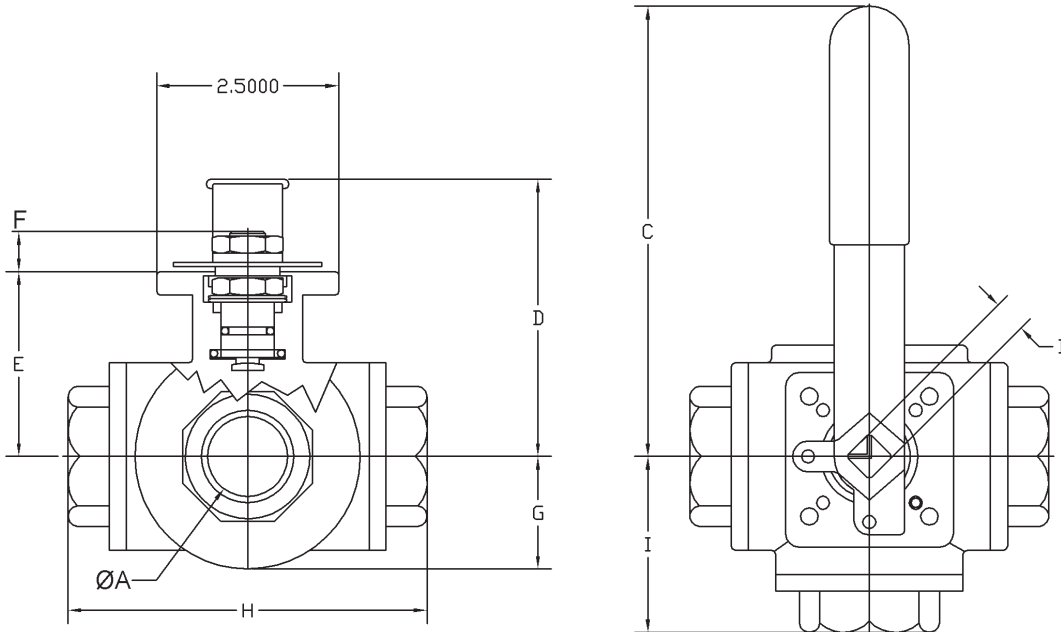
- body and ball: CF8M stainless steel
- seats and seals: RTFE

**Features:**

- full port ball valves with FNPT ends
- blow-out proof stem
- ISO 5211 mounting pad
- live-loaded stem packing
- for flow options see page B-20

**Specifications:**

- maximum pressure: ¼" - 1" **1,000 PSI WOG**,  
1¼" - 2" **800 PSI WOG**
- maximum temperature: **350°F (177°C)**



Size	A	B (mm)	C	D	E	F	G	H	I	Stainless Steel 'L' port Part Number	Stainless Steel 'T' port Part Number
¼"	.43	9	5.12	2.44	1.45	.40	.78	2.83	1.41	<b>BV3IGLF-0251-A</b>	<b>BV3IGTF-0251-A</b>
⅜"	.47	9	5.12	2.44	1.45	.40	.78	2.83	1.41	<b>BV3IGLF-0381-A</b>	<b>BV3IGTF-0381-A</b>
½"	.59	9	5.12	2.51	1.65	.45	.91	3.26	1.63	<b>BV3IGLF-0501-A</b>	<b>BV3IGTF-0501-A</b>
¾"	.78	11	6.49	3.22	1.65	.59	1.10	3.89	1.94	<b>BV3IGLF-0751-A</b>	<b>BV3IGTF-0751-A</b>
1"	.98	11	6.49	3.50	2.18	.55	1.33	4.40	2.20	<b>BV3IGLF-1001-A</b>	<b>BV3IGTF-1001-A</b>
1¼"	1.25	14	8.07	3.85	2.48	.64	1.53	4.92	2.46	<b>BV3IGLF-1251-A</b>	<b>BV3IGTF-1251-A</b>
1½"	1.50	14	8.07	4.25	2.88	.62	1.88	5.86	2.93	<b>BV3IGLF-1501-A</b>	<b>BV3IGTF-1501-A</b>
2"	2.00	17	12.79	5.51	3.63	.88	2.36	6.85	3.42	<b>BV3IGLF-2001-A</b>	<b>BV3IGTF-2001-A</b>

Dimensions are approximate. Engineering dimensions are available upon request.  
Specifications are subject to change without notice.

## SSBV Series Full Port Stainless Steel Ball Valves

### Material:

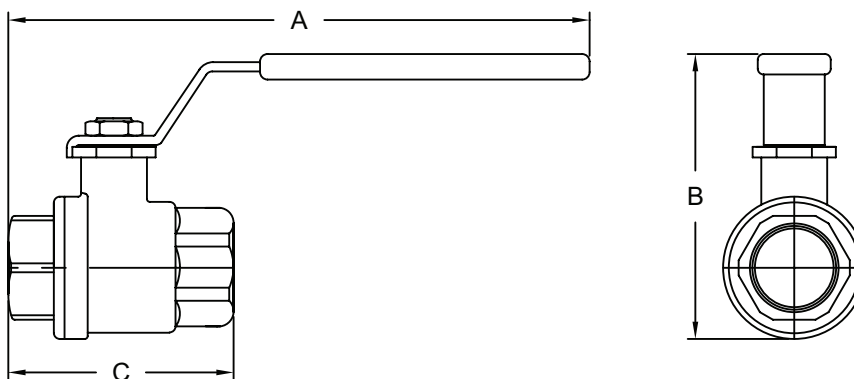
- body, ball and stem: 316 stainless steel

### Features:

- full port
- blow-out proof stem design

### Specifications:

- maximum pressure 1/4" - 2" rated to **1000 PSI WOG (CWP)**, 2 1/2" - 3" rated to **800 PSI WOG (CWP)**, **100 PSI** saturated steam
- temperature range: **-20°F to 300°F (-29°C to 149°C)**



Size	A	B	C	316 Stainless Steel Part Number
1/4"	5.25	2.75	1.25	<b>SSBV25</b>
3/8"	5.25	3.00	2.25	<b>SSBV38</b>
1/2"	6.50	3.25	2.75	<b>SSBV50</b>
3/4"	6.75	3.50	3.00	<b>SSBV75</b>
1"	8.25	4.00	3.50	<b>SSBV100</b>
1 1/4"	8.75	4.50	4.00	<b>SSBV125</b>
1 1/2"	9.75	5.00	4.50	<b>SSBV150</b>
2"	10.00	5.75	5.00	<b>SSBV200</b>
2 1/2"	13.50	7.75	6.50	<b>SSBV250</b>
3"	14.00	8.50	7.00	<b>SSBV300</b>

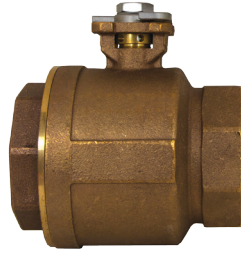
Dimensions are approximate. Engineering dimensions are available upon request.  
Specifications are subject to change without notice.

**BV2B Series 2-Piece Industrial Brass Ball Valves**

Industrial Valves



1/4" - 2"



2 1/2" - 4"

**Materials:**

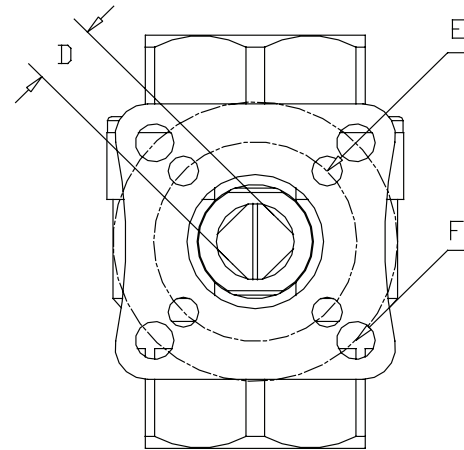
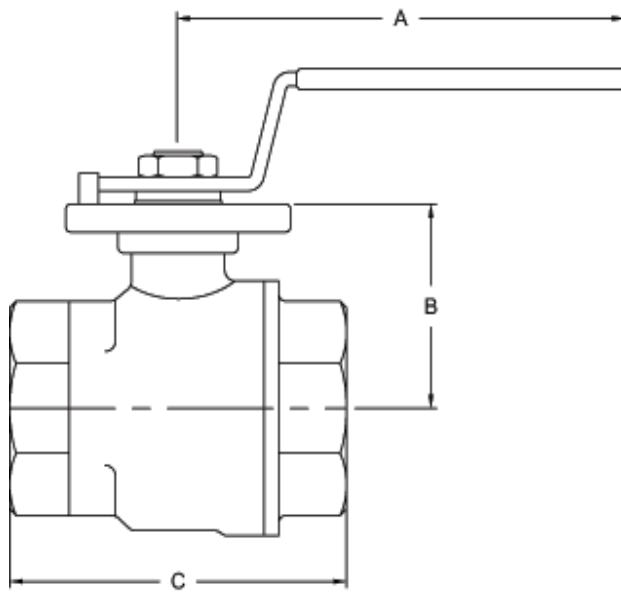
- body: 1/4" to 2" brass, 2 1/2" - 4" bronze
- seats: PTFE
- ends: FNPT

**Features:**

- blow-out proof stem
- ISO 5211 mounting pad

**Specifications:**

- maximum pressure: **600 PSI WOG**
- maximum temperature: **300°F (149°C)**



Size	A	B	C	D (mm)	E	F	Weight (lbs.)	Brass Part Number
1/4"	n/a	1.28	2.64	n/a	n/a	n/a	0.82	<b>BV2BV-02511 *</b>
3/8"	n/a	1.28	2.64	n/a	n/a	n/a	0.79	<b>BV2BV-03811 *</b>
1/2"	4.40	1.51	2.16	9	F04	n/a	0.86	<b>BV2BV-05011-A</b>
3/4"	4.40	1.63	2.80	11	F04	F05	0.91	<b>BV2BV-07511-A</b>
1"	5.40	1.76	3.23	11	n/a	F05	1.55	<b>BV2BV-10011-A</b>
1 1/4"	7.30	2.13	3.58	11	F05	F07	2.14	<b>BV2BV-12511-A</b>
1 1/2"	7.80	2.32	4.06	14	F05	F07	3.71	<b>BV2BV-15011-A</b>
2"	7.80	2.65	4.76	14	F05	F07	5.52	<b>BV2BV-20011-A</b>
2 1/2"	10.40	3.84	6.22	17	n/a	F07	8.83	<b>BV2BV-25011-A</b>
3"	10.40	4.17	7.40	17	n/a	F07	13.29	<b>BV2BV-30011-A</b>
4"	12.80	4.76	8.74	17	n/a	F07	18.32	<b>BV2BV-40011-A</b>

\*Actuated only

Dimensions are approximate. Engineering dimensions are available upon request. Specifications are subject to change without notice.





## BV3B Series 3-Way Industrial Brass Ball Valves

Industrial Butterfly Valves Pages J-10 and J-11

**Materials:**

- body: brass
- seats: PTFE with O-ring backing

**Features:**

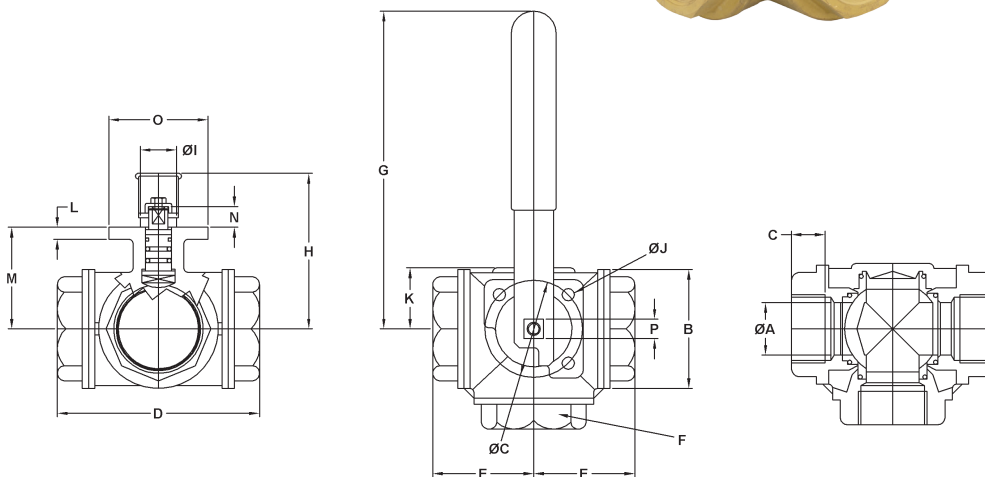
- reduced port brass ball valves with FNPT ends
- blow-out proof stem
- ISO 5211 mounting pad
- double O-ring stem packing
- for flow options see page B-20

**Specifications:**

- maximum pressure: **400 PSI WOG**
- maximum temperature: **300°F (149°C)**



Industrial Valves



Size	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P (mm)
1/4"	4.8	2.4	2.6	2.64	1.32	.86	4.72	2.44	.87	.23	.77	.20	1.20	.35	1.49	9
3/8"	4.8	2.4	2.6	2.64	1.32	.86	4.72	2.44	.87	.23	.77	.20	1.20	.35	1.49	9
1/2"	4.8	2.4	2.9	2.87	1.44	1.06	4.72	2.44	.87	.23	.77	.20	1.20	.35	1.49	9
3/4"	4.8	2.5	3.2	3.19	1.60	1.25	4.72	2.52	.87	.23	.87	.20	1.29	.35	1.49	9
1"	6.7	3.0	3.7	3.74	1.87	1.61	6.69	2.95	.94	.27	1.00	.28	1.63	.43	1.97	11
1 1/4"	6.7	3.2	4.4	4.39	2.20	1.96	6.69	3.17	.94	.27	1.22	.28	1.85	.43	1.97	11
1 1/2"	6.7	3.7	4.9	4.86	2.43	2.16	6.69	3.66	1.26	.27	1.79	.28	2.34	.43	1.97	11
2"	9.1	4.4	5.7	5.73	2.87	2.75	9.05	4.43	1.46	.35	1.75	.32	2.90	.59	2.75	14
2 1/2"	9.1	4.9	6.9	6.93	3.47	3.34	9.05	4.86	1.46	.35	2.20	.32	3.35	.59	2.75	14
3"	9.1	4.9	7.1	7.08	3.54	4.13	9.05	4.86	1.46	.35	2.20	.32	3.35	.59	2.75	14

Size	Weight (lbs.)	Brass 'L' port Part Number	Brass 'T' port Part Number
1/4"	1.22	<b>BV3BVLR-0251-A</b>	<b>BV3BVTR-0251-A</b>
3/8"	1.16	<b>BV3BVLR-0381-A</b>	<b>BV3BVTR-0381-A</b>
1/2"	1.21	<b>BV3BVLR-0501-A</b>	<b>BV3BVTR-0501-A</b>
3/4"	1.44	<b>BV3BVLR-0751-A</b>	<b>BV3BVTR-0751-A</b>
1"	2.64	<b>BV3BVLR-1001-A</b>	<b>BV3BVTR-1001-A</b>
1 1/4"	4.15	<b>BV3BVLR-1251-A</b>	<b>BV3BVTR-1251-A</b>
1 1/2"	6.02	<b>BV3BVLR-1501-A</b>	<b>BV3BVTR-1501-A</b>
2"	9.08	<b>BV3BVLR-2001-A</b>	<b>BV3BVTR-2001-A</b>
2 1/2"	16.33	<b>BV3BVLR-2501-A</b>	<b>BV3BVTR-2501-A</b>
3"	19.55	<b>BV3BVLR-3001-A</b>	<b>BV3BVTR-3001-A</b>

Dimensions are approximate. Engineering dimensions are available upon request. Specifications are subject to change without notice.



## B51 Series Industrial Butterfly Valves



Lug Butterfly Valve



Wafer Butterfly Valve

### Materials:

- body/extended neck: cast iron
- disc: nickel plated ductile iron
- seat: EPDM
- wide variety of seat, disc and body materials available

### Features:

- wafer and lug type body
- seat backing ring ensures blow-out proof service
- installed between Standard ANSI Class 150# flanges
- no taper pins
- can be serviced in field
- undercut available
- additional sizes available
- various manual or automatic operators available

### Specifications:

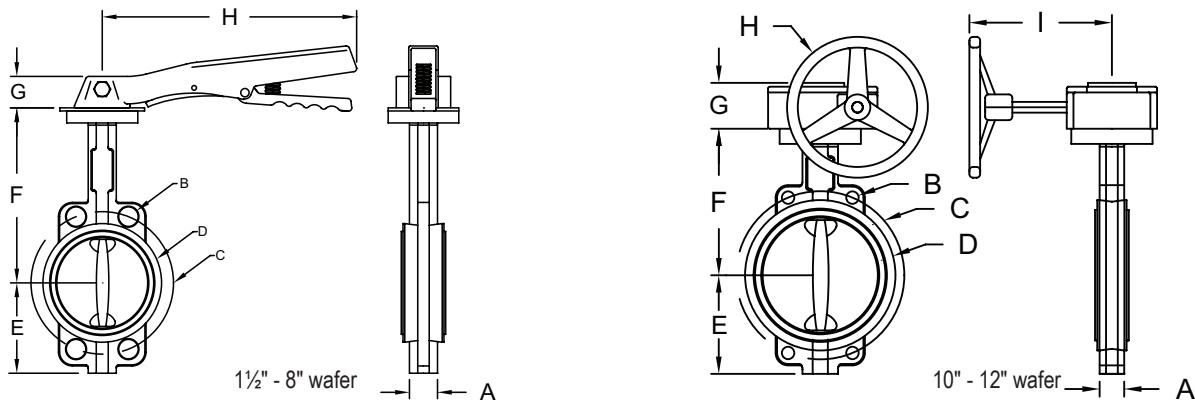
- maximum pressure: **200 PSI** (bi-directional)
- temperature range: **-20°F to 250°F (-29°C to 121°C)**, (depending upon seat material)

### Approvals:

- conforms to MSS SP-67 MSS SP-25, API-609

## B51 Series Industrial Butterfly Valves

### Dimensions (wafer)



Size	A	B	C	D	E	F	G	H	I	Part Number
1½"	1.30	4-18	3.88	3.74	2.56	5.75	0.88	8.00	n/a	<b>B5121E150W-C</b>
2"	1.69	4-18	4.75	3.82	3.15	5.94	0.88	8.00	n/a	<b>B5121E200W-C</b>
2½"	1.81	4-18	5.50	4.45	3.62	6.89	0.88	8.00	n/a	<b>B5121E250W-C</b>
3"	1.81	4-18	6.00	4.92	3.74	7.13	0.88	8.00	n/a	<b>B5121E300W-C</b>
4"	2.50	4-22	7.50	6.14	4.49	7.87	1.00	10.60	n/a	<b>B5121E400W-C</b>
5"	2.20	4-22	8.50	7.36	5.00	8.39	1.00	10.60	n/a	<b>B5121E500W-C</b>
6"	2.20	4-22	9.50	8.46	5.47	8.90	1.00	10.60	n/a	<b>B5121E600W-C</b>
8"	2.36	4-22	11.75	10.51	6.59	10.24	1.25	12.60	n/a	<b>B5121E800W-C</b>
10"	2.68	4-26	14.25	13.00	8.00	11.50	3.21	9.84	8.86	<b>B5121E1000W-G</b>
12"	3.07	4-26	17.00	14.96	9.53	13.27	3.21	11.80	8.86	<b>B5121E1200W-G</b>

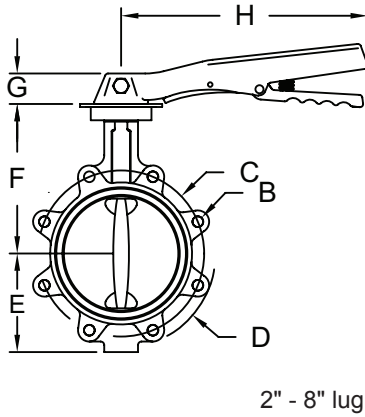
All dimensions are in inches, unless noted. Dimensions are approximate.  
 Engineering dimensions are available upon request. Specifications are subject to change without notice.



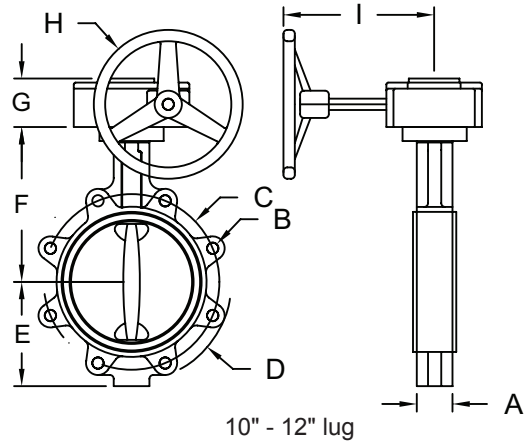
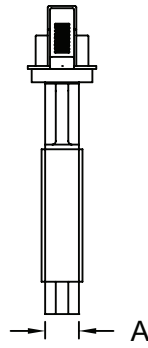
**B51 Series Industrial Butterfly Valves**

Dimensions (lug)

Industrial Valves



2" - 8" lug



10" - 12" lug

Size	A	B	C	D	E	F	G	H	I	Part Number
2"	1.69	4-5/18-11 UNC	4.75	5.95	3.15	5.94	0.88	8.00	n/a	<b>B5121E200L-C</b>
2½"	1.81	4-5/18-11 UNC	5.50	6.97	3.62	6.89	0.88	8.00	n/a	<b>B5121E250L-C</b>
3"	1.81	4-5/18-11 UNC	6.00	7.56	3.74	7.13	0.88	8.00	n/a	<b>B5121E300L-C</b>
4"	2.05	8-5/8-11 UNC	7.50	8.35	4.49	7.87	1.00	10.60	n/a	<b>B5121E400L-C</b>
5"	2.20	8-5/8-11 UNC	8.50	9.53	5.00	8.39	1.00	10.60	n/a	<b>B5121E500L-C</b>
6"	2.20	8-5/8-11 UNC	9.50	11.02	5.47	8.90	1.00	10.60	n/a	<b>B5121E600L-C</b>
8"	2.36	8-5/8-11 UNC	11.75	13.19	6.89	10.24	1.25	12.60	n/a	<b>B5121E800L-C</b>
10"	2.68	12-7/8-9 UNC	14.25	15.94	8.00	11.50	3.21	9.84	8.86	<b>B5121E1000L-G</b>
12"	3.07	12-7/8-9 UNC	17.00	19.09	9.53	13.27	3.21	11.80	8.86	<b>B5121E1200L-G</b>

All dimensions are in inches, unless noted. Dimensions are approximate.  
 Engineering dimensions are available upon request. Specifications are subject to change without notice.

**Technical..... K-2 to K-38**

Sanitary gaskets .....	K-2
Particulate reference chart .....	K-3
Guideline for compound selection .....	K-4 to K-6
Fraction - decimal conversion chart.....	K-7
Temperature conversion .....	K-8
Water data and formula .....	K-9
Measurement information .....	K-9
Measures of pressure .....	K-9
Length conversion constants .....	K-9
Weight conversion constants .....	K-9
Identifying threads .....	K-10
Thread dimensions .....	K-11
Normal engagement length of NPT thread in inches .....	K-11
DIN and RJT threads .....	K-11
Identifying fittings.....	K-12
Part number descriptions.....	K-13
Fittings ordering information .....	K-13
Clamp ferrules.....	K-14
Bevel seat ferrules .....	K-15
John Perry ferrules.....	K-16
I-line ferrules .....	K-17
Q-line ferrules .....	K-18
APC clamped ferrules .....	K-19
DIN 11851 ferrules .....	K-20
DIN 11864-1 ferrules.....	K-21
RJT ferrules .....	K-22
Australlian CIP ferrules .....	K-23
Australlian CIP flat face ferrules.....	K-24
New Zealand CIP ferrules.....	K-25
SMS ferrules .....	K-26
Danish standard ferrules.....	K-27
IDF/ISO couplings.....	K-28
Wine Macon ferrules .....	K-29
Garolla fitting.....	K-30
Oenological threaded fittings .....	K-31
Vacuum flanges .....	K-32
Austenitic Stainless Steel Chemistry .....	K-33
Finish information .....	K-33
Glossary of terms .....	K-34 to K-38

## Sanitary Gaskets

Technical Information



**Materials:**

- Nitrile (Buna N)
- Silicone (peroxide cured)
- EPDM
- FKM
- PTFE

**Approvals:**

- US Pharmacopoeia Class VI Cytotoxicity Criteria
- Title 21CFR177.2600 & .1550
- USDA and 3A Sanitary Standards

All elastomeric gaskets require periodic replacement. Gasket life is influenced by the gasket material, product application, temperature, cleaning procedures, etc. After monitoring gasket conditions in a process system, a schedule should be developed for replacement of gaskets.

### Color Coding - Identification of Gasket Materials

Elastomer	Part Number Identifier	Color Code	Temperature	
			Farenheit	Celsius
Buna-N	U	1 red dot	-25°F to 225°F	-32°C to 107°C
White Buna-N	UW	1 red dot	-25°F to 225°F	-32°C to 107°C
EPDM peroxide cured	E	3 green dots	-40°F to 275°F	-40°C to 135°C
FKM	SFY	1 white dot & 1 yellow dot	-15°F to 375°F	-26°C to 191°C
Silicone peroxide cured	XW	1 pink dot	-50°F to 400°F	-45°C to 204°C
Silicone peroxide cured	XC	none	-50°F to 400°F	-45°C to 204°C
PTFE	G	none	-10°F to 300°F	-23°C to 149°C
PTFE w/50% 316 particles	GTS	none	-20°F to 450°F	-29°C to 232°C
Metal Detectable Buna	UZ	2 blue dots & 1 red dot	-30°F to 200°F	-34°C to 93°C
Metal Detectable EPDM	EZ	2 blue dots & 3 green dots	-20°F to 300°F	-29°C to 149°C
Metal Detectable Silicone	SFYZ	2 blue dots	-40°F to 450°F	-40°C to 232°C

### Packaging and Storing Information

The shelf life of rubber gaskets is the maximum period from cure date to the date the product is installed. During the shelf life time, the rubber product is expected to retain its characteristics under the following conditions:

- stored in original packaging in a clean, dry warehouse
- not exposed to direct sunlight
- stored no closer than 6 feet from electric motors
- temperature between **65°F to 85°F (18°C to 29°C)**

A guideline for shelf life of rubber gaskets manufactured from the following components should have the following shelf life not to exceed:

- Buna.....10 years
- EPDM.....10 years
- FKM.....10 years
- Silicone.....5 years
- PTFE.....20 years
- Buna, EPDM and Silicone Metal Detectable Gaskets...10 years

## Particulate Reference Chart

### 316 Square Mesh Wire Cloth Information

- special order parts, minimum order quantities required

Mesh	Micron Equivalent	Opening Width	Wire Diameter	Openings per Square Inch
4	5400	.215	.035	16
6	3221	.132	.035	36
8	2441	.097	.028	64
9	2089	.083	.025	81
10	1887	<sup>1</sup> .075	.023	100
12	1510	.050	.023	144
14	1283	<sup>2</sup> .051	.020	196
16	1082	.0455	.016	256
20	855	.034	.016	400
30	427	.017	.016	900
35	422	.0168	.0118	1275
40	377	.015	.010	1600
50	276	.011	.009	2500
60	226	.009	.0075	3600
80	176	.007	.0055	6400
100	151	<sup>3</sup> .006	.0045	10,000
120	120	<sup>3</sup> .0048	.0035	14,400
150	103	<sup>3</sup> .0041	.0026	22,500
200	73	<sup>3</sup> .0029	.0021	40,000



Technical Information

- <sup>1</sup> standard size for clamp style gaskets
- <sup>2</sup> standard size for bevel seat size gaskets
- <sup>3</sup> available in only 1", 1½" and 2" sizes

### Perforated 316 Disc Information

- 1 micron = .00003973 inches
- special order - minimums apply

Hole Diameter	Micron Equivalent	Open Area
.020"	503	30%
.033" <sup>1</sup>	803	28%
.063"	1573	23%
.100"	2517	33%
.125"	3146	40%
.250"	6350	58%

- <sup>1</sup> standard size for clamp style



## A Guideline for Compound Selection for Use with Various Fluids and Chemicals

Note: The information contained in these tables was derived from several sources and is to be used as a general guide only. Compounds suitable for any specific application rests solely by the end user. Dixon Sanitary assumes no responsibility. All effect ratings assume static conditions at ambient temperatures.

A - satisfactory

B - fair

C - severe effect; except for some static applications

D - unsatisfactory

E - insufficient information

Technical Information

fluid	material				
	Buna	EPDM	FKM	PTFE	Silicone
Acetaldehyde	D	A	D	A	B
Acetamide	A	A	B	A	B
Acetic Acid, 30%	B	A	B	A	A
Acetone	D	A	D	A	C
Acetophenone	D	A	D	A	D
Acetyl Chloride	D	D	A	A	C
Acetylene	A	A	A	A	B
Acrylonitrile	D	D	C	A	D
Adipic Acid	A	A	E	E	E
Ammonia Gas (cold)	A	A	D	A	A
Ammonium Chloride (aq)	A	A	A	A	E
Ammonium Hydroxide (conc.)	D	A	B	A	A
Ammonium Nitrate (aq)	A	A	E	A	E
Ammonium Nitrite (aq)	A	A	E	E	B
Ammonium Phosphate (aq)	A	A	E	A	A
Ammonium Sulfate (aq)	A	A	D	A	E
Amyl Acetate (Banana Oil)	D	A	D	A	D
Amyl Alcohol	B	A	B	A	D
Amyl Borate	A	D	A	A	E
Arsenic Acid	A	A	A	E	A
Arsenic Trichloride (aq)	A	C	E	E	E
Barium Chloride (aq)	A	A	A	A	A
Barium Hydroxide (aq)	A	A	A	A	A
Barium Sulfate (aq)	A	A	A	A	A
Barium Sulfide (aq)	A	A	A	A	A
Benzaldehyde	D	A	D	A	B
Benzene	D	D	A	A	D
Benzoic Acid	C	C	A	A	C
Benzoyl Chloride	D	D	A	A	E
Benzyl Alcohol	D	A	A	A	B
Benzyl Chloride	D	D	A	A	D
Boric Acid	A	A	A	A	A
Brine	A	A	A	A	A
Bromine, Anhydrous	D	D	A	E	D
Bromine Water	D	B	A	E	D
Butadiene	D	C	A	A	D
Butane	A	D	A	A	D
Butyl Acetate	D	C	D	E	D

fluid	material				
	Buna	EPDM	FKM	PTFE	Silicone
Butyl Acetyl Ricinoleate	C	A	A	E	E
Butyl Alcohol	A	B	A	A	B
Butyl Amine	C	B	D	E	D
Butyl Benzoate	D	B	A	E	E
Butyl Carbitol	D	A	A	A	D
Butyl Cellosolve	D	A	D	A	E
Butyl Oleate	D	B	A	E	E
Butyl Stearate	B	C	A	E	E
Butylene	B	D	A	E	D
Butyraldehyde	D	B	D	E	D
Carbolic Acid (Phenol)	D	B	A	A	D
Carbon Bisulfide	C	D	A	E	D
Carbon Dioxide	A	B	A	E	B
Carbonic Acid	B	A	A	E	A
Carbon Monoxide	A	A	A	A	A
Carbon Tetrachloride	C	D	A	A	D
Castor Oil	A	B	A	A	A
Cellosolve Acetate	D	B	D	A	D
China Wood Oil (Tung Oil)	A	C	A	A	D
Chlorine (wet)	D	C	A	A	D
Chlorine Dioxide	D	C	A	A	E
Chloroacetic Acid	D	A	D	A	E
Chloroacetone	D	A	D	E	D
Chlorobenzene	D	D	A	E	D
Chlorobromomethane	D	B	A	E	D
Chloroform	D	D	A	A	D
Chlorotoluene	D	D	A	E	D
Chrome Plating Solutions	D	C	A	A	C
Chromic Acid	D	B	A	A	B
Cod Liver Oil	A	A	A	A	B
Copper Acetate (aq)	B	A	D	E	D
Copper Chloride (aq)	A	A	A	A	A
Copper Cyanide (aq)	A	A	A	A	A
Copper Sulfate (aq)	A	A	A	A	A
Creosote (coal tar)	A	D	A	A	D
Cresylic Acid	D	D	A	E	D
Cyclohexane	A	D	A	A	D
Cyclohexanol	C	C	A	E	D



fluid	material				
	Buna	EPDM	FKM	PTFE	Silicone
Cyclohexanone	D	B	D	E	D
Denatured Alcohol	A	A	A	A	A
Detergent Solutions	A	A	A	A	A
Diacetone Alcohol	D	A	D	A	B
Dibenzyl Ether	D	B	D	A	E
Dibenzyl Sebecate	D	B	B	E	C
Dibromoethyl Benzene (Alkazene)	D	D	B	E	D
Dibutyl Amine	D	C	D	E	C
Dibutyl Ether	D	C	C	E	D
Dibutyl Phthalate	D	B	C	A	B
Dibutyl Sebecate	D	B	B	E	B
O-Dichlorobenzene	D	D	A	E	D
Dichloro-Isopropyl Ether	D	C	C	E	D
Diethylamine	B	B	D	A	B
Diethyl Benzene	D	D	A	E	D
Diethyl Ether	D	D	D	E	D
Diethylene Glycol	A	A	A	E	B
Diethyl Sebecate	B	B	B	E	B
Diisobutylene	B	D	A	E	D
Diisopropyl Benzene	D	D	A	E	E
Diisopropyl Ketone	D	A	D	E	D
Diisopropylidene Acetone	D	C	D	E	D
Dimethyl Aniline (Xylidine)	C	B	D	E	D
Dimethyl Ether (Methyl Ether)	A	D	A	E	A
Dimethyl Formamide	B	B	D	E	B
Dimethyl Phthalate	D	B	B	E	E
Dinitrotoluene	D	D	D	E	D
Diocetyl Phthalate	C	B	B	E	C
Diocetyl Sebecate	D	B	B	E	C
Dioxane	D	B	D	E	D
Dioxolane	D	B	D	E	D
Dipentene	A	D	A	E	D
Diphenyl (Phenylbenzene)	D	D	A	E	D
Diphenyl Oxides	D	D	A	E	C
Dowtherm Oil	D	D	A	A	C
Ethane	A	D	A	A	D
Ethanolamine	B	B	D	E	B
Ethyl Acetate	D	B	D	E	B
Ethyl Acetoacetate	D	B	D	E	B
Ethyl Acrylate	D	B	D	E	B
Ethyl Alcohol	A	A	C	A	A
Ethyl Benzene	D	D	A	A	D
Ethyl Benzoate	D	A	A	A	D
Ethyl Cellosolve	D	B	D	E	D
Ethyl Cellulose	B	B	D	A	C
Ethyl Chloride	A	C	A	A	D

fluid	material				
	Buna	EPDM	FKM	PTFE	Silicone
Ethyl Chlorocarbonate	D	B	A	A	D
Ethyl Chloroformate	D	B	D	E	D
Ethyl Ether	C	C	D	A	D
Ethyl Pentachlorobenzene	D	D	A	A	D
Ethylene	A	B	A	A	E
Ethylene Chloride	D	C	B	E	D
Ethylene Diamine	A	A	D	E	A
Ethylene Dichloride	D	C	A	A	D
Ethylene Glycol	A	A	A	A	A
Fluoroboric Acid	A	A	E	E	E
Freon 11	B	D	A	A	D
Freon 12	A	B	B	A	D
Freon 22	D	A	D	A	D
Fumaric Acid	A	B	A	E	B
Gallic Acid	B	B	A	A	E
Gasoline	B	D	A	A	D
Glucose	A	A	A	A	A
Glycerin	A	A	A	A	A
Hexane	A	D	A	A	D
Hexyl Alcohol	A	C	A	A	B
Hydrazine	B	A	D	A	C
Hydrobromic Acid	D	A	A	E	D
Hydrocyanic Acid	B	A	A	A	C
Hydrofluoric Acid (conc.) cold	D	C	A	A	D
Hydrofluosilicic Acid	B	B	A	E	D
Hydrogen Gas	A	A	A	A	C
Hydrogen Peroxide (90%)	D	B	B	E	B
Hydrogen Sulfide (wet) cold	D	A	D	E	C
Hydroquinone	C	B	B	A	E
Iodoform	E	D	E	E	E
Isobutyl Alcohol	B	A	A	A	A
Isooctane	A	D	A	E	D
Isopropyl Acetate	D	B	D	A	D
Isopropyl Alcohol	B	A	A	A	A
Isopropyl Chloride	D	D	A	A	D
Isopropyl Ether	B	D	D	A	D
Kerosene	A	D	A	A	D
Lacquers	D	D	D	A	D
Lactic Acid (cold)	A	A	A	A	A
Lead Acetate (aq)	B	A	D	E	D
Lead Nitrite (aq)	A	A	E	E	B
Lime Bleach	A	A	A	E	B
Linoleic Acid	B	D	B	A	B
Maleic Acid	D	B	A	A	E
Malic Acid	A	B	A	E	B
Methane	A	D	B	A	D
Methyl Acetate	D	A	D	A	D



fluid	material				
	Buna	EPDM	FKM	PTFE	Silicone
Methyl Acrylate	D	B	D	A	D
Methylacrylic Acid	D	B	D	E	D
Methyl Alcohol	A	A	D	A	A
Methyl Bromide	B	D	A	A	E
Methyl Butyl Ketone	D	A	D	A	C
Methyl Cellosioive	C	B	D	A	D
Methyl Chloride	D	C	B	A	D
Methyl Cyclopentane	D	D	B	E	D
Methylene Chloride	D	C	B	E	D
Methyl Ether	A	D	A	A	A
Methyl Ethyl Ketone	D	A	D	A	D
Methyl Isobutyl Ketone	D	B	D	A	D
Methyl Methacrylate	D	C	D	A	D
Milk	A	A	A	A	A
Mineral Oil	A	C	A	C	B
Monoethanol Amine	D	A	D	E	B
Monomethyl Ether	A	D	A	E	A
Monovinyl Acetylene	A	A	A	A	B
Mustard Gas	E	A	E	E	A
Naphthalenic Acid	B	D	A	A	D
Natural Gas	A	D	A	A	A
Nickel Acetate (aq)	B	A	D	E	D
Nickel Chloride (aq)	A	A	A	A	A
Nickel Sulfate (aq)	A	A	A	A	A
Nitric Acid (dilute)	D	B	A	A	B
Nitrobenzene (Ligroin)	A	D	A	A	D
Nitroethane	D	B	D	A	D
Nitrogen Tetroxide	D	C	D	A	D
Octachlorotoluene	D	D	A	E	D
Octadecane	A	D	A	E	D
N-Octane	B	D	A	A	D
Octyl Alcohol	B	C	A	A	B
Oleic Acid	C	D	B	A	D
Oxalic Acid	B	A	A	E	B
Oxonia	D	A	A	E	A
Oxygen - Cold	B	A	A	A	A
Ozone	D	A	A	E	A
Palmitic Acid	A	B	A	E	D
Perchloric Acid	D	B	A	E	D
Phenyl Ethyl Ether	D	D	D	E	D
Phosphoric Acid - 20%	B	A	A	E	B
Phosphorus Trichloride	D	A	A	A	E
Piperidine	D	A	D	E	D
Polyvinyl Acetate Emulsion	E	A	E	E	E
Potassium Acetate (aq)	B	A	D	E	D
Potassium Chloride (aq)	A	A	A	A	A
Potassium Cyanide (aq)	A	A	A	A	A

fluid	material				
	Buna	EPDM	FKM	PTFE	Silicone
Potassium Nitrate (aq)	A	A	A	A	A
i-Propyl Acetate	D	B	D	E	D
Propyl Nitrate	D	B	D	E	D
Propylene	D	D	A	A	D
Pyridine	D	B	D	E	D
Salicylic Acid	B	A	A	E	E
Silicone Oils	A	A	A	A	C
Soap Solutions	A	A	A	A	A
Sodium Acetate (aq)	B	A	D	E	D
Sodium Bicarbonate (aq)	A	A	A	A	A
Sodium Borate (aq)	A	A	A	A	A
Sodium Chloride (aq)	A	A	A	A	A
Sodium Hydroxide (aq)	B	A	B	A	B
Sodium Nitrate (aq)	B	A	E	E	D
Sodium Peroxide (aq)	B	A	A	E	D
Soybean Oil	A	C	A	A	A
Steam, under 300°F	D	A	D	A	C
Stearic Acid	B	B	E	A	B
Stoddard Solvent	A	D	A	A	D
Sulfur Chloride (aq)	C	D	A	B	C
Sulfuric Acid (dilute)	C	B	A	E	D
Sulfurous Acid	B	B	A	A	D
Tannic Acid	A	A	A	A	B
Tartaric Acid	A	B	A	A	A
Tetrachloroethylene	D	D	A	A	D
Toluene	D	D	A	A	D
Triethanol Amine	B	A	D	A	E
Trioctyl Phosphate	D	A	B	E	C
Tung Oil (China Wood Oil)	A	C	A	A	D
Turpentine	A	D	A	A	D
Vegetable Oils	A	C	A	A	B
Vinegar	B	A	A	A	A
Whiskey, Wines	A	A	A	A	A
White Pine Oil	B	D	A	E	D
Zinc Chloride (aq)	A	A	A	A	A

### Fraction - Decimal Conversion Chart

	<u>Inches</u>	<u>Millimeters</u>		<u>Inches</u>	<u>Millimeters</u>
$\frac{1}{32}$	$\frac{1}{64}$ .015625	.3969	$\frac{17}{32}$	$\frac{33}{64}$ .515625	13.0969
$\frac{1}{16}$	$\frac{3}{64}$ .046875	1.1906	$\frac{9}{16}$	$\frac{35}{64}$ .546875	13.8907
$\frac{3}{32}$	$\frac{5}{64}$ .078125	1.9844	$\frac{19}{32}$	$\frac{37}{64}$ .578125	14.6844
$\frac{1}{8}$	$\frac{7}{64}$ .109375	2.7781	$\frac{5}{8}$	$\frac{39}{64}$ .609375	15.4782
$\frac{5}{32}$	$\frac{9}{64}$ .140625	3.5719	$\frac{21}{32}$	$\frac{41}{64}$ .640625	16.2719
$\frac{3}{16}$	$\frac{11}{64}$ .171875	4.3656	$\frac{11}{16}$	$\frac{43}{64}$ .671875	17.0657
$\frac{7}{32}$	$\frac{13}{64}$ .203125	5.1594	$\frac{23}{32}$	$\frac{45}{64}$ .703125	17.8594
$\frac{1}{4}$	$\frac{15}{64}$ .234375	5.9531	$\frac{3}{4}$	$\frac{47}{64}$ .734375	18.6532
$\frac{9}{32}$	$\frac{17}{64}$ .265625	6.7469	$\frac{25}{32}$	$\frac{49}{64}$ .765625	19.4470
$\frac{5}{16}$	$\frac{19}{64}$ .296875	7.5406	$\frac{13}{16}$	$\frac{51}{64}$ .796875	20.2407
$\frac{11}{32}$	$\frac{21}{64}$ .328125	8.3344	$\frac{27}{32}$	$\frac{53}{64}$ .828125	21.0345
$\frac{3}{8}$	$\frac{23}{64}$ .359375	9.1282	$\frac{7}{8}$	$\frac{55}{64}$ .859375	21.8282
$\frac{13}{32}$	$\frac{25}{64}$ .390625	9.9219	$\frac{29}{32}$	$\frac{57}{64}$ .890625	22.6220
$\frac{7}{16}$	$\frac{27}{64}$ .421875	10.7157	$\frac{15}{16}$	$\frac{59}{64}$ .921875	23.4157
$\frac{15}{32}$	$\frac{29}{64}$ .453125	11.5094	$\frac{31}{32}$	$\frac{61}{64}$ .953125	24.2095
$\frac{1}{2}$	$\frac{31}{64}$ .484375	12.3032	$\frac{63}{64}$	$\frac{63}{64}$ .984375	25.0032
	$\frac{33}{64}$ .515625	13.0969	1	1.000	25.4001
	$\frac{35}{64}$ .546875	13.8907			
	$\frac{37}{64}$ .578125	14.6844			
	$\frac{39}{64}$ .609375	15.4782			
	$\frac{41}{64}$ .640625	16.2719			
	$\frac{43}{64}$ .671875	17.0657			
	$\frac{45}{64}$ .703125	17.8594			
	$\frac{47}{64}$ .734375	18.6532			
	$\frac{49}{64}$ .765625	19.4470			
	$\frac{51}{64}$ .796875	20.2407			
	$\frac{53}{64}$ .828125	21.0345			
	$\frac{55}{64}$ .859375	21.8282			
	$\frac{57}{64}$ .890625	22.6220			
	$\frac{59}{64}$ .921875	23.4157			
	$\frac{61}{64}$ .953125	24.2095			
	$\frac{63}{64}$ .984375	25.0032			
	1.000	25.4001			

Technical Information



### Temperature Conversions

Look up reading in middle column (shaded). If in degrees Centigrade, read Fahrenheit equivalent in right-hand column; if in degrees Fahrenheit, read Centigrade equivalent in left-hand column.

Technical Information

°C	°F	°C	°F
-73	-100	-148	
-68	-90	-130	
-62	-80	-112	
-57	-70	-94	
-51	-60	-76	
-46	-50	-58	
-40	-40	-40	
-34	-30	-22	
-29	-20	-4	
-23	-10	14	
-17.8	0	32	
-17.2	1	33.8	
-16.7	2	35.6	
-16.1	3	37.4	
-15.6	4	39.2	
-15.0	5	41.0	
-14.4	6	42.8	
-13.9	7	44.6	
-13.3	8	46.4	
-12.8	9	48.2	
-12.2	10	50.0	
-11.7	11	51.8	
-11.1	12	53.6	
-10.6	13	55.4	
-10.0	14	57.2	
-9.4	15	59.0	
-8.9	16	60.8	
-8.3	17	62.6	
-7.8	18	64.4	
-7.2	19	66.2	
-6.7	20	68.0	
-6.1	21	69.8	
-5.6	22	71.6	
-5.0	23	73.4	
-4.4	24	75.2	
-3.9	25	77.0	
-3.3	26	78.8	
-2.8	27	80.6	
-2.2	28	82.4	
-1.7	29	84.2	
-1.1	30	86.0	
-.6	31	87.8	
0	32	89.6	
.6	33	91.4	
1.1	34	93.2	
1.7	35	95.0	
2.2	36	96.8	
2.8	37	98.6	
3.3	38	100.4	
3.9	39	102.2	
4.4	40	104.0	

°C	°F	°C	°F
5.0	41	105.8	
5.6	42	107.6	
6.1	43	109.4	
6.7	44	111.2	
7.2	45	113.0	
7.8	46	114.8	
8.3	47	116.6	
8.9	48	118.4	
9.4	49	120.2	
10.0	50	122.0	
10.6	51	123.8	
11.1	52	125.6	
11.7	53	127.4	
12.2	54	129.2	
12.8	55	131.0	
13.3	56	132.8	
13.9	57	134.6	
14.4	58	136.4	
15.0	59	138.2	
15.6	60	140.0	
16.1	61	141.8	
16.7	62	143.6	
17.2	63	145.4	
17.8	64	147.2	
18.3	65	149.0	
18.9	66	150.8	
19.4	67	152.6	
20.0	68	154.4	
20.6	69	156.2	
21.1	70	158.0	
21.7	71	159.8	
22.2	72	161.6	
22.8	73	163.4	
23.3	74	165.2	
23.9	75	167.0	
24.4	76	168.8	
25.0	77	170.6	
25.6	78	172.4	
26.1	79	174.2	
26.7	80	176.0	
27.2	81	177.8	
27.8	82	179.6	
28.3	83	181.4	
28.9	84	183.2	
29.4	85	185.0	
30.0	86	186.8	
30.6	87	188.6	
31.1	88	190.4	
31.7	89	192.2	
32.2	90	194.0	
32.8	91	195.8	

°C	°F	°C	°F
33.3	92	197.6	
33.9	93	199.4	
34.4	94	201.2	
35.0	95	203.0	
35.6	96	204.8	
36.1	97	206.6	
36.7	98	208.4	
37.2	99	210.2	
37.8	100	212.0	
43	110	230	
49	120	248	
54	130	266	
60	140	284	
66	150	302	
71	160	320	
77	170	338	
82	180	356	
88	190	374	
93	200	392	
99	210	410	
100	212	413.6	
104	220	428	
110	230	446	
116	240	464	
121	250	482	
127	260	500	
132	270	518	
138	280	536	
143	290	554	
149	300	572	
154	310	590	
160	320	608	
166	320	626	
170	338	640	
171	340	644	
177	350	662	
182	360	680	
186	366	691	
188	370	698	
193	380	716	
198	388	730	
199	390	734	
204	400	752	
208	406	763	
210	410	770	
216	420	788	
221	430	806	
227	440	824	
232	450	842	

## Water Data and Formulas

1 gallon water = 231 cubic inches = 8.333 pounds

1 pound of water = 27.7 cubic inches

1 cubic foot water = 7.5 gallons = 62.5 pounds (salt water weighs approximately 64.3 pounds per cubic foot)

Pounds per square inch at bottom of a column of water = height of column in feet x .434

**Horsepower to Raise Water**

If pumping liquid other than water, multiply the gallons per minute below by the liquids specific gravity

$$\text{Horsepower} = \frac{\text{gallons per minute} \times \text{total head in feet}}{3960}$$

**Gallons Per Minute through a Pipe**

GPM = .0408 x pipe diameter inches<sup>2</sup> x feet/minute water velocity

**Weight of Water in a Pipe**

Pounds water = pipe length feet x pipe diameter inches<sup>2</sup> x .34

(no losses included)

Water Level (inches)	Gallons per Minute Discharge for a Given Nominal Pipe Diameter (inches)				
	5	6	8	10	12
5	163	---	---	---	---
6	195	285	---	---	---
7	228	334	580	---	---
8	260	380	665	1060	---
9	293	430	750	1190	1660
10	326	476	830	1330	1850
11	360	525	915	1460	2020
12	390	570	1000	1600	2220
13	425	620	1080	1730	2400
14	456	670	1160	1860	2590
15	490	710	1250	2000	2780
16	520	760	1330	2120	2960
17	550	810	1410	2260	3140
18	590	860	1500	2390	3330
19	620	910	1580	2520	3500
20	650	950	1660	2660	3700
21	685	1000	1750	2800	3890
22	720	1050	1830	2920	4060
23	750	1100	1910	3060	4250
24	---	1140	2000	3200	4440

Technical Information

## Measurement Information

### Measures of Pressure

1 Pound Per Square Inch = 144 Pounds Per Square Foot = 0.068 Atmosphere = 2.042 Inches of Mercury at **62°F (17°C)** = 27.7 Inches of Water at **62°F (17°C)** = 2.31 Feet of Water at **62°F (17°C)**.

1 Atmosphere = 30 Inches of Mercury at **62°F (17°C)** = 14.7 Pounds Per Square Inch = 2116.3 Pounds Per Square Foot = 33.95 Feet of Water at **62°F (17°C)**.

1 Foot of Water at **62°F (17°C)** = 62.355 Pounds Per Square Foot = 0.433 Pounds Per Square Inch.

1 Inch of Mercury at **62°F (17°C)** = 1.132 Feet of Water = 13.58 Inches of Water = 0.491 Pounds Per Square Inch.

Column of Water 12 Inches High, 1 Inch in Diameter = .341 Pounds

### Length Conversion Constants

Millimeters x .039370 = Inches

Meters x 39.370 = Inches

Meters x 3.2808 = Feet

Meters x 1.09361 = Yards

Kilometers x 3,280.8 = Feet

Kilometers x .62137 = Statute Mile

Kilometers x .53959 = Nautical Miles

Inches x 25.4001 = Millimeters

Inches x .0254 = Meters

Feet x .30480 = Meters

Yards x .91440 = Meters

Feet x .0003048 = Kilometers

Statute Miles x 1.60935 = Kilometers

Nautical Miles x 1.85325 = Kilometers

### Weight Conversion Constants

Grams x .03527 = Ounces (Avd.)

Grams x .033818 = Fluid Ounces (Water)

Kilograms x 35.27 = Ounces (Avd.)

Kilograms x 2.20462 = Pounds (Avd.)

Ounces (Avd.) x 28.35 = Grams

Fluid Ounces (Water) x 29.57 = Grams

Ounces (Avd.) x .02835 = Kilograms

Pounds (Avd.) x .45359 = Kilograms



## Identifying Threads

*It is important to identify the threads required before ordering couplings.*

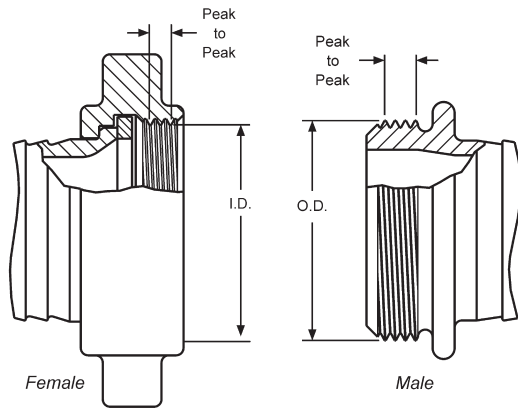
Identifying threads can sometimes be the most difficult and frustrating part of coupling selection. However, without the right combination of threads, you may not provide a functional or safe connection.

The diameters, threads per inch (TPI) and thread pitch, etc. are necessary to completely identify a thread. Ring, Plug and GO/NOGO gauges are required to accurately gauge or identify threads. In the field, in the absence of these gauges, thread leaf gauges can be used to identify the Threads Per Inch (TPI) and the thread pitch. On threads you have determined to be straight threads, a caliper can be used to measure the Outside Diameter of the Male (ODM) or the Inside Diameter of the Female (IDF). A caliper can also be used to take measurements of tapered thread diameters. However, these are more difficult to define because of the taper. Fortunately, there are few tapered threads to deal with and these can usually be identified from the nominal ODM and the TPI.

However, identifying the thread may not fully identify what is needed in a mating fitting. The application is the primary *limiting factor on the thread type used*. Dixon® offers products with a wide variety of threads used with hose, pipe and hydraulics.

When attempting to choose a fitting, it is always advisable to first identify the thread to which it must connect. This may entail checking with a fitting or equipment manufacturer.

### Straight Thread



When it is not possible to identify the thread:

- 1) Determine the number of threads per inch by measuring the distance from peak of thread to peak of thread across the largest number of whole threads. Then divide the number of threads by the measurement

(This will provide the TPI).

- 2) Check to see if the thread is straight or tapered or flat thread.

#### a) Straight Threads

Measure the Outside Diameter of the Male (ODM) or the Inside Diameter of the Female (IDF), from peak of thread to peak of thread.

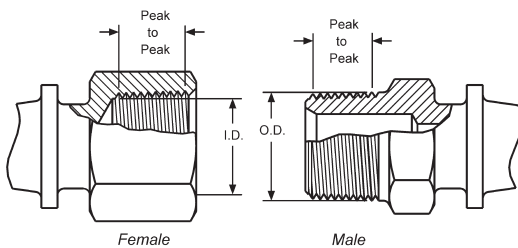
#### b) Tapered Threads

Measure the Outside Diameter of the Male (ODM) at the large end and the small end, or the Inside Diameter of the Female (IDF) at the large end and the small end, from peak of thread to peak of thread. Then measure the Outside Diameter (OD) of the unthreaded pipe.

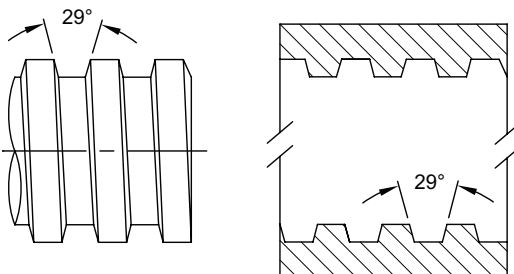
#### c) Flat (ACME) Threads

Acme threads are used for bevel seat and John Perry fittings in sanitary installations. Sizes 1" to 3" (tube size) have 8 threads per (TPI) and the 4" has 6 TPI. There is not a sharp point on this thread and it is a straight thread. The tops of the threads are flat and there is typically a 29° included angle between the threads. Measure the outside diameter of the male (OD) or inside diameter of the female (ID)

### Tapered Thread



### ACME Thread



Once the application and these two pieces of information have been determined, the thread can generally be determined. When in doubt, contact Dixon® 800.355.1991.

# Identifying Threads

## Thread Dimensions

Size	Pipe OD	Tapered Threads		Straight Threads		
		NPT	BSPT <sub>r</sub>	Acme 3A		
		TPI	TPI	TPI	ODM (max)	IDF (min)
1/8"	0.405	27	28			
1/4"	0.504	18	19			
3/8"	0.675	18	19			
1/2"	0.840	14	14			
3/4"	1.050	14	14			
1"	1.315	11.5	11	8	1.462	1.352
1 1/4"	1.660	11.5	11			
1 1/2"	1.900	11.5	11	8	1.994	1.884
2"	2.375	11.5	11	8	2.526	2.416
2 1/2"	2.875	8	11	8	3.058	2.948
3"	3.500	8	11	8	3.590	3.480
4"	4.500	8	11	6	4.695	4.544
5"	5.563	8	11			
6"	6.625	8	11			
8"	8.625	8				
10"	10.750	8				
12"	12.750	8				

ODM -- Outside Diameter of the Male

IDF -- Inside Diameter of the Female

TPI -- Threads Per Inch

GHT (3/4") -- 1.0625 ODM  
1 1/2 TPI

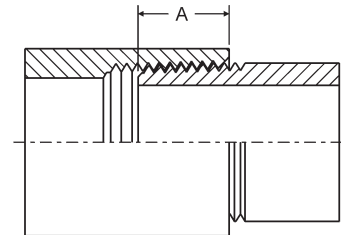
NPT = National Pipe Taper

BS = British Standard

Technical Information

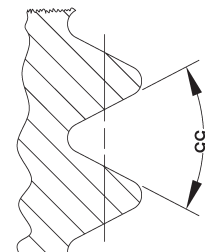
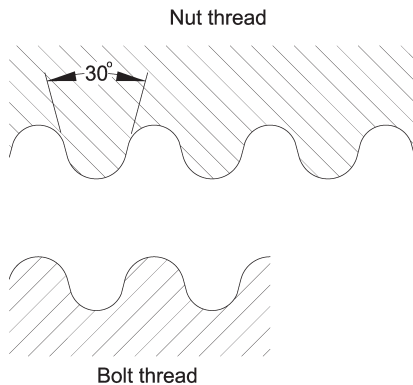
### Normal Engagement Length of NPT Thread in Inches (A) \*

Pipe Size	A	Pipe Size	A
1/8"	1/4"	2"	3/4"
1/4"	3/8"	2 1/2"	15/16"
3/8"	3/8"	3"	1"
1/2"	1/2"	4"	1 1/8"
3/4"	9/16"	5"	1 1/4"
1"	1 1/16"	6"	1 5/16"
1 1/4"	1 1/16"	8"	1 7/16"
1 1/2"	1 1/16"	10"	1 5/8"
		12"	1 3/4"



\* Dimensions given do not allow for variations in tapping or threading.

### DIN and RJT Threads

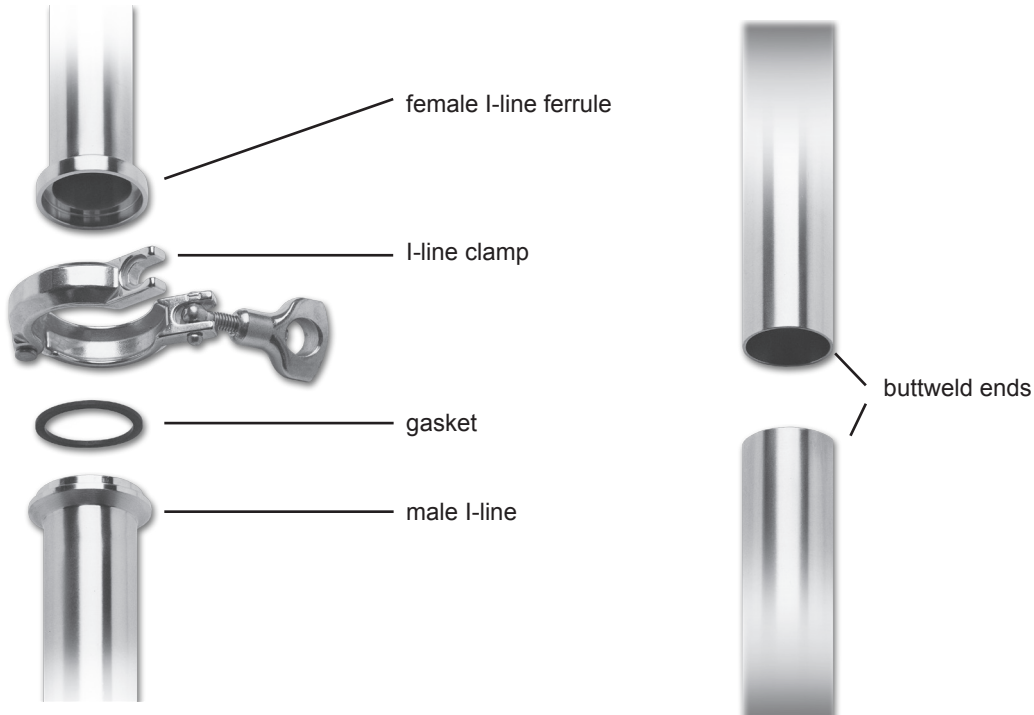
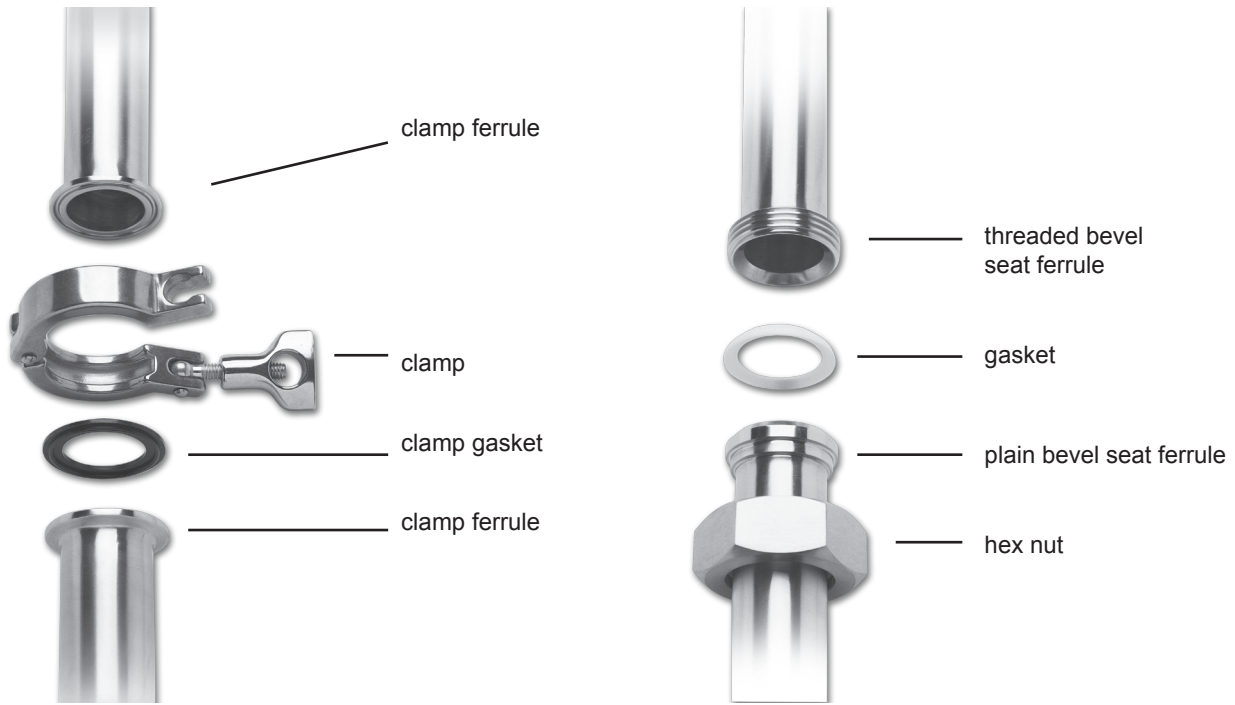


DIN knuckle threads for sanitary applications have a unique round shape making them easy to identify. There is a 30° included angle between the threads. There are 6 to 8 threads per inch for sanitary fittings. Measuring the ID of the round nut or the OD of the threads on the weld liner will help with identification. As Dixon Sanitary will be offering inch sizes, the best size identification is the OD of the tube.

The threads for RJT fittings are British Standard Whitworth. These look similar to straight threads but have a 55° angle and small radii on the tips rather than the flat tips and 60° angle found on U.S. standard straight threads. There are 6 to 8 threads per inch for the sanitary fittings.

### Identifying Fittings

Technical Information



**K** NOTE: Clamp type connections are the most popular and are sometimes referred to as Tri-Clamp connections. All connections are Tube OD 1/2" to 12" Materials are available in 304 and 316L stainless steel, (other alloys can be special order)



**Part Number Descriptions**

- 2 = Elbow (unpolished, polished, clamp, 90°, 45°, U-bend, sweep, etc.)
- 7 = Tee (unpolished, polished, clamp, reducing, etc.)
- 9 = Cross (unpolished, polished, clamp, reducing, etc.)
- 13 = Clamp (single pin, squeeze, double pin, 3 segment, bolted, I-line, lightweight, etc.)
- 14 = Ferrule (short, long, auto weld, tank, roll on, hose adapter, male I-line, plain bevel seat/ John Perry)
- 15 = Ferrule (bevel seat threaded or I-line female)
- 16 = End Cap (clamp, weld, I-line, bevel, etc.)
- 17 = Adapter ((bevel to clamp, I-line to clamp, etc.)
- 19 = Adapter (tube O.D. to national pipe thread)
- 21 = Male Adapter (bevel, clamp, I-line to male pipe thread)
- 22 = Female Adapter (bevel, clamp, I-line to female pipe thread)
- 23 = Thermometer (bevel, clamp, I-line, etc.)
- 24 = Hanger (hex, round, etc.)
- 28 = Y or lateral (unpolished, polished, clamp, reducing, etc.)
- 31 = Concentric Reducer (unpolished, polished, clamp, etc.)
- 32 = Eccentric Reducer (unpolished, polished, clamp, etc.)
- 38 = Flange
- 40 = Gaskets (1" and above)
- 42 = Gaskets (½" and ¾")
- 45 = Check Valve (spring, ball, air blow)
- 51 = Butterfly Valve
- 54 = Sight Glass
- RG = Hex tube hanger with rubber grommets
- RGC = Hex tube hanger with rubber grommets and coupler
- PS = Hex tube hanger with ABS sleeves
- PSC = Hex tube hanger with ABS sleeves and coupler
- RPH = Round tube hanger with Buna inserts
- RPHC= Round tube hanger with Buna inserts and coupler

Technical Information

**Fittings Ordering Information**

**Material Designation:**

- G - 304
- R - 316L

**Sizes:**

- |           |            |
|-----------|------------|
| ½" = 050  | 3" = 300   |
| ¾" = 075  | 4" = 400   |
| 1" = 100  | 6" = 600   |
| 1½" = 150 | 8" = 800   |
| 2" = 200  | 10" = 1000 |
| 2½" = 250 | 12" = 1200 |

**Ordering Example:**

B 3 1 1 4 M P - G 1 5 0 1 0 0

**Description:**

Concentric reducer with clamp ends in 304 material 1½" by 1"



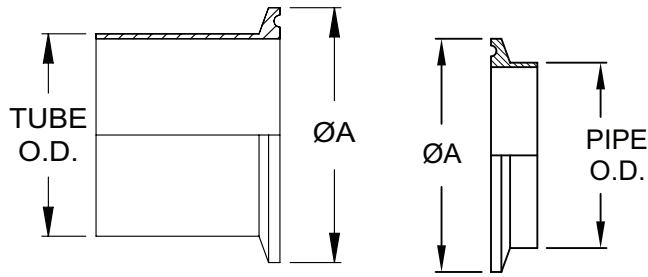
# Identifying Fittings

Technical Information

**Specifications:**

- ASME BPE
- BS 4825
- ISO 2852
- DIN 32676

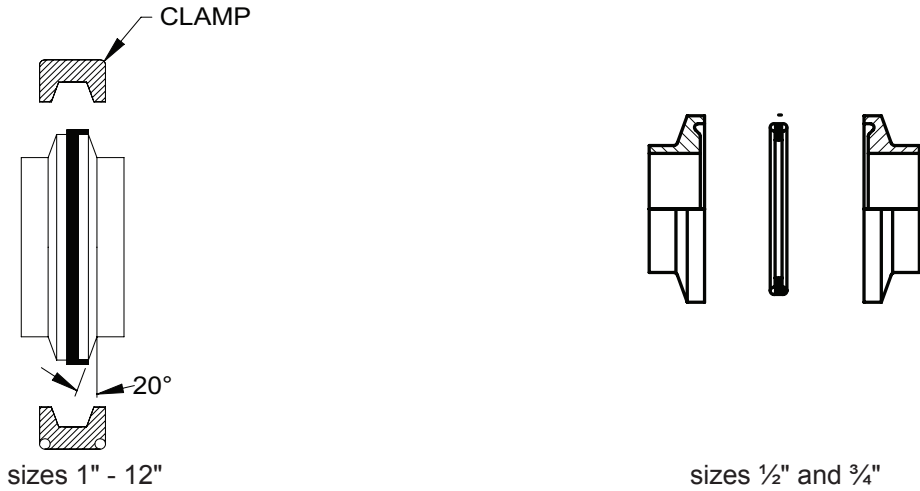
## Clamp Ferrules



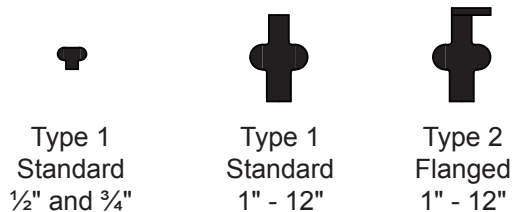
Note: flanges are symmetrical

Tube		Pipe		
Tube OD (inches)	ØA	Pipe Size (inches)	Pipe OD (inches)	ØA
1/2	0.992	1	1.315	1.984
3/4	0.992	1 1/4	1.660	2.516
1	1.988	1 1/2	1.900	2.516
1 1/2	1.988	2	2.375	3.047
2	2.520	2 1/2	2.875	3.579
2 1/2	3.051	3	3.500	4.125
3	3.583	4	4.500	5.125
4	4.685	6	6.625	7.195
5	5.687	8	8.625	9.200
6	6.570			
8	8.602			
10	10.570			
12	12.570			

## Clamp Connection

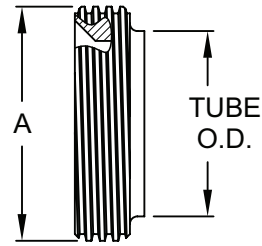
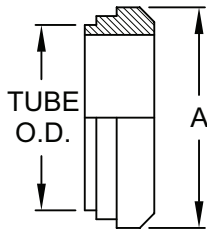


## Gaskets



# Identifying Fittings

## Bevel Seat Ferrules



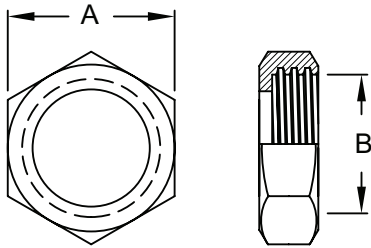
Plain

Threaded

Tube OD (inches)	ØA
1	1.312
1½	1.848
2	2.380
2½	2.912
3	3.444
4	4.508

Tube OD (inches)	ØA
1	1.462
1½	1.994
2	2.526
2½	3.058
3	3.590
4	4.695

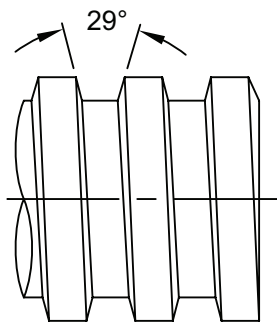
## 13H Hex Nuts



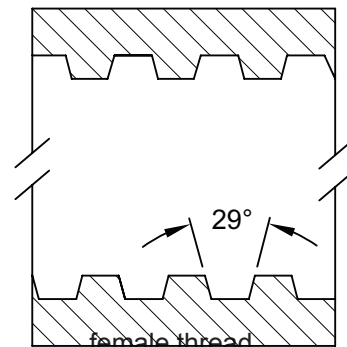
Nut

Tube OD (inches)	A Across Flats	B Thread ID	Threads per inch
1	1.812	1.362	8
1½	2.406	1.894	8
2	3.000	2.426	8
2½	3.594	2.958	8
3	4.188	3.490	8
4	5.438	4.554	6

## Acme Thread Form



male thread



female thread

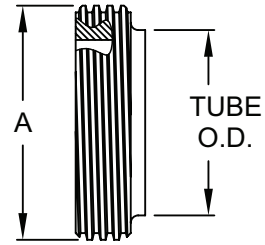
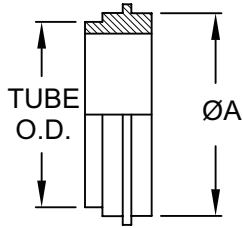
## Gasket



# Identifying Fittings

## John Perry Ferrules

Technical Information



Plain

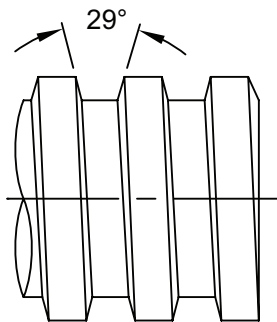
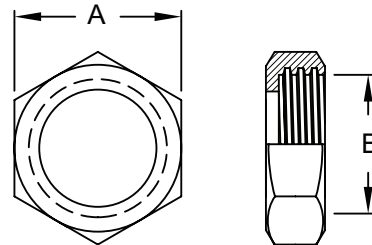
Tube OD (inches)	ØA
1	1.125
1½	1.656
2	2.187
2½	2.656
3	3.187
4	4.187

Threaded

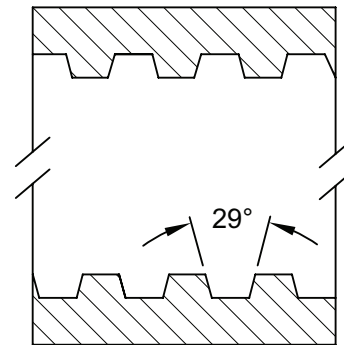
Tube OD (inches)	ØA
1	1.462
1½	1.994
2	2.526
2½	3.058
3	3.590
4	4.695

## 13H Hex Nuts

Tube OD (inches)	A Across Flats	B Thread ID	B Thread ID
1	1.812	1.362	8
1½	2.406	1.894	8
2	3.000	2.426	8
2½	3.594	2.958	8
3	4.188	3.490	8
4	5.438	4.554	6



male thread



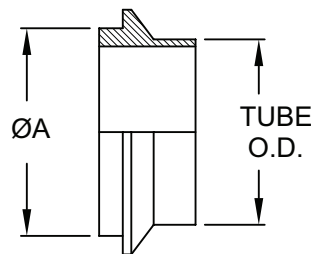
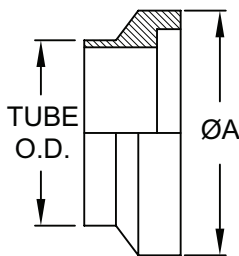
female thread

## Gasket



# Identifying Fittings

## I-line Ferrules



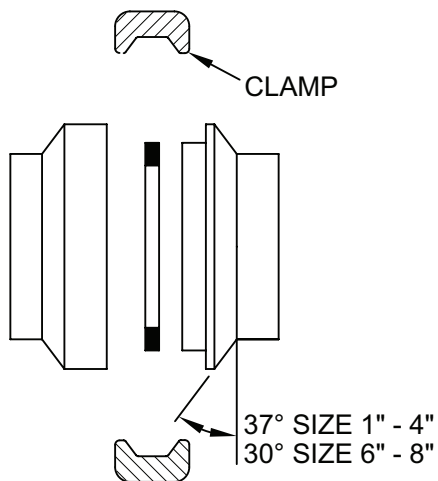
Female

Tube OD (inches)	ØA
1	1.985
1½	1.985
2	2.640
2½	3.307
3	3.870
4	4.870
6	7.495
8	9.945

Male

Tube OD (inches)	ØA
1	1.250
1½	1.740
2	2.240
2½	2.740
3	3.300
4	4.297
6	6.830
8	8.830

## Clamp Connection



## Gasket

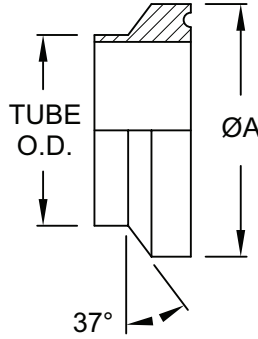


# Identifying Fittings

## Q-line Ferrules

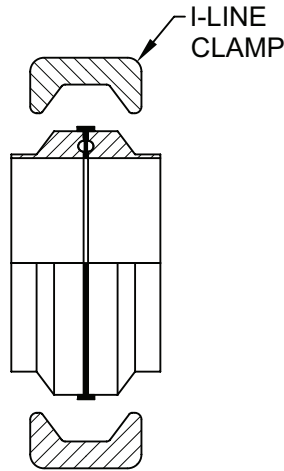
both halves of a jointed connection are symmetrical

Technical Information



Tube OD (inches)	ØA
1	1.985
1½	1.985
2	2.640
2½	3.307
3	3.870
4	4.870

## Clamp Connection



## Gasket



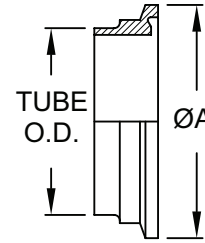
## Identifying Fittings

### APC Clamped Ferrules

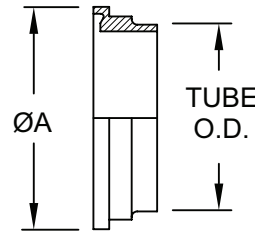
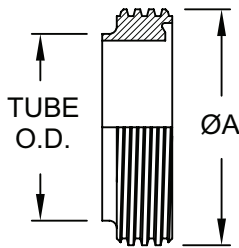
both halves of a jointed connection are symmetrical

clamp ferrule

Tube OD (inches)	ØA
1	1.98
1½	1.98
2	2.52
2½	3.05
3	3.58
4	4.68



### APC Threaded Ferrules



threaded ferrule

Tube OD (inches)	ØA
1	1.462
1½	1.994
2	2.526
2½	3.058
3	3.590
4	4.695

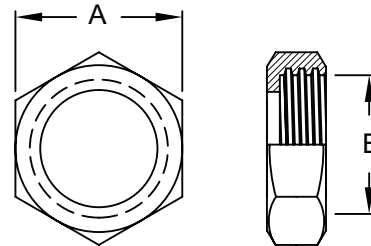
plain ferrule

Tube OD (inches)	ØA
1	1.312
1½	1.848
2	2.380
2½	2.912
3	3.444
4	4.508

### 13H Hex Nuts

Nut

Tube OD (inches)	A Across Flats	B Thread ID	Threads per inch
1	1.812	1.362	8
1½	2.406	1.894	8
2	3.000	2.426	8
2½	3.594	2.958	8
3	4.188	3.490	8
4	5.438	4.554	6



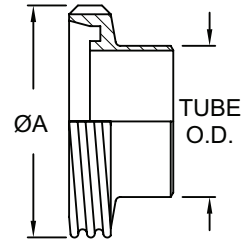
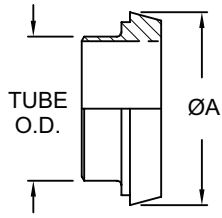
### Gasket



# Identifying Fittings

## DIN 11851 Ferrules

Technical Information



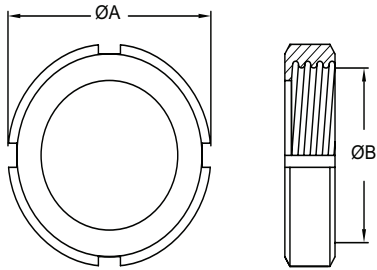
Liners

Tube OD (inches)	ØA
1	1.73
1½	2.20
2	2.68
2½	3.39
3	3.94
4	4.76

Males

Tube OD (inches)	ØA
1	2.04
1½	2.56
2	3.07
2½	3.74
3	4.31
4	5.10

## DIN Round Nuts

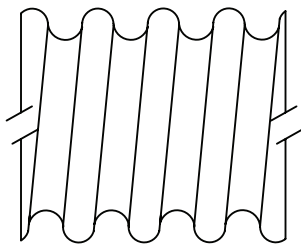


Nut

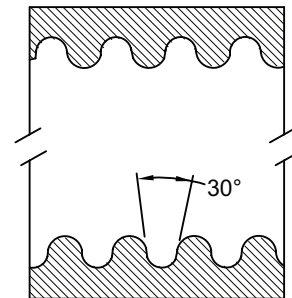
Tube OD (inches)	DN	ØA	B Thread ID	Threads per inch
1	25	2.48	1.88	6
1½	40	3.07	2.39	6
2	50	3.62	2.90	6
2½	65	4.41	3.49	6
3	80	5.00	4.14	4
4	100	5.83	4.94	4

Note: nuts 3" and larger will have 6 slots

## DIN Thread Form



male thread



female thread

## Gasket



Type A

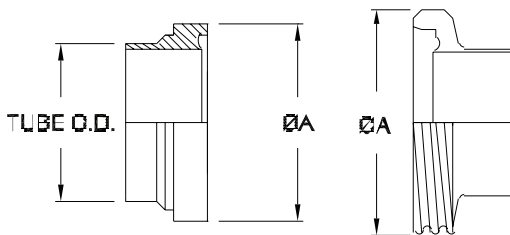


Type B



## Identifying Fittings

### DIN 11864-1 Ferrules



Weld Liner

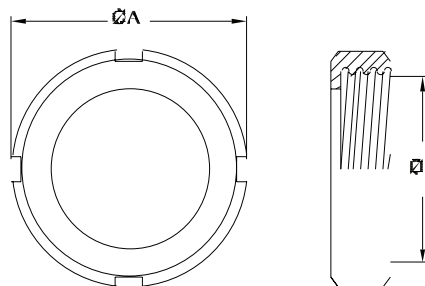
Tube OD (inches)	ØA
1	1.69
1½	2.18
2	2.63
2½	3.34
3	3.68
4	4.88

Weld Males

Tube OD (inches)	ØA
1	2.04
1½	2.56
2	3.07
2½	3.74
3	4.33
4	5.12

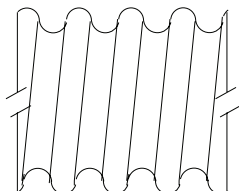
### DIN Round Nuts

Nut				
Tube OD (inches)	DN	ØA	B Thread ID	Threads per inch
1	25	2.48	1.88	6
1½	40	3.07	2.39	6
2	50	3.62	2.90	6
2½	65	4.41	3.49	6
3	80	5.00	4.14	4
4	100	5.83	4.94	4

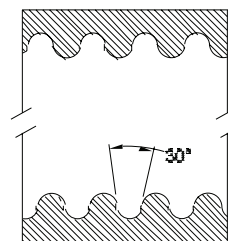


Note: nuts 3" and larger will have 6 slots

### DIN 405/1 Thread Form



male thread



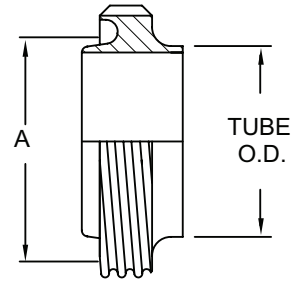
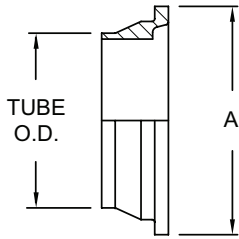
female thread

### Gasket



## Identifying Fittings

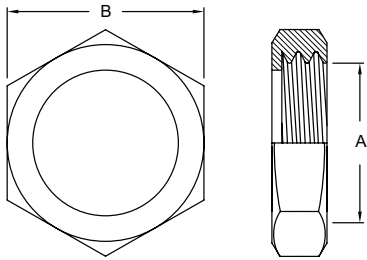
### RJT Ferrules



Tube OD (inches)	ØA
1	1.63
1½	2.13
2	2.63
2½	3.13
3	3.63
4	4.63

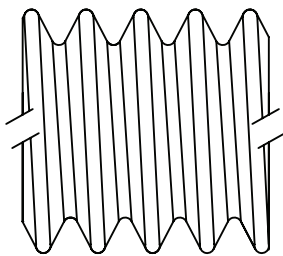
Tube OD (inches)	ØA
1	1.80
1½	2.30
2	2.86
2½	3.36
3	3.86
4	4.86

### RJT Hex Nuts

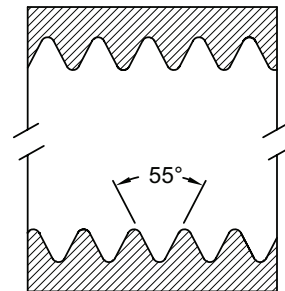


Tube OD (inches)	Nut		
	ØA Thread ID	B Across flats	Threads per inch
1	1.68	2.00	8
1½	2.18	2.56	8
2	2.69	3.12	6
2½	3.19	3.62	6
3	3.69	4.12	6
4	4.69	5.12	6

### RJT Thread Form (British Standard Whitworth)



male thread



female thread

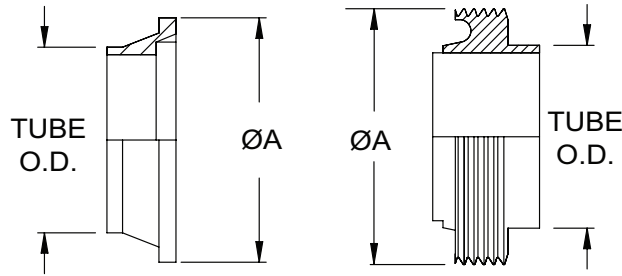
### Gasket



Also known as BSM (British Standard Milk) in Australia modified into Australian CIP Union

## Identifying Fittings

### Australian CIP Ferrules



Weld Liners

Tube OD (inches)	ØA
1	1.63
1½	2.13
2	2.63
2½	3.13
3	3.63
4	4.63

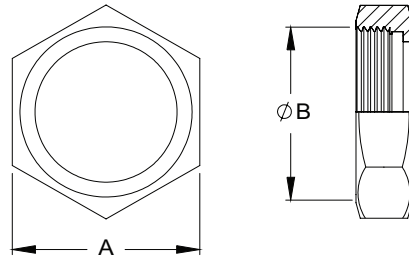
Weld Male

Tube OD (inches)	ØA
1	1.80
1½	2.30
2	2.86
2½	3.36
3	3.86
4	4.86

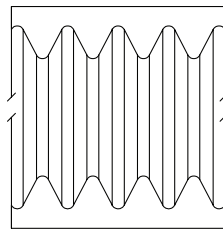
### Hex Nut

Nut

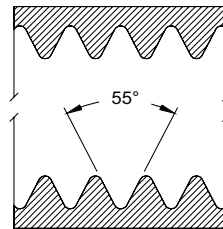
Tube OD (inches)	DN	ØA	B Thread ID	Threads per inch
1	25	2.00	1.68	8
1½	40	2.56	2.18	8
2	50	3.12	2.69	6
2½	65	3.62	3.19	6
3	80	4.12	3.69	6
4	100	5.12	4.69	6



### RJT Thread Form (British Standard Witworth)



male thread



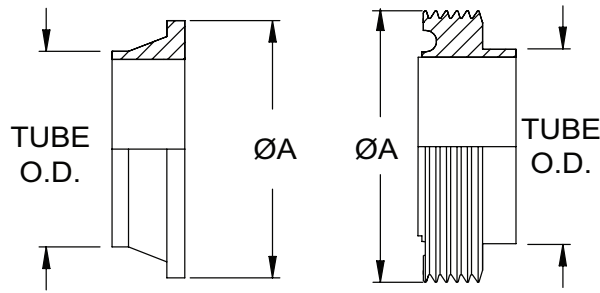
female thread

### Gasket



### Identifying Fittings

#### Australian CIP Flat Face Ferrules



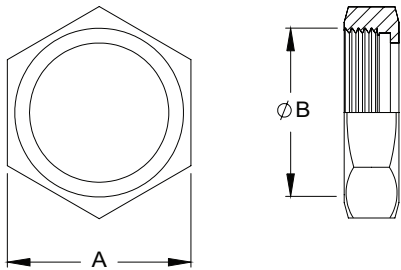
Weld Liners

Weld Male

Tube OD (inches)	ØA
1	1.63
1½	2.13
2	2.63
2½	3.13
3	3.63
4	4.63

Tube OD (inches)	ØA
1	1.80
1½	2.30
2	2.86
2½	3.36
3	3.86
4	4.86

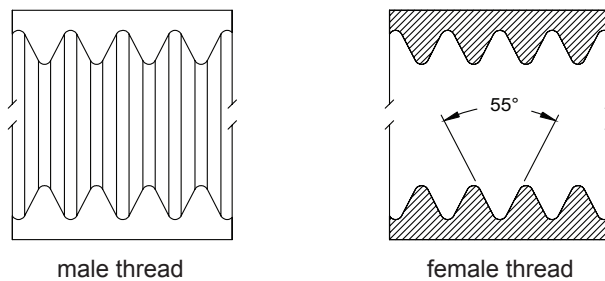
#### Hex Nut



Nut

Tube OD (inches)	DN	A	B Thread ID	Threads per inch
1	25	2.00	1.68	8
1½	40	2.56	2.18	8
2	50	3.12	2.69	6
2½	65	3.62	3.19	6
3	80	4.12	3.69	6
4	100	5.12	4.69	6

#### RJT Thread Form (British Standard Whitworth)



male thread

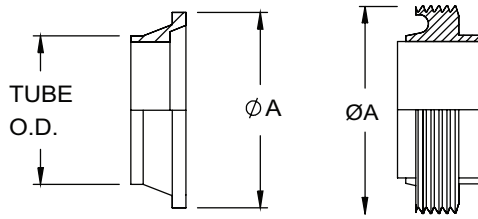
female thread

#### Gasket



# Identifying Fittings

## New Zealand CIP Ferrules



Weld Liners

Tube OD (inches)	ØA
1	1.63
1½	2.13
2	2.63
2½	3.13
3	3.63
4	4.63

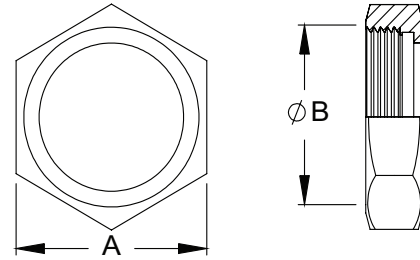
Weld Male

Tube OD (inches)	ØA
1	1.80
1½	2.30
2	2.86
2½	3.36
3	3.86
4	4.86

## Hex Nut

Nut

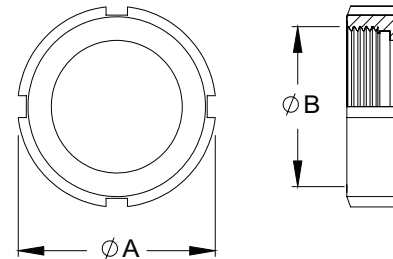
Tube OD (inches)	DN	ØA	B Thread ID	Threads per inch
1	25	2.00	1.68	8
1½	40	2.56	2.18	8
2	50	3.12	2.69	6
2½	65	3.62	3.19	6
3	80	4.12	3.69	6
4	100	5.12	4.69	6



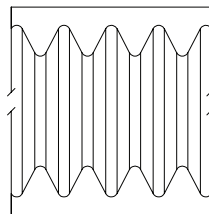
## Round Nut

Nut

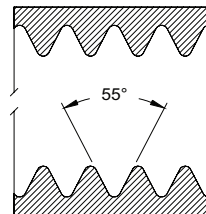
Tube OD (inches)	DN	ØA	B Thread ID	Threads per inch
1	25	2.00	1.68	8
1½	40	2.56	2.18	8
2	50	3.12	2.69	6
2½	65	3.62	3.19	6
3	80	4.12	3.69	6
4	100	5.12	4.69	6



## RJT Thread Form (British Standard Whitworth)



male thread



female thread

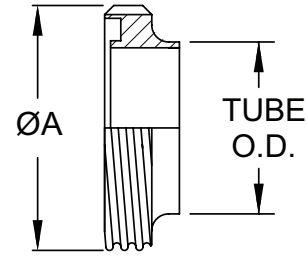
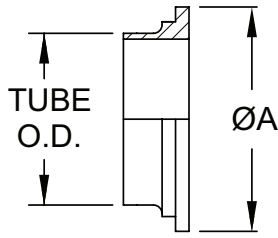
## Gasket



# Identifying Fittings

## SMS Ferrules

Technical Information



Weld Liner

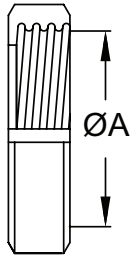
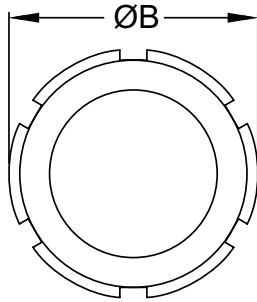
Tube OD (inches)	ØA
1	1.40
1½	2.17
2	2.56
2½	3.15
3	3.66
4	4.65

Males

Tube OD (inches)	ØA
1	1.55
1½	2.34
2	2.74
2½	3.33
3	3.84
4	4.90

## Round Nut

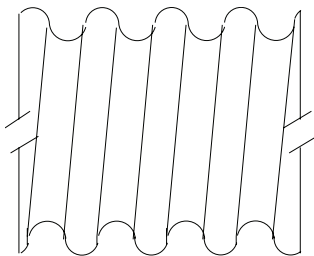
All nuts have 6 slots



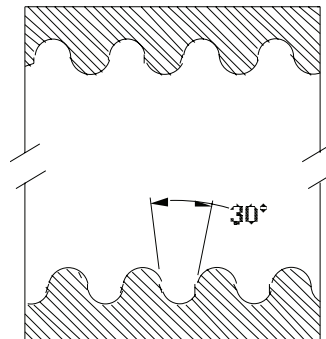
Nut

Tube OD (inches)	ØA Thread ID	ØB	Threads per inch
1	1.44	2.01	6
1½	2.22	2.91	6
2	2.62	3.31	6
2½	3.21	3.94	6
3	3.72	4.49	6
4	4.72	5.43	4

## SMS Thread Form (DIN 405/1)



male thread



female thread

## Gasket



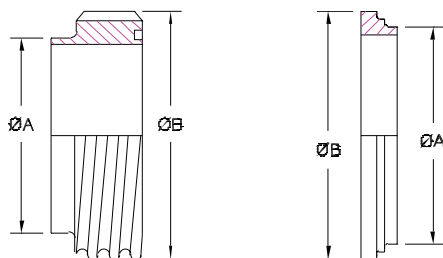
L GASKET



R GASKET

## Identifying Fittings

### Danish Standard Ferrules



Weld Male

Size (inches)	ØA	ØB
1	1.000	1.732
1½	1.511	2.283
2	2.024	2.835
2½	2.516	3.386
3	3.008	3.937
4	4.018	5.118

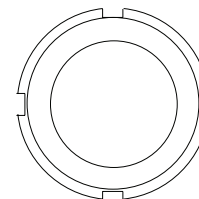
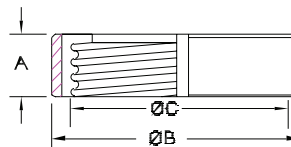
Weld Liners

Tube OD (inches)	ØA	ØB
1	1.457	1.496
1½	1.850	1.969
2	2.244	1.969
2½	2.638	2.461
3	3.031	2.461
4	3.543	2.461

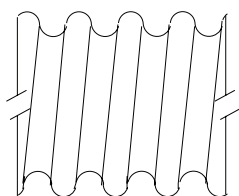
### Round Nut

Nut

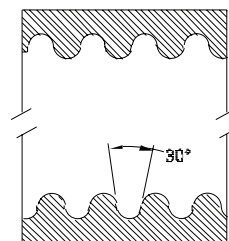
Size (inches)	A	ØB	ØC	Threads per inch
1	0.787	2.244	1.732	6
1½	0.787	2.795	2.283	6
2	0.787	3.386	2.835	6
2½	0.945	4.055	3.386	6
3	0.984	4.528	3.937	6
4	1.102	5.906	5.118	6



### DS Thread Form (DIN 405/1)



male thread



female thread

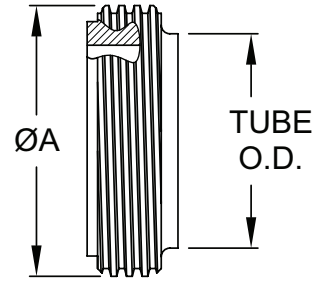
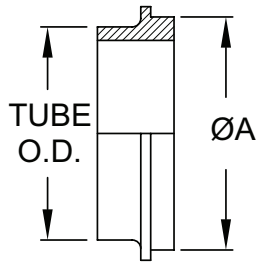
### Gasket



# Identifying Fittings

## IDF/ISO Couplings

Technical Information



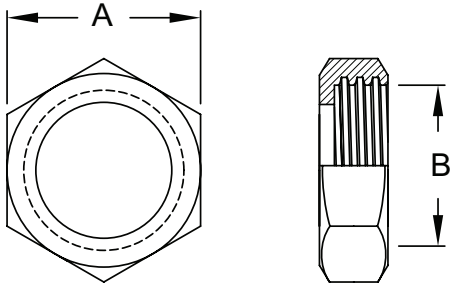
Liners

Males

Tube OD (inches)	ØA
1	1.33
1½	1.85
2	2.38
2½	2.91
3	3.44
4	4.75

Tube OD (inches)	ØA
1	1.46
1½	1.99
2	2.53
2½	3.06
3	3.59
4	4.96

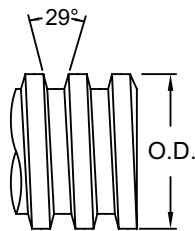
## IDF Hex Nuts



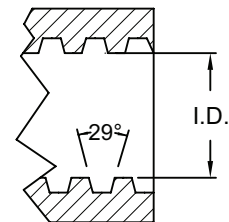
Nut

Tube OD (inches)	ØA Thread ID	B Across flats	Threads per inch
1	1.81	1.35	8
1½	2.36	1.88	8
2	2.95	2.42	8
2½	3.54	2.95	8
3	4.13	3.48	8
4	5.24	4.81	6

## IDF Thread Form (same as Acme thread form)



male thread



female thread

## Gaskets



BS4825

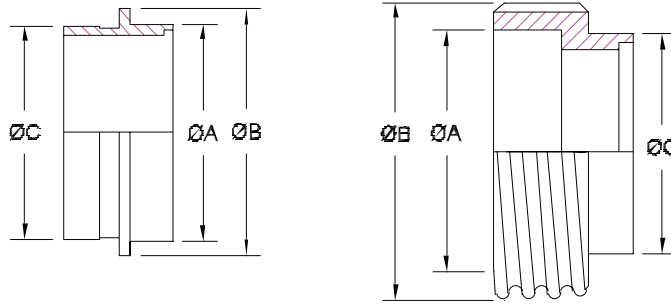


ISO



## Identifying Fittings

### Wine Macon Ferrules



Weld Liner

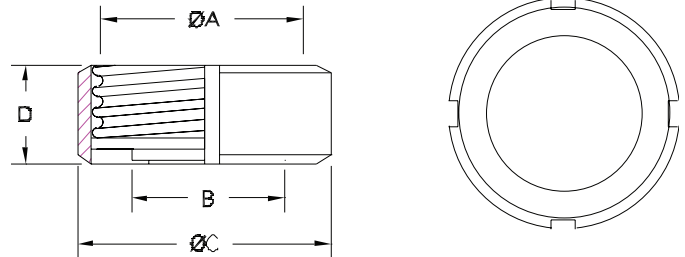
Size	ØA	ØB	ØC
DN 43	1.823	1.969	1.752
DN 53	2.217	2.461	2.146
DN 63	2.610	2.894	2.539
DN 73	3.004	3.346	2.933
DN 83	3.398	3.780	3.327
DN 103	4.252	4.685	4.114

Weld Male

Size	ØA	ØB	ØC
DN 43	1.772	M55	1.823
DN 53	2.165	M67	2.228
DN 63	2.598	M79	2.610
DN 73	2.992	M90	3.004
DN 83	3.386	M102	3.280
DN 103	4.173	M125	4.102

### Nuts 4-Slots

Size	ØA	ØB	ØC	ØD	Thread per Inch
DN 43	M55	1.850	2.756	0.984	3"
DN 53	M67	2.244	3.150	0.984	3"
DN 63	M79	2.630	3.740	0.984	3½"
DN 73	M90	3.031	4.173	0.984	3½"
DN 83	M102	3.543	4.646	0.984	4"
DN 103	M125	4.409	5.472	1.024	4"



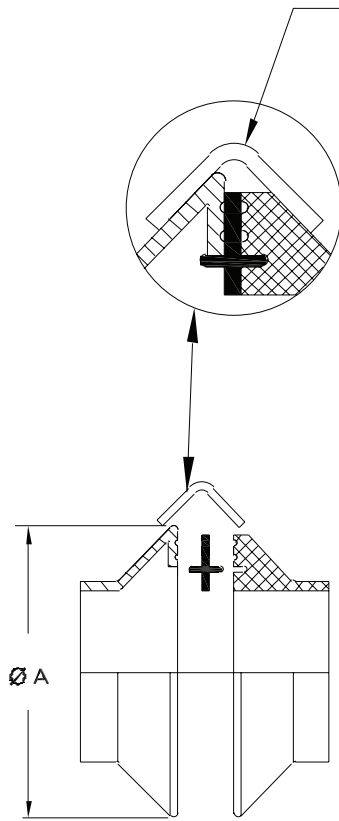
### Gasket



# Identifying Fittings

## Garolla Fitting

USES STAMPED CLAMP

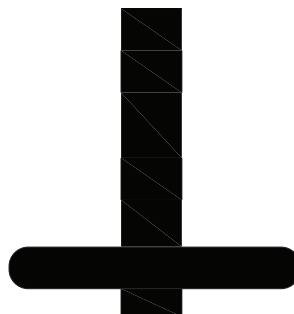


STAMPED

MACHINED

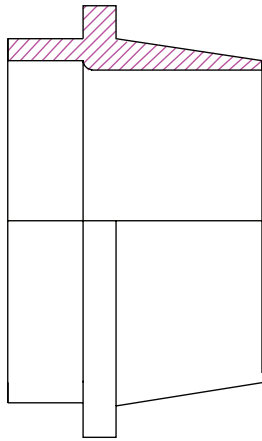
DIN	ØA
40	2.64
50	3.07
60	3.46
70	3.86
80	4.25
100	5.00
120	6.22
150	7.40

## Gasket

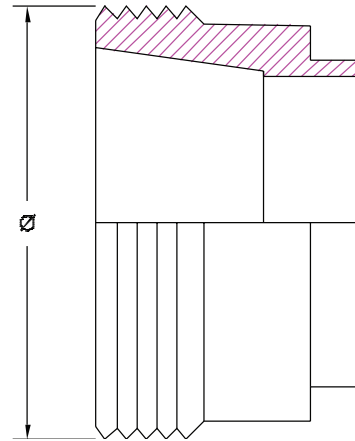


# Identifying Fittings

## Oenological Threaded Fittings



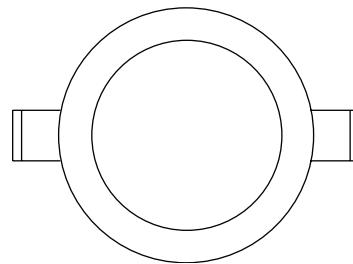
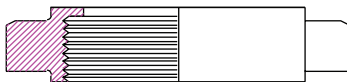
Male End



Female End

DIN	Ø
25	1.311
30	1.504
35	1.705
40	2.098
50	2.016

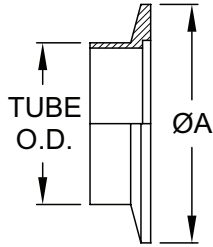
### Nut



# Identifying Fittings

## Vacuum Flanges

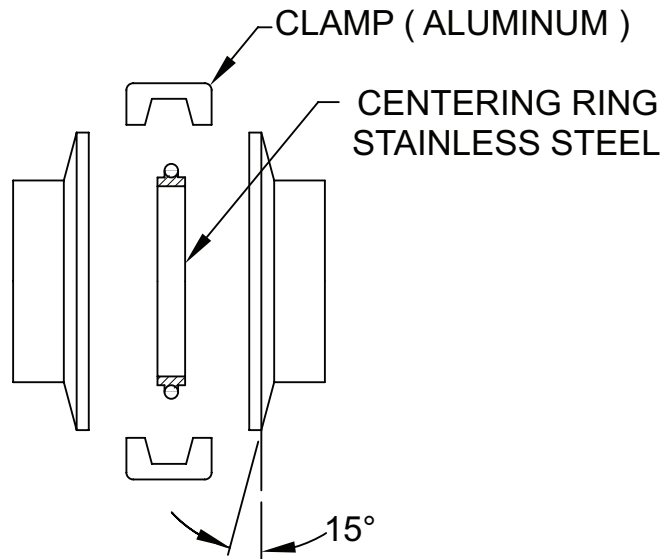
both halves of a jointed connection are symmetrical



clamp ferrule

Tube OD (inches)	ØA
1/2	1.18
3/4	1.18
1	1.57
1 1/2	2.16
2	2.95

## Clamp Connection



## Gasket



### Austenitic Stainless Steel Chemistry

Element	C	Mn	P	S	Si	Cr	Ni	Mo
304 <sup>1</sup>	0.08	2.00	0.045	0.030	1.00	18.0-20.0	8.0-10.0	
316L <sup>1</sup>	0.03	2.00	0.045	0.030	1.00	16.0-18.0	10.0-14.0	2.0-3.0
316L	0.03	2.00	0.045	0.05 - 0.17	1.00	16.0-18.0	10.0-14.0	2.0-3.0
BPE <sup>2</sup>								
CF-8 <sup>3</sup>	0.08	1.50	0.04	0.04	2.00	18.0-21.0	8.0-11.0	
CF-8M <sup>3</sup>	0.08	1.50	0.04	0.04	2.00	18.0-21.0	9.0-12.0	2.0-3.0

Technical Information

<sup>1</sup> AISI specifications for wrought material

<sup>2</sup> ASME BPE 2012

<sup>3</sup> ASTM A743

• Percentages are maximums unless a range is specified

### Finish Information

#### BPE Surface Finish Requirements (Table SF-2.4-1)

Surface designation	Mechanically Polished ID and OD R <sub>a</sub> Maximum		Dixon Sanitary High Purity code
	ID μ-in.	OD μ-in.	
SF0	no finish requirement	no finish requirement	<b>PL</b>
SF1	20	32	
SF2	25	32	
SF3	30	32	
Surface designation	Mechanically Polished OD and Electropolished ID R <sub>a</sub> Maximum		
	ID μ-in.	OD μ-in.	
SF4	15	32	<b>PM</b>
SF5	20	32	
SF6	25	32	

#### Finish Designations for Tubing and Fittings

Finish Number	Finish Conditions
1	Mill Finish (bright annealed, pickled, sand blast or tumbled)
3	Polished 32R <sub>a</sub> inside diameter (ID) only
5	Polished 150 grit outside diameter (OD) only
7	Polished 32R <sub>a</sub> outside/inside diameter (OD/ID)
3A	Polished 150 grit outside (OD), 32R <sub>a</sub> inside diameter (ID)



## Glossary of Terms

**#3 finish** Used on stainless steel tubing, only the ID is polished to sanitary standards. The OD is unpolished.

**#4 dairy finish** Used on any surface, stainless steel is polished to sanitary standards, with 180 grit abrasives.

**#5 finish** Used on stainless steel tubing, only the OD is polished. The ID is unpolished.

**#7 finish** Used on stainless steel tubing polished to sanitary standards inside and outside.

**3A Symbol** Introduced in 1956, the 3A Symbol is a registered trademark used to identify equipment that meets 3A Sanitary Standards for design and fabrication. The 3A Symbol on dairy and food equipment serves three important purposes:

1. assures processors that equipment conforms to sanitary standards
2. provides accepted criteria to equipment manufacturers for sanitary design
3. establishes guidelines for uniform evaluation and compliance by sanitarians

**3A Finish** Product surface finish equivalent to 150 grit or better OD, and 180 grit or better ID. A maximum of  $R_a$  32 microinch (0.8 micron) is indicated.

**ABS** (Acrylonitrile-butadiene-styrene) a thermoplastic resin with an excellent resistance to acids, bases, salts and some solvents. It is heat resistant to 230°F.

**ANSI** American National Standards Institute, Inc.

**ASME** American Society of Mechanical Engineers

**ASTM** American Society for Testing and Materials

**Acme Thread** A flat grooved helical ridge on a nut or bolt. This typically has a 29° included angle. Used on bevel seat and John Perry fittings

**Anneal** Stress relief of stainless steel, a heat treatment to remove the stresses generated in forming and welding operations. This heat treatment is best done under controlled atmosphere or vacuum to maintain the mill finish. The fittings are not quenched, as in solution annealing; this would reintroduce residual stresses. Done correctly, parts are processed to provide minimum residual stresses and full corrosion resistance.

**Bevel Seat Ferrules** A set of plain (male) and externally threaded (female) bushings with matching bevel angles that produce a leak-proof seal when connected with a hex union nut. The threads used are Acme form.

**Bright Anneal** Annealing in a protective medium to prevent discoloration of the surface.

**Bright Annealed Finish** A silvery satin surface, approximately the mill finish of stainless steel.

## Glossary of Terms

**Buna** Synthetic rubber, a copolymer of acrylonitrile and butadiene

**Burst Pressure** The pressure at which rupture occurs.

**Clamp** A device used to join mechanical parts, fittings, ensuring a quick leak-proof connection and enabling easy take down.

**Cold Flow** Continued deformation or movement of rubber or PTFE under stress. The new set is not reversible.

**Compression Set** The deformation that remains in rubber or PTFE after it has been subjected to and released from stress such as a clamp. The longer the stress is maintained the more definitive the deformation.

**Durometer** An instrument for measuring the hardness of rubber by resistance to penetration

**Durometer Hardness** A numerical value which indicates the resistance to indentation of the blunt indenter of the durometer.

**EPDM** Ethylene propylene diene monome, a synthetic rubber

**Elastomer** Any of various elastic substances resembling rubber.

**Electropolishing** A controlled electrochemical process utilizing acid electrolyte, DC current, anode and cathode to smooth the surface by removal of metal.

**Encapsulation** The enclosing of material by an encapsulant for protective purposes. In a ball valve the ball is encased in PTFE, preventing the material flowing through the valve from getting behind the ball causing contamination problems.

**Flow Coefficient ( $C_v$ )**  $C_v$  the flow rate in U.S. gallons of water (at 60°F) that will pass through the valve in one minute with a differential pressure across the valve of 1 PSI.

**Ferrule** A bushing used to secure a tube joint. A special bushing designed for welding to the end of tubing. Two ferrules and a gasket make a leak-proof connection when used with the complimentary clamps.

**Fitting** A small part of an apparatus (may be detachable).

**Fluorocarbon** Synthetic rubber and fluoropolymer elastomer known as FKM.

**Friction Loss** The part of the total loss that occurs as the fluid flows through straight pipe.

**Hex Union Nut** An internally acme-threaded six-sided connector used to assemble bevel seat fittings.

## Glossary of Terms

**ISO5211** International standard for actuator and valve interface

**Internal Expansion (IX)** A plug (or bullet) is pulled through a stem or a set of blades (fingers) increase the stem ID to the plug OD or a predetermined setting when using expansion blades (fingers). This forces the stem serrations into the hose tube and the hose cover into the serrations of the ferrule.

**Laminar Flow** The smooth flow of a viscous liquid through a tube or pipe. In that case, the velocity of flow varies from zero at the walls to a maximum along the centerline of the vessel.

**Maximum-Shut-Off Pressure** The pressure of the media flowing into the valve against which the valve will have to close.

**Media** The material flowing through the valve.

**Modulating Service** Proportional positioning of a valve between the open and closed position. Used for flow control processes.

**MTR** Material Test Report

**Neoprene** Synthetic rubber, chemically and structurally similar to natural rubber

**Nominal Size** A dimensional value assigned for the purpose of convenient designation. Used for pipe sizes.

**On-Off Service** When the valve is being used to start or stop flow by being cycled to the full open or full closed position.

**Operating Pressure** The pressure at which system functions. Also known as working pressure.

**Polish** To make smooth and shiny by rubbing. Fittings may be machine polished to 180 grit finish. Polish is ID, OD, or both per customer request.

**Polypropylene** A lightweight synthetic plastic

**Pressure** The force per unit area applied on a surface in a direction perpendicular to that surface.

**PSI** Pounds per square inch

**PSIG** Pounds per square inch gauge

**PTFE** Tetrafluoroethylene is a high performance thermo plastic polymer that has excellent dielectric strength, chemical and temperature resistance.



## Glossary of Terms

**Santoprene** A thermoplastic elastomer, a rubber-like material that complies to FDA requirements

**Service Temperature** The maximum and minimum temperature of the media in a system.

**Silicone** Dimethyl silicone, a synthetic rubber

**Sintering** Heat process in which powdered metal particles are heated to near melting point, fusing the metal granules together.

**Stem Torque** The force required at the valve stem to open or close the valve against system pressure and service conditions.

**Supply Pressure** The plant air supply pressure available to operate a pneumatic actuator. (plant air)

**Surge** Also known as water hammer. A rapid rise or decrease of internal pressure. Surge conditions occur for various reasons, typically, but not limited to: start and stop sequences.

**Torque** A twisting or turning force. Usually measured in inch pounds (in-lbs) or foot pounds (ft-lbs)/(force through a distance).

**Tube** A hollow cylinder especially one that conveys a fluid. For sanitary applications a thin wall is implied.

**Tube Fitting** A length of tubing formed into a usable shape either welded to an apparatus or welded to ferrules for use in an apparatus.

**Tubing** A piece or length of tube.

**Tumble Polish Surface** A uniform finish applied by vibratory equipment to stainless steel, varying from matte grey to bright, depending on media used. This process may cause work hardening on the surfaces of stainless steel.

**Turbulent Flow** Irregular flow that is characterized by tiny whirlpool regions. The velocity of this fluid is definitely not constant at every point.

**Velocity Head ( $h_v$ )** The energy of a liquid as a result of its motion at some velocity  $V$ . It is the equivalent head in feet through which the water would have to fall to acquire the same velocity, or in other words, the head necessary to accelerate the water. Velocity head can be calculated from the following formula:

$$h_v = \frac{V^2}{2g}$$

Where  $g = 32.3 \text{ ft/second}$   
 $V = \text{liquid velocity in feet per second}$

The velocity head is usually insignificant and can be ignored in most high head systems. However, it can be a large factor and must be considered in low head systems

**WOG** Water, Oil, Gas. Pressure rating for valves handling these products. This does not include steam.

**Welding** Join two (or more) pieces of material by applying heat to produce a localized union through fusion across the interface. For sanitary fittings, a ferrule is attached to the ends of a tube fitting by TIG welding without the addition of filler metal.

**Work (Strain) Hardening** An increase in hardness and strength caused by plastic deformation at temperatures below the annealing ranges.

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### Trademarks

Tygon® is a registered trademark of Saint-Gobain Corporation.

Santoprene™ is a trademark of Exxon Mobil Chemical

Tuf-Steel® is a registered trademark of RubberFab Technologies Group

In the following index, a (\*) is used to represent a variable. Therefore, to find AD075EZ or AD400EZ, look for: **AD\*\*\*EZ**

100-G-** .....I-7	13MHHM***SN .....F-3	14MPHR-R** .....F-10	14WMV-R*** .....F-30
100-G-*** .....I-8	13MHHV*** .....F-30	14MPHR-R*** .....F-10	14WMX-R*** .....F-30
125-G-** .....I-7	13MHHV-Q400 D-4, D-6	14MPHR-R**** .....F-10	14WQ-G*** .....F-52
125-G-*** .....I-8	13MHLA*** .....F-4	14MPHR-R***** .....F-10	15A-G*** .....F-41
150-G-** .....I-7	13MHLA100-150 .....F-4	14MPHR-R***** .....F-10	15AHT-G*** .....F-43
150-G-*** .....I-7	13MHP*** .....F-4	14MPHT-R** .....F-9	15A-R*** .....F-41
13** .....F-5	13MHP*** .....F-4	14MPHT-R*** .....F-9	15A-R***DIN .....F-63
13*** .....F-5	13MHP*** .....F-4	14MPHT-R*** .....F-9	15A-R***RJT .....F-65
13**** .....F-5	13MHP75 .....F-4	14MPW-R** .....F-7	15A-R***SMS .....F-64
13CB-*,** .....F-5	13MHP100-150 .....F-4	14MPW-R*** .....F-7	15-G*** .....F-42
13H-G*** .....F-39, F-58	13MHPV*** .....F-30	14PRF-G*** .....F-40	15R-G*** .....F-42
13H-G***RJT .....F-65	13MO*** .....F-4	14PRFJF-G*** .....F-59	15TRF-G*** .....F-41
13HS-** .....G-8	13MO*** .....F-4	14PRFJF-R*** .....F-59	15TRF-G*** .....F-59
13HS-*** .....G-8	13MO100-150 .....F-4	14PRF-R*** .....F-40	15TRFJF-G*** .....F-59
13ILB*** .....F-49	13NHN-G75 .....G-6	14QMP-G*** ... F-8, F-75	15TRFJF-R*** .....F-59
13ILB100-150 .....F-49	13NHN-G100-600 ... G-6	14R-G*** .....F-40	15TRF-R*** .....F-41
13ILH*** .....F-49	13PS-** .....G-8	14RMP-G*** .....F-7	15W-G*** .....F-42
13ILH100-150 .....F-49	13PS-*** .....G-8	14RMP-R*** .....F-7	15WHI-G*** .....F-51
13IL-Q200 .....F-49	13PS-**** .....G-8	14VB-R*** .....F-83	15WHI-R*** .....F-51
13IL-Q100150 .....F-49	13PV-*** .....F-33	14VB-R**** .....F-83	15WI-G*** .....F-51
13MHHM*** .....F-3	13RBN-G***RJT .....F-65	14W-G*** .....F-41	15WI-R*** .....F-51
13MHHM-3P*** .....F-4	13RG** .....G-6	14WHI-G*** .....F-50	15WL-G*** .....F-42
13MHHM-3P1200 .....F-4	13RG3/8 .....G-6	14WHI-R*** .....F-50	15WLI-G*** .....F-51
13MHHM-3P100150 .....F-4	13R-G***DIN .....F-63	14WHRL-R*** .....F-73	15WLI-R*** .....F-51
13MHHM50-75 .....F-3	13R-G***SMS .....F-64	14WHR-R** .....F-73	15W-R*** .....F-42
13MHHM50-75SN ...F-3	13RGV** .....G-6	14WHR-R*** .....F-73	16A-G*** .....F-43
13MHHM100-150 .....F-3	13WGC*** .....F-5	14WI-G*** .....F-50	16AI-14 *** .....F-52
13MHHM100-150SN F-3	13WGC100-150 .....F-5	14WI-R*** .....F-50	16AI-14 ***R .....F-52
13MHHM-DP*** .....F-3	14A-G*** .....F-40	14WL-G*** .....F-41	16AI-15 *** .....F-52
13MHHM-DP1000 ...F-3	14AHR-G*** .....F-43	14WLI-G*** .....F-50	16AI-15 ***R .....F-52
13MHHM-DP100150 F-3	14AHT-G*** .....F-43	14WLI-R*** .....F-50	16AJP-G*** .....F-60
13MHHM-Q*** .....F-3	14A-R*** .....F-40	14WLMP-G*** .....F-7	16AJP-R*** .....F-60
13MHHM-Q75 .....F-3	14A-R***DIN .....F-63	14WLMP-R*** .....F-7	16AMP-G*** .....F-8
13MHHM-Q400 D-4, D-6	14A-R***RJT .....F-65	14WLMP-R**** .....F-7	16AMP-G*** .....F-8
13MHHM-Q100150 ..F-3	14A-R***SMS .....F-64	14WMP-G** .....F-6	16AMP-G50-75 .....F-8
	14-G*** .....F-40	14WMP-G*** .....F-6	16AMP-G100-150 ...F-8
	14MPHR-G*** .....F-10	14WMP-G**** .....F-6	16AMP-R*** .....F-8
	14MPHR-G***** .....F-10	14WMP-R** .....F-6	16AMP-R*** .....F-8
	14MPHR-G***** .....F-10	14WMP-R*** .....F-6	16AMP-R50-75 .....F-8
	14MPHRL*** .....F-10	14WMP-R**** .....F-6	16AMP-R100-150 ...F-8

16AMP-R•••DIN .....F-63	300-G••• .....I-7	40MP-GRE••• .....F-26	A269-G•••U .....G-3
16AMP-R•••SMS .....F-64	31095614 .....C-24	40MPS-E••• .....F-24	A269-R•••U .....G-3
16AMV-R••• .....F-31	32095611 .....C-24	40MP-SFY••• .....F-20	A270-G•••P .....G-3
16AQ-G••• .....F-52	3S••-2U-GFB•SS ....H-4	40MP-SFYZ••• .....F-21	A270-R•••P .....G-3
16A-R••• .....F-43	3S••-15U-GFB•SS ..H-4	40MPS-SFY••• .....F-24	A270-R••P .....G-3
17-14I-14MPG••• ...F-53		40MPS-U••• .....F-24	
17-15I-14MPG••• ...F-53	400-G••• .....I-7	40MP-U••• .....F-19	B2C-G••• .....F-44
17MP-14-G••• .....F-9	400-G••• .....I-7	40MP-U400 ....D-4, D-6	B2CI-G••• .....F-54
17MP-15-G••• .....F-9	40BS-E••• .....F-46	40MP-U•••DIN .....F-66	B2CM31MPG••••• .F-14
	40BS-F••• .....F-46	40MP-UP••• .....F-25	B2CM31MPR••••• .F-14
200-G••• .....I-7	40BS-H••• .....F-47	40MP-U•••RJT .....F-66	B2CM-G••• .....F-69
200-G••• .....I-7	40BS-O••• .....F-46	40MP-U•••SMS .....F-66	B2CMP-G••• .....F-13
250-G••• .....I-7	40BS-S••• .....F-47	40MP-UW••• .....F-19	B2CMP-G••••• .....F-13
21MP-G••• .....F-11	40BS-X••• .....F-47	40MP-UZ••• .....F-21	B2CMPL-R•• .....F-13
21MP-G••••• .....F-11	40BS-Y••• .....F-46	40MPV-G••• .....F-35	B2CMP-R•• .....F-13
21MP-G••••• .....F-11	40IE••• .....F-55	40MPV-U••• .....F-35	B2CMP-R••• .....F-13
21MP-G100-125 ....F-11	40IE•••16 .....F-55	40MPV-U400 ..D-4, D-6	B2CM-R••• .....F-69
21MP-R•• .....F-11	40IH••• .....F-55	40MP-XC••• .....F-20	B2E-G••• .....F-44
21MP-R••• .....F-11	40IT••• .....F-56	40MP-XW••• .....F-20	B2EI-G••• .....F-54
21MP-R••••• .....F-11	40IV••• .....F-55	40QH••• .....F-56	B2F-G••• .....F-44
21MP-R•••• .....F-11	40JP-E••• .....F-60	40QT••• .....F-56	B2FI-G••• .....F-54
21MP-R••••• .....F-11	40JP-G••• .....F-61	42MP-E•• .....F-19	B2FMP-14-G••• .....F-14
21MP-R••••• .....F-11	40JP-SFY••• .....F-61	42MP-G•• .....F-20	B2FP-G••• .....F-69
22MP-G••• .....F-12	40JP-U••• .....F-60	42MP-GR•• .....F-26	B2KM-G••• .....F-69
22MP-G••••• .....F-12	40MP-E••• .....F-19	42MP-GRE•• .....F-26	B2KMP-G••• .....F-14
22MP-G••••• .....F-12	40MP-EZ••• .....F-21	42MP-SFY•• .....F-20	B2KMP-G••••• .....F-14
22MP-G••••• .....F-12	40MPF-E••• .....F-22	42MP-U•• .....F-19	B2KMP-R•• .....F-14
22MP-R•• .....F-12	40MPF-E•••• .....F-22	42MP-UW•• .....F-19	B2KMP-R••• .....F-14
22MP-R••• .....F-12	40MPF-SFY••• .....F-23	42MP-XC•• .....F-20	B2KM-R••• .....F-69
22MP-R••••• .....F-12	40MPF-SFY•••• .....F-23	42MP-XW•• .....F-20	B2KS-G•••P .....F-68
22MP-R•••• .....F-12	40MPF-U•• .....F-22		B2KS-G•••U .....F-78
22MP-R••••• .....F-12	40MPF-U••• .....F-22	50-G••• .....I-8	B2KS-R•••P .....F-68
22MP-R••••• .....F-12	40MPF-UW•• .....F-22		B2KS-R••P .....F-68
22MP-R50-125 ....F-12	40MPF-XC••• .....F-23	75-G•• .....I-7	B2KS-R•••U .....F-78
250-G••• .....I-8	40MPF-XW•• .....F-23	75-G••• .....I-8	B2P-G100 .....F-44
25H••• .....F-39, F-58	40MPF-XW••• .....F-23		B2S-G•••P .....F-68
25H••••• .....F-39, F-58	40MP-G•• .....F-20	A80MP-SFY••• .....F-25	B2S-G•••U .....F-78
	40MP-G••• .....F-20	A80MP-U•• .....F-25	B2S-R•••P .....F-68
300-G•• .....I-7	40MP-GR•• .....F-26		



B2S-R••P .....F-68	B7RWWW-G•••••P F-71	B23BMP-R•••• .....F-8	B31TT-G••••• .....F-45
B2S-R•••U .....F-78	B7RWWW-G•••••U F-80	B24-BM-G••• .....G-10	B31W-G•••••P .....F-73
B2S-R••U .....F-78	B7RWWW-R•••••P F-71	B24-HP-G•• .....G-9	B31W-G•••••U .....F-81
B2SXL••-R••• .....F-70	B7RWWW-R•••••P .F-71	B24HS-G•• .....G-7	B31WMP-G••••• .....F-6
B2T-G••• .....F-69	B7RWWW-R•••••P ...F-71	B24HS-G••• .....G-7	B31WMP-R••••• .....F-6
B2WCL-G••••P .....F-68	B7RWWW-R•••••U F-80	B24PS-G•• .....G-7	B31W-R•••••P .....F-73
B2WCL-G••••P .....F-68	B7RWWW-R•••••U .F-80	B24PS-G••• .....G-7	B31W-R•••••P .....F-73
B2WCL-G••••U .....F-78	B7W-G•••P .....F-71	B24PS-G•••• .....G-7	B31W-R••••P .....F-73
B2WCL-G••••U .....F-78	B7W-G•••U .....F-80	B24PV-G••• .....F-33	B31W-R•••••U .....F-81
B2WCL-G••••U .....F-78	B7WMM-G••• .....F-72	B24RGC16-G•• .....G-6	B31W-R•••••U .....F-81
B2WCL-R••••P .....F-68	B7W-R•••P .....F-71	B24RGC16-G••• .....G-6	B31W-R••••U .....F-81
B2WCL-R••••P .....F-68	B7W-R•••P .....F-71	B24RG-G•• .....G-5	B32W-G•••••P .....F-74
B2WCL-R••••U .....F-78	B7W-R•••U .....F-80	B24RG-G••• .....G-5	B32W-G•••••U .....F-81
B2WCL-R••••U .....F-78	B7W-R•••U .....F-80	B24RG-G•••• .....G-5	B32W-R•••••P .....F-74
B2WCL-R••••U .....F-78	B7WMM-G••• .....F-72	B24RGSFY-G•• .....G-5	B32W-R•••••P .....F-74
B2WCL-R••••U .....F-78	B7WWW-G•••P .....F-71	B24RGSFY-G••• .....G-5	B32W-R•••••U .....F-81
B2WCL-R••••U .....F-78	B7WWW-G•••U .....F-80	B24RPH-G•• .....G-8	B32W-R•••••U .....F-81
B2WCL-R••••U .....F-78	B7WWW-R•••P .....F-71	B24RPH-G••• .....G-8	B32W-R••••U .....F-81
B2WCL-R••••U .....F-78	B7WWW-R•••U .....F-80	B24RV-G••• .....F-33	B38SL-G••• .....F-83
B2WK-G••••P .....F-68	B9MP-G••• .....F-18	B24V-BM-G••• .....F-35	B38SL-G•••• .....F-83
B2WK-G••••P .....F-68	B9MP-R••• .....F-18	B24V-TM-G••• .....F-34	B38SL-R••• .....F-83
B2WK-G••••P .....F-68	B9WWW-G•••P ..F-76	B24V-WP-G••• .....F-34	B38SL-R•••• .....F-83
B2WK-G••••P .....F-68	B9WWW-R•••P ..F-76	B24-WP-G••• .....G-9	B38W-R••• .....F-83
B2WK-G••••U .....F-78	B14C31-G••••• .....F-16	B25-G••••• .....G-10	B38W-R•••• .....F-83
B2WK-G••••U .....F-78	B16W-G••• .....F-79	B25-G•••••• .....G-10	B45AB-R••• .....B-31
B2WK-G••••U .....F-78	B16W-R•• .....F-79	B25-G••••••• .....G-10	B45AB-R100150 ...B-31
B2WK-R••••P .....F-68	B16W-R••• .....F-79	B28AMP-R••• .....F-18	B45BC-R••• .....B-31
B2WK-R••••P .....F-68	B19MPV-R••• .....F-32	B28BMP-R••• .....F-18	B45BC-R100150 ...B-31
B2WK-R••••U .....F-78	B19MPX-R••• .....F-32	B28WA-R•••P .....F-75	B45BY-R••• .....B-30
B2WK-R••••U .....F-78	B19WB-G••• .....F-79	B28WA-R•••U .....F-82	B45BY-RK••• .....B-30
B2WK-R••••U .....F-78	B19WB-R•• .....F-79	B28W-R•••P .....F-75	B45BY-SK••• .....B-30
B2WK-R••••U .....F-78	B19WB-R••• .....F-79	B28W-R•••U .....F-82	B45BY-SKV••• .....B-30
B2WK-R••••U .....F-78	B19WX-R••• .....F-32	B31M-G••••• .....F-74	B45BY-TB••• .....B-30
B2WUL-R•••P .....F-76	B22WB-G••• .....F-79	B31M-R•••• .....F-74	B45CC-R••• .....B-31
B2WUL-R•••U .....F-82	B22WB-R•• .....F-79	B31M-R••••• .....F-74	B45CC-R100150 ..B-31
B2WUMP-R••• .....F-18	B22WB-R•• .....F-79	B31M-R••••• .....F-74	B54BMP-R••• .....E-2
B7MMW-G••• .....F-72	B23BMP-G••• .....F-8	B31M-R••••• .....F-74	B54BMPS-GL••• .....E-3
B7MP-G••• .....F-15	B23BMP-R••• .....F-8	B31RMP-G••••• .....F-6	B54BMP-SK••• .....E-2
B7MP-G•••• .....F-15		B31TP-G••••• .....F-45	
B7MP-R•• .....F-15			
B7MP-R••• .....F-15			
B7MPS-G••• .....F-15			
B7MPS-R••• .....F-15			
B7RMP-G••••• .....F-15			
B7RMP-R••••• .....F-15			
B7RMP-R••••• .....F-15			
B7RMP-R7550 .....F-15			



B54BMPS-R••• ..... E-3	B5102E•••-A ..... B-27	BS-35-R250-300 ..... D-6	BV3S•LF•••C-A ..... B-19
B54BMPS-SK••• ..... E-3	B5102-RKE••• ..... B-27	BS-36-R••• ..... D-6	BV3S•LR•••C-A ..... B-19
B54G-P••• ..... E-2	B5102-RKS••• ..... B-27	BS-36-R300 ..... D-6	BV-3S•RK••• ..... B-19
B3114MP-G•••••• ..... F-16	B5102-RKV••• ..... B-27	BS-411-R•••••• ..... D-8	BV3S•TF•••C-A ..... B-19
B3114MP-R••• ..... F-16	B5102S•••-A ..... B-27	BS-412-R•••••• ..... D-8	BV3S•TR•••C-A ..... B-19
B3114MP-R••••• ..... F-16	B5102V•••-A ..... B-27	BS-1418-R•••••• ..... D-4	BV-3SV•RK••• ..... B-19
B3114MP-R•••••• ..... F-16	B5107E800BB-A .. B-23	BS-1418-R100200 .. D-6	BV-23-HA••• .. B-16, B-18
B3115F-G•••••• ..... F-45	B5107E800CC-A .. B-23	BS-1425-R•••••• ..... D-4	BV-23-HA•••••• ..... B-16,
B3214MP-G•••••• ..... F-17	B5115-RKS••• ..... B-28	BS-1425-R100200 .. D-6	B-18
B3214MP-R••• ..... F-17	B5115S•••BB-C ..... B-28	BS-2418-R•••••• ..... D-4	
B3214MP-R••••• ..... F-17	B5115S•••CC-C .... B-28	BS-2418-R250300 .. D-6	DIN-SMS-60/90SP .. F-64
B3214MP-R•••••• ..... F-17	B5121E•••LL-C ..... J-12	BS-2425-R•••••• ..... D-4	DIN-SMS90/155SP .. F-64
B5101E•••BB-A ..... B-23	B5121E•••LL-G ..... J-12	BS-2425-R250300 .. D-6	
B5101E•••BB-B ..... B-24	B5121E•••WW-C .... J-11	BSCCQ1-R••• ..... D-3	G••-A-SS ..... I-5
B5101E•••BB-C ..... B-25	B5121E•••WW-G .. J-11	BSCCQ2-R••• ..... D-3	G•••-A-SS ..... I-5
B5101E•••CC-A ..... B-23	B5416MP-A••• ..... E-2	BSCCQ3-R••• ..... D-5	G••-B-SS ..... I-6
B5101E•••CC-B .... B-24	B5416MP-A100150 .. E-2	BSCCQ4-R••• ..... D-7	G•••-B-SS ..... I-6
B5101E•••CC-C .... B-25	BARVE-G••• ..... B-32	BS-Q4KIT•••••• ..... D-6	G••-C-SS ..... I-6
B5101E•••CC-F ..... B-26	BARV-G••• ..... B-32	BSVD-HC•••B••• .... B-35	G•••-C-SS ..... I-6
B5101E•••CC-G .... B-26	BCC••• ..... F-18	BSVS-HC•••B••• .... B-35	G••-DC-SS ..... I-7
B5101E•••CC-H .... B-26	BCW••• ..... F-76, F-82	BSVW••-G••• ..... B-36	G•••-DC-SS ..... I-7
B5101-ISO••• ..... C-23	BF30•-•••••• ..... D-9	BSVW-RKP ..... B-36	G••-DP-SS ..... I-6
B5101-ISO•••••• ..... C-23	BF302•-•••••• ..... D-9	BSVW-RKS ..... B-36	G•••-DP-SS ..... I-6
B5101-RKE••• ..... B-26	BS••-•••••• ..... D-9	BTG-G50 ..... E-8	G••-D-SS ..... I-6
B5101-RKS••• ..... B-26	BS•••••••• ..... D-9	BV2BV•••••• ..... J-8	G•••-D-SS ..... I-6
B5101-RKV••• ..... B-26	BS•••••••• ..... D-9	BV2BV••••••-A ..... J-8	G••-E-SS ..... I-5
B5101S•••BB-A ..... B-23	BS-01-R••• ..... D-4	BV2C••••••CC-A ..... B-17	G•••-E-SS ..... I-5
B5101S•••BB-B ..... B-24	BS-02-R•••••• ..... D-4	BV-2C••K••• ..... B-17	G••-F-SS ..... I-5
B5101S•••BB-C ..... B-25	BS-05-R•••••• ..... D-4	BV2GG••••••CC-A .... B-21	G•••-F-SS ..... I-5
B5101S•••CC-A ..... B-23	BS-09-U•••••• ..... D-4	BV-2G-GK••• ..... B-21	
B5101S•••CC-B .... B-24	BS-09-U100-200 ..... D-6	BV2HG••••••-A ..... J-4	HSCE••• ..... B-29
B5101S•••CC-C .... B-25	BS-09-U250-300 ..... D-6	BV2IC••••••WW-A ..... J-5	HSC-RKE••• ..... B-29
B5101V•••BB-A ..... B-23	BS-16-R••• ..... D-4	BV2I*N••••••-A ..... J-3	HSC-RKV••• ..... B-29
B5101V•••BB-B ..... B-24	BS-26-R••• ..... D-4	BV2L••••••CC-A ..... B-8	HSCV••• ..... B-29
B5101V•••BB-C ..... B-25	BS-31-R100-200 ..... D-6	BV2M••••••CC-A ..... B-8	
B5101-VC•••••• ..... C-23	BS-31-R250-300 ..... D-6	BV3BVL••••••-A ..... J-9	JRZF••• ..... A-7
B5101V•••CC-A ..... B-23	BS-32-R100-200 ..... D-6	BV3BVTR••••••-A ..... J-9	JRZF•••••• ..... A-7
B5101V•••CC-B .... B-24	BS-32-R250-300 ..... D-6	BV3IGLF••••••-A ..... J-6	JRZL••• ..... A-4
B5101V•••CC-C .... B-25	BS-35-R100-200 ..... D-6	BV3IGTF••••••-A ..... J-6	



L14AJP-G••• .....F-59	SPR-TC•2A150 .....B-11	T7RMPS-•••••PM ..F-91	VC-NR-100-DA ..... C-6
L14AJP-R••• .....F-59	SPR-TC•2A200 .....B-11	T7RWWMS•••••PL F-90	VC-NR-100-SR ..... C-6
L14AM7-G•• .....F-6	SPR-TC•3A150 .....B-11	T7RWWMS•••••PM F-90	VC-NR-AF ..... C-23
L14AM7-G••• .....F-6	SPR-TC•3A200 .....B-11	T7RWWW-•••••PL .F-87	
L14AM7-G•••• .....F-6	SRH360•••-G••• ..... E-4	T7RWWW-•••••PM F-87	XB51-••• ..... C-22
L14AM7-R•• .....F-6	SRH360•••-R••• ..... E-4	T7WWM-•••PL .....F-88	XB51-•••• ..... C-22
L14AM7-R••• .....F-6	SSBV•• .....J-7	T7WWM-•••PM .....F-88	
L14AM7-R•••• .....F-6	SSBV••• .....J-7	T7WWMS-•••PL .....F-89	
L14AM7V-R••• .....F-31	STC-180•-R••• ..... E-5	T7WWMS-•••PM ....F-89	
L14AM7X-R••• .....F-31	STC-360-R••• ..... E-5	T7WWW-•••PL .....F-87	
L15AJP-G••• .....F-59	STC-RK••• ..... E-5	T7WWW-•••PM .....F-87	
L15AJP-R••• .....F-59		T14VB-•••PL .....F-96	
LUAS-08 ..... E-9	T2CM-•••PL .....F-85	T16AMP-•••••PL ....F-95	
LUCP-14 ..... E-9	T2CM-•••PM .....F-85	T16AMP-•••PL .....F-95	
LUPG-08 ..... E-9	T2CMP-•••PL .....F-85	T16AMP-•••••PM ...F-95	
LUPO-16 ..... E-9	T2CMP-•••PM .....F-85	T16AMP-•••PM .....F-95	
	T2KM-•••PL .....F-86	T16W-•••PL .....F-95	
NG•• .....F-83	T2KM-•••PM .....F-86	T16W-•••PM .....F-95	
	T2KMP-•••PL .....F-86	T21MP-•••••PL .....F-96	
RC••BT .....I-4	T2KMP-•••PM .....F-86	T21MP-•••PL .....F-96	
RC••SE .....I-4	T2KS-•••PL .....F-85	T22MP-•••••PL .....F-96	
RE••BT .....I-4	T2KS-•••PM .....F-85	T22MP-•••PL .....F-96	
RE••SE .....I-4	T2S88-•••PL .....F-86	T31M-•••••PL .....F-92	
RJT-••SP .....F-65	T2S88-•••PM .....F-86	T31M-•••••PM .....F-92	
	T2S92-•••PL .....F-86	T31W-•••••PL .....F-92	
SBC-E300CC13 ..... E-8	T2S92-•••PM .....F-86	T31W-•••••PM .....F-92	
SBC-E300TP13 ..... E-8	T2S-•••PL .....F-85	T32M-•••••PL .....F-94	
SJSS••BB-20 ..... E-6	T2S-•••PM .....F-85	T32M-•••••PM .....F-94	
SJSS••CC-20 ..... E-6	T7IMPS-•••••PL ....F-91	T32W-•••••PL .....F-93	
SPOOL*-G•• .....F-17	T7IMPS-•••••PM ....F-91	T32W-•••••PM .....F-93	
SPOOL*-R•• .....F-17	T7IWWMS•••••PL ..F-91	T3114MP•••••PL ....F-93	
SPR-LC•1A150 .....B-11	T7IWWMS•••••PM F-91	T3114MP•••••PM ...F-93	
SPR-LC•1A200 .....B-11	T7MP-•••PL .....F-88	T3214MP•••••PL ...F-94	
SPR-LC•2A150 .....B-11	T7MP-•••PM .....F-88	T3214MP•••••PM ..F-94	
SPR-LC•2A200 .....B-11	T7MPS-•••PL .....F-90	TL14AM7-•••PL F-7, F-95	
SPR-LC•3A150 .....B-11	T7MPS-•••PM .....F-90	TL14AM7-•••PM .....F-95	
SPR-LC•3A200 .....B-11	T7RMP-•••••PL .....F-89	TVPC200-300 ..... B-34	
SPR-TC•1A150 .....B-11	T7RMP-•••••PM ....F-89	TVSEC-G•• ..... B-33	
SPR-TC•1A200 .....B-11	T7RMPS-•••••PL ...F-91		





**NOTES**

Index







# NOTES

Index





**NOTES**

Index



## Limited Warranty

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Safety logos, which appear throughout our catalog, are used as a reminder that the user should carefully review for the appropriateness of the product for the media, application and environment in which it will be used.

NOTE: Because of the health hazards associated with contamination and lead content in drinking water systems, Dixon™ couplings, unless otherwise specifically approved, are not recommended for potable water service and should not be used in applications where drinking water will contact the wetted surfaces of the coupling.

Warning: Dixon™ products may contain chemicals known to the State of California to cause cancer, birth defects, or other reproduction harm.

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**A** **Pumps**  
pages A-1 to A-10

**B** **Sanitary Valves**  
pages B-1 to B-36

**C** **Actuation**  
pages C-1 to C-24

**D** **Strainers**  
pages D-1 to D-10

**E** **Fluid Handling Accessories**  
pages E-1 to E-10

**F** **Fittings**  
pages F-1 to F-96

**G** **Tubing and Accessories**  
pages G-1 to G-10

**H** **Instrumentation**  
pages H-1 to H-10

**I** **Cam and Groove**  
pages I-1 to I-8

**J** **Industrial Valves**  
pages J-1 to J-12

**K** **Technical Information**  
pages K-1 to K-38

**L** **Index**  
pages L-1 to L-8

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