



Performance Stainless
Sanitary Fittings & Flow Components

Catalog 4270 - Sanitary Fittings
August 2005



If your processing system demands high performance flow components...

Your system deserves Parker Performance Stainless.



As a global leader in the motion and control industry, Parker Hannifin understands the pressures of running a modern production facility. Each function is critical, and breakdowns cost money. The last thing you need to be concerned about are products or equipment that do

not perform as expected. Parker is committed to providing customers with world class sanitary flow components that perform in a wide variety of process applications. We will continue to deliver exceptional customer service and innovative products that improve our clients bottom line.

A part is only as good as the whole!

At Parker, we believe our components are only a part of the team it takes to service our customers. We rely on a highly-technical and dedicated worldwide group of distributors and agents referred to as the Performance Team. They deliver the extra value that sets us apart from the pack.

As a Parker customer, we want you to be a lifelong member of the Performance Team, and we welcome your continued feedback about our performance. If you are in need of a special part or component, or some other service, please contact us or one of our Performance Team members.



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Offer of Sale

The items described in this document are hereby offered for sale by Parker Hannifin Corporation, its subsidiaries or its authorized distributors. This offer and its acceptance are governed by the provisions stated in the Parker Performance Stainless Catalog 4270.

WARNING

FAILURE, IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

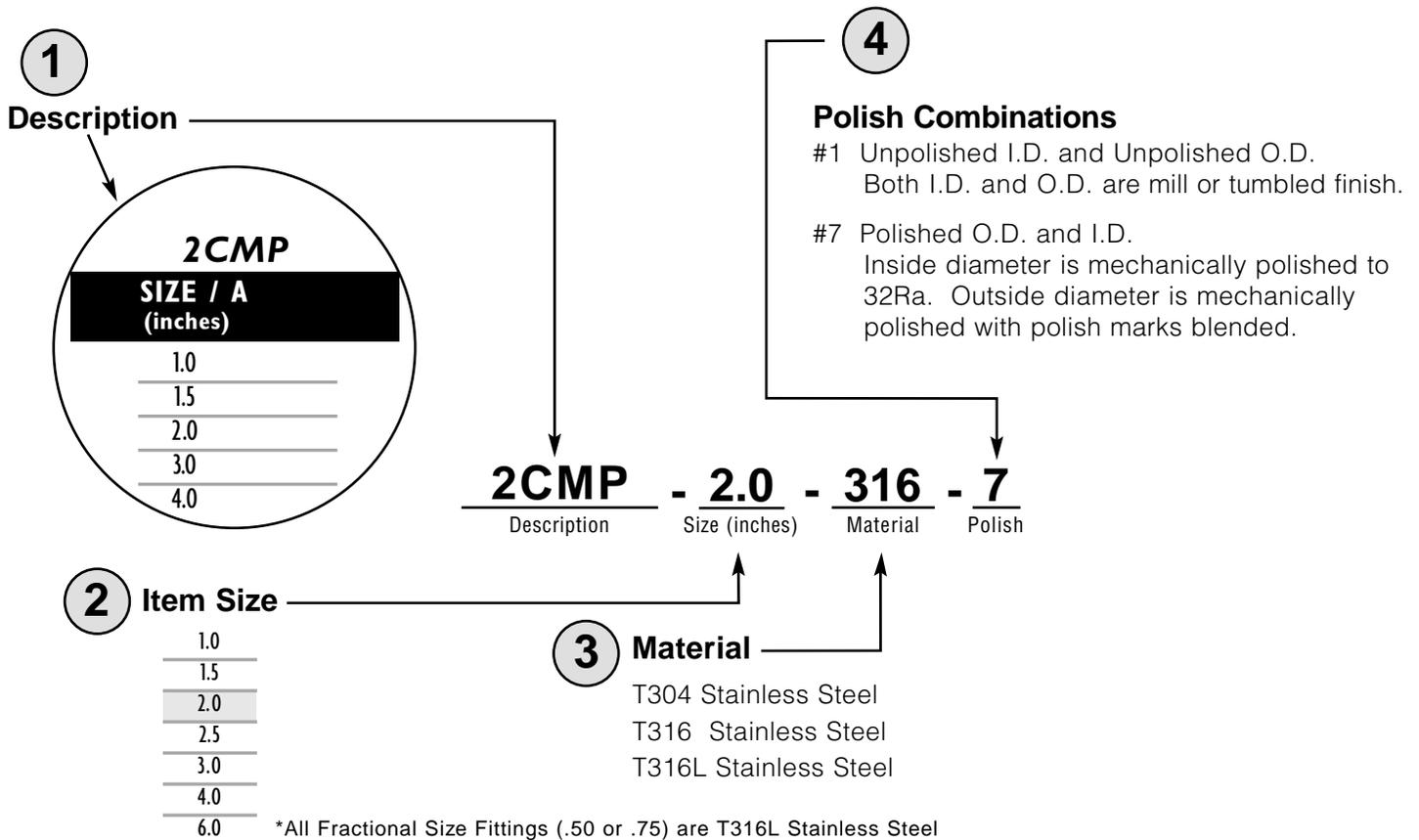
This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Parker Hannifin Corporation and its subsidiaries at any time without notice.

To specify the part completely, start with the description and select each of the additional options shown below. Be sure to denote the material and polish combination. See the example below.

PART NUMBER EXAMPLE

1
 2
 3
 4
2CMP - 2.0 - 316 - 7



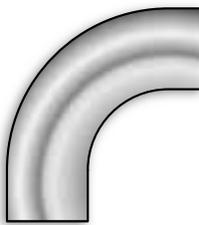
Item Meets ASME-BPE size specifications only. For additional information about ASME-BPE compliant fittings, contact Parker at 256-881-2040.

Notes about the Dimension Tables

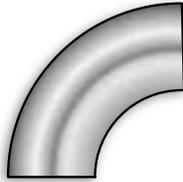
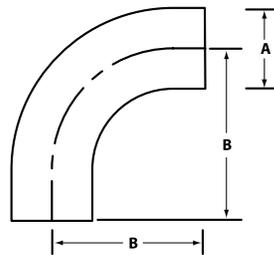
- All Dimension are in inches.
- **Wall Thickness:**
 - Fittings in 1.0-3.0 sizes are manufactured with 16 gauge (.065) wall thickness.
 - Fittings in 4.0 tube size are manufactured with 14 gauge (.083) wall thickness.

QUALITY STATEMENT:

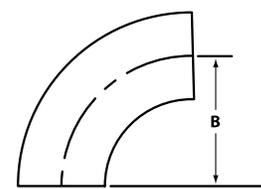
All fittings shall be manufactured using high quality T-304 or T-316L Stainless Steel with an A-269 minimum wall tubing. Fittings shall be free of crevices and manufactured within close, industry accepted tolerances. Standard polish shall be 180 grit ID and 150 grit OD, with capabilities up to 320 grit. Fittings shall meet 3A standards where applicable. Full heat traceability shall be made available on all 316L material. Unless otherwise listed, fittings .50 through 3.0 shall have a uniform .065 gauge, size 4.0 shall be .083 and size 6.0 shall be .109.



L2S



2WCL

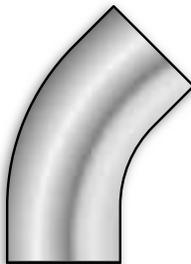


**L2S - 90° Tube Bend
“Long”**

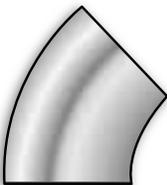
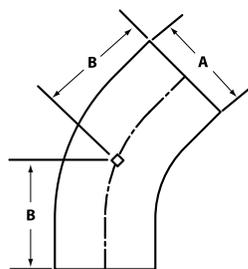
SIZE A (inches)	B (inches)	NOMINAL WALL THICKNESS
1.0	2.062	.065
1.5	2.937	.065
2.0	4.062	.065
2.5	5.187	.065
3.0	6.312	.065
4.0	8.312	.083
6.0	9.000	.109

**2WCL - 90° Tube Bend
“Short”**

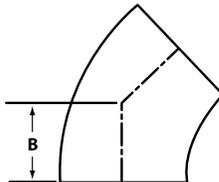
B (inches)	NOMINAL WALL THICKNESS
1.50	.065
2.25	.065
3.00	.065
3.75	.065
4.50	.065
6.00	.083
9.00	.109



L2KS



2WK

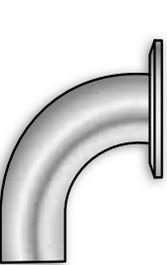


**L2KS - 45° Tube Bend
“Long”**

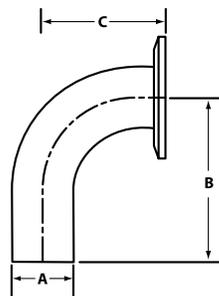
SIZE A (inches)	B (inches)	NOMINAL WALL THICKNESS
1.0	1.187	.065
1.5	1.625	.065
2.0	2.312	.065
2.5	3.000	.065
3.0	3.687	.065
4.0	4.812	.083
6.0	3.750	.109

**2WK - 45° Tube Bend
“Short”**

B (inches)	NOMINAL WALL THICKNESS
.625	.065
.938	.065
1.250	.065
1.563	.065
1.875	.065
2.500	.083
3.750	.109

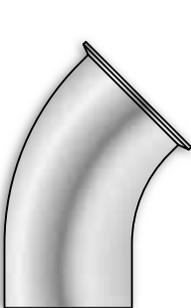


L2CM

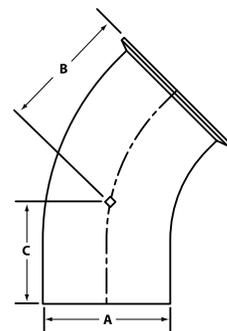


L2CM - 90° Clamp One End

SIZE A (inches)	B (inches)	C (inches)	NOMINAL WALL THICKNESS
1.0	2.062	2.562	.065
1.5	2.937	3.437	.065
2.0	4.062	4.562	.065
2.5	5.187	5.687	.065
3.0	6.312	6.812	.065
4.0	8.312	8.937	.083
6.0	9.000	9.750	.109

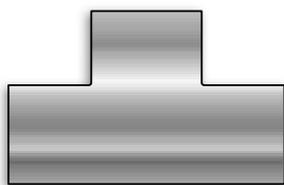


L2KM

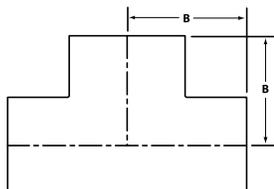
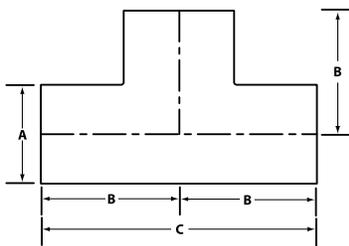


L2KM - 45° Clamp One End

SIZE A (inches)	B (inches)	C (inches)	NOMINAL WALL THICKNESS
1.0	1.687	1.187	.065
1.5	2.125	1.625	.065
2.0	3.812	2.312	.065
2.5	3.500	3.000	.065
3.0	4.187	3.687	.065
4.0	5.437	4.812	.083
6.0	4.500	3.750	.109



L7WWW "LONG"



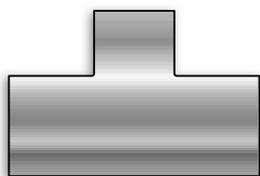
7W "SHORT"

L7WWW - Tee "Long"

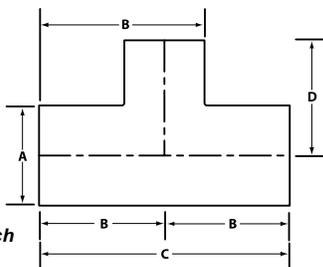
SIZE A (inches)	B (inches)	C (inches)	NOMINAL WALL THICKNESS
1.0	1.875	3.75	.065
1.5	2.250	4.50	.065
2.0	3.000	6.00	.065
2.5	3.000	6.00	.065
3.0	3.250	6.50	.065
4.0	3.875	7.75	.083
6.0	5.625	11.25	.109

7W - Tee "Short"

SIZE (inches)	B (inches)	NOM. WALL THICKNESS
1.0	1.125	.065
1.5	1.656	.065
2.0	2.062	.065
2.5	2.344	.065
3.0	2.594	.065
4.0	3.438	.083

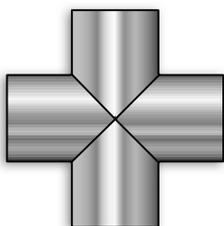


L7RW - Size Reduced on Branch

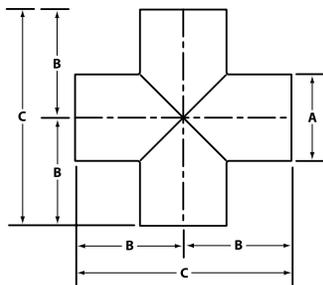


L7RW - Reducing Tee

SIZE A (inches)	B (inches)	C (inches)	D (inches)	NOMINAL WALL THICKNESS
1.5 x 1.0	1.5	3.00	3.312	.065
2.0 x 1.0	2.0	4.00	4.125	.065
2.0 x 1.5	2.0	4.00	4.125	.065
2.5 x 1.0	2.5	5.00	4.687	.065
2.5 x 1.5	2.5	5.00	4.687	.065
2.5 x 2.0	2.5	5.00	4.687	.065
3.0 x 1.0	3.0	6.00	5.187	.065
3.0 x 1.5	3.0	6.00	5.187	.065
3.0 x 2.0	3.0	6.00	5.187	.065
3.0 x 2.5	3.0	6.00	5.187	.065
4.0 x 1.0	4.0	8.00	9.250	.083
4.0 x 1.5	4.0	8.00	9.250	.083
4.0 x 2.0	4.0	8.00	9.250	.083

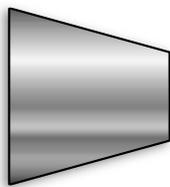


L9W

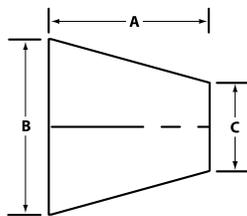


L9W - Cross

SIZE A (inches)	B (inches)	C (inches)	NOMINAL WALL THICKNESS
1.0	1.125	2.250	.065
1.5	1.656	3.312	.065
2.0	2.062	4.125	.065
2.5	2.343	4.687	.065
3.0	2.593	5.187	.065
4.0	3.437	6.875	.083
6.0	5.000	10.00	.109

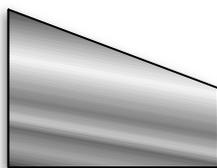


L31

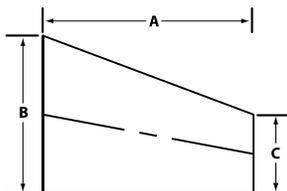


L31 - Concentric Reducers

SIZE A (inches)	B (inches)	C (inches)	NOMINAL WALL THICKNESS
1.5 x 1.0	2.000	1.500	.065
2.0 x 1.0	2.000	2.000	.065
2.0 x 1.5	2.000	2.000	.065
2.5 x 1.5	4.000	2.500	.065
2.5 x 2.0	2.000	2.500	.065
3.0 x 1.5	6.000	3.000	.065
3.0 x 2.0	4.000	3.000	.065
3.0 x 2.5	2.000	3.000	.065
4.0 x 1.5	10.00	4.000	.083
4.0 x 2.0	8.000	4.000	.083
4.0 x 2.5	6.000	4.000	.083
4.0 x 3.0	4.000	4.000	.083
6.0 x 4.0	9.000	6.000	.109



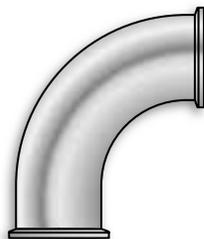
L32



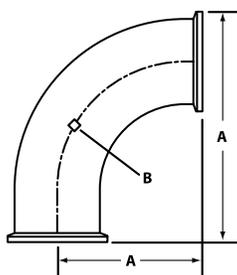
L32 - Eccentric Reducers

SIZE A (inches)	B (inches)	C (inches)	NOMINAL WALL THICKNESS
1.5 x 1.0	2.000	1.500	.065
2.0 x 1.0	4.000	2.000	.065
2.0 x 1.5	2.000	2.000	.065
2.5 x 1.5	4.000	2.500	.065
2.5 x 2.0	2.000	2.500	.065
3.0 x 1.5	6.000	3.000	.065
3.0 x 2.0	4.000	3.000	.065
3.0 x 2.5	2.000	3.000	.065
4.0 x 1.5	10.00	4.000	.083
4.0 x 2.0	8.000	4.000	.083
4.0 x 2.5	6.000	4.000	.083
4.0 x 3.0	4.000	4.000	.083
6.0 x 4.0	5.500	6.000	.109

Clamp Fittings: ELBOWS

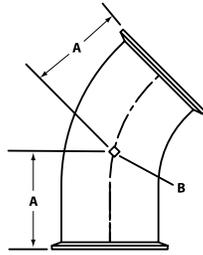


2CMP



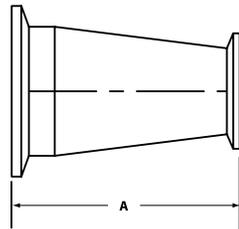
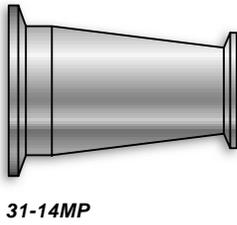
2CMP - 90° El BPE SIZE ONLY

SIZE (inches)	A (inches)	B (inches)
1.0	2.000	1.500
1.5	2.750	2.250
2.0	3.500	3.000
2.5	4.250	3.750
3.0	5.000	4.500
4.0	6.625	6.000
6.0	9.750	9.000



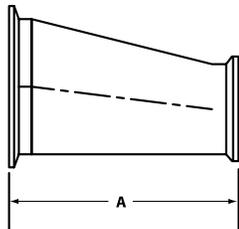
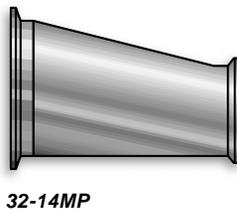
2KMP - 45° ELL BPE SIZE ONLY

SIZE (inches)	A (inches)	B (inches)
1.0	1.125	1.500
1.5	1.437	2.250
2.0	1.750	3.000
2.5	2.062	3.750
3.0	2.375	4.500
4.0	3.125	6.000
6.0	4.500	9.000



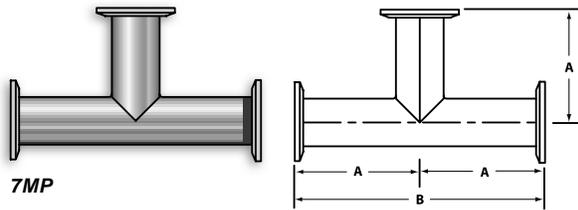
31-14MP - Concentric Reducer BPE SIZE ONLY

SIZE (inches)	A (inches)
1.5 x 1.0	3.000
2.0 x 1.0	5.000
2.0 x 1.5	3.000
2.5 x 1.5	5.000
2.5 x 2.0	3.000
3.0 x 1.5	7.000
3.0 x 2.0	5.000
3.0 x 2.5	3.000
4.0 x 1.5	11.125
4.0 x 2.0	9.125
4.0 x 2.5	7.125
4.0 x 3.0	5.125
6.0 x 4.0	10.500



32-14MP - Eccentric Reducers BPE SIZE ONLY

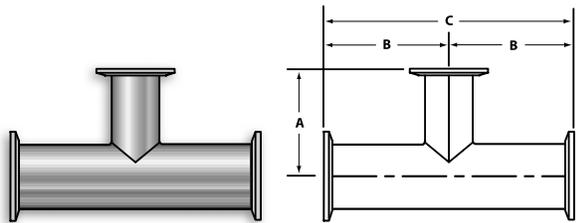
SIZE (inches)	A (inches)
1.5 x 1.0	3.000
2.0 x 1.0	5.000
2.0 x 1.5	3.000
2.5 x 1.5	5.000
2.5 x 2.0	3.000
3.0 x 1.5	7.000
3.0 x 2.0	5.000
3.0 x 2.5	3.000
4.0 x 1.5	11.125
4.0 x 2.0	9.125
4.0 x 2.5	7.125
4.0 x 3.0	5.125
6.0 x 4.0	10.500



7MP

7MP - Tee

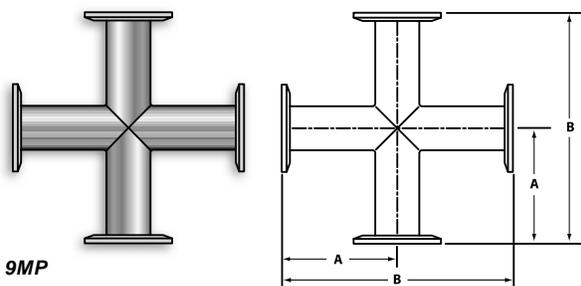
SIZE (inches)	A (inches)	B (inches)
1.0	2.375	4.750
1.5	2.750	5.500
2.0	3.500	7.000
2.5	3.500	7.000
3.0	3.750	7.500
4.0	4.500	9.000
6.0	7.150	14.300



7RMP - Size Reduced on Branch

7RMP - Reducing Tee

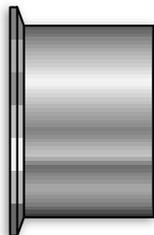
SIZE (inches)	A (inches)	B (inches)	C (inches)
1.5 x 1.0	1.875	2.156	4.312
2.0 x 1.0	2.125	2.562	5.125
2.0 x 1.5	2.406	2.562	5.125
2.5 x 1.0	2.812	2.843	5.687
2.5 x 1.5	2.656	2.844	5.688
2.5 x 2.0	2.812	2.843	5.687
3.0 x 1.0	3.062	3.093	6.187
3.0 x 1.5	3.062	3.093	6.187
3.0 x 2.0	3.062	3.093	6.187
3.0 x 2.5	3.093	3.093	6.187
4.0 x 1.0	4.875	4.062	8.125
4.0 x 1.5	4.875	4.062	8.125
4.0 x 2.0	4.875	4.062	8.125
4.0 x 2.5	4.875	4.062	8.125
4.0 x 3.0	4.875	4.062	8.125
6.0 x 2.0	5.500	5.750	11.500
6.0 x 2.5	5.500	5.750	11.500
6.0 x 3.0	5.500	5.750	11.500
6.0 x 4.0	5.625	5.750	11.500



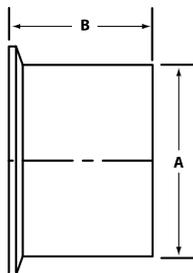
9MP

9MP - Cross

SIZE (inches)	A (inches)	B (inches)
1.0	2.375	4.750
1.5	2.750	5.500
2.0	3.500	7.000
2.5	3.500	7.000
3.0	3.750	7.500
4.0	4.500	9.000
6.0	5.750	11.500

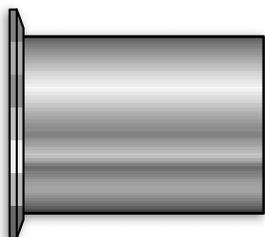


L14AM

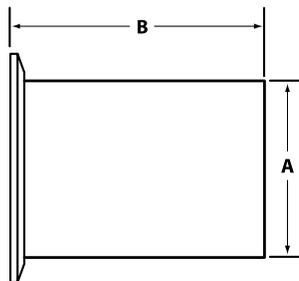


L14AM - Butt Welding Ferrule

SIZE A (inches)	B (inches)	NOMINAL WALL THICKNESS
1.0	1.125	.065
1.5	1.125	.065
2.0	1.125	.065
2.5	1.125	.065
3.0	1.125	.065
4.0	1.125	.083
6.0	1.500	.109



TL14AM

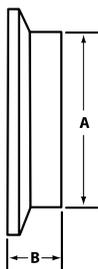


TL14AM - Butt Welding Ferrule BPE SIZE ONLY

SIZE A (inches)	B (inches)	NOMINAL WALL THICKNESS
.50	1.750	.065
.75	1.750	.065
1.0	1.750	.065
1.5	1.750	.065
2.0	2.250	.065
2.5	2.250	.065
3.0	2.250	.065
4.0	2.250	.083
6.0	3.000	.109



14WMP

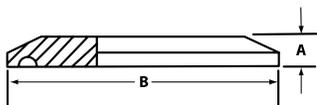


14WMP - Short Welding Ferrule

SIZE A (inches)	B (inches)	NOMINAL WALL THICKNESS
1.0	0.500	.065
1.5	0.500	.065
2.0	0.500	.065
2.5	0.500	.065
3.0	0.500	.065
4.0	0.625	.083
6.0	0.750	.109

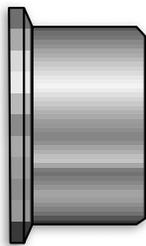


16AMP

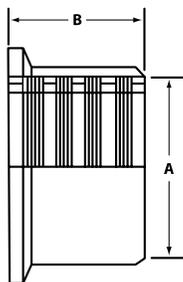


16AMP - Solid End Cap

SIZE (TUBE O.D.) (inches)	A (inches)	B (inches)
.50 / .75	0.250	0.993
1.0 / 1.5	0.250	1.984
2.0	0.250	2.516
2.5	0.250	3.047
3.0	0.250	3.579
4.0	0.312	4.682
6.0	0.500	6.570

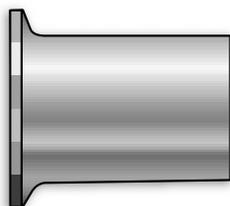


14RMP

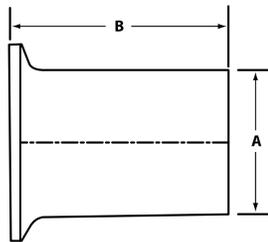


14RMP - Recessless Ferrule

SIZE (inches)	A (inches)	B (inches)
1.0	0.750	
1.5	1.125	
2.0	1.312	
2.5	1.375	
3.0	1.437	
4.0	1.500	

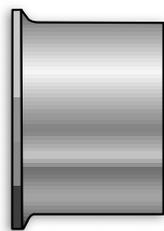


14WLMP

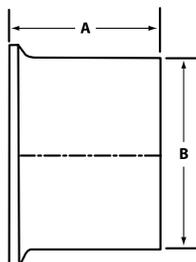


14WLMP - Tank Welding Spud - Light

SIZE (inches)	A (inches)	B (inches)	NOMINAL WALL THICKNESS
1.0	3.000	.065	
1.5	3.000	.065	
2.0	3.000	.065	
2.5	3.000	.065	
3.0	4.000	.065	
4.0	4.000	.083	
6.0	6.000	.109	
8.0	6.000	.109	
10.0	6.000	.140	
12.0	6.000	.140	

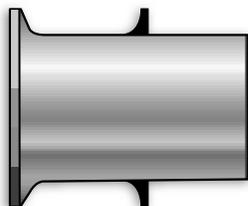


14MPW

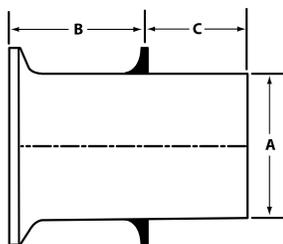


14MPW - Tank Welding Ferrule - Heavy

SIZE (inches)	A (inches)	B (inches)	NOMINAL WALL THICKNESS
.50	2.125	0.500	.065
.75	2.125	0.750	.065
1.0	1.625	1.160	.145
1.5	1.625	1.676	.153
2.0	1.750	2.192	.161
2.5	1.750	2.708	.169
3.0	1.812	3.224	.177
4.0	2.125	4.256	.211
6.0	2.125	6.00	.217
8.0	2.125	8.00	.217

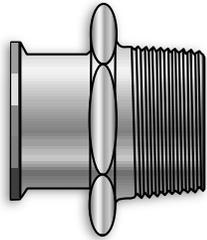


FLV14AM

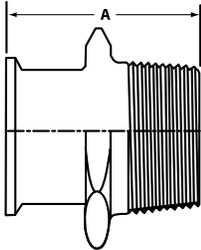


FLV14AM - Flowverter Ferrule

SIZE (inches)	A (inches)	B (inches)	C (inches)	NOMINAL WALL THICKNESS
.50	1.125	1.000	.065	
.75	1.125	1.000	.065	
1.0	1.625	1.000	.065	
1.5	1.625	1.000	.065	
2.0	1.625	1.000	.065	
2.5	1.625	1.000	.065	
3.0	1.625	1.000	.065	
4.0	1.625	1.000	.083	



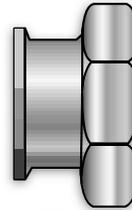
21MP



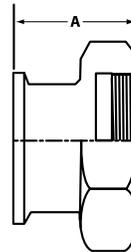
* = No Hex Head Reduction on NPT

21MP - Adapter
(N.P.T. Male Threads)

SIZE (T/C x NPT) (inches)	A (inches)
0.50 x 0.125*	2.000
0.50 x 0.250*	2.000
0.50 x 0.375*	2.000
0.50 x 0.500*	2.000
0.50 x 0.750*	2.000
0.75 x 0.125*	2.000
0.75 x 0.250*	2.000
0.75 x 0.375*	2.000
0.75 x 0.500*	2.000
0.75 x 0.750*	2.000
0.75 x 1.000*	2.250
1.00 x 0.125*	2.187
1.00 x 0.250*	2.161
1.00 x 0.375*	2.187
1.00 x 0.500*	2.187
1.00 x 0.750*	2.187
1.00 x 1.000	2.250
1.00 x 1.500	2.437
1.00 x 2.000	2.625
1.00 x 3.000*	2.625
1.50 x 0.750*	2.187
1.50 x 1.000	2.312
1.50 x 1.250	2.437
1.50 x 1.500	2.437
1.50 x 2.000	2.625
1.50 x 2.500*	3.281
2.00 x 1.000	2.468
2.00 x 1.500	2.468
2.00 x 2.000	2.656
2.00 x 2.500*	3.125
2.00 x 3.000*	3.500
2.00 x 4.000*	3.500
2.50 x 1.000*	2.781
2.50 x 1.500*	2.781
2.50 x 2.000*	2.781
2.50 x 2.500*	3.281
2.50 x 3.000*	3.690
3.00 x 1.000*	3.000
3.00 x 1.500*	3.000
3.00 x 2.000*	3.000
3.00 x 2.500*	3.500
3.00 x 3.000*	3.500
3.00 x 4.000*	3.500
4.00 x 1.500*	3.812
4.00 x 2.000*	3.812
4.00 x 2.500*	3.812
4.00 x 3.000*	3.812
4.00 x 4.000*	3.812
6.00 x 6.000*	4.500



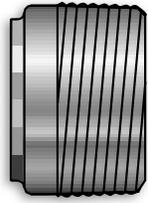
22MP



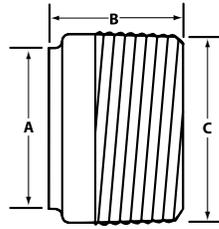
* = No Hex Head Reduction on NPT

22MP - Adapter
(N.P.T. Female Threads)

SIZE (T/C x NPT) (inches)	A (inches)
0.50 x 0.125*	1.250
0.50 x 0.250*	1.500
0.50 x 0.375*	1.500
0.50 x 0.500*	1.500
0.50 x 0.750*	1.625
0.50 x 1.000*	1.625
0.50 x 1.500*	2.250
0.50 x 2.000*	2.250
0.75 x 0.125*	1.250
0.75 x 0.250*	1.500
0.75 x 0.375*	1.500
0.75 x 0.500*	1.500
0.75 x 0.750*	1.625
0.75 x 1.000*	1.625
1.00 x 0.750*	1.625
1.00 x 1.000	1.625
1.00 x 1.500	2.250
1.00 x 2.000	2.250
1.00 x 2.500*	2.500
1.50 x 0.750*	1.625
1.50 x 1.000	1.625
1.50 x 1.250	2.250
1.50 x 1.500	2.250
1.50 x 2.000	2.250
1.50 x 2.500*	2.500
1.50 x 3.000*	2.500
2.00 x 1.000	2.500
2.00 x 1.250	1.687
2.00 x 1.500	1.687
2.00 x 2.000	2.343
2.00 x 2.500*	2.406
2.00 x 3.000*	2.406
2.00 x 4.000*	3.000
2.50 x 1.000*	1.312
2.50 x 1.500*	1.656
2.50 x 2.000*	1.718
2.50 x 2.500*	2.093
2.50 x 3.000*	2.187
3.00 x 1.000*	2.187
3.00 x 1.500*	2.187
3.00 x 2.000*	2.187
3.00 x 2.500*	2.187
3.00 x 3.000*	2.187
4.00 x 1.500*	2.187
4.00 x 2.000*	2.187
4.00 x 2.500*	2.187
4.00 x 3.000*	2.187
4.00 x 4.000*	2.625
4.00 x 6.000*	3.250

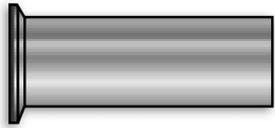


19WB

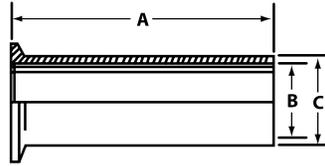


19WB - Weld x Male NPT

SIZE (inches)	B (inches)	C (inches)	NOMINAL TUBE SIZE
.50	1.500	.8400	.650
.75	1.625	1.050	.650
1.0	1.750	1.315	.650
1.5	1.750	1.660	.650
2.0	1.812	1.900	.650
2.5	2.312	2.375	.650
3.0	2.500	3.500	.650
4.0	2.562	4.500	.083
6.0	4.000	6.625	.109

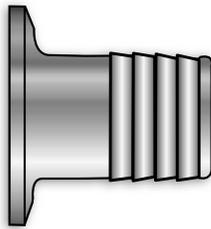


14MPHT

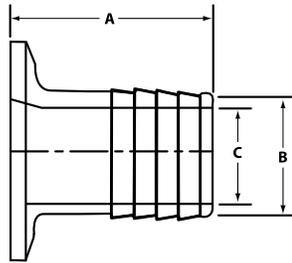


14MPHT - Tygon Hose Adapter

SIZE (inches)	A (inches)	B (inches)	C (inches)
0.50	4.500	.3750	0.500
0.75	4.500	.6250	0.750
1.00	4.500	.8700	1.000
1.50	4.500	1.370	1.500
2.00	4.500	1.870	2.000
2.50	4.500	2.370	2.500
3.00	4.500	2.870	3.000
4.00	4.6250	3.834	4.000



14MPHR



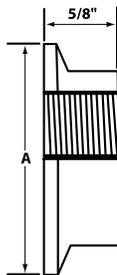
14MPHR - Rubber Hose Adapter

SIZE (inches)	A (inches)	B (inches)	C (inches)
1.0 x 1.0	1.687	1.000	0.812
1.5 x 1.5	1.687	1.500	1.312
1.5 x 1.0	1.687	1.000	0.875
2.0 x 2.0	2.312	2.000	1.810
2.0 x 1.5	2.312	1.500	1.312
2.5 x 2.5	2.343	2.500	2.312
3.0 x 3.0	3.093	3.000	2.834
4.0 x 4.0	3.406	4.000	3.834
6.0 x 6.0	3.406	6.000	5.728
8.0 x 8.0	3.406	8.000	7.728

Size = Clamp x Hose Size. Call for others.



23BMP

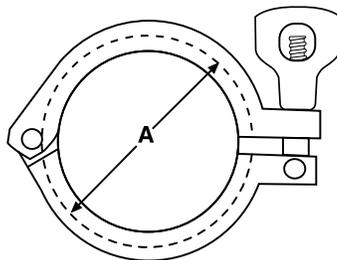
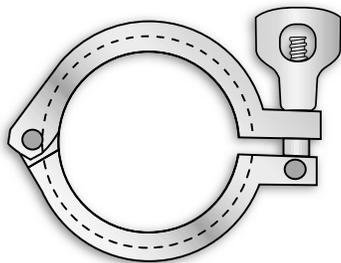


23BMP - Thermometer Cap

SIZE (inches)	A (inches)
1.0	1.984
1.5	1.984
2.0	2.516
2.5	3.047
3.0	3.579
4.0	4.682

Specify Tap Thread: .50, .75, 1.0 or Blank.

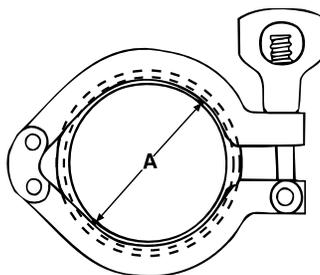
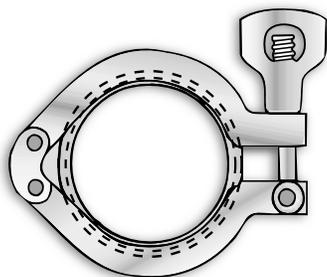
**13MHM - Heavy Duty Clamp
Single Pin Hinge**



13MHM

SIZE (TUBE O.D.) (inches)	A (inches)
.50 / .75	1.109
1.0 / 1.5	2.140
2.0	2.610
2.5	3.141
3.0	3.673
4.0	4.776
6.0	6.695
8.0	8.695
10.0	10.695

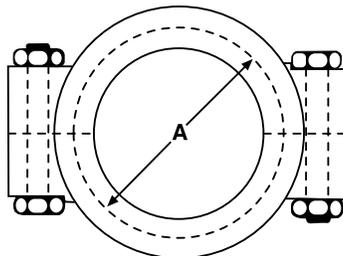
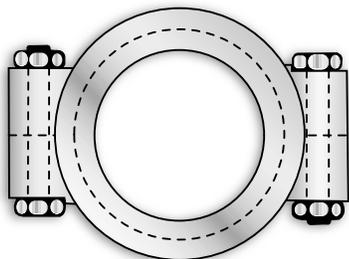
**13MHHM - Heavy Duty Clamp
Double Pin Hinge**



13MHHM

SIZE (TUBE O.D.) (inches)	A (inches)
1.0/1.5	2.140
2.0	2.610
2.5	3.141
3.0	3.673
4.0	4.776
6.0	6.695
8.0	8.695
10.0	10.695
12.0	12.695

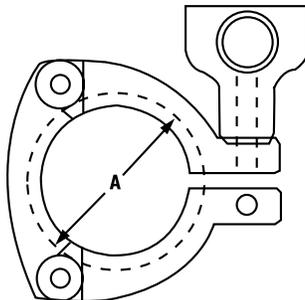
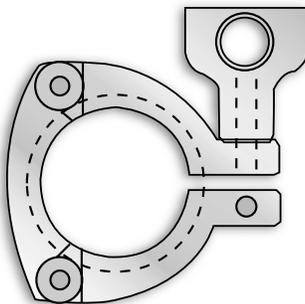
13MHP - High Pressure Bolted Clamp



13MHP

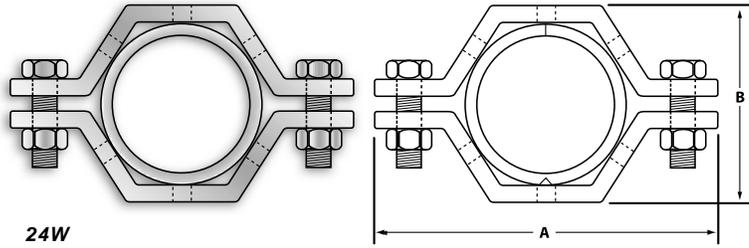
SIZE (TUBE O.D.) (inches)	A (inches)
.50 / .75	1.141
1.0 / 1.5	2.046
2.0	2.578
2.5	3.110
3.0	3.640
4.0	4.744
6.0	6.632
8.0	8.632

13MHHS - Three Segment Clamp



13MHHS

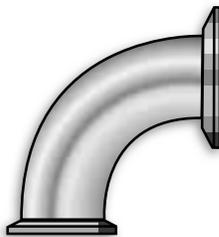
SIZE (inches)	A (inches)
1.0 / 1.5	2.140
2.0	2.610
2.5	3.141
3.0	3.673
4.0	4.776



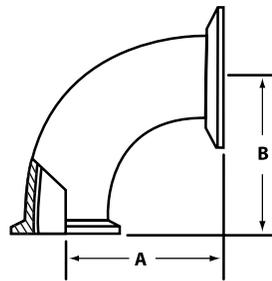
24W

24W - Hanger W/Polypropylene Insert

SIZE (TUBE O.D.) (inches)	A (inches)	B (inches)
.50	2.80	1.15
.75	2.80	1.15
1.0	3.375	1.625
1.5	4.000	2.125
2.0	4.500	2.500
2.5	4.750	3.125
3.0	5.000	3.750
4.0	6.750	4.750

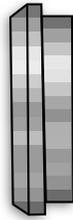


2CMP-31

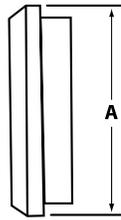


2CMP-31-90° Concentric Reducing Elbow

SIZE (inches)	A (inches)	B (inches)
2.0 x 1.0	2.00	2.00
2.0 x 1.0	2.75	2.75
2.5 x 1.0	2.75	2.75
2.5 x 2.0	3.50	3.50
3.0 x 1.5	2.75	2.75
3.0 x 2.0	3.50	3.50
3.0 x 2.5	4.25	4.25
4.0 x 2.5	4.25	4.25
4.0 x 3.0	5.00	5.00



16A

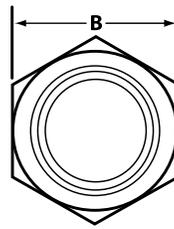
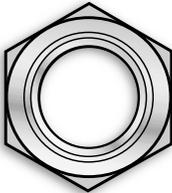


16A - Solid End Cap

SIZE (inches)	A (inches)
1.0	1.312
1.5	1.843
2.0	2.375
2.5	2.906
3.0	3.437
4.0	4.500

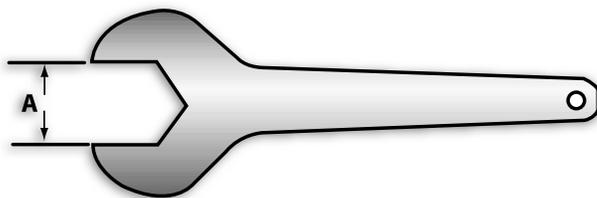


13H



13H - Hex Union Nut

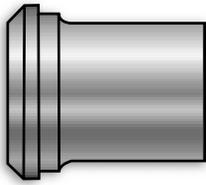
SIZE (inches)	A (inches)	B (inches)
1.0	0.906	1.812
1.5	0.968	2.406
2.0	1.062	3.000
2.5	1.187	3.593
3.0	1.281	4.187
4.0	1.500	5.437



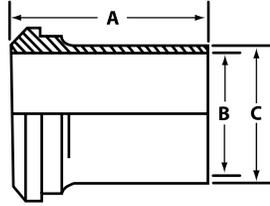
25H

25H Aluminum Hex - Wrench Single End

SIZE / A (inches)
1.0
1.5
2.0
2.5
3.0
4.0

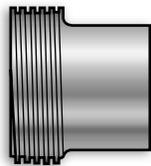


L14A7

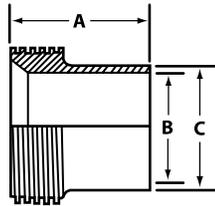


L14A7-Plain Tube Ferrule

SIZE (inches)	A (inches)	B (inches)	C (inches)
1.0	1.375	0.870	1.00
1.5	1.500	1.370	1.50
2.0	1.500	1.870	2.00
2.5	1.750	2.370	2.50
3.0	1.750	2.870	3.00
4.0	1.750	3.834	4.00

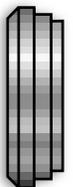


L15A7

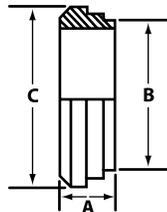


L15A7-Threaded Tube Ferrule

SIZE (inches)	A (inches)	B (inches)	C (inches)
1.0	1.375	0.870	1.00
1.5	1.500	1.370	1.50
2.0	1.500	1.870	2.00
2.5	1.750	2.370	2.50
3.0	1.750	2.870	3.00
4.0	1.750	3.834	4.00



14PRF



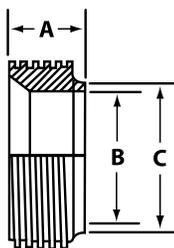
14PRF-Short Weld Ferrule

SIZE (inches)	A (inches)	B (inches)	C (inches)
1.0	0.870	0.687	1.00
1.5	1.370	0.719	1.50
2.0	1.870	0.718	2.00
2.5	2.370	0.843	2.50
3.0	2.870	0.906	3.00
4.0	3.834	1.218	4.00
6.0	5.782	1.218	6.00

15TRF-Short Weld Threaded Ferrule

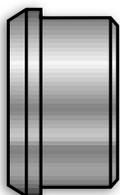


15TRF

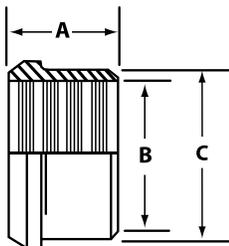


SIZE (inches)	A (inches)	B (inches)	C (inches)
1.0	0.688	0.870	1.00
1.5	0.719	1.370	1.50
2.0	0.750	1.870	2.00
2.5	0.844	2.370	2.50
3.0	0.938	2.870	3.00
4.0	1.219	3.834	4.00
6.0	1.219	5.782	6.00

14R Plain Recessless Ferrule

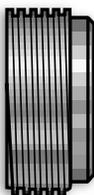


14R

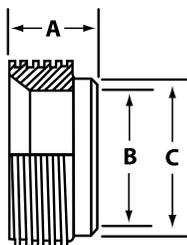


SIZE (inches)	A (inches)	B (inches)	C (inches)
1.0	.750	1.007	1.160
1.5	1.125	1.507	1.676
2.0	1.312	2.007	2.192
2.5	1.375	2.507	2.708
3.0	1.437	3.007	3.224
4.0	1.500	4.007	4.256

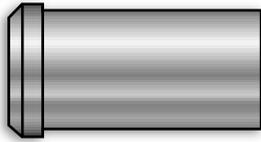
15R Threaded Recessless Ferrule



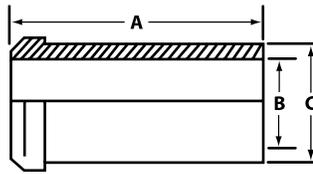
15R



SIZE (inches)	A (inches)	B (inches)	C (inches)
1.0	0.812	1.007	1.160
1.5	1.625	1.507	1.676
2.0	1.375	2.007	2.192
2.5	1.500	2.507	2.708
3.0	1.625	3.007	3.224
4.0	1.625	4.007	4.256

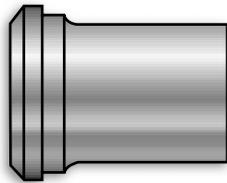


14W

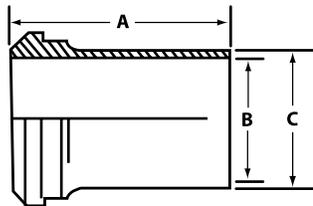


14W Plain Ferrule Tank Spud (Heavy)

SIZE (inches)	A (inches)	B (inches)	C (inches)
1.0	2.375	0.870	1.156
1.5	2.531	1.370	1.672
2.0	2.781	1.870	2.187
2.5	3.062	2.370	2.703
3.0	3.531	2.870	3.218
4.0	4.313	3.834	4.250

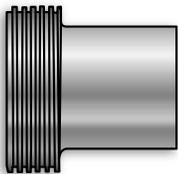


14WL

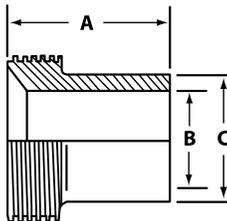


14WL Plain Ferrule Tank Spud (Light)

SIZE (inches)	A (inches)	B (inches)	C (inches)
1.0	2.000	0.870	
1.5	2.250	1.370	
2.0	2.500	1.870	
2.5	2.750	2.370	
3.0	3.000	2.870	
4.0	4.000	3.834	

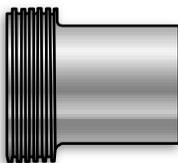


15W

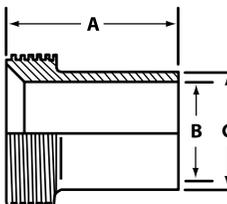


15W Threaded Ferrule Tank Spud (Heavy)

SIZE (inches)	A (inches)	B (inches)	C (inches)
1.0	1.500	0.906	1.250
1.5	1.625	1.406	1.750
2.0	1.750	1.875	2.312
2.5	1.750	2.375	2.875
3.0	1.812	2.875	3.375
4.0	2.125	3.844	4.250

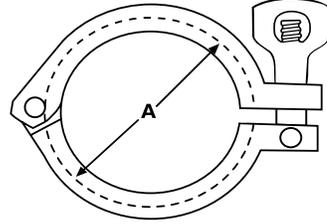
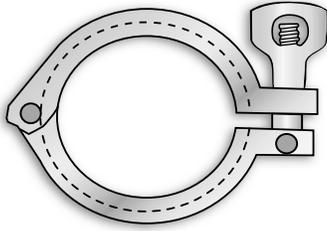


15WL



15WL Threaded Ferrule Tank Spud (Light)

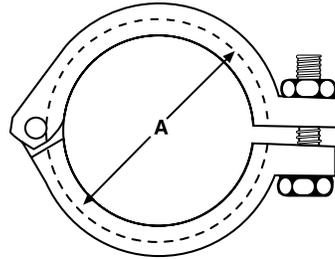
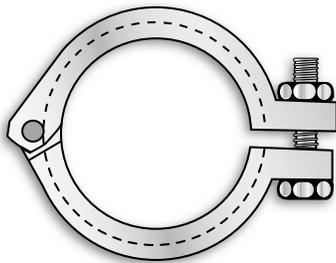
SIZE (inches)	A (inches)	B (inches)	C (inches)
1.0	2.000	0.906	1.000
1.5	2.250	1.406	1.500
2.0	2.500	1.875	2.000
2.5	2.750	2.375	2.500
3.0	3.000	2.875	3.000
4.0	4.000	3.844	4.000



13IS

13IS - I-LINE Heavy Duty Clamp

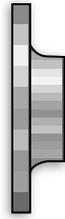
SIZE (TUBE O.D.) (inches)	A (inches)
1.0 / 1.5	2.102
2.0	2.842
2.5	3.468
3.0	4.031
4.0	5.031



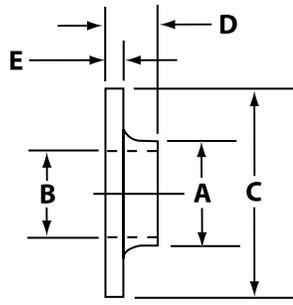
13ILB

13ILB - I-LINE Bolted Clamp

SIZE (TUBE O.D.) (inches)	A (inches)
1.0 / 1.5	1.06
2.0	1.41
2.5	1.75
3.0	2.03
4.0	2.50



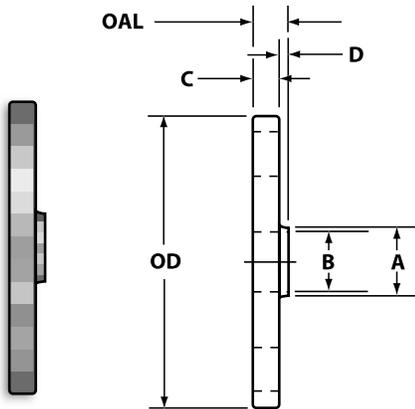
14VB



14VB Stub End

SIZE	A	B	C	D	E
(inches)	(inches)	(inches)	(inches)	(inches)	(inches)
.50	0.370	1.500	.255	.130	
.75	0.620	1.500	.255	.130	
1.0	0.870	2.000	.255	.130	
1.5	1.370	2.875	.255	.130	
2.0	1.870	3.625	.255	.130	
2.5	2.370	4.125	.255	.130	
3.0	2.870	5.000	.291	.166	
4.0	3.834	6.187	.291	.166	
5.0	4.782	7.500	.345	.218	
6.0	5.782	8.500	.345	.218	
8.0	7.782	10.625	.345	.218	

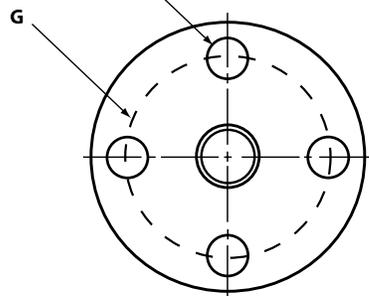
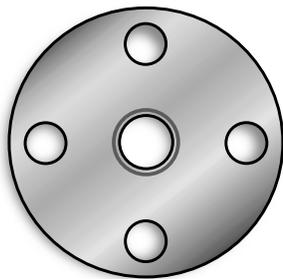
For use with 38SL Flange (Pg. 21).



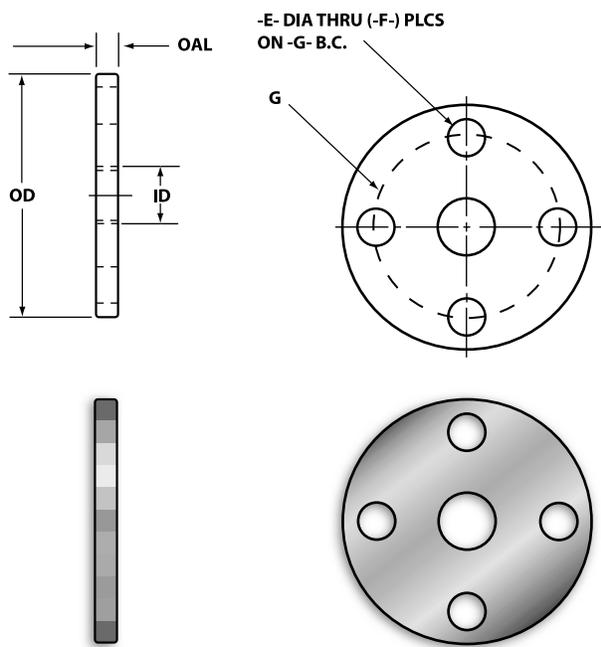
38W Weld Neck Flange

SIZE	A	OD	A	B	C	D	E	F	G	OAL
(inches)										
0.5	3.500	.500	.370	.375	.125	.625	4	2.375	.500	
.75	3.875	.750	.620	.375	.125	.625	4	2.750	.500	
1.0	4.250	1.000	.870	.375	.125	.625	4	3.125	.500	
1.5	5.000	1.500	1.370	.375	.125	.625	4	3.875	.500	
2.0	6.000	2.000	1.870	.500	.125	.750	4	4.750	.625	
2.5	7.000	2.500	2.370	.500	.125	.750	4	5.500	.625	
3.0	7.500	3.000	2.870	.500	.125	.750	4	6.000	.625	
4.0	9.000	4.000	3.834	.500	.125	.750	8	7.500	.625	
6.0	11.00	6.000	5.782	.500	.125	.875	8	9.500	.625	
8.0	13.00	8.000	7.782	.500	.125	.875	8	11.75	.625	

-E- DIA THRU (-F-) PLCS
ON -G- B.C.



38W WELD NECK FLANGE

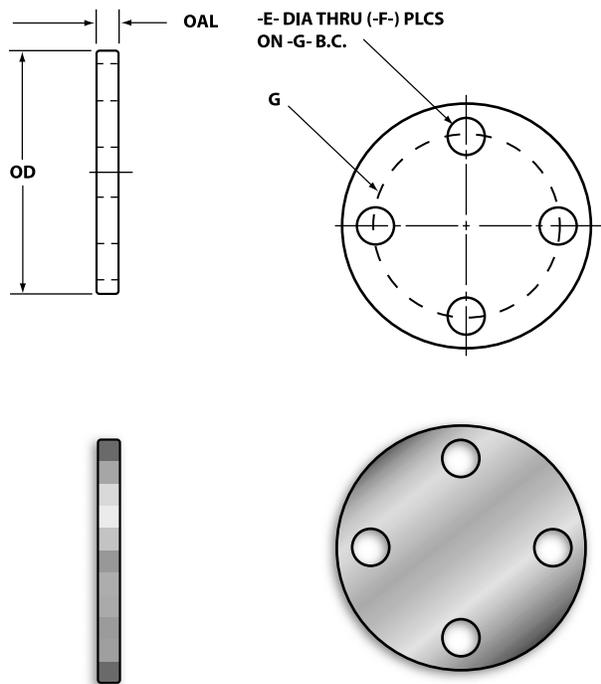


38SL SLIP ON FLANGE

38SL Slip On Flange

SIZE A (inches)	OD (inches)	ID (inches)	E (inches)	F (inches)	G (inches)	OAL (inches)
.500	3.500	.570	.625	4	2.375	.375
.750	3.875	.813	.625	4	2.750	.375
1.000	4.250	1.063	.625	4	3.125	.375
1.250	4.620	1.313	.625	4	3.500	.375
1.500	5.000	1.563	.625	4	3.875	.375
2.000	6.000	2.063	.750	4	4.750	.438
2.500	7.000	2.563	.750	4	5.500	.438
3.000	7.500	3.063	.750	4	6.000	.438
4.000	9.000	4.063	.750	8	7.500	.500
5.000	10.00	5.063	.875	8	8.500	.500
6.000	11.00	6.063	.875	8	9.500	.563
8.000	13.00	8.063	.875	8	11.75	.563
10.00	16.00	10.063	1.00	12	14.25	.688
12.00	19.00	12.063	1.00	12	17.00	.688

For use with 14VB Stub End (Pg. 20).



38 BLIND FLANGE

38 Blind Flange

SIZE A (inches)	OD (inches)	E (inches)	F (inches)	G (inches)	OAL (inches)
.500	3.500	.625	4	2.375	.375
.750	3.875	.625	4	2.750	.375
1.000	4.250	.625	4	3.125	.375
1.250	4.620	.625	4	3.500	.375
1.500	5.000	.625	4	3.875	.375
2.000	6.000	.750	4	4.750	.438
2.500	7.000	.750	4	5.500	.438
3.000	7.500	.750	4	6.000	.438
4.000	9.000	.750	8	7.500	.500
5.000	10.00	.875	8	8.500	.500
6.000	11.00	.875	8	9.500	.563
8.000	13.00	.875	8	11.75	.563
10.00	16.00	1.00	12	14.25	.688
12.00	19.00	1.00	12	17.00	.688

GASKETS & O-RINGS

Parker Performance Stainless supplies high-quality sanitary gaskets and o-rings for use with the Food, Beverage, Dairy and Pharmaceutical processing industries. These gaskets and o-rings are precision manufactured from specially formulated elastomer compounds, including Buna-N, EPDM, Viton®, Silicone and PTFE.

All gaskets and o-rings are certified to meet the specifications of FDA, 3-A Sanitary Standards and USP Class VI for pharmaceutical manufacturing.



PRODUCT LISTING

CLAMP GASKETS

- 40MPU** (BUNA)
- 40MPUW** (BUNA-White)
- 40MPX** (Silicone-White)
- 40MPXC** (Silicone-Clear)
- 40MPG** (PTFE)
- 40MPE** (EPDM)
- 40MPSFY** (SFY)
- 40MPFU** (BUNA-Flanged)
- 40MPFE** (EPDM-Flanged)
- 40MPFX** (Silicone-White-Flanged)
- 40MPFXC** (Silicone-Clear-Flanged)
- 40MPFSFY** (SFY-Flanged)
- A40MPGR** (PTFE-Envelope)

ORIFICE GASKETS

- A80MPU** (BUNA-Std 1/8" Orifice)
- A80MPE** (EPDM-Std 1/8" Orifice)
- A80MPSFY** (SFY-Std 1/8" Orifice)

SCREEN GASKETS

- 40MPSU** (Std #10 Mesh*)
- 40MPUP** (Std #33 Perforated*)

*Other Mesh Sizes Available

BEVEL SEAT GASKETS

- 40BSO** (BUNA)
- 40BSS-(TM)** (PTFE)
- DHR(T)** (PTFE-Medium)
- DH(XT)** (PTFE-Extra Thin)
- 40BSH(THD)** (PTFE-Heavy Duty)
- 40BSF** (Flat)

I-LINE GASKETS

- 40IH** (BUNA)
- 40IE** (EPDM)
- 40IT** (PTFE)
- 40IV** (SFY)

JOHN PERRY GASKETS

- 40JPU** (BUNA)

Q-LINE GASKETS

- 40QH** (BUNA)
- 40QT** (PTFE)

APC GASKETS

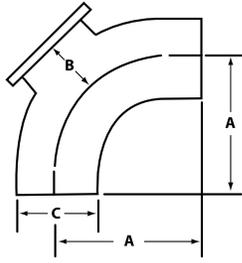
- 101H** (Gray)
- 101HX** (Black)

GASKET MATERIAL REFERENCE CHART

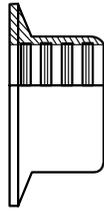
Gasket material is selected based upon a number of factors [temperature, product type, pressure, etc.] The following guide is offered as a reference to assist in the selection of the appropriate elastomer for your application.

Original Physical Property Characteristics	Buna-N (J)	EPDM (E)	Fluoro-elastomer (SFY)	Silicone (X)	PTFE (G)
Temperature Range	-65 to 200°F	-60 to 300°F	-20 to 350°F	-40 to 450°F	-40 to 200°F
Tensile Strength, psi	1875	1650	1212	1340	—
Elongation, %	340	317	272	260	—
Hardness, Shore A	70	70	70	70	—
Acid Resistance	Good	Good/Excellent	Good/Excellent	Poor/Good	Good/Excellent
Resistance to Fats/Oils	Good/Excellent	Poor	Good/Excellent	Poor/Good	Excellent
Alkali Resistance	Fair/Good	Good/Excellent	Poor/Good	Poor/Fair	Excellent
Abrasion Resistance	Excellent	Good	Good/Excellent	Poor	Fair
Compression Set Resistance	Good	Fair	Good/Excellent	Good/Excellent	Cold Flows

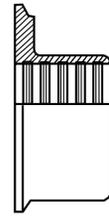
L2CP7-90° Inspection Elbow



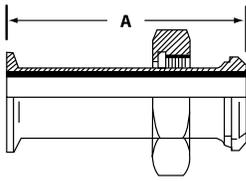
31 RMP-Reducing Ferrule-Concentric (3A)



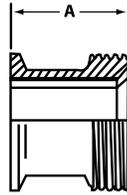
32 RMP-Reducing Ferrule-Concentric (3A)



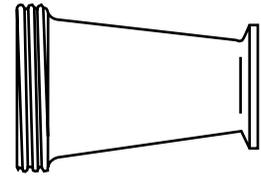
17MP-14 - Adapter (3A)



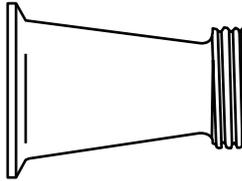
17MP-15 - Adapter (3A)



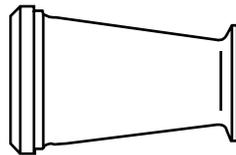
31 TMP-Adapter-Reducer-Concentric (3A)



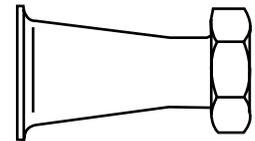
31 MPT-Adapter-Reducer-Concentric (3A)



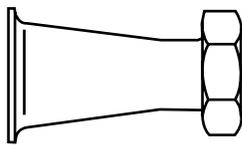
31 PMP-Reducing Ferrule-Concentric (3A)



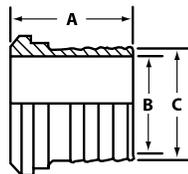
32 MMP-Adapter-Reducer-Concentric (3A)



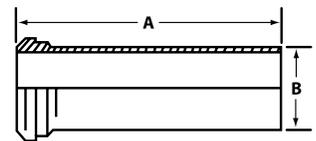
32 MMP-Adapter-Reducer-Concentric (3A)



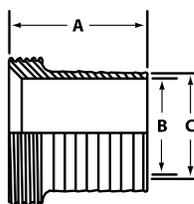
14AHR Rubber Hose Adapter



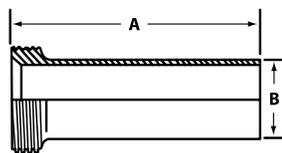
14AHT-Tygon Hose Adapters



15AHR Rubber Hose Adapter



15AHT-Tygon Hose Adapters



Performance Stainless Product Family

Parker Performance Stainless offers a wide variety of sanitary flow components for use within the Food, Beverage, Dairy and Pharmaceutical processing industries. For additional information on any of the products shown below, contact your Parker distributor, or call 256-881-2040.



BALL VALVES

3-Piece full port ball valves come standard in 316 stainless and with PTFE cavity fillers. Valves may be ordered with customized Parker Actuation for a variety of product applications.



AIR BLOW CHECK

Air Blow Check Valves are used to evacuate process lines of product or CIP solution through the use of plant air. Additionally, valves can be used for air agitation of product stored in tanks to improve quality and consistency, and also to air dry process lines, improving sterility.



CHECK VALVES

Disk-style check valves are machined from heat-traced 316L stainless, and feature sanitary clamp connections. EPDM gaskets are standard (Viton® and Silicone special order).



BUTTERFLY VALVES

Butterfly valves will be available in both 4-position and 12-position handle configurations, and may be ordered with customized Parker Actuation. Several seat elastomers are available with platinum cured silicon standard.



SANITARY TUBING

Sanitary tubing is manufactured in accordance with 3A or BPE standards. Tubing is available in a variety of polish configurations. Call your local Parker distributor for details on ordering.



SIGHT GLASSES

Sanitary sight glasses feature Pyrex glass and offer a visual inspection of product flow. Available in sanitary clamp and butt weld connections. Heat-traced 316L and EPDM gaskets are furnished as standard.



GASKETS/O-RINGS

Parker offers a wide variety of gaskets and o-rings in materials such as Buna, Silicon, PTFE, EPDM and more. Gaskets meet 3A and other regulatory standards.

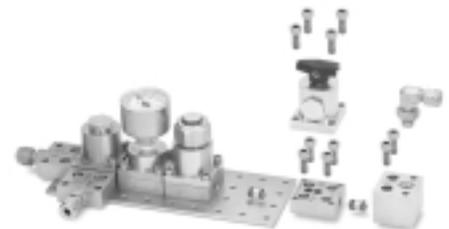


SAMPLE VALVE

Parker Sample Valves are engineered for high sterility and ease-of-use in a variety of product sampling applications. Fully autoclavable to 300F, pressures up to 400PSI. Virgin PTFE stem tip assures positive closure and minimal dead-leg.

INTRODUCTION TO SERIOUS SIMPLICITY

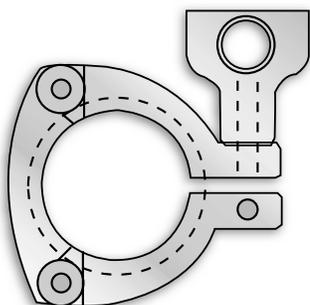
Parker IntraFlow™ substrate fittings have been developed specifically for analytical, lab and other complex general purpose instrumentation flow control systems. ISA/ANSI SP76.00.02 compliant, Parker IntraFlow™ fittings provide maximum flexibility with minimal space requirements. All flow-paths, regardless of direction, are maintained on a single plane within the system as there are no lower level manifold blocks required. Contiguous fitting flow paths are intra-connected with slip-fit pressure connectors, while a threaded pegboard provides connection force and rigidity when fittings are mounted with cap screws. System assembly couldn't be simpler: a 5/32" hex head wrench is all you need to build with Parker IntraFlow.



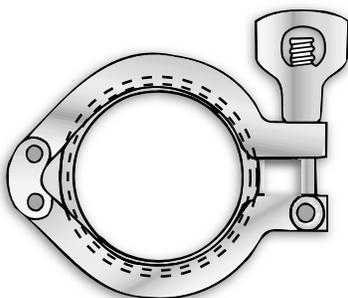
Clamp Service Rating Chart in PSI

Size Tube OD	1/2" & 3/4"	1" & 1-1/2"	2"	2-1/2"	3"	4"	6"
13MHHS - Screw tightened to maximum							
at 70°F	2200	600	550	450	350	350	—
at 250°F	1200	300	275	225	175	175	—
13HHM - Wing nut tightened to 25 in. lb. of torque							
at 70°F	—	500	450	400	350	350	150
at 250°F	—	300	300	200	195	195	75
13MHP - Bolts tightened to 20 ft. lb. of torque							
at 70°F	—	1500	1000	1000	1000	1000	300
at 250°F	—	1200	800	800	800	800	200
A13MHM - Wing nut tightened to 25 in. lb. of torque							
at 70°F	—	500	450	400	350	350	150
at 250°F	—	300	250	200	175	175	75

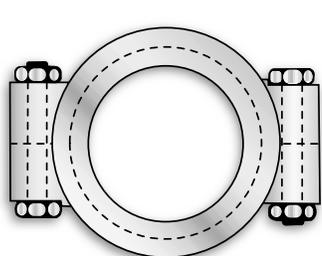
*PSI ratings based on hydrostatic test using standard gaskets molded from Buna-N. Ratings assume proper installation of ferrules, joint assembly and the absence of any shock pressure. Please contact Parker Hannifin for ratings at higher temperatures or utilizing other materials. For temperatures above 250° F, only 13MHP clamps are recommended.



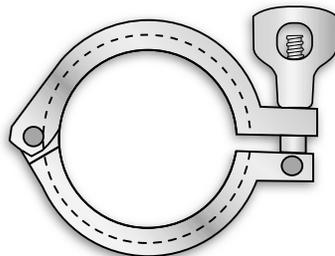
13MHHS



13HHM



13MHP



13MHM

Clamp Gasket Materials Reference Chart

Original Physical Property Characteristics	Buna-N (U)	EPDM (E)	Fluoro-elastomer (SFY)	Silicone (X)	PTFE (G)
Temperature Range	-65 to 200°F	-60 to 300°F	-20 to 350°F	-40 to 450°F	-40 to 200°F
Tensile Strength, psi	1875	1650	1212	1340	—
Elongation, %	340	317	272	260	—
Hardness, Shore A	70	70	70	70	—
Acid Resistance	Good	Good/Excellent	Good/Excellent	Poor/Good	Good/Excellent
Resistance to Fats/Oils	Good/Excellent	Poor	Good/Excellent	Poor/Good	Excellent
Alkali Resistance	Fair/Good	Good/Excellent	Poor/Good	Poor/Fair	Excellent
Abrasion Resistance	Excellent	Good	Good/Excellent	Poor	Fair
Compression Set Resistance	Good	Fair	Good/Excellent	Good/Excellent	Cold Flows

Dimensions of Clamp Connections for OD-Tubing

OD Outer Diameter (inches)	ID Inner Diameter (inches)	Wall Thickness (inches/gauge)	A Ferrule Face (inches)
1/4	0.35		
1/2	0.37	0.065 / 16ga.	0.984
3/4	0.62	0.065 / 16ga.	0.984
1	0.87	0.065 / 16ga.	1.984
1-1/2	1.37	0.065 / 16ga.	1.984
2	1.87	0.065 / 16ga.	2.516
2-1/2	2.37	0.065 / 16ga.	3.047
3	2.87	0.065 / 16ga.	3.579
4	3.87	0.083 / 14ga.	4.682
6		.109	

Surface Finish Reference Chart

Polishing Code	Maximum Surface Roughness (RA)			Polish Method	OD / Product Noncontact Surface
	Microinches (μ-inch)	Micrometers (μm)	ASME BPE Finish Code		
1				Unpolished	Unpolished
3	32	0.8	—	Mechanical Polished	Unpolished
7	32	0.8	—	Mechanical Polished	Polished to Ra, 32 μ-inch/0.8um
PC	20	0.5	SFF1	Mechanical Polished	Unpolished
PL	20	0.5	SFF1	Mechanical Polished	Polished to Ra, 32 μ-inch/0.8um
	25	0.625	SFF2	Mechanical Polished	32 or MILL
	30	0.75	SFF3	Mechanical Polished	32 or MILL
PD	15	0.4	SFF4	Mechanical Polished and Electropolished	Unpolished
PM	15	0.4	SFF4	Mechanical Polished and Electropolished	Polished to Ra, 32 μ-inch/0.8um
	20	0.5	SFF5	Mechanical Polished and Electropolished	32 or MILL
	25	0.625	SFF6	Mechanical Polished and Electropolished	32 or MILL

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Parker Hannifin Corporation

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