



## BPE Fittings



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High Purity Industries

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# BPE Fittings

YOUR CHOICE:

We offer:

- BPE Compliant Made in the USA
- BPE Certified Manufacturing

It's easy!

Just specify which option when ordering!



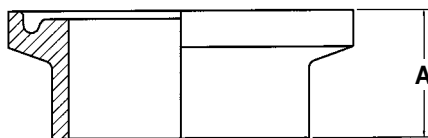
## BPE Fittings Specifications

Size Range: 1/2" OD - 6" OD

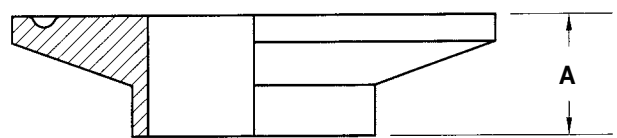
Materials: 316L (Stock No. Prefix 40) for weld connections  
316L (Stock No. Prefix 48) for clamp connections

Finish: No. 7 - 20R<sub>a</sub> ID (SF1)/32R<sub>a</sub> OD (BPE SF1)  
No. 7EP - 15R<sub>a</sub> ID electropolish/32R<sub>a</sub> OD (BPE SF4)  
10R<sub>a</sub> ID available

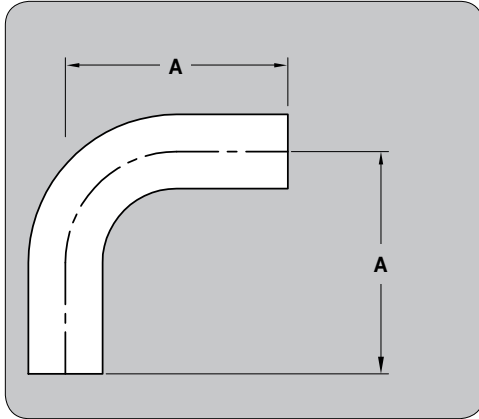
### Ferrule Type:



TYPE "A" FERRULE



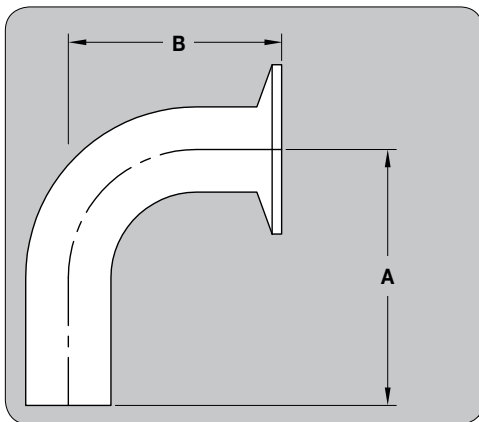
TYPE "B" FERRULE



TL2S – Elbow 90° Weld Ends BPE 316L

BPE# DT-4.1.1-1

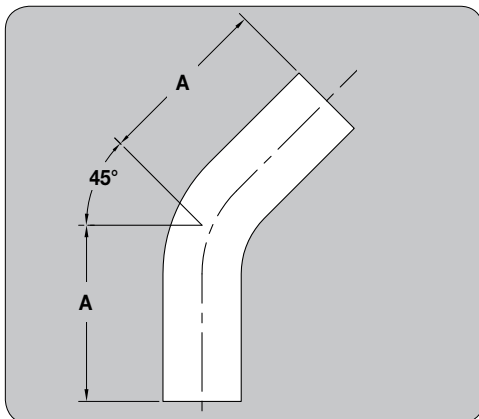
SIZE (TUBE O.D.)	A	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
1/2	3	40705-7	40705-7EP
3/4	3	40707-7	40707-7EP
1	3	40710-7	40710-7EP
1-1/2	3-3/4	40715-7	40715-7EP
2	4-3/4	40720-7	40720-7EP
2-1/2	5-1/2	40725-7	40725-7EP
3	6-1/4	40730-7	40730-7EP
4	8	40740-7	40740-7EP
6	11-1/2	40760-7	40760-7EP



TL2CMS – Elbow 90° Weld X Clamp BPE 316L

BPE# DT-4.1.1-2

SIZE (TUBE O.D.)	TYPE	A	B	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
1/2	A	3	1-5/8	407MS05-7	407MS05-7EP
3/4	A	3	1-5/8	407MS07-7	407MS07-7EP
1	A	3	2	-	-
1	B	3	2	407MS10-7	407MS10-7EP
1-1/2	B	3-3/4	2-3/4	407MS15-7	407MS15-7EP
2	B	4-3/4	3-1/2	407MS20-7	407MS20-7EP
2-1/2	B	5-1/2	4-1/4	407MS25-7	407MS25-7EP
3	B	6-1/4	5	407MS30-7	407MS30-7EP
4	B	8	6-5/8	407MS40-7	407MS40-7EP
6	B	11-1/2	10-1/2	407MS60-7	-



TL2KS – Elbow 45° Weld Ends BPE 316L

BPE# DT-4.1.1-4

SIZE (TUBE O.D.)	A	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
1/2	2-1/4	40805-7	40805-7EP
3/4	2-1/4	40807-7	40807-7EP
1	2-1/4	40810-7	40810-3EP
1-1/2	2-1/2	40815-7	40815-7EP
2	3	40820-7	40820-7EP
2-1/2	3-3/8	40825-7	40825-7EP
3	3-5/8	40830-7	40830-7EP
4	4-1/2	40840-7	40840-7EP
6	6-1/4	40860-7	-

# ELBOWS

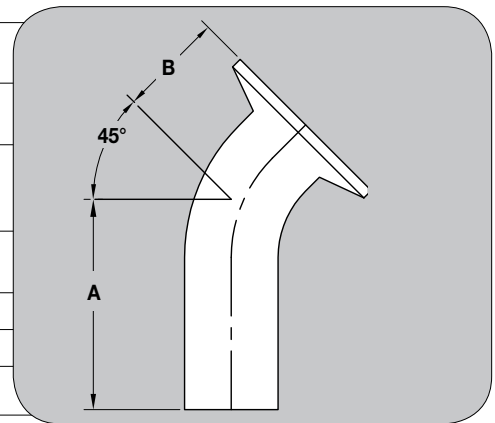
## BPE FITTINGS



BPE# DT-4.1.1-5

### TL2KMS – Elbow 45° Weld X Clamp BPE 316L

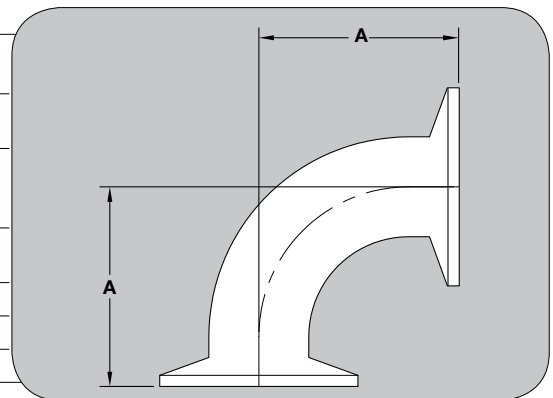
SIZE (TUBE O.D.)	TYPE	A	B	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
1/2	A	2-1/4	1	408MS05-7	408MS05-7EP
3/4	A	2-1/4	1	408MS07-7	408MS07-7EP
1	A	2-1/4	1-1/8	–	–
1	B	2-1/4	1-1/8	408MS10-7	408MS10-7EP
1-1/2	B	2-1/2	1-7/16	408MS15-7	408MS15-7EP
2	B	3	1-3/4	408MS20-7	408MS20-7EP
2-1/2	B	3-3/8	2-1/16	408MS25-7	408MS25-7EP
3	B	3-5/8	2-3/8	408MS30-7	408MS30-7EP
4	B	4-1/2	3-1/8	408MS40-7	408MS40-7EP
6	B	6-1/4	5-1/4	408MS60-7	–



BPE# DT-4.1.1-3

### 2CMP – Elbow 90° Clamp Ends BPE 316L

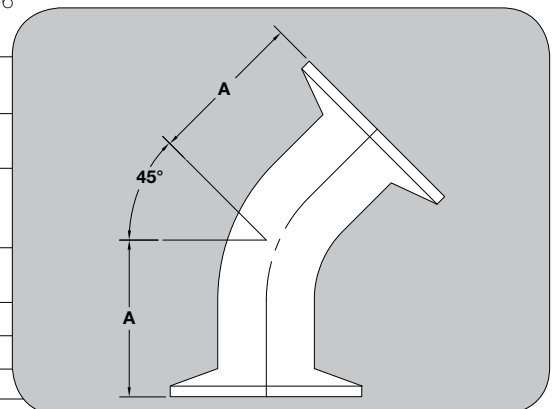
SIZE (TUBE O.D.)	TYPE	A	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
1/2	A	1-5/8	48705-7	48705-7EP
3/4	A	1-5/8	48707-7	48707-7EP
1	A	2	–	–
1	B	2	48710-7	48710-7EP
1-1/2	B	2-3/4	48715-7	48715-7EP
2	B	3-1/2	48720-7	48720-7EP
2-1/2	B	4-1/4	48725-7	48725-7EP
3	B	5	48730-7	48730-7EP
4	B	6-5/8	48740-7	48740-7EP
6	B	10-1/2	48760-7	48760-7EP

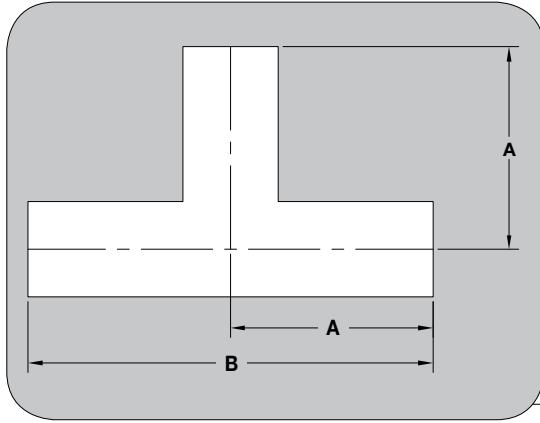


BPE# DT-4.1.1-6

### 2KMP – Elbow 45° Clamp Ends BPE 316L

SIZE (TUBE O.D.)	TYPE	A	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
1/2	A	1	48805-7	48805-7EP
3/4	A	1	48807-7	48807-7EP
1	A	1-1/8	–	–
1	B	1-1/8	48810-7	48810-7EP
1-1/2	B	1-7/16	48815-7	48815-7EP
2	B	1-3/4	48820-7	48820-7EP
2-1/2	B	2-1/16	48825-7	48825-7EP
3	B	2-3/8	48830-7	48830-7EP
4	B	3-1/8	48840-7	48840-7EP
6	B	5-1/4	48860-7	–

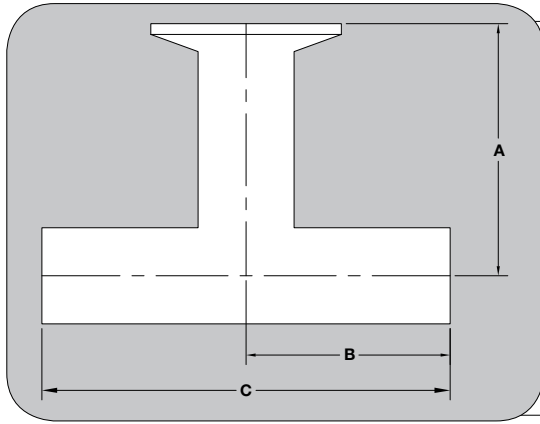




TL7WWW – Tee Weld Ends BPE 316L

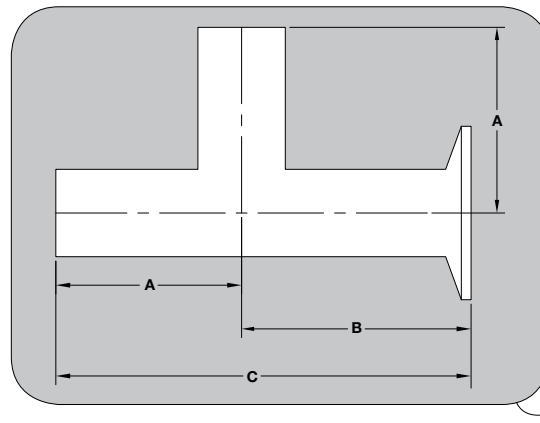
BPE# DT-4.1.2-1

SIZE (TUBE O.D.)	A	B	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
1/2	1-7/8	3-3/4	401105-7	401105-7EP
3/4	2-3/8	4	401107-7	401107-7EP
1	2-1/8	4-1/4	401110-7	401110-7EP
1-1/2	2-3/8	4-3/4	401115-7	401115-7EP
2	2-7/8	5-3/4	401120-7	401120-7EP
2-1/2	3-1/8	6-1/4	401125-7	401125-7EP
3	3-3/8	6-3/4	401130-7	401130-7EP
4	4-1/8	8-1/4	401140-7	401140-7EP
6	5-5/8	11-1/4	401160-7	401160-7EP



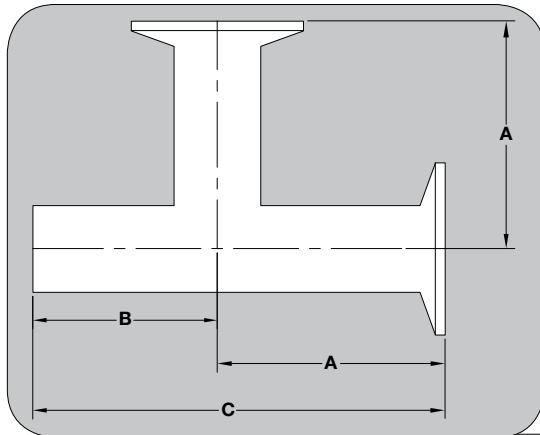
TL7WWM – Tee Weld X Weld X Clamp 316L

SIZE (TUBE O.D.)	TYPE	A	B	C	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
1/2	A	2-1/4	1-7/8	3-3/4	4011MB05-7	4011MB05-7EP
3/4	A	2-3/8	2	4	4011MB07-7	4011MB07-7EP
1	A	2-5/8	2-1/8	4-1/4	-	-
1	B	2-5/8	2-1/8	4-1/4	4011MB10-7	4011MB10-7EP
1-1/2	B	2-7/8	2-3/8	4-3/4	4011MB15-7	4011MB15-7EP
2	B	3-3/8	2-7/8	5-3/4	4011MB20-7	4011MB20-7EP
2-1/2	B	3-5/8	3-1/8	6-1/4	4011MB25-7	4011MB25-7EP
3	B	3-7/8	3-3/8	6-3/4	4011MB30-7	4011MB30-7EP
4	B	4-3/4	4-1/8	8-1/4	4011MB40-7	4011MB40-7EP
6	B	7-1/8	5-5/8	11-1/4	-	-



TL7WMW – Tee Weld X Clamp X Weld 316L

SIZE (TUBE O.D.)	TYPE	A	B	C	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
1/2	A	1-7/8	2-3/8	4-1/4	4011M05-7	4011M05-7EP
3/4	A	2	2-1/2	4-1/2	4011M07-7	4011M07-7EP
1	A	2-1/8	2-5/8	4-3/4	-	-
1	B	2-1/8	2-5/8	4-3/4	4011M10-7	4011M10-7EP
1-1/2	B	2-3/8	2-7/8	5-1/4	4011M15-7	4011M15-7EP
2	B	2-7/8	3-3/8	6-1/4	4011M20-7	4011M20-7EP
2-1/2	B	3-1/8	3-5/8	6-3/4	4011M25-7	4011M25-7EP
3	B	3-3/8	3-7/8	7-1/4	4011M30-7	4011M30-7EP
4	B	4-1/8	4-3/4	8-7/8	4011M40-7	4011M40-7EP
6	B	5-5/8	7-1/8	12-3/4	-	-



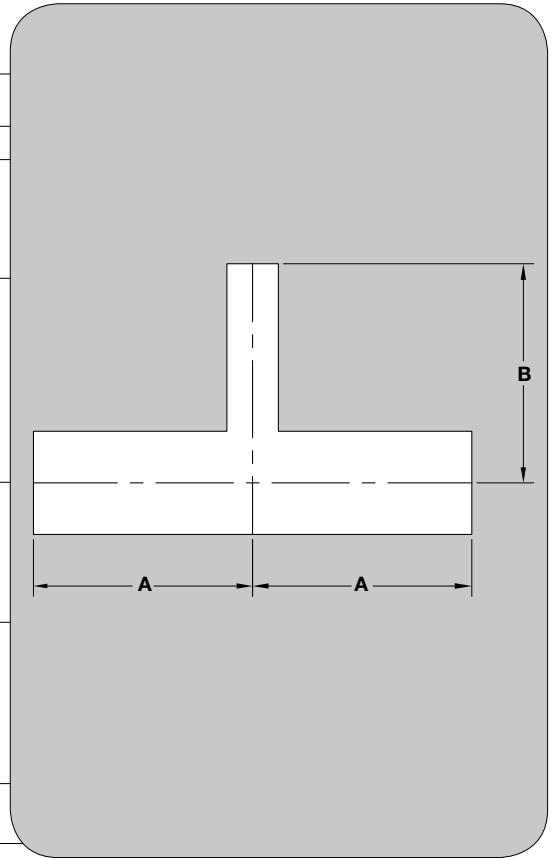
TL7WMM – Tee Weld X Clamp X Clamp 316L

SIZE (TUBE O.D.)	TYPE	A	B	C	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
1/2	A	2-3/8	1-7/8	4-1/4	4011MMB05-7	4011MMB05-7EP
3/4	A	2-1/2	2	4-1/2	4011MMB07-7	4011MMB07-7EP
1	A	2-5/8	2-1/8	4-3/4	-	-
1	B	2-5/8	2-1/8	4-3/4	4011MMB10-7	4011MMB10-7EP
1-1/2	B	2-7/8	2-3/8	5-1/4	4011MMB15-7	4011MMB15-7EP
2	B	3-3/8	2-7/8	6-1/4	4011MMB20-7	4011MMB20-7EP
2-1/2	B	3-5/8	3-1/8	6-3/4	4011MMB25-7	4011MMB25-7EP
3	B	3-7/8	3-3/8	7-1/4	4011MMB30-7	4011MMB30-7EP
4	B	4-3/4	4-1/8	8-7/8	4011MMB40-7	4011MMB40-7EP
6	B	7-1/8	5-5/8	12-3/4	-	-

BPE# DT-4.1.2-6

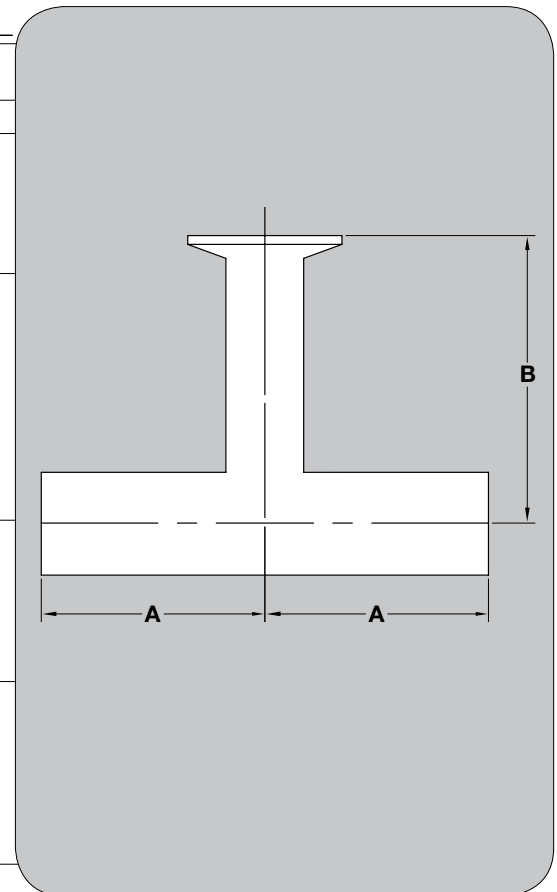
TL7RWWW – Tee Reducing Weld Ends BPE 316L

SIZE	A	B	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
3/4 X 1/2	2	2	401107R05-7	401107R05-7EP
1 X 1/2	2-1/8	2-1/8	401110R05-7	401110R05-7EP
1 X 3/4	2-1/8	2-1/8	401110R07-7	401110R07-7EP
1-1/2 X 1/2	2-3/8	2-3/8	401115R05-7	401115R05-7EP
1-1/2 X 3/4	2-3/8	2-3/8	401115R07-7	401115R07-7EP
1-1/2 X 1	2-3/8	2-3/8	401115R10-7	401115R10-7EP
2 X 1/2	2-7/8	2-5/8	401120R05-7	401120R05-7EP
2 X 3/4	2-7/8	2-5/8	401120R07-7	401120R07-7EP
2 X 1	2-7/8	2-5/8	401120R10-7	401120R10-7EP
2 X 1-1/2	2-7/8	2-5/8	401120R15-7	401120R15-7EP
2-1/2 X 1/2	3-1/8	2-7/8	401125R05-7	401125R05-7EP
2-1/2 X 3/4	3-1/8	2-7/8	401125R07-7	401125R07-7EP
2-1/2 X 1	3-1/8	2-7/8	401125R10-7	401125R10-7EP
2-1/2 X 1-1/2	3-1/8	2-7/8	401125R15-7	401125R15-7EP
2-1/2 X 2	3-1/8	2-7/8	401125R20-7	401125R20-7EP
3 X 1/2	3-3/8	3-1/8	401130R05-7	401130R05-7EP
3 X 3/4	3-3/8	3-1/8	401130R07-7	401130R07-7EP
3 X 1	3-3/8	3-1/8	401130R10-7	401130R10-7EP
3 X 1-1/2	3-3/8	3-1/8	401130R15-7	401130R15-7EP
3 X 2	3-3/8	3-1/8	401130R20-7	401130R20-7EP
3 X 2-1/2	3-3/8	3-1/8	401130R25-7	401130R25-7EP
4 X 1/2	4-1/8	3-5/8	401140R05-7	401140R05-7EP
4 X 3/4	4-1/8	3-5/8	401140R07-7	-
4 X 1	4-1/8	3-5/8	401140R10-7	401140R10-7EP
4 X 1-1/2	4-1/8	3-5/8	401140R15-7	401140R15-7EP
4 X 2	4-1/8	3-7/8	401140R20-7	401140R20-7EP
4 X 2-1/2	4-1/8	3-7/8	401140R25-7	401140R25-7EP
4 X 3	4-1/8	3-7/8	401140R30-7	401140R30-7EP
6 X 3	5-5/8	4-7/8	401160R30-7	-
6 X 4	5-5/8	5-1/8	401160R40-7	401160R40-7EP

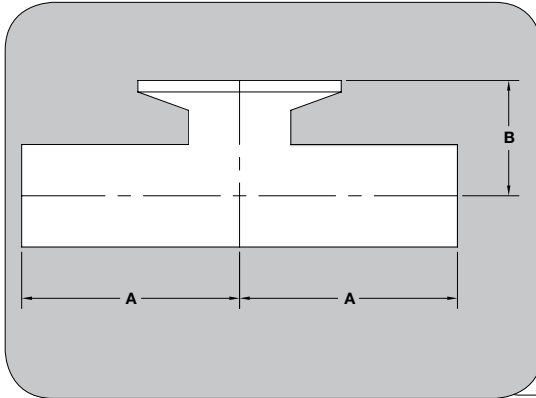


TL7RWWW – Tee Reducing Weld X Weld X Clamp 316L

SIZE	TYPE	A	B	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
3/4 X 1/2	A	2	2-1/2	401107MB05-7	-
1 X 1/2	A	2-1/8	2-5/8	401110MB05-7	-
1 X 3/4	A	2-1/8	2-5/8	401110MB07-7	-
1-1/2 X 1/2	A	2-3/8	2-7/8	401115MB05-7	-
1-1/2 X 3/4	A	2-3/8	2-7/8	401115MB07-7	-
1-1/2 X 1	A	2-3/8	2-7/8	-	-
1-1/2 X 1	B	2-3/8	2-7/8	401115MB10-7	401115MB10-7EP
2 X 1/2	A	2-7/8	3-1/8	-	-
2 X 3/4	A	2-7/8	3-1/8	401120MB07-7	-
2 X 1	A	2-7/8	3-1/8	-	-
2 X 1	B	2-7/8	3-1/8	401120MB10-7	-
2 X 1-1/2	B	2-7/8	3-1/8	401120MB15-7	401120MB15-7EP
2-1/2 X 1/2	A	3-1/8	3-3/8	-	-
2-1/2 X 3/4	A	3-1/8	3-3/8	-	-
2-1/2 X 1	A	3-1/8	3-3/8	-	-
2-1/2 X 1	B	3-1/8	3-3/8	-	-
2-1/2 X 1-1/2	B	3-1/8	3-3/8	401125MB15-7	-
2-1/2 X 2	B	3-1/8	3-3/8	401125MB20-7	-
3 X 1/2	A	3-3/8	3-5/8	-	-
3 X 3/4	A	3-3/8	3-5/8	-	-
3 X 1	A	3-3/8	3-5/8	-	-
3 X 1	B	3-3/8	3-5/8	401130MB10-7	-
3 X 1-1/2	B	3-3/8	3-5/8	401130MB15-7	-
3 X 2	B	3-3/8	3-5/8	401130MB20-7	-
3 X 2-1/2	B	3-3/8	3-5/8	401130MB25-7	-
4 X 1/2	A	4-1/8	4-1/8	401140MB05-7	-
4 X 3/4	A	4-1/8	4-1/8	401140MB07-7	-
4 X 1	A	4-1/8	4-1/8	-	-
4 X 1	B	4-1/8	4-1/8	401140MB10-7	-
4 X 1-1/2	B	4-1/8	4-1/8	401140MB15-7	-
4 X 2	B	4-1/8	4-3/8	401140MB20-7	-
4 X 2-1/2	B	4-1/8	4-3/8	401140MB25-7	-
4 X 3	B	4-1/8	4-3/8	401140MB30-7	-
6 X 4	B	5-5/8	5-3/4	-	-



BPE# DT-4.1.2-2

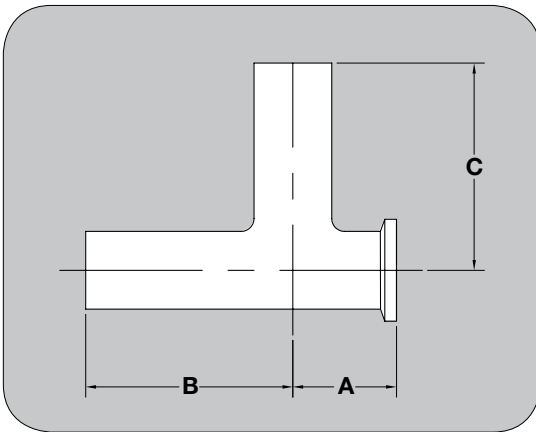


TL7WWMS – Tee Weld X Weld X Short Outlet Clamp BPE 316L

SIZE (TUBE O.D.)	TYPE	A	B	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
1/2	A	1-7/8	1	401105S-7*	401105S-7EP*
3/4	A	2	1-1/8	401107S-7	401107S-7EP
1	A	2-1/8	1-1/8	–	–
1	B	2-1/8	1-1/8	401110S-7*	401110S-7EP*
1-1/2	B	2-3/8	1-3/8	401115S-7*	401115S-7EP*
2	B	2-7/8	1-5/8	401120S-7	401120S-7EP
2-1/2	B	3-1/8	1-7/8	401125S-7	401125S-7EP
3	B	3-3/8	2-1/8	401130S-7*	401130S-7EP*
4	B	4-1/8	2-3/4	401140S-7*	401140S-7EP*
6	B	5-5/8	4-5/8	401160S-7*	–

\*DOES NOT MEET MINIMUM TANGENT LENGTHS IN BPE TABLE DT-4.1.1

BPE# DT-4.1.2-3

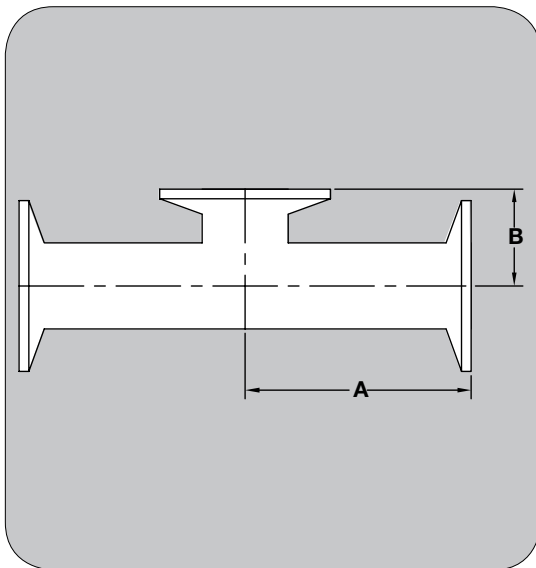


TL7WMSW – Tee Weld X Short Outlet Clamp X Weld BPE 316L

SIZE (TUBE O.D.)	TYPE	A	B	C	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
1/2	A	7/8	1-7/8	1-7/8	4011MS05-7	4011MS05-7EP
3/4	A	1	2	2	4011MS07-7	4011MS07-7EP
1	A	1-1/8	2-1/8	2-1/8	–	–
1	B	1-1/8	2-1/8	2-1/8	4011MS10-7*	4011MS10-7EP*
1-1/2	B	1-3/8	2-3/8	2-3/8	4011MS15-7*	4011MS15-7EP*
2	B	1-5/8	2-7/8	2-7/8	4011MS20-7	4011MS20-7EP
2-1/2	B	1-7/8	3-1/8	3-1/8	4011MS25-7	4011MS25-7EP
3	B	2-1/8	3-3/8	3-3/8	4011MS30-7*	4011MS30-7EP*
4	B	2-3/4	4-1/8	4-1/8	4011MS40-7*	4011MS40-7EP*
6	B	4-5/8	5-5/8	5-5/8	–	–

\*DOES NOT MEET MINIMUM TANGENT LENGTHS IN BPE TABLE DT-4.1.1

BPE# DT-4.1.2-5



7MPS – Tee Clamp X Clamp X Short Outlet Clamp BPE 316L

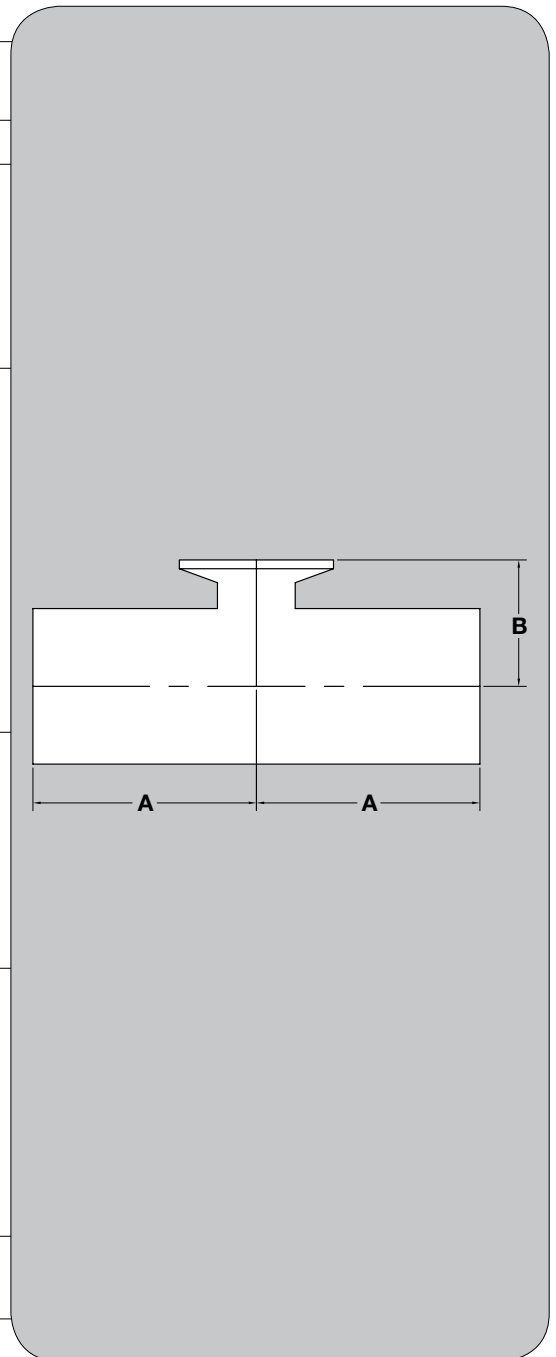
SIZE (TUBE O.D.)	TYPE	A	B	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
1/2	A	2-1/4	1	481105S-7	481105S-7EP
3/4	A	2-3/8	1-1/8	481107S-7	481107S-7EP
1	A	2-5/8	1-1/8	–	–
1	B	2-5/8	1-1/8	481110S-7	481110S-7EP
1-1/2	B	2-7/8	1-3/8	481115S-7	481115S-7EP
2	B	3-3/8	1-5/8	481120S-7	481120S-7EP
2-1/2	B	3-5/8	1-7/8	481125S-7	481125S-7EP
3	B	3-7/8	2-1/8	481130S-7	481130S-7EP
4	B	4-3/4	2-3/4	481140S-7	481140S-7EP
6	B	7-1/8	4-5/8	–	–

BPE# DT-4.1.2-7

## TL7RWWMS – Tee Reducing Weld Ends BPE 316L

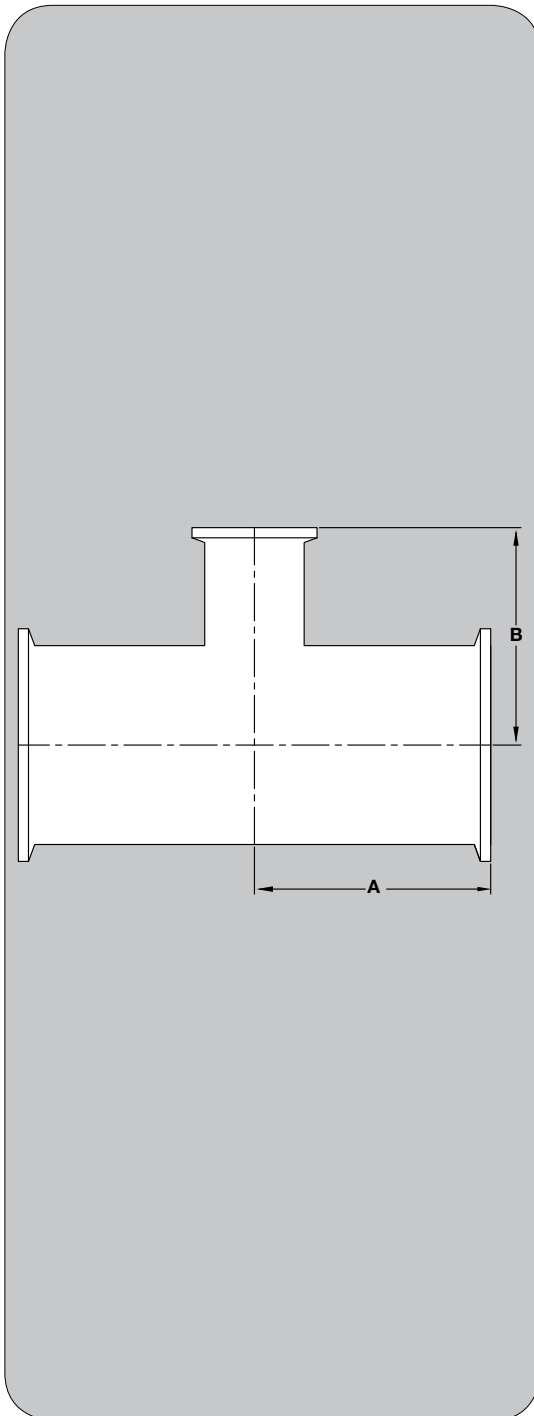
SIZE (TUBE O.D.)	TYPE	A	B	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
3/4 X 1/2	A	2	1	401107RS05-7	401107RS05-7EP
1 X 1/2	A	2-1/8	1-1/8	401110RS05-7	401110RS05-7EP
1 X 3/4	A	2-1/8	1-1/8	401110RS07-7	401110RS07-7EP
1-1/2 X 1/2	A	2-3/8	1-3/8	401115RS05-7	401115RS05-7EP
1-1/2 X 3/4	A	2-3/8	1-3/8	401115RS07-7	401115RS07-7EP
1-1/2 X 1	A	2-3/8	1-3/8	-	-
1-1/2 X 1	B	2-3/8	1-3/8	401115RS10-7*	401115RS10-7EP*
2 X 1/2	A	2-7/8	1-5/8	401120RS05-7	401120RS05-7EP
2 X 3/4	A	2-7/8	1-5/8	401120RS07-7	401120RS07-7EP
2 X 1	A	2-7/8	1-5/8	-	-
2 X 1	B	2-7/8	1-5/8	401120RS10-7	401120RS10-7EP
2 X 1-1/2	B	2-7/8	1-5/8	401120RS15-7	401120RS15-7EP
2-1/2 X 1/2	A	3-1/8	1-7/8	401125RS05-7	401125RS05-7EP
2-1/2 X 3/4	A	3-1/8	1-7/8	401125RS07-7	401125RS07-7EP
2-1/2 X 1	A	3-1/8	1-7/8	-	-
2-1/2 X 1	B	3-1/8	1-7/8	401125RS10-7	401125RS10-7EP
2-1/2 X 1-1/2	B	3-1/8	1-7/8	401125RS15-7	401125RS15-7EP
2-1/2 X 2	B	3-1/8	1-7/8	401125RS20-7	401125RS20-7EP
3 X 1/2	A	3-3/8	2-1/8	401130RS05-7	401130RS05-7EP
3 X 3/4	A	3-3/8	2-1/8	401130RS07-7	401130RS07-7EP
3 X 1	A	3-3/8	2-1/8	-	-
3 X 1	B	3-3/8	2-1/8	401130RS10-7	401130RS10-7EP
3 X 1-1/2	B	3-3/8	2-1/8	401130RS15-7	401130RS15-7EP
3 X 2	B	3-3/8	2-1/8	401130RS20-7	401130RS20-7EP
3 X 2-1/2	B	3-3/8	2-1/8	401130RS25-7	401130RS25-7EP
4 X 1/2	A	4-1/8	2-5/8	401140RS05-7	401140RS05-7EP
4 X 3/4	A	4-1/8	2-5/8	401140RS07-7	-
4 X 1	A	4-1/8	2-5/8	-	-
4 X 1	B	4-1/8	2-5/8	401140RS10-7	401140RS10-7EP
4 X 1-1/2	B	4-1/8	2-5/8	401140RS15-7	401140RS15-7EP
4 X 2	B	4-1/8	2-5/8	401140RS20-7	401140RS20-7EP
4 X 2-1/2	B	4-1/8	2-5/8	401140RS25-7	401140RS25-7EP
4 X 3	B	4-1/8	2-5/8	401140RS30-7	401140RS30-7EP
6 X 3	B	5-5/8	3-5/8	401160RS30-7	-
6 X 4	B	5-5/8	3-3/4	401160RS40-7	-

\*DOES NOT MEET MINIMUM TANGENT LENGTHS IN BPE TABLE DT-4.1.1





7RMP – Tee Reducing Clamp Ends BPE 316L BPE# DT-4.1.2-8

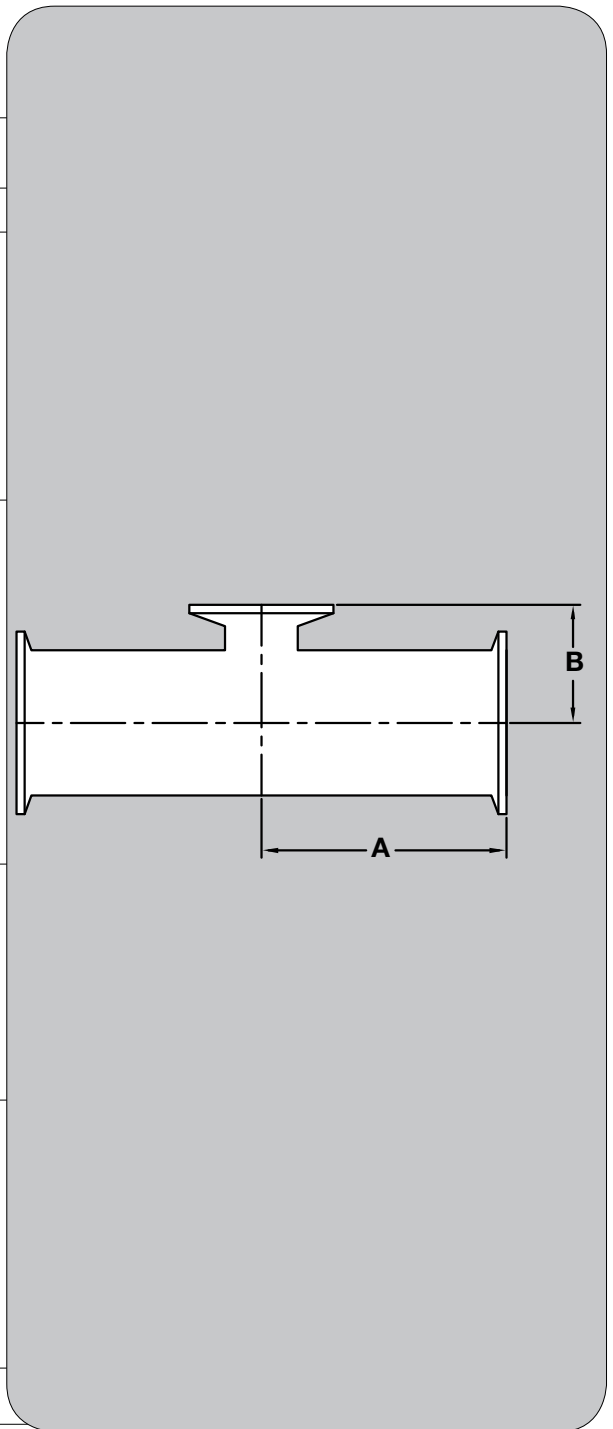


SIZE (TUBE O.D.)	TYPE	A	B	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
3/4 X 1/2	A/A	2-1/2	2-1/2	481107R05-7	481107R05-7EP
1 X 1/2	A/A	2-5/8	2-5/8	-	-
1 X 1/2	B/A	2-5/8	2-5/8	481110R05-7	481110R05-7EP
1 X 3/4	A/A	2-5/8	2-5/8	-	-
1 X 3/4	B/A	2-5/8	2-5/8	481110R07-7	481110R07-7EP
1-1/2 X 1/2	B/A	2-7/8	2-7/8	481115R05-7	481115R05-7EP
1-1/2 X 3/4	B/A	2-7/8	2-7/8	481115R07-7	481115R07-7EP
1-1/2 X 1	B/A	2-7/8	2-7/8	-	-
1-1/2 X 1	B/B	2-7/8	2-7/8	481115R10-7	481115R10-7EP
2 X 1/2	B/A	3-3/8	3-1/8	481120R05-7	481120R05-7EP
2 X 3/4	B/A	3-3/8	3-1/8	481120R07-7	481120R07-7EP
2 X 1	B/A	3-3/8	3-1/8	-	-
2 X 1	B/B	3-3/8	3-1/8	481120R10-7	481120R10-7EP
2 X 1-1/2	B/B	3-3/8	3-1/8	481120R15-7	481120R15-7EP
2-1/2 X 1/2	B/A	3-5/8	3-3/8	481125R05-7	481125R05-7EP
2-1/2 X 3/4	B/A	3-5/8	3-3/8	481125R07-7	481125R07-7EP
2-1/2 X 1	B/A	3-5/8	3-3/8	-	-
2-1/2 X 1	B/B	3-5/8	3-3/8	481125R10-7	481125R10-7EP
2-1/2 X 1-1/2	B/B	3-5/8	3-3/8	481125R15-7	481125R15-7EP
2-1/2 X 2	B/B	3-5/8	3-3/8	481125R20-7	481125R20-7EP
3 X 1/2	B/B	3-7/8	3-5/8	481130R05-7	481130R05-7EP
3 X 3/4	B/A	3-7/8	3-5/8	481130R07-7	481130R07-7EP
3 X 1	B/A	3-7/8	3-5/8	-	-
3 X 1	B/B	3-7/8	3-5/8	481130R10-7	481130R10-7EP
3 X 1-1/2	B/B	3-7/8	3-5/8	481130R15-7	481130R15-7EP
3 X 2	B/B	3-7/8	3-5/8	481130R20-7	481130R20-7EP
3 X 2-1/2	B/B	3-7/8	3-5/8	481130R25-7	481130R25-7EP
4 X 1/2	B/A	4-3/4	4-1/8	481140R05-7	481140R05-7EP
4 X 3/4	B/A	4-3/4	4-1/8	481140R07-7	481140R07-7EP
4 X 1	B/A	4-3/4	4-1/8	-	-
4 X 1	B/B	4-3/4	4-1/8	481140R10-7	481140R10-7EP
4 X 1-1/2	B/B	4-3/4	4-1/8	481140R15-7	481140R15-7EP
4 X 2	B/B	4-3/4	4-3/8	481140R20-7	481140R20-7EP
4 X 2-1/2	B/B	4-3/4	4-3/8	481140R25-7	481140R25-7EP
4 X 3	B/B	4-3/4	4-3/8	481140R30-7	481140R30-7EP
6 X 4	B/B	7-1/8	5-3/4	-	-

7RMPS – Tee Reducing Clamp X Clamp  
X Short Outlet Clamp BPE 316L

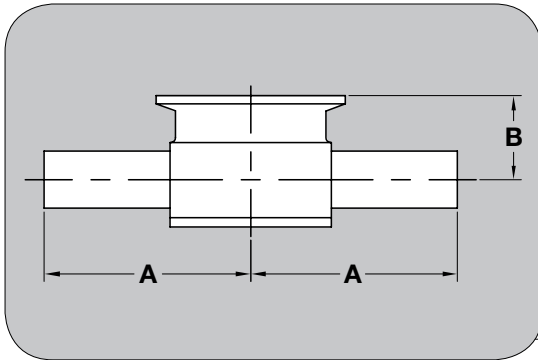
BPE# DT-4.1.2-9

SIZE (TUBE O.D.)	TYPE	A	B	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
3/4 X 1/2	A/A	2-1/2	1	481107RS05-7	481107RS05-7EP
1 X 1/2	A/A	2-5/8	1-1/8	-	-
1 X 1/2	B/A	2-5/8	1-1/8	481110RS05-7	481110RS05-7EP
1 X 3/4	A/A	2-5/8	1-1/8	-	-
1 X 3/4	B/A	2-5/8	1-1/8	481110RS07-7	481110RS07-7EP
1-1/2 X 1/2	B/A	2-7/8	1-3/8	481115RS05-7	481115RS05-7EP
1-1/2 X 3/4	B/A	2-7/8	1-3/8	481115RS07-7	481115RS07-7EP
1-1/2 X 1	B/A	2-7/8	1-3/8	-	-
1-1/2 X 1	B/B	2-7/8	1-3/8	481115RS10-7	481115RS10-7EP
2 X 1/2	B/A	3-3/8	1-5/8	481120RS05-7	481120RS05-7EP
2 X 3/4	B/A	3-3/8	1-5/8	481120RS07-7	481120RS07-7EP
2 X 1	B/A	3-3/8	1-5/8	-	-
2 X 1	B/B	3-3/8	1-5/8	481120RS10-7	481120RS10-7EP
2 X 1-1/2	B/B	3-3/8	1-5/8	481120RS15-7	481120RS15-7EP
2-1/2 X 1/2	B/A	3-5/8	1-7/8	481125RS05-7	481125RS05-7EP
2-1/2 X 3/4	B/A	3-5/8	1-7/8	481125RS07-7	481125RS07-7EP
2-1/2 X 1	B/A	3-5/8	1-7/8	-	-
2-1/2 X 1	B/B	3-5/8	1-7/8	481125RS10-7	481125RS10-7EP
2-1/2 X 1-1/2	B/B	3-5/8	1-7/8	481125RS15-7	481125RS15-7EP
2-1/2 X 2	B/B	3-5/8	1-7/8	481125RS20-7	481125RS20-7EP
3 X 1/2	B/A	3-7/8	2-1/8	481130RS05-7	481130RS05-7EP
3 X 3/4	B/A	3-7/8	2-1/8	481130RS07-7	481130RS07-7EP
3 X 1	B/A	3-7/8	2-1/8	-	-
3 X 1	B/B	3-7/8	2-1/8	481130RS10-7	481130RS10-7EP
3 X 1-1/2	B/B	3-7/8	2-1/8	481130RS15-7	481130RS15-7EP
3 X 2	B/B	3-7/8	2-1/8	481130RS20-7	481130RS20-7EP
3 X 2-1/2	B/B	3-7/8	2-1/8	481130RS25-7	481130RS25-7EP
4 X 1/2	B/A	4-3/4	2-5/8	481140RS05-7	481140RS05-7EP
4 X 3/4	B/A	4-3/4	2-5/8	481140RS07-7	481140RS07-7EP
4 X 1	B/A	4-3/4	2-5/8	-	-
4 X 1	B/B	4-3/4	2-5/8	481140RS10-7	481140RS10-7EP
4 X 1-1/2	B/B	4-3/4	2-5/8	481140RS15-7	481140RS15-7EP
4 X 2	B/B	4-3/4	2-5/8	481140RS20-7	481140RS20-7EP
4 X 2-1/2	B/B	4-3/4	2-5/8	481140RS25-7	481140RS25-7EP
4 X 3	B/B	4-3/4	2-5/8	481140RS30-7	481140RS30-7EP
6 X 4	B/B	7-1/8	3-3/4	-	-



BPE# DT-4.1.2-10

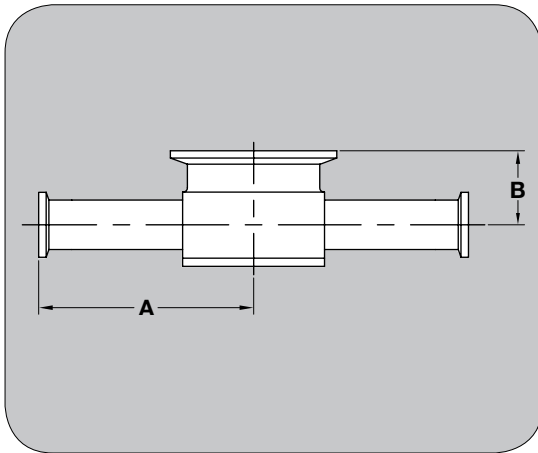
### TL71WWMS – Tee Clamp X Weld Ends BPE 316L



SIZE (TUBE O.D.)	TYPE	A	B	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
1/2 X 1-1/2	B	2-1/2	7/8	407105W15C-7	407105W15C-7EP
1/2 X 2	B	2-3/4	1	407105W20C-7	407105W20C-7EP
3/4 X 1-1/2	B	2-1/2	1	407107W15C-7	407107W15C-7EP
3/4 X 2	B	2-3/4	1-1/8	407107W20C-7	407107W20C-7EP
1 X 1-1/2	B	2-1/2	1-1/8	407110W15C-7	407110W15C-7EP
1 X 2	B	2-3/4	1-1/4	407110W20C-7	407110W20C-7EP
1-1/2 X 2	B	2-3/4	1-1/2	407115W20C-7	407115W20C-7EP

### TL71MPS – Tee Instrument Type Clamp Ends BPE 316L

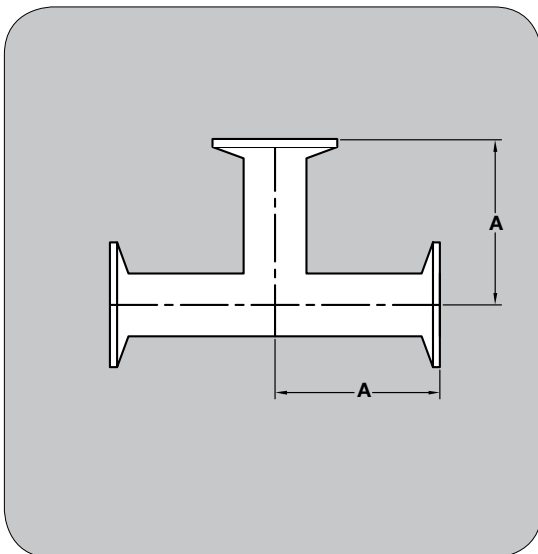
BPE# DT-4.1.2-11



SIZE (TUBE O.D.)	TYPE	A	B	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
1/2 X 1-1/2	A/B	3	7/8	487105C15C-7	487105C15C-7EP
1/2 X 2	A/B	3-1/4	1	487105C20C-7	487105C20C-7EP
3/4 X 1-1/2	A/B	3	1	487107C15C-7	487107C15C-7EP
3/4 X 2	A/B	3-1/4	1-1/8	487107C20C-7	487107C20C-7EP
1 X 1-1/2	A/B	3	1-1/8	–	–
1 X 1-1/2	B/B	3	1-1/8	487110C15C-7	487110C15C-7EP
1 X 2	A/B	3-1/4	1-1/4	–	–
1 X 2	B/B	3-1/4	1-1/4	487110C20C-7	487110C20C-7EP
1-1/2 X 2	B/B	3-1/4	1-1/2	487115C20C-7	487115C20C-7EP

### 7MP – Tee Clamp Ends BPE 316L

BPE# DT-4.1.2-4

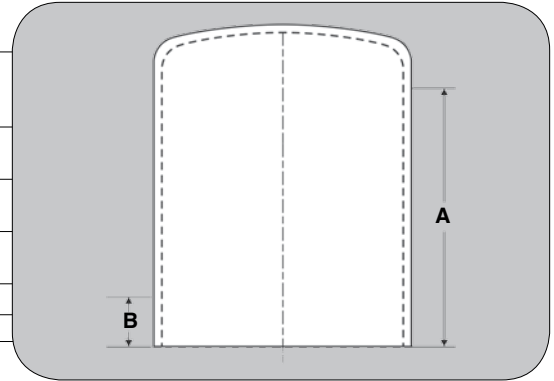


SIZE (TUBE O.D.)	TYPE	A	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
1/2	A	2-1/4	481105-7	481105-7EP
3/4	A	2-3/8	481107-7	481107-7EP
1	A	2-5/8	–	–
1	B	2-5/8	481110-7	481110-7EP
1-1/2	B	2-7/8	481115-7	481115-7EP
2	B	3-3/8	481120-7	481120-7EP
2-1/2	B	3-5/8	481125-7	481125-7EP
3	B	3-7/8	481130-7	481130-7EP
4	B	4-3/4	481140-7	481140-7EP
6	B	7-1/8	481160-7	481160-7EP

### TL16W – Cap Weld Ends BPE 316L

BPE# DT-4.1.5-1

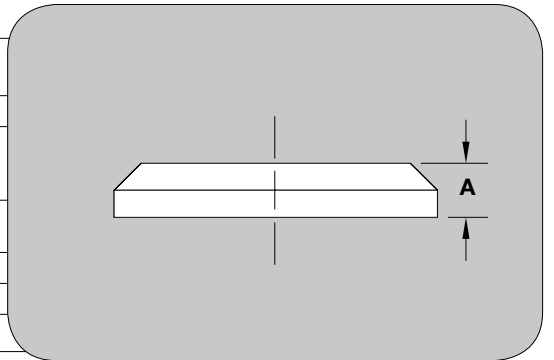
SIZE (TUBE O.D.)	A MINIMUM O.D. TANGENT LENGTH	B MINIMUM I.D. CONTROL PORTION	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
1/2	1-1/2	3/8	4031605-7	4031605-7EP
3/4	1-1/2	3/8	4031607-7	4031607-7EP
1	1-1/2	3/8	4031610-7	4031610-7EP
1-1/2	1-1/2	3/8	4031615-7	4031615-7EP
2	1-1/2	3/8	4031620-7	4031620-7EP
2-1/2	1-1/2	3/8	4031625-7	4031625-7EP
3	1-3/4	3/8	4031630-7	4031630-7EP
4	2	3/8	4031640-7	4031640-7EP



### 16AMP – Cap Solid End Clamp End BPE 316L

BPE# DT-4.1.5-2

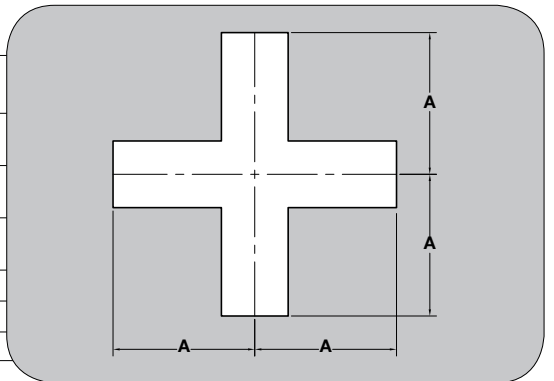
SIZE (TUBE O.D.)	A	TYPE	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
1/2 & 3/4	3/16	A	489807-7	489807-7EP
1	1/4	A	-	-
1	1/4	B	489810-7	489810-7EP
1-1/2	1/4	B	-	-
2	1/4	B	489820-7	489820-7EP
2-1/2	1/4	B	489825-7	489825-7EP
3	1/4	B	489830-7	489830-7EP
4	5/16	B	489840-7	489840-7EP
6	7/16	B	489860-7	489860-7EP



### TL9WWWW – Cross Weld Ends BPE 316L

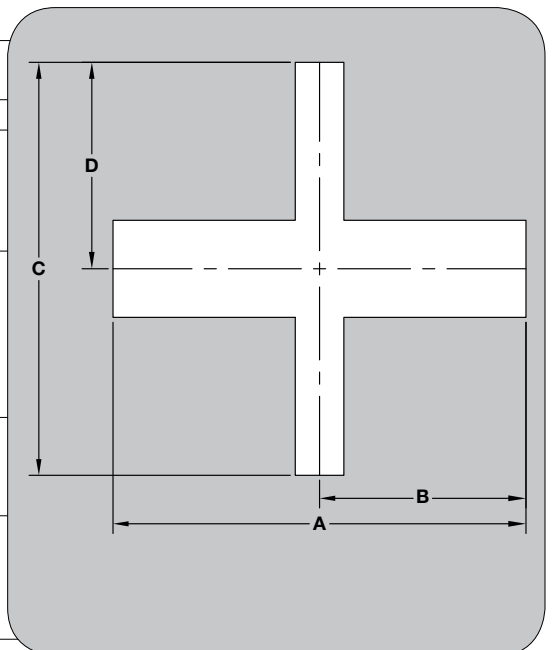
BPE# DT-4.1.2-1

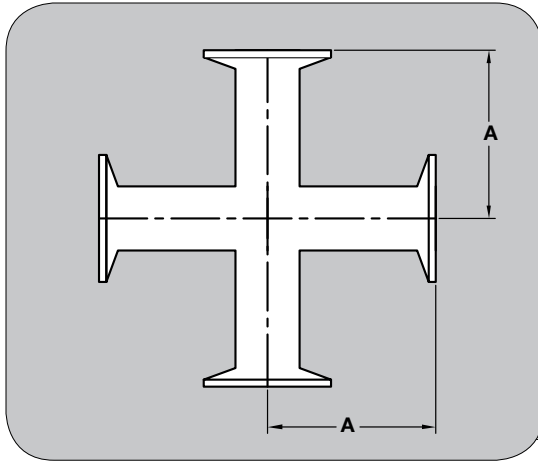
SIZE (TUBE O.D.)	A	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
1/2	1-7/8	4011405-7	4011405-7EP
3/4	2	4011407-7	4011407-7EP
1	2-1/8	4011410-7	4011410-7EP
1-1/2	2-3/8	4011415-7	4011415-7EP
2	2-7/8	4011420-7	4011420-7EP
2-1/2	3-1/8	4011425-7	4011425-7EP
3	3-3/8	4011430-7	4011430-7EP
4	4-1/8	4011440-7	4011440-7EP
6	5-5/8	-	-



### TL9RWWWW – Cross Reducing Weld Ends 316L

SIZE (TUBE O.D.)	A	B	C	D	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
3/4 X 1/2	4-1/4	2-1/8	4-1/4	2-1/8	4011407R05-7	4011407R05-7EP
1 X 1/2	4-1/4	2-1/8	4-1/4	2-1/8	4011410R05-7	4011410R05-7EP
1 X 3/4	4-1/4	2-1/8	4-1/4	2-1/8	4011410R07-7	4011410R07-7EP
1-1/2 X 1/2	4-3/4	2-3/8	4-3/4	2-3/8	4011415R05-7	4011415R05-7EP
1-1/2 X 3/4	4-3/4	2-3/8	4-3/4	2-3/8	4011415R07-7	4011415R07-7EP
1-1/2 X 1	4-3/4	2-3/8	4-3/4	2-3/8	4011415R10-7	4011415R10-7EP
2 X 1/2	5-3/4	2-7/8	5-1/4	2-5/8	4011420R05-7	4011420R05-7EP
2 X 3/4	5-3/4	2-7/8	5-1/4	2-5/8	4011420R07-7	4011420R07-7EP
2 X 1	5-3/4	2-7/8	5-1/4	2-5/8	4011420R10-7	4011420R10-7EP
2 X 1-1/2	5-3/4	2-7/8	5-1/4	2-5/8	4011420R15-7	4011420R15-7EP
2-1/2 X 1	6-1/4	3-1/8	5-3/4	2-7/8	4011425R10-7	4011425R10-7EP
2-1/2 X 1-1/2	6-1/4	3-1/8	5-3/4	2-7/8	4011425R15-7	4011425R15-7EP
2-1/2 X 2	6-1/4	3-1/8	5-3/4	2-7/8	4011425R20-7	4011425R20-7EP
3 X 1	6-3/4	3-3/8	6-1/4	3-1/8	4011430R10-7	4011430R10-7EP
3 X 1-1/2	6-3/4	3-3/8	6-1/4	3-1/8	4011430R15-7	4011430R15-7EP
3 X 2	6-3/4	3-3/8	6-1/4	3-1/8	4011430R20-7	4011430R20-7EP
3 X 2-1/2	6-3/4	3-3/8	6-1/4	3-1/8	4011430R25-7	4011430R25-7EP
4 X 1	8-1/4	4-1/8	7-1/4	3-5/8	4011440R10-7	4011440R10-7EP
4 X 1-1/2	8-1/4	4-1/8	7-1/4	3-5/8	4011440R15-7	4011440R15-7EP
4 X 2	8-1/4	4-1/8	7-3/4	3-7/8	4011440R20-7	4011440R20-7EP
4 X 2-1/2	8-1/4	4-1/8	7-3/4	3-7/8	4011440R25-7	4011440R25-7EP
4 X 3	8-1/4	4-1/8	7-3/4	3-7/8	4011440R30-7	4011440R30-7EP

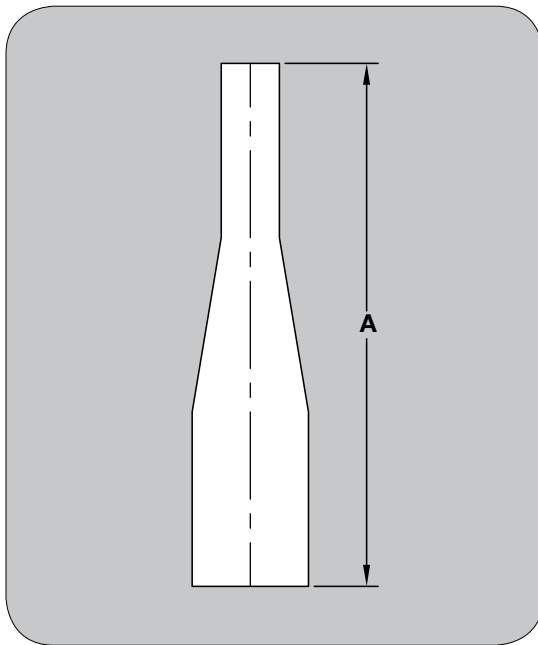




### 9MP – Cross Clamp Ends BPE 316L

BPE# DT-4.1.2-4

SIZE (TUBE O.D.)	TYPE	A	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
1/2	A	2-1/4	4810105-7	4810105-7EP
3/4	A	2-3/8	4810107-7	4810107-7EP
1	A	2-5/8	-	-
1	B	2-5/8	4810110-7	4810110-7EP
1-1/2	B	2-7/8	4810115-7	4810115-7EP
2	B	3-3/8	4810120-7	4810120-7EP
2-1/2	B	3-5/8	4810125-7	4810125-7EP
3	B	3-7/8	4810130-7	4810130-7EP
4	B	4-3/4	4810140-7	4810140-7EP
6	B	7-1/8	-	-

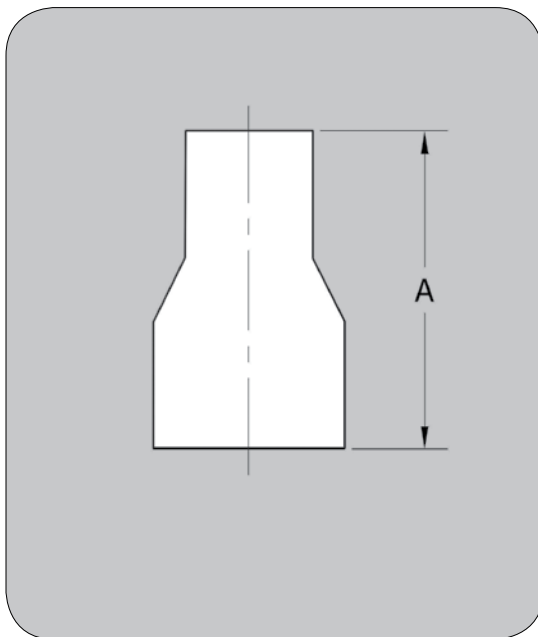


### TL31 – Reducer Concentric Weld Ends BPE 316L

BPE# DT-4.1.3-1(a)

SIZE (TUBE O.D.)	A	STOCK NO. 20RA ID (SF1)	STOCK NO. 15RA EP ID (SF4)
3/4 X 1/2	4	401160705-7	401160705-7EP
1 X 1/2	4-1/2	401161005-7	401161005-7EP
1 X 3/4	4	401161007-7	401161007-7EP
1-1/2 X 3/4	5	401161507-7	401161507-7EP
1-1/2 X 1	5	401161510-7	401161510-7EP
2 X 1	7-1/4	401162010-7	401162010-7EP
2 X 1-1/2	5-1/4	401162015-7	401162015-7EP
2-1/2 X 1-1/2	7-1/4	401162515-7	401162515-7EP
2-1/2 X 2	5-1/2	401162520-7	401162520-7EP
3 X 1-1/2	9-1/4	401163015-7	401153015-7EP
3 X 2	7-1/2	401163020-7	401163020-7EP
3 X 2-1/2	5-1/2	401163025-7	401163025-7EP
4 X 2	11-3/4	401164020-7	401164020-7EP
4 X 2-1/2	9-3/4	401164025-7	401164025-7EP
4 X 3	7-3/4	401164030-7	401164030-7EP
6 X 3	10	401166030-7	401166030-7EP
6 X 4	10	401166040-7	401166040-7EP

OTHER SIZES AVAILABLE UPON REQUEST



### TL31 – Reducer Concentric Weld Ends BPE 316L

BPE# DT-4.1.3-1(b)

SIZE (TUBE O.D.)	A	STOCK NO. 20 RA ID (SF1)	STOCK NO. 15RA EP ID (SF4)
3/4 X 1/2	2-1/8	401160705N-7	401160705N-7EP
1 X 1/2	2-1/2	401161005N-7	401161005N-7EP
1 X 3/4	2-1/8	401161007N-7	401161007N-7EP
1- 1/2 X 3/4	3	401161507N-7	401161507N-7EP
1- 1/2 X 1	2-1/2	401161510N-7	401161510N-7EP
2 X 1	3-3/8	401162010N-7	401162010N-7EP
2 X 1-1/2	2-1/2	401162015N-7	401162015N-7EP
2- 1/2 X 1-1/2	3-3/8	401162515N-7	401162515N-7EP
2- 1/2 X 2	2-1/2	401162520N-7	401162520N-7EP
3 X 1-1/2	4-1/4	401163015N-7	401163015N-7EP
3 X 2	3-3/8	401163020N-7	401163020N-7EP
3 X 2-1/2	2-5/8	401163025N-7	401163025N-7EP
4 X 2	5-1/8	401164020N-7	401164020N-7EP
4 X 2-1/2	4-1/4	401164025N-7	401164025N-7EP
4 X 3	3-7/8	401164030N-7	401164030N-7EP
6 X 3	7-1/4	401166030N-7	401166030N-7EP
6 X 4	5-5/8	401166040N-7	401166040N-7EP

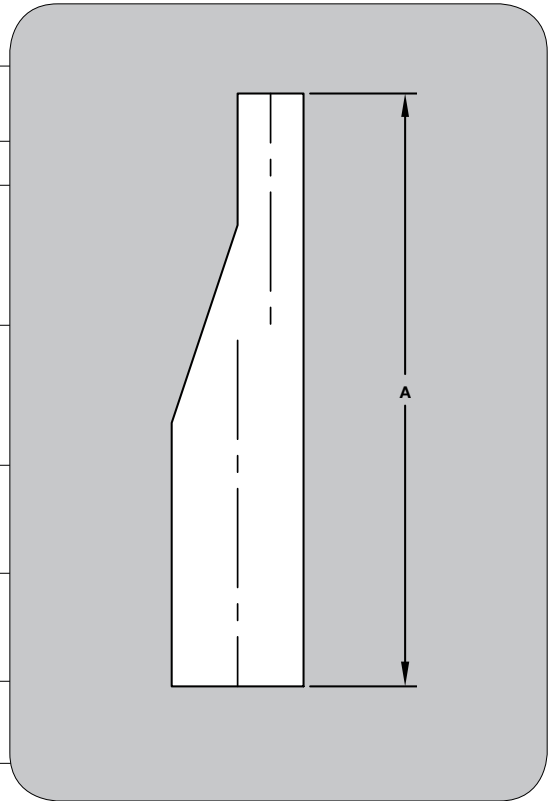
OTHER SIZES AVAILABLE UPON REQUEST

BPE# DT-4.1.3-1 (a)

TL32 – Reducer Eccentric Weld Ends BPE 316L

SIZE (TUBE O.D.)	A	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
3/4 X 1/2	4	401220705-7	401220705-7EP
1 X 1/2	4-1/2	401221005-7	401221005-7EP
1 X 3/4	4	401221007-7	401221007-7EP
1-1/2 X 3/4	5	401221507-7	401221507-7EP
1-1/2 X 1	5	401221510-7	401221510-7EP
2 X 1	7-1/4	401222010-7	401222010-7EP
2 X 1-1/2	5-1/4	401222015-7	401222015-7EP
2-1/2 X 1-1/2	7-1/4	401222515-7	401222515-7EP
2-1/2 X 2	5-1/2	401222520-7	401222520-7EP
3 X 1-1/2	9-1/4	401223015-7	401223015-7EP
3 X 2	7-1/2	401223020-7	401223020-7EP
3 X 2-1/2	5-1/2	401223025-7	401223025-7EP
4 X 2	11-3/4	401224020-7	401224020-7EP
4 X 2-1/2	9-3/4	401224025-7	401224025-7EP
4 X 3	7-3/4	401224030-7	401224030-7EP
6 X 3	10	401226030-7	401226030-7EP
6 X 4	10	401226040-7	401226040-7EP

OTHER SIZES AVAILABLE UPON REQUEST

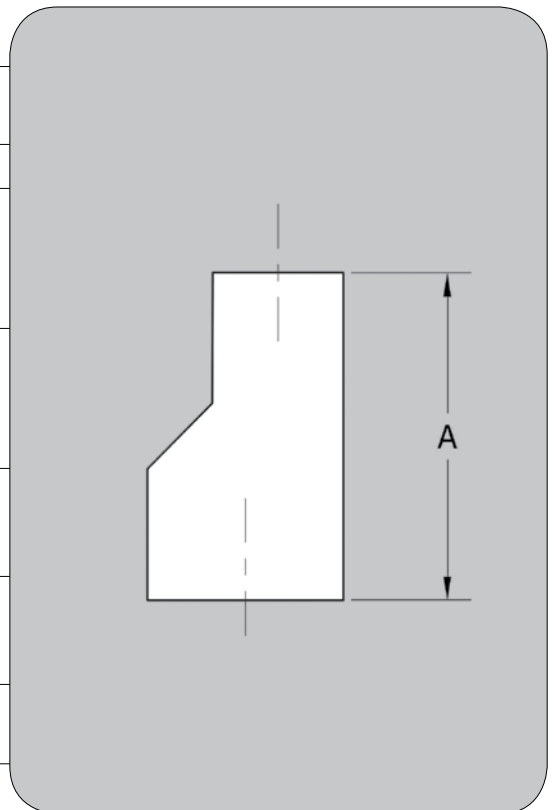


BPE# DT-4.1.3-1 (b)

TL32 – Reducer Eccentric Weld Ends BPE 316L

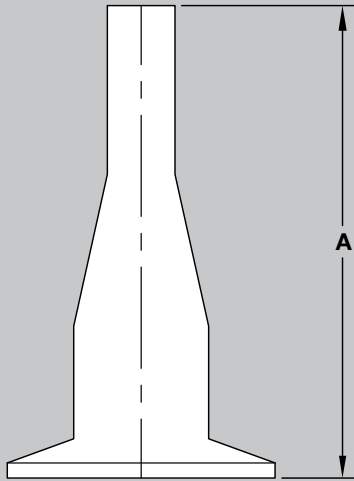
SIZE (TUBE O.D.)	A	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
3/4 X 1/2	2-1/8	401220705N-7	401220705N-7EP
1 X 1/2	2-1/2	401221005N-7	401221005N-7EP
1 X 3/4	2-1/8	401221007N-7	401221007N-7EP
1- 1/2 X 3/4	3	401221507N-7	401221507N-7EP
1- 1/2 X 1	2-1/2	401221510N-7	401221510N-7EP
2 X1	3-3/8	401222010N-7	401222010N-7EP
2 X 1-1/2	2-1/2	401222015N-7	401222015N-7EP
2- 1/2 X 1-1/2	3-3/8	401222515N-7	401222515N-7EP
2- 1/2 X 2	2-1/2	401222520N-7	401222520N-7EP
3 X 1-1/2	4-1/4	401223015N-7	401223015N-7EP
3 X 2	3-3/8	401223020N-7	401223020N-7EP
3 X 2-1/2	2-5/8	401223025N-7	401223025N-7EP
4 X 2	5-1/8	401224020N-7	401224020N-7EP
4 X 2-1/2	4-1/4	401224025N-7	401224025N-7EP
4 X 3	3-7/8	401224030N-7	401224030N-7EP
6 X 3	7-1/4	401226030N-7	401226030N-7EP
6 X 4	5-5/8	401226040N-7	401226040N-7EP

OTHER SIZES AVAILABLE UPON REQUEST



BPE# DT-4.1.3-2 (a)

### TL31M – Reducer Concentric Clamp X Weld BPE 316L

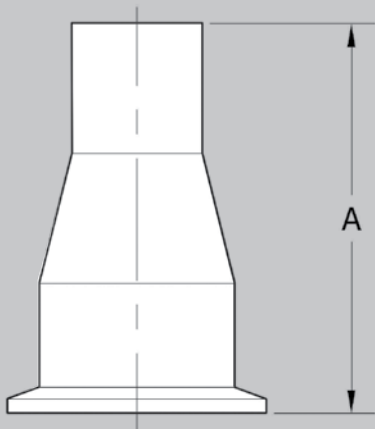


SIZE (TUBE O.D.)	TYPE	A	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
3/4 X 1/2	A	3	40116M0705-7	40116M0705-7EP
1 X 1/2	A	3-1/2	40116M1005A-7	40116M1005A-7EP
1 X 1/2	B	3-1/2	40116M1005-7	40116M1005-7EP
1 X 3/4	A	3	40116M1007A-7	40116M1007A-7EP
1 X 3/4	B	3	40116M1007-7	40116M1007-7EP
1-1/2 X 3/4	B	4	40116M1507-7	40116M1507-7EP
1-1/2 X 1	B	4	40116M1510-7	40116M1510-7EP
2 X 1	B	6	40116M2010-7	40116M2010-7EP
2 X 1-1/2	B	4	40116M2015-7	40116M2015-7EP
2-1/2 X 1-1/2	B	6	40116M2515-7	40116M2515-7EP
2-1/2 X 2	B	4-1/4	40116M2520-7	40116M2520-7EP
3 X 1-1/2	B	8	40116M3015-7	40116M3015-7EP
3 X 2	B	6-1/4	40116M3020-7	40116M3020-7EP
3 X 2-1/2	B	4-1/4	40116M3025-7	40116M3025-7EP
4 X 2	B	10-3/8	40116M4020-7	40116M4020-7EP
4 X 2-1/2	B	8-3/8	40116M4025-7	40116M4025-7EP
4 X 3	B	6-3/8	40116M4030-7	40116M4030-7EP
6 X 3	B	9	-	-
6 X 4	B	9	40116M6040-7	40116M6040-7EP

OTHER SIZES AVAILABLE UPON REQUEST

BPE# DT-4.1.3-2 (b)

### TL31M – Reducer Concentric Clamp X Weld BPE 316L



SIZE (TUBE O.D.)	TYPE	A	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
3/4 X 1/2	A	2-5/8	40116M0705N-7	40116M0705N-7EP
1 X 1/2	A	3	40116M1005AN-7	40116M1005AN-7EP
1 X 1/2	B	3	40116M1005N-7	40116M1005N-7EP
1 X 3/4	A	2-5/8	-	40116M1007AN-7EP
1 X 3/4	B	2-5/8	40116M1007N-7	40116M1007N-7EP
1-1/2 X 3/4	B	3-1/2	40116M1507N-7	40116M1507N-7EP
1-1/2 X 1	B	3	40116M1510N-7	40116M1510N-7EP
2 X 1	B	3-7/8	40116M2010N-7	40116M2010N-7EP
2 X 1-1/2	B	3	40116M2015N-7	40116M2015N-7EP
2-1/2 X 1-1/2	B	3-7/8	40116M2515N-7	40116M2515N-7EP
2- 1/2 X 2	B	3	40116M2520N-7	40116M2520N-7EP
3 X 1-1/2	B	4-3/4	40116M3015N-7	40116M3015N-7EP
3 X 2	B	3-7/8	40116M3020N-7	40116M3020N-7EP
3 X 2-1/2	B	3-1/8	40116M3025N-7	40116M3025N-7EP
4 X 2	B	5-3/4	40116M4020N-7	40116M4020N-7EP
4 X 2-1/2	B	4-7/8	40116M4025N-7	40116M4025N-7EP
4 X 3	B	4-1/2	40116M4030N-7	40116M4030N-7EP
6 X 3	B	8	40116M6030N-7	40116M6030N-7EP
6 X 4	B	6-3/8	40116M6040N-7	40116M6040N-7EP

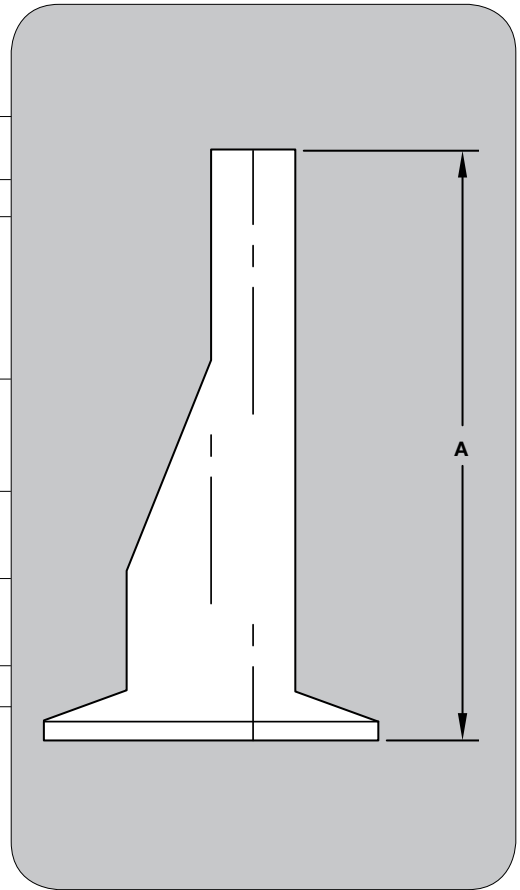
OTHER SIZES AVAILABLE UPON REQUEST

BPE# DT-4.1.3-2(a)

TL32M – Reducer Eccentric Clamp X Weld BPE 316L

SIZE (TUBE O.D.)	TYPE	A	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
3/4 X 1/2	A	3	40122M0705-7	40122M0705-7EP
1 X 1/2	A	3-1/2	-	-
1 X 1/2	B	3-1/2	40122M1005-7	40122M1005-7EP
1 X 3/4	A	3	-	40122M1007A-7EP
1 X 3/4	B	3	40122M1007-7	40122M1007-7EP
1-1/2 X 3/4	B	4	40122M1507-7	40122M1507-7EP
1-1/2 X 1	B	4	40122M1510-7	40122M1510-7EP
2 X 1	B	6	40122M2010-7	40122M2010-7EP
2 X 1-1/2	B	4	40122M2015-7	40122M2015-7EP
2-1/2 X 1-1/2	B	6	40122M2515-7	40122M2515-7EP
2-1/2 X 2	B	4-1/4	40122M2520-7	40122M2520-7EP
3 X 1-1/2	B	8	40122M3015-7	40122M3015-7EP
3 X 2	B	6-1/4	40122M3020-7	40122M3020-7EP
3 X 2-1/2	B	4-1/4	40122M3025-7	40122M3025-7EP
4 X 2	B	10-3/8	40122M4020-7	40122M4020-7EP
4 X 2-1/2	B	8-3/8	40122M4025-7	40122M4025-7EP
4 X 3	B	6-3/8	40122M4030-7	40122M4030-7EP
6 X 4	B	9	40122M6040-7	40122M6040-7EP

OTHER SIZES AVAILABLE UPON REQUEST

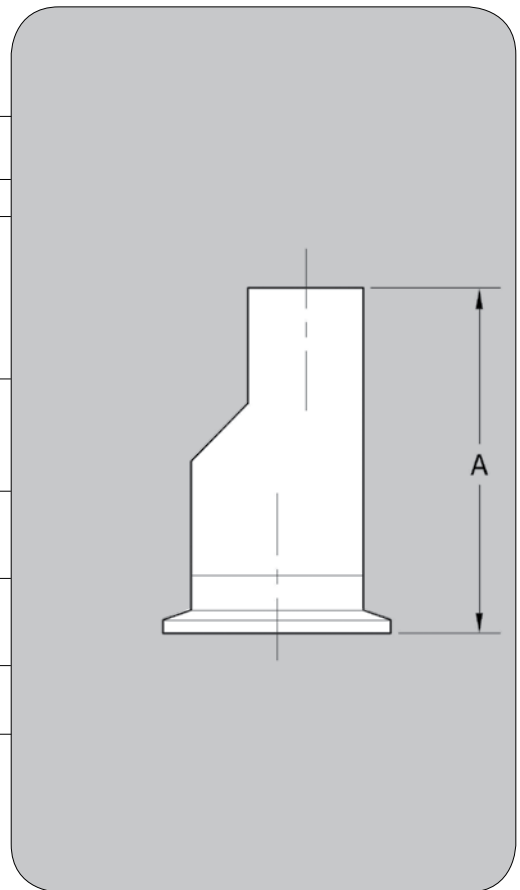


BPE# DT-4.1.3-2(b)

TL32M – Reducer Eccentric Clamp X Weld BPE 316L

SIZE (TUBE O.D.)	TYPE	A	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
3/4 X 1/2	A	2-5/8	40122M0705N-7	40122M0705N-7EP
1 X 1/2	A	3	-	-
1 X 1/2	B	3	40122M1005N-7	40122M1005N-7EP
1 X 3/4	A	2-5/8	-	40122M1007AN-7EP
1 X 3/4	B	2-5/8	40122M1007N-7	40122M1007N-7EP
1-1/2 X 3/4	B	3-1/2	40122M1507N-7	40122M1507N-7EP
1-1/2 X 1	B	3	40122M1510N-7	40122M1510N-7EP
2 X 1	B	3-7/8	40122M2010N-7	40122M2010N-7EP
2 X 1-1/2	B	3	40122M2015N-7	40122M2015N-7EP
2-1/2 X 1-1/2	B	3-7/8	40122M2515N-7	40122M2515N-7EP
2-1/2 X 2	B	3	40122M2520N-7	40122M2520N-7EP
3 X 1-1/2	B	4-3/4	40122M3015N-7	40122M3015N-7EP
3 X 2	B	3-7/8	40122M3020N-7	40122M3020N-7EP
3 X 2-1/2	B	3-1/8	40122M3025N-7	40122M3025N-7EP
4 X 2	B	5-3/4	40122M4020N-7	40122M4020N-7EP
4 X 2-1/2	B	4-7/8	40122M4025N-7	40122M4025N-7EP
4 X 3	B	4-1/2	40122M4030N-7	40122M4030N-7EP
6 X 3	B	8	40122M6030N-7	40122M6030N-7EP
6 X 4	B	6-3/8	40122M6040N-7	40122M6040N-7EP

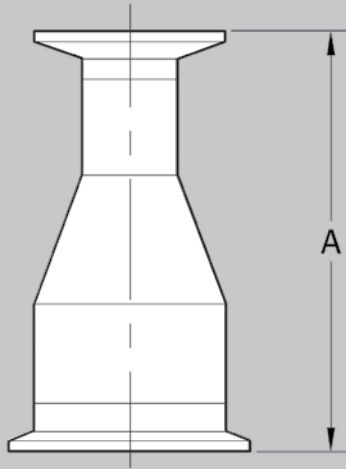
OTHER SIZES AVAILABLE UPON REQUEST





BPE# DT-4.1.3-7 (a)

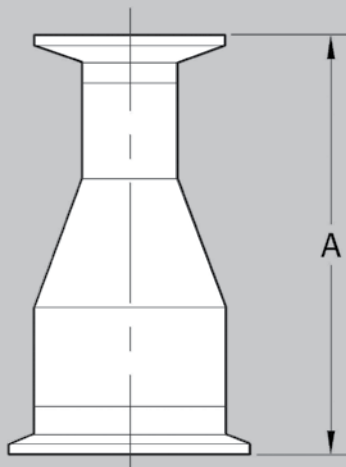
### 31-14MP – Reducer Concentric Clamp Ends BPE 316L



SIZE (TUBE O.D.)	TYPE	A	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
3/4 X 1/2	A/A	2	4884-0705A-7	4884-0705A-7EP
3/4 X 1/2	B/A	2	4884-0705-7	4884-0705-7EP
1 X 1/2	A/A	2-1/2	—	—
1 X 1/2	B/A	2-1/2	4884-1005-7	4884-1005-7EP
1 X 3/4	A/A	2	4884-1007A-7	4884-1007A-7EP
1 X 3/4	B/A	2	4884-1007-7	4884-1007-7EP
1-1/2 X 3/4	B/A	3	4884-1507-7	4884-1507-7EP
1-1/2 X 1	B/A	3	4884-1510A-7	4884-1510A-7EP
1-1/2 X 1	B/B	3	4884-1510-7	4884-1510-7EP
2 X 1	B/A	5	4884-2010A-7	4884-2010A-7EP
2 X 1	B/B	5	4884-2010-7	4884-2010-7EP
2 X 1 1/2	B/B	3	4884-2015-7	4884-2015-7EP
2-1/2 X 1-1/2	B/B	5	4884-2515-7	4884-2515-7EP
2-1/2 X 2	B/B	3	4884-2520-7	4884-2520-7EP
3 X 1-1/2	B/B	7	4884-3015-7	4884-3015-7EP
3 X 2	B/B	5	4884-3020-7	4884-3020-7EP
3 X 2-1/2	B/B	3	4884-3025-7	4884-3025-7EP
4 X 2	B/B	9-1/8	4884-4020-7	4884-4020-7EP
4 X 2-1/2	B/B	7-1/8	4884-4025-7	4884-4025-7EP
4 X 3	B/B	5-1/8	4884-4030-7	4884-4030-7EP
6 X 3	B/B	7-1/2	4884-6030-7	4884-6030-7EP
6 X 4	B/B	7-5/8	4884-6040-7	4884-6040-7EP

BPE# DT-4.1.3-7 (b)

### 31-14MP – Reducer Concentric Clamp Ends BPE 316L

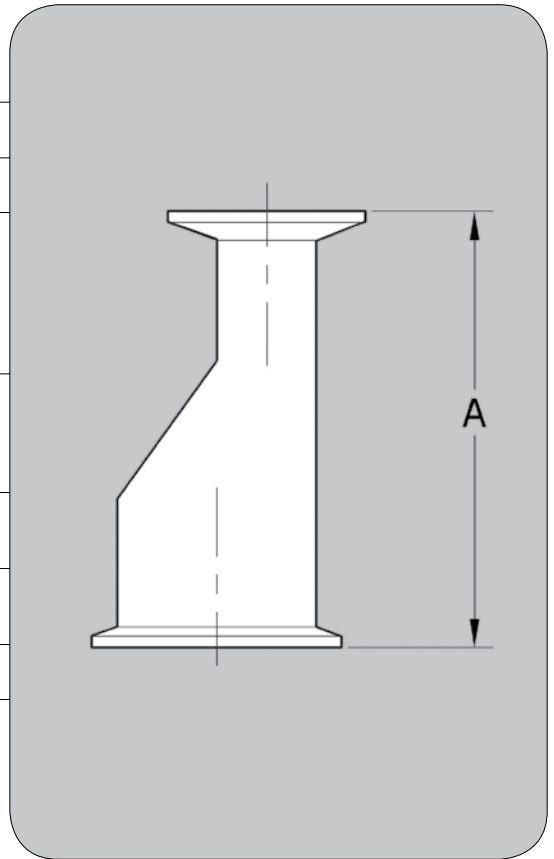


SIZE (TUBE O.D.)	TYPE	A	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
3/4 X 1/2	A/A	3-1/8	4884-0705AN-7	4884-0705AN-7EP
3/4 X 1/2	B/A	3-1/8	4884-0705N-7	4884-0705N-7EP
1 X 1/2	A/A	3-1/2	4884-1005AN-7	4884-1005AN-7EP
1 X 1/2	B/A	3-1/2	4884-1005N-7	4884-1005N-7EP
1 X 3/4	A/A	3-1/8	4884-1007AN-7	4884-1007AN-7EP
1 X 3/4	B/A	3-1/8	4884-1007N-7	4884-1007N-7EP
1-1/2 X 3/4	B/A	4	4884-1507N-7	4884-1507N-7EP
1-1/2 X 1	B/A	3-1/2	4884-1510AN-7	4884-1510AN-7EP
1-1/2 X 1	B/B	3-1/2	4884-1510N-7	4884-1510N-7EP
2 X 1	B/A	4-3/8	4884-2010AN-7	4884-2010AN-7EP
2 X 1	B/B	4-3/8	4884-2010N-7	4884-2010-7EP
2 X 1-1/2	B/B	3-1/2	4884-2015N-7	4884-2015N-7EP
2-1/2 X 1-1/2	B/B	4-3/8	4884-2515N-7	4884-2515-7EP
2-1/2 X 2	B/B	3-1/2	4884-2520N-7	4884-2520N-7EP
3 X 1-1/2	B/B	5-1/4	4884-3015N-7	4884-3015N-7EP
3 X 2	B/B	4-3/8	4884-3020N-7	4884-3020N-7EP
3 X 2-1/2	B/B	3-5/8	4884-3025N-7	4884-3025N-7EP
4 X 2	B/B	6-1/4	4884-4020N-7	4884-4020N-7EP
4 X 2-1/2	B/B	5-3/8	4884-4025N-7	4884-4025N-7EP
4 X 3	B/B	5	4884-4030N-7	4884-4030N-7EP
6 X 3	B/B	8-1/2	4884-6030N-7	4884-6030N-7EP
6 X 4	B/B	7	4884-6040N-7	4884-6040N-7EP

BPE# DT-4.1.3-7 (a)

32-14MP – Reducer Eccentric Clamp Ends BPE 316L

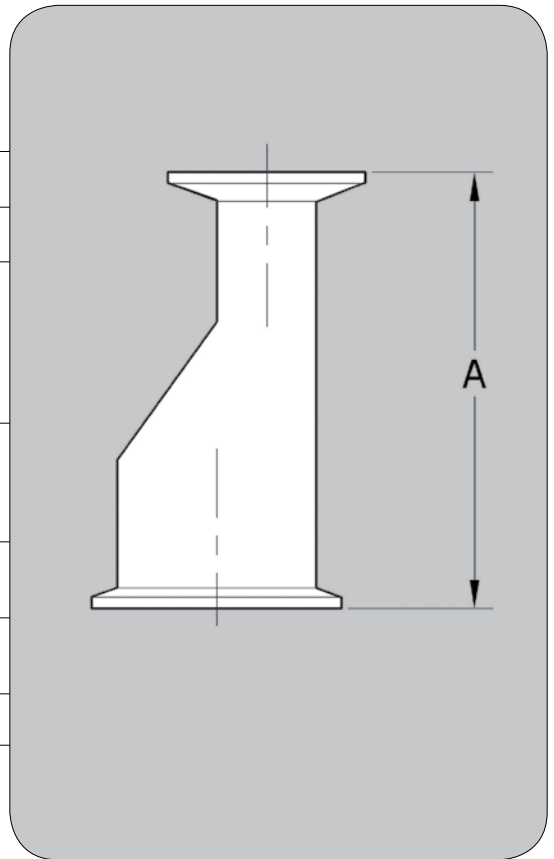
SIZE (TUBE O.D.)	TYPE	A	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
3/4 X 1/2	A/A	2	4885-0705A-7	4885-0705A-7EP
3/4 X 1/2	B/A	2	4885-0705-7	4885-0705-7EP
1 X 1/2	A/A	2-1/2	4885-1005A-7	4885-1005A-7EP
1 X 1/2	B/A	2-1/2	4885-1005-7	4885-1005-7EP
1 X 3/4	A/A	2	4885-1007A-7	4885-1007A-7EP
1 X 3/4	B/A	2	4885-1007-7	4885-1007-7EP
1-1/2 X 3/4	B/A	3	4885-1507-7	4885-1507-7EP
1-1/2 X 1	B/A	3	-	4885-1510A-7EP
1-1/2 X 1	B/B	3	4885-1510-7	4885-1510-7EP
2 X 1	B/A	5	4885-2010A-7	4885-2010A-7EP
2 X 1	B/B	5	4885-2010-7	4885-2010-7EP
2 X 1 1/2	B/B	3	4885-2015-7	4885-2015-7EP
2-1/2 X 1-1/2	B/B	5	4885-2515-7	4885-2515-7EP
2-1/2 X 2	B/B	3	4885-2520-7	4885-2520-7EP
3 X 1-1/2	B/B	7	4885-3015-7	4885-3015-7EP
3 X 2	B/B	5	4885-3020-7	4885-3020-7EP
3 X 2-1/2	B/B	3	4885-3025-7	4885-3025-7EP
4 X 2	B/B	9-1/8	4885-4020-7	4885-4020-7EP
4 X 2-1/2	B/B	7-1/8	4885-4025-7	4885-4025-7EP
4 X 3	B/B	5-1/8	4885-4030-7	4885-4030-7EP
6 X 3	B/B	7-5/8	4885-6030-7	4885-6030-7EP
6 X 4	B/B	7-5/8	4885-6040-7	4885-6040-7EP



BPE# DT-4.1.3-7 (b)

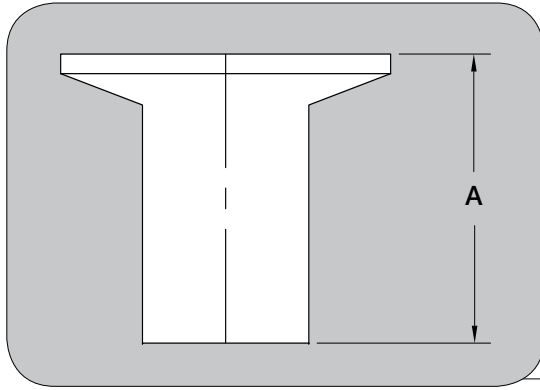
32-14MP – Reducer Eccentric Clamp Ends BPE 316L

SIZE (TUBE O.D.)	TYPE	A	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
3/4 X 1/2	A/A	3-1/8	-	-
3/4 X 1/2	B/A	3-1/8	4885-0705N-7	4885-0705N-7EP
1 X 1/2	A/A	3-1/2	4885-1005AN-7	4885-1005AN-7EP
1 X 1/2	B/A	3-1/2	4885-1005N-7	4885-1005N-7EP
1 X 3/4	A/A	3-1/8	4885-1007AN-7	4885-1007AN-7EP
1 X 3/4	B/A	3-1/8	4885-1007N-7	4885-1007N-7EP
1- 1/2 X 3/4	B/A	4	4885-1507N-7	4885-1507N-7EP
1- 1/2 X 1	B/A	3-1/2	4885-1510AN-7	4885-1510AN-7EP
1- 1/2 X 1	B/B	3-1/2	4885-1510N-7	4885-1510N-7EP
2 X 1	B/A	4-3/8	4885-2010AN-7	4885-2010AN-7EP
2 X 1	B/B	4-3/8	4885-2010N-7	4885-2010N-7EP
2 X 1-1/2	B/B	3-1/2	4885-2015N-7	4885-2015N-7EP
2-1/2 X 1-1/2	B/B	4-3/8	4885-2515N-7	4885-2515N-7EP
2-1/2 X 2	B/B	3-1/2	4885-2520N-7	4885-2520N-7EP
3 X 1-1/2	B/B	5-1/4	4885-3015N-7	4885-3015N-7EP
3 X 2	B/B	4-3/8	4885-3020N-7	4885-3020N-7EP
3 X 2-1/2	B/B	3-5/8	4885-3025N-7	4885-3025N-7EP
4 X 2	B/B	6-1/4	4885-4020N-7	4885-4020N-7EP
4 X 2-1/2	B/B	5-3/8	4885-4025N-7	4885-4025N-7EP
4 X 3	B/B	5	4885-4030N-7	4885-4030N-7EP
6 X 3	B/B	8-1/2	4885-6030N-7	4885-6030N-7EP
6 X 4	B/B	7	4885-6040N-7	-



BPE# DT-4.1.4-1

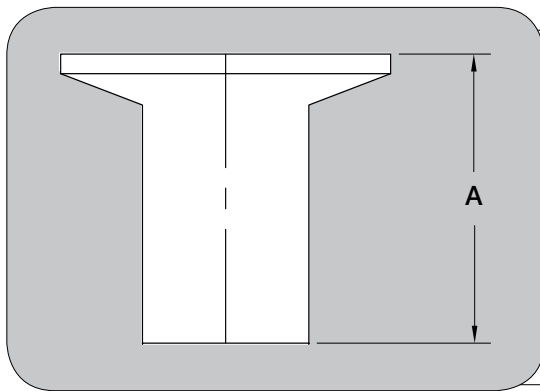
### TL14AM7 – Ferrule Clamp End X Weld End BPE 316L



SIZE (TUBE O.D.)	TYPE	A	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
1/2	A	1-3/4	407505S	407505S-7EP
3/4	A	1-3/4	407507S	407507S-7EP
1	A	1-3/4	407510SA	407510SA-7EP
1	B	1-3/4	407510S	407510S-7EP
1-1/2	B	1-3/4	407515S	407515S-7EP
2	B	2-1/4	407520S	407520S-7EP
2-1/2	B	2-1/4	407525S	407525S-7EP
3	B	2-1/4	407530S	407530S-7EP
4	B	2-1/4	407540S	407540S-7EP
6	B	3	407560S	407560S-7EP

BPE# DT-4.1.4-1

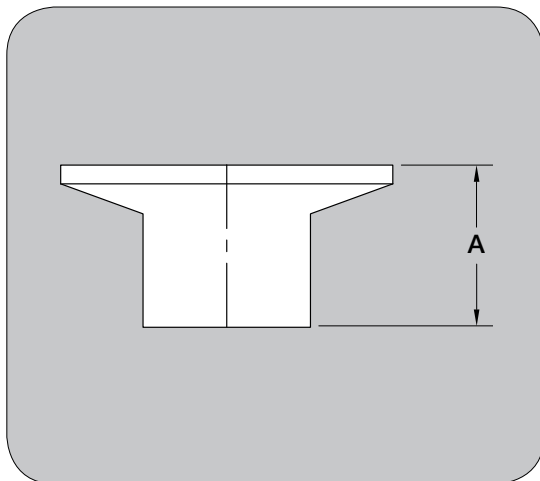
### L14AM7 – Ferrule Clamp End X Weld End BPE 316L



SIZE (TUBE O.D.)	TYPE	A	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
1/2	A	1-1/8	487505-7	487505-7EP
3/4	A	1-1/8	487507-7	487507-7EP
1	A	1-1/8	-	487510A-7EP
1	B	1-1/8	487510-7	487510-7EP
1-1/2	B	1-1/8	487515-7	487515-7EP
2	B	1-1/8	487520-7	487520-7EP
2-1/2	B	1-1/8	487525-7	487525-7EP
3	B	1-1/8	487530-7	487530-7EP
4	B	1-1/8	487540-7	487540-7EP
6	B	1-1/2	487560-7	487560-7EP

BPE# DT-4.1.4-1

### 14WMP – Ferrule Short Clamp End X Weld End BPE 316L

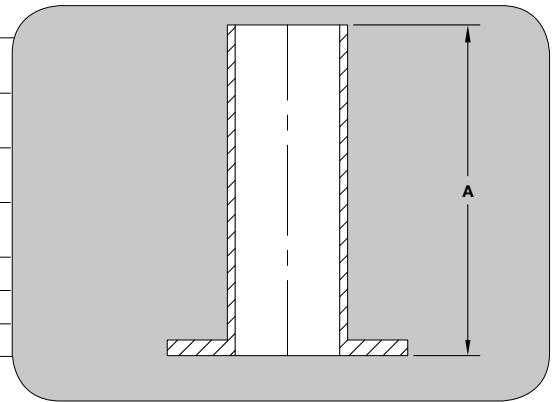


SIZE (TUBE O.D.)	TYPE	A	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
1/2	A	1/2	48205-7	48205-7EP
3/4	A	1/2	48207-7	48207-7EP
1	A	1/2	48210A-7	-
1	B	1/2	48210-7	48210-7EP
1-1/2	B	1/2	48215-7	48215-7EP
2	B	1/2	48220-7	48220-7EP
2-1/2	B	1/2	48225-7	48225-7EP
3	B	1/2	48230-7	48230-7EP
4	B	5/8	48240-7	48240-7EP
6	B	3/4	48260-7	48260-7EP

### TL14VB – Stub End Lap Joint 316L\*

SIZE (TUBE O.D.)	A	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
1/2	2	4030705-3LS	4030705-3LSEP
3/4	2	4030707-3LS	4030707-3LSEP
1	2-3/4	4030710-3LS	4030710-3LSEP
1-1/2	2-3/4	4030715-3LS	4030715-3LSEP
2	2-3/4	4030720-3LS	4030720-3LSEP
2-1/2	2-3/4	4030725-3LS	4030725-3LSEP
3	2-3/4	4030730-3LS	4030730-3LSEP
4	2-3/4	4030740-3LS	4030740-3LSEP
6	4	4030760-3LS	-

Flange face is phonographed \* Not a BPE fitting

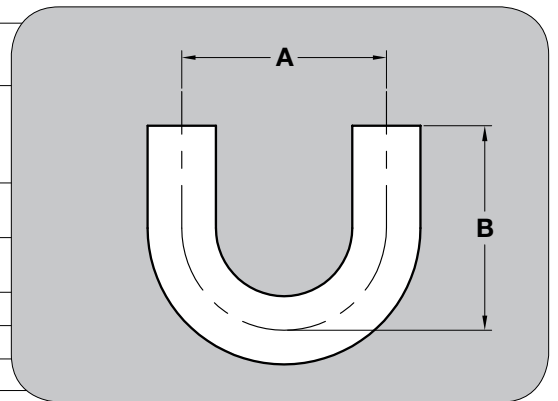


BPE# DT-4.1.1-7

### 2WUL – U-Bend 180° Weld Ends BPE 316L

SIZE (TUBE O.D.)	A	B	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
1/4*	4-1/2	2-5/8	-	-
3/8*	4-1/2	2-5/8	-	-
1/2*	4-1/2	3	-	-
3/4*	4-1/2	3	-	-
1	3	3	-	-
1-1/2	4-1/2	4-1/2	-	40915-7EP
2	6	5	40920-7	40920-7EP
2-1/2	7-1/2	5-3/4	-	-
3	9	6-1/2	40930-7	-
4	12	8-1/2	-	-
6	18	11-1/2	-	-

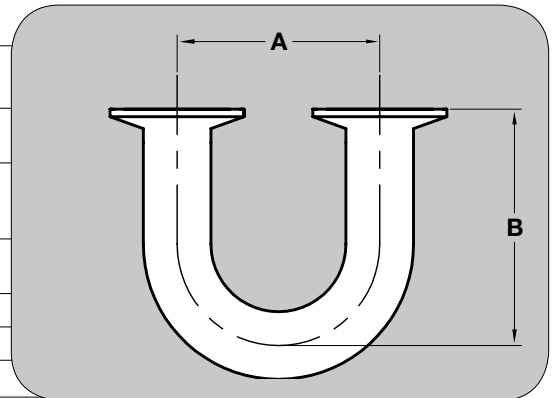
\* DOES NOT MEET MINIMUM TANGENT LENGTHS IN BPE TABLE DT-4.1.1



BPE# DT-4.1.1-8

### 2WUMP – U-Bend 180° Clamp Ends BPE 316L

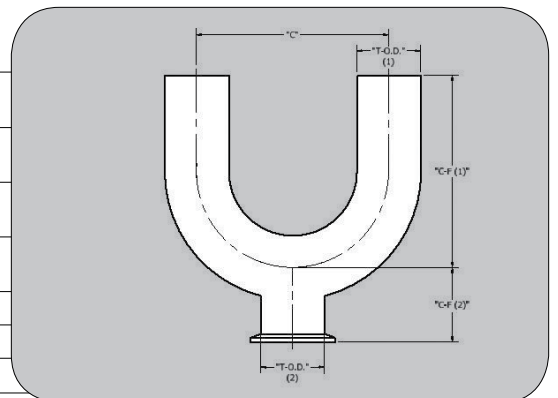
SIZE (TUBE O.D.)	TYPE	A	B	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
1/2	A	4-1/2	3-1/2	48U05-7	-
3/4	A	4-1/2	3-1/2	48U07-7	-
1	A	3	3-1/2	-	-
1	B	3	3-1/2	48U10-7	48U10-7EP
1-1/2	B	4-1/2	5	48U15-7	48U15-7EP
2	B	6	5-1/2	48U20-7	48U20-7EP
2-1/2	B	7-1/2	6-1/4	48U25-7	-
3	B	9	7	48U30-7	48U30-7EP
4	B	12	9-1/8	48U40-7	48U40-7EP
6	B	18	13	-	-



### POU - U-Bend 180° Weld X Clamp Short Bottom Outlet BPE 316L

BPE# DT-4.1.1-8

SIZE (TUBE O.D.)	C	T-O.D.(1)	T-O.D.(2)	C-F(1)	C-F(2)	STOCK NO. 20R <sub>a</sub> ID (SF1)	STOCK NO. 15R <sub>a</sub> EP ID (SF4)
1/2	4-1/2	1/2	1/2	3	1-1/8	40U05B05-7	-
3/4	4-1/2	3/4	3/4	3	1-1/8	40U07B07-7	-
1	3	1	1	3	1-1/8	40U10B10-7	40U10B10-7EP
1-1/2	4-1/2	1-1/2	1-1/2	4-1/2	1-3/8	40U15B15-7	40U15B15-7EP
2	6	2	2	5	1-5/8	40U20B20-7	40U20B20-7EP
2-1/2	7-1/2	2-1/2	2-1/2	5-3/4	1-7/8	40U25B25-7	40U25B25-7EP
3	9	3	3	6-1/2	2-1/8	40U30B30-7	40U30B30-7EP
4	12	4	4	8-1/2	2-5/8	40U40B40-7	40U40B40-7EP
6	18	6	6	11-1/2	3-3/4	-	-





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