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Uncommon Excellence™
1916 - 2016

DIXON
SANITARY



The Right Connection®

2016

DIXONVALVE.COM
800.789.1718

Clamp Fittings



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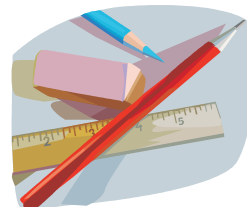
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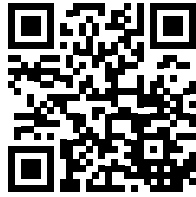
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Dixon Sanitary Quality: maintaining the standards



3A Certs




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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.

Visit the Dixon website, dixonvalve.com, to download certificates in PDF format or call Dixon Sanitary at 800.789.1718.

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

Stainless Steel Air & Vacuum Relief Tank Vent Valve



Tank Vent Valve
pages: 225 - 226

Compact Sight Glasses



Compact Sight Glasses
page:116

Side-Outlet Reverse Entry Strainer



pages: 122 - 123

Stainless Steel Industrial Wafer Ball Valve



pages: 179 - 180

Dixon Sanitary Engineered Products

Actuation



pneumatic



control tops



electric



canister



solenoids

Valves



seat



long stroke



aseptic



mixproof



diaphragm



biocheck



control

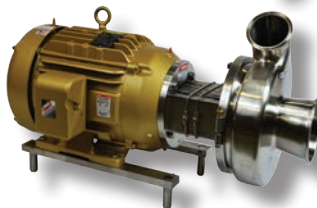
Positive Displacement and Centrifugal Pumps



positive displacement



pump carts



centrifugal

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Dixon Sanitary Custom Fabrication

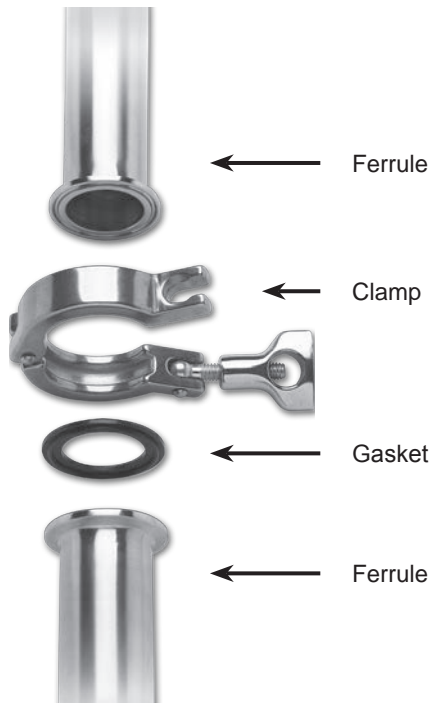
Machined, Welded and Polished Components





Dixon Sanitary Clamp Fittings

A Complete Clamp Connection



Product Specifications

Size range:

- ½" - 12" OD tube

Materials:

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

Finish:

- 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
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	10
10"	.109	12
12"	.120	10

This section contains tube OD materials. Please note in sizes ½" 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

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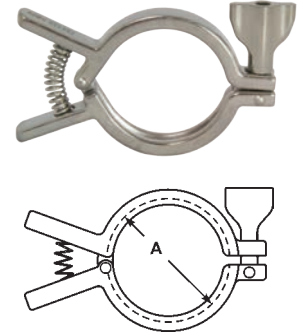
Clamps

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 ¹	Service Pressure Rating @ 250°F ¹	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

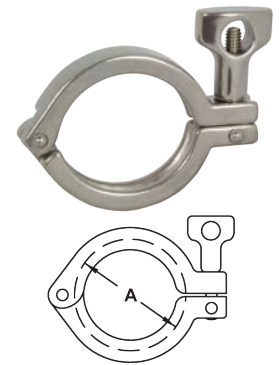
¹ wing nut tightened to 25 in. lb. of torque



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

Tube OD	Service Pressure Rating @ 70°F ¹	Service Pressure Rating @ 250°F ¹	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

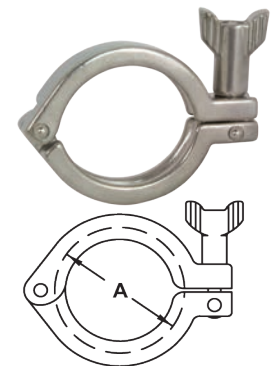
¹ wing nut tightened to 25 in. lb. of torque



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

Tube OD	Service Pressure Rating @ 70°F ¹	Service Pressure Rating @ 250°F ¹	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

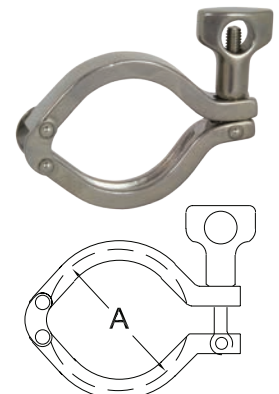
¹ wing nut tightened to 25 in. lb. of torque



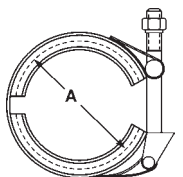
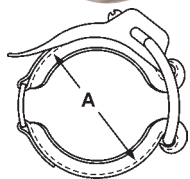
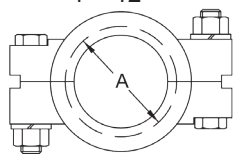
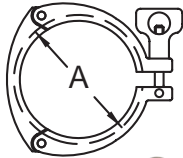
Double Pin Heavy Duty Clamps - 13MHHM-DP

Tube OD	Service Pressure Rating @ 70°F ¹	Service Pressure Rating @ 250°F ¹	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

¹ wing nut tightened to 25 in. lb. of torque



Clamps



Three Segment Clamps - 13MHHM-3P

Tube OD	Service Pressure Rating @ 70°F ¹	Service Pressure Rating @ 250°F ¹	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

¹ wing nut tightened to 25 in. lb. of torque

Bolted Clamps - 13MHP

Tube OD	Service Pressure Rating @ 70°F ¹	Service Pressure Rating @ 250°F ¹	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

¹ all nuts are tightened to 20 ft. lb. of torque

Toggle Clamps - 13MHLA

Tube OD	Service Pressure Rating @ 70°F ¹	Service Pressure Rating @ 250°F ¹	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

¹ screw tightened to maximum

T-bolt Clamps - 13MO

Tube OD	Service Pressure Rating @ 70°F ¹	Service Pressure Rating @ 250°F ¹	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" ²	50	40	8.690	13MO800
10" ²	40	30	10.690	13MO1000
12" ²	30	25	12.690	13MO1200

¹ 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.

² 2 bolt configuration

Clamps

Dairy Clamps - 13WGC

Tube OD	Service Pressure Rating @ 70°F ¹	Service Pressure Rating @ 250°F ¹	A	304 Stainless Steel Part Number
1" - 1½"	100	75	2.080	13WGC100-150
2"	100	75	2.610	13WGC200
2½"	100	75	3.140	13WGC250
3"	100	75	3.670	13WGC300
4"	100	75	4.780	13WGC400

¹ finger tight

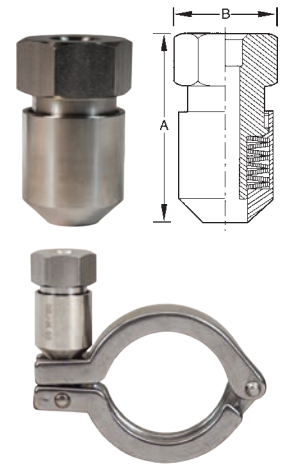


Spring Loaded Nut - 13SLN

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 load 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 - 18	1.73	.875	13SLN



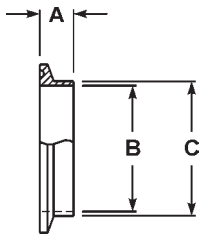
Accessories

Description	Part Number
Cross hole wing nut 5/16"-18	13WNX
Mini cross hole wing nut 5/16"-18 for ½" - ¾" clamps	13WNXM
Serrated wing nut 5/16"-18	13WNS
Hex wing nut 5/16"-18	13WNH
Bronze hex nut 3/8"-16 for bolted clamps	13BN
Brass 3/8-16 nuts used on ½" - ¾" and 10" & 12" bolted clamps	13BNH
Stainless steel hex nut for bolted clamps	13SN
3/8" 304 stainless steel lock washer	13LW
Bolt 3/8"-16 x 2¼" for ½" - 1½" bolted clamps	13CB-2.25
Bolt 3/8"-16 x 2¾" for 2" and 2½" bolted clamps	13CB-2.75
Bolt 3/8"-16 x 3¼" for 3" - 12" bolted clamps	13CB-3.25
Rivet pin for ½" - 5" single pin clamps 5/16" x 1"	13RP
Rivet pin for 6" and 8" single pin clamps 5/16" x 1-1/8"	13RP6
5/16"-18 x 2" threaded eye bolt for ½" - 5" clamps	13IB
5/16"-18 x 2½" threaded eye bolt for 6" - 12" clamps	13IB6



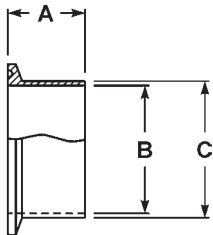
Clamp Ferrules

3 Short Weld Ferrules - 14WMP



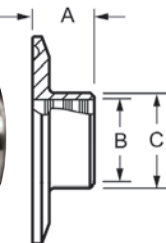
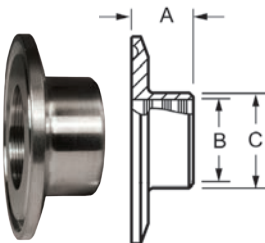
Tube OD	A	B	C	304 Stainless Steel Part Number	316L Stainless Steel Part Number
½"	.500	.370	.500	14WMP-G50	14WMP-R50
¾"	.500	.620	.750	14WMP-G75	14WMP-R75
1"	.500	.870	1.000	14WMP-G100	14WMP-R100
1½"	.500	1.370	1.500	14WMP-G150	14WMP-R150
2"	.500	1.870	2.000	14WMP-G200	14WMP-R200
2½"	.500	2.370	2.500	14WMP-G250	14WMP-R250
3"	.500	2.870	3.000	14WMP-G300	14WMP-R300
4"	.625	3.834	4.000	14WMP-G400	14WMP-R400
5"	.750	4.782	5.000	14WMP-G500	14WMP-R500
6"	.875	5.782	6.000	14WMP-G600	14WMP-R600
8"	.875	7.760	8.000	14WMP-G800	14WMP-R800
10"	.875	9.782	10.000	14WMP-G1000	14WMP-R1000
12"	.875	11.760	12.000	14WMP-G1200	14WMP-R1200

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	L14AM7-G50	L14AM7-R50
¾"	1.125	.620	.750	L14AM7-G75	L14AM7-R75
1"	1.125	.870	1.000	L14AM7-G100	L14AM7-R100
1½"	1.125	1.370	1.500	L14AM7-G150	L14AM7-R150
2"	1.125	1.870	2.000	L14AM7-G200	L14AM7-R200
2½"	1.125	2.370	2.500	L14AM7-G250	L14AM7-R250
3"	1.125	2.870	3.000	L14AM7-G300	L14AM7-R300
4"	1.125	3.834	4.000	L14AM7-G400	L14AM7-R400
5"	1.125	4.782	5.000	L14AM7-G500	L14AM7-R500
6"	1.500	5.782	6.000	L14AM7-G600	L14AM7-R600
8"	1.500	7.760	8.000	L14AM7-G800	L14AM7-R800
10"	1.750	9.782	10.000	L14AM7-G1000	L14AM7-R1000
12"	1.750	11.760	12.000	L14AM7-G1200	L14AM7-R1200

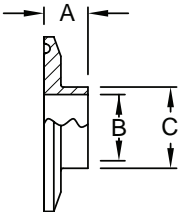
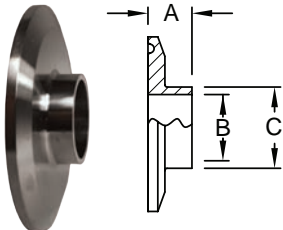
3* Reducing Roll-on Ferrules for Expanding - B31RMP



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

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

3 Reducing Ferrules - B31WMP



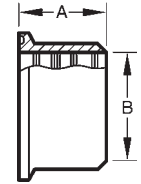
Tube OD	A	B	C	304 Stainless Steel Part Number	316L Stainless Steel Part Number
2" x 1"	.500	.870	1.000	B31WMP-G200100	B31WMP-R200100
2½" x 1½"	.500	1.370	1.500	B31WMP-G250150	B31WMP-R250150
2½" x 2"	.500	1.870	2.000	B31WMP-G250200	B31WMP-R250200
3" x 2"	.500	1.870	2.000	B31WMP-G300200	B31WMP-R300200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

Clamp Ferrules

Roll-On Ferrules for Expanding - 14RMP 

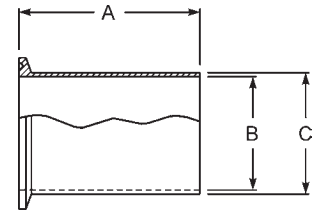
Tube OD	A	B	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	.750	1.005	14RMP-G100	14RMP-R100
1½"	1.125	1.505	14RMP-G150	14RMP-R150
2"	1.312	2.005	14RMP-G200	14RMP-R200
2½"	1.375	2.505	14RMP-G250	14RMP-R250
3"	1.437	3.005	14RMP-G300	14RMP-R300
4"	1.500	4.005	14RMP-G400	14RMP-R400
6"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

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

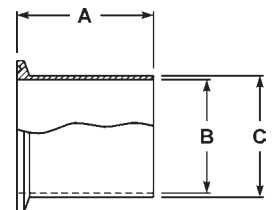
Automatic Weld Ferrules - TL14AM7 **Specification:**

- meets ASME BPE-2012 specifications

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

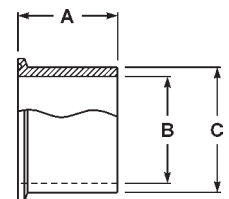
Tank Ferrules (light duty) - 14WLMP 

Tube OD	A	B	C	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	3.000	.870	1.000	14WLMP-G100	14WLMP-R100
1½"	3.000	1.370	1.500	14WLMP-G150	14WLMP-R150
2"	3.000	1.870	2.000	14WLMP-G200	14WLMP-R200
2½"	3.000	2.370	2.500	14WLMP-G250	14WLMP-R250
3"	4.000	2.870	3.000	14WLMP-G300	14WLMP-R300
4"	4.000	3.834	4.000	14WLMP-G400	14WLMP-R400
6"	6.000	5.782	6.000	14WLMP-G600	14WLMP-R600
8"	6.000	7.760	8.000	---	14WLMP-R800
10"	6.000	9.782	10.000	---	14WLMP-R1000
12"	6.000	11.760	12.000	---	14WLMP-R1200

Tank Ferrules (heavy duty) - 14MPW **Specification:**

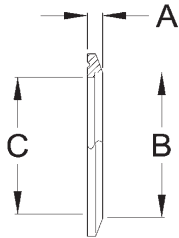
- certified ASME materials

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



Clamp Ferrules

Quick Weld Ferrules - 14QMP



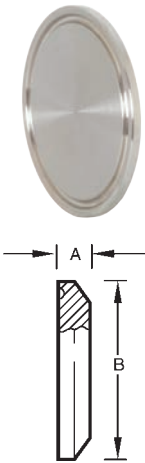
Features:

- 304 stainless construction
- 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	14QMP-G100
1½"	.199	1.505	1.370	14QMP-G150
2"	.205	2.005	1.870	14QMP-G200
2½"	.210	2.505	2.370	14QMP-G250
3"	.257	3.005	2.870	14QMP-G300
4"	.235	4.005	3.834	14QMP-G400
6"	.321	6.005	5.782	14QMP-G600

Clamp Caps

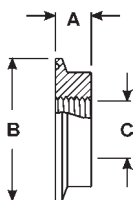
Solid End Caps - 16AMP



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

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

Thermometer Caps - B23BMP



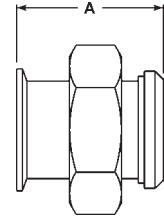
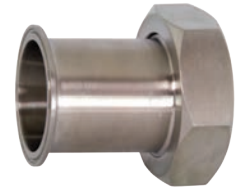
Tube OD	A	B	C ¹	304 Stainless Steel Part Number	316L Stainless Steel Part Number
½"	.500	.993	¼ NPT	---	B23BMP-R5014
¾"	.500	.993	¼ NPT	---	B23BMP-R7514
1"	.625	1.984	½ NPT	B23BMP-G100	B23BMP-R100
1½"	.625	1.984	¾ NPT	B23BMP-G150	B23BMP-R150
2"	.625	2.516	¾ NPT	B23BMP-G200	B23BMP-R200
2½"	.625	3.047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

¹ other NPT tap sizes available, call Dixon Sanitary

Clamp Adapters

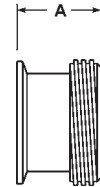
Clamp x Plain Bevel Seat Adapters with Hex Nut - 17MP-14

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



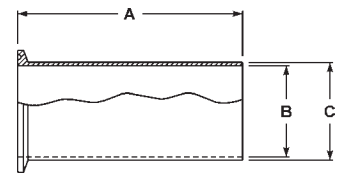
Clamp x Threaded Bevel Seat Adapters - 17MP-15

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



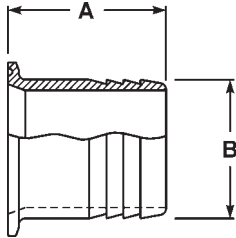
Tygon® Hose Adapters - 14MPHT

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



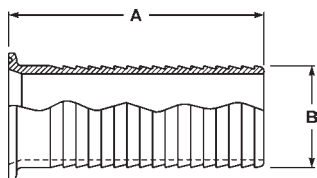
Clamp Adapters

Rubber Hose Adapters - 14MPHR



Tube OD	Hose Size	A	B	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1/2"	1/8"	1.250	.125	---	14MPHR-R50125
1/2"	1/4"	1.500	.250	---	14MPHR-R5025
1/2"	3/8"	1.500	.375	---	14MPHR-R50375
1/2"	1/2"	1.500	.500	---	14MPHR-R50
1/2"	3/4"	1.500	.750	---	14MPHR-R5075
3/4"	1/8"	1.500	.125	---	14MPHR-R75125
3/4"	1/4"	1.500	.250	---	14MPHR-R7525
3/4"	3/8"	1.500	.375	---	14MPHR-R75375
3/4"	1/2"	1.500	.500	---	14MPHR-R7550
3/4"	3/4"	1.500	.750	---	14MPHR-R75
1"	3/8"	1.500	.375	14MPHR-G100375	14MPHR-R100375
1"	1/2"	1.500	.500	14MPHR-G10050	14MPHR-R10050
1"	3/4"	1.688	.750	14MPHR-G10075	14MPHR-R10075
1"	1"	1.688	1.000	14MPHR-G100	14MPHR-R100
1 1/2"	1/8"	1.500	.125	14MPHR-G150125	14MPHR-R150125
1 1/2"	1/4"	1.500	.250	---	14MPHR-R15025
1 1/2"	3/8"	1.500	.375	14MPHR-G150375	14MPHR-R150375
1 1/2"	1/2"	1.500	.500	14MPHR-G15050	14MPHR-R15050
1 1/2"	5/8"	1.500	.625	14MPHR-G150625	14MPHR-R150625
1 1/2"	3/4"	1.500	.750	14MPHR-G15075	14MPHR-R15075
1 1/2"	1"	1.687	1.000	14MPHR-G150100	14MPHR-R150100
1 1/2"	1 1/4"	1.689	1.250	---	14MPHR-R150-125
1 1/2"	1 1/2"	1.687	1.500	14MPHR-G150	14MPHR-R150
2"	1 1/2"	2.312	1.500	14MPHR-G200150	14MPHR-R200150
2"	2"	2.312	2.000	14MPHR-G200	14MPHR-R200
2 1/2"	2 1/2"	2.344	2.500	14MPHR-G250	14MPHR-R250
3"	3"	3.094	3.000	14MPHR-G300	14MPHR-R300
4"	4"	3.406	4.000	14MPHR-G400	14MPHR-R400
6"	6"	3.406	6.000	14MPHR-G600	14MPHR-R600
8"	8"	3.406	8.000	14MPHR-G800	14MPHR-R800

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	14MPHRL100
1 1/2"	5.000	1.545	14MPHRL150
2"	5.000	2.045	14MPHRL200
2 1/2"	5.500	2.545	14MPHRL250
3"	5.500	3.045	14MPHRL300
4"	5.500	4.045	14MPHRL400

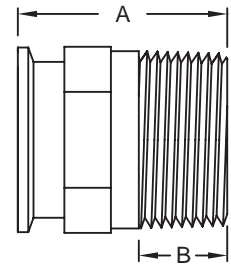


Use of PVC tubing requires special techniques to prevent leakage. All assembly work must be done with heated tube. Cold durometer is 90 as opposed to rubber hose at 65 to 70 durometer. Banding buckles must be at 180° from one another.

Clamp Adapters

Male NPT Adapters - 21MP

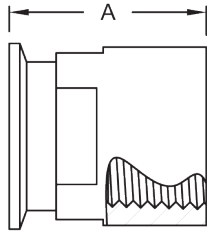
Tube OD	NPT Size	A	B	304 Stainless Steel Part Number	316L Stainless Steel Part Number
½"	⅛"	2.000	.392	---	21MP-R50125
½"	¼"	2.000	.595	---	21MP-R5025
½"	⅜"	2.000	.600	---	21MP-R50375
½"	½"	1.625	.782	---	21MP-R50
½"	¾"	2.000	.794	---	21MP-R5075
¾"	¼"	2.000	.595	---	21MP-R7525
¾"	⅜"	2.000	.600	---	21MP-R75375
¾"	½"	2.000	.782	---	21MP-R7550
¾"	¾"	1.787	.794	---	21MP-R75
¾"	1"	2.250	.985	---	21MP-R75100
1"	⅛"	2.187	.392	21MP-G100-125	21MP-R100-125
1"	¼"	2.161	.595	21MP-G10025	21MP-R10025
1"	⅜"	2.187	.600	21MP-G100375	21MP-R100375
1"	½"	2.187	.782	21MP-G10050	21MP-R10050
1"	¾"	2.187	.794	21MP-G10075	21MP-R10075
1"	1"	2.250	.985	21MP-G100	21MP-R100
1"	1¼"	2.438	1.009	21MP-G100125	21MP-R100125
1"	1½"	2.438	1.025	21MP-G100150	21MP-R100150
1"	2"	2.625	1.058	21MP-G100200	21MP-R100200
1½"	⅛"	2.187	.392	---	21MP-R150-125
1½"	¼"	2.161	.595	21MP-G15025	21MP-R15025
1½"	⅜"	2.187	.600	21MP-G150375	21MP-R150375
1½"	½"	2.187	.782	21MP-G15050	21MP-R15050
1½"	¾"	2.187	.794	21MP-G15075	21MP-R15075
1½"	1"	2.437	.985	21MP-G150100	21MP-R150100
1½"	1¼"	2.438	1.009	21MP-G150125	21MP-R150125
1½"	1½"	2.250	1.025	21MP-G150	21MP-R150
1½"	2"	2.625	1.058	21MP-G150200	21MP-R150200
1½"	2½"	3.281	1.571	21MP-G150250	21MP-R150250
2"	¼"	2.469	1.009	21MP-G200125	21MP-R200125
2"	½"	2.188	.782	21MP-G20050	21MP-R20050
2"	¾"	2.188	.794	21MP-G20075	21MP-R20075
2"	1"	2.469	.985	21MP-G200100	21MP-R200100
2"	1½"	2.625	1.009	21MP-G200150	21MP-R200150
2"	2"	2.638	1.058	21MP-G200	21MP-R200
2"	2½"	3.125	1.571	21MP-G200250	21MP-R200250
2"	3"	3.500	1.634	21MP-G200300	21MP-R200300
2"	4"	3.500	1.734	21MP-G200400	21MP-R200400
2½"	½"	2.781	.782	21MP-G25050	---
2½"	1"	2.781	.782	21MP-G250100	21MP-R250100
2½"	1½"	2.781	1.025	21MP-G250150	21MP-R250150
2½"	2"	2.781	1.058	21MP-G250200	21MP-R250200
2½"	2½"	2.875	1.571	21MP-G250	21MP-R250
2½"	3"	3.690	1.634	21MP-G250300	21MP-R250300
3"	1"	3.000	.985	21MP-G300100	21MP-R300100
3"	1½"	3.000	1.009	21MP-G300150	21MP-R300150
3"	2"	3.000	1.058	21MP-G300200	21MP-R300200
3"	2½"	3.000	1.571	21MP-G300250	21MP-R300250
3"	3"	3.070	1.634	21MP-G300	21MP-R300
3"	4"	3.500	1.734	21MP-G300400	21MP-R300400
4"	3"	3.813	1.634	21MP-G400300	21MP-R400300
4"	4"	3.155	1.734	21MP-G400	21MP-R400
6"	6"	4.500	1.946	21MP-G600	21MP-R600



• see pages 242-243 for Pipe Thread data

Clamp Adapters

Female NPT Adapters - 22MP



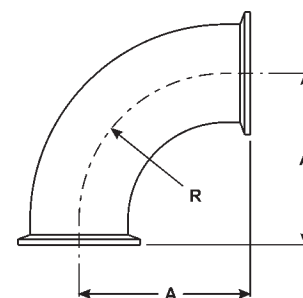
Tube OD	NPT Size	A	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1/2"	1/8"	1.250	---	22MP-R50-125
1/2"	1/4"	1.500	---	22MP-R5025
1/2"	3/8"	1.500	---	22MP-R50375
1/2"	1/2"	1.500	---	22MP-R50
1/2"	3/4"	1.500	---	22MP-R5075
1/2"	1"	1.625	---	22MP-R50100
1/2"	1 1/2"	2.250	---	22MP-R50150
1/2"	2"	2.250	---	22MP-R50200
3/4"	1/8"	1.250	---	22MP-R75125
3/4"	1/4"	1.500	---	22MP-R7525
3/4"	3/8"	1.500	---	22MP-R75375
3/4"	1/2"	1.625	---	22MP-R7550
3/4"	3/4"	1.625	---	22MP-R75
3/4"	1"	1.625	---	22MP-R75100
1"	1/8"	3.281	22MP-G100-125	22MP-R100-125
1"	1/4"	1.625	22MP-G10025	22MP-R10025
1"	3/8"	1.625	22MP-G100375	22MP-R100375
1"	1/2"	1.625	22MP-G10050	22MP-R10050
1"	3/4"	1.625	22MP-G10075	22MP-R10075
1"	1"	1.625	22MP-G100	22MP-R100
1"	1 1/4"	1.625	22MP-G100125	22MP-R100125
1"	1 1/2"	1.625	22MP-G100150	22MP-R100150
1"	2"	2.500	22MP-G100200	22MP-R100200
1 1/2"	1/8"	2.500	22MP-G150-125	22MP-R150-125
1 1/2"	1/4"	1.625	22MP-G15025	22MP-R15025
1 1/2"	3/8"	1.625	22MP-G150375	22MP-R150375
1 1/2"	1/2"	1.625	22MP-G15050	22MP-R15050
1 1/2"	3/4"	1.625	22MP-G15075	22MP-R15075
1 1/2"	1"	2.250	22MP-G150100	22MP-R150100
1 1/2"	1 1/4"	2.250	22MP-G150125	22MP-R150125
1 1/2"	1 1/2"	2.250	22MP-G150	22MP-R150
1 1/2"	2"	2.500	22MP-G150200	22MP-R150200
1 1/2"	2 1/2"	2.500	22MP-G150250	---
1 1/2"	3"	2.500	---	22MP-R150300
2"	1/4"	1.687	22MP-G20025	22MP-R20025
2"	1/2"	1.687	22MP-G20050	22MP-R20050
2"	3/4"	1.687	22MP-G20075	22MP-R20075
2"	1"	1.687	22MP-G200100	22MP-R200100
2"	1 1/4"	1.656	22MP-G200125	22MP-R200125
2"	1 1/2"	2.344	22MP-G200150	22MP-R200150
2"	2"	2.406	22MP-G200	22MP-R200
2"	2 1/2"	2.406	22MP-G200250	22MP-R200250
2"	3"	2.406	22MP-G200300	22MP-R200300
2"	4"	2.406	22MP-G200400	---
2 1/2"	3/4"	1.313	22MP-G25075	22MP-R25075
2 1/2"	1"	1.313	22MP-G250100	22MP-R250100
2 1/2"	1 1/2"	1.656	22MP-G250150	22MP-R250150
2 1/2"	2"	2.093	22MP-G250200	22MP-R250200
2 1/2"	2 1/2"	2.187	22MP-G250	22MP-R250
2 1/2"	3"	2.187	22MP-G250300	22MP-R250300
3"	1"	2.187	22MP-G300100	22MP-R300100
3"	1 1/2"	2.187	22MP-G300150	22MP-R300150
3"	2"	2.187	22MP-G300200	22MP-R300200
3"	2 1/2"	2.187	22MP-G300250	---
3"	3"	2.187	22MP-G300	22MP-R300
4"	1 1/2"	2.187	22MP-G400150	22MP-R400150
4"	2"	2.187	22MP-G400200	22MP-R400200
4"	2 1/2"	2.187	22MP-G400250	22MP-R400250
4"	3"	2.187	22MP-G400300	22MP-R400300
4"	4"	2.625	22MP-G400	22MP-R400
4"	6"	3.250	22MP-G400600	---

• see pages 242-243 for Pipe Thread data

Clamp Elbows

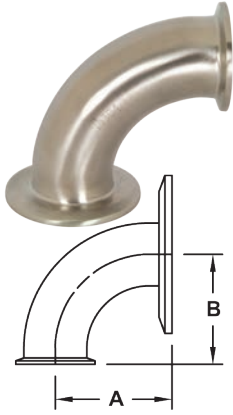
90° Clamp Elbows - B2CMP 

Tube OD	A	R	304 Stainless Steel Part Number	316L Stainless Steel Part Number
½"	1.625	1.125	---	B2CMP-R50
¾"	1.625	1.125	---	B2CMP-R75
½"	3.500	1.125	---	B2CMPL-R50
¾"	3.500	1.125	---	B2CMPL-R75
1"	2.000	1.500	B2CMP-G100	B2CMP-R100
1½"	2.750	2.250	B2CMP-G150	B2CMP-R150
2"	3.500	3.000	B2CMP-G200	B2CMP-R200
2½"	4.250	3.750	B2CMP-G250	B2CMP-R250
3"	5.000	4.500	B2CMP-G300	B2CMP-R300
4"	6.625	6.000	B2CMP-G400	B2CMP-R400
6"	9.875	9.000	B2CMP-G600	B2CMP-R600
8"	12.875	12.000	B2CMP-G800	B2CMP-R800
10"	15.875	15.000	B2CMP-G1000	---
12"	18.875	18.000	B2CMP-G1200	---



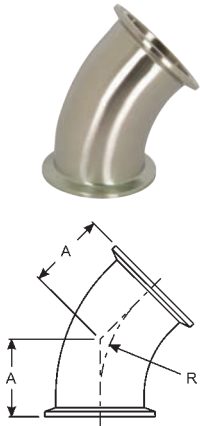
Clamp Elbows

3 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	B2CM31MPG200150	B2CM31MPR200150
2½" x 2"	3.500	3.500	B2CM31MPG250200	B2CM31MPR250200
3" x 2"	3.500	3.500	B2CM31MPG300200	B2CM31MPR300200
3" x 2½"	4.250	4.250	B2CM31MPG300250	B2CM31MPR300250

3 45° Clamp Elbows - B2KMP



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

3 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	B2FMP-14-G100
1½"	2.968	2.750	B2FMP-14-G150
2"	3.750	3.500	B2FMP-14-G200
2½"	4.625	4.250	B2FMP-14-G250
3"	5.406	5.000	B2FMP-14-G300
4"	7.031	6.625	B2FMP-14-G400

Other types of elbows available call Dixon Sanitary for information



B2CMP-14



B2FMP-15

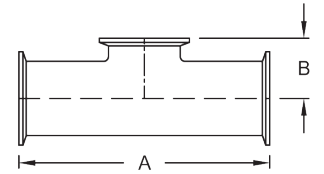


B2SXLMP
various radii

Clamp Tees

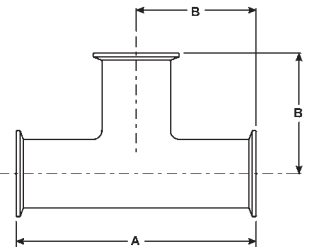
Short Outlet Tees - B7MPS

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



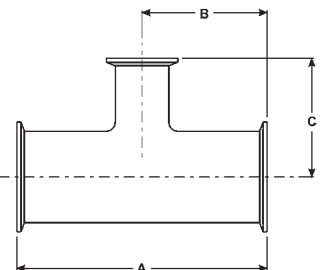
Clamp Tees - B7MP

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



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	---	B7RMP-R7550
1" x ½"	5.250	2.625	2.625	---	B7RMP-R10050
1" x ¾"	5.250	2.625	2.625	---	B7RMP-R10075
1½" x ½"	5.750	2.875	2.875	---	B7RMP-R15050
1½" x ¾"	5.250	2.875	2.875	---	B7RMP-R15075
1½" x 1"	4.312	2.156	1.875	B7RMP-G150100	B7RMP-R150100
2" x ½"	6.750	3.375	3.125	---	B7RMP-R20050
2" x ¾"	6.750	3.375	3.125	---	B7RMP-R20075
2" x 1"	5.125	2.562	2.125	B7RMP-G200100	B7RMP-R200100
2" x 1½"	5.125	2.562	2.406	B7RMP-G200150	B7RMP-R200150
2½" x 1½"	5.688	2.844	2.656	B7RMP-G250150	B7RMP-R250150
2½" x 2"	5.688	2.844	2.812	B7RMP-G250200	B7RMP-R250200
3" x 1½"	6.188	3.093	2.906	B7RMP-G300150	B7RMP-R300150
3" x 2"	6.188	3.093	3.063	B7RMP-G300200	B7RMP-R300200
3" x 2½"	6.188	3.093	3.093	B7RMP-G300250	B7RMP-R300250
4" x 1½"	8.125	4.063	3.406	B7RMP-G400150	B7RMP-R400150
4" x 2"	8.125	4.063	3.563	B7RMP-G400200	B7RMP-R400200
4" x 2½"	8.125	4.063	3.594	B7RMP-G400250	B7RMP-R400250
4" x 3"	8.125	4.063	3.594	B7RMP-G400300	B7RMP-R400300



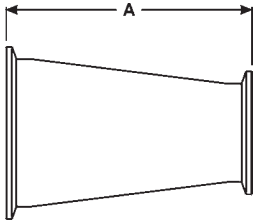
Other types of tees available call Dixon Sanitary for information



B7RMP

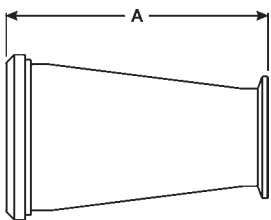
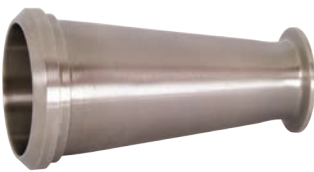
Clamp Reducers

3 Clamp Concentric Reducers - B3114MP



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

3 Plain Bevel Seat x Clamp Concentric Reducers - B14C31



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

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

Other types of concentric reducers available call Dixon Sanitary for information



B3114



B3115

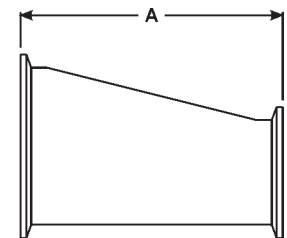


B15C31

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



Other types of eccentric reducers available call Dixon Sanitary for information



B3214



B14C32



B3215

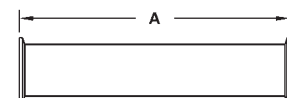


B15C32

Miscellaneous Clamp Configurations

Spool Assembly - SPOOL

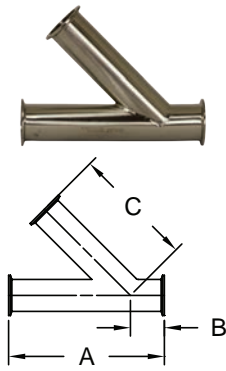
Tube OD	A (minimum length)	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1/2"	2.25	SPOOL *-G050	SPOOL *-R050
3/4"	2.25	SPOOL *-G075	SPOOL *-R075
1"	2.25	SPOOL *-G100	SPOOL *-R100
1 1/2"	2.25	SPOOL *-G150	SPOOL *-R150
2"	2.25	SPOOL *-G200	SPOOL *-R200
2 1/2"	2.25	SPOOL *-G250	SPOOL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



* overall length in inches

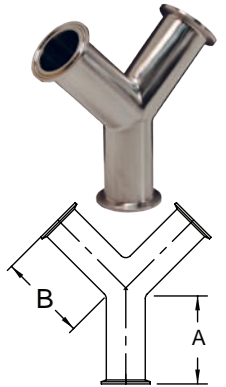
Miscellaneous Clamp Configurations

3 Clamp Laterals - B28AMP



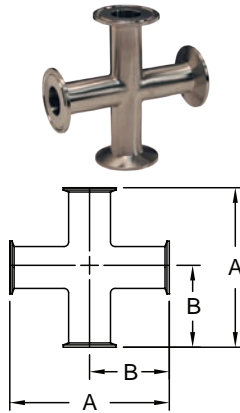
Tube OD	A	B	C	316L Stainless Steel Part Number
1"	7.000	1.500	5.500	B28AMP-R100
1½"	8.375	1.688	6.688	B28AMP-R150
2"	9.750	2.125	7.625	B28AMP-R200
2½"	11.000	2.000	9.000	B28AMP-R250
3"	11.750	2.375	9.375	B28AMP-R300
4"	14.062	2.640	11.312	B28AMP-R400

3 Clamp True Wyes - B28BMP



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

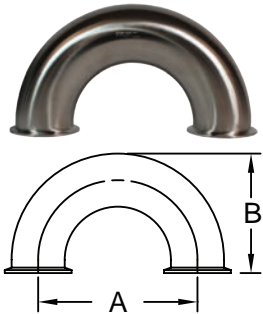
3 Clamp Crosses - B9MP



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

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	B2WUMP-R100
1½"	4.500	3.500	B2WUMP-R150
2"	6.000	4.500	B2WUMP-R200
2½"	7.500	5.500	B2WUMP-R250
3"	9.000	6.500	B2WUMP-R300
4"	12.000	8.625	B2WUMP-R400

Clamp End Protection Covers - BCC

Features:

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



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

Sanitary Breakaway Clamp Version

**Applications:**

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

Features:

- designed to be installed between a fixed point and a hose
- coupling breaks away with an excessive load
- EPDM standard clamp gasket, optional material available
- working pressure: 350 PSI @ 70°F
- 13kN break load bolts standard, other break loads available
- 316 stainless steel polished to standard <math><32R_a</math>, 3A finish



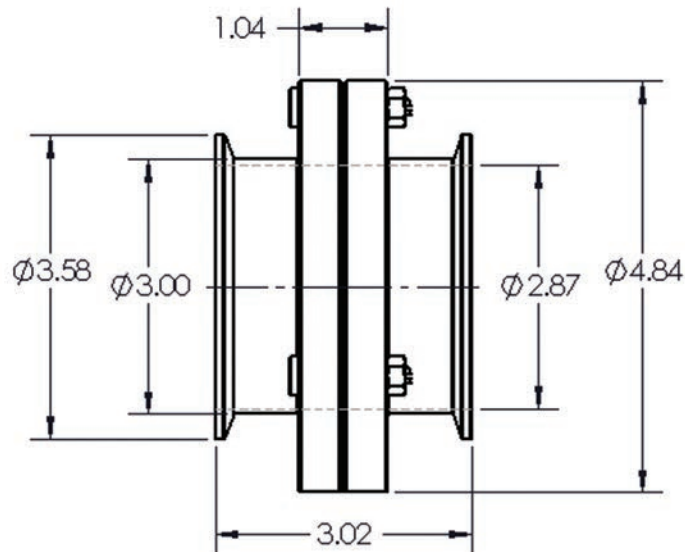
Clamp End

Part Number

SBC-E300CC13


- Other sizes and connections available

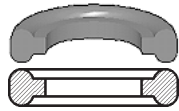
Dimensions



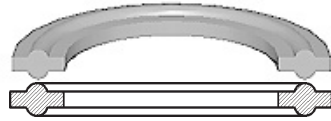
Clamp Gaskets

Feature:

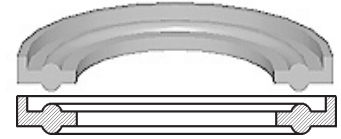
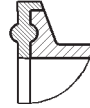
- Gasket material approved by  (3A), USDA and complies with FDA's 21CFR177.2600 and 1550. PSI Service Ratings for the sanitary clamps *DO NOT APPLY* to connections (1" and above) using any PTFE gaskets, due to the potential for cold flow under normal operating conditions. PTFE gaskets, when used with 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.



Mini



Standard - type 1



Flanged - type 2

Buna-N Clamp Gaskets - Black

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

Features:

- color code: red dot
- meets 21CFR 177.2600

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

Buna-N Clamp Gaskets - White

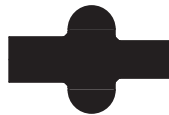
Type 1 - Standard
1/2" - 3/4"Type 1 - Standard
1" and larger

Features:

- color code: red dot
- meets 21CFR 177.2600

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

EPDM Clamp Gaskets - Black

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

Features:

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

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

Note: see pages 32-33 for sizing charts / refer to pages 236-238 for compatibility information

Clamp Gaskets

FKM Clamp Gaskets - *Black*

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

Type 1 - Standard
1/2" - 3/4"Type 1 - Standard
1" and larger**Features:**

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

Silicone Clamp Gaskets - *White*

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

Type 1 - Standard
1/2" - 3/4"Type 1 - Standard
1" and larger**Features:**

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

Silicone Clamp Gaskets - *Clear*

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

Type 1 - Standard
1/2" - 3/4"Type 1 - Standard
1" and larger**Features:**

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

PTFE Clamp Gaskets - *White*

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

Type 1 - Standard
1/2" - 3/4"Type 1 - Standard
1" and larger**Features:**

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



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 32-33 for sizing charts / refer to pages 236-238 for compatibility information

Clamp Gaskets

Metal Detectable Clamp Gaskets



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



Type 1 - Standard
1" and larger

Feature:

- 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.

Buna-N - Metal Detectable Clamp Gaskets

Features:

- minimum temperature **-20°F**
- maximum temperature **212°F**
- good general use where temperature extremes do not exist

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

EPDM - Metal Detectable Clamp Gaskets

Features:

- minimum temperature **-70°F**
- maximum temperature **310°F**
- resistant to steam, water and base solutions

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

FKM - Metal Detectable Clamp Gaskets

Features:

- minimum temperature **-20°F**
- maximum temperature **410°F**
- resistant to steam, heat and high acid solutions

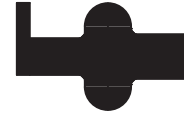
Size	Part Number
1"	40MP-SFYZ100
1½"	40MP-SFYZ150
2"	40MP-SFYZ200
2½"	40MP-SFYZ250
3"	40MP-SFYZ300
4"	40MP-SFYZ400

Note: see pages 32-33 for sizing charts / refer to pages 236-238 for compatibility information

Clamp Flanged Gaskets

Buna-N - Flanged Clamp Gaskets - Black

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



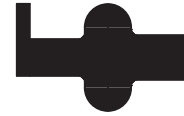
Type 2 - Flanged
1" and larger

Features:

- color code: red dot
- meets 21CFR 177.2600
- not recommended for use with bolted clamps

Buna-N - Flanged Clamp Gaskets - White

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



Type 2 - Flanged
1" and larger

Features:

- color code: red dot
- meets 21CFR 177.2600
- not recommended for use with bolted clamps

EPDM - Flanged Clamp Gaskets - Black

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



Type 2 - Flanged
1" and larger

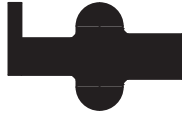
Features:

- color code: three green dots
- peroxide cured
- meets 21CFR 177.2600
- passed U.S.P. Class VI Cytotoxicity testing
- not recommended for use with bolted clamps

Note: see pages 32-33 for sizing charts / refer to pages 236-238 for compatibility information

Clamp Flanged Gaskets

FKM - Flanged Clamp Gaskets - Black



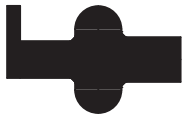
Type 2 - Flanged
1" and larger

Features:

- color code: one white dot, one yellow dot
- peroxide cured
- meets 21CFR 177.2600
- passed U.S.P. Class VI Cytotoxicity testing
- not recommended for use with bolted clamps

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

Silicone - Flanged Clamp Gaskets - White



Type 2 - Flanged
1" and larger

Features:

- color code: pink dot
- peroxide cured
- meets 21CFR 177.2600
- passed U.S.P. Class VI Cytotoxicity testing
- not recommended for use with bolted clamps

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

Silicone - Flanged Clamp Gaskets - Clear



Type 2 - Flanged
1" and larger

Features:

- color code: no dot
- peroxide cured
- meets 21CFR 177.2600
- passed U.S.P. Class VI Cytotoxicity testing
- not recommended for use with bolted clamps

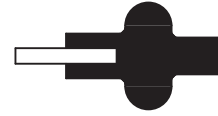
Size	Part Number
1"	40MPF-XC100
1½"	40MPF-XC150
2"	40MPF-XC200
2½"	40MPF-XC250
3"	40MPF-XC300
4"	40MPF-XC400
6"	40MPF-XC600
8"	40MPF-XC800

Note: see pages 32-33 for sizing charts / refer to pages 236-238 for compatibility information

Clamp Screened Gaskets

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

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



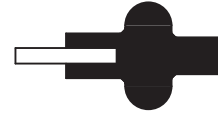
Type 3 - Mesh

Features:

- color code: red dot
- 10 mesh standard, other mesh available, call for details
- meets 21CFR 177.2600

EPDM - Mesh Screen *Clamp Gaskets, 316*

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



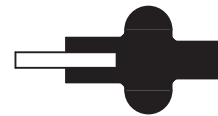
Type 3 - Mesh

Features:

- color code: three green dots
- 10 mesh standard, other materials available, call for details
- peroxide cured
- meets 21CFR 177.2600

FKM - Mesh Screen *Clamp Gaskets, 316*

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



Type 3 - Mesh

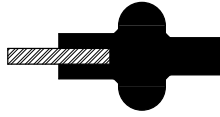
Features:

- color code: one white dot, one yellow dot
- 10 mesh standard, other mesh available, call for details
- peroxide cured
- meets 21CFR 177.2600

Note: see pages 32-33 for sizing charts / refer to pages 236-238 for compatibility information / refer to page 235 for additional mesh sizes

Clamp Perforated Gaskets

Buna-N Perforated Clamp Gaskets - .033" holes



Type 3 - Perforated

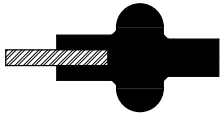
Features:

- color code: red dot
- perforated metal disc 316 stainless steel sheet
- meets 21CFR 177.2600

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

Clamp Orifice Gaskets

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



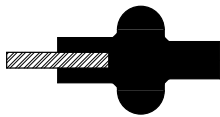
Type 3

Features:

- color code: red dot
- 316 stainless steel sheet;
other hole sizes available, call for details
- meets 21CFR 177.2600

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

FKM Orifice Clamp Gaskets - .125" hole



Type 3

Features:

- color code: one white dot, one yellow dot
- 316 stainless steel sheet;
other hole sizes available, call for details
- peroxide cured
- meets 21CFR 177.2600

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

Note: see pages 32-33 for sizing charts / refer to pages 236-238 for compatibility information

Clamp Envelope Gaskets

PTFE envelope clamp gaskets with EPDM filler

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



Features:

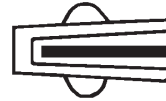
- color code: usually not marked
- peroxide cured EPDM
- meets 21CFR 177.1550
- PTFE passed USP Class VI Cytotoxicity testing



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.

PTFE envelope clamp gaskets with FKM filler

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



Features:

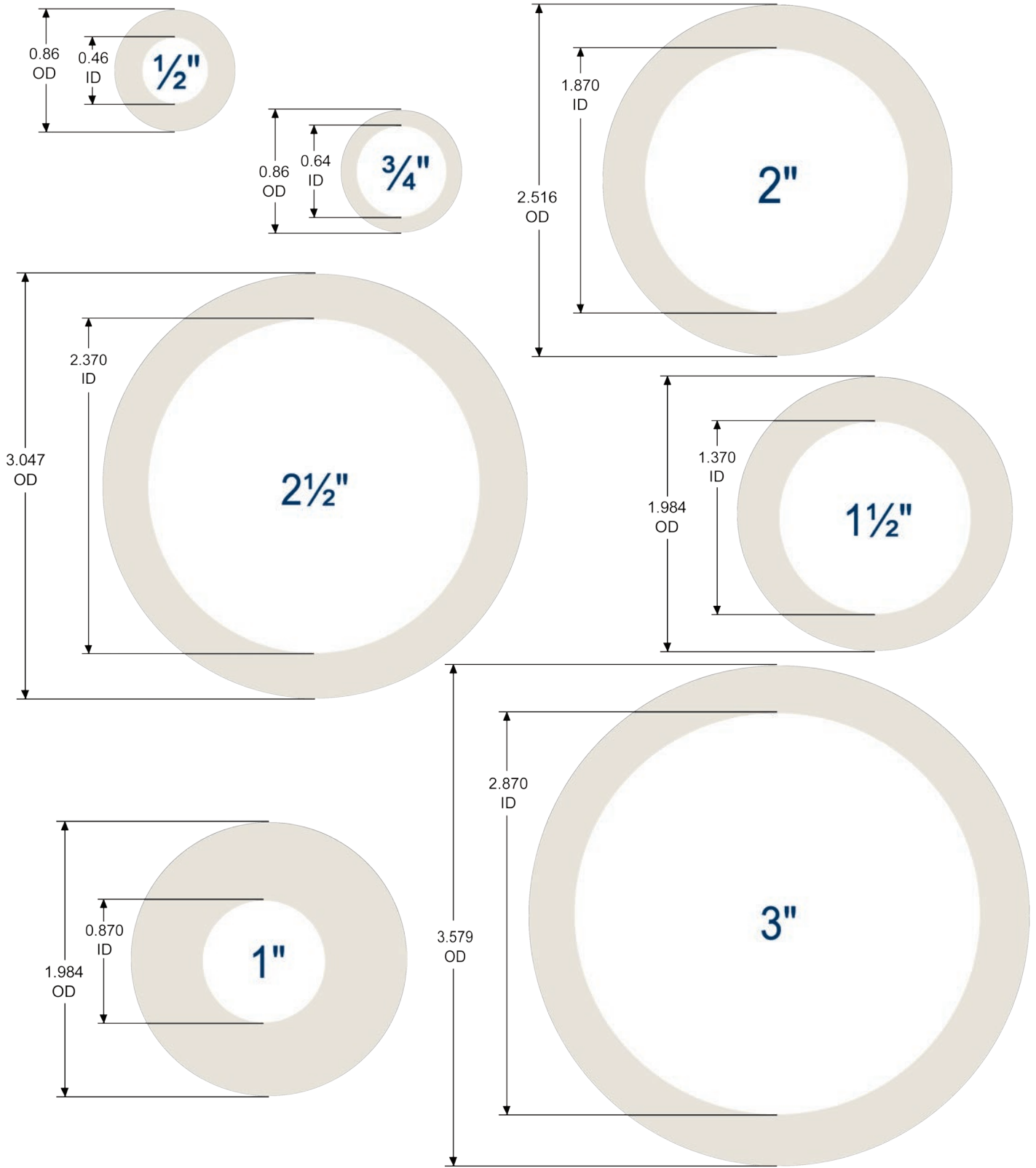
- color code: usually not marked
- peroxide cured FKM
- meets 21CFR 177.1550
- PTFE passed USP Class VI Cytotoxicity testing



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: see pages 32-33 for sizing charts / refer to pages 236-238 for compatibility information

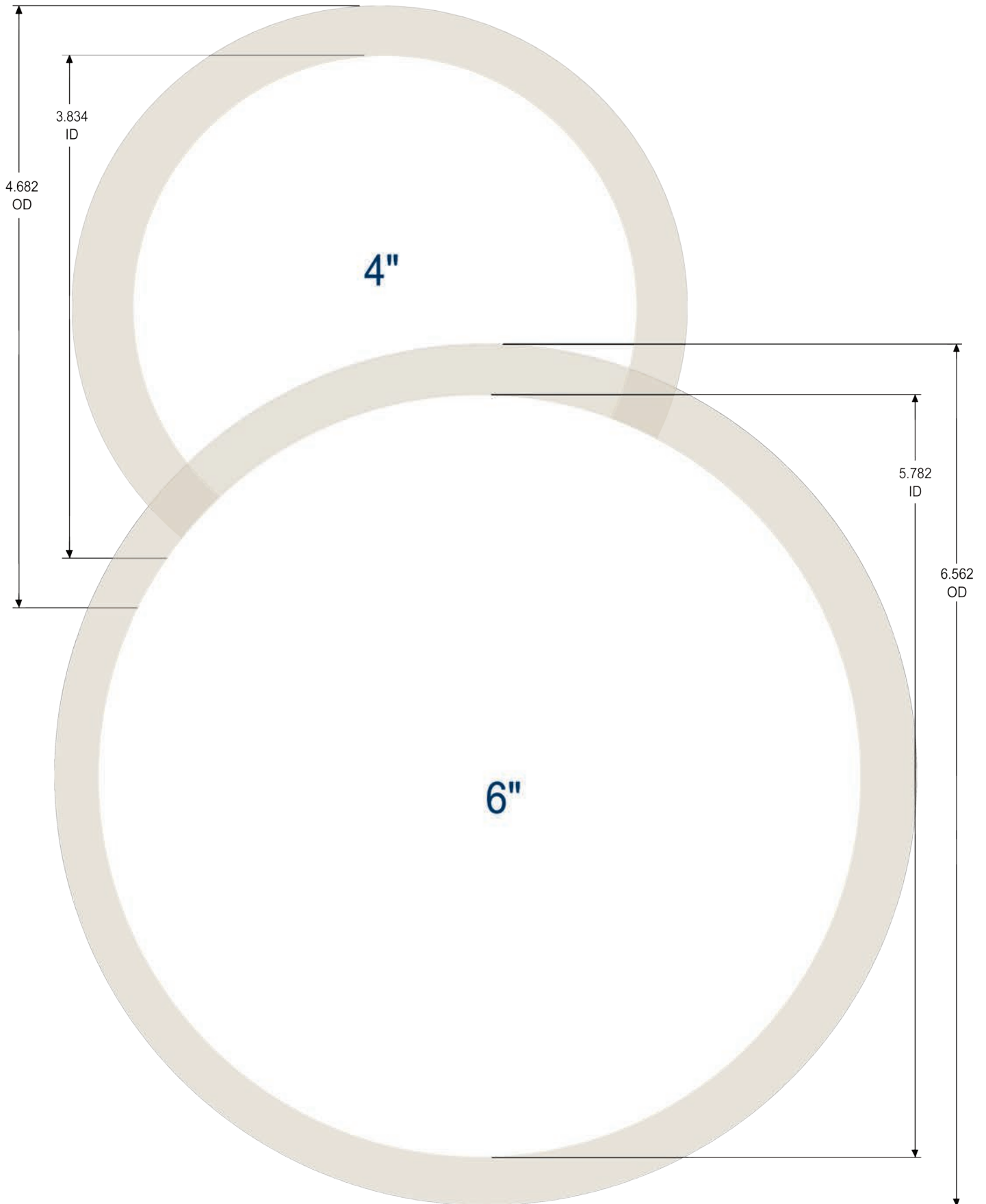
Clamp Fittings and Gasket Sizing Guide



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

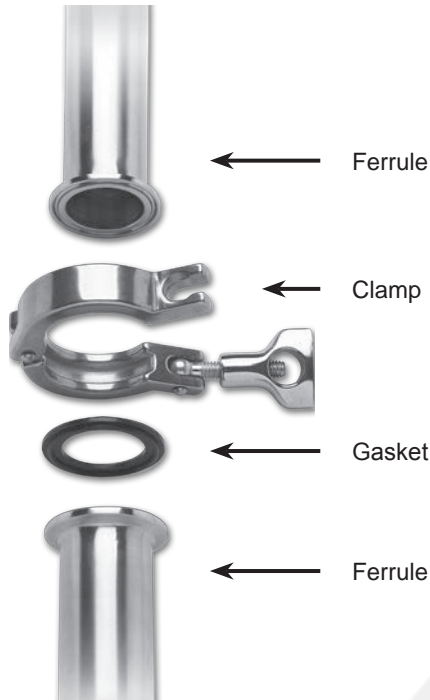
Clamp Fittings and Gasket Sizing Guide



Dixon Sanitary Pipe Fittings

A Complete Pipe Clamp Connection

Product Specifications



Size range:

- 1" - 6" nominal pipe

Materials:

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

Finish:

- 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

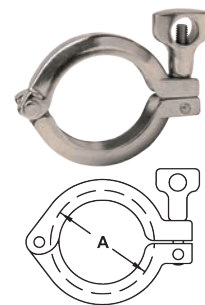
Index

Clamps	35	Hangers	38-40
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Caps	36	Pipe Gasket Sizing Chart	41-42
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Pipe Size Clamps

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

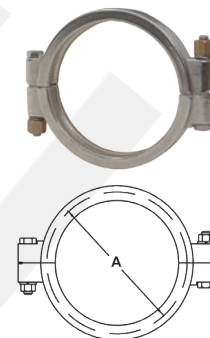
Pipe Size	A	Service pressure rating @ 70°F ¹	Part Number
1"	2.122	500	13MHHV100
1½"	2.654	450	13MHHV150
2"	3.185	400	13MHHV200
2½"	3.717	350	13MHHV250
3"	4.263	250	13MHHV300
4"	5.263	150	13MHHV400
6"	7.500	100	13MHHV600



¹ wing nut tightened to 25 in. lbs. of torque

Schedule 5S and 10S Bolted Clamps - 13MHPV

Pipe Size	A	Service pressure rating @ 70°F ¹	Part Number
1"	2.046	750	13MHPV100
1½"	2.578	500	13MHPV150
2"	3.110	500	13MHPV200
2½"	3.460	500	13MHPV250
4"	5.188	400	13MHPV400



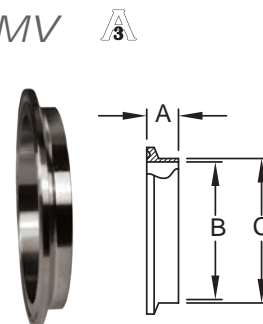
¹ bronze nuts tightened to 20 ft. lbs. of torque

Note: see page 34 for pipe size information

Pipe Size Ferrules

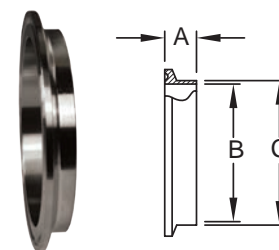
Schedule 5S Short Weld Ferrules - 14WMV

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



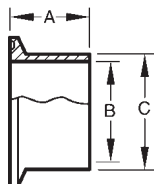
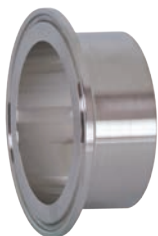
Schedule 10S Short Weld Ferrules - 14WMX

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

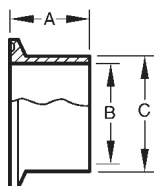


Note: see page 34 for pipe size information

Pipe Size Ferrules

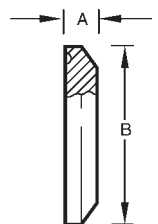



Pipe Size	A	B	C	316L Stainless Steel Part Number
1"	1.125	1.185	1.315	L14AM7V-R100
1½"	1.125	1.770	1.900	L14AM7V-R150
2"	1.125	2.245	2.375	L14AM7V-R200
2½"	1.125	2.709	2.875	L14AM7V-R250
3"	1.125	3.334	3.500	L14AM7V-R300
4"	1.125	4.334	4.500	L14AM7V-R400
6"	1.500	6.407	6.625	L14AM7V-R600

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

Pipe Size End Caps

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

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

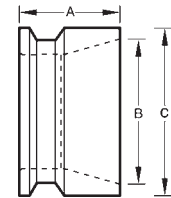
Note: see page 34 for pipe size information

Pipe Size Adapters

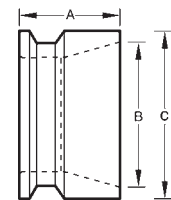
B

Clamp x Schedule 5S Weld Adapters - B19MPV 

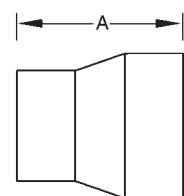
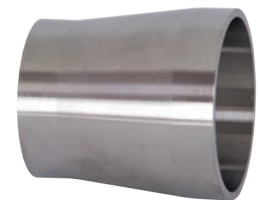
Pipe Size	A	B	C	Pipe Wall Thickness	316L Stainless Steel Part Number
1"	1.125	1.185	1.315	.065	B19MPV-R100
1½"	1.125	1.770	1.900	.065	B19MPV-R150
2"	1.125	2.245	2.375	.065	B19MPV-R200
2½"	1.125	2.709	2.875	.084	B19MPV-R250
3"	1.125	3.334	3.500	.084	B19MPV-R300
4"	1.125	4.334	4.500	.084	B19MPV-R400

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	B19MPX-R100
1½"	1.125	1.682	1.900	.109	B19MPX-R150
2"	1.125	2.157	2.375	.109	B19MPX-R200
2½"	1.125	2.635	2.875	.120	B19MPX-R250
3"	1.125	3.260	3.500	.120	B19MPX-R300
4"	1.125	4.260	4.500	.120	B19MPX-R400

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	B19WX-R100
1½"	2.500	.065	.109	B19WX-R150
2"	2.500	.065	.109	B19WX-R200
2½"	2.500	.065	.120	B19WX-R250
3"	2.500	.065	.120	B19WX-R300
4"	3.000	.084	.120	B19WX-R400



Other types of schedule 5 and 10 pipe fittings are available call Dixon Sanitary for information

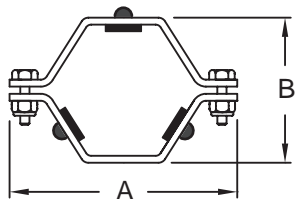


B19W

Note: see page 34 for pipe size information

Pipe Size Hangers

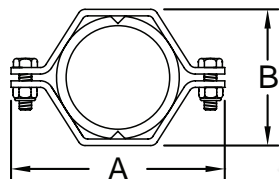
Hex Hanger with Rubber Grommets - B24RV¹



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

¹ for coupler option call Dixon Sanitary

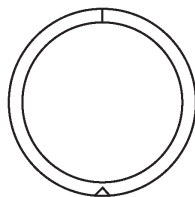
Hex Hanger with Polypropylene Sleeves - B24PV¹



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

¹ for coupler option call Dixon Sanitary

Sleeves - 13PV



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

Note: see page 34 for pipe size information

Pipe Size Uni-Hinge Block Hangers

B

Features:

- support range: 1" - 4"

Materials:

- silicone insert: 80 durometer
- intermittent temperatures from -40°F to 320°F
- hardware: 304 and 316 stainless steel

Applications:

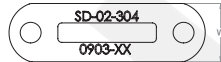
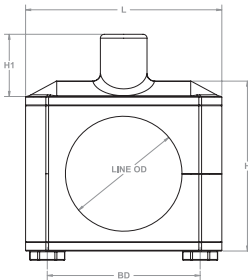
- clean rooms and mechanical areas; not limited to: biotech, pharmaceutical, food processing.
- low flow and low pressure systems with moderate vibration: WFI, SIP, CIP, process, utility and instrument lines.

Benefits:

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

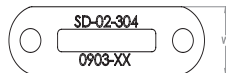
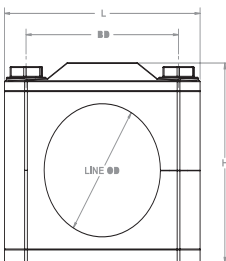


Hang Plate Block Hanger - B24V-TM



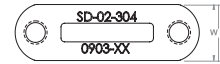
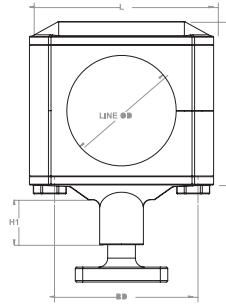
Pipe Size	BD	H	H1	L	Line OD	W	Thread	Part Number
1"	1.94	2.19	0.60	2.49	1.315	0.75	3/8"-16	B24V-TM-G100
1½"	2.44	2.69	0.60	2.99	1.900	0.88	3/8"-16	B24V-TM-G150
2"	2.81	3.22	1.21	3.36	2.375	0.88	1/2"-13	B24V-TM-G200
2½"	3.19	3.66	1.21	3.74	2.875	0.88	1/2"-13	B24V-TM-G250
3"	3.92	4.22	1.32	4.48	3.500	1.00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

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	B24V-WP-G100
1½"	2.44	1.31	2.75	2.99	1.900	0.88	B24V-WP-G150
2"	2.81	1.55	3.25	3.36	2.375	0.88	B24V-WP-G200
2½"	3.19	1.77	3.68	3.74	2.875	0.88	B24V-WP-G250
3"	3.92	2.06	4.25	4.48	3.500	1.00	B24V-WP-G300
4"	4.92	2.58	5.27	5.48	4.500	1.00	B24V-WP-G400

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	<i>B24V-BM-G100</i>
1½"	2.44	2.69	0.47	2.99	1.900	0.88	3/8"-16	<i>B24V-BM-G150</i>
2"	2.81	3.19	0.59	3.36	2.375	0.88	1/2"-13	<i>B24V-BM-G200</i>
2½"	3.19	3.63	0.59	3.74	2.875	0.88	1/2"-13	<i>B24V-BM-G250</i>

Schedule 5S and 10S Pipe Size Clamp Gaskets

Buna-N Pipe Size Clamp Gaskets - *Black*



Features:

- color code: red dot
- meets 21CFR 177.2600

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

PTFE Pipe Size Clamp Gaskets



Features:

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



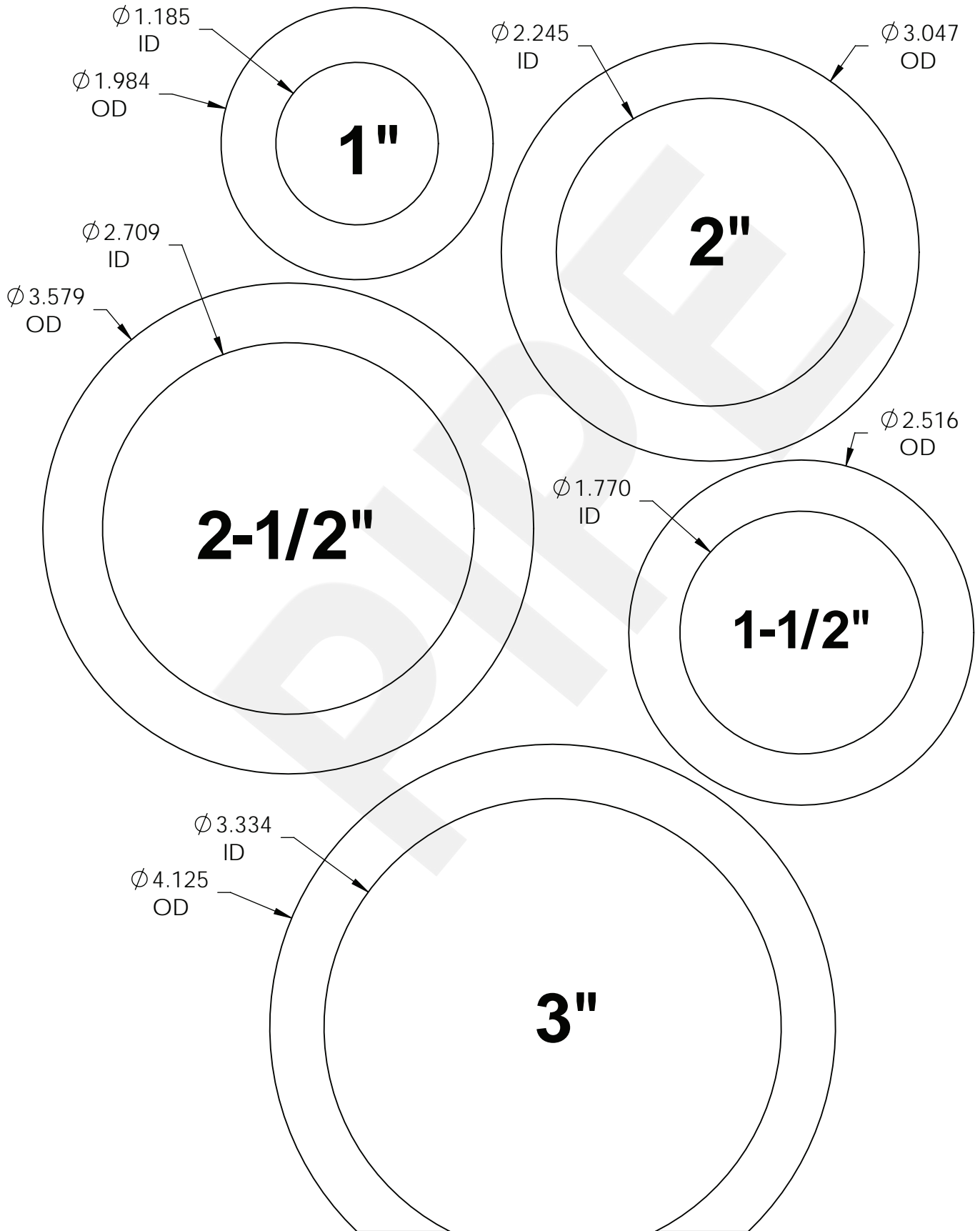
Pipe Size	Part Number
1"	<i>40MPV-G100</i>
1½"	<i>40MPV-G150</i>
2"	<i>40MPV-G200</i>
2½"	<i>40MPV-G250</i>
3"	<i>40MPV-G300</i>
4"	<i>40MPV-G400</i>



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.

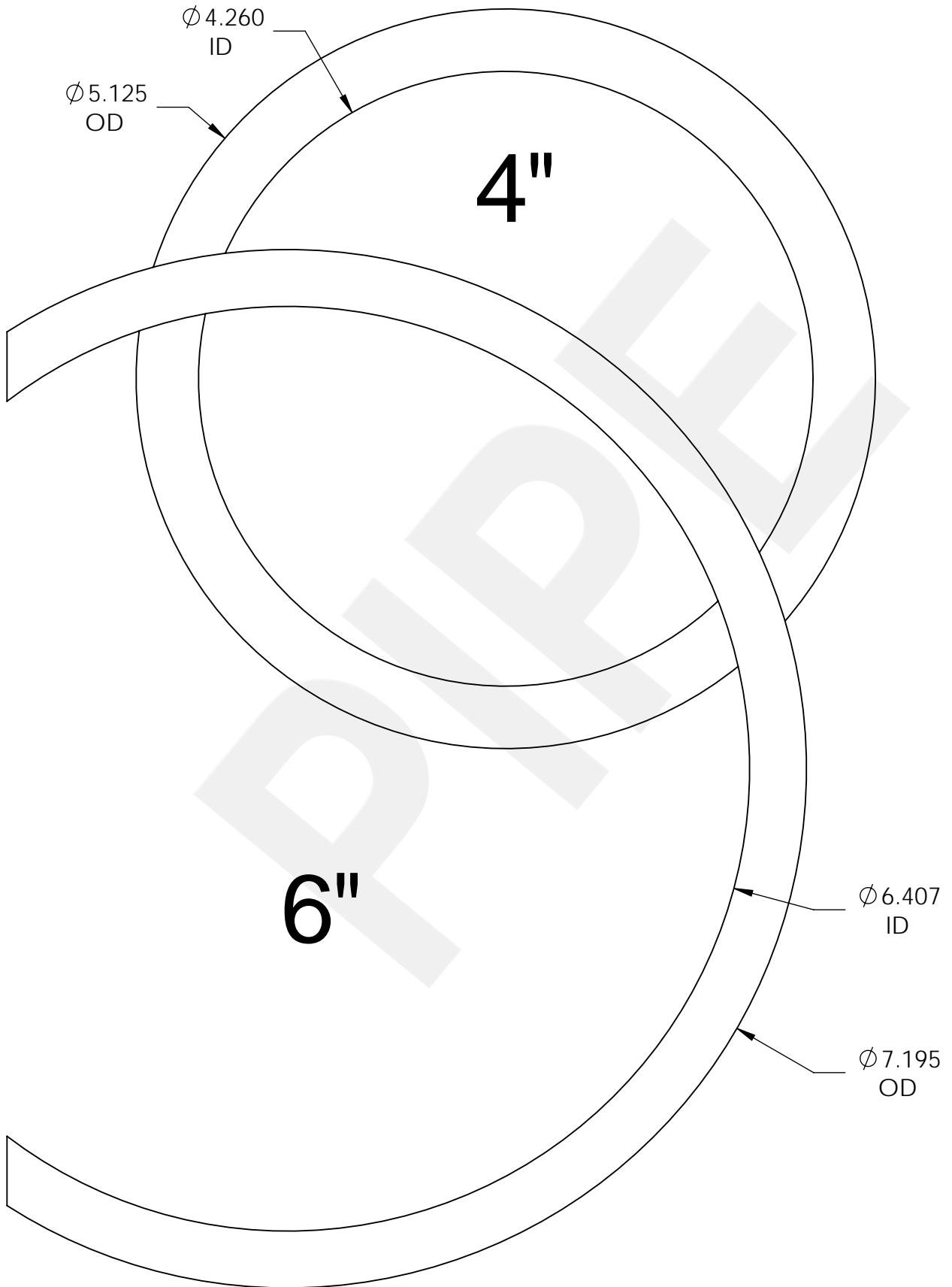
Note: refer to pages 236-238 for compatibility information

Pipe Gasket Sizing Guide



Pipe Gasket Sizing Guide

B



Dixon Sanitary Bevel Seat Fittings



A Complete Bevel Seat Connection

Size range:

- 1" - 4" OD tube

Materials:

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

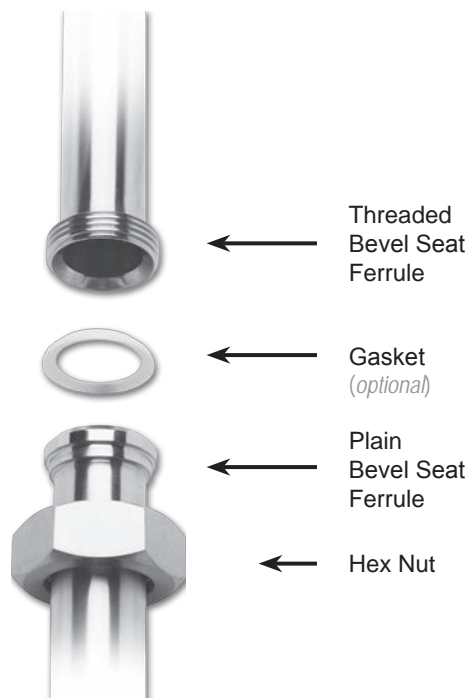
Finish:

- 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

Product Specifications

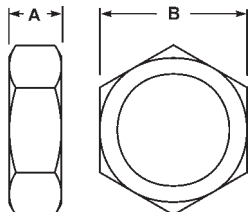
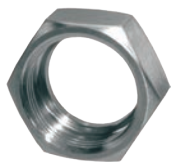


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Bevel Seat Nuts

C



Union Hex Nuts - 13H

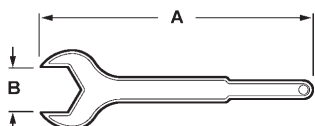
Feature:

- 400 PSI maximum

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

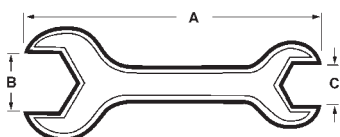
Bevel Seat Wrenches

Single Side Hex Wrenches - 25H



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

Two Sided Hex Wrenches - 25H

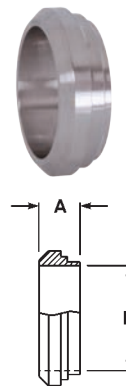


Tube OD	A	B	C	Weight lbs.	Aluminum Part Number
1½" x 1"	12.000	2.406	1.812	1.00	25H-150100
2" x 1½"	14.000	3.000	2.406	1.75	25H-200150
2½" x 2"	16.500	3.594	3.000	2.80	25H-250200
3" x 2"	18.000	4.188	3.000	3.20	25H-300200
3" x 2½"	18.000	4.188	3.594	3.70	25H-300250

Bevel Seat Ferrules

Short Plain Bevel Seat Weld Ferrules - 14PRF

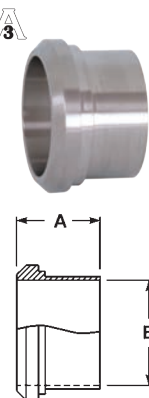
Tube OD	A	B	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	.718	.870	14PRF-G100	14PRF-R100
1½"	.718	1.370	14PRF-G150	14PRF-R150
2"	.750	1.870	14PRF-G200	14PRF-R200
2½"	.875	2.370	14PRF-G250	14PRF-R250
3"	.906	2.870	14PRF-G300	14PRF-R300
4"	1.031	3.834	14PRF-G400	14PRF-R400



C

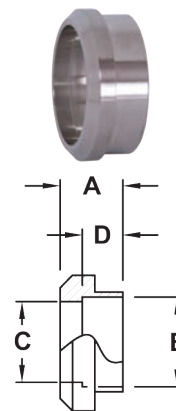
Long Plain Bevel Seat Weld Ferrules - 14A

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



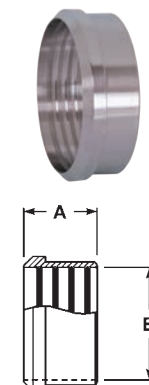
Recessed Plain Bevel Seat Weld Ferrules - 14

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



Recessless Plain Bevel Seat Ferrules for Expanding - 14R

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

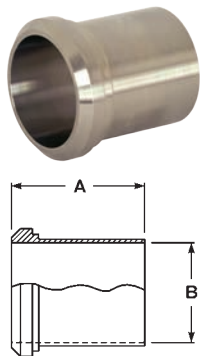


* Meets 3-A Standard Number 63-03 when used to modify or repair existing on-site farm milk handling systems.

Bevel Seat Ferrules

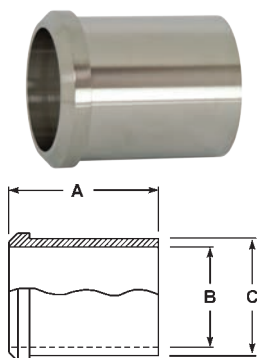
C

Light Wall Tank Plain Bevel Seat Ferrules - 14WL



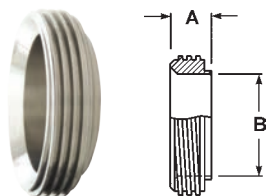
Tube OD	A	B	304 Stainless Steel Part Number
1"	2.000	.870	14WL-G100
1½"	2.250	1.370	14WL-G150
2"	2.500	1.870	14WL-G200
2½"	2.750	2.370	14WL-G250
3"	3.000	2.870	14WL-G300
4"	4.000	3.834	14WL-G400

Heavy Wall Tank Plain Bevel Seat Ferrules - 14W



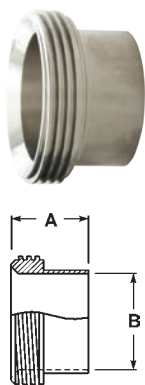
Tube OD	A	B	C	304 Stainless Steel Part Number
1"	2.375	.870	1.160	14W-G100
1½"	2.531	1.370	1.676	14W-G150
2"	2.781	1.870	2.192	14W-G200
2½"	3.062	2.370	2.708	14W-G250
3"	3.531	2.870	3.224	14W-G300
4"	4.312	3.834	4.256	14W-G400

Short Threaded Bevel Seat Weld Ferrules - 15TRF



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

Long Threaded Bevel Seat Weld Ferrules - 15A

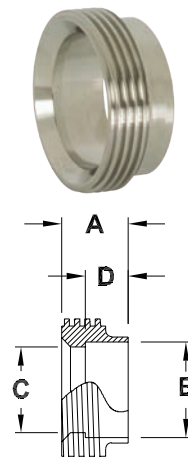


Tube OD	A	B	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	1.375	.870	15A-G100	15A-R100
1½"	1.500	1.370	15A-G150	15A-R150
2"	1.500	1.870	15A-G200	15A-R200
2½"	1.750	2.370	15A-G250	15A-R250
3"	1.750	2.870	15A-G300	15A-R300
4"	1.750	3.834	15A-G400	15A-R400

Bevel Seat Ferrules

Recessed Threaded Bevel Seat Ferrules - 15

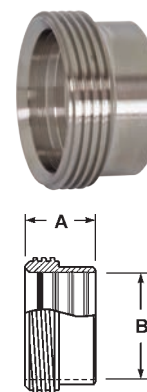
Tube OD	A	B	C	D	304 Stainless Steel Part Number
1"	.812	1.000	.870	.500	15-G100
1½"	.875	1.500	1.370	.625	15-G150
2"	1.031	2.000	1.870	.687	15-G200
2½"	1.125	2.500	2.370	.750	15-G250
3"	1.250	3.000	2.870	.812	15-G300
4"	1.375	4.000	3.834	.937	15-G400



Recessless Threaded Bevel Seat Ferrules for Expanding - 15R

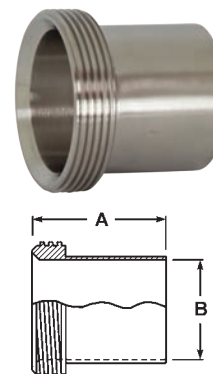
Tube OD	A	B	304 Stainless Steel Part Number
1"	.812	1.000	15R-G100
1½"	1.125	1.500	15R-G150
2"	1.375	2.000	15R-G200
2½"	1.500	2.500	15R-G250
3"	1.675	3.000	15R-G300
4"	1.675	4.000	15R-G400

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



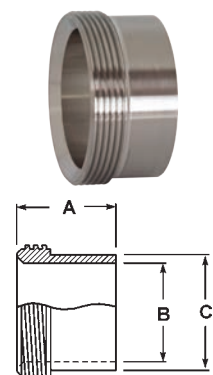
Light Wall Tank Threaded Bevel Seat Ferrules - 15WL

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



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	15W-G100	15W-R100
1½"	1.625	1.370	1.676	15W-G150	15W-R150
2"	1.750	1.870	2.192	15W-G200	15W-R200
2½"	1.750	2.370	2.708	15W-G250	15W-R250
3"	1.812	2.870	3.224	15W-G300	15W-R300
4"	2.125	3.834	4.256	15W-G400	15W-R400

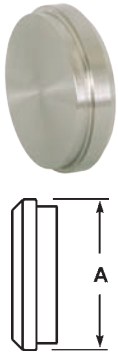


C

Bevel Seat End Caps

Plain Bevel Seat Solid End Caps - 16A

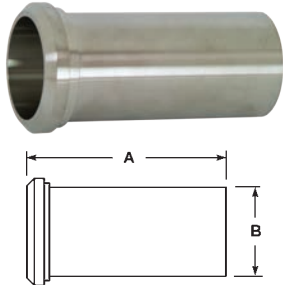
C



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

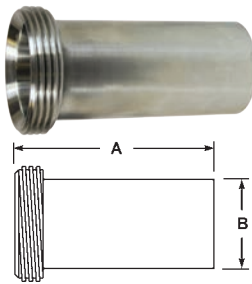
Bevel Seat Adapters

Plain Bevel Seat Tygon® Hose Adapters - 14AHT



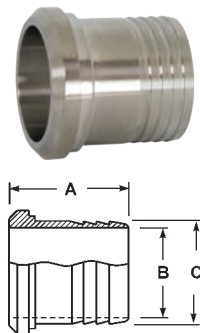
Tube OD	A	B	304 Stainless Steel Part Number
1"	4.688	1.000	14AHT-G100
1½"	4.719	1.500	14AHT-G150
2"	4.719	2.000	14AHT-G200
2½"	4.844	2.500	14AHT-G250
3"	4.906	3.000	14AHT-G300
4"	5.218	4.000	14AHT-G400

Threaded Bevel Seat Tygon® Hose Adapters - 15AHT



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

Plain Bevel Seat Rubber Hose Adapters - 14AHR



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

Other types of bevel seat adapters are available call Dixon Sanitary for information



15AHR



21



22

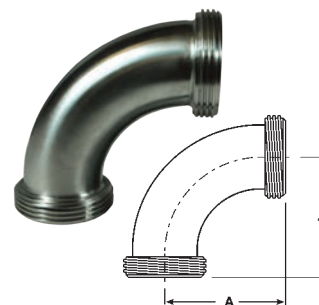


14-18

Bevel Seat Elbows

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

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



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

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



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

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



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

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



Other types of bevel seat elbows are available call Dixon Sanitary for information

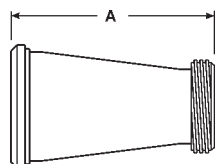


B2K

Bevel Seat Reducers

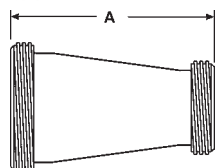
C

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



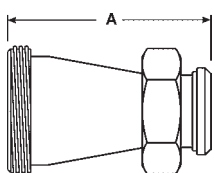
Tube OD	A	304 Stainless Steel Part Number
1½" x 1"	3.436	B3115F-G150100
2" x 1½"	3.468	B3115F-G200150
2½" x 2"	3.625	B3115F-G250200
3" x 2"	5.656	B3115F-G300200
3" x 2½"	3.781	B3115F-G300250
4" x 3"	5.937	B3115F-G400300

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



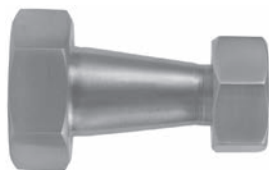
Tube OD	A	304 Stainless Steel Part Number
1½" x 1"	3.436	B31TT-G150100
2" x 1½"	3.468	B31TT-G200150
2½" x 2"	3.625	B31TT-G250200
3" x 2"	5.656	B31TT-G300200
3" x 2½"	3.781	B31TT-G300250
4" x 3"	5.937	B31TT-G400300

3 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	B31TP-G150100
2" x 1½"	3.468	B31TP-G200150
2½" x 2"	3.625	B31TP-G250200
3" x 2"	5.656	B31TP-G300200
3" x 2½"	3.781	B31TP-G300250
4" x 3"	5.937	B31TP-G400300

Other types of bevel seat reducers are available call Dixon Sanitary for information



B3114F



B3215F



B3214F



B32-TT



B32-TP

Sanitary Breakaway Bevel Seat Version



C

Application:

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

Features:

- designed to be installed between a fixed point and a hose
- coupling breaks away with an excessive load
- EPDM standard clamp gasket, optional material available
- working pressure: **350 PSI @ 70°F**
- 13kN break load bolts standard, other break loads available
- 316 stainless steel polished to standard <math><32R_a</math>, 3A finish

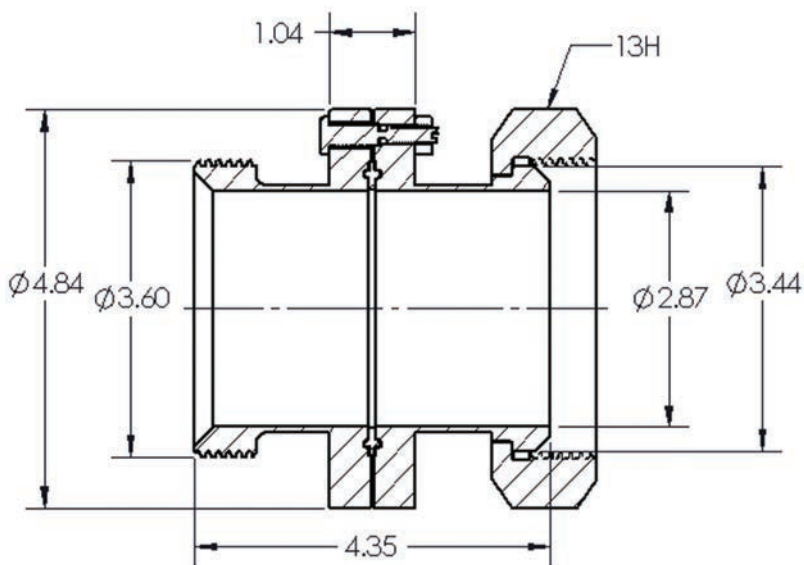


Bevel Seat End

Part Number

SBC-E300TP13

Dimensions



Miscellaneous Bevel Seat Configurations

Other types of bevel seat configurations are available call Dixon Sanitary for information

C



B7



B7A



B7B



B9



B9A



B28A

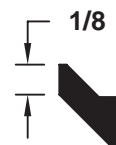


B28B

Bevel Seat Gaskets

Buna-N Bevel Seat Gaskets - *Black*

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



Features:

- color code: red dot
- meets 21CFR 177.2600

C

Buna-N Flat Bevel Seat Gaskets - *Black*

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

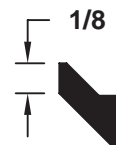


Feature:

- color code: red dot
- meets 21CFR 177.2600

EPDM Bevel Seat Gaskets - *Black*

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

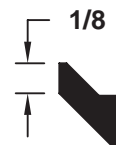


Features:

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

FKM Bevel Seat Gaskets - *Black*

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



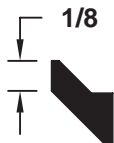
Features:

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

Note: refer to pages 236-238 for compatibility information

Bevel Seat Gaskets

Silicone Bevel Seat Gaskets - *White*

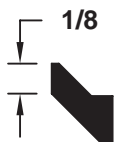


Features:

- color code: no dot
- peroxide cured
- meets 21CFR 177.2600
- passed U.S.P. Class VI Cytotoxicity testing

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

PTFE Bevel Seat Gaskets - *White*



Features:

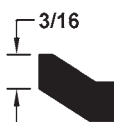
- color code: no dot
- meets 21CFR 177.1550
- passed U.S.P. Class VI Cytotoxicity testing

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



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.

Heavy PTFE Bevel Seat Gaskets - *White*



Features:

- color code: no dot
- meets 21CFR 177.1550
- passed U.S.P. Class VI Cytotoxicity testing

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



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 236-238 for compatibility information

Dixon Sanitary John Perry Fittings



A Complete John Perry Connection

Product Specifications

D

Size range:

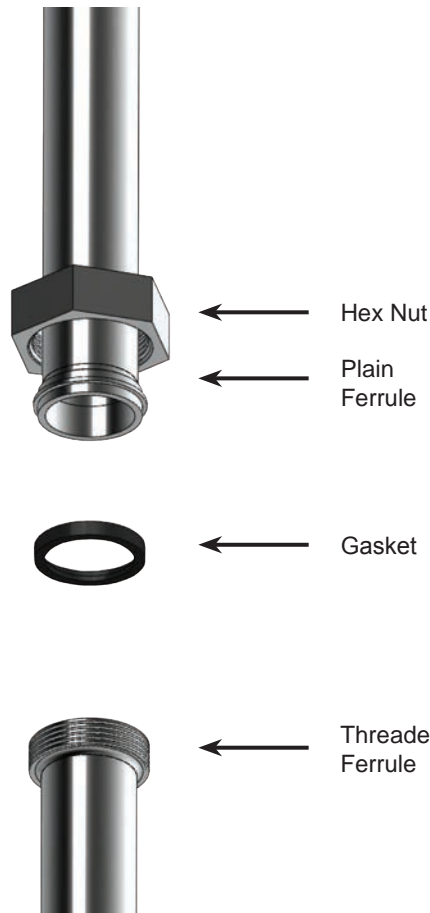
- 1" - 4" OD tube

Materials:

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

Finish:

- 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

Index

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Wrenches	56	Miscellaneous	58
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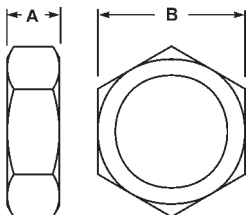
John Perry Nuts

Union Hex Nuts - 13H

Feature:

- 400 PSI maximum

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

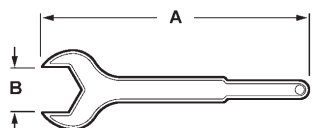


D

John Perry Wrenches

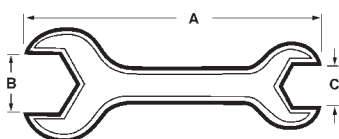
Single Side Hex Wrenches - 25H

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



Two Sided Hex Wrenches - 25H

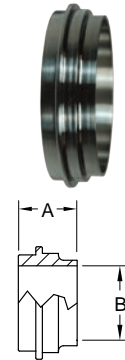
Tube OD	A	B	C	Weight lbs.	Aluminum Part Number
1½" x 1"	12.000	2.406	1.812	1.00	25H-150100
2" x 1½"	14.000	3.000	2.406	1.75	25H-200150
2½" x 2"	16.500	3.594	3.000	2.80	25H-250200
3" x 2"	18.000	4.188	3.000	3.20	25H-300200
3" x 2½"	18.000	4.188	3.594	3.70	25H-300250



John Perry Ferrules

John Perry Short Plain Weld Ferrules - 14PRFJP 

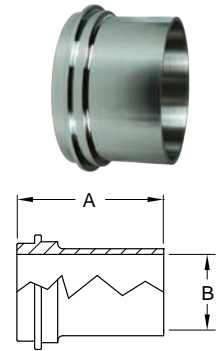
Tube OD	A	B	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	.719	.870	14PRFJP-G100	14PRFJP-R100
1½"	.719	1.370	14PRFJP-G150	14PRFJP-R150
2"	.750	1.870	14PRFJP-G200	14PRFJP-R200
2½"	.875	2.370	14PRFJP-G250	14PRFJP-R250
3"	.906	2.870	14PRFJP-G300	14PRFJP-R300
4"	1.031	3.834	14PRFJP-G400	14PRFJP-R400



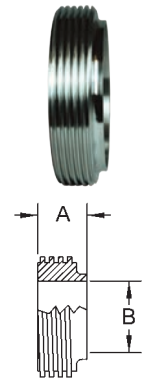
D

John Perry Long Plain Weld Ferrules - L14AJP 

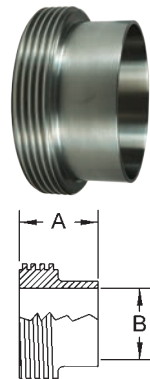
Tube OD	A	B	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	1.375	.870	L14AJP-G100	L14AJP-R100
1½"	1.500	1.370	L14AJP-G150	L14AJP-R150
2"	1.500	1.870	L14AJP-G200	L14AJP-R200
2½"	1.750	2.370	L14AJP-G250	L14AJP-R250
3"	1.750	2.870	L14AJP-G300	L14AJP-R300
4"	1.750	3.834	L14AJP-G400	L14AJP-R400

John Perry Threaded Short Weld Ferrules - 15TRFJP 

Tube OD	A	B	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	.719	.870	15TRFJP-G100	15TRFJP-R100
1½"	.719	1.370	15TRFJP-G150	15TRFJP-R150
2"	.750	1.870	15TRFJP-G200	15TRFJP-R200
2½"	.875	2.370	15TRFJP-G250	15TRFJP-R250
3"	.906	2.870	15TRFJP-G300	15TRFJP-R300
4"	1.031	3.834	15TRFJP-G400	15TRFJP-R400

John Perry Threaded Long Weld Ferrules - L15AJP 

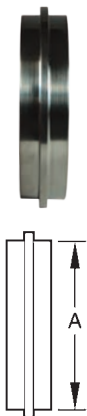
Tube OD	A	B	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	1.375	.870	L15AJP-G100	L15AJP-R100
1½"	1.500	1.370	L15AJP-G150	L15AJP-R150
2"	1.500	1.870	L15AJP-G200	L15AJP-R200
2½"	1.750	2.370	L15AJP-G250	L15AJP-R250
3"	1.750	2.870	L15AJP-G300	L15AJP-R300
4"	1.750	3.834	L15AJP-G400	L15AJP-R400



John Perry End Caps

John Perry Solid End Caps - 16AJP

Tube OD	A	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	1.125	16AJP-G100	16AJP-R100
1½"	1.656	16AJP-G150	16AJP-R150
2"	2.187	16AJP-G200	16AJP-R200
2½"	2.656	16AJP-G250	16AJP-R250
3"	3.187	16AJP-G300	16AJP-R300
4"	4.187	16AJP-G400	16AJP-R400



Miscellaneous John Perry Configurations

Other types of John Perry configurations are available call Dixon Sanitary for information



B2CJP



B2PJP



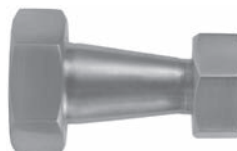
B2EJP



B7JP



B3115FJP



B3114FJP



B31TPJP



B7AJP



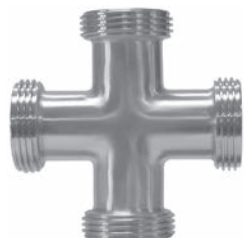
B3215FJP



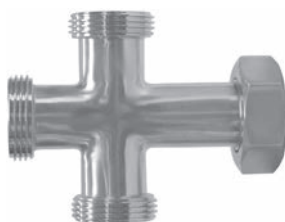
B3214FJP



B32TPJP



B9JP



B9AJP



B28BJP



B28AJP

John Perry Gaskets

Buna 80 Duro John Perry Gaskets

Size	Part Number
1"	40JP-U100
1½"	40JP-U150
2"	40JP-U200
2½"	40JP-U250
3"	40JP-U300
4"	40JP-U400


Features:

- color code: one red dot
- meets 21CFR 177.2600

D

EPDM John Perry Gaskets

Size	Part Number
1"	40JP-E100
1½"	40JP-E150
2"	40JP-E200
2½"	40JP-E250
3"	40JP-E300
4"	40JP-E400


Features:

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

FKM John Perry Gaskets

Size	Part Number
1"	40JP-SFY100
1½"	40JP-SFY150
2"	40JP-SFY200
2½"	40JP-SFY250
3"	40JP-SFY300
4"	40JP-SFY400


Features:

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

Virgin PTFE John Perry Gaskets

Size	Part Number
1"	40JP-G100
1½"	40JP-G150
2"	40JP-G200
2½"	40JP-G250
3"	40JP-G300
4"	40JP-G400


Features:

- color code: no dot
- 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 236-238 for compatibility information

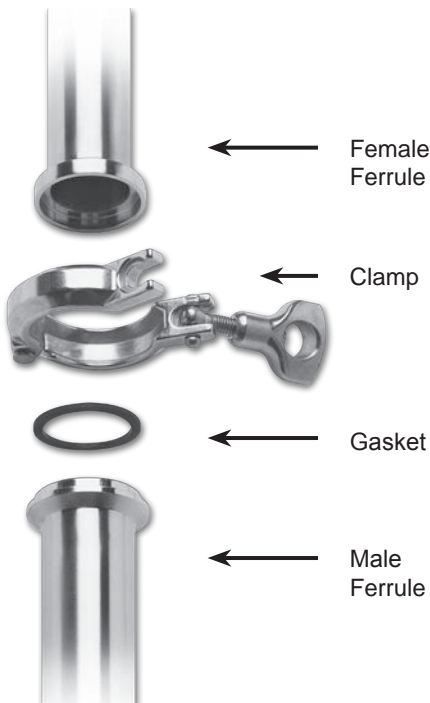


Dixon Sanitary I-line & Q-Line Fittings

A Complete I-line Connection

Product Specifications

E



Size range:

- 1" - 8" OD tube I-line*
- 1" - 4" OD tube Q-Line

* stock items to 4", 6" & 8" items are special order

Materials:

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

Finish:

- 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"	.120	10

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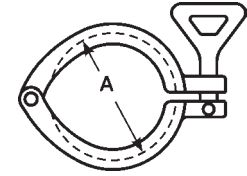
I-line/Q-Line Clamps

Heavy Duty Clamps - 13ILH

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

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

¹ wing nut tightened to 25 in. lb. of torque



E

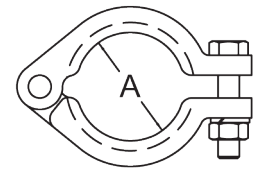
Bolted Clamps - 13ILB

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

¹ nut tightened to 20 ft. lb. of torque

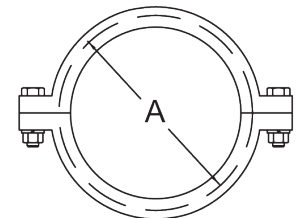


1" - 4"



Tube OD	Service Pressure Rating @ 70°F ¹	Service Pressure Rating @ 250°F ¹	A	Part Number
6"	300	200	7.689	13ILB600
8"	250	150	9.689	13ILB800

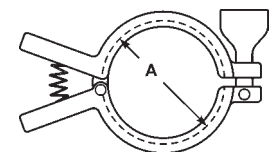
¹ nut tightened to 20 ft. lb. of torque



Squeeze Clamps - 13IL-Q

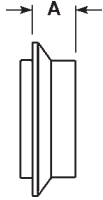
Tube OD	Service Pressure Rating @ 70°F ¹	Service Pressure Rating @ 250°F ¹	A	Part Number
1" - 1½"	700	250	2.122	13IL-Q100150
2"	450	250	2.654	13IL-Q200

¹ wing nut tightened to 25 in. lb. of torque



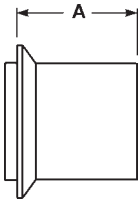
I-line/Q-Line Ferrules

3 Male I-Line Short Weld Ferrules - 14WI



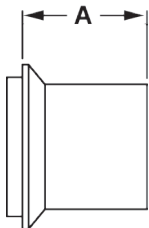
Tube OD	A	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	.600	14WI-G100	14WI-R100
1½"	.765	14WI-G150	14WI-R150
2"	.790	14WI-G200	14WI-R200
2½"	.848	14WI-G250	14WI-R250
3"	.906	14WI-G300	14WI-R300
4"	1.031	14WI-G400	14WI-R400
6"	.940	---	14WI-R600
8"	.940	---	14WI-R800

3 Male I-Line Long Weld Ferrules - 14WLI



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

3 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	14WHI-G100	14WHI-R100
1½"	1.457	14WHI-G150	14WHI-R150
2"	1.500	14WHI-G200	14WHI-R200
2½"	1.437	14WHI-G250	14WHI-R250
3"	1.500	14WHI-G300	14WHI-R300
4"	1.812	14WHI-G400	14WHI-R400

I-line/Q-Line Ferrules

Female I-Line Short Weld Ferrules - 15WI 

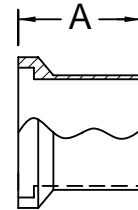
Tube OD	A	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	.785	15WI-G100	15WI-R100
1½"	.950	15WI-G150	15WI-R150
2"	1.040	15WI-G200	15WI-R200
2½"	1.160	15WI-G250	15WI-R250
3"	1.220	15WI-G300	15WI-R300
4"	1.350	15WI-G400	15WI-R400
6"	1.125	---	15WI-R600
8"	1.125	---	15WI-R800



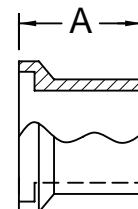
E

Female I-Line Long Weld Ferrules - 15WLI 

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

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

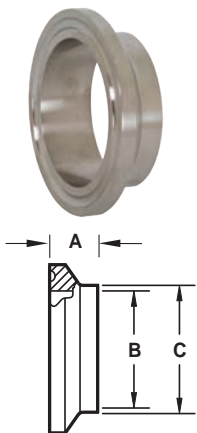
Tube OD	A	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	1.500	15WHI-G100	15WHI-R100
1½"	1.625	15WHI-G150	15WHI-R150
2"	1.750	15WHI-G200	15WHI-R200
2½"	1.750	15WHI-G250	15WHI-R250
3"	1.812	15WHI-G300	15WHI-R300
4"	2.125	15WHI-G400	15WHI-R400



I-line/Q-Line Ferrules

Q-Line Weld Ferrules - 14WQ

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

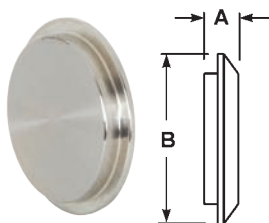


E

I-line/Q-Line End Caps

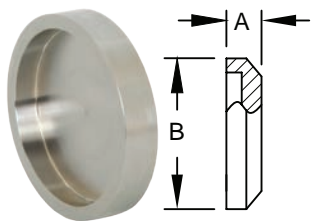
Male I-Line Solid End Caps - 16AI-14I

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



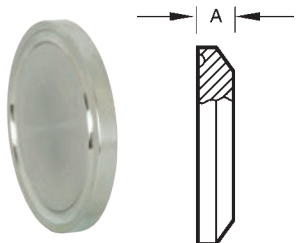
Female I-Line Solid End Caps - 16AI-15I

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



Q-Line Solid End Caps - 16AQ

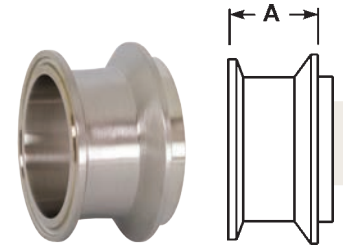
Tube OD	A	304 Stainless Steel Part Number
1"	.313	16AQ-G100
1½"	.313	16AQ-G150
2"	.438	16AQ-G200
2½"	.500	16AQ-G250
3"	.500	16AQ-G300
4"	.625	16AQ-G400



I-line/Q-Line Adapters

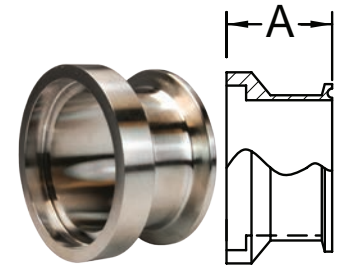
Male I-Line x Clamp Adapters - 17-14I-14MP

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



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

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



Other types of I-line adapters are available call Dixon Sanitary for information



17-14I-15



17-14I-14



17-14I-14I



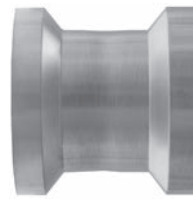
14HRI



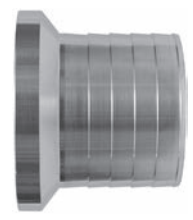
17-15I-15



17-15I-14



17-15I-15I



15HRI

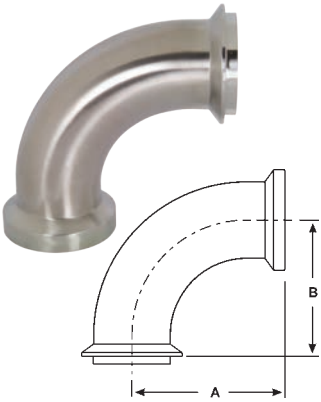


17-14I-15I

I-line/Q-Line Elbows

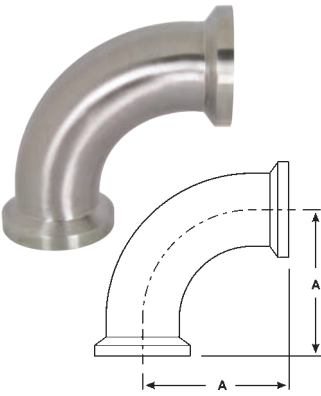
90° Female I-Line x Male I-Line Elbows - B2FI

E



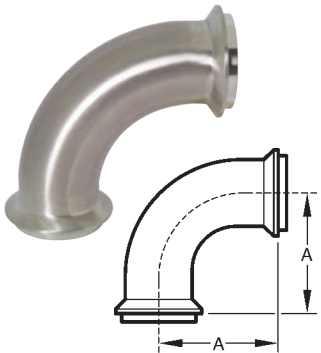
Tube OD	A	B	304 Stainless Steel Part Number
1"	2.281	2.093	B2FI-G100
1½"	3.188	3.000	B2FI-G150
2"	4.031	3.781	B2FI-G200
2½"	4.906	4.593	B2FI-G250
3"	5.718	5.406	B2FI-G300
4"	7.344	7.031	B2FI-G400

90° Female I-Line Elbows - B2CI



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

90° Male I-Line Elbows - B2EI



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

Other types of I-line elbows are available call Dixon Sanitary for information



B2HI



B2PI



B2KI

Miscellaneous I-line/Q-Line Configurations

Other types of I-line configurations are available call Dixon Sanitary for information



28BI



28AI



B9I

E



B7HI



B7I



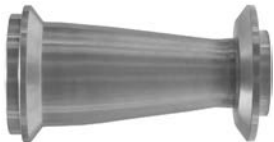
B7EI



B7AI



B7BI



3114I14I



3114I15I



3115I14I



3115I15I



3214I14I



3214I15I



3215I14I



3215I15I

I-line Gaskets

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

E

Features:

- color code: red dot
- meets 21CFR 177.2600

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

EPDM I-Line Gaskets - *White 3/32"***Features:**

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

Size	Part Number
1"	40IE100
1½"	40IE150
2"	40IE200
2½"	40IE250
3"	40IE300
4"	40IE400
6"	40IE600
8"	40IE800

EPDM I-Line Gaskets - *White 1/16"***Features:**

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

Size	Part Number
1"	40IE10016
1½"	40IE15016
2"	40IE20016
2½"	40IE25016
3"	40IE30016
4"	40IE40016
6"	40IE60016
8"	40IE80016

FKM I-Line Gaskets - *1/16"***Features:**

- color code: one white dot and one yellow dot
- peroxide cured
- meets 21CFR 177.1550
- passed U.S.P. Class VI Cytotoxicity testing

Size	Part Number
1"	40IV100
1½"	40IV150
2"	40IV200
2½"	40IV250
3"	40IV300
4"	40IV400
6"	40IV600
8"	40IV800

Note: refer to pages 236-238 for compatibility information

I-line Gaskets

PTFE I-Line Gaskets - 1/16"

Size	Part Number
1"	40IT100
1½"	40IT150
2"	40IT200
2½"	40IT250
3"	40IT300
4"	40IT400
6"	40IT600
8"	40IT800


Features:

- color code: no dot
- 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.

E

Q-Line Gaskets

Buna-N Q-Line Gaskets - *Black*

Size	Part Number
1"	40QH100
1½"	40QH150
2"	40QH200
2½"	40QH250
3"	40QH300
4"	40QH400


Features:

- color code: red dot
- meets 21CFR 177.2600

PTFE Q-Line Gaskets - *White*

Size	Part Number
1"	40QT100
1½"	40QT150
2"	40QT200
2½"	40QT250
3"	40QT300
4"	40QT400


Features:

- color code: no dot
- 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 236-238 for compatibility information

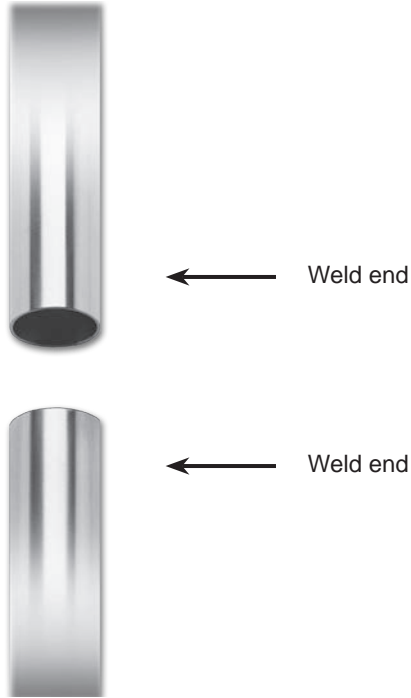


Dixon Sanitary Polished Weld Fittings

A Complete Weld Connection

Product Specifications

F



Size range:

- ½" - 12" OD tube

Materials:

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

Finish:

- 3A sanitary finish ID and OD
- #3, #5 and electropolish finishes are available

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"	.120	10
10"	.109	12
12"	.120	10

Index

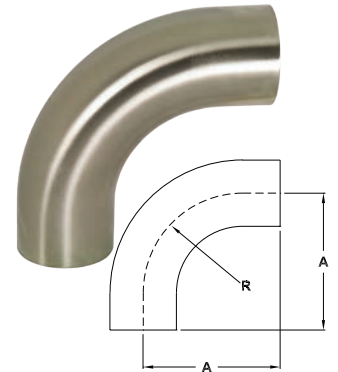
Elbows 71-73
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 Miscellaneous 78-79

Weld Elbows

Polished 90° Weld Elbows with Tangents - B2S

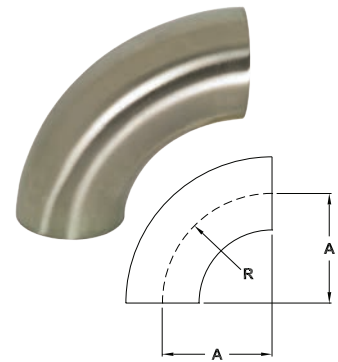
Tube OD	A	R	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1/2"	3.000	1.125	.065	---	B2S-R50P
3/4"	3.000	1.125	.065	---	B2S-R75P
1"	2.062	1.500	.065	B2S-G100P	B2S-R100P
1 1/2"	2.937	2.250	.065	B2S-G150P	B2S-R150P
2"	4.062	3.000	.065	B2S-G200P	B2S-R200P
2 1/2"	5.187	3.750	.065	B2S-G250P	B2S-R250P
3"	6.312	4.500	.065	B2S-G300P	B2S-R300P
4"	8.312	6.000	.083	B2S-G400P	B2S-R400P



F

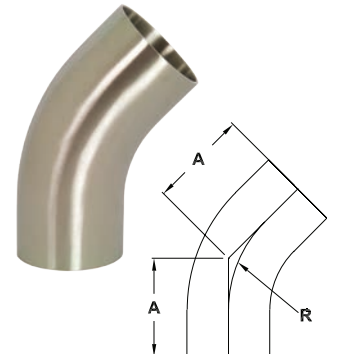
Polished 90° Weld Elbows - B2WCL

Tube OD	A	R	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1/2"	1.125	1.125	.065	---	B2WCL-R50P
3/4"	1.125	1.125	.065	---	B2WCL-R75P
1"	1.500	1.500	.065	B2WCL-G100P	B2WCL-R100P
1 1/2"	2.250	2.250	.065	B2WCL-G150P	B2WCL-R150P
2"	3.000	3.000	.065	B2WCL-G200P	B2WCL-R200P
2 1/2"	3.750	3.750	.065	B2WCL-G250P	B2WCL-R250P
3"	4.500	4.500	.065	B2WCL-G300P	B2WCL-R300P
4"	6.000	6.000	.083	B2WCL-G400P	B2WCL-R400P
6"	9.000	9.000	.109	B2WCL-G600P	B2WCL-R600P
8"	12.000	12.000	.120	B2WCL-G800P	B2WCL-R800P
10"	15.000	15.000	.109	B2WCL-G1000P	B2WCL-R1000P



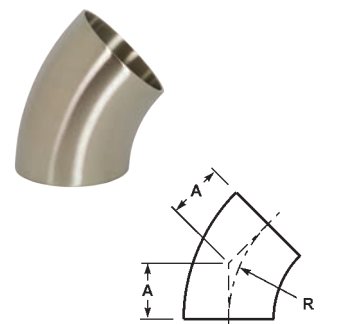
Polished 45° Weld Elbows with Tangents - B2KS

Tube OD	A	R	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1/2"	2.250	1.125	.065	---	B2KS-R50P
3/4"	2.250	1.125	.065	---	B2KS-R75P
1"	1.188	1.500	.065	B2KS-G100P	B2KS-R100P
1 1/2"	1.625	2.250	.065	B2KS-G150P	B2KS-R150P
2"	2.312	3.000	.065	B2KS-G200P	B2KS-R200P
2 1/2"	3.000	3.750	.065	B2KS-G250P	B2KS-R250P
3"	3.688	4.500	.065	B2KS-G300P	B2KS-R300P
4"	4.812	6.000	.083	B2KS-G400P	B2KS-R400P



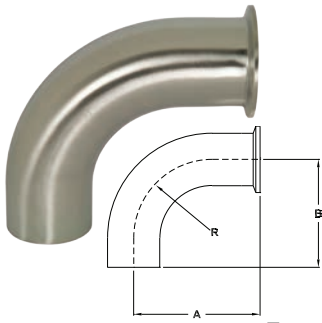
Polished 45° Weld Elbows - B2WK

Tube OD	A	R	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1/2"	.466	1.125	.065	---	B2WK-R50P
3/4"	.466	1.125	.065	---	B2WK-R75P
1"	.625	1.500	.065	B2WK-G100P	B2WK-R100P
1 1/2"	.937	2.250	.065	B2WK-G150P	B2WK-R150P
2"	1.250	3.000	.065	B2WK-G200P	B2WK-R200P
2 1/2"	1.562	3.750	.065	B2WK-G250P	B2WK-R250P
3"	1.875	4.500	.065	B2WK-G300P	B2WK-R300P
4"	2.500	6.000	.083	B2WK-G400P	B2WK-R400P
6"	3.750	9.000	.109	B2WK-G600P	B2WK-R600P
8"	5.000	12.000	.120	B2WK-G800P	B2WK-R800P
10"	6.250	15.000	.109	B2WK-G1000P	B2WK-R1000P
12"	7.500	18.000	.120	B2WK-G1200P	B2WK-R1200P



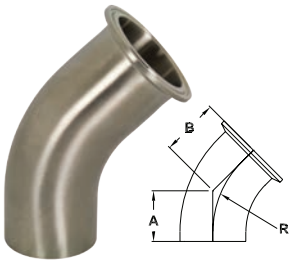
Weld Elbows

Polished 90° Clamp x Weld Elbows - B2CM



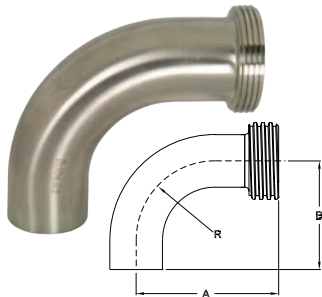
Tube OD	A	B	R	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	2.562	2.062	1.500	.065	B2CM-G100	B2CM-R100
1½"	3.438	2.937	2.250	.065	B2CM-G150	B2CM-R150
2"	4.562	4.062	3.000	.065	B2CM-G200	B2CM-R200
2½"	5.688	5.187	3.750	.065	B2CM-G250	B2CM-R250
3"	6.812	6.312	4.500	.065	B2CM-G300	B2CM-R300
4"	8.937	8.312	6.000	.083	B2CM-G400	B2CM-R400

Polished 45° Clamp x Weld Elbows - B2KM



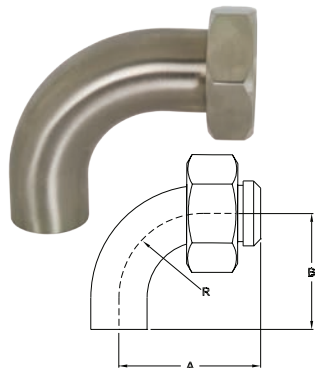
Tube OD	A	B	R	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	1.188	1.688	1.500	.065	B2KM-G100	B2KM-R100
1½"	1.625	2.125	2.250	.065	B2KM-G150	B2KM-R150
2"	2.312	2.812	3.000	.065	B2KM-G200	B2KM-R200
2½"	3.000	3.500	3.750	.065	B2KM-G250	B2KM-R250
3"	3.688	4.188	4.500	.065	B2KM-G300	B2KM-R300
4"	4.812	5.437	6.000	.083	B2KM-G400	B2KM-R400

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	B2T-G100
1½"	3.656	2.937	2.250	.065	B2T-G150
2"	4.812	4.062	3.000	.065	B2T-G200
2½"	6.062	5.187	3.750	.065	B2T-G250
3"	7.218	6.312	4.500	.065	B2T-G300
4"	9.343	8.312	6.000	.083	B2T-G400

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	B2FP-G100
1½"	3.656	2.937	2.250	.065	B2FP-G150
2"	4.812	4.062	3.000	.065	B2FP-G200
2½"	6.062	5.187	3.750	.065	B2FP-G250
3"	7.218	6.312	4.500	.065	B2FP-G300
4"	9.343	8.312	6.000	.083	B2FP-G400

Other types of weld elbows are available call Dixon Sanitary for information



B2KT



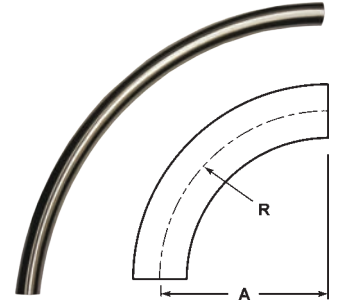
B2KP

Weld Sweep Elbows

- Standard with no tangents. Call Dixon Sanitary for tangents, 45° and other radii.

Polished 12" 90° Weld Sweep Elbows - B2SXL

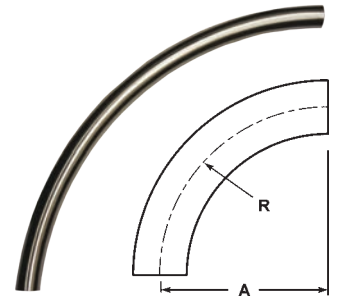
Tube OD	A	R	316L Stainless Steel Part Number
1½"	12.00	12.00	B2SXL12-R150
2"	12.00	12.00	B2SXL12-R200
3"	12.00	12.00	B2SXL12-R300
4"	12.00	12.00	B2SXL12-R400



F

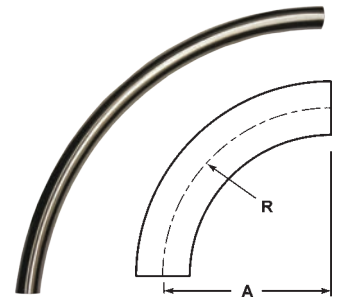
Polished 18" 90° Weld Sweep Elbows - B2SXL

Tube OD	A	R	316L Stainless Steel Part Number
1½"	18.00	18.00	B2SXL18-R150
2"	18.00	18.00	B2SXL18-R200
2½"	18.00	18.00	B2SXL18-R250
3"	18.00	18.00	B2SXL18-R300



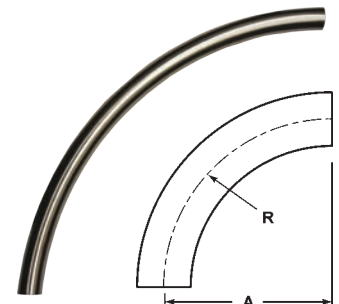
Polished 24" 90° Weld Sweep Elbows - B2SXL

Tube OD	A	R	316L Stainless Steel Part Number
1½"	24.00	24.00	B2SXL24-R150
2"	24.00	24.00	B2SXL24-R200
2½"	24.00	24.00	B2SXL24-R250
3"	24.00	24.00	B2SXL24-R300



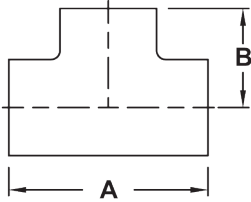
Polished 36" 90° Weld Sweep Elbows - B2SXL

Tube OD	A	R	316L Stainless Steel Part Number
3"	36.00	36.00	B2SXL36-R300
4"	36.00	36.00	B2SXL36-R400



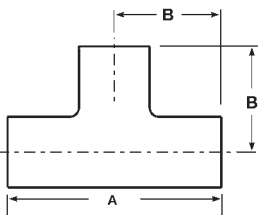
Weld Tees

3 Polished Short Weld Tees - B7WWW



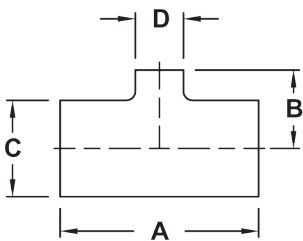
Tube OD	A	B	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	2.250	1.125	.065	B7WWW-G100P	B7WWW-R100P
1½"	3.312	1.656	.065	B7WWW-G150P	B7WWW-R150P
2"	4.124	2.062	.065	B7WWW-G200P	B7WWW-R200P
2½"	4.688	2.344	.065	B7WWW-G250P	B7WWW-R250P
3"	5.188	2.594	.065	B7WWW-G300P	B7WWW-R300P
4"	6.876	3.438	.083	B7WWW-G400P	B7WWW-R400P

3 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	---	B7W-R50P
¾"	4.000	2.000	.065	---	B7W-R75P
1"	3.750	1.875	.065	B7W-G100P	B7W-R100P
1½"	4.500	2.250	.065	B7W-G150P	B7W-R150P
2"	6.000	3.000	.065	B7W-G200P	B7W-R200P
2½"	6.000	3.000	.065	B7W-G250P	B7W-R250P
3"	6.500	3.250	.065	B7W-G300P	B7W-R300P
4"	7.750	3.875	.083	B7W-G400P	B7W-R400P
6"	11.250	5.625	.109	B7W-G600P	B7W-R600P
8"	14.000	7.000	.120	B7W-G800P	B7W-R800P

3 Polished Reducing Weld Tees - B7RWWW

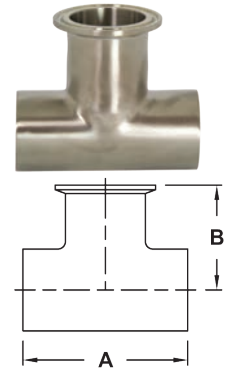


Tube OD	A	B	C	D	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
¾" x ½"	4.000	2.000	.750	.500	.065	---	B7RWWW-R7550P
1" x ½"	4.250	2.125	1.000	.500	.065	---	B7RWWW-R10050P
1" x ¾"	4.250	2.125	1.000	.750	.065	---	B7RWWW-R10075P
1½" x ½"	4.750	2.375	1.500	.500	.065	---	B7RWWW-R15050P
1½" x ¾"	4.750	2.375	1.500	.750	.065	---	B7RWWW-R15075P
1½" x 1"	3.312	1.375	1.500	1.000	.065	B7RWWW-G150100P	B7RWWW-R150100P
2" x ½"	5.750	2.625	2.000	.500	.065	---	B7RWWW-R20050P
2" x ¾"	5.750	2.625	2.000	.750	.065	---	B7RWWW-R20075P
2" x 1"	4.124	1.625	2.000	1.000	.065	B7RWWW-G200100P	B7RWWW-R200100P
2" x 1½"	4.124	1.906	2.000	1.500	.065	B7RWWW-G200150P	B7RWWW-R200150P
2½" x 1½"	4.688	2.156	2.500	1.500	.065	B7RWWW-G250150P	B7RWWW-R250150P
2½" x 2"	4.688	2.312	2.500	2.000	.065	B7RWWW-G250200P	B7RWWW-R250200P
3" x 1½"	5.188	2.406	3.000	1.500	.065	B7RWWW-G300150P	B7RWWW-R300150P
3" x 2"	5.188	2.562	3.000	2.000	.065	B7RWWW-G300200P	B7RWWW-R300200P
3" x 2½"	5.188	2.594	3.000	2.500	.083	B7RWWW-G300250P	B7RWWW-R300250P
4" x 1½"	6.876	2.906	4.000	1.500	.083	B7RWWW-G400150P	B7RWWW-R400150P
4" x 2"	6.876	3.062	4.000	2.000	.083	B7RWWW-G400200P	B7RWWW-R400200P
4" x 2½"	6.876	3.094	4.000	2.500	.083	B7RWWW-G400250P	B7RWWW-R400250P
4" x 3"	6.876	3.094	4.000	3.000	.083	B7RWWW-G400300P	B7RWWW-R400300P
6" x 2"	11.250	4.500	6.000	2.000	.109	B7RWWW-G600200P	B7RWWW-R600200P
6" x 3"	11.250	4.875	6.000	3.000	.109	B7RWWW-G600300P	B7RWWW-R600300P
6" x 4"	11.250	5.125	6.000	4.000	.109	B7RWWW-G600400P	B7RWWW-R600400P

Weld Tees

Polished Weld Run x Clamp Branch Tees - B7WWM

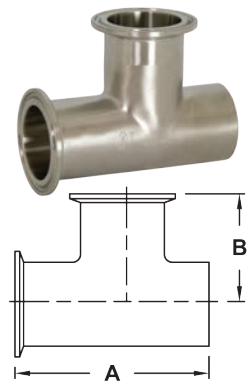
Tube OD	A	B	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	2.250	1.625	.065	B7WWM-G100	B7WWM-R100
1½"	3.312	2.156	.065	B7WWM-G150	B7WWM-R150
2"	4.124	2.562	.065	B7WWM-G200	B7WWM-R200
2½"	4.688	2.844	.065	B7WWM-G250	B7WWM-R250
3"	5.188	3.094	.065	B7WWM-G300	B7WWM-R300
4"	6.876	4.063	.083	B7WWM-G400	B7WWM-R400



F

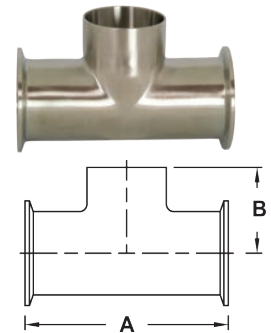
Polished Weld x Clamp Run x Clamp Branch Tees - B7WMM

Tube OD	A	B	Nominal Wall	304 Stainless Steel Part Number
1"	2.750	1.625	.065	B7WMM-G100
1½"	3.812	2.156	.065	B7WMM-G150
2"	4.624	2.562	.065	B7WMM-G200
2½"	5.188	2.844	.065	B7WMM-G250
3"	5.688	3.094	.065	B7WMM-G300
4"	7.500	4.063	.083	B7WMM-G400



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	B7MMW-G100
1½"	4.312	1.656	.065	B7MMW-G150
2"	5.124	2.062	.065	B7MMW-G200
2½"	5.688	2.062	.065	B7MMW-G250
3"	6.188	2.594	.065	B7MMW-G300
4"	8.124	3.438	.083	B7MMW-G400



Other types of weld tees are available call Dixon Sanitary for information



B7WWT



B7WTT



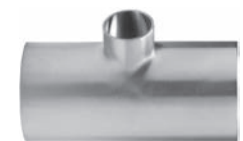
B7TTW



B7WTTW



B7WMMW



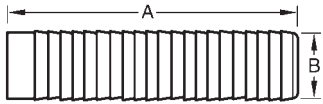
B7RWWWS

Weld Adapters

Long Weld Hose Adapters - 14WHRL

Feature:

- suitable for use with band clamps

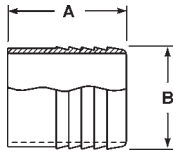


Tube OD	A	B	Nominal Wall	316L Stainless Steel Part Number
1"	3.000	1.030	.116	14WHRL-R100
1½"	4.500	1.530	.116	14WHRL-R150
2"	4.500	2.030	.116	14WHRL-R200
2½"	5.000	2.530	.116	14WHRL-R250
3"	5.000	3.030	.116	14WHRL-R300
4"	4.875	4.030	.116	14WHRL-R400



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

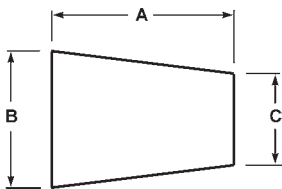
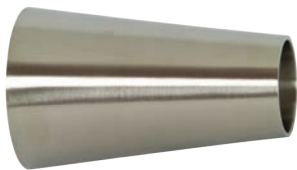


Tube OD	A	B	Nominal Wall	316L Stainless Steel Part Number
½"	1.500	.500	.065	14WHR-R50
¾"	1.500	.750	.065	14WHR-R75
1"	1.688	1.000	.065	14WHR-R100
1½"	1.688	1.500	.065	14WHR-R150
2"	2.312	2.000	.065	14WHR-R200
2½"	2.000	2.500	.065	14WHR-R250
3"	3.093	3.000	.065	14WHR-R300
4"	3.406	4.000	.083	14WHR-R400

Weld Reducers



Polished Concentric Weld Reducers - B31W

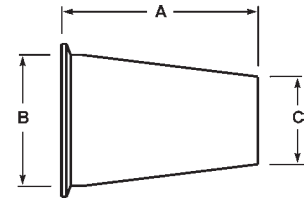


Tube OD	A	B	C	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
¾" x ½"	1.000	.750	.500	.065	---	B31W-R7550P
1" x ½"	2.000	1.000	.500	.065	---	B31W-R10050P
1" x ¾"	1.000	1.000	.750	.065	---	B31W-R10075P
1½" x ½"	4.000	1.500	.500	.065	---	B31W-R15050P
1½" x ¾"	3.000	1.500	.750	.065	---	B31W-R15075P
1½" x 1"	2.000	1.500	1.000	.065	B31W-G150100P	B31W-R150100P
2" x ½"	6.000	2.000	.500	.065	---	B31W-R20050P
2" x ¾"	5.000	2.000	.750	.065	---	B31W-R20075P
2" x 1"	4.000	2.000	1.000	.065	B31W-G200100P	B31W-R200100P
2" x 1½"	2.000	2.000	1.500	.065	B31W-G200150P	B31W-R200150P
2½" x 1½"	4.000	2.500	1.500	.065	B31W-G250150P	B31W-R250150P
2½" x 2"	2.000	2.500	2.000	.065	B31W-G250200P	B31W-R250200P
3" x 1"	8.000	3.000	1.000	.065	B31W-G300100P	B31W-R300100P
3" x 1½"	6.000	3.000	1.500	.065	B31W-G300150P	B31W-R300150P
3" x 2"	4.000	3.000	2.000	.065	B31W-G300200P	B31W-R300200P
3" x 2½"	2.000	3.000	2.500	.065	B31W-G300250P	B31W-R300250P
4" x 1½"	10.000	4.000	1.500	.083	B31W-G400150P	B31W-R400150P
4" x 2"	8.000	4.000	2.000	.083	B31W-G400200P	B31W-R400200P
4" x 2½"	6.000	4.000	2.500	.083	B31W-G400250P	B31W-R400250P
4" x 3"	4.000	4.000	3.000	.083	B31W-G400300P	B31W-R400300P
6" x 2"	5.500	6.000	2.000	.109	B31W-G600200P	B31W-R600200P
6" x 3"	5.500	6.000	3.000	.109	B31W-G600300P	B31W-R600300P
6" x 4"	5.500	6.000	4.000	.109	B31W-G600400P	B31W-R600400P
8" x 4"	6.000	8.000	4.000	.120	B31W-G800400P	B31W-R800400P
8" x 6"	6.000	8.000	6.000	.120	B31W-G800600P	B31W-R800600P

Weld Reducers

Polished Concentric Clamp x Weld Reducers - B31M

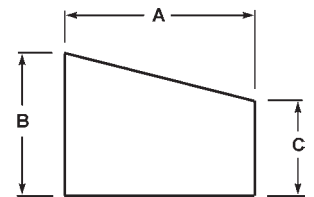
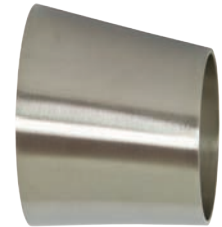
Tube OD	A	B	C	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
3/4" x 1/2"	1.500	.750	.500	.065	---	B31M-R7550
1" x 1/2"	2.500	1.000	.500	.065	---	B31M-R10050
1" x 3/4"	1.500	1.000	.750	.065	---	B31M-R10075
1 1/2" x 1/2"	4.500	1.500	.500	.065	---	B31M-R15050
1 1/2" x 3/4"	3.500	1.000	.750	.065	---	B31M-R15075
1 1/2" x 1"	2.500	1.500	1.000	.065	B31M-G150100	B31M-R150100
2" x 1"	4.500	2.000	1.000	.065	B31M-G200100	B31M-R200100
2" x 1 1/2"	2.500	2.000	1.500	.065	B31M-G200150	B31M-R200150
2 1/2" x 1 1/2"	4.500	2.500	1.500	.065	B31M-G250150	B31M-R250150
2 1/2" x 2"	2.500	2.500	2.000	.065	B31M-G250200	B31M-R250200
3" x 1 1/2"	6.500	3.000	1.500	.065	B31M-G300150	B31M-R300150
3" x 2"	4.500	3.000	2.000	.065	B31M-G300200	B31M-R300200
3" x 2 1/2"	2.500	3.000	2.500	.065	B31M-G300250	B31M-R300250
4" x 2"	8.625	4.000	2.000	.083	B31M-G400200	B31M-R400200
4" x 2 1/2"	6.625	4.000	2.500	.083	B31M-G400250	B31M-R400250
4" x 3"	4.625	4.000	3.000	.083	B31M-G400300	B31M-R400300



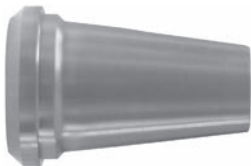
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Polished Eccentric Weld Reducers - B32W

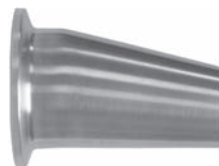
Tube OD	A	B	C	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
3/4" x 1/2"	1.000	.750	.500	.065	---	B32W-R7550P
1" x 1/2"	2.000	1.000	.500	.065	---	B32W-R10050P
1" x 3/4"	1.000	1.000	.750	.065	---	B32W-R10075P
1 1/2" x 1/2"	4.000	1.500	.500	.065	---	B32W-R15050P
1 1/2" x 3/4"	3.000	1.500	.750	.065	---	B32W-R15075P
1 1/2" x 1"	2.000	1.500	1.000	.065	B32W-G150100P	B32W-R150100P
2" x 1 1/2"	6.000	2.000	.500	.065	---	B32W-R20050P
2" x 3/4"	5.000	2.000	.750	.065	---	B32W-R20075P
2" x 1"	4.000	2.000	1.000	.065	B32W-G200100P	B32W-R200100P
2" x 1 1/2"	2.000	2.000	1.500	.065	B32W-G200150P	B32W-R200150P
2 1/2" x 1 1/2"	4.000	2.500	1.500	.065	B32W-G250150P	B32W-R250150P
2 1/2" x 2"	2.000	2.500	2.000	.065	B32W-G250200P	B32W-R250200P
3" x 1"	8.000	3.000	1.000	.065	B32W-G300100P	B32W-R300100P
3" x 1 1/2"	6.000	3.000	1.500	.065	B32W-G300150P	B32W-R300150P
3" x 2"	4.000	3.000	2.000	.065	B32W-G300200P	B32W-R300200P
3" x 2 1/2"	2.000	3.000	2.500	.065	B32W-G300250P	B32W-R300250P
4" x 1 1/2"	10.000	4.000	1.500	.083	B32W-G400150P	B32W-R400150P
4" x 2"	8.000	4.000	2.000	.083	B32W-G400200P	B32W-R400200P
4" x 2 1/2"	6.000	4.000	2.500	.083	B32W-G400250P	B32W-R400250P
4" x 3"	4.000	4.000	3.000	.083	B32W-G400300P	B32W-R400300P
6" x 3"	5.500	6.000	3.000	.109	B32W-G600300P	B32W-R600300P
6" x 4"	5.500	6.000	4.000	.109	B32W-G600400P	B32W-R600400P
8" x 4"	6.000	8.000	4.000	.120	B32W-G800400P	B32W-R800400P
8" x 6"	6.000	8.000	6.000	.120	B32W-G800600P	B32W-R800600P



Other types of weld reducers are available call Dixon Sanitary for information



B31P



B32M



B32P

Clamp Ferrules

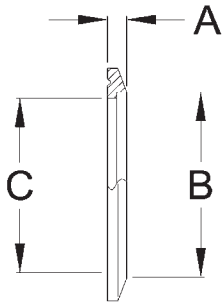
Quick Weld Ferrules- 14QMP

Features:

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

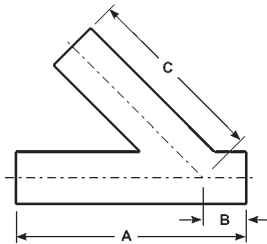
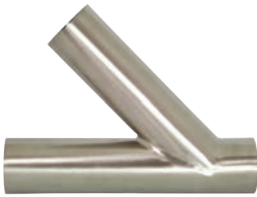


Tube OD	A	B	C	304 Stainless Steel Part Number
1"	.290	1.005	.870	14QMP-G100
1½"	.199	1.505	1.370	14QMP-G150
2"	.205	2.005	1.870	14QMP-G200
2½"	.210	2.505	2.370	14QMP-G250
3"	.257	3.005	2.870	14QMP-G300
4"	.235	4.005	3.834	14QMP-G400
6"	.321	6.005	5.782	14QMP-G600



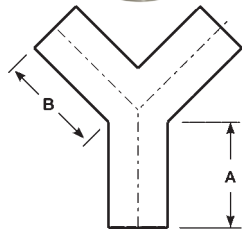
Miscellaneous Weld Configurations

3 Polished Weld Laterals - B28WA



Tube OD	A	B	C	Nominal Wall	316L Stainless Steel Part Number
1"	6.000	1.000	5.000	.065	B28WA-R100P
1½"	7.375	1.188	6.188	.065	B28WA-R150P
2"	8.750	1.625	7.125	.065	B28WA-R200P
2½"	10.000	1.500	8.500	.065	B28WA-R250P
3"	10.750	1.875	8.875	.065	B28WA-R300P
4"	12.812	2.015	10.750	.083	B28WA-R400P
6"	18.000	3.500	14.500	.109	B28WA-R600P

3 Polished Weld True Wyes - B28W

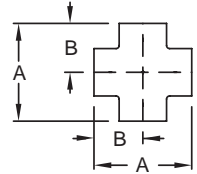


Tube OD	A	B	Nominal Wall	316L Stainless Steel Part Number
1"	2.000	2.438	.065	B28W-R100P
1½"	2.000	2.438	.065	B28W-R150P
2"	2.625	3.250	.065	B28W-R200P
2½"	3.370	4.125	.065	B28W-R250P
3"	4.000	4.875	.065	B28W-R300P
4"	5.375	5.375	.083	B28W-R400P

Miscellaneous Weld Configurations

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	B9WWWW-G100P	B9WWWW-R100P
1½"	3.312	1.656	.065	B9WWWW-G150P	B9WWWW-R150P
2"	4.125	2.062	.065	B9WWWW-G200P	B9WWWW-R200P
2½"	4.687	2.343	.065	B9WWWW-G250P	B9WWWW-R250P
3"	5.187	2.593	.065	B9WWWW-G300P	B9WWWW-R300P
4"	6.875	3.437	.083	B9WWWW-G400P	B9WWWW-R400P

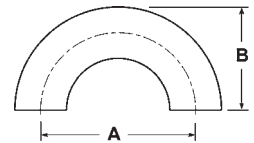


F

Polished Weld 180° Return Bends - B2WUL

- bends are standard 1.5 x tube diameter

Tube OD	A	B	316L Stainless Steel Part Number
1"	3.000	2.000	B2WUL-R100P
1½"	4.500	3.000	B2WUL-R150P
2"	6.000	4.000	B2WUL-R200P
2½"	7.500	5.000	B2WUL-R250P
3"	9.000	6.000	B2WUL-R300P
4"	12.000	8.000	B2WUL-R400P



Weld End Blue Protection Covers - BCW

Features:

- Use these covers to protect all weld ends on fittings and valves.
- vinyl plastic

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



Dixon Sanitary Unpolished Weld Fittings

A Complete Weld Connection

Product Specifications

G



← Weld end



← Weld end

Size range:

- ½" - 12" OD tube

Materials:

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

Finish:

- unpolished

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"	.120	10
10"	.109	12
12"	.120	10

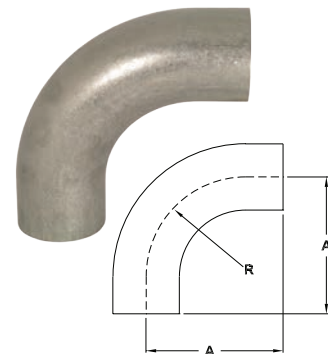
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Unpolished Elbows

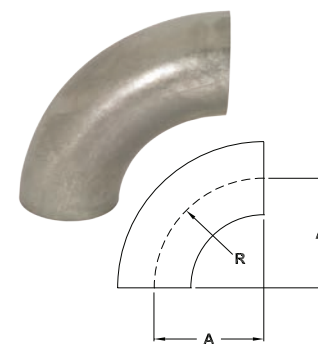
Unpolished 90° Weld Elbows with Tangents - B2S

Tube OD	A	R	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
½"	3.000	1.125	.065	---	B2S-R50U
¾"	3.000	1.125	.065	---	B2S-R75U
1"	2.062	1.500	.065	B2S-G100U	B2S-R100U
1½"	2.937	2.250	.065	B2S-G150U	B2S-R150U
2"	4.062	3.000	.065	B2S-G200U	B2S-R200U
2½"	5.187	3.750	.065	B2S-G250U	B2S-R250U
3"	6.312	4.500	.065	B2S-G300U	B2S-R300U
4"	8.312	6.000	.083	B2S-G400U	B2S-R400U



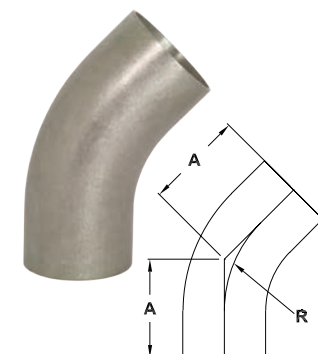
Unpolished 90° Weld Elbows - B2WCL

Tube OD	A	R	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
½"	1.125	1.125	.065	---	B2WCL-R50U
¾"	1.125	1.125	.065	---	B2WCL-R75U
1"	1.500	1.500	.065	B2WCL-G100U	B2WCL-R100U
1½"	2.250	2.250	.065	B2WCL-G150U	B2WCL-R150U
2"	3.000	3.000	.065	B2WCL-G200U	B2WCL-R200U
2½"	3.750	3.750	.065	B2WCL-G250U	B2WCL-R250U
3"	4.500	4.500	.065	B2WCL-G300U	B2WCL-R300U
4"	6.000	6.000	.083	B2WCL-G400U	B2WCL-R400U
6"	9.000	9.000	.109	B2WCL-G600U	B2WCL-R600U
8"	12.000	12.000	.120	B2WCL-G800U	B2WCL-R800U
10"	15.000	15.000	.109	B2WCL-G1000U	B2WCL-R1000U
12"	18.000	18.000	.120	B2WCL-G1200U	B2WCL-R1200U



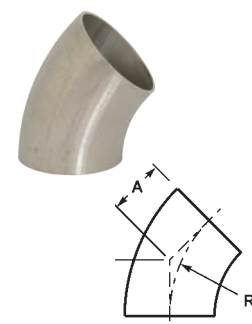
Unpolished 45° Weld Elbows with Tangents - B2KS

Tube OD	A	R	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
½"	2.250	1.125	.065	---	B2KS-R50U
¾"	2.250	1.125	.065	---	B2KS-R75U
1"	1.188	1.500	.065	B2KS-G100U	B2KS-R100U
1½"	1.625	2.250	.065	B2KS-G150U	B2KS-R150U
2"	2.312	3.000	.065	B2KS-G200U	B2KS-R200U
2½"	3.000	3.750	.065	B2KS-G250U	B2KS-R250U
3"	3.688	4.500	.065	B2KS-G300U	B2KS-R300U
4"	4.812	6.000	.083	B2KS-G400U	B2KS-R400U



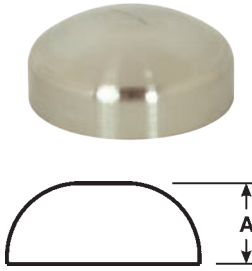
Unpolished 45° Weld Elbows - B2WK

Tube OD	A	R	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
½"	.466	1.125	.065	---	B2WK-R50U
¾"	.466	1.125	.065	---	B2WK-R75U
1"	.625	1.500	.065	B2WK-G100U	B2WK-R100U
1½"	.937	2.250	.065	B2WK-G150U	B2WK-R150U
2"	1.250	3.000	.065	B2WK-G200U	B2WK-R200U
2½"	1.562	3.750	.065	B2WK-G250U	B2WK-R250U
3"	1.875	4.500	.065	B2WK-G300U	B2WK-R300U
4"	2.500	6.000	.083	B2WK-G400U	B2WK-R400U
6"	3.750	9.000	.109	B2WK-G600U	B2WK-R600U
8"	5.000	12.000	.120	B2WK-G800U	B2WK-R800U
10"	6.250	15.000	.109	B2WK-G1000U	B2WK-R1000U
12"	7.500	18.000	.120	B2WK-G1200U	B2WK-R1200U



Unpolished End Caps

Unpolished End Caps - B16W



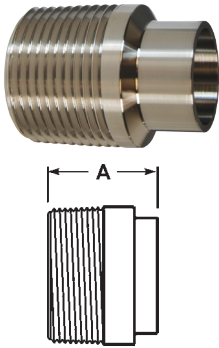
Tube OD	A	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1/2"	.250	---	B16W-R50
3/4"	.312	---	B16W-R75
1"	.375	B16W-G100	B16W-R100
1 1/2"	.562	B16W-G150	B16W-R150
2"	.750	B16W-G200	B16W-R200
2 1/2"	1.000	B16W-G250	B16W-R250
3"	1.250	B16W-G300	B16W-R300
4"	1.500	B16W-G400	B16W-R400
6"	1.875	B16W-G600	B16W-R600
8"	2.500	B16W-G800	B16W-R800

G

Unpolished Adapters

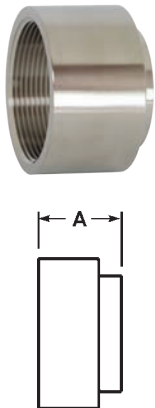
- 32Ra Finish ID

Male NPT x Weld End Adapters - B19WB



Tube OD	A	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1/2"	1.625	.065	---	B19WB-R50
3/4"	1.625	.065	---	B19WB-R75
1"	1.750	.065	B19WB-G100	B19WB-R100
1 1/2"	1.750	.065	B19WB-G150	B19WB-R150
2"	1.812	.065	B19WB-G200	B19WB-R200
2 1/2"	2.312	.065	B19WB-G250	B19WB-R250
3"	2.500	.065	B19WB-G300	B19WB-R300
4"	2.562	.083	B19WB-G400	B19WB-R400

Female NPT x Weld End Adapters - B22WB



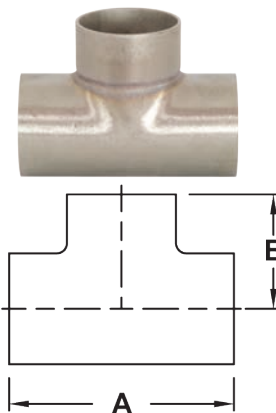
Tube OD	A	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1/2"	1.250	.065	---	B22WB-R50
3/4"	1.625	.065	---	B22WB-R75
1"	1.750	.065	B22WB-G100	B22WB-R100
1 1/2"	1.750	.065	B22WB-G150	B22WB-R150
2"	1.812	.065	B22WB-G200	B22WB-R200
2 1/2"	2.312	.065	B22WB-G250	B22WB-R250
3"	2.500	.065	B22WB-G300	B22WB-R300
4"	2.500	.083	B22WB-G400	B22WB-R400

Note: see pages 242-243 for pipe thread information

Unpolished Tees

Unpolished Short Weld Tees - B7WWW

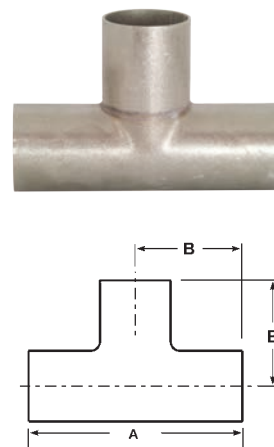
Tube OD	A	B	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
1"	2.250	1.125	.065	B7WWW-G100U	B7WWW-R100U
1½"	3.312	1.656	.065	B7WWW-G150U	B7WWW-R150U
2"	4.124	2.062	.065	B7WWW-G200U	B7WWW-R200U
2½"	4.688	2.344	.065	B7WWW-G250U	B7WWW-R250U
3"	5.188	2.594	.065	B7WWW-G300U	B7WWW-R300U
4"	6.876	3.438	.083	B7WWW-G400U	B7WWW-R400U



G

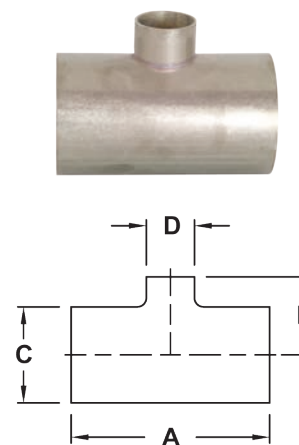
Unpolished Long Weld Tees - B7W

Tube OD	A	B	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
½"	3.750	1.875	.065	---	B7W-R50U
¾"	4.000	2.000	.065	---	B7W-R75U
1"	3.750	1.875	.065	B7W-G100U	B7W-R100U
1½"	4.500	2.250	.065	B7W-G150U	B7W-R150U
2"	6.000	3.000	.065	B7W-G200U	B7W-R200U
2½"	6.000	3.000	.065	B7W-G250U	B7W-R250U
3"	6.500	3.250	.065	B7W-G300U	B7W-R300U
4"	7.750	3.875	.083	B7W-G400U	B7W-R400U
6"	11.250	5.625	.109	B7W-G600U	B7W-R600U
8"	14.000	7.000	.120	B7W-G800U	B7W-R800U



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	1.500	.750	.065	---	B7RWWW-R15075U
1½" x 1"	3.312	1.375	1.500	1.000	.065	B7RWWW-G150100U	B7RWWW-R150100U
2" x 1½"	5.750	2.625	2.000	.500	.065	---	B7RWWW-R20050U
2" x ¾"	5.750	2.625	2.000	.750	.065	---	B7RWWW-R20075U
2" x 1"	4.124	1.625	2.000	1.000	.065	B7RWWW-G200100U	B7RWWW-R200100U
2" x 1½"	4.124	1.906	2.000	1.500	.065	B7RWWW-G200150U	B7RWWW-R200150U
2½" x 1½"	4.688	2.156	2.500	1.500	.065	B7RWWW-G250150U	B7RWWW-R250150U
2½" x 2"	4.688	2.312	2.500	2.000	.065	B7RWWW-G250200U	B7RWWW-R250200U
3" x 1½"	5.188	2.406	3.000	1.500	.065	B7RWWW-G300150U	B7RWWW-R300150U
3" x 2"	5.188	2.562	3.000	2.000	.065	B7RWWW-G300200U	B7RWWW-R300200U
3" x 2½"	5.188	2.594	3.000	2.500	.065	B7RWWW-G300250U	B7RWWW-R300250U
4" x 1½"	6.876	2.906	4.000	1.500	.083	B7RWWW-G400150U	B7RWWW-R400150U
4" x 2"	6.876	3.062	4.000	2.000	.083	B7RWWW-G400200U	B7RWWW-R400200U
4" x 2½"	6.876	3.094	4.000	2.500	.083	B7RWWW-G400250U	B7RWWW-R400250U
4" x 3"	6.876	3.094	4.000	3.000	.083	B7RWWW-G400300U	B7RWWW-R400300U

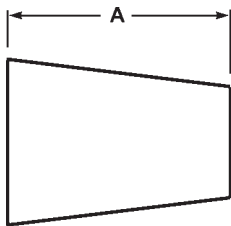


Unpolished Reducers

Unpolished Concentric Weld Reducers - B31W

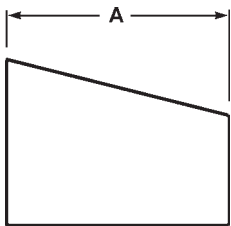
Tube OD	A	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
¾" x ½"	1.000	.065	---	B31W-R7550U
1" x ½"	2.000	.065	---	B31W-R10050U
1" x ¾"	1.000	.065	---	B31W-R10075U
1½" x ½"	4.000	.065	---	B31W-R15050U
1½" x ¾"	3.000	.065	---	B31W-R15075U
1½" x 1"	2.000	.065	B31W-G150100U	B31W-R150100U
2" x ¾"	5.000	.065	---	B31W-R20075U
2" x 1"	4.000	.065	B31W-G200100U	B31W-R200100U
2" x 1½"	2.000	.065	B31W-G200150U	B31W-R200150U
2½" x 1½"	4.000	.065	B31W-G250150U	B31W-R250150U
2½" x 2"	2.000	.065	B31W-G250200U	B31W-R250200U
3" x 1"	8.000	.065	B31W-G300100U	B31W-R300100U
3" x 1½"	6.000	.065	B31W-G300150U	B31W-R300150U
3" x 2"	4.000	.065	B31W-G300200U	B31W-R300200U
3" x 2½"	2.000	.065	B31W-G300250U	B31W-R300250U
4" x 1½"	10.000	.083	B31W-G400150U	B31W-R400150U
4" x 2"	8.000	.083	B31W-G400200U	B31W-R400200U
4" x 2½"	6.000	.083	B31W-G400250U	B31W-R400250U
4" x 3"	4.000	.083	B31W-G400300U	B31W-R400300U
6" x 3"	5.500	.109	B31W-G600300U	B31W-R600300U
6" x 4"	5.500	.109	B31W-G600400U	B31W-R600400U
8" x 4"	6.000	.120	B31W-G800400U	B31W-R800400U
8" x 6"	6.000	.120	B31W-G800600U	B31W-R800600U

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Unpolished Eccentric Weld Reducers - B32W

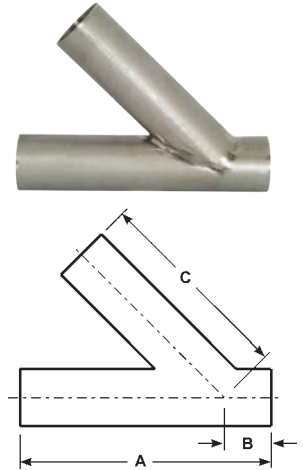
Tube OD	A	Nominal Wall	304 Stainless Steel Part Number	316L Stainless Steel Part Number
¾" x ½"	1.000	.065	---	B32W-R7550U
1" x ½"	2.000	.065	---	B32W-R10050U
1" x ¾"	1.000	.065	---	B32W-R10075U
1½" x ½"	4.000	.065	---	B32W-R15050U
1½" x ¾"	3.000	.065	---	B32W-R15075U
1½" x 1"	2.000	.065	B32W-G150100U	B32W-R150100U
2" x ¾"	5.000	.065	---	B32W-R20075U
2" x 1"	4.000	.065	B32W-G200100U	B32W-R200100U
2" x 1½"	2.000	.065	B32W-G200150U	B32W-R200150U
2½" x 2"	2.000	.065	B32W-G250200U	B32W-R250200U
3" x 1½"	6.000	.065	B32W-G300150U	B32W-R300150U
3" x 2"	4.000	.065	B32W-G300200U	B32W-R300200U
3" x 2½"	2.000	.065	B32W-G300250U	B32W-R300250U
4" x 1½"	10.000	.083	B32W-G400150U	B32W-R400150U
4" x 2"	8.000	.083	B32W-G400200U	B32W-R400200U
4" x 3"	4.000	.083	B32W-G400300U	B32W-R400300U
6" x 4"	5.500	.109	B32W-G600400U	B32W-R600400U
8" x 6"	6.000	.120	B32W-G800600U	B32W-R800600U



Miscellaneous Unpolished Configurations

Unpolished Weld Laterals - B28WA

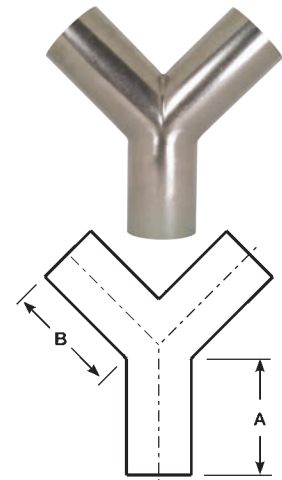
Tube OD	A	B	C	Nominal Wall	316L Stainless Steel Part Number
1"	6.000	1.000	5.000	.065	B28WA-R100U
1½"	7.375	1.188	6.188	.065	B28WA-R150U
2"	8.750	1.625	7.125	.065	B28WA-R200U
2½"	10.000	1.500	8.500	.065	B28WA-R250U
3"	10.750	1.875	8.875	.065	B28WA-R300U
4"	12.812	2.015	10.750	.083	B28WA-R400U
6"	18.000	3.000	14.500	.109	B28WA-R600U



G

Unpolished Weld True Wyes - B28W

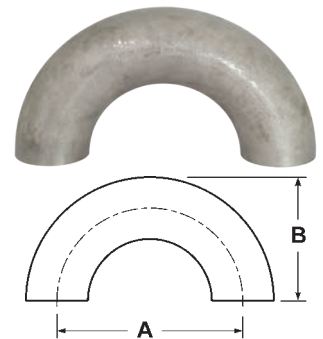
Tube OD	A	B	Nominal Wall	316L Stainless Steel Part Number
1"	2.000	2.438	.065	B28W-R100U
1½"	2.000	2.438	.065	B28W-R150U
2"	2.625	3.250	.065	B28W-R200U
2½"	3.370	4.125	.065	B28W-R250U
3"	4.000	4.875	.065	B28W-R300U
4"	5.375	5.375	.083	B28W-R400U



Unpolished Weld 180° Return Bends - B2WUL

- 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	B2WUL-R100U
1½"	4.500	3.000	.065	B2WUL-R150U
2"	6.000	4.000	.065	B2WUL-R200U
2½"	7.500	5.000	.065	B2WUL-R250U
3"	9.000	6.000	.065	B2WUL-R300U
4"	12.000	8.000	.083	B2WUL-R400U



Weld End Blue Protection Covers - BCW

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

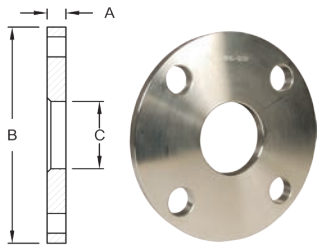
Features:

- Use these covers to protect all weld ends on fittings and valves.
- vinyl plastic



Unpolished Flanges

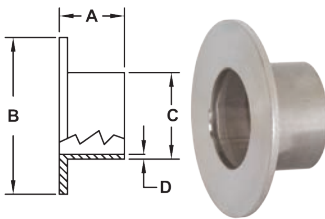
Unpolished Slip-On 150# Flanges - B38SL



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	B38SL-G100	B38SL-R100
1½"	.375	5.000	1.563	4/.625	3.875	B38SL-G150	B38SL-R150
2"	.437	6.000	2.063	4/.750	4.750	B38SL-G200	B38SL-R200
2½"	.437	7.000	2.563	4/.750	5.500	B38SL-G250	B38SL-R250
3"	.500	7.500	3.063	4/.750	6.000	B38SL-G300	B38SL-R300
4"	.562	9.000	4.063	8/.750	7.500	B38SL-G400	B38SL-R400
6"	.562	11.000	6.063	8/.875	9.500	B38SL-G600	B38SL-R600
8"	.687	13.500	8.063	8/.875	11.750	B38SL-G800	B38SL-R800
10"	.687	16.000	10.063	12/1.000	14.250	B38SL-G1000	B38SL-R1000

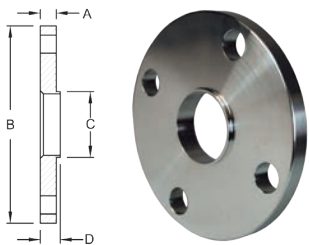
Unpolished Type A Stub Ends - 14VB

- typically used with B38SL flanges



Tube OD	A	B	C	D	316L Stainless Steel Part Number
1"	1.625	2.000	1.000	.065	14VB-R100
1½"	1.750	2.875	1.500	.065	14VB-R150
2"	1.500	3.625	2.000	.065	14VB-R200
2½"	2.000	4.125	2.500	.065	14VB-R250
3"	2.250	5.000	3.000	.065	14VB-R300
4"	2.625	6.187	4.000	.084	14VB-R400
6"	3.000	8.500	6.000	.109	14VB-R600
8"	3.000	10.625	8.000	.120	14VB-R800
10"	3.500	12.450	10.000	.109	14VB-R1000

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	B38W-R100
1½"	.375	5.000	1.500	.500	4/.625	3.875	B38W-R150
2"	.500	6.000	2.000	.625	4/.750	4.750	B38W-R200
2½"	.500	7.000	2.500	.625	4/.750	5.500	B38W-R250
3"	.500	7.500	3.000	.625	4/.750	6.000	B38W-R300
4"	.500	9.000	4.000	.625	8/.750	7.500	B38W-R400
6"	.500	11.000	6.000	.625	8/.875	9.500	B38W-R600
8"	.500	13.500	8.000	.625	8/.875	11.750	B38W-R800
10"	.500	16.000	10.000	.625	12/1.0	14.250	B38W-R1000

Other types of flanges are available call Dixon Sanitary for information



B14UB

Flange Gaskets



Feature:

- standard drop-ring type all 1/16" thick

Size	Neoprene Part Number	Size	Neoprene Part Number
1"	NG10	3"	NG35
1¼"	NG15	4"	NG40
1½"	NG20	5"	NG50
2"	NG25	6"	NG60
2½"	NG30	8"	NG80

Dixon Sanitary Euro Fittings

Product Specifications

Size range:

- 1" - 4" OD tube

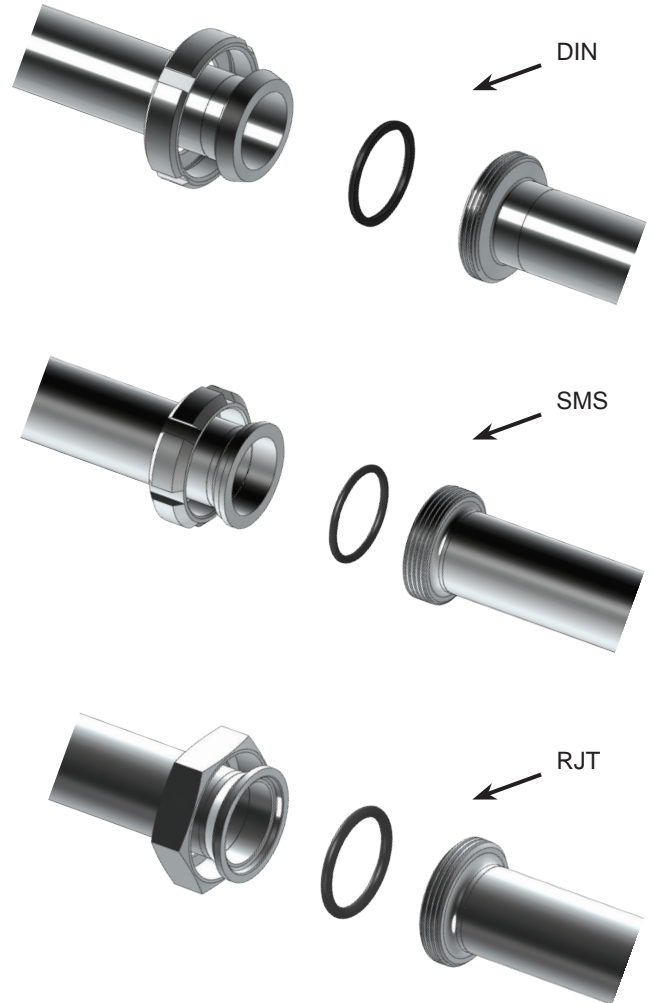
Materials:

- G = 304 stainless steel
- R = 316 stainless steel

Finish:

- 3A sanitary finish ID and OD

European Connections



H

Dimensions of stainless steel tube given in inches

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

¹ metric tube size available special order only

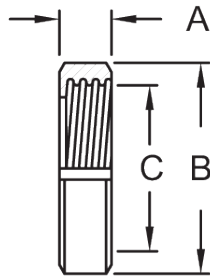
Index

DIN fittings	88	Gaskets	91
SMS fittings	89	Wrenches	89-90
RJT fittings.....	90		

Note: see pages 253-255 and 258 for fittings identification

DIN 11851

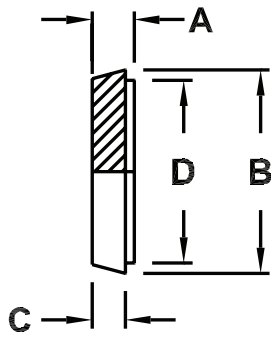
DIN Round Nuts - 13R



Tube OD	DN Size	A	B	C	304 Stainless Steel Part Number
1"	25	.83	2.48	2.05	13R-G100DIN
1½"	40	.83	3.07	2.56	13R-G150DIN
2"	50	.87	3.62	3.07	13R-G200DIN
2½"	65	.98	4.41	3.74	13R-G250DIN
3"	80	1.14	5.00	4.33	13R-G300DIN
4"	100	1.22	5.83	5.12	13R-G400DIN

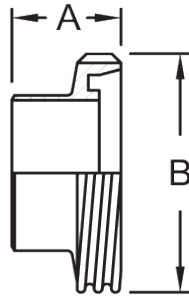
DIN Blank Caps - 16AMP

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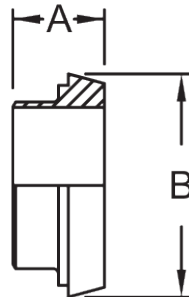
Tube OD	DN Size	A	B	C	D	316 Stainless Steel Part Number
1"	25	.51	1.73	.39	1.38	16AMP-R100DIN
1½"	40	.51	2.20	.39	1.89	16AMP-R150DIN
2"	50	.55	2.68	.43	2.40	16AMP-R200DIN
2½"	65	.63	3.39	.47	3.11	16AMP-R250DIN
3"	80	.63	3.94	.47	3.66	16AMP-R300DIN
4"	100	.79	4.76	.59	4.49	16AMP-R400DIN

DIN Welding Males - 15A



Tube OD	DN Size	A	B	316 Stainless Steel Part Number
1"	25	1.14	2.04	15A-R100DIN
1½"	40	1.30	2.55	15A-R150DIN
2"	50	1.38	3.07	15A-R200DIN
2½"	65	1.57	3.74	15A-R250DIN
3"	80	1.77	4.31	15A-R300DIN
4"	100	2.13	5.12	15A-R400DIN

DIN Welding Liners - 14A

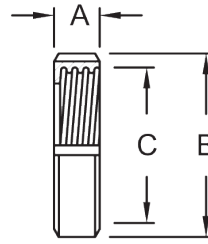


Tube OD	DN Size	A	B	316 Stainless Steel Part Number
1"	25	.87	1.73	14A-R100DIN
1½"	40	1.02	2.20	14A-R150DIN
2"	50	1.10	2.68	14A-R200DIN
2½"	65	1.26	3.39	14A-R250DIN
3"	80	1.46	3.94	14A-R300DIN
4"	100	1.73	4.76	14A-R400DIN

SMS

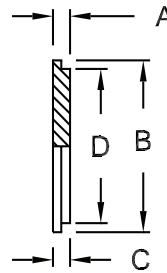
SMS Round Nuts - 13R

Tube OD	DN Size	A	B	C	304 Stainless Steel Part Number
1"	25	.75	2.01	1.57	13R-G100SMS
1½"	38	.91	2.91	2.36	13R-G150SMS
2"	51	.94	3.31	2.76	13R-G200SMS
2½"	63.5	1.10	3.94	3.35	13R-G250SMS
3"	76	1.18	4.49	3.86	13R-G300SMS
4"	101.6	1.22	5.43	4.92	13R-G400SMS



SMS Blank Caps - 16AMP

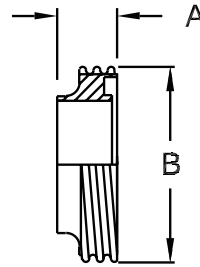
Tube OD	DN Size	A	B	C	D	316 Stainless Steel Part Number
1"	25	.30	1.40	.14	1.25	16AMP-R100SMS
1½"	38	.31	2.20	.16	1.89	16AMP-R150SMS
2"	51	.35	2.56	.16	2.38	16AMP-R200SMS
2½"	63.5	.35	3.15	.16	2.89	16AMP-R250SMS
3"	76	.43	3.66	.20	3.41	16AMP-R300SMS
4"	101.6	.43	4.65	.23	4.43	16AMP-R400SMS



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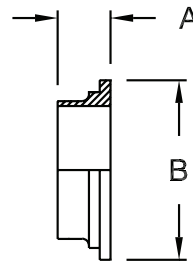
SMS Welding Males - 15A

Tube OD	DN Size	A	B	316 Stainless Steel Part Number
1"	25	.75	1.57	15A-R100SMS
1½"	38	.91	2.36	15A-R150SMS
2"	51	.91	2.76	15A-R200SMS
2½"	63.5	1.06	3.35	15A-R250SMS
3"	76	1.06	3.86	15A-R300SMS
4"	101.6	1.18	4.92	15A-R400SMS



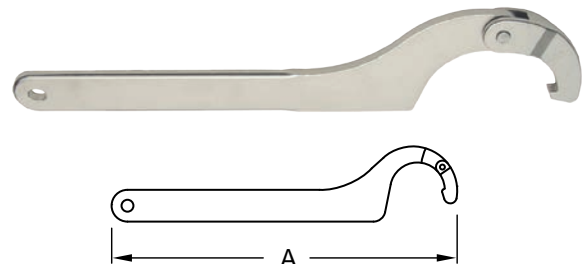
SMS Welding Liners - 14A

Tube OD	DN Size	A	B	316 Stainless Steel Part Number
1"	25	.61	1.40	14A-R100SMS
1½"	38	.63	2.17	14A-R150SMS
2"	51	.67	2.56	14A-R200SMS
2½"	63.5	.67	3.16	14A-R250SMS
3"	76	.75	3.66	14A-R300SMS
4"	101.6	.75	4.65	14A-R400SMS



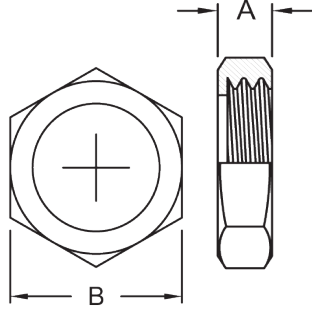
DIN and SMS Spanner Wrenches - SP

Used On Sizes	DIN Size	A	Nickel Plated Steel Part Number
1" - 1½"	25-40	9.75	DIN-SMS-60/90SP
2" - 4"	50-101.6	13.00	DIN-SMS90/155SP



RJT BS:4825

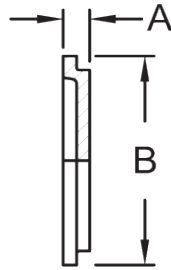
RJT Hex Nuts - 13H



Tube OD	A	B	304 Stainless Steel Part Number
1"	.87	2.00	13H-G100RJT
1½"	.87	2.56	13H-G150RJT
2"	.87	3.12	13H-G200RJT
2½"	.87	3.62	13H-G250RJT
3"	.87	4.12	13H-G300RJT
4"	.87	5.12	13H-G400RJT

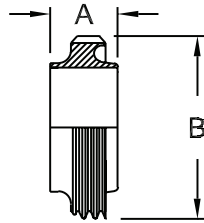
RJT Blank Caps - 13RBN

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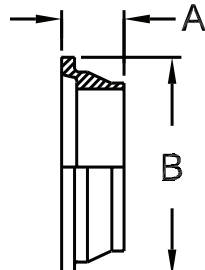
Tube OD	A	B	304 Stainless Steel Part Number
1"	.32	1.63	13RBN-G100RJT
1½"	.32	2.12	13RBN-G150RJT
2"	.32	2.62	13RBN-G200RJT
2½"	.32	3.12	13RBN-G250RJT
3"	.32	3.63	13RBN-G300RJT
4"	.32	4.63	13RBN-G400RJT

RJT Welding Males - 15A



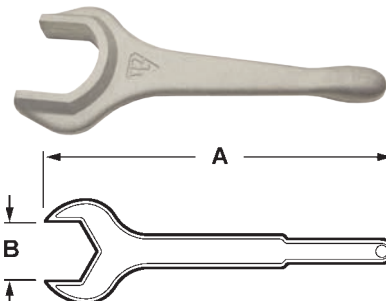
Tube OD	A	B	316 Stainless Steel Part Number
1"	1.06	1.80	15A-R100RJT
1½"	1.06	2.30	15A-R150RJT
2"	1.06	2.86	15A-R200RJT
2½"	1.06	3.36	15A-R250RJT
3"	1.06	3.86	15A-R300RJT
4"	1.06	4.86	15A-R400RJT

RJT Welding Liners - 14A



Tube OD	A	B	316 Stainless Steel Part Number
1"	.77	1.63	14A-R100RJT
1½"	.77	2.13	14A-R150RJT
2"	.77	2.63	14A-R200RJT
2½"	.77	3.13	14A-R250RJT
3"	.77	3.63	14A-R300RJT
4"	.77	4.63	14A-R400RJT

RJT Spanner Wrenches - SP



Size	A	B	Aluminum Part Number
1"	10.00	2.00	RJT-100SP
1½"	11.50	2.56	RJT-150SP
2"	12.00	3.12	RJT-200SP
2½"	13.50	3.62	RJT-250SP
3"	14.50	4.12	RJT-300SP
4"	17.50	5.12	RJT-400SP

European Gaskets

DIN Buna-N Euro Gaskets - *Black*

Features:

- color code: red dot
- meets 21CFR 177.2600

Tube OD	DN Size	ID	OD	Height	DIN 11851 Part Number
1"	25	1.18	1.57	.20	40MP-U100DIN
1½"	40	1.65	2.05	.20	40MP-U150DIN
2"	50	2.13	2.52	.20	40MP-U200DIN
2½"	65	2.80	3.19	.20	40MP-U250DIN
3"	80	3.35	3.74	.20	40MP-U300DIN
4"	100	4.09	4.49	.24	40MP-U400DIN



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SMS Buna-N Euro Gaskets - *Black*

Features:

- color code: red dot
- meets 21CFR 177.2600

Tube OD	DN Size	ID	OD	L Style Part Number
1"	25	.98	1.26	40MP-U100SMS
1½"	38	1.49	1.89	40MP-U150SMS
2"	51	2.00	2.40	40MP-U200SMS
2½"	63.5	2.50	2.89	40MP-U250SMS
3"	76	2.99	3.39	40MP-U300SMS
4"	101.6	4.09	4.49	40MP-U400SMS



RJT Buna-N Euro Gaskets - *Black*

Features:

- color code: red dot
- meets 21CFR 177.2600

Tube OD	ID	Ø	Part Number
1"	1.06	.25	40MP-U100RJT
1½"	1.56	.25	40MP-U150RJT
2"	2.06	.25	40MP-U200RJT
2½"	2.56	.25	40MP-U250RJT
3"	3.06	.25	40MP-U300RJT
4"	4.06	.25	40MP-U400RJT



Note: refer to pages 236-238 for compatibility information



High Purity BioPharm Line



Size range:

- ½" - 6" OD tube

Materials:

- 316L stainless steel

Finish:

- 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

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Tees	95-98	Adapters	103
Reducers	99-101	Technical Data	104-105
Caps	102	Packaging	106

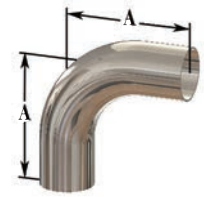
All fittings are manufactured to meet the latest edition of the ASME BPE International Standard, Bioprocessing Equipment.

316L stainless steel material and dimensions meet all orbital welding specifications with controlled sulphur.

High Purity BioPharm Line

90° Weld Elbows - T2S

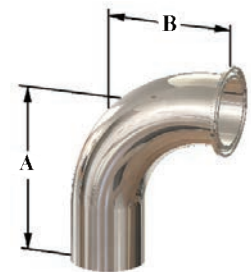
Size	A	PL Finish - SF1	PM Finish - SF4
1/2"	3.000	<i>T2S-050PL</i>	<i>T2S-050PM</i>
3/4"	3.000	<i>T2S-075PL</i>	<i>T2S-075PM</i>
1"	3.000	<i>T2S-100PL</i>	<i>T2S-100PM</i>
1 1/2"	3.750	<i>T2S-150PL</i>	<i>T2S-150PM</i>
2"	4.750	<i>T2S-200PL</i>	<i>T2S-200PM</i>
2 1/2"	5.500	<i>T2S-250PL</i>	<i>T2S-250PM</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

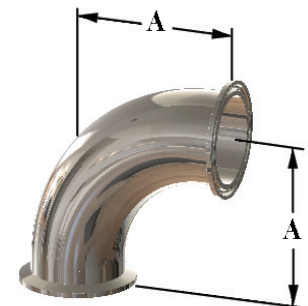
Size	A	B	PL Finish - SF1	PM Finish - SF4
1/2"	3.000	1.625	<i>T2CM-050PL</i>	<i>T2CM-050PM</i>
3/4"	3.000	1.625	<i>T2CM-075PL</i>	<i>T2CM-075PM</i>
1"	3.000	2.000	<i>T2CM-100PL</i>	<i>T2CM-100PM</i>
1 1/2"	3.750	2.750	<i>T2CM-150PL</i>	<i>T2CM-150PM</i>
2"	4.750	3.500	<i>T2CM-200PL</i>	<i>T2CM-200PM</i>
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

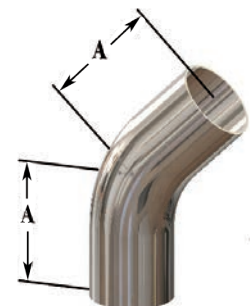
Size	A	PL Finish - SF1	PM Finish - SF4
1/2"	1.625	<i>T2CMP-050PL</i>	<i>T2CMP-050PM</i>
3/4"	1.625	<i>T2CMP-075PL</i>	<i>T2CMP-075PM</i>
1"	2.000	<i>T2CMP-100PL</i>	<i>T2CMP-100PM</i>
1 1/2"	2.750	<i>T2CMP-150PL</i>	<i>T2CMP-150PM</i>
2"	3.500	<i>T2CMP-200PL</i>	<i>T2CMP-200PM</i>
2 1/2"	4.250	<i>T2CMP-250PL</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

Size	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

Note: Not all sizes and finishes are stocked

PM Finish – SF4

OD = 32R_a Mechanically Polished

ID = 15R_a Mechanically Polished and Electropolished

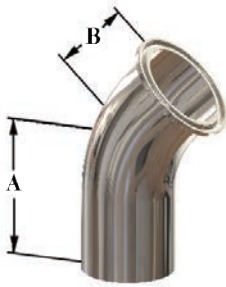
PL Finish – SF1

OD = 32R_a Mechanically Polished

ID = 20R_a Mechanically Polished

High Purity BioPharm Line

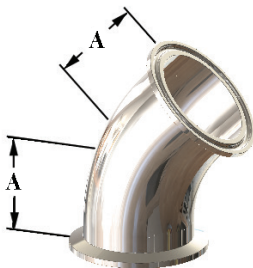
3 45° Clamp x Weld Elbows - T2KM



BPE Table DT-4.1.1-5

Size	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>

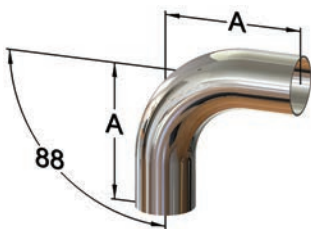
3 45° Clamp x Clamp Elbows - T2KMP



BPE Table DT-4.1.1-6

Size	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>

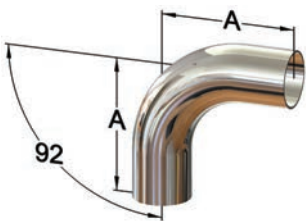
3 88° Weld Elbows - T2S88



BPE Table DT-4.1.1-1

Size	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>

3 92° Weld Elbows - T2S92



BPE Table DT-4.1.1-1

Size	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>

Note: Not all sizes and finishes are stocked

PL Finish - SF1

OD = 32R_a Mechanically Polished

ID = 20R_a Mechanically Polished

PM Finish - SF4

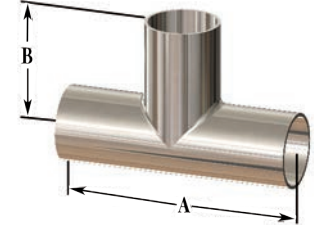
OD = 32R_a Mechanically Polished

ID = 15R_a Mechanically Polished and Electropolished

High Purity BioPharm Line

Weld x Weld x Weld Tees - T7WWW

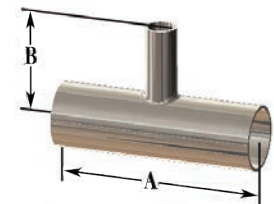
Size	A	B	PL Finish - SF1	PM Finish - SF4
1/2"	3.750	1.875	<i>T7WWW-050PL</i>	<i>T7WWW-050PM</i>
3/4"	4.000	2.000	<i>T7WWW-075PL</i>	<i>T7WWW-075PM</i>
1"	4.250	2.125	<i>T7WWW-100PL</i>	<i>T7WWW-100PM</i>
1 1/2"	4.750	2.375	<i>T7WWW-150PL</i>	<i>T7WWW-150PM</i>
2"	5.750	2.875	<i>T7WWW-200PL</i>	<i>T7WWW-200PM</i>
2 1/2"	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>



BPE Table DT-4.1.2-1

Weld x Weld x Weld Reducing Tees - T7RWWW

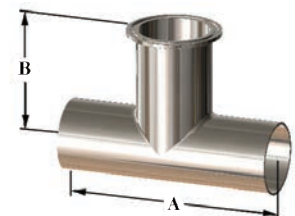
Size	A	B	PL Finish - SF1	PM Finish - SF4
3/4" x 1/2"	4.000	2.000	<i>T7RWWW-075050PL</i>	<i>T7RWWW-075050PM</i>
1" x 1/2"	4.250	2.125	<i>T7RWWW-100050PL</i>	<i>T7RWWW-100050PM</i>
1" x 3/4"	4.250	2.125	<i>T7RWWW-100075PL</i>	<i>T7RWWW-100075PM</i>
1 1/2" x 1/2"	4.750	2.375	<i>T7RWWW-150050PL</i>	<i>T7RWWW-150050PM</i>
1 1/2" x 3/4"	4.750	2.375	<i>T7RWWW-150075PL</i>	<i>T7RWWW-150075PM</i>
1 1/2" x 1"	4.750	2.375	<i>T7RWWW-150100PL</i>	<i>T7RWWW-150100PM</i>
2" x 1/2"	5.750	2.625	<i>T7RWWW-200050PL</i>	<i>T7RWWW-200050PM</i>
2" x 3/4"	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 1 1/2"	5.750	2.625	<i>T7RWWW-200150PL</i>	<i>T7RWWW-200150PM</i>
2 1/2" x 3/4"	6.250	2.875	<i>T7RWWW-250075PL</i>	<i>T7RWWW-250075PM</i>
2 1/2" x 1"	6.250	2.875	<i>T7RWWW-250100PL</i>	<i>T7RWWW-250100PM</i>
2 1/2" x 1 1/2"	6.250	2.875	<i>T7RWWW-250150PL</i>	<i>T7RWWW-250150PM</i>
2 1/2" x 2"	6.250	2.875	<i>T7RWWW-250200PL</i>	<i>T7RWWW-250200PM</i>
3" x 1/2"	6.750	3.125	<i>T7RWWW-300050PL</i>	<i>T7RWWW-300050PM</i>
3" x 3/4"	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 1 1/2"	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 2 1/2"	6.750	3.125	<i>T7RWWW-300250PL</i>	<i>T7RWWW-300250PM</i>
4" x 1/2"	8.250	3.625	<i>T7RWWW-400050PL</i>	<i>T7RWWW-400050PM</i>
4" x 3/4"	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 1 1/2"	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 2 1/2"	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>



BPE Table DT-4.1.2-6

Weld x Weld x Clamp Tees - T7WWM

Size	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>



Note: Not all sizes and finishes are stocked

PL Finish - SF1

OD = 32R_a Mechanically Polished

ID = 20R_a Mechanically Polished

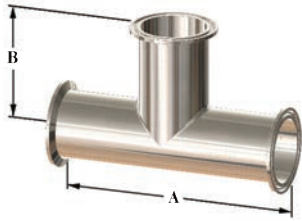
PM Finish - SF4

OD = 32R_a Mechanically Polished

ID = 15R_a Mechanically Polished and Electropolished

High Purity BioPharm Line

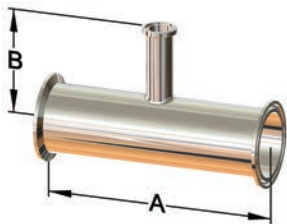
3 Clamp x Clamp x Clamp Tees - T7MP



BPE Table DT-4.1.2-4

Size	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>

3 Clamp x Clamp x Clamp Reducing Tees - T7RMP



BPE Table DT-4.1.2-8

Size	A	B	PL Finish - SF1	PM Finish - SF4
3/4" x 1/2"	5.000	2.500	<i>T7RMP-075050PL</i>	<i>T7RMP-075050PM</i>
1" x 1/2"	5.250	2.625	<i>T7RMP-100050PL</i>	<i>T7RMP-100050PM</i>
1" x 3/4"	5.250	2.625	<i>T7RMP-100075PL</i>	<i>T7RMP-100075PM</i>
1 1/2" x 1/2"	5.750	2.875	<i>T7RMP-150050PL</i>	<i>T7RMP-150050PM</i>
1 1/2" x 3/4"	5.750	2.875	<i>T7RMP-150075PL</i>	<i>T7RMP-150075PM</i>
1 1/2" x 1"	5.750	2.875	<i>T7RMP-150100PL</i>	<i>T7RMP-150100PM</i>
2" x 1/2"	6.750	3.125	<i>T7RMP-200050PL</i>	<i>T7RMP-200050PM</i>
2" x 3/4"	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 1 1/2"	6.750	3.125	<i>T7RMP-200150PL</i>	<i>T7RMP-200150PM</i>
2 1/2" x 1/2"	7.250	3.375	<i>T7RMP-250050PL</i>	<i>T7RMP-250050PM</i>
2 1/2" x 3/4"	7.250	3.375	<i>T7RMP-250075PL</i>	<i>T7RMP-250075PM</i>
2 1/2" x 1"	7.250	3.375	<i>T7RMP-250100PL</i>	<i>T7RMP-250100PM</i>
2 1/2" x 1 1/2"	7.250	3.375	<i>T7RMP-250150PL</i>	<i>T7RMP-250150PM</i>
2 1/2" x 2"	7.250	3.375	<i>T7RMP-250200PL</i>	<i>T7RMP-250200PM</i>
3" x 1/2"	7.750	3.625	<i>T7RMP-300050PL</i>	<i>T7RMP-300050PM</i>
3" x 3/4"	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 1 1/2"	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 2 1/2"	7.750	3.625	<i>T7RMP-300250PL</i>	<i>T7RMP-300250PM</i>
4" x 1/2"	9.500	4.125	<i>T7RMP-400050PL</i>	<i>T7RMP-400050PM</i>
4" x 3/4"	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 1 1/2"	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 2 1/2"	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>

Note: Not all sizes and finishes are stocked

PL Finish – SF1

OD = 32R_a Mechanically Polished

ID = 20R_a Mechanically Polished

PM Finish – SF4

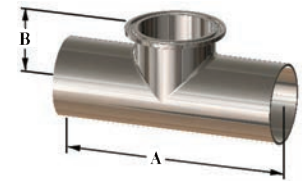
OD = 32R_a Mechanically Polished

ID = 15R_a Mechanically Polished and Electropolished

High Purity BioPharm Line

Weld x Weld x Clamp Short Outlet Tees - T7WWMS

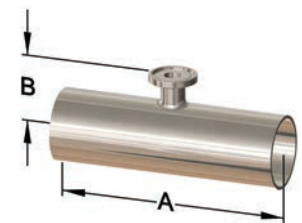
Size	A	B	PL Finish - SF1	PM Finish - SF4
1/2"	3.750	1.000	<i>T7WWMS-050PL</i>	<i>T7WWMS-050PM</i>
3/4"	4.000	1.125	<i>T7WWMS-075PL</i>	<i>T7WWMS-075PM</i>
1"	4.250	1.125	<i>T7WWMS-100PL</i>	<i>T7WWMS-100PM</i>
1 1/2"	4.750	1.375	<i>T7WWMS-150PL</i>	<i>T7WWMS-150PM</i>
2"	5.750	1.625	<i>T7WWMS-200PL</i>	<i>T7WWMS-200PM</i>
2 1/2"	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

Weld x Weld x Clamp Short Outlet Reducing Tees - T7RWWMS

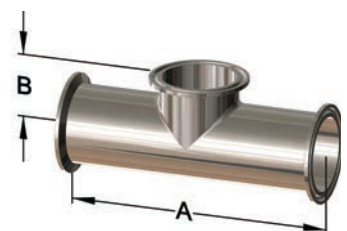
Size	A	B	PL Finish - SF1	PM Finish - SF4
3/4" x 1/2"	4.000	1.000	<i>T7RWWMS075050PL</i>	<i>T7RWWMS075050PM</i>
1" x 1/2"	4.250	1.125	<i>T7RWWMS100050PL</i>	<i>T7RWWMS100050PM</i>
1" x 3/4"	4.250	1.125	<i>T7RWWMS100075PL</i>	<i>T7RWWMS100075PM</i>
1 1/2" x 1/2"	4.750	1.375	<i>T7RWWMS150050PL</i>	<i>T7RWWMS150050PM</i>
1 1/2" x 3/4"	4.750	1.375	<i>T7RWWMS150075PL</i>	<i>T7RWWMS150075PM</i>
1 1/2" x 1"	4.750	1.375	<i>T7RWWMS150100PL</i>	<i>T7RWWMS150100PM</i>
2" x 1/2"	5.750	1.625	<i>T7RWWMS200050PL</i>	<i>T7RWWMS200050PM</i>
2" x 3/4"	5.750	1.625	<i>T7RWWMS200075PL</i>	<i>T7RWWMS200075PM</i>
2" x 1"	5.750	1.625	<i>T7RWWMS200100PL</i>	<i>T7RWWMS200100PM</i>
2" x 1 1/2"	5.750	1.625	<i>T7RWWMS200150PL</i>	<i>T7RWWMS200150PM</i>
2 1/2" x 1/2"	6.250	1.875	<i>T7RWWMS250050PL</i>	<i>T7RWWMS250050PM</i>
2 1/2" x 3/4"	6.250	1.875	<i>T7RWWMS250075PL</i>	<i>T7RWWMS250075PM</i>
2 1/2" x 1"	6.250	1.875	<i>T7RWWMS250100PL</i>	<i>T7RWWMS250100PM</i>
2 1/2" x 1 1/2"	6.250	1.875	<i>T7RWWMS250150PL</i>	<i>T7RWWMS250150PM</i>
2 1/2" x 2"	6.250	1.875	<i>T7RWWMS250200PL</i>	<i>T7RWWMS250200PM</i>
3" x 1/2"	6.750	2.125	<i>T7RWWMS300050PL</i>	<i>T7RWWMS300050PM</i>
3" x 3/4"	6.750	2.125	<i>T7RWWMS300075PL</i>	<i>T7RWWMS300075PM</i>
3" x 1"	6.750	2.125	<i>T7RWWMS300100PL</i>	<i>T7RWWMS300100PM</i>
3" x 1 1/2"	6.750	2.125	<i>T7RWWMS300150PL</i>	<i>T7RWWMS300150PM</i>
3" x 2"	6.750	2.125	<i>T7RWWMS300200PL</i>	<i>T7RWWMS300200PM</i>
3" x 2 1/2"	6.750	2.125	<i>T7RWWMS300250PL</i>	<i>T7RWWMS300250PM</i>
4" x 1/2"	8.250	2.625	<i>T7RWWMS400050PL</i>	<i>T7RWWMS400050PM</i>
4" x 3/4"	8.250	2.625	<i>T7RWWMS400075PL</i>	<i>T7RWWMS400075PM</i>
4" x 1"	8.250	2.625	<i>T7RWWMS400100PL</i>	<i>T7RWWMS400100PM</i>
4" x 1 1/2"	8.250	2.625	<i>T7RWWMS400150PL</i>	<i>T7RWWMS400150PM</i>
4" x 2"	8.250	2.625	<i>T7RWWMS400200PL</i>	<i>T7RWWMS400200PM</i>
4" x 2 1/2"	8.250	2.625	<i>T7RWWMS400250PL</i>	<i>T7RWWMS400250PM</i>
4" x 3"	8.250	2.625	<i>T7RWWMS400300PL</i>	<i>T7RWWMS400300PM</i>
6" x 3"	11.250	3.625	<i>T7RWWMS600300PL</i>	<i>T7RWWMS600300PM</i>
6" x 4"	11.250	3.750	<i>T7RWWMS600400PL</i>	<i>T7RWWMS600400PM</i>



BPE Table DT-4.1.2-7

Clamp x Clamp x Clamp Short Outlet Tees - T7MPS

Size	A	B	PL Finish - SF1	PM Finish - SF4
1/2"	4.500	1.000	<i>T7MPS-050PL</i>	<i>T7MPS-050PM</i>
3/4"	4.750	1.125	<i>T7MPS-075PL</i>	<i>T7MPS-075PM</i>
1"	5.250	1.125	<i>T7MPS-100PL</i>	<i>T7MPS-100PM</i>
1 1/2"	5.750	1.375	<i>T7MPS-150PL</i>	<i>T7MPS-150PM</i>
2"	6.750	1.625	<i>T7MPS-200PL</i>	<i>T7MPS-200PM</i>
2 1/2"	7.250	1.875	<i>T7MPS-250PL</i>	<i>T7MPS-250PM</i>
3"	7.750	2.125	<i>T7MPS-300PL</i>	<i>T7MPS-300PM</i>
4"	9.500	2.750	<i>T7MPS-400PL</i>	<i>T7MPS-400PM</i>
6"	14.250	4.625	<i>T7MPS-600PL</i>	<i>T7MPS-600PM</i>



BPE Table DT-4.1.2-5

Note: Not all sizes and finishes are stocked

PL Finish – SF1

OD = 32R_a Mechanically Polished

ID = 20R_a Mechanically Polished

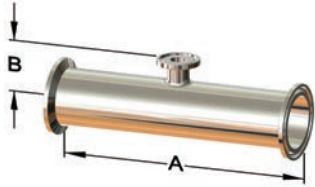
PM Finish – SF4

OD = 32R_a Mechanically Polished

ID = 15R_a Mechanically Polished and Electropolished

High Purity BioPharm Line

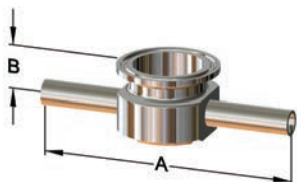
3 Clamp x Clamp x Clamp Short Outlet Reducing Tees - T7RMPS



BPE Table DT-4.1.2-9

Size	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

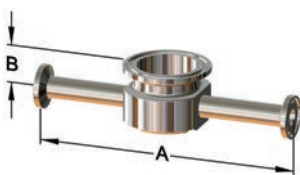
3 Weld x Weld x Clamp Instrument Tees - T7IWWMS



BPE Table DT-4.1.2-10

Size	A	B	PL Finish - SF1	PM Finish - SF4
1/2" x 1 1/2"	5.000	.875	T7IWWMS050150PL	T7IWWMS050150PM
3/4" x 1 1/2"	5.000	1.000	T7IWWMS075150PL	T7IWWMS075150PM
1" x 1 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

3 Clamp x Clamp x Clamp Instrument Tees - T7IMPS



BPE Table DT-4.1.2-11

Size	A	B	PL Finish - SF1	PM Finish - SF4
1/2" x 1 1/2"	6.000	.875	T7IMPS-050150PL	T7IMPS-050150PM
3/4" x 1 1/2"	6.000	1.000	T7IMPS-075150PL	T7IMPS-075150PM
1" x 1 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

Note: Not all sizes and finishes are stocked

PL Finish - SF1

OD = 32R_a Mechanically Polished

ID = 20R_a Mechanically Polished

PM Finish - SF4

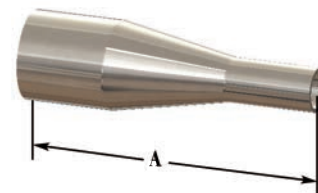
OD = 32R_a Mechanically Polished

ID = 15R_a Mechanically Polished and Electropolished

High Purity BioPharm Line

Weld x Weld Concentric Reducers - T31W

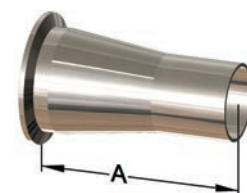
Size	A	PL Finish - SF1	PM Finish - SF4
¾" x ½"	4.00	<i>T31W-075050PL</i>	<i>T31W-075050PM</i>
1" x ½"	4.50	<i>T31W-100050PL</i>	<i>T31W-100050PM</i>
1" x ¾"	4.00	<i>T31W-100075PL</i>	<i>T31W-100075PM</i>
1½" x ½"	5.50	<i>T31W-150050PL</i>	<i>T31W-150050PM</i>
1½" x ¾"	5.00	<i>T31W-150075PL</i>	<i>T31W-150075PM</i>
1½" x 1"	5.00	<i>T31W-150100PL</i>	<i>T31W-150100PM</i>
2" x ½"	7.75	<i>T31W-200050PL</i>	<i>T31W-200050PM</i>
2" x ¾"	7.25	<i>T31W-200075PL</i>	<i>T31W-200075PM</i>
2" x 1"	7.25	<i>T31W-200100PL</i>	<i>T31W-200100PM</i>
2" x 1½"	5.25	<i>T31W-200150PL</i>	<i>T31W-200150PM</i>
2½" x ½"	9.750	<i>T31W-250050PL</i>	<i>T31W-250050PM</i>
2½" x ¾"	9.250	<i>T31W-250075PL</i>	<i>T31W-250075PM</i>
2½" x 1"	9.250	<i>T31W-250100PL</i>	<i>T31W-250100PM</i>
2½" x 1½"	7.250	<i>T31W-250150PL</i>	<i>T31W-250150PM</i>
2½" x 2"	5.500	<i>T31W-250200PL</i>	<i>T31W-250200PM</i>
3" x 1"	11.250	<i>T31W-300100PL</i>	<i>T31W-300100PM</i>
3" x 1½"	9.250	<i>T31W-300150PL</i>	<i>T31W-300150PM</i>
3" x 2"	7.500	<i>T31W-300200PL</i>	<i>T31W-300200PM</i>
3" x 2½"	5.500	<i>T31W-300250PL</i>	<i>T31W-300250PM</i>
4" x 1"	15.500	<i>T31W-400100PL</i>	<i>T31W-400100PM</i>
4" x 1½"	13.500	<i>T31W-400150PL</i>	<i>T31W-400150PM</i>
4" x 2"	11.750	<i>T31W-400200PL</i>	<i>T31W-400200PM</i>
4" x 2½"	9.750	<i>T31W-400250PL</i>	<i>T31W-400250PM</i>
4" x 3"	7.750	<i>T31W-400300PL</i>	<i>T31W-400300PM</i>
6" x 3"	10.000	<i>T31W-600300PL</i>	<i>T31W-600300PM</i>
6" x 4"	10.000	<i>T31W-600400PL</i>	<i>T31W-600400PM</i>



BPE Table DT-4.1.3-1(a)

Clamp x Weld Concentric Reducers - T31M

Size	A	PL Finish - SF1	PM Finish - SF4
¾" x ½"	3.000	<i>T31M-075050PL</i>	<i>T31M-075050PM</i>
1" x ½"	3.500	<i>T31M-100050PL</i>	<i>T31M-100050PM</i>
1" x ¾"	3.000	<i>T31M-100075PL</i>	<i>T31M-100075PM</i>
1½" x ½"	4.500	<i>T31M-150050PL</i>	<i>T31M-150050PM</i>
1½" x ¾"	4.000	<i>T31M-150075PL</i>	<i>T31M-150075PM</i>
1½" x 1"	4.000	<i>T31M-150100PL</i>	<i>T31M-150100PM</i>
2" x ½"	6.500	<i>T31M-200050PL</i>	<i>T31M-200050PM</i>
2" x ¾"	6.000	<i>T31M-200075PL</i>	<i>T31M-200075PM</i>
2" x 1"	6.000	<i>T31M-200100PL</i>	<i>T31M-200100PM</i>
2" x 1½"	4.000	<i>T31M-200150PL</i>	<i>T31M-200150PM</i>
2½" x ½"	8.500	<i>T31M-250050PL</i>	<i>T31M-250050PM</i>
2½" x ¾"	8.000	<i>T31M-250075PL</i>	<i>T31M-250075PM</i>
2½" x 1"	8.000	<i>T31M-250100PL</i>	<i>T31M-250100PM</i>
2½" x 1½"	6.000	<i>T31M-250150PL</i>	<i>T31M-250150PM</i>
2½" x 2"	4.250	<i>T31M-250200PL</i>	<i>T31M-250200PM</i>
3" x 1"	10.000	<i>T31M-300100PL</i>	<i>T31M-300100PM</i>
3" x 1½"	8.000	<i>T31M-300150PL</i>	<i>T31M-300150PM</i>
3" x 2"	6.250	<i>T31M-300200PL</i>	<i>T31M-300200PM</i>
3" x 2½"	4.250	<i>T31M-300250PL</i>	<i>T31M-300250PM</i>
4" x 1"	14.125	<i>T31M-400100PL</i>	<i>T31M-400100PM</i>
4" x 1½"	12.125	<i>T31M-400150PL</i>	<i>T31M-400150PM</i>
4" x 2"	10.375	<i>T31M-400200PL</i>	<i>T31M-400200PM</i>
4" x 2½"	8.375	<i>T31M-400250PL</i>	<i>T31M-400250PM</i>
4" x 3"	6.375	<i>T31M-400300PL</i>	<i>T31M-400300PM</i>
6" x 3"	9.000	<i>T31M-600300PL</i>	<i>T31M-600300PM</i>
6" x 4"	9.000	<i>T31M-600400PL</i>	<i>T31M-600400PM</i>



BPE Table DT-4.1.3-2(a)

Note: Not all sizes and finishes are stocked

PL Finish – SF1

OD = 32R_a Mechanically Polished

ID = 20R_a Mechanically Polished

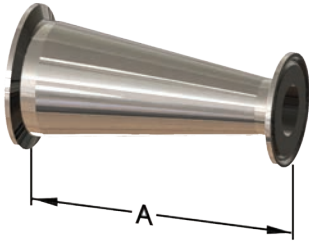
PM Finish – SF4

OD = 32R_a Mechanically Polished

ID = 15R_a Mechanically Polished and Electropolished

High Purity BioPharm Line

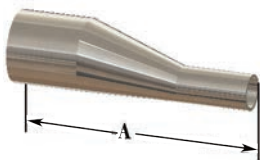
3 Clamp x Clamp Concentric Reducers - T3114MP



BPE Table DT-4.1.3-3(a)

Size	A	PL Finish - SF1	PM Finish - SF4
¾" x ½"	2.000	<i>T3114MP075050PL</i>	<i>T3114MP075050PM</i>
1" x ½"	2.500	<i>T3114MP100050PL</i>	<i>T3114MP100050PM</i>
1" x ¾"	2.000	<i>T3114MP100075PL</i>	<i>T3114MP100075PM</i>
1½" x ½"	3.500	<i>T3114MP150050PL</i>	<i>T3114MP150050PM</i>
1½" x ¾"	3.000	<i>T3114MP150075PL</i>	<i>T3114MP150075PM</i>
1½" x 1"	3.000	<i>T3114MP150100PL</i>	<i>T3114MP150100PM</i>
2" x ½"	5.500	<i>T3114MP200050PL</i>	<i>T3114MP200050PM</i>
2" x ¾"	5.000	<i>T3114MP200075PL</i>	<i>T3114MP200075PM</i>
2" x 1"	5.000	<i>T3114MP200100PL</i>	<i>T3114MP200100PM</i>
2" x 1½"	3.000	<i>T3114MP200150PL</i>	<i>T3114MP200150PM</i>
2½" x ½"	7.500	<i>T3114MP250050PL</i>	<i>T3114MP250050PM</i>
2½" x ¾"	7.000	<i>T3114MP250075PL</i>	<i>T3114MP250075PM</i>
2½" x 1"	7.000	<i>T3114MP250100PL</i>	<i>T3114MP250100PM</i>
2½" x 1½"	5.000	<i>T3114MP250150PL</i>	<i>T3114MP250150PM</i>
2½" x 2"	3.000	<i>T3114MP250200PL</i>	<i>T3114MP250200PM</i>
3" x 1"	9.000	<i>T3114MP300100PL</i>	<i>T3114MP300100PM</i>
3" x 1½"	7.000	<i>T3114MP300150PL</i>	<i>T3114MP300150PM</i>
3" x 2"	5.000	<i>T3114MP300200PL</i>	<i>T3114MP300200PM</i>
3" x 2½"	3.000	<i>T3114MP300250PL</i>	<i>T3114MP300250PM</i>
4" x 1"	13.125	<i>T3114MP400100PL</i>	<i>T3114MP400100PM</i>
4" x 1½"	11.125	<i>T3114MP400150PL</i>	<i>T3114MP400150PM</i>
4" x 2"	9.125	<i>T3114MP400200PL</i>	<i>T3114MP400200PM</i>
4" x 2½"	7.125	<i>T3114MP400250PL</i>	<i>T3114MP400250PM</i>
4" x 3"	5.125	<i>T3114MP400300PL</i>	<i>T3114MP400300PM</i>
6" x 3"	7.625	<i>T3114MP600300PL</i>	<i>T3114MP600300PM</i>
6" x 4"	7.625	<i>T3114MP600400PL</i>	<i>T3114MP600400PM</i>

3 Weld x Weld Eccentric Reducers - T32W



BPE Table DT-4.1.3-1(a)

Size	A	PL Finish - SF1	PM Finish - SF4
¾" x ½"	4.000	<i>T32W-075050PL</i>	<i>T32W-075050PM</i>
1" x ½"	4.500	<i>T32W-100050PL</i>	<i>T32W-100050PM</i>
1" x ¾"	4.000	<i>T32W-100075PL</i>	<i>T32W-100075PM</i>
1½" x ½"	5.500	<i>T32W-150050PL</i>	<i>T32W-150050PM</i>
1½" x ¾"	5.000	<i>T32W-150075PL</i>	<i>T32W-150075PM</i>
1½" x 1"	5.000	<i>T32W-150100PL</i>	<i>T32W-150100PM</i>
2" x ½"	7.750	<i>T32W-200050PL</i>	<i>T32W-200050PM</i>
2" x ¾"	7.250	<i>T32W-200075PL</i>	<i>T32W-200075PM</i>
2" x 1"	7.250	<i>T32W-200100PL</i>	<i>T32W-200100PM</i>
2" x 1½"	5.250	<i>T32W-200150PL</i>	<i>T32W-200150PM</i>
2½" x ½"	9.750	<i>T32W-250050PL</i>	<i>T32W-250050PM</i>
2½" x ¾"	9.250	<i>T32W-250075PL</i>	<i>T32W-250075PM</i>
2½" x 1"	9.250	<i>T32W-250100PL</i>	<i>T32W-250100PM</i>
2½" x 1½"	7.250	<i>T32W-250150PL</i>	<i>T32W-250150PM</i>
2½" x 2"	5.500	<i>T32W-250200PL</i>	<i>T32W-250200PM</i>
3" x 1"	11.250	<i>T32W-300100PL</i>	<i>T32W-300100PM</i>
3" x 1½"	9.250	<i>T32W-300150PL</i>	<i>T32W-300150PM</i>
3" x 2"	7.500	<i>T32W-300200PL</i>	<i>T32W-300200PM</i>
3" x 2½"	5.500	<i>T32W-300250PL</i>	<i>T32W-300250PM</i>
4" x 1"	15.500	<i>T32W-400100PL</i>	<i>T32W-400100PM</i>
4" x 1½"	13.500	<i>T32W-400150PL</i>	<i>T32W-400150PM</i>
4" x 2"	11.750	<i>T32W-400200PL</i>	<i>T32W-400200PM</i>
4" x 2½"	9.750	<i>T32W-400250PL</i>	<i>T32W-400250PM</i>
4" x 3"	7.750	<i>T32W-400300PL</i>	<i>T32W-400300PM</i>
6" x 3"	9.750	<i>T32W-600300PL</i>	<i>T32W-600300PM</i>
6" x 4"	10.000	<i>T32W-600400PL</i>	<i>T32W-600400PM</i>

Note: Not all sizes and finishes are stocked

PL Finish – SF1

OD = 32R_a Mechanically PolishedID = 20R_a Mechanically Polished

PM Finish – SF4

OD = 32R_a Mechanically PolishedID = 15R_a Mechanically Polished and Electropolished

High Purity BioPharm Line

Clamp x Weld Eccentric Reducers - T32M

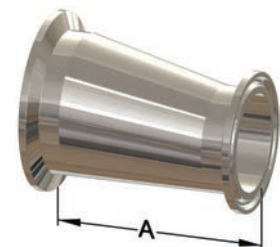
Size	A	PL Finish - SF1	PM Finish - SF4
3/4" x 1/2"	3.000	<i>T32M-075050PL</i>	<i>T32M-075050PM</i>
1" x 1/2"	3.500	<i>T32M-100050PL</i>	<i>T32M-100050PM</i>
1" x 3/4"	3.000	<i>T32M-100075PL</i>	<i>T32M-100075PM</i>
1 1/2" x 1/2"	4.500	<i>T32M-150050PL</i>	<i>T32M-150050PM</i>
1 1/2" x 3/4"	4.000	<i>T32M-150075PL</i>	<i>T32M-150075PM</i>
1 1/2" x 1"	4.000	<i>T32M-150100PL</i>	<i>T32M-150100PM</i>
2" x 1/2"	6.500	<i>T32M-200050PL</i>	<i>T32M-200050PM</i>
2" x 3/4"	6.000	<i>T32M-200075PL</i>	<i>T32M-200075PM</i>
2" x 1"	6.000	<i>T32M-200100PL</i>	<i>T32M-200100PM</i>
2" x 1 1/2"	4.000	<i>T32M-200150PL</i>	<i>T32M-200150PM</i>
2 1/2" x 1/2"	8.500	<i>T32M-250050PL</i>	<i>T32M-250050PM</i>
2 1/2" x 3/4"	8.000	<i>T32M-250075PL</i>	<i>T32M-250075PM</i>
2 1/2" x 1"	8.000	<i>T32M-250100PL</i>	<i>T32M-250100PM</i>
2 1/2" x 1 1/2"	6.000	<i>T32M-250150PL</i>	<i>T32M-250150PM</i>
2 1/2" x 2"	4.250	<i>T32M-250200PL</i>	<i>T32M-250200PM</i>
3" x 1"	10.000	<i>T32M-300100PL</i>	<i>T32M-300100PM</i>
3" x 1 1/2"	8.000	<i>T32M-300150PL</i>	<i>T32M-300150PM</i>
3" x 2"	6.250	<i>T32M-300200PL</i>	<i>T32M-300200PM</i>
3" x 2 1/2"	4.250	<i>T32M-300250PL</i>	<i>T32M-300250PM</i>
4" x 1"	14.125	<i>T32M-400100PL</i>	<i>T32M-400100PM</i>
4" x 1 1/2"	12.125	<i>T32M-400150PL</i>	<i>T32M-400150PM</i>
4" x 2"	10.375	<i>T32M-400200PL</i>	<i>T32M-400200PM</i>
4" x 2 1/2"	8.375	<i>T32M-400250PL</i>	<i>T32M-400250PM</i>
4" x 3"	6.375	<i>T32M-400300PL</i>	<i>T32M-400300PM</i>
6" x 3"	8.750	<i>T32M-600300PL</i>	<i>T32M-600300PM</i>
6" x 4"	9.000	<i>T32M-600400PL</i>	<i>T32M-600400PM</i>



BPE Table DT-4.1.3-2(a)

Clamp x Clamp Eccentric Reducers - T3214MP

Size	A	PL Finish - SF1	PM Finish - SF4
3/4" x 1/2"	2.000	<i>T3214MP075050PL</i>	<i>T3214MP075050PM</i>
1" x 1/2"	2.500	<i>T3214MP100050PL</i>	<i>T3214MP100050PM</i>
1" x 3/4"	2.000	<i>T3214MP100075PL</i>	<i>T3214MP100075PM</i>
1 1/2" x 1/2"	3.500	<i>T3214MP150050PL</i>	<i>T3214MP150050PM</i>
1 1/2" x 3/4"	3.000	<i>T3214MP150075PL</i>	<i>T3214MP150075PM</i>
1 1/2" x 1"	3.000	<i>T3214MP150100PL</i>	<i>T3214MP150100PM</i>
2" x 1/2"	5.500	<i>T3214MP200050PL</i>	<i>T3214MP200050PM</i>
2" x 3/4"	5.000	<i>T3214MP200075PL</i>	<i>T3214MP200075PM</i>
2" x 1"	5.000	<i>T3214MP200100PL</i>	<i>T3214MP200100PM</i>
2" x 1 1/2"	3.000	<i>T3214MP200150PL</i>	<i>T3214MP200150PM</i>
2 1/2" x 1/2"	7.500	<i>T3214MP250050PL</i>	<i>T3214MP250050PM</i>
2 1/2" x 3/4"	7.000	<i>T3214MP250075PL</i>	<i>T3214MP250075PM</i>
2 1/2" x 1"	7.000	<i>T3214MP250100PL</i>	<i>T3214MP250100PM</i>
2 1/2" x 1 1/2"	5.000	<i>T3214MP250150PL</i>	<i>T3214MP250150PM</i>
2 1/2" x 2"	3.000	<i>T3214MP250200PL</i>	<i>T3214MP250200PM</i>
3" x 1"	9.000	<i>T3214MP300100PL</i>	<i>T3214MP300100PM</i>
3" x 1 1/2"	7.000	<i>T3214MP300150PL</i>	<i>T3214MP300150PM</i>
3" x 2"	5.000	<i>T3214MP300200PL</i>	<i>T3214MP300200PM</i>
3" x 2 1/2"	3.000	<i>T3214MP300250PL</i>	<i>T3214MP300250PM</i>
4" x 1"	13.125	<i>T3214MP400100PL</i>	<i>T3214MP400100PM</i>
4" x 1 1/2"	11.125	<i>T3214MP400150PL</i>	<i>T3214MP400150PM</i>
4" x 2"	9.125	<i>T3214MP400200PL</i>	<i>T3214MP400200PM</i>
4" x 2 1/2"	7.125	<i>T3214MP400250PL</i>	<i>T3214MP400250PM</i>
4" x 3"	5.125	<i>T3214MP400300PL</i>	<i>T3214MP400300PM</i>
6" x 3"	7.500	<i>T3214MP600300PL</i>	<i>T3214MP600300PM</i>
6" x 4"	7.625	<i>T3214MP600400PL</i>	<i>T3214MP600400PM</i>



BPE Table DT-4.1.3-3(a)

Note: Not all sizes and finishes are stocked

PL Finish – SF1

OD = 32R_a Mechanically Polished

ID = 20R_a Mechanically Polished

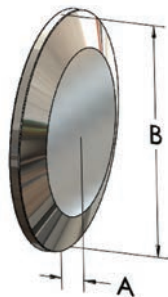
PM Finish – SF4

OD = 32R_a Mechanically Polished

ID = 15R_a Mechanically Polished and Electropolished

High Purity BioPharm Line

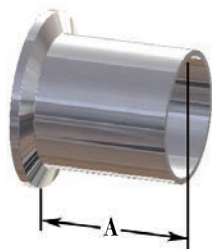
Solid End Caps - T16AMP



BPE Table DT-4.1.5-2

Size	A	B	PL Finish - SF1	PM Finish - SF4
1/2" - 3/4"	0.190	1.000	<i>T16AMP-050075PL</i>	<i>T16AMP-050075PM</i>
1" - 1 1/2"	0.250	1.990	<i>T16AMP-100150PL</i>	<i>T16AMP-100150PM</i>
2"	0.250	2.520	<i>T16AMP-200PL</i>	<i>T16AMP-200PM</i>
2 1/2"	0.250	3.050	<i>T16AMP-250PL</i>	<i>T16AMP-250PM</i>
3"	0.250	3.580	<i>T16AMP-300PL</i>	<i>T16AMP-300PM</i>
4"	0.310	4.690	<i>T16AMP-400PL</i>	<i>T16AMP-400PM</i>
6"	0.440	6.560	<i>T16AMP-600PL</i>	<i>T16AMP-600PM</i>

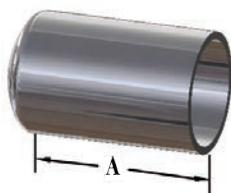
Auto Weld Ferrules - TL14AM7



BPE Table DT-4.1.4-1

Size	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>

Weld Caps - T16W



BPE Table DT-4.1.5-1

Size	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>

Note: Not all sizes and finishes are stocked

PL Finish – SF1

OD = 32R_a Mechanically Polished

ID = 20R_a Mechanically Polished

PM Finish – SF4

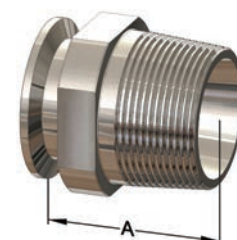
OD = 32R_a Mechanically Polished

ID = 15R_a Mechanically Polished and Electropolished

High Purity BioPharm Line

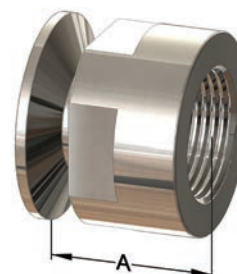
Clamp Adapter x Male NPT - T21MP

Size	A	PL Finish - SF1
1/2" x 1/4"	2.000	<i>T21MP-050025PL</i>
1/2" x 3/8"	2.000	<i>T21MP-050375PL</i>
1/2"	1.625	<i>T21MP-050PL</i>
1/2" x 3/4"	2.000	<i>T21MP-050075PL</i>
3/4" x 1/4"	2.000	<i>T21MP-075025PL</i>
3/4" x 3/8"	2.000	<i>T21MP-075375PL</i>
3/4" x 1/2"	2.000	<i>T21MP-075050PL</i>
3/4"	2.250	<i>T21MP-075PL</i>
1"	2.250	<i>T21MP-100PL</i>
1 1/2"	2.250	<i>T21MP-150PL</i>
2"	2.638	<i>T21MP-200PL</i>
2 1/2"	2.875	<i>T21MP-250PL</i>
3"	3.070	<i>T21MP-300PL</i>
4"	3.155	<i>T21MP-400PL</i>



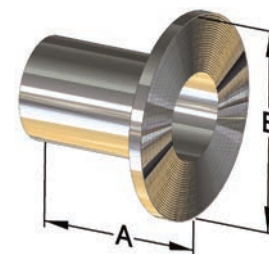
Clamp Adapter x Female NPT - T22MP

Size	A	PL Finish - SF1
1/2" x 1/8"	1.250	<i>T22MP-050125PL</i>
1/2" x 1/4"	1.500	<i>T22MP-050025PL</i>
1/2" x 3/8"	1.500	<i>T22MP-050375PL</i>
1/2"	1.500	<i>T22MP-050PL</i>
1/2" x 3/4"	1.500	<i>T22MP-050075PL</i>
3/4" x 1/4"	1.500	<i>T22MP-075025PL</i>
3/4" x 3/8"	1.500	<i>T22MP-075375PL</i>
3/4" x 1/2"	1.625	<i>T22MP-075050PL</i>
3/4"	1.625	<i>T22MP-075PL</i>
1"	1.625	<i>T22MP-100PL</i>
1 1/2"	2.250	<i>T22MP-150PL</i>
2"	2.406	<i>T22MP-200PL</i>
2 1/2"	2.187	<i>T22MP-250PL</i>
3"	2.187	<i>T22MP-300PL</i>
4"	2.625	<i>T22MP-400PL</i>



Stub Adapters - T14VB

Size	A	B	PL Finish - SF1
1/2"	2.000	1.625	<i>T14VB-050PL</i>
3/4"	2.000	1.687	<i>T14VB-075PL</i>
1"	2.000	2.000	<i>T14VB-100PL</i>
1 1/2"	2.000	2.875	<i>T14VB-150PL</i>
2"	2.500	2.625	<i>T14VB-200PL</i>
2 1/2"	2.500	4.125	<i>T14VB-250PL</i>
3"	2.500	5.000	<i>T14VB-300PL</i>
4"	2.500	6.187	<i>T14VB-400PL</i>
6"	3.000	8.500	<i>T14VB-600PL</i>



3 All Fittings Comply with ASME BPE-2012 - Table DT-3-1
 Final Tolerances for
 Mechanically Polished Fittings and Process Components (inches)

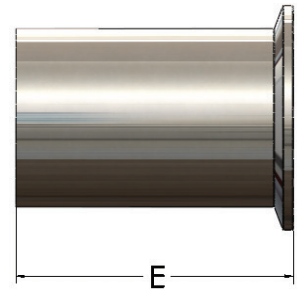
Nominal Size	OD	Wall Thickness	Squareness Face to Tangent (B)	Off Angle (O)	Tolerance on End-to-End (E) and Center-to-End (A)	Off Plane (P)
1/2"	±0.005	+0.005/-0.008	0.005	0.014	0.050	0.030
3/4"	±0.005	+0.005/-0.008	0.005	0.018	0.050	0.030
1"	±0.005	+0.005/-0.008	0.008	0.025	0.050	0.030
1 1/2"	±0.008	+0.005/-0.008	0.008	0.034	0.050	0.050
2"	±0.008	+0.005/-0.008	0.008	0.043	0.050	0.050
2 1/2"	±0.010	+0.005/-0.008	0.010	0.054	0.050	0.050
3"	±0.010	+0.005/-0.008	0.016	0.068	0.050	0.050
4"	±0.015	+0.008/-0.010	0.016	0.086	0.050	0.060



Squareness to Face



Off Angle



End-to-End



Off Plane



Off Angle



Center-to-End

Technical Specifications

Weld End chemical analysis (%) per ASME BPE 2012 Table MM - 2.1-1 and MM - 5.1.1

Element	C	Mn	P	S	Si	Cr	Ni	Mo
minimum	---	---	---	0.005	---	16.00	10.00	2.00
maximum	0.030	2.00	0.045	0.017	1.00	18.00	15.00	3.00

BPE Surface Finish Requirements (Table SF-2.4-1)

Surface designation	Mechanically Polished ID and OD		Dixon Sanitary High Purity code
	R _a Maximum		
	ID μ-in.	OD μ-in	
SF0	no finish requirement	no finish requirement	
SF1	20	32	PL
SF2	25	32	
SF3	30	32	

Surface designation	Mechanically Polished OD and Electropolished ID		
	R _a Maximum		
	ID μ-in.	OD μ-in	
SF4	15	32	PM
SF5	20	32	
SF6	25	32	

Acceptance Criteria for Stainless Steel Mechanically Polished Product Contact Surface Finishes

Anomaly or Indication	Acceptance Criteria
Pits	If diameter <0.020" and bottom is shiny [Notes (2) and (4)]. Pits <0.003" Diameter is irrelevant and acceptable.
Cluster of pits	No more than 4 pits per each ½" x ½" inspection window. The cumulative total of all relevant pits shall not exceed 0.040".
Dents	None accepted [note (1)]
Finishing marks	If R _a maximum is met
Welds	As welded shall meet requirements of MJ-6. If welds are finished, then shall be smooth and blended.
Nicks	None accepted
Scratches	For tubing, if cumulative length is <12.0" per 20' tube length or prorated and if depth is <0.003" For fittings, valves and other process components, if length is <0.25" cumulatively, depth <0.003" and R _a max. is met. For vessels, if length <0.50" at 0.003 depth and if <3 per inspection window [Note (3)].
Surface cracks	None accepted
Surface inclusions	If R _a max. is met
Surface residuals	None accepted, visual inspection
Surface roughness (R _a)	See Table SF-3 (see above)
Weld slag	For tubing, up to 3 per 20' length or prorated, if <75% of the width of the weld bead. For fittings, valves, vessels and other process components, none accepted (as welded shall meet the requirements of MJ-6 and Table MJ-3).
Porosity	None open to the surface

Notes:

- For vessels, dents in the area covered by and resulting from welding dimple heat transfer jackets are acceptable.
- Black bottom pit of any depth is not acceptable.
- An inspection window is defined as an area 4" x 4".
- Pits in super-austenitic and nickel alloys may exceed this value. Acceptance criteria for pit size shall be established by agreement between owner/user and manufacturer. All other pit criteria remain the same.

Packaging

Product markings per ASME BPE 2012 DT-10.1

- Dixon Sanitary
- job number
- 316L stainless steel
- Dixon Sanitary part number
- heat number(s)
- surface finish code
- ASME BPE

Per the specification, the size of the fitting may limit the space available for markings. When that occurs, the markings starting at the bottom of the list are not applied. The Dixon Sanitary part number will describe the part configuration and size.

MTR certifications are included inside the resealable bag with each fitting. The MTRs are traceable through the Job Number found on each fitting. All fittings are capped to prevent damage and contamination. For easy identification each finish will have a different color cap.

Finish ¹	Color Caps
PL/SF1	blue
PM/SF4	white

¹ see page 106 for finish standards

Dixon Sanitary High Purity BioPharm Fittings

316L (S31603) Stainless Steel Material Test Report

Job Number **AB242**

Bradford™ Part Number	Description	Size	Surface finish
T7RWWW-100075PL	Automatic Weld Reducing Tee per Table DT-4.1.2-6	1"x¾"	SF1 (20Ra)

Chemical analysis (%) per ASME BPE 2012 Table MM-2.1-1 and Section MM-5.1.1

Item	Heat number	C	Mn	P	S	Si	Cr	Ni	Mo	N
		0.030	2.00	0.045	0.017	1.00	16.00	10.00	2.00	
M	952662	0.018	1.53	0.032	0.012	0.42	16.80	10.10	2.03	0.06
B	H4V0	0.019	1.46	0.035	0.015	0.25	16.70	10.10	2.05	0.05

Mechanical Test Results

Item	Yield Strength (0.2%), MPa	Tensile Strength, MPa	Elongation, %	Hardness, HRB	Specification
	170 minimum	485 minimum	35 minimum	90 maximum	
M	330	600	62.0	84	ASTM A270/A270M S2
B	387	621	50.0	85	ASTM A270/A270M S2

Product of Thailand

We certify that the above is a true copy of the test results issued by the material supplier. This MTR conforms to EN10204-3.1. All fittings supplied by Dixon Sanitary conform to the requirements of the European Union Directive 2002/95/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS).



James G. LeClair
VP / Division Manager

Dixon Sanitary
N25 W23040 Paul Rd.
Pewaukee, WI 53072
USA
800-789-1718



The Right Connection®

Dixon Sanitary Tubing



Product Specifications

Size range:

- ½" - 6" OD tube

Materials:

- G = 304 stainless steel
- R = 316L stainless steel

Finish:

- 3A sanitary finish ID and OD; Typical 20Ra ID, 32Ra OD
- unpolished
- BPE finishes are available

Notes:

- tubing available in 20' lengths only
- surcharges change MONTHLY
- broken box charges will apply
- tubing only ships via truck
- call Dixon Sanitary for pricing and full freight allowance
- other sizes may be available, call Dixon Sanitary for information
- tubing is NOT returnable



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

Operating Pressures

304 Stainless Steel Tube

Tube OD Size	Nominal Wall Thickness (inches)	Pressure (PSI)		
		working	yield	burst
½"	.065	4,870	7,800	19,500
¾"	.065	3,250	5,200	13,000
1"	.065	2,440	3,900	9,800
1½"	.065	1,630	2,600	6,500
2"	.065	1,220	2,000	4,900
2½"	.065	980	1,600	3,900
3"	.065	810	1,300	3,300
4"	.083	780	1,200	3,100
6"	.109	680	1,090	2,720

The pressures shown in the table above are calculated using Barlow's Formula and the following properties:

- material: 304
- yield strength (PSI): **30,000**
- tensile strength (PSI): **75,000**

Working Pressure = ¼ of Burst Pressure, these calculate from **-20°F to 100°F**.

316L Stainless Steel Tube

Tube OD Size	Nominal Wall Thickness (inches)	Pressure (PSI)		
		working	yield	burst
½"	.065	3,250	6,500	19,500
¾"	.065	2,167	4,330	13,000
1"	.065	2,280	3,300	9,100
1½"	.065	1,520	2,200	6,100
2"	.065	1,140	1,600	4,600
2½"	.065	910	1,300	3,600
3"	.065	760	1,100	3,000
4"	.083	730	1,000	2,900
6"	.109	635	900	2,540

The pressures shown in the table above are calculated using Barlow's Formula and the following properties:

- material: 316L
- yield strength (PSI): **25,000**
- tensile strength (PSI): **70,000**

Working Pressure = ¼ of Burst Pressure, these calculate from **-20°F to 100°F**.

Pipe size and Tube OD size materials are not interchangeable

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A270 tubing 108

A269 tubing 108

ASTM-A270 Polished ID and OD Tubing

Polished ID and OD - ASTM-A270



Size	Packaged	304 Stainless Steel Part Number	316L Stainless Steel Part Number
½"	100'	---	A270-R50P
¾"	100'	---	A270-R75P
1"	280'	A270-G100P	A270-R100P
1½"	340'	A270-G150P	A270-R150P
2"	340'	A270-G200P	A270-R200P
2½"	220'	A270-G250P	A270-R250P
3"	220'	A270-G300P	A270-R300P
4"	100'	A270-G400P	A270-R400P
6"	40'	A270-G600P	A270-R600P

Tolerances for Welded Tubing - ASTM-A270

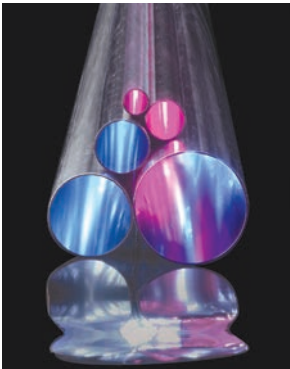
Tube OD Size	Nominal Wall Thickness (inches)	OD Tolerance	Wall Thickness Tolerance	Ovality Allowance
½"	.065	+ .002 / - .008	± .008	± .010
¾"	.065	+ .002 / - .008	± .008	± .010
1"	.065	+ .002 / - .008	± .008	± .010
1½"	.065	+ .002 / - .008	± .008	± .020
2"	.065	+ .002 / - .011	± .008	± .020
2½"	.065	+ .002 / - .011	± .008	± .020
3"	.065	+ .003 / - .012	± .008	± .020
4"	.083	+ .003 / - .015	± .010	± .020
6"	.109	+ .030 / - .030	± .014	± .030

Features:

- ASTM-A270-02 welded austenitic stainless steel sanitary tubing

ASTM-A269 Unpolished ID and OD Tubing

Unpolished ID and OD - ASTM-A269



Size	Packaged	304 Stainless Steel Part Number	316 Stainless Steel Part Number
1"	280'	A269-G100U	A269-R100U
1½"	340'	A269-G150U	A269-R150U
2"	340'	A269-G200U	A269-R200U
2½"	220'	A269-G250U	A269-R250U
3"	220'	A269-G300U	A269-R300U
4"	100'	A269-G400U	A269-R400U
6"	40'	A269-G600U	A269-R600U

Tolerances for Welded Tubing - ASTM-A269

Tube OD Size	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

Features:

- ASTM-A269-02 welded austenitic stainless steel sanitary tubing for general service
- other sizes and materials available, call Dixon Sanitary for information

Dixon Sanitary Tube Hangers

Product Specifications

Size range:

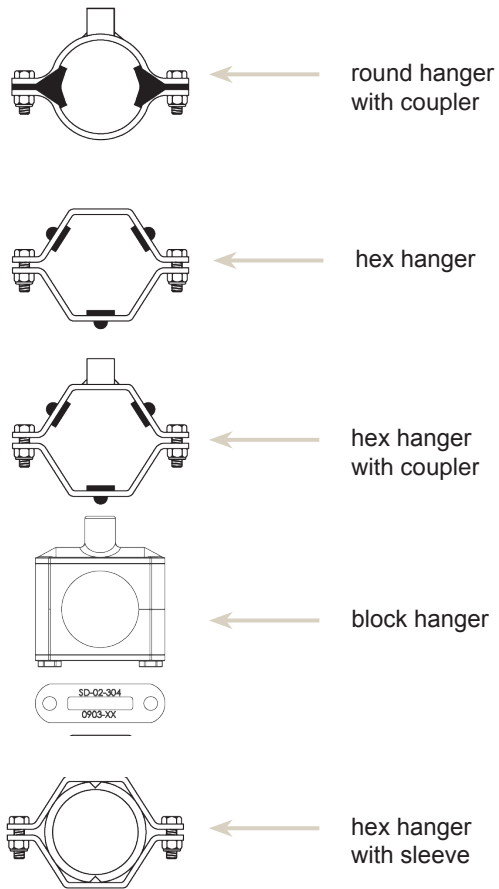
- ½" - 12" OD tube

Materials:

- hanger base: 304 stainless steel
- hanger inserts: nitrile..... rated to 230°F
 ABS (sleeve) rated to 230°F
 FKM..... rated to 400°F
 Polypropylene rated to 212°F
 Polysulfone..... rated to 325°F
 Silicone..... rated to 320°F

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	10
10"	.109	12
12"	.120	10

Complete Support



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

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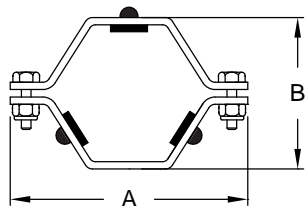
Hex Hangers.....	110-112	Round Hangers	112
Grommets.....	111	Block Hangers	113-114
Nuts and Bolts	111	Wall Flanges.....	114
Sleeves.....	112		

Tube Hex Hangers

Hex Hanger with Nitrile Grommets - B24RG

Features:

- Nitrile grommets maximum temperature: **230°F**
- 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

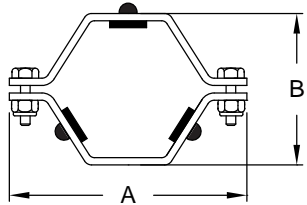


Tube OD	A	B	304 Stainless Steel Part Number
½" - ¾"	3.425	1.450	B24RG-G75
1"	3.425	1.450	B24RG-G100
1½"	4.000	2.125	B24RG-G150
2"	4.500	2.500	B24RG-G200
2½"	4.950	3.125	B24RG-G250
3"	5.500	3.750	B24RG-G300
4"	6.950	4.750	B24RG-G400
5"	8.000	5.625	B24RG-G500
6"	9.250	6.625	B24RG-G600
8"	11.500	8.625	B24RG-G800
10"	14.500	10.500	B24RG-G1000
12"	16.750	12.625	B24RG-G1200

Hex Hanger with FKM Grommets - B24RGSFY

Features:

- FKM grommets maximum temperature: **392°F**
- 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

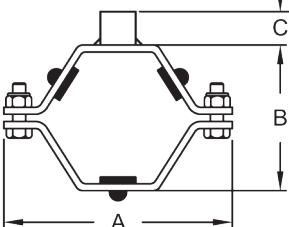


Tube OD	A	B	304 Stainless Steel Part Number
½"	3.625	2.125	B24RGSFY-G50
¾"	3.625	2.125	B24RGSFY-G75
1"	3.625	2.125	B24RGSFY-G100
1½"	3.625	2.125	B24RGSFY-G150
2"	4.313	2.625	B24RGSFY-G200
2½"	4.875	3.125	B24RGSFY-G250
3"	5.375	3.625	B24RGSFY-G300
4"	6.563	4.750	B24RGSFY-G400
6"	9.000	6.625	B24RGSFY-G600
8"	11.250	8.750	B24RGSFY-G800
10"	14.500	10.500	B24RGSFY-G1000
12"	16.750	12.625	B24RGSFY-G1200

Hex Hanger with Nitrile Grommets and Coupler - B24RGC

Features:

- Nitrile grommets maximum temperature: **230°F**
- Coupler has 3/8 NPT



Tube OD	A	B	C	304 Stainless Steel Part Number
½" - ¾"	3.425	1.450	.750	B24RGC-G75
1"	3.425	1.450	.750	B24RGC-G100
1½"	4.000	2.125	.750	B24RGC-G150
2"	4.500	2.500	.750	B24RGC-G200
2½"	4.750	3.125	.750	B24RGC-G250
3"	5.500	3.750	.750	B24RGC-G300
4"	6.750	4.750	.750	B24RGC-G400
6"	9.250	6.625	.750	B24RGC-G600
8"	11.500	8.625	.750	B24RGC-G800

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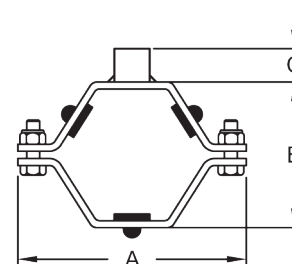
Tube Hex Hangers

Hex Hanger with Nitrile Grommets and All Thread Coupler - B24RGC16

Features:

- Nitrile grommets maximum temperature: **230°F**
- Coupler is all thread 3/8-16

Tube OD	A	B	C	304 Stainless Steel Part Number
1/2" - 3/4"	3.425	1.450	.750	B24RGC16-G75
1"	3.425	1.450	.750	B24RGC16-G100
1 1/2"	4.000	2.125	.750	B24RGC16-G150
2"	4.500	2.500	.750	B24RGC16-G200
2 1/2"	4.750	3.125	.750	B24RGC16-G250
3"	5.500	3.750	.750	B24RGC16-G300
4"	6.750	4.750	.750	B24RGC16-G400
6"	9.250	6.625	.750	B24RGC16-G600
8"	11.500	8.625	.750	B24RGC16-G800



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	13NHN-G75
1" - 12"	5/16-18 x 1" bolt with nylock nut	13NHN-G100-600



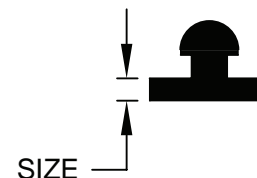
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Grommets - 13RG

Features:

- Nitrile grommets maximum temperature: **230°F**
- FKM grommets maximum temperature: **392°F**

Size	Nitrile Part Number	FKM Part Number
1/8" ¹	13RG18	13RGV18
1/4"	13RG14	13RGV14
1/2"	13RG12	13RGV12
3/8" ²	13RG3/8	13RGV38
5/8"	13RG58	13RGV58



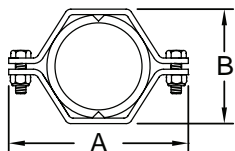
¹ for 1" hangers and larger
² for 1/2" and 3/4" hangers

Tube Hex Hangers

Hex Hanger with ABS Sleeve - B24PS

Feature:

- ABS sleeve maximum temperature: 230°F

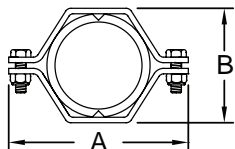


Tube OD	A	B	304 Stainless Steel Part Number
1/2"	2.800	1.150	B24PS-G50
3/4"	2.800	1.150	B24PS-G75
1"	3.425	1.450	B24PS-G100
1 1/2"	4.000	2.125	B24PS-G150
2"	4.500	2.500	B24PS-G200
2 1/2"	4.950	3.125	B24PS-G250
3"	5.500	3.750	B24PS-G300
4"	6.950	4.750	B24PS-G400
5"	8.063	5.625	B24PS-G500
6"	9.250	6.625	B24PS-G600
8"	11.500	8.625	B24PS-G800
10"	14.500	10.500	B24PS-G1000
12"	16.625	13.000	B24PS-G1200

Hex Hanger with High Temperature Polysulfone Sleeve - B24HS

Feature:

- High temperature sleeve maximum temperature: 325°F



Tube OD	A	B	304 Stainless Steel Part Number
1/2"	2.375	1.062	B24HS-G50
3/4"	2.625	1.188	B24HS-G75
1"	2.688	1.563	B24HS-G100
1 1/2"	3.625	2.125	B24HS-G150
2"	4.625	2.625	B24HS-G200
2 1/2"	4.813	3.125	B24HS-G250
3"	5.375	3.625	B24HS-G300
4"	6.625	4.625	B24HS-G400
6"	9.000	6.625	B24HS-G600

Features: Sleeves - 13*S

- ABS sleeve maximum temperature: 230°F
- High temperature sleeve maximum temperature: 325°F

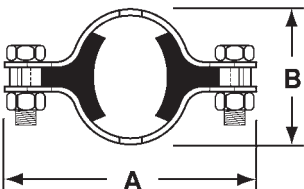


Size	ABS Part Number	High Temperature Part Number
1/2"	13PS-50	13HS-50
3/4"	13PS-75	13HS-75
1"	13PS-100	13HS-100
1 1/2"	13PS-150	13HS-150
2"	13PS-200	13HS-200
2 1/2"	13PS-250	13HS-250
3"	13PS-300	13HS-300
4"	13PS-400	13HS-400
5"	13PS-500	---
6"	13PS-600	13HS-600
8"	13PS-800	---
10"	13PS-1000	---
12"	13PS-1200	---

Round Hanger with Nitrile Inserts - B24RPH

Features:

- Nitrile inserts maximum temperature: 230°F
- 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



Tube OD	A	B	304 Stainless Steel Part Number
1/2"	2.750	1.125	B24RPH-G50
3/4"	2.750	1.125	B24RPH-G75
1"	3.310	1.500	B24RPH-G100
1 1/2"	3.810	2.000	B24RPH-G150
2"	4.250	2.562	B24RPH-G200
2 1/2"	5.000	3.000	B24RPH-G250
3"	5.500	3.562	B24RPH-G300
4"	6.500	4.688	B24RPH-G400

Tube Uni-Hinge Block Hangers

Features:

- support range: 1½" - 4", optional 6" - contact Dixon Sanitary

Materials:

- silicone insert - 80 durometer; color: blue
- intermittent temperatures from -40°F to 320°F
- hardware - 304 & 316 stainless steel

Applications:

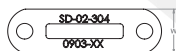
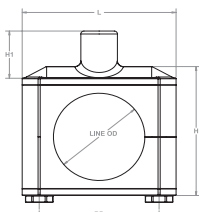
- clean rooms and mechanical areas; not limited to: biotech, pharmaceutical, food processing.
- low flow and low pressure systems with moderate vibration: WFI, SIP, CIP, process, utility and instrument lines.

Benefits:

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

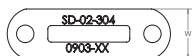
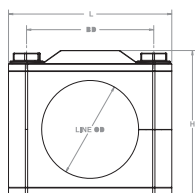


Hang Plate Block Hanger - B24-HP



Tube OD	BD	H	H1	L	Line OD	W	Thread	Part Number
½"	1.44	1.69	0.60	1.93	0.50	0.75	3/8"-16	B24-HP-G050
¾"	1.44	1.69	0.60	1.93	0.75	0.75	3/8"-16	B24-HP-G075
1"	1.44	1.69	0.60	1.93	1.00	0.75	3/8"-16	B24-HP-G100
1½"	1.94	2.19	0.60	2.49	1.50	0.75	3/8"-16	B24-HP-G150
2"	2.44	2.69	0.60	2.99	2.00	0.88	1/2"-13	B24-HP-G200
2½"	2.81	3.22	1.21	3.36	2.50	0.88	1/2"-13	B24-HP-G250
3"	3.44	3.97	1.21	3.99	3.00	0.88	1/2"-13	B24-HP-G300
4"	4.55	4.85	1.39	5.10	4.00	1.00	5/8"-11	B24-HP-G400

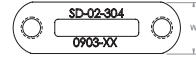
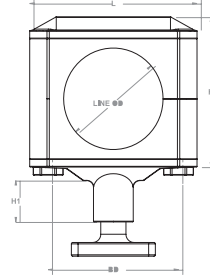
Weld Plate Block Hanger - B24-WP



Tube OD	BD	CL	H	L	Line OD	W	Part Number
½"	1.44	0.79	1.73	1.93	0.50	0.75	B24-WP-G050
¾"	1.44	0.79	1.73	1.93	0.75	0.75	B24-WP-G075
1"	1.44	0.79	1.73	1.93	1.00	0.75	B24-WP-G100
1½"	1.94	1.03	2.23	2.49	1.50	0.75	B24-WP-G150
2"	2.44	1.31	2.75	2.99	2.00	0.88	B24-WP-G200
2½"	2.81	1.55	3.25	3.36	2.50	0.88	B24-WP-G250
3"	3.44	1.93	3.68	3.99	3.00	0.88	B24-WP-G300
4"	4.55	2.39	4.87	5.10	4.00	1.00	B24-WP-G400

Tube Uni-Hinge Block Hangers

Base Mount Block Hanger - B24-BM

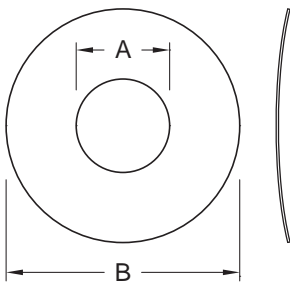


Tube OD	BD	H	H1	L	Line OD	W	Thread	Part Number
½"	1.44	1.70	0.47	1.93	0.50	0.75	3/8"-16	B24-BM-G050
¾"	1.44	1.70	0.47	1.93	0.75	0.75	3/8"-16	B24-BM-G075
1"	1.44	1.70	0.47	1.93	1.00	0.75	3/8"-16	B24-BM-G100
1½"	1.94	2.19	0.47	2.49	1.50	0.75	3/8"-16	B24-BM-G150
2"	2.44	2.69	0.47	2.99	2.00	0.88	1/2"-13	B24-BM-G200
2½"	2.81	3.19	0.59	3.36	2.50	0.88	1/2"-13	B24-BM-G250
3"	3.44	3.97	0.59	3.99	3.00	0.88	1/2"-13	B24-BM-G300

Wall Flanges

Flanges - B25

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Tube OD	A	B ¹	Wall Thickness	304 Stainless Steel Part Number
½"	.50	3.00	.065	B25-G050300
½"	.50	5.00	.065	B25-G050500
¾"	.75	3.00	.065	B25-G075300
¾"	.75	5.00	.065	B25-G075500
1"	1.00	3.00	.065	B25-G100300
1"	1.00	5.00	.065	B25-G100500
1½"	1.50	5.00	.065	B25-G150500
2"	2.00	5.00	.065	B25-G200500
2½"	2.50	5.00	.065	B25-G250500
3"	3.00	6.00	.065	B25-G300600
4"	4.00	7.00	.065	B25-G400700
5"	5.00	8.00	.065	B25-G500800
6"	6.00	10.00	.065	B25-G6001000
8"	8.00	12.00	.065	B25-G8001200
10"	10.00	14.00	.065	B25-G10001400
12"	12.00	16.00	.065	B25-G12001600

¹ Square wall flanges are also available, call Dixon Sanitary for information.

Dixon Sanitary Sight Glasses

Product Specifications

Size Range:

- size range: 1" - 6" OD tube

Material:

- 316L stainless steel
- Borosilicate glass
- white Buna gaskets

Finish:

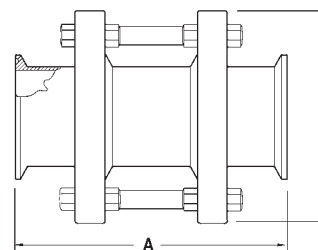
- 32R_a sanitary finish, ID and OD

In-Line Sight Glass - B54BMP

Features:

- various end configurations are available: clamp, weld, bevel seat, John Perry, I-Line and Q-Line
- maximum temperature: **200°F**

Tube OD	A	B	Working Pressure	316L Stainless Steel Part Number
1"	5.625	3.250	145	B54BMP-R100
1½"	5.625	4.000	145	B54BMP-R150
2"	5.625	4.250	145	B54BMP-R200
2½"	6.125	4.750	120	B54BMP-R250
3"	7.250	5.500	120	B54BMP-R300
4"	7.375	6.500	95	B54BMP-R400
6"	7.625	9.500	80	B54BMP-R600



Kits and Replacement Parts

Size	Seal Kit Part Number	Replacement Glass Part Number
1"	B54BMP-SK100	B54G-P100
1½"	B54BMP-SK150	B54G-P150
2"	B54BMP-SK200	B54G-P200
2½"	B54BMP-SK250	B54G-P250

Size	Seal Kit Part Number	Replacement Glass Part Number
3"	B54BMP-SK300	B54G-P300
4"	B54BMP-SK400	B54G-P400
6"	B54BMP-SK600	B54G-P600

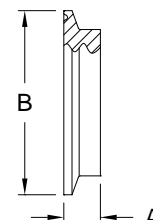
Seal Kit Contains: (2) white Buna gaskets

Acrylic Sight Glass End Caps - B5416MP

Features:

- for use on any line with a clamp and gasket
- maximum temperature: **150°F**
- maximum operating pressure: **100 PSI**

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



NEW

Compact Sight Glasses

Applications:

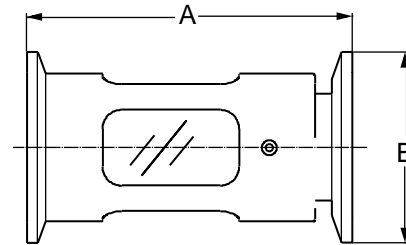
- Used widely in the food, dairy and beverage sanitary processes to view products and fluids. This design is perfect for hoses.

Features:

- easier to clean than bolted styles
- less cost to repair than bolted styles
- clamp connections standard
- sizes available: 1", 1½", 2", 3"
- maximum temperature: **200°F**
- maximum pressure: **100 PSI**

Materials:

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



Tube OD	Dimensions		316L Stainless Steel Part #
	A	B	
1"	3.375	1.980	B54BMPS-R100
1½"	3.640	1.980	B54BMPS-R150
2"	3.830	2.516	B54BMPS-R200
3"	4.130	3.800	B54BMPS-R300
4"	4.340	4.680	B54BMPS-R400

Kits and Replacement Parts

Size	Seal Kit Part Number	Replacement Glass Part #
1"	B54BMPS-SK100	B54BMPS-GL100
1½"	B54BMPS-SK150	B54BMPS-GL150
2"	B54BMPS-SK200	B54BMPS-GL200
3"	B54BMPS-SK300	B54BMPS-GL300
4"	B54BMPS-SK400	B54BMPS-GL400

Dixon Sanitary Strainers



Product Specifications

Size range:

- 1" - 3" clamp

Type:

- Inline
 - short
 - long
- Side Entry
 - long
 - side outlet

Material:

- 316L stainless steel

Finish:

- 3A sanitary, ID and OD



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 365. (not 3A)

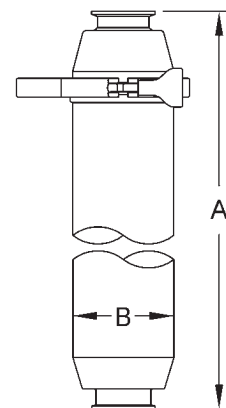


Full Flow Filters -
 Can be equipped with a variety of filtering media, down to 40 microns, media includes polyester, cotton cheesecloth and nylon mesh. See chart on page 122.

Index

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Strainers

In-line Strainer - *BSCCQ***Feature:**

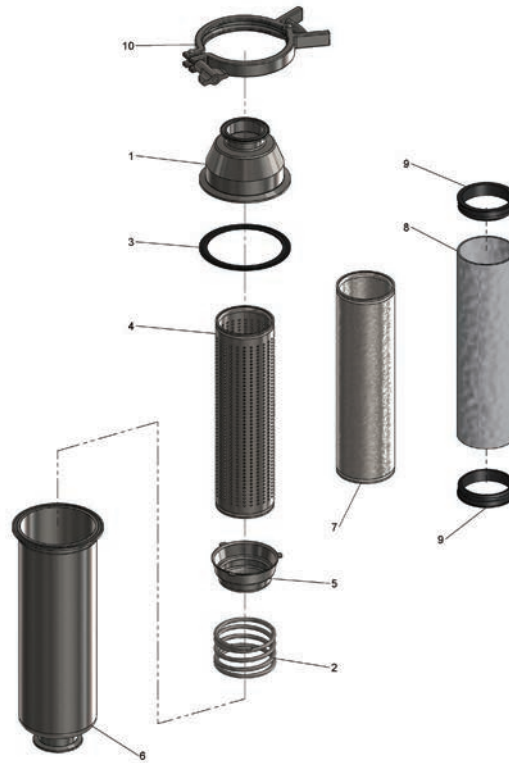
- Bevel seat, I-line and weld ends available, call Dixon Sanitary for information
- In-line units ship standard with the following: spring, distributor cap, clamp gasket, ¼" perforated back-up tube, inlet and outlet bodies and squeeze clamp
- ⅛" perforated back-up tube available, must specify when ordering (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	BSCCQ1-R100	---
1½"	15.75	35.375	4.00	BSCCQ1-R150	BSCCQ2-R150
2"	15.75	35.375	4.00	BSCCQ1-R200	BSCCQ2-R200
2½"	15.75	--	4.50	BSCCS1-R250	---
3"	15.75	35.375	4.50	BSCCS1-R300	BSCCS2-R300

M

Strainers

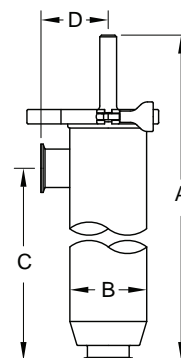
Bill of Materials



Item #	Description	Short Part #	Long Part #	Material	Qty
1	1" strainer outlet	BS-01-R100	---	316L stainless steel	1
	1½" strainer outlet	BS-01-R150			
	2" strainer outlet	BS-01-R200			
	2½" strainer outlet	BS-01-R250	---		
	3" strainer outlet	BS-01-R300			
2	1" - 2" strainer spring	BS-02-R100-200		316L stainless steel	1
	2½" - 3" strainer spring	BS-02-R250-300			
3	1" - 2" (4") clamp gasket	40MP-U400		Buna	1
	2½" - 3" (4") schedule 5 clamp gasket	40MPV-U400			
4	1" - 2" back-up tube with ⅛" perforations	BS-1418-R100200	BS-2418-R100200	316L stainless steel	1
	2½" - 3" back-up tube with ⅛" perforations	BS-1418-R250300	BS-2418-R250300		
	1" - 2" back-up tube with ¼" perforations	BS-1425-R100200	BS-2425-R100200		
	2½" - 3" back-up tube with ¼" perforations	BS-1425-R250300	BS-2425-R250300		
5	1" - 2" strainer cap	BS-05-R100-200		316L stainless steel	1
	2½" - 3" strainer cap	BS-05-R250-300			
6	1" strainer inlet	BS-16-R100	---	316L stainless steel	1
	1½" strainer inlet	BS-16-R150	BS-26-R150		
	2" strainer inlet	BS-16-R200	BS-26-R200		
	2½" strainer inlet	BS-16-R250	---		
	3" strainer inlet	BS-16-R300	BS-26-R300		
7	1" - 3" various mesh over screens (short/long)	part number on page 124		316 stainless steel	1
8	1" - 3" various filter bag (short/long)	part number on page 124		various	1
9	1" - 2" retaining ring used with filter bags	BS-09-U100-200		Buna	2
	2½" - 3" retaining ring used with filter bags	BS-09-U250-300			
10	1" - 2" (4") squeeze clamp	13MHHM-Q400		CF8	1
	2½" - 3" (4") schedule 5 squeeze clamp	13MHHV-Q400			

Strainers

Side-Entry Strainer - BSCCQ



Features:

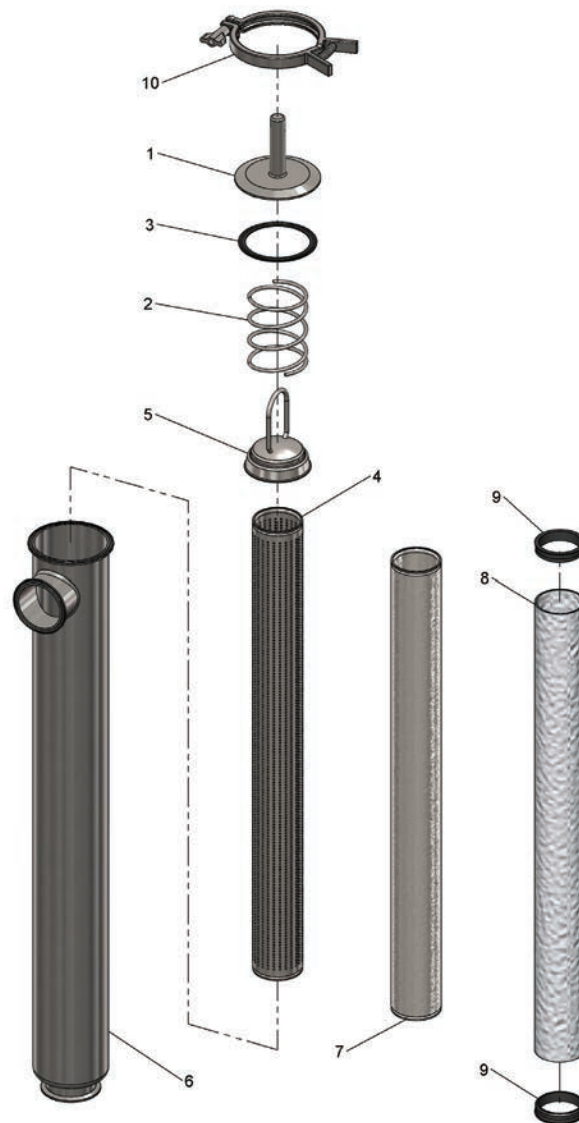
- bevel seat, I-line and weld ends available, call Dixon Sanitary for information
- serviceable without removing from the line
- Side entry units ship standard with the following: spring, end cap with handle, distributor cap, clamp gasket, ¼" perforated back-up tube, body and squeeze clamp
- ½" perforated back-up tube available, must specify when ordering (not 3A authorized)
- must be vertical mount for 3A usage

M

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

Strainers

Bill of Materials

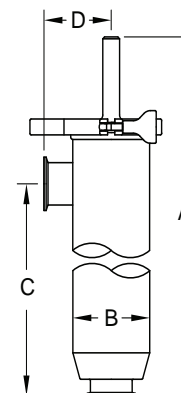


Item #	Description	1½" and 2" Part #	3" Part #	Material	Qty
1	end cap with handle	BS-31-R100-200	BS-31-R250-300	316L stainless steel	1
2	strainer spring	BS-32-R100-200	BS-32-R250-300	316L stainless steel	1
3	clamp gasket	40MP-U400	40MPV-U400	Buna	1
4	back-up tube with ⅛" perforations	BS-1418-R100200	BS-2418-R250300	316L stainless steel	1
	back-up tube with ¼" perforations	BS-1425-R100200	BS-2425-R250300		
5	distributor cap	BS-35-R100-200	BS-35-R250-300	316L stainless steel	1
6	1½" strainer body	BS-36-R150	---	316L stainless steel	1
	2" strainer body	BS-36-R200	---		
	3" strainer body	---	BS-36-R300		
7	various mesh over screens	part number on page 124		316 stainless steel	1
8	various filter bag	part number on page 124		various	1
9	retaining ring used with filter bags	BS-09-U100-200	BS-09-U250-300	Buna	2
10	squeeze clamp for assembly	13MHHM-Q400	13MHHV-Q400	CF8	1

NEW

Strainers

Side-Outlet Reverse Strainer - BSCCQ

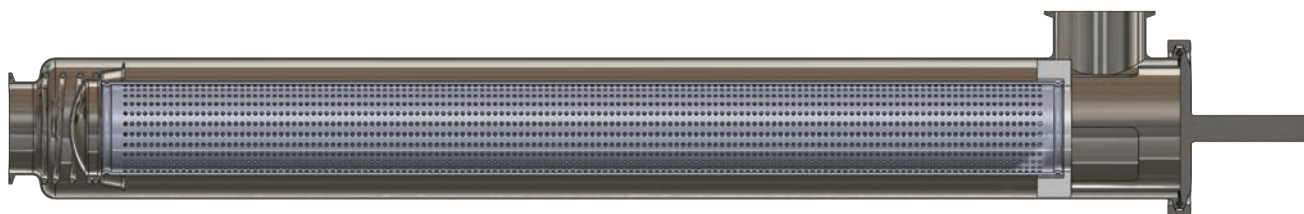


Features:

- Ships standard with: 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 (not 3A certified)
- Bevel seat, I-line and weld ends available, call Dixon Sanitary for information
- Can be serviced in-line

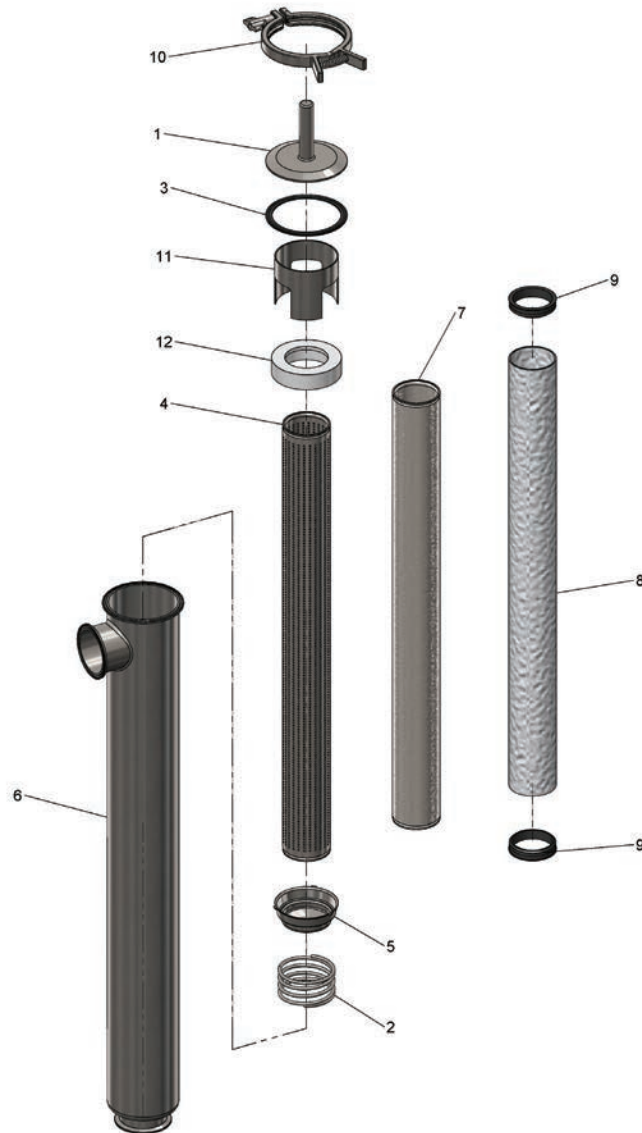
M

Size	A	B	C	D	316L Stainless Steel Part #
1½"	41.90	4.00	35.00	3.50	BSCCQ4-R150
2"	41.90	4.00	35.00	3.50	BSCCQ4-R200
3"	41.90	4.50	35.00	3.75	BSCCQ4-R300



Strainers

Bill of Materials



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

¹ 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

Strainers

Filters

- Filter medium are special order and minimum quantities apply. Not included with base unit.
- Filters require retaining ring. See pages 119, 121 and 123 for part numbers.

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

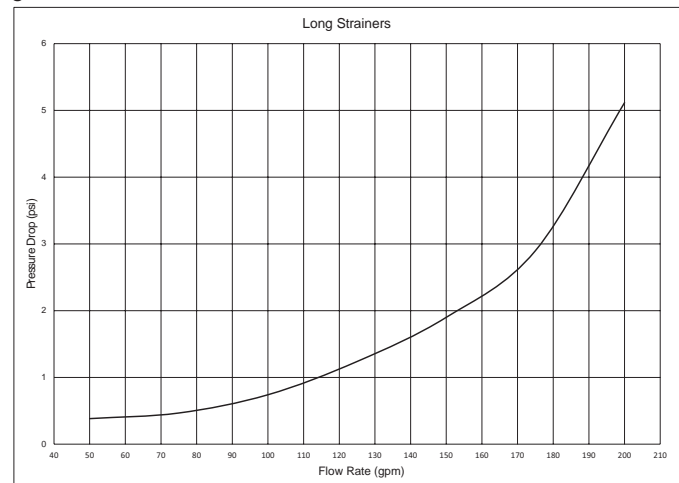
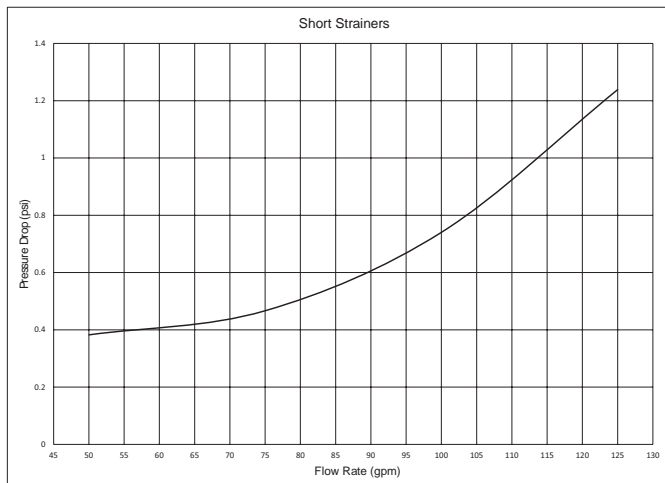
316 Stainless Wire Cloth Mesh Over Screens

- Not all sizes are stocked, additional sizes are available (5 piece minimum), call Dixon Sanitary. 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 Part Number
1" - 2"	864	20	0.034	46.2	BS20-100-200	BS202-100-200
2½" - 3"	864	20	0.034	46.2	BS20-250-300	BS202-250-300
1" - 2"	381	40	0.015	36.0	BS40-100-200	BS402-100-200
2½" - 3"	381	40	0.015	36.0	BS40-250-300	BS402-250-300
1" - 2"	229	60	0.009	30.3	BS60-100-200	BS602-100-200
2½" - 3"	229	60	0.009	30.3	BS60-250-300	BS602-250-300
1" - 2"	178	80	0.007	31.4	BS80-100-200	BS802-100-200
2½" - 3"	178	80	0.007	31.4	BS80-250-300	BS802-250-300
1" - 2"	140	100	0.006	30.3	BS100-100-200	BS1002-100-200
2½" - 3"	140	100	0.006	30.3	BS100-250-300	BS1002-250-300

Pressure Drop Curves for Strainer Water at ambient temperature

- 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 and side entry dual units are available with manual or actuated valves, contact Dixon Sanitary for information.

Design Using 3-way Ball Valves

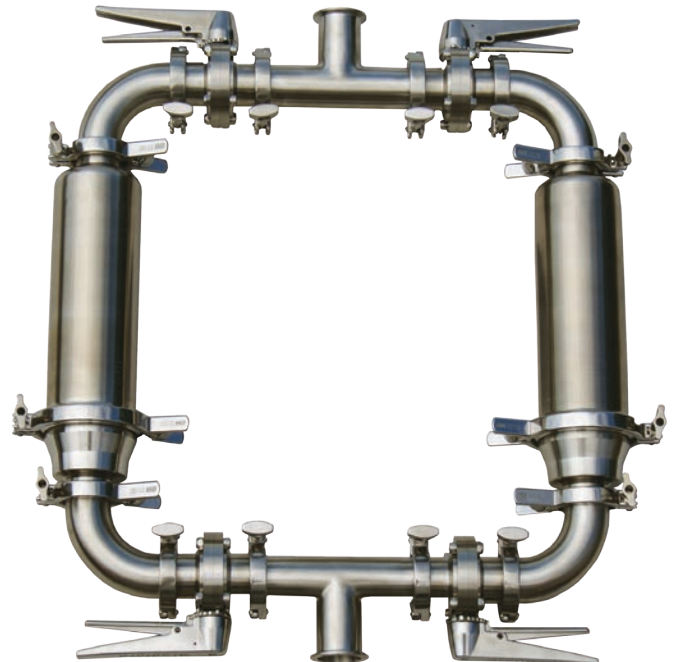
Description	Part #	Qty
3-way L port ball valves, sizes 1" - 3"	BV3SVLF	2
squeeze clamps, sizes 1" - 3"	13MHMM-Q	4
single pin clamps, sizes 1" to 3"	13MHMM	4
clamp 90° elbow, sizes 1" - 3"	B2CMP-R	4
clamp gaskets in various materials, sizes 1" - 3"	40MP	8



M

Design Using Butterfly Valves

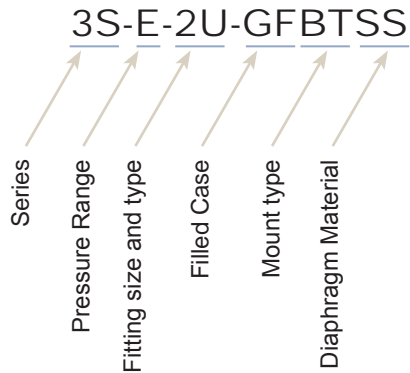
Description	Part #	Qty
butterfly valve, various handles, actuation and seat materials, sizes 1" - 3"	B5101	4
clamp tee, sizes 1" - 3"	B7MP	2
clamp 90° elbow, sizes 1" - 3"	B2CMP	4
squeeze clamps, sizes 1" - 3"	13MHMM-Q	4
single pin clamps, sizes 1" - 3"	13MHMM	8
clamp gaskets in various materials, sizes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





Dixon Sanitary Gauges

Model Number Breakdown



Product Specifications

Size range:

- 1½", 2", 2½" or 3"

Material:

- 316L stainless steel

Finishes:

- 3A sanitary
- pharmaceutical

Ordering Information

Series

- 3S**3½" Sanitary pressure gauge
5S5" Sanitary pressure gauge
3P3½" Pharmaceutical pressure gauge
5P5" Pharmaceutical pressure gauge

Pressure Range ¹

- B**0 to 30 PSI (2 BAR)
C0 to 60 PSI (4 BAR)
D0 to 100 PSI (7 BAR)
E0 to 160 PSI (11 BAR)
F0 to 200 PSI (14 BAR)
G0 to 300 PSI (21 BAR)
H0 to 400 PSI (28 BAR)
I0 to 600 PSI (41 BAR)
K0 to 1,000 PSI (70 BAR)

¹ Standard scales are in PSI only. For dual scales, add the letter B for PSI/BAR after the pressure range letter.

Fitting Type ²

specify size in inches: 15, 2, 25 or 3

- I**male I-Line
Jfemale I-Line
RRJT
S#15 Bevel Seat sanitary male thread
T#13H captive nut and #14 Bevel Seat
Uclamp
DINDIN according to DIN 11851 (*specify DIN40 or DIN50*)
SMSSMS (*specify SMS38 or SMS51*)

² specify size then type, i.e. 1½" = 15

Filled Case

- GF**glycerine filled
NFno fill (dry)

Mount type

- BT**bottom
RTright side
LFleft side
TPtop
BKback

Diaphragm Material

- SS**stainless steel

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Sanitary Pressure Gauges

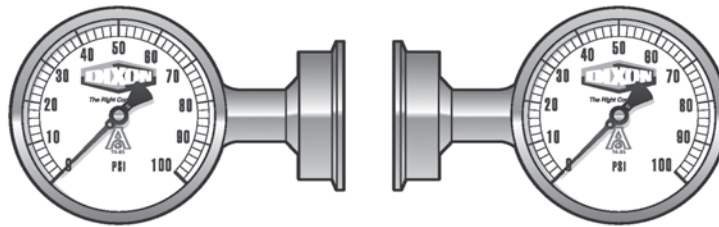
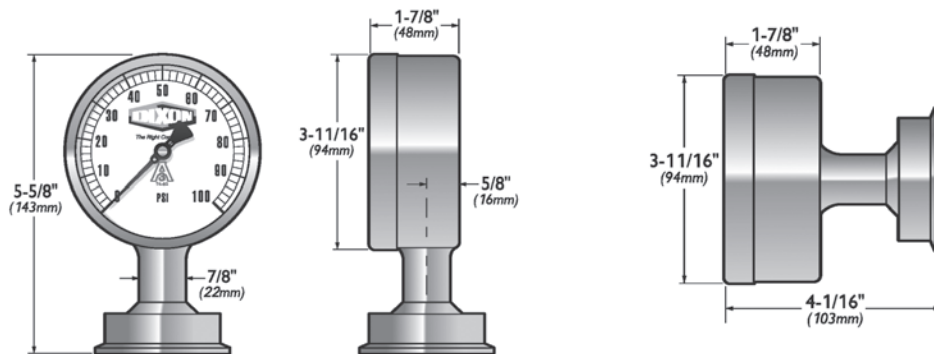
Product Specifications:

- accuracy: $\pm 1.5\%$ of full scale
- over range capacity: 30%
- wetted surfaces: 316L stainless steel
- surface finishes (wetted parts): R_a max = 25 microinches
- case material: 304 stainless steel
- dial size: 3½" or 5" diameter
- lens material: polycarbonate
- temperature limits: **0°F (-18°C) to 250°F (121°C)**
- standard fill: food grade glycerin
- rezero feature: standard on pointer
- shipping weight: approximately 3 lbs. (1.3 kg)

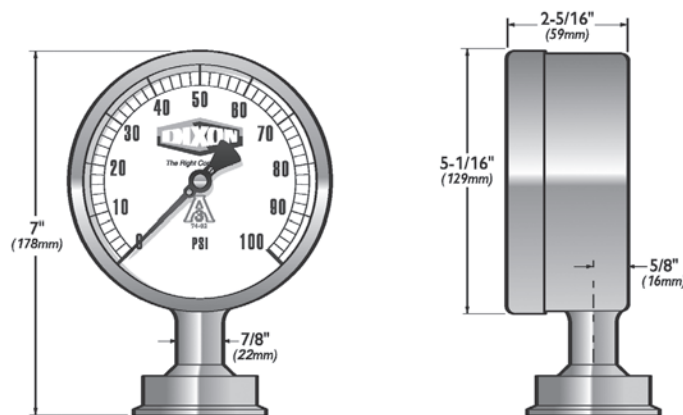


3S-EB-2U-GFBTSS

3½" Gauge - (90 mm)



5" Gauge - (120 mm)



shown with 2" clamp

Sanitary Pressure Gauges



Part #	Dial Size	Pressure Range (PSI)	Clamp Size	Mount
3S-B-15U-GFBTSS	3.5"	0-30	1½"	bottom
3S-C-15U-GFBTSS	3.5"	0-60	1½"	bottom
3S-D-15U-GFBTSS	3.5"	0-100	1½"	bottom
3S-E-15U-GFBTSS	3.5"	0-160	1½"	bottom
3S-F-15U-GFBTSS	3.5"	0-200	1½"	bottom
3S-G-15U-GFBTSS	3.5"	0-300	1½"	bottom
3S-B-15U-GFBKSS	3.5"	0-30	1½"	back
3S-C-15U-GFBKSS	3.5"	0-60	1½"	back
3S-D-15U-GFBKSS	3.5"	0-100	1½"	back
3S-E-15U-GFBKSS	3.5"	0-160	1½"	back
3S-F-15U-GFBKSS	3.5"	0-200	1½"	back
3S-G-15U-GFBKSS	3.5"	0-300	1½"	back
3S-B-2U-GFBTSS	3.5"	0-30	2"	bottom
3S-C-2U-GFBTSS	3.5"	0-60	2"	bottom
3S-D-2U-GFBTSS	3.5"	0-100	2"	bottom
3S-E-2U-GFBTSS	3.5"	0-160	2"	bottom
3S-F-2U-GFBTSS	3.5"	0-200	2"	bottom
3S-G-2U-GFBTSS	3.5"	0-300	2"	bottom
3S-B-2U-GFBKSS	3.5"	0-30	2"	back
3S-C-2U-GFBKSS	3.5"	0-60	2"	back
3S-D-2U-GFBKSS	3.5"	0-100	2"	back
3S-E-2U-GFBKSS	3.5"	0-160	2"	back
3S-F-2U-GFBKSS	3.5"	0-200	2"	back
3S-G-2U-GFBKSS	3.5"	0-300	2"	back

N

Pharmaceutical Pressure Gauges

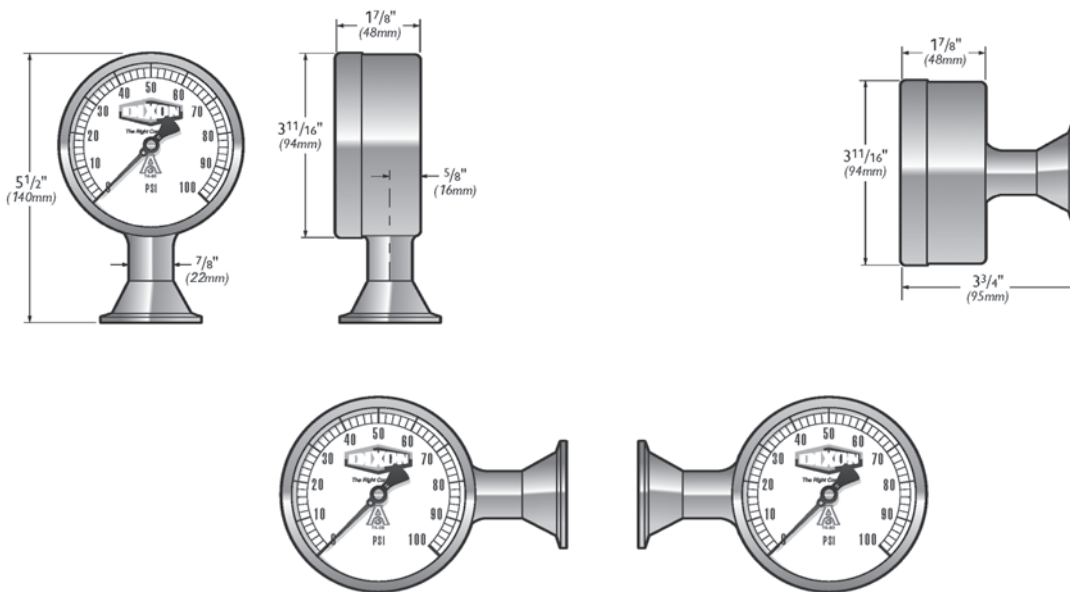
Product Specifications:

- accuracy: $\pm 0.75\%$ of full scale
- over range capacity: 30%
- wetted surfaces: 316L stainless steel
- surface finishes (wetted parts): R_a max = 8 microinches
- case material: 304 stainless steel
- dial size: $3\frac{1}{2}$ " or 5" diameter
- lens material: polycarbonate
- temperature limits: **0°F (-18°C) to 250°F (121°C)**
- standard fill: food grade glycerin
- rezero feature: standard on pointer
- shipping weight: approximately 3 lbs. (1.3 kg)
- dial size: $3\frac{1}{2}$ " diameter

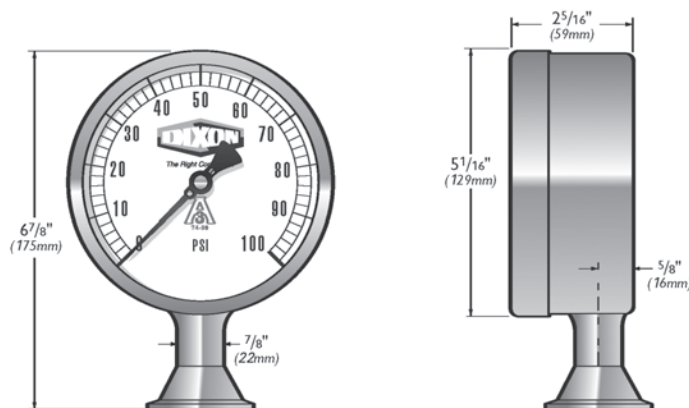


3P-D-15U-GFBT

$3\frac{1}{2}$ " Gauge - (90 mm)



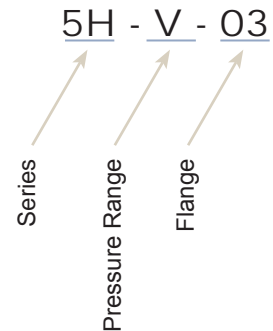
5" Gauge - (120 mm)



Homogenizer Pressure Gauges



Model Number Breakdown



Ordering Information

Series

5H5" Sani-Flow Homogenizer Pressure Gauge

Pressure Range ¹

K0 to 1,000 PSI (70 BAR)

T0 to 2,500 PSI (170 BAR)

U0 to 3,000 PSI (205 BAR)

V0 to 5,000 PSI (350 BAR)

Y0 to 7,500 PSI (520 BAR)

W0 to 10,000 PSI (700 BAR)

X0 to 15,000 PSI (1000 BAR)

Flange

01no flange

02 $\frac{7}{8}$ " thick 2 bolt flange

031 $\frac{1}{8}$ " thick 2 bolt flange

04Waukesha 1/2" thick 4 bolt flange

05Waukesha 3/4" thick 4 bolt flange

091.66" thick laboratory homogenizer flange

¹ Standard scales are in PSI only. For dual scales, after the pressure range add the letter B for PSI/BAR, K for PSI/Kg/cm³, P for PSI/KPa (see examples below).

N

Examples

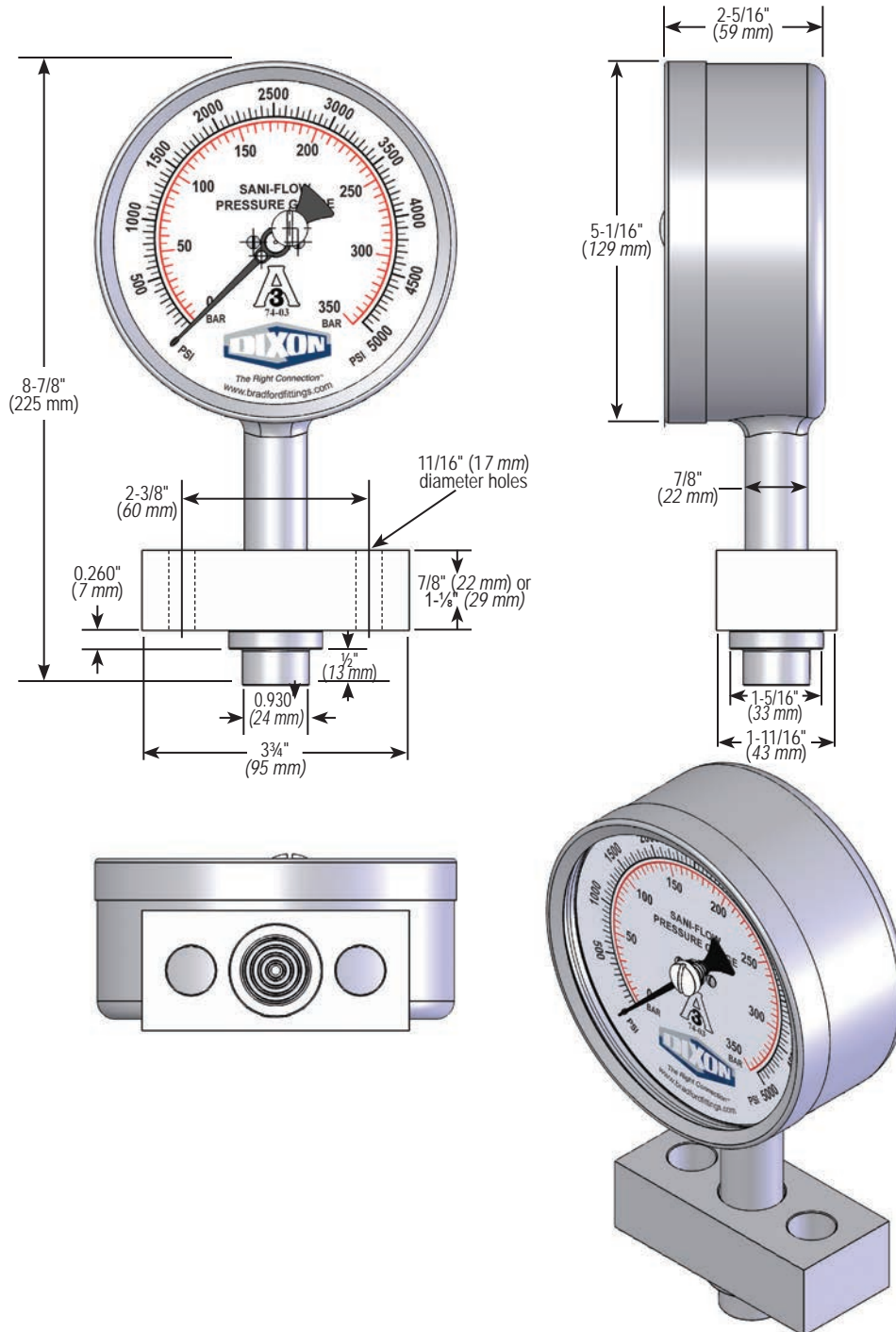
5H-V-03 - describes a 5" sani-flow homogenizer pressure gauge, 0 to 5,000 PSI, a 1- $\frac{1}{8}$ " thick flange, and a glycerine filled case

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

Product Specifications:

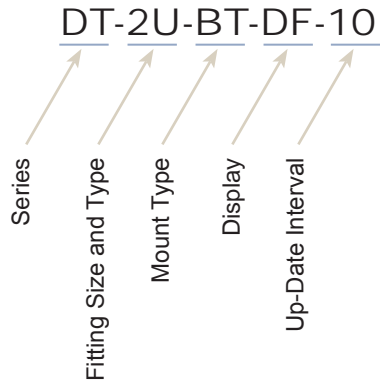
- 316L stainless steel wetted surfaces
- 304 stainless steel case
- Lexan® lens virtually impervious to cracks and breakage
- unique pulsation dampening system insulates the gauge movement from the punishing pulsations of a homogenizer
- ranges up to **15,000 PSI**
- dial size: 5"
- glycerine fill standard
- waterproof construction
- CIP-able
- maximum temperature: **250°F**
- true zero with re-zero standard



N

Sanitary Digital Thermometers

Model Number Breakdown



Product Specifications:

- accuracy: $\pm 1^\circ$
- wetted surfaces: 316L stainless steel
- surface finish: R_a max. is 8 microinches
- case material: 304 stainless steel
- dial size: 3 1/2" diameter
- lens material: 1/4" polycarbonate
- temperature limits: **-58°F to 302°F**
- ambient operating limits: **-4°F to 140°F**
- LCD display: 0.6"
- resolution: **0.1° (-58° thru 199.9°)**
- battery size / life: standard AAA/3 years
- shipping weight: approximately 3 lbs.

Ordering Information



Series

DT.....Sanitary digital thermometer

Fitting Type ¹

sizes available: 75, 15, 2, 25, 3 and 4

I.....male I-Line

T.....#13H captive nut and #14 bevel seat

U.....clamp

¹ 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)

N

Dimensions

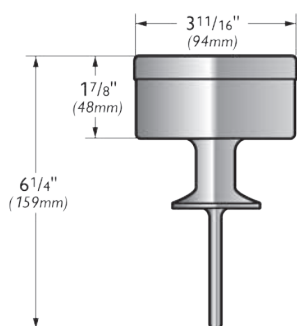
LEFT SIDE MOUNT



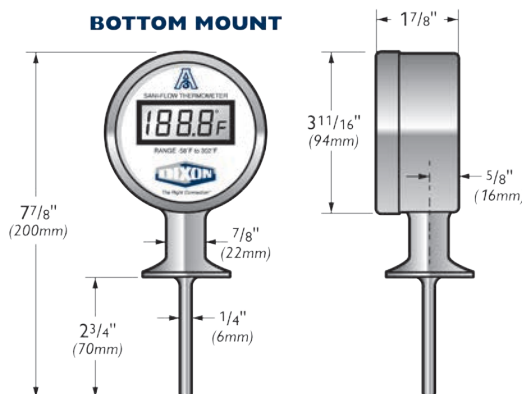
RIGHT SIDE MOUNT



BACK MOUNT



BOTTOM MOUNT



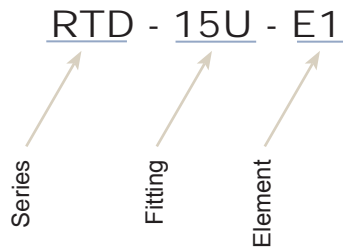
Ordering code shown with clamp configuration "U". See ordering information for other types available.

Size	Probe Length ²	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

² custom probe lengths are available

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 ¹

- E1**.....single element
E2.....dual element

¹ available for RTD only

Sanitary RTDs & Temperature Transmitters



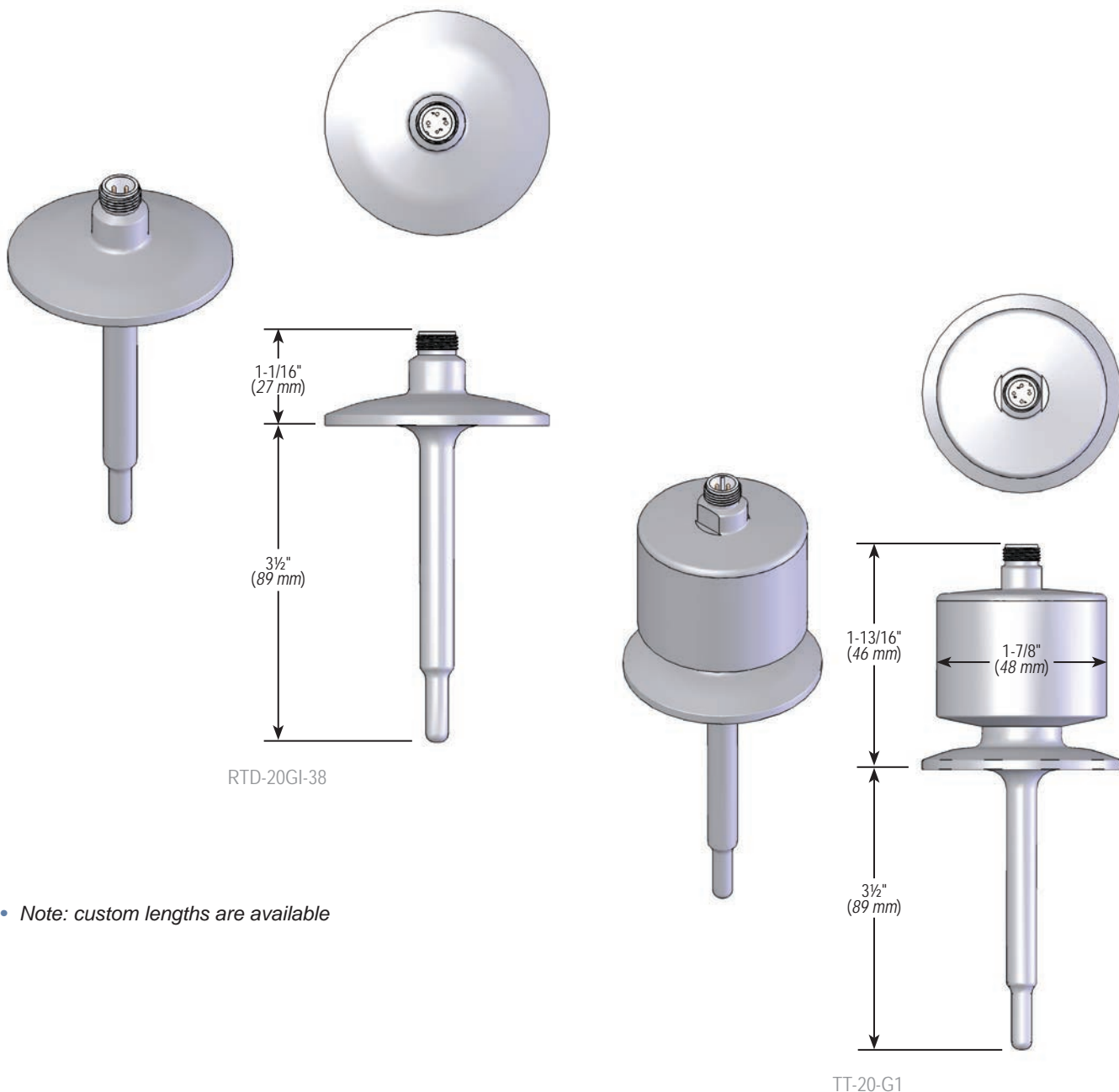
sanitary RTD



temperature transmitter

Product Specifications:

- 316L wetted surfaces
- exterior surfaces 316L with a near mirror finish
- standard 12mm industrial connector with gold plated contacts for maximum corrosion resistance and cleanability
- sensor elements are accurate up to +/-0.1C
- RTD – temperature range: **-58°F to 392°F**
- TT – temperature range: **-22°F to 302°F**



• Note: custom lengths are available

N

Dixon Sanitary Spray Balls

Product Specifications



Size range:

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

Materials:

- 304 stainless steel
- 316L stainless steel

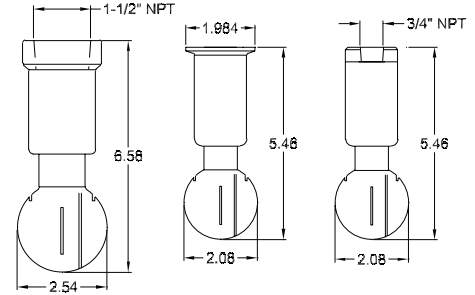
Finishes:

- mirror-like finish OD

Rotating Spray Balls - SRH

Features:

- stainless steel ball bearings to eliminate rust
- ideal for cleaning all types of tanks and vessels
- cleaning solution used to lubricate unit
- connections available: clamp and NPT
- mirror-like finish OD
- spray pattern: 360°

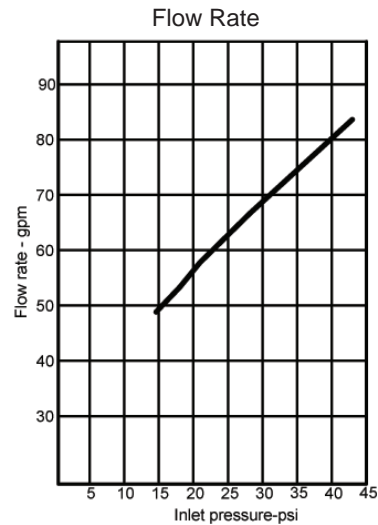
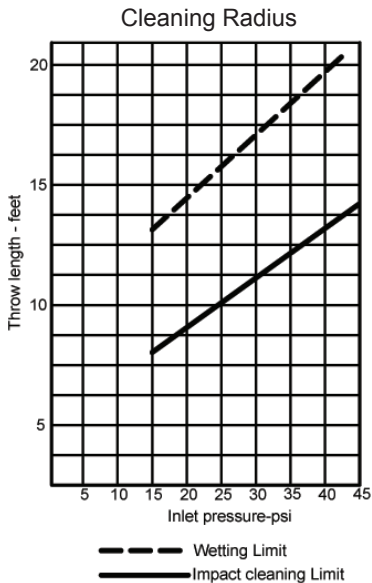


SRH360NPT-R150 SRH360CMP-G150 SRH360NPT-R075
SRH360CMP-R150

Size	Type	304 Stainless Steel Part Number	316L Stainless Steel Part Number
¾"	NPT	SRH360NPT-G075	---
1½"	NPT	---	SRH360NPT-R150
1½"	Clamp	SRH360CMP-G150	SRH360CMP-R150

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

Technical Data



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Washdown accessories	137-138		

Spray Balls

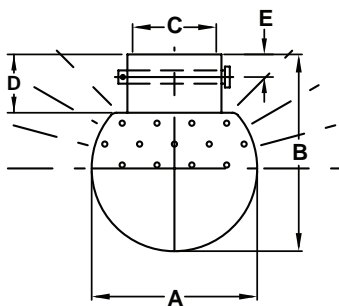
Stationary Spray Balls - STC

Features:

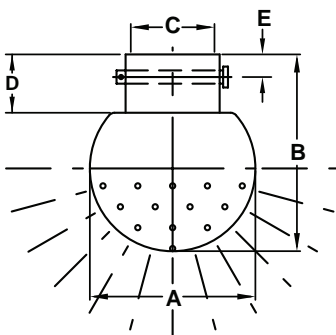
- typically used in food and beverage for cleaning storage tanks
- various spray patterns available (blanks available as special order)
- stationary - designed to be mounted to a tube or pipe
- 2mm spray holes



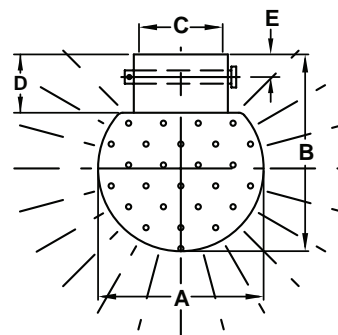
Size	Pin Length	Spray Pattern	A	B	C	D	E	Pin Size	316L Stainless Steel Part Number
1"	1.47	360°	2.50	3.04	1.005	.975	.445	.226	STC-360-R100
1½"	1.95	360°	2.95	3.55	1.505	1.050	.445	.226	STC-360-R150
1"	1.47	180° bottom	3.54	2.95	1.005	.975	.445	.226	STC-180B-R100
1½"	1.95	180° bottom	3.54	2.95	1.505	.975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



180° Top Pattern



180° Bottom Pattern



360° Pattern

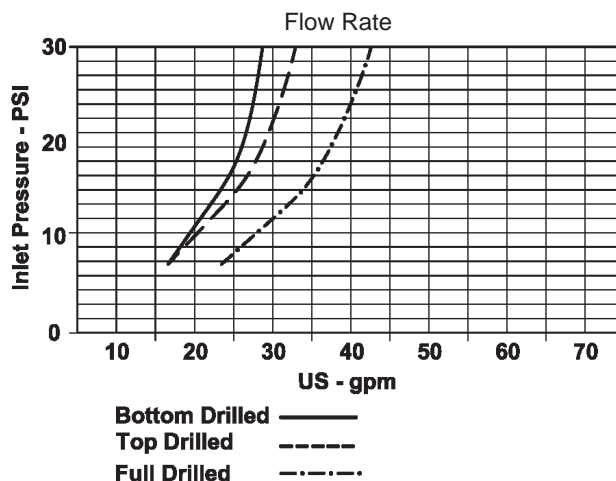
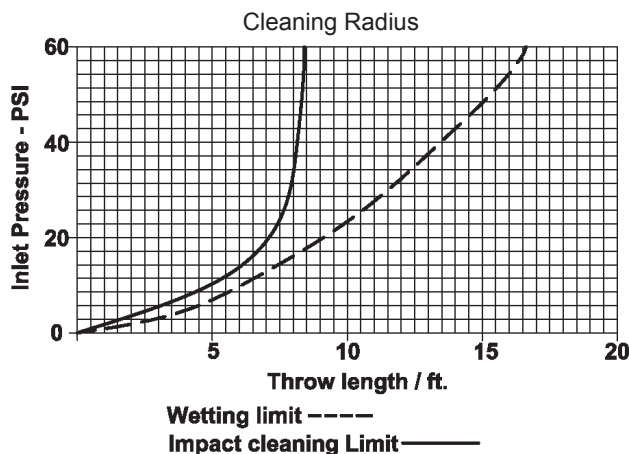
Repair Kits

Size	Part Number
1"	STC-RK100
1½"	STC-RK150

Repair kits contain:

- (1) pin
- (1) R clip

Technical Data



Washdown Accessories

Spray Nozzles - AWSG/BWSG

Applications:

- For low pressure cleaning, tank and drum cleaning and chemical manufacturing.

Features:

- efficient design for operator comfort
- variable spray pattern from solid stream to 50° hollow cone
- hose connects at base of gun for easy maneuvering
- ½" female NPT inlet

- rubber coated handle protects hands from water temperatures to **150°F**
- **12.5 GPM** flow capacity at **150 PSI**
- *Do not use with steam lines.*



Cover color	Aluminum Part Number	Brass Part Number
black	AWSG	BWSG
white	AWSG-W	BWSG-W

Swivel Connectors - SSA/BNS/BMAS

Ball Type Swivel x Hose Shank

NPT	Hose ID	Part Number
½"	½"	SSA44
½"	⅝"	SSA54
½"	¾"	SSA64

Features:

- 300 series stainless steel swivel connector for stainless spray nozzles
- 360° ball type swivel adapter helps prevent hose kinking



Straight Swivel x Hose Shank

NPT	Hose ID	Part Number
½"	½"	BNS44
¾"	¾"	BNS64

Features:

- swivel body
- stainless steel hose shank
- EPDM gasket



Straight Swivel x GHT Thread

NPT	Female GHT	Part Number
½"	¾"	BMAS974



Hot Water Washdown Hose - SWDSHOSE

Features:

- smooth extruded Chlorobutyl tube
- white, wrapped Neoprene cover (.075" thick), braided textile reinforcement
- furnished with internal stainless steel spring guards at both ends
- ¾" male on one end and ½" male on the other
- working pressure: **250 PSI**
- temperature to: **200°F**

Size	Part Number
⅝" x 25'	SWDSHOSE25
⅝" x 50'	SWDSHOSE50




Washdown Accessories

Stainless Mini Spray Nozzle



Features:

- ½" female NPT inlet
- not for use with steam 
- specifically designed as an industrial lightweight nozzle with heavyweight performance
- Nozzle cover is not only durable, but also protects the user from hot surfaces produced by high temperature wash down applications.
- reduces hand fatigue and offers smooth lever action
- variable spray patterns, from fan spray to solid stream
- Water conservation is assured upon release of the lever by the drip-free automatic shutoff feature.
- rated to **150 PSI / 200°F**
- **9.6 GPM** flow capacity at **100 PSIG**

Stainless Steel with Dark Blue Cover

Part #

DM150SDB

Stainless Spray Nozzle



Features:

- ½" female NPT inlet
- specifically designed to prevent accidental spray
- durable dark blue cover design prevents front-mounted lever from being accidentally activated if nozzle is dropped
- design also reduces hand fatigue and offers smooth lever action
- trigger locking mechanism provides safe and secure method of keeping the nozzle open during any spray pattern
- variable spray patterns, from fan spray to solid stream
- drip-free automatic shut-off feature
- rated to **150 PSI / 200°F**
- **9.6 GPM** flow capacity at **100 PSIG**

Stainless

Part #

D150SDB



Washdown Wand

Features:

- Designed to provide user with a means of 'reaching' desired washdown locations previously deemed unreachable by extending the nozzle by 3'.
- Adjustable spray tip can be changed from fan to solid spray by twisting the tip until the desired flow pattern is achieved.
- quick disconnect feature allows user to quickly connect wand to the nozzles above
- *Minimum pressure is 75 PSI, wand is not for use with steam.*



300 Series Stainless Steel

Part #

D150S-WAND

Water-Steam Washdown Station

Fail-safe mixing station safely blends steam and cold water for hot water on demand. Should cold water fail, the steam is instantly shut-off.

Features:

- bronze, wall-mounted, control valves
- dial thermometer
- in-line check valves
- ¾" inlet and outlet
- stainless steel hose rack
- mounting plate and hardware
- **150 PSI** maximum, **200°F** maximum.



Part Number

SWDS

Pressure Requirements

Steam Pressure		Water Pressure	
Minimum	Maximum	Minimum	Maximum
80 PSI	150 PSI	50 PSI	80 PSI

Hot and Cold Water Mixing Station

Features:

- hot and cold water mixing station
- bronze, wall mounted, control valves (globe style)
- **150 PSI** maximum, **200°F** maximum
- in-line check valves
- ¾" inlet and outlet
- stainless steel hose rack
- mounting plate and hardware



Part Number

WDS1

Rack for Mixing Station

Application:

- designed to hold 50' of ¾" heavy duty industrial grade hose

Features:

- heavy duty stainless steel construction
- stainless steel lag screws
- heavy duty solid brass mounting crowns
- supplied with mounting hardware
- rack fits SWDS and WDS1 mixing stations

Part Number

WDSR



Maintenance



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	LUPO-16



PurGel Klear

Features:

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

Description	Part Number
8 oz. squeeze tube	LUPG-08

Food Grade Anti-Seize

Features:

- NSF H1 registered for incidental food contact
- non-toxic and non-drying
- lubricates threads
- forms leak-proof seals
- prevents corrosion
- resists water and steam



Description	Part Number
8 oz. bottle with brush-top cap	LUAS-08

Stainless Steel Cleaner & Polish

Features:

- A7 Registered for use in federally-inspected facilities
- repels water – beads up like wax
- provides high-gloss protective shield
- dissolves tarnish
- rubs in completely, with no dust or residue



Description	Part Number
14 oz. aerosol can	LUCP-14

All products shipped with MSDS (Material Safety Data Sheets)

Swivels

Product Specifications

Size range:

- 1" - 4" Tube OD

Materials:

- 316L stainless steel
- PTFE with silicone seals

Finish:

- sanitary finish ID and OD

Features:

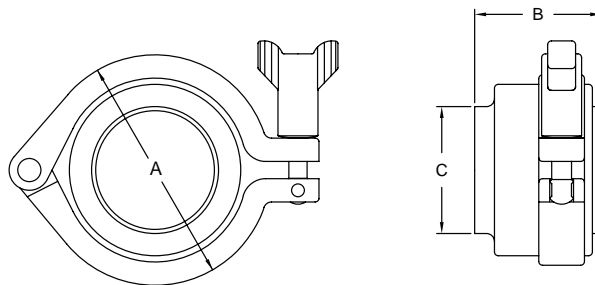
- available in clamp and weld configurations
- optional elastomers available



pressure ratings

Size	PSI at 70°F	PSI at 250°F
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

Part Number	Size	A	B	C
SJSS100CC-20	1.00	2.56	3.00	1.00
SJSS150CC-20	1.50	2.56	3.00	1.50
SJSS200CC-20	2.00	3.09	3.00	2.00
SJSS250CC-20	2.50	3.44	3.00	2.50
SJSS300CC-20	3.00	3.94	3.00	3.00
SJSS400CC-20	4.00	5.08	4.19	4.00

straight weld connection dimensions - style 20

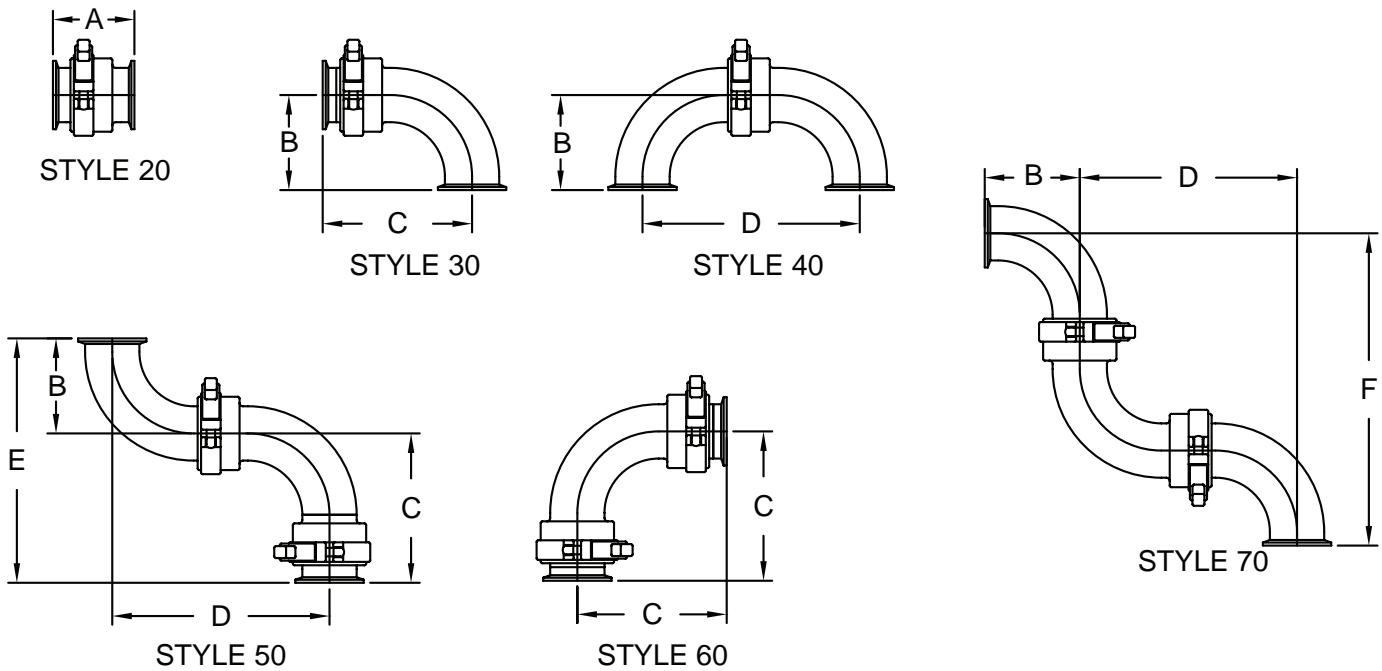
Part Number	Size	A	B	C
SJSS100BB-20	1.00	2.56	2.00	1.00
SJSS150BB-20	1.50	2.56	2.00	1.50
SJSS200BB-20	2.00	3.09	2.00	2.00
SJSS250BB-20	2.50	3.44	2.00	2.50
SJSS300BB-20	3.00	3.94	2.00	3.00
SJSS400BB-20	4.00	5.08	2.94	4.00

Index

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

Straight Swivels - SJSS Configurations



clamp joint dimensions

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

P

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

Swivels

Bill of Material



Item	Description	Material	Quantity
1	clamp	304	1
2	collar cap	316L	1
3	collar	PTFE	1
4	male end	316L	1
5	diameter seal	Silicone	1
6	friction seal	PTFE	1
7	female seal	Silicone	1
8	female end	316L	1

Cam and Groove

Cam & Groove Fitting Selection

Product Specifications



Size range:

- 1" - 4"

Materials:

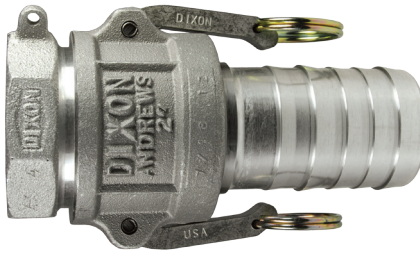
- 316L stainless steel
- (316) CF8M
- aluminum

Index

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Adapters	147-148	Spools.....	152
Dust Plugs	149	Flanged.....	153
Couplers	149	Gaskets	153-154
Dust Caps.....	150		

Cam and Groove

Dixon



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

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.

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).

Specifications on Dixon Cam and Groove

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 ½" 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.

Pressure Ratings:



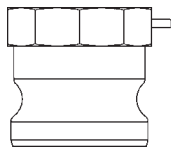
Recommendations based on the use of mating Dixon fittings at ambient temperature (70°F) with standard Buna-N Seal installed. For use at elevated temperature or other unusual operating conditions, consult the factory. Dixon, Boss-Lock and EZ Boss-Lock couplers and adapters maximum working pressure are as follows:

Size	½"	¾" thru 2"	2½"	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

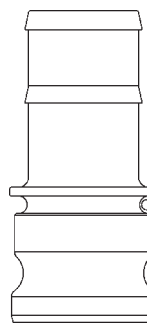
All dimensions are in inches unless otherwise noted. Engineering dimensions are available upon request. Specifications are subject to change without notice.

Cam and Groove Line Drawings

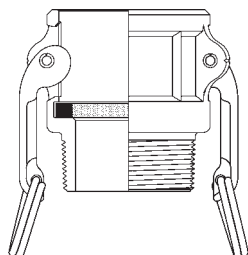
Line drawings are representative of the Dixon line of cam and groove.



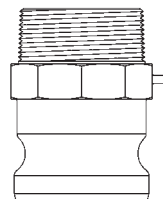
Type A
female NPT x male adapter



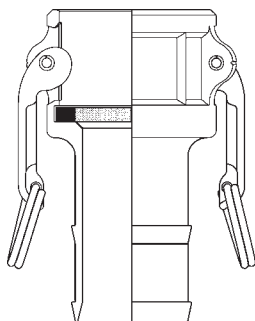
Type E
hose shank x male adapter



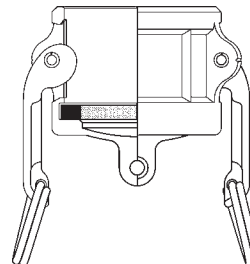
Type B
female coupler x male NPT



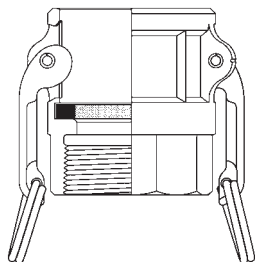
Type F
male NPT x male adapter



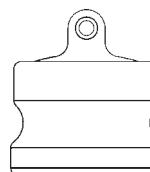
Type C
female coupler x hose shank



Type DC
dust cap



Type D
female coupler x female NPT



Type DP
dust plug

Q



Dust caps and dust plugs are **not** to be used in pressure applications for safety and environmental reasons.

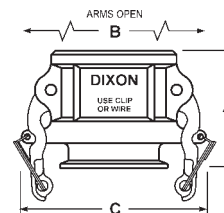


Under no circumstances should cam and groove couplings be used for compressed air or steam service!

Cam and Groove Clamp Adapters

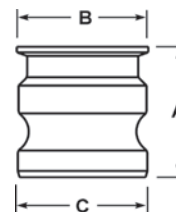
Coupler x Clamp End - RC

Tube OD	A	B	C	316 Stainless Steel Part Number
1½"	2.687	7.875	3.937	RC150SE
2"	2.812	8.250	4.312	RC200SE
3"	3.000	10.000	5.625	RC300SE



Adapter x Clamp End - RE

Tube OD	A	B	C	316 Stainless Steel Part Number
1½"	2.281	2.000	2.093	RE150SE
2"	2.593	2.500	2.468	RE200SE
3"	2.750	3.562	3.593	RE300SE



Dixon Weld to Tube Cam and Groove

Features:

- 316 stainless steel investment casting
- designed to be welded to standard sanitary tubing

Boss-Lock coupler x weld to tube end

Size	316 Stainless Steel Part Number
1"	RC100BT
1½"	RC150BT
2"	RC200BT
3"	RC300BT



Q

Adapter x weld to tube end

Size	316 Stainless Steel Part Number
1"	RE100BT
1½"	RE150BT
2"	RE200BT
3"	RE300BT



Global Type A Adapters



Size	A380 Permanent Mold Aluminum Part Number	316 Investment Cast Stainless Steel Part Number
1/2"	G50-A-AL	---
3/4"	G75-A-AL	G75-A-SS
1"	G100-A-AL	G100-A-SS
1 1/4"	G125-A-AL	G125-A-SS
1 1/2"	G150-A-AL	G150-A-SS
2"	G200-A-AL	G200-A-SS
2 1/2"	G250-A-AL	G250-A-SS
3"	G300-A-AL	G300-A-SS
4"	G400-A-AL	G400-A-SS

Global Type E Adapters



Size	A380 Permanent Mold Aluminum Part Number	316 Investment Cast Stainless Steel Part Number
1/2"	G50-E-AL	---
3/4"	G75-E-AL	G75-E-SS
1"	G100-E-AL	G100-E-SS
1 1/4"	G125-E-AL	G125-E-SS
1 1/2"	G150-E-AL	G150-E-SS
2"	G200-E-AL	G200-E-SS
2 1/2"	G250-E-AL	G250-E-SS
3"	G300-E-AL	G300-E-SS
4"	G400-E-AL	G400-E-SS

Global Type F Adapters



Size	A380 Permanent Mold Aluminum Part Number	316 Investment Cast Stainless Steel Part Number
1/2"	G50-F-AL	---
3/4"	G75-F-AL	G75-F-SS
1"	G100-F-AL	G100-F-SS
1 1/4"	G125-F-AL	G125-F-SS
1 1/2"	G150-F-AL	G150-F-SS
2"	G200-F-AL	G200-F-SS
2 1/2"	G250-F-AL	G250-F-SS
3"	G300-F-AL	G300-F-SS
4"	G400-F-AL	G400-F-SS

Global Type DP Dust Plugs

Size	A380 Permanent Mold Aluminum	316 Investment Cast Stainless Steel
	Part Number	Part Number
½"	G50-DP-AL ¹	---
¾"	G75-DP-AL	G75-DP-SS
1"	G100-DP-AL	G100-DP-SS
1¼"	G125-DP-AL	G125-DP-SS
1½"	G150-DP-AL	G150-DP-SS
2"	G200-DP-AL	G200-DP-SS
2½"	G250-DP-AL	G250-DP-SS
3"	G300-DP-AL	G300-DP-SS
4"	G400-DP-AL	G400-DP-SS

¹ Does not interchange in the ½" size with Dixon or Boss-Lock style cam and groove.



Global Type B Couplers

Size	A380 Permanent Mold Aluminum	316 Investment Cast Stainless Steel
	Part Number	Part Number
½"	G50-B-AL ^{1,2}	---
¾"	G75-B-AL ²	G75-B-SS
1"	G100-B-AL ²	G100-B-SS
1¼"	G125-B-AL	G125-B-SS
1½"	G150-B-AL	G150-B-SS
2"	G200-B-AL	G200-B-SS
2½"	G250-B-AL	G250-B-SS
3"	G300-B-AL	G300-B-SS
4"	G400-B-AL	G400-B-SS

¹ Does not interchange in the ½" size with Dixon or Boss-Lock style cam and groove.

² supplied with stainless steel handles



Global Type C Couplers

Size	A380 Permanent Mold Aluminum	316 Investment Cast Stainless Steel
	Part Number	Part Number
½"	G50-C-AL ^{1,2}	---
¾"	G75-C-AL ²	G75-C-SS
1"	G100-C-AL ²	G100-C-SS
1¼"	G125-C-AL	G125-C-SS
1½"	G150-C-AL	G150-C-SS
2"	G200-C-AL	G200-C-SS
2½"	G250-C-AL	G250-C-SS
3"	G300-C-AL	G300-C-SS
4"	G400-C-AL	G400-C-SS

¹ Does not interchange in the ½" size with Dixon or Boss-Lock style cam and groove.

² supplied with stainless steel handles



Q

Global Type D Couplers

Size	A380 Permanent Mold Aluminum	316 Investment Cast Stainless Steel
	Part Number	Part Number
½"	G50-D-AL ^{1,2}	---
¾"	G75-D-AL ²	G75-D-SS
1"	G100-D-AL ²	G100-D-SS
1¼"	G125-D-AL	G125-D-SS
1½"	G150-D-AL	G150-D-SS
2"	G200-D-AL	G200-D-SS
2½"	G250-D-AL	G250-D-SS
3"	G300-D-AL	G300-D-SS
4"	G400-D-AL	G400-D-SS

¹ Does not interchange in the ½" size with Dixon or Boss-Lock style cam and groove.

² come with stainless steel handles



Global Type DC Dust Caps



Size	A380 Permanent Mold Aluminum Part Number	316 Investment Cast Stainless Steel Part Number
1/2"	G50-DC-AL ^{1, 2}	---
3/4"	G75-DC-AL ²	G75-DC-SS
1"	G100-DC-AL ²	G100-DC-SS
1 1/4"	G125-DC-AL	G125-DC-SS
1 1/2"	G150-DC-AL	G150-DC-SS
2"	G200-DC-AL	G200-DC-SS
2 1/2"	G250-DC-AL	G250-DC-SS
3"	G300-DC-AL	G300-DC-SS
4"	G400-DC-AL	G400-DC-SS

¹ Does not interchange in the 1/2" size with Dixon or Boss-Lock style cam and groove.

² come with stainless steel handles

Replacement Handle Assemblies for Global Couplers

For Aluminum and Brass Global Couplers



investment stainless

Fits on Sizes	Investment Stainless Part Number
3/4"	G75HRP
1"	G100HRP
1 1/2" - 2 1/2"	G152HRPSI
3" and 4"	G34HRPSI



forged brass

Fits on sizes	Forged Brass Part #
1 1/4" - 2 1/2"	G152HRP
3" and 4"	G34HRP

For Stainless Steel Global Couplers



investment stainless

Fits on Sizes	Investment Stainless Part Number
3/4"	G75HRPSS
1"	G100HRPSS
1 1/4" - 2 1/2"	G125250HRPSS
3" and 4"	G300400HRPSS

Q

Reducing Cam and Groove Couplings

- In reducing couplings, the cam and groove end is the first size given in the part number (i.e. a 4030-C-AL is a 4" coupler to a 3" hose shank).

Type A

- Pressure rating is based on the seal of the mating part. See ratings on page 145.

male adapter x female NPT

Size	356T6 Aluminum	316 Stainless Steel
	Part Number	Part Number
2" x 3"	2030-A-AL	2030-A-SS
3" x 2"	3020-A-AL	3020-A-SS
3" x 4"	3040-A-AL	---
4" x 3"	4030-A-AL	4030-A-SS ¹

¹ Part produced as a welded fabrication.



Type F

- Pressure rating is based on the seal of the mating part. See ratings on page 145.

male adapter x male NPT

Size	356T6 Aluminum	316 Stainless Steel
	Part Number	Part Number
1½" x 2"	1520-F-AL	---
3" x 2"	3020-F-AL	3020-F-SS
3" x 4"	3040-F-AL	---
4" x 3"	4030-F-AL	4030-F-SS ¹

¹ Part produced as a welded fabrication.



Type B

Feature:

- Couplers are supplied standard with a Buna-N gasket, other gasket types are available on pages 153-154.

female coupler x male NPT

Size	356T6 Aluminum	316 Stainless Steel
	Part Number	Part Number
3" x 2"	3020-B-AL	3020-B-SS ¹
3" x 4"	3040-B-AL	---
4" x 3"	4030-B-AL	4030-B-SS ¹

¹ Parts are produced as a welded fabrication.



Dixon Reducing Cam and Groove Couplings

Features:

- Couplers are supplied standard with a Buna-N gasket, other gasket types are available on pages 153-154.
- In reducing cam and groove couplings, the coupler is the first size in the part number.

female coupler x male NPT

Size	356T6 Aluminum	316 Stainless Steel
	Part Number	Part Number
1½" x 2"	1520-DA-AL	1520-DA-SS
2" x 1½"	2015-DA-AL	2015-DA-SS
2" x 3"	2030-DA-AL	2030-DA-SS
3" x 2"	3020-DA-AL	3020-DA-SS
3" x 4"	3040-DA-AL	3040-DA-SS
4" x 2"	4020-DA-AL	4020-DA-SS ¹
4" x 3"	4030-DA-AL	4030-DA-SS

¹ Part produced as a welded fabrication.



Dixon Spool Adapters



increaser / reducer



same size

Feature:

- Pressure rating is based on the seal of the mating part. See ratings on page 145.

adapter x adapter

Size	356T6 Aluminum Part Number	316 Stainless Steel Part Number
2"	200-AA-AL	200-AA-SS
2" x 3"	2030-AA-AL	2030-AA-SS
3"	300-AA-AL	300-AA-SS
3" x 4"	3040-AA-AL	3040-AA-SS¹
4"	400-AA-AL	400-AA-SS

¹ Part produced as a welded fabrication.

Dixon Spool Couplers



reducer / increaser



same size

Feature:

- Couplers are supplied standard with a Buna-N gasket, other gasket types are available on pages 153-154.

coupler x coupler

Size	356T6 Aluminum Part Number	316 Stainless Steel Part Number
2"	200-DD-AL	200-DD-SS
2" x 3"	2030-DD-AL	2030-DD-SS
3"	300-DD-AL	300-DD-SS
3" x 4"	3040-DD-AL	3040-DD-SS¹
4"	400-DD-AL	400-DD-SS

¹ Part produced as a welded fabrication.

Adapters and Couplers x 150# Flanged Drilling

Features:

- Aluminum flanges are flat faced.
- Stainless steel flanges are raised face.
- Flanges have the same bolt hole pattern as an ANSI 150 lb flange. The thickness may vary.

Dixon adapter x 150# flange

Size	Aluminum Part Number	Approximate Flange Thickness	316 Stainless Steel Part Number	Approximate Flange Thickness
1½"	---	---	150-AL-SS	11/16"
2"	200-AL-AL	3/4"	200-AL-SS	7/16"
3"	300-AL-AL	5/8"	300-AL-SS	7/16"
4"	400-AL-AL	5/8"	400-AL-SS	7/16"



Feature:

- global product made to Dixon specifications

Global Dixon adapter x 150# ANSI flange

Size	316 Stainless Steel Part #	Flange Thickness
2"	200-AL-SSANSI	¾"
3"	300-AL-SSANSI	15/16"



Feature:

- Couplers are supplied standard with a Buna-N gasket, other gasket types are available on pages 153-154.

Dixon coupler x 150# flange

Size	356T6 Aluminum Part Number	Approximate Flange Thickness	316 Stainless Steel Part Number	Approximate Flange Thickness
1½"	---	---	150-DL-SS	25/32"
2"	200-DL-AL	3/4"	200-DL-SS	7/16"
3"	300-DL-AL	15/16"	300-DL-SS	7/16"
4"	400-DL-AL	15/16"	400-DL-SS	7/16"



Cam and Groove Gaskets

Feature:

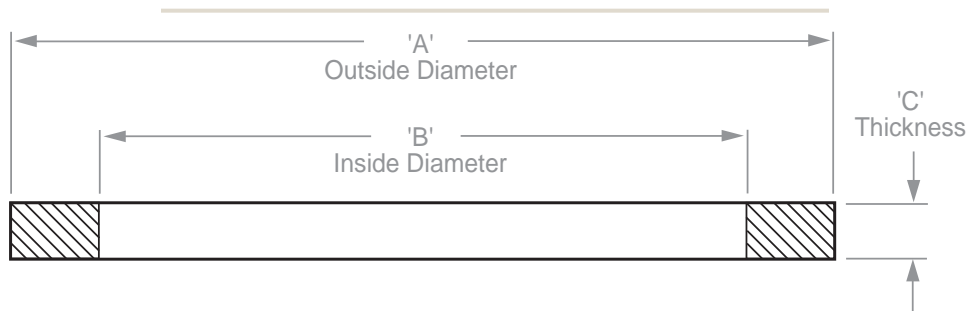
- White neoprene and white Buna-N gaskets all contain FDA approved materials.



Size	Buna-N Part Number	FKM Part Number	Neoprene Part Number	white Neoprene Part Number	white Buna-N Part Number	Silicone Part Number
½"	50-G-BU	50-G-VI	---	---	---	---
¾"	75-G-BU	75-G-VI	75-G-NE	---	---	---
1"	100-G-BU	100-G-VI	100-G-NE	---	---	---
1¼"	125-G-BU	125-G-VI	125-G-NE	---	---	---
1½"	150-G-BU	150-G-VI	150-G-NE	150-G-WNE	---	150-G-SIL
2"	200-G-BU	200-G-VI	200-G-NE	200-G-WNE	---	200-G-SIL
2½"	250-G-BU	250-G-VI	250-G-NE	---	---	---
3"	300-G-BU	300-G-VI	300-G-NE	300-G-WNE	300-G-WB	300-G-SIL
4"	400-G-BU	400-G-VI	400-G-NE	400-G-WNE	400-G-WB	400-G-SIL



Dixon Cam and Groove Gasket Dimensions



Features:

- 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"	50-G¹	1-1/32"	11/16"	.156"
3/4"	75-G	1-3/8"	7/8"	.218"
1"	100-G	1-9/16"	1-1/16"	.250"
1 1/4"	125-G	1-15/16"	1-23/64"	.250"
1 1/2"	150-G	2-3/16"	1-5/8"	.250"
2"	200-G	2-5/8"	2"	.250"
2 1/2"	250-G	3-1/8"	2-3/8"	.250"
3"	300-G	3-23/32"	3"	.250"
4"	400-G	4-7/8"	4"	.250"



¹ 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 (<i>standard in all metal fittings</i>)	black	1 blue
-VI	FKM	black	1 yellow
-NE	Neoprene	black	1 red
-WNE	White Neoprene, <i>FDA approved material</i>	white	none
-WB	White Buna N, <i>FDA approved material</i>	white	blue
-SIL	Silicone	red	none

Q



Since other manufacturer's coding systems vary, this chart should not be used as a reference in identifying gaskets of unknown origin.

Hose Fittings

Product Specifications

Size range:

- fittings: 1" - 4"
- clamps: 7/32" - 13"
- tubing: 3/8" OD - 2" OD

Materials:

- fittings: 304 stainless steel, 316 stainless steel, plated steel
- clamps: SAE 300 series stainless steel
- tubing: clear PVC

Hose Fitting Selection



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True ID

Application:

- Suitable for conveying acids, chemicals, foods and pharmaceuticals.

Features:

- range: ¼" to 2"
- operating temperature: -100°F to +450°F (-73°C to +232°C)
- boxed coils (bulk, per ft. lengths and full reels available from Maryland and Texas, call Dixon Specialty Products at 888.226.4673)
- stainless braided
- Other braids including synthetic, extruded and heat shrink coverings are available upon request.

True ID Fittings

Crimp collars for all True ID fittings are sold separately

Mini Sanitary Tri-Clamp



Size	316 Stainless Steel Part #	Box Qty
1/2"	TCMR-T08	10
3/4"	TCMR-T12	10

- contact Dixon Specialty Products for GSM and PTFE hose assemblies

Sanitary Tri-Clamp



Hose Size	Clamp Size	316 Stainless Steel Part #	Box Qty
1/2"	1"	TCR-T08-16	10
1/2"	1½"	TCR-T08-24	10
3/4"	1½"	TCR-T12-24	10
1"	1"	TCR-T16-16	10
1"	1½"	TCR-T16-24	10
1½"	1½"	TCR-T24-24	10
2"	2"	TCR-T32-32	10

Flange Retainers

- for use with lap joint flanges, see page 726 in DPL116



Size	316 Stainless Steel Part #	316 Stainless Steel PTFE Encapsulated Part #	Box Qty
1/2"	FRR-T08	---	10
3/4"	FRR-T12	FRRE-T12	10
1"	FRR-T16	FRRE-T16	10
1¼"	FRR-T20	FRRE-T20	10
1½"	FRR-T24	FRRE-T24	10
2"	FRR-T32	FRRE-T32	10

R

CIP Internal Expansion (IX) Sanitary Style Hose Couplings

Application:

- Flow Chief Sanitary fittings are used in the food, dairy and beverage industries.

Features:

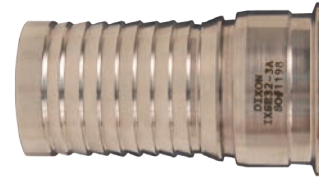
- Clean-In-Place (CIP) compliant
- Flow Chief internal expansion (IX) fittings are only to be used with Flow Chief stainless steel ferrules.

Sanitary Clamp End Stems

Features:

- see pages 26-32 for sanitary style gaskets
- see pages 7-9 for sanitary style clamps
- special plug is required to expand CIP compliant fittings
- special adapter plate is required to expand 1½" CIP compliant fittings
- 3A compliant when assembled by 3A authorized hose shop

Size	304 Stainless Steel Part #
1½"	IXSE24-3A
2"	IXSE32-3A
3"	IXSE48-3A



Tube Weld End Stem

Feature:

- special plug is required to expand CIP compliant fittings

Size	304 Stainless Steel Part #
2"	IXPE32-3A



Special Expansion Plug for CIP Compliant IX Fittings

Hose Size	304 Stainless Steel Part #
1½"	IXFDPLG137
2"	IXFDPLG187
3"	IXFDPLG287



Flow Chief Ferrules

Feature:

- the ferrule ID's are designed in increments of 1/16"

Size	Hose OD		304 Stainless Steel Part #
	From:	To:	
1½"	1-56/64"	1-59/64"	24PFX1.937
	1-60/64"	1-63/64"	24PFX2.000
	2"	2-3/64"	24PFX2.062
	2-4/64"	2-7/64"	24PFX2.125
	2-8/64"	2-11/64"	24PFX2.187
	2-12/64"	2-15/64"	24PFX2.250
2"	2-16/64"	2-19/64"	24PFX2.312²
	2-28/64"	2-31/64"	32PFX2.500
	2-32/64"	2-35/64"	32PFX2.562
	2-36/64"	2-39/64"	32PFX2.625
	2-40/64"	2-43/64"	32PFX2.687
	2-44/64"	2-47/64"	32PFX2.750
	2-48/64"	2-51/64"	32PFX2.812
	2-52/64"	2-55/64"	32PFX2.875
	2-56/64"	2-59/64"	32PFX2.937
	3"	3"	3-3/64"
3-4/64"		3-7/64"	40PFX3.125



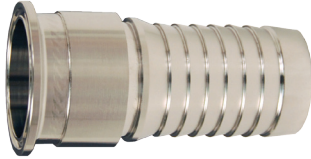
Size	Hose OD		304 Stainless Steel Part #
	From:	To:	
3"	3-8/64"	3-11/64"	40PFX3.187
	3-12/64"	3-15/64"	40PFX3.250
	3-16/64"	3-19/64"	40PFX3.312
	3-20/64"	3-23/64"	40PFX3.375
	3-28/64"	3-31/64"	40PFX3.500
	3-32/64"	3-35/64"	48PFX3.562
	3-36/64"	3-39/64"	48PFX3.625
	3-40/64"	3-43/64"	48PFX3.687
	3-44/64"	3-47/64"	48PFX3.750
	3-48/64"	3-51/64"	48PFX3.812
	3-52/64"	3-55/64"	48PFX3.875
	3-56/64"	3-59/64"	48PFX3.937
	3-60/64"	3-63/64"	48PFX4.000
	4"	4"	4-3/64"
4-4/64"		4-7/64"	48PFX4.125
4-36/64"		4-39/64"	64PFX4.625
4-40/64"		4-43/64"	64PFX4.687
4-44/64"		4-47/64"	64PFX4.750
4-48/64"		4-51/64"	64PFX4.812
4-52/64"		4-55/64"	64PFX4.875
4-56/64"		4-59/64"	64PFX4.937

¹ 1½" and 2" ferrules do not have serrations on the ID

² consult Dixon factory for working pressure

³ Flow Chief stainless steel ferrules are only to be used with Flow Chief internal expansion (IX) fittings

Internal Expansion (IX) Sanitary Style Hose Couplings



Features:

- sanitary clamp style end
- Flow Chief internal expansion (IX) fittings are only to be used with Flow Chief stainless steel ferrules.
- see pages 26-32 for sanitary style gaskets
- see pages 7-9 for sanitary style clamps

Size	304 Stainless Steel Part #
1½"	IXSE24
2"	IXSE32
2½"	IXSE40
3"	IXSE48
4"	IXSE64

Internal Expansion (IX) Male NPT Hose Couplings



Feature:

- Flow Chief internal expansion (IX) fittings are only to be used with Flow Chief stainless steel ferrules.

Size	304 Stainless Steel Part #
1½"	IXMS24
2"	IXMS32
2½"	IXMS40
3"	IXMS48
4"	IXMS64

Internal Expansion (IX) Bevel Seat Hose Couplings

Features:

- Flow Chief internal expansion (IX) fittings are only to be used with Flow Chief stainless steel ferrules
- see page 53-54 for bevel seat gaskets

Female Shank



Feature:

- only use with the IXAN nuts shown below

Size	304 Stainless Steel Part #
1½"	IXFS24
2"	IXFS32
2"	IXFS32-3A¹
2½"	IXFS40
3"	IXFS48
4"	IXFS64

¹ must use plug part # IXFDPLG187

Threaded Hex Nuts



series 13H (modified)

Size	304 Stainless Steel Part #
1½"	IXAN24
2"	IXAN32
2½"	IXAN40
3"	IXAN48¹
4"	IXAN64

¹ modified for use on CBSR300: **IXAN300**

Sanitary Style Crimp Stems

Sanitary End x Hose Shank

Features:

- sanitary style end
- Dixon's sanitary crimp stems are only to be used with Dixon sanitary stainless steel crimp ferrules

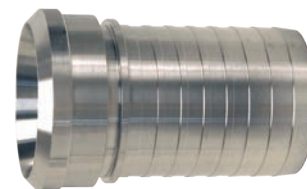
Size	316 Stainless Steel Part Number
1"	CSSR100
1½"	CSSR150
2"	CSSR200
3"	CSSR300
4"	CSSR400



Female Bevel Seat End x Hose Shank

- only to be used with IXAN nuts on page 158

Size	Nut Used	316 Stainless Steel Part Number
1"	13H-G100	CBSR100
1½"	IXAN24	CBSR150
2"	IXAN32	CBSR200
3"	IXAN300	CBSR300
4"	IXAN64	CBSR400



Female I-Line End x Hose Shank

Size	316 Stainless Steel Part Number
1½"	CILR150
2"	CILR200
3"	CILR300
4"	CILR400



Tube Weld End x Hose Shank

Size	316 Stainless Steel Part Number
1½"	CTER150
2"	CTER200
3"	CTER300
4"	CTER400



Holedall DIN External Crimp Stems

Male Stem

Size	316 Stainless Steel Part #
1½"	HA0235
2"	HA0236
3"	HA0238



Female Stem

Size	316 Stainless Steel Part #
1½"	HA0240
2"	HA0241
3"	HA0243



R

Sanitary Crimp Ferrules

Features:

- manufactured in AISI 304 stainless steel
- ferrules have a surface finish of 63 or better



Hose ID	Hose OD		304 Stainless Steel Part Number
	from	to	
1"	1-26/64"	1-28/64"	F16G-1453
	1-29/64"	1-31/64"	F16G-1500
	1-32/64"	1-34/64"	F16G-1547
	1-35/64"	1-37/64"	F16G-1594
	1-38/64"	1-40/64"	F16G-1641
	1-58/64"	1-61/64"	F24G-1969
1½"	1-62/64"	2-1/64"	F24G-2031
	2-2/64"	2-5/64"	F24G-2094
	2-6/64"	2-9/64"	F24G-2156
2"	2-30/64"	2-33/64"	F32G-2531
	2-34/64"	2-37/64"	F32G-2594
	2-38/64"	2-41/64"	F32G-2656
	2-42/64"	2-45/64"	F32G-2719
	3-39/64"	3-42/64"	F48G-3625
3"	3-40/64"	3-43/64"	F48G-3688
	3-44/64"	3-47/64"	F48G-3750
	3-48/64"	3-51/64"	F48G-3813
	3-52/64"	3-55/64"	F48G-3875
	3-56/64"	3-59/64"	F48G-3938
	4-40/64"	4-43/64"	F64G-4688
4"	4-44/64"	4-47/64"	F64G-4750
	4-48/64"	4-51/64"	F64G-4813
	4-52/64"	4-55/64"	F64G-4875
	4-56/64"	4-59/64"	F64G-4938

Crimp Sanitary Recommendation Guide

1" and 1½" Crimped Sanitary Fittings

Hose ID	Stem Part #	Ferrule Part #	Hose OD		Crimp Diameter (±0.005)	% Reduction		
			Fractional	Decimal				
1"	CSSR100 CBSR100	F16G-1453	1-26/64	1.406	1.565	23%		
			1-27/64	1.422	1.577	23%		
			1-28/64	1.438	1.589	23%		
		F16G-1500	1-29/64	1.453	1.601	23%		
			1-30/64	1.469	1.613	23%		
			1-31/64	1.484	1.625	23%		
		F16G-1547	1-32/64	1.500	1.637	23%		
			1-33/64	1.516	1.649	23%		
			1-34/64	1.531	1.661	23%		
		F16G-1594	1-35/64	1.547	1.673	23%		
			1-36/64	1.563	1.685	23%		
			1-37/64	1.578	1.697	23%		
		F16G-1641	1-38/64	1.594	1.709	23%		
			1-39/64	1.609	1.721	23%		
			1-40/64	1.625	1.733	23%		
		1½"	CSSR150 CBSR150 CILR150 CTER150 HA0240 HA0235	F24G-1969	1-58/64	1.906	2.063	23%
					1-59/64	1.922	2.075	23%
					1-60/64	1.938	2.087	23%
					1-61/64	1.953	2.099	23%
				F24G-2031	1-62/64	1.969	2.111	23%
1-63/64	1.984				2.123	23%		
2	2.000				2.135	23%		
2-1/64	2.016				2.147	23%		
F24G-2094	2-2/64			2.031	2.159	23%		
	2-3/64			2.047	2.171	23%		
	2-4/64			2.063	2.183	23%		
	2-5/64			2.078	2.195	23%		
F24G-2156	2-6/64			2.094	2.207	23%		
	2-7/64			2.109	2.219	23%		
	2-8/64			2.125	2.231	23%		
	2-9/64			2.141	2.243	23%		
F24G-2250	2 (12/64)			2.187	2.279	23%		
	2 (13/64)			2.203	2.291	23%		
	2 (14/64)			2.218	2.303	23%		
	2 (15/64)			2.234	2.315	23%		
F24G-3125	2 (16/64)			2.250	2.328	23%		
	2 (17/64)			2.265	2.339	23%		
	2 (18/64)			2.281	2.351	23%		
	2 (19/64)			2.296	2.363	23%		

Crimp Sanitary Recommendation Guide

2" Crimped Sanitary Fittings

Hose ID	Stem Part #	Ferrule Part #	Hose OD		Crimp Diameter (±0.005)	% Reduction
			Fractional	Decimal		
2"	CSSR200 CBSR200 CILR200 CTER200 HA0236 HA0341	F24G-2250	2-12/64	2.187	2.279	23%
			2-13/64	2.203	2.291	23%
			2-14/64	2.218	2.303	23%
			2-15/64	2.234	2.315	23%
		F24G-3125	2-16/64	2.250	2.328	23%
			2-17/64	2.265	2.339	23%
			2-18/64	2.281	2.351	23%
			2-19/64	2.296	2.363	23%
		F32G-2531	2-30/64	2.469	2.611	23%
			2-31/64	2.484	2.623	23%
			2-32/64	2.500	2.635	23%
			2-33/64	2.516	2.647	23%
		F32G-2594	2-34/64	2.531	2.659	23%
			2-35/64	2.547	2.671	23%
			2-36/64	2.563	2.683	23%
			2-37/64	2.578	2.695	23%
		F32G-2656	2-38/64	2.594	2.707	23%
			2-39/64	2.609	2.719	23%
			2-40/64	2.625	2.731	23%
			2-41/64	2.641	2.743	23%
		F32G-2719	2-42/64	2.656	2.755	23%
			2-43/64	2.672	2.767	23%
			2-44/64	2.688	2.779	23%
			2-45/64	2.703	2.791	23%
		F32G-2875	2-52/64	2.812	2.876	23%
			2-53/64	2.828	2.888	23%
			2-54/64	2.843	2.899	23%
			2-55/64	2.859	2.911	23%
		F32G-2938	2-56/64	2.875	2.924	23%
			2-57/64	2.890	2.935	23%
			2-58/64	2.906	2.948	23%
			2-59/64	2.921	2.959	23%

Crimp Sanitary Recommendation Guide

3" and 4" Crimped Sanitary Fittings

Hose ID	Stem Part #	Ferrule Part #	Hose OD		Crimp Diameter (±0.005)	% Reduction
			Fractional	Decimal		
3"	CSSR300 CBSR300 CILR300 CTER300 HA0238 HA0243	F48G-3625	3-36/64	3.563	3.683	23%
			3-37/64	3.578	3.695	23%
			3-38/64	3.594	3.707	23%
			3-39/64	3.609	3.719	23%
		F48G-3688	3-40/64	3.625	3.731	23%
			3-41/64	3.641	3.743	23%
			3-42/64	3.656	3.755	23%
			3-43/64	3.672	3.767	23%
		F48G-3750	3-44/64	3.688	3.779	23%
			3-45/64	3.703	3.791	23%
			3-46/64	3.719	3.803	23%
			3-47/64	3.734	3.815	23%
		F48G-3813	3-48/64	3.750	3.828	23%
			3-49/64	3.766	3.840	23%
			3-50/64	3.781	3.852	23%
			3-51/64	3.797	3.864	23%
		F48G-3875	3-52/64	3.813	3.876	23%
			3-53/64	3.828	3.888	23%
			3-54/64	3.844	3.900	23%
			3-55/64	3.859	3.912	23%
		F48G-3938	3-56/64	3.875	3.924	23%
3-57/64	3.891		3.936	23%		
3-58/64	3.906		3.948	23%		
3-59/64	3.922		3.960	23%		
F48G-4106	4-3/64	4.046	4.056	23%		
	4-4/64	4.062	4.069	23%		
	4-5/64	4.078	4.080	23%		
	4-6/64	4.093	4.092	23%		
4"	CSSR400 CBSR400 CILR400 CTER400	F64G-4688	4-40/64	4.625	4.857	23%
			4-41/64	4.641	4.869	23%
			4-42/64	4.656	4.881	23%
			4-43/64	4.672	4.893	23%
		F64G-4750	4-44/64	4.688	4.905	23%
			4-45/64	4.703	4.917	23%
			4-46/64	4.719	4.929	23%
			4-47/64	4.734	4.941	23%
		F64G-4813	4-48/64	4.750	4.954	23%
			4-49/64	4.766	4.966	23%
			4-50/64	4.781	4.978	23%
			4-51/64	4.797	4.990	23%
		F64G-4875	4-52/64	4.813	5.002	23%
			4-53/64	4.828	5.014	23%
			4-54/64	4.844	5.026	23%
			4-55/64	4.859	5.038	23%
		F64G-4938	4-56/64	4.875	5.050	23%
			4-57/64	4.891	5.062	23%
			4-58/64	4.906	5.074	23%
			4-59/64	4.922	5.086	23%
		F64G-5141	5-5/64	5.078	5.205	23%
5-6/64	5.093		5.218	23%		
5-7/64	5.109		5.230	23%		
5-8/64	5.125		5.242	23%		

R

Air Fittings

Air Fitting Selection

Product Specifications



Size range:

- Fittings: 1/8" - 1/2"
- Tubing: 1/4" OD - 1/2" OD

Materials:

- Fittings: 303 stainless steel, nylon/nickel-plated brass, nickel-plated brass,
- Tubing: polyethylene

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Tubing

Polyethylene Tubing

Features:

- designed for FDA applications
- temperature range: **-50°F to 140°F** (working pressure given at 70°F)
- designed for use with the push-in fittings
- flexible, lightweight, low-density polyethylene (LDPE) tubing
- for use with plastic or metal inserts with outer sleeve; ferrule or clamps
- formulated to resist stress cracking

Size		Wall Thickness	Working Pressure @ 75°F	Length	Tubing Color	Part Number
OD	ID					
¼"	.125"	.062	150	100' roll	natural	0804
¼"	.170"	.040	150	100' roll	natural	0817
3/8"	.250"	.062	150	100' roll	natural	1208
1/2"	.375"	.062	125	100' roll	natural	1612



Size		Wall Thickness	Working Pressure @ 75°F	Length	Tubing Color	Part Number
OD	ID					
¼"	.170"	.040	150	100' roll	blue	0817BL100
¼"	.170"	.040	150	500' roll	blue	0817BL
¼"	.170"	.040	150	500' roll	black	0817BR
¼"	.170"	.040	150	500' roll	natural	0817CR
3/8"	.250"	.062	150	500' roll	black	1208BR
3/8"	.250"	.062	150	500' roll	natural	1208CR

Nylon 12 Tubing

Features:

- naturally transparent
- temperature range: **-40°F to 180°F** (working pressure given at 75°F)
- designed for use with the push-in fittings
- recommended for applications requiring low density, lightweight toughness, flexibility and chemical resistance
- 100' lengths are packaged in plastic bags.

Size		Wall Thickness	Working Pressure @ 75°F	Length	Part #
OD	ID				
⅛"	.093"	.016	225	100' roll	04093
5/32"	.106"	.025	275	100' roll	05106
3/16"	.138"	.025	225	100' roll	06138
¼"	.170"	.040	265	100' roll	08170
¼"	.180"	.035	250	100' roll	08180
3/8"	.275"	.050	220	100' roll	12275
1/2"	.375"	.062	200	100' roll	16375

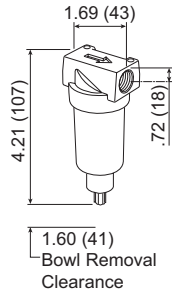


S

Wilkerson Miniature Filters



transparent bowl

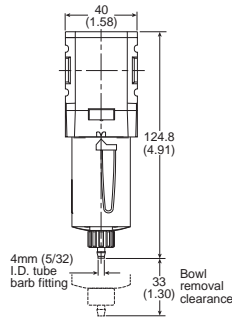
**Features:**

- excellent water removal efficiency
- 5 micron element
- .5 oz. bowl
- maximum operating conditions:
transparent bowl: **150 PSIG** (10 bar) and **32°F to 125°F** (0°C to 52°C)
metal bowl: **250 PSIG** (17 bar) and **32°F to 175°F** (0°C to 80°C)

Size	SCFM	With Transparent Bowl		With Metal Bowl	
		Automatic Drain Part #	Manual Drain Part #	Automatic Drain Part #	Manual Drain Part #
1/8"	22	F03-01A	F03-01M	F03-01AMB	F03-01MMB
1/4"	24	F03-02A	F03-02M	F03-02AMB	F03-02MMB



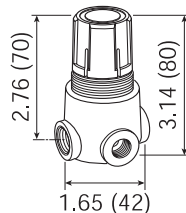
transparent bowl with guard

**Features:**

- 5 micron element
- .4 oz. bowl
- maximum operating conditions:
transparent bowl: **150 PSIG** (10 bar) and **32°F to 125°F** (0°C to 52°C)
metal bowl: **250 PSIG** (17 bar) and **32°F to 150°F** (0°C to 65.5°C)

Size	SCFM	With Transparent Bowl and Guard		With Metal Bowl	
		Automatic Drain Part #	Manual Drain Part #	Automatic Drain Part #	Manual Drain Part #
1/4"	50	F08-02A	F08-02M	F08-02AMB	F08-02MMB

Wilkerson Miniature Regulators

**Features:**

- 2-125 PSI adjusting range
- balanced valve design
- self-relieving standard
- non-rising push/pull locking adjustment knob
- two 1/8" NPT gauge ports standard on models without gauge, one 1/8" NPT gauge port standard on models with gauge - can be used for additional outlet ports.
- models supplied without gauge use a GC620 gauge.
- panel mount nuts sold separately
- maximum operating conditions:
300 PSIG (20.17 bar) and **32°F to 125°F** (0°C to 52°C)

Size	SCFM	With Gauge	Without Gauge
		Part #	Part #
1/8"	13	R03-01RG	R03-01R
1/4"	15	R03-02RG	R03-02R



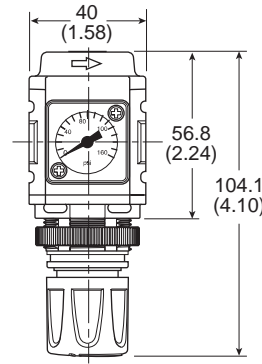
FRL's are designed for air service only, unless otherwise indicated.

SCFM ratings at 150 PSIG inlet pressure.

Wilkerson Miniature Regulators

Features:

- 0-125 PSI adjusting range
- balanced valve design
- self-relieving standard
- non-rising push/pull locking adjustment knob
- two 1/8" NPT gauge ports standard on models without gauge, one 1/8" NPT gauge port standard on models with gauge - can be used for additional outlet ports.
- models with gauge are supplied with a 0-160 flush mount style gauge
- models supplied without gauge use a GC620 gauge.
- panel mount nuts sold separately
- maximum operating conditions:
300 PSIG (20.7 bar) and **32°F to 150°F** (0°C to 65.5°C)

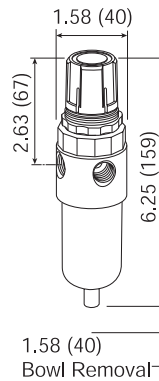


Size	SCFM	With Gauge Part #	Without Gauge Part #
1/4"	44	R08-02RG	R08-02R

Wilkerson Miniature Filter / Regulators

Features:

- 2-125 PSI adjusting range
- 5 micron element
- .5 oz. bowl
- self-relieving
- supplied with a GC620 gauge
- maximum operating conditions:
transparent bowl: **125 PSIG** (8.6 bar) and **40°F to 125°F** (4.4°C to 52°C)
metal bowl: **300 PSIG** (20.7 bar) and **40°F to 125°F** (4.4°C to 52°C)



transparent bowl

Size	SCFM	With Transparent Bowl and Guard		With Metal Bowl	
		Automatic Drain Part #	Manual Drain Part #	Automatic Drain Part #	Manual Drain Part #
1/8"	13	BB3-01AG	BB3-01MG	BB3-01AGMB	BB3-01MGMB
1/4"	16	BB3-02AG	BB3-02MG	BB3-02AGMB	BB3-02MGMB



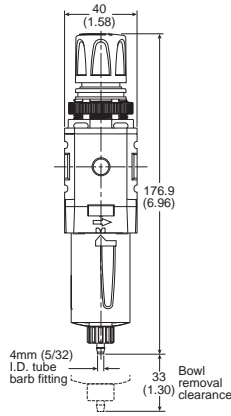
FRL's are designed for air service only, unless otherwise indicated.

SCFM ratings at 150 PSIG inlet pressure.

Wilkerson Miniature Filter / Regulators



transparent bowl with guard



Features:

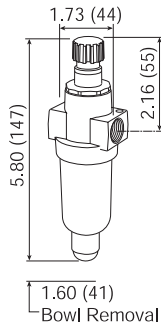
- 0-125 PSI adjusting range
- 5 micron element
- .4 oz. bowl
- self-relieving
- supplied with a 0-160 PSI flush mount style gauge
- maximum operating conditions:
 - transparent bowl: **150 PSIG** (10.3 bar) and **32°F to 125°F** (0°C to 52°C)
 - metal bowl: **250 PSIG** (17.2 bar) and **32°F to 150°F** (0°C to 65.5°C)

Size	SCFM	With Transparent Bowl and Guard		With Metal Bowl	
		Automatic Drain Part #	Manual Drain Part #	Automatic Drain Part #	Manual Drain Part #
1/4"	42.1	B08-02AG	B08-02MG	B08-02AGMB	B08-02MGMB

Wilkerson Miniature Lubricators



transparent bowl



Features:

- 1 oz. bowl
- adjustable oil feed
- full view sight dome
- **Do not fill under pressure. Air supply must be turned off and pressure bled from unit prior to adding oil.**
- maximum operating conditions:
 - transparent bowl: **150 PSIG** (10.3 bar) and **32°F to 125°F** (0°C to 52°C)
 - metal bowl: **250 PSIG** (17.2 bar) and **32°F to 175°F** (0°C to 80°C)

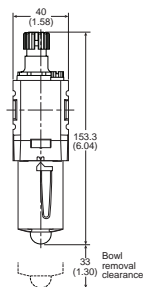


Size	SCFM	With Transparent Bowl	With Metal Bowl
		Part #	Part #
1/8"	20	L03-01A	L03-01AMB
1/4"	20	L03-02A	L03-02AMB

S



transparent bowl with guard



Features:

- .6 oz. bowl
- adjustable oil feed
- full view sight dome
- fill under pressure design
- maximum operating conditions:
 - transparent bowl: **150 PSIG** (10.3 bar) and **32°F to 125°F** (0°C to 52°C)
 - metal bowl: **250 PSIG** (17.2 bar) and **32°F to 150°F** (0°C to 65.5°C)

Size	SCFM	With Transparent Bowl	With Metal Bowl
		Part #	Part #
1/4"	57.5	L08-02A	L08-02AMB



FRL's are designed for air service only, unless otherwise indicated.

SCFM ratings at 150 PSIG inlet pressure.

Wilkerson Miniature Combination Units (Filter, Regulator, Lubricator)

Features:

- maximum operating conditions:
transparent bowl: **150 PSIG** (10.3 bar) and **32°F to 125°F** (0°C to 52°C)
metal bowl: **250 PSIG** (17.2 bar) and **32°F to 175°F** (0°C to 80°C)

Filter series F03:

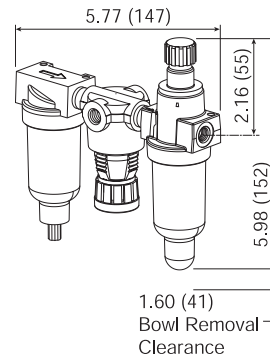
- 5 micron element
- .5 oz. bowl

Regulator series R03:

- 2-125 PSI adjusting range
- balanced valve design
- self-relieving
- supplied with a GC620 gauge
- Regulator can be mounted with knob in up or down position.

Lubricator series L03:

- 1 oz. bowl
 - adjustable oil feed
 - full view sight dome
- Included components:
- (2) adapters



transparent bowl

Size	SCFM	With Transparent Bowl and Guard		With Metal Bowl	
		Automatic Drain Part #	Manual Drain Part #	Automatic Drain Part #	Manual Drain Part #
1/8"	20	C03-01A	C03-01M	C03-01AMB	C03-01MMB
1/4"	20	C03-02A	C03-02M	C03-02AMB	C03-02MMB

Features:

- maximum operating conditions:
- transparent bowl: **150 PSIG** (10.3 bar) and **32°F to 125°F** (0°C to 52°C)
- metal bowl: **250 PSIG** (17.2 bar) and **32°F to 150°F** (0°C to 65.5°C)
- Included components: (2) mounting brackets with joiner set

Filter series F08:

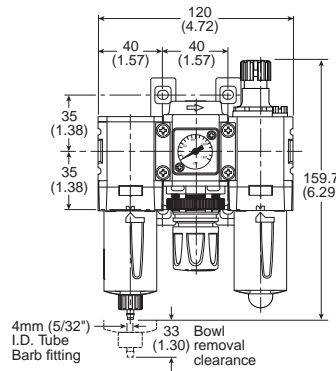
- 5 micron element
- .4 oz. bowl

Regulator series R08:

- 0-125 PSI adjusting range
- balanced valve design
- self-relieving
- supplied with a 0-160 PSI flush mount style gauge

Lubricator series L08:

- .6 oz. bowl
- adjustable oil feed
- full view sight dome



transparent bowl with guard

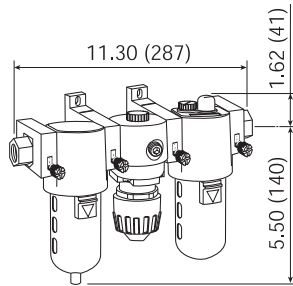
Size	SCFM	With Transparent Bowl and Guard		With Metal Bowl	
		Automatic Drain Part #	Manual Drain Part #	Automatic Drain Part #	Manual Drain Part #
1/4"	44	C08-02A	C08-02M	C08-02AMB	C08-02MMB

FRL's are designed for air service only, unless otherwise indicated.

SCFM ratings at 150 PSIG inlet pressure.



Wilkerson Compact Combination Units



Features:

- maximum operating conditions:
transparent bowl: **150 PSIG** (10.3 bar) and **32°F to 125°F** (0°C to 52°C)
metal bowl: **200 PSIG** (13.8 bar) and **32°F to 175°F** (0°C to 80°C)

Filter series F16:

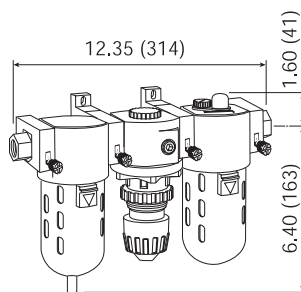
- 5 micron element
 - 5 oz. bowl
- ### Regulator series R16:
- 0-125 PSI adjusting range
 - self-relieving
 - supplied with a GC230 gauge

Lubricator series L16:

- 5 oz. bowl
 - adjustable oil feed
 - full view sight dome
- ### Included components:
- (2) modular sleeves
 - (2) mounting brackets (sleeve and bracket)
 - (2) end blocks

Size	SCFM	With Transparent Bowl and Guard		Metal Bowl with Sight Glass	
		Automatic Drain Part #	Manual Drain Part #	Automatic Drain Part #	Manual Drain Part #
1/4"	36.1	C16-02A	C16-02M	C16-02AMB	C16-02MMB
3/8"	58.5	C16-03A	C16-03M	C16-03AMB	C16-03MMB
1/2"	64.0	C16-04A	C16-04M	C16-04AMB	C16-04MMB

Wilkerson Standard Combination Units



Features:

- maximum operating conditions:
transparent bowl: **150 PSIG** (10.3 bar) and **32°F to 125°F** (0°C to 52°C)
metal bowl: **200 PSIG** (13.8 bar) and **32°F to 175°F** (0°C to 80°C)

Filter series F26:

- 5 micron element
 - 10 oz. bowl
- ### Regulator series R26:
- 0-125 PSI adjusting range
 - self-relieving
 - supplied with a GC230 gauge

Lubricator series L26:

- 10 oz. bowl
 - adjustable oil feed
 - full view sight dome
- ### Included components:
- (2) modular sleeves
 - (2) mounting brackets (sleeve and bracket)
 - (2) end blocks

Size	SCFM	With Transparent Bowl and Guard		With Metal Bowl	
		Automatic Drain Part #	Manual Drain Part #	Automatic Drain Part #	Manual Drain Part #
1/4"	35	C26-02A	C26-02M	C26-02AMB	C26-02MMB
3/8"	60	C26-03A	C26-03M	C26-03AMB	C26-03MMB
1/2"	128	C26-04A	C26-04M	C26-04AMB	C26-04MMB



FRL's are designed for air service only, unless otherwise indicated.

SCFM ratings at 150 PSIG inlet pressure.

S

Dixon Sanitary Ball Valves

Product Specifications

Size range:

- ½" - 4" OD tube
- ¼" - 4" nominal pipe

Materials:

- CF8M stainless steel
- brass

Ball Valve Selection



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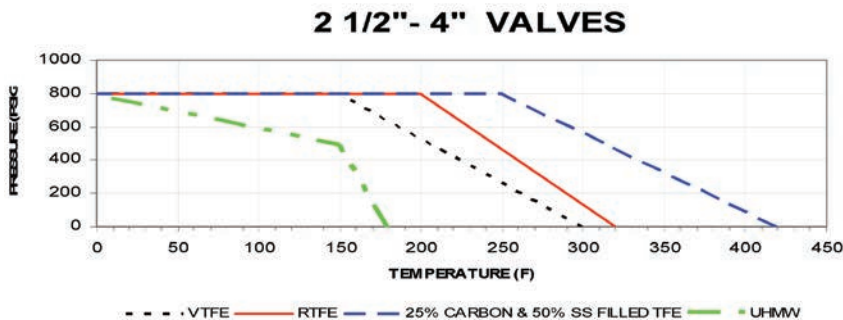
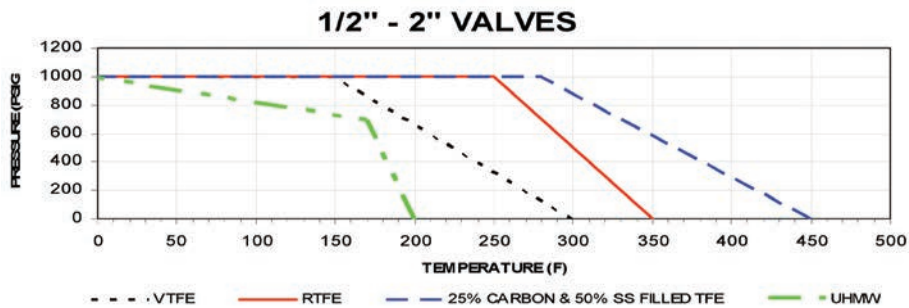


Technical Information

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. Food Grade Material
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. Food Grade Material
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. Food Grade Material
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. Food Grade Material

Pressure Temperature Charts

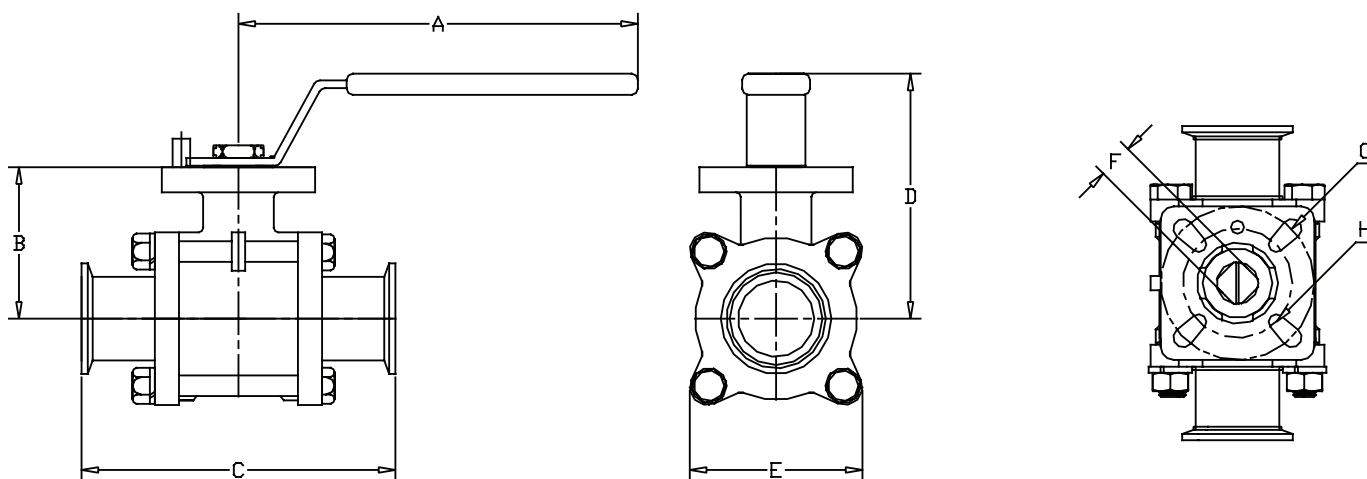


T

2-Way Encapsulated Sanitary 3 Piece Stainless Steel Ball Valves

Features:

- ½" - 2" rated at **1,000 PSI WOG**; 2½" - 4" rated at **800 PSI WOG**
- balanced encapsulated construction minimizes cold flow
- 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_a 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



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"	5.6	2.1	4.9	3.6	2.4	11	F05	F04
1½"	9.5	2.7	5.6	4.4	3.1	14	F07	F05
2"	9.5	3.1	6.4	4.8	3.7	14	F07	F05
2½"	18.0	3.8	7.8	5.2	4.8	17	F10	F07
3"	18.0	4.2	9	5.7	5.4	17	F10	F07
4"	18.0	5.3	9.5	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

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

- kit contains:
- (1) lock washer
 - (1) handle
 - (1) nut

Repair Kits

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

• private label handle covers available, see page 187

• see page 174 for part numbers

2-Way Encapsulated Sanitary 3 Piece Stainless Steel Ball Valves

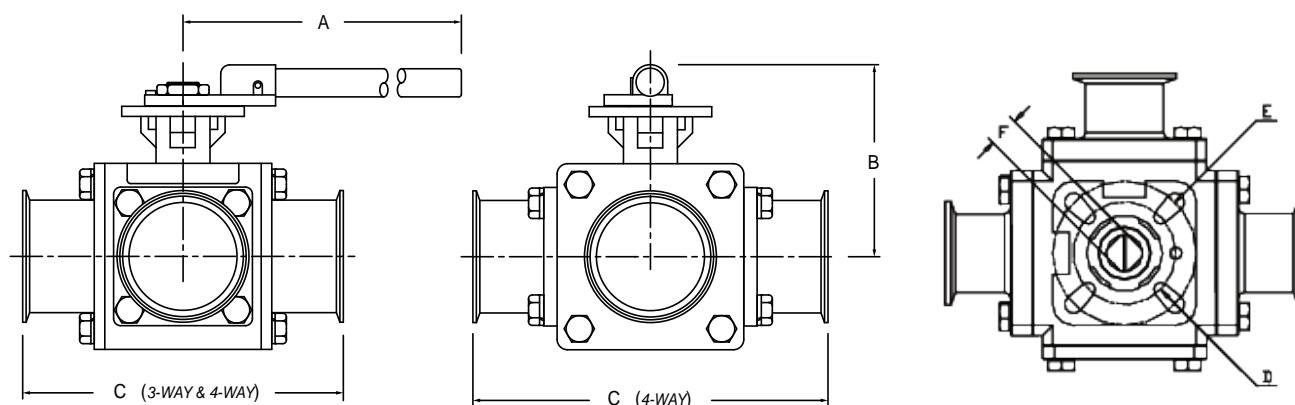
Size	Ball Valve Part #	Repair Kit Part #	Break Torque (in-lb)	Code ID	Seat material
1/2"	BV2CV-050CC-A	BV-2C-VK050	31	V	Virgin PTFE
3/4"	BV2CV-075CC-A	BV-2C-VK075	47		
1"	BV2CV-100CC-A	BV-2C-VK100	105		
1 1/2"	BV2CV-150CC-A	BV-2C-VK150	238		
2"	BV2CV-200CC-A	BV-2C-VK200	256		
2 1/2"	BV2CV-250CC-A	BV-2C-VK250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

T

Multi-port Sanitary Stainless Steel Ball Valves

Features:

- full port design on 1/2" thru 3"
- reduced port design on 4"
- blow-out proof stem
- live-loaded stem packing
- CF8M stainless body, ends and ball
- ISO 5211 mounting pad
- lock-out, tag out
- rated to 1/2" - 2" **1,000 PSI WOG**
2 1/2" - 4" **800 PSI WOG**



Size	A	B	C	D	E	F	Weight (lbs.)
1/2"	4.9	3.2	4.6	F03	F04	9	3.6
3/4"	4.9	4.3	5.1	F03	F04	9	4.3
1"	5.6	3.8	6.0	F04	F05	11	6.8
1 1/2"	9.5	4.5	6.9	F05	F07	14	12.6
2"	9.5	5.0	7.5	F05	F07	14	21.6
2 1/2"	18.0	5.3	8.4	F07	F10	17	33.7
3"	18.0	6.4	9.6	F10	F12	22	56.4
4"	18.0	6.8	11.5	F10	F12	22	85.4

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

Handle Kits

Size	Part Number
1/2" - 3/4"	BV-23-HA050-075
1"	BV-23-HA100
1 1/2" - 2"	BV-23-HA150-200
2 1/2"	BV-23-HA250
3" - 4"	BV-23-HA300-400

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

- private label handle covers available, see page 187

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 176 for part numbers



3-way Multi-port Sanitary Stainless Steel Ball Valves

Size	"L" port Ball Valve Part #	"T" port Ball Valve Part #	Repair Kit Part #	"L" Port Break Torque (in-lb)	"T" Port Break Torque (in-lb)	Code ID	Seat material
½"	<i>BV3SVLF050C-A</i>	<i>BV3SVTF050C-A</i>	<i>BV-3SVFRK050</i>	65	44	V	Virgin PTFE
¾"	<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		
1½"	<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		
2½"	<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		
½"	<i>BV3SGLF050C-A</i>	<i>BV3SGTF050C-A</i>	<i>BV-3SGRK050</i>	71	48	G	15% glass reinforced RTFE
¾"	<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		
1½"	<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		
2½"	<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		
½"	<i>BV3SCLF050C-A</i>	<i>BV3SCTF050C-A</i>	<i>BV-3SCRK050</i>	78	53	C	25% carbon reinforced PTFE
¾"	<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		
1½"	<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		
2½"	<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		
½"	<i>BV3SSLF050C-A</i>	<i>BV3SSTF050C-A</i>	<i>BV-3SSRK050</i>	86	59	S	50% stainless steel reinforced PTFE
¾"	<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		
1½"	<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		
2½"	<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		
½"	<i>BV3SULF050C-A</i>	<i>BV3SUTF050C-A</i>	<i>BV-3SURK050</i>	65	44	U	UHMW
¾"	<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		
1½"	<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		
2½"	<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		

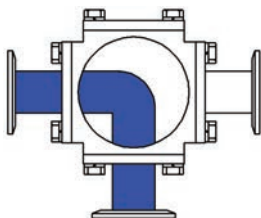
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- 4-way available upon request

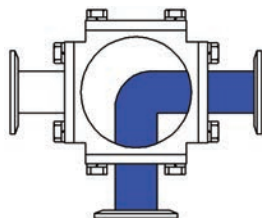
Multi-port Sanitary Stainless Steel Ball Valves

Flow Options

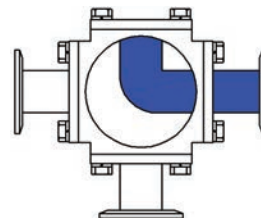
3-way 'L'-port
position A



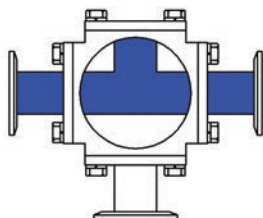
3-way 'L'-port
position B



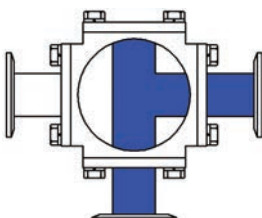
3-way 'L'-port
position C



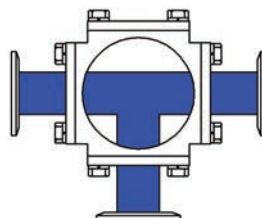
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position A



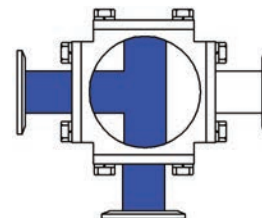
3-way 'T'-port
position B



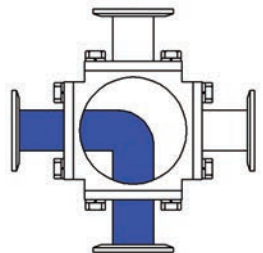
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position C



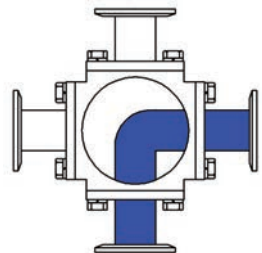
3-way 'T'-port
position D



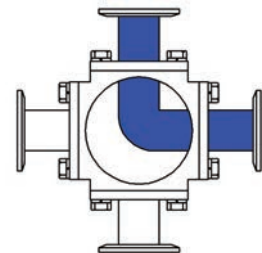
4-way 'L'-port
position A



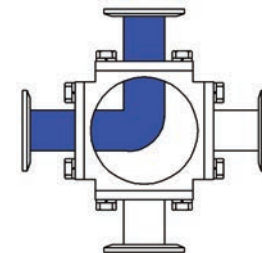
4-way 'L'-port
position B



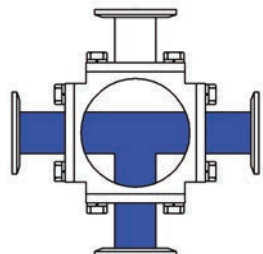
4-way 'L'-port
position C



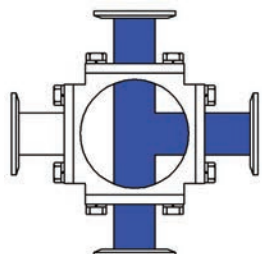
4-way 'L'-port
position D



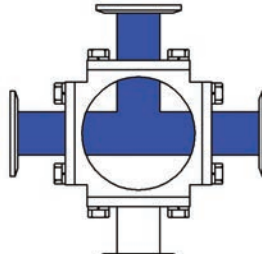
4-way 'T'-port
position A



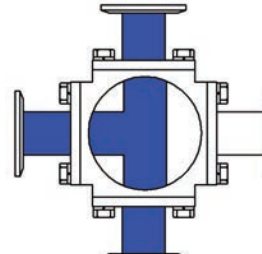
4-way 'T'-port
position B



4-way 'T'-port
position C



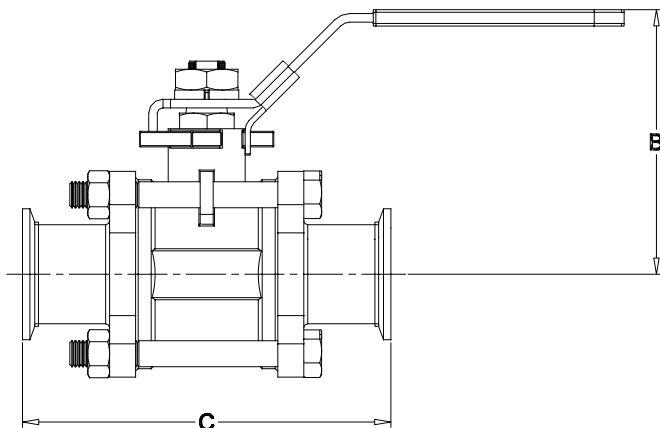
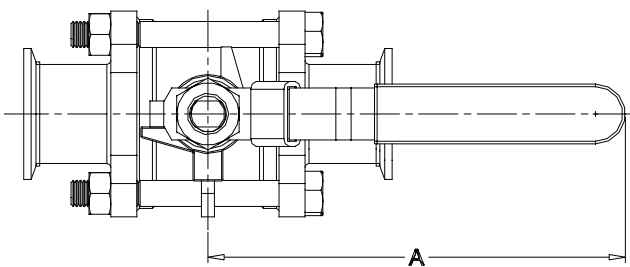
4-way 'T'-port
position D



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

Features:

- blow-out proof stem
- live-loaded stem packing
- 15% glass reinforced PTFE seats
- CF8M stainless body, ends and ball
- ID polish is R_a 32
- lockable handle
- rated to ½" - 2" **1,000 PSI WOG**
2½" - 4" **800 PSI WOG**
- maximum temperature: **300°F**



Size	A	B	C	Break Torque (in-lbs.)	Weight (lbs.)	316 Stainless Steel Part Number
½"	4.1	2.3	4.6	55	1.4	BV2GG-050CC-A
¾"	4.1	2.5	4.7	71	1.8	BV2GG-075CC-A
1"	5.0	2.8	4.9	101	2.6	BV2GG-100CC-A
1½"	6.1	3.5	5.6	221	4.6	BV2GG-150CC-A
2"	7.6	3.9	6.4	345	8.5	BV2GG-200CC-A
2½"	7.6	4.4	7.8	883	17.8	BV2GG-250CC-A
3"	10.9	4.9	9.0	830	28.2	BV2GG-300CC-A
4"	13.2	6.6	9.6	1323	41.4	BV2GG-400CC-A

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

Repair Kits

T

Repair kit contains:

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

- private label handle covers available, see page 187

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

Industrial Stainless Steel Wafer Ball Valve

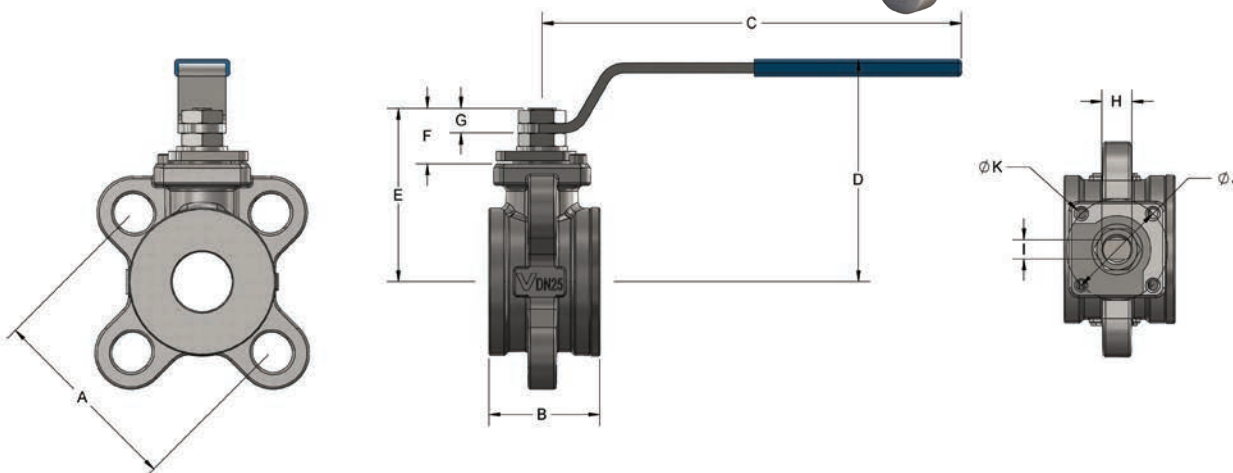
NEW

Features:

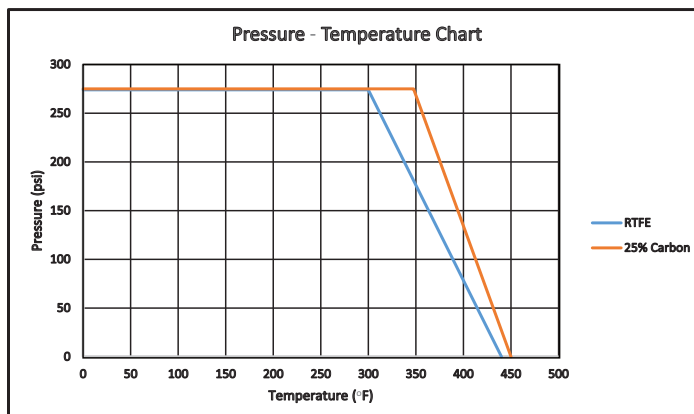
- ANSI Class 150 wafer style ball valve
- full port, sizes 1" to 4"
- blow out proof stem
- ideal option to high performance butterflies
- space saving design
- antistatic stem design
- locking plate included

Materials:

- body – CF8M
- ball and end connection – 316 stainless steel
- elastomers – FKM
- stem Seal – PTFE

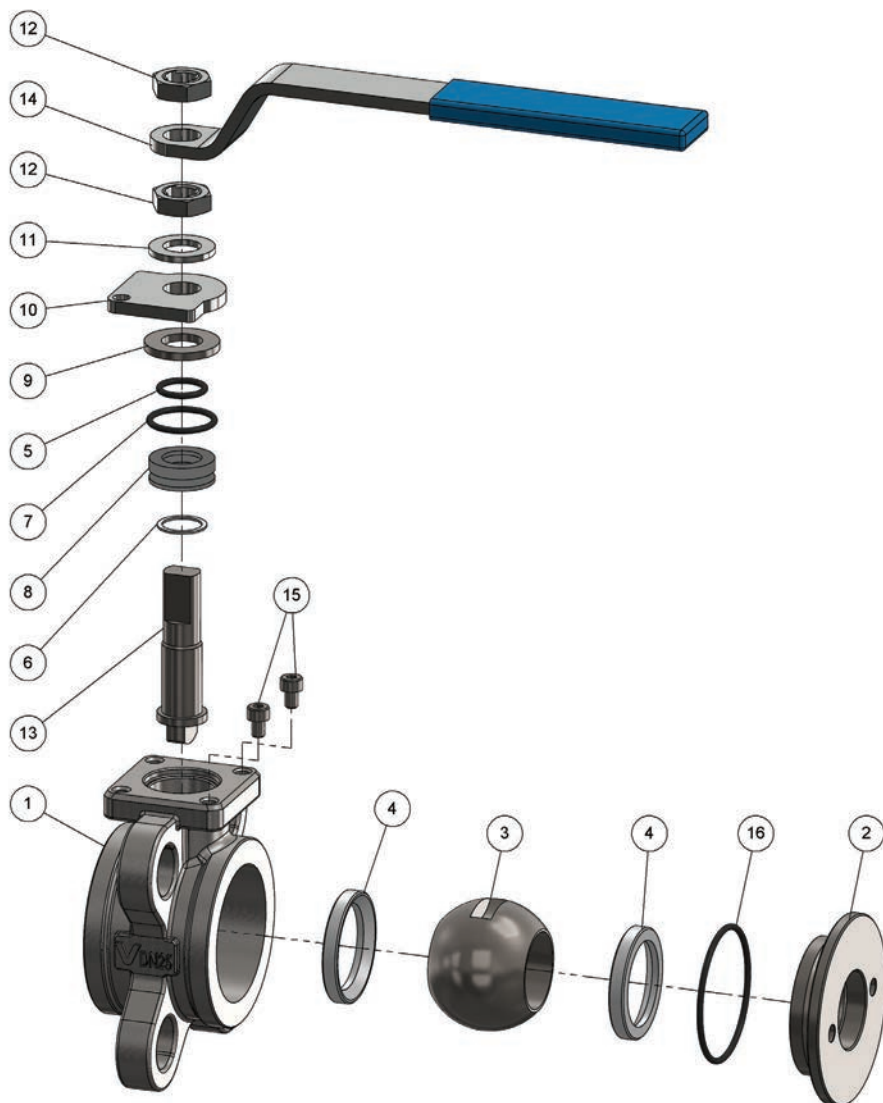


Size	A	B	C	D	E	F	G	H	I	J	K	Cv	Weight (lb)	Break Torque (in/lb)
1.00	ANSI 150	1.81	6.85	3.58	2.81	0.90	0.41	M12	0.31	F04	4xM5	49.88	2.86	124
1.25	ANSI 150	2.12	6.85	3.74	2.95	0.90	0.41	M12	0.31	F04	4xM5	103.24	3.64	150
1.50	ANSI 150	2.50	9.84	4.33	3.34	1.10	0.59	M16	0.39	F05	4xM6	266.80	4.74	195
2.00	ANSI 150	3.23	9.84	4.68	3.68	1.10	0.59	M16	0.39	F05	4xM6	307.40	8.27	292
2.50	ANSI 150	4.05	12.63	5.70	4.78	1.31	0.70	M20	0.55	F07	4xM8	626.40	16.20	540
3.00	ANSI 150	4.80	12.63	6.06	5.15	1.31	0.70	M20	0.55	F07	4xM8	1012.68	22.71	637
4.00	ANSI 150	5.60	12.53	6.57	5.67	1.31	0.70	M20	0.55	F10	4xM8	1612.40	35.28	956



T

Industrial Wafer Ball Valve - Exploded View



Size	Part Number
1"	BV2IC-100WW-A
1¼"	BV2IC-125WW-A
1½"	BV2IC-150WW-A
2"	BV2IC-200WW-A
2½"	BV2IC-250WW-A
3"	BV2IC-300WW-A
4"	BV2IC-400WW-A

Item #	Description	Material	Qty
1	body	316 SS	1
2	end connection	316 SS	1
3	ball	316 SS	1
4	ball seats	25% Carbon PTFE	2
5	O-ring	FKM	1
6	thrust washer	PTFE	1
7	ring	FKM	1
8	stem seal	PTFE	1
9	packing gland	316 SS	1
10	end stop	Carbon Steel	1
11	spring washer	Carbon Steel	2
12	nut	Carbon Steel	2
13	stem	316 SS	1
14	handle	Carbon Steel	1
15	screw	Carbon Steel	2
16	O-ring	FKM	1

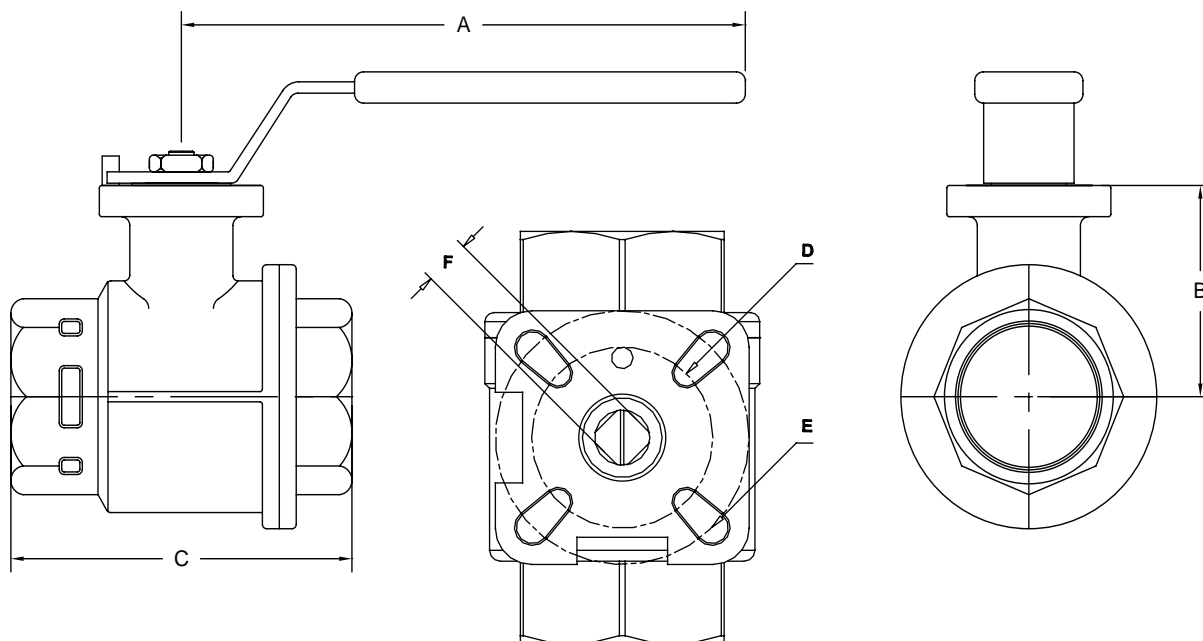
Note: also option for RTFE (BV2IG)

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2 Piece Industrial Stainless Steel Ball Valves

Features:

- full port stainless steel ball valves with FNPT ends
- blow-out proof stem
- ISO 5211 mounting pad
- CF8M stainless body, ends and ball
- RTFE seats and PTFE seals
- private label handle covers available, see page 187
- maximum pressure: ½" - 2" **1,000 PSI WOG**
2½" - 3" **800 PSI WOG**
- maximum temperature: **350°F**



Size	A	B	C	D	E	F	Break Torque (in-lbs.)	Weight (lbs.)	Stainless Steel Part Number
¼"	n/a	1.06	2.17	F03	F04	9	65	0.53	BV2HG-02511-A
⅜"	n/a	1.06	2.17	F03	F04	9	86	0.53	BV2HG-03811-A
½"	n/a	1.18	2.41	F03	F04	9	86	0.66	BV2HG-05011-A
¾"	n/a	1.29	2.99	F03	F04	9	97	1.12	BV2HG-07511-A
1"	n/a	1.72	3.43	F04	F05	9	160	1.87	BV2HG-10011-A
1¼"	5.35	1.86	3.93	F04	F05	9	239	2.76	BV2HG-12511-A
1½"	9.17	2.34	4.48	F05	F07	11	398	4.45	BV2HG-15011-A
2"	9.17	2.74	5.21	F05	F07	11	600	6.3	BV2HG-20011-A
2½"	17.32	3.29	6.33	F07	F10	14	980	11.62	BV2HG-25011-A
3"	17.32	4.67	7.34	F07	F10	17	1000	24.69	BV2HG-30011-A

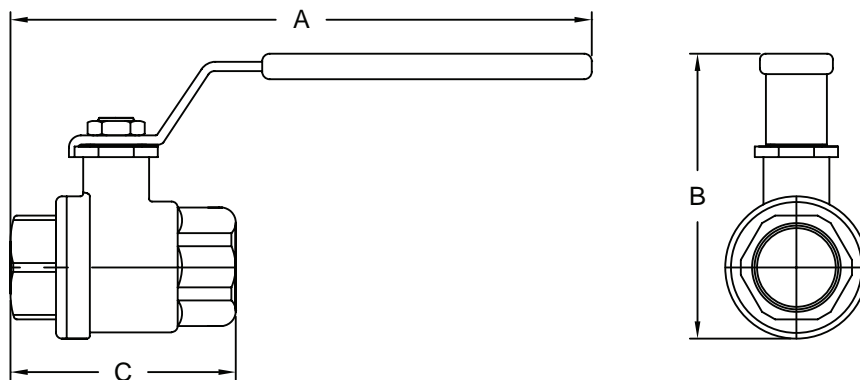
All dimensions are in inches unless otherwise noted. Engineering dimensions are available upon request. Specifications are subject to change without notice.

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Full Port Stainless Steel Ball Valves

**Features:**

- for use in water, oil and gas
- ¼" - 2" rated to **1000 PSI** WOG (CWP); 2½" - 3" rated to **800 PSI** WOG (CWP); **100 PSI** saturated steam
- 316 stainless steel body, ball and stem
- PTFE seat, joint gasket and thrust washer
- private label handle covers available, see page 187
- blow-out proof stem design
- full port
- temperature range **-20°F to 300°F**



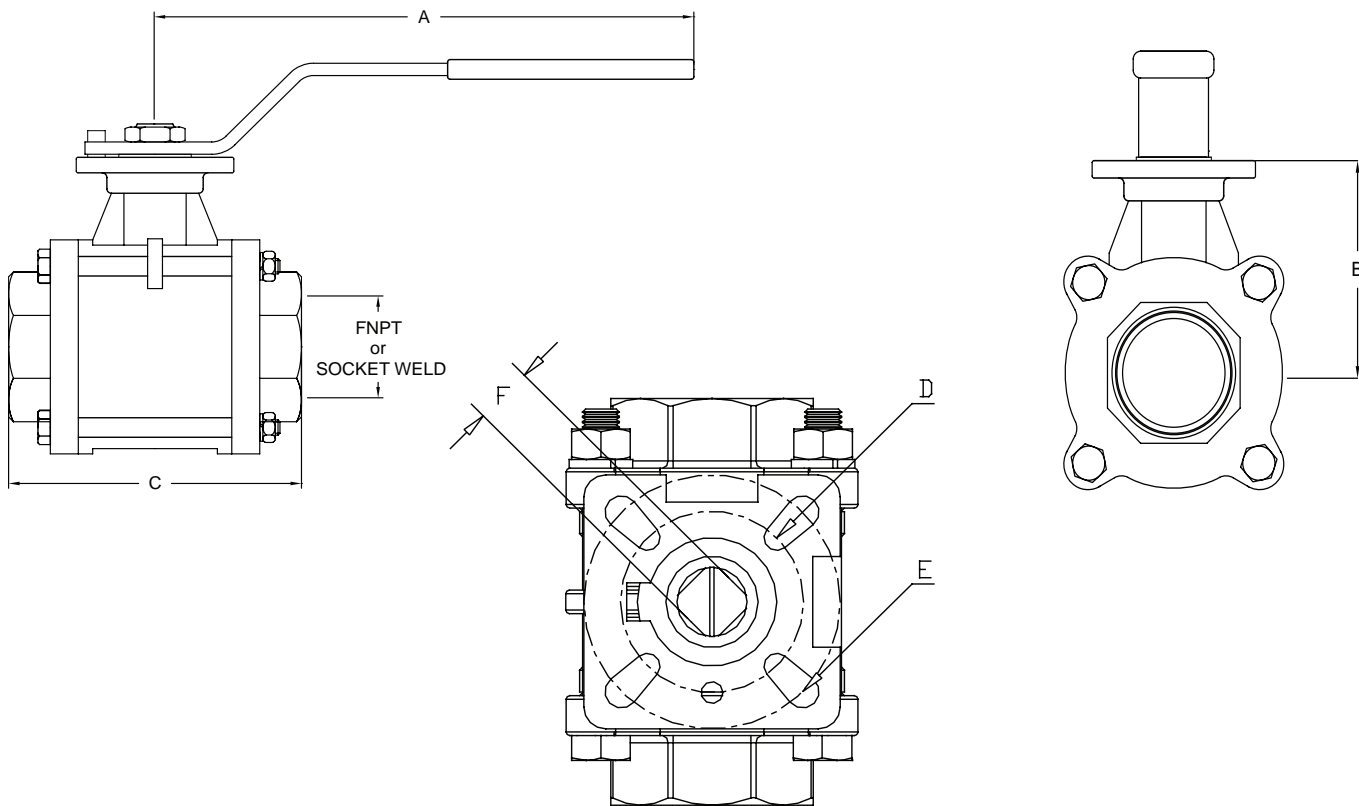
Size	A	B	C	316 Stainless Steel Part Number
¼"	5.25	2.75	1.25	SSBV25
⅜"	5.25	3.00	2.25	SSBV38
½"	6.50	3.25	2.75	SSBV50
¾"	6.75	3.50	3.00	SSBV75
1"	8.25	4.00	3.50	SSBV100
1¼"	8.75	4.50	4.00	SSBV125
1½"	9.75	5.00	4.50	SSBV150
2"	10.00	5.75	5.00	SSBV200
2½"	13.50	7.75	6.50	SSBV250
3"	14.00	8.50	7.00	SSBV300

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

3 Piece Industrial Stainless Steel Ball Valves

Features:

- full port stainless steel ball valves with FNPT ends or socket weld
- blow-out proof stem
- live-loaded stem packing
- 316 stainless steel stem
- swing out design for easy maintenance
- ISO 5211 mounting pad
- CF8M stainless steel body and ball
- private label handle covers available, page 187
- maximum pressure: ½" - 2" **1,000 PSI** WOG at 65°F
 2½" - 3" **800 PSI** WOG at 65°F
 4" **600 PSI** WOG at 65°F
- maximum temperature: **400°F**



Size	A	B	C	D	E	F	FNPT	Socket Weld	FNPT Part Number	Socket Weld Part Number
¼"	4.72	1.52	2.51	F03	F04	9	0.25	n/a	BV2I*-02511-A	BV2I*-02533-A
⅜"	4.72	1.52	2.51	F03	F04	9	0.38	0.71	BV2I*-03811-A	BV2I*-03833-A
½"	4.72	1.67	2.84	F03	F04	9	0.50	0.88	BV2I*-05011-A	BV2I*-05033-A
¾"	4.72	1.91	3.11	F03	F04	9	0.75	1.09	BV2I*-07511-A	BV2I*-07533-A
1"	5.35	2.17	3.29	F04	F05	11	1.00	1.35	BV2I*-10011-A	BV2I*-10033-A
1¼"	5.35	2.35	4.14	F04	F05	11	1.25	1.70	BV2I*-12511-A	BV2I*-12533-A
1½"	9.17	2.77	4.41	F05	F07	14	1.50	1.94	BV2I*-15011-A	BV2I*-15033-A
2"	9.17	3.38	5.13	F05	F07	14	2.00	2.44	BV2I*-20011-A	BV2I*-20033-A
2½"	17.32	4.29	6.64	F07	F10	17	2.50	3.01	BV2I*-25011-A	BV2I*-25033-A
3"	17.32	4.67	7.34	F07	F10	17	3.00	3.52	BV2I*-30011-A	BV2I*-30033-A
4"	17.32	4.54	8.88	F07	F10	17	4.00	4.52	BV2I*-40011-A	BV2I*-40033-A

* Use G or C; G = RTFE, C = 25% Carbon PTFE

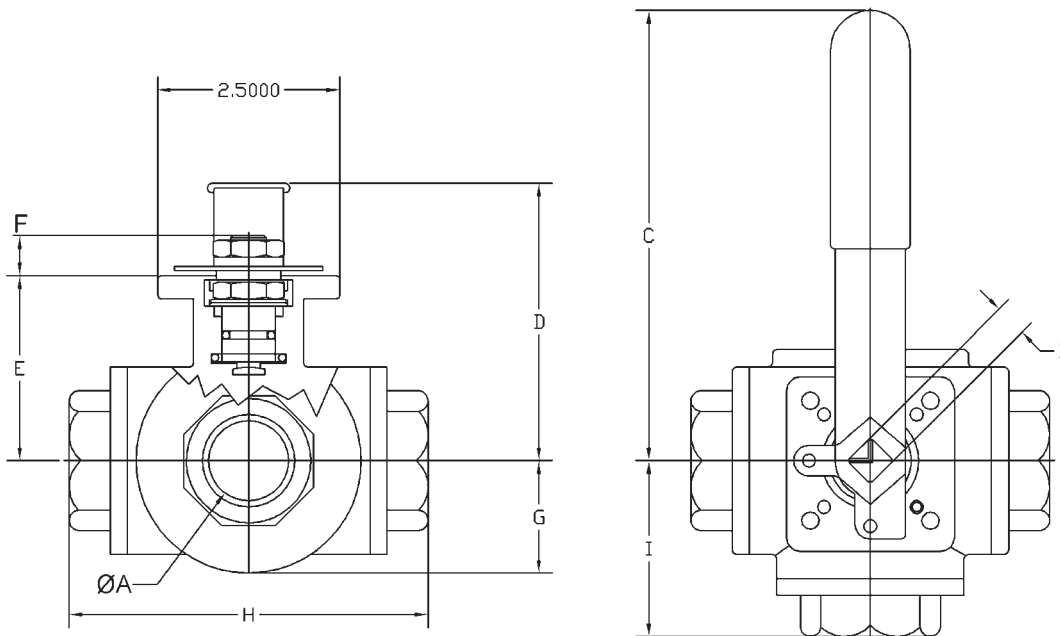
All dimensions are in inches unless otherwise noted. Engineering dimensions are available upon request. Specifications are subject to change without notice.

3-way Industrial Stainless Steel Ball Valves



Features:

- full port stainless steel ball valves with FNPT ends
- blow-out proof stem
- ISO 5211 mounting pad
- CF8M stainless steel body and ball
- RTFE seats and seals
- live-loaded stem packing
- for flow options see page 177
- private label handle covers available, page 187
- maximum pressure: ¼" - 1" **1,000 PSI WOG**
1½" - 2" **800 PSI WOG**
- maximum temperature: **350°F**



Size	A	B (mm)	C	D	E	F	G	H	I	Break Torque (in-lbs.)	<i>Stainless Steel</i> 'L' port Part Number	<i>Stainless Steel</i> 'T' port Part Number
¼"	.43	9	5.12	2.44	1.45	.40	.78	2.83	1.41	157	BV3IGLF-0251-A	BV3IGTF-0251-A
⅜"	.47	9	5.12	2.44	1.45	.40	.78	2.83	1.41	157	BV3IGLF-0381-A	BV3IGTF-0381-A
½"	.59	9	5.12	2.51	1.65	.45	.91	3.26	1.63	207	BV3IGLF-0501-A	BV3IGTF-0501-A
¾"	.78	11	6.49	3.22	1.65	.59	1.10	3.89	1.94	276	BV3IGLF-0751-A	BV3IGTF-0751-A
1"	.98	11	6.49	3.50	2.18	.55	1.33	4.40	2.20	484	BV3IGLF-1001-A	BV3IGTF-1001-A
1¼"	1.25	14	8.07	3.85	2.48	.64	1.53	4.92	2.46	692	BV3IGLF-1251-A	BV3IGTF-1251-A
1½"	1.50	14	8.07	4.25	2.88	.62	1.88	5.86	2.93	950	BV3IGLF-1501-A	BV3IGTF-1501-A
2"	2.0	17	12.79	5.51	3.63	.88	2.36	6.85	3.42	1555	BV3IGLF-2001-A	BV3IGTF-2001-A

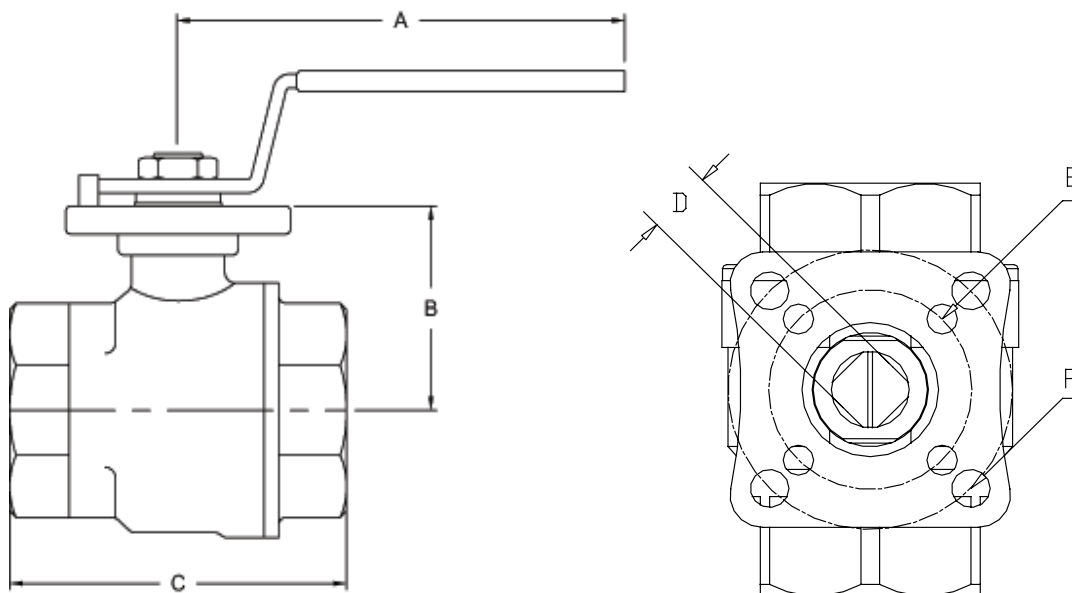
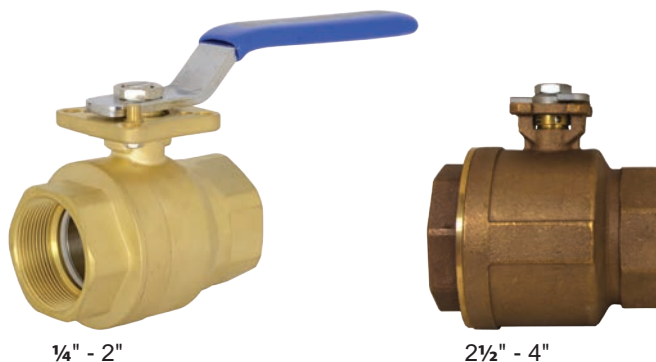
All dimensions are in inches unless otherwise noted. Engineering dimensions are available upon request. Specifications are subject to change without notice.

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2 Piece Industrial Brass Ball Valves

Features:

- full port brass ball valves with FNPT ends
- blow-out proof stem
- ISO 5211 mounting pad
- PTFE seats
- private label handle covers available, see page 187
- maximum pressure: **600 PSI WOG**
- maximum temperature: **300°F**



Size	A	B	C	D (mm)	E	F	Break Torque (in-lbs.)	Weight (lbs.)	Brass Part Number
1/2"	4.40	1.51	2.16	9	F04	n/a	86	0.86	BV2BV-05011-A
3/4"	4.40	1.63	2.80	11	F04	F05	149	0.91	BV2BV-07511-A
1"	5.40	1.76	3.23	11	n/a	F05	193	1.55	BV2BV-10011-A
1 1/4"	7.30	2.13	3.58	11	F05	F07	290	2.14	BV2BV-12511-A
1 1/2"	7.80	2.32	4.06	14	F05	F07	470	3.71	BV2BV-15011-A
2"	7.80	2.65	4.76	14	F05	F07	634	5.52	BV2BV-20011-A
2 1/2"	10.40	3.84	6.22	17	n/a	F07	699	8.83	BV2BV-25011-A
3"	10.40	4.17	7.40	17	n/a	F07	722	13.29	BV2BV-30011-A
4"	12.80	4.76	8.74	17	n/a	F07	1472	18.32	BV2BV-40011-A

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

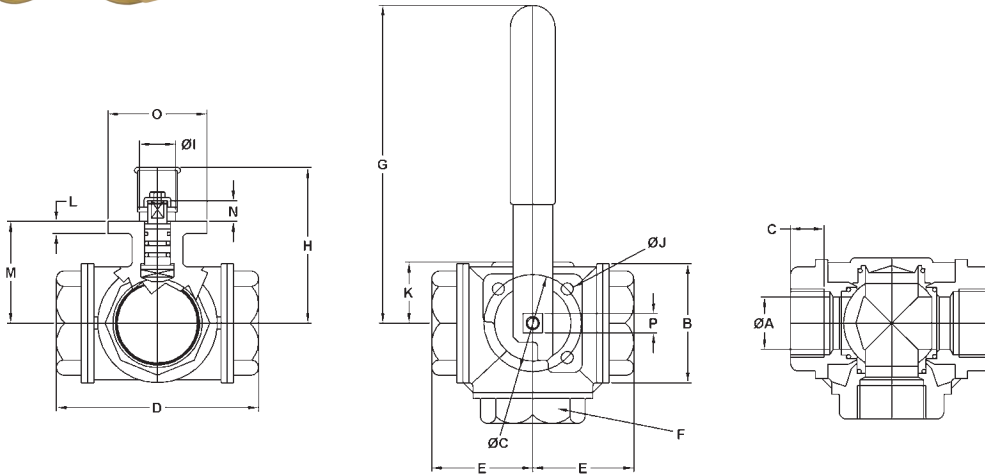
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3-way Industrial Brass Ball Valves



Features:

- reduced port brass ball valves with FNPT ends
- blow-out proof stem
- ISO 5211 mounting pad
- PTFE seats with O-ring backing
- double O-ring stem packing
- for flow options see page 177
- private label handle covers available, see page 187
- maximum pressure: **400 PSI WOG**
- maximum temperature: **300°F**



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	Break Torque (in-lbs.)	Weight (lbs.)	Brass 'L' port Part Number	Brass 'T' port Part Number
1/4"	79	1.22	BV3BVLR-0251-A	BV3BVTR-0251-A
3/8"	79	1.16	BV3BVLR-0381-A	BV3BVTR-0381-A
1/2"	79	1.21	BV3BVLR-0501-A	BV3BVTR-0501-A
3/4"	79	1.44	BV3BVLR-0751-A	BV3BVTR-0751-A
1"	225	2.64	BV3BVLR-1001-A	BV3BVTR-1001-A
1 1/4"	225	4.15	BV3BVLR-1251-A	BV3BVTR-1251-A
1 1/2"	225	6.02	BV3BVLR-1501-A	BV3BVTR-1501-A
2"	412	9.08	BV3BVLR-2001-A	BV3BVTR-2001-A
2 1/2"	570	16.33	BV3BVLR-2501-A	BV3BVTR-2501-A
3"	570	19.55	BV3BVLR-3001-A	BV3BVTR-3001-A

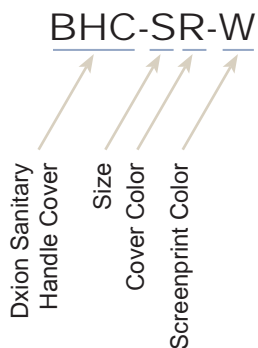
All dimensions are in inches unless otherwise noted. Engineering dimensions are available upon request. Specifications are subject to change without notice.

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Private Label Vinyl Handle Covers

Ordering Information

- 100 pieces per size minimum order
- customer to supply artwork for screen printing



Size
Ssmall
Mmedium
Llarge

Cover Color
Rred
Yyellow
Bblue
Ggreen
BKblack

Screenprint Color
Wwhite
BKblack
Nnone

Product Specifications



Size	Length	Width	Thickness
small	3.503	0.866	0.067
medium	4.409	1.102	0.071
large	9.251	1.535	0.084

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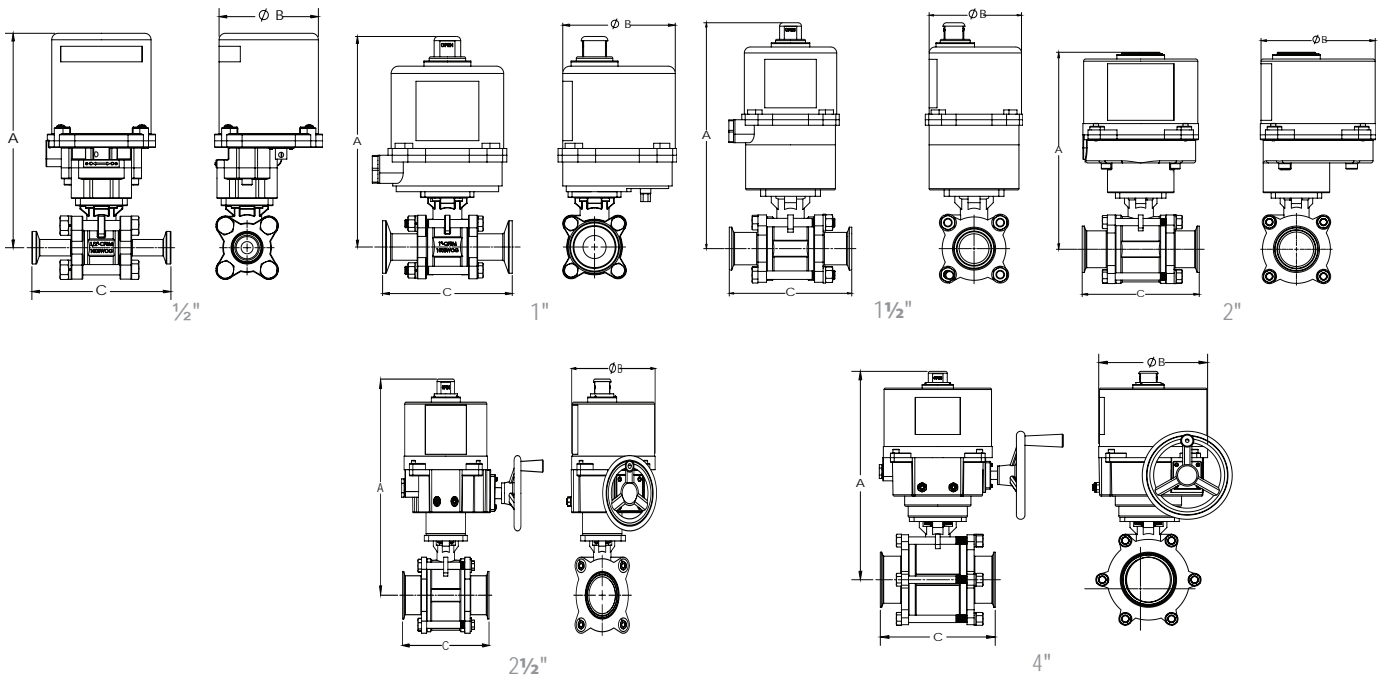
Electrically Actuated 3-Piece Sanitary Ball Valves

**Features and Benefits:**

- compact design for areas with tight space restrictions
- full port design offers lower pressure drop and a less turbulent flow
- balanced encapsulated construction minimizes cold-flow of seats
- precision stainless steel balls reduce torque and friction losses while extending seat life
- blow-out proof stem
- live-loaded stem packing
- ID polish is R_a 32 minimum
- pressure rating: ½" - 2" **1000 PSI WOG**, 2½" - 4" **800 PSI WOG**
- Virgin PTFE seats

Electric Actuator

- lightweight powder coated aluminum alloy housing
- NEMA 4/4X waterproof and dustproof
- extended duty cycle induction motor
- high alloy steel gear train
- H-insulation class
- visual position indication
- space heater is standard
- manual override standard: ½" - 1½"
- working temperature: **-41°F to 140°F**
- ISO 9001, CS, CE and CSA-C US Certified
- RoHS compliant



Size	A	B	C	Override	316 Stainless Steel Part # 110 VAC
½"	6.53	3.07	4.33	LEVER	BV2CV-050CC-EA
¾"	6.83	3.07	4.69	LEVER	BV2CV-075CC-EA
1"	7.96	4.25	4.89	HEX	BV2CV-100CC-EA
1½"	10.45	4.25	5.64	OPTIONAL	BV2CV-150CC-EA
2"	10.69	6.22	6.38	N/A	BV2CV-200CC-EA
2½"	13.88	7.48	7.76	HANDWHEEL	BV2CV-250CC-EA
3"	14.22	7.48	9.13	HANDWHEEL	BV2CV-300CC-EA
4"	17.7	9.06	9.56	HANDWHEEL	BV2CV-400CC-EA

• A wide variety of options are available: modulating, extra switches, transmitters, potentiometer and seat material. Contact Dixon Sanitary Engineering for further assistance.

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Pneumatically Actuated 3-Piece Stainless Ball Valves

Features and Benefits:

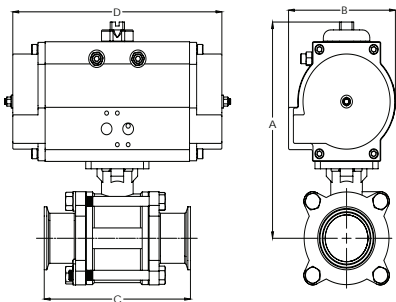
- compact design for areas with tight space restrictions
- full port design offers lower pressure drop and a less turbulent flow
- balanced encapsulated construction minimizes cold-flow of seats
- precision stainless steel balls reduce torque and friction losses while extending seat life
- blow-out proof stem
- live-loaded stem packing
- ID polish is R_a 32 minimum
- pressure rating: 1/2" - 2" **1000 PSI WOG**, 2 1/2" - 4" **800 PSI WOG**
- Virgin PTFE seats

Rack and Pinion Actuator:

- hard anodized aluminum body
- nickel plated anti-blowout pinion
- Buna-N O-rings
- NAMUR mounting
- bi-directional stops for $\pm 5^\circ$ travel adjustment
- **80 PSI** plant air required
- visual position indication
- maximum operating pressure: **120 PSI**
- operating temperature range: **-40°F to 200°F**
- tested to one million cycles

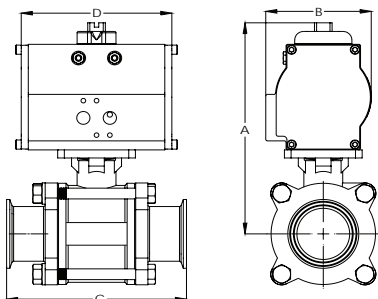


Spring Return



Size	A	B	C	D	316 Stainless Steel Part #
1/2"	5.26	3.21	4.33	6.84	BV2CV-050CC-BBC
3/4"	5.68	3.21	4.69	6.84	BV2CV-075CC-BBC
1"	6.00	3.21	4.89	6.84	BV2CV-100CC-BBC
1 1/2"	7.37	3.74	5.64	7.44	BV2CV-150CC-BBC
2"	8.64	4.66	6.38	9.28	BV2CV-200CC-BBC
2 1/2"	10.21	5.48	7.76	13.25	BV2CV-250CC-BBC
3"	10.54	5.48	9.13	13.25	BV2CV-300CC-BBC
4"	13.83	8.00	9.56	18.00	BV2CV-400CC-BBC

Double Acting



Size	A	B	C	D	316 Stainless Steel Part #
1/2"	4.93	2.90	4.33	4.73	BV2CV-050CC-BCC
3/4"	5.23	2.90	4.69	4.73	BV2CV-075CC-BCC
1"	5.98	3.23	4.89	5.58	BV2CV-100CC-BCC
1 1/2"	7.36	3.74	5.64	5.78	BV2CV-150CC-BCC
2"	7.72	3.74	6.38	5.78	BV2CV-200CC-BCC
2 1/2"	9.41	4.66	7.76	7.25	BV2CV-250CC-BCC
3"	10.54	5.48	9.13	10.63	BV2CV-300CC-BCC
4"	10.54	5.48	9.56	10.63	BV2CV-400CC-BCC

• A wide variety of seat options, switches, solenoids, positioners, etc. are available. Contact Dixon Sanitary Engineering for further assistance.

Electrically Actuated 2-Piece Stainless Ball Valves



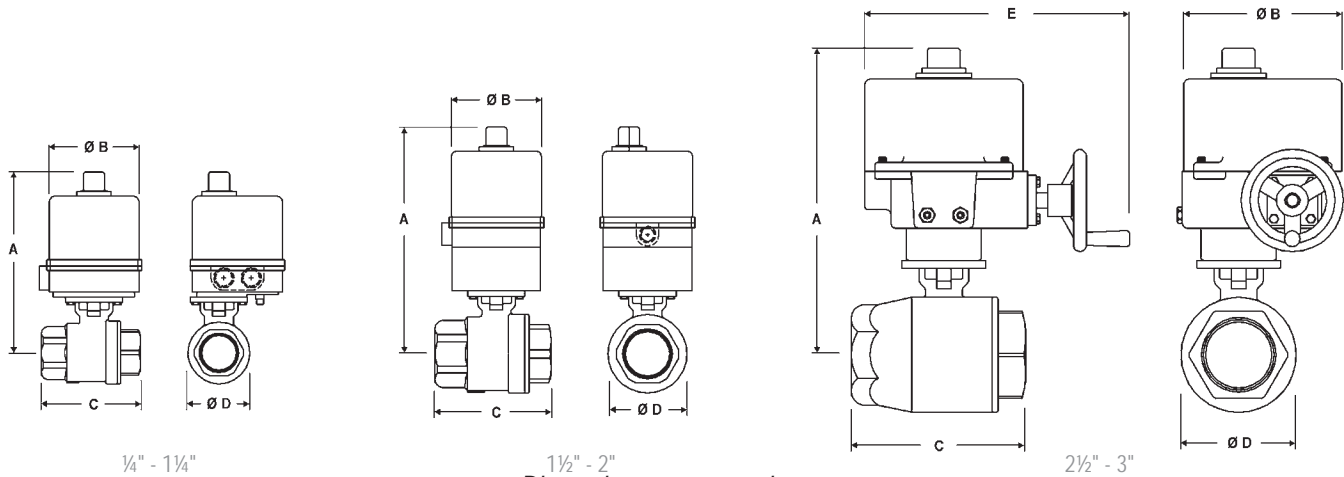
Features:

2-Piece Stainless Ball Valve

- RTFE seats and seals
- blow-out proof stem
- live-loaded stem packing
- ISO 5211 mounting pad
- pressure rating: ¼" - 2" **1000 PSI WOG**, ½" - 3" **800 PSI WOG**
- temperature range: **-40°F to 350°F**

Electric Actuator

- lightweight powder coated aluminum alloy housing
- NEMA 4/4X waterproof and dustproof
- extended duty cycle induction motor
- high alloy steel gear train
- H-insulation class
- visual position indication
- space heater is standard
- manual override standard: ½" - 1½"
- working temperature: **-41°F to 140°F**
- ISO 9001, CS, CE and CSA-C US Certified
- RoHS compliant



¼" - 1¼"

1½" - 2"

2½" - 3"

Dimensions are approximate.

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

Size	A	B	C	D	E	Override	316 Stainless Steel Part #
¼"	7.79	4.50	2.56	1.40	NA	standard	BV2HG-02511
⅜"	7.79	4.50	2.56	1.40	NA	standard	BV2HG-03811
½"	7.74	4.50	2.95	1.40	NA	standard	BV2HG-05011
¾"	7.84	4.50	3.15	1.75	NA	standard	BV2HG-07511
1"	8.09	4.50	3.54	1.75	NA	standard	BV2HG-10011
1¼"	8.29	4.50	4.33	2.58	NA	standard	BV2HG-12511
1½"	8.69	4.50	4.72	2.97	NA	N/A	BV2HG-15011
2"	11.13	4.50	5.51	2.73	NA	N/A	BV2HG-20011
2½"	13.72	7.08	7.28	4.68	12.83	handwheel	BV2HG-25011-EP¹
2½"	10.69	6.06	7.28	4.68	NA	N/A	BV2HG-25011
3"	13.72	7.08	8.07	5.44	12.83	handwheel	BV2HG-30011

¹ for 110VAC 2½" with manual override use EP

A wide variety of options are available: modulating, extra switches, transmitters, potentiometer, etc.
 Contact Dixon Sanitary at 800.789.1718 or visit dixonvalve.com for details.



Caution !



Even though there are torque safety factors built into our automated ball valve packages, actual service conditions must also be considered when selecting the proper product for the appropriate application.
 For example: Severe service conditions such as dirty water, dirty air, all slurries, raw sewage water, oils, and other viscous fluids can have a dramatic affect in raising the torque requirements of ball valves as much as 75% and therefore larger actuators may be required.
 Please consult Dixon when dealing with these types of applications.

Pneumatically Actuated 2-Piece Stainless Ball Valves

Features:

2-Piece Stainless Ball Valve

- RTFE seats and seals
- blow-out proof stem
- live-loaded stem packing
- ISO 5211 mounting pad
- pressure rating: ¼" - 2" **1000 PSI WOG**, 2½" - 3" **800 PSI WOG**
- temperature range: ¼" - 2" - **-40°F to 350°F**,
2½" - 3" **-40°F to 325°F**

Rack and Pinion Actuator

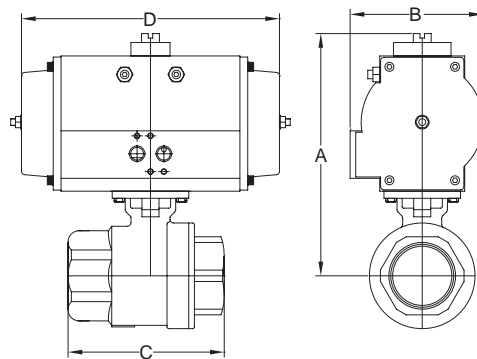
- hard anodized aluminum body
- nickel plated anti-blowout pinion
- Buna-N O-rings
- NAMUR mounting
- bi-directional stops for ±5° travel adjustment
- **80 PSI** plant air required
- visual position indication
- maximum operating pressure: **120 PSI**
- operating temperature range: **-40°F to 200°F**
- tested to one million cycles



Spring Return (normally closed)

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

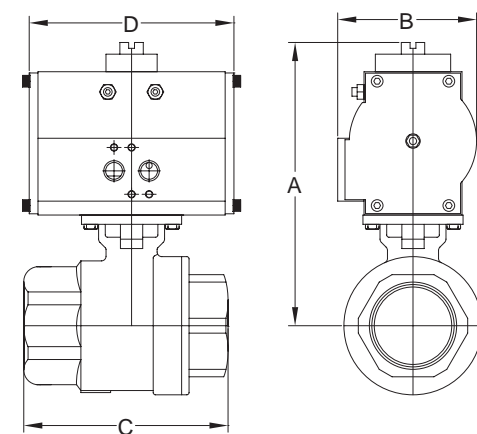
Size	A	B	C	D	316 Stainless Steel Part #
¼"	5.21	2.80	2.56	5.49	BV2HG-02511-BBC
⅜"	5.21	2.80	2.56	5.49	BV2HG-03811-BBC
½"	5.16	2.80	2.95	5.49	BV2HG-05011-BBC
¾"	5.26	2.80	3.15	5.49	BV2HG-07511-BBC
1"	6.64	3.74	3.54	8.09	BV2HG-10011-BBC
1¼"	6.84	3.74	4.33	8.09	BV2HG-12511-BBC
1½"	8.14	4.69	4.72	9.84	BV2HG-15011-BBC
2"	8.69	4.69	5.51	9.84	BV2HG-20011-BBC
2½"	9.54	5.53	7.28	13.98	BV2HG-25011-BBC
3"	11.39	7.29	8.07	16.61	BV2HG-30011-BBC



Double Acting

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

Size	A	B	C	D	316 Stainless Steel Part #
¼"	4.25	1.77	2.56	4.33	BV2HG-02511-BCC
⅜"	4.25	1.77	2.56	4.33	BV2HG-03811-BCC
½"	4.20	1.77	2.95	4.33	BV2HG-05011-BCC
¾"	4.30	1.77	3.15	4.33	BV2HG-07511-BCC
1"	5.89	3.20	3.54	5.68	BV2HG-10011-BCC
1¼"	6.09	3.20	4.33	5.68	BV2HG-12511-BCC
1½"	7.24	3.74	4.72	5.87	BV2HG-15011-BCC
2"	7.79	3.74	5.51	5.87	BV2HG-20011-BCC
2½"	8.75	4.69	7.28	7.20	BV2HG-25011-BCC
3"	10.01	5.53	8.07	10.22	BV2HG-30011-BCC



A wide variety of switches, solenoids, positioners, etc., are available.
Contact Dixon Sanitary at 800.789.1718 or visit dixonvalve.com for details.



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For example: Severe service conditions such as dirty water, dirty air, all slurries, raw sewage water, oils, and other viscous fluids can have a dramatic affect in raising the torque requirements of ball valves as much as 75% and therefore larger actuators may be required. Please consult Dixon when dealing with these types of applications.



Electrically Actuated 3-Piece Stainless Ball Valves



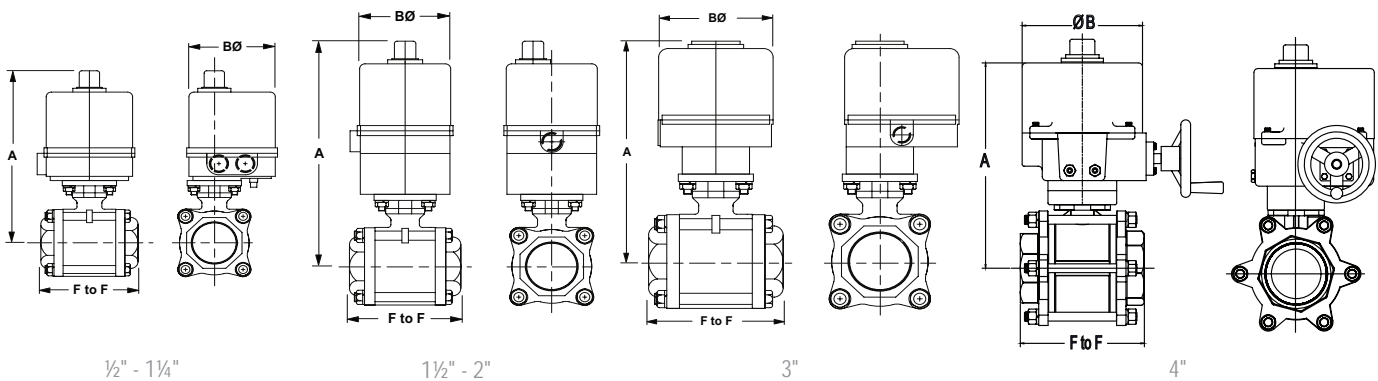
Features:

3-Piece Stainless Ball Valve

- RTFE seats
- blow-out proof stainless steel stem
- live-loaded stem packing
- ISO 5211 mounting pad
- swing out in-line easy maintenance
- ½" - 2" rated to **1000 PSI WOG**; 3" rated to **800 PSI WOG**
- temperature range: ½" - 2" - **-40°F to 350°F**,
3" - 4" **-40°F to 325°F**

Electric Actuator

- lightweight powder coated aluminum alloy housing
- NEMA 4/4X waterproof and dustproof
- extended duty cycle induction motor
- high alloy steel gear train
- H-insulation class
- visual position indication
- space heater is standard
- manual override standard: ½" - 1½"
- working temperature: **-41°F to 140°F**
- ISO 9001, CS, CE and CSA-C US Certified
- RoHS compliant



½" - 1¼"

1½" - 2"

3"

4"

Dimensions are approximate.

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

Size	F to F	A	B	Override	316 Stainless Steel Part #
½"	2.6	7.8	4.5	standard	BV2IG-05011
¾"	3.0	8.0	4.5	standard	BV2IG-07511
1"	3.4	8.3	4.5	standard	BV2IG-10011
1¼"	4.0	8.5	4.5	standard	BV2IG-12511
1½"	4.7	9.2	4.5	N/A	BV2IG-15011
2"	5.2	11.4	4.5	N/A	BV2IG-20011
3"	7.2	12.2	6.1	N/A	BV2IG-30011
4"	8.9	16.1	7.1	N/A	BV2IG-40011

A wide variety of options are available: modulating, extra switches, transmitters, potentiometer, etc.
Contact Dixon Sanitary at 800.789.1718 or visit dixonvalve.com for details.

Caution !

Even though there are torque safety factors built into our automated ball valve packages, actual service conditions must also be considered when selecting the proper product for the appropriate application.

For example: Severe service conditions such as dirty water, dirty air, all slurries, raw sewage water, oils, and other viscous fluids can have a dramatic affect in raising the torque requirements of ball valves as much as 75% and therefore larger actuators may be required. Please consult Dixon when dealing with these types of applications.

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Pneumatically Actuated 3-Piece Stainless Ball Valves

Features:

3-Piece Stainless Ball Valve

- RTFE seats
- blow-out proof stainless steel stem
- live-loaded stem packing
- ISO 5211 mounting pad
- swing out in-line easy maintenance
- ½" - 2" rated to **1000 PSI WOG**; 3" rated to **800 PSI WOG**
- temperature range: ½" - 2" - **-40°F to 350°F**,
3" - 4" - **-40°F to 325°F**

Rack and Pinion Actuator

- hard anodized aluminum body
- nickel plated anti-blowout pinion
- Buna-N O-rings
- NAMUR mounting
- bi-directional stops for $\pm 5^\circ$ travel adjustment
- **80 PSI** plant air required
- visual position indication
- maximum operating pressure: **120 PSI**
- operating temperature range: **-40°F to 200°F**
- tested to one million cycles

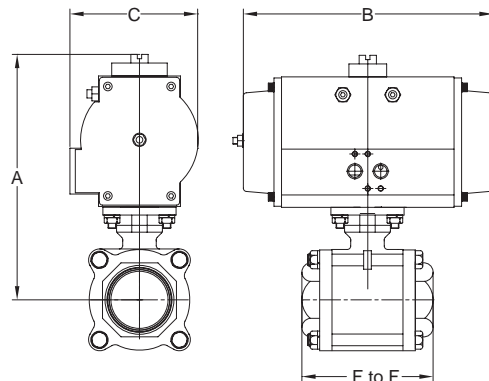


Spring Return (normally closed)

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

Size	F to F	A	B	C	316 Stainless Steel Part #
½"	2.6	7.0	7.7	3.2	BV2IG-05011-BBC¹
¾"	3.0	7.2	7.7	3.2	BV2IG-07511-BBC¹
1"	3.4	6.1	7.7	3.2	BV2IG-10011-BBC
1¼"	4.0	6.3	7.7	3.2	BV2IG-12511-BBC
1½"	4.7	7.7	8.1	3.7	BV2IG-15011-BBC
2"	5.2	8.8	8.1	3.7	BV2IG-20011-BBC
3"	7.2	10.2	9.8	4.7	BV2IG-30011-BBC
4"	8.9	12.4	10.9	5.5	BV2IG-40011-BBC

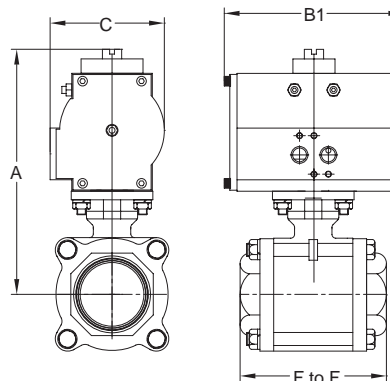
¹ bracket and coupler required for ½" and ¾" spring return actuator



Double Acting

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

Size	F to F	A	B1	C	316 Stainless Steel Part #
½"	2.6	5.0	4.7	2.4	BV2IG-05011-BCC
¾"	3.0	5.2	4.7	2.4	BV2IG-07511-BCC
1"	3.4	6.1	5.7	3.2	BV2IG-10011-BCC
1¼"	4.0	6.3	5.7	3.2	BV2IG-12511-BCC
1½"	4.7	7.7	5.9	3.7	BV2IG-15011-BCC
2"	5.2	8.0	5.9	3.7	BV2IG-20011-BCC
3"	7.2	10.2	7.2	4.7	BV2IG-30011-BCC
4"	8.9	13.8	16.3	7.2	BV2IG-40011-BCC



A wide variety of switches, solenoids, positioners, etc., are available. Contact Dixon Sanitary at 800.789.1718 or visit dixonvalve.com for details.



Caution !

Even though there are torque safety factors built into our automated ball valve packages, actual service conditions must also be considered when selecting the proper product for the appropriate application.

For example: Severe service conditions such as dirty water, dirty air, all slurries, raw sewage water, oils, and other viscous fluids can have a dramatic affect in raising the torque requirements of ball valves as much as 75% and therefore larger actuators may be required. Please consult Dixon when dealing with these types of applications.



Electrically Actuated Brass Ball Valves



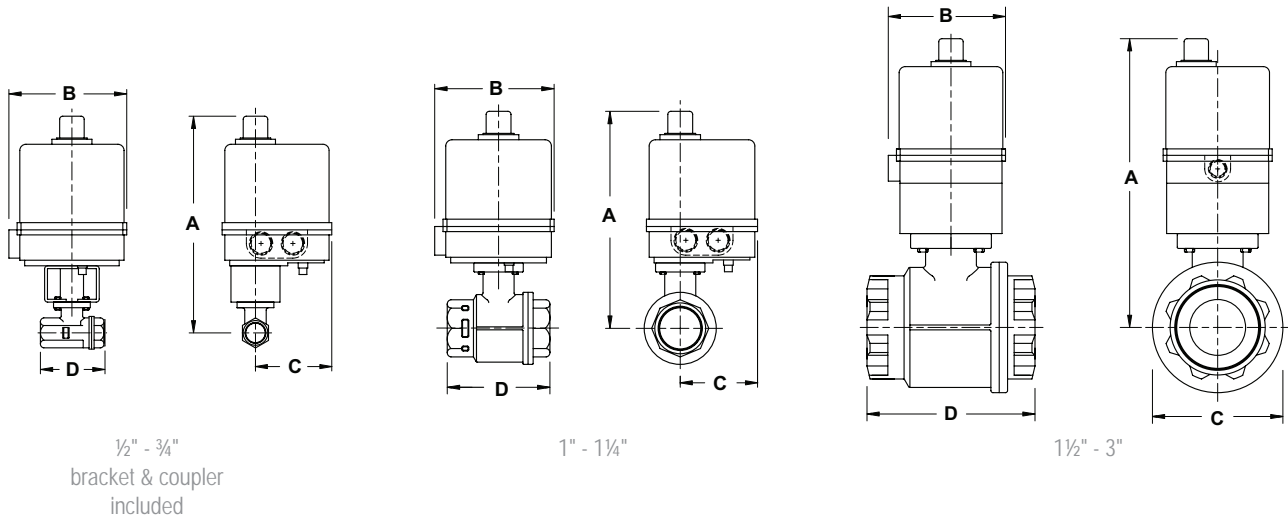
Features:

2-Piece Brass Ball Valve

- brass ball
- FKM elastomers
- blow-out proof brass stem
- PTFE seats with double O-ring stem packing
- ISO 5211 mounting pad
- pressure rating: **600 PSI WOG - 150 PSI WSP**
- maximum temperature: **300°F**

Electric Actuator

- lightweight powder coated aluminum alloy housing
- NEMA 4/4X waterproof and dustproof
- extended duty cycle induction motor
- high alloy steel gear train
- H-insulation class
- visual position indication
- space heater is standard
- manual override standard: 1/2" - 1 1/2"
- working temperature: **-41°F to 140°F**
- ISO 9001, CS, CE and CSA-C US Certified
- RoHS compliant



1/2" - 3/4"
bracket & coupler
included

1" - 1 1/4"

1 1/2" - 3"

Dimensions are approximate.

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

Size	A	B	C	D	Override	Brass Part #
1/2"	8.8	4.5	3.1	2.6	standard	BV2BV-05011
3/4"	9.2	4.5	3.1	3.0	standard	BV2BV-07511
1"	9.4	4.5	3.1	3.4	standard	BV2BV-10011
1 1/4"	9.5	4.5	3.1	3.7	standard	BV2BV-12511
1 1/2"	8.7	4.5	3.1	4.1	N/A	BV2BV-15011
2"	9.0	4.5	3.1	4.8	N/A	BV2BV-20011
3"	11.8	6.1	5.4	6.9	N/A	BV2BV-30011

A wide variety of options are available: modulating, extra switches, transmitters, potentiometer, etc.
Contact Dixon Sanitary at 800.789.1718 or visit dixonvalve.com for details.



Caution !

Even though there are torque safety factors built into our automated ball valve packages, actual service conditions must also be considered when selecting the proper product for the appropriate application.

For example: Severe service conditions such as dirty water, dirty air, all slurries, raw sewage water, oils, and other viscous fluids can have a dramatic affect in raising the torque requirements of ball valves as much as 75% and therefore larger actuators may be required. Please consult Dixon when dealing with these types of applications.



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Pneumatically Actuated Brass Ball Valves

Features:

2-Piece Brass Ball Valve

- brass ball
- FKM elastomers
- blow-out proof brass stem
- PTFE seats with double O-ring stem packing
- ISO 5211 mounting pad
- pressure rating: **600 PSI WOG - 150 PSI WSP**
- maximum temperature: **300°F**

Rack and Pinion Actuator

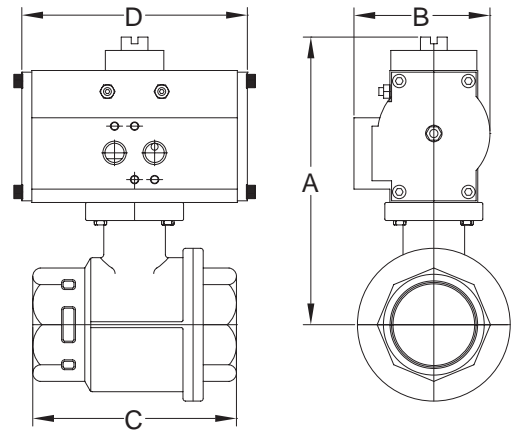
- hard anodized aluminum body
- nickel plated anti-blowout pinion
- Buna-N O-rings
- NAMUR mounting
- bi-directional stops for $\pm 5^\circ$ travel adjustment
- **80 PSI** plant air required
- visual position indication
- maximum operating pressure: **120 PSI**
- operating temperature range: **-40°F to 200°F**
- tested to one million cycles



Spring Return (normally closed)

All dimensions are given in inches, unless noted. Dimensions are approximate. Engineering dimensions are available upon request. Specifications are subject to change without notice.

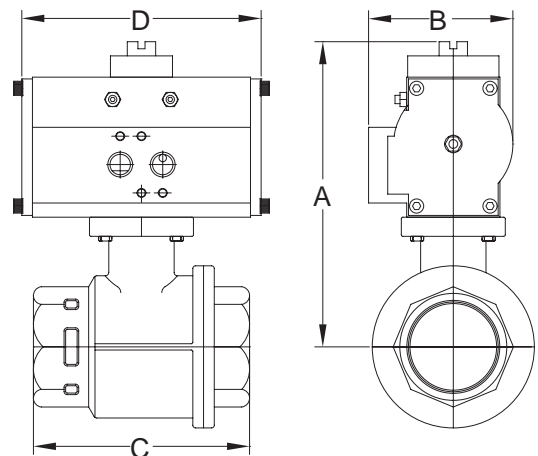
Size	A	B	C	D	Brass Part #
1/4"	4.80	2.80	2.64	5.49	BV2BV-02511-BBC
3/8"	4.80	2.80	2.64	5.49	BV2BV-03811-BBC
1/2"	4.80	2.80	2.64	5.49	BV2BV-05011-BBC
3/4"	4.88	2.80	3.00	5.49	BV2BV-07511-BBC
1"	5.31	2.80	3.35	5.49	BV2BV-10011-BBC
1 1/4"	5.45	2.80	3.66	5.49	BV2BV-12511-BBC
1 1/2"	6.04	2.80	4.13	5.49	BV2BV-15011-BBC
2"	6.40	2.80	4.80	5.49	BV2BV-20011-BBC
2 1/2"	8.13	3.74	6.10	8.09	BV2BV-25011-BBC
3"	8.50	3.74	6.89	8.09	BV2BV-30011-BBC
4"	10.14	4.69	8.03	9.84	BV2BV-40011-BBC



Double Acting

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

Size	A	B	C	D	Brass Part #
1/4"	3.84	1.77	2.64	4.33	BV2BV-02511-BCC
3/8"	3.84	1.77	2.64	4.33	BV2BV-03811-BCC
1/2"	3.84	1.77	2.64	4.33	BV2BV-05011-BCC
3/4"	3.92	1.77	3.00	4.33	BV2BV-07511-BCC
1"	4.35	1.77	3.35	4.33	BV2BV-10011-BCC
1 1/4"	4.49	1.77	3.66	4.33	BV2BV-12511-BCC
1 1/2"	6.42	3.20	4.13	5.68	BV2BV-15011-BCC
2"	6.78	3.20	4.80	5.68	BV2BV-20011-BCC
2 1/2"	8.13	3.74	6.10	5.87	BV2BV-25011-BCC
3"	8.50	3.74	6.89	5.87	BV2BV-30011-BCC
4"	10.14	4.69	8.03	7.20	BV2BV-40011-BCC



A wide variety of switches, solenoids, positioners, etc., are available. Contact Dixon Sanitary at 800.789.1718 or visit dixonvalve.com for details.



Caution !

Even though there are torque safety factors built into our automated ball valve packages, actual service conditions must also be considered when selecting the proper product for the appropriate application.

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Electrically Actuated 3-Way Stainless Ball Valves - 'T / L' Port



See page 177 for flow path options.

Customer verification is critical. If flow path needs to be changed after being shipped, labor and shipping charges will apply.

For spring return actuators: must note fail position.

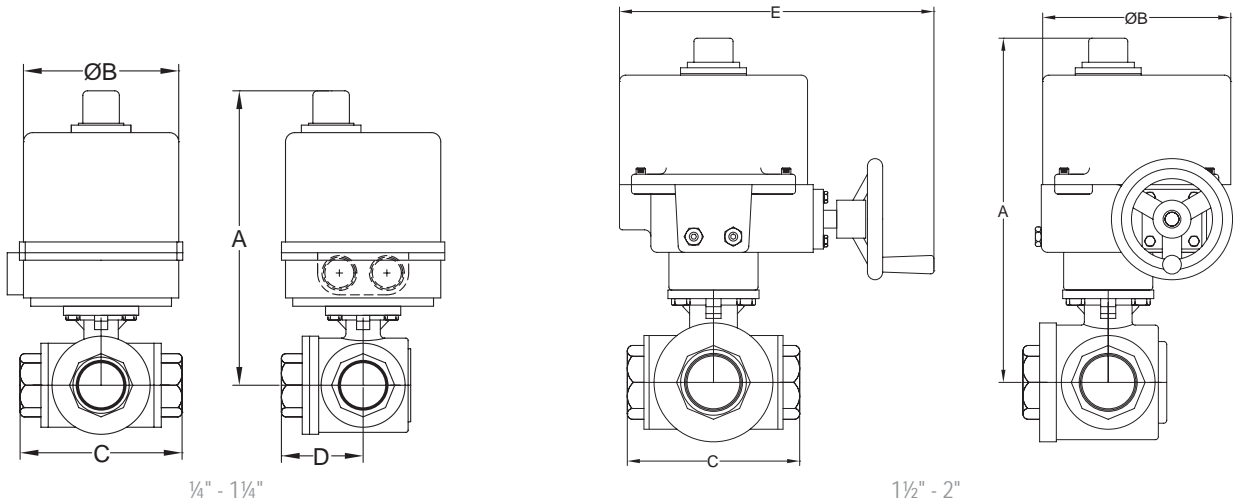
Features:

3-Way Stainless Ball Valve

- full port
- female NPT ends
- blow-out proof stem
- live-loaded stem packing
- ISO 5211 mounting pad
- 100% air tested under water at **80 PSI**
- working pressure: ¼" to 1": **1000 PSI**;
1¼" to 2": **800 PSI**
- temperature range: **-20°F to 300°F**

Electric Actuator

- lightweight powder coated aluminum alloy housing
- NEMA 4/4X waterproof and dustproof
- extended duty cycle induction motor
- high alloy steel gear train
- H-insulation class
- visual position indication
- space heater is standard
- manual override standard: ½" - 1½"
- working temperature: **-41°F to 140°F**
- ISO 9001, CS, CE and CSA-C US Certified
- RoHS compliant



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

* T = t style
* L = l style

Size	A	B	C	D	E	Override	316 Stainless Steel Part #
¼"	9.01	6.06	2.83	1.41	N/A	standard	BV3IG*F-0251
⅜"	9.01	6.06	2.83	1.41	N/A	standard	BV3IG*F-0381
½"	9.21	6.06	3.26	1.63	N/A	standard	BV3IG*F-0501
¾"	9.21	6.06	3.89	1.94	N/A	standard	BV3IG*F-0751
1"	9.74	6.06	4.40	2.20	N/A	standard	BV3IG*F-1001
1¼"	10.04	6.06	4.92	2.46	N/A	standard	BV3IG*F-1251
1½"	12.92	7.87	5.86	2.93	12.99	handwheel	BV3IG*F-1501
2"	13.67	7.87	6.85	3.42	12.99	handwheel	BV3IG*F-2001

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T

Pneumatically Actuated 3-Way Stainless Ball Valves - 'T / L' Port

Features:

3-Way Stainless Ball Valve

- full port
- female NPT ends
- RTFE Seats
- blow-out proof stem
- live-loaded stem packing
- ISO 5211 mounting pad
- 100% air tested under water at **80 PSI**
- working pressure: ¼" to 1": **1000 PSI**;
1¼" to 2": **800 PSI**
- temperature range: **-20°F to 300°F**

Rack and Pinion Actuator

- hard anodized aluminum body
- nickel plated anti-blowout pinion
- Buna-N O-rings
- NAMUR mounting
- bi-directional stops for ±5° travel adjustment
- **80 PSI** plant air required
- visual position indication
- maximum operating pressure: **120 PSI**
- operating temperature range: **-40°F to 200°F**
- tested to one million cycles

See page 177 for flow path options.

Customer verification is critical. If flow path needs to be changed after being shipped, labor and shipping charges will apply.

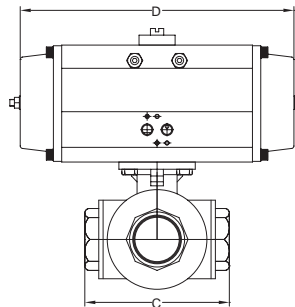
For spring return actuators: must note fail position.



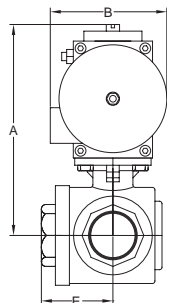
Spring Return (normally closed)

All dimensions are given in inches, unless noted. Dimensions are approximate. Engineering dimensions are available upon request. Specifications are subject to change without notice.

Size	A	B	C	D	E	316 Stainless Steel Part #
¼"	5.35	3.20	2.83	7.10	1.41	BV3IG*F-0251BBC
⅜"	5.35	3.20	2.83	7.10	1.41	BV3IG*F-0381BBC
½"	5.55	3.20	3.26	7.10	1.63	BV3IG*F-0501BBC
¾"	6.30	3.74	3.89	7.45	1.94	BV3IG*F-0751BBC
1"	6.83	3.74	4.40	7.45	2.20	BV3IG*F-1001BBC
1¼"	7.13	3.74	4.92	7.45	2.46	BV3IG*F-1251BBC
1½"	8.43	4.69	5.86	9.10	2.93	BV3IG*F-1501BBC
2"	9.97	5.53	6.85	12.99	3.42	BV3IG*F-2001BBC



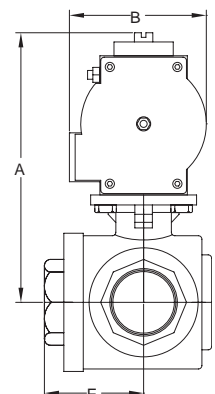
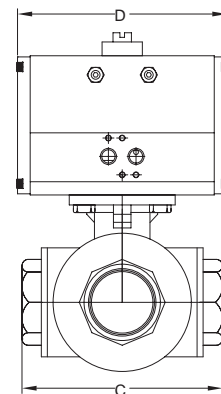
* T = t-style
* L = l-style



Double Acting

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

Size	A	B	C	D	E	316 Stainless Steel Part #
¼"	5.35	3.20	2.83	7.10	1.41	BV3IG*F-0251BCC
⅜"	5.35	3.20	2.83	7.10	1.41	BV3IG*F-0381BCC
½"	5.55	3.20	3.26	7.10	1.63	BV3IG*F-0501BCC
¾"	6.30	3.74	3.89	7.45	1.94	BV3IG*F-0751BCC
1"	6.83	3.74	4.40	7.45	2.20	BV3IG*F-1001BCC
1¼"	7.13	3.74	4.92	7.45	2.46	BV3IG*F-1251BCC
1½"	8.43	4.69	5.86	9.10	2.93	BV3IG*F-1501BCC
2"	9.97	5.53	6.85	12.99	3.42	BV3IG*F-2001BCC



A wide variety of switches, solenoids, positioners, etc., are available. Contact Dixon Sanitary at 800.789.1718 or visit dixonvalve.com for details.



Caution !

Even though there are torque safety factors built into our automated ball valve packages, actual service conditions must also be considered when selecting the proper product for the appropriate application.

For example: Severe service conditions such as dirty water, dirty air, all slurries, raw sewage water, oils, and other viscous fluids can have a dramatic affect in raising the torque requirements of ball valves as much as 75% and therefore larger actuators may be required. Please consult Dixon when dealing with these types of applications.



Electrically Actuated 3-Way Brass Ball Valves - 'T / L' Port



See page 177 for flow path options.

Customer verification is critical. If flow path needs to be changed after being shipped, labor and shipping charges will apply.

For spring return actuators: must note fail position.

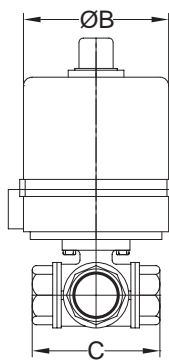
Features:

3-Way Brass Ball Valve

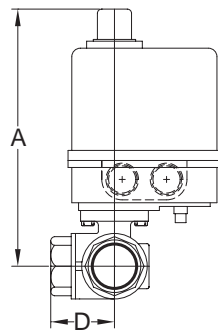
- reduced port
- blow-out proof stem
- chrome-plated brass ball
- PTFE seats with O-ring backing for low operating torque
- ISO 5211 mounting pad
- 100% tested
- pressure rating: **400 PSI WOG 100 PSI WSP**
- maximum temperature: **300°F**

Electric Actuator

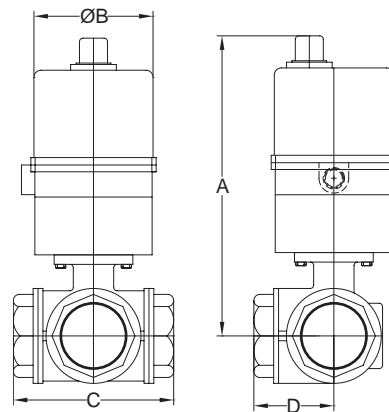
- lightweight powder coated aluminum alloy housing
- NEMA 4/4X waterproof and dustproof
- extended duty cycle induction motor
- high alloy steel gear train
- H-insulation class
- visual position indication
- space heater is standard
- manual override standard: 1/2" - 1 1/2"
- working temperature: **-41°F to 140°F**
- ISO 9001, CS, CE and CSA-C US Certified
- RoHS compliant



1/4" - 1 1/4"



1 1/2" - 3"



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

* T = t-style
* L = l-style

Size	A	B	C	D	Override	Brass Part #
1/4"	8.76	6.06	2.64	1.32	standard	BV3BV*R-0251
3/8"	8.76	6.06	2.64	1.32	standard	BV3BV*R-0381
1/2"	8.76	6.06	2.87	1.44	standard	BV3BV*R-0501
3/4"	8.85	6.06	3.19	1.60	standard	BV3BV*R-0751
1"	9.19	6.06	3.74	1.87	standard	BV3BV*R-1001
1 1/4"	9.41	6.06	4.39	2.20	standard	BV3BV*R-1251
1 1/2"	9.90	6.06	4.86	2.43	N/A	BV3BV*R-1501
2"	10.89	4.25	5.73	2.87	N/A	BV3BV*R-2001
2 1/2"	11.34	4.25	6.93	3.47	N/A	BV3BV*R-2501
3"	11.34	4.25	7.08	3.54	N/A	BV3BV*R-3001

A wide variety of options are available: modulating, extra switches, transmitters, potentiometer, etc. Contact Dixon Sanitary at 800.789.1718 or visit dixonvalve.com for details.



Caution !

Even though there are torque safety factors built into our automated ball valve packages, actual service conditions must also be considered when selecting the proper product for the appropriate application.

For example: Severe service conditions such as dirty water, dirty air, all slurries, raw sewage water, oils, and other viscous fluids can have a dramatic affect in raising the torque requirements of ball valves as much as 75% and therefore larger actuators may be required. Please consult Dixon when dealing with these types of applications.



T

Pneumatically Actuated 3-Way Brass Ball Valves - 'T / L' Port

Features:

3-Way Brass Ball Valve

- reduced port
- blow-out proof stem
- chrome-plated brass ball
- PTFE seats with O-ring backing for low operating torque
- ISO 5211 mounting pad
- 100% tested
- pressure rating: **400 PSI WOG 100 PSI WSP**
- maximum temperature: **300°F**

Rack and Pinion Actuator

- hard anodized aluminum body
- nickel plated anti-blowout pinion
- Buna-N O-rings
- NAMUR mounting
- bi-directional stops for $\pm 5^\circ$ travel adjustment
- 80 PSI plant air required
- visual position indication
- maximum operating pressure: **120 PSI**
- operating temperature range: **-40°F to 200°F**
- tested to one million cycles

See page 177 for flow path options.

Customer verification is critical. If flow path needs to be changed after being shipped, labor and shipping charges will apply.

For spring return actuators: must note fail position.

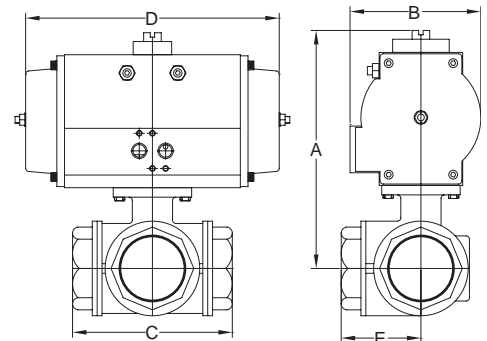


Spring Return (normally closed)

All dimensions are given in inches, unless noted. Dimensions are approximate. Engineering dimensions are available upon request. Specifications are subject to change without notice.

* T = t-style
* L = l-style

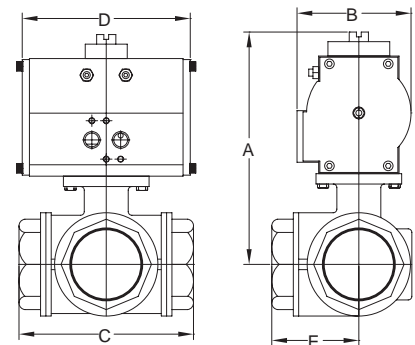
Size	A	B	C	D	E	Brass Part #
1/4"	4.72	2.80	2.64	5.49	1.32	BV3BV*R-0251BBC
3/8"	4.72	2.80	2.64	5.49	1.32	BV3BV*R-0381BBC
1/2"	4.72	2.80	2.87	5.49	1.44	BV3BV*R-0501BBC
3/4"	4.81	2.80	3.19	5.49	1.60	BV3BV*R-0751BBC
1"	6.28	3.74	3.74	7.45	1.87	BV3BV*R-1001BBC
1 1/4"	6.50	3.74	4.39	7.45	2.20	BV3BV*R-1251BBC
1 1/2"	6.99	3.74	4.86	7.45	2.43	BV3BV*R-1501BBC
2"	8.45	4.69	5.73	9.10	2.87	BV3BV*R-2001BBC
2 1/2"	8.90	4.69	6.93	9.10	3.47	BV3BV*R-2501BBC
3"	8.90	4.69	7.08	9.10	3.54	BV3BV*R-3001BBC



Double Acting

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

Size	A	B	C	D	E	Brass Part #
1/4"	3.76	1.77	2.64	4.33	1.32	BV3BV*R-0251BCC
3/8"	3.76	1.77	2.64	4.33	1.32	BV3BV*R-0381BCC
1/2"	3.76	1.77	2.87	4.33	1.44	BV3BV*R-0501BCC
3/4"	3.85	1.77	3.19	4.33	1.60	BV3BV*R-0751BCC
1"	5.53	3.20	3.74	5.32	1.87	BV3BV*R-1001BCC
1 1/4"	5.75	3.20	4.39	5.32	2.20	BV3BV*R-1251BCC
1 1/2"	6.24	3.20	4.86	5.32	2.43	BV3BV*R-1501BCC
2"	7.55	3.74	5.73	5.51	2.87	BV3BV*R-2001BCC
2 1/2"	8.00	3.74	6.93	5.51	3.47	BV3BV*R-2501BCC
3"	8.00	3.74	7.08	5.51	3.54	BV3BV*R-3001BCC



A wide variety of switches, solenoids, positioners, etc., are available. Contact Dixon Sanitary at 800.789.1718 or visit dixonvalve.com for details.



Caution !

Even though there are torque safety factors built into our automated ball valve packages, actual service conditions must also be considered when selecting the proper product for the appropriate application.
 For example: Severe service conditions such as dirty water, dirty air, all slurries, raw sewage water, oils, and other viscous fluids can have a dramatic affect in raising the torque requirements of ball valves as much as 75% and therefore larger actuators may be required. Please consult Dixon when dealing with these types of applications.



Ball Valve Automation Examples



Features:

- 2-way ball valve
- stainless steel, encapsulated, full port, PTFE
- clamp x clamp, manual handle
- NEMA 4 SPDT limit switch with 2 mechanical switches



Features:

- 2-way ball valve
- stainless steel, encapsulated, full port, PTFE
- clamp x clamp, rack and pinion, aluminum actuator, spring return, normally closed
- NEMA 4 SPDT limit switch with 2 mechanical switches



Features:

- 2-way ball valve
- stainless steel, encapsulated, full port, PTFE
- butt-weld x butt-weld, rack and pinion, aluminum actuator, spring return, normally closed
- NEMA 7 120VAC Namur mount solenoid, NEMA 7 SPDT limit switch with 2 mechanical switches



Features:

- 3-way ball valve
- T pattern, brass industrial, FNPT, PTFE, reduced port
- NEMA 4/4x 120VAC electric actuator



Features:

- 3-way ball valve
- L pattern, stainless steel, full port, PTFE
- clamp ends, rack and pinion, aluminum actuator, double acting
- NEMA 4 24VDC Namur mount solenoid, NEMA 4 SPDT limit switch with 2 mechanical switches

T

Dixon Sanitary Butterfly Valves

Product Specifications

Size range:

- ½" - 8" OD tube

Sanitary Valve Materials:

- 316 stainless steel

Seat Materials:

- Silicone
- EPDM
- FKM

Finish:

- 32R_a sanitary finish ID and OD

Butterfly Valve Selection



Index

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Butterfly Valve Automation.....	209	B51 series.....	212-213

B5101 Series **Butterfly Valves**

Product Specifications



Features:

- 100% hydraulic tested / 100% inspected
- all wetted surfaces are sanitary finished to < 32R_a
- field serviceable (no special tools required)
- seat materials available include: silicone, EPDM, FKM, (6" EPDM and silicone, 8" EPDM only)
- vacuum rating: 0.4 inches Hg at 68°F
- operating temperature range: **15°F to 200°F**

Information supplied based on water media @ 68°F

Size	Break Torque (in. lbs.) silicone	Break Torque (in. lbs.) EPDM	Break Torque (in. lbs.) FKM	Pressure Rating (PSI)	Flow Coefficient (CV)	Weight w/standard handle (lbs.)
½"	20	75	70	140	7	2.2
¾"	20	75	70	140	11	2.2
1"	20	75	70	140	23	2.2
1½"	40	130	125	140	80	2.9
2"	55	165	175	140	230	3.5
2½"	70	210	220	110	264	3.7
3"	165	350	310	110	372	4.4
4"	350	540	450	85	800	9.0
6"	700	1550	n/a	60	1200	18.5
8"	n/a	1650	n/a	60	2800	13.6

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

B5101 Series Butterfly Valve with Pull Handle

Part Numbers Clamp End

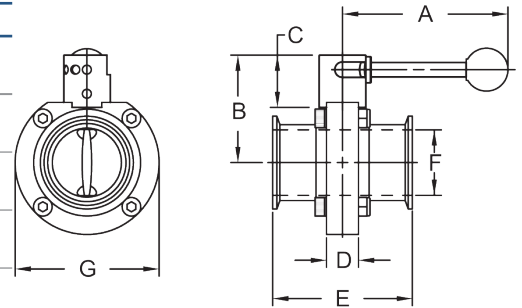
Size	316 stainless steel with Silicone seats	316 stainless steel with EPDM seats	316 stainless steel with FKM seats
1/2"	B5101S050CC-A	B5101E050CC-A	B5101V050CC-A
3/4"	B5101S075CC-A	B5101E075CC-A	B5101V075CC-A
1"	B5101S100CC-A	B5101E100CC-A	B5101V100CC-A
1 1/2"	B5101S150CC-A	B5101E150CC-A	B5101V150CC-A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

¹ high pressure 4" butterfly is available, call Dixon Sanitary for more information
 Note: Handle is not assembled when shipped. Please request with handle assembled on the valve when placing your order.



Dimensions

Size	A	B	C	D	E	F	G
1/2"	4.4	2.8	1.4	0.9	3.5	.37	3.1
3/4"	4.4	2.8	1.4	0.9	3.5	.62	3.1
1"	4.4	2.8	1.4	0.9	3.5	0.9	3.1
1 1/2"	4.4	2.8	1.4	0.9	3.5	1.4	3.1
2"	4.4	3.1	1.4	0.9	3.8	1.9	3.9
2 1/2"	4.4	3.5	1.4	0.9	3.8	2.4	4.6
3"	6.2	3.8	1.3	1.2	4.1	2.9	5.2
4"	6.2	4.5	1.3	1.2	4.8	3.8	6.7
6"	11.5	5.5	1.3	1.2	5.5	5.8	8.5
8"	18.0	6.9	1.6	1.2	4.9	7.8	11.2



B5101 Series Butterfly Valve with Pull Handle

Part Numbers Weld End

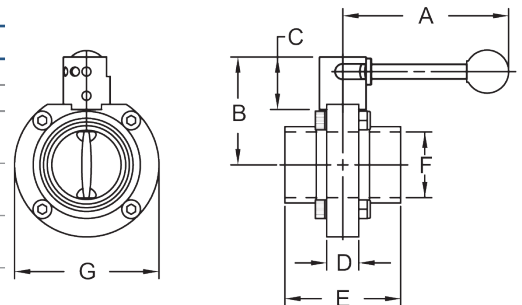
Size	316 stainless steel with Silicone seats	316 stainless steel with EPDM seats	316 stainless steel with FKM seats
1/2"	B5101S050BB-A	B5101E050BB-A	B5101V050BB-A
3/4"	B5101S075BB-A	B5101E075BB-A	B5101V075BB-A
1"	B5101S100BB-A	B5101E100BB-A	B5101V100BB-A
1 1/2"	B5101S150BB-A	B5101E150BB-A	B5101V150BB-A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

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



Dimensions

Size	A	B	C	D	E	F	G
1/2"	4.3	2.6	1.3	0.9	1.9	.37	3.1
3/4"	4.3	2.6	1.3	0.9	1.9	.62	3.1
1"	4.4	2.8	1.4	0.9	1.9	0.9	3.1
1 1/2"	4.4	2.8	1.4	0.9	1.9	1.4	3.1
2"	4.4	3.1	1.4	0.9	2.0	1.9	3.9
2 1/2"	4.4	3.5	1.4	0.9	2.1	2.4	4.6
3"	6.2	3.8	1.3	1.2	2.5	2.9	5.2
4"	6.2	4.5	1.3	1.2	3.1	3.8	6.7
6"	11.5	5.5	1.3	1.2	5.5	5.8	8.5
8"	18.0	6.9	1.6	1.2	4.9	7.8	11.2



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

B5101 Series Butterfly Valve with Infinite Handle

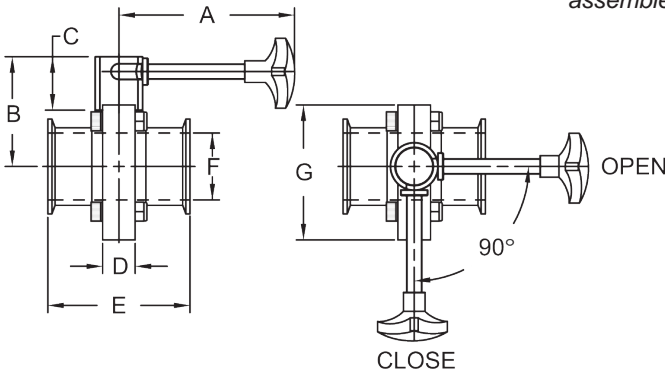
Clamp End



Part Numbers

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

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



Dimensions

Size	A	B	C	D	E	F	G
½"	4.3	2.6	1.3	0.9	3.5	0.37	3.1
¾"	4.3	2.6	1.3	0.9	3.5	0.62	3.1
1"	4.3	2.6	1.3	0.9	3.5	0.9	3.1
1½"	4.3	2.6	1.3	0.9	3.5	1.4	3.1
2"	4.3	2.9	1.3	0.9	3.8	1.9	3.1
2½"	4.3	3.3	1.3	0.9	3.8	2.4	4.6
3"	6.4	3.6	1.3	1.2	4.1	2.9	5.2
4"	6.4	4.4	1.3	1.2	4.8	3.8	6.7

B5101 Series Butterfly Valve with Infinite Handle

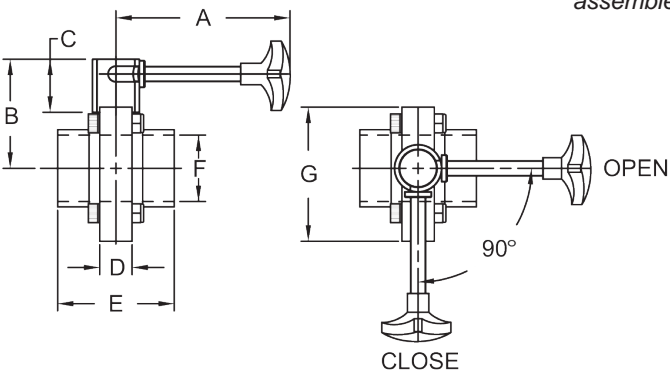
Weld End



Part Numbers

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

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



Dimensions

Size	A	B	C	D	E	F	G
½"	4.3	2.6	1.3	0.9	1.9	0.37	3.1
¾"	4.3	2.6	1.3	0.9	1.9	0.62	3.1
1"	4.3	2.6	1.3	0.9	1.9	0.9	3.1
1½"	4.3	2.6	1.3	0.9	1.9	1.4	3.1
2"	4.3	2.9	1.3	0.9	2.0	1.9	3.1
2½"	4.3	3.3	1.3	0.9	2.1	2.4	4.6
3"	6.4	3.6	1.3	1.2	2.5	2.9	5.2
4"	6.4	4.4	1.3	1.2	3.1	3.8	6.7

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

U

B5101 Series Butterfly Valve with Trigger Handle

Clamp End

Feature:

- lockout / tagout handle

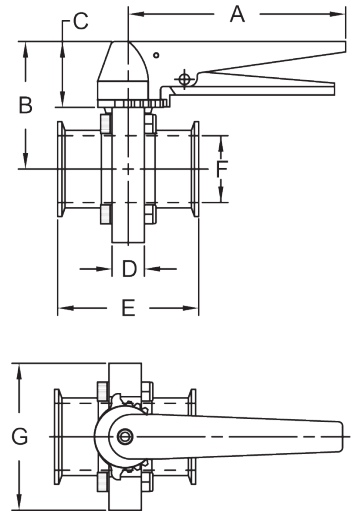
Part Numbers

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

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

Dimensions

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

**B5101 Series Butterfly Valve with Trigger Handle**

Weld End

Feature:

- lockout / tagout handle

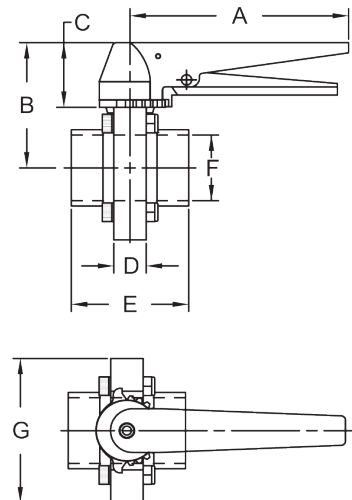
Part Numbers

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

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

Dimensions

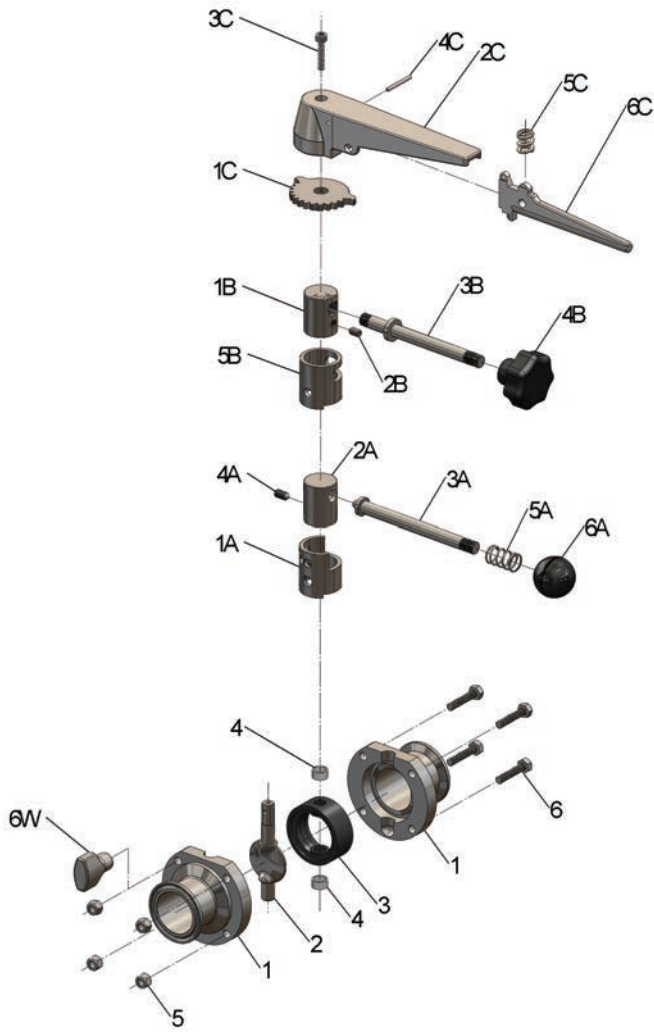
Size	A	B	C	D	E	F	G
½"	6.6	3.0	1.7	0.9	1.9	0.37	3.1
¾"	6.6	3.0	1.7	0.9	1.9	0.62	3.1
1"	6.6	3.0	1.7	0.9	1.9	0.9	3.1
1½"	6.6	3.0	1.7	0.9	1.9	1.4	3.1
2"	6.6	3.5	1.7	0.9	2.0	1.9	3.9
2½"	6.6	3.7	1.7	0.9	2.1	2.4	4.6
3"	6.6	3.9	1.7	1.2	2.5	2.9	5.2
4"	6.6	4.8	1.7	1.2	3.1	2.9	6.7



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

B5101 Series Butterfly Valves

Bill of Materials



Item	Description	Material	Quantity
Trigger Handle			
1C	sprocket	CF8	1
2C	handle	CF8	1
3C	hex socket bolt	304	1
4C	pin	304	1
5C	spring	304	1
6C	trigger	CF8	1
Infinite Handle			
1B	hub	CF8	1
2B	hex socket screw	304	1
3B	handle shaft	304	1
4B	knob	polymer	1
5B	hub housing	CF8	1
Pull Handle			
1A	hub housing	CF8	1
2A	hub	CF8	1
3A	handle shaft	304	1
4A	hex socket screw	304	1
5A	spring	304	1
6A	knob	polymer	1
Valve			
1	body half	316	2
2	disc	316	1
3	seat	silicone EPDM FKM	1
4	bushing	polyacetal	2
5	hex nut	304	4 *
6	bolt	304	4 *
6W	optional wing nut	304	4 *

* 4" and 8" valves have 6 bolts and nuts
6" valve has 8 bolts and nuts

Repair Kits

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

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



B5102 Series Butterfly Valves

Product Specifications

Information supplied based on water media @ 68°F

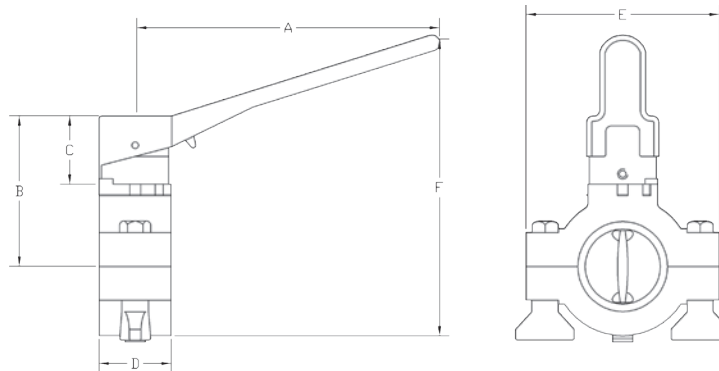
Size	Break Torque (in-lbs.)	Assembly Torque (in-lbs.)	Pressure Rating (PSI)	Flow Coefficient (C _v)	Weight w/ standard handle (lbs.)
1"	125	36	140	23	1.5
1½"	185	36	140	80	2
2"	200	21.6	120	230	2.5
2½"	260	21.6	120	264	3
3"	350	28.8	100	372	4
4"	495	43.2	70	800	6

Features:

- all wetted surfaces are sanitary finish 316L stainless steel
- all sizes use only ¾" 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
- field serviceable (no special tools required)
- seat materials available include: silicone, EPDM, FKM
- can be modified for lockout / tagout
- various automatic operations available
- vacuum rating: 0.4 inches Hg @ 68°F
- operating temperature range: 15°F to 200°F

Part Numbers

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



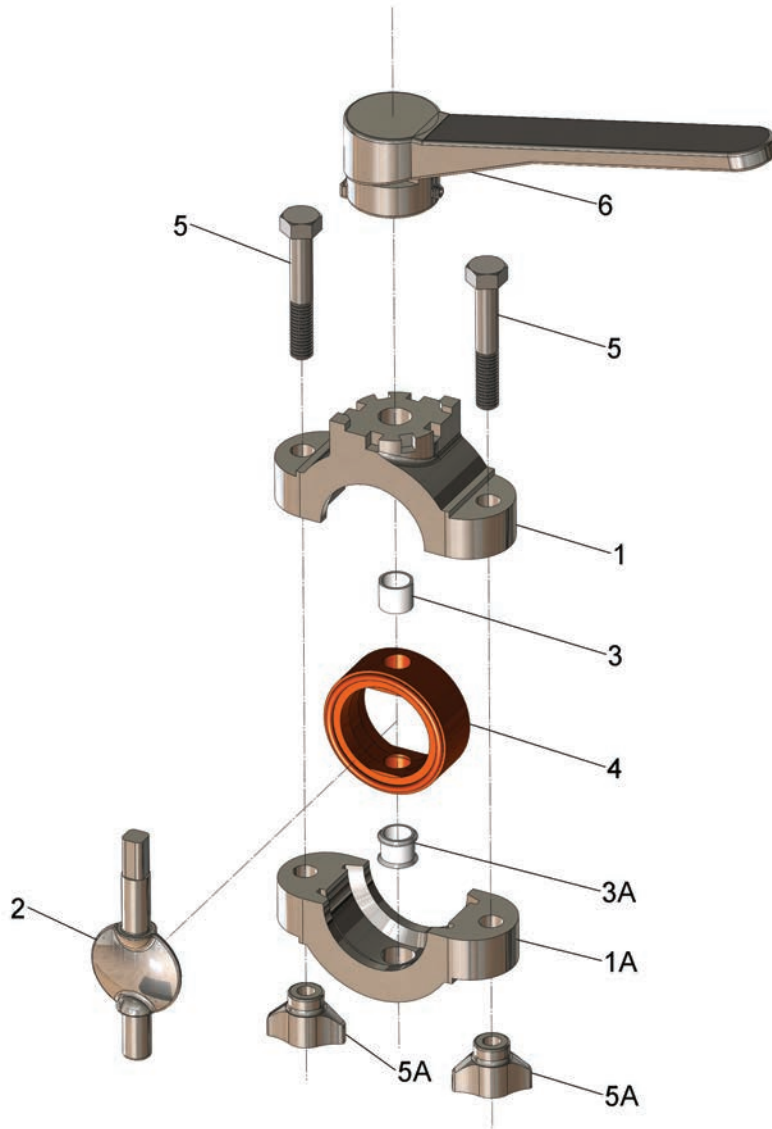
Dimensions

Size	A	B	C	D	E	F
1"	5.6	2.8	1.3	1.3	3.6	5.6
1½"	5.6	2.8	1.3	1.3	3.6	5.6
2"	5.6	3.0	1.3	1.3	4.1	6.1
2½"	5.6	3.3	1.3	1.3	4.6	6.6
3"	5.6	3.6	1.3	1.3	5.3	7.1
4"	5.6	4.1	1.3	1.3	6.4	8.2

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

B5102 Series Butterfly Valves

Bill of Materials



Item #	Description	Material	Quantity
1	upper body half	CF8, stainless	1
1A	lower body half	CF8, stainless	1
2	disc	316L stainless	1
3	upper bushing	PTFE	1
3A	lower bushing	PTFE	1
4	seat	silicone, EPDM, FKM	1
5	bolts	304 stainless	2
5A	wing nuts	304 stainless	2
6	handle	CF8, Stainless	1

Repair Kits

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

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

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Butterfly Valve Automation

Butterfly Valve with Stainless Steel Vertical Spring Return Actuation

- Silicone and FKM elastomers also available
- other end configurations are available
- Each pneumatically actuated butterfly valve is shipped fully assembled, including pneumatic actuator and mounting bracket assembly.

Butterfly Valve with EPDM seats and a vertical spring return normally closed pneumatic canister style actuator

Valve Size	Valve Style	
	B5101	B5102
½"	B5101E050CC-G	n/a
¾"	B5101E075CC-G	n/a
1"	B5101E100CC-G	B5102E100-G
1½"	B5101E150CC-G	B5102E150-G
2"	B5101E200CC-G	B5102E200-G
2½"	B5101E250CC-G	B5102E250-G
3"	B5101E300CC-G	B5102E300-G
4"	B5101E400CC-G	B5102E400-G

Butterfly Valve with EPDM seats and a vertical spring return normally open pneumatic canister style actuator

Valve Size	Valve Style	
	B5101	B5102
½"	B5101E050CC-F	n/a
¾"	B5101E075CC-F	n/a
1"	B5101E100CC-F	B5102E100-F
1½"	B5101E150CC-F	B5102E150-F
2"	B5101E200CC-F	B5102E200-F
2½"	B5101E250CC-F	B5102E250-F
3"	B5101E300CC-F	B5102E300-F
4"	B5101E400CC-F	B5102E400-F

Butterfly Valve with EPDM seats and a vertical double acting pneumatic canister style actuator

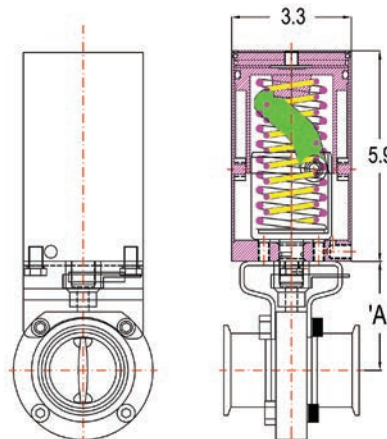
Valve Size	Valve Style	
	B5101	B5102
½"	B5101E050CC-H	n/a
¾"	B5101E075CC-H	n/a
1"	B5101E100CC-H	B5102E100-H
1½"	B5101E150CC-H	B5102E150-H
2"	B5101E200CC-H	B5102E200-H
2½"	B5101E250CC-H	B5102E250-H
3"	B5101E300CC-H	B5102E300-H
4"	B5101E400CC-H	B5102E400-H



Dimensions

Dimension 'A'

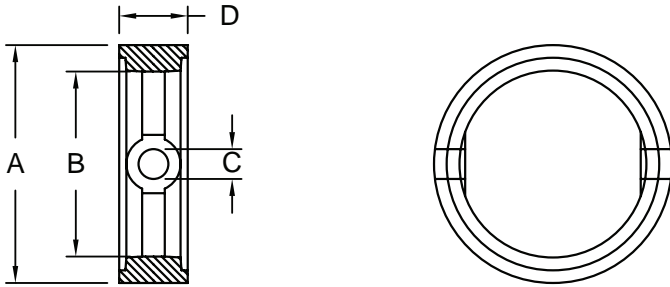
Valve Size	Valve Style	
	B5101	B5102
½" - 1"	2.7	2.5
1½"	2.7	2.5
2"	3.1	2.9
2½"	3.5	3.2
3"	3.7	3.4
4"	4.5	4.0



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

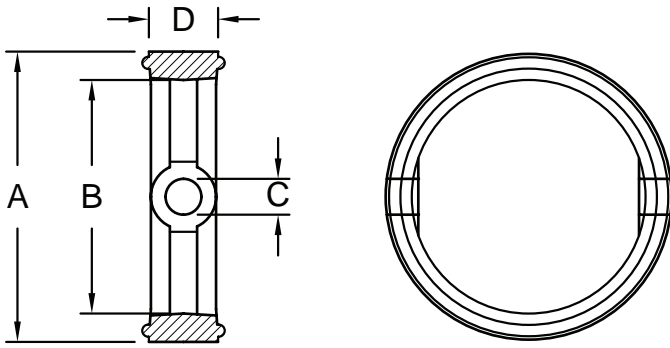
Butterfly Valve Seat

Dimensions



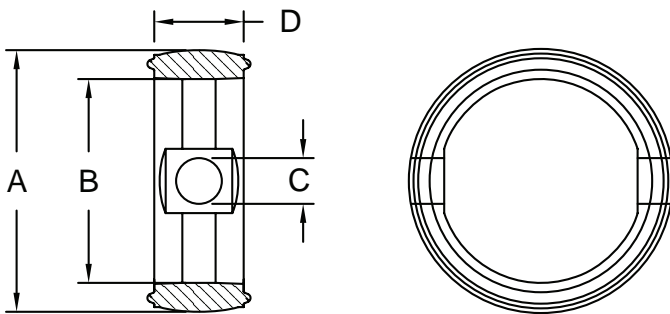
B5101 Seat Dimensions

Size	A	B	C	D
1/2" - 1"	1.42	0.83	0.37	0.77
1 1/2"	1.93	1.34	0.37	0.77
2"	2.56	1.73	0.37	0.78
2 1/2"	3.03	2.35	0.46	0.91
3"	3.66	2.80	0.55	1.10
4"	4.96	3.86	0.62	1.43
6"	6.83	5.79	0.62	1.70
8"	9.32	7.89	0.67	1.59



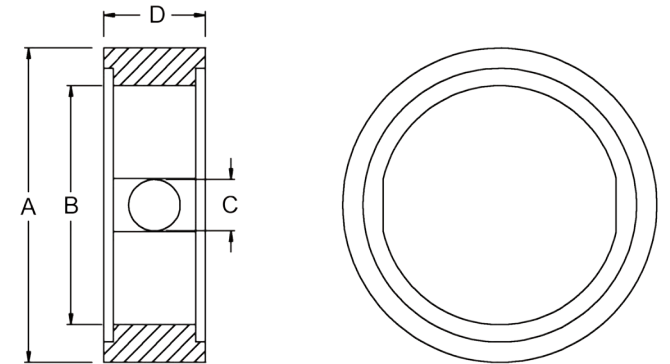
B5102 Seat Dimensions

Size	A	B	C	D
1"	1.87	0.86	0.37	0.66
1 1/2"	1.87	1.32	0.37	0.66
2"	2.42	1.89	0.37	0.66
2 1/2"	2.94	2.30	0.37	0.66
3"	3.44	2.83	0.43	0.66
4"	4.52	3.81	0.43	0.66



B5104 Seat Dimensions

Size	A	B	C	D
1"	1.41	0.83	0.43	0.83
1 1/2"	2.21	1.36	0.43	0.85
2"	2.48	1.93	0.43	0.85
2 1/2"	3.04	2.34	0.43	0.85
3"	3.50	2.84	0.43	0.85
4"	4.61	3.84	0.43	0.85



B5115 Seat Dimensions

Size	A	B	C	D
1"	1.476	0.866	0.374	0.846
1 1/2"	2.047	1.417	0.354	0.736
2"	2.637	2.007	0.433	0.854
2 1/2"	3.070	2.382	0.433	0.933
3"	3.543	2.834	0.433	0.906
4"	4.763	3.976	0.496	1.102

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Butterfly Valve Automation Examples



Features:

- B5101 butterfly valve, clamp x clamp, stainless steel vertical canister, spring return, normally closed
- (1) 10-30VDC proximity sensor



Features:

- B5101 butterfly valve, clamp x clamp, stainless steel vertical canister, double acting



Features:

- B5102 butterfly valve, stainless steel horizontal actuator, double acting
- NEMA 4/4X 3-15PSI pneumatic positioner



Features:

- B5101 butterfly valve, clamp x clamp, stainless steel rack and pinion actuator, spring return
- NEMA 4/4X 3-15PSI pneumatic positioner



Features:

- B5101 butterfly valve, clamp x clamp
- standard 4-position handle with a NEMA 4 SPDT limit switch with 2 mechanical switches

B51 Series Industrial Butterfly Valves

Product Specifications



Lug Butterfly Valve



Wafer Butterfly Valve

Features:

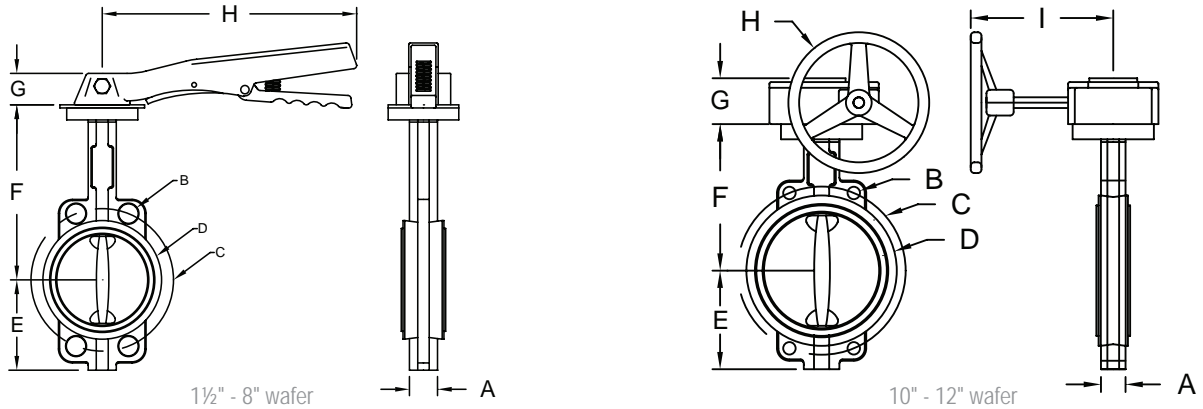
- wafer and lug type body
- cast iron body with extended neck
- nickel plated ductile iron disc
- seat backing ring ensures blowout proof service
- installs between Standard ANSI Class 150# flanges
- conforms to MSS SP-67 MSS SP-25, API-609
- no taper pins
- field repairable (seat kits available)
- undercut available
- EPDM seat
- maximum pressure **200 PSI** (bi-directional)
- temperature range: **-20°F to 250°F** (depending upon seat material)
- wide variety of seat, disc and body materials available
- additional sizes available
- various manual or automatic operators available

Valve Seating Torque (in. lbs.)

Size	Standard Disc at Pressure Differential (ΔP)			
	50 ΔP	100 ΔP	150 ΔP	200 ΔP
1½"	80	95	100	105
2"	99	105	110	116
2½"	146	160	172	186
3"	198	206	230	240
4"	250	300	340	380
5"	420	470	520	580
6"	600	690	782	873
8"	960	1100	1280	1410
10"	1590	1790	2000	2180
12"	2390	2600	3011	2313

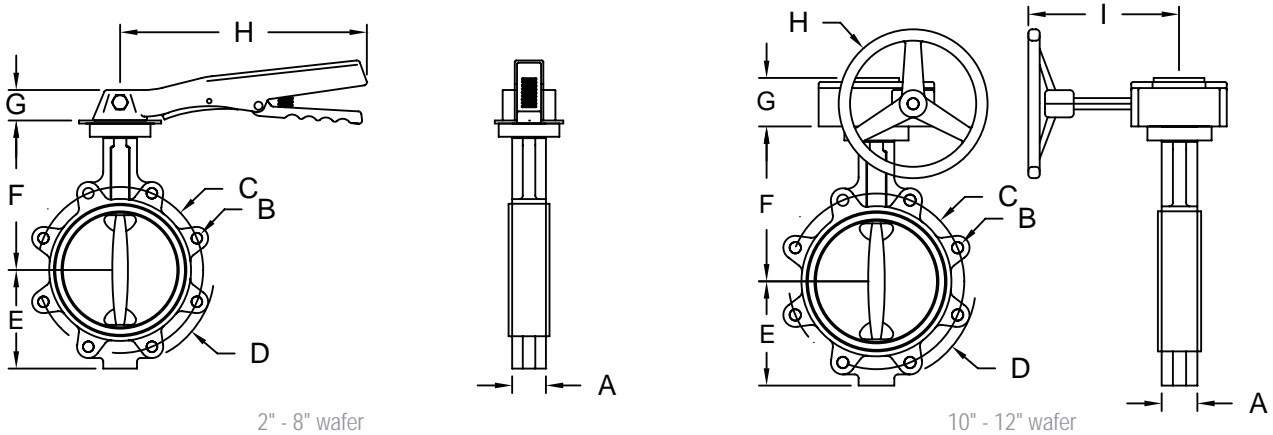
B51 Series Industrial Butterfly Valves

Dimensions (wafer)



Part Number	Size	A	B	C	D	E	F	G	H	I
B5121E150WW-C	1½"	1.30	4-18	3.88	3.74	2.56	5.75	0.88	8.00	n/a
B5121E200WW-C	2"	1.69	4-18	4.75	3.82	3.15	5.94	0.88	8.00	n/a
B5121E250WW-C	2½"	1.81	4-18	5.50	4.45	3.62	6.89	0.88	8.00	n/a
B5121E300WW-C	3"	1.81	4-18	6.00	4.92	3.74	7.13	0.88	8.00	n/a
B5121E400WW-C	4"	2.50	4-22	7.50	6.14	4.49	7.87	1.00	10.60	n/a
B5121E500WW-C	5"	2.20	4-22	8.50	7.36	5.00	8.39	1.00	10.60	n/a
B5121E600WW-C	6"	2.20	4-22	9.50	8.46	5.47	8.90	1.00	10.60	n/a
B5121E800WW-C	8"	2.36	4-22	11.75	10.51	6.59	10.24	1.25	12.60	n/a
B5121E1000WW-G	10"	2.68	4-26	14.25	13.00	8.00	11.50	3.21	9.84	8.86
B5121E1200WW-G	12"	3.07	4-26	17.00	14.96	9.53	13.27	3.21	11.80	8.86

Dimensions (lug)



Part Number	Size	A	B	C	D	E	F	G	H	I
B5121E200LL-C	2"	1.69	4-5/18-11 UNC	4.75	5.95	3.15	5.94	0.88	8.00	n/a
B5121E250LL-C	2½"	1.81	4-5/18-11 UNC	5.50	6.97	3.62	6.89	0.88	8.00	n/a
B5121E300LL-C	3"	1.81	4-5/18-11 UNC	6.00	7.56	3.74	7.13	0.88	8.00	n/a
B5121E400LL-C	4"	2.05	8-5/8-11 UNC	7.50	8.35	4.49	7.87	1.00	10.60	n/a
B5121E500LL-C	5"	2.20	8-5/8-11 UNC	8.50	9.53	5.00	8.39	1.00	10.60	n/a
B5121E600LL-C	6"	2.20	8-5/8-11 UNC	9.50	11.02	5.47	8.90	1.00	10.60	n/a
B5121E800LL-C	8"	2.36	8-5/8-11 UNC	11.75	13.19	6.89	10.24	1.25	12.60	n/a
B5121E1000LL-G	10"	2.68	12-7/8-9 UNC	14.25	15.94	8.00	11.50	3.21	9.84	8.86
B5121E1200LL-G	12"	3.07	12-7/8-9 UNC	17.00	19.09	9.53	13.27	3.21	11.80	8.86

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

Dixon Sanitary Check Valves

Check Valve Selection

Product Specifications



Size range:

- ½" - 4" OD tube

Materials:

- G = 304 stainless steel
- R = 316L stainless steel

Finish:

- 3A sanitary finish ID and OD

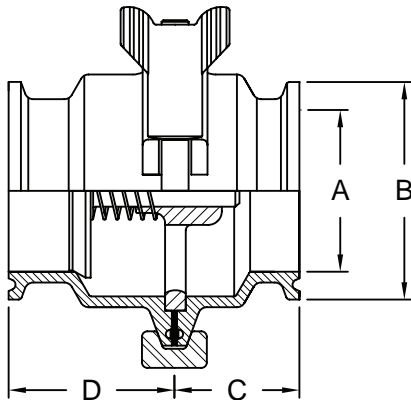
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Air Blow Check Valves.....	219-220	Stainless Steel Tank Vent Valve	225-226

Spring Check Valves



Product Specifications



Features:

- 3A Standards 58-00, Check Valves and Vacuum Breakers
- full size flow plate
- long stem bushing for increased cycle life
- suitable for low and medium viscosity fluids
- field serviceable (no special tools required)
- various end connections available
- sizes from ½" thru 4"
- operating temperature range: 15°F to 200°F
- maximum operating pressure: 145 PSI

Size	A	B	C	D	316L Stainless Steel Part Number	316L Stainless Steel - all FKM Part Number
½"	0.37	0.99	1.10	1.60	B45MP-R50	B45MP-R50V
¾"	0.62	0.99	1.10	1.60	B45MP-R75	B45MP-R75V
1"	0.87	1.99	1.37	1.92	B46MP-R100	B46MP-R100V
1½"	1.37	1.99	1.44	1.92	B46MP-R150	B46MP-R150V
2"	1.87	2.52	1.44	1.92	B46MP-R200	B46MP-R200V
2½"	2.37	3.05	1.44	1.92	B46MP-R250	B46MP-R250V
3"	2.87	3.58	1.44	1.92	B46MP-R300	B46MP-R300V
4"	3.84	4.69	1.88	2.15	B46MP-R400	B46MP-R400V

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

repair kits

Size	Part Number
½"	B45MP-RK050
¾"	B45MP-RK075
1"	B46MP-RK100
1½"	B46MP-RK150
2"	B46MP-RK200
2½"	B46MP-RK250
3"	B46MP-RK300
4"	B46MP-RK400

Size	FKM Part Number
½"	B45MP-RKV050
¾"	B45MP-RKV075
1"	B46MP-RKV100
1½"	B46MP-RKV150
2"	B46MP-RKV200
2½"	B46MP-RKV250
3"	B46MP-RKV300
4"	B46MP-RKV400

Repair kit contains:

½" - ¾"

- (1) 316L stainless spring
- (1) FKM stem seat
- (1) EPDM body O-ring

1" - 4"

- (1) 316L stainless spring
- (1) FKM stem seat
- (1) EPDM clamp gasket

FKM Repair kit contains:

½" - ¾"

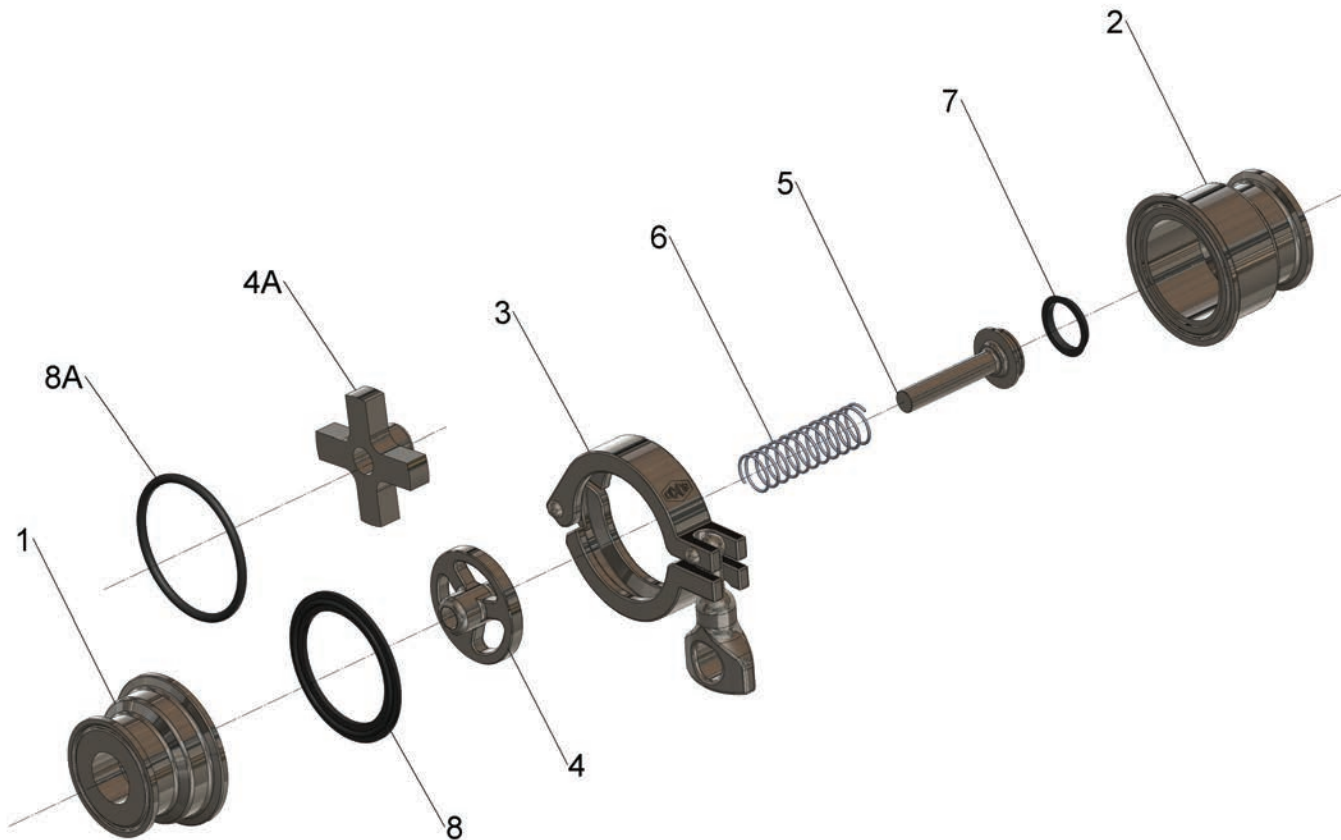
- (1) 316L stainless spring
- (1) FKM stem seat
- (1) FKM body O-ring

1" - 4"

- (1) 316L stainless spring
- (1) FKM stem seat
- (1) FKM clamp gasket

Spring Check Valves

Bill of Materials

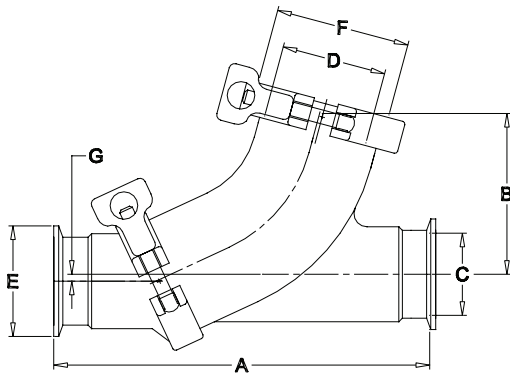


Item #	Description	Material	Quantity Required	
			1/2" - 3/4"	1" - 4"
1	upper body housing	316L stainless	1	1
2	lower body housing	316L stainless	1	1
3	single pin clamp	CF8 stainless	1	1
4	flow plate	CF8M stainless	n/a	1
4A	flow plate	CF8M stainless	1	n/a
5	plunger	316L stainless	1	1
6	spring	316L stainless	1	1
7	stem seat	FKM	1	1
8	clamp gasket	EPDM	n/a	1
8A	body O-ring	EPDM	1	n/a



Y - Ball Check Valves

Product Specifications



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.

Features:

- 3A Standards 58-00, Check Valves and Vacuum Breakers
- two-piece construction
- replace seat instead of entire valve
- PTFE ball
- field serviceable (no special tools required)
- all metal product contact surfaces are 316L stainless steel construction
- operating temperature range: **15°F to 200°F**
- maximum operating pressure: **150 PSI**

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	B45BY-R150
2"	2½"	8.50	3.90	1.86	2.33	2.51	3.04	0.16	2.1	6.6	B45BY-R200
2½"	3"	10.00	4.50	2.37	2.87	3.04	3.57	0.16	2.7	10.5	B45BY-R250
3"	4"	11.50	5.30	2.87	3.83	3.57	4.68	0.16	3.6	17.5	B45BY-R300

All dimensions are in inches unless otherwise noted. 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"	B45BY-RK150	B45BY-SK150	B45BY-SKV150	B45BY-TB150
2"	B45BY-RK200	B45BY-SK200	B45BY-SKV200	B45BY-TB200
2½"	B45BY-RK250	B45BY-SK250	B45BY-SKV250	B45BY-TB250
3"	B45BY-RK300	B45BY-SK300	B45BY-SKV300	B45BY-TB300

Y-Ball Check Valves

Bill of Materials

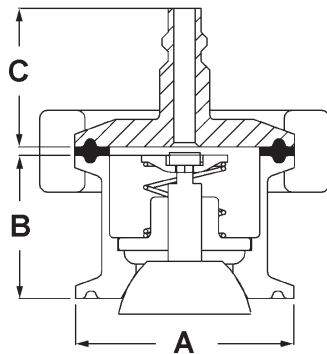


Item #	Description	Material	Quantity
1	angle body	316L stainless	1
2	inlet body	316L stainless	1
3	single pin clamp	CF8 stainless	2
4	clamp end cap	316L stainless	1
5	cap gasket	EPDM	1
6	ball	PTFE	1
7	seat	EPDM/CF-8M stainless	1

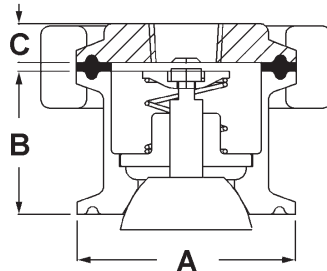
Air Blow Check Valves



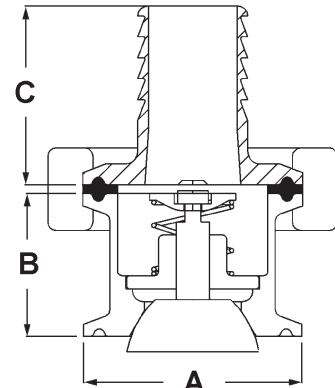
Product Specifications



B45AB



B45BC



B45CC

Features:

- 3A Standards 58-00, check valves and vacuum breakers
- 316L stainless steel with EPDM stem seat and gasket
- maximum operating temperature: **212°F**
- maximum operating pressure: **145 PSI**

Size	A	B	Quick-Connect Plug Part Number	Dim. C	Female NPT Part Number	Dim. C	Hose Barb Part Number	Dim. C
1" - 1½"	1.984	1.30	B45AB-R100150	1.26	B45BC-R100150	0.6	B45CC-R100150	1.7
2"	2.516	1.30	B45AB-R200	1.26	B45BC-R200	0.6	B45CC-R200	1.7
2½"	3.047	1.30	B45AB-R250	1.26	B45BC-R250	0.6	B45CC-R250	1.7
3"	3.579	1.30	B45AB-R300	1.26	B45BC-R300	0.6	B45CC-R300	1.7
4"	4.682	1.30	B45AB-R400	1.26	B45BC-R400	0.6	B45CC-R400	1.7

All dimensions are in inches unless otherwise noted. 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

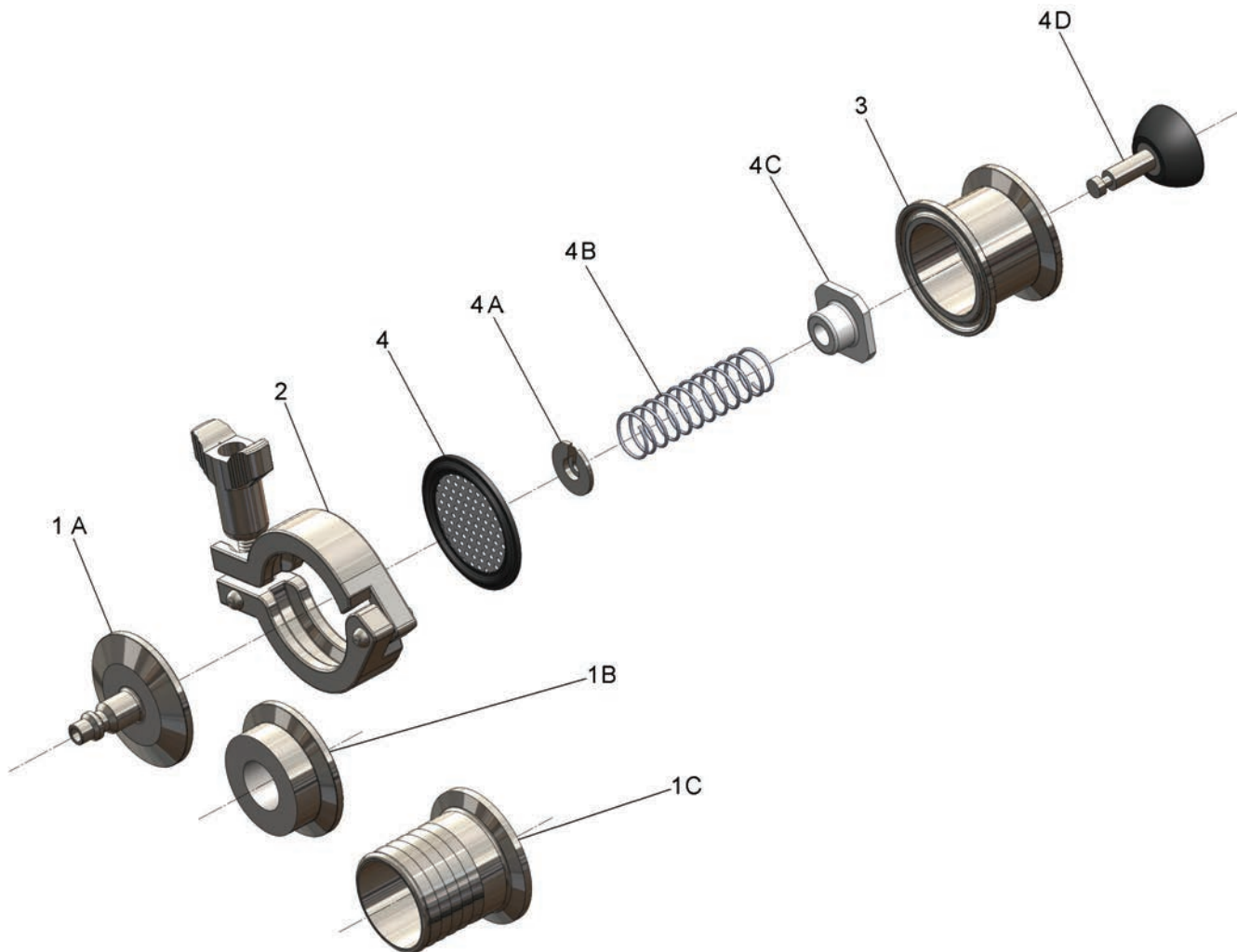
When using air blow check valves with ball check valves, refer to the sizing chart below.

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



Air Blow Check Valves

Bill of Materials



Item	Description	Material	Quantity
1A	1/4" air line quick connect	316L	1
1B	1/2" NPT cap	316L	1
1C	1" hose barb	316L	1
2	single pin clamp	CF8	1
3	valve body	316L	1
4	perforated disc	EPDM/316L	1
4A	spring retainer	304	1
4B	spring	304	1
4C	stem guide	nylon	1
4D	stem and plug	316L/EPDM	1

Filter Discs (optional) *Must be used when installed in 3A applications*

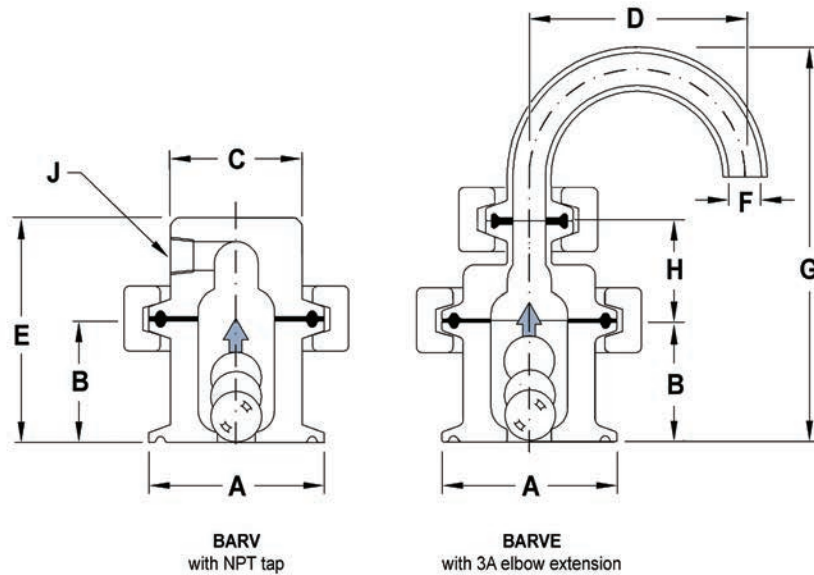
B45ABFD150	filter disc pack	1 micron filter	50
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- filter discs (optional) must be used when installed for Accepted Practice 3A 604-05, Supplying Air under Pressure in Contact With Milk, Milk products and Product Contact.



Air Relief Valves

Product Specifications



Features:

- 3A Standards 58-00 with Elbow Extension, Check Valves and Vacuum Breakers
- 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.
- The valve ball is constructed of FDA, 3A approved polypropylene.
- PTFE valve ball is available
- other gasket materials available
- maximum operating temperature: 212°F
- maximum PSI: 145

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	---	2.40	---	---	---	1/8" NPT	BARV-G150
2" air relief valve with tapped blind end	2.51	1.40	1.50	---	2.40	---	---	---	1/8" NPT	BARV-G200
1½" air relief valve with 180° elbow	1.98	1.40	---	1.50	---	0.37	4.50	1.10	---	BARVE-G150 
2" air relief valve with 180° elbow	2.51	1.40	---	1.50	---	0.37	4.50	1.10	---	BARVE-G200 

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

Working Principle

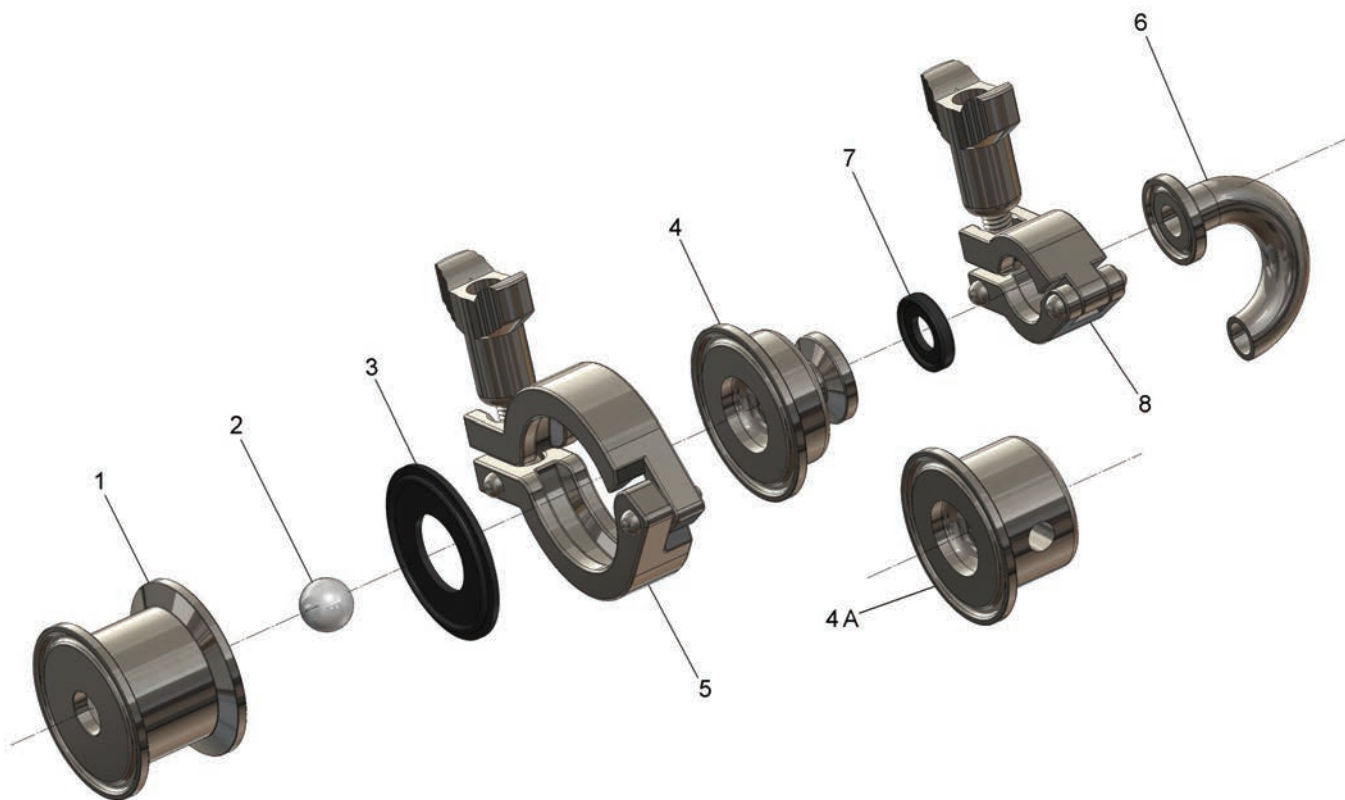
The Dixon Sanitary air relief valve allows air to be removed from a line or container without the liquid flowing out. Its design does not allow air to enter the line or container, even if subjected to a negative pressure. It is a double-seated valve with a freely moving polypropylene ball. The ball, which is lighter than water, closes against the upper or lower seat, depending on the pressure conditions.

Applications

1. Bleeding of a line where an air pocket has formed. This application calls for installation at the top of the line.
2. 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 Valves

Bill of Materials



Item #	Description	Material	Quantity Required	
			elbow 3A	tapped
1	body	304 stainless	1	1
2	ball	polypropylene	1	1
3	gasket	EPDM	1	1
4	3A cover	304 stainless	1	n/a
4A	tapped cover	304 stainless	n/a	1
5	1 1/2" clamp	CF8 stainless	1	1
6	180° tube ferrule	304 stainless	1	n/a
7	1/2" gasket	EPDM	1	n/a
8	1/2" clamp	CF8 stainless	1	n/a

Replacement Parts

Part Number	Description	Material	Quantity Required
BARVE3P-G150	ball	polypropylene	1
BARVE3T-G150	ball	PTFE	1



Air & Vacuum Relief Tank Vent Valve

Features:

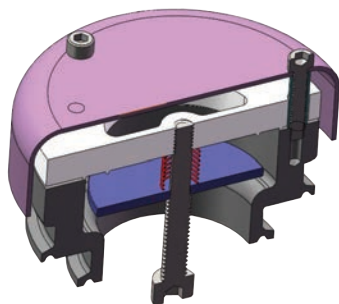
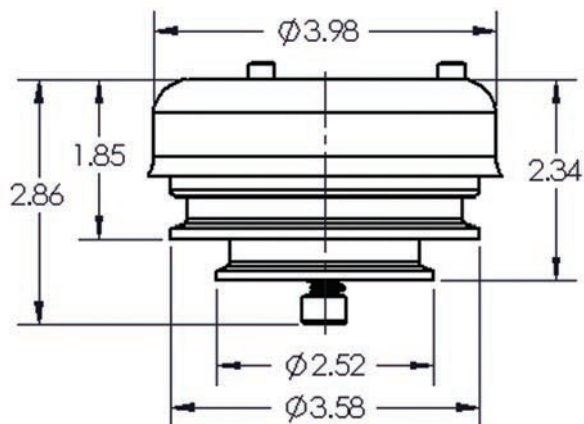
- The valve relieves pressure as the fluid level rises while filling a tank.
- The valve relieves vacuum as the fluid level drops while emptying a tank.
- 2" and 3" clamp connections on the same valve
- dome helps in preventing external contamination
- light weight, robust PVC and 304 stainless steel construction
- can use any clamp gasket
- maximum flow rate: 500 GPM
- vacuum break: .1 PSI
- pressure relief: .1 PSI



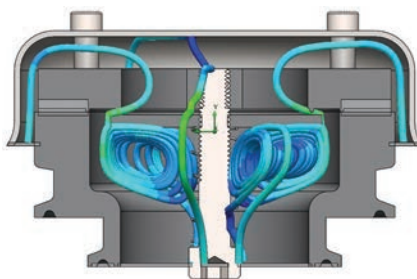
Part #

TVPC200-300

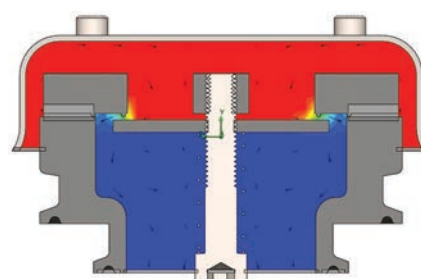
Dimensions



Assembly



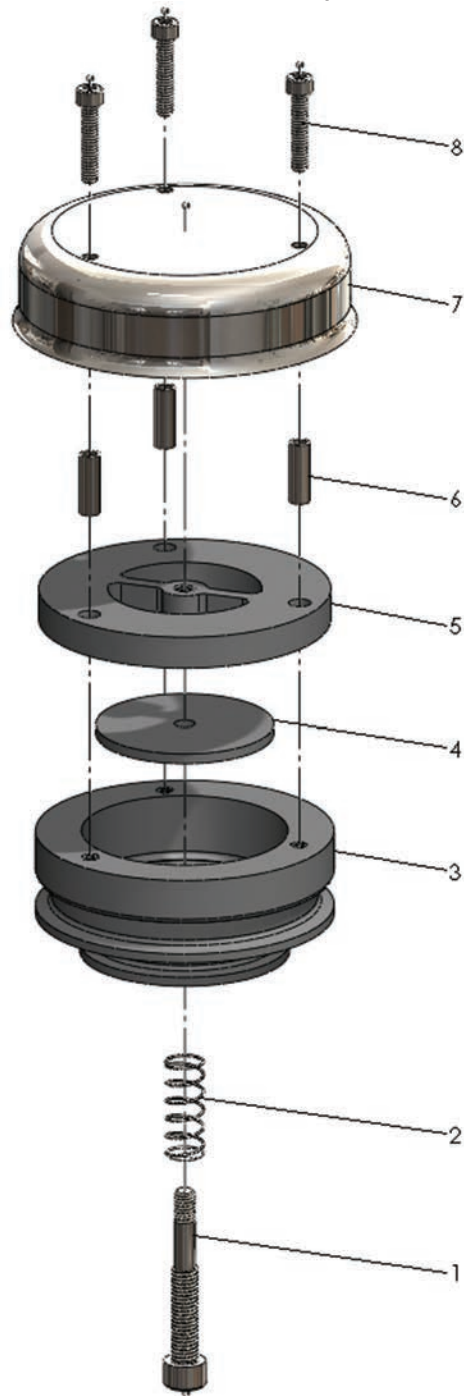
Vent Flow Pipes



Pressure Analysis

V

Tank Vent Valve - Exploded View



Item	Description	Material	Quantity
1	spring bolt	304 stainless steel	1
2	spring	304 stainless steel	1
3	body	PVC	1
4	check plate	PVC	1
5	flow plate	PVC	1
6	spacer	304 stainless steel	3
7	cap	304 stainless steel	1
8	cap bolt	304 stainless steel	3

Stainless Steel Air & Vacuum Relief Tank Vent Valve

NEW

Applications:

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

Features:

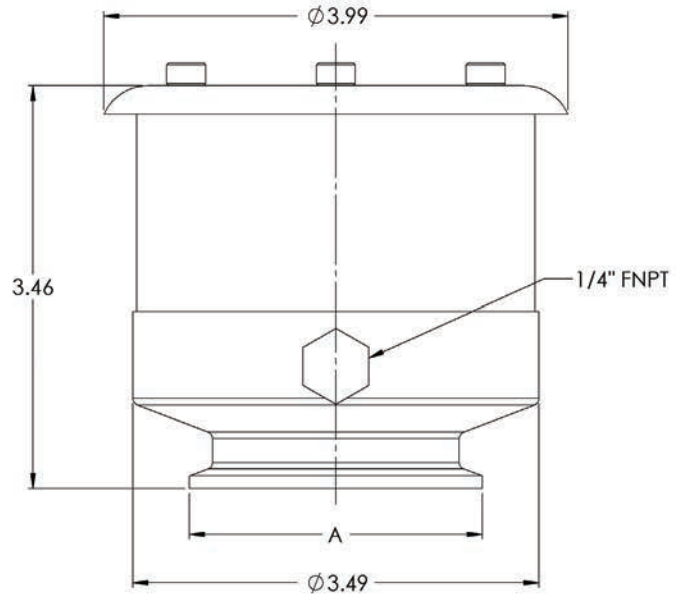
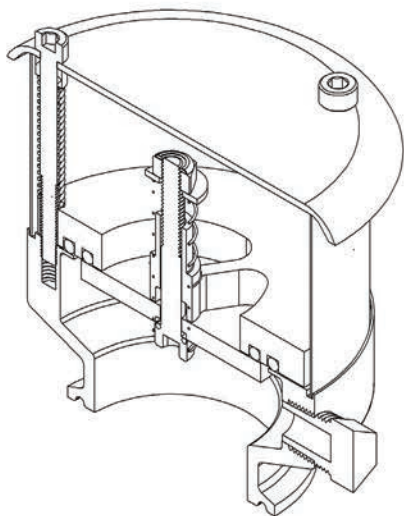
- Triple Action
 - Valve relieves pressure as the fluid level rises while filling a tank.
 - Valve relieves vacuum as the fluid level drops while emptying a tank.
 - Seals under equal pressure.
- stainless steel screen surrounds the entire vacuum and pressure flow area
- sizes: 2", 3" or 4" – clamp connection standard
- other sanitary connections optional
- 1/4" FNPT connection for gas inlet, plug also supplied
- 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**
- maximum flow rate: 500 GPM



Materials:

- 304 stainless steel, EPDM elastomer

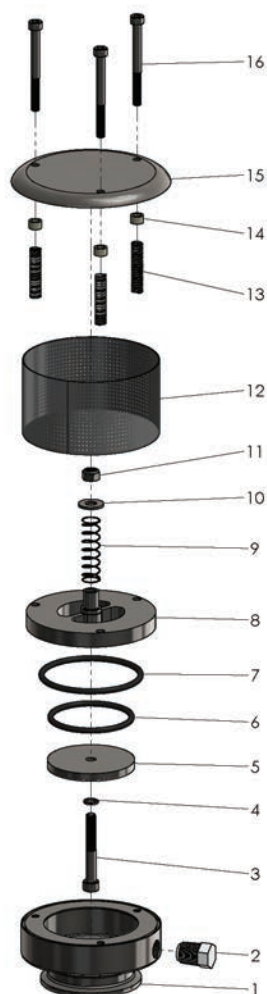
Part Number	Tube OD
TVSEC-G200	2"
TVSEC-G300	3"
TVSEC-G400	4"



	DIM. "A"
2"	2.52
3"	3.58
4"	4.68



Air & Vacuum Relief Tank Vent Valve - Exploded View



Item	Description	Material	Quantity Required
1	body	304 stainless	1
2	plug	PVC	1
3	vacuum bolt	304 stainless	1
4	O-ring (vacuum bolt)	EPDM	1
5	vacuum disc	304 stainless	1
6	O-ring (vacuum disc)	EPDM	1
7	O-ring (pressure plate)	EPDM	1
8	pressure plate	304 stainless	1
9	vacuum spring	304 stainless	1
10	flat washer	304 stainless	1
11	nut	304 stainless	1
12	screen	304 stainless	1
13	pressure plate springs	304 stainless	3
14	spacers	304 stainless	3
15	cover	304 stainless	1
16	cover screws	304 stainless	3

Repair Kit: includes items # 4, 6 and 7

Dixon Sanitary Sample Valves

Product Specifications

Sample Valve Selection

Size range:

- ½" - 4" OD tube

Materials:

- G = 304 stainless steel
- R = 316L stainless steel
- N = 316L stainless steel

Finish:

- 3A sanitary finish ID and OD



Angle Sample Valves - BSVACV

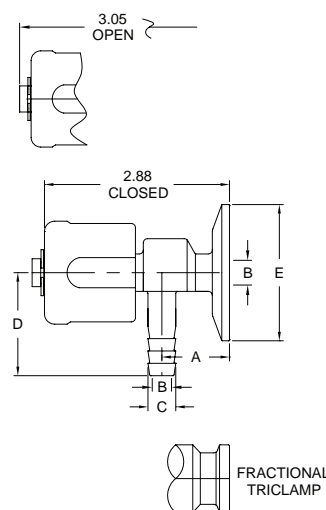
Features:

- all 316L stainless wetted part construction
- standard finish to 20 R_a ID / 32 R_a OD
- FKM O-ring
- fully traceable (material test reports)
- virgin PTFE seat for positive closure
- minimal internal dead-leg area
- sizes available: ½" thru 4"
- temperature rating: 300°F at 200 PSI



Right Angle Sample Valve Dimensions

Valve Size	A	B	BarbØ C	D	FerruleØ E	Part Number
½"	0.93	0.21	¼"	1.76	0.99	BSVACV-N050025
½"	0.92	0.28	3/8"	1.78	0.99	BSVACV-N050375
½"	0.85	0.37	1/2"	1.76	0.99	BSVACV-N050050
¾"	0.93	0.21	¼"	1.76	0.99	BSVACV-N075025
¾"	0.92	0.28	3/8"	1.78	0.99	BSVACV-N075375
¾"	0.85	0.37	1/2"	1.76	0.99	BSVACV-N075050
1"	0.96	0.21	¼"	2.04	1.98	BSVACV-N100025
1"	0.95	0.28	3/8"	2.03	1.98	BSVACV-N100375
1"	0.88	0.37	1/2"	2.03	1.98	BSVACV-N100050
1½"	0.96	0.21	¼"	2.04	1.98	BSVACV-N150025
1½"	0.95	0.28	3/8"	2.03	1.98	BSVACV-N150375
1½"	0.88	0.37	1/2"	2.03	1.98	BSVACV-N150050
2"	0.96	0.21	¼"	2.31	2.52	BSVACV-N200025
2"	0.95	0.28	3/8"	2.31	2.52	BSVACV-N200375
2"	0.88	0.37	1/2"	2.29	2.52	BSVACV-N200050
2½"	0.96	0.21	¼"	2.57	3.05	BSVACV-N250025
2½"	0.95	0.28	3/8"	2.57	3.05	BSVACV-N250375
2½"	0.88	0.37	1/2"	2.56	3.05	BSVACV-N250050
3"	0.96	0.21	¼"	2.84	3.58	BSVACV-N300025
3"	0.95	0.28	3/8"	2.37	3.58	BSVACV-N300375
3"	0.88	0.37	1/2"	2.83	3.58	BSVACV-N300050
4"	0.96	0.21	¼"	3.39	4.68	BSVACV-N400025
4"	0.95	0.28	3/8"	3.39	4.68	BSVACV-N400375
4"	0.88	0.37	1/2"	3.38	4.68	BSVACV-N400050



Index

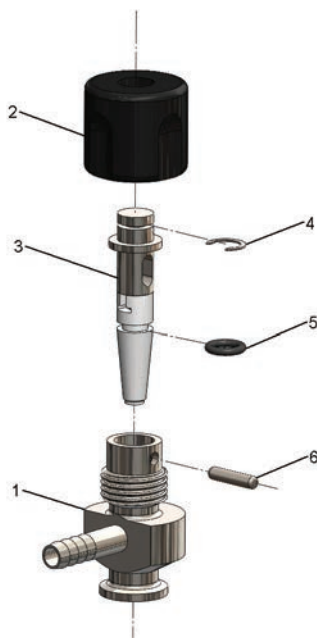
Angle Sample Valve	227-228	W Series Sample Valve	231-232
Inline Sample Valve	229-230	Topping Gun	233

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



Sample Valves

Angle Sample Valves - BSVACV Bill of Materials



Item #	Description	Material	Quantity
1	body	316L stainless steel	1
2	knob	ULTEM (FDA)	1
3	stem	316L stainless / PTFE	1
4	E-clip	304 stainless steel	1
5	O-ring	FKM	1
6	body pin	316L stainless steel	1

Repair Kits

Repair kit contains:

- (1) PTFE seat
- (1) FKM O-ring
- (1) 316 stainless steel stop pin
- (1) 304 stainless steel E-clip

Size	Part Number
1/4"	BSVA-NRKS025
3/8"	BSVA-NRKS038
1/2"	BSVA-NRKS050

Sample Valves

Inline Sample Valves - BSVICV

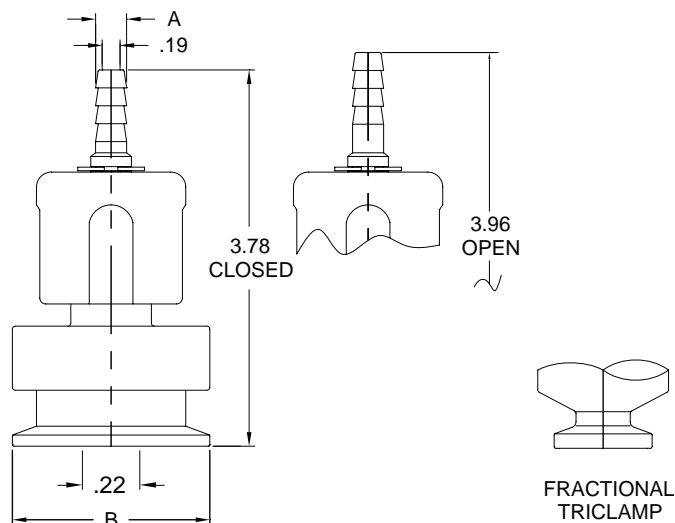
Features:

- all 316L stainless wetted part construction
- standard finish to 20 R_a ID / 32 R_a OD
- FKM O-ring
- fully traceable (material test reports)
- virgin PTFE seat for positive closure
- minimal internal dead-leg area
- sizes available: ½" thru 4"
- temperature rating: **300°F at 200 PSI**



Inline Sample Valve Dimensions

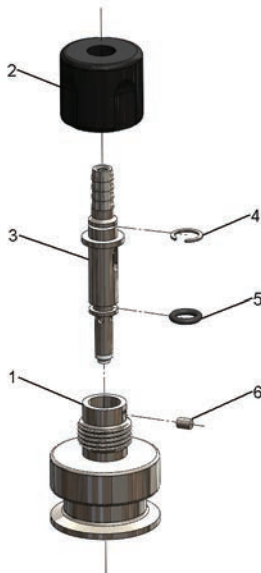
Valve Size	Barb A	Ferrule B	Part Number
½"	¼"	0.99	BSVICV-N050025
½"	⅜"	0.99	BSVICV-N050375
½"	½"	0.99	BSVICV-N050050
¾"	¼"	0.99	BSVICV-N075025
¾"	⅜"	0.99	BSVICV-N075375
¾"	½"	0.99	BSVICV-N075050
1"	¼"	1.98	BSVICV-N100025
1"	⅜"	1.98	BSVICV-N100375
1"	½"	1.98	BSVICV-N100050
1½"	¼"	1.98	BSVICV-N150025
1½"	⅜"	1.98	BSVICV-N150375
1½"	½"	1.98	BSVICV-N150050
2"	¼"	2.52	BSVICV-N200025
2"	⅜"	2.52	BSVICV-N200375
2"	½"	2.52	BSVICV-N200050
2½"	¼"	3.05	BSVICV-N250025
2½"	⅜"	3.05	BSVICV-N250375
2½"	½"	3.05	BSVICV-N250050
3"	¼"	3.58	BSVICV-N300025
3"	⅜"	3.58	BSVICV-N300375
3"	½"	3.58	BSVICV-N300050
4"	¼"	4.68	BSVICV-N400025
4"	⅜"	4.68	BSVICV-N400375
4"	½"	4.68	BSVICV-N400050



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

Sample Valves

Inline Sample Valves - BSVICV Bill of Materials



Item #	Description	Material	Quantity
1	body	316L stainless steel	1
2	knob	ULTEM (FDA)	1
3	stem	316L stainless / PTFE	1
4	E-clip	304 stainless steel	1
5	O-ring	FKM	1
6	body pin	316L stainless steel	1

Repair Kits

Size	Part Number
1/4"	BSVI-NRKS025
3/8"	BSVI-NRKS038
1/2"	BSVI-NRKS050

Repair kit contains:
 (1) stem assembly
 (1) FKM O-ring
 (1) 316 stainless steel stop pin
 (1) 304 stainless steel E-clip

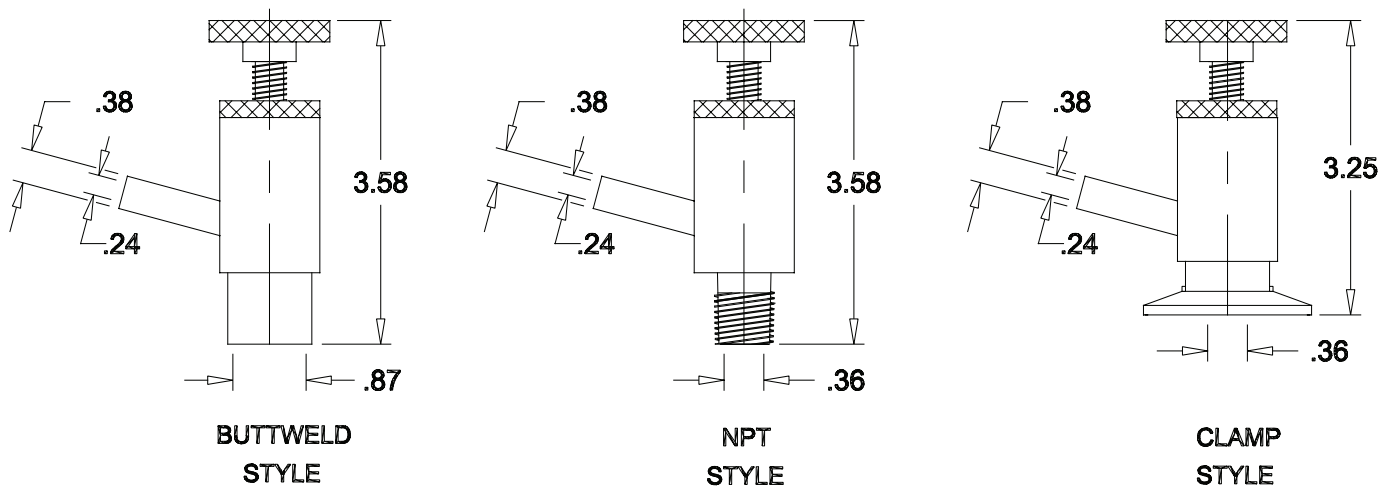
Sample Valves

W Series Sample Valves - BSVW*S

Features:

- 304 stainless steel
- double silicone O-rings
- silicone or PTFE seat ensures a leak-proof shut-off
- surface finish polished to sanitary standards
- temperature rating: **300°F at 200 PSI**

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



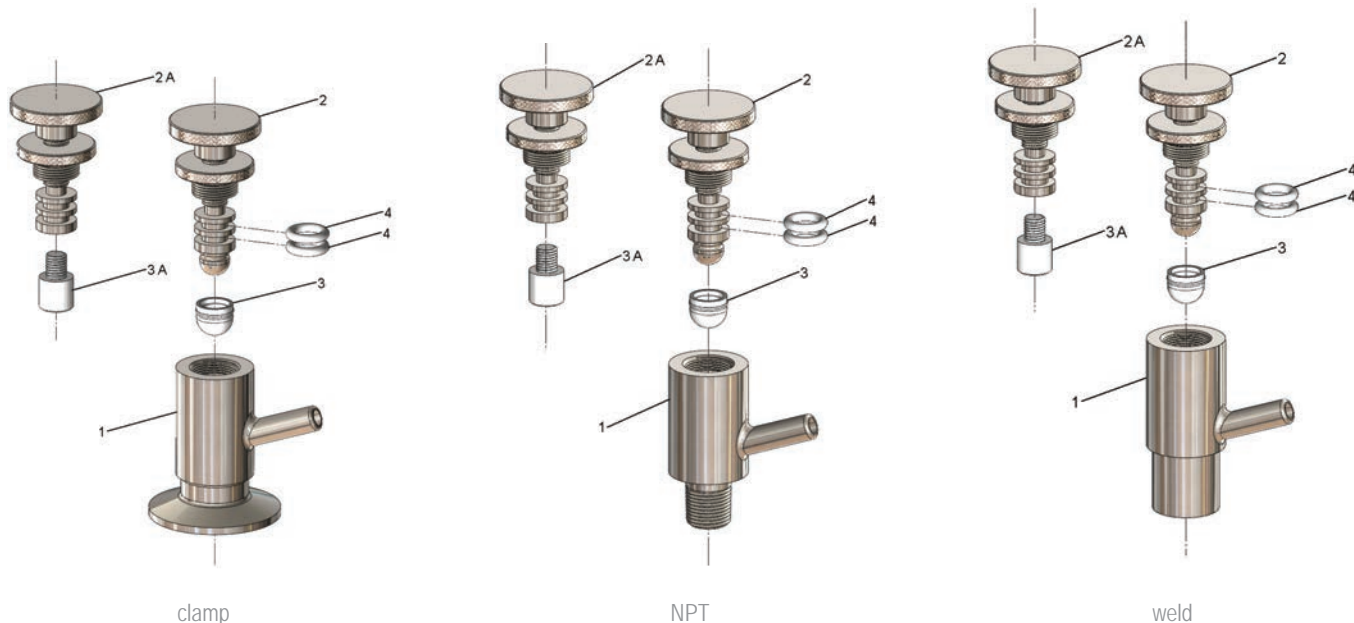
ALL VALVES ARE SHOWN FULLY OPEN

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



Sample Valves

W Series Sample Valves - BSVW*S Bill of Materials



Item #	Description	Material	Quantity
1	body - clamp	304 stainless steel	1
1	body - NPT	304 stainless steel	1
1	body - weld	304 stainless steel	1
2	knob / stem assembly	304 stainless steel	1
2A	knob / stem assembly	304 stainless steel	1
3	seat	silicone	1
3A	seat	PTFE	1
4	O-rings	silicone	2

Repair Kits

BSVW-RKS repair kit contains:

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

BSVW-RKP repair kit contains:

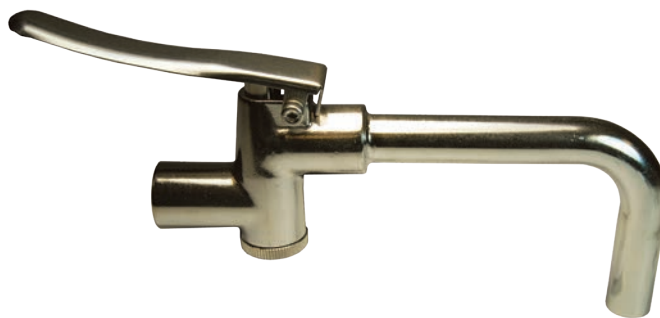
- (2) silicone O-rings
- (1) PTFE seat

Topping Gun

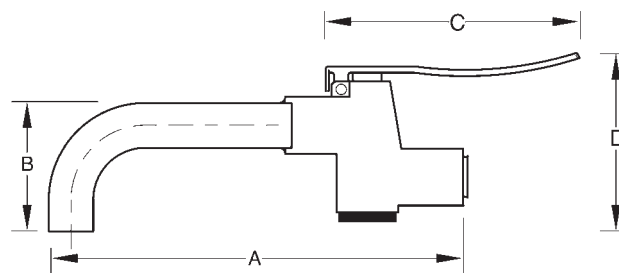
Topping Gun - BTG

Features:

- all 304 stainless steel construction
- ½" female NPT inlet
- ¾" OD tube outlet
- squeeze handle for easy opening and control
- spring loaded trigger for positive shutoff
- EPDM seals and gaskets



A	B	C	D	Part Number
8.094	3.375	4.750	4.563	BTG-G50



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

Sanitary Gaskets



Materials available:

- Nitrile (Buna N)
- Silicone (peroxide cured)
- EPDM
- FKM
- PTFE

Certified as required to:

- 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	Useful Temperature
Buna-N	U	1 red dot	-25°F to 225°F
White Buna-N	UW	1 red dot	-25°F to 225°F
EPDM	E	3 green dots	-40°F to 275°F
peroxide cured			
FKM	SFY	1 white dot 1 yellow dot	-15°F to 375°F
Silicone	XW	1 pink dot	-50°F to 400°F
peroxide cured			
Silicone	XC	none	-50°F to 400°F
peroxide cured			
PTFE	G	none	-10°F to 300°F
PTFE	GTS	none	-20°F to 450°F
w/50% 316 particles			

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**

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

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 ¹	1887	.075	.023	100
12	1510	.050	.023	144
14 ²	1283	.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 ³	151	.006	.0045	10,000
120 ³	120	.0048	.0035	14,400
150 ³	103	.0041	.0026	22,500
200 ³	73	.0029	.0021	40,000

¹ standard size for clamp style gaskets

² standard size for bevel seat size gaskets

³ 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" ¹	803	28%
.063"	1573	23%
.100"	2517	33%
.125"	3146	40%
.250"	6350	58%

¹ 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

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	$\frac{1}{1}$	$\frac{63}{64}$.984375	25.0032
	$\frac{33}{64}$.515625	13.0969		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			



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.

°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	
.72	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

(no losses included)

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 inches² x feet/minute water velocity

Weight of Water in a Pipe

Pounds water = pipe length feet x pipe diameter inches² x .34

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

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 = 27.7 Inches of Water at 62°F = 2.31 Feet of Water at 62°F.

1 Atmosphere = 30 Inches of Mercury at 62°F = 14.7 Pounds Per Square Inch = 2116.3 Pounds Per Square Foot = 33.95 Feet of Water at 62°F.

1 Foot of Water at 62°F = 62.355 Pounds Per Square Foot = 0.433 Pounds Per Square Inch.

1 Inch of Mercury at 62°F = 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



Thread Dimensions

Size	Pipe OD	Tapered Threads		Straight Threads		
		NPT	BSPT _r	Acme 3A		
		TPI	TPI	TPI	ODM (max)	IDF (min)
1/8"	.405	27	28			
1/4"	.504	18	19			
3/8"	.675	18	19			
1/2"	.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, 11-1/2 TPI

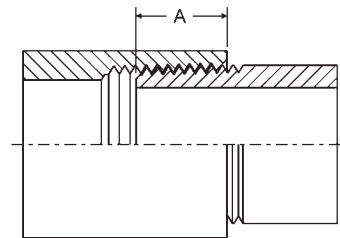
NPT = National Pipe Taper

BS = British Standard

Normal Engagement Length of NPT Thread in Inches (A) *

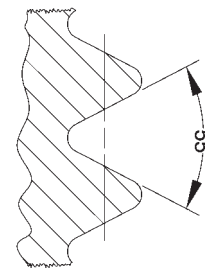
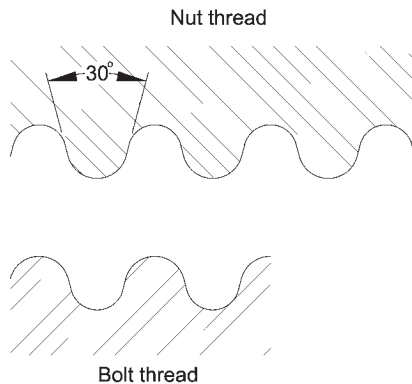
Pipe Size	A
1/8"	1/4"
1/4"	3/8"
3/8"	3/8"
1/2"	1/2"
3/4"	9/16"
1"	11/16"
1-1/4"	11/16"
1-1/2"	11/16"
2"	3/4"

Pipe Size	A
2-1/2"	15/16"
3"	1"
4"	1-1/8"
5"	1-1/4"
6"	1-5/16"
8"	1-7/16"
10"	1-5/8"
12"	1-3/4"



* Dimensions given do not allow for variations in tapping or threading.

Identifying 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 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.

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

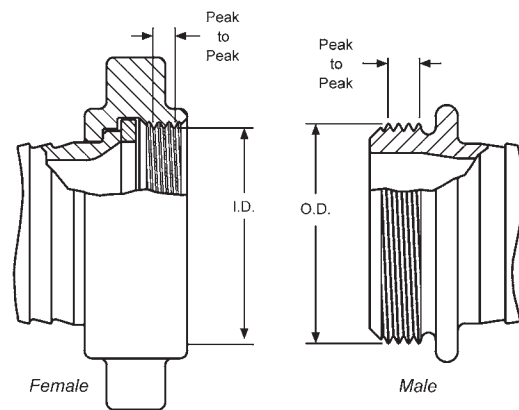
Measure the Outside Diameter of the Male (ODM) at the large end and the small end, or the Inside Diameter of the Female (IDF) at the large end and the small end, from peak of thread to peak of thread. Then measure the Outside Diameter (OD) of the unthreaded pipe.

c) Flat (ACME) Threads

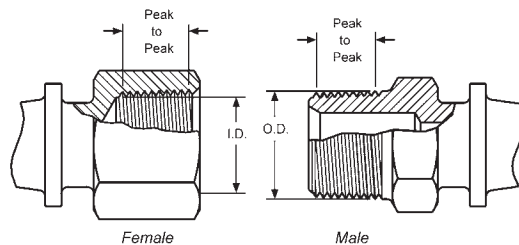
Acme threads are used for bevel seat and John Perry fittings in sanitary installations. Sizes 1" to 3" (tube size) have 8 threads per (TPI) and the 4" has 6 TPI. There is not a sharp point on this thread and it is a straight thread. The tops of the threads are flat and there is typically a 29° included angle between the threads. Measure the outside diameter of the male (OD) or inside diameter of the female (ID)

Once the application and these two pieces of information have been determined, the thread can generally be determined. When in doubt, contact the factory.

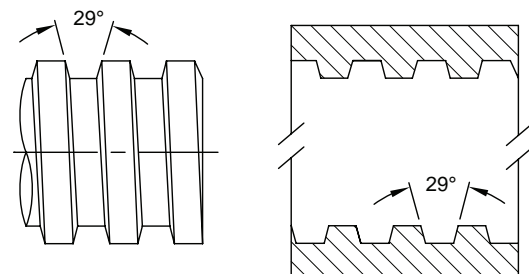
Straight Thread



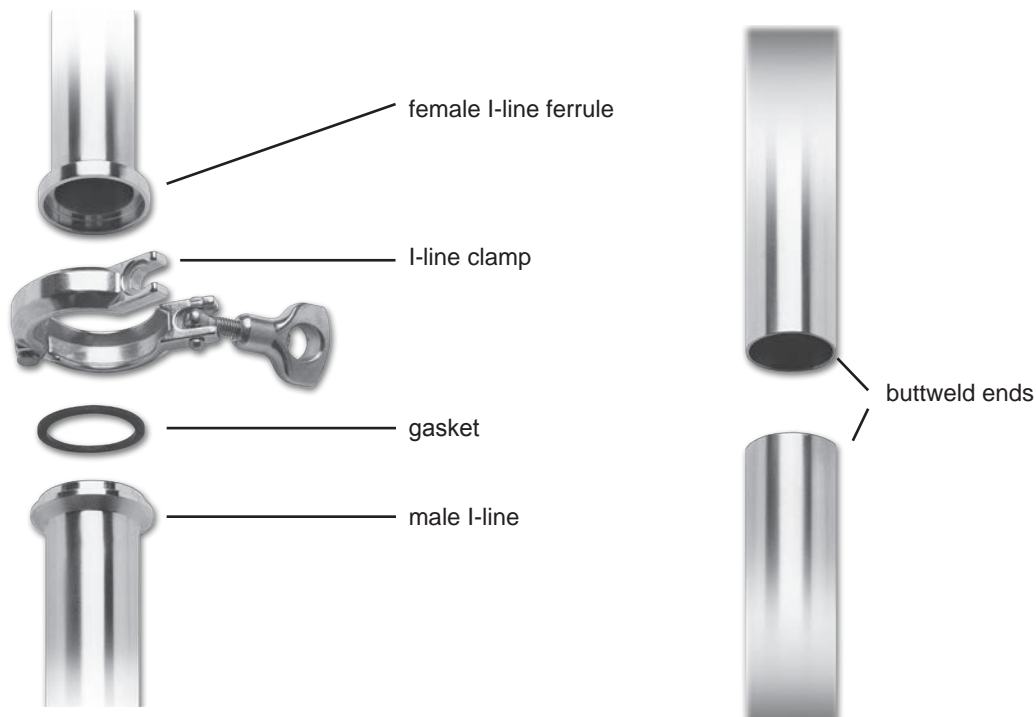
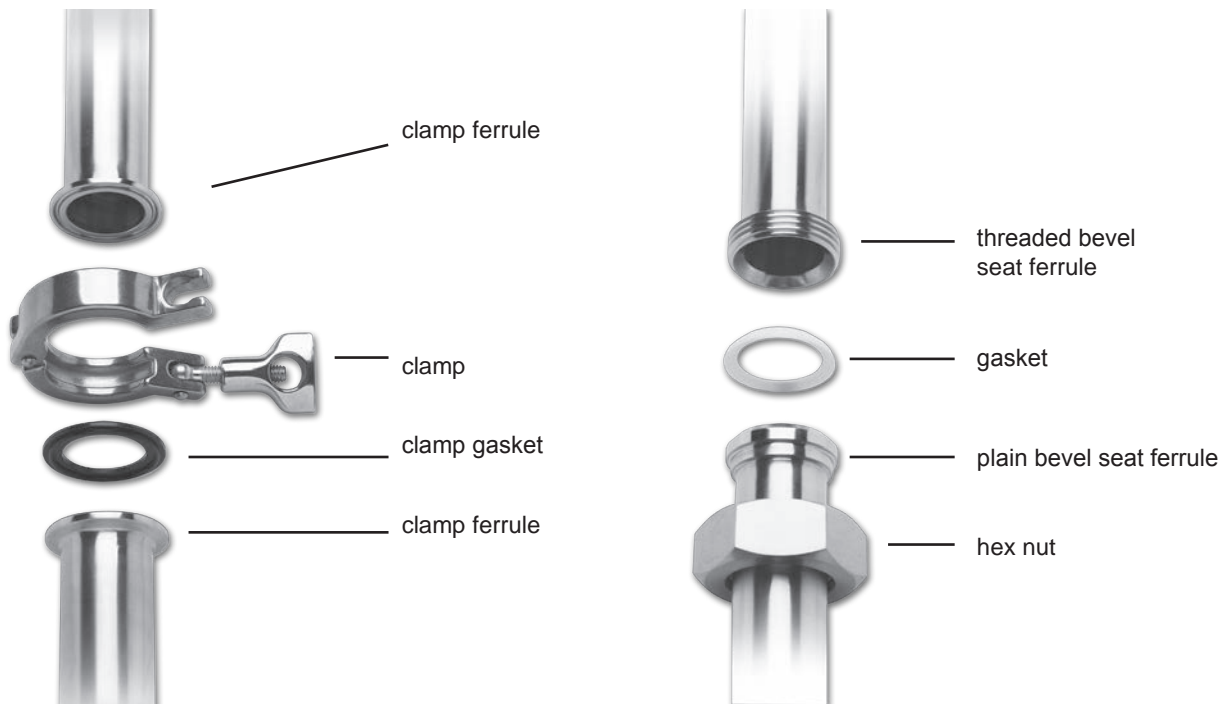
Tapered Thread



ACME Thread



Identifying Fittings



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.) | 31 = Concentric Reducer (unpolished, polished, clamp, etc.) |
| 7 = Tee (unpolished, polished, clamp, reducing, etc.) | 32 = Eccentric Reducer (unpolished, polished, clamp, etc.) |
| 9 = Cross (unpolished, polished, clamp, reducing, etc.) | 38 = Flange |
| 13 = Clamp (single pin, squeeze, double pin, 3 segment, bolted, I-line, lightweight, etc.) | 40 = Gaskets (1" and above) |
| 14 = Ferrule (short, long, auto weld, tank, roll on, hose adapter, male I-line, plain bevel seat/ John Perry) | 42 = Gaskets (½" and ¾") |
| 15 = Ferrule (bevel seat threaded or I-line female) | 45 = Check Valve (spring, ball, air blow) |
| 16 = End Cap (clamp, weld, I-line, bevel, etc.) | 51 = Butterfly Valve |
| 17 = Adapter ((bevel to clamp, I-line to clamp, etc.) | 54 = Sight Glass |
| 19 = Adapter (tube O.D. to national pipe thread) | RG = Hex tube hanger with rubber grommets |
| 21 = Male Adapter (bevel, clamp, I-line to male pipe thread) | RGC = Hex tube hanger with rubber grommets and coupler |
| 22 = Female Adapter (bevel, clamp, I-line to female pipe thread) | PS = Hex tube hanger with ABS sleeves |
| 23 = Thermometer (bevel, clamp, I-line, etc.) | PSC = Hex tube hanger with ABS sleeves and coupler |
| 24 = Hanger (hex, round, etc.) | RPH = Round tube hanger with Buna inserts |
| 28 = Y or lateral (unpolished, polished, clamp, reducing, etc.) | RPHC = Round tube hanger with Buna inserts and coupler |

Fittings Ordering Information

Material Designation:

G - 304
R - 316L

Size:

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"

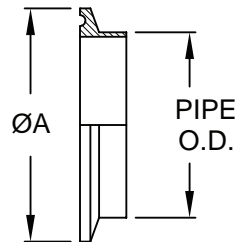
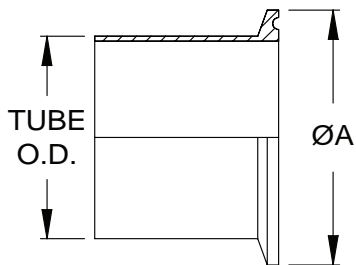


Identifying Fittings

Clamp Ferrules

Specifications:

- ASME BPE
- BS 4825
- ISO 2852
- DIN 32676



Note: flanges are symmetrical

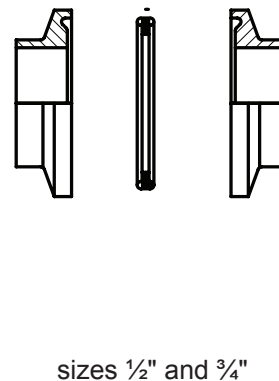
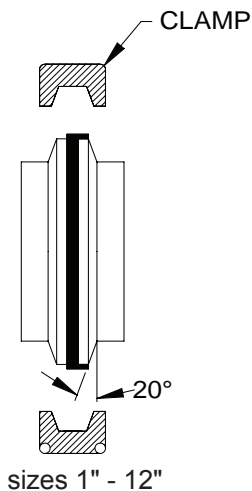
Tube

Tube OD (inches)	ØA
1/2	.992
3/4	.992
1	1.988
1 1/2	1.988
2	2.520
2 1/2	3.051
3	3.583
4	4.685
5	5.687
6	6.570
8	8.602
10	10.570
12	12.570

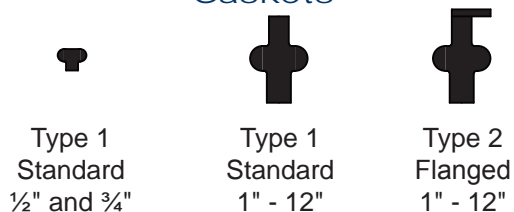
Pipe

Pipe Size (inches)	Pipe OD (inches)	ØA
1	1.315	1.984
1 1/4	1.660	2.516
1 1/2	1.900	2.516
2	2.375	3.047
2 1/2	2.875	3.579
3	3.500	4.125
4	4.500	5.125
6	6.625	7.195
8	8.625	9.200

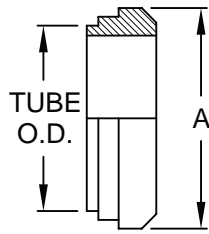
Clamp Connection



Gaskets

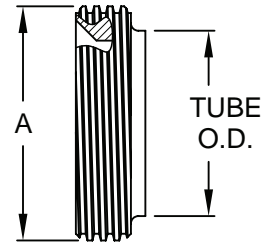


Identifying Fittings Bevel Seat Ferrules



Plain

Tube OD (inches)	ØA
1	1.312
1½	1.848
2	2.380
2½	2.912
3	3.444
4	4.508



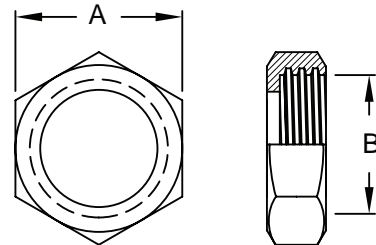
Threaded

Tube OD (inches)	ØA
1	1.462
1½	1.994
2	2.526
2½	3.058
3	3.590
4	4.695

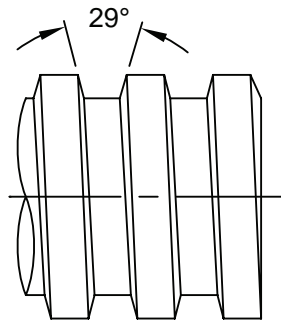
13H Hex Nuts

Nut

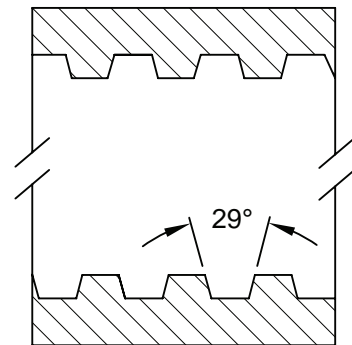
Tube OD (inches)	A Across Flats	B Thread ID	Threads per inch
1	1.812	1.362	8
1½	2.406	1.894	8
2	3.000	2.426	8
2½	3.594	2.958	8
3	4.188	3.490	8
4	5.438	4.554	6



Acme Thread Form



male thread



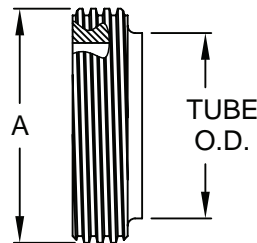
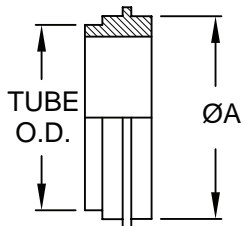
female thread

Gasket



Identifying Fittings

John Perry Ferrules



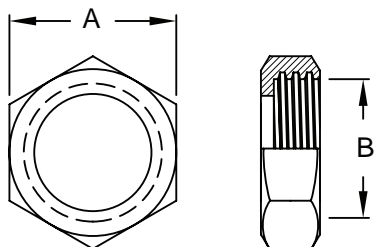
Plain

Threaded

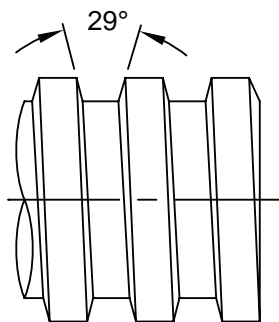
Tube OD (inches)	ØA
1	1.125
1½	1.656
2	2.187
2½	2.656
3	3.187
4	4.187

Tube OD (inches)	ØA
1	1.462
1½	1.994
2	2.526
2½	3.058
3	3.590
4	4.695

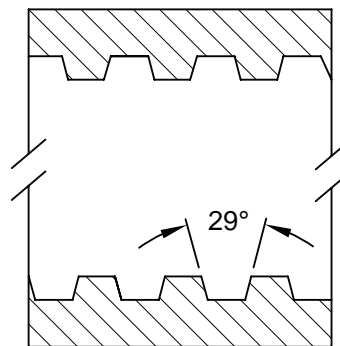
13H Hex Nuts



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



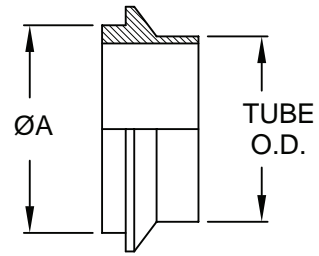
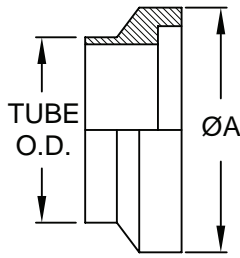
female thread

Gasket



Identifying Fittings

I-line Ferrules



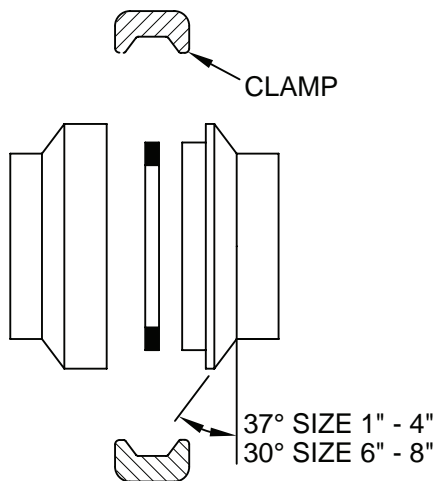
Female

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



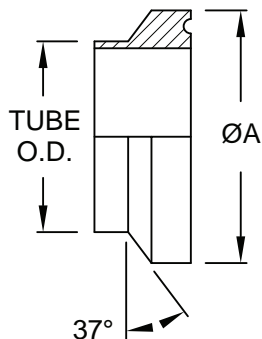
Gasket



Identifying Fittings

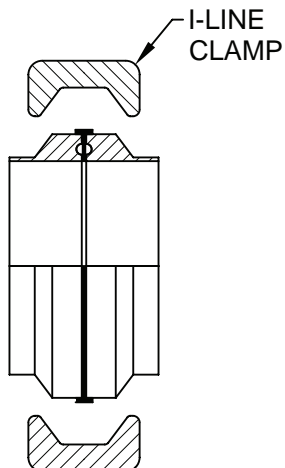
Q-line Ferrules

both halves of a jointed connection are symmetrical



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



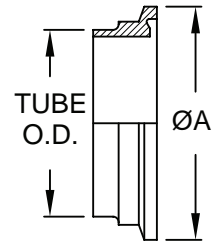
Identifying Fittings

APC Clamped Ferrules

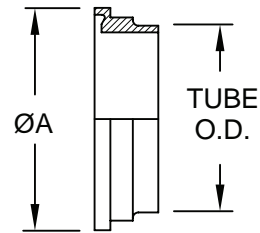
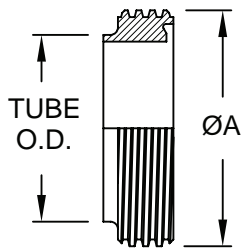
both halves of a jointed connection are symmetrical

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



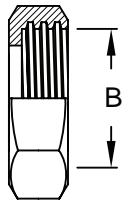
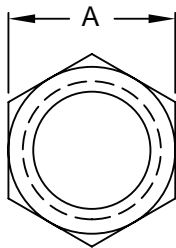
threaded ferrule

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

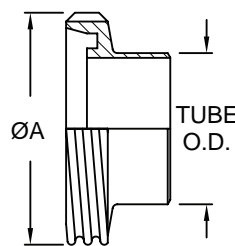
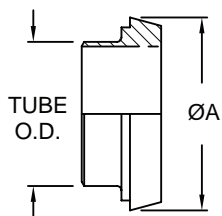
Tube OD (inches)	A Across Flats	B Thread ID	Threads per inch
1	1.812	1.362	8
1½	2.406	1.894	8
2	3.000	2.426	8
2½	3.594	2.958	8
3	4.188	3.490	8
4	5.438	4.554	6

Gasket



Identifying Fittings

DIN 11851 Ferrules



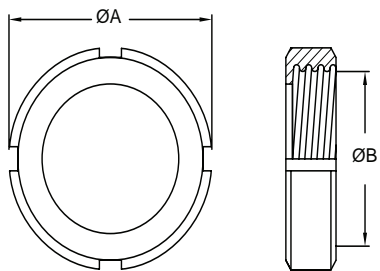
Liners

Males

Tube OD (inches)	ØA
1	1.73
1½	2.20
2	2.68
2½	3.39
3	3.94
4	4.76

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

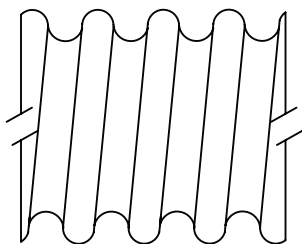


Nut

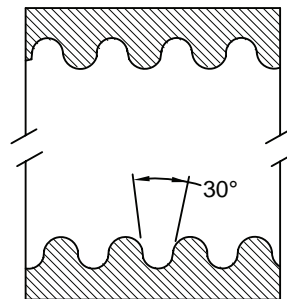
Tube OD (inches)	DN	ØA	B Thread ID	Threads per inch
1	25	2.48	1.88	6
1½	40	3.07	2.39	6
2	50	3.62	2.90	6
2½	65	4.41	3.49	6
3	80	5.00	4.14	4
4	100	5.83	4.94	4

Note: nuts 3" and larger will have 6 slots

DIN Thread Form



male thread



female thread

Gasket

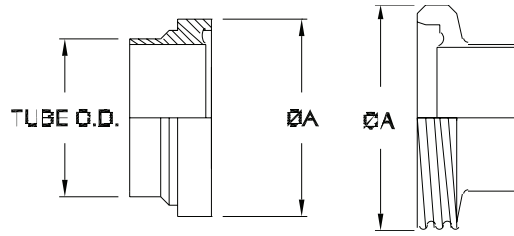


TYPE A

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

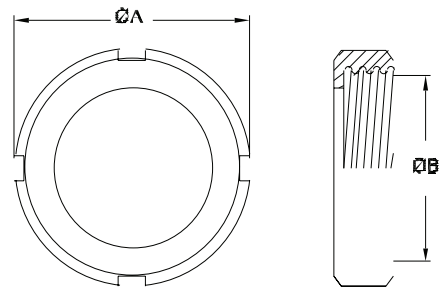
Weld Males

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

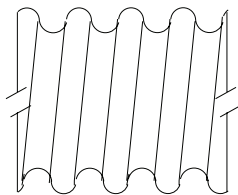
Nut

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

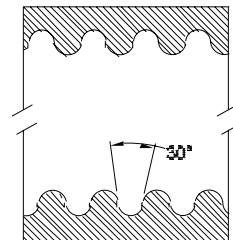


Note: nuts 3" and larger will have 6 slots

DIN 405/1 Thread Form



male thread



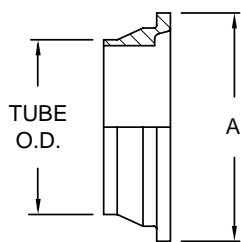
female thread

Gasket

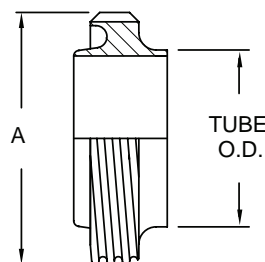


Identifying Fittings

RJT Ferrules



Liners

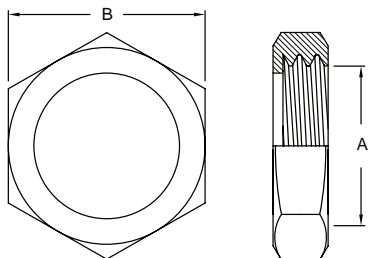


Males

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

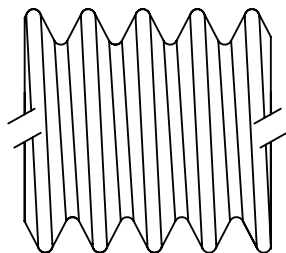
RJT Hex Nuts



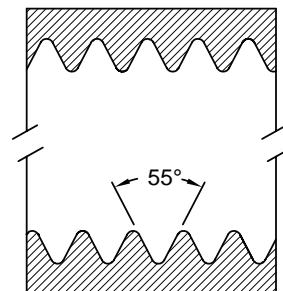
Nut

Tube OD (inches)	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 Witworth)



male thread



female thread

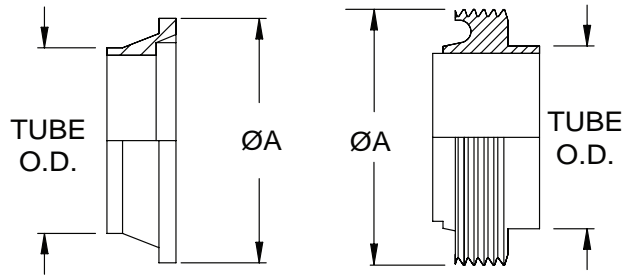
Gasket



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

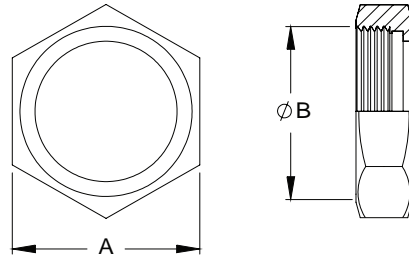
Weld Male

Tube OD (inches)	ØA
1	1.80
1½	2.30
2	2.86
2½	3.36
3	3.86
4	4.86

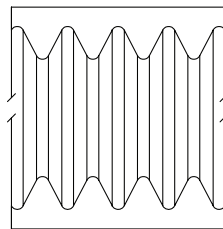
Hex Nut

Nut

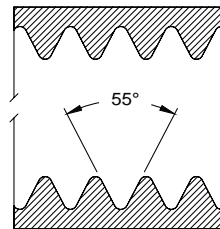
Tube OD (inches)	DN	A	B Thread ID	Threads per inch
1	25	2.00	1.68	8
1½	40	2.56	2.18	8
2	50	3.12	2.69	6
2½	65	3.62	3.19	6
3	80	4.12	3.69	6
4	100	5.12	4.69	6



RJT Thread Form (British Standard Witworth)



male thread



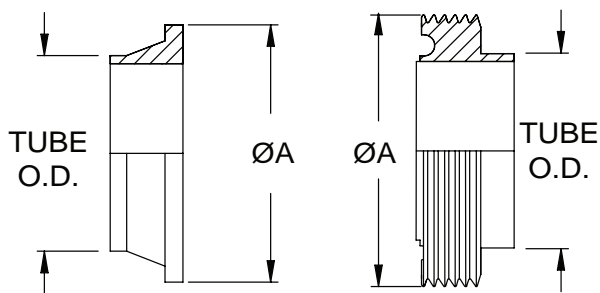
female thread

Gasket



Identifying Fittings

Australian CIP Flat Face Ferrules



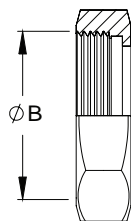
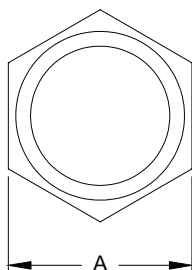
Weld Liners

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

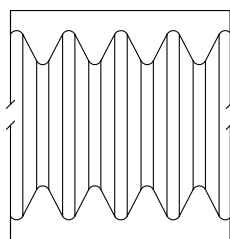
Hex Nut



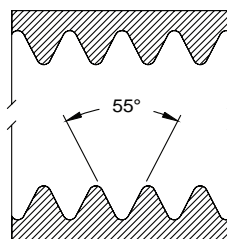
Nut

Tube OD (inches)	DN	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 Witworth)



male thread

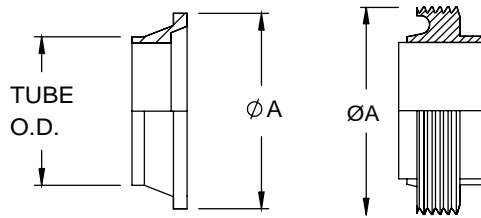


female thread

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

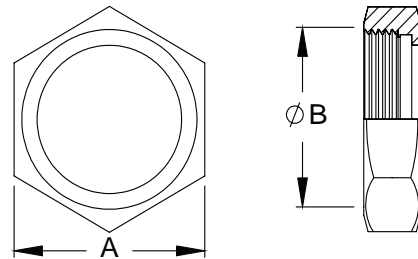
Weld Male

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

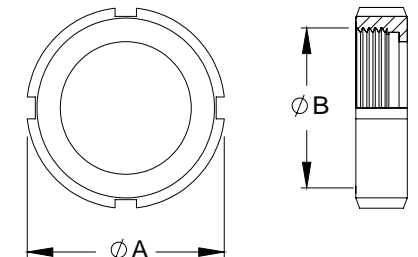
Tube OD (inches)	DN	A	ØB Thread ID	Threads per inch
1	25	2.00	1.68	8
1½	40	2.56	2.18	8
2	50	3.12	2.69	6
2½	65	3.62	3.19	6
3	80	4.12	3.69	6
4	100	5.12	4.69	6



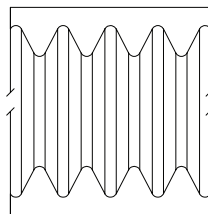
Round Nut

Nut

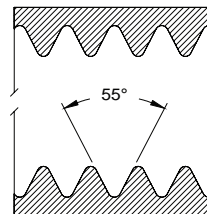
Tube OD (inches)	DN	ØA	ØB Thread ID	Threads per inch
1	25	2.00	1.68	8
1½	40	2.56	2.18	8
2	50	3.12	2.69	6
2½	65	3.62	3.19	6
3	80	4.12	3.69	6
4	100	5.12	4.69	6



RJT Thread Form (British Standard Witworth)



male thread



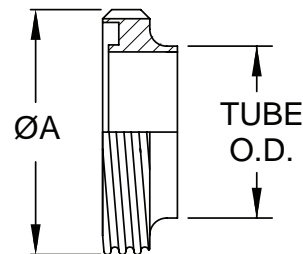
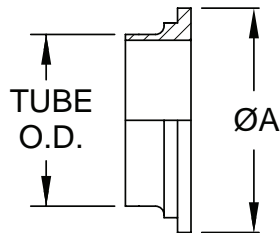
female thread

Gasket



Identifying Fittings

SMS Ferrules



Weld Liner

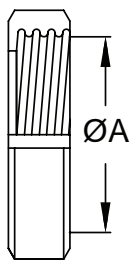
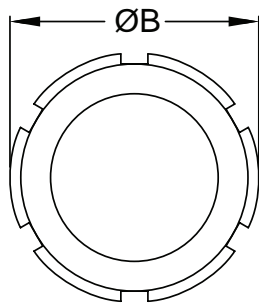
Males

Tube OD (inches)	ØA
1	1.40
1½	2.17
2	2.56
2½	3.15
3	3.66
4	4.65

Tube OD (inches)	ØA
1	1.55
1½	2.34
2	2.74
2½	3.33
3	3.84
4	4.90

Round Nut

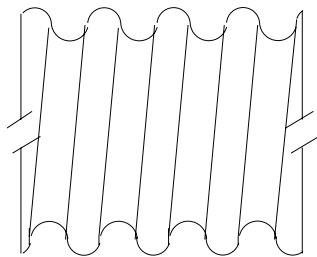
All nuts have 6 slots



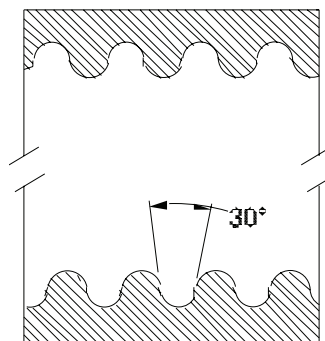
Nut

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



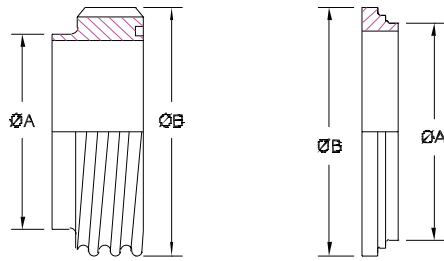
L GASKET



R GASKET

Identifying Fittings

Danish Standard Ferrules



Weld Male

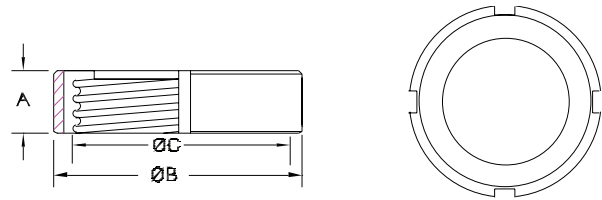
Size (inches)	ØA	ØB
1	1.000	1.732
1½	1.511	2.283
2	2.024	2.835
2½	2.516	3.386
3	3.008	3.937
4	4.018	5.118

Weld Liners

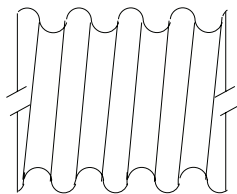
Tube OD (inches)	ØA	ØB
1	1.457	1.496
1½	1.850	1.969
2	2.244	1.969
2½	2.638	2.461
3	3.031	2.461
4	3.543	2.461

Round Nut

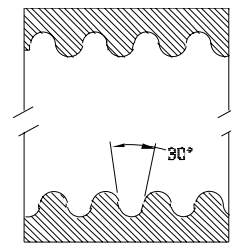
Size (inches)	A	ØB	ØC	Threads per inch
1	0.787	2.244	1.732	6
1½	0.787	2.795	2.283	6
2	0.787	3.386	2.835	6
2½	0.945	4.055	3.386	6
3	0.984	4.528	3.937	6
4	1.102	5.906	5.118	6



DS Thread Form (DIN 405/1)



male thread



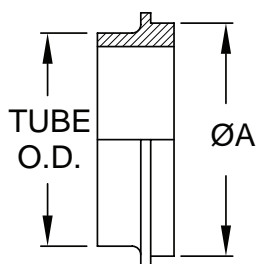
female thread

Gasket



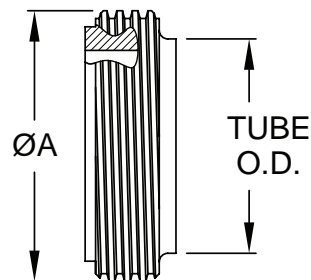
Identifying Fittings

IDF/ISO Couplings



Liners

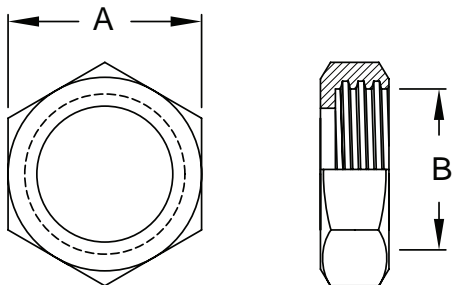
Tube OD (inches)	ØA
1	1.33
1½	1.85
2	2.38
2½	2.91
3	3.44
4	4.75



Males

Tube OD (inches)	ØA
1	1.46
1½	1.99
2	2.53
2½	3.06
3	3.59
4	4.96

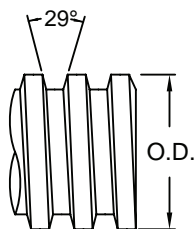
IDF Hex Nuts



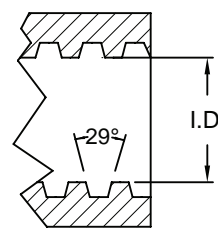
Nut

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



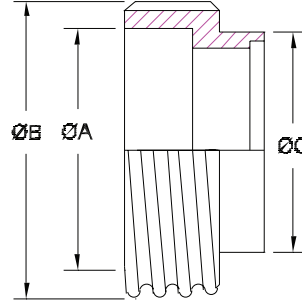
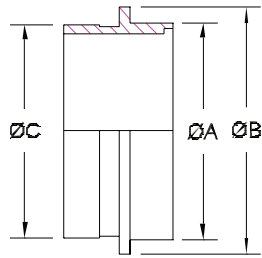
BS4825



ISO

Identifying Fittings

Wine Macon Ferrules



Weld Liner

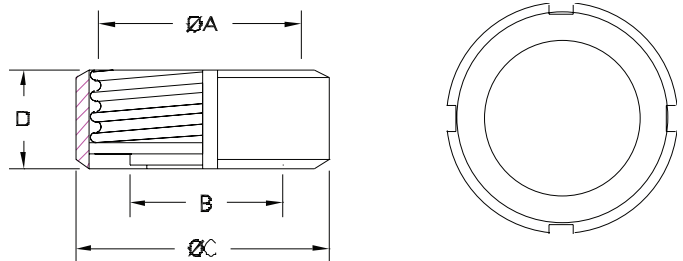
Size	ØA	ØB	ØC
DN 43	1.823	1.969	1.752
DN 53	2.217	2.461	2.146
DN 63	2.610	2.894	2.539
DN 73	3.004	3.346	2.933
DN 83	3.398	3.780	3.327
DN 103	4.252	4.685	4.114

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"



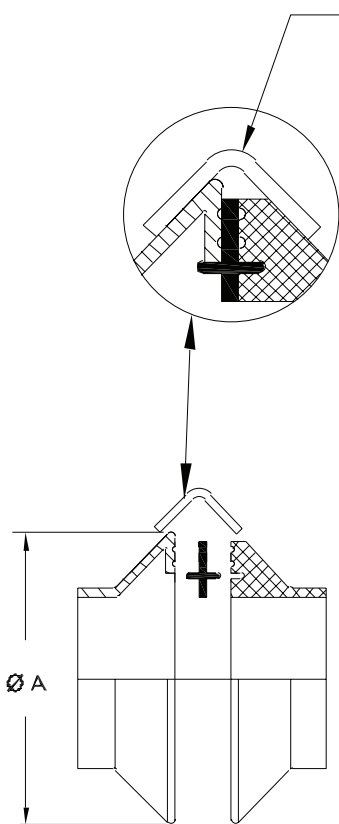
Gasket



Identifying Fittings

Garolla Fitting

USES STAMPED CLAMP

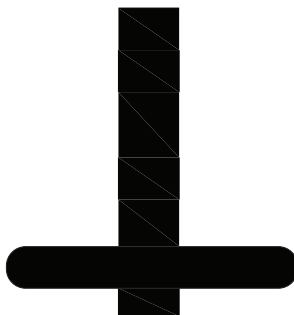


STAMPED

MACHINED

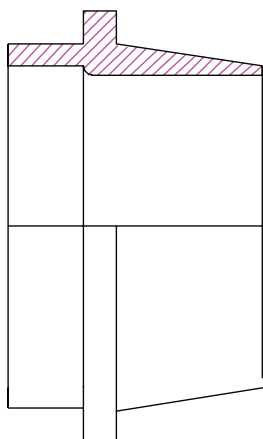
DIN	ØA
40	2.64
50	3.07
60	3.46
70	3.86
80	4.25
100	5.00
120	6.22
150	7.40

Gasket

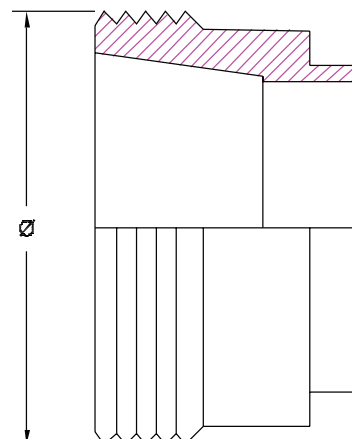


Identifying Fittings

Oenological Threaded Fittings



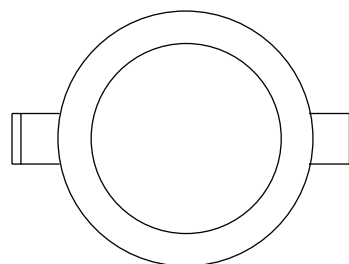
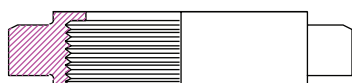
Male End



Female End

DIN	Ø
25	1.311
30	1.504
35	1.705
40	2.098
50	2.016

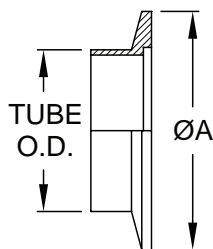
Nut



Identifying Fittings

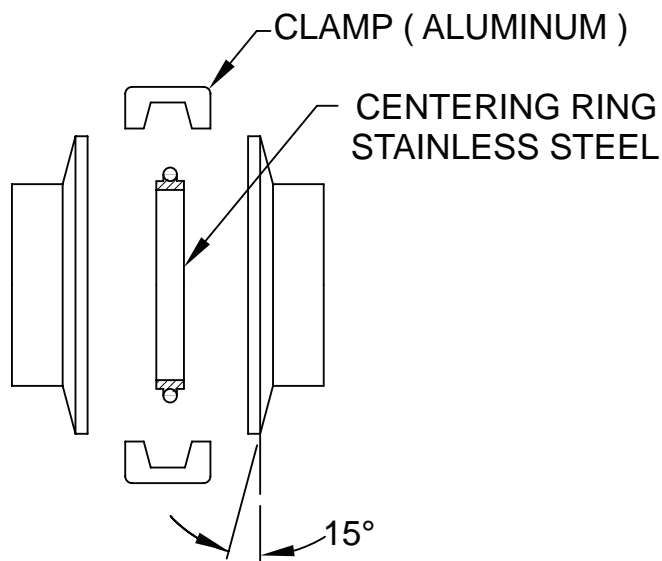
Vacuum Flanges

both halves of a jointed connection are symmetrical



clamp ferrule	
Tube OD (inches)	ØA
½	1.18
¾	1.18
1	1.57
1½	2.16
2	2.95

Clamp Connection



Gasket



Austenitic Stainless Steel Chemistry

Element	C	Mn	P	S	Si	Cr	Ni	Mo
304 ¹	0.08	2.00	0.045	0.030	1.00	18.0-20.0	8.0-10.0	
316L ¹	0.03	2.00	0.045	0.030	1.00	16.0-18.0	10.0-14.0	2.0-3.0
316L BPE ²	0.03	2.00	0.045	0.05 - 0.17	1.00	16.0-18.0	10.0-14.0	2.0-3.0
CF-8 ³	0.08	1.50	0.04	0.04	2.00	18.0-21.0	8.0-11.0	
CF-8M ³	0.08	1.50	0.04	0.04	2.00	18.0-21.0	9.0-12.0	2.0-3.0

¹ AISI specifications for wrought material

² ASME BPE 2012

³ 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		Dixon Sanitary High Purity code
	R _a Maximum		
	ID μ-in.	OD μ-in	
SF0	no finish requirement	no finish requirement	
SF1	20	32	PL
SF2	25	32	
SF3	30	32	
Surface designation	Mechanically Polished OD and Electropolished ID		
	R _a Maximum		
	ID μ-in.	OD μ-in	
SF4	15	32	PM
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 _a inside diameter (ID) only
5	Polished 150 grit outside diameter (OD) only
7	Polished 32R _a outside/inside diameter (OD/ID)
3A	Polished 150 grit outside (OD), 32R _a 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.

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.

Glossary of Terms

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.

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.



Glossary of Terms

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.

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.

Glossary of Terms

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 $g = 32.3$ ft/second

$V =$ 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.

Trademarks

Tygon® is a registered trademark of Saint-Gobain Corporation.

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