

Stainless Steel



SMITH-COOPER[®]
INTERNATIONAL

You get it All.



***It's not just a quality product
- it's a quality system***

Quality products are not enough. Because if you want every product to be a quality product, you need a quality system.

Every SCI product is manufactured to precise standards, and inspected twice. All materials and dimensions are carefully monitored and meet relevant standards, and the whole process complies with ISO 9001 Standards. Every product is 100% traceable, because we're 100% responsible.

Wherever we work - and we work all over the world - exactly the same higher quality standards and systems are used. Because SCI Quality Plus means our 50-year reputation for quality is built right in.



***The benchmark of
packaging***

Standardized carton sizes. Large wraparound labels. Packaging that's color coded by product line. And - outside of every box - a nice, clean picture of what's inside every box.

SCI's Pro Pak System is a big idea that makes it possible for you to cut costs and improve service, simply by making it easier. From shipping and handling to tracking and reordering. And, at the same time, you'll be using your valuable warehouse space much more efficiently.



All in one place.



*The best guarantee
you'll never need*

The SCI 5/50 Guarantee says we will replace any pipe, valve or fitting for up to a full five years, when properly installed and operated, if failure is due to defects in material or workmanship.

Smith-Cooper will even pay \$50 to the installing contractor to offset the cost of installation (please see the SCI Warranty at www.smithcooper.com for details).

We think that means we offer the highest quality pipe, valves and fittings available. Quality we stand behind for a full five years. Which makes it just that much easier for you to offer your customers the same high standards of quality and service.

And that, in the end, is what we're all here for.



It's all about time.

We understand that time is money which is why everything we do is designed to save you time. From our Quality Plus and Pro Pak systems to our 5/50 Guarantee, Smith-Cooper service adds value to each order you place.

With locations on the East and West coasts, Smith-Cooper also offers speedy delivery. Each order is packaged to the exacting standards you have come to expect from us, no matter where it ships. Since we pay more attention to you, you have time to pay more attention to your customers.



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STAINLESS STEEL

TABLE OF CONTENTS

Valves	1-10
Ball Valves	3-6
Needle Valve	6
Wye Strainer	6
Gate Valves	7
Globe Valves	8
Check Valves	9
Sanitary Butterfly Valve	10
 Sanitary Fittings.....	 11-18
Weld End Fittings	13-14
Clamp End Fittings.....	15-17
Gaskets.....	18
Tube Hangers.....	18
Sanitary Tubing.....	18
Tube Plate Flanges	18
 Instrumentation Fittings	 19-30
Instrumentation Fittings.....	21-29
Instrumentation Tubing.....	30
 Standard Weight 150# Fittings	 31-40
Threaded.....	33-38
Socket Weld.....	39-40
 Bar Stock Fittings.....	 41-46
 3000# Forged Fittings & Outlets.....	 47-58
Threaded.....	49-53
Socket Weld.....	54-57
Outlets	58

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TABLE OF CONTENTS CONT.

<i>Nipples</i>	59-62
Sch 40 Welded.....	61
Sch 80 Seamless.....	62
Hex Nipples	61
King Nipples	62
 <i>Flanges</i>	 63-70
150# ANSI Flanges	65
300# ANSI Flanges	66
600# ANSI Flanges	67
ANSI Part Numbers	68
Plate Flanges.....	69
MSS Flanges.....	70
 <i>Weld Fittings</i>	 71-84
Schedule 10.....	73-77
Schedule 40.....	78-88
Stub Ends	83-84
 <i>Pipe & Tubing</i>	 85-89
Welded Pipe.....	87
Seamless Pipe.....	88
Instrumentation Tubing.....	89
Sanitary Tubing.....	89
 <i>Warranty</i>	 90

For the most current listing of SCI products go to www.smithcooper.com



Valves

Ball Valve

- Sanitary Clamp End
- Tank Bottom
- Diverter
- Instrumentation End
- 1-Piece
- 2-Piece
- 3-Piece
- Flanged

Gate Valve

- Threaded
- Socket weld
- Flanged

Globe Valves

- Threaded
- Socket weld
- Flanged

Check Valves

- Threaded
- Socket weld
- Flanged

Butterfly

- Sanitary Clamp End



Series 58876

Stainless Ball Valve

- 800 lb. WOG, 150 lb. WSP
- Standard port
- 316 stainless steel body
- 1-piece design
- PFTE seats and seals
- Blow-out proof stem
- Locking device



Size IN	Part Number	Weight LB
	Threaded	
1/4	SV58876002	0.1
3/8	SV58876003	0.2
1/2	SV58876004	0.4
3/4	SV58876006	0.6
1	SV58876010	1.0
1-1/4	SV58876012	1.4
1-1/2	SV58876014	1.9
2	SV58876020	2.9

Series 54576

316 Stainless Steel Ball Valve

- 2000 lb. WOG (1/4 - 1),
1500 lb. WOG (1-1/4 - 2),
150 lb. WSP*
- Standard port
- 2-piece design
- RTFE seats
- Locking device
- Blow-out proof stem
- ISO 5211 mounting pad



Size IN	Part Number	Weight LB
	Threaded	
1/4	SV54576002	0.7
3/8	SV54576003	0.7
1/2	SV54576004	0.7
3/4	SV54576006	1.4
1	SV54576010	1.8
1-1/4	SV54576012	3.2
1-1/2	SV54576014	4.3
2	SV54576020	6.1

**Nova Seats for 250 PSI WSP also available.*



Series 50M76

316 Stainless Ball Valve

- 1000 lb. WOG, 150 lb. WSP
- Full port
- 2-piece design
- RTFE seats
- Locking device
- Blow-out proof stem



Size IN	Part Number	Weight LB
	Threaded	
1/4	SV50M76002	0.6
3/8	SV50M76003	0.5
1/2	SV50M76004	0.7
3/4	SV50M76006	1.1
1	SV50M76010	1.7
1-1/4	SV50M76012	2.6
1-1/2	SV50M76014	4.1
2	SV50M76020	6.8
2-1/2	SV50M76024	14.7
3	SV50M76030	22.4

Series 50B76

Stainless Steel Ball Valve, Seal Welded

- 2000 lb. WOG (1/4 - 2),
1500 lb. WOG (2-1/2 - 3),
150 lb. WSP*
- Full port
- 2-piece seal welded
- Locking device
- Blow-out proof stem



Size IN	Part Number	Weight LB
	Threaded	
1/4	SV50B76002	0.6
3/8	SV50B76003	0.5
1/2	SV50B76004	0.7
3/4	SV50B76006	1.1
1	SV50B76010	1.8
1-1/4	SV50B76012	2.6
1-1/2	SV50B76014	4.2
2	SV50B76020	6.8
2-1/2	SV50B76024	15.2
3	SV50B76030	22.7

**Nova Seats for 250 PSI WSP also available.*

Series 50C76

316 Stainless Steel Ball Valve, Seal Welded

- 3000 lb. WOG
- Full port
- 2-piece seal welded
- Anti-static device
- Locking device
- Blow-out proof stem



Size IN	Part Number	Weight LB
	Threaded	
1/4	SV50C76002	0.9
3/8	SV50C76003	0.8
1/2	SV50C76004	1.0
3/4	SV50C76006	2.4
1	SV50C76010	3.5
1-1/4	SV50C76012	5.1
1-1/2	SV50C76014	8.5
2	SV50C76020	9.6
3	SV50C76030	36.7

Series 50F76

316 Stainless Steel Ball Valve, Seal Welded

- 6000 lb. WOG
- Full port
- 2-piece seal welded
- Anti-static device
- Locking device
- Blow-out proof stem



Size IN	Part Number	Weight LB
	Threaded	
1/4	SV50F76002	1.2
3/8	SV50F76003	1.1
1/2	SV50F76004	1.5
3/4	SV50F76006	2.8
1	SV50F76010	4.9
1-1/4	SV50F76012	7.4
1-1/2	SV50F76014	12.1
2	SV50F76020	14.7

Series 39036

316 Stainless Steel Ball Valve, 3-piece design

- 1000 lb. WOG
- Standard port
- Locking device
- Blow-out proof stem
- Variety of seats, seals and handles



Size IN	Part Number		Weight LB
	Threaded	Socket Weld	
1/4	SV39036TE002	SV39036SW002	0.7
3/8	SV39036TE003	SV39036SW003	0.6
1/2	SV39036TE004	SV39036SW004	1.1
3/4	SV39036TE006	SV39036SW006	1.4
1	SV39036TE010	SV39036SW010	2.0
1-1/4	SV39036TE012	SV39036SW012	2.9
1-1/2	SV39036TE014	SV39036SW014	4.3
2	SV39036TE020	SV39036SW020	7.4
2-1/2	SV39036TE024	SV39036SW024	14.0
3	SV39036TE030	SV39036SW030	19.6
4	SV39036TE040	SV39036SW040	31.1

Series 53036

316 Stainless Steel Ball Valve, 3-piece design

- 1000 lb. WOG
- Full port
- RTFE seat
- Locking device
- Blow-out proof stem
- Actuator mounting pad
- Variety seats, seals and handles



Size IN	Part Number		Weight LB
	Threaded	Socket Weld	
1/4	SV53036TE002	SV53036SW002	0.9
3/8	SV53036TE003	SV53036SW003	0.9
1/2	SV53036TE004	SV53036SW004	1.2
3/4	SV53036TE006	SV53036SW006	1.8
1	SV53036TE010	SV53036SW010	2.5
1-1/4	SV53036TE012	SV53036SW012	4.0
1-1/2	SV53036TE014	SV53036SW014	6.2
2	SV53036TE020	SV53036SW020	9.6

Series 54116

316 Stainless Steel Ball Valve, 1-piece

- 150 lb. flanged ends
- Standard port
- TFM seats 1/2 - 4
- RTFM seats 6 - 8
- Locking device
- Blow-out proof stem
- Variety of seats and seals available



Size IN	Part Number	Weight LB
	Flanged	
1	SV54116M014	5.6
1-1/2	SV54116M014	12.2
2	SV54116M020	25.4
2-1/2	SV54116M024	0.00
3	SV54116M030	38.5
4	SV54116M040	53.5
6	SV54116M060	79.2
8	SV54116M080	189.2

Series 49116

316 Stainless Steel Flanged Ball Valve, 2-piece

- 150 lb. flanged ends
- Full port
- RTFE seats
- Locking device
- Blow-out proof stem



Size IN	Part Number	Weight LB
	Flanged	
1/2	SV49116004	3.3
3/4	SV49116006	4.2
1	SV49116010	5.9
1-1/2	SV49116014	11.4
2	SV49116020	17.4
3	SV49116030	32.6
4	SV49116040	52.4
6	SV49116060	104.5

Series 50116

316 Stainless Steel Flanged Ball Valve, 2-Piece

- 150 lb. flanged ends
- Full port
- 316 stainless steel body and trim
- Locking device
- Blow-out proof stem



Size IN	Part Number	Weight LB
	Flanged	
1/2	SV50116M004	3.7
3/4	SV50116M006	4.8
1	SV50116M010	6.8
1-1/2	SV50116M014	13.5
2	SV50116M020	19.6
2-1/2	SV50116M024	36.5
3	SV50116M030	44.2
4	SV50116M040	63.7

Series S76BVH

316 Stainless Steel Instrumentation Ball Valve

- 1000 psi @ 200° F
- PTFE seats
- Double ferrule instrumentation tube ends



Tube OD IN	Part Number	Weight LB
	Instrumentation	
1/4	S76BVH002	0.3
3/8	S76BVH003	0.3
1/2	S76BVH004	0.3
3/4	S76BVH006	0.9

Series N66

316 Stainless Steel Sanitary Ball Valve

- Tube port
- 3-piece design
- High cycle steam
- Hygienic seating
- ISO 5211 mounting pad
- Locking device
- Encapsulated body seal



Size IN	Part Number	Weight LB
	Clamp Ends	
1/2	SVN6666MTCE004	1.2
3/4	SVN6666MTCE006	2.0
1	SVN6666MTCE010	3.0
1-1/2	SVN6666MTCE014	6.0
2	SVN6666MTCE020	9.2
2-1/2	SVN6666MTCE024	12.1
3	SVN6666MTCE030	16.2
4	SVN6666MTCE040	18.9

Series 66

316 Stainless Steel

Sanitary Tube Port

- 3 Piece Design
- Encapsulated Body Bolts
- High Cycle Steam Packing
- Hygienic Seating Design
- Integrated ISO Mounting
- Locking device
- Blow-Out Proof Stem
- Cavity-Filled Seats Available



Size IN	Part Number	Weight LB
	Clamp Ends	
1/2	SV6666MTCE004	1.5
3/4	SV6666MTCE006	2.3
1	SV6666MTCE010	3.6
1-1/2	SV6666MTCE014	6.9
2	SV6666MTCE020	9.7
2-1/2	SV6666MTCE024	12.8
3	SV6666MTCE030	16.8
4	SV6666MTCE040	19.6

Series S7166NV

316 Stainless Steel Needle Valve

- 6000 lb. WOG
- PTFE seats



Size IN	Part Number	Weight LB
	Threaded	
1/2	S7166NV002	1.0
3/8	S7166NV003	1.1
1/2	S7166NV004	1.6
3/4	S7166NV006	1.9
1	S7166NV010	3.1

Series S7066YS

316 Stainless Steel

Threaded Wye Strainer

- 800 lb. wog
- PTFE seats
- 20 mesh 316 stainless steel screen



Size IN	Part Number	Weight LB
	Threaded	
1/2	S7066YS004	0.5
3/4	S7066YS006	0.8
1	S7066YS010	1.6
1-1/4	S7066YS012	2.0
1-1/2	S7066YS014	2.7
2	S7066YS020	4.3



Series 30276

316 Stainless Steel Gate Valve

- 200 lb. WOG @ 350°F
- Reduced port
- Inside screw
- Non-rising stem
- Screwed bonnet
- Solid wedge disc

Size IN	Part Number		Weight LB
	Threaded	Socket Weld	
1/2	SV30276TE004	SV30276SW004	0.9
3/4	SV30276TE006	SV30276SW006	1.2
1	SV30276TE010	SV30276SW010	1.6
1-1/4	SV30276TE012	SV30276SW012	2.6
1-1/2	SV30276TE014	SV30276SW014	3.7
2	SV30276TE020	SV30276SW020	5.2



Series 34836

Forged 316L Stainless Steel Gate Valve

- OS&Y
- Reduced port
- Class 800
- A182 / 316L stainless steel body
- Bolted bonnet

Size IN	Part Number		Weight LB
	Threaded	Socket Weld	
1/2	SV34836TE004	SV34836SW004	4.9
3/4	SV34836TE006	SV34836SW006	5.3
1	SV34836TE010	SV34836SW010	9.3
1-1/4	SV34836TE012	SV34836SW012	12.5
1-1/2	SV34836TE014	SV34836SW014	15.5
2	SV34836TE020	SV34836SW020	24.0



Series 35116

316L Stainless Steel 150 lb. Flanged Gate Valve

- Full port
- Outside screw and yoke
- Bolted bonnet
- Flexible wedge, fully guided
- Integrated seats
- Rising stem and non-rising hand-wheel

Size IN	Part Number	Weight LB
1/2	SV35116004	7.5
3/4	SV35116006	7.9
1	SV35116010	10.6
1-1/2	SV35116014	18.2
2	SV35116020	25.0
2-1/2	SV35116024	34.7
3	SV35116030	48.3
4	SV35116040	76.4
5	SV35116050	104.7
6	SV35116060	118.9
8	SV35116080	197.3
10	SV35116100	313.1
12	SV35116120	465.1
14	SV35116140	858.0



Series 35316

316L Stainless Steel 300 lb. Flanged Gate Valve

- Full port
- Outside screw and yoke
- Bolted bonnet
- Flexible wedge, fully guided
- Integrated seats
- Rising stem and non-rising hand-wheel

Size IN	Part Number	Weight LB
1/2	SV35316004	11.8
3/4	SV35316006	13.8
1	SV35316010	15.4
1-1/2	SV35316014	35.0
2	SV35316020	45.8
2-1/2	SV35316024	55.8
3	SV35316030	84.8
4	SV35316040	142.0
6	SV35316060	253.0
8	SV35316080	376.2
10	SV35316100	651.2
12	SV35316120	891.0

*600 lb. Flanged End Valve Available Upon Request



Series 40276 316 Stainless Steel Globe Valve

- 200 lb. WOG @ 350°F
- Inside screw
- Non-rising stem
- Screwed bonnet



Size IN	Part Number		Weight LB
	Threaded	Socket Weld	
1/2	SV40276TE004	SV40276SW004	1.0
3/4	SV40276TE006	SV40276SW006	1.5
1	SV40276TE010	SV40276SW010	1.9
1-1/4	SV40276TE012	SV40276SW012	3.1
1-1/2	SV40276TE014	SV40276SW014	3.9
2	SV40276TE020	SV40276SW020	5.5



Series 44836 Forged 316L Stainless Steel Globe Valve

- Class 800
- A182 / 316L forged stainless steel body and bonnet
- Bolted bonnet



Size IN	Part Number		Weight LB
	Threaded	Socket Weld	
1/2	SV44836TE004	SV44836SW004	5.0
3/4	SV44836TE006	SV44836SW006	5.2
1	SV44836TE010	SV44836SW010	9.5
1-1/4	SV44836TE012	SV44836SW012	12.7
1-1/2	SV44836TE014	SV44836SW014	17.2
2	SV44836TE020	SV44836SW020	27.5



Series 45116 316 Stainless Steel 150 lb. Flanged Globe Valve

- Bolted bonnet
- Outside screw and yoke
- Yoke integrated with bonnet
- Stem/wedge connection meets the API 600 Pull Test
- Rising stem and hand-wheel
- Available with gear operator



Size IN	Part Number	Weight LB
1/2	SV45116004	6.9
3/4	SV45116006	8.2
1	SV45116010	9.6
1-1/4	SV45116012	13.9
1-1/2	SV45116014	16.3
2	SV45116020	23.3
2-1/2	SV45116024	33.5
3	SV45116030	45.7
4	SV45116040	68.2
5	SV45116050	140.1
6	SV45116060	136.8
8	SV45116080	217.6
10	SV45116100	413.6
12	SV45116120	1049.4

*300 lb. & 600 lb. Flanged End Valves Available Upon Request



Series 20276

316 Stainless Steel Swing Check Valve

- 200 lb. WOG @ 350°F
- 316 stainless steel
- Screwed cap



Size IN	Part Number		Weight LB
	Threaded	Socket Weld	
1/4	SV20276TE002	SV20276SW002	0.8
3/8	SV20276TE003	SV20276SW003	0.8
1/2	SV20276TE004	SV20276SW004	0.7
3/4	SV20276TE006	SV20276SW006	1.1
1	SV20276TE010	SV20276SW010	1.7
1-1/4	SV20276TE012	SV20276SW012	2.4
1-1/2	SV20276TE014	SV20276SW014	3.3
2	SV20276TE020	SV20276SW020	5.0
2-1/2	SV20276TE024	SV20276SW024	9.1
3	SV20276TE030	SV20276SW030	13.2



Series 24836

316L Stainless Steel Piston Check Valve

- Class 800
- A182 / 316L forged stainless steel body
- Bolted cover



Size IN	Part Number		Weight LB
	Threaded	Socket Weld	
1/2	SV24836TE004	SV24836SW004	3.3
3/4	SV24836TE006	SV24836SW006	3.7
1	SV24836TE010	SV24836SW010	7.3
1-1/4	SV24836TE012	SV24836SW012	9.2
1-1/2	SV24836TE014	SV24836SW014	9.2
2	SV24836TE020	SV24836SW020	13.1



Series 25116

316 Stainless Steel 150 lb. Flanged Check Valve

- Bolted cover
- Swing type
- Integrated seats
- Renewable seat rings
- For horizontal or vertical lines



Size IN	Part Number	Weight LB
1/2	SV25116004	3.5
3/4	SV25116006	4.7
1	SV25116010	6.0
1-1/4	SV25116012	7.2
1-1/2	SV25116014	10.3
2	SV25116020	17.2
2-1/2	SV25116024	25.5
3	SV25116030	32.2
4	SV25116040	62.4
5	SV25116050	82.60
6	SV25116060	103.5
8	SV25116080	167.2
10	SV25116100	295.5
12	SV25116120	429.9



Series 25316

316 Stainless Steel 300 lb. Flanged Check Valve

- Bolted cover
- Swing type
- Integrated seats
- Renewable seat rings
- For horizontal or vertical lines



Size IN	Part Number	Weight LB
1/2	SV25316004	5.7
3/4	SV25316006	7.8
1	SV25316010	12.1
1-1/2	SV25316014	21.1
2	SV25316020	31.5
2-1/2	SV25316024	44.7
3	SV25316030	55.4
4	SV25316040	100.8
6	SV25316060	177.5

*600 lb. Flanged Ends Available Upon Request

Series 15

Stainless Sanitary Butterfly Valve



- Tube port
- 304 or 316 stainless steel
- Clamp ends
- 150 psi @ 200° F
- Precision milled body
- Sharpe logo, material grade, size, heat number and country of origin engraved on each valve body
- Disc fully machined and polished
- Hygienic seating design
- Automation available upon request
- Optional: pull handle 4 position, blue 12 position handle, stainless steel 12 position handle

SV154 E CC 2 1 020

Valve Material	
SV154	304 Stainless Steel
SV156	316 Stainless Steel *

Seat Material	
E	EPDM
N	BUNA-N
V	Viton *

Shaft Material	
CC	Tri-Clamp
BB	Buttweld *
EE	Extendable Buttweld *
MM	Male Threaded *
CB	Clamp x Buttweld *

Surface Finish	
1	20 RA *
2	25 RA
3	15 RA *
4	20 RA Electro Polish *

Operator	
1	Blue 12 Position Lever Handle
2	2 Position Handle
3	12 Position Stainless Steel Lever Handle
4	4 Position Pull Handle
5	Bare Stem
6	Gear Operator

Size IN	
010	1
014	1-1/2
020	2
024	2-1/2
030	3
040	4



*Denotes Special Order - Lead Times Will Vary, Call For More Information



Sanitary Fittings

Specifications

- Sanitary fittings and tubing are 3-A Approved
- Stainless steel tubing dimensions and materials conform to ASTM A269/A270 and 3-A Approved
- Stainless steel plate flanges made from ASTM A240 (Plate) or cast in conformance with ASTM A351
- Independent lab verification that fittings meet applicable chemical & physical properties
- Material test reports available
- Manufacturing facility is ISO 9001:2008
- SCI logo, 3A logo, heat number & Country of origin marked on every fitting

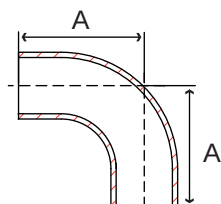


Fig. S77L2S4 & S77L2S6 – 90° Tube Bend (Long Radius)

Tube OD IN	Part Number		A IN	Packing		Weight LB
	304	316/L		Inner	Master	
1	S77L2S4010	S77L2S6010	2.06	30	60	0.1
1-1/2	S77L2S4014	S77L2S6014	2.93	8	16	0.4
2	S77L2S4020	S77L2S6020	4.06	3	6	0.7
2-1/2	S77L2S4024	S77L2S6024	5.18	-	5	1.2
3	S77L2S4030	S77L2S6030	6.93	-	2	1.8
4	S77L2S4040	S77L2S6040	8.93	-	1	4.2
6	S77L2S4060	S77L2S6060	12.00	-	1	5.75

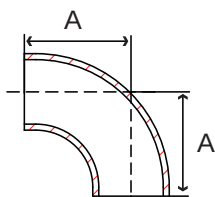


Fig. S772WCL4 & S772WCL6 – 90° Tube Bend (Short Radius)

Tube OD IN	Part Number		A IN	Packing		Weight LB
	304	316/L		Inner	Master	
1/2	-	S772WCL6004	0.75	200	800	0.05
3/4	-	S772WCL6006	1.12	100	400	0.07
1	S772WCL4010	S772WCL6010	1.50	24	96	0.1
1-1/2	S772WCL4014	S772WCL6014	2.25	6	24	0.3
2	S772WCL4020	S772WCL6020	3.00	6	12	0.5
2-1/2	S772WCL4024	S772WCL6024	3.75	-	5	0.8
3	S772WCL4030	S772WCL6030	4.50	-	4	1.2
4	S772WCL4040	S772WCL6040	6.00	-	2	2.6
6	S772WCL4060	S772WCL6060	9.00	-	1	2.0

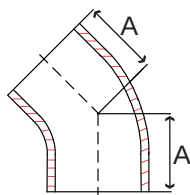


Fig. S77L2KS4 & S77L2KS6 – 45° Tube Bend (Long Radius)

Tube OD IN	Part Number		A IN	Packing		Weight LB
	304	316/L		Inner	Master	
1/2	-	S77L2KS6004	2.25	-	1	0.1
3/4	-	S77L2KS6006	2.25	-	1	0.2
1	S77L2KS4010	S77L2KS6010	1.18	30	60	0.1
1-1/2	S77L2KS4014	S77L2KS6014	1.62	18	36	0.2
2	S77L2KS4020	S77L2KS6020	2.31	4	8	0.5
2-1/2	S77L2KS4024	S77L2KS6024	3.00	2	4	0.8
3	S77L2KS4030	S77L2KS6030	3.68	2	4	1.2
4	S77L2KS4040	S77L2KS6040	4.81	-	2	2.5

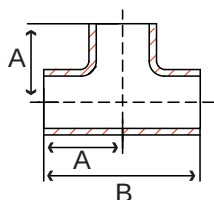
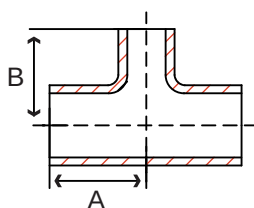


Fig. S77L7W4 & S77L7W6 – Tee

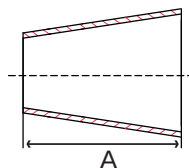
Tube OD IN	Part Number		A IN	B IN	Packing		Weight LB
	304	316/L			Inner	Master	
1/2	-	S77L7W6004	1.50	3.00	40	160	0.1
3/4	-	S77L7W6006	2.00	4.00	15	60	0.2
1	S77L7W4010	S77L7W6010	1.87	3.75	12	48	0.1
1-1/2	S77L7W4014	S77L7W6014	2.25	4.50	8	16	0.3
2	S77L7W4020	S77L7W6020	3.00	6.00	-	8	0.6
2-1/2	S77L7W4024	S77L7W6024	3.00	6.00	-	5	0.7
3	S77L7W4030	S77L7W6030	3.25	6.50	-	3	1.0
4	S77L7W4040	S77L7W6040	3.87	7.75	-	1	2.4
6	S77L7W4060	S77L7W6060	5.00	10.00	-	1	4.8

Fig. S777RW4 & S777RW6 – Reducing Tee



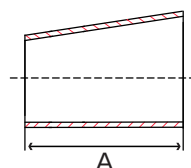
Tube OD IN	Part Number		A IN	B IN	Packing		Weight LB
	304	316/L			Inner	Master	
3/4 x 1/2	-	S777RW6006004	2.13	2.13	-	1	0.1
1 x 1/2	-	S777RW6010004	2.13	2.13	-	1	0.1
1 x 3/4	-	S777RW6010006	2.13	2.13	-	1	0.2
1-1/2 x 1/2	-	S777RW6014004	2.25	2.25	-	1	0.3
1-1/2 x 3/4	-	S777RW6014006	2.25	2.25	-	1	0.3
1-1/2 x 1	S777RW4014010	S777RW6014010	1.65	1.37	-	1	0.3
2 x 1/2	-	S777RW6020004	3.00	2.38	-	1	0.6
2 x 3/4	-	S777RW6020006	3.00	2.38	-	1	0.6
2 x 1	S777RW4020010	S777RW6020010	2.06	1.63	-	1	0.6
2 x 1-1/2	S777RW4020014	S777RW6020014	2.06	1.91	-	1	0.6
2-1/2 x 1-1/2	S777RW4024014	S777RW6024014	2.34	2.16	-	1	0.6
2-1/2 x 2	S777RW4024020	S777RW6024020	2.34	2.31	-	1	0.7
3 x 1-1/2	S777RW4030014	S777RW6030014	2.59	2.41	-	1	1.0
3 x 2	S777RW4030020	S777RW6030020	2.59	2.56	-	1	1.0
3 x 2-1/2	S777RW4030024	S777RW6030024	2.59	2.59	-	1	1.0
4 x 1-1/2	S777RW4040014	S777RW6040014	3.44	2.91	-	1	2.4
4 x 2	S777RW4040020	S777RW6040020	3.44	3.06	-	1	2.4
4 x 2-1/2	S777RW4040024	S777RW6040024	3.44	3.09	-	1	2.4
4 x 3	S777RW4040030	S777RW6040030	3.44	3.09	-	1	2.4
6 x 3	S777RW4060030	S777RW6060030	5.00	4.75	-	1	4.8
6 x 4	S777RW4060040	S777RW6060040	5.00	4.87	-	1	4.8

Fig. S77L31W4 & S77L31W6 – Concentric Reducer



Tube OD IN	Part Number		A IN	Packing		Weight LB
	304	316/L		Inner	Master	
3/4 x 1/2	-	S77L31W6006004	2.50	256	1024	0.05
1-1/2 x 1	S77L31W4014010	S77L31W6014010	2.00	-	1	0.1
2 x 1	S77L31W4020010	S77L31W6020010	2.50	12	48	0.5
2 x 1-1/2	S77L31W4020014	S77L31W6020014	2.00	10	40	0.3
2-1/2 x 1-1/2	S77L31W4024014	S77L31W6024014	2.00	10	40	0.3
2-1/2 x 2	S77L31W4024020	S77L31W6024020	2.00	10	40	0.2
3 x 1	S77L31W4030010	S77L31W6030010	8.00	-	1	0.8
3 x 1-1/2	S77L31W4030014	S77L31W6030014	6.00	1	4	0.8
3 x 2	S77L31W4030020	S77L31W6030020	3.00	2	8	0.6
3 x 2-1/2	S77L31W4030024	S77L31W6030024	2.00	4	16	0.3
4 x 1-1/2	S77L31W4040014	S77L31W6040014	10.00	-	1	1.9
4 x 2	S77L31W4040020	S77L31W6040020	8.00	2	4	1.4
4 x 2-1/2	S77L31W4040024	S77L31W6040024	6.00	2	4	1.1
4 x 3	S77L31W4040030	S77L31W6040030	4.00	2	4	0.6
6 x 3	S77L31W4060030	S77L31W6060030	6.00	-	1	1.6
6 x 4	S77L31W4060040	S77L31W6060040	4.00	-	1	1.2

Fig. S77L32W4 & S77L32W6 – Eccentric Reducer



Tube OD IN	Part Number		A IN	Packing		Weight LB
	304	316/L		Inner	Master	
1-1/2 x 1	S77L32W4014010	S77L32W6014010	2.00	-	-	0.1
2 x 1-1/2	S77L32W4020014	S77L32W6020014	2.00	10	40	0.4
2-1/2 x 1-1/2	S77L32W4024014	S77L32W6024014	6.00	-	-	0.3
2-1/2 x 2	S77L32W4024020	S77L32W6024020	2.00	5	20	0.3
3 x 1	S77L32W4030010	S77L32W6030010	8.00	-	-	0.8
3 x 1-1/2	S77L32W4030014	S77L32W6030014	6.00	1	4	0.8
3 x 2-1/2	S77L32W4030024	S77L32W6030024	2.00	4	16	0.4
4 x 1-1/2	S77L32W4040014	S77L32W6040014	10.00	-	-	1.8
4 x 2	S77L32W4040020	S77L32W6040020	8.00	2	4	1.5
4 x 2-1/2	S77L32W4040024	S77L32W6040024	6.00	2	4	1.3
4 x 3	S77L32W4040030	S77L32W6040030	4.00	2	4	0.9
6 x 3	S77L32W4060030	S77L32W6060030	5.50	-	1	1.6
6 x 4	S77L32W4060040	S77L32W6060040	5.50	-	1	1.2

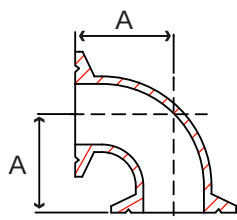


Fig. S772CMP4 & S772CMP6 – 90° Elbow

Tube OD IN	Part Number		A IN	Packing		Weight LB
	304	316/L		Inner	Master	
1/2	-	S772CMP6004	1.62	25	100	0.2
3/4	-	S772CMP6006	1.62	25	100	0.2
1	S772CMP4010	S772CMP6010	2.00	14	28	0.3
1-1/2	S772CMP4014	S772CMP6014	2.75	8	16	0.4
2	S772CMP4020	S772CMP6020	3.50	4	8	0.8
2-1/2	S772CMP4024	S772CMP6024	4.25	2	4	1.0
3	S772CMP4030	S772CMP6030	5.00	-	4	2.0
4	S772CMP4040	S772CMP6040	6.62	-	1	3.6
6	S772CMP4060	S772CMP6060	10.50	-	1	3.4

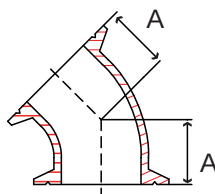


Fig. S772KMP4 & S772KMP6 – 45° Elbow

Tube OD IN	Part Number		A IN	Packing		Weight LB
	304	316/L		Inner	Master	
1/2	-	S772KMP6004	2.75	-	1	0.2
3/4	-	S772KMP6006	2.75	-	1	0.2
1	S772KMP4010	S772KMP6010	1.12	-	1	0.2
1-1/2	S772KMP4014	S772KMP6014	1.43	-	1	0.3
2	S772KMP4020	S772KMP6020	1.75	-	1	0.5
2-1/2	S772KMP4024	S772KMP6024	2.06	-	1	0.6
3	S772KMP4030	S772KMP6030	2.37	-	1	1.2
4	S772KMP4040	S772KMP6040	3.12	-	1	2.2

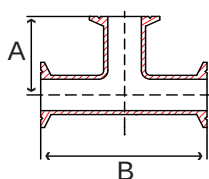


Fig. S777MP4 & S777MP6 – Tee

Tube OD IN	Part Number		A IN	B IN	Packing		Weight LB
	304	316/L			Inner	Master	
1/2	-	S777MP6004	2.25	4.50	20	40	0.3
3/4	-	S777MP6006	2.37	4.75	20	40	0.4
1	S777MP4010	S777MP6010	2.62	5.25	6	12	0.3
1-1/2	S777MP4014	S777MP6014	2.87	5.75	4	8	0.4
2	S777MP4020	S777MP6020	3.37	6.75	-	4	0.8
2-1/2	S777MP4024	S777MP6024	3.62	7.25	-	3	1.0
3	S777MP4030	S777MP6030	3.87	7.75	-	1	2.0
4	S777MP4040	S777MP6040	4.75	9.50	-	1	3.6
6	S777MP4060	S777MP6060	7.12	14.25	-	1	6.9

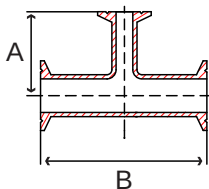


Fig. S777RMP4 & S777RMP6 – Tee

Tube OD IN	Part Number		A IN	B IN	Packing		Weight LB
	304	316/L			Inner	Master	
1 x 1/2	-	S777RMP6010004	2.62	5.25	-	1	0.51
1 x 3/4	-	S777RMP6010006	2.62	5.25	-	1	0.51
1-1/2 x 1	S777RMP4014010	S777RMP6014010	2.62	5.25	-	1	0.73
2 x 1	S777RMP4020010	S777RMP6020010	2.87	5.75	-	1	1.14
2 x 1-1/2	S777RMP4020014	S777RMP6020014	3.00	6.00	-	1	1.11
2-1/2 x 1	S777RMP4024010	S777RMP6024010	3.50	7.00	-	1	1.35
2-1/2 x 2	S777RMP4024020	S777RMP6024020	3.75	7.50	-	1	1.47
3 x 1-1/2	S777RMP4030014	S777RMP6030014	3.50	7.00	-	1	1.73
3 x 2	S777RMP4030020	S777RMP6030020	4.00	8.00	-	1	1.79
3 x 2-1/2	S777RMP4030024	S777RMP6030024	3.75	7.50	-	1	1.85
4 x 1-1/2	S777RMP4040014	S777RMP6040014	4.50	9.00	-	1	3.25
4 x 2	S777RMP4040020	S777RMP6040020	4.50	9.00	-	1	3.25
4 x 2-1/2	S777RMP4040024	S777RMP6040024	4.25	8.50	-	1	3.50
4 x 3	S777RMP4040030	S777RMP6040030	4.25	8.50	-	1	3.50

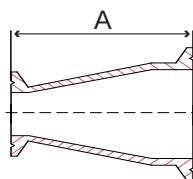


Fig. S773114MP4 & S773114MP6 – Concentric Reducer

Tube OD IN	Part Number		A IN	Packing		Weight LB
	304	316/L		Inner	Master	
1 x 3/4	-	S773114MP610006	2.00	12	48	0.3
2 x 1	S773114MP420010	S773114MP620010	5.00	8	32	0.5
2 x 1-1/2	S773114MP420014	S773114MP620014	3.00	4	16	0.4
2-1/2 x 2	S773114MP424020	S773114MP624020	5.00	2	8	0.6
3 x 1-1/2	S773114MP430014	S773114MP630014	7.00	2	4	1.2
3 x 2	S773114MP430020	S773114MP630020	5.00	1	4	1.0
3 x 2-1/2	S773114MP430024	S773114MP630024	3.00	2	8	0.7
4 x 2	S773114MP440020	S773114MP640020	9.12	1	3	3.0
4 x 2-1/2	S773114MP440024	S773114MP640024	7.12	1	3	2.7
4 x 3	S773114MP440030	S773114MP640030	5.12	1	4	3.0

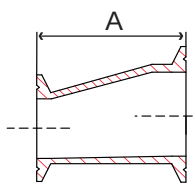


Fig. S773214MP4 & S773214MP6 – Eccentric Reducer

Tube OD IN	Part Number		A IN	Packing		Weight LB
	304	316/L		Inner	Master	
2 x 1-1/2	S773214MP420014	S773214MP620014	3.00	4	16	0.4
2-1/2 x 2	S773214MP424020	S773214MP624020	3.00	2	8	0.5
3 x 1-1/2	S773214MP430014	S773214MP630014	7.00	2	4	1.2
3 x 2	S773214MP430024	S773214MP630020	4.62	4	8	1.0
3 x 2-1/2	S773214MP430024	S773214MP630024	3.00	2	8	0.7
4 x 2	S773214MP440020	S773214MP640020	9.12	1	3	3.0
4 x 2-1/2	S773214MP440024	S773214MP640024	7.12	1	3	2.7
4 x 3	S773214MP440030	S773214MP640030	5.12	1	4	3.0

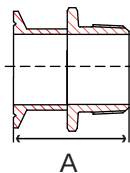


Fig. S7721MP4 & S7721MP6 – Male Adapter

Tube OD IN	Part Number		A IN	Packing		Weight LB
	304	316/L		Inner	Master	
1 x 3/4	S7721MP4010006	S7721MP6010006	2.11	-	1	0.8
1 x 1	S7721MP4010010	S7721MP6010010	2.25	-	1	0.8
1-1/2 x 1	S7721MP4014010	S7721MP6014010	2.25	-	1	0.8
1-1/2 x 1-1/2	S7721MP4014014	S7721MP6014014	2.43	8	32	0.8
1-1/2 x 2	S7721MP4014020	S7721MP6014020	2.62	-	1	1.6
2 x 2	S7721MP4020020	S7721MP6020020	2.62	6	24	1.4
2 x 1-1/2	S7721MP4020014	S7721MP6020014	2.46	2	8	1.0
3 x 1-1/4	S7721MP4030014	S7721MP6030014	2.25	-	1	2.3
3 x 1-1/2	S7721MP4030014	S7721MP6030014	2.44	-	1	2.32
3 x 2	S7721MP4030020	S7721MP6030020	2.66	-	1	2.36
3 x 2-1/2	S7721MP4030024	S7721MP6030024	2.89	-	1	2.40
3 x 3	S7721MP4030030	S7721MP6030030	3.50	-	1	2.45
4 x 3	S7721MP4040030	S7721MP6040030	3.50	-	1	3.43
4 x 4	S7721MP4040040	S7721MP6040040	3.81	-	1	3.53

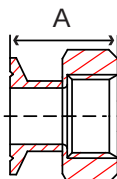
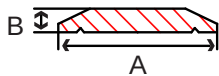


Fig. S7722MP4 & S7722MP6 – Female Adapter

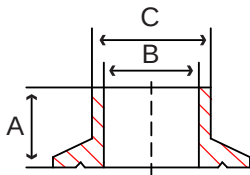
Tube OD IN	Part Number		A IN	Packing		Weight LB
	304	316/L		Inner	Master	
1 x 3/4	S7722MP4010006	S7722MP6010006	1.81	-	1	0.62
1 x 1	S7722MP4010010	S7722MP6010010	1.62	-	1	0.72
1-1/2 x 1	S7722MP4014010	S7722MP6014010	1.62	-	1	1.01
1-1/2 x 1-1/2	S7722MP4014014	S7722MP6014014	2.25	8	32	0.8
1-1/2 x 2	S7722MP4014020	S7722MP6014020	2.25	-	1	1.02
2 x 1-1/2	S7722MP4020014	S7722MP6020014	1.65	2	8	0.8
2 x 2	S7722MP4020020	S7722MP6020020	2.25	8	32	1.3
3 x 1-1/2	S7722MP4030014	S7722MP6030014	1.95	-	1	2.59
3 x 2	S7722MP4030020	S7722MP6030020	1.95	-	1	2.63
3 x 2-1/2	S7722MP4030024	S7722MP6030024	1.95	-	1	2.67
3 x 3	S7722MP4030030	S7722MP6030030	2.18	-	1	2.71
4 x 3	S7722MP4040030	S7722MP6040030	2.05	-	1	5.09
4 x 4	S7722MP4040040	S7722MP6040040	2.62	-	1	5.05

Fig. S7716AMP4 & S7716AMP6 – Solid End Cap



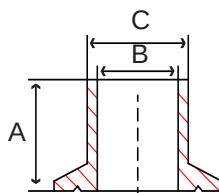
Tube OD IN	Part Number		A IN	B IN	Packing		Weight LB
	304	316/L			Inner	Master	
1/2 & 3/4	-	S7716AMP6006	0.98	0.18	70	280	0.03
1 & 1-1/2	S7716AMP4014	S7716AMP6014	1.98	0.25	70	280	0.1
2	S7716AMP4020	S7716AMP6020	2.51	0.25	30	120	0.3
2-1/2	S7716AMP4024	S7716AMP6024	3.04	0.25	20	80	0.4
3	S7716AMP4030	S7716AMP6030	3.57	0.25	10	40	0.9
4	S7716AMP4040	S7716AMP6040	4.68	0.31	8	16	1.2

Fig. S7714WMP4 & S7714WMP6 – Short-Weld Ferrule



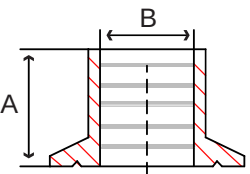
Tube OD IN	Part Number		A IN	B IN	C IN	Packing		Weight LB
	304	316/L				Inner	Master	
1/2	-	S7714WMP6004	0.50	0.37	0.50	-	1	0.03
3/4	-	S7714WMP6006	0.50	0.62	0.75	-	1	0.03
1	S7714WMP4010	S7714WMP6010	0.50	0.87	1.00	45	180	0.1
1-1/2	S7714WMP4014	S7714WMP6014	0.50	1.37	1.50	40	160	0.1
2	S7714WMP4020	S7714WMP6020	0.50	1.87	2.00	20	80	0.1
2-1/2	S7714WMP4024	S7714WMP6024	0.50	2.37	2.50	15	60	0.1
3	S7714WMP4030	S7714WMP6030	0.50	2.87	3.00	10	40	0.2
4	S7714WMP4040	S7714WMP6040	0.62	3.83	4.00	10	20	0.3

Fig. S77L14AM74 & S77L14AM76 – Long-Weld Ferrule



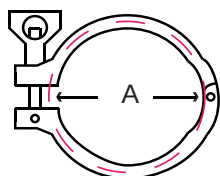
Tube OD IN	Part Number		A IN	B IN	C IN	Packing		Weight LB
	304	316/L				Inner	Master	
1/2	-	S77L14AM76004	1.12	0.37	0.50	-	1	0.05
3/4	-	S77L14AM76006	1.12	0.62	0.75	-	1	0.08
1	S77L14AM74010	S77L14AM76010	1.12	0.87	1.00	20	80	0.1
1-1/2	S77L14AM74014	S77L14AM76014	1.12	1.37	1.50	18	72	0.1
2	S77L14AM74020	S77L14AM76020	1.12	1.87	2.00	10	40	0.2
2-1/2	S77L14AM74024	S77L14AM76024	1.12	2.37	2.50	6	24	0.2
3	S77L14AM74030	S77L14AM76030	1.12	2.87	3.00	5	20	0.3
4	S77L14AM74040	S77L14AM76040	1.12	3.83	4.00	6	12	0.5

Fig. S7714RMP4 & S7714RMP6 – Recessless (Roll-On) Ferrule



Tube OD IN	Part Number		A IN	B IN	Packing		Weight LB
	304	316/L			Inner	Master	
1	S7714RMP4010	S7714RMP6010	0.75	1.00	30	120	0.1
1-1/2	S7714RMP4014	S7714RMP6014	1.12	1.50	20	80	0.1
2	S7714RMP4020	S7714RMP6020	1.31	2.00	8	32	0.2
2-1/2	S7714RMP4024	S7714RMP6024	1.37	2.50	5	20	0.3
3	S7714RMP4030	S7714RMP6030	1.43	3.00	4	16	0.4
4	S7714RMP4040	S7714RMP6040	1.50	4.00	4	8	0.7

Fig. S7713MHHM4 – Heavy Duty Clamp



Tube OD IN	Part Number		A IN	Packing		Weight LB
	304	316/L		Inner	Master	
1/2 & 3/4	S7713MHHM4006		1.10	25	100	0.2
1 & 1-1/2	S7713MHHM4014		2.12	10	40	0.6
2	S7713MHHM4020		2.65	10	40	0.7
2-1/2	S7713MHHM4024		3.18	14	28	0.8
3	S7713MHHM4030		3.71	12	24	1.0
4	S7713MHHM4040		4.82	5	10	1.2
6	S7713MHHM4060		6.69	-	1	3.7

Fig. S7740MPE, S7740MPG & S7740MPU – Gaskets



EPDM & Buna-N

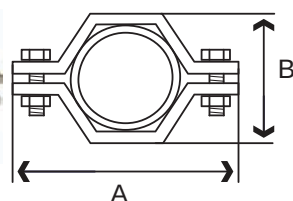


PTFE

Size IN	EPDM Gasket* Part Number -55°F to 275°F	PTFE Gasket Part Number -40°F to 450°F	BUNA-N Gasket Part Number -30°F to 200°F
1/2	S7740MPE004	S7740MPG004	S7740MPU004
3/4	S7740MPE006	S7740MPG006	S7740MPU006
1	S7740MPE010	S7740MPG010	S7740MPU010
1-1/2	S7740MPE014	S7740MPG014	S7740MPU014
2	S7740MPE020	S7740MPG020	S7740MPU020
2-1/2	S7740MPE024	S7740MPG024	S7740MPU024
3	S7740MPE030	S7740MPG030	S7740MPU030
4	S7740MPE040	S7740MPG040	S7740MPU040
6	S7740MPE060	S7740MPG060	S7740MPU060

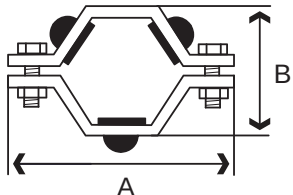
*Do not use with any hydrocarbons.

Fig. S77TH4P4 – Hanger with Sleeves



Tube OD IN	Part Number	A IN	B IN	Weight LB
1	S77TH4P4010	3.42	1.45	0.4
1-1/2	S77TH4P4014	4.00	2.12	0.5
2	S77TH4P4020	4.50	2.50	0.5
2-1/2	S77TH4P4024	4.75	3.12	0.6
3	S77TH4P4030	5.50	3.75	0.7
4	S77TH4P4040	6.75	4.75	0.9
6	S77TH4P4060	8.00	5.75	1.9

Fig. S77TH4R – Hanger with Grommets



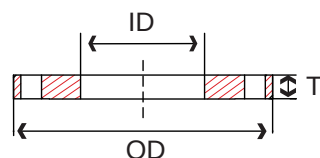
Tube OD IN	Part Number	A IN	B IN	Weight LB
1	S77TH4R010	3.42	1.45	0.4
1-1/2	S77TH4R014	4.00	2.12	0.5
2	S77TH4R020	4.50	2.50	0.5
2-1/2	S77TH4R024	4.75	3.12	0.6
3	S77TH4R030	5.50	3.75	0.7
4	S77TH4R040	6.75	4.75	0.9
6	S77TH4R060	8.00	5.75	1.9

Fig. S62TP4 & S62TP6 – Sanitary Tubing



Tube OD IN	Part Number		Wall Thickness IN	I.D. IN	Tube Length FT	Weight LB/FT
	304	316				
1/2	S62TP46004	S62TP66004	0.065	0.370	20	0.3
3/4	S62TP46006	S62TP66006	0.065	0.620	20	0.5
1	S62TP46010	S62TP66010	0.065	0.870	20	0.6
1-1/2	S62TP46014	S62TP66014	0.065	1.370	20	0.9
2	S62TP46020	S62TP66020	0.065	1.870	20	1.3
2-1/2	S62TP46024	S62TP66024	0.065	2.370	20	1.6
3	S62TP46030	S62TP66030	0.065	2.870	20	2.0
4	S62TP48040	S62TP68040	0.083	3.834	20	3.4
6	S62TP49060	S62TP69060	0.109	5.782	20	5.3

Tube Plate Flanges



Tube OD Size IN	Part Numbers		Thickness (T)	Outside Diameter (OD)	Inside Diameter (ID)	Number of Bolt Holes	Bolt Holes Diameter IN	Bolt Circle IN	Weight LB
	304	316							
1	S1414SOTP010	S1416SOTP010	0.500	4.25	1.06	4	0.625	3.12	1.7
1-1/2	S1414SOTP014	S1416SOTP014	0.500	5.00	1.56	4	0.625	3.88	2.3
2	S1414SOTP020	S1416SOTP020	0.500	6.00	2.06	4	0.75	4.75	3.2
2-1/2	S1414SOTP024	S1416SOTP024	0.500	7.00	2.56	4	0.75	5.50	4.5
3	S1414SOTP030	S1416SOTP030	0.500	7.50	3.06	4	0.75	6.00	4.8
4	S1414SOTP040	S1416SOTP040	0.500	9.00	4.06	8	0.75	7.50	6.5
6	S1414SOTP060	S1416SOTP060	0.500	11.00	6.06	8	0.875	9.50	8.2
8	S1414SOTP080	S1416SOTP080	0.500	13.50	8.06	8	0.875	11.75	11.8
10	S1414SOTP100	S1416SOTP100	0.500	16.00	10.06	12	1.00	14.25	14.7
12	S1414SOTP120	S1416SOTP120	0.500	19.00	12.06	12	1.00	17.00	21.4



Instrumentation Fittings

Specifications

- Instrumentation fittings meet ANSI B31.1, ANSI B31.3, ASME Sec. VIII
- Instrumentation fittings wall thickness conform to SAE-J-514
- NPT pipe threads conform to ANSI B2-1
- Straight threads conform to ANSI B1-1 (unified threads clause 2A & 2B)
- Instrumentation fittings made from material that conforms to ASTM A276 316 SS (barstock) and ASTM A-182 G F 316 (forgings)
- Instrumentation fittings ferrules conform to ASTM A276 316 SS (min hardness Rockwell B-90)
- Instrumentation fittings ferrules composed of 316 SS, PTFE, Brass, Nylon, D

Testing

- Following tests are carried out at various stages of manufacture and carried out in accordance with BS-4368-Part-IV
- Visual / dimensional check
- Pneumatic pressure test at 2000 psi
- Hydraulic leak test at 10,000 psi
- Pressure impulse & vibration test at vibration frequency of 23-47 Hz with 5 mm amplitude and 30-40 CPM for a minimum of 20 million cycles
- Minimum burst pressure test at a steady rate of 3000 PSI per min up to 15,000 psi
- Make and break test hydraulically tested at 6,000 psi and 10,000 psi
- Temperature cycling test temperature increased from ambient to 320° C in min. held for 60 min, reduced to ambient, then hydraulically at 10,000 psi
- Vacuum test at 700 m bar vacuum, deterioration in vacuum not to exceed 20 m bar in 20 mins.
- Helium leak test at 15 PSI leak not to exceed 2 x 10 STD cc per sec

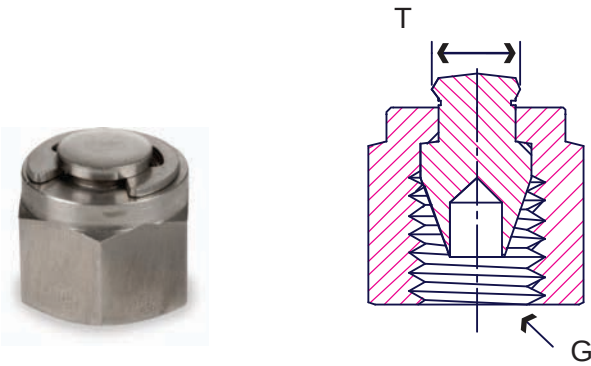


Fig. AFEC – Fitting End Closure

Tube OD IN	Part Number	T IN	G IN	Packing	Weight LB
1/8	S76AFEC001	1/8	7/16	100	0.04
1/4	S76AFEC002	1/4	9/16	100	0.05
3/8	S76AFEC003	3/8	11/16	60	0.09
1/2	S76AFEC004	1/2	7/8	20	0.1
5/8	S76AFEC005	5/8	1	50	0.1
3/4	S76AFEC006	3/4	1-1/8	20	0.2

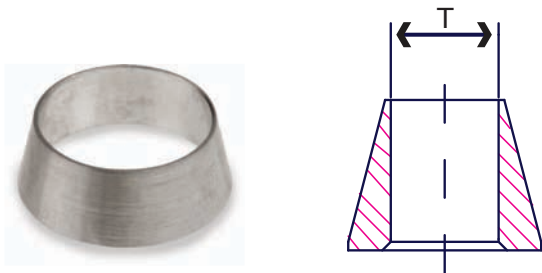


Fig. AFF – Front Ferrule

Tube OD IN	Part Number	T IN	Packing	Weight LB
1/8	S76AFF001	1/8	500	0.007
3/16	S76AFF316	3/16	500	0.007
1/4	S76AFF002	1/4	500	0.009
5/16	S76AFF516	5/16	500	0.01
3/8	S76AFF003	3/8	300	0.01
1/2	S76AFF004	1/2	200	0.01
5/8	S76AFF005	5/8	150	0.04
3/4	S76AFF006	3/4	100	0.05



Fig. ABF – Back Ferrule

Tube OD IN	Part Number	T IN	Packing	Weight LB
1/8	S76ABF001	1/8	500	0.004
3/16	S76ABF316	3/16	500	0.004
1/4	S76ABF002	1/4	500	0.007
5/16	S76ABF516	5/16	500	0.009
3/8	S76ABF003	3/8	300	0.01
1/2	S76ABF004	1/2	200	0.01
5/8	S76ABF005	5/8	150	0.03
3/4	S76ABF006	3/4	100	0.04

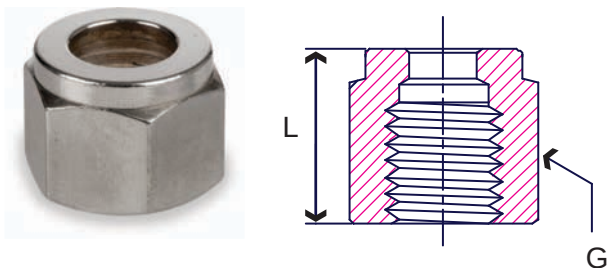


Fig. AHN – Hex Nut

Tube OD IN	Part Number	L IN	G IN	Packing	Weight LB
1/8	S76AHN001	0.47	7/16	100	0.01
1/4	S76AHN002	0.50	9/16	100	0.02
5/16	S76AHN516	0.53	5/8	100	0.03
3/8	S76AHN003	0.56	11/16	100	0.04
1/2	S76AHN004	0.69	7/8	60	0.07
5/8	S76AHN005	0.69	1	50	0.08
3/4	S76AHN006	0.69	1-1/8	30	0.09

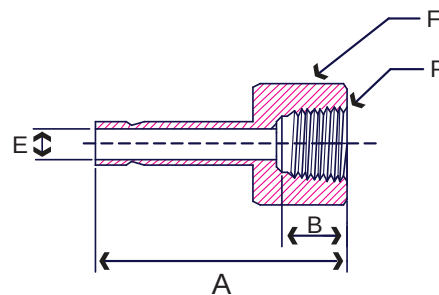


Fig. AFA – Female Adapter

Tube OD IN	Part Number	P IN	A IN	B IN	E IN	F IN	Packing	Weight LB
1/8	S76AFA001001	1/8	1.23	0.41	0.09	9/16	100	0.07
1/8	S76AFA001002	1/4	1.38	0.59	0.09	3/4	100	0.08
1/4	S76AFA002001	1/8	1.29	0.41	0.19	9/16	100	0.07
1/4	S76AFA002002	1/4	1.45	0.59	0.19	3/4	60	0.07
1/4	S76AFA002003	3/8	1.54	0.59	0.19	7/8	40	0.08
1/4	S76AFA002004	1/2	1.78	0.78	0.19	1-1/16	20	0.1
5/16	S76AFA516002	1/4	1.47	0.59	0.25	3/4	60	0.07
3/8	S76AFA003002	1/4	1.49	0.59	0.28	3/4	40	0.1
3/8	S76AFA003003	3/8	1.58	0.59	0.28	7/8	40	0.1
1/2	S76AFA004003	3/8	1.78	0.59	0.39	7/8	30	0.07
1/2	S76AFA004004	1/2	2.03	0.78	0.39	1-1/16	10	0.1
5/8	S76AFA005004	1/2	2.08	0.78	0.50	1-1/16	20	0.3
3/4	S76AFA1006006	3/4	2.15	0.81	0.59	1-5/16	10	0.5
3/4	S76AFA1006010	1	2.29	1.00	0.59	1-5/8	10	0.8

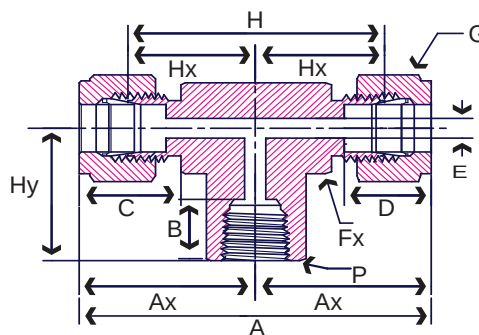


Fig. AFBT – Female Branch Tee

Tube OD IN	Part Number	P IN	A IN	Ax IN	B IN	C IN	D IN	E IN	Fx IN	G IN	H IN	Hx IN	Hy IN	Packing	Weight LB
1/8	S76AFBT001001	1/8	1.92	0.96	0.41	0.60	0.50	0.09	1/2	7/16	1.40	0.70	0.74	40	0.1
1/4	S76AFBT002001	1/8	2.10	1.05	0.41	0.70	0.60	0.19	1/2	9/16	1.52	0.76	0.74	30	0.1
1/4	S76AFBT002002	1/4	2.32	1.16	0.59	0.70	0.60	0.19	11/16	9/16	1.74	0.87	0.87	30	0.2
3/8	S76AFBT003002	1/4	2.44	1.22	0.59	0.76	0.66	0.28	11/16	11/16	1.84	0.93	0.87	20	0.3
3/8	S76AFBT003003	3/8	2.60	1.30	0.59	0.76	0.66	0.28	13/16	11/16	2.02	1.01	0.87	20	0.3
1/2	S76AFBT004003	3/8	2.82	1.41	0.59	0.86	0.90	0.41	13/16	7/8	2.02	1.01	0.87	10	0.3
1/2	S76AFBT004004	1/2	3.04	1.52	0.78	0.86	0.90	0.41	1	7/8	2.24	1.12	1.11	10	0.5
5/8	S76AFBT005004	1/2	3.04	1.52	0.78	0.86	0.96	0.50	1	1	2.24	1.12	1.11	10	1.1
3/4	S76AFBT1006006	3/4	3.50	1.75	0.81	0.86	0.96	0.62	1-3/8	1-1/8	2.70	1.35	1.24	5	1.6

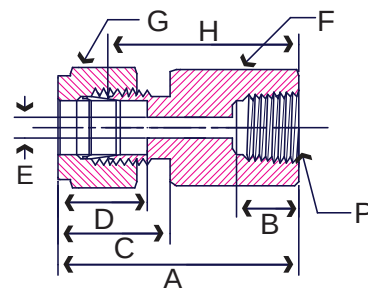


Fig. AFC – Female Connector

Tube OD IN	Part Number	P IN	A IN	B IN	C IN	D IN	E IN	F IN	G IN	H IN	Packing	Weight LB
1/8	S76AFC001001	1/8	1.12	0.40	0.60	0.50	0.09	9/16	7/16	0.86	30	0.08
1/8	S76AFC001002	1/4	1.31	0.59	0.60	0.50	0.09	3/4	7/16	1.05	30	0.09
1/4	S76AFC002001	1/8	1.22	0.39	0.70	0.60	0.19	9/16	9/16	0.93	100	0.09
1/4	S76AFC002002	1/4	1.40	0.59	0.70	0.60	0.19	3/4	9/16	1.11	60	0.09
1/4	S76AFC002003	3/8	1.47	0.59	0.70	0.60	0.19	7/8	9/16	1.18	40	0.1
1/4	S76AFC002004	1/2	1.66	0.78	0.70	0.60	0.19	1-1/16	9/16	1.37	20	0.1
5/16	S76AFC516002	1/4	1.44	0.59	0.73	0.64	0.25	3/4	5/8	1.15	60	0.1
3/8	S76AFC003002	1/4	1.47	0.59	0.76	0.66	0.28	3/4	11/16	1.18	40	0.1
3/8	S76AFC003003	3/8	1.53	0.59	0.76	0.66	0.28	7/8	11/16	1.24	30	0.1
3/8	S76AFC003004	1/2	1.72	0.78	0.76	0.66	0.28	1-1/16	11/16	1.48	20	0.1
1/2	S76AFC004002	1/4	1.58	0.59	0.86	0.90	0.41	13/16	7/8	1.18	30	0.1
1/2	S76AFC004003	3/8	1.64	0.59	0.86	0.90	0.41	7/8	7/8	1.24	20	0.1
1/2	S76AFC004004	1/2	1.83	0.78	0.86	0.90	0.41	1-1/16	7/8	1.43	10	0.2
3/4	S76AFC006004	1/2	1.83	0.78	0.86	0.96	0.62	1-1/16	1-1/8	1.43	10	0.5
3/4	S76AFC006006	3/4	1.91	0.81	0.86	0.96	0.62	1-5/16	1-1/8	1.49	10	0.6

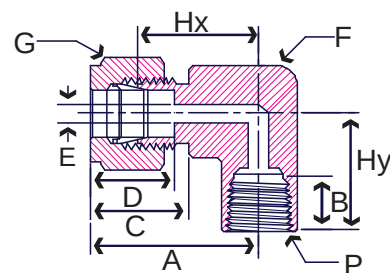
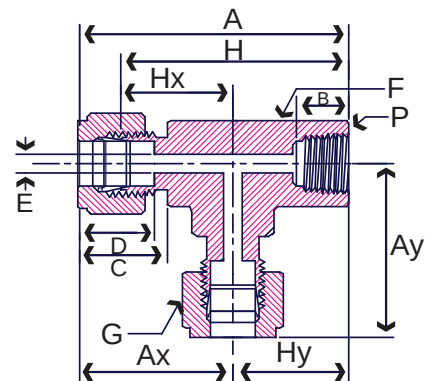


Fig. AFE – Female Elbow

Tube OD IN	Part Number	P IN	A IN	B IN	C IN	D IN	E IN	Fx IN	G IN	Hx IN	Hy IN	Packing	Weight LB
1/8	S76AFE001001	1/8	0.96	0.41	0.60	0.50	0.09	1/2	7/16	0.71	0.74	40	0.09
1/8	S76AFE001002	1/4	1.07	0.59	0.60	0.50	0.09	11/16	7/16	0.81	0.87	30	0.1
1/4	S76AFE002001	1/8	1.05	0.41	0.70	0.60	0.19	1/2	9/16	0.76	0.74	40	0.1
1/4	S76AFE002002	1/4	1.16	0.59	0.70	0.60	0.19	11/16	9/16	0.87	0.87	30	0.2
1/4	S76AFE002003	3/8	1.24	0.59	0.70	0.60	0.19	13/16	9/16	0.95	0.87	30	0.3
1/4	S76AFE002004	1/2	1.35	0.78	0.70	0.60	0.19	1	9/16	1.06	1.11	20	0.4
5/16	S76AFE516002	1/4	1.19	0.59	0.73	0.64	0.25	11/16	5/8	0.90	0.87	30	0.3
3/8	S76AFE003002	1/4	1.22	0.59	0.76	0.66	0.28	11/16	11/16	0.93	0.87	30	0.3
3/8	S76AFE003003	3/8	1.30	0.59	0.76	0.66	0.28	13/16	11/16	1.01	0.87	20	0.3
3/8	S76AFE003004	1/2	1.41	0.78	0.76	0.66	0.28	1	11/16	1.12	1.11	20	0.3
1/2	S76AFE004002	1/4	1.41	0.59	0.86	0.90	0.41	13/16	7/8	1.01	0.87	10	0.3
1/2	S76AFE004003	3/8	1.41	0.59	0.86	0.90	0.41	13/16	7/8	1.01	0.87	10	0.4
1/2	S76AFE004004	1/2	1.52	0.78	0.86	0.90	0.41	1	7/8	1.12	1.11	10	0.5
5/8	S76AFE005004	1/2	1.52	0.78	0.86	0.96	0.50	1-1/16	1	1.16	1.11	15	0.5
3/4	S76AFE006004	1/2	1.56	0.78	0.86	0.96	0.62	1-1/16	1-1/8	1.16	1.11	10	0.6
3/4	S76AFE1006006	3/4	1.75	0.81	0.86	0.96	0.62	1-3/8	1-1/8	1.35	1.24	10	0.8



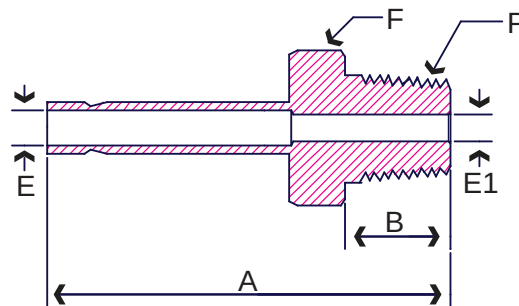
Fig. AFRT – Female Run Tee



Tube OD IN	Part Number	P IN	A IN	Ax IN	B IN	C IN	D IN	E IN	Fx IN	G IN	H IN	Hx IN	Hy IN	Packing	Weight LB
1/8	S76AFRT001001	1/8	1.71	0.96	0.41	0.60	0.50	0.09	1/2	7/16	1.44	0.70	0.74	40	0.1
1/4	S76AFRT002001	1/8	1.81	1.05	0.41	0.70	0.60	0.19	1/2	9/16	1.50	0.76	0.74	40	0.1
1/4	S76AFRT002002	1/4	2.05	1.16	0.59	0.70	0.60	0.19	11/16	9/16	1.79	0.87	0.87	30	0.2
3/8	S76AFRT003002	1/4	2.10	1.22	0.59	0.76	0.66	0.28	11/16	11/16	1.79	0.93	0.87	20	0.3
1/2	S76AFRT004003	3/8	2.29	1.41	0.59	0.86	0.90	0.41	13/16	7/8	1.88	1.01	0.87	10	0.3
1/2	S76AFRT004004	1/2	2.68	1.56	0.78	0.86	0.90	0.41	1-1/16	7/8	2.27	1.16	1.12	10	0.5
3/4	S76AFRT1006006	3/4	3.00	1.75	0.81	0.86	0.96	0.62	1-3/8	1-1/8	2.59	1.35	1.24	5	1.6



Fig. AMA – Male Adapter



Tube OD IN	Part Number	P IN	A IN	B IN	E IN	E1 IN	F IN	Packing	Weight LB
1/8	S76AMA001001	1/8	1.15	0.38	0.19	0.09	7/16	100	0.07
1/8	S76AMA001002	1/4	1.36	0.56	0.28	0.09	9/16	100	0.07
1/4	S76AMA002001	1/8	1.24	0.38	0.19	0.19	7/16	100	0.07
1/4	S76AMA002002	1/4	1.45	0.56	0.19	0.19	9/16	100	0.07
1/4	S76AMA002003	3/8	1.48	0.56	0.19	0.19	11/16	60	0.08
1/4	S76AMA002004	1/2	1.70	0.75	0.19	0.19	7/8	30	0.1
5/16	S76AMA516001	1/8	1.28	0.38	0.19	0.25	7/16	100	0.08
5/16	S76AMA516002	1/4	1.49	0.56	0.25	0.25	9/16	100	0.08
3/8	S76AMA003002	1/4	1.52	0.56	0.28	0.28	9/16	60	0.09
3/8	S76AMA003003	3/8	1.55	0.56	0.28	0.28	11/16	60	0.09
3/8	S76AMA003004	1/2	1.77	0.75	0.28	0.28	7/8	40	0.1
1/2	S76AMA004003	3/8	1.77	0.56	0.39	0.39	11/16	30	0.07
1/2	S76AMA004004	1/2	1.99	0.75	0.39	0.39	7/8	30	0.1
5/8	S76AMA005004	1/2	2.05	0.75	0.47	0.50	7/8	20	0.2
3/4	S76AMA006004	1/2	2.05	0.75	0.47	0.59	7/8	10	0.3
3/4	S76AMA1006006	3/4	2.05	0.75	0.59	0.59	1-11/16	10	0.6

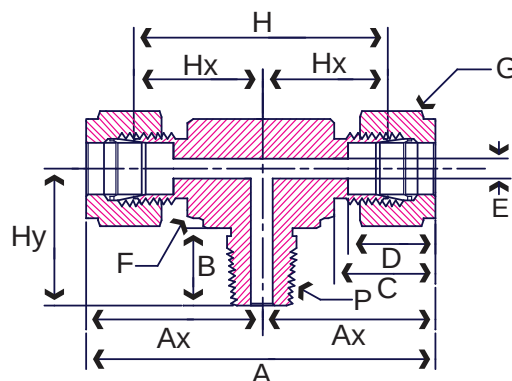


Fig. AMBT – Male Branch Tee

Tube OD IN	Part Number	P IN	A IN	Ax IN	B IN	C IN	D IN	E IN	Fx IN	G IN	H IN	Hx IN	Hy IN	Packing	Weight LB
1/8	S76AMBT001001	1/8	1.84	1.84	0.38	0.60	0.50	0.09	7/16	7/16	1.32	0.66	0.69	40	0.1
1/8	S76AMBT001002	1/4	1.92	1.92	0.56	0.60	0.50	0.09	1/2	7/16	1.40	0.70	0.91	30	0.1
1/4	S76AMBT002001	1/8	2.10	2.10	0.38	0.70	0.60	0.19	1/2	9/16	1.52	0.76	0.73	30	0.1
1/4	S76AMBT002002	1/4	2.10	2.10	0.56	0.70	0.60	0.19	1/2	9/16	1.52	0.76	0.91	30	0.1
3/8	S76AMBT003002	1/4	2.38	2.38	0.56	0.76	0.66	0.28	5/8	11/16	1.80	0.90	0.99	30	0.2
3/8	S76AMBT003003	3/8	2.60	2.60	0.56	0.76	0.66	0.28	13/16	11/16	2.02	1.01	1.10	20	0.2
1/2	S76AMBT004003	3/8	2.82	2.82	0.56	0.86	0.90	0.38	13/16	7/8	2.02	1.01	1.10	10	0.4
1/2	S76AMBT005004	1/2	3.04	3.04	0.75	0.86	0.96	0.47	1	1	2.24	1.12	1.40	1	0.8
5/8	S76AMBT1006006	3/4	3.12	3.12	0.75	0.86	0.96	0.62	1-1/16	1-1/8	2.32	1.16	1.44	5	0.8

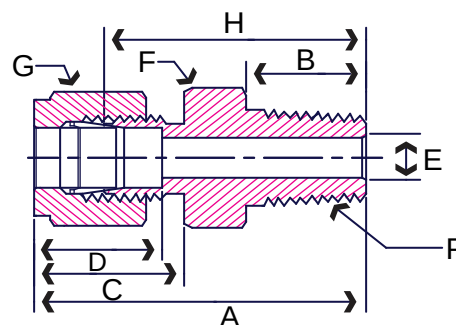


Fig. AMC – Male Connector

Tube OD IN	Part Number	P IN	A IN	B IN	C IN	D IN	E IN	F IN	G IN	H IN	Packing	Weight LB
1/8	S76AMC001001	1/8	1.19	0.38	0.60	0.50	0.09	7/16	7/16	0.93	100	0.08
1/8	S76AMC001002	1/4	1.39	0.56	0.60	0.50	0.09	9/16	7/16	1.13	100	0.08
1/4	S76AMC002001	1/8	1.28	0.38	0.70	0.60	0.19	1/2	9/16	0.99	100	0.07
1/4	S76AMC002002	1/4	1.48	0.56	0.70	0.60	0.19	9/16	9/16	1.19	100	0.08
1/4	S76AMC002003	3/8	1.50	0.56	0.70	0.60	0.19	11/16	9/16	1.21	60	0.09
1/4	S76AMC002004	1/2	1.75	0.75	0.70	0.60	0.19	7/8	9/16	1.46	30	0.1
5/16	S76AMC516002	1/4	1.51	0.56	0.73	0.64	0.25	9/16	5/8	1.22	40	0.1
3/8	S76AMC003001	1/8	1.38	0.38	0.76	0.66	0.19	5/8	11/16	1.09	100	0.1
3/8	S76AMC003002	1/4	1.56	0.56	0.76	0.66	0.28	5/8	11/16	1.27	60	0.1
3/8	S76AMC003003	3/8	1.56	0.56	0.76	0.66	0.28	11/16	11/16	1.27	40	0.1
3/8	S76AMC003004	1/2	1.81	0.75	0.76	0.66	0.28	7/8	11/16	1.52	30	0.1
1/2	S76AMC004002	1/4	1.70	0.56	0.86	0.90	0.28	13/16	7/8	1.30	30	0.1
1/2	S76AMC004003	3/8	1.70	0.56	0.86	0.90	0.38	13/16	7/8	1.30	30	0.1
1/2	S76AMC004004	1/2	1.92	0.75	0.86	0.90	0.41	7/8	7/8	1.52	30	0.2
1/2	S76AMC1004006	3/4	1.98	0.75	0.86	0.96	0.41	1-1/16	7/8	1.58	20	0.2
5/8	S76AMC005003	3/8	1.73	0.56	0.86	0.96	0.38	15/16	1	1.33	20	0.2
5/8	S76AMC005004	1/2	1.92	0.75	0.86	0.96	0.47	15/16	1	1.52	20	0.3
3/4	S76AMC006004	1/2	1.98	0.75	0.86	0.96	0.47	1-1/16	1-1/8	1.58	15	0.4
3/4	S76AMC1006006	3/4	1.98	0.75	0.86	0.96	0.62	1-1/16	1-1/8	1.58	15	0.4
3/4	S76AMC1006010	1	2.24	0.94	0.86	0.96	0.62	1-3/8	1-1/8	1.84	10	0.5

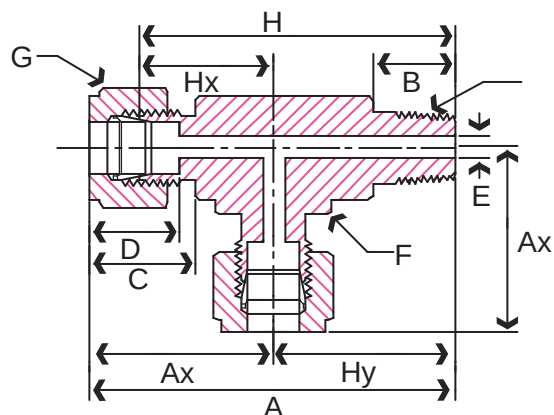


Fig. AMRT – Male Run Tee

Tube OD IN	Part Number	P IN	A IN	Ax IN	B IN	C IN	D IN	E IN	Fx IN	G IN	H IN	Hx IN	Hy IN	Packing	Weight LB
1/8	S76AMRT001001	1/8	1.61	0.93	0.38	0.60	0.50	0.09	7/16	7/16	1.35	0.66	0.92	40	0.1
1/8	S76AMRT001002	1/4	1.87	0.97	0.56	0.60	0.50	0.09	1/2	7/16	1.61	0.70	0.96	30	0.1
1/4	S76AMRT002001	1/8	1.98	1.06	0.38	0.70	0.60	0.19	1/2	9/16	1.48	0.76	1.05	30	0.1
1/4	S76AMRT002002	1/4	1.96	1.06	0.56	0.70	0.60	0.19	1/2	9/16	1.67	0.76	1.05	30	0.1
3/8	S76AMRT003002	1/4	2.18	1.20	0.56	0.76	0.66	0.28	5/8	11/16	1.89	0.90	1.19	20	0.2
3/8	S76AMRT003003	3/8	2.40	1.31	0.56	0.76	0.66	0.28	13/16	11/16	2.11	1.01	1.30	10	0.2
1/2	S76AMRT004003	3/8	2.51	1.42	0.56	0.86	0.90	0.38	13/16	7/8	2.11	1.01	1.41	10	0.4
1/2	S76AMRT004004	1/2	2.70	1.42	0.75	0.86	0.90	0.41	13/16	7/8	2.30	1.01	1.41	10	0.7
5/8	S76AMRT005004	1/2	2.86	1.50	0.75	0.86	0.96	0.47	15/16	1	2.46	1.00	1.49	10	0.8
3/4	S76AMRT006006	3/4	3.00	1.57	0.75	0.86	0.96	0.62	1-1/16	1-1/8	2.60	1.16	1.56	5	1.3

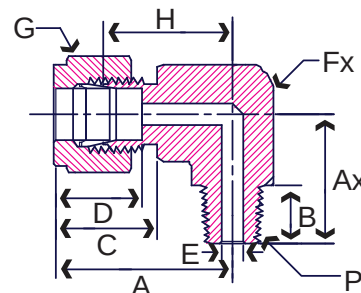


Fig. AME – Male Elbow

Tube OD IN	Part Number	P IN	A IN	B IN	C IN	D IN	E IN	Fx IN	G IN	H IN	Packing	Weight LB
1/8	S76AME001001	1/8	0.92	0.38	0.60	0.50	0.09	7/16	7/16	0.66	50	0.06
1/8	S76AME001002	1/4	0.96	0.56	0.60	0.50	0.09	1/2	7/16	0.70	40	0.07
1/4	S76AME002001	1/8	1.05	0.38	0.70	0.60	0.19	1/2	9/16	0.76	40	0.1
1/4	S76AME002002	1/4	1.05	0.56	0.70	0.60	0.19	1/2	9/16	0.76	30	0.1
1/4	S76AME002003	3/8	1.16	0.56	0.70	0.60	0.19	11/16	9/16	0.87	20	0.1
1/4	S76AME002004	1/2	1.24	0.75	0.70	0.60	0.19	13/16	9/16	0.95	20	0.1
5/16	S76AME516002	1/4	1.12	0.56	0.73	0.64	0.25	9/16	5/8	0.84	40	0.1
3/8	S76AME003002	1/4	1.19	0.56	0.76	0.66	0.28	5/8	11/16	0.90	30	0.1
3/8	S76AME003003	3/8	1.22	0.56	0.76	0.66	0.28	11/16	11/16	0.93	20	0.2
3/8	S76AME003004	1/2	1.30	0.75	0.76	0.66	0.28	13/16	11/16	1.01	10	0.2
1/2	S76AME004002	1/4	1.41	0.56	0.86	0.90	0.28	13/16	7/8	1.01	10	0.2
1/2	S76AME004003	3/8	1.41	0.56	0.86	0.90	0.38	13/16	7/8	1.01	10	0.2
1/2	S76AME004004	1/2	1.41	0.75	0.86	0.90	0.41	13/16	7/8	1.01	10	0.3
5/8	S76AME005004	1/2	1.49	0.75	0.86	0.96	0.47	15/16	1	1.09	15	0.4
3/4	S76AME006004	1/2	1.56	0.75	0.86	0.96	0.47	1-1/16	1-1/8	1.16	10	0.7
3/4	S76AME006006	3/4	1.56	0.75	0.86	0.96	0.62	1-1/16	1-1/8	1.16	10	0.8

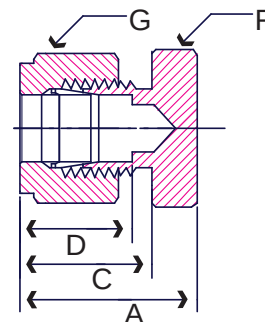


Fig. ATEC – Tube End Closure

Tube OD IN	Part Number	A IN	C IN	D IN	F IN	G IN	H IN	Packing	Weight LB
1/8	S76ATEC001	0.78	0.60	0.50	7/16	7/16	0.52	100	0.06
1/4	S76ATEC002	0.92	0.70	0.60	1/2	9/16	0.62	100	0.07
5/16	S76ATEC516	0.96	0.73	0.64	9/16	5/8	0.65	100	0.1
3/8	S76ATEC003	1.00	0.76	0.66	5/8	11/16	0.71	60	0.1
1/2	S76ATEC004	1.14	0.86	0.90	13/16	7/8	0.74	30	0.1
5/8	S76ATEC005	1.17	0.86	0.96	15/16	1	0.77	40	0.3
3/4	S76ATEC006	1.23	0.86	0.96	1-1/16	1-1/8	0.83	10	0.3

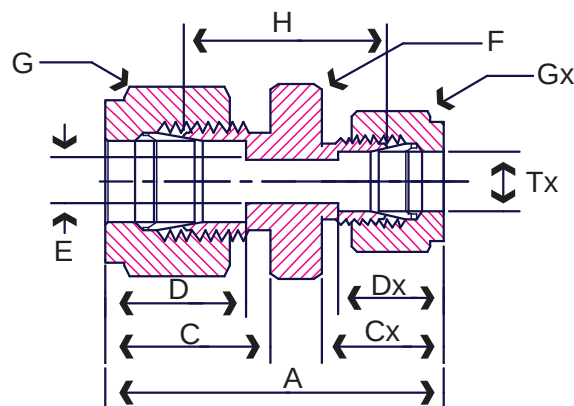
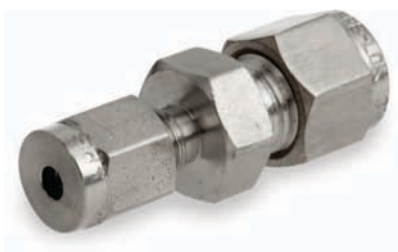


Fig. ARU – Reducing Union

Tube OD IN	Part Number	Tx Tube OD IN	A IN	C IN	Cx IN	D IN	Dx IN	E IN	F IN	G IN	Gx IN	H IN	Packing	Weight LB
1/4	S76ARU002001	1/8	1.51	0.70	0.60	0.60	0.50	0.09	1/2	9/16	7/16	0.96	100	0.08
5/16	S76ARU516002	1/4	1.65	0.73	0.70	0.64	0.60	0.19	9/16	5/8	9/16	1.07	60	0.1
3/8	S76ARU003002	1/4	1.69	0.76	0.70	0.66	0.60	0.19	5/8	11/16	9/16	1.11	40	0.1
1/2	S76ARU004002	1/4	1.84	0.86	0.70	0.90	0.60	0.19	13/16	7/8	9/16	1.15	20	0.3
1/2	S76ARU004003	3/8	1.90	0.86	0.76	0.90	0.66	0.28	13/16	7/8	11/16	1.21	20	0.3
5/8	S76ARU005003	3/8	1.93	0.86	0.76	0.96	0.66	0.28	15/16	1	11/16	1.24	30	0.4
5/8	S76ARU005004	1/2	2.04	0.86	0.86	0.96	0.90	0.41	15/16	1	7/8	1.24	30	0.4
3/4	S76ARU006004	1/2	2.10	0.86	0.86	0.96	0.90	0.50	1-1/16	1-1/8	7/8	1.30	10	0.5
3/4	S76ARU1006005	5/8	2.10	0.86	0.86	0.96	0.96	0.62	1-1/16	1-1/8	1	1.30	10	0.5

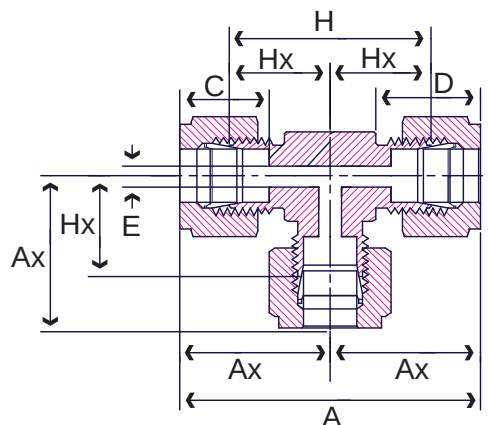


Fig. AUT – Union Tee

Tube OD IN	Part Number	A IN	C IN	D IN	E IN	F IN	G IN	H IN	Hx IN	Packing	Weight LB
1/8	S76AUT001	1.76	0.60	0.50	0.09	3/8	7/16	0.87	1.22	40	0.2
1/4	S76AUT002	2.12	0.70	0.60	0.19	1/2	9/16	1.05	1.52	30	0.2
5/16	S76AUT516	2.34	0.73	0.64	0.25	5/8	5/8	1.16	1.74	20	0.3
3/8	S76AUT003	2.40	0.76	0.66	0.28	5/8	11/16	1.19	1.80	20	0.4
1/2	S76AUT004	2.84	0.86	0.96	0.41	13/16	7/8	1.41	2.02	10	0.7
5/8	S76AUT005	3.06	0.86	0.96	0.50	1	1	1.52	2.24	10	0.8
3/4	S76AUT006	3.14	0.86	0.96	0.62	1-1/16	1-1/8	1.56	2.32	5	1.0

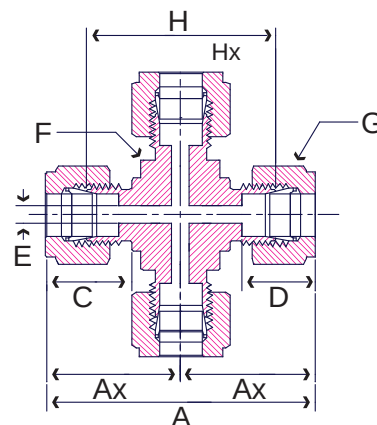
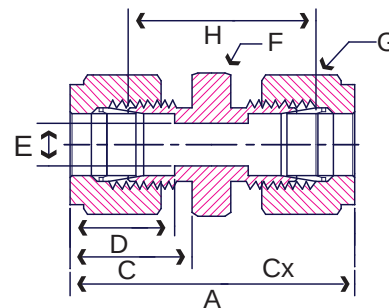


Fig. AUCR – Union Cross

Tube OD IN	Part Number	A IN	Ax IN	C IN	D IN	F IN	G IN	H IN	Packing	Weight LB
1/8	S76AUCR001	1.74	0.87	0.60	0.50	3/8	7/16	1.22	40	0.2
1/4	S76AUCR002	2.10	1.05	0.70	0.60	1/2	9/16	1.52	20	0.2
5/16	S76AUCR516	2.32	1.16	0.73	0.64	5/8	5/8	1.74	20	0.4
3/8	S76AUCR003	2.38	1.19	0.76	0.66	5/8	11/16	1.80	20	0.4
1/2	S76AUCR004	2.82	1.41	0.86	0.41	13/16	7/8	2.02	4	0.5



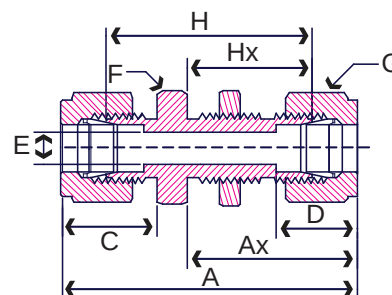
Fig. ASU – Straight Union



Tube OD IN	Part Number	A IN	C IN	D IN	E IN	F IN	G IN	H IN	Packing	Weight LB
1/8	S76ASU001	1.39	0.60	0.50	0.09	7/16	7/16	0.87	100	0.08
1/4	S76ASU002	1.60	0.70	0.60	0.19	1/2	9/16	1.02	60	0.1
5/16	S76ASU516	1.68	0.73	0.64	0.25	9/16	5/8	1.10	40	0.1
3/8	S76ASU003	1.75	0.76	0.66	0.28	5/8	11/16	1.18	40	0.1
1/2	S76ASU004	2.01	0.86	0.90	0.41	13/16	7/8	1.21	20	0.3
5/8	S76ASU005	2.04	0.86	0.96	0.50	15/16	1	1.24	30	0.4
3/4	S76ASU006	2.10	0.86	0.96	0.62	1-1/16	1-1/8	1.30	10	0.5



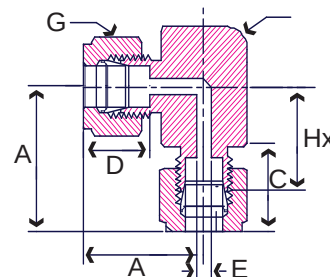
Fig. ABHU – Bulkhead Union



Tube OD IN	Part Number	A IN	Ax IN	C IN	D IN	E IN	F IN	G IN	H IN	Hx IN	Packing	Weight LB
1/8	S76ABHU001	2.01	1.22	0.60	0.50	0.09	1/2	7/16	1.49	0.96	100	0.09
1/4	S76ABHU002	2.26	1.31	0.70	0.60	0.19	5/8	9/16	1.68	1.02	60	0.1
5/16	S76ABHU516	2.38	1.40	0.73	0.64	0.25	11/16	5/8	1.80	1.11	40	0.1
3/8	S76ABHU003	2.44	1.44	0.76	0.66	0.28	3/4	11/16	1.86	1.15	30	0.2
1/2	S76ABHU004	2.79	1.64	0.86	0.90	0.41	15/16	7/8	1.99	1.24	20	0.3
5/8	S76ABHU005	2.85	1.67	0.86	0.96	0.50	1-1/16	1	2.05	1.27	20	0.5
3/4	S76ABHU006	3.10	1.86	0.86	0.96	0.63	1-3/16	1-1/8	2.30	1.46	10	0.7



Fig. AUE – Union Elbow



Tube OD IN	Part Number	A IN	C IN	D IN	E IN	F IN	G IN	Hx IN	Packing	Weight LB
1/8	S76AUE001	0.87	0.43	0.34	0.05	3/8	5/16	0.61	50	0.1
1/4	S76AUE002	1.05	0.70	0.60	0.19	1/2	9/16	0.76	40	0.1
5/16	S76AUE516	1.12	0.73	0.64	0.25	9/16	5/8	0.83	30	0.2
3/8	S76AUE003	1.19	0.76	0.66	0.28	5/8	11/16	0.90	30	0.3
1/2	S76AUE004	1.41	0.86	0.90	0.41	13/16	7/8	1.01	20	0.3
5/8	S76AUE005	1.49	0.86	0.96	0.50	15/16	1	1.09	20	0.4
3/4	S76AUE006	1.56	0.86	0.96	0.62	1-1/16	1-1/8	1.16	10	0.4



Fig. S63WT4 & S63WT6 – Welded Instrumentation Tubing

Tube OD IN	Wall Thickness IN	Part Number		ID IN	Tube Length FT	Weight LB/Ft
		304/L	316/L			
3/16	0.350	S63WT4035316	S63WT6035316	0.118	20	0.05
1/4	0.028	S63WT4028002	S63WT6028002	0.194	20	0.06
1/4	0.035	S63WT4035002	S63WT6035002	0.180	20	0.08
1/4	0.049	S63WT4049002	S63WT6049002	0.152	20	0.1
5/16	0.035	S63WT4035516	S63WT6035516	0.243	20	0.1
3/8	0.049	S63WT4049003	S63WT6049003	0.277	20	0.1
3/8	0.065	S63WT4065003	S63WT6065003	0.245	20	0.2
1/2	0.035	S63WT4035004	S63WT6035004	0.430	20	0.1
1/2	0.049	S63WT4049004	S63WT6049004	0.402	20	0.2
1/2	0.650	S63WT4065004	S63WT6065004	0.370	20	0.3
5/8	0.035	S63WT4035005	S63WT6035005	0.555	20	0.2
5/8	0.049	S63WT4049005	S63WT6049005	0.527	20	0.3
5/8	0.065	S63WT4065005	S63WT6065005	0.495	20	0.3
3/4	0.035	S63WT4035006	S63WT6035006	0.680	20	0.2
3/4	0.049	S63WT4049006	S63WT6049006	0.652	20	0.3
3/4	0.065	S63WT4065006	S63WT6065006	0.620	20	0.4
1	0.035	S63WT4035010	S63WT6035010	0.930	20	0.3
1	0.049	S63WT4049010	S63WT6049010	0.902	20	0.4
1	0.065	S63WT4065010	S63WT6065010	0.870	20	0.6
1-1/4	0.065	S63WT4065012	S63WT6065012	1.120	20	0.8
1-1/2	0.065	S63WT4065014	S63WT6065014	1.370	20	0.9
2	0.065	S63WT4065020	S63WT6065020	1.870	20	1.3
2	0.083	S63WT4083020	S63WT6083020	1.834	20	1.6

INSTRUMENTATION

Fig. S64ST4 & S64ST6 – Seamless Instrumentation Tubing

Tube OD IN	Wall Thickness IN	Part Number		ID IN	Tube Length FT	Weight LB/Ft
		304/L	316/L			
1/4	0.035	S64ST4035002	S64ST6035002	0.180	20	0.08
1/4	0.049	S64ST4049002	S64ST6049002	0.152	20	0.1
1/4	0.065	S64ST4065002	S64ST6065002	0.120	20	0.1
5/16	0.035	S64ST4035516	S64ST6035516	0.243	20	0.1
3/8	0.035	S64ST4035003	S64ST6035003	0.305	20	0.1
3/8	0.049	S64ST4049003	S64ST6049003	0.277	20	0.1
3/8	0.065	S64ST4065003	S64ST6065003	0.245	20	0.2
1/2	0.035	S64ST4035004	S64ST6035004	0.430	20	0.1
1/2	0.049	S64ST4049004	S64ST6049004	0.402	20	0.2
1/2	0.650	S64ST4065004	S64ST6065004	0.370	20	0.3
5/8	0.035	S64ST4035005	S64ST6035005	0.555	20	0.2
5/8	0.049	S64ST4049005	S64ST6049005	0.527	20	0.3
5/8	0.065	S64ST4065005	S64ST6065005	0.495	20	0.3
3/4	0.035	S64ST4035006	S64ST6035006	0.680	20	0.2
3/4	0.049	S64ST4049006	S64ST6049006	0.652	20	0.3
3/4	0.065	S64ST4065006	S64ST6065006	0.620	20	0.4
1	0.035	S64ST4035010	S64ST6035010	0.930	20	0.3
1	0.049	S64ST4049010	S64ST6049010	0.902	20	0.4
1	0.065	S64ST4065010	S64ST6065010	0.870	20	0.6
1	0.083	S64ST4083010	S64ST6083010	0.834	20	0.8
1	0.095	S64ST4095010	S64ST6095010	0.810	20	0.9
1	0.120	S64ST4120010	S64ST6120010	0.760	20	1.1



Standard Weight 150# Stainless Fittings

Specifications

- Stainless castings conform to ASTM A351
- NPT threads conform to ASME B1.20.1
- Manufacturing facility is ISO 9001:2008
- Fittings meet applicable chemical & physical properties

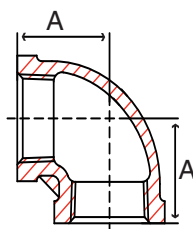
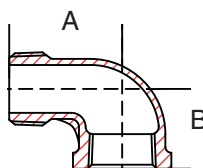


Fig. S3014E & S3016E - 90° Elbow

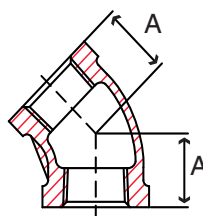
Size IN	Part Number		A IN	Packing		Weight LB
	304	316		Inner	Master	
1/8	S3014E 001	S3016E 001	0.67	120	480	0.1
1/4	S3014E 002	S3016E 002	0.75	100	400	0.1
3/8	S3014E 003	S3016E 003	0.91	50	200	0.2
1/2	S3014E 004	S3016E 004	1.06	30	120	0.2
3/4	S3014E 006	S3016E 006	1.26	18	72	0.4
1	S3014E 010	S3016E 010	1.46	10	40	0.6
1-1/4	S3014E 012	S3016E 012	1.69	5	20	0.9
1-1/2	S3014E 014	S3016E 014	1.89	5	20	1.3
2	S3014E 020	S3016E 020	2.20	2	8	2.0
2-1/2	S3014E 024	S3016E 024	2.68	-	7	2.6
3	S3014E 030	S3016E 030	3.03	-	4	4.4
4	S3014E 040	S3016E 040	3.78	-	2	7.0

Fig. S3014SE & S3016SE 90° Street Elbow



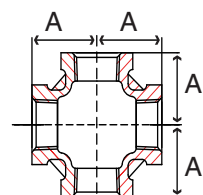
Size IN	Part Number		A IN	B IN	Packing		Weight LB
	304	316			Inner	Master	
1/8	S3014SE001	S3016SE001	0.91	0.67	150	600	0.06
1/4	S3014SE002	S3016SE002	1.14	0.75	120	480	0.1
3/8	S3014SE003	S3016SE003	1.30	0.91	60	240	0.2
1/2	S3014SE004	S3016SE004	1.44	1.06	35	140	0.2
3/4	S3014SE006	S3016SE006	1.67	1.26	18	72	0.4
1	S3014SE010	S3016SE010	2.05	1.46	12	48	0.6
1-1/4	S3014SE012	S3016SE012	2.28	1.69	5	20	0.9
1-1/2	S3014SE014	S3016SE014	2.52	1.89	4	16	1.3
2	S3014SE020	S3016SE020	2.91	2.20	2	8	2.1
2-1/2	S3014SE024	S3016SE024	3.44	2.68	-	6	3.6
3	S3014SE030	S3016SE030	4.02	3.03	-	4	5.1
4	S3014SE040	S3016SE040	4.33	3.78	-	2	8.6

Fig. S3014F & S3016F - 45° Elbow



Size IN	Part Number		A IN	Packing		Weight LB
	304	316		Inner	Master	
1/8	S3014F 001	S3016F 001	0.67	150	600	0.07
1/4	S3014F 002	S3016F 002	0.75	100	400	0.1
3/8	S3014F 003	S3016F 003	0.91	60	240	0.1
1/2	S3014F 004	S3016F 004	1.06	40	160	0.2
3/4	S3014F 006	S3016F 006	1.26	20	80	0.3
1	S3014F 010	S3016F 010	1.46	10	40	0.5
1-1/4	S3014F 012	S3016F 012	1.69	6	24	0.8
1-1/2	S3014F 014	S3016F 014	1.89	4	16	1.1
2	S3014F 020	S3016F 020	2.20	2	8	2.3
2-1/2	S3014F 024	S3016F 024	2.68	-	8	2.2
3	S3014F 030	S3016F 030	3.03	-	6	3.5
4	S3014F 040	S3016F 040	3.78	-	3	6.0

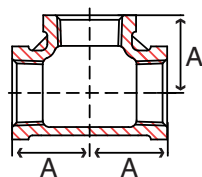
Fig. S3014X & S3016X - Cross



Size IN	Part Number		A IN	Packing		Weight LB
	304	316		Inner	Master	
1/8	S3014X 001	S3016X 001	0.67	50	200	0.05
1/4	S3014X 002	S3016X 002	0.75	50	200	0.05
3/8	S3014X 003	S3016X 003	0.91	30	120	0.06
1/2	S3014X 004	S3016X 004	1.06	15	60	0.1
3/4	S3014X 006	S3016X 006	1.26	10	40	0.2
1	S3014X 010	S3016X 010	1.46	5	20	0.2
1-1/4	S3014X 012	S3016X 012	1.69	3	12	0.4
1-1/2	S3014X 014	S3016X 014	1.89	2	8	0.4
2	S3014X 020	S3016X 020	2.20	-	9	0.6
2-1/2	S3014X 024	S3016X 024	2.68	-	3	1.1
3	S3014X 030	S3016X 030	3.03	-	2	1.3
4	S3014X 040	S3016X 040	3.78	-	1	2.6

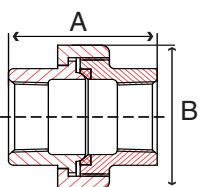
Note: Non-MSS Fittings, Dimensions, Weights And Packing May Vary.

Fig. S3014T & S3016T - Tee



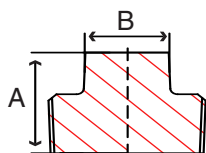
Size IN	Part Number		A IN	Packing		Weight LB
	304	316		Inner	Master	
1/8	S3014T 001	S3016T 001	0.67	75	300	0.1
1/4	S3014T 002	S3016T 002	0.75	70	280	0.1
3/8	S3014T 003	S3016T 003	0.91	40	160	0.2
1/2	S3014T 004	S3016T 004	1.06	20	80	0.3
3/4	S3014T 006	S3016T 006	1.26	12	48	0.5
1	S3014T 010	S3016T 010	1.46	8	32	0.8
1-1/4	S3014T 012	S3016T 012	1.69	-	26	1.2
1-1/2	S3014T 014	S3016T 014	1.89	-	18	1.7
2	S3014T 020	S3016T 020	2.20	-	10	2.7
2-1/2	S3014T 024	S3016T 024	2.68	-	5	4.4
3	S3014T 030	S3016T 030	3.03	-	4	5.8
4	S3014T 040	S3016T 040	3.78	-	2	9.8

Fig. S3014U & S3016U - Union



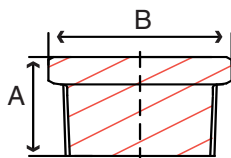
Size IN	Part Number		A IN	B IN	Packing		Weight LB
	304	316			Inner	Master	
1/8	S3014U 001	S3016U 001	0.98	0.98	50	200	0.2
1/4	S3014U 002	S3016U 002	1.20	1.22	50	200	0.2
3/8	S3014U 003	S3016U 003	1.32	1.34	35	140	0.3
1/2	S3014U 004	S3016U 004	1.46	1.46	25	100	0.3
3/4	S3014U 006	S3016U 006	1.56	1.81	12	48	0.5
1	S3014U 010	S3016U 010	1.85	2.05	12	48	0.8
1-1/4	S3014U 012	S3016U 012	2.05	2.52	3	12	1.2
1-1/2	S3014U 014	S3016U 014	2.19	2.76	4	16	1.5
2	S3014U 020	S3016U 020	2.50	3.39	2	8	2.5
2-1/2	S3014U 024	S3016U 024	3.01	4.13	-	8	3.3
3	S3014U 030	S3016U 030	3.19	4.61	-	7	4.9
4	S3014U 040	S3016U 040	3.74	5.79	-	1	7.5

Fig. S3014SP & S3016SP - Square Head Plug



Size IN	Part Number		A IN	B IN	Packing		Weight LB
	304	316			Inner	Master	
1/8	S3014SP001	S3016SP001	0.43	0.28	600	2400	0.01
1/4	S3014SP002	S3016SP002	0.59	0.35	500	2000	0.03
3/8	S3014SP003	S3016SP003	0.63	0.39	300	1200	0.05
1/2	S3014SP004	S3016SP004	0.79	0.43	150	600	0.08
3/4	S3014SP006	S3016SP006	0.87	0.69	100	400	0.1
1	S3014SP010	S3016SP010	0.98	0.75	45	180	0.2
1-1/4	S3014SP012	S3016SP012	1.18	0.87	35	140	0.3
1-1/2	S3014SP014	S3016SP014	1.22	0.87	25	100	0.3
2	S3014SP020	S3016SP020	1.46	1.06	12	48	0.6
2-1/2	S3014SP024	S3016SP024	1.50	1.26	5	20	0.7
3	S3014SP030	S3016SP030	1.77	1.34	3	12	1.4
4	S3014SP040	S3016SP040	1.81	1.65	-	15	2.3

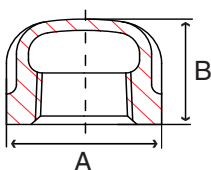
Fig. S3014HP & S3016HP - Hex Head Plug



Size IN	Part Number		A IN	B IN	Packing		Weight LB
	304	316			Inner	Master	
1/8	S3014HP001	S3016HP001	0.51	0.50	400	1600	0.02
1/4	S3014HP002	S3016HP002	0.58	0.62	300	1200	0.04
3/8	S3014HP003	S3016HP003	0.64	0.68	200	800	0.05
1/2	S3014HP004	S3016HP004	0.75	0.87	120	480	0.08
3/4	S3014HP006	S3016HP006	0.85	1.20	60	240	0.1
1	S3014HP010	S3016HP010	1.00	1.43	35	140	0.2
1-1/4	S3014HP012	S3016HP012	1.08	1.76	18	72	0.4
1-1/2	S3014HP014	S3016HP014	1.14	2.00	15	60	0.4
2	S3014HP020	S3016HP020	1.22	2.48	6	24	0.7
2-1/2	S3014HP024	S3016HP024	1.44	2.98	4	16	1.3
3	S3014HP030	S3016HP030	1.53	3.86	-	16	2.0
4	S3014HP040	S3016HP040	1.72	4.62	-	10	3.2

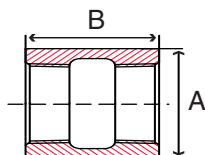
Note: Non-MSS Fittings, Dimensions, Weights And Packing May Vary.

Fig. S3014C & S3016C - Cap



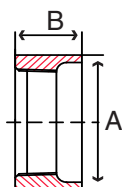
Size IN	Part Number		A IN	B IN	Packing		Weight LB
	304	316			Inner	Master	
1/8	S3014C 001	S3016C 001	0.53	0.47	300	1200	0.05
1/4	S3014C 002	S3016C 002	0.63	0.59	200	800	0.08
3/8	S3014C 003	S3016C 003	0.79	0.63	120	480	0.1
1/2	S3014C 004	S3016C 004	1.02	0.79	90	360	0.2
3/4	S3014C 006	S3016C 006	1.22	0.83	50	200	0.3
1	S3014C 010	S3016C 010	1.52	0.98	25	100	0.5
1-1/4	S3014C 012	S3016C 012	1.81	1.14	16	64	0.7
1-1/2	S3014C 014	S3016C 014	2.09	1.18	15	60	0.9
2	S3014C 020	S3016C 020	2.60	1.30	8	32	1.3
2-1/2	S3014C 024	S3016C 024	3.31	1.34	-	30	2.3
3	S3014C 030	S3016C 030	3.94	1.42	-	18	3.7
4	S3014C 040	S3016C 040	4.88	1.46	-	12	5.6

Fig. S3014CP & S3016CP - Full Coupling



Size IN	Part Number		A IN	B IN	Packing		Weight LB
	304	316			Inner	Master	
1/8	S3014CP001	S3016CP001	0.55	0.77	200	800	0.03
1/4	S3014CP002	S3016CP002	0.71	0.94	120	480	0.1
3/8	S3014CP003	S3016CP003	0.83	0.98	100	400	0.1
1/2	S3014CP004	S3016CP004	1.02	1.26	60	240	0.3
3/4	S3014CP006	S3016CP006	1.22	1.38	36	144	0.4
1	S3014CP010	S3016CP010	1.50	1.65	18	72	0.7
1-1/4	S3014CP012	S3016CP012	1.89	1.85	12	48	1.1
1-1/2	S3014CP014	S3016CP014	2.13	1.85	12	48	1.5
2	S3014CP020	S3016CP020	2.60	1.97	4	16	2.3
2-1/2	S3014CP024	S3016CP024	3.23	2.52	-	10	2.6
3	S3014CP030	S3016CP030	3.74	2.91	-	6	3.2
4	S3014CP040	S3016CP040	4.78	3.15	-	4	5.9
6	S3014CP060	S3016CP060	6.75	5.40	-	1	13.4

Fig. S3014HC & S3016HC - Half Coupling



Size IN	Part Number		A IN	B IN	Packing		Weight LB
	304	316			Inner	Master	
1/8	S3014HC001	S3016HC001	0.55	0.30	400	1600	0.0220
1/4	S3014HC002	S3016HC002	0.71	0.39	300	1200	0.03
3/8	S3014HC003	S3016HC003	0.83	0.45	200	800	0.05
1/2	S3014HC004	S3016HC004	1.02	0.57	120	480	0.08
3/4	S3014HC006	S3016HC006	1.22	0.67	70	280	0.1
1	S3014HC010	S3016HC010	1.50	0.79	40	160	0.2
1-1/4	S3014HC012	S3016HC012	1.89	0.87	24	96	0.3
1-1/2	S3014HC014	S3016HC014	2.13	0.85	20	80	0.4
2	S3014HC020	S3016HC020	2.60	1.18	10	40	0.5
2-1/2	S3014HC024	S3016HC024	3.23	1.26	6	24	1.0
3	S3014HC030	S3016HC030	3.74	1.50	-	12	1.2
4	S3014HC040	S3016HC040	4.76	1.50	-	12	2.3
6	S3014HC060	S3016HC060	6.75	1.75	-	1	3.6

Note: Non-MSS Fittings, Dimensions, Weights And Packing May Vary.

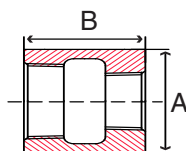
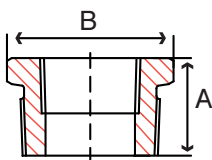


Fig. S3014RC & S3016RC - Reducing Coupling

Size IN	Part Number		A IN	B IN	Packing		Weight LB
	304	316			Inner	Master	
1/4 x 1/8	S3014RC002001	S3016RC002001	0.71	0.94	150	600	0.08
3/8 x 1/8	S3014RC003001	S3016RC003001	0.83	0.98	100	400	0.1
3/8 x 1/4	S3014RC003002	S3016RC003002	0.83	0.98	100	400	0.1
1/2 x 1/8	S3014RC004001	S3016RC004001	1.02	1.26	60	240	0.2
1/2 x 1/4	S3014RC004002	S3016RC004002	1.02	1.26	60	240	0.2
1/2 x 3/8	S3014RC004003	S3016RC004003	1.02	1.26	60	240	0.2
3/4 x 1/8	S3014RC006001	S3016RC006001	1.22	1.38	36	144	0.3
3/4 x 1/4	S3014RC006002	S3016RC006002	1.22	1.38	36	144	0.3
3/4 x 3/8	S3014RC006003	S3016RC006003	1.22	1.38	36	144	0.3
3/4 x 1/2	S3014RC006004	S3016RC006004	1.22	1.38	36	144	0.3
1 x 1/8	S3014RC010001	S3016RC010001	1.50	1.65	20	80	0.2
1 x 1/4	S3014RC010002	S3016RC010002	1.50	1.65	20	80	0.2
1 x 3/8	S3014RC010003	S3016RC010003	1.50	1.65	20	80	0.2
1 x 1/2	S3014RC010004	S3016RC010004	1.50	1.65	20	80	0.2
1 x 3/4	S3014RC010006	S3016RC010006	1.50	1.65	20	80	0.2
1-1/4 x 1/4	S3014RC012002	S3016RC012002	1.89	1.85	18	64	0.9
1-1/4 x 3/8	S3014RC012003	S3016RC012003	1.89	1.85	18	64	0.9
1-1/4 x 1/2	S3014RC012004	S3016RC012004	1.89	1.85	18	64	0.9
1-1/4 x 3/4	S3014RC012006	S3016RC012006	1.89	1.85	18	64	0.9
1-1/4 x 1	S3014RC012010	S3016RC012010	1.89	1.85	18	64	0.9
1-1/2 x 1/8	S3014RC014001	S3016RC014001	2.13	1.85	12	48	1.2
1-1/2 x 1/4	S3014RC014002	S3016RC014002	2.13	1.85	12	48	1.2
1-1/2 x 3/8	S3014RC014003	S3016RC014003	2.13	1.85	12	48	1.2
1-1/2 x 1/2	S3014RC014004	S3016RC014004	2.13	1.85	12	48	1.2
1-1/2 x 3/4	S3014RC014006	S3016RC014006	2.13	1.85	12	48	1.2
1-1/2 x 1	S3014RC014010	S3016RC014010	2.13	1.85	12	48	1.2
1-1/2 x 1-1/4	S3014RC014012	S3016RC014012	2.13	1.85	12	48	1.2
2 x 1/4	S3014RC020002	S3016RC020002	2.60	1.97	4	16	1.9
2 x 3/8	S3014RC020003	S3016RC020003	2.60	1.97	4	16	1.9
2 x 1/2	S3014RC020004	S3016RC020004	2.60	1.97	4	16	1.9
2 x 3/4	S3014RC020006	S3016RC020006	2.60	1.97	4	16	1.9
2 x 1	S3014RC020010	S3016RC020010	2.60	1.97	4	16	1.9
2 x 1-1/4	S3014RC020012	S3016RC020012	2.60	1.97	4	16	1.9
2 x 1-1/2	S3014RC020014	S3016RC020014	2.60	1.97	4	16	1.9
2-1/2 x 1/2	S3014RC024004	S3016RC024004	3.23	2.52	-	18	2.9
2-1/2 x 3/4	S3014RC024006	S3016RC024006	3.23	2.52	-	18	2.8
2-1/2 x 1	S3014RC024010	S3016RC024010	3.23	2.52	-	18	2.8
2-1/2 x 1-1/4	S3014RC024012	S3016RC024012	3.23	2.52	-	18	2.8
2-1/2 x 1-1/2	S3014RC024014	S3016RC024014	3.23	2.52	-	18	2.8
2-1/2 x 2	S3014RC024020	S3016RC024020	3.23	2.52	-	18	2.8
3 x 3/4	S3014RC030006	S3016RC030006	3.74	2.91	-	12	4.9
3 x 1	S3014RC030010	S3016RC030010	3.74	2.91	-	12	4.9
3 x 1-1/4	S3014RC030012	S3016RC030012	3.74	2.91	-	12	4.9
3 x 1-1/2	S3014RC030014	S3016RC030014	3.74	2.91	-	12	4.9
3 x 2	S3014RC030020	S3016RC030020	3.74	2.91	-	12	4.9
3 x 2-1/2	S3014RC030024	S3016RC030024	3.74	2.91	-	9	4.9
4 x 1	S3014RC040010	S3016RC040010	4.78	3.15	-	4	7.7
4 x 1-1/2	S3014RC040014	S3016RC040014	4.78	3.15	-	4	7.7
4 x 2	S3014RC040020	S3016RC040020	4.78	3.15	-	4	7.7
4 x 2-1/2	S3014RC040024	S3016RC040024	4.78	3.15	-	4	7.7
4 x 3	S3014RC040030	S3016RC040030	4.78	3.15	-	4	7.7

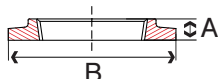
Fig. S3014HB & S3016HB - Hex Bushing



Size IN	Part Number		A IN	B IN	Packing		Weight LB
	304	316			Inner	Master	
1/4 x 1/8	S3014HB002001	S3016HB002001	0.59	0.59	300	1200	0.02
3/8 x 1/8	S3014HB003001	S3016HB003001	0.71	0.61	200	800	0.04
3/8 x 1/4	S3014HB003002	S3016HB003002	0.71	0.61	200	800	0.04
1/2 x 1/8	S3014HB004001	S3016HB004001	0.89	0.89	120	480	0.07
1/2 x 1/4	S3014HB004002	S3016HB004002	0.89	0.89	120	480	0.07
1/2 x 3/8	S3014HB004003	S3016HB004003	0.89	0.89	120	480	0.07
3/4 x 1/8	S3014HB006001	S3016HB006001	1.12	0.96	70	280	0.2
3/4 x 1/4	S3014HB006002	S3016HB006002	1.12	0.96	70	280	0.2
3/4 x 3/8	S3014HB006003	S3016HB006003	1.12	0.96	70	280	0.2
3/4 x 1/2	S3014HB006004	S3016HB006004	1.12	0.96	70	280	0.2
1 x 1/8	S3014HB010001	S3016HB010001	1.38	1.04	40	160	0.2
1 x 1/4	S3014HB010002	S3016HB010002	1.38	1.04	40	160	0.2
1 x 3/8	S3014HB010003	S3016HB010003	1.38	1.04	40	160	0.2
1 x 1/2	S3014HB010004	S3016HB010004	1.38	1.04	40	160	0.2
1 x 3/4	S3014HB010006	S3016HB010006	1.38	1.04	40	160	0.2
1-1/4 x 1/8	S3014HB012001	S3016HB012001	1.73	1.16	20	80	0.3
1-1/4 x 1/4	S3014HB012002	S3016HB012002	1.73	1.16	20	80	0.3
1-1/4 x 3/8	S3014HB012003	S3016HB012003	1.73	1.16	20	80	0.3
1-1/4 x 1/2	S3014HB012004	S3016HB012004	1.73	1.16	20	80	0.3
1-1/4 x 3/4	S3014HB012006	S3016HB012006	1.73	1.16	20	80	0.3
1-1/4 x 1	S3014HB012010	S3016HB012010	1.73	1.16	20	80	0.3
1-1/2 x 1/8	S3014HB014001	S3016HB014001	1.97	1.24	18	72	0.4
1-1/2 x 1/4	S3014HB014002	S3016HB014002	1.97	1.24	18	72	0.4
1-1/2 x 3/8	S3014HB014003	S3016HB014003	1.97	1.24	18	72	0.4
1-1/2 x 1/2	S3014HB014004	S3016HB014004	1.97	1.24	18	72	0.4
1-1/2 x 3/4	S3014HB014006	S3016HB014006	1.97	1.24	18	72	0.4
1-1/2 x 1	S3014HB014010	S3016HB014010	1.97	1.24	18	72	0.4
1-1/2 x 1-1/4	S3014HB014012	S3016HB014012	1.97	1.24	18	72	0.4
2 x 1/8	S3014HB020001	S3016HB020001	2.48	1.38	9	36	0.6
2 x 1/4	S3014HB020002	S3016HB020002	2.48	1.38	9	36	0.6
2 x 3/8	S3014HB020003	S3016HB020003	2.48	1.38	9	36	0.6
2 x 1/2	S3014HB020004	S3016HB020004	2.48	1.38	9	36	0.6
2 x 3/4	S3014HB020006	S3016HB020006	2.48	1.38	9	36	0.6
2 x 1	S3014HB020010	S3016HB020010	2.48	1.38	9	36	0.6
2 x 1-1/4	S3014HB020012	S3016HB020012	3.09	1.38	9	36	0.6
2 x 1-1/2	S3014HB020014	S3016HB020014	3.09	1.38	9	36	0.6
2-1/2 x 1/2	S3014HB024004	S3016HB024004	3.09	1.54	4	16	1.1
2-1/2 x 3/4	S3014HB024006	S3016HB024006	3.09	1.54	4	16	1.1
2-1/2 x 1	S3014HB024010	S3016HB024010	3.09	1.54	4	16	1.1
2-1/2 x 1-1/4	S3014HB024012	S3016HB024012	3.09	1.54	4	16	1.1
2-1/2 x 1-1/2	S3014HB024014	S3016HB024014	3.09	1.54	4	16	1.1
2-1/2 x 2	S3014HB024020	S3016HB024020	3.09	1.54	4	16	1.1
3 x 1/2	S3014HB030004	S3016HB030004	3.62	1.65	3	12	1.3
3 x 3/4	S3014HB030006	S3016HB030006	3.62	1.65	3	12	1.3
3 x 1	S3014HB030010	S3016HB030010	3.62	1.65	3	12	1.3
3 x 1-1/4	S3014HB030012	S3016HB030012	3.62	1.65	3	12	1.3
3 x 1-1/2	S3014HB030014	S3016HB030014	3.62	1.65	3	12	1.3
3 x 2	S3014HB030020	S3016HB030020	3.62	1.65	3	12	1.3
3 x 2-1/2	S3014HB030024	S3016HB030024	3.62	1.65	3	12	1.3
4 x 1	S3014HB040010	S3016HB040010	4.61	1.89	-	8	2.6
4 x 1-1/4	S3014HB040012	S3016HB040012	4.61	1.89	-	8	2.6
4 x 1-1/2	S3014HB040014	S3016HB040014	4.61	1.89	-	8	2.6
4 x 2	S3014HB040020	S3016HB040020	4.61	1.89	-	8	2.6
4 x 2-1/2	S3014HB040024	S3016HB040024	4.61	1.89	-	8	2.6
4 x 3	S3014HB040030	S3016HB040030	4.61	1.89	-	8	2.6

Note: Non-MSS Fittings, Dimensions, Weights And Packing May Vary.

Fig. S3316WS - Weld Spud



Size IN	Part Number 316	A IN	B IN	Packing		Weight LB
				Inner	Master	
1/4	S3616WS002	0.50	1.50	-	1	0.05
3/8	S3616WS003	0.50	1.62	-	1	0.06
1/2	S3616WS004	0.59	1.75	-	1	0.1
3/4	S3616WS006	0.65	1.93	-	1	0.2
1	S3616WS010	0.78	2.18	-	1	0.2
1-1/4	S3616WS012	0.75	2.68	-	1	0.3
1-1/2	S3616WS014	0.87	3.00	-	1	0.4
2	S3616WS020	0.93	3.50	-	1	0.6
2-1/2	S3616WS024	1.00	4.06	-	1	1.1
3	S3616WS030	1.00	4.62	-	1	1.3
4	S3616WS040	1.12	5.81	-	1	2.6

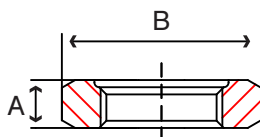


Fig. S3314LN & S3316LN - Lock Nut

Size IN	Part Number		A IN	B IN	Packing		Weight LB
	304	316			Inner	Master	
1/8	S3314LN001	S3316LN001	0.25	0.68	-	1	0.03
1/4	S3314LN002	S3316LN002	0.28	0.75	-	1	0.03
3/8	S3314LN003	S3316LN003	0.30	1.00	-	1	0.05
1/2	S3314LN004	S3316LN004	0.30	1.19	-	1	0.06
3/4	S3314LN006	S3316LN006	0.36	1.35	-	1	0.1
1	S3314LN010	S3316LN010	0.35	1.70	-	1	0.1
1-1/4	S3314LN012	S3316LN012	0.46	2.05	-	1	0.2
1-1/2	S3314LN014	S3316LN014	0.46	2.29	-	1	0.3
2	S3314LN020	S3316LN020	0.52	2.83	-	1	0.4
2-1/2	S3314LN024	S3316LN024	0.58	3.56	-	1	0.8
3	S3314LN030	S3316LN030	0.67	4.06	-	1	1.3
4	S3314LN040	S3316LN040	0.71	5.04	-	1	2.0

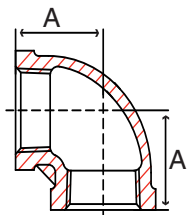


Fig. S3714E & S3716E - 90° Elbow

Size IN	Part Number		A IN	Packing		Weight LB
	304	316		Inner	Master	
1/2	S3714E 004	S3716E 004	1.06	20	80	0.3
3/4	S3714E 006	S3716E 006	1.24	15	60	0.5
1	S3714E 010	S3716E 010	1.42	5	20	0.9
1-1/4	S3714E 012	S3716E 012	1.65	5	20	1.3
1-1/2	S3714E 014	S3716E 014	1.89	2	8	1.6
2	S3714E 020	S3716E 020	2.20	2	8	2.2
2-1/2	S3714E 024	S3716E 024	2.68	-	1	4.3
3	S3714E 030	S3716E 030	3.03	-	1	6.3

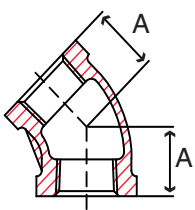


Fig. S3714F & S3716F - 45° Elbow

Size IN	Part Number		A IN	Packing		Weight LB
	304	316		Inner	Master	
1/2	S3714F 004	S3716F 004	1.06	30	120	0.2
3/4	S3714F 006	S3716F 006	1.24	20	80	0.4
1	S3714F 010	S3716F 010	1.42	10	40	0.6
1-1/4	S3714F 012	S3716F 012	1.65	5	20	1.0
1-1/2	S3714F 014	S3716F 014	1.89	4	16	1.5
2	S3714F 020	S3716F 020	2.20	2	8	2.0

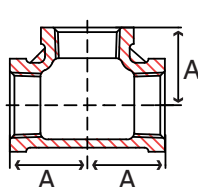


Fig. S3714T & S3716T - Tee

Size IN	Part Number		A IN	Packing		Weight LB
	304	316		Inner	Master	
1/2	S3714T 004	S3716T 004	1.06	20	80	0.4
3/4	S3714T 006	S3716T 006	1.24	10	40	0.7
1	S3714T 010	S3716T 010	1.42	5	20	1.1
1-1/4	S3714T 012	S3716T 012	1.65	2	8	1.9
1-1/2	S3714T 014	S3716T 014	1.89	2	8	2.1
2	S3714T 020	S3716T 020	2.20	-	1	3.3
2-1/2	S3714T 024	S3716T 024	2.68	-	1	5.9
3	S3714T 030	S3716T 030	3.03	-	1	9.3

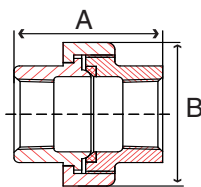
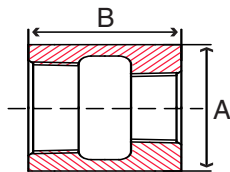


Fig. S3714U & S3716U - Union

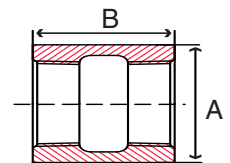
Size IN	Part Number		A IN	B IN	Packing		Weight LB
	304	316			Inner	Master	
1/2	S3714U 004	S3716U 004	1.46	1.46	20	80	0.4
3/4	S3714U 006	S3716U 006	1.56	1.81	10	40	0.5
1	S3714U 010	S3716U 010	1.85	2.05	5	20	0.9
1-1/4	S3714U 012	S3716U 012	2.05	2.52	2	8	1.3
1-1/2	S3714U 014	S3716U 014	2.19	2.76	2	8	2.0
2	S3714U 020	S3716U 020	2.50	3.39	2	8	3.0

Fig. 3714RC & 3716RC - Reducing Coupling



Size IN	Part Number		A IN	B IN	Packing		Weight LB
	304	316			Inner	Master	
3/4 x 1/2	S3714RC006004	S3716RC006004	1.46	1.50	15	60	0.3
1 x 1/2	S3714RC010004	S3716RC010004	1.77	1.62	15	60	0.6
1 x 3/4	S3714RC010006	S3716RC010006	1.77	1.62	15	60	0.6
1-1/4 x 1	S3714RC012010	S3716RC012010	2.15	2.00	10	40	0.7
1-1/2 x 1	S3714RC014010	S3716RC014010	2.43	2.12	10	40	0.8
1-1/2 x 1-1/4	S3714RC014012	S3716RC014012	2.43	2.12	10	40	0.8
2 x 1	S3714RC020010	S3716RC020010	2.96	2.50	2	8	1.6
2 x 1-1/2	S3714RC020014	S3716RC020014	2.96	2.50	2	8	1.6

Fig. 3714CP & 3716CP - Full Coupling



Size IN	Part Number		A IN	B IN	Packing		Weight LB
	304	316			Inner	Master	
1/2	S3714CP004	S3716CP004	1.20	1.38	50	200	0.1
3/4	S3714CP006	S3716CP006	1.46	1.50	35	140	0.2
1	S3714CP010	S3716CP010	1.77	1.62	15	60	0.4
1-1/4	S3714CP012	S3716CP012	2.15	2.00	10	40	0.5
1-1/2	S3714CP014	S3716CP014	2.43	2.12	10	40	0.6
2	S3714CP020	S3716CP020	2.96	2.50	2	8	1.3
2-1/2	S3714CP024	S3716CP024	3.31	2.87	-	1	2.3
3	S3714CP030	S3716CP030	4.00	3.18	-	1	3.3



Bar Stock Fittings

Specifications

- Stainless bar stock dimensions conform to MSS SP-114
- NPT threads conform to ASME B1.20.1
- Manufacturing facility is ISO 9001:2008
- Fittings meet applicable chemical & physical properties

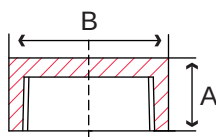


Fig. S3414C & S3416C - Cap

Size IN	Part Number		A IN	B IN	Weight LB
	IN	316			
1/8	S3414C 001	S3416C 001	0.62	0.68	0.05
1/4	S3414C 002	S3416C 002	0.74	0.68	0.07
3/8	S3414C 003	S3416C 003	0.86	0.80	0.09
1/2	S3414C 004	S3416C 004	1.05	0.93	0.1
3/4	S3414C 006	S3416C 006	1.29	1.05	0.4
1	S3414C 010	S3416C 010	1.60	1.35	0.5
1-1/4	S3414C 012	S3416C 012	1.95	1.60	0.6
1-1/2	S3414C 014	S3416C 014	2.15	0.04	0.6
2	S3414C 020	S3416C 020	2.71	1.74	1.2
2-1/2	S3414C 024	S3416C 024	3.32	2.34	3.5
3	S3414C 030	S3416C 030	4.10	2.54	6.2
4	S3414C 040	S3416C 040	5.07	2.65	9.2

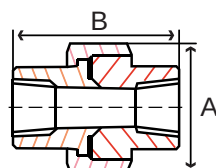


Fig. S3414U & S3416U - Union

Size IN	Part Number		A IN	B IN	Weight LB
	IN	316			
1/8	S3414U 001	S3416U 001	1.17	1.48	0.2
1/4	S3414U 002	S3416U 002	1.17	1.48	0.2
3/8	S3414U 003	S3416U 003	1.37	1.60	0.3
1/2	S3414U 004	S3416U 004	1.48	1.91	0.4
3/4	S3414U 006	S3416U 006	1.79	1.92	0.6
1	S3414U 010	S3416U 010	2.11	2.34	0.9
1-1/4	S3414U 012	S3416U 012	2.48	2.59	1.3
1-1/2	S3414U 014	S3416U 014	2.96	2.96	2.2
2	S3414U 020	S3416U 020	3.59	3.04	2.9
2-1/2	S3414U 024	S3416U 024	4.46	3.71	5.1
3	S3414U 030	S3416U 030	5.32	4.06	8.4
4	S3414U 040	S3416U 040	6.67	4.37	11.8

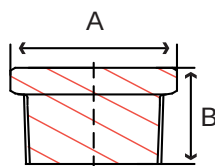


Fig. S3414HP & S3416HP - Hex Head Plug

Size IN	Part Number		A IN	B IN	Weight LB
	IN	316			
1/8	S3414HP001	S3416HP001	0.62	0.47	0.02
1/4	S3414HP002	S3416HP002	0.74	0.62	0.07
3/8	S3414HP003	S3416HP003	0.87	0.68	0.1
1/2	S3414HP004	S3416HP004	0.92	0.86	0.1
3/4	S3414HP006	S3416HP006	1.05	1.05	0.2
1	S3414HP010	S3416HP010	1.13	1.37	0.4
1-1/4	S3414HP012	S3416HP012	1.37	1.79	0.9
1-1/2	S3414HP014	S3416HP014	1.44	1.95	1.2
2	S3414HP020	S3416HP020	1.70	2.46	2.2
2-1/2	S3414HP024	S3416HP024	1.79	2.93	2.7
3	S3414HP030	S3416HP030	1.93	3.47	5.6
4	S3414HP040	S3416HP040	2.22	4.58	10.1

Fig. S3414SP & S3416SP - Square Head Plug

Size IN	Part Number		A IN	B IN	Weight LB
	IN	316			
1/8	S3414SP001	S3416SP001	0.62	0.27	0.02
1/4	S3414SP002	S3416SP002	0.70	0.39	0.04
3/8	S3414SP003	S3416SP003	0.84	0.47	0.07
1/2	S3414SP004	S3416SP004	0.98	0.55	0.1
3/4	S3414SP006	S3416SP006	1.05	0.66	0.2
1	S3414SP010	S3416SP010	1.25	0.82	0.3
1-1/4	S3414SP012	S3416SP012	1.37	0.94	0.5
1-1/2	S3414SP014	S3416SP014	1.44	1.12	0.7
2	S3414SP020	S3416SP020	1.56	1.30	1.1
2-1/2	S3414SP024	S3416SP024	1.79	1.48	2.5
3	S3414SP030	S3416SP030	1.91	1.68	3.9
4	S3414SP040	S3416SP040	2.22	2.48	7.2

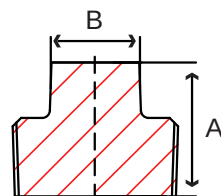
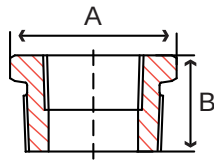
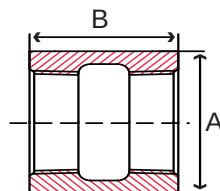


Fig. S3414HB & S3416HB - Hex Bushing



Size IN	Part Number		A IN	B IN	Weight LB
	304	316			
1/4 x 1/8	S3414HB002001	S3416HB002001	0.62	0.65	0.07
3/8 x 1/8	S3414HB003001	S3416HB003001	0.68	0.74	0.07
3/8 x 1/4	S3414HB003002	S3416HB003002	0.68	0.74	0.04
1/2 x 1/8	S3414HB004001	S3416HB004001	0.86	0.81	0.1
1/2 x 1/4	S3414HB004002	S3416HB004002	0.86	0.81	0.09
1/2 x 3/8	S3414HB004003	S3416HB004003	0.86	0.81	0.07
3/4 x 1/8	S3414HB006001	S3416HB006001	1.05	0.97	0.2
3/4 x 1/4	S3414HB006002	S3416HB006002	1.05	0.97	0.1
3/4 x 3/8	S3414HB006003	S3416HB006003	1.05	0.97	0.1
3/4 x 1/2	S3414HB006004	S3416HB006004	1.05	0.97	0.1
1 x 1/8	S3414HB010001	S3416HB010001	1.37	1.05	0.3
1 x 1/4	S3414HB010002	S3416HB010002	1.37	1.05	0.3
1 x 3/8	S3414HB010003	S3416HB010003	1.37	1.05	0.3
1 x 1/2	S3414HB010004	S3416HB010004	1.37	1.05	0.2
1 x 3/4	S3414HB010006	S3416HB010006	1.37	1.05	0.1
1-1/4 x 1/8	S3414HB012001	S3416HB012001	1.72	1.15	0.6
1-1/4 x 1/4	S3414HB012002	S3416HB012002	1.72	1.15	0.6
1-1/4 x 3/8	S3414HB012003	S3416HB012003	1.72	1.15	0.6
1-1/4 x 1/2	S3414HB012004	S3416HB012004	1.72	1.15	0.6
1-1/4 x 3/4	S3414HB012006	S3416HB012006	1.72	1.15	0.4
1-1/4 x 1	S3414HB012010	S3416HB012010	1.72	1.15	0.3
1-1/2 x 1/8	S3414HB014001	S3416HB014001	1.95	1.21	0.9
1-1/2 x 1/4	S3414HB014002	S3416HB014002	1.95	1.21	0.9
1-1/2 x 3/8	S3414HB014003	S3416HB014003	1.95	1.21	0.9
1-1/2 x 1/2	S3414HB014004	S3416HB014004	1.95	1.21	0.8
1-1/2 x 3/4	S3414HB014006	S3416HB014006	1.95	1.21	0.7
1-1/2 x 1	S3414HB014010	S3416HB014010	1.95	1.21	0.6
1-1/2 x 1-1/4	S3414HB014012	S3416HB014012	1.95	1.21	0.3
2 x 1/4	S3414HB020002	S3416HB020002	2.46	1.37	1.7
2 x 3/8	S3414HB020003	S3416HB020003	2.46	1.37	1.6
2 x 1/2	S3414HB020004	S3416HB020004	2.46	1.37	1.6
2 x 3/4	S3414HB020006	S3416HB020006	2.46	1.37	1.5
2 x 1	S3414HB020010	S3416HB020010	2.46	1.37	1.3
2 x 1-1/4	S3414HB020012	S3416HB020012	2.46	1.37	1.0
2 x 1-1/2	S3414HB020014	S3416HB020014	2.46	1.37	0.8
2-1/2 x 1/2	S3414HB024004	S3416HB024004	2.93	1.44	2.4
2-1/2 x 3/4	S3414HB024006	S3416HB024006	2.93	1.44	2.4
2-1/2 x 1	S3414HB024010	S3416HB024010	2.93	1.44	2.2
2-1/2 x 1-1/4	S3414HB024012	S3416HB024012	2.93	1.44	2.4
2-1/2 x 1-1/2	S3414HB024012	S3416HB024012	2.93	1.44	1.6
2-1/2 x 2	S3414HB024020	S3416HB024020	2.93	1.44	0.9
3 x 1	S3414HB030010	S3416HB030010	3.47	1.48	3.7
3 x 1-1/4	S3414HB030012	S3416HB030012	3.47	1.48	4.9
3 x 1-1/2	S3414HB030014	S3416HB030014	3.47	1.48	2.5
3 x 2	S3414HB030020	S3416HB030020	3.47	1.48	2.3
3 x 2-1/2	S3414HB030024	S3416HB030024	3.47	1.48	1.6
4 x 1	S3414HB040010	S3416HB040010	4.58	1.76	10.5
4 x 1-1/4	S3414HB040012	S3416HB040012	4.58	1.76	10.2
4 x 1-1/2	S3414HB040014	S3416HB040014	4.58	1.76	6.9
4 x 2	S3414HB040020	S3416HB040020	4.58	1.76	6.1
4 x 2-1/2	S3414HB040024	S3416HB040024	4.58	1.76	5.2
4 x 3	S3414HB040030	S3416HB040030	4.58	1.76	3.7

Fig. S3414CP & S3416CP - Full Coupling



Size IN	Part Number		A IN	B IN	Weight LB
	304	316			
1/8	S3414CP001	S3416CP001	0.62	0.99	0.07
1/4	S3414CP002	S3416CP002	0.74	0.99	0.09
3/8	S3414CP003	S3416CP003	0.86	1.11	0.1
1/2	S3414CP004	S3416CP004	1.05	1.37	0.2
3/4	S3414CP006	S3416CP006	1.29	1.49	0.2
1	S3414CP010	S3416CP010	1.62	1.61	0.4
1-1/4	S3414CP012	S3416CP012	1.87	1.99	0.5
1-1/2	S3414CP014	S3416CP014	2.16	2.11	0.7
2	S3414CP020	S3416CP020	2.71	1.42	1.4
2-1/2	S3414CP024	S3416CP024	3.38	2.85	2.6
3	S3414CP030	S3416CP030	3.96	3.16	3.8
4	S3414CP040	S3416CP040	5.05	3.67	6.8

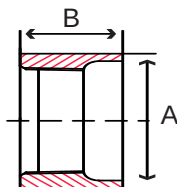


Fig. S3414HC & S3416HC - Half Coupling

Size IN	Part Number		A IN	B IN	Weight LB
	304	316			
1/8	S3414HC001	S3416HC001	0.62	0.50	0.03
1/4	S3414HC002	S3416HC002	0.74	0.56	0.04
3/8	S3414HC003	S3416HC003	0.86	0.56	0.07
1/2	S3414HC004	S3416HC004	1.05	0.70	0.1
3/4	S3414HC006	S3416HC006	1.29	0.74	0.1
1	S3414HC010	S3416HC010	1.62	0.80	0.2
1-1/4	S3414HC012	S3416HC012	1.87	0.99	0.2
1-1/2	S3414HC014	S3416HC014	2.16	1.05	0.3
2	S3414HC020	S3416HC020	2.71	1.25	0.7
2-1/2	S3414HC024	S3416HC024	3.38	1.42	1.3
3	S3414HC030	S3416HC030	3.96	1.58	1.8
4	S3414HC040	S3416HC040	5.05	1.83	3.1

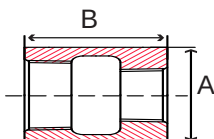


Fig. S3414RC & S3416RC - Reducing Coupling

Size IN	Part Number		A IN	B IN	Weight LB
	304	316			
1/4 x 1/8	S3414RC002001B	S3416RC002001B	0.74	1.12	0.1
3/8 x 1/8	S3414RC003001B	S3416RC003001B	0.86	1.17	0.1
3/8 x 1/4	S3414RC003002B	S3416RC003002B	0.86	1.17	0.1
1/2 x 1/8	S3414RC004001B	S3416RC004001B	1.05	1.49	0.2
1/2 x 1/4	S3414RC004002B	S3416RC004002B	1.05	1.49	0.2
1/2 x 3/8	S3414RC004003B	S3416RC004003B	1.05	1.49	0.2
3/4 x 1/8	S3414RC006001B	S3416RC006001B	1.29	1.55	0.7
3/4 x 1/4	S3414RC006002B	S3416RC006002B	1.29	1.55	0.3
3/4 x 3/8	S3414RC006003B	S3416RC006003B	1.29	1.55	0.3
3/4 x 1/2	S3414RC006004B	S3416RC006004B	1.29	1.55	0.3
1 x 1/8	S3414RC010001B	S3416RC010001B	1.64	1.72	0.8
1 x 1/4	S3414RC010002B	S3416RC010002B	1.64	1.72	0.6
1 x 3/8	S3414RC010003B	S3416RC010003B	1.64	1.72	0.6
1 x 1/2	S3414RC010004B	S3416RC010004B	1.64	1.72	0.5
1 x 3/4	S3414RC010006B	S3416RC010006B	1.64	1.72	0.5
1-1/4 x 1/8	S3414RC012001B	S3416RC012001B	1.95	1.98	1.1
1-1/4 x 1/4	S3414RC012002B	S3416RC012002B	1.95	1.98	1.1
1-1/4 x 3/8	S3414RC012003B	S3416RC012003B	1.95	1.98	1.1
1-1/4 x 1/2	S3414RC012004B	S3416RC012004B	1.95	1.98	1.0
1-1/4 x 3/4	S3414RC012006B	S3416RC012006B	1.95	1.98	0.9
1-1/4 x 1	S3414RC012010B	S3416RC012010B	1.95	1.98	0.9
1-1/2 x 1/8	S3414RC014001B	S3416RC014001B	2.15	2.10	1.3
1-1/2 x 1/4	S3414RC014002B	S3416RC014002B	2.15	2.10	1.4
1-1/2 x 3/8	S3414RC014003B	S3416RC014003B	2.15	2.10	1.2
1-1/2 x 1/2	S3414RC014004B	S3416RC014004B	2.15	2.10	1.2
1-1/2 x 3/4	S3414RC014006B	S3416RC014006B	2.15	2.10	1.1
1-1/2 x 1	S3414RC014010B	S3416RC014010B	2.15	2.10	1.0
1-1/2 x 1-1/4	S3414RC014012B	S3416RC014012B	2.15	2.10	0.8
2 x 3/8	S3414RC020003B	S3416RC020003B	2.71	2.48	2.6
2 x 1/2	S3414RC020004B	S3416RC020004B	2.71	2.48	2.5
2 x 3/4	S3414RC020006B	S3416RC020006B	2.71	2.48	2.4
2 x 1	S3414RC020010B	S3416RC020010B	2.71	2.48	2.3
2 x 1-1/4	S3414RC020012B	S3416RC020012B	2.71	2.48	2.0
2 x 1-1/2	S3414RC020014B	S3416RC020014B	2.71	2.48	1.8
2-1/2 x 1-1/2	S3414RC024014B	S3416RC024014B	3.32	3.24	5.1
2-1/2 x 2	S3414RC024020B	S3416RC024020B	3.32	3.24	3.5
3 x 1	S3414RC030010B	S3416RC030010B	4.10	3.63	8.8
3 x 1-1/2	S3414RC030014B	S3416RC030014B	4.10	3.63	7.9
3 x 2	S3414RC030020B	S3416RC030020B	4.10	3.63	7.5
3 x 2-1/2	S3414RC030024B	S3416RC030024B	4.10	3.63	6.5
4 x 2	S3414RC040020B	S3416RC040020B	5.07	4.33	14.5
4 x 3	S3414RC040030B	S3416RC040030B	5.07	4.33	15.6

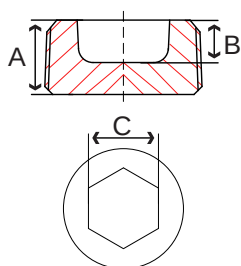


Fig. S3514CH & S3516CH - Short Counter Sunk Hex Plug

Size IN	Part Number		A IN	B IN	C IN	Weight LB
	304	316				
1/16	S3514CH000	S3516CH000	0.25	0.15	0.09	0.006
1/8	S3514CH001	S3516CH001	0.26	0.18	0.09	0.01
1/4	S3514CH002	S3516CH002	0.39	0.25	0.16	0.02
3/8	S3514CH003	S3516CH003	0.39	0.31	0.16	0.03
1/2	S3514CH004	S3516CH004	0.52	0.37	0.19	0.06
3/4	S3514CH006	S3516CH006	0.53	0.56	0.19	0.08
1	S3514CH010	S3516CH010	0.67	0.62	0.25	0.2
1-1/4	S3514CH012	S3516CH012	0.69	0.75	0.37	0.3
1-1/2	S3514CH014	S3516CH014	0.80	1.00	0.37	0.4
2	S3514CH020	S3516CH020	0.87	1.00	0.37	0.9



3000# Stainless Fittings

Specifications

- Forged stainless steel material conforms to ASME A182
- Forged stainless steel fitting dimensions conform to ASME B16.11
- NPT threads conform to ASME B1.20.1
- Socket weld fittings conform to ASME B16.11
- Forged stainless union conform to MSS SP-83
- Forged stainless outlets conform to MSS SP-97
- Forged stainless socket weld Inserts conform to MSS SP-79
- Manufacturing facility is ISO 9001:2008

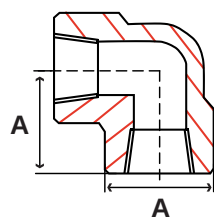


Fig. S4034E & S4036E - 90° Elbow

Size IN	Part Number		A IN	B IN	Packing	Weight LB
	304 / L	316 / L				
1/8	S4034E 001	S4036E 001	0.81	0.88	100	0.2
1/4	S4034E 002	S4036E 002	0.97	1.00	100	0.7
3/8	S4034E 003	S4036E 003	1.12	1.31	80	0.6
1/2	S4034E 004	S4036E 004	1.31	1.50	50	0.9
3/4	S4034E 006	S4036E 006	1.50	1.81	25	1.5
1	S4034E 010	S4036E 010	1.75	2.19	20	2.2
1-1/4	S4034E 012	S4036E 012	2.00	2.44	15	3.1
1-1/2	S4034E 014	S4036E 014	2.38	2.97	6	4.8
2	S4034E 020	S4036E 020	2.50	3.31	5	5.4
2-1/2	S4034E 024	S4036E 024	3.25	4.00	2	13.2
3	S4034E 030	S4036E 030	3.75	4.75	1	19.5

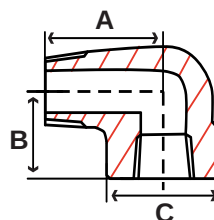


Fig. S4034SE & S4036SE - 90° Street Elbow

Size IN	Part Number		A IN	B IN	C IN	Packing	Weight LB
	304 / L	316 / L					
1/8	S4034SE001	S4036SE001	1.25	0.97	1.00	200	0.2
1/4	S4034SE002	S4036SE002	1.25	0.97	1.00	150	0.2
3/8	S4034SE003	S4036SE003	1.50	1.12	1.31	80	0.4
1/2	S4034SE004	S4036SE004	1.69	1.31	1.50	50	0.6
3/4	S4034SE006	S4036SE006	1.94	1.50	1.81	30	1.1
1	S4034SE010	S4036SE010	2.31	1.75	2.19	20	2.2
1-1/4	S4034SE012	S4036SE012	2.69	2.00	2.44	15	2.4
1-1/2	S4034SE014	S4036SE014	2.81	2.38	2.97	8	4.4
2	S4034SE020	S4036SE020	3.38	2.50	3.31	5	6.4

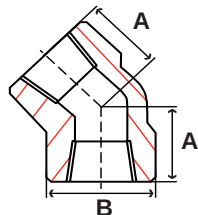


Fig. S4034F & S4036F - 45° Elbow

Size IN	Part Number		A IN	B IN	Packing	Weight LB
	304 / L	316 / L				
1/8	S4034F 001	S4036F 001	0.66	0.86	100	0.2
1/4	S4034F 002	S4036F 002	0.75	1.00	100	0.2
3/8	S4034F 003	S4036F 003	0.88	1.31	80	0.5
1/2	S4034F 004	S4036F 004	1.00	1.50	50	0.7
3/4	S4034F 006	S4036F 006	1.12	1.81	30	1.2
1	S4034F 010	S4036F 010	1.31	2.19	20	2.0
1-1/4	S4034F 012	S4036F 012	1.38	2.44	15	2.2
1-1/2	S4034F 014	S4036F 014	1.69	2.97	8	4.5
2	S4034F 020	S4036F 020	1.72	3.31	6	4.9
2-1/2	S4034F 024	S4036F 024	2.06	4.00	2	8.1
3	S4034F 030	S4036F 030	2.50	4.75	2	13.1

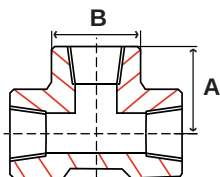


Fig. S4034T & S4036T - Tee

Size IN	Part Number		A IN	B IN	Packing	Weight LB
	304 / L	316 / L				
1/8	S4034T 001	S4036T 001	0.81	0.88	80	0.2
1/4	S4034T 002	S4036T 002	0.97	1.00	80	0.4
3/8	S4034T 003	S4036T 003	1.12	1.31	50	0.8
1/2	S4034T 004	S4036T 004	1.31	1.50	35	1.2
3/4	S4034T 006	S4036T 006	1.50	1.81	20	2.0
1	S4034T 010	S4036T 010	1.75	2.19	15	3.2
1-1/4	S4034T 012	S4036T 012	2.00	2.44	10	3.8
1-1/2	S4034T 014	S4036T 014	2.38	2.97	5	7.2
2	S4034T 020	S4036T 020	2.50	3.31	4	7.7
2-1/2	S4034T 024	S4036T 024	3.25	4.00	2	15.4
3	S4034T 030	S4036T 030	3.75	4.75	1	22.4

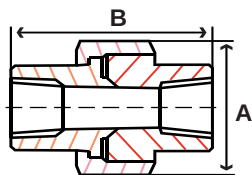


Fig. S4034U & S4036U - Union

Size IN	Part Number		A IN	B IN	Packing	Weight LB
	304 / L	316 / L				
1/8	S4034U 001	S4036U 001	1.66	1.48	70	0.6
1/4	S4034U 002	S4036U 002	1.66	1.48	70	0.6
3/8	S4034U 003	S4036U 003	1.83	1.66	70	0.5
1/2	S4034U 004	S4036U 004	2.00	1.93	50	0.7
3/4	S4034U 006	S4036U 006	2.31	2.38	35	1.0
1	S4034U 010	S4036U 010	2.42	2.78	20	1.7
1-1/4	S4034U 012	S4036U 012	2.86	3.35	14	2.2
1-1/2	S4034U 014	S4036U 014	3.00	3.70	10	3.5
2	S4034U 020	S4036U 020	3.50	4.42	5	5.3
2-1/2	S4034U 024	S4036U 024	4.25	5.22	3	8.0
3	S4034U 030	S4036U 030	4.42	6.15	2	11.6

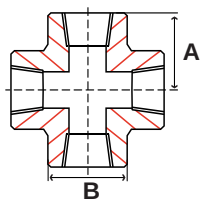


Fig. S4034X & S4036X - Cross

Size IN	Part Number		A IN	B IN	Packing	Weight LB
	304 / L	316 / L				
1/8	S4034X 001	S4036X 001	0.81	0.88	40	0.4
1/4	S4034X 002	S4036X 002	0.97	1.00	40	0.5
3/8	S4034X 003	S4036X 003	1.12	1.31	40	0.9
1/2	S4034X 004	S4036X 004	1.31	1.50	30	1.4
3/4	S4034X 006	S4036X 006	1.50	1.81	20	2.5
1	S4034X 010	S4036X 010	1.75	2.19	12	3.5
1-1/4	S4034X 012	S4036X 012	2.00	2.44	6	4.1
1-1/2	S4034X 014	S4036X 014	2.38	2.97	4	6.5
2	S4034X 020	S4036X 020	2.50	3.31	4	8.1

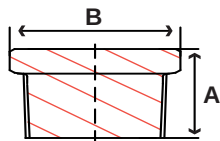


Fig. S4034HP & S4036HP - Hex Head Plug

Size IN	Part Number		A IN	B IN	Packing	Weight LB
	304 / L	316 / L				
1/8	S4034HP001	S4036HP001	0.63	0.44	800	0.02
1/4	S4034HP002	S4036HP002	0.69	0.62	800	0.06
3/8	S4034HP003	S4036HP003	0.81	0.69	600	0.08
1/2	S4034HP004	S4036HP004	0.87	0.88	250	0.1
3/4	S4034HP006	S4036HP006	1.00	1.06	150	0.3
1	S4034HP010	S4036HP010	1.13	1.38	100	0.4
1-1/4	S4034HP012	S4036HP012	1.37	1.75	35	0.9
1-1/2	S4034HP014	S4036HP014	1.43	2.00	25	1.3
2	S4034HP020	S4036HP020	1.57	2.50	20	2.2
2-1/2	S4034HP024	S4036HP024	1.81	3.00	8	3.9
3	S4034HP030	S4036HP030	1.93	3.50	6	5.7

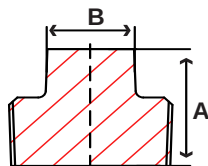


Fig. S4034SP & S4036SP - Square Head Plug

Size IN	Part Number		A IN	B IN	Packing	Weight LB
	304 / L	316 / L				
1/8	S4034SP001	S4036SP001	0.63	0.28	800	0.02
1/4	S4034SP002	S4036SP002	0.69	0.38	800	0.02
3/8	S4034SP003	S4036SP003	0.81	0.44	500	0.06
1/2	S4034SP004	S4036SP004	0.94	0.56	300	0.1
3/4	S4034SP006	S4036SP006	1.06	0.62	200	0.1
1	S4034SP010	S4036SP010	1.25	0.81	150	0.3
1-1/4	S4034SP012	S4036SP012	1.37	0.94	80	0.5
1-1/2	S4034SP014	S4036SP014	1.43	1.12	50	0.8
2	S4034SP020	S4036SP020	1.57	1.31	30	1.3

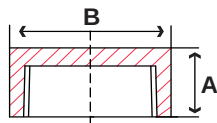


Fig. S4034C & S4036C - Cap

Size IN	Part Number		A IN	B IN	Packing	Weight LB
	304 / L	316 / L				
1/8	S4034C 001	S4036C 001	0.62	0.75	300	0.04
1/4	S4034C 002	S4036C 002	0.75	1.00	300	0.08
3/8	S4034C 003	S4036C 003	0.88	1.00	250	0.1
1/2	S4034C 004	S4036C 004	1.12	1.25	130	0.2
3/4	S4034C 006	S4036C 006	1.33	1.44	80	0.3
1	S4034C 010	S4036C 010	1.75	1.62	50	0.8
1-1/4	S4034C 012	S4036C 012	2.25	1.75	30	1.3
1-1/2	S4034C 014	S4036C 014	2.50	1.75	25	1.5
2	S4034C 020	S4036C 020	3.00	1.88	15	2.4
2-1/2	S4034C 024	S4036C 024	3.62	2.38	10	4.8
3	S4034C 030	S4036C 030	4.25	2.56	5	7.7

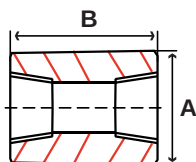


Fig. S4034CP & S4036CP - Full Coupling

Size IN	Part Number		A IN	B IN	Packing	Weight LB
	304 / L	316 / L				
1/8	S4034CP001	S4036CP001	1.25	0.11	250	0.04
1/4	S4034CP002	S4036CP002	1.38	0.08	250	0.08
3/8	S4034CP003	S4036CP003	1.50	0.13	200	0.1
1/2	S4034CP004	S4036CP004	1.88	0.28	100	0.2
3/4	S4034CP006	S4036CP006	2.00	0.41	70	0.3
1	S4034CP010	S4036CP010	2.38	0.99	35	0.8
1-1/4	S4034CP012	S4036CP012	2.62	1.78	20	1.3
1-1/2	S4034CP014	S4036CP014	3.12	2.35	15	1.5
2	S4034CP020	S4036CP020	3.38	3.08	10	2.4
2-1/2	S4034CP024	S4036CP024	3.62	5.04	5	4.8
3	S4034CP030	S4036CP030	4.25	7.44	3	7.7
4	S4034CP040	S4036CP040	4.75	13.84	2	10.6

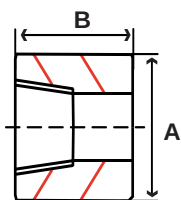


Fig. S4034HC & S4036HC - Half Coupling

Size IN	Part Number		A IN	B IN	Packing	Weight LB
	304 / L	316 / L				
1/8	S4034HC001	S4036HC001	0.62	0.62	400	0.04
1/4	S4034HC002	S4036HC002	0.75	0.69	800	0.04
3/8	S4034HC003	S4036HC003	0.88	0.75	500	0.06
1/2	S4034HC004	S4036HC004	1.12	0.94	250	0.1
3/4	S4034HC006	S4036HC006	1.33	1.00	150	0.2
1	S4034HC010	S4036HC010	1.75	1.17	80	0.5
1-1/4	S4034HC012	S4036HC012	2.25	1.31	35	0.7
1-1/2	S4034HC014	S4036HC014	2.50	1.56	30	1.1
2	S4034HC020	S4036HC020	3.00	1.67	20	1.5
2-1/2	S4034HC024	S4036HC024	3.62	1.81	12	2.4
3	S4034HC030	S4036HC030	4.25	2.12	6	3.7

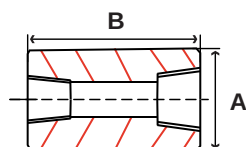


Fig. S4034RC & S4036RC - Reducing Coupling

Size IN	Part Number		A IN	B IN	Packing	Weight LB
	304 / L	316 / L				
1/4 x 1/8	S4034RC002001	S4036RC002001	0.75	1.375	250	0.1
3/8 x 1/8	S4034RC003001	S4036RC003001	0.875	1.50	200	0.1
3/8 x 1/4	S4034RC003002	S4036RC003002	0.875	1.50	200	0.1
1/2 x 1/8	S4034RC004001	S4036RC004001	1.125	1.875	100	0.2
1/2 x 1/4	S4034RC004002	S4036RC004002	1.125	1.875	100	0.2
1/2 x 3/8	S4034RC004003	S4036RC004003	1.125	1.875	100	0.2
3/4 x 1/4	S4034RC006002	S4036RC006002	1.375	2.00	70	0.4
3/4 x 3/8	S4034RC006003	S4036RC006003	1.375	2.00	70	0.4
3/4 x 1/2	S4034RC006004	S4036RC006004	1.375	2.00	70	0.4
1 x 1/4	S4034RC010002	S4036RC010002	1.75	2.375	35	0.8
1 x 3/8	S4034RC010003	S4036RC010003	1.75	2.375	35	0.8
1 x 1/2	S4034RC010004	S4036RC010004	1.75	2.375	35	0.8
1 x 3/4	S4034RC010006	S4036RC010006	1.75	2.375	35	0.8
1-1/4 x 1/2	S4034RC012004	S4036RC012004	2.25	2.625	20	1.4
1-1/4 x 3/4	S4034RC012006	S4036RC012006	2.25	2.625	20	1.4
1-1/4 x 1	S4034RC012010	S4036RC012010	2.25	2.625	20	1.4
1-1/2 x 1/4	S4034RC014002	S4036RC014002	2.50	3.125	15	2.1
1-1/2 x 3/8	S4034RC014003	S4036RC014003	2.50	3.125	15	2.1
1-1/2 x 1/2	S4034RC014004	S4036RC014004	2.50	3.125	15	2.1
1-1/2 x 3/4	S4034RC014006	S4036RC014006	2.50	3.125	15	2.1
1-1/2 x 1	S4034RC014010	S4036RC014010	2.50	3.125	15	2.8
1-1/2 x 1-1/4	S4034RC014012	S4036RC014012	2.50	3.125	15	2.1
2 x 1/2	S4034RC020004	S4036RC020004	3.00	3.375	10	3.0
2 x 3/4	S4034RC020006	S4036RC020006	3.00	3.375	10	3.0
2 x 1	S4034RC020010	S4036RC020010	3.00	3.375	10	4.5
2 x 1-1/4	S4034RC020012	S4036RC020012	3.00	3.375	10	3.3
2 x 1-1/2	S4034RC020014	S4036RC020014	3.00	3.375	10	3.9

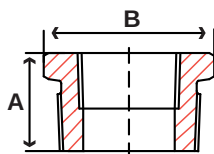


Fig. S4034HB & S4036HB - Hex Bushing

Size IN	Part Number		A IN	B IN	Packing	Weight LB
	304 / L	316 / L				
1/4 X 1/8	S4034HB002001	S4036HB002001	0.65	0.625	600	0.02
3/8 X 1/8	S4034HB003001	S4036HB003001	0.75	0.687	500	0.02
3/8 X 1/4	S4034HB003002	S4036HB003002	0.75	0.687	500	0.02
1/2 X 1/8	S4034HB004001	S4036HB004001	0.81	0.875	400	0.06
1/2 X 1/4	S4034HB004002	S4036HB004002	0.81	0.875	400	0.06
1/2 X 3/8	S4034HB004003	S4036HB004003	0.81	0.875	400	0.06
3/4 X 1/8	S4034HB006001	S4036HB006001	0.93	1.063	200	0.1
3/4 X 1/4	S4034HB006002	S4036HB006002	0.93	1.063	200	0.1
3/4 X 3/8	S4034HB006003	S4036HB006003	0.93	1.063	200	0.1
3/4 X 1/2	S4034HB006004	S4036HB006004	0.93	1.063	200	0.1
1 X 1/8	S4034HB010001	S4036HB010001	1.06	1.375	100	0.1
1 X 1/4	S4034HB010002	S4036HB010002	1.06	1.375	100	0.1
1 X 3/8	S4034HB010003	S4036HB010003	1.06	1.375	100	0.1
1 X 1/2	S4034HB010004	S4036HB010004	1.06	1.375	100	0.1
1 X 3/4	S4034HB010006	S4036HB010006	1.06	1.375	100	0.1
1-1/4 X 1/8	S4034HB012001	S4036HB012001	1.188	1.75	70	0.8
1-1/4 X 1/4	S4034HB012002	S4036HB012002	1.188	1.75	70	0.3
1-1/4 X 3/8	S4034HB012003	S4036HB012003	1.188	1.75	70	0.3
1-1/4 X 1/2	S4034HB012004	S4036HB012004	1.188	1.75	70	0.5
1-1/4 X 3/4	S4034HB012006	S4036HB012006	1.188	1.75	70	0.5
1-1/4 X 1	S4034HB012010	S4036HB012010	1.188	1.75	70	0.5
1-1/2 X 1/8	S4034HB014001	S4036HB014001	1.25	2.00	50	1.3
1-1/2 X 1/4	S4034HB014002	S4036HB014002	1.25	2.00	50	1.3
1-1/2 X 3/8	S4034HB014003	S4036HB014003	1.25	2.00	50	1.3
1-1/2 X 1/2	S4034HB014004	S4036HB014004	1.25	2.00	50	1.0
1-1/2 X 3/4	S4034HB014006	S4036HB014006	1.25	2.00	50	0.8
1-1/2 X 1	S4034HB014010	S4036HB014010	1.25	2.00	50	0.7
1-1/2 X 1-1/4	S4034HB014012	S4036HB014012	1.25	2.00	50	0.7
2 X 1/4	S4034HB020002	S4036HB020002	1.375	2.50	25	0.8
2 X 3/8	S4034HB020003	S4036HB020003	1.375	2.50	25	1.8
2 X 1/2	S4034HB020004	S4036HB020004	1.375	2.50	25	1.7
2 X 3/4	S4034HB020006	S4036HB020006	1.375	2.50	25	1.6
2 X 1	S4034HB020010	S4036HB020010	1.375	2.50	25	1.5
2 X 1-1/4	S4034HB020012	S4036HB020012	1.375	2.50	25	0.9
2 X 1-1/2	S4034HB020014	S4036HB020014	1.375	2.50	25	0.9
2-1/2 X 1/2	S4034HB024004	S4036HB024004	1.688	3.00	15	1.1
2-1/2 X 3/4	S4034HB024006	S4036HB024006	1.688	3.00	15	1.1
2-1/2 X 1	S4034HB024010	S4036HB024010	1.688	3.00	15	1.1
2-1/2 X 1-1/4	S4034HB024012	S4036HB024012	1.688	3.00	15	1.1
2-1/2 X 1-1/2	S4034HB024014	S4036HB024014	1.688	3.00	15	1.3
2-1/2 X 2	S4034HB024020	S4036HB024020	1.688	3.00	15	1.3
3 X 1/4	S4034HB030002	S4036HB030002	1.75	3.50	10	4.7
3 X 1/2	S4034HB030004	S4036HB030004	1.75	3.50	10	5.3
3 X 3/4	S4034HB030006	S4036HB030006	1.75	3.50	10	2.5
3 X 1	S4034HB030010	S4036HB030010	1.75	3.50	10	2.5
3 X 1-1/4	S4034HB030012	S4036HB030012	1.75	3.50	10	2.5
3 X 1-1/2	S4034HB030014	S4036HB030014	1.75	3.50	10	2.5
3 X 2	S4034HB030020	S4036HB030020	1.75	3.50	10	2.5
3 X 2-1/2	S4034HB030024	S4036HB030024	1.75	3.50	10	2.5

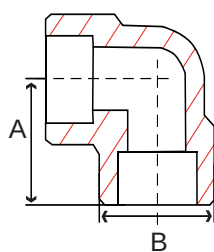


Fig. S5034E & S5036E - 90° Elbow

Size IN	Part Number		A IN	B IN	Packing	Weight LB
	304 / L	316 / L				
1/8	S5034E 001	S5036E 001	0.82	0.68	150	0.2
1/4	S5034E 002	S5036E 002	0.82	0.82	150	0.3
3/8	S5034E 003	S5036E 003	0.91	0.98	100	0.2
1/2	S5034E 004	S5036E 004	1.00	1.20	80	0.4
3/4	S5034E 006	S5036E 006	1.25	1.41	50	0.7
1	S5034E 010	S5036E 010	1.38	1.74	30	1.1
1-1/4	S5034E 012	S5036E 012	1.56	2.10	20	1.8
1-1/2	S5034E 014	S5036E 014	1.75	2.36	15	2.3
2	S5034E 020	S5036E 020	2.12	2.89	8	3.7
2-1/2	S5034E 024	S5036E 024	2.24	3.54	4	7.0
3	S5034E 030	S5036E 030	2.87	4.21	2	11.8

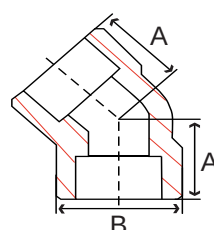


Fig. S5034F & S5036F - 45° Elbow

Size IN	Part Number		A IN	B IN	Packing	Weight LB
	304 / L	316 / L				
1/8	S5034F 001	S5036F 001	0.69	0.68	150	0.3
1/4	S5034F 002	S5036F 002	0.69	0.82	150	0.3
3/8	S5034F 003	S5036F 003	0.69	0.98	100	0.2
1/2	S5034F 004	S5036F 004	0.82	1.20	80	0.4
3/4	S5034F 006	S5036F 006	1.00	1.41	50	0.6
1	S5034F 010	S5036F 010	1.06	1.74	30	0.9
1-1/4	S5034F 012	S5036F 012	1.19	2.10	20	1.5
1-1/2	S5034F 014	S5036F 014	1.31	2.36	15	1.7
2	S5034F 020	S5036F 020	1.62	2.89	10	2.9
2-1/2	S5034F 024	S5036F 024	1.74	3.54	6	5.5
3	S5034F 030	S5036F 030	1.87	4.21	2	11.2

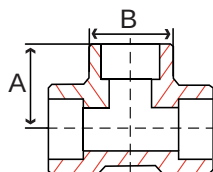


Fig. S5034T & S5036T - Tee

Size IN	Part Number		A IN	B IN	Packing	Weight LB
	304 / L	316 / L				
1/8	S5034T 001	S5036T 001	0.82	0.68	100	0.2
1/4	S5034T 002	S5036T 002	0.82	0.82	100	0.2
3/8	S5034T 003	S5036T 003	0.91	0.98	80	0.3
1/2	S5034T 004	S5036T 004	1.00	1.20	50	0.6
3/4	S5034T 006	S5036T 006	1.25	1.41	35	0.9
1	S5034T 010	S5036T 010	1.38	1.74	20	1.4
1-1/4	S5034T 012	S5036T 012	1.56	2.10	15	2.2
1-1/2	S5034T 014	S5036T 014	1.75	2.36	10	2.9
2	S5034T 020	S5036T 020	2.12	2.89	6	4.4
2-1/2	S5034T 024	S5036T 024	2.24	3.54	3	8.7
3	S5034T 030	S5036T 030	2.87	4.21	2	13.0

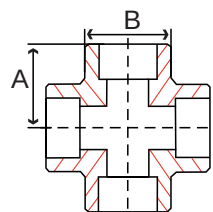


Fig. S5034X & S5036X - Cross

Size IN	Part Number		A IN	B IN	Packing	Weight LB
	304 / L	316 / L				
1/8	S5034X 001	S5036X 001	0.82	0.82	60	1.1
1/4	S5034X 002	S5036X 002	0.91	0.98	60	1.0
3/8	S5034X 003	S5036X 003	1.00	1.20	60	0.8
1/2	S5034X 004	S5036X 004	1.25	1.41	40	1.0
3/4	S5034X 006	S5036X 006	1.38	1.74	30	1.6
1	S5034X 010	S5036X 010	1.56	2.10	20	2.6
1-1/4	S5034X 012	S5036X 012	1.75	2.36	10	3.5
1-1/2	S5034X 014	S5036X 014	2.12	2.89	6	5.1
2	S5034X 020	S5036X 020	2.24	3.54	4	13.3

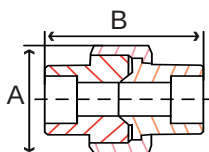


Fig. S5034U & S5036U - Union

Size IN	Part Number		A IN	B IN	Packing	Weight LB
	304 / L	316 / L				
1/8	S5034U 001	S5036U 001	1.66	1.48	70	0.6
1/4	S5034U 002	S5036U 002	1.66	1.48	70	0.6
3/8	S5034U 003	S5036U 003	1.83	1.66	70	0.5
1/2	S5034U 004	S5036U 004	2.00	1.93	50	1.0
3/4	S5034U 006	S5036U 006	2.31	2.38	35	1.0
1	S5034U 010	S5036U 010	2.42	2.78	20	1.6
1-1/4	S5034U 012	S5036U 012	2.86	3.35	14	2.4
1-1/2	S5034U 014	S5036U 014	3.00	3.70	10	3.5
2	S5034U 020	S5036U 020	3.50	4.42	5	4.7
2-1/2	S5034U 024	S5036U 024	4.25	5.22	3	7.7
3	S5034U 030	S5036U 030	4.42	6.15	2	11.3

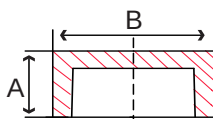


Fig. S5034C & S5036C - Cap

Size IN	Part Number		A IN	B IN	Packing	Weight LB
	304 / L	316 / L				
1/8	S5034C 001	S5036C 001	0.63	1.00	300	0.08
1/4	S5034C 002	S5036C 002	0.69	1.06	300	0.1
3/8	S5034C 003	S5036C 003	0.81	1.31	250	0.2
1/2	S5034C 004	S5036C 004	0.81	1.50	130	0.3
3/4	S5034C 006	S5036C 006	0.94	1.88	80	0.5
1	S5034C 010	S5036C 010	0.94	2.25	50	0.9
1-1/4	S5034C 012	S5036C 012	1.00	2.50	30	1.3
1-1/2	S5034C 014	S5036C 014	1.19	3.00	25	2.1
2	S5034C 020	S5036C 020	1.31	3.63	15	3.1
2-1/2	S5034C 024	S5036C 024	1.50	4.25	1	6.0
3	S5034C 030	S5036C 030	1.75	5.50	1	9.3
4	S5034C 040	S5036C 040	5.50	2.69	1	10.6

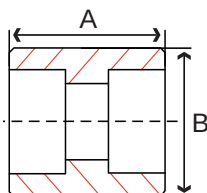


Fig. S5034CP & S5036CP - Full Coupling

Size IN	Part Number		A IN	B IN	Packing	Weight LB
	304 / L	316 / L				
1/8	S5034CP001	S5036CP001	1.01	0.68	350	0.08
1/4	S5034CP002	S5036CP002	1.01	0.82	350	0.1
3/8	S5034CP003	S5036CP003	1.01	0.98	250	0.1
1/2	S5034CP004	S5036CP004	1.14	1.20	120	0.2
3/4	S5034CP006	S5036CP006	1.38	1.41	80	0.3
1	S5034CP010	S5036CP010	1.50	1.74	50	0.6
1-1/4	S5034CP012	S5036CP012	1.50	2.10	30	0.9
1-1/2	S5034CP014	S5036CP014	1.50	2.36	25	1.3
2	S5034CP020	S5036CP020	2.00	2.89	15	1.8
2-1/2	S5034CP024	S5036CP024	2.00	3.54	10	3.0
3	S5034CP030	S5036CP030	2.00	4.21	6	3.9
4	S5034CP040	S5036CP040	2.25	5.30	4	6.2

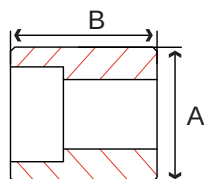
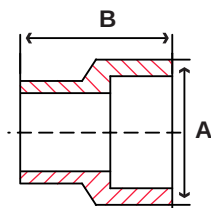


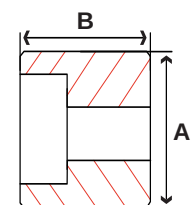
Fig. S5034HC & S5036HC Half Coupling

Size IN	Part Number		A IN	B IN	Packing	Weight LB
	304 / L	316 / L				
1/8	S5034HC001	S5036HC001	1.26	1.20	400	0.2
1/4	S5034HC002	S5036HC002	1.44	1.41	400	0.4
3/8	S5034HC003	S5036HC003	1.62	1.74	300	0.6
1/2	S5034HC004	S5036HC004	1.69	2.10	150	0.7
3/4	S5034HC006	S5036HC006	1.75	2.36	80	1.4
1	S5034HC010	S5036HC010	2.24	2.89	50	2.4
1-1/4	S5034HC012	S5036HC012	2.31	3.54	30	3.5
1-1/2	S5034HC014	S5036HC014	2.37	4.21	25	4.6
2	S5034HC020	S5036HC020	2.63	5.30	15	8.1
2-1/2	S5034HC024	S5036HC024	2.00	3.54	10	3.0
3	S5034HC030	S5036HC030	2.00	4.21	6	3.9
4	S5034HC040	S5034HC040	2.25	5.30	1	6.2

Fig. S5034IN & S5036IN - Insert Fitting



Type 1



Type 2

Size IN	Part Number		A IN	B IN	Type	Packing	Weight LB
	304/L	316/L					
1/2 x 1/4	S5034IN004002	S5036IN004002	1.25	1.23	1	150	0.2
1/2 x 3/8	S5034IN004003	S5036IN004003	1.25	1.23	1	150	0.2
3/4 x 1/4	S5034IN006002	S5036IN006002	1.06	1.46	1	100	0.3
3/4 x 3/8	S5034IN006003	S5036IN006003	1.06	1.46	2	100	0.3
3/4 x 1/2	S5034IN006004	S5036IN006004	1.06	1.46	2	100	0.3
1 x 1/4	S5034IN010002	S5036IN010002	1.12	1.78	2	80	0.5
1 x 3/8	S5034IN010003	S5036IN010003	1.12	1.78	2	80	0.5
1 x 1/2	S5034IN010004	S5036IN010004	1.12	1.78	2	80	0.5
1 x 3/4	S5034IN010006	S5036IN010006	1.12	1.78	1	80	0.5
1-1/4 x 1/4	S5034IN012002	S5036IN012002	1.25	2.16	2	70	0.9
1-1/4 x 3/8	S5034IN012003	S5036IN012003	1.25	2.16	2	70	0.9
1-1/4 x 1/2	S5034IN012004	S5036IN012004	1.25	2.16	2	70	0.9
1-1/4 x 3/4	S5034IN012006	S5036IN012006	1.25	2.16	2	70	0.9
1-1/4 x 1	S5034IN012010	S5036IN012010	1.25	2.16	1	70	0.9
1-1/2 x 3/8	S5034IN014003	S5036IN014003	1.31	2.42	2	50	1.2
1-1/2 x 1/2	S5034IN014004	S5036IN014004	1.31	2.42	2	50	1.2
1-1/2 x 3/4	S5034IN014006	S5036IN014006	1.31	2.42	2	50	1.2
1-1/2 x 1	S5034IN014010	S5036IN014010	1.31	2.42	2	50	1.2
1-1/2 x 1-1/4	S5034IN014012	S5036IN014012	1.31	2.42	1	50	1.2
2 x 3/8	S5034IN020003	S5036IN020003	1.50	2.96	2	25	1.9
2 x 1/2	S5034IN020004	S5036IN020004	1.50	2.96	2	25	1.9
2 x 3/4	S5034IN020006	S5036IN020006	1.50	2.96	2	25	1.9
2 x 1	S5034IN020010	S5036IN020010	1.50	2.96	2	25	1.9
2 x 1-1/4	S5034IN020012	S5036IN020012	1.50	2.96	2	25	1.9
2 x 1-1/2	S5034IN020014	S5036IN020014	1.50	2.96	1	25	1.9
2-1/2 x 1/2	S5034IN024004	S5036IN024004	2.12	3.70	2	12	2.6
2-1/2 x 3/4	S5034IN024006	S5036IN024006	2.12	3.70	2	12	2.6
2-1/2 x 1	S5034IN024010	S5036IN024010	2.12	3.70	2	12	2.6
2-1/2 x 1-1/4	S5034IN024012	S5036IN024012	2.12	3.70	2	12	2.6
2-1/2 x 1-1/2	S5034IN024014	S5036IN024014	2.12	3.70	2	12	2.6
2-1/2 x 2	S5034IN024020	S5036IN024020	2.12	3.70	1	12	2.6
3 x 1	S5034IN030010	S5036IN030010	1.87	4.30	2	10	3.9
3 x 1-1/4	S5034IN030012	S5036IN030012	1.87	4.30	2	10	3.9
3 x 1-1/2	S5034IN030014	S5036IN030014	1.87	4.30	2	10	3.9
3 x 2	S5034IN030020	S5036IN030020	1.87	4.30	2	10	3.9
3 x 2-1/2	S5034IN030024	S5036IN030024	1.87	4.30	1	10	3.9

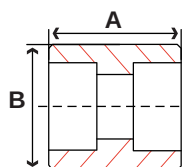
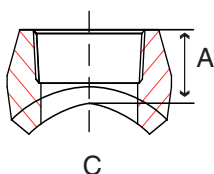


Fig. S5034RC & S5036RC - Reducing Coupling

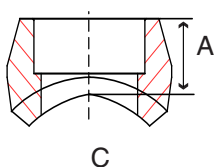
Size IN	Part Number		A IN	B IN	Packing	Weight LB
	304/L	316/L				
1/2 X 1/8	S5034RC004001	S5036RC004001	1.14	1.23	120	0.2
1/2 X 1/4	S5034RC004002	S5036RC004002	1.14	1.23	120	0.2
1/2 X 3/8	S5034RC004003	S5036RC004003	1.14	1.23	120	0.2
3/4 X 1/4	S5034RC006002	S5036RC006002	1.38	1.46	80	0.4
3/4 X 3/8	S5034RC006003	S5036RC006003	1.38	1.46	80	0.4
3/4 X 1/2	S5034RC006004	S5036RC006004	1.38	1.46	80	0.4
1 X 1/4	S5034RC010002	S5036RC010002	1.50	1.78	50	0.5
1 X 3/8	S5034RC010003	S5036RC010003	1.50	1.78	50	0.5
1 X 1/2	S5034RC010004	S5036RC010004	1.50	1.78	50	0.5
1 X 3/4	S5034RC010006	S5036RC010006	1.50	1.78	50	0.5
1-1/4 X 1/2	S5034RC012004	S5036RC012004	1.50	2.16	30	1.1
1-1/4 X 3/4	S5034RC012006	S5036RC012006	1.50	2.16	30	1.1
1-1/4 X 1	S5034RC012010	S5036RC012010	1.50	2.16	30	1.1
1-1/2 X 3/8	S5034RC014003	S5036RC014003	1.50	2.42	25	1.3
1-1/2 X 1/2	S5034RC014004	S5036RC014004	1.50	2.42	25	1.3
1-1/2 X 3/4	S5034RC014006	S5036RC014006	1.50	2.42	25	1.3
1-1/2 X 1	S5034RC014010	S5036RC014010	1.50	2.42	25	1.3
1-1/2 X 1-1/4	S5034RC014012	S5036RC014012	1.50	2.42	25	1.3
2 X 1/2	S5034RC020004	S5036RC020004	2.00	2.96	15	2.6
2 X 3/4	S5034RC020006	S5036RC020006	2.00	2.96	15	2.3
2 X 1	S5034RC020010	S5036RC020010	2.00	2.96	15	2.1
2 X 1-1/4	S5034RC020012	S5036RC020012	2.00	2.96	15	2.1
2 X 1-1/2	S5034RC020014	S5036RC020014	2.00	2.96	15	2.6
2-1/2 X 2	S5034RC024020	S5036RC024020	2.00	3.70	6	3.1
3 X 1-1/2	S5034RC030014	S5036RC030014	2.00	4.30	6	4.1
3 X 2	S5034RC030020	S5036RC030020	2.00	4.30	6	4.1

Fig. S4534T0 & S4536T0 3000# Threaded Outlet



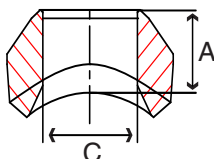
Size IN	Part Number		A IN	B IN	Weight LB
	304 / L	316 / L			
1/4	S4534TO002	S4536TO002	0.81	0.56	0.1
3/8	S4534TO003	S4536TO003	1.00	0.70	0.2
1/2	S4534TO004	S4536TO004	1.06	0.90	0.3
3/4	S4534TO006	S4536TO006	1.31	1.14	0.5
1	S4534TO010	S4536TO010	1.31	1.46	0.8
1-1/4	S4534TO012	S4536TO012	1.37	1.68	1.0
1-1/2	S4534TO014	S4536TO014	1.50	2.18	1.5
2	S4534TO020	S4536TO020	1.81	2.56	2.6
2-1/2	S4534TO024	S4536TO024	2.00	3.18	3.7
3	S4534TO030	S4536TO030	2.50	4.75	13.1

Fig. S4534S0 & S4536S0 3000# Socket Weld Outlet



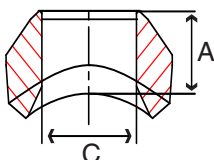
Size IN	Part Number		A IN	B IN	Weight LB
	304 / L	316 / L			
1/4	S4534SO002	S4536SO002	0.81	0.49	0.1
3/8	S4534SO003	S4536SO003	1.00	0.62	0.2
1/2	S4534SO004	S4536SO004	1.06	0.82	0.3
3/4	S4534SO006	S4536SO006	1.31	1.04	0.5
1	S4534SO010	S4536SO010	1.31	1.38	0.8
1-1/4	S4534SO012	S4536SO012	1.37	1.61	1.0
1-1/2	S4534SO014	S4536SO014	1.50	2.06	1.7
2	S4534SO020	S4536SO020	1.81	2.46	2.9
2-1/2	S4534SO024	S4536SO024	2.00	3.06	4.2
3	S4534SO030	S4536SO030	2.50	4.75	13.1

Fig. S4534W04 & S4536W04 Sch 40 3000# Weld Outlet



Size IN	Part Number		A IN	B IN	Weight LB
	304 / L	316 / L			
1/4	S4534WO4002	S4536WO4002	0.62	0.36	0.8
3/8	S4534WO4003	S4536WO4003	0.75	0.49	0.1
1/2	S4534WO4004	S4536WO4004	0.75	0.62	0.1
3/4	S4534WO4006	S4536WO4006	0.87	0.82	0.2
1	S4534WO4010	S4536WO4010	1.06	1.04	0.5
1-1/4	S4534WO4012	S4536WO4012	1.25	1.38	0.8
1-1/2	S4534WO4014	S4536WO4014	1.31	1.61	1.0
2	S4534WO4020	S4536WO4020	1.50	2.06	1.7
2-1/2	S4534WO4024	S4536WO4024	1.62	2.46	2.5
3	S4534WO4030	S4536WO4030	1.75	3.06	3.8

Fig. S4534W08 & S4636W08 Sch 80 3000# Weld Outlet



Size IN	Part Number		A IN	B IN	Weight LB
	304 / L	316 / L			
1/4	S4534WO8002	S4536WO8002	0.62	0.36	0.8
3/8	S4534WO8003	S4536WO8003	0.75	0.49	0.1
1/2	S4534WO8004	S4536WO8004	0.75	0.62	0.1
3/4	S4534WO8006	S4536WO8006	0.87	0.82	0.2
1	S4534WO8010	S4536WO8010	1.06	1.04	0.5
1-1/4	S4534WO8012	S4536WO8012	1.25	1.38	0.8
1-1/2	S4534WO8014	S4536WO8014	1.31	1.61	1.0
2	S4534WO8020	S4536WO8020	1.50	2.06	1.7
2-1/2	S4534WO8024	S4536WO8024	1.62	2.46	2.5
3	S4534WO8030	S4536WO8030	1.75	3.06	3.8



SMITH-COOPER[®]

INTERNATIONAL

Nipples

Specifications

- Stainless steel nipple material conforms to ASTM A312
- Stainless steel nipple dimensions conform to ASTM A733 and ASME B36.19
- NPT threads on stainless nipples conform to ASME B1.20.1
- Manufacturing facility is ISO 9001:2008

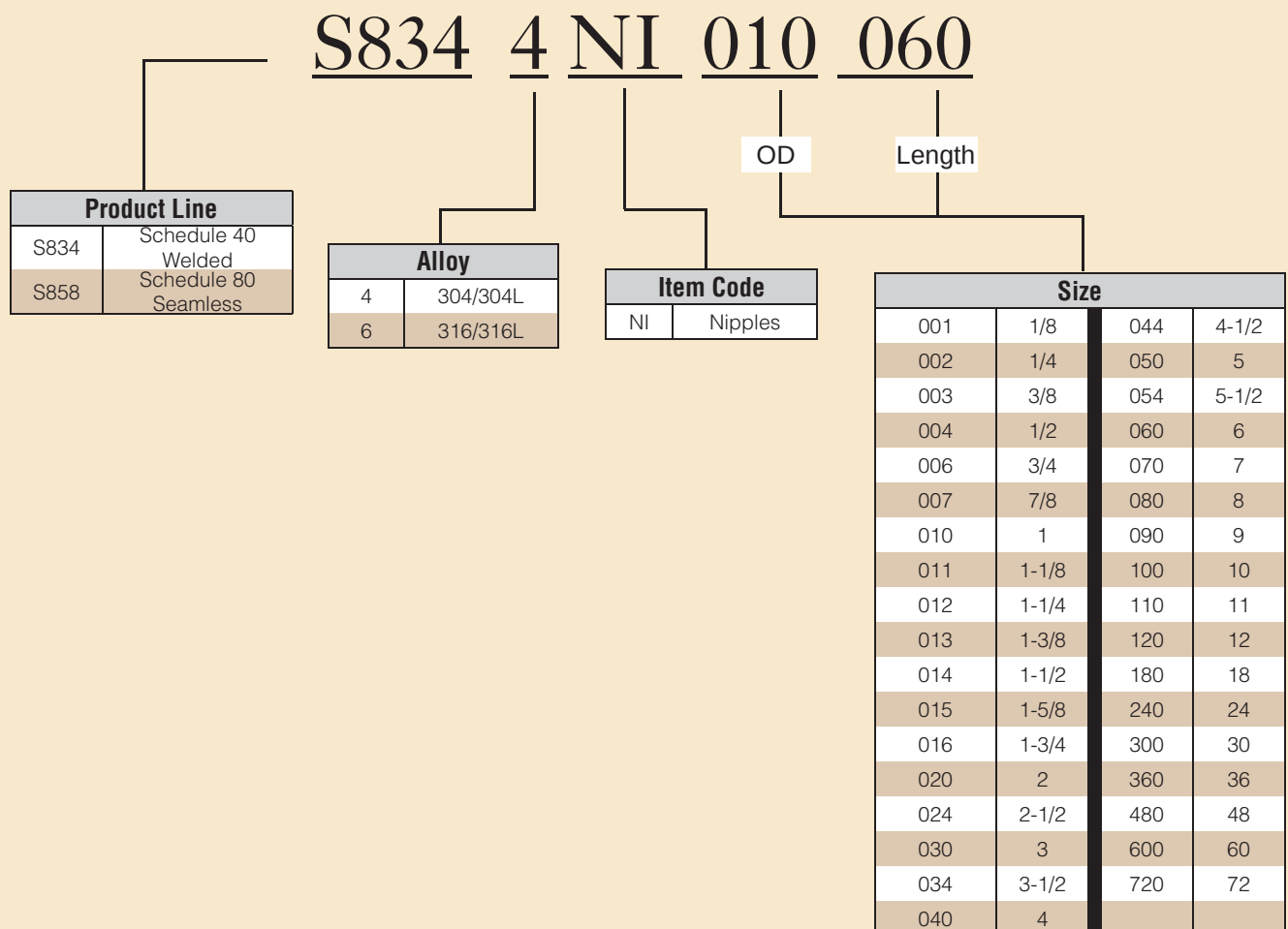


Fig. S834 - Sch 40 Welded 304/304L & 316/316L Nipple Weights

Size IN	Close Length	Weight per Each (LB)																
		Packing (Inner/Master)																
		Close	1-1/2	2	2-1/2	3	3-1/2	4	4-1/2	5	5-1/2	6	7	8	9	10	11	12
1/8	3/4	0.01 25/200	0.03 25/200	0.04 25/200	0.05 25/200	0.06 25/200	0.07 25/200	0.08 25/200	0.09 25/200	0.11 25/200	0.11 25/200	0.12 25/100	0.15 25/100	0.16 25/100	0.18 25/100	0.21 25/100	0.22 25/100	0.25 25/100
1/4	7/8	0.03 25/200	0.04 25/200	0.06 25/200	0.08 25/200	0.09 25/200	0.10 25/200	0.13 25/200	0.14 25/200	0.15 25/200	0.18 25/200	0.20 25/200	0.22 25/100	0.27 25/100	0.31 25/100	0.35 25/100	0.39 25/100	0.42 25/100
3/8	1	0.03 25/200	0.06 25/200	0.08 25/200	0.10 25/200	0.12 25/200	0.15 25/200	0.18 25/200	0.20 25/200	0.22 25/100	0.23 25/100	0.26 25/100	0.31 25/50	0.35 25/50	0.46 25/50	0.48 25/50	0.51 25/50	0.52 25/50
1/2	1-1/8	0.06 25/200	0.08 25/200	0.12 25/200	0.15 25/100	0.18 25/100	0.22 25/100	0.25 25/100	0.29 25/100	0.32 25/100	0.36 25/100	0.39 25/100	0.47 25/50	0.52 25/50	0.59 25/50	0.66 25/50	0.73 25/50	0.80 25/50
3/4	1-3/8	0.10 25/200	0.11 25/200	0.16 25/100	0.20 25/100	0.24 25/100	0.29 25/100	0.34 25/50	0.38 25/50	0.43 25/50	0.47 25/50	0.52 25/50	0.65 -/25	0.73 -/25	0.82 -/25	0.91 -/25	1.00 -/25	1.09 -/25
1	1-1/2	0.15 25/100		0.22 25/100	0.25 25/50	0.36 25/50	0.40 25/50	0.47 25/50	0.53 25/50	0.62 -/25	0.66 -/25	0.77 -/25	0.89 -/25	1.01 -/25	1.14 -/25	1.28 -/25	1.41 -/25	1.55 -/25
1-1/4	1-5/8	0.23 25/50		0.32 25/50	0.40 25/50	0.49 25/50	0.60 -/25	0.62 -/25	0.72 -/25	0.81 -/25	0.94 -/25	0.97 -/25	1.18 -/15	1.39 -/15	1.70 -/15	2.01 -/15	2.16 -/15	2.30 -/15
1-1/2	1-3/4	0.30 25/100		0.32 25/100	0.47 -/25	0.56 -/25	0.68 -/25	0.80 -/25	0.91 -/25	1.00 -/20	1.10 -/20	1.27 -/20	1.37 -/15	1.65 -/12	1.97 -/12	2.07 -/7	2.25 -/7	2.43 -/7
2	2	0.40 -/25			0.62 -/25	0.71 -/25	0.93 -/12	1.07 -/12	1.23 -/12	1.37 -/12	1.55 -/12	1.67 -/12	1.93 -/9	2.20 -/9	2.55 -/7	2.90 -/7	3.18 -/7	3.46 -/7
2-1/2	2-1/2	0.73 -/18				0.95 -/18	1.35 -/13	1.45 -/13	1.80 -/12	2.04 -/9	2.16 -/9	2.38 -/9	2.14 -/7	3.15 -/6	3.55 -/4	4.05 -/4	4.58 -/4	5.10 -/4
3	2-5/8	1.19 -/12				1.49 -/12	1.68 -/9	2.06 -/9	2.38 -/8	2.67 -/6	2.95 -/6	3.17 -/6	2.66 -/4	4.50 -/4	5.23 -/4	5.95 -/3	7.06 -/3	8.16 -/3
4	2-7/8	1.94 -/7						2.99 -/6	3.63 -/5	3.68 -/4	4.53 -/4	4.44 -/4	5.95 -/2	6.70 -/2	7.13 -/2	7.55 -/2	8.40 -/2	9.25 -/2
6	3-1/8	4.69 -/1										9.01 -/1	10.51 -/1	12.01 -/1				18.02 -/1

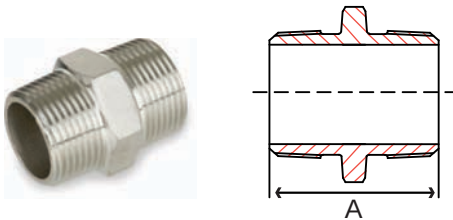


Fig. S8346HN - 316/316L Hex Nipple

Diameter IN	Part Number	A IN	Weight LB
1/8	S8346HN001	1.30	0.02
1/4	S8346HN002	1.30	0.04
3/8	S8346HN003	1.38	0.08
1/2	S8346HN004	1.67	0.1
3/4	S8346HN006	1.81	0.1
1	S8346HN010	1.97	0.3
1 1/4	S8346HN012	2.28	0.4
1 1/2	S8346HN014	2.36	0.6
2	S8346HN020	2.70	0.9

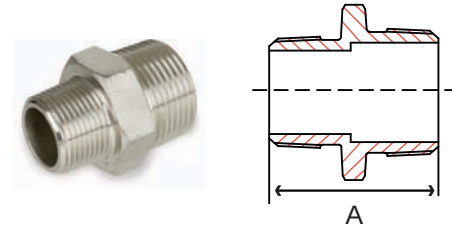


Fig. S8346RH - 316/316L Reducing Hex Nipple

Diameter IN	Part Number	A IN	Weight LB
1/4 x 1/8	S8346RH002001	1.30	0.04
3/8 x 1/4	S8346RH003002	1.38	0.08
1/2 x 3/8	S8346RH004003	1.67	0.1
3/4 x 1/2	S8346RH006004	1.81	0.1
1 x 3/4	S8346RH010006	1.97	0.3
1-1/4 x 1	S8346RH012010	2.28	0.4
1-1/2 x 1-1/4	S8346RH014012	2.36	0.6
2 x 1-1/2	S8346RH020014	2.70	0.9

Fig. S858 - Sch 80 Seamless 304/304L & 316/316L Weights

Size IN	Close Length	Weight per Each (LB)																
		Packing (Inner/Master)																
		Close	1-1/2	2	2-1/2	3	3-1/2	4	4-1/2	5	5-1/2	6	7	8	9	10	11	12
1/8	3/4	0.02 25/200	0.04 25/200	0.05 25/200	0.06 25/200	0.07 25/200	0.08 25/200	0.09 25/200	0.11 25/200	0.12 25/200	0.13 25/200	0.15 25/100	0.17 25/100	0.20 25/100	0.22 25/100	0.25 25/100	0.27 25/100	0.30 25/100
1/4	7/8	0.03 25/200	0.06 25/200	0.08 25/200	0.10 25/200	0.13 25/200	0.15 25/200	0.17 25/200	0.27 25/200	0.21 25/200	0.23 25/200	0.26 25/200	0.30 25/100	0.35 25/100	0.40 25/100	0.45 25/100	0.50 25/100	0.55 25/100
3/8	1	0.05 25/200	0.08 25/200	0.11 25/200	0.15 25/200	0.17 25/200	0.20 25/200	0.24 25/200	0.27 25/200	0.30 25/100	0.34 25/100	0.37 25/100	0.45 25/50	0.53 25/50	0.60 25/50	0.67 25/50	0.74 25/50	0.82 25/50
1/2	1-1/8	0.08 25/200	0.11 25/200	0.16 25/200	0.20 25/100	0.24 25/100	0.29 25/100	0.34 25/100	0.54 25/100	0.42 25/100	0.47 25/100	0.52 25/100	0.44 25/50	0.35 25/50	0.61 25/50	0.87 25/50	0.97 25/50	1.06 25/50
3/4	1-3/8	0.14 25/200	0.15 25/200	0.22 25/100	0.27 25/100	0.33 25/100	0.40 25/100	0.46 25/50	0.73 25/50	0.55 25/50	0.62 25/50	0.69 25/50	0.82 - /25	0.94 - /25	1.07 - /25	1.20 - /25	1.29 - /25	1.38 - /25
1	1-1/2	0.22 25/100		0.31 25/100	0.39 25/50	0.46 25/50	0.56 25/50	0.65 25/50	1.04 25/50	0.83 - /25	0.91 - /25	1.00 - /25	1.17 - /25	1.33 - /25	1.50 - /25	1.67 - /25	1.83 - /25	2.00 - /25
1-1/4	1-5/8	0.34 25/50		0.40 25/50	0.55 25/50	0.67 25/50	0.79 - /25	0.90 - /25	1.03 - /25	1.15 - /25	1.28 - /25	1.40 - /25	1.64 - /15	1.88 - /15	2.13 - /15	2.37 - /15	2.61 - /15	2.85 - /15
1-1/2	1-3/4	0.47 25/100		0.54 25/100	0.71 - /25	0.87 - /25	1.04 - /25	1.21 - /25	1.37 - /25	1.53 - /20	1.69 - /20	1.85 - /20	1.74 - /15	1.62 - /12	2.39 - /12	3.17 - /7	3.48 - /7	3.80 - /7
2	2	0.70 - /25			0.92 - /25	1.13 - /25	1.35 - /12	1.50 - /12	2.42 - /12	1.95 - /12	2.10 - /12	2.25 - /12	2.66 - /9	3.06 - /9	3.52 - /7	3.98 - /7	4.38 - /7	4.77 - /7
2-1/2	2-1/2	0.94 - /18										3.20 - /9	3.55 - /7	3.73 - /6	4.80 - /4	5.33 - /4	5.60 - /4	5.86 - /4
3	2-5/8	1.75 - /12						2.67 - /9	3.00 - /8	3.34 - /6	3.67 - /6	4.00 - /6	5.25 - /4	6.49 - /4	7.30 - /4	8.11 - /3	8.92 - /3	9.74 - /3
4	2-7/8	3.26 - /7						4.74 - /6	5.34 - /5	5.93 - /4	6.52 - /4	7.12 - /4	8.30 - /2	9.49 - /2	10.67 - /2	11.86 - /2	13.05 - /2	14.23 - /2

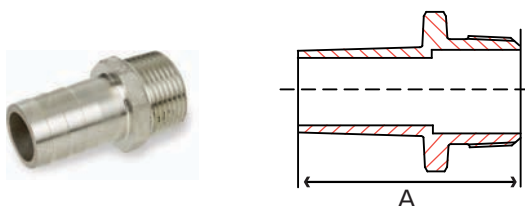


Fig. S8346KN - 316/316L King Nipple Hose x Threaded

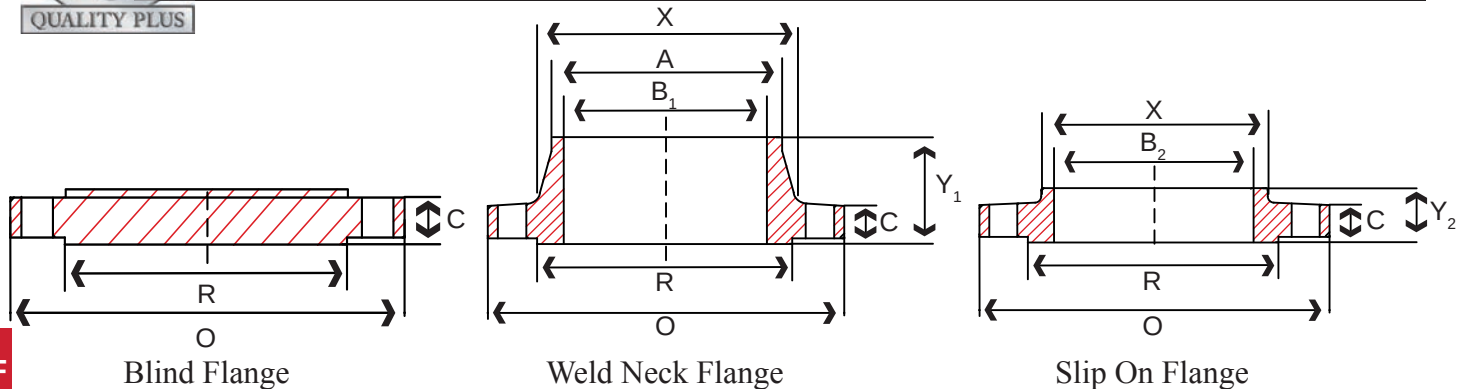
Diameter IN	Part Number	A IN	Weight LB
1/8	S8346KN001	1.57	0.02
1/4	S8346KN002	1.77	0.05
3/8	S8346KN003	1.97	0.07
1/2	S8346KN004	2.36	0.1
3/4	S8346KN006	2.56	0.2
1	S8346KN010	2.95	0.3
1 1/4	S8346KN012	3.35	0.5
1 1/2	S8346KN014	3.54	0.9
2	S8346KN020	3.94	1.3
2-1/2	S8346KN024	4.72	1.7
3	S8346KN030	5.12	2.0
4	S8346KN040	5.51	4.6



Flanges

Specifications

- Forged stainless steel material conforms to ASME A182
- Forged stainless steel flange dimensions conform to ASME B16.5
- NPT threads conform to ASME B1.20.1
- Manufacturing facility is ISO 9001:2008
- Plate stainless steel flange dimensions conform to ASME B16.5 Class 150
- Plate stainless steel flanges made from ASTM A240 plate or cast in conformance with ASTM A351



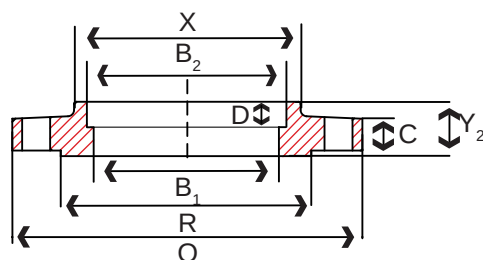
150# – Stainless Flanges

Size IN	Common Dimensions				Bore			Length Thru Hub		
	Outside Diameter (O)	Thickness (C)	Raised Face Diameter (R)	Fillet Radius (r)	Weld Neck Socket (b ₁)	Slip-on Socket (b ₂)	Lap Joint (b ₃)	Weld Neck (Y ₁)	Slip-on (Y ₂)	Lap Joint (Y ₃)
1/2	3.50	0.44	1.38	0.12	To be specified by purchaser.	0.88	0.90	1.88	0.62	0.62
3/4	3.88	0.50	1.69	0.12		1.09	1.11	2.06	0.62	0.62
1	4.25	0.56	2.00	0.12		1.36	1.38	2.19	0.69	0.69
1-1/4	4.62	0.62	2.50	0.19		1.70	1.72	2.25	0.81	0.81
1-1/2	5.00	0.69	2.88	0.25		1.95	1.97	2.44	0.88	0.88
2	6.00	0.75	3.62	0.31		2.44	2.46	2.50	1.00	1.00
2-1/2	7.00	0.88	4.12	0.31		2.94	2.97	2.75	1.12	1.12
3	7.50	0.94	5.00	0.38		3.57	3.60	2.75	1.19	1.19
3-1/2	8.50	0.94	5.50	0.38		4.07	4.10	2.81	1.25	1.25
4	9.00	0.94	6.19	0.44		4.60	4.60	3.00	1.31	1.31
5	10.00	0.94	7.31	0.44		5.66	5.69	3.50	1.44	1.44
6	11.00	1.00	8.50	0.50		6.72	6.75	3.50	1.56	1.56
8	13.50	1.12	10.62	0.50		8.72	8.75	4.00	1.75	1.75
10	16.00	1.19	12.75	0.50		10.88	10.92	4.00	1.94	1.94
12	19.00	1.25	15.00	0.50		12.88	12.92	4.50	2.19	2.19

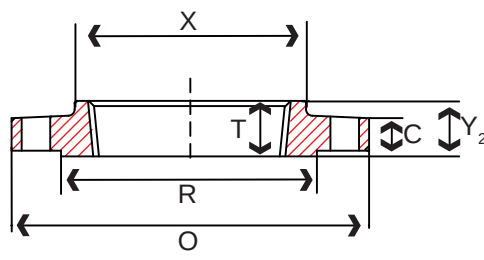
150# – Stainless Flanges, cont.

Size IN	Min Thread Length (T)	Depth of Socket (D)	Diameter of Hub at Bevel (T)	Hub Diameter (X)	Drilling			Approximate Weight			
					Bolt Circle IN	Bolt Holes Diameter IN	Number of Bolt Holes	Weld Neck LB	Slip-on, Threaded, Socket Weld LB	Lap Joint LB	Blind LB
1/2	0.62	0.38	0.84	1.19	2.38	0.62	4	2	1	1	1
3/4	0.62	0.44	1.05	1.50	2.75	0.62	4	2	2	2	2
1	0.69	0.50	1.32	1.94	3.12	0.62	4	3	2	2	2
1-1/4	0.81	0.56	1.66	2.31	3.50	0.62	4	3	3	3	3
1-1/2	0.88	0.62	1.90	2.56	3.88	0.62	4	4	3	3	4
2	1.00	0.69	2.38	3.06	4.75	0.75	4	6	5	5	5
2-1/2	1.12	0.75	2.88	3.56	5.50	0.75	4	8	7	7	7
3	1.19	0.81	3.50	4.25	6.00	0.75	4	10	8	8	9
3-1/2	1.25	0.88	4.00	4.81	7.00	0.75	8	12	11	11	13
4	1.31	0.94	4.50	5.31	7.50	0.75	8	15	13	13	17
5	1.44	0.94	5.56	6.44	8.50	0.88	8	19	15	15	20
6	1.56	1.06	6.63	7.56	9.50	0.88	8	24	19	19	26
8	1.75	1.25	8.63	9.69	11.75	0.88	8	39	30	30	45
10	1.94	1.31	10.75	12.00	14.25	1.00	12	52	43	43	70
12	2.19	1.56	12.75	14.38	17.00	1.00	12	80	64	64	110

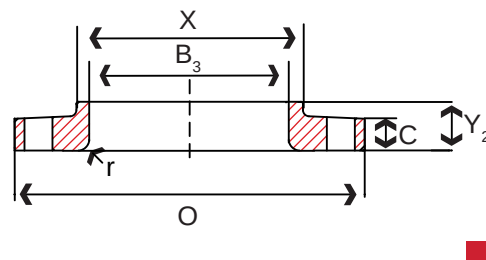
Note: Raised Face 1/16"



Socket Weld Flange



Threaded Flange



Lap Joint Flange

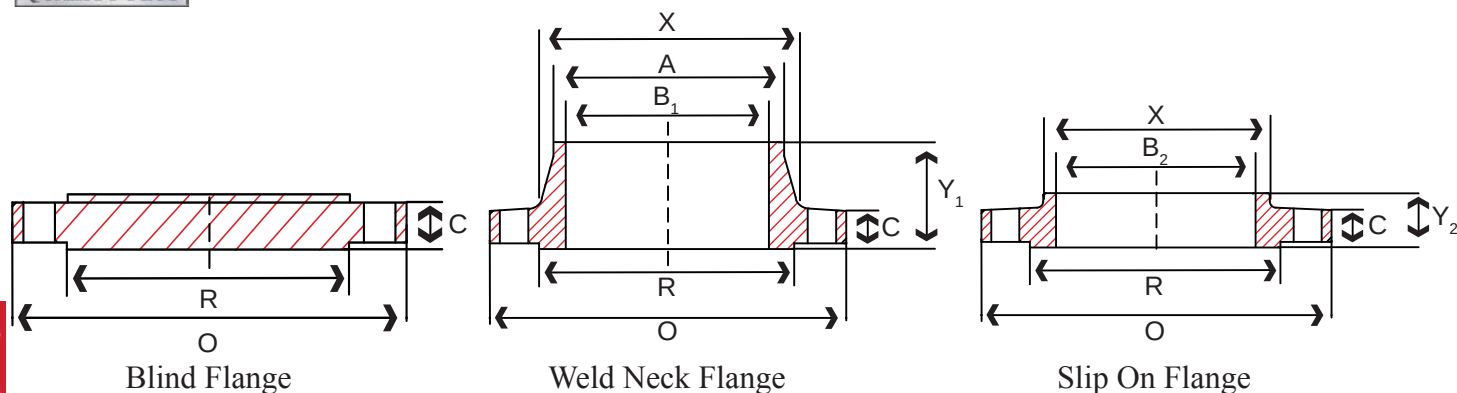
300# – Stainless Flanges

Size IN	Common Dimensions				Bore			Length Thru Hub		
	Outside Diameter (O)	Thickness (C)	Raised Face Diameter (R)	Fillet Radius (r)	Weld Neck Socket (b ₁)	Slip-on Socket (b ₂)	Lap Joint (b ₃)	Weld Neck (Y ₁)	Slip-on (Y ₂)	Lap Joint (Y ₃)
1/2	3.75	0.56	1.38	0.12	To be specified by purchaser.	0.88	0.90	2.06	0.88	0.88
3/4	4.62	0.62	1.69	0.12		1.09	1.11	2.25	1.00	1.00
1	4.88	0.69	2.00	0.12		1.36	1.38	2.44	1.06	1.06
1-1/4	5.25	0.75	2.50	0.19		1.70	1.72	2.56	1.06	1.06
1-1/2	6.12	0.81	2.88	0.25		1.95	1.97	2.69	1.19	1.19
2	6.50	0.88	3.62	0.31		2.44	2.46	2.75	1.31	1.31
2-1/2	7.50	1.00	4.12	0.31		2.94	2.97	3.00	1.50	1.50
3	8.25	1.12	5.00	0.38		3.57	3.60	3.12	1.69	1.69
3-1/2	9.00	1.19	5.50	0.38		4.07	4.10	3.19	1.75	1.75
4	10.00	1.25	6.19	0.44		4.60	4.60	3.38	1.88	1.88
5	11.00	1.38	7.31	0.44		5.66	5.69	3.88	2.00	2.00
6	12.50	1.44	8.50	0.50		6.72	6.75	3.88	2.06	2.06
8	15.00	1.62	10.62	0.50		8.72	8.75	4.38	2.44	2.44
10	17.50	1.88	12.75	0.50		10.88	10.92	4.62	2.62	3.75
12	20.50	2.00	15.00	0.50		12.88	12.92	5.12	2.88	4.00

300# – Stainless Flanges, cont.

Size IN	Min Thread Length (T)	Depth of Socket (D)	Diameter of Hub at Bevel (T)	Hub Diameter (X)	Drilling			Approximate Weight			
					Bolt Circle IN	Bolt Holes Diameter IN	Number of Bolt Holes	Weld Neck LB	Slip-on, Threaded, Socket Weld LB	Lap Joint LB	Blind LB
1/2	0.62	0.38	0.84	1.50	2.62	0.62	4	2	2	2	2
3/4	0.62	0.44	1.05	1.88	3.25	0.75	4	3	3	3	3
1	0.69	0.50	1.32	2.12	3.50	0.75	4	4	3	3	3
1-1/4	0.81	0.56	1.66	2.50	3.88	0.75	4	5	4	4	4
1-1/2	0.88	0.62	1.90	2.75	4.50	0.88	4	7	6	6	6
2	1.00	0.69	2.38	3.31	5.00	0.75	8	9	7	7	8
2-1/2	1.12	0.75	2.88	3.94	5.88	0.88	8	12	10	10	12
3	1.19	0.81	3.50	4.62	6.62	0.88	8	15	13	13	16
3-1/2	1.25	0.88	4.00	5.25	7.25	0.88	8	18	17	17	21
4	1.31	0.94	4.50	5.75	7.88	0.88	8	25	22	22	27
5	1.44	0.94	5.56	7.00	9.25	0.88	8	32	28	28	35
6	1.56	1.06	6.63	8.12	10.62	0.88	12	42	39	39	50
8	1.75	1.25	8.63	10.25	13.00	1.00	12	67	58	58	81
10	1.94	1.31	10.75	12.62	15.25	1.12	16	91	81	91	124
12	2.19	1.56	12.75	14.75	17.75	1.25	16	140	115	140	185

Note: Raised Face 1/16"



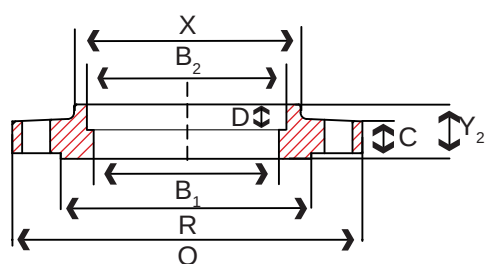
600# – Stainless Flanges

Size IN	Common Dimensions				Bore			Length Thru Hub		
	Outside Diameter (O)	Thickness (C)	Raised Face Diameter (R)	Fillet Radius (r)	Weld Neck Socket (b ₁)	Slip-on Socket (b ₂)	Lap Joint (b ₃)	Weld Neck (Y ₁)	Slip-on (Y ₂)	Lap Joint (Y ₃)
1/2	3.75	0.56	1.38	0.12	To be specified by purchaser.	0.88	0.90	2.06	0.88	0.88
3/4	4.62	0.62	1.69	0.12		1.09	1.11	2.25	1.00	1.00
1	4.88	0.69	2.00	0.12		1.36	1.38	2.44	1.06	1.06
1-1/4	5.25	0.81	2.50	0.19		1.70	1.72	2.62	1.12	1.12
1-1/2	6.12	0.88	2.88	0.25		1.95	1.97	2.75	1.25	1.25
2	6.50	1.00	3.62	0.31		2.44	2.46	2.88	1.44	1.44
2-1/2	7.50	1.12	4.12	0.31		2.94	2.97	3.12	1.62	1.62
3	8.25	1.25	5.00	0.38		3.57	3.60	3.25	1.81	1.81
3-1/2	9.00	1.38	5.50	0.38		4.07	4.10	3.38	1.94	1.94
4	10.00	1.50	6.19	0.44		4.60	4.60	4.00	2.12	2.12
5	11.00	1.75	7.31	0.44		5.66	5.69	4.50	2.38	2.38
6	12.50	1.88	8.50	0.50		6.72	6.75	4.62	2.62	2.62
8	15.00	2.19	10.62	0.50		8.72	8.75	5.25	3.00	3.00
10	17.50	2.50	12.75	0.50		10.88	10.92	6.00	3.38	4.38
12	20.50	2.62	15.00	0.50		12.88	12.92	6.12	3.62	4.62

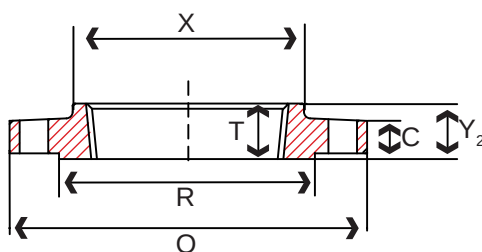
600# – Stainless Flanges, cont.

Size IN	Min Thread Length (T)	Depth of Socket (D)	Diameter of Hub at Bevel (T)	Hub Diameter (X)	Drilling			Approximate Weight			
					Bolt Circle IN	Bolt Holes Diameter IN	Number of Bolt Holes	Weld Neck LB	Slip-on, Threaded, Socket Weld LB	Lap Joint LB	Blind LB
1/2	0.62	0.38	0.84	1.50	2.62	0.62	4	2	2	2	2
3/4	0.62	0.44	1.05	1.88	3.25	0.75	4	4	3	3	3
1	0.69	0.50	1.32	2.12	3.50	0.75	4	4	4	4	4
1-1/4	0.81	0.56	1.66	2.50	3.88	0.75	4	6	5	5	5
1-1/2	0.88	0.62	1.90	2.75	4.50	0.88	4	8	7	7	8
2	1.12	0.69	2.38	3.31	5.00	0.75	8	12	9	9	10
2-1/2	1.25	0.75	2.88	3.94	5.88	0.88	8	18	13	12	15
3	1.38	0.81	3.50	4.62	6.62	0.88	8	23	16	15	20
3-1/2	1.56	0.88	4.00	5.25	7.25	1.00	8	26	21	20	29
4	1.62	0.94	4.50	5.94	8.50	1.00	8	42	37	36	41
5	1.88	0.94	5.56	6.94	10.50	1.12	8	68	63	61	68
6	2.00	1.06	6.63	8.06	11.50	1.12	12	81	80	78	86
8	2.25	1.25	8.63	10.25	13.75	1.25	12	120	115	110	140
10	2.56	1.31	10.75	13.31	17.00	1.38	16	190	170	170	230
12	2.75	1.56	12.75	15.56	19.25	1.38	20	225	200	200	295

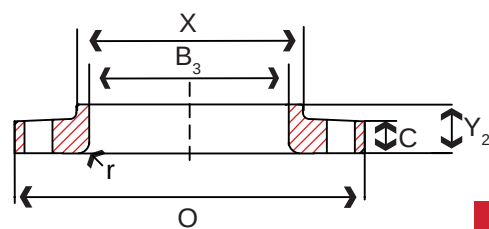
Note: Raised Face 1/16"



Socket Weld Flange



Threaded Flange



Lap Joint Flange

S10 1 4 BL 4 060 N

Product Line	
S10	Stainless ANSI Flanges

Pressure Rating	
1	150#
3	300#
6	600#

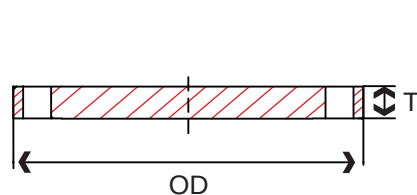
Alloy	
4	304/304L
6	316/316L

SO / WN Only	
4	Sch 40
8	Sch 80

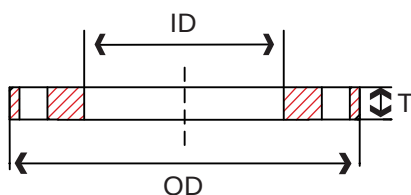
Item Code	
BL	Blind
LJ	Lap Joint
SO	Slip-On
SW	Socket Weld
TH	Threaded
WN	Weld Neck

Size	
004	1/2
006	3/4
010	1
012	1-1/4
014	1-1/2
020	2
024	2-1/2
030	3
034	3-1/2
040	4
050	5
060	6
080	8
100	10
120	12
140	14
160	16
180	18
200	20
240	24

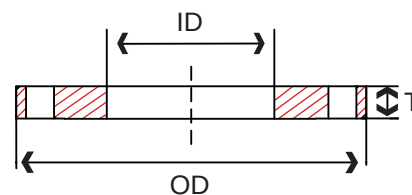
Approvals	
N	Non Approved
A	Approved



Blind Plate Flange



Slip On IPS Plate Flange



Tube Plate Flange

Blind Plate Flanges

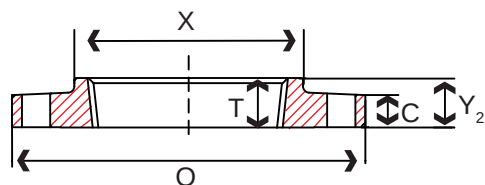
Size IN	Part Numbers		Thickness (T)	Outside Diameter (OD)	Number of Bolt Holes	Bolt Holes Diameter IN	Bolt Circle IN	Weight LB
	304	316						
1	S1414BLP010	S1416BLP010	0.500	4.25	4	0.625	3.12	1.9
1-1/2	S1414BLP014	S1416BLP014	0.500	5.00	4	0.625	3.88	2.7
2	S1414BLP020	S1416BLP020	0.500	6.00	4	0.750	4.75	3.9
2-1/2	S1414BLP024	S1416BLP024	0.500	7.00	4	0.750	5.50	5.5
3	S1414BLP030	S1416BLP030	0.500	7.50	4	0.750	6.00	6.3
4	S1414BLP040	S1416BLP040	0.500	9.00	8	0.750	7.50	9.0
6	S1414BLP060	S1416BLP060	0.500	11.00	8	0.880	9.50	13.5
8	S1414BLP080	S1416BLP080	0.500	13.50	8	0.880	11.75	20.8
10	S1414BLP100	S1416BLP100	0.500	16.00	12	1.000	14.25	28.5
12	S1414BLP120	S1416BLP120	0.500	19.00	12	1.000	17.00	40.7

Slip On IPS Plate Flanges

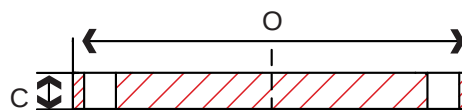
Size IN	Part Numbers		Thickness (T)	Outside Diameter (OD)	Inside Diameter (ID)	Number of Bolt Holes	Bolt Holes Diameter IN	Bolt Circle IN	Weight LB
	304	316							
1	S1414SOP010	S1416SOP010	0.500	4.25	1.36	4	0.625	3.12	1.7
1-1/2	S1414SOP014	S1416SOP014	0.500	5.00	1.95	4	0.625	3.88	2.3
2	S1414SOP020	S1416SOP020	0.500	6.00	2.44	4	0.75	4.75	3.2
2-1/2	S1414SOP024	S1416SOP024	0.500	7.00	2.94	4	0.75	5.50	4.5
3	S1414SOP030	S1416SOP030	0.500	7.50	3.57	4	0.75	6.00	4.8
4	S1414SOP040	S1416SOP040	0.500	9.00	4.60	8	0.75	7.50	6.5
5	S1414SOP050	S1416SOP050	0.500	10.00	5.66	8	0.88	8.50	7.3
6	S1414SOP060	S1416SOP060	0.500	11.00	6.72	8	0.88	9.50	8.2
8	S1414SOP080	S1416SOP080	0.500	13.50	8.72	8	0.88	11.75	11.8
10	S1414SOP100	S1416SOP100	0.500	16.00	10.88	12	1.00	14.25	18.3
12	S1414SOP120	S1416SOP120	0.500	19.00	12.88	12	1.00	17.00	26.8

Tube Plate Flanges

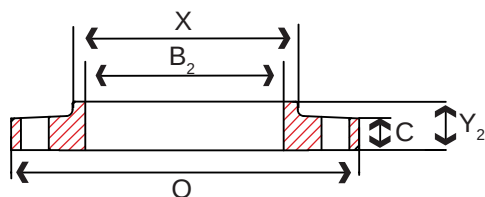
Tube OD Size IN	Part Numbers		Thickness (T)	Outside Diameter (OD)	Inside Diameter (ID)	Number of Bolt Holes	Bolt Holes Diameter IN	Bolt Circle IN	Weight LB
	304	316							
1	S1414SOTP010	S1416SOTP010	0.500	4.25	1.063	4	0.625	3.12	1.7
1-1/2	S1414SOTP014	S1416SOTP014	0.500	5.00	1.563	4	0.625	3.88	2.3
2	S1414SOTP020	S1416SOTP020	0.500	6.00	2.063	4	0.750	4.75	3.2
2-1/2	S1414SOTP024	S1416SOTP024	0.500	7.00	2.563	4	0.750	5.50	4.5
3	S1414SOTP030	S1416SOTP030	0.500	7.50	3.063	4	0.750	6.00	4.8
4	S1414SOTP040	S1416SOTP040	0.500	9.00	4.063	8	0.750	7.50	6.5
6	S1414SOTP060	S1416SOTP060	0.500	11.00	6.063	8	0.875	9.50	8.2
8	S1414SOTP080	S1416SOTP080	0.500	13.50	8.063	8	0.875	11.75	11.8
10	S1414SOTP100	S1416SOTP100	0.500	16.00	10.063	12	1.00	14.25	14.7



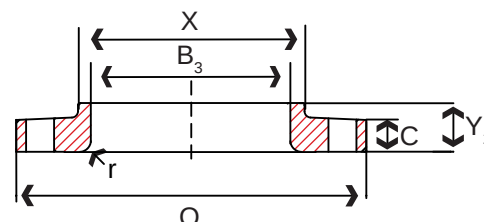
Threaded Flange



Blind Flange



Slip On Flange



Lap Joint Flange

MSS Flanges

Size IN	Outside Diameter (O)	Thickness (C)	Hub Diameter (X)	Slip-on (Y ₂)	Slip-on Bore (B ₂)	Depth of Socket (D)	Bolt Circle IN	Bolt Holes Diameter IN	Number of Bolt Holes
1/2	3.500	5/16	1-3/16	19/32	0.88	3/8	2-3/8	5/8	4
3/4	3.875	11/32	1-1/2	5/8	1.09	7/16	3-3/4	5/8	4
1	4.250	3/8	1-15/16	11/16	1.36	1/2	3-1/8	5/8	4
1-1/4	4.625	13/32	2-5/16	13/16	1.70	9/16	3-1/2	5/8	4
1-1/2	5.000	7/16	2-9/16	7/8	1.95	5/8	3-7/8	5/8	4
2	6.000	1/2	2-9/16	1	2.44	11/16	4-3/4	3/4	4
2-1/2	7.000	9/16	3-1/16	1-1/8	2.94	3/4	5-1/2	3/4	4
3	7.500	5/8	4-1/4	1-3/16	3.57	13/16	6	3/4	4
4	9.000	11/16	5-5/16	1-5/16	4.57	-	7-1/2	3/4	8
6	11.00	13/16	7-9/16	1-9/16	6.72	-	9-1/2	7/8	8
8	13.50	15/16	9-11/16	1-3/4	8.72	-	11-3/4	7/8	8
10	16.00	1	12	1-15/16	10.88	-	14-1/4	1	12
12	19.00	1-1/16	14-3/8	2-3/16	12.88	-	17	1	12

S15 1 4 BL 012

Product Line	
S15	Stainless MSS Flanges

Pressure Rating	
1	150#

Alloy	
4	304/304L
6	316/316L

Item Code	
BL	Blind
SO	Slip-On
SW	Socket Weld
TH	Threaded

Size	
004	1/2
006	3/4
010	1
012	1-1/4
014	1-1/2
020	2
024	2-1/2
030	3
034	3-1/2
040	4
050	5
060	6
080	8
100	10
120	12



Stainless Weld Fittings

Specifications

- Stainless weld fittings conform to ASTM A403, ASTM A960, MSS SP-43;
- Stainless weld fitting dimensions conform to ASTM B16.9 (except Wall) and MSS SP-43
- Manufacturing facility is ISO 9001:2008
- Independent lab verification that fittings meet applicable chemical & physical properties

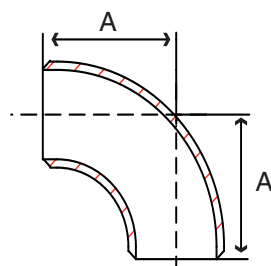


Fig. S2014LE & S2016LE - 90° Elbow Long Radius

Size IN	Part Number		A IN	Weight LB
	304 / L	316 / L		
1/2	S2014LE004	S2016LE004	1.50	0.1
3/4	S2014LE006	S2016LE006	1.12	0.1
1	S2014LE010	S2016LE010	1.50	0.1
1-1/4	S2014LE012	S2016LE012	1.88	0.2
1-1/2	S2014LE014	S2016LE014	2.25	0.3
2	S2014LE020	S2016LE020	3.00	0.6
2-1/2	S2014LE024	S2016LE024	3.75	1.2
3	S2014LE030	S2016LE030	4.50	1.7
3-1/2	S2014LE034	S2016LE034	5.25	2.3
4	S2014LE040	S2016LE040	6.00	3.0
5	S2014LE050	S2016LE050	7.50	6.1
6	S2014LE060	S2016LE060	9.00	8.9
8	S2014LE080	S2016LE080	12.00	15.4
10	S2014LE100	S2016LE100	15.00	29.2
12	S2014LE120	S2016LE120	16.00	52.0

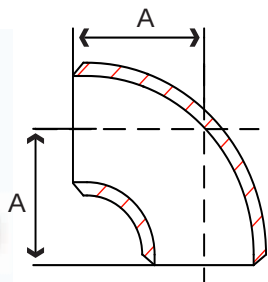


Fig. S2014E & S2016E - 90° Elbow Short Radius

Size IN	Part Number		A IN	Weight LB
	304 / L	316 / L		
1	S2014E 010	S2016E 010	1.50	0.1
1-1/4	S2014E 012	S2016E 012	1.88	0.2
1-1/2	S2014E 014	S2016E 014	2.25	0.3
2	S2014E 020	S2016E 020	3.00	0.6
2-1/2	S2014E 024	S2016E 024	3.75	1.2
3	S2014E 030	S2016E 030	4.50	1.7
3-1/2	S2014E 034	S2016E 034	5.25	2.3
4	S2014E 040	S2016E 040	6.00	3.0
5	S2014E 050	S2016E 050	7.50	6.1
6	S2014E 060	S2016E 060	9.00	8.9
8	S2014E 080	S2016E 080	12.00	15.4
10	S2014E 100	S2016E 100	15.00	29.2
12	S2014E 120	S2016E 120	16.00	52.0

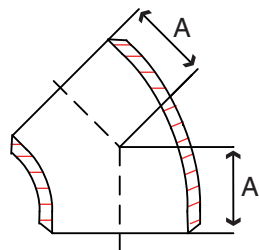


Fig. S2014F & S2016F - 45° Elbow

Size IN	Part Number		A IN	Weight LB
	304 / L	316 / L		
1/2	S2014F 004	S2016F 004	0.62	0.07
3/4	S2014F 006	S2016F 006	0.44	0.07
1	S2014F 010	S2016F 010	0.86	0.1
1-1/4	S2014F 012	S2016F 012	1.00	0.2
1-1/2	S2014F 014	S2016F 014	1.12	0.3
2	S2014F 020	S2016F 020	1.36	0.5
2-1/2	S2014F 024	S2016F 024	1.75	0.9
3	S2014F 030	S2016F 030	2.00	1.3
3-1/2	S2014F 034	S2016F 034	2.25	1.7
4	S2014F 040	S2016F 040	2.50	2.3
5	S2014F 050	S2016F 050	3.12	4.0
6	S2014F 060	S2016F 060	3.75	5.7
8	S2014F 080	S2016F 080	5.00	11.1
10	S2014F 100	S2016F 100	6.25	19.3
12	S2014F 120	S2016F 120	7.50	29.8

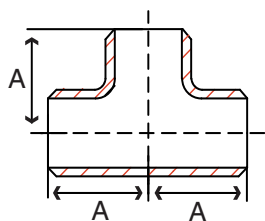


Fig. S2014T & S2016T - Tee

Size IN	Part Number		A IN	Weight LB
	304 / L	316 / L		
1/2	S2014T 004	S2016T 004	1.00	0.2
3/4	S2014T 006	S2016T 006	1.125	0.3
1	S2014T 010	S2016T 010	1.50	0.5
1-1/4	S2014T 012	S2016T 012	1.68	1.1
1-1/2	S2014T 014	S2016T 014	2.25	1.6
2	S2014T 020	S2016T 020	2.50	1.7
2-1/2	S2014T 024	S2016T 024	3.00	2.8
3	S2014T 030	S2016T 030	3.38	3.8
3-1/2	S2014T 034	S2016T 034	3.75	4.8
4	S2014T 040	S2016T 040	4.12	5.8
5	S2014T 050	S2016T 050	4.88	10.3
6	S2014T 060	S2016T 060	5.520	14.6
8	S2014T 080	S2016T 080	7.00	24.0
10	S2014T 100	S2016T 100	8.6	40.0
12	S2014T 120	S2016T 120	10.00	56.0

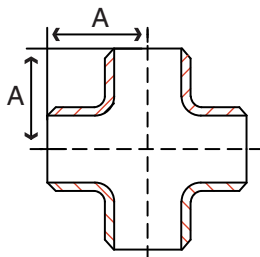


Fig. S2014X & S2016X - Cross

Size IN	Part Number		A IN	Weight LB
	304 / L	316 / L		
1/2	S2014X 004	S2016X 004	1.00	0.3
3/4	S2014X 006	S2016X 006	1.125	0.5
1	S2014X 010	S2016X 010	1.50	0.7
1-1/4	S2014X 012	S2016X 012	1.68	1.2
1-1/2	S2014X 014	S2016X 014	2.25	1.7
2	S2014X 020	S2016X 020	2.50	2.1
2-1/2	S2014X 024	S2016X 024	3.00	3.5
3	S2014X 030	S2016X 030	3.38	4.4
3-1/2	S2014X 034	S2016X 034	3.75	6.7
4	S2014X 040	S2016X 040	4.12	8.7
5	S2014X 050	S2016X 050	4.88	15.4
6	S2014X 060	S2016X 060	5.52	20.4
8	S2014X 080	S2016X 080	7.00	39.6
10	S2014X 100	S2016X 100	8.60	67.8
12	S2014X 120	S2016X 120	10.00	100.0

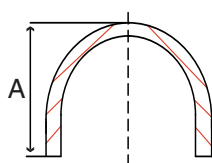


Fig. S2014C & S2016C - Cap

Size IN	Part Number		A IN	Weight LB
	304 / L	316 / L		
1/2	S2014C 004	S2016C 004	1.00	0.07
3/4	S2014C 006	S2016C 006	1.00	0.1
1	S2014C 010	S2016C 010	1.50	0.1
1-1/4	S2014C 012	S2016C 012	1.50	0.2
1-1/2	S2014C 014	S2016C 014	1.50	0.2
2	S2014C 020	S2016C 020	15.0	0.4
2-1/2	S2014C 024	S2016C 024	1.50	0.5
3	S2014C 030	S2016C 030	2.00	0.8
4	S2014C 040	S2016C 040	2.50	1.2
5	S2014C 050	S2016C 050	3.00	2.4
6	S2014C 060	S2016C 060	3.50	3.1
8	S2014C 080	S2016C 080	4.00	5.4
10	S2014C 100	S2016C 100	5.00	9.9
12	S2014C 120	S2016C 120	6.00	14.7

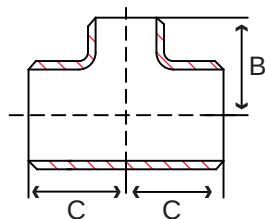


Fig. S2014RT & S2016RT - Reducing Tee

Size IN	Part Number		A IN	C IN	Weight LB
	304 / L	316 / L			
3/4 x 1/2	S2014RT006004	S2016RT006004	1-1/8	1-1/8	0.2
1 x 1/2	S2014RT010004	S2016RT010004	1-1/2	1-1/2	0.5
1 x 3/4	S2014RT010006	S2016RT010006	1-1/2	1-1/2	0.5
1-1/4 x 1/2	S2014RT012004	S2016RT012004	1-7/8	1-7/8	0.9
1-1/4 x 3/4	S2014RT012006	S2016RT012006	1-7/8	1-7/8	0.9
1-1/4 x 1	S2014RT012010	S2016RT012010	1-7/8	1-7/8	0.9
1-1/2 x 1/2	S2014RT014004	S2016RT014004	2-1/4	2-1/4	1.2
1-1/2 x 3/4	S2014RT014006	S2016RT014006	2-1/4	2-1/4	1.2
1-1/2 x 1	S2014RT014010	S2016RT014010	2-1/4	2-1/4	1.3
1-1/2 x 1-1/4	S2014RT014012	S2016RT014012	2-1/4	2-1/4	1.3
2 x 3/4	S2014RT020006	S2016RT020006	2-1/2	1-3/4	1.5
2 x 1	S2014RT020010	S2016RT020010	2-1/2	2	1.6
2 x 1-1/4	S2014RT020012	S2016RT020012	2-1/2	2-1/4	1.6
2 x 1-1/2	S2014RT020014	S2016RT020014	2-1/2	2-3/8	1.6
2-1/2 x 1	S2014RT024010	S2016RT024010	3	2-1/4	2.6
2-1/2 x 1-1/4	S2014RT024012	S2016RT024012	3	2-1/2	2.6
2-1/2 x 1-1/2	S2014RT024014	S2016RT024014	3	2-5/8	2.7
2-1/2 x 2	S2014RT024020	S2016RT024020	3	2-3/4	2.7
3 x 1	S2014RT030010	S2016RT030010	3-3/8	2-5/8	3.2
3 x 1-1/4	S2014RT030012	S2016RT030012	3-3/8	2-3/4	3.3
3 x 1-1/2	S2014RT030014	S2016RT030014	3-3/8	2-7/8	3.3
3 x 2	S2014RT030020	S2016RT030020	3-3/8	3	3.4
3 x 2-1/2	S2014RT030024	S2016RT030024	3-3/8	3-1/4	3.5
3-1/2 x 1-1/2	S2014RT034014	S2016RT034014	3-3/4	3-1/8	4.9
3-1/2 x 2	S2014RT034020	S2016RT034020	3-3/4	3-1/4	5.0
3-1/2 x 2-1/2	S2014RT034024	S2016RT034024	3-3/4	3-1/2	5.1
3-1/2 x 3	S2014RT034030	S2016RT034030	3-3/4	3-5/8	5.2
4 x 1-1/2	S2014RT040014	S2016RT040014	4-1/8	3-3/8	6.4
4 x 2	S2014RT040020	S2016RT040020	4-1/8	3-1/2	6.4
4 x 2-1/2	S2014RT040024	S2016RT040024	4-1/8	3-3/4	6.5
4 x 3	S2014RT040030	S2016RT040030	4-1/8	3-7/8	6.7
4 x 3-1/2	S2014RT040034	S2016RT040034	4-1/8	4	6.8
5 x 2	S2014RT050020	S2016RT050020	4-7/8	4-1/8	11.2
5 x 2-1/2	S2014RT050024	S2016RT050024	4-7/8	4-1/4	11.4
5 x 3	S2014RT050030	S2016RT050030	4-7/8	4-3/8	11.5
5 x 3-1/2	S2014RT050034	S2016RT050034	4-7/8	4-1/2	11.8
5 x 4	S2014RT050040	S2016RT050040	4-7/8	5	12.1
6 x 2-1/2	S2014RT060024	S2016RT060024	5-5/8	4-3/4	14.9
6 x 3	S2014RT060030	S2016RT060030	5-5/8	4-7/8	15.1
6 x 3-1/2	S2014RT060034	S2016RT060034	5-5/8	5	15.3
6 x 4	S2014RT060040	S2016RT060040	5-5/8	5-1/8	15.6
6 x 5	S2014RT060050	S2016RT060050	5-5/8	5-3/8	16.0
8 x 3	S2014RT080030	S2016RT080030	7	6	29.0
8 x 3-1/2	S2014RT080034	S2016RT080034	7	6	29.3
8 x 4	S2014RT080040	S2016RT080040	7	6-1/8	29.6
8 x 5	S2014RT080050	S2016RT080050	7	6-3/8	30.3
8 x 6	S2014RT080060	S2016RT080060	7	6-5/8	31.0
10 x 4	S2014RT100040	S2016RT100040	8-1/2	7-1/4	50.1
10 x 5	S2014RT100050	S2016RT100050	8-1/2	7-1/2	50.7
10 x 6	S2014RT100060	S2016RT100060	8-1/2	7-5/8	51.9
10 x 8	S2014RT100080	S2016RT100080	8-1/2	8	53.1
12 x 5	S2014RT120050	S2016RT120050	10	8-1/2	73.9
12 x 6	S2014RT120060	S2016RT120060	10	8-5/8	74.8
12 x 8	S2014RT120080	S2016RT120080	10	9	76.5
12 x 10	S2014RT120100	S2016RT120100	10	9-1/2	78.3

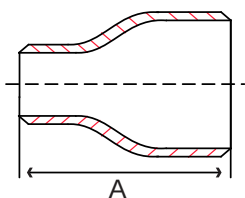


Fig. S2014CR & S2016CR - Concentric Reducer

Size IN	Part Number		A IN	Weight LB
	304 / L	316 / L		
3/4 x 1/2	S2014CR006004	S2016CR006004	1-1/2	0.2
1 x 1/2	S2014CR010004	S2016CR010004	2	0.2
1 x 3/4	S2014CR010006	S2016CR010006	2	0.2
1-1/4 x 1/2	S2014CR012004	S2016CR012004	2	0.3
1-1/4 x 3/4	S2014CR012006	S2016CR012006	2	0.3
1-1/4 x 1	S2014CR012010	S2016CR012010	2	0.3
1-1/2 x 1/2	S2014CR014004	S2016CR014004	2-1/2	0.3
1-1/2 x 3/4	S2014CR014006	S2016CR014006	2-1/2	0.3
1-1/2 x 1	S2014CR014010	S2016CR014010	2-1/2	0.4
1-1/2 x 1-1/4	S2014CR014012	S2016CR014012	2-1/2	0.4
2 x 3/4	S2014CR020006	S2016CR020006	3	0.5
2 x 1	S2014CR020010	S2016CR020010	3	0.6
2 x 1-1/4	S2014CR020012	S2016CR020012	3	0.6
2 x 1-1/2	S2014CR020014	S2016CR020014	3	0.6
2-1/2 x 1	S2014CR024010	S2016CR024010	3-1/2	0.8
2-1/2 x 1-1/4	S2014CR024012	S2016CR024012	3-1/2	0.9
2-1/2 x 1-1/2	S2014CR024014	S2016CR024014	3-1/2	0.9
2-1/2 x 2	S2014CR024020	S2016CR024020	3-1/2	1.0
3 x 1	S2014CR030010	S2016CR030010	3-1/2	1.0
3 x 1-1/4	S2014CR030012	S2016CR030012	3-1/2	1.0
3 x 1-1/2	S2014CR030014	S2016CR030014	3-1/2	1.1
3 x 2	S2014CR030020	S2016CR030020	3-1/2	1.2
3 x 2-1/2	S2014CR030024	S2016CR030024	3-1/2	1.3
3-1/2 x 2	S2014CR034020	S2016CR034020	4	1.4
3-1/2 x 2-1/2	S2014CR034024	S2016CR034024	4	1.5
3-1/2 x 3	S2014CR034030	S2016CR034030	4	1.7
4 x 1-1/2	S2014CR040014	S2016CR040014	4	1.7
4 x 2	S2014CR040020	S2016CR040020	4	1.5
4 x 2-1/2	S2014CR040024	S2016CR040024	4	1.7
4 x 3	S2014CR040030	S2016CR040030	4	1.8
4 x 3-1/2	S2014CR040034	S2016CR040034	4	1.9
5 x 2	S2014CR050020	S2016CR050020	5	1.9
5 x 2-1/2	S2014CR050024	S2016CR050024	5	2.8
5 x 3	S2014CR050030	S2016CR050030	5	3.0
5 x 3-1/2	S2014CR050034	S2016CR050034	5	3.2
5 x 4	S2014CR050040	S2016CR050040	5	3.2
6 x 2-1/2	S2014CR060024	S2016CR060024	5-1/2	3.2
6 x 3	S2014CR060030	S2016CR060030	5-1/2	3.3
6 x 3-1/2	S2014CR060034	S2016CR060034	5-1/2	4.0
6 x 4	S2014CR060040	S2016CR060040	5-1/2	4.2
6 x 5	S2014CR060050	S2016CR060050	5-1/2	4.3
8 x 3	S2014CR080030	S2016CR080030	6	4.4
8 x 3-1/2	S2014CR080034	S2016CR080034	6	6.4
8 x 4	S2014CR080040	S2016CR080040	6	6.6
8 x 5	S2014CR080050	S2016CR080050	6	6.7
8 x 6	S2014CR080060	S2016CR080060	6	7.0
10 x 4	S2014CR100040	S2016CR100040	7	10.4
10 x 5	S2014CR100050	S2016CR100050	7	10.7
10 x 6	S2014CR100060	S2016CR100060	7	11.0
10 x 8	S2014CR100080	S2016CR100080	7	11.4
12 x 5	S2014CR120050	S2016CR120050	8	16.0
12 x 6	S2014CR120060	S2016CR120060	8	16.3
12 x 8	S2014CR120080	S2016CR120080	8	16.9
12 x 10	S2014CR120100	S2016CR120100	8	17.6

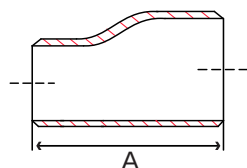


Fig. S2014ER & S2016ER - Eccentric Reducer

Size IN	Part Number		A IN	Weight LB
	304 / L	316 / L		
3/4 x 1/2	S2014ER006004	S2016ER006004	1-1/2	0.2
1 x 1/2	S2014ER010004	S2016ER010004	2	0.2
1 x 3/4	S2014ER010006	S2016ER010006	2	0.2
1-1/4 x 1/2	S2014ER012004	S2016ER012004	2	0.3
1-1/4 x 3/4	S2014ER012006	S2016ER012006	2	0.3
1-1/4 x 1	S2014ER012010	S2016ER012010	2	0.3
1-1/2 x 1/2	S2014ER014004	S2016ER014004	2-1/2	0.3
1-1/2 x 3/4	S2014ER014006	S2016ER014006	2-1/2	0.3
1-1/2 x 1	S2014ER014010	S2016ER014010	2-1/2	0.4
1-1/2 x 1-1/4	S2014ER014012	S2016ER014012	2-1/2	0.4
2 x 3/4	S2014ER020006	S2016ER020006	3	0.5
2 x 1	S2014ER020010	S2016ER020010	3	0.6
2 x 1-1/4	S2014ER020012	S2016ER020012	3	0.6
2 x 1-1/2	S2014ER020014	S2016ER020014	3	0.6
2-1/2 x 1	S2014ER024010	S2016ER024010	3-1/2	0.8
2-1/2 x 1-1/4	S2014ER024012	S2016ER024012	3-1/2	0.9
2-1/2 x 1-1/2	S2014ER024014	S2016ER024014	3-1/2	0.9
2-1/2 x 2	S2014ER024020	S2016ER024020	3-1/2	1.0
3 x 1	S2014ER030010	S2016ER030010	3-1/2	1.0
3 x 1-1/4	S2014ER030012	S2016ER030012	3-1/2	1.0
3 x 1-1/2	S2014ER030014	S2016ER030014	3-1/2	1.1
3 x 2	S2014ER030020	S2016ER030020	3-1/2	1.2
3 x 2-1/2	S2014ER030024	S2016ER030024	3-1/2	1.3
3-1/2 x 1-1/2	S2014ER034014	S2016ER034014	4	1.3
3-1/2 x 2	S2014ER034020	S2016ER034020	4	1.4
3-1/2 x 2-1/2	S2014ER034024	S2016ER034024	4	1.5
3-1/2 x 3	S2014ER034030	S2016ER034030	4	1.7
4 x 1-1/2	S2014ER040014	S2016ER040014	4	1.7
4 x 2	S2014ER040020	S2016ER040020	4	1.5
4 x 2-1/2	S2014ER040024	S2016ER040024	4	1.7
4 x 3	S2014ER040030	S2016ER040030	4	1.8
4 x 3-1/2	S2014ER040034	S2016ER040034	4	1.9
5 x 2	S2014ER050020	S2016ER050020	5	1.9
5 x 2-1/2	S2014ER050024	S2016ER050024	5	2.8
5 x 3	S2014ER050030	S2016ER050030	5	3.0
5 x 3-1/2	S2014ER050034	S2016ER050034	5	3.2
5 x 4	S2014ER050040	S2016ER050040	5	3.2
6 x 2-1/2	S2014ER060024	S2016ER060024	5-1/2	3.2
6 x 3	S2014ER060030	S2016ER060030	5-1/2	3.3
6 x 3-1/2	S2014ER060034	S2016ER060034	5-1/2	4.0
6 x 4	S2014ER060040	S2016ER060040	5-1/2	4.2
6 x 5	S2014ER060050	S2016ER060050	5-1/2	4.3
8 x 3	S2014ER080030	S2016ER080030	6	4.4
8 x 3-1/2	S2014ER080034	S2016ER080034	6	6.4
8 x 4	S2014ER080040	S2016ER080040	6	6.6
8 x 5	S2014ER080050	S2016ER080050	6	6.7
8 x 6	S2014ER080060	S2016ER080060	6	7.0
10 x 4	S2014ER100040	S2016ER100040	7	10.4
10 x 5	S2014ER100050	S2016ER100050	7	10.7
10 x 6	S2014ER100060	S2016ER100060	7	11.0
10 x 8	S2014ER100080	S2016ER100080	7	11.4
12 x 5	S2014ER120050	S2016ER120050	8	16.0
12 x 6	S2014ER120060	S2016ER120060	8	16.3
12 x 8	S2014ER120080	S2016ER120080	8	16.9
12 x 10	S2014ER120100	S2016ER120100	8	17.6

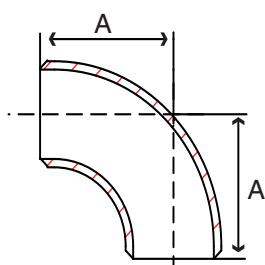


Fig. S2044LE & S2046LE - 90° Elbow Long Radius

Size IN	Part Number		A IN	Weight LB
	304 / L	316 / L		
1/2	S2044LE004	S2046LE004	1.50	0.1
3/4	S2044LE006	S2046LE006	1.12	0.1
1	S2044LE010	S2046LE010	1.50	0.2
1-1/4	S2044LE012	S2046LE012	1.88	0.4
1-1/2	S2044LE014	S2046LE014	2.25	0.6
2	S2044LE020	S2046LE020	3.00	1.0
2-1/2	S2044LE024	S2046LE024	3.75	1.8
3	S2044LE030	S2046LE030	4.50	2.6
3-1/2	S2044LE034	S2046LE034	5.25	3.5
4	S2044LE040	S2046LE040	6.00	4.6
5	S2044LE050	S2046LE050	7.50	8.0
6	S2044LE060	S2046LE060	9.00	11.5
8	S2044LE080	S2046LE080	12.00	22.0
10	S2044LE100	S2046LE100	15.00	38.6
12	S2044LE120	S2046LE120	16.00	59.5

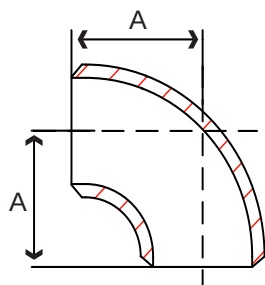


Fig. S2044E & S2046E - 90° Elbow Short Radius

Size IN	Part Number		A IN	Weight LB
	304 / L	316 / L		
1	S2044E 010	S2046E 010	1.00	0.1
1-1/4	S2044E 012	S2046E 012	1.25	0.3
1-1/2	S2044E 014	S2046E 014	1.50	0.4
2	S2044E 020	S2046E 020	2.00	0.7
2-1/2	S2044E 024	S2046E 024	2.50	1.2
3	S2044E 030	S2046E 030	3.00	1.7
3-1/2	S2044E 034	S2046E 034	3.50	2.3
4	S2044E 040	S2046E 040	4.00	3.0
5	S2044E 050	S2046E 050	5.00	5.2
6	S2044E 060	S2046E 060	6.00	8.2
8	S2044E 080	S2046E 080	8.00	14.2
10	S2044E 100	S2046E 100	10.00	25.0
12	S2044E 120	S2046E 120	12.00	39.0

W
E
L
D

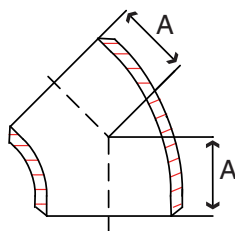


Fig. S2044F & S2046F - 45° Elbow

Size IN	Part Number		A IN	Weight LB
	304 / L	316 / L		
1/2	S2044F 004	S2046F 004	0.62	0.09
3/4	S2044F 006	S2046F 006	0.44	0.09
1	S2044F 010	S2046F 010	0.86	0.1
1-1/4	S2044F 012	S2046F 012	1.00	0.2
1-1/2	S2044F 014	S2046F 014	1.12	0.4
2	S2044F 020	S2046F 020	1.36	0.7
2-1/2	S2044F 024	S2046F 024	1.75	1.4
3	S2044F 030	S2046F 030	2.00	2.3
3-1/2	S2044F 034	S2046F 034	2.25	3.2
4	S2044F 040	S2046F 040	2.50	4.4
5	S2044F 050	S2046F 050	3.12	7.5
6	S2044F 060	S2046F 060	3.75	11.8
8	S2044F 080	S2046F 080	5.00	23.5
10	S2044F 100	S2046F 100	6.25	41.8
12	S2044F 120	S2046F 120	7.50	61.5

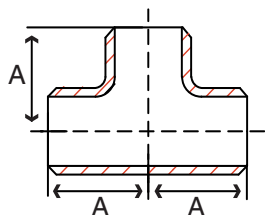


Fig. S2044T & S2046T - Tee

Size IN	Part Number		A IN	Weight LB
	304 / L	316 / L		
1/2	S2044T 004	S2046T 004	1.00	0.3
3/4	S2044T 006	S2046T 006	1.125	0.4
1	S2044T 010	S2046T 010	1.50	0.6
1-1/4	S2044T 012	S2046T 012	1.68	1.1
1-1/2	S2044T 014	S2046T 014	2.25	1.6
2	S2044T 020	S2046T 020	2.50	4.1
2-1/2	S2044T 024	S2046T 024	3.00	6.3
3	S2044T 030	S2046T 030	3.38	8.4
3-1/2	S2044T 034	S2046T 034	3.75	11.4
4	S2044T 040	S2046T 040	4.12	13.2
5	S2044T 050	S2046T 050	4.88	21.9
6	S2044T 060	S2046T 060	5.520	34.6
8	S2044T 080	S2046T 080	7.00	61.0
10	S2044T 100	S2046T 100	8.6	89.0
12	S2044T 120	S2046T 120	10.00	145.0

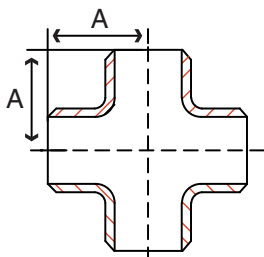


Fig. S2044X & S2046X - Cross

Size IN	Part Number		A IN	Weight LB
	304 / L	316 / L		
1/2	S2044X 004	S2046X 004	1.00	0.3
3/4	S2044X 006	S2046X 006	1.125	0.4
1	S2044X 010	S2046X 010	1.50	0.6
1-1/4	S2044X 012	S2046X 012	1.68	1.3
1-1/2	S2044X 014	S2046X 014	2.25	1.9
2	S2044X 020	S2046X 020	2.50	2.8
2-1/2	S2044X 024	S2046X 024	3.00	4.9
3	S2044X 030	S2046X 030	3.38	7.3
3-1/2	S2044X 034	S2046X 034	3.75	9.0
4	S2044X 040	S2046X 040	4.12	11.7
5	S2044X 050	S2046X 050	4.88	20.9
6	S2044X 060	S2046X 060	5.520	24.4
8	S2044X 080	S2046X 080	7.00	46.5
10	S2044X 100	S2046X 100	8.6	78.7
12	S2044X 120	S2046X 120	10.00	138.0

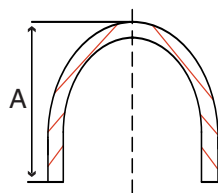


Fig. S2044C & S2046C - Cap

Size IN	Part Number		A IN	Weight LB
	304 / L	316 / L		
1/2	S2044C 004	S2046C 004	1.00	0.07
3/4	S2044C 006	S2046C 006	1.00	0.1
1	S2044C 010	S2046C 010	1.50	0.2
1-1/4	S2044C 012	S2046C 012	1.50	0.3
1-1/2	S2044C 014	S2046C 014	1.50	0.3
2	S2044C 020	S2046C 020	15.0	0.5
2-1/2	S2044C 024	S2046C 024	1.50	0.8
3	S2044C 030	S2046C 030	2.00	1.4
3-1/2	S2044C 034	S2046C 034	2.50	2.1
4	S2044C 040	S2046C 040	2.50	2.5
5	S2044C 050	S2046C 050	3.00	4.1
6	S2044C 060	S2046C 060	3.50	6.4
8	S2044C 080	S2046C 080	4.00	11.2
10	S2044C 100	S2046C 100	5.00	20.0
12	S2044C 120	S2046C 120	6.00	35.4

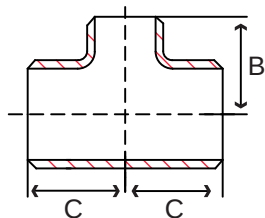


Fig. S2044CR & S2046CR - Reducing Tee

Size IN	Part Number		A IN		Weight LB
	304 / L	316 / L			
3/4 x 1/2	S2044CR006004	S2046CR006004	1-1/8	1-1/8	0.3
1 x 1/2	S2044CR010004	S2046CR010004	1-1/2	1-1/2	0.5
1 x 3/4	S2044CR010006	S2046CR010006	1-1/2	1-1/2	0.5
1-1/4 x 1/2	S2044CR012004	S2046CR012004	1-7/8	1-7/8	1.1
1-1/4 x 3/4	S2044CR012006	S2046CR012006	1-7/8	1-7/8	1.1
1-1/4 x 1	S2044CR012010	S2046CR012010	1-7/8	1-7/8	1.1
1-1/2 x 1/2	S2044CR014004	S2046CR014004	2-1/4	2-1/4	1.6
1-1/2 x 3/4	S2044CR014006	S2046CR014006	2-1/4	2-1/4	1.6
1-1/2 x 1	S2044CR014010	S2046CR014010	2-1/4	2-1/4	1.6
1-1/2 x 1-1/4	S2044CR014012	S2046CR014012	2-1/4	2-1/4	1.7
2 x 3/4	S2044CR020006	S2046CR020006	2-1/2	1-3/4	2.4
2 x 1	S2044CR020010	S2046CR020010	2-1/2	2	2.4
2 x 1-1/4	S2044CR020012	S2046CR020012	2-1/2	2-1/4	2.4
2 x 1-1/2	S2044CR020014	S2046CR020014	2-1/2	2-3/8	2.5
2-1/2 x 1	S2044CR024010	S2046CR024010	3	2-1/4	4.1
2-1/2 x 1-1/4	S2044CR024012	S2046CR024012	3	2-1/2	4.1
2-1/2 x 1-1/2	S2044CR024014	S2046CR024014	3	2-5/8	4.2
2-1/2 x 2	S2044CR024020	S2046CR024020	3	2-3/4	4.3
3 x 1	S2044CR030010	S2046CR030010	3-3/8	2-5/8	6.1
3 x 1-1/4	S2044CR030012	S2046CR030012	3-3/8	2-3/4	6.2
3 x 1-1/2	S2044CR030014	S2046CR030014	3-3/8	2-7/8	6.2
3 x 2	S2044CR030020	S2046CR030020	3-3/8	3	6.4
3 x 2-1/2	S2044CR030024	S2046CR030024	3-3/8	3-1/4	6.5
3-1/2 x 1-1/2	S2044CR034014	S2046CR034014	3-3/4	3-1/8	7.6
3-1/2 x 2	S2044CR034020	S2046CR034020	3-3/4	3-1/4	7.7
3-1/2 x 2-1/2	S2044CR034024	S2046CR034024	3-3/4	3-1/2	8.9
3-1/2 x 3	S2044CR034030	S2046CR034030	3-3/4	3-5/8	9.1
4 x 1-1/2	S2044CR040014	S2046CR040014	4-1/8	3-3/8	9.7
4 x 2	S2044CR040020	S2046CR040020	4-1/8	3-1/2	9.8
4 x 2-1/2	S2044CR040024	S2046CR040024	4-1/8	3-3/4	10.0
4 x 3	S2044CR040030	S2046CR040030	4-1/8	3-7/8	10.2
4 x 3-1/2	S2044CR040034	S2046CR040034	4-1/8	4	10.4
5 x 2	S2044CR050020	S2046CR050020	4-7/8	4-1/8	17.4
5 x 2-1/2	S2044CR050024	S2046CR050024	4-7/8	4-1/4	17.6
5 x 3	S2044CR050030	S2046CR050030	4-7/8	4-3/8	17.8
5 x 3-1/2	S2044CR050034	S2046CR050034	4-7/8	4-1/2	18.2
5 x 4	S2044CR050040	S2046CR050040	4-7/8	5	18.6
6 x 2-1/2	S2044CR060024	S2046CR060024	5-5/8	4-3/4	20.3
6 x 3	S2044CR060030	S2046CR060030	5-5/8	4-7/8	26.3
6 x 3-1/2	S2044CR060034	S2046CR060034	5-5/8	5	20.8
6 x 4	S2044CR060040	S2046CR060040	5-5/8	5-1/8	21.3
6 x 5	S2044CR060050	S2046CR060050	5-5/8	5-3/8	21.8
8 x 3	S2044CR080030	S2046CR080030	7	6	38.7
8 x 3-1/2	S2044CR080034	S2046CR080034	7	6	39.1
8 x 4	S2044CR080040	S2046CR080040	7	6-1/8	39.6
8 x 5	S2044CR080050	S2046CR080050	7	6-3/8	40.5
8 x 6	S2044CR080060	S2046CR080060	7	6-5/8	41.4
10 x 4	S2044CR100040	S2046CR100040	8-1/2	7-1/4	66.3
10 x 5	S2044CR100050	S2046CR100050	8-1/2	7-1/2	67.0
10 x 6	S2044CR100060	S2046CR100060	8-1/2	7-5/8	68.6
10 x 8	S2044CR100080	S2046CR100080	8-1/2	8	70.2
12 x 5	S2044CR120050	S2046CR120050	10	8-1/2	116.0
12 x 6	S2044CR120060	S2046CR120060	10	8-5/8	118.0
12 x 8	S2044CR120080	S2046CR120080	10	9	120.0
12 x 10	S2044CR120100	S2046CR120100	10	9-1/2	123.0

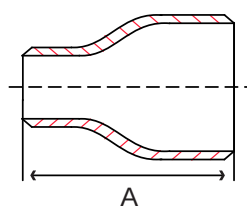


Fig. S2044CR & S2046CR - Concentric Reducer

Size IN	Part Number		A IN	Weight LB
	304	316		
3/4 x 1/2	S2044CR006004	S2046CR006004	1-1/2	0.3
1 x 1/2	S2044CR010004	S2046CR010004	2	0.3
1 x 3/4	S2044CR010006	S2046CR010006	2	0.3
1-1/4 x 1/2	S2044CR012004	S2046CR012004	2	0.4
1-1/4 x 3/4	S2044CR012006	S2046CR012006	2	0.4
1-1/4 x 1	S2044CR012010	S2046CR012010	2	0.4
1-1/2 x 1/2	S2044CR014004	S2046CR014004	2-1/2	0.5
1-1/2 x 3/4	S2044CR014006	S2046CR014006	2-1/2	0.5
1-1/2 x 1	S2044CR014010	S2046CR014010	2-1/2	0.5
1-1/2 x 1-1/4	S2044CR014012	S2046CR014012	2-1/2	0.6
2 x 3/4	S2044CR020006	S2046CR020006	3	0.8
2 x 1	S2044CR020010	S2046CR020010	3	0.8
2 x 1-1/4	S2044CR020012	S2046CR020012	3	0.9
2 x 1-1/2	S2044CR020014	S2046CR020014	3	0.9
2-1/2 x 1	S2044CR024010	S2046CR024010	3-1/2	1.4
2-1/2 x 1-1/4	S2044CR024012	S2046CR024012	3-1/2	1.6
2-1/2 x 1-1/2	S2044CR024014	S2046CR024014	3-1/2	1.6
2-1/2 x 2	S2044CR024020	S2046CR024020	3-1/2	1.7
3 x 1	S2044CR030010	S2046CR030010	3-1/2	1.8
3 x 1-1/4	S2044CR030012	S2046CR030012	3-1/2	1.8
3 x 1-1/2	S2044CR030014	S2046CR030014	3-1/2	2.0
3 x 2	S2044CR030020	S2046CR030020	3-1/2	2.2
3 x 2-1/2	S2044CR030024	S2046CR030024	3-1/2	2.3
3-1/2 x 1-1/2	S2044CR034014	S2046CR034014	4	2.6
3-1/2 x 2	S2044CR034020	S2046CR034020	4	2.7
3-1/2 x 2-1/2	S2044CR034024	S2046CR034024	4	2.9
3-1/2 x 3	S2044CR034030	S2046CR034030	4	3.2
4 x 1-1/2	S2044CR040014	S2046CR040014	4	3.3
4 x 2	S2044CR040020	S2046CR040020	4	3.0
4 x 2-1/2	S2044CR040024	S2046CR040024	4	3.4
4 x 3	S2044CR040030	S2046CR040030	4	3.6
4 x 3-1/2	S2044CR040034	S2046CR040034	4	3.8
5 x 2	S2044CR050020	S2046CR050020	5	3.9
5 x 2-1/2	S2044CR050024	S2046CR050024	5	5.5
5 x 3	S2044CR050030	S2046CR050030	5	6.0
5 x 3-1/2	S2044CR050034	S2046CR050034	5	6.2
5 x 4	S2044CR050040	S2046CR050040	5	6.4
6 x 2-1/2	S2044CR060024	S2046CR060024	5-1/2	6.5
6 x 3	S2044CR060030	S2046CR060030	5-1/2	8.3
6 x 3-1/2	S2044CR060034	S2046CR060034	5-1/2	8.7
6 x 4	S2044CR060040	S2046CR060040	5-1/2	8.9
6 x 5	S2044CR060050	S2046CR060050	5-1/2	8.9
8 x 3	S2044CR080030	S2046CR080030	6	9.4
8 x 3-1/2	S2044CR080034	S2046CR080034	6	14.1
8 x 4	S2044CR080040	S2046CR080040	6	14.4
8 x 5	S2044CR080050	S2046CR080050	6	14.7
8 x 6	S2044CR080060	S2046CR080060	6	15.3
10 x 4	S2044CR100040	S2046CR100040	7	23.1
10 x 5	S2044CR100050	S2046CR100050	7	23.9
10 x 6	S2044CR100060	S2046CR100060	7	24.5
10 x 8	S2044CR100080	S2046CR100080	7	25.4
12 x 5	S2044CR120050	S2046CR120050	8	33.4
12 x 6	S2044CR120060	S2046CR120060	8	34.1
12 x 8	S2044CR120080	S2046CR120080	8	35.2
12 x 10	S2044CR120100	S2046CR120100	8	36.6

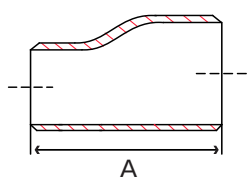
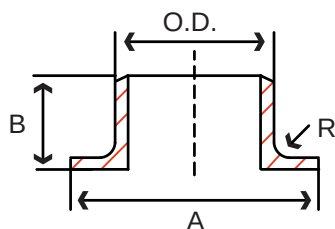


Fig. S2044ER & S2046ER - Eccentric Reducer

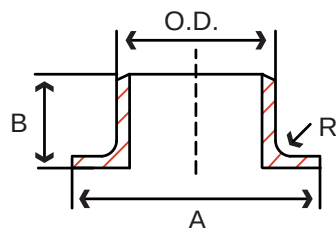
Size IN	Part Number		A IN	Weight LB
	304	316		
3/4 x 1/2	S2044ER006004	S2046ER006004	1-1/2	0.3
1 x 1/2	S2044ER010004	S2046ER010004	2	0.3
1 x 3/4	S2044ER010006	S2046ER010006	2	0.3
1-1/4 x 1/2	S2044ER012004	S2046ER012004	2	0.4
1-1/4 x 3/4	S2044ER012006	S2046ER012006	2	0.4
1-1/4 x 1	S2044ER012010	S2046ER012010	2	0.4
1-1/2 x 1/2	S2044ER014004	S2046ER014004	2-1/2	0.5
1-1/2 x 3/4	S2044ER014006	S2046ER014006	2-1/2	0.5
1-1/2 x 1	S2044ER014010	S2046ER014010	2-1/2	0.5
1-1/2 x 1-1/4	S2044ER014012	S2046ER014012	2-1/2	0.6
2 x 3/4	S2044ER020006	S2046ER020006	3	0.8
2 x 1	S2044ER020010	S2046ER020010	3	0.8
2 x 1-1/4	S2044ER020012	S2046ER020012	3	0.9
2 x 1-1/2	S2044ER020014	S2046ER020014	3	0.9
2-1/2 x 1	S2044ER024010	S2046ER024010	3-1/2	1.4
2-1/2 x 1-1/4	S2044ER024012	S2046ER024012	3-1/2	1.6
2-1/2 x 1-1/2	S2044ER024014	S2046ER024014	3-1/2	1.6
2-1/2 x 2	S2044ER024020	S2046ER024020	3-1/2	1.7
3 x 1	S2044ER030010	S2046ER030010	3-1/2	1.8
3 x 1-1/4	S2044ER030012	S2046ER030012	3-1/2	1.8
3 x 1-1/2	S2044ER030014	S2046ER030014	3-1/2	2.0
3 x 2	S2044ER030020	S2046ER030020	3-1/2	2.2
3 x 2-1/2	S2044ER030024	S2046ER030024	3-1/2	2.3
3-1/2 x 1-1/2	S2044ER034014	S2046ER034014	4	2.6
3-1/2 x 2	S2044ER034020	S2046ER034020	4	2.7
3-1/2 x 2-1/2	S2044ER034024	S2046ER034024	4	2.9
3-1/2 x 3	S2044ER034030	S2046ER034030	4	3.2
4 x 1-1/2	S2044ER040014	S2046ER040014	4	3.3
4 x 2	S2044ER040020	S2046ER040020	4	3.0
4 x 2-1/2	S2044ER040024	S2046ER040024	4	3.4
4 x 3	S2044ER040030	S2046ER040030	4	3.6
4 x 3-1/2	S2044ER040034	S2046ER040034	4	3.8
5 x 2	S2044ER050020	S2046ER050020	5	3.9
5 x 2-1/2	S2044ER050024	S2046ER050024	5	5.5
5 x 3	S2044ER050030	S2046ER050030	5	6.0
5 x 3-1/2	S2044ER050034	S2046ER050034	5	6.2
5 x 4	S2044ER050040	S2046ER050040	5	6.4
6 x 2-1/2	S2044ER060024	S2046ER060024	5-1/2	6.5
6 x 3	S2044ER060030	S2046ER060030	5-1/2	8.3
6 x 3-1/2	S2044ER060034	S2046ER060034	5-1/2	8.7
6 x 4	S2044ER060040	S2046ER060040	5-1/2	8.9
6 x 5	S2044ER060050	S2046ER060050	5-1/2	8.9
8 x 3	S2044ER080030	S2046ER080030	6	9.4
8 x 3-1/2	S2044ER080034	S2046ER080034	6	14.1
8 x 4	S2044ER080040	S2046ER080040	6	14.4
8 x 5	S2044ER080050	S2046ER080050	6	14.7
8 x 6	S2044ER080060	S2046ER080060	6	15.3
10 x 4	S2044ER100040	S2046ER100040	7	23.1
10 x 5	S2044ER100050	S2046ER100050	7	23.9
10 x 6	S2044ER100060	S2046ER100060	7	24.5
10 x 8	S2044ER100080	S2046ER100080	7	25.4
12 x 5	S2044ER120050	S2046ER120050	8	33.4
12 x 6	S2044ER120060	S2046ER120060	8	34.1
12 x 8	S2044ER120080	S2046ER120080	8	35.2
12 x 10	S2044ER120100	S2046ER120100	8	36.6

Fig. S2214MA & S2216MA - Sch 10 MSS Type A Stub End



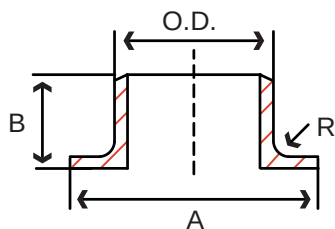
Size IN	Part Number		OD IN	A IN	B IN	R IN	Weight LB
	304/L	316/L					
1/2	S2214MA004	S2216MA004	0.840	1.38	2.00	0.125	0.1
3/4	S2214MA006	S2216MA006	1.050	1.69	2.00	0.125	0.1
1	S2214MA010	S2216MA010	1.315	2.00	2.00	0.125	0.3
1-1/4	S2214MA012	S2216MA012	1.660	2.50	2.00	0.187	0.4
1-1/2	S2214MA014	S2216MA014	1.90	2.88	2.00	0.250	0.5
2	S2214MA020	S2216MA020	2.375	3.62	2.50	0.313	0.8
2-1/2	S2214MA024	S2216MA024	2.875	4.12	2.50	0.313	1.0
3	S2214MA030	S2216MA030	3.50	5.00	2.50	0.375	1.4
3-1/2	S2214MA034	S2216MA034	4.00	5.50	3.00	0.375	1.8
4	S2214MA040	S2216MA040	4.50	6.19	3.00	0.436	2.1
5	S2214MA050	S2216MA050	5.563	7.31	3.00	0.436	2.7
6	S2214MA060	S2216MA060	6.625	8.50	3.50	0.500	4.3
8	S2214MA080	S2216MA080	8.625	10.625	4.00	0.500	6.8
10	S2214MA100	S2216MA100	10.75	12.75	5.0	0.500	10.7
12	S2214MA120	S2216MA120	12.75	15.00	6.0	0.500	12.6

Fig. S2214MC & S2216MC - Sch 10 MSS Type C Stub End

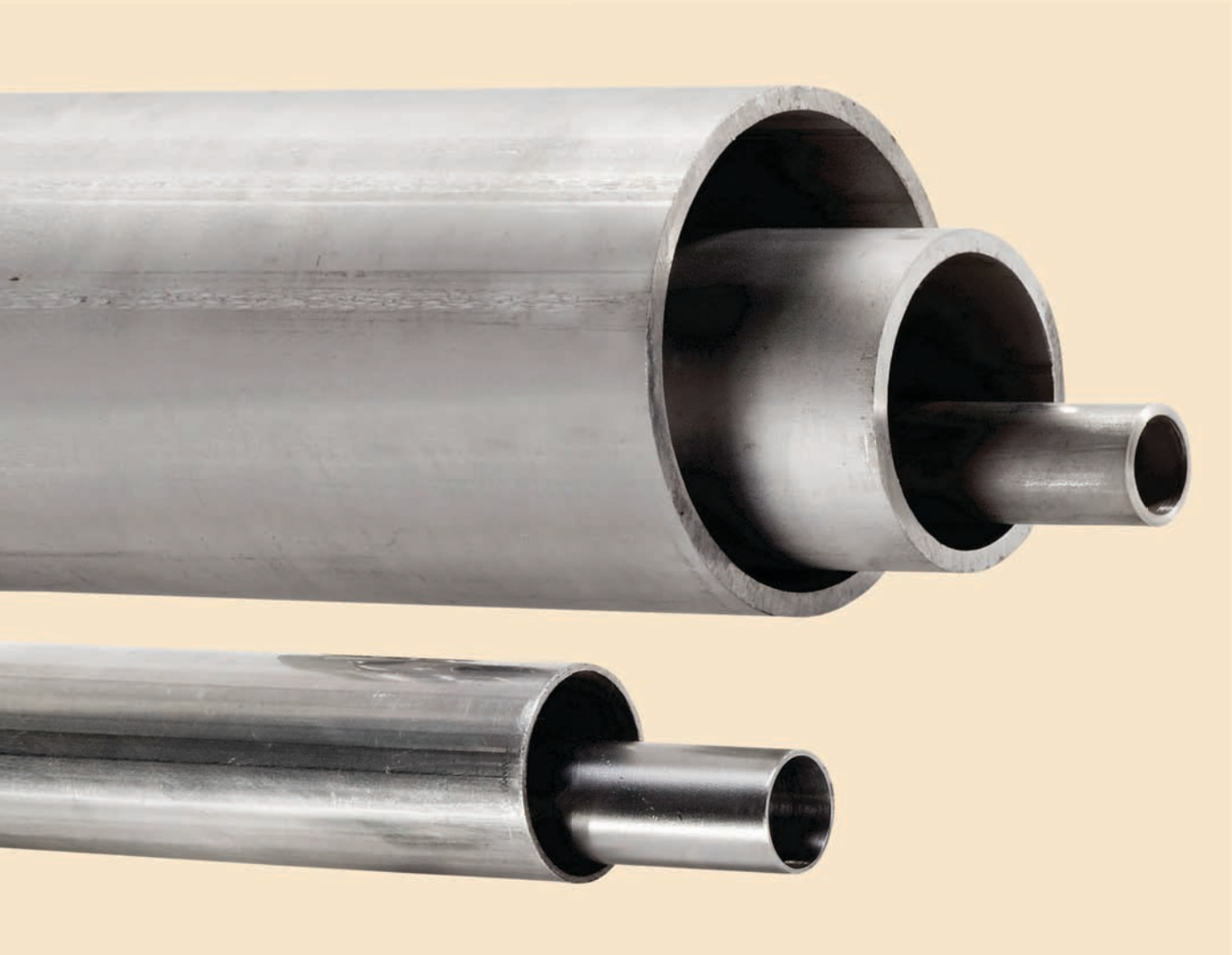


Size IN	Part Number		OD IN	A IN	B IN	R IN	Weight LB
	304/L	316/L					
1/2	S2214MC004	S2216MC004	0.840	1.38	2.00	0.031	0.1
3/4	S2214MC006	S2216MC006	1.050	1.69	2.00	0.031	0.1
1	S2214MC010	S2216MC010	1.315	2.00	2.00	0.031	0.3
1-1/4	S2214MC012	S2216MC012	1.660	2.50	2.00	0.031	0.4
1-1/2	S2214MC014	S2216MC014	1.90	2.88	2.00	0.031	0.5
2	S2214MC020	S2216MC020	2.375	3.62	2.50	0.031	0.8
2-1/2	S2214MC024	S2216MC024	2.875	4.12	2.50	0.031	1.0
3	S2214MC030	S2216MC030	3.50	5.00	2.50	0.031	1.4
3-1/2	S2214MC034	S2216MC034	4.00	5.50	3.00	0.031	1.8
4	S2214MC040	S2216MC040	4.50	6.19	3.00	0.063	2.1
5	S2214MC050	S2216MC050	5.563	7.31	3.00	0.063	2.7
6	S2214MC060	S2216MC060	6.625	8.50	3.50	0.063	4.3
8	S2214MC080	S2216MC080	8.625	10.625	4.00	0.063	6.8
10	S2214MC100	S2216MC100	10.75	12.75	5.0	0.063	10.7
12	S2214MC120	S2216MC120	12.75	15.00	6.0	0.063	12.6

Fig. S2244MA & S2246MA - Sch 40 MSS Type A Stub End



Size IN	Part Number		OD IN	A IN	B IN	R IN	Weight LB
	304 / L	316 / L					
1/2	S2244MA004	S2246MA004	0.840	1.38	2.00	0.125	0.2
3/4	S2244MA006	S2246MA006	1.050	1.69	2.00	0.125	0.3
1	S2244MA010	S2246MA010	1.315	2.00	2.00	0.125	0.4
1-1/4	S2244MA012	S2246MA012	1.660	2.50	2.00	0.187	0.5
1-1/2	S2244MA014	S2246MA014	1.90	2.88	2.00	0.250	0.8
2	S2244MA020	S2246MA020	2.375	3.62	2.50	0.313	1.1
2-1/2	S2244MA024	S2246MA024	2.875	4.12	2.50	0.313	1.7
3	S2244MA030	S2246MA030	3.50	5.00	2.50	0.375	2.5
3-1/2	S2244MA034	S2246MA034	4.00	5.50	3.00	0.375	3.2
4	S2244MA040	S2246MA040	4.50	6.19	3.00	0.436	4.0
5	S2244MA050	S2246MA050	5.563	7.31	3.00	0.436	5.6
6	S2244MA060	S2246MA060	6.625	8.50	3.50	0.500	8.2
8	S2244MA080	S2246MA080	8.625	10.625	4.00	0.500	13.0
10	S2244MA100	S2246MA100	10.75	12.75	5.0	0.500	23.0
12	S2244MA120	S2246MA120	12.75	15.00	6.0	0.500	33.0



Pipe and Tubing

Pipe Specifications

- Welded and seamless pipe material conforms to ASTM A312, ASTM A999; (ASTM A778 available on request)
- Stainless pipe dimensions conform to ASTM A999, ASME B36.19, ASME B36.10
- Manufacturing facility is ISO 9001:2008
- Pipe sold as single random lengths
- Cut-to-length, threaded and grooving available

Instrumentation Tubing Specifications

- Instrumentation tubing dimensions and materials conform to ASTM A269 and ASTM A249

Sanitary Tubing Specifications

- Sanitary tubing dimensions and materials conform to ASTM A269, ASTM A270 and 3-A Approved



Fig. S6014WP & S6016WP - Sch 10 Welded Pipe

Diameter IN	Part Number		OD IN	Wall Thickness IN	Pipe Length FT	Weight LB/Ft
	304 / L	316 / L				
1/4	S6014WP002	S6016WP002	0.54	0.065	20	0.3
3/8	S6014WP003	S6016WP003	0.67	0.065	20	0.4
1/2	S6014WP004	S6016WP004	0.84	0.083	20	0.6
3/4	S6014WP006	S6016WP006	1.05	0.083	20	0.8
1	S6014WP010	S6016WP010	1.32	0.109	20	1.4
1-1/4	S6014WP012	S6016WP012	1.66	0.109	20	1.8
1-1/2	S6014WP014	S6016WP014	1.90	0.109	20	2.0
2	S6014WP020	S6016WP020	2.37	0.109	20	2.6
2-1/2	S6014WP024	S6016WP024	2.87	0.120	20	3.5
3	S6014WP030	S6016WP030	3.50	0.120	20	4.3
3-1/2	S6014WP034	S6016WP034	4.00	0.120	20	4.9
4	S6014WP040	S6016WP040	4.50	0.120	20	5.6
5	S6014WP050	S6016WP050	5.563	0.134	20	7.7
6	S6014WP060	S6016WP060	6.625	0.134	20	9.2
8	S6014WP080	S6016WP080	8.625	0.148	20	13.4
10	S6014WP100	S6016WP100	10.750	0.165	20	18.7
12	S6014WP120	S6016WP120	12.750	0.180	20	24.2

Fig. S6044WP & S6046WP - Sch 40 Welded Pipe

Diameter IN	Part Number		OD IN	Wall Thickness IN	Pipe Length FT	Weight LB/Ft
	304 / L	316 / L				
1/8	S6044WP001	S6046WP001	0.41	0.068	20	0.2
1/4	S6044WP002	S6046WP002	0.54	0.088	20	0.4
3/8	S6044WP003	S6046WP003	0.67	0.091	20	0.5
1/2	S6044WP004	S6046WP004	0.84	0.109	20	0.8
3/4	S6044WP006	S6046WP006	1.05	0.113	20	1.1
1	S6044WP010	S6046WP010	1.32	0.113	20	1.6
1-1/4	S6044WP012	S6046WP012	1.66	0.140	20	2.2
1-1/2	S6044WP014	S6046WP014	1.90	0.145	20	2.7
2	S6044WP020	S6046WP020	2.37	0.154	20	3.6
2-1/2	S6044WP024	S6046WP024	2.87	0.203	20	5.7
3	S6044WP030	S6046WP030	3.50	0.216	20	7.5
3-1/2	S6044WP034	S6046WP034	4.00	0.226	20	9.1
4	S6044WP040	S6046WP040	4.50	0.237	20	10.7
5	S6044WP050	S6046WP050	5.563	0.258	20	14.6
6	S6044WP060	S6046WP060	6.625	0.280	20	18.9
8	S6044WP080	S6046WP080	8.625	0.322	20	28.5
10	S6044WP100	S6046WP100	10.750	0.365	20	40.4
12	S6044WP120	S6046WP120	12.750	0.375	20	49.5



Fig. S6144SP & S6146SP - Sch 40 Seamless Pipe

Diameter IN	Part Number		OD IN	Wall Thickness IN	Pipe Length FT	Weight LB/Ft
	304 / L	316 / L				
1/8	S6144SP001	S6146SP001	0.41	0.068	20	0.2
1/4	S6144SP002	S6146SP002	0.54	0.088	20	0.4
3/8	S6144SP003	S6146SP003	0.67	0.091	20	0.5
1/2	S6144SP004	S6146SP004	0.84	0.109	20	0.8
3/4	S6144SP006	S6146SP006	1.05	0.113	20	1.1
1	S6144SP010	S6146SP010	1.32	0.113	20	1.6
1-1/4	S6144SP012	S6146SP012	1.66	0.140	20	2.2
1-1/2	S6144SP014	S6146SP014	1.90	0.145	20	2.7
2	S6144SP020	S6146SP020	2.37	0.154	20	3.6
2-1/2	S6144SP024	S6146SP024	2.87	0.203	20	5.7
3	S6144SP030	S6146SP030	3.50	0.216	20	7.5
3-1/2	S6144SP034	S6146SP034	4.00	0.226	20	9.1
4	S6144SP040	S6146SP040	4.50	0.237	20	10.7
5	S6144SP050	S6146SP050	5.563	0.258	20	14.6
6	S6144SP060	S6146SP060	6.625	0.280	20	18.9
8	S6144SP080	S6146SP080	8.625	0.322	20	28.5
10	S6144SP100	S6146SP100	10.750	0.365	20	40.4
12	S6144SP120	S6146SP120	12.750	0.375	20	49.5

Fig. S6184SP & S6186SP - Sch 80 Seamless Pipe

Diameter IN	Part Number		OD IN	Wall Thickness IN	Pipe Length FT	Weight LB/Ft
	304 / L	316 / L				
1/8	S6184SP001	S6186SP001	0.41	0.095	20	0.3
1/4	S6184SP002	S6186SP002	0.54	0.119	20	0.5
3/8	S6184SP003	S6186SP003	0.67	0.126	20	0.7
1/2	S6184SP004	S6186SP004	0.84	0.147	20	1.0
3/4	S6184SP006	S6186SP006	1.05	0.154	20	1.4
1	S6184SP010	S6186SP010	1.32	0.179	20	2.1
1-1/4	S6184SP012	S6186SP012	1.66	0.191	20	2.9
1-1/2	S6184SP014	S6186SP014	1.90	0.200	20	3.6
2	S6184SP020	S6186SP020	2.37	0.218	20	5.0
2-1/2	S6184SP024	S6186SP024	2.87	0.276	20	7.6
3	S6184SP030	S6186SP030	3.50	0.300	20	10.2
3-1/2	S6184SP034	S6186SP034	4.00	0.318	20	12.5
4	S6184SP040	S6186SP040	4.50	0.337	20	14.9
5	S6184SP050	S6186SP050	5.563	0.375	20	20.7
6	S6184SP060	S6186SP060	6.625	0.432	20	28.5
8	S6184SP080	S6186SP080	8.625	0.500	20	43.3
10	S6184SP100	S6186SP100	10.750	0.500	20	54.7
12	S6184SP120	S6186SP120	12.750	0.500	20	65.4

Fig. S63WT4 & S63WT6 – Welded Instrumentatin Tubing

Tube OD IN	Wall Thickness IN	Part Number		ID IN	Tube Length FT	Weight LB/Ft
		304 / L	316 / L			
3/16	0.350	S63WT4035316	S63WT6035316	0.118	20	0.05
1/4	0.028	S63WT4028002	S63WT6028002	0.194	20	0.06
1/4	0.035	S63WT4035002	S63WT6035002	0.180	20	0.08
1/4	0.049	S63WT4049002	S63WT6049002	0.152	20	0.1
5/16	0.035	S63WT4035516	S63WT6035516	0.243	20	0.1
3/8	0.049	S63WT4049003	S63WT6049003	0.277	20	0.1
3/8	0.065	S63WT4065003	S63WT6065003	0.245	20	0.2
1/2	0.035	S63WT4035004	S63WT6035004	0.430	20	0.1
1/2	0.049	S63WT4049004	S63WT6049004	0.402	20	0.2
1/2	0.650	S63WT4065004	S63WT6065004	0.370	20	0.3
5/8	0.035	S63WT4035005	S63WT6035005	0.555	20	0.2
5/8	0.049	S63WT4049005	S63WT6049005	0.527	20	0.3
5/8	0.065	S63WT4065005	S63WT6065005	0.495	20	0.3
3/4	0.035	S63WT4035006	S63WT6035006	0.680	20	0.2
3/4	0.049	S63WT4049006	S63WT6049006	0.652	20	0.3
3/4	0.065	S63WT4065006	S63WT6065006	0.620	20	0.4
1	0.035	S63WT4035010	S63WT6035010	0.930	20	0.3
1	0.049	S63WT4049010	S63WT6049010	0.902	20	0.4
1	0.065	S63WT4065010	S63WT6065010	0.870	20	0.6
1-1/4	0.065	S63WT4065012	S63WT6065012	1.120	20	0.8
1-1/2	0.065	S63WT4065014	S63WT6065014	1.370	20	0.9
2	0.065	S63WT4065020	S63WT6065020	1.870	20	1.3
2	0.083	S63WT4083020	S63WT6083020	1.834	20	1.6

Fig. S64ST4 & S64ST6 – Seamless Instrumentation Tubing

Tube OD IN	Wall Thickness IN	Part Number		ID IN	Tube Length FT	Weight LB/Ft
		304/L	316/L			
1/4	0.035	S64ST4035002	S64ST6035002	0.180	20	0.08
1/4	0.049	S64ST4049002	S64ST6049002	0.152	20	0.1
1/4	0.065	S64ST4065002	S64ST6065002	0.120	20	0.1
5/16	0.035	S64ST4035516	S64ST6035516	0.243	20	0.1
3/8	0.035	S64ST4035003	S64ST6035003	0.305	20	0.1
3/8	0.049	S64ST4049003	S64ST6049003	0.277	20	0.1
3/8	0.065	S64ST4065003	S64ST6065003	0.245	20	0.2
1/2	0.035	S64ST4035004	S64ST6035004	0.430	20	0.1
1/2	0.049	S64ST4049004	S64ST6049004	0.402	20	0.2
1/2	0.650	S64ST4065004	S64ST6065004	0.370	20	0.3
5/8	0.035	S64ST4035005	S64ST6035005	0.555	20	0.2
5/8	0.049	S64ST4049005	S64ST6049005	0.527	20	0.3
5/8	0.065	S64ST4065005	S64ST6065005	0.495	20	0.3
3/4	0.035	S64ST4035006	S64ST6035006	0.680	20	0.2
3/4	0.049	S64ST4049006	S64ST6049006	0.652	20	0.3
3/4	0.065	S64ST4065006	S64ST6065006	0.620	20	0.4
1	0.035	S64ST4035010	S64ST6035010	0.930	20	0.3
1	0.049	S64ST4049010	S64ST6049010	0.902	20	0.4
1	0.065	S64ST4065010	S64ST6065010	0.870	20	0.6
1	0.083	S64ST4083010	S64ST6083010	0.834	20	0.8
1	0.095	S64ST4095010	S64ST6095010	0.810	20	0.9
1	0.120	S64ST4120010	S64ST6120010	0.760	20	1.1

Fig. S62TP4 & S62TP6 – Sanitary Tubing

Tube OD IN	Part Number		Wall Thickness IN	I.D. IN	Tube Length FT	Weight LB/FT
	304	316				
1/2	S62TP46004	S62TP66004	0.065	0.370	20	0.3
3/4	S62TP46006	S62TP66006	0.065	0.620	20	0.5
1	S62TP46010	S62TP66010	0.065	0.870	20	0.6
1-1/2	S62TP46014	S62TP66014	0.065	1.370	20	0.9
2	S62TP46020	S62TP66020	0.065	1.870	20	1.3
2-1/2	S62TP46024	S62TP66024	0.065	2.370	20	1.6
3	S62TP46030	S62TP66030	0.065	2.870	20	2.0
4	S62TP48040	S62TP68040	0.083	3.834	20	3.4
6	S62TP49060	S62TP69060	0.109	5.782	20	5.3

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