



TECNI-AR
Seu caminho
Para automação

Performance Stainless
Sanitary Fittings & Flow Components

Catalog 4270 - Sanitary Fittings
January 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

supplying sanitary fluid processors with world class flow components, at a price that is affordable. Our only commitment is to your satisfaction.

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. Our people lead the race in quality service.

As a customer, we want you to be a lifelong member of the Performance Team, and we welcome your continued feedback about our performance. We want this to be the best flow components company in the world, and your role in our success is important. 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.

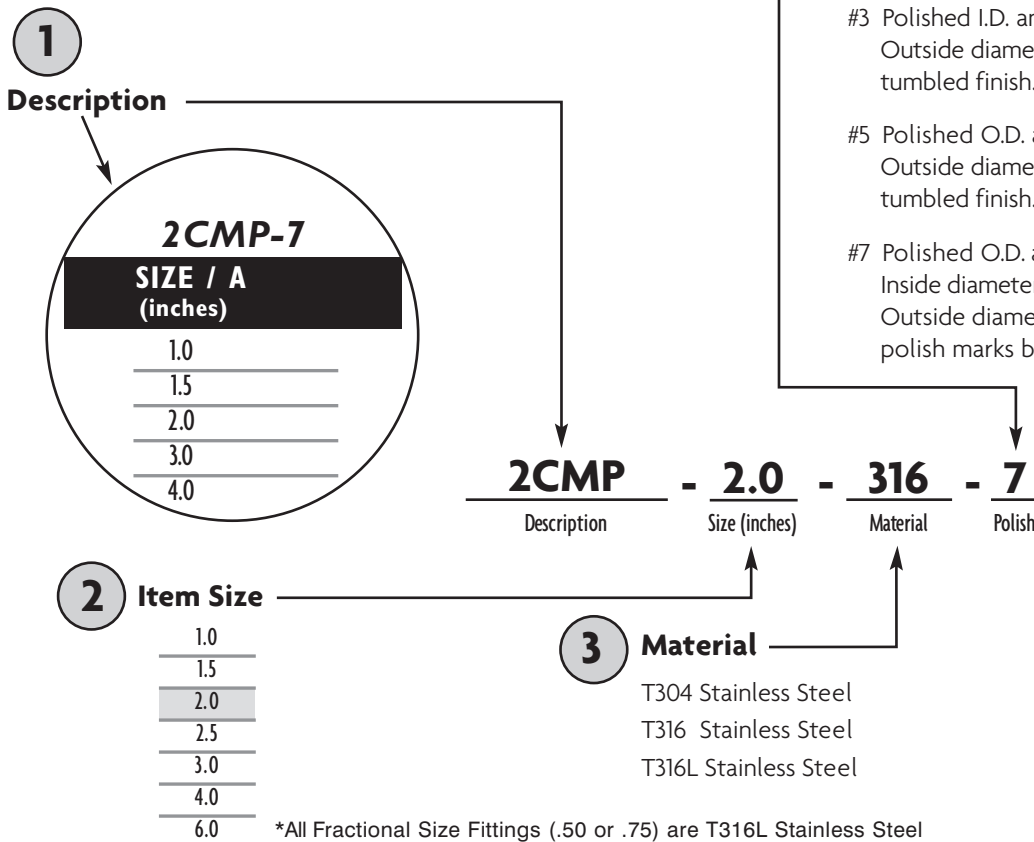
This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information 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



BPE SIZE ONLY (Item Meets ASME - BPE Size Only Specifications)

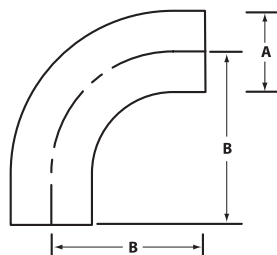
- Notes about the Dimension Tables**
- All Dimension are in inches.
 - Wall Thickness:
 - Fittings in 1.0-3.0 sizes are manufactured with 16 gauge (.065) wall thickness.
 - Fittings in 4.0 tube size are manufactured with 14 gauge (.083) wall thickness.

QUALITY STATEMENT:

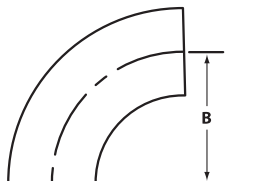
All fittings shall be manufactured using high quality T-304 or T-316L Stainless Steel with an A-269 minimum wall tubing. Fittings shall be free of crevices and manufactured within close, industry accepted tolerances. Standard polish shall be 180 grit ID and 150 grit OD, with capabilities up to 320 grit. Fittings shall meet 3A standards where applicable. Full heat traceability shall be made available on all 316L material. 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"

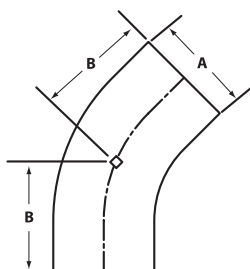
SIZE A (inches)	B (inches)	NOMINAL WALL THICKNESS
1.0	2.062	.065
1.5	2.937	.065
2.0	4.062	.065
2.5	5.187	.065
3.0	6.312	.065
4.0	8.312	.083
6.0	9.000	.109

2WCL - 90° Tube Bend "Short"

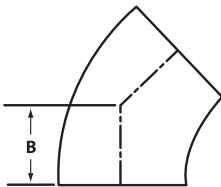
B (inches)	NOMINAL WALL THICKNESS
1.50	.065
2.25	.065
3.00	.065
3.75	.065
4.50	.065
6.00	.083
9.00	.109



L2KS



2WK

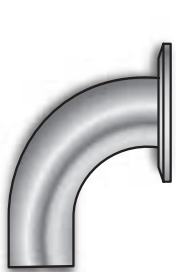


L2KS - 45° Tube Bend "Long"

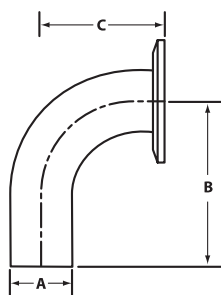
SIZE A (inches)	B (inches)	NOMINAL WALL THICKNESS
1.0	1.187	.065
1.5	1.625	.065
2.0	2.312	.065
2.5	3.000	.065
3.0	3.687	.065
4.0	4.812	.083
6.0	3.750	.109

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

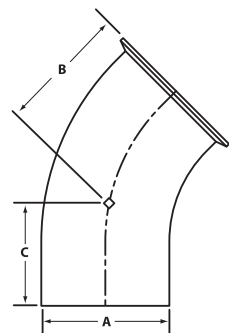


L2CM - 90° Clamp One End

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

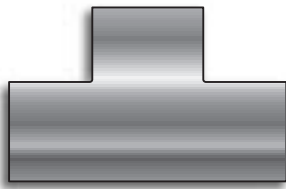


L2KM

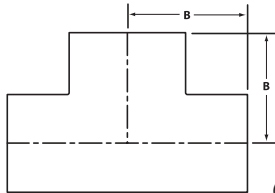
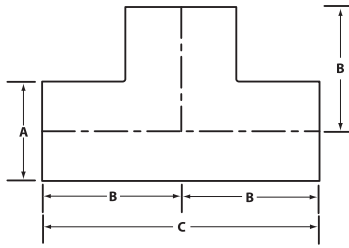


L2KM - 45° Clamp One End

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



7W "SHORT"

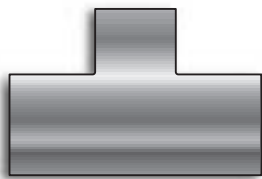
(TUMBLE FINISH ONLY)

L7WWW - Tee

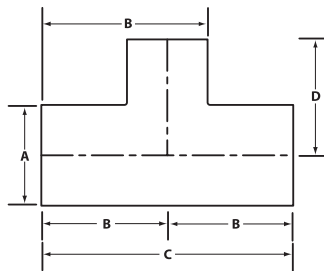
SIZE A (inches)	B (inches)	C (inches)	NOMINAL WALL THICKNESS
1.0	1.875	3.75	.065
1.5	2.250	4.50	.065
2.0	3.000	6.00	.065
2.5	3.000	6.00	.065
3.0	3.250	6.50	.065
4.0	3.875	7.75	.083
6.0	5.625	11.25	.109

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

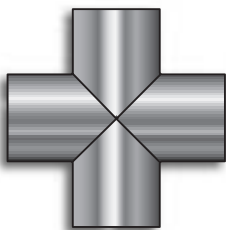


L7RW

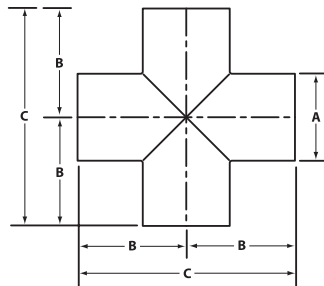


L7RW - Reducing Tee (Reduction on Branch)

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



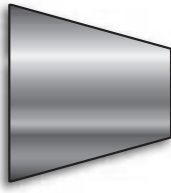
L9W



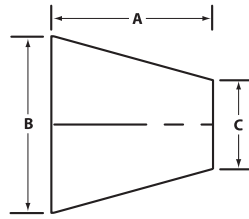
L9W - Cross

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

Butt Weld Fittings: REDUCERS

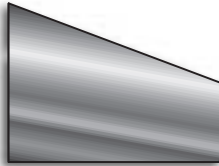


L31

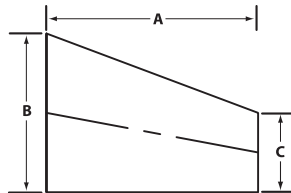


L31 - Concentric Reducers

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



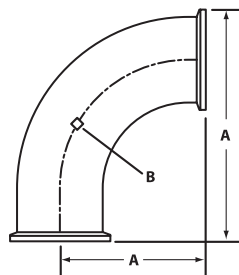
L32 - Eccentric Reducers

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

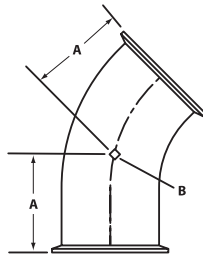


2CMP



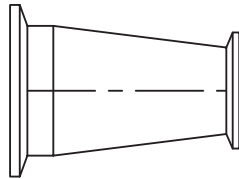
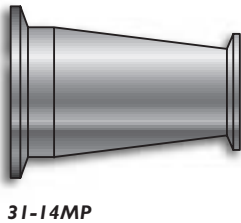
2CMP - 90° EII BPE SIZE ONLY

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



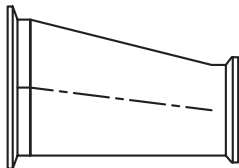
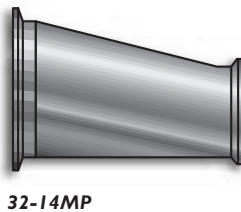
2KMP - 45° ELL BPE SIZE ONLY

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



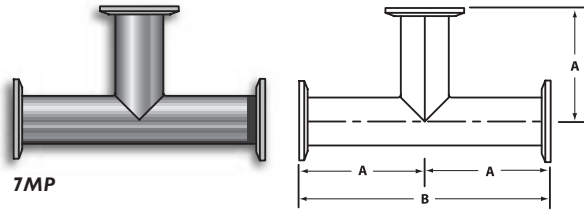
31-14MP - Concentric Reducer BPE SIZE ONLY

SIZE (inches)	OVERALL LENGTH
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

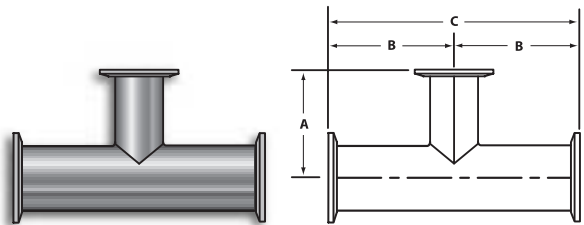
SIZE (inches)	OVERALL LENGTH
1.5 x 1.0	3.000
2.0 x 1.0	5.000
2.0 x 1.5	3.000
2.5 x 1.5	5.000
2.5 x 2.0	3.000
3.0 x 1.5	7.000
3.0 x 2.0	5.000
3.0 x 2.5	3.000
4.0 x 1.5	11.125
4.0 x 2.0	9.125
4.0 x 2.5	7.125
4.0 x 3.0	5.125
6.0 x 4.0	10.500



7MP

7MP - Tee

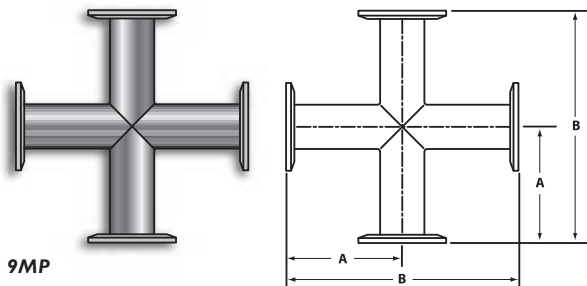
SIZE (inches)	A (inches)	B (inches)
1.0	2.375	4.750
1.5	2.750	5.500
2.0	3.500	7.000
2.5	3.500	7.000
3.0	3.750	7.500
4.0	4.500	9.000
6.0	7.150	14.300



7RMP - Size Reduced on Branch

7RMP - Reducing Tee

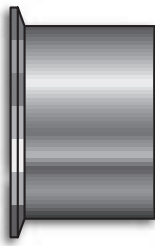
SIZE (inches)	A (inches)	B (inches)	C (inches)
1.5 x 1.0	1.875	2.156	4.312
2.0 x 1.0	2.125	2.562	5.125
2.0 x 1.5	2.406	2.562	5.125
2.5 x 1.0	2.812	2.843	5.687
2.5 x 1.5	2.656	2.844	5.688
2.5 x 2.0	2.812	2.843	5.687
3.0 x 1.0	3.062	3.093	6.187
3.0 x 1.5	3.062	3.093	6.187
3.0 x 2.0	3.062	3.093	6.187
3.0 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



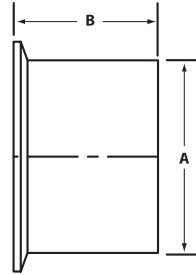
9MP

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

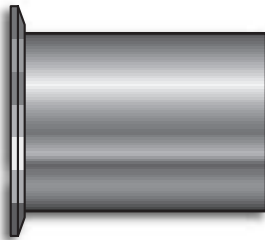


LI4AM

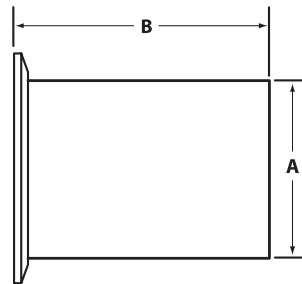


LI4AM - Butt Welding Ferrule

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

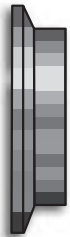


TLI4AM



TLI4AM - Butt Welding Ferrule BPE SIZE ONLY

SIZE A (inches)	B (inches)	NOMINAL WALL THICKNESS
0.50	1.750	.065
0.75	1.750	.065
1.00	1.750	.065
1.50	1.750	.065
2.00	2.250	.065
2.50	2.250	.065
3.00	2.250	.065
4.00	2.250	.083



I4WMP

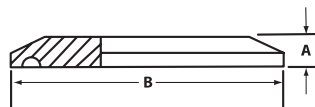


I4WMP - Short Welding Ferrule

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

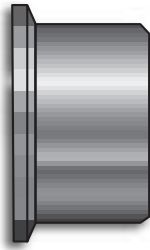


I6AMP

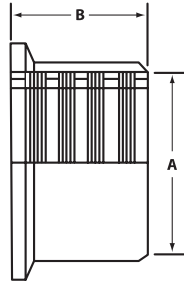


I6AMP - Solid End Cap

SIZE (TUBE O.D.) (inches)	A (inches)	B (inches)
0.50 / .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

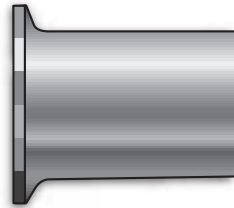


I4RMP

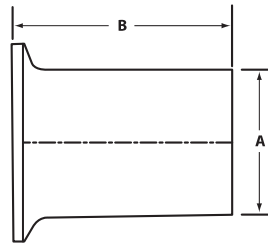


I4RMP - Recessless Ferrule

SIZE 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



I4WLMP

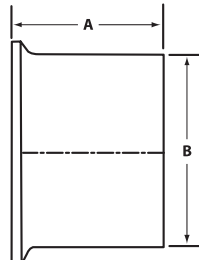


I4WLMP - Tank Welding Spud-Light

SIZE 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

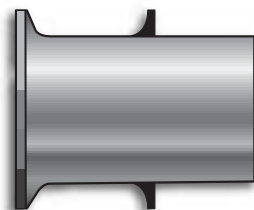


I4MPW

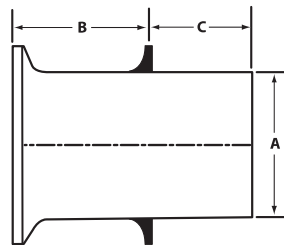


I4MPW - Tank Welding Ferrule

SIZE (inches)	A (inches)	B (inches)	NOMINAL WALL THICKNESS
0.50	2.125	0.500	.065
0.75	2.125	0.750	.065
1.00	1.625	1.160	.145
1.50	1.625	1.676	.153
2.00	1.750	2.192	.161
2.50	1.750	2.708	.169
3.00	1.812	3.224	.177
4.00	2.125	4.256	.211
6.00	2.125	6.000	.217
8.00	2.125	8.000	.217

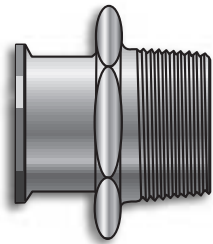


FLVI4AM

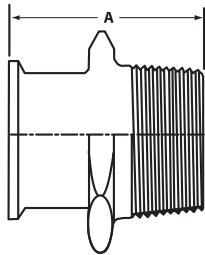


FLVI4AM - Flowverter Ferrule

SIZE A (inches)	B (inches)	C (inches)	NOMINAL WALL THICKNESS
0.50	1.125	1.000	.065
0.75	1.125	1.000	.065
1.00	1.625	1.000	.065
1.50	1.625	1.000	.065
2.00	1.625	1.000	.065
2.50	1.625	1.000	.065
3.00	1.625	1.000	.065
4.00	1.625	1.000	.083



2IMP



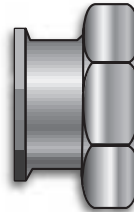
BPE SIZE ONLY

* = No Hex Head Reduction on NPT

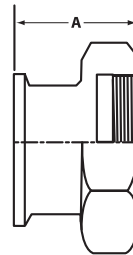
2IMP - Adapter

(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



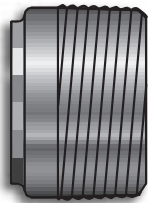
BPE SIZE ONLY

* = No Hex Head Reduction on NPT

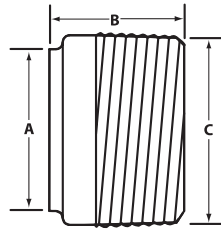
22MP - Adapter

(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

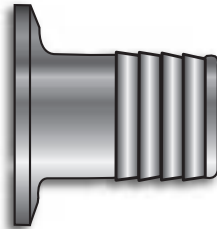


I9WB

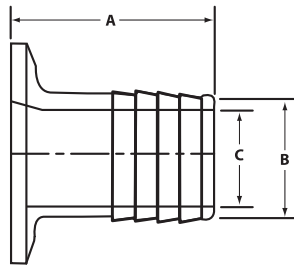


I9WB - Weld x Male NPT

SIZE A (inches)	B (inches)	C (inches)	NOMINAL TUBE SIZE
0.50	1.500	.8400	.650
0.75	1.625	1.050	.650
1.00	1.750	1.315	.650
1.50	1.750	1.660	.650
2.00	1.812	1.900	.650
2.50	2.312	2.375	.650
3.00	2.500	3.500	.650
4.00	2.562	4.500	.083
6.00	4.000	6.625	.109



I4MPHR

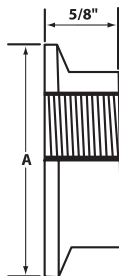


I4MPHR - Rubber Hose Adapter

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

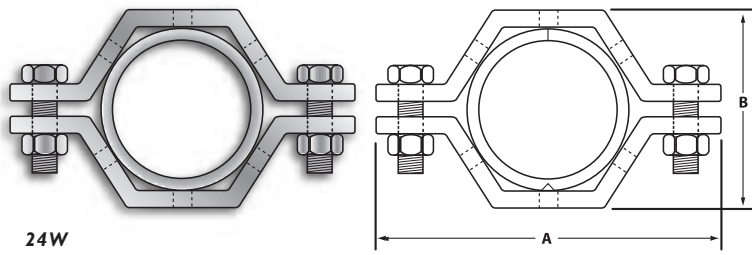


23BMP



23BMP - Thermometer Cap

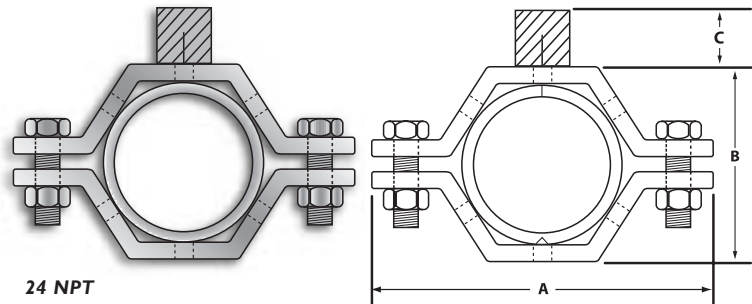
SIZE (inches)	A (inches)
1.0	1.984
1.5	1.984
2.0	2.516
2.5	3.047
3.0	3.579
4.0	4.682



24W

24W - Hanger

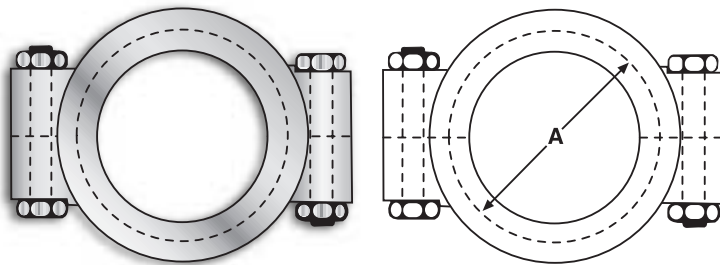
SIZE (TUBE O.D.) (inches)	A (inches)	B (inches)
1.00	3.375	1.625
1.50	4.000	2.125
2.00	4.500	2.500
2.50	4.750	3.125
3.00	5.000	3.750
4.00	6.750	4.750



24 NPT

24NPT - Hanger (Includes 3/8" NPT Coupler)

SIZE (TUBE O.D.) (inches)	A (inches)	B (inches)	C (inches)
1.00	3.375	1.625	.75
1.50	4.000	2.125	.75
2.00	4.500	2.500	.75
2.50	4.750	3.125	.75
3.00	5.000	3.750	.75
4.00	6.750	4.750	.75

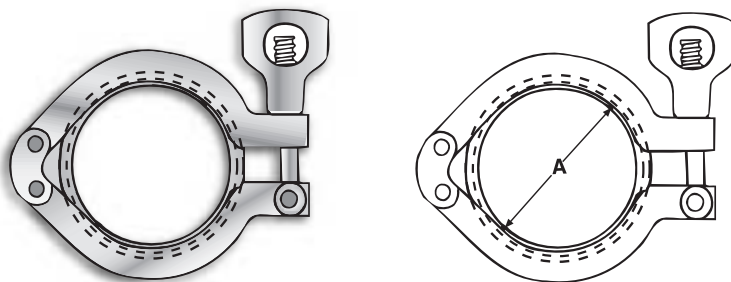


13MHP

13MHP - High Pressure Bolted Clamp

SIZE (TUBE O.D.) (inches)	A (inches)
0.50 / 0.75	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

Size Range: .50 to 8.00 Tube O.D.



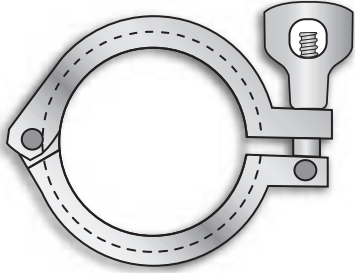
13MHHM

13MHHM - Heavy Duty Clamp Double Pin Hinge

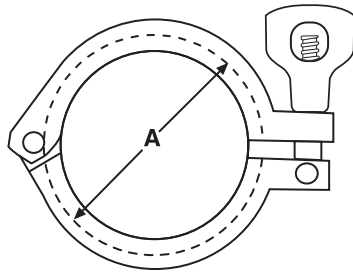
SIZE (TUBE O.D.) (inches)	A (inches)
1.0/1.5	2.140
2.0	2.610
2.5	3.141
3.0	3.673
4.0	4.776
6.0	6.695
8.0	8.695
10.0	10.695
12.0	12.695

Size Range: 1.00 to 12.00 Tube O.D.

Clamp Fittings: CLAMPS



13MHM



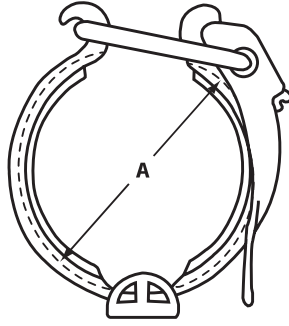
13MHM - Heavy Duty Clamp Single Pin Hinge

Size Range: .50 to 10.00 Tube O.D.

SIZE (TUBE O.D.) (inches)	A (inches)
0.50 / 0.75	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



13MHLA

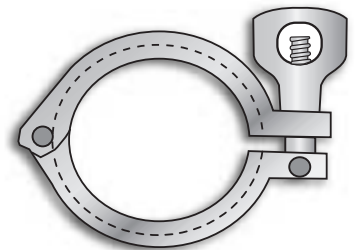


13MHLA - Adjustable Clamp

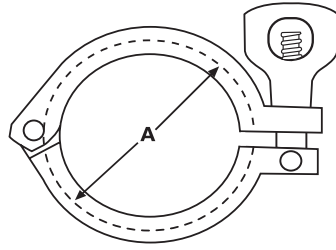
Size Range: 1.00 to 4.00 Tube O.D.

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

Bevel Seat Fittings: CLAMPS



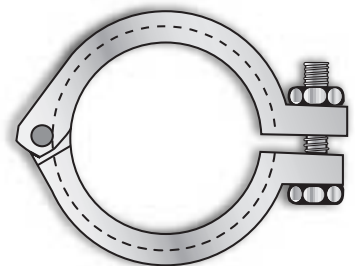
13IS



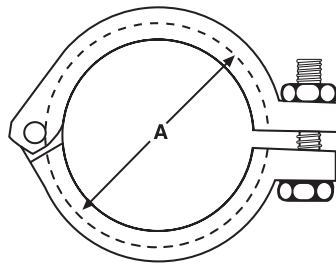
13IS - TI-LINE Heavy Duty Clamp

Size Range: .50 to 12.00 Tube O.D.

SIZE (TUBE O.D.) (inches)	A (inches)
0.50 / 0.75	
1.0 / 1.5	2.102
2.0	2.842
2.5	3.468
3.0	4.031
4.0	5.031
6.0	7.688



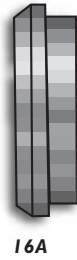
13ILB



13ILB - TI-LINE Bolted Clamp

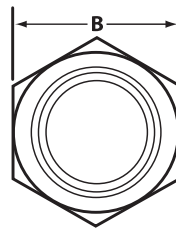
Size Range: .50 to 12.00 Tube O.D.

SIZE (TUBE O.D.) (inches)	A (inches)
0.50 / 0.75	
1.0 / 1.5	1.06
2.0	1.41
2.5	1.75
3.0	2.03
4.0	2.50
6.0	



16A - Solid End Cap

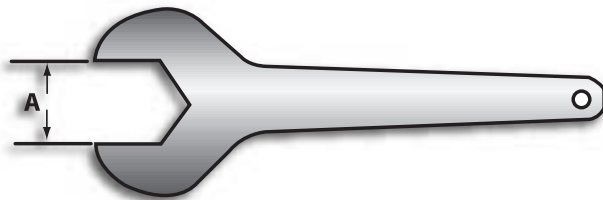
SIZE (inches)	A (inches)
1.0	1.312
1.5	1.843
2.0	2.375
2.5	2.906
3.0	3.437
4.0	4.500



13H - 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

13H



25H

25H Aluminum Hex - Wrench Single End

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

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)
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Q-LINE GASKETS

40QH	(BUNA)
40QT	(PTFE)

APC GASKETS

101H	(Gray)
101HX	(Black)

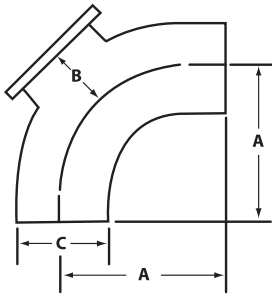
GASKET MATERIAL REFERENCE CHART

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.

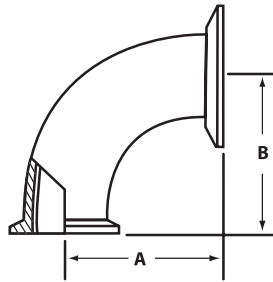
Original Physical Property Characteristics	Buna-N (U)	EPDM (E)	Fluoro-elastomer (SFY)	Silicone (X)	PTFE (G)
Temperature Range	-65 to 200°F	-60 to 300°F	-20 to 350°F	-40 to 450°F	-40 to 200°F
Tensile Strength, psi	1875	1650	1212	1340	—
Elongation, %	340	317	272	260	—
Hardness, Shore A	70	70	70	70	—
Acid 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

Miscellaneous Flow Components & Adapters

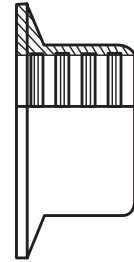
L2CP7-90° Inspection Elbow



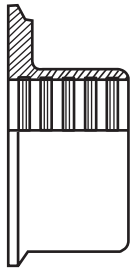
2CMP-31-90° Concentric Reducing Ell



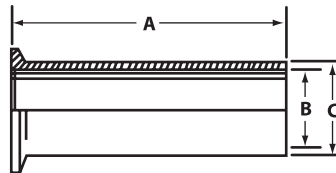
31 RMP-Reducing Ferrule-Concentric (3A)



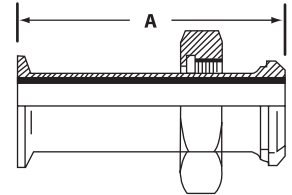
32 RMP-Reducing Ferrule-Concentric (3A)



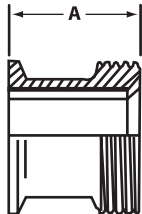
14MPHT - Tygon Hose Adapter



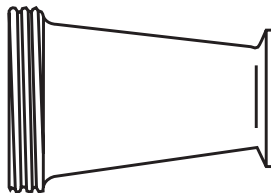
17MP-14 - Adapter (3A)



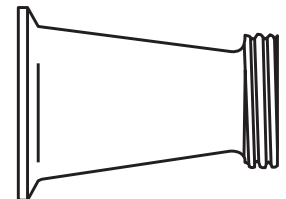
17MP-15 - Adapter (3A)



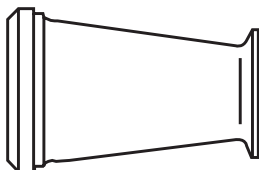
31 TMP-Adapter-Reducer-Concentric (3A)



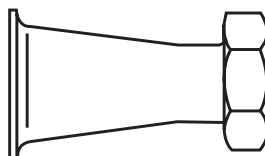
31 MPT-Adapter-Reducer-Concentric (3A)



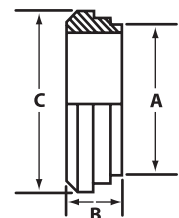
31 PMP-Reducing Ferrule-Concentric (3A)



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

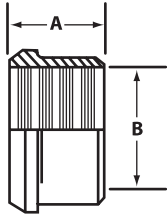


14PRF Short Weld Ferrule (3A)

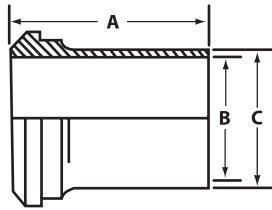


Miscellaneous Flow Components & Adapters

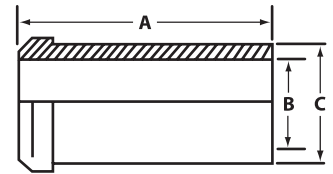
I4R Plain Recessless Ferrule (3A)



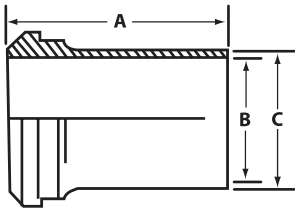
L14A7 - Plain Tube Ferrule (3A)



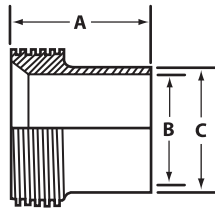
I4-W Plain Ferrule Tank Spud (Heavy) (3A)



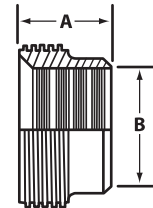
I5-W Threaded Ferrule Tank Spud (Heavy) (3A)



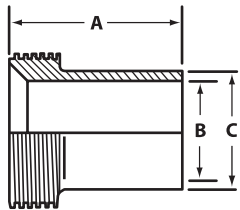
L15A7 Threaded Tube Ferrule (3A)



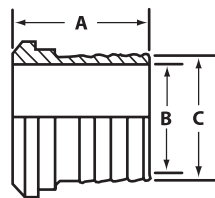
I5R-Threaded Recessless Ferrule (3A)



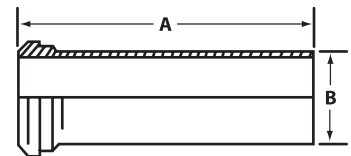
I5WL-Threaded Ferrule Tank Spud (Light) (3A)



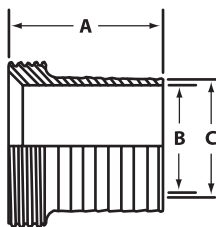
I4AHR Rubber Hose Adapter



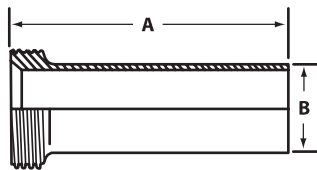
I4AHT-Tygon Hose Adapters



I5AHR Rubber Hose Adapter



I5AHT-Tygon Hose Adapters



Fittings for the Pharmaceutical and Biotech Industries



Parker will be launching a line of ASME BPE fittings for use within the Pharmaceutical and Biotech Industries. Fittings are offered in sizes from 1/2" through 6" in both butt-weld and clamp connections to ASME BPE standards.

I.D. finishes will be available in 25RA through 10RA. Special O.D. finishes will be available upon request. I.D. finishes may be provided in mechanical polish, or with Electropolishing per ASME BPE specifications.

Material and Traceability

Parker offers fittings to BPE dimensions in 316L. All fittings are permanently marked with original heat numbers for full traceability back to the original stainless steel supplier. MTR information is provided with each fitting. All tubular materials meet ASTM A269 / A270 requirements and all machined components meet the requirements of ASTM A479.

Heat Treatment

Parker fittings are solution annealed and quenched in a vacuum furnace. This treatment relieves stresses caused by cold forming operations used in the manufacturing process, thereby removing the potential for stress corrosion and improving the dimensional stability of fittings.

Polish Options

Parker BPE fittings are manufactured with standard polished #7 O.D. with up to a 10 RA I.D. finish. Optional finishes and treatment available upon request.

Fittings Marking

Each fitting is marked with the following:

- Parker logo and Parker BPE
- Heat Number
- Material Alloy
- ASME BPE
- Surface Designation per ASME BPE



Inspection Procedures

All fittings are 100% visually inspected for surface finish imperfections as mentioned in table SF-3 in the ASME BPE 2002 specification.

All dimensional characteristics are inspected 100% to the tolerances listed in table DT-5 in the ASME BPE 2002 specification. As a part of rigorous inspection standard, heat number traceability is verified for accuracy and chemical composition, per table DT-3, before the fittings are packaged for shipment. Testing includes:

- Roundness
- Wall Thickness
- Squareness of Face
- Off Angle
- Off Plane
- Height

Packaging

The ends are capped to prevent damage and contamination. All fittings are packaged in bags. All bags are labeled with Parker Part Number, Heat Number(s), ASME BPE, and the appropriate ASME BPE Surface Finish Designation for reorder, traceability and tracking purposes.

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 ball valves come standard in 316L and with PTFE cavity filler. Valves may be ordered with customized Parker Actuation for a variety of product applications.



DIAPHRAGM VALVES

Parker will be launching a line of diaphragm valves for a variety of applications. Valves will feature class VI seat elastomers, and will offer full traceability with heat numbers.



CHECK VALVES

Disk-style check valves are machined from heat-traced 316L stainless, and are available in both sanitary clamp and butt weld versions. 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 GAUGES

Sanitary gauges meet 3A standards and are filled with FDA approved glycerine. Sanitary clamp connection is standard, and a variety of options is available for pressure and temperature ranges.



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 will offer a wide variety of gaskets and o-rings in materials such as Buna, Silicon, PTFE, EPDM and more. Speciality items such as screen gaskets will also be available. Gaskets meet 3A and other regulatory standards.



INLINE STRAINER

Inline Strainers are manufactured for easy interchange with other brands, and feature a variety of filter and screen options for a wide range of process applications.



SANITARY TUBING

Sanitary tubing is manufactured in accordance with A-270, A-269, A-249 or BPE standards. Tubing is available in a variety of polish configurations.



SANITARY FITTINGS

Sanitary fittings are available in 304SS or heat-traced 316L in both polished and tumble finishes. Call for special finish options or for details on BPE-Compliant fittings for your all processing applications.

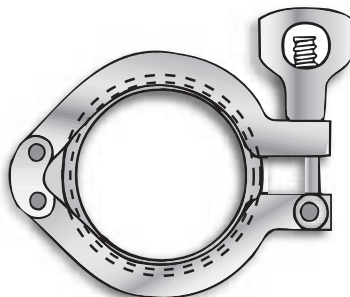
Clamp Service Rating Chart in PSI

Size Tube OD	1/2" & 3/4"	1" & 1-1/2"	2"	2-1/2"	3"	4"	6"
13MHLA - Screw tightened to maximum							
at 70°F	—	150	150	150	150	150	—
at 250°F	—	125	125	125	125	125	—
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

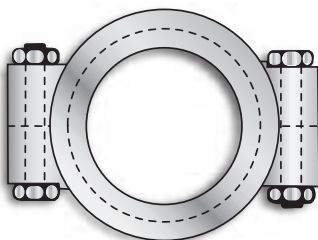
*PSI ratings based on hydrostatic test using standard gaskets molded from Buna-N. Ratings assume proper installation of ferrules, joint assembly and the absence of any shock pressure. Please contact Parker Hannifin for ratings at higher temperatures or utilizing other materials. For temperatures above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



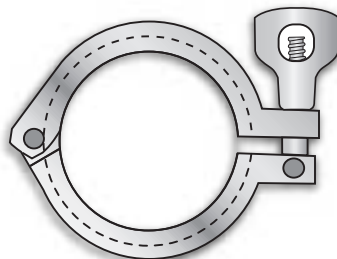
13MHLA



13HHM



13MHP



A13MHM

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)
1/2	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

Surface Finish Reference Chart

Polishing Code	Inside Diameter [ID] / Product Contact Surface			Polish Method	OD / Product Noncontact Surface
	Maximum Surface Roughness (RA)				
	Micrometers (µm)	Micrometers (µm)	ASME BPE Finish Code		
1	32	0.8	—	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
PD	15	0.4	SFF4	Mechanical Polished and Electropolished	Unpolished
PL	20	0.5	SFF1	Mechanical Polished	Polished to Ra, 32 µ-inch/0.8um
PM	15	0.4	SFF4	Mechanical Polished and Electropolished	Polished to Ra, 32 µ-inch/0.8um