



D-CKWEILER
connecting flow to **purity**

LIFE SCIENCE

TUBES, FITTINGS AND CONNECTIONS

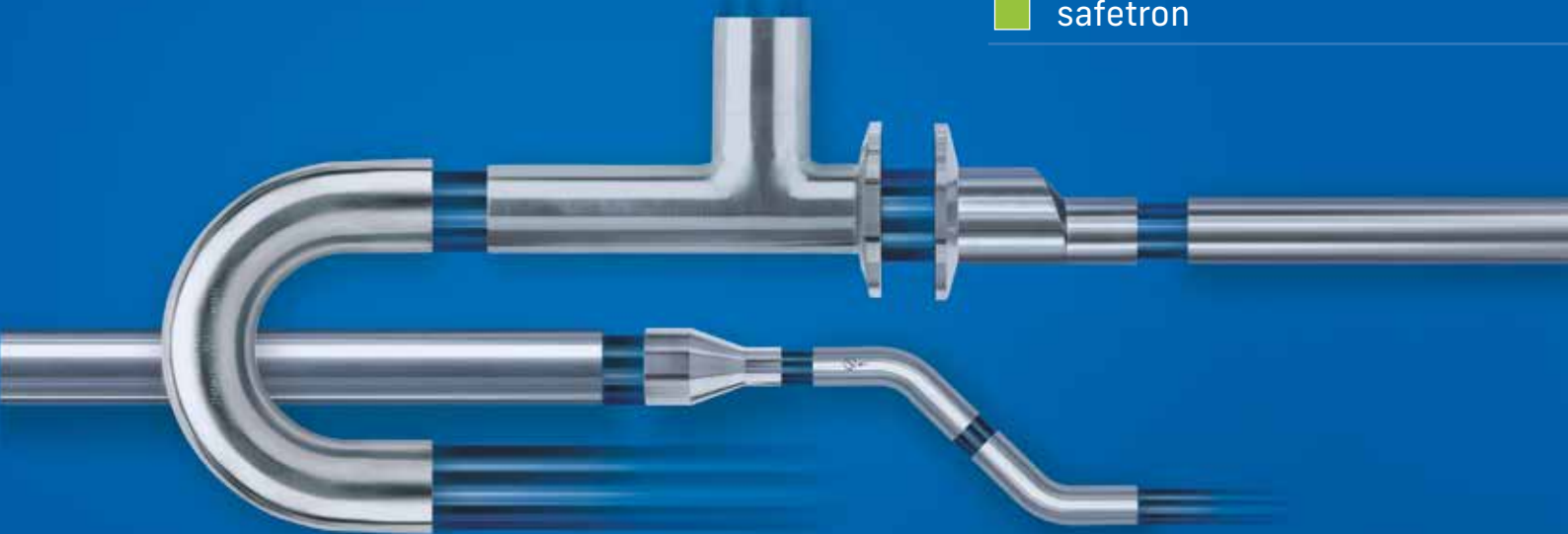


FOR PHARMA, BIOTECH AND
OTHER LIFE SCIENCE INDUSTRIES

 ASME BPE Certified

 weldtron

 safetron



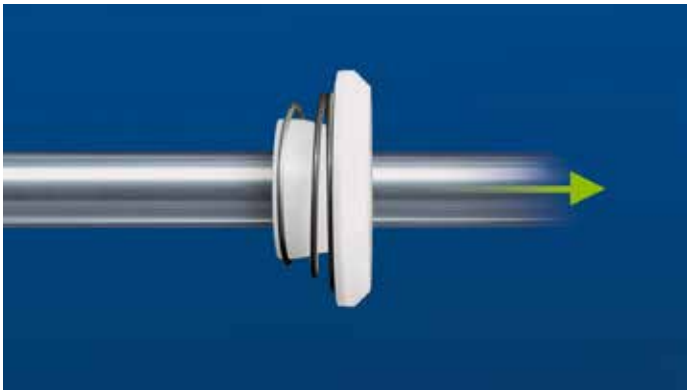
EMEA





Tubes, Fittings and Components for Life Science Applications

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How-to order
Dockweiler Order Code System

- Order Code for ASME BPE products:
- 1. **Quality** (Inner surface SF1 or SF4 combined with the material)
 - 2. **Product-Code**
 - 3. **Diameter**
 - 4. **DT-Annex** (Reference to ASME BPE standard / the last two digits)

Qualities highlighted in **blue colour** are stock products.
Others articles are non-stock products.



Sample for **ASME BPE, SF-4, 90° Elbow, 1 Inch**

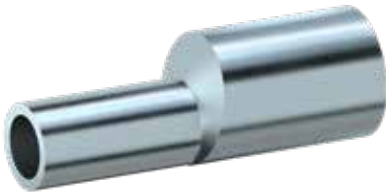
ASME BPE / DT-4.1.1-1

Size		A		ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE
Inch	mm	Inch	mm			
				316L	Code	DT
1/4	6,35	2.625	66,70	SF1	SF4	- E9-04 - 1-1
3/8	9,53	2.625	66,70	SF1	SF4	- E9-06 - 1-1
1/2	12,70	3.000	76,20	SF1	1.	- 2. 3. - 4.
3/4	19,05	3.000	76,20	SF1	SF4	- E9-16 - 1-1
1	25,40	3.000	76,20	SF1	SF4	- E9-16 - 1-1
1 1/2	38,10	3.750	95,30	SF1	SF4	- E9-24 - 1-1
2	50,80	4.750	120,70	SF1	SF4	- E9-32 - 1-1
2 1/2	63,50	5.500	139,70	SF1	SF4	- E9-40 - 1-1
3	76,20	6.250	158,80	SF1	SF4	- E9-48 - 1-1
4	101,60	8.000	203,20	SF1	SF4	- E9-64 - 1-1
6	152,40	11.500	292,10	SF1	SF4	- E9-96 - 1-1

Order Code: **SF4-E9-16-1-1**

- Order Code for DIN products:
- 1. **Quality**: Inner surface (weldtron or safetron in bf or ep) in combination with the material
 - 2. **Product-Code**
 - 3. **Diameter**

Qualities highlighted in **blue colour** are stock products.
As this article is not highlighted in blue colour, it is a non-stock product.



Sample for **safetron ep, Reducer Eccentric, 1 1/2 x 1/2 Inch**

IMPERIAL / DIN 11865

Size		d1 x d 2	s1	s2	l1	weldtron bf	weldtron ep	safetron bf	safetron ep	1.4435 / 316L	Code
Inch	mm	mm									
1/2 x 1/4	12,70 x 6,35	1,65	0,89	47,63		W	WE	S	SE		RE-08-04
1/2 x 3/8	12,70 x 9,53	1,65	0,89	47,63		W	WE	S	SE		RE-08-06
3/4 x 3/8	19,05 x 9,53	1,65	0,89	50,80		W	WE	S	SE		RE-12-06
3/4 x 1/2	19,05 x 12,70	1,65	1,65	53,98		W	WE	S	SE		RE-12-08
1 x 1/2	25,40 x 12,70	1,65	1,65	63,50		W	WE	S	SE		RE-16-04
1 x 3/4	25,40 x 19,05	1,65	1,65	53,98		W	WE	S	SE		RE-16-06
1 1/2 x 1/2	38,10 x 12,70	1,65	1,65	80,00		W	WE	S	SE	1. 2. 3.	RE-24-08
1 1/2 x 3/4	38,10 x 19,05	1,65	1,65	76,20		W	WE	S	SE		RE-24-12
1 1/2 x 1	38,10 x 25,40	1,65	1,65	63,50		W	WE	S	SE		RE-24-16
2 x 1	50,80 x 25,40	1,65	1,65	85,73		W	WE	S	SE		RE-32-04
2 x 1 1/2	50,80 x 38,10	1,65	1,65	63,50		W	WE	S	SE		RE-40-04
2 1/2 x 1	63,50 x 25,40	1,65	1,65	100,00		W	WE	S	SE		RE-40-16
2 1/2 x 1 1/2	63,50 x 38,10	1,65	1,65	85,73		W	WE	S	SE		RE-40-24
2 1/2 x 2	63,50 x 50,80	1,65	1,65	63,50		W	WE	S	SE		RE-40-32
3 x 1 1/2	76,20 x 38,10	1,65	1,65	107,95		W	WE	S	SE		RE-48-24
3 x 2	76,20 x 50,80	1,65	1,65	85,73		W	WE	S	SE		RE-48-32
3 x 2 1/2	76,20 x 63,50	1,65	1,65	66,68		W	WE	S	SE		RE-48-40
4 x 2	101,60 x 50,80	2,11	1,65	130,18		W	WE	S	SE		RE-64-32
4 x 2 1/2	101,60 x 63,50	2,11	1,65	107,95		W	WE	S	SE		RE-64-40
4 x 3	101,60 x 76,20	2,11	1,65	98,43		W	WE	S	SE		RE-64-48
6 x 3	152,40 x 76,20	2,77	1,65	184,15		W	WE	S	SE		RE-96-64
6 x 4	152,40 x 101,60	2,77	2,11	142,88		W	WE	S	SE		RE-96-48

Sample for **weldtron bf, Reducer Eccentric, 4 x 2 Inch** Order Code: **W-RE-64-32**

If you require stainless steel grade **1.4435 / UNS S31603**, please add **-35** at the end of the order code.

ASME BPE Tubes, Fittings and Connections

■ ASME BPE		Technical Specifications	8
Products	Code	Designations according to ASME BPE	Page
	DT-4-1	Tube	10
	DT-4.1.1-1	Automatic Tube Weld: 90° Elbow	12
	DT-4.1.1-2	Automatic Tube Weld: Hygienic Clamp Joint, 90° Elbow	13
	DT-4.1.1-3	Hygienic Clamp Joint: 90° Elbow	14
	DT-4.1.1-4	Automatic Tube Weld: 45° Elbow	15
	DT-4.1.1-5	Automatic Tube Weld: Hygienic Clamp Joint, 45° Elbow	16
	DT-4.1.1-6	Hygienic Clamp Joint: 45° Elbow	17
	DT-4.1.1-7	Automatic Tube Weld: 180° Return Bend	18
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	DT-4.1.1-9	Automatic Tube Weld: 88° Elbow	20
	DT-4.1.1-10	Automatic Tube Weld: 92° Elbow	21
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	DT-4.1.2-1	Automatic Tube Weld: Straight Cross	23
	DT-4.1.2-2	Automatic Tube Weld: Short Outlet Hygienic Clamp Joint Tee	24
	DT-4.1.2-3	Hygienic Mechanical Joint: Short Outlet Run Tee	25
	DT-4.1.2-4	Hygienic Clamp Joint: Straight Tee	26
	DT-4.1.2-4	Hygienic Clamp Joint: Straight Cross	27

Products	Code	Designations according to ASME BPE	Page
	DT-4.1.2-5	Hygienic Clamp Joint: Short Outlet Tee	28
	DT-4.1.2-6	Automatic Tube Weld: Reducing Tee	30
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	DT-4.1.2-8	Hygienic Clamp Joint: Reducing Tee	34
	DT-4.1.2-9	Hygienic Clamp Joint: Short Outlet Reducing Tee	36
	DT-4.1.2-10	Automatic Tube Weld: Instrument Tee	38
	DT-4.1.2-11	Hygienic Clamp Joint: Instrument Tee	39
	DT-4.1.3-1	Automatic Tube Weld: Concentric Reducer	40
	DT-4.1.3-1	Automatic Tube Weld: Eccentric Reducer	41
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	DT-4.1.3-2	Hygienic Clamp Joint: Tube Weld Eccentric Reducer	43
	DT-4.1.3-3	Hygienic Clamp Joint: Concentric Reducer	44
	DT-4.1.3-3	Hygienic Clamp Joint: Eccentric Reducer	45
	DT-4.1.4-1	Automatic Tube Weld: Ferrule	46
	DT-4.1.5-1	Automatic Tube Weld: Cap	48
	DT-4.1.5-2	Hygienic Clamp Joint: Solid End Cap	49
		Clamps	50
		Gaskets	51

Specification
ASME BPE

For pharma, biotech and
other life science industries

 ASME BPE

-  **ASME BPE SF1 / mechanically polished**
-  **ASME BPE SF4 / electropolished**



1. SURFACE QUALITIES

Tubes and fittings:	Inner surface (mechanically polished)*
ASME BPE SF0 - on request	No finish requirements
 ASME BPE SF1	Ra_{max.} ≤ 0,51 µm / 20 µin (Dockweiler Standard)
ASME BPE SF2 - on request	Ra _{max.} ≤ 0,64 µm / 25 µin
ASME BPE SF3 - on request	Ra _{max.} ≤ 0,76 µm / 30 µin
Tubes and fittings:	Inner surface (electropolished)
 ASME BPE SF4	Ra_{max.} ≤ 0,38 µm / 15 µin (Dockweiler Standard)
ASME BPE SF5 - on request	Ra _{max.} ≤ 0,51 µm / 20 µin
ASME BPE SF6 - on request	Ra _{max.} ≤ 0,64 µm / 25 µin
Surface treatment:	- Mechanically polished (or any other finishing method that meets the Ra max.): Cleaning and test procedure ASTM A 632, S3 - Electropolished: Procedure acc. to Spec. Doc. 8.4-40/3.2/3.3.2 - Free of oil and grease acc. to CGA G-4.1-2018 and ASTM G93 – level B (SF4) / level C (SF1)

2. MATERIALS

 ASME BPE	UNS S31603 (316L)*, UNS S31603 (316L), 1.4404, 1.4435* * defined sulphur of 0.005 - 0.017%
Hardness equivalent to:	- max. 180 HV* according to DIN EN ISO 6507-1 - max. 90 HRB* according to DIN EN ISO 6508-1 * comparable to ASTM E-384 (HV) and ASTM E 18-22 (HRB)

3. DIMENSIONS

Imperial:	acc. to ASME BPE, Part DT
OD x WT	1/4" to 6" (0.250 x 0.035 inch to 6.000 x 0.109 inch) 6,35 x 0,89 mm to 152,40 x 2,77 mm
Manufacturing process:	Welded or seamless tubes

4. QUALITY AND TEST PROCEDURES

	Verification of basic test certificate		Visual inspection		Endoscopic inspection of bright finished tubes
	Verification of dimensions		Roughness measurements		

5. TECHNICAL TERMS OF DELIVERY

Tubes and fittings

Acc. to ASME BPE-2024, ASTM A 269/270, tubes with a length of 5900 - 6090 mm (19.35 ft - 19.98 ft), max. 10% short lengths of min. 3000 mm (9.84 ft)

Marking always with

DOCKWEILER / DW-Number / Dimension / Material / Heat Number / ASME Certification Mark, Surface Finish Designation

Tubes, pipes and fittings shall be permanently marked as per ASME BPE-2024, DT-11. The marking must provide all necessary information to trace back the heat number and the material grade.

6. DOCUMENTATION, PACKAGING AND SHIPPING

Documentation

The documentation result by the Dockweiler Inspection Certificate 3.1 according to DIN EN 10204. Optional online documentation WebCert.

Packaging

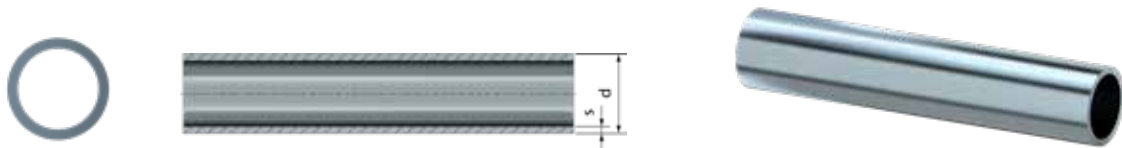
Mechanically polished tubes and fittings are closed with transparent PE caps and are individually sealed in PE foil. The batch label on the foil contains the information ASME BPE SF1.

Electropolished tubes and fittings are closed with PA/ PE squares and yellow PE caps, sleeved and sealed in PE. The batch label on the foil contains the information ASME BPE SF4.

Shipping

Delivery in tubular container or wooden crate, fittings in strong cardboard box with shock absorbing filler.

DT-4-1
Tube

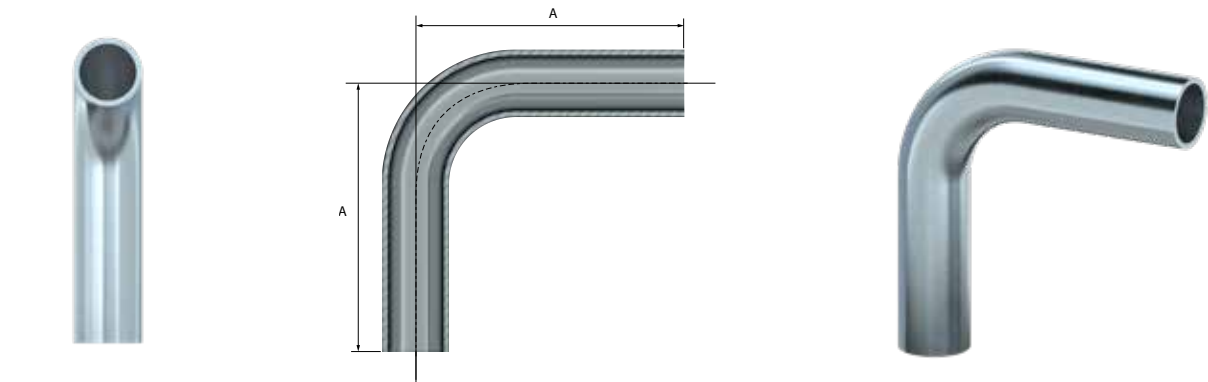


ASME BPE / DT-4-1

Size					d x s		Weight		ASME BPE SF1	ASME BPE SF4
Inch	mm		Inch	kg / m	lbs / Inch	316L		Code		
1/4	6,35	x 0,89	0.250 x 0.035	0,1241	0.2736	SF1	SF4	- 04		
3/8	9,53	x 0,89	0.375 x 0.035	0,1966	0.4334	SF1	SF4	- 06		
1/2	12,70	x 1,65	0.500 x 0.065	0,4571	1.0077	SF1	SF4	- 08		
3/4	19,05	x 1,65	0.750 x 0.065	0,7198	1.5869	SF1	SF4	- 12		
1	25,40	x 1,65	1.000 x 0.065	0,9824	2.1658	SF1	SF4	- 16		
1 1/2	38,10	x 1,65	1.500 x 0.065	1,5077	3.3239	SF1	SF4	- 24		
2	50,80	x 1,65	2.000 x 0.065	2,0331	4.4822	SF1	SF4	- 32		
2 1/2	63,50	x 1,65	2.500 x 0.065	2,5585	5.6405	SF1	SF4	- 40		
3	76,20	x 1,65	3.000 x 0.065	3,0838	6.7986	SF1	SF4	- 48		
4	101,60	x 2,11	4.000 x 0.083	5,2627	11.6023	SF1	SF4	- 64		
6	152,40	x 2,77	6.000 x 0.109	10,3909	22.9080	SF1	SF4	- 96		

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.1-1
Automatic Tube Weld: 90° Elbow

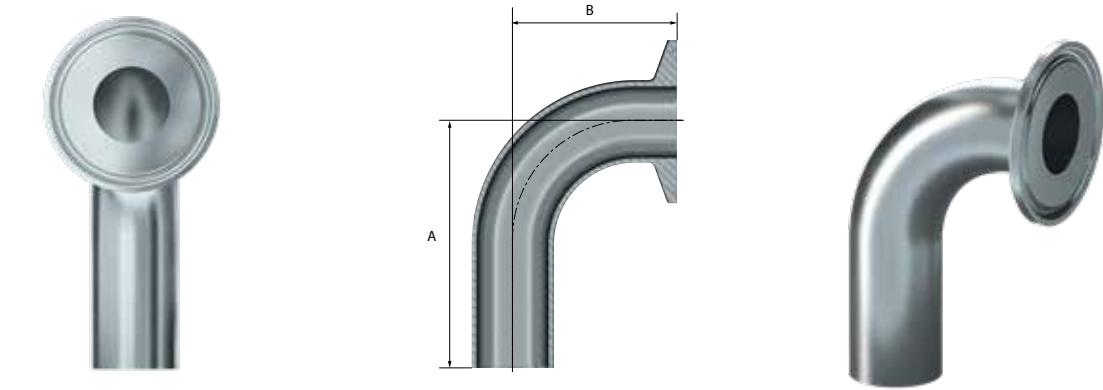


ASME BPE / DT-4.1.1-1

ASME BPE / DT-4.1.1-1				ASME BPE SF1	ASME BPE SF4			Ref. According to ASME BPE
Size		A						
Inch	mm	Inch	mm	316L		Code	DT	
1/4	6,35	2.625	66,70	SF1	SF4	- E9-04	-	1-1
3/8	9,53	2.625	66,70	SF1	SF4	- E9-06	-	1-1
1/2	12,70	3.000	76,20	SF1	SF4	- E9-08	-	1-1
3/4	19,05	3.000	76,20	SF1	SF4	- E9-12	-	1-1
1	25,40	3.000	76,20	SF1	SF4	- E9-16	-	1-1
1 1/2	38,10	3.750	95,30	SF1	SF4	- E9-24	-	1-1
2	50,80	4.750	120,70	SF1	SF4	- E9-32	-	1-1
2 1/2	63,50	5.500	139,70	SF1	SF4	- E9-40	-	1-1
3	76,20	6.250	158,80	SF1	SF4	- E9-48	-	1-1
4	101,60	8.000	203,20	SF1	SF4	- E9-64	-	1-1
6	152,40	11.500	292,10	SF1	SF4	- E9-96	-	1-1

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.1-2
Automatic Tube Weld: Hygienic Clamp Joint, 90° Elbow

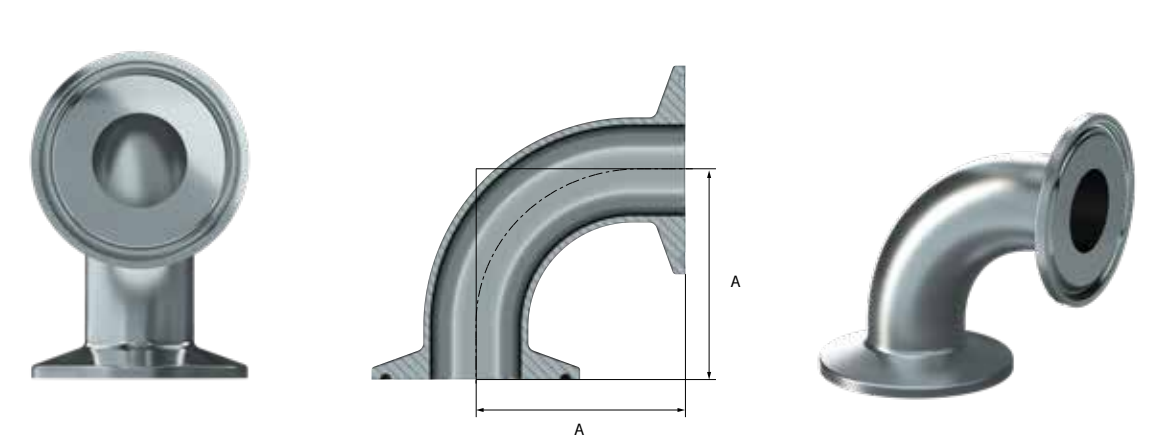


ASME BPE / DT-4.1.1-2

ASME BPE / DT-4.1.1-2						ASME BPE SF1	ASME BPE SF4			Ref. According to ASME BPE
Size		A		B						
Inch	mm	Inch	mm	Inch	mm	316L	Code	DT		
1/4	6,35	2.625	66,70	1.625	41,30	SF1 SF4	- E9-04 -	1-2		
3/8	9,53	2.625	66,70	1.625	41,30	SF1 SF4	- E9-06 -	1-2		
1/2	12,70	3.000	76,20	1.625	41,30	SF1 SF4	- E9-08 -	1-2		
3/4	19,05	3.000	76,20	1.625	41,30	SF1 SF4	- E9-12 -	1-2		
1	25,40	3.000	76,20	2.000	50,80	SF1 SF4	- E9-16 -	1-2		
1 1/2	38,10	3.750	95,30	2.750	69,90	SF1 SF4	- E9-24 -	1-2		
2	50,80	4.750	120,70	3.500	88,90	SF1 SF4	- E9-32 -	1-2		
2 1/2	63,50	5.500	139,70	4.250	108,00	SF1 SF4	- E9-40 -	1-2		
3	76,20	6.250	158,80	5.000	127,00	SF1 SF4	- E9-48 -	1-2		
4	101,60	8.000	203,20	6.625	168,20	SF1 SF4	- E9-64 -	1-2		
6	152,40	11.500	292,10	10.500	266,70	SF1 SF4	- E9-96 -	1-2		

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.1-3
Hygienic Clamp Joint: 90° Elbow

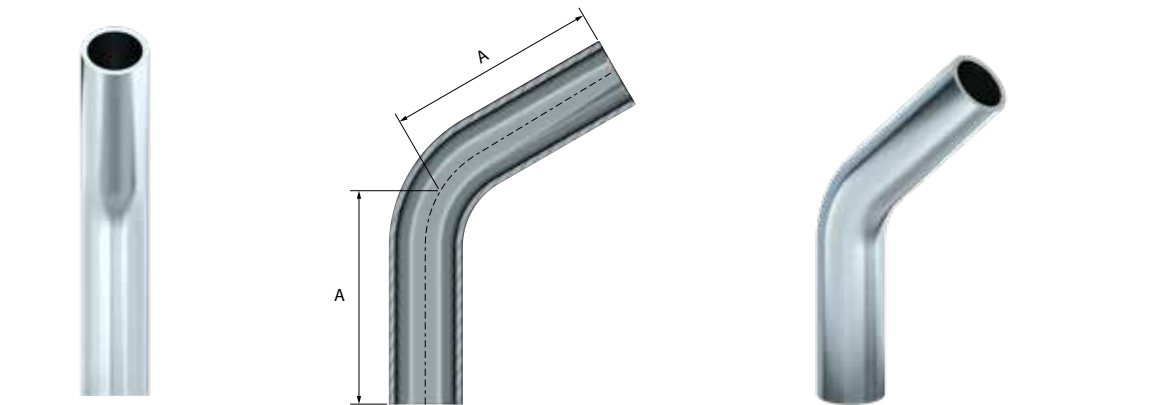


ASME BPE / DT-4.1.1-3

Size				A		ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE		
Inch	mm	Inch	mm	316L	Code	DT				
1/4	6,35	1.625	41,30	SF1 SF4	- E9-04 -	1-3				
3/8	9,53	1.625	41,30	SF1 SF4	- E9-06 -	1-3				
1/2	12,70	1.625	41,30	SF1 SF4	- E9-08 -	1-3				
3/4	19,05	1.625	41,30	SF1 SF4	- E9-12 -	1-3				
1	25,40	2.000	50,80	SF1 SF4	- E9-16 -	1-3				
1 1/2	38,10	2.750	69,90	SF1 SF4	- E9-24 -	1-3				
2	50,80	3.500	88,90	SF1 SF4	- E9-32 -	1-3				
2 1/2	63,50	4.250	108,00	SF1 SF4	- E9-40 -	1-3				
3	76,20	5.000	127,00	SF1 SF4	- E9-48 -	1-3				
4	101,60	6.625	168,20	SF1 SF4	- E9-64 -	1-3				
6	152,40	10.500	266,70	SF1 SF4	- E9-96 -	1-3				

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.1-4
Automatic Tube Weld: 45° Elbow

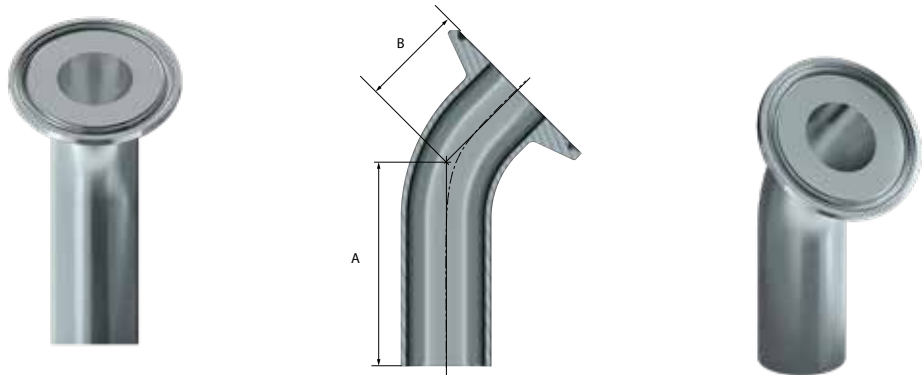


ASME BPE / DT-4.1.1-4

Size				A		ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE		
Inch	mm	Inch	mm	316L	Code	DT				
1/4	6,35	2.000	50,80	SF1 SF4	- E4-04 -	1-4				
3/8	9,53	2.000	50,80	SF1 SF4	- E4-06 -	1-4				
1/2	12,70	2.250	57,20	SF1 SF4	- E4-08 -	1-4				
3/4	19,05	2.250	57,20	SF1 SF4	- E4-12 -	1-4				
1	25,40	2.250	57,20	SF1 SF4	- E4-16 -	1-4				
1 1/2	38,10	2.500	63,50	SF1 SF4	- E4-24 -	1-4				
2	50,80	3.000	76,20	SF1 SF4	- E4-32 -	1-4				
2 1/2	63,50	3.375	85,70	SF1 SF4	- E4-40 -	1-4				
3	76,20	3.625	92,10	SF1 SF4	- E4-48 -	1-4				
4	101,60	4.500	114,30	SF1 SF4	- E4-64 -	1-4				
6	152,40	6.250	158,80	SF1 SF4	- E4-96 -	1-4				

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.1-5
Automatic Tube Weld: Hygienic Clamp Joint, 45° Elbow

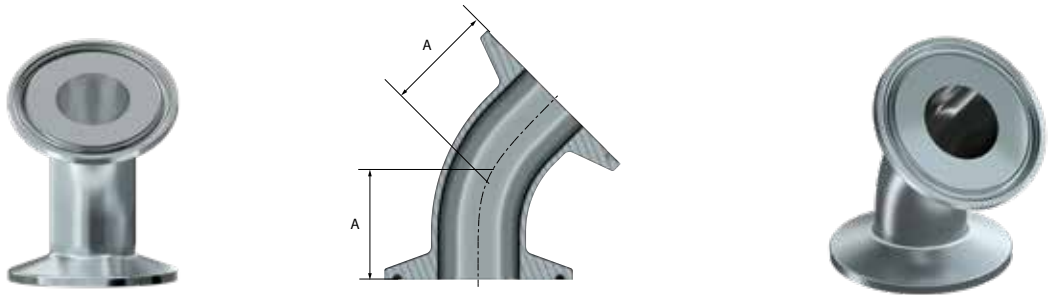


ASME BPE / DT-4.1.1-5

Size		A		B		ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE		
Inch	mm	Inch	mm	Inch	mm	316L		Code	DT	
1/4	6,35	2.000	50,80	1.000	25,40	SF1	SF4	- E4-04 -	1-5	
3/8	9,53	2.000	50,80	1.000	25,40	SF1	SF4	- E4-06 -	1-5	
1/2	12,70	2.250	57,20	1.000	25,40	SF1	SF4	- E4-08 -	1-5	
3/4	19,05	2.250	57,20	1.000	25,40	SF1	SF4	- E4-12 -	1-5	
1	25,40	2.250	57,20	1.125	28,60	SF1	SF4	- E4-16 -	1-5	
1 1/2	38,10	2.500	63,50	1.438	36,50	SF1	SF4	- E4-24 -	1-5	
2	50,80	3.000	76,20	1.750	44,50	SF1	SF4	- E4-32 -	1-5	
2 1/2	63,50	3.375	85,70	2.063	52,40	SF1	SF4	- E4-40 -	1-5	
3	76,20	3.625	92,10	2.375	60,30	SF1	SF4	- E4-48 -	1-5	
4	101,60	4.500	114,30	3.125	79,40	SF1	SF4	- E4-64 -	1-5	
6	152,40	6.250	158,80	5.250	133,40	SF1	SF4	- E4-96 -	1-5	

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.1-6
Hygienic Clamp Joint: 45° Elbow

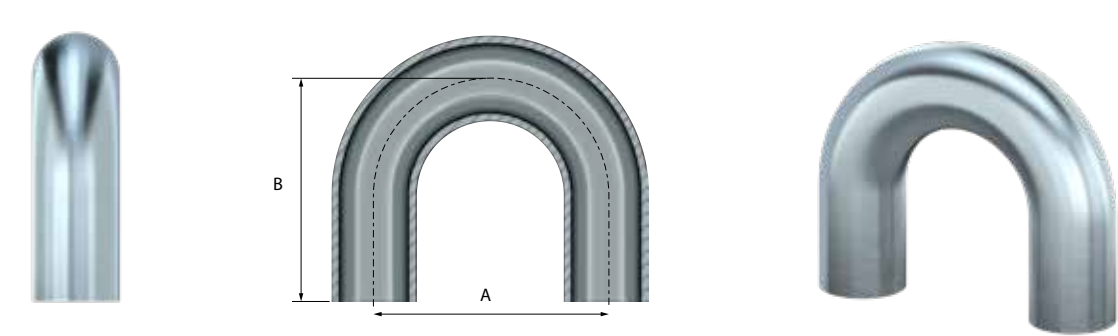


ASME BPE / DT-4.1.1-6

Size		A		ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE		
Inch	mm	Inch	mm	316L		Code	DT	
1/4	6,35	1.000	25,40	SF1	SF4	- E4-04 -	1-6	
3/8	9,53	1.000	25,40	SF1	SF4	- E4-06 -	1-6	
1/2	12,70	1.000	25,40	SF1	SF4	- E4-08 -	1-6	
3/4	19,05	1.000	25,40	SF1	SF4	- E4-12 -	1-6	
1	25,40	1.125	28,60	SF1	SF4	- E4-16 -	1-6	
1 1/2	38,10	1.438	36,50	SF1	SF4	- E4-24 -	1-6	
2	50,80	1.750	44,50	SF1	SF4	- E4-32 -	1-6	
2 1/2	63,50	2.063	52,40	SF1	SF4	- E4-40 -	1-6	
3	76,20	2.375	60,30	SF1	SF4	- E4-48 -	1-6	
4	101,60	3.125	79,40	SF1	SF4	- E4-64 -	1-6	
6	152,40	5.250	133,40	SF1	SF4	- E4-96 -	1-6	

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.1-7
Automatic Tube Weld: 180° Return Bend

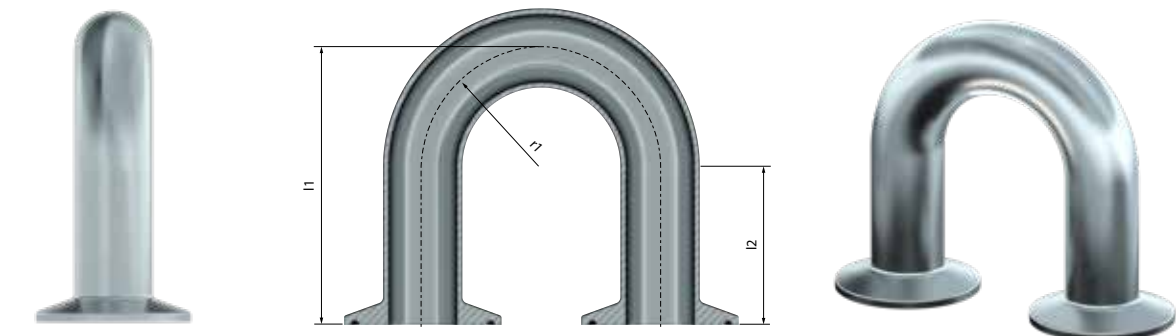


ASME BPE / DT-4.1.1-7

Size		A		B		ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE		
Inch	mm	Inch	mm	Inch	mm	316L		Code	DT	
1/4	6,35	4.500	114,30	2.625	66,70	SF1	SF4	- EU-04 -	1-7	
3/8	9,53	4.500	114,30	2.625	66,70	SF1	SF4	- EU-06 -	1-7	
1/2	12,70	4.500	114,30	3.000	76,20	SF1	SF4	- EU-08 -	1-7	
3/4	19,05	4.500	114,30	3.000	76,20	SF1	SF4	- EU-12 -	1-7	
1	25,40	3.000	76,20	3.000	76,20	SF1	SF4	- EU-16 -	1-7	
1 1/2	38,10	4.500	114,30	4.500	114,30	SF1	SF4	- EU-24 -	1-7	
2	50,80	6.000	152,40	5.000	127,00	SF1	SF4	- EU-32 -	1-7	
2 1/2	63,50	7.500	190,50	5.750	146,10	SF1	SF4	- EU-40 -	1-7	
3	76,20	9.000	228,60	6.500	165,10	SF1	SF4	- EU-48 -	1-7	
4	101,60	12.000	304,80	8.500	215,90	SF1	SF4	- EU-64 -	1-7	
6	152,40	18.000	457,20	11.500	292,10	SF1	SF4	- EU-96 -	1-7	

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.1-8
Hygienic Clamp Joint: 180° Return Bend

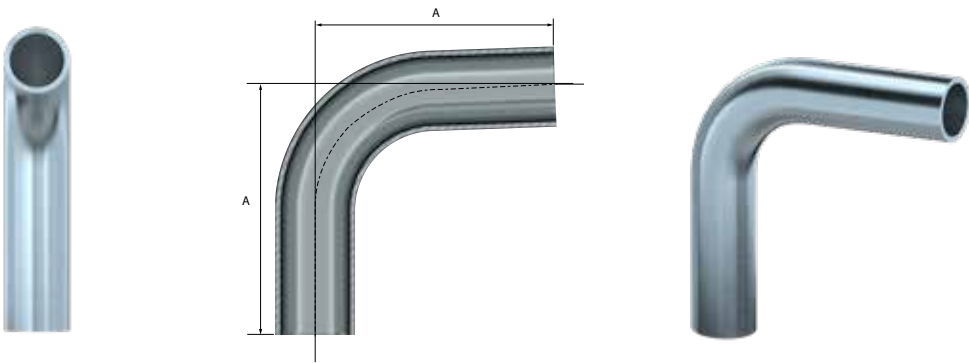


ASME BPE / DT-4.1.1-8

Size		A		B		ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE		
Inch	mm	Inch	mm	Inch	mm	316L		Code	DT	
1/4	6,35	4.500	114,30	3.125	79,40	SF1	SF4	- EU-04 -	1-8	
3/8	9,53	4.500	114,30	3.125	79,40	SF1	SF4	- EU-06 -	1-8	
1/2	12,70	4.500	114,30	3.500	88,90	SF1	SF4	- EU-08 -	1-8	
3/4	19,05	4.500	114,30	3.500	88,90	SF1	SF4	- EU-12 -	1-8	
1	25,40	3.000	76,20	3.500	88,90	SF1	SF4	- EU-16 -	1-8	
1 1/2	38,10	4.500	114,30	5.000	127,00	SF1	SF4	- EU-24 -	1-8	
2	50,80	6.000	152,40	5.500	139,70	SF1	SF4	- EU-32 -	1-8	
2 1/2	63,50	7.500	190,50	6.250	158,80	SF1	SF4	- EU-40 -	1-8	
3	76,20	9.000	228,60	7.000	177,80	SF1	SF4	- EU-48 -	1-8	
4	101,60	12.000	304,80	9.125	231,80	SF1	SF4	- EU-64 -	1-8	
6	152,40	18.000	457,20	13.000	330,20	SF1	SF4	- EU-96 -	1-8	

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.1-9
Automatic Tube Weld: 88° Elbow

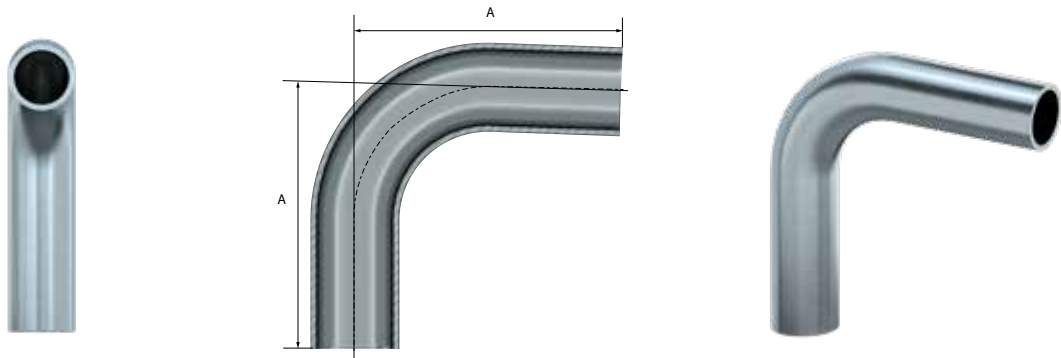


ASME BPE / DT-4.1.1-9

Size				A		ASME		ASME		Ref. Accord to ASME B
Inch	mm	Inch	mm	316L		Code		DT		
1/4	6,35	2.700	68,58	SF1	SF4	-	E8-04	-	1-9	
3/8	9,53	2.700	68,58	SF1	SF4	-	E8-06	-	1-9	
1/2	12,70	3.065	77,85	SF1	SF4	-	E8-08	-	1-9	
3/4	19,05	3.065	77,85	SF1	SF4	-	E8-12	-	1-9	
1	25,40	3.050	77,47	SF1	SF4	-	E8-16	-	1-9	
1 1/2	38,10	3.800	96,52	SF1	SF4	-	E8-24	-	1-9	
2	50,80	4.810	122,17	SF1	SF4	-	E8-32	-	1-9	
2 1/2	63,50	5.560	141,22	SF1	SF4	-	E8-40	-	1-9	
3	76,20	6.310	160,27	SF1	SF4	-	E8-48	-	1-9	
4	101,60	8.065	204,85	SF1	SF4	-	E8-64	-	1-9	
6	152,40	11.580	294,13	SF1	SF4	-	E8-96	-	1-9	

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.1-10
Automatic Tube Weld: 92° Elbow

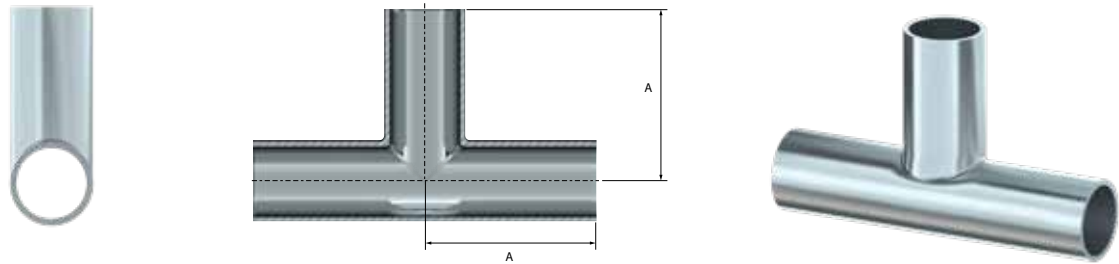


ASME BPE / DT-4.1.1-10

				ASME	ASME			Ref. Accor- to ASME B
Size		A						
Inch	mm	Inch	mm	316L		Code	DT	
1/4	6,35	2.700	68,58	SF1	SF4	- E2-04	-	1-10
3/8	9,53	2.700	68,58	SF1	SF4	- E2-06	-	1-10
1/2	12,70	3.065	77,85	SF1	SF4	- E2-08	-	1-10
3/4	19,05	3.065	77,85	SF1	SF4	- E2-12	-	1-10
1	25,40	3.050	77,47	SF1	SF4	- E2-16	-	1-10
1 1/2	38,10	3.800	96,52	SF1	SF4	- E2-24	-	1-10
2	50,80	4.810	122,17	SF1	SF4	- E2-32	-	1-10
2 1/2	63,50	5.560	141,22	SF1	SF4	- E2-40	-	1-10
3	76,20	6.310	160,27	SF1	SF4	- E2-48	-	1-10
4	101,60	8.065	204,85	SF1	SF4	- E2-64	-	1-10
6	152,40	11.580	294,13	SF1	SF4	- E2-96	-	1-10

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.2-1
Automatic Tube Weld: Straight Tee

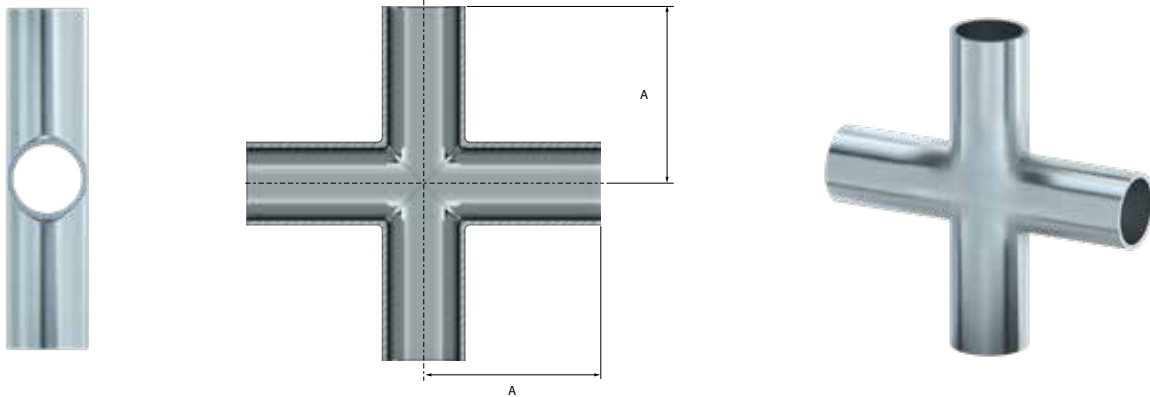


ASME BPE / DT-4.1.2-1

Size				A		ASME		ASME		Ref. Accord to ASME B
Inch	mm	Inch	mm	316L		Code		DT		
1/4	6,35	1.750	44,50	SF1	SF4	-	TE-04	-	2-1	
3/8	9,53	1.750	44,50	SF1	SF4	-	TE-06	-	2-1	
1/2	12,70	1.875	47,60	SF1	SF4	-	TE-08	-	2-1	
3/4	19,05	2.000	50,80	SF1	SF4	-	TE-12	-	2-1	
1	25,40	2.125	54,00	SF1	SF4	-	TE-16	-	2-1	
1 1/2	38,10	2.375	60,30	SF1	SF4	-	TE-24	-	2-1	
2	50,80	2.875	73,00	SF1	SF4	-	TE-32	-	2-1	
2 1/2	63,50	3.125	79,40	SF1	SF4	-	TE-40	-	2-1	
3	76,20	3.375	85,70	SF1	SF4	-	TE-48	-	2-1	
4	101,60	4.125	104,80	SF1	SF4	-	TE-64	-	2-1	
6	152,40	5.625	142,90	SF1	SF4	-	TE-96	-	2-1	

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.2-1
Automatic Tube Weld: Straight Cross

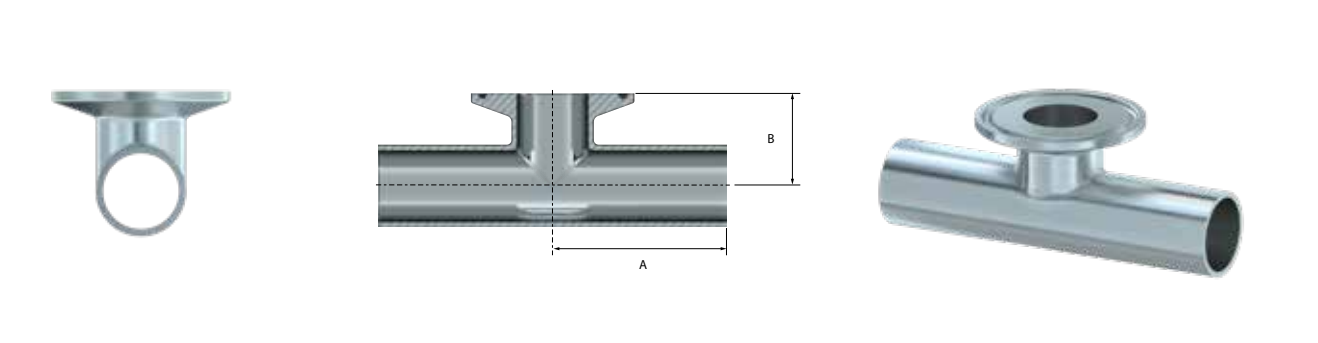


ASME BPE / DT-4.1.2-1

Size				A		ASME		ASME		Ref. Accord to ASME B
Inch	mm	Inch	mm	316L		Code		DT		
1/4	6,35	1.750	44,50	SF1	SF4	-	CE-04	-	2-1	
3/8	9,53	1.750	44,50	SF1	SF4	-	CE-06	-	2-1	
1/2	12,70	1.875	47,60	SF1	SF4	-	CE-08	-	2-1	
3/4	19,05	2.000	50,80	SF1	SF4	-	CE-12	-	2-1	
1	25,40	2.125	54,00	SF1	SF4	-	CE-16	-	2-1	
1 1/2	38,10	2.375	60,30	SF1	SF4	-	CE-24	-	2-1	
2	50,80	2.875	73,00	SF1	SF4	-	CE-32	-	2-1	
2 1/2	63,50	3.125	79,40	SF1	SF4	-	CE-40	-	2-1	
3	76,20	3.375	85,70	SF1	SF4	-	CE-48	-	2-1	
4	101,60	4.125	104,80	SF1	SF4	-	CE-64	-	2-1	
6	152,40	5.625	142,90	SF1	SF4	-	CE-96	-	2-1	

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.2-2
Automatic Tube Weld: Short Outlet Hygienic Clamp Joint Tee

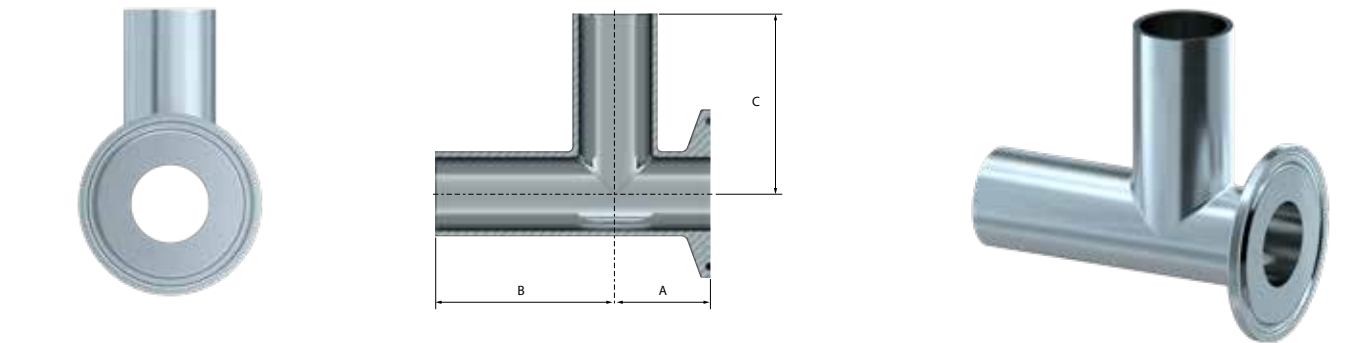


ASME BPE / DT-4.1.2-2

Size		A		B		ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE		
Inch	mm	Inch	mm	Inch	mm	316L		Code	DT	
1/4	6,35	1.750	44,50	1.000	25,40	SF1	SF4	- TE-04 -	2-2	
3/8	9,53	1.750	44,50	1.000	25,40	SF1	SF4	- TE-06 -	2-2	
1/2	12,70	1.875	47,60	1.000	25,40	SF1	SF4	- TE-08 -	2-2	
3/4	19,05	2.000	50,80	1.125	28,60	SF1	SF4	- TE-12 -	2-2	
1	25,40	2.125	54,00	1.125	28,60	SF1	SF4	- TE-16 -	2-2	
1 1/2	38,10	2.375	60,30	1.375	34,90	SF1	SF4	- TE-24 -	2-2	
2	50,80	2.875	73,00	1.625	41,30	SF1	SF4	- TE-32 -	2-2	
2 1/2	63,50	3.125	79,40	1.875	47,60	SF1	SF4	- TE-40 -	2-2	
3	76,20	3.375	85,70	2.125	54,00	SF1	SF4	- TE-48 -	2-2	
4	101,60	4.125	104,80	2.750	69,00	SF1	SF4	- TE-64 -	2-2	
6	152,40	5.625	142,90	4.625	117,50	SF1	SF4	- TE-96 -	2-2	

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.2-3
Hygienic Mechanical Joint: Short Outlet Run Tee

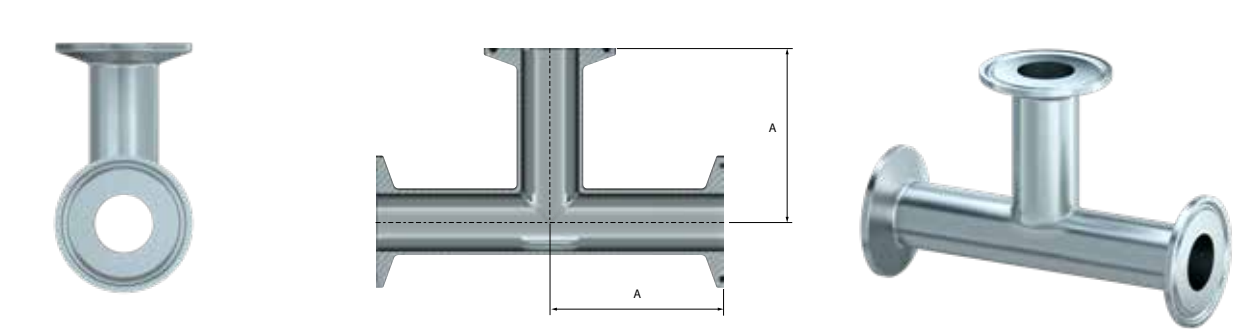


ASME BPE / DT-4.1.2-3

Size		A		B		C		ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE		
Inch	mm	Inch	mm	Inch	mm	Inch	mm	316L		Code	DT	
1/4	6,35	0.875	22,20	1.750	44,50	1.750	44,50	SF1	SF4	- TE-04 -	2-3	
3/8	9,53	0.875	22,20	1.750	44,50	1.750	44,50	SF1	SF4	- TE-06 -	2-3	
1/2	12,70	0.875	22,20	1.875	47,60	1.875	47,60	SF1	SF4	- TE-08 -	2-3	
3/4	19,05	1.000	25,40	2.000	50,80	2.000	50,80	SF1	SF4	- TE-12 -	2-3	
1	25,40	1.125	28,60	2.125	54,00	2.125	54,00	SF1	SF4	- TE-16 -	2-3	
1 1/2	38,10	1.375	34,90	2.375	60,30	2.375	60,30	SF1	SF4	- TE-24 -	2-3	
2	50,80	1.625	41,30	2.875	73,00	2.875	73,00	SF1	SF4	- TE-32 -	2-3	
2 1/2	63,50	1.875	47,60	3.125	79,40	3.125	79,40	SF1	SF4	- TE-40 -	2-3	
3	76,20	2.125	54,00	3.375	85,70	3.375	85,70	SF1	SF4	- TE-48 -	2-3	
4	101,60	2.750	69,90	4.125	104,80	4.125	104,80	SF1	SF4	- TE-64 -	2-3	
6	152,40	4.625	117,50	5.625	142,90	5.625	142,90	SF1	SF4	- TE-96 -	2-3	

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.2-4
Hygienic Clamp Joint: Straight Tee

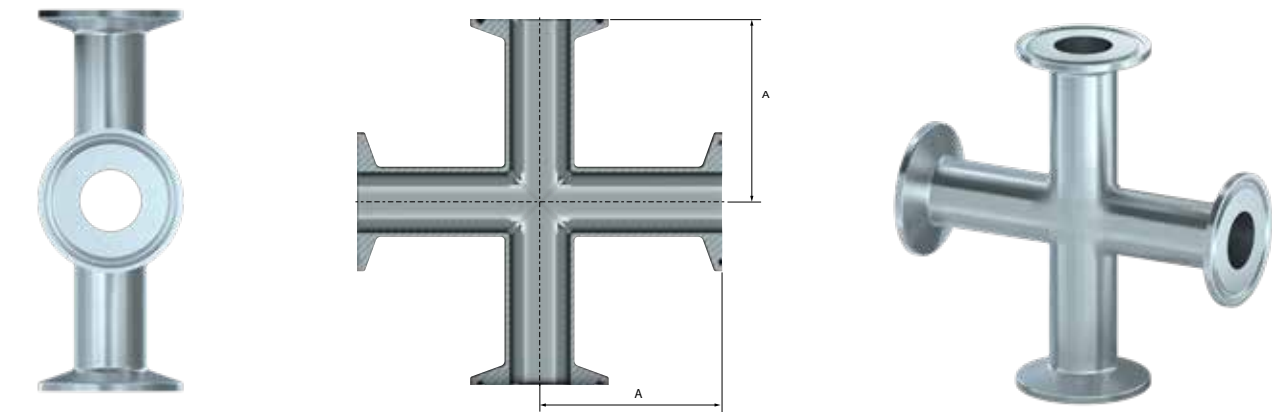


ASME BPE / DT-4.1.2-4

Size				A		ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE		
Inch	mm	Inch	mm					316L	Code	DT
1/4	6,35	2.250	57,20					SF1	SF4 - TE-04 -	2-4
3/8	9,53	2.250	57,20					SF1	SF4 - TE-06 -	2-4
1/2	12,70	2.250	57,20					SF1	SF4 - TE-08 -	2-4
3/4	19,05	2.375	60,30					SF1	SF4 - TE-12 -	2-4
1	25,40	2.625	66,70					SF1	SF4 - TE-16 -	2-4
1 1/2	38,10	2.875	73,00					SF1	SF4 - TE-24 -	2-4
2	50,80	3.375	85,70					SF1	SF4 - TE-32 -	2-4
2 1/2	63,50	3.625	92,10					SF1	SF4 - TE-40 -	2-4
3	76,20	3.875	98,40					SF1	SF4 - TE-48 -	2-4
4	101,60	4.750	120,70					SF1	SF4 - TE-64 -	2-4
6	152,40	7.125	181,00					SF1	SF4 - TE-96 -	2-4

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.2-4
Hygienic Clamp Joint: Straight Cross

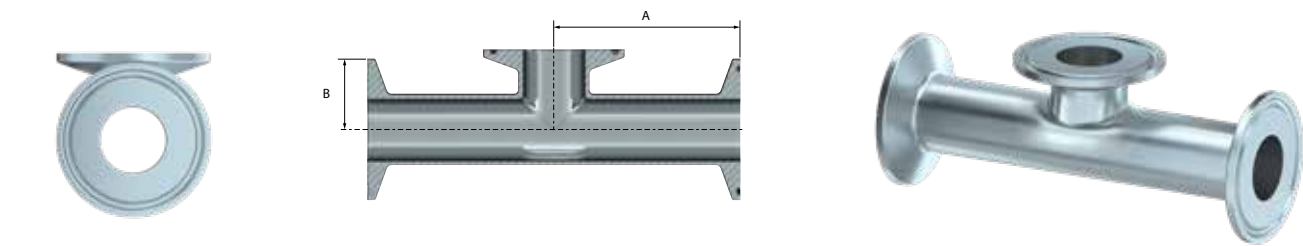


ASME BPE / DT-4.1.2-4

Size				A		ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE		
Inch	mm	Inch	mm					316L	Code	DT
1/4	6,35	2.250	57,20					SF1	SF4 - CE-04 -	2-4
3/8	9,53	2.250	57,20					SF1	SF4 - CE-06 -	2-4
1/2	12,70	2.250	57,20					SF1	SF4 - CE-08 -	2-4
3/4	19,05	2.375	60,30					SF1	SF4 - CE-12 -	2-4
1	25,40	2.625	66,70					SF1	SF4 - CE-16 -	2-4
1 1/2	38,10	2.875	73,00					SF1	SF4 - CE-24 -	2-4
2	50,80	3.375	85,70					SF1	SF4 - CE-32 -	2-4
2 1/2	63,50	3.625	92,10					SF1	SF4 - CE-40 -	2-4
3	76,20	3.875	98,40					SF1	SF4 - CE-48 -	2-4
4	101,60	4.750	120,70					SF1	SF4 - CE-64 -	2-4
6	152,40	7.125	181,00					SF1	SF4 - CE-96 -	2-4

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.2-5
Hygienic Clamp Joint: Short Outlet Tee

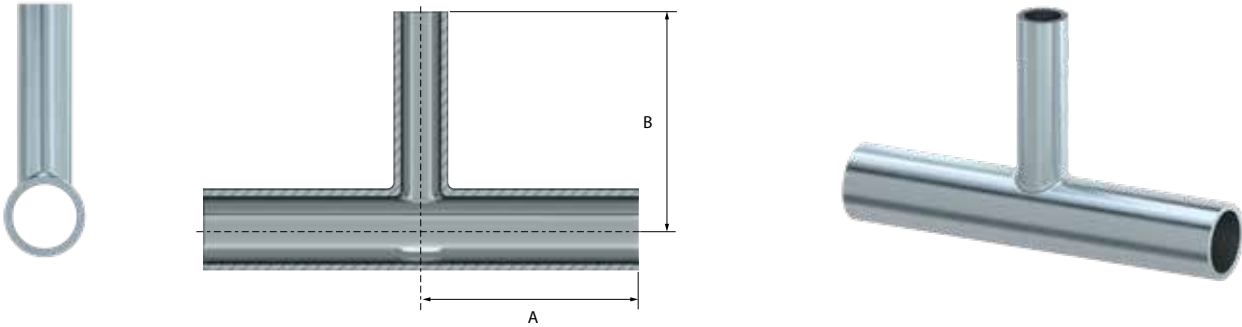


ASME BPE / DT-4.1.2-5

Size						ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE		
A		B								
Inch	mm	Inch	mm	Inch	mm	316L	Code	DT		
1/2	12,70	2.625	66,70	1.125	28,60	SF1 SF4	- TE-08 -	2-5		
3/4	19,05	2.875	73,00	1.375	34,90	SF1 SF4	- TE-12 -	2-5		
1	25,40	3.375	85,70	1.625	41,30	SF1 SF4	- TE-16 -	2-5		
1 1/2	38,10	3.625	92,10	1.875	47,60	SF1 SF4	- TE-24 -	2-5		
2	50,80	3.875	98,40	2.125	54,00	SF1 SF4	- TE-32 -	2-5		
2 1/2	63,50	4.750	120,70	2.750	69,90	SF1 SF4	- TE-40 -	2-5		
3	76,20	7.125	181,00	4.625	117,50	SF1 SF4	- TE-48 -	2-5		
4	101,60	4.125	104,80	2.750	69,00	SF1 SF4	- TE-64 -	2-2		
6	152,40	5.625	142,90	4.625	117,50	SF1 SF4	- TE-96 -	2-2		

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.2-6
Automatic Tube Weld: Reducing Tee



ASME BPE / DT-4.1.2-6

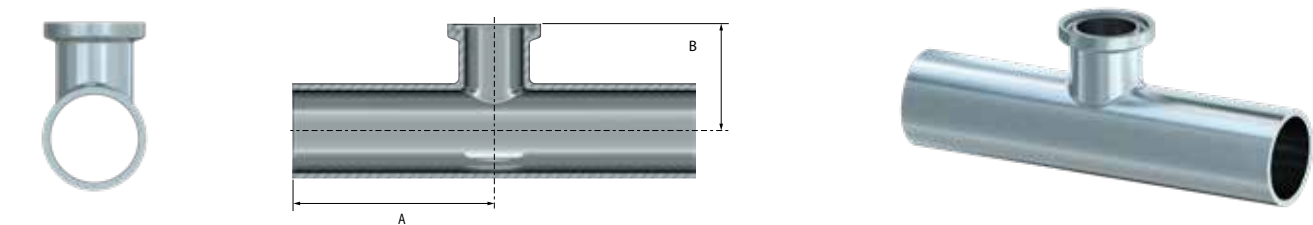
Size		A		B		ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE		
Inch	mm	Inch	mm	Inch	mm					
3/8 x 1/4	9,53 x 6,35	1.750	44,50	1.750	44,50	SF1	SF4	-	TR-06-04	- 2-6
1/2 x 1/4	12,70 x 6,35	1.875	47,60	1.875	47,60	SF1	SF4	-	TR-08-04	- 2-6
1/2 x 3/8	12,70 x 9,53	1.875	47,60	1.875	47,60	SF1	SF4	-	TR-08-06	- 2-6
3/4 x 1/4	19,05 x 6,35	2.000	50,80	2.000	50,80	SF1	SF4	-	TR-12-04	- 2-6
3/4 x 3/8	19,05 x 9,53	2.000	50,80	2.000	50,80	SF1	SF4	-	TR-12-06	- 2-6
3/4 x 1/2	19,05 x 12,70	2.000	50,80	2.000	50,80	SF1	SF4	-	TR-12-08	- 2-6
1 x 1/4	25,40 x 6,35	2.125	54,00	2.125	54,00	SF1	SF4	-	TR-16-04	- 2-6
1 x 3/8	25,40 x 9,53	2.125	54,00	2.125	54,00	SF1	SF4	-	TR-16-06	- 2-6
1 x 1/2	25,40 x 12,70	2.125	54,00	2.125	54,00	SF1	SF4	-	TR-16-08	- 2-6
1 x 3/4	25,40 x 19,05	2.125	54,00	2.125	54,00	SF1	SF4	-	TR-16-12	- 2-6
1 1/2 x 1/2	38,10 x 12,70	2.375	60,30	2.375	60,30	SF1	SF4	-	TR-24-08	- 2-6
1 1/2 x 3/4	38,10 x 19,05	2.375	60,30	2.375	60,30	SF1	SF4	-	TR-24-12	- 2-6
1 1/2 x 1	38,10 x 25,40	2.375	60,30	2.375	60,30	SF1	SF4	-	TR-24-16	- 2-6
2 x 1/2	50,80 x 12,70	2.875	73,00	2.625	66,70	SF1	SF4	-	TR-32-08	- 2-6
2 x 3/4	50,80 x 19,05	2.875	73,00	2.625	66,70	SF1	SF4	-	TR-32-12	- 2-6
2 x 1	50,80 x 25,40	2.875	73,00	2.625	66,70	SF1	SF4	-	TR-32-16	- 2-6
2 x 1 1/2	50,80 x 38,10	2.875	73,00	2.625	66,70	SF1	SF4	-	TR-32-24	- 2-6

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

Size		A		B		ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE		
Inch	mm	Inch	mm	Inch	mm					
2 1/2 x 1/2	63,50 x 12,70	3.125	79,40	2.875	73,00	SF1	SF4	-	TR-40-08	- 2-6
2 1/2 x 3/4	63,50 x 19,05	3.125	79,40	2.875	73,00	SF1	SF4	-	TR-40-12	- 2-6
2 1/2 x 1	63,50 x 25,40	3.125	79,40	2.875	73,00	SF1	SF4	-	TR-40-16	- 2-6
2 1/2 x 1 1/2	63,50 x 38,10	3.125	79,40	2.875	73,00	SF1	SF4	-	TR-40-24	- 2-6
2 1/2 x 2	63,50 x 50,80	3.125	79,40	2.875	73,00	SF1	SF4	-	TR-40-32	- 2-6
3 x 1/2	76,20 x 12,70	3.375	85,70	3.125	79,40	SF1	SF4	-	TR-48-08	- 2-6
3 x 3/4	76,20 x 19,05	3.375	85,70	3.125	79,40	SF1	SF4	-	TR-48-12	- 2-6
3 x 1	76,20 x 25,40	3.375	85,70	3.125	79,40	SF1	SF4	-	TR-48-16	- 2-6
3 x 1 1/2	76,20 x 38,10	3.375	85,70	3.125	79,40	SF1	SF4	-	TR-48-24	- 2-6
3 x 2	76,20 x 50,80	3.375	85,70	3.125	79,40	SF1	SF4	-	TR-48-32	- 2-6
3 x 2 1/2	76,20 x 63,50	3.375	85,70	3.125	79,40	SF1	SF4	-	TR-48-40	- 2-6
4 x 1/2	101,60 x 12,70	4.125	104,80	3.625	92,10	SF1	SF4	-	TR-64-08	- 2-6
4 x 3/4	101,60 x 19,05	4.125	104,80	3.625	92,10	SF1	SF4	-	TR-64-12	- 2-6
4 x 1	101,60 x 25,40	4.125	104,80	3.625	92,10	SF1	SF4	-	TR-64-16	- 2-6
4 x 1 1/2	101,60 x 38,10	4.125	104,80	3.625	92,10	SF1	SF4	-	TR-64-24	- 2-6
4 x 2	101,60 x 50,80	4.125	104,80	3.875	98,40	SF1	SF4	-	TR-64-32	- 2-6
4 x 2 1/2	101,60 x 63,50	4.125	104,80	3.875	98,40	SF1	SF4	-	TR-64-40	- 2-6
4 x 3	101,60 x 76,20	4.125	104,80	3.875	98,40	SF1	SF4	-	TR-64-48	- 2-6
6 x 1/2	152,40 x 12,70	5.625	142,90	4.625	117,48	SF1	SF4	-	TR-96-08	- 2-6
6 x 3/4	152,40 x 19,05	5.625	142,90	4.625	117,48	SF1	SF4	-	TR-96-12	- 2-6
6 x 1	152,40 x 25,40	5.625	142,90	4.625	117,48	SF1	SF4	-	TR-96-16	- 2-6
6 x 1 1/2	152,40 x 38,10	5.625	142,90	4.625	117,48	SF1	SF4	-	TR-96-24	- 2-6
6 x 2	152,40 x 50,80	5.625	142,90	4.625	117,48	SF1	SF4	-	TR-96-32	- 2-6
6 x 2 1/2	152,40 x 63,50	5.625	142,90	4.625	117,48	SF1	SF4	-	TR-96-40	- 2-6
6 x 3	152,40 x 76,20	5.625	142,90	4.875	123,80	SF1	SF4	-	TR-96-48	- 2-6
6 x 4	152,40 x 101,60	5.625	142,90	5.125	130,20	SF1	SF4	-	TR-96-64	- 2-6

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.2-7
Hygienic Clamp Joint: Reducing Tee



ASME BPE / DT-4.1.2-7

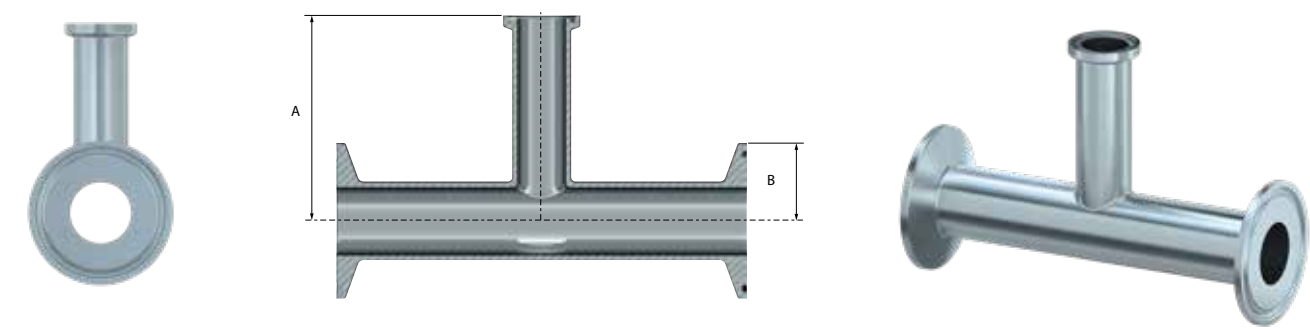
Size						ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE		
Inch	mm	Inch	mm	Inch	mm					
3/8 x 1/4	9,53 x 6,35	1.750	44,50	1.000	25,40	SF1	SF4	-	TR-06-04	- 2-7
1/2 x 1/4	12,70 x 6,35	1.875	47,60	1.000	25,40	SF1	SF4	-	TR-08-04	- 2-7
1/2 x 3/8	12,70 x 9,53	1.875	47,60	1.000	25,40	SF1	SF4	-	TR-08-06	- 2-7
3/4 x 1/4	19,05 x 6,35	2.000	50,80	1.000	25,40	SF1	SF4	-	TR-12-04	- 2-7
3/4 x 3/8	19,05 x 9,53	2.000	50,80	1.000	25,40	SF1	SF4	-	TR-12-06	- 2-7
3/4 x 1/2	19,05 x 12,70	2.000	50,80	1.000	25,40	SF1	SF4	-	TR-12-08	- 2-7
1 x 1/4	25,40 x 6,35	2.125	54,00	1.125	28,60	SF1	SF4	-	TR-16-04	- 2-7
1 x 3/8	25,40 x 9,53	2.125	54,00	1.125	28,60	SF1	SF4	-	TR-16-06	- 2-7
1 x 1/2	25,40 x 12,70	2.125	54,00	1.125	28,60	SF1	SF4	-	TR-16-08	- 2-7
1 x 3/4	25,40 x 19,05	2.125	54,00	1.125	28,60	SF1	SF4	-	TR-16-12	- 2-7
1 1/2 x 1/2	38,10 x 12,70	2.375	60,30	1.375	34,90	SF1	SF4	-	TR-24-08	- 2-7
1 1/2 x 3/4	38,10 x 19,05	2.375	60,30	1.375	34,90	SF1	SF4	-	TR-24-12	- 2-7
1 1/2 x 1	38,10 x 25,40	2.375	60,30	1.375	34,90	SF1	SF4	-	TR-24-16	- 2-7
2 x 1/2	50,80 x 12,70	2.875	73,00	1.625	41,30	SF1	SF4	-	TR-32-08	- 2-7
2 x 3/4	50,80 x 19,05	2.875	73,00	1.625	41,30	SF1	SF4	-	TR-32-12	- 2-7
2 x 1	50,80 x 25,40	2.875	73,00	1.625	41,30	SF1	SF4	-	TR-32-16	- 2-7
2 x 1 1/2	50,80 x 38,10	2.875	73,00	1.625	41,30	SF1	SF4	-	TR-32-24	- 2-7

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

Size						ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE		
Inch	mm	Inch	mm	Inch	mm					
2 1/2 x 1/2	63,50 x 12,70	3.125	79,40	1.875	47,60	SF1	SF4	-	TR-40-08	- 2-7
2 1/2 x 3/4	63,50 x 19,05	3.125	79,40	1.875	47,60	SF1	SF4	-	TR-40-12	- 2-7
2 1/2 x 1	63,50 x 25,40	3.125	79,40	1.875	47,60	SF1	SF4	-	TR-40-16	- 2-7
2 1/2 x 1 1/2	63,50 x 38,10	3.125	79,40	1.875	47,60	SF1	SF4	-	TR-40-24	- 2-7
2 1/2 x 2	63,50 x 50,80	3.125	79,40	1.875	47,60	SF1	SF4	-	TR-40-32	- 2-7
3 x 1/2	76,20 x 12,70	3.375	85,70	2.125	54,00	SF1	SF4	-	TR-48-08	- 2-7
3 x 3/4	76,20 x 19,05	3.375	85,70	2.125	54,00	SF1	SF4	-	TR-48-12	- 2-7
3 x 1	76,20 x 25,40	3.375	85,70	2.125	54,00	SF1	SF4	-	TR-48-16	- 2-7
3 x 1 1/2	76,20 x 38,10	3.375	85,70	2.125	54,00	SF1	SF4	-	TR-48-24	- 2-7
3 x 2	76,20 x 50,80	3.375	85,70	2.125	54,00	SF1	SF4	-	TR-48-32	- 2-7
3 x 2 1/2	76,20 x 63,50	3.375	85,70	2.125	54,00	SF1	SF4	-	TR-48-40	- 2-7
4 x 1/2	101,60 x 12,70	4.125	104,80	2.625	66,70	SF1	SF4	-	TR-64-08	- 2-7
4 x 3/4	101,60 x 19,05	4.125	104,80	2.625	66,70	SF1	SF4	-	TR-64-12	- 2-7
4 x 1	101,60 x 25,40	4.125	104,80	2.625	66,70	SF1	SF4	-	TR-64-16	- 2-7
4 x 1 1/2	101,60 x 38,10	4.125	104,80	2.625	66,70	SF1	SF4	-	TR-64-24	- 2-7
4 x 2	101,60 x 50,80	4.125	104,80	2.625	66,70	SF1	SF4	-	TR-64-32	- 2-7
4 x 2 1/2	101,60 x 63,50	4.125	104,80	2.625	66,70	SF1	SF4	-	TR-64-40	- 2-7
4 x 3	101,60 x 76,20	4.125	104,80	2.625	66,70	SF1	SF4	-	TR-64-48	- 2-7
6 x 1/2	152,40 x 12,70	5.625	142,90	3.625	92,10	SF1	SF4	-	TR-96-08	- 2-7
6 x 3/4	152,40 x 19,05	5.625	142,90	3.625	92,10	SF1	SF4	-	TR-96-12	- 2-7
6 x 1	152,40 x 25,40	5.625	142,90	3.625	92,10	SF1	SF4	-	TR-96-16	- 2-7
6 x 1 1/2	152,40 x 38,10	5.625	142,90	3.625	92,10	SF1	SF4	-	TR-96-24	- 2-7
6 x 2	152,40 x 50,80	5.625	142,90	3.625	92,10	SF1	SF4	-	TR-96-32	- 2-7
6 x 2 1/2	152,40 x 63,50	5.625	142,90	3.625	92,10	SF1	SF4	-	TR-96-40	- 2-7
6 x 3	152,40 x 76,20	5.625	142,90	3.625	92,10	SF1	SF4	-	TR-96-48	- 2-7
6 x 4	152,40 x 101,60	5.625	142,90	3.750	95,30	SF1	SF4	-	TR-96-64	- 2-7

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.2-8
Hygienic Clamp Joint: Reducing Tee



ASME BPE / DT-4.1.2-8

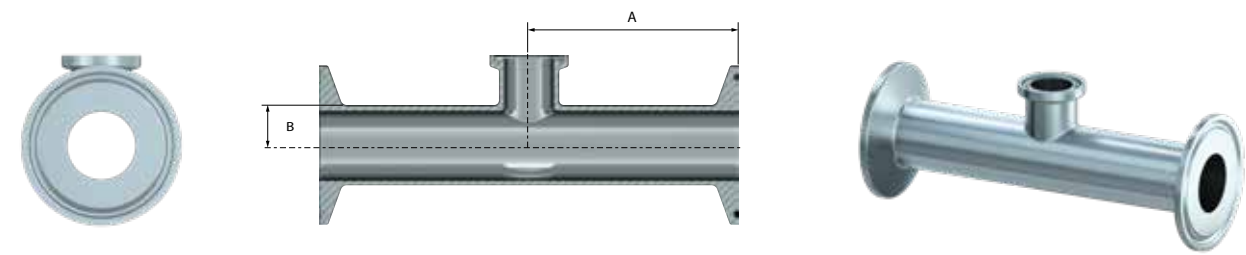
Size		A		B		ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE		
Inch	mm	Inch	mm	Inch	mm					
3/8 x 1/4	9,53 x 6,35	2.250	57,20	2.250	57,20	SF1	SF4	-	TR-06-04	- 2-8
1/2 x 1/4	12,70 x 6,35	2.375	60,30	2.375	60,30	SF1	SF4	-	TR-08-04	- 2-8
1/2 x 3/8	12,70 x 9,53	2.375	60,30	2.375	60,30	SF1	SF4	-	TR-08-06	- 2-8
3/4 x 1/4	19,05 x 6,35	2.500	63,50	2.500	63,50	SF1	SF4	-	TR-12-04	- 2-8
3/4 x 3/8	19,05 x 9,53	2.500	63,50	2.500	63,50	SF1	SF4	-	TR-12-06	- 2-8
3/4 x 1/2	19,05 x 12,70	2.500	63,50	2.500	63,50	SF1	SF4	-	TR-12-08	- 2-8
1 x 1/4	25,40 x 6,35	2.625	66,70	2.625	66,70	SF1	SF4	-	TR-16-04	- 2-8
1 x 3/8	25,40 x 9,53	2.625	66,70	2.625	66,70	SF1	SF4	-	TR-16-06	- 2-8
1 x 1/2	25,40 x 12,70	2.625	66,70	2.625	66,70	SF1	SF4	-	TR-16-08	- 2-8
1 x 3/4	25,40 x 19,05	2.625	66,70	2.625	66,70	SF1	SF4	-	TR-16-12	- 2-8
1 1/2 x 1/2	38,10 x 12,70	2.875	73,00	2.875	73,00	SF1	SF4	-	TR-24-08	- 2-8
1 1/2 x 3/4	38,10 x 19,05	2.875	73,00	2.875	73,00	SF1	SF4	-	TR-24-12	- 2-8
1 1/2 x 1	38,10 x 25,40	2.875	73,00	2.875	73,00	SF1	SF4	-	TR-24-16	- 2-8
2 x 1/2	50,80 x 12,70	3.375	85,70	3.125	79,40	SF1	SF4	-	TR-32-08	- 2-8
2 x 3/4	50,80 x 19,05	3.375	85,70	3.125	79,40	SF1	SF4	-	TR-32-12	- 2-8
2 x 1	50,80 x 25,40	3.375	85,70	3.125	79,40	SF1	SF4	-	TR-32-16	- 2-8
2 x 1 1/2	50,80 x 38,10	3.375	85,70	3.125	79,40	SF1	SF4	-	TR-32-24	- 2-8

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

Size		A		B		ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE		
Inch	mm	Inch	mm	Inch	mm					
2 1/2 x 1/2	63,50 x 12,70	3.625	92,10	3.375	85,70	SF1	SF4	-	TR-40-08	- 2-8
2 1/2 x 3/4	63,50 x 19,05	3.625	92,10	3.375	85,70	SF1	SF4	-	TR-40-12	- 2-8
2 1/2 x 1	63,50 x 25,40	3.625	92,10	3.375	85,70	SF1	SF4	-	TR-40-16	- 2-8
2 1/2 x 1 1/2	63,50 x 38,10	3.625	92,10	3.375	85,70	SF1	SF4	-	TR-40-24	- 2-8
2 1/2 x 2	63,50 x 50,80	3.625	92,10	3.375	85,70	SF1	SF4	-	TR-40-32	- 2-8
3 x 1/2	76,20 x 12,70	3.875	98,40	3.625	92,10	SF1	SF4	-	TR-48-08	- 2-8
3 x 3/4	76,20 x 19,05	3.875	98,40	3.625	92,10	SF1	SF4	-	TR-48-12	- 2-8
3 x 1	76,20 x 25,40	3.875	98,40	3.625	92,10	SF1	SF4	-	TR-48-16	- 2-8
3 x 1 1/2	76,20 x 38,10	3.875	98,40	3.625	92,10	SF1	SF4	-	TR-48-24	- 2-8
3 x 2	76,20 x 50,80	3.875	98,40	3.625	92,10	SF1	SF4	-	TR-48-32	- 2-8
3 x 2 1/2	76,20 x 63,50	3.875	98,40	3.625	92,10	SF1	SF4	-	TR-48-40	- 2-8
4 x 1/2	101,60 x 12,70	4.750	120,70	4.125	104,80	SF1	SF4	-	TR-64-08	- 2-8
4 x 3/4	101,60 x 19,05	4.750	120,70	4.125	104,80	SF1	SF4	-	TR-64-12	- 2-8
4 x 1	101,60 x 25,40	4.750	120,70	4.125	104,80	SF1	SF4	-	TR-64-16	- 2-8
4 x 1 1/2	101,60 x 38,10	4.750	120,70	4.125	104,80	SF1	SF4	-	TR-64-24	- 2-8
4 x 2	101,60 x 50,80	4.750	120,70	4.375	111,10	SF1	SF4	-	TR-64-32	- 2-8
4 x 2 1/2	101,60 x 63,50	4.750	120,70	4.375	111,10	SF1	SF4	-	TR-64-40	- 2-8
4 x 3	101,60 x 76,20	4.750	120,70	4.375	111,10	SF1	SF4	-	TR-64-48	- 2-8
6 x 1/2	152,40 x 12,70	7.125	180,98	5.125	130,18	SF1	SF4	-	TR-96-08	- 2-8
6 x 3/4	152,40 x 19,05	7.125	180,98	5.125	130,18	SF1	SF4	-	TR-96-12	- 2-8
6 x 1	152,40 x 25,40	7.125	180,98	5.125	130,18	SF1	SF4	-	TR-96-16	- 2-8
6 x 1 1/2	152,40 x 38,10	7.125	180,98	5.125	130,18	SF1	SF4	-	TR-96-24	- 2-8
6 x 2	152,40 x 50,80	7.125	180,98	5.125	130,18	SF1	SF4	-	TR-96-32	- 2-8
6 x 2 1/2	152,40 x 63,50	7.125	180,98	5.125	130,18	SF1	SF4	-	TR-96-40	- 2-8
6 x 3	152,40 x 76,20	7.125	181,00	5.375	136,50	SF1	SF4	-	TR-96-48	- 2-8
6 x 4	152,40 x 101,60	7.125	181,00	5.750	146,10	SF1	SF4	-	TR-96-64	- 2-8

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.2-9
Hygienic Clamp Joint: Short Outlet Reducing Tee



ASME BPE / DT-4.1.2-9

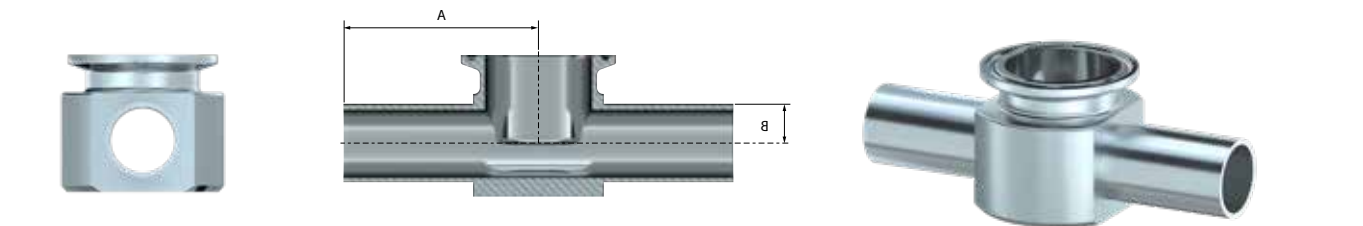
Size						A		B			ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE
Inch	mm	Inch	mm	Inch	mm	316L		Code		DT			
3/8 x 1/4	9,53 x 6,35	2.250	57,20	1.000	25,40	SF1	SF4	-	TR-06-04	- 2-9			
1/2 x 1/4	12,70 x 6,35	2.375	60,30	1.000	25,40	SF1	SF4	-	TR-08-04	- 2-9			
1/2 x 3/8	12,70 x 9,53	2.375	60,30	1.000	25,40	SF1	SF4	-	TR-08-06	- 2-9			
3/4 x 1/4	19,05 x 6,35	2.500	63,50	1.000	25,40	SF1	SF4	-	TR-12-04	- 2-9			
3/4 x 3/8	19,05 x 9,53	2.500	63,50	1.000	25,40	SF1	SF4	-	TR-12-06	- 2-9			
3/4 x 1/2	19,05 x 12,70	2.500	63,50	1.000	25,40	SF1	SF4	-	TR-12-08	- 2-9			
1 x 1/4	25,40 x 6,35	2.625	66,70	1.125	28,60	SF1	SF4	-	TR-16-04	- 2-9			
1 x 3/8	25,40 x 9,53	2.625	66,70	1.125	28,60	SF1	SF4	-	TR-16-06	- 2-9			
1 x 1/2	25,40 x 12,70	2.625	66,70	1.125	28,60	SF1	SF4	-	TR-16-08	- 2-9			
1 x 3/4	25,40 x 19,05	2.625	66,70	1.125	28,60	SF1	SF4	-	TR-16-12	- 2-9			
1 1/2 x 1/2	38,10 x 12,70	2.875	73,00	1.375	34,90	SF1	SF4	-	TR-24-08	- 2-9			
1 1/2 x 3/4	38,10 x 19,05	2.875	73,00	1.375	34,90	SF1	SF4	-	TR-24-12	- 2-9			
1 1/2 x 1	38,10 x 25,40	2.875	73,00	1.375	34,90	SF1	SF4	-	TR-24-16	- 2-9			
2 x 1/2	50,80 x 12,70	3.375	85,70	1.625	41,30	SF1	SF4	-	TR-32-08	- 2-9			
2 x 3/4	50,80 x 19,05	3.375	85,70	1.625	41,30	SF1	SF4	-	TR-32-12	- 2-9			
2 x 1	50,80 x 25,40	3.375	85,70	1.625	41,30	SF1	SF4	-	TR-32-16	- 2-9			
2 x 1 1/2	50,80 x 38,10	3.375	85,70	1.625	41,30	SF1	SF4	-	TR-32-24	- 2-9			

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

Size						A		B			ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE
Inch	mm	Inch	mm	Inch	mm	316L		Code		DT			
2 1/2 x 1/2	63,50 x 12,70	3.625	92,10	1.875	47,60	SF1	SF4	-	TR-40-08	- 2-9			
2 1/2 x 3/4	63,50 x 19,05	3.625	92,10	1.875	47,60	SF1	SF4	-	TR-40-12	- 2-9			
2 1/2 x 1	63,50 x 25,40	3.625	92,10	1.875	47,60	SF1	SF4	-	TR-40-16	- 2-9			
2 1/2 x 1 1/2	63,50 x 38,10	3.625	92,10	1.875	47,60	SF1	SF4	-	TR-40-24	- 2-9			
2 1/2 x 2	63,50 x 50,80	3.625	92,10	1.875	47,60	SF1	SF4	-	TR-40-32	- 2-9			
3 x 1/2	76,20 x 12,70	3.875	98,40	2.125	54,00	SF1	SF4	-	TR-48-08	- 2-9			
3 x 3/4	76,20 x 19,05	3.875	98,40	2.125	54,00	SF1	SF4	-	TR-48-12	- 2-9			
3 x 1	76,20 x 25,40	3.875	98,40	2.125	54,00	SF1	SF4	-	TR-48-16	- 2-9			
3 x 1 1/2	76,20 x 38,10	3.875	98,40	2.125	54,00	SF1	SF4	-	TR-48-24	- 2-9			
3 x 2	76,20 x 50,80	3.875	98,40	2.125	54,00	SF1	SF4	-	TR-48-32	- 2-9			
3 x 2 1/2	76,20 x 63,50	3.875	98,40	2.125	54,00	SF1	SF4	-	TR-48-40	- 2-9			
4 x 1/2	101,60 x 12,70	4.750	120,70	2.625	66,70	SF1	SF4	-	TR-64-08	- 2-9			
4 x 3/4	101,60 x 19,05	4.750	120,70	2.625	66,70	SF1	SF4	-	TR-64-12	- 2-9			
4 x 1	101,60 x 25,40	4.750	120,70	2.625	66,70	SF1	SF4	-	TR-64-16	- 2-9			
4 x 1 1/2	101,60 x 38,10	4.750	120,70	2.625	66,70	SF1	SF4	-	TR-64-24	- 2-9			
4 x 2	101,60 x 50,80	4.750	120,70	2.625	66,70	SF1	SF4	-	TR-64-32	- 2-9			
4 x 2 1/2	101,60 x 63,50	4.750	120,70	2.625	66,70	SF1	SF4	-	TR-64-40	- 2-9			
4 x 3	101,60 x 76,20	4.750	120,70	2.625	66,70	SF1	SF4	-	TR-64-48	- 2-9			
6 x 1/2	152,40 x 12,70	7.125	181,00	3.625	92,10	SF1	SF4	-	TR-96-08	- 2-9			
6 x 3/4	152,40 x 19,05	7.125	181,00	3.625	92,10	SF1	SF4	-	TR-96-12	- 2-9			
6 x 1	152,40 x 25,40	7.125	181,00	3.625	92,10	SF1	SF4	-	TR-96-16	- 2-9			
6 x 1 1/2	152,40 x 38,10	7.125	181,00	3.625	92,10	SF1	SF4	-	TR-96-24	- 2-9			
6 x 2	152,40 x 50,80	7.125	181,00	3.625	92,10	SF1	SF4	-	TR-96-32	- 2-9			
6 x 2 1/2	152,40 x 63,50	7.125	181,00	3.625	92,10	SF1	SF4	-	TR-96-40	- 2-9			
6 x 3	152,40 x 76,20	7.125	181,00	3.625	92,10	SF1	SF4	-	TR-96-48	- 2-9			
6 x 4	152,40 x 101,60	7.125	181,00	3.750	95,30	SF1	SF4	-	TR-96-64	- 2-9			

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.2-10
Automatic Tube Weld: Instrument Tee

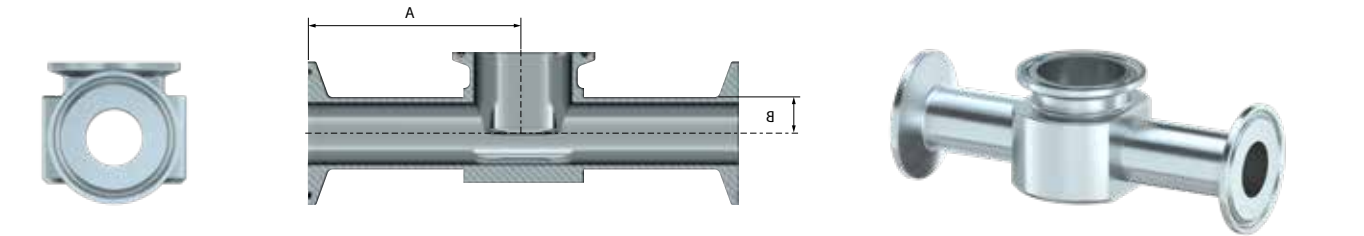


ASME BPE / DT-4.1.2-10

Size		A		B		ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE		
Inch	mm	Inch	mm	Inch	mm	316L		Code	DT	
1/2 x 1 1/2	12,70 x 38,10	2.500	63,50	0.875	22,20	SF1	SF4	- TR-08-24	- 2-10	
3/4 x 1 1/2	19,05 x 38,10	2.500	63,50	1.000	25,40	SF1	SF4	- TR-12-24	- 2-10	
1 x 1 1/2	25,40 x 38,10	2.500	63,50	1.125	28,60	SF1	SF4	- TR-16-24	- 2-10	
1/2 x 2	12,70 x 50,80	2.750	69,90	1.000	25,40	SF1	SF4	- TR-08-32	- 2-10	
3/4 x 2	19,05 x 50,80	2.750	69,90	1.125	28,60	SF1	SF4	- TR-12-32	- 2-10	
1 x 2	25,40 x 50,80	2.750	69,90	1.250	31,80	SF1	SF4	- TR-16-32	- 2-10	
1 1/2 x 2	38,10 x 50,80	2.750	69,90	1.500	38,10	SF1	SF4	- TR-24-32	- 2-10	

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.2-11
Hygienic Clamp Joint: Instrument Tee

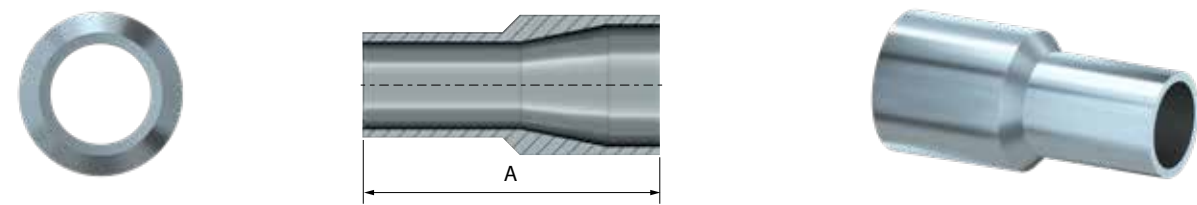


ASME BPE / DT-4.1.2-11

Size		A		B		ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE		
Inch	mm	Inch	mm	Inch	mm	316L		Code	DT	
1/2 x 1 1/2	12,70 x 38,10	2.500	63,50	0.875	22,20	SF1	SF4	- TR-08-24	- 2-11	
3/4 x 1 1/2	19,05 x 38,10	2.500	63,50	1.000	25,40	SF1	SF4	- TR-12-24	- 2-11	
1 x 1 1/2	25,40 x 38,10	2.500	63,50	1.125	28,60	SF1	SF4	- TR-16-24	- 2-11	
1/2 x 2	12,70 x 50,80	2.750	69,90	1.000	25,40	SF1	SF4	- TR-08-32	- 2-11	
3/4 x 2	19,05 x 50,80	2.750	69,90	1.125	28,60	SF1	SF4	- TR-12-32	- 2-11	
1 x 2	25,40 x 50,80	2.750	69,90	1.250	31,80	SF1	SF4	- TR-16-32	- 2-11	
1 1/2 x 2	38,10 x 50,80	2.750	69,90	1.500	38,10	SF1	SF4	- TR-24-32	- 2-11	

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.3-1
Automatic Tube Weld: Concentric Reducer

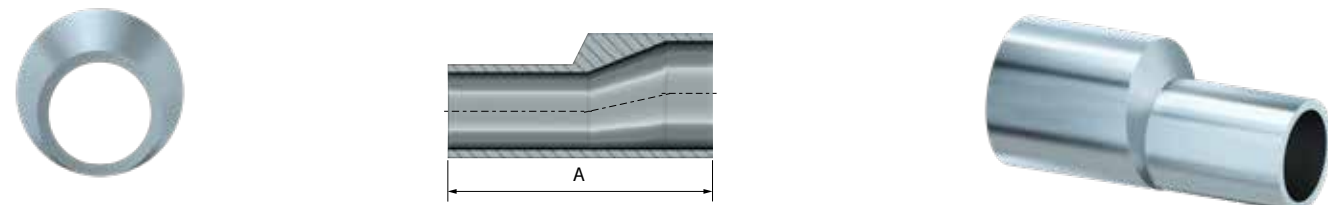


ASME BPE / DT-4.1.3-1

Size				A		ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE		
Inch	mm	Inch	mm	316L	Code	DT				
3/8 x 1/4	9,53 x 6,35	1.625	41,30	SF1	SF4	-	RC-06-04	-	3-1	
1/2 x 1/4	12,70 x 6,35	1.875	47,60	SF1	SF4	-	RC-08-04	-	3-1	
1/2 x 3/8	12,70 x 9,53	1.875	47,60	SF1	SF4	-	RC-08-06	-	3-1	
3/4 x 3/8	19,05 x 9,53	2.000	50,80	SF1	SF4	-	RC-12-06	-	3-1	
3/4 x 1/2	19,05 x 12,70	2.125	54,00	SF1	SF4	-	RC-12-08	-	3-1	
1 x 1/2	25,40 x 12,70	2.500	63,50	SF1	SF4	-	RC-16-08	-	3-1	
1 x 3/4	25,40 x 19,05	2.125	54,00	SF1	SF4	-	RC-16-12	-	3-1	
1 1/2 x 3/4	38,10 x 19,05	3.000	76,20	SF1	SF4	-	RC-24-12	-	3-1	
1 1/2 x 1	38,10 x 25,40	2.500	63,50	SF1	SF4	-	RC-24-16	-	3-1	
2 x 1	50,80 x 25,40	3.375	85,70	SF1	SF4	-	RC-32-16	-	3-1	
2 x 1 1/2	50,80 x 38,10	2.500	63,50	SF1	SF4	-	RC-32-24	-	3-1	
2 1/2 x 1 1/2	63,50 x 38,10	3.375	85,70	SF1	SF4	-	RC-40-24	-	3-1	
2 1/2 x 2	63,50 x 50,80	2.500	63,50	SF1	SF4	-	RC-40-32	-	3-1	
3 x 1 1/2	76,20 x 38,10	4.250	108,00	SF1	SF4	-	RC-48-24	-	3-1	
3 x 2	76,20 x 50,80	3.375	85,70	SF1	SF4	-	RC-48-32	-	3-1	
3 x 2 1/2	76,20 x 63,50	2.625	66,70	SF1	SF4	-	RC-48-40	-	3-1	
4 x 2	101,60 x 50,80	5.125	130,20	SF1	SF4	-	RC-64-32	-	3-1	
4 x 2 1/2	101,60 x 63,50	4.250	108,00	SF1	SF4	-	RC-64-40	-	3-1	
4 x 3	101,60 x 76,20	3.875	98,40	SF1	SF4	-	RC-64-48	-	3-1	
6 x 3	152,40 x 76,20	7.250	184,20	SF1	SF4	-	RC-96-48	-	3-1	
6 x 4	152,40 x 101,60	5.625	142,90	SF1	SF4	-	RC-96-64	-	3-1	

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.3-1
Automatic Tube Weld: Eccentric Reducer

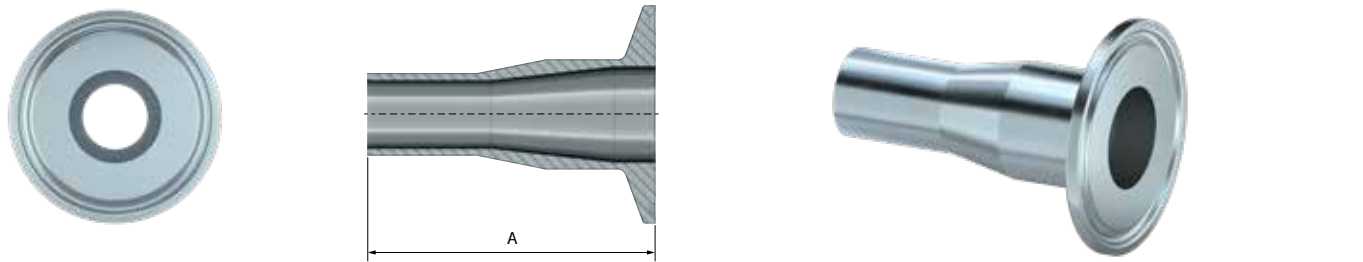


ASME BPE / DT-4.1.3-1

Size				A		ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE		
Inch	mm	Inch	mm	316L	Code	DT				
3/8 x 1/4	9,53 x 6,35	1.625	41,30	SF1	SF4	-	RE-06-04	-	3-1	
1/2 x 1/4	12,70 x 6,35	1.875	47,60	SF1	SF4	-	RE-08-04	-	3-1	
1/2 x 3/8	12,70 x 9,53	1.875	47,60	SF1	SF4	-	RE-08-06	-	3-1	
3/4 x 3/8	19,05 x 9,53	2.000	50,80	SF1	SF4	-	RE-12-06	-	3-1	
3/4 x 1/2	19,05 x 12,70	2.125	54,00	SF1	SF4	-	RE-12-08	-	3-1	
1 x 1/2	25,40 x 12,70	2.500	63,50	SF1	SF4	-	RE-16-08	-	3-1	
1 x 3/4	25,40 x 19,05	2.125	54,00	SF1	SF4	-	RE-16-12	-	3-1	
1 1/2 x 3/4	38,10 x 19,05	3.000	76,20	SF1	SF4	-	RE-24-12	-	3-1	
1 1/2 x 1	38,10 x 25,40	2.500	63,50	SF1	SF4	-	RE-24-16	-	3-1	
2 x 1	50,80 x 25,40	3.375	85,70	SF1	SF4	-	RE-32-16	-	3-1	
2 x 1 1/2	50,80 x 38,10	2.500	63,50	SF1	SF4	-	RE-32-24	-	3-1	
2 1/2 x 1 1/2	63,50 x 38,10	3.375	85,70	SF1	SF4	-	RE-40-24	-	3-1	
2 1/2 x 2	63,50 x 50,80	2.500	63,50	SF1	SF4	-	RE-40-32	-	3-1	
3 x 1 1/2	76,20 x 38,10	4.250	108,00	SF1	SF4	-	RE-48-24	-	3-1	
3 x 2	76,20 x 50,80	3.375	85,70	SF1	SF4	-	RE-48-32	-	3-1	
3 x 2 1/2	76,20 x 63,50	2.625	66,70	SF1	SF4	-	RE-48-40	-	3-1	
4 x 2	101,60 x 50,80	5.125	130,20	SF1	SF4	-	RE-64-32	-	3-1	
4 x 2 1/2	101,60 x 63,50	4.250	108,00	SF1	SF4	-	RE-64-40	-	3-1	
4 x 3	101,60 x 76,20	3.875	98,40	SF1	SF4	-	RE-64-48	-	3-1	
6 x 3	152,40 x 76,20	7.250	184,20	SF1	SF4	-	RE-96-48	-	3-1	
6 x 4	152,40 x 101,60	5.625	142,90	SF1	SF4	-	RE-96-64	-	3-1	

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.3-2
Automatic Tube Weld: Concentric Reducer

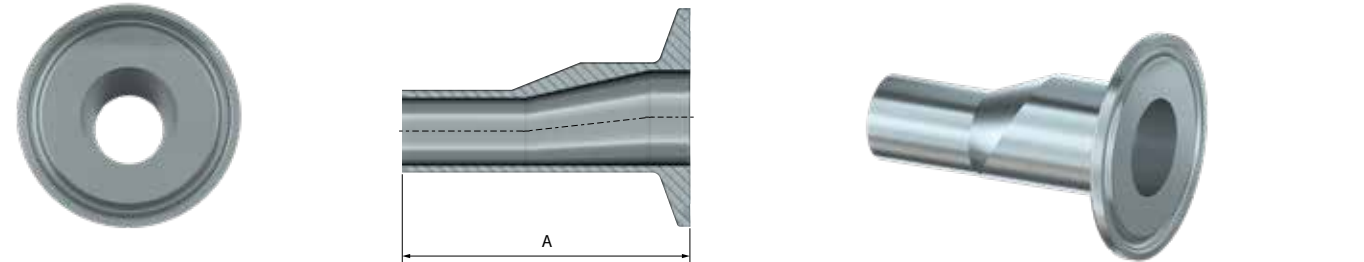


ASME BPE / DT-4.1.3-2

Size				A		ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE		
Inch	mm	Inch	mm	316L	Code	DT				
3/8 x 1/4	9,53 x 6,35	2.125	53,98	SF1	SF4	-	RC-06-04	-	3-2	
1/2 x 1/4	12,70 x 6,35	2.375	60,33	SF1	SF4	-	RC-08-04	-	3-2	
1/2 x 3/8	12,70 x 9,53	2.375	60,33	SF1	SF4	-	RC-08-06	-	3-2	
3/4 x 3/8	19,05 x 9,53	2.500	63,50	SF1	SF4	-	RC-12-06	-	3-2	
3/4 x 1/2	19,05 x 12,70	2.625	66,68	SF1	SF4	-	RC-12-08	-	3-2	
1 x 1/2	25,40 x 12,70	3.000	76,20	SF1	SF4	-	RC-16-08	-	3-2	
1 x 3/4	25,40 x 19,05	2.625	66,68	SF1	SF4	-	RC-16-12	-	3-2	
1 1/2 x 3/4	38,10 x 19,05	3.500	88,90	SF1	SF4	-	RC-24-12	-	3-2	
1 1/2 x 1	38,10 x 25,40	3.000	76,20	SF1	SF4	-	RC-24-16	-	3-2	
2 x 1	50,80 x 25,40	3.875	98,43	SF1	SF4	-	RC-32-16	-	3-2	
2 x 1 1/2	50,80 x 38,10	3.000	76,20	SF1	SF4	-	RC-32-24	-	3-2	
2 1/2 x 1 1/2	63,50 x 38,10	3.875	98,43	SF1	SF4	-	RC-40-24	-	3-2	
2 1/2 x 2	63,50 x 50,80	3.000	76,20	SF1	SF4	-	RC-40-32	-	3-2	
3 x 1 1/2	76,20 x 38,10	4.750	120,65	SF1	SF4	-	RC-48-24	-	3-2	
3 x 2	76,20 x 50,80	3.875	98,43	SF1	SF4	-	RC-48-32	-	3-2	
3 x 2 1/2	76,20 x 63,50	3.125	79,38	SF1	SF4	-	RC-48-40	-	3-2	
4 x 2	101,60 x 50,80	5.750	146,05	SF1	SF4	-	RC-64-32	-	3-2	
4 x 2 1/2	101,60 x 63,50	4.875	123,83	SF1	SF4	-	RC-64-40	-	3-2	
4 x 3	101,60 x 76,20	4.500	114,30	SF1	SF4	-	RC-64-48	-	3-2	
6 x 3	152,40 x 76,20	8.000	203,20	SF1	SF4	-	RC-96-48	-	3-2	
6 x 4	152,40 x 101,60	6.375	161,93	SF1	SF4	-	RC-96-64	-	3-2	

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.3-2
Automatic Tube Weld: Eccentric Reducer

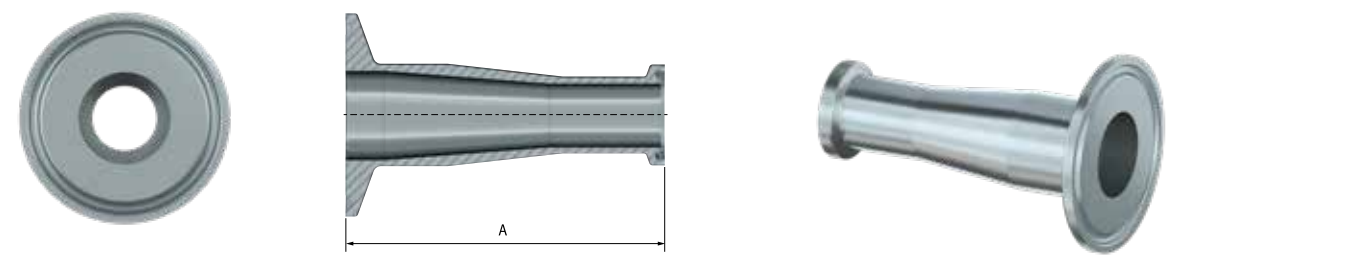


ASME BPE / DT-4.1.3-2

Size				A		ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE		
Inch	mm	Inch	mm	316L	Code	DT				
3/8 x 1/4	9,53 x 6,35	2.125	53,98	SF1	SF4	-	RE-06-04	-	3-2	
1/2 x 1/4	12,70 x 6,35	2.375	60,33	SF1	SF4	-	RE-08-04	-	3-2	
1/2 x 3/8	12,70 x 9,53	2.375	60,33	SF1	SF4	-	RE-08-06	-	3-2	
3/4 x 3/8	19,05 x 9,53	2.500	63,50	SF1	SF4	-	RE-12-06	-	3-2	
3/4 x 1/2	19,05 x 12,70	2.625	66,68	SF1	SF4	-	RE-12-08	-	3-2	
1 x 1/2	25,40 x 12,70	3.000	76,20	SF1	SF4	-	RE-16-08	-	3-2	
1 x 3/4	25,40 x 19,05	2.625	66,68	SF1	SF4	-	RE-16-12	-	3-2	
1 1/2 x 3/4	38,10 x 19,05	3.500	88,90	SF1	SF4	-	RE-24-12	-	3-2	
1 1/2 x 1	38,10 x 25,40	3.000	76,20	SF1	SF4	-	RE-24-16	-	3-2	
2 x 1	50,80 x 25,40	3.875	98,43	SF1	SF4	-	RE-32-16	-	3-2	
2 x 1 1/2	50,80 x 38,10	3.000	76,20	SF1	SF4	-	RE-32-24	-	3-2	
2 1/2 x 1 1/2	63,50 x 38,10	3.875	98,43	SF1	SF4	-	RE-40-24	-	3-2	
2 1/2 x 2	63,50 x 50,80	3.000	76,20	SF1	SF4	-	RE-40-32	-	3-2	
3 x 1 1/2	76,20 x 38,10	4.750	120,65	SF1	SF4	-	RE-48-24	-	3-2	
3 x 2	76,20 x 50,80	3.875	98,43	SF1	SF4	-	RE-48-32	-	3-2	
3 x 2 1/2	76,20 x 63,50	3.125	79,38	SF1	SF4	-	RE-48-40	-	3-2	
4 x 2	101,60 x 50,80	5.750	146,05	SF1	SF4	-	RE-64-32	-	3-2	
4 x 2 1/2	101,60 x 63,50	4.875	123,83	SF1	SF4	-	RE-64-40	-	3-2	
4 x 3	101,60 x 76,20	4.500	114,30	SF1	SF4	-	RE-64-48	-	3-2	
6 x 3	152,40 x 76,20	8.000	203,20	SF1	SF4	-	RE-96-48	-	3-2	
6 x 4	152,40 x 101,60	6.375	161,93	SF1	SF4	-	RE-96-64	-	3-2	

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.3-3
Hygienic Clamp Joint: Concentric Reducer

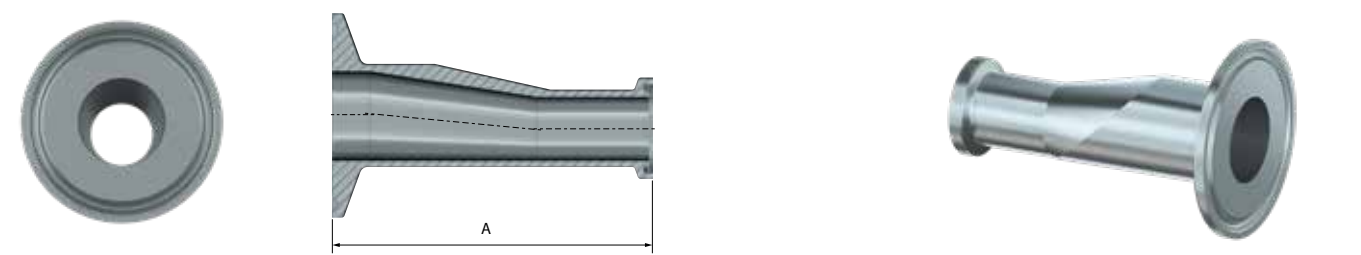


ASME BPE / DT-4.1.3-3

Size				A				ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE
Inch	mm	Inch	mm	316L	Code	DT				
3/8 x 1/4	9,53 x 6,35	2.625	66,68	SF1	SF4	-	RC-06-04	-	3-3	
1/2 x 1/4	12,70 x 6,35	2.875	73,03	SF1	SF4	-	RC-08-04	-	3-3	
1/2 x 3/8	12,70 x 9,53	2.875	73,03	SF1	SF4	-	RC-08-06	-	3-3	
3/4 x 3/8	19,05 x 9,53	3.000	76,20	SF1	SF4	-	RC-12-06	-	3-3	
3/4 x 1/2	19,05 x 12,70	3.125	79,38	SF1	SF4	-	RC-12-08	-	3-3	
1 x 1/2	25,40 x 12,70	3.500	88,90	SF1	SF4	-	RC-16-08	-	3-3	
1 x 3/4	25,40 x 19,05	3.125	79,38	SF1	SF4	-	RC-16-12	-	3-3	
1 1/2 x 3/4	38,10 x 19,05	4.000	101,60	SF1	SF4	-	RC-24-12	-	3-3	
1 1/2 x 1	38,10 x 25,40	3.500	88,90	SF1	SF4	-	RC-24-16	-	3-3	
2 x 1	50,80 x 25,40	4.375	111,13	SF1	SF4	-	RC-32-16	-	3-3	
2 x 1 1/2	50,80 x 38,10	3.500	88,90	SF1	SF4	-	RC-32-24	-	3-3	
2 1/2 x 1 1/2	63,50 x 38,10	4.375	111,13	SF1	SF4	-	RC-40-24	-	3-3	
2 1/2 x 2	63,50 x 50,80	3.500	88,90	SF1	SF4	-	RC-40-32	-	3-3	
3 x 1 1/2	76,20 x 38,10	5.250	133,35	SF1	SF4	-	RC-48-24	-	3-3	
3 x 2	76,20 x 50,80	4.375	111,13	SF1	SF4	-	RC-48-32	-	3-3	
3 x 2 1/2	76,20 x 63,50	3.625	92,08	SF1	SF4	-	RC-48-40	-	3-3	
4 x 2	101,60 x 50,80	6.250	158,75	SF1	SF4	-	RC-64-32	-	3-3	
4 x 2 1/2	101,60 x 63,50	5.375	136,53	SF1	SF4	-	RC-64-40	-	3-3	
4 x 3	101,60 x 76,20	5.000	127,00	SF1	SF4	-	RC-64-48	-	3-3	
6 x 3	152,40 x 76,20	8.500	214,90	SF1	SF4	-	RC-96-48	-	3-3	
6 x 4	152,40 x 101,60	7.000	177,80	SF1	SF4	-	RC-96-64	-	3-3	

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.3-3
Hygienic Clamp Joint: Eccentric Reducer

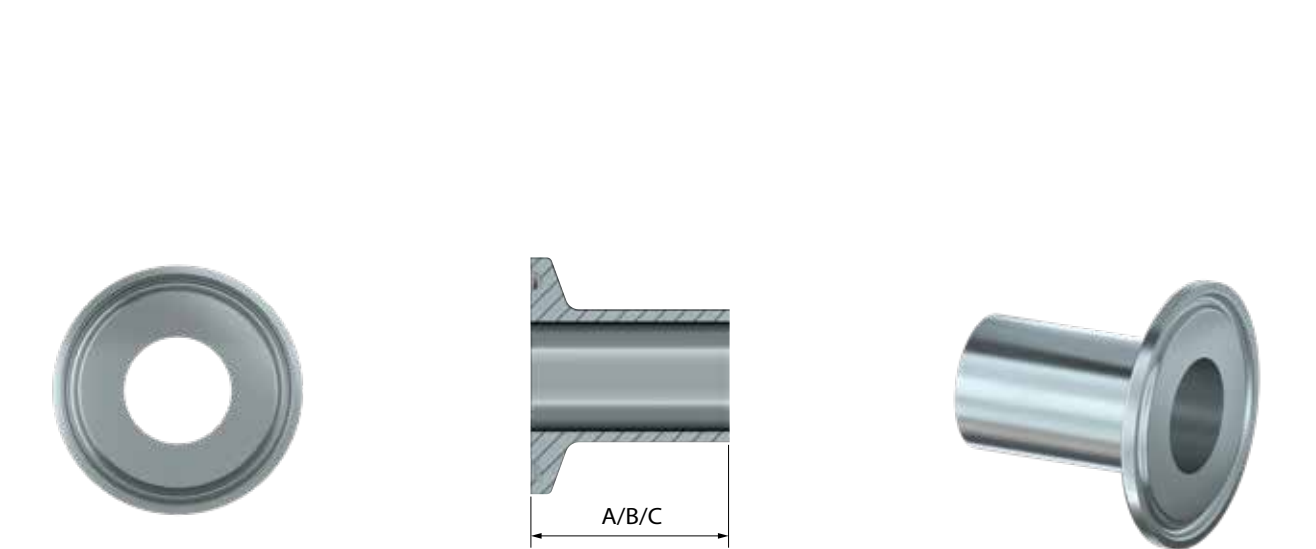


ASME BPE / DT-4.1.3-3

Size				A				ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE
Inch	mm	Inch	mm	316L	Code	DT				
3/8 x 1/4	9,53 x 6,35	2.625	66,68	SF1	SF4	-	RE-06-04	-	3-3	
1/2 x 1/4	12,70 x 6,35	2.875	73,03	SF1	SF4	-	RE-08-04	-	3-3	
1/2 x 3/8	12,70 x 9,53	2.875	73,03	SF1	SF4	-	RE-08-06	-	3-3	
3/4 x 3/8	19,05 x 9,53	3.000	76,20	SF1	SF4	-	RE-12-06	-	3-3	
3/4 x 1/2	19,05 x 12,70	3.125	79,38	SF1	SF4	-	RE-12-08	-	3-3	
1 x 1/2	25,40 x 12,70	3.500	88,90	SF1	SF4	-	RE-16-08	-	3-3	
1 x 3/4	25,40 x 19,05	3.125	79,38	SF1	SF4	-	RE-16-12	-	3-3	
1 1/2 x 3/4	38,10 x 19,05	4.000	101,60	SF1	SF4	-	RE-24-12	-	3-3	
1 1/2 x 1	38,10 x 25,40	3.500	88,90	SF1	SF4	-	RE-24-16	-	3-3	
2 x 1	50,80 x 25,40	4.375	111,13	SF1	SF4	-	RE-32-16	-	3-3	
2 x 1 1/2	50,80 x 38,10	3.500	88,90	SF1	SF4	-	RE-32-24	-	3-3	
2 1/2 x 1 1/2	63,50 x 38,10	4.375	111,13	SF1	SF4	-	RE-40-24	-	3-3	
2 1/2 x 2	63,50 x 50,80	3.500	88,90	SF1	SF4	-	RE-40-32	-	3-3	
3 x 1 1/2	76,20 x 38,10	5.250	133,35	SF1	SF4	-	RE-48-24	-	3-3	
3 x 2	76,20 x 50,80	4.375	111,13	SF1	SF4	-	RE-48-32	-	3-3	
3 x 2 1/2	76,20 x 63,50	3.625	92,08	SF1	SF4	-	RE-48-40	-	3-3	
4 x 2	101,60 x 50,80	6.250	158,75	SF1	SF4	-	RE-64-32	-	3-3	
4 x 2 1/2	101,60 x 63,50	5.375	136,53	SF1	SF4	-	RE-64-40	-	3-3	
4 x 3	101,60 x 76,20	5.000	127,00	SF1	SF4	-	RE-64-48	-	3-3	
6 x 3	152,40 x 76,20	8.500	214,90	SF1	SF4	-	RE-96-48	-	3-3	
6 x 4	152,40 x 101,60	7.000	177,80	SF1	SF4	-	RE-96-64	-	3-3	

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.4-1
Automatic Tube Weld: Ferrule



ASME BPE / DT-4.1.4-1 / FERRULE A

Size		A		Clamp Dimensions		ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE	
Inch	mm	Inch	mm	Inch	mm	316L	Code	DT	
1/4	6,35	1.750	44,50	0.984	25,00	SF1	SF4	- FA-04 -	4-1
3/8	9,53	1.750	44,50	0.984	25,00	SF1	SF4	- FA-06 -	4-1
1/2	12,70	1.750	44,50	0.984	25,00	SF1	SF4	- FA-08 -	4-1
3/4	19,05	1.750	44,50	0.984	25,00	SF1	SF4	- FA-12 -	4-1
1	25,40	1.750	44,50	1.984	50,50	SF1	SF4	- FA-16 -	4-1
1 1/2	38,10	1.750	44,50	1.984	50,50	SF1	SF4	- FA-24 -	4-1
2	50,80	2.250	57,20	2.516	64,00	SF1	SF4	- FA-32 -	4-1
2 1/2	63,50	2.250	57,20	3.047	77,50	SF1	SF4	- FA-40 -	4-1
3	76,20	2.250	57,20	3.579	91,00	SF1	SF4	- FA-48 -	4-1
4	101,60	2.250	57,20	4.682	119,00	SF1	SF4	- FA-64 -	4-1
6	152,40	3.000	76,20	6.570	167,00	SF1	SF4	- FA-96 -	4-1

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

ASME BPE / DT-4.1.4-1 / FERRULE B

Size		B		Clamp Dimensions		ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE	
Inch	mm	Inch	mm	Inch	mm	316L	Code	DT	
1/4	6,35	1.130	28,58	0.984	25,00	SF1	SF4	- FB-04 -	4-1
3/8	9,53	1.130	28,58	0.984	25,00	SF1	SF4	- FB-06 -	4-1
1/2	12,70	1.130	28,58	0.984	25,00	SF1	SF4	- FB-08 -	4-1
3/4	19,05	1.130	28,58	0.984	25,00	SF1	SF4	- FB-12 -	4-1
1	25,40	1.130	28,58	1.984	50,50	SF1	SF4	- FB-16 -	4-1
1 1/2	38,10	1.130	28,58	1.984	50,50	SF1	SF4	- FB-24 -	4-1
2	50,80	1.130	28,58	2.516	64,00	SF1	SF4	- FB-32 -	4-1
2 1/2	63,50	1.130	28,58	3.047	77,50	SF1	SF4	- FB-40 -	4-1
3	76,20	1.130	28,58	3.579	91,00	SF1	SF4	- FB-48 -	4-1
4	101,60	1.130	28,58	4.682	119,00	SF1	SF4	- FB-64 -	4-1
6	152,40	1.500	38,10	6.570	167,00	SF1	SF4	- FB-96 -	4-1

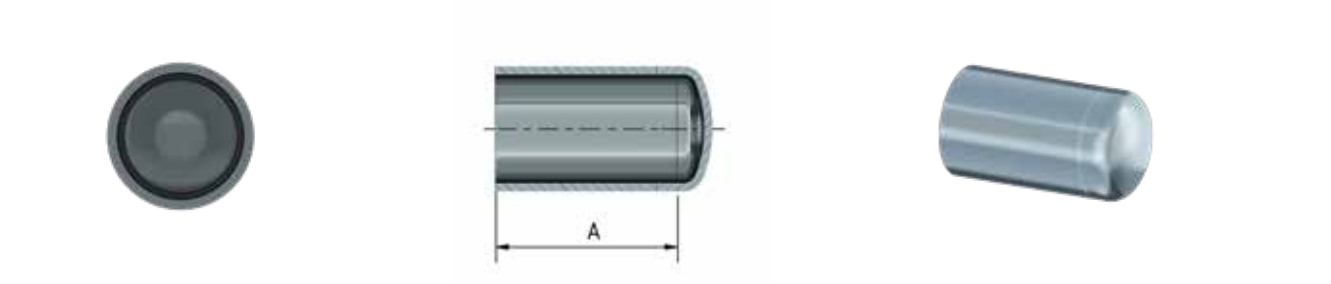
Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

ASME BPE / DT-4.1.4-1 / FERRULE C

Size		C		Clamp Dimensions		ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE	
Inch	mm	Inch	mm	Inch	mm	316L	Code	DT	
1/4	6,35	0.500	12,70	0.984	25,00	SF1	SF4	- FC-08 -	4-1
3/8	9,53	0.500	12,70	0.984	25,00	SF1	SF4	- FC-06 -	4-1
1/2	12,70	0.500	12,70	0.984	25,00	SF1	SF4	- FC-08 -	4-1
3/4	19,05	0.500	12,70	0.984	25,00	SF1	SF4	- FC-12 -	4-1
1	25,40	0.500	12,70	1.984	50,50	SF1	SF4	- FC-16 -	4-1
1 1/2	38,10	0.500	12,70	1.984	50,50	SF1	SF4	- FC-24 -	4-1
2	50,80	0.500	12,70	2.516	64,00	SF1	SF4	- FC-32 -	4-1
2 1/2	63,50	0.500	12,70	3.047	77,50	SF1	SF4	- FC-40 -	4-1
3	76,20	0.500	12,70	3.579	91,00	SF1	SF4	- FC-48 -	4-1
4	101,60	0.625	15,90	4.682	119,00	SF1	SF4	- FC-64 -	4-1
6	152,40	0.750	19,05	6.570	167,00	SF1	SF4	- FC-96 -	4-1

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.5-1
Automatic Tube Weld: Cap Type A

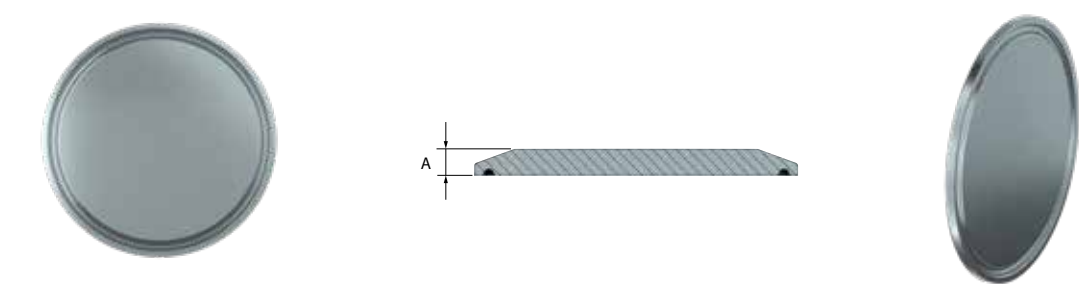


ASME BPE / DT-4.1.5-1 / CAP TYPE A

Size		A		ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE		
Inch	mm	Inch	mm			316L	Code	DT
1/2	12,70	1.555	39,50			SF1	SF4 - WC-08 -	5-1
3/4	19,05	1.555	39,50			SF1	SF4 - WC-12 -	5-1
1	25,40	1.555	39,50			SF1	SF4 - WC-16 -	5-1
1 1/2	38,10	1.555	39,50			SF1	SF4 - WC-24 -	5-1
2	50,80	1.555	39,50			SF1	SF4 - WC-32 -	5-1
2 1/2	63,50	1.555	39,50			SF1	SF4 - WC-40 -	5-1
3	76,20	1.811	46,00			SF1	SF4 - WC-48 -	5-1
4	101,60	2.067	52,50			SF1	SF4 - WC-64 -	5-1
6	152,40	2.559	65,00			SF1	SF4 - WC-96 -	5-1

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

DT-4.1.5-2
Hygienic Clamp Joint: Solid End Cap



ASME BPE / 4.1.5-2 / SOLID END CAP

Size		A		Flange Dimensions		ASME BPE SF1	ASME BPE SF4	Ref. According to ASME BPE		
Inch	mm	Inch	mm	Inch	mm			316L	Code	DT
1/4	6,35	0.187	4,70	0.984	25,00			SF1	SF4 -	FTC-04-12 - 5-2
3/8	9,53	0.187	4,70	0.984	25,00			SF1	SF4 -	FTC-04-12 - 5-2
1/2	12,70	0.187	4,70	0.984	25,00			SF1	SF4 -	FTC-04-12 - 5-2
3/4	19,05	0.187	4,70	0.984	25,00			SF1	SF4 -	FTC-04-12 - 5-2
1	25,40	0.250	6,40	1.984	50,50			SF1	SF4 -	FTC-16-24 - 5-2
1 1/2	38,10	0.250	6,40	1.984	50,50			SF1	SF4 -	FTC-16-24 - 5-2
2	50,80	0.250	6,40	2.516	64,00			SF1	SF4 -	FTC-32 - 5-2
2 1/2	63,50	0.250	6,40	3.047	77,50			SF1	SF4 -	FTC-40 - 5-2
3	76,20	0.250	6,40	3.579	91,00			SF1	SF4 -	FTC-48 - 5-2
4	101,60	0.312	7,90	4.682	119,00			SF1	SF4 -	FTC-64 - 5-2
6	152,40	0.437	11,10	6.570	167,00			SF1	SF4 -	FTC-96 - 5-2

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

Clamps
Standard Clamp acc. to ASME BPE



CLAMP / ASME BPE				
Nominal Size		Flange Dimensions	Clamp	Single Pinned Wing Nut
Inch	Inch	mm	Size	Code
1/4	0.984	25,00	1	CL-SP-WN-1
3/8	0.984	25,00	1	CL-SP-WN-1
1/2	0.984	25,00	1	CL-SP-WN-1
3/4	0.984	25,00	1	CL-SP-WN-1
1	1.984	50,50	2	CL-SP-WN-2
1 1/2	1.984	50,50	2	CL-SP-WN-2
2	2.516	64,00	3	CL-SP-WN-3
2 1/2	3.047	77,50	4	CL-SP-WN-4
3	3.579	91,00	5	CL-SP-WN-5
4	4.682	119,00	7	CL-SP-WN-7
6	6.570	167,00	9	CL-SP-WN-9

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

Special Clamps / optional

Safety Clamp	Clamp with Hexagon	3-Segment-Clamp	3-Segment-Clamp with Hexagon	High Pressure Clamp
				

Gaskets
Materials Overview



GASKETS / Imperial									
Inch	Size mm	Code	PTFE	FKM	FKM/PTFE	EPDM	MVQ	PTFE/316	PTFE/EPDM
1/4	6,35	TC-GK-04-1-	P	F	FP	E	M	P16	PTE
3/8	9,53	TC-GK-06-1-	P	F	FP	E	M	P16	PTE
1/2	12,70	TC-GK-08-1-	P	F	FP	E	M	P16	PTE
3/4	19,05	TC-GK-12-1-	P	F	FP	E	M	P16	PTE
1	25,40	TC-GK-16-2-	P	F	FP	E	M	P16	PTE
1 1/2	38,10	TC-GK-24-2-	P	F	FP	E	M	P16	PTE
2	50,80	TC-GK-32-3-	P	F	FP	E	M	P16	PTE
2 1/2	63,50	TC-GK-40-4-	P	F	FP	E	M	P16	PTE
3	76,20	TC-GK-48-5-	P	F	FP	E	M	P16	PTE
4	101,60	TC-GK-64-7-	P	F	FP	E	M	P16	PTE
6	152,40	TC-GK-96-9-	P	F	FP	E	M	P16	PTE

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.



Screen Gaskets provide prefiltration for critical membrane filters, coalescence of water vapour from process exhaust lines, particulate removal before fill and finish and more.



The **Smart Gasket** values are proven when validating sterility in high purity pharmaceutical systems.



The **Controlled Compression** Gaskets cannot be overtightened but controls clamp compression to exactly the correct amount, allowing the properly positioned gasket to make a perfect surface I.D. seal with ferrules.



Orifice Plates advance your system's performance, adjust flow rates, balance backflow and equalize back pressure during SIP procedures.

Gaskets

Technical Specifications

All standard sanitary gaskets are moulded from FDA compliant compounds and fulfil USP class VI.

Total traceability for the complete system
Dockweiler gaskets are cleaned, dried and. permanently marked.
Mix-ups after removal from the packaging are eliminated.

Lasermarking information: DOCKWEILER / DW-No.

Material	PTFE	FKM	FKM / PTFE		EPDM	MVQ	PTFE / 316L	PTFE / EPDM
Material acc. to ISO 1629 / ASTM D1418	Polytetrafluoro-ethylene	Perfluorinated rubber	PTFE enveloped FKM		Ethylene propylene diene rubber	Platinum cured silicone rubber	Composite of stainless steel 316L and PTFE	PTFE enveloped EPDM
Trade name	Teflon® Dyneon®	Viton® Fluorel®			Buna® Nordel®	Silopren® Silastic®	TufSteel	TufFlex
Diameter*	Flange size ≤ 1" Gasket without Lip, Flange size ≥ 1 1/2": Gasket with Lip				Flange size ≤ 1" Gasket without Lip, Flange size ≥ 1 1/2": Gasket with Lip			
* Not all diameters are available in all materials	Imperial 1/4" – 6"				Imperial 1/4" – 6"			
Temperature variatons	–	+	o		+	+	+	+
Continuous steam	+	+	+		+	+	+	+
Non-polar solvents	+	+	+		–	–	+	+
Polar solvents	+	–	+		–	–	+	+
Acid and active oxygen	+	+	+		+	+	+	+
Acid	+	+	+		+	+	+	+
Alkaline	+	+	+		+	–	+	+
Hardness	68 Shore A	82 Shore A	45 Shore A		45 Shore A	65 – 75 Shore A	80 Shore A	70 +/- 5 Shore A
Density	3,45 g/cm³	1,28 g/cm³	1,9 g/cm³		2,1 g/cm³	1,2 g/cm³	1,85 g/cm³	1,25 g/cm³
Compression set	18,5 %	13 %	15 %		10 %	20 %	7 %	5 %
	70 Hour	24 Hour	24 Hour		24 Hour	24 Hour	24 Hour	24 Hour
	200 °C / 392 °F	175 °C / 347 °F	175 °C / 347 °F		150 °C / 302 °F	175 °C / 347 °F	150 °C / 302 °F	175 °C / 347 °F
Temperature range	-15 to 230 °C 5 to 446 °F	-20 to 210 °C -4 to 410 °F	-60 to 180 °C -76 to 356 °F		-40 to 140 °C -40 to 284 °F	-60 to 200 °C -76 to 392 °F	-70 to 260 °C -94 to 500 °F	-70 to 180 °C -94 to 356 °F

+

= highly suitable

o

= suitable

–

= not suitable

+

= highly suitable

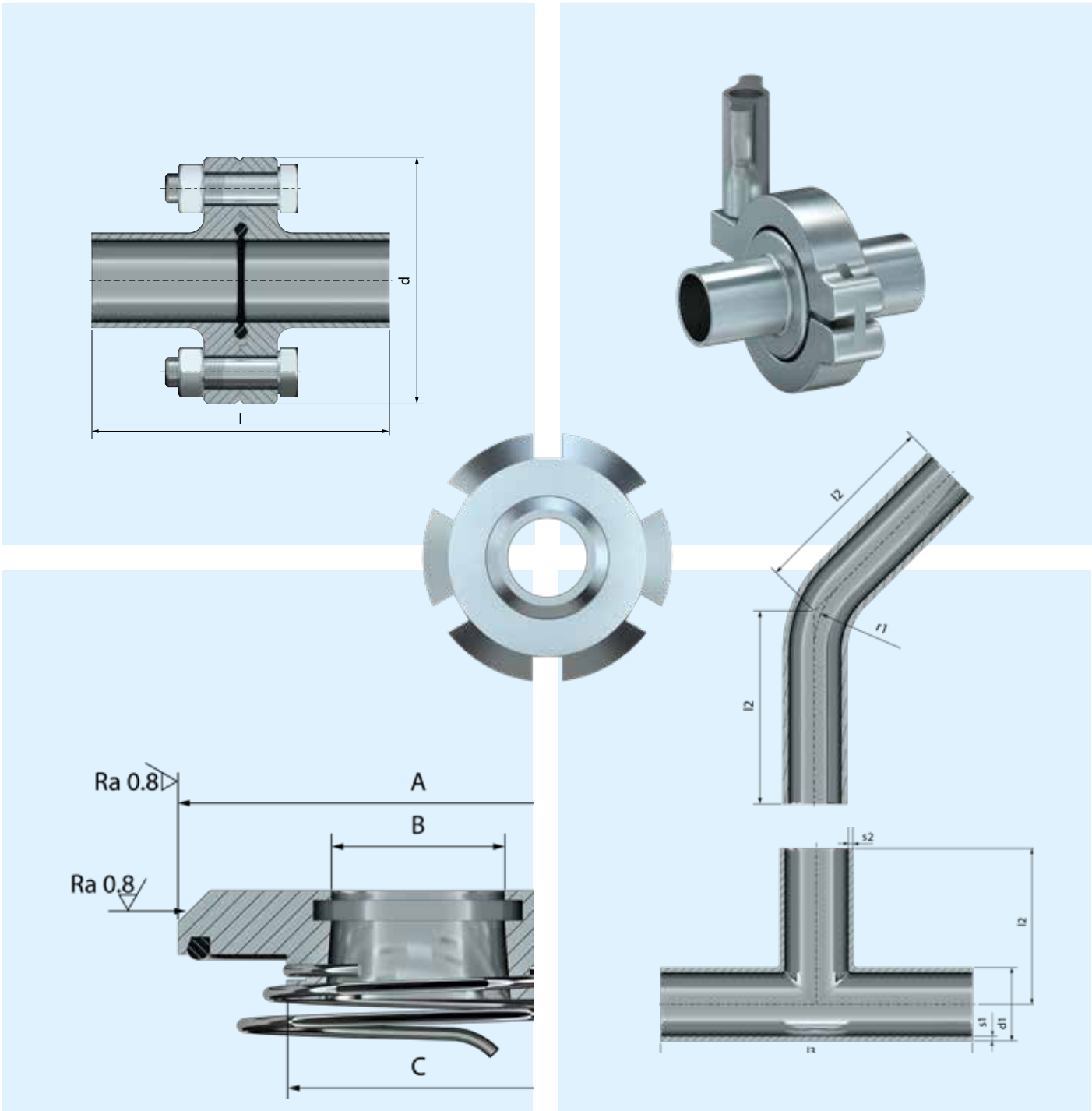
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= suitable

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= not suitable

DIN Tubes, Fittings and Connections



■ weldtron	Specification	56
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	Products	Page
	Tube	60
	90° Elbow	62
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	T-Pieces Short Branch	68
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	Screw Connection acc. to DIN 11864-1	90
	Flange Connection acc. to DIN 11864-2	96
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Specification
weldtron

For biotech and the pharma industry
and for sensitive sectors of cosmetics and food
industries

weldtron

bf

bright finished

ep

electropolished







1. SURFACE QUALITIES

Tubes and fittings:	Inner surface (bright finished)
■ weldtron H3o	Ra _{avg.} ≤ 0,80 µm / 32 µin
Surface treatment:	- Bright finished (bf) / H3o according to DIN 11866 / 11865 / 11864 / DIN 32676 - Ra value for circumferential weld seam of fittings not defined - T-pieces according to DIN 11865, option “u”. - Circular weld seams ground with specified Ra value on request - Cleaning and testing methods ASTM A 632, S3

Tubes and fittings:	Inner surface (electropolished)
■ weldtron HE3o	Ra _{avg.} ≤ 0.60 µm / 24 µin
Surface treatment:	- Electropolished (ep) / HE3o according to DIN 11866 / 11865 / 11864 / DIN 32676 - Ra value for circumferential weld seam of formed parts not defined - T-pieces according to DIN 11865, option “u”. - - Circular weld seams ground with specified Ra value on request. - Cleaning and testing procedures according to Spec. doc. 8.4-40/3.2/3.3.2 - Oil and grease-free in accordance with CGA G-4.1-2018 and ASTM G93 – level B

2. MATERIALS

	Austenitic stainless steel tubes and fittings in:
■ weldtron	1.4435 / UNS S31603 (316L) acc. to Basler Norm 2 (BN2) 1.4404 / UNS S31603 (316L)

Hardness equivalent to:	- max. 180 HV* according to DIN EN ISO 6507-1 - max. 90 HRB* according to DIN EN ISO 6508-1 * comparable to ASTM E-384 (HV) and ASTM E 18-22 (HRB)
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3. DIMENSIONS

Imperial:	acc. to ASTM A269 / A270 / A632, ASME BPE and DIN 11866 Serie C
OD x WT	1/4" to 6" (0.250 x 0.035 inch to 6.000 x 0.109 inch) 6,35 x 0,89 mm to 152,40 x 2,77 mm
ISO:	acc. to DIN EN ISO 1127 and DIN 11866 Serie B
OD x WT	13,50 x 1,60 mm to 219,10 x 2,60 mm
Metric:	acc. to DIN 11866 Series A
OD x WT	6,00 x 1,00 mm to 154,00 x 2,00 mm

Manufacturing process:	Welded or seamless tubes
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4. QUALITY AND TEST PROCEDURES

	Verification of basic test certificate		Visual inspection		Endoscopic inspection of bright finished tubes
	Verification of dimensions		Roughness measurements		Delta ferrite measurement 1.4435 BN2 / 316L

5. TECHNICAL TERMS OF DELIVERY

Tubes and fittings are prepared for orbital welding:

Tubes

Acc. to 11866, ASTM A 269 / A 270, DIN EN 10217-7 / 10216-5 with a length of 5900 - 6090 mm (max. 10% short lengths of min. 3000 mm possible).

For electropolished tubes with outer diameter ≤ 5.00 mm, the length is 2950 ± 50 mm.

Fittings

Acc. to DIN 11865, DIN 32676, DIN 11864

Marking always with

DOCKWEILER / DW-Number / Dimension / Material / Heat number / Standards and Hygiene Class

Tubes, pipes and fittings shall be permanently marked as per Dockweiler guideline AA 7.5.3–80. The marking must provide all necessary information to trace back the heat number and the material grade.

6. DOCUMENTATION, PACKAGING AND SHIPPING

Documentation

The documentation result by the Dockweiler Inspection Certificate 3.1 according to DIN EN 10204. Optional online documentation WebCert.

Packaging

Bright finished tubes and fittings are sealed with transparent PE caps and individually packaged in PE foil. The batch label on the foil packaging contains the information weldtron.

Electropolished tubes and fittings are sealed with PA/ PE squares and yellow PE caps, sleeved and sealed in PE. The batch label on the foil packaging contains the information weldtron ep.

Shipping

Delivery in tubular container or wooden crate, fittings in strong cardboard box with shock absorbing filler.

Specification
safetron

For sensitive media in pharma and biotech:
WFI, serums and parenterals

safetron

bf

bright finished

ep

electropolished







1. SURFACE QUALITIES

Tubes and fittings:	Inner surface (bf)
safetron H4o	Ra_{avg.} ≤ 0,40 µm / 16 µin
Surface treatment:	- Bright finished (bf) / H4o Hygienic Class according to DIN 11866/11865/11864/DIN 32676 - Ra value for circumferential weld seam of fittings not defined - T-pieces according to DIN 11865, option “u”. - Circular weld seams ground with specified Ra value on request - Cleaning and testing methods ASTM A 632, S3 - Weld ends of tubes and fittings are prepared for orbital welding (square cut and faced).

Tubes and fittings:	Inner surface (ep)
safetron HE5o	Ra_{avg.} ≤ 0,25 µm / 10µin
Surface treatment:	- Electropolished (ep)/HE5o Hygienic Class according to DIN 11866/11865/11864/DIN 32676 - Ra value for circumferential weld seam of formed parts not defined - T-pieces according to DIN 11865, option “u”. - - Circular weld seams ground with specified Ra value on request. - Cleaning and testing procedures according to Spec. doc. 8.4-40/3.2/3.3.2 - Oil and grease-free in accordance with CGA G-4.1-2018 and ASTM G93 – level B - Weld ends of tubes and fittings are prepared for orbital welding (square cut and faced).

2. MATERIALS

	Austenitic stainless steel tubes and fittings in:
safetron	1.4435 / UNS S31603 (316L) acc. to Basler Norm 2 (BN2) 1.4404 / UNS S31603 (316L)

Hardness equivalent to:	- max. 180 HV* according to DIN EN ISO 6507-1 - max. 90 HRB* according to DIN EN ISO 6508-1 * comparable to ASTM E-384 (HV) and ASTM E 18-22 (HRB)
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3. DIMENSIONS

Imperial	acc. to ASTM A269 / A270 / A632, ASME BPE and DIN 11866 Serie C
OD x WT:	1/4" to 6" (0.250 x 0.035 inch to 6.000 x 0.109 inch) 6,35 x 0,89 mm to 152,40 x 2,77 mm
ISO	acc. to DIN EN ISO 1127 und DIN 11866 Serie B
OD x WT:	13,50 x 1,60 mm to 219,10 x 2,60 mm
Metric	acc. to DIN 11866 Series A
	on request
Manufacturing process:	Welded or seamless tubes

4. QUALITY AND TEST PROCEDURES

	Verification of basic test certificate		Visual inspection		Endoscopic inspection of bright finished tubes
	Verification of dimensions		Roughness measurements		Delta ferrite measurement 1.4435 BN2 / 316L

5. TECHNICAL TERMS OF DELIVERY

Tubes and fittings are prepared for orbital welding:

Tubes

According to 11866, ASTM A 269/A 270, DIN EN 10217-7/10216-5 with a length of 5900 - 6090 mm (max. 10% short lengths of min. 3000 mm possible).

For electropolished tubes with outer diameter ≤ 5.00 mm, the length is 2950 ± 50 mm.

Fittings

According to DIN 11865, DIN 32676, DIN 11864

Marking always with

DOCKWEILER / DW-Number / Dimension / Material / Heat number / Standards and Hygiene Class

Tube and fittings shall be permanently marked as per Dockweiler guideline AA 8.5.2-80. The marking must provide all necessary information to trace back the heat number and the material grade.

6. DOCUMENTATION, PACKAGING AND SHIPPING

Documentation

The documentation result by the Dockweiler Inspection Certificate 3.1 according to DIN EN 10204. Optional online documentation WebCert.

Packaging

Bright finished tubes and fittings are sealed with transparent PE caps and individually packaged in PE foil. The batch label on the foil packaging contains the information safetron.

Electropolished tubes and fittings are sealed with PA/PE squares and yellow PE caps, sleeved and sealed in PE. The batch label on the foil packaging contains the information safetron ep.

Shipping

Delivery in tubular container or wooden crate, fittings in strong cardboard box with shock absorbing filler.

Tube



METRIC / DIN 11866 LINE A

Size	d x s	Weight	weldtron bf	weldtron ep	weldtron bf
DN	mm	kg/m	1.4435 / 316L		1.4404/ 316L
Size					Code
4*	6,00 x 1,00	0,13	W	WE	- 04M
6	8,00 x 1,00	0,18	W	WE	- 06M
8	10,00 x 1,00	0,23	W	WE	- 08M
10	13,00 x 1,50	0,43	W	WE	- 10M
15	19,00 x 1,50	0,66	W	WE	- 15M
20	23,00 x 1,50	0,81	W	WE	- 20M
25	29,00 x 1,50	1,03	W	WE	- 25M
32	35,00 x 1,50	1,26	W	WE	- 32M
40	41,00 x 1,50	1,49	W	WE	- 40M
50	53,00 x 1,50	1,94	W	WE	- 50M
65	70,00 x 2,00	3,41	W	WE	- 65M
80	85,00 x 2,00	4,16	W	WE	- 80M
100	104,00 x 2,00	5,11	W	WE	- 100M
150	154,00 x 2,00	7,62	W	WE	- 150M

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.
* Does not apply to DIN 11866

ISO / DIN 11865 LINE B

Size	d x s	Weight	weldtron bf	weldtron ep	safetron bf	safetron ep	weldtron bf
DN	mm	kg/m	1.4435 / 316L				1.4404/ 316L
Size							Code
8	13,50 x 1,60	0,48	W	WE	S	SE	- 08I-04
10	17,20 x 1,60	0,63	W	WE	S	SE	- 10I-04
15	21,30 x 1,60	0,79	W	WE	S	SE	- 15I-04
20	26,90 x 1,60	1,01	W	WE	S	SE	- 20I-04
25	33,70 x 2,00	1,59	W	WE	S	SE	- 25I-04
32	42,40 x 2,00	2,03	W	WE	S	SE	- 32I-04
40	48,30 x 2,00	2,32	W	WE	S	SE	- 40I-04
50	60,30 x 2,00	2,92	W	WE	S	SE	- 50I-04
65	76,10 x 2,00	3,72	W	WE	S	SE	- 65I-04
80	88,90 x 2,30	4,99	W	WE	S	SE	- 80I-04
100	114,30 x 2,30	6,46	W	WE	S	SE	- 100I-04
150	168,30 x 2,60	10,80	W	WE	S	SE	- 150I-04
200	219,10 x 2,60	14,11	W	WE	S	SE	- 200I-04

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

IMPERIAL / DIN 11865 LINE C

Size	d x s	Weight	weldtron bf	weldtron ep	safetron bf	safetron ep	weldtron bf
DN	mm	kg/m	1.4435 / 316L				1.4404/ 316L
Size							Code
1/4	6,35 x 0,89	0,12	W	WE	S	SE	- 04-04
3/8	9,53 x 0,89	0,20	W	WE	S	SE	- 06-04
1/2	12,70 x 1,65	0,46	W	WE	S	SE	- 08-04
3/4	19,05 x 1,65	0,72	W	WE	S	SE	- 12-04
1	25,40 x 1,65	0,98	W	WE	S	SE	- 16-04
1 1/2	38,10 x 1,65	1,51	W	WE	S	SE	- 24-04
2	50,80 x 1,65	2,03	W	WE	S	SE	- 32-04
2 1/2	63,50 x 1,65	2,56	W	WE	S	SE	- 40-04
3	76,20 x 1,65	3,08	W	WE	S	SE	- 48-04
4	101,60 x 2,11	5,26	W	WE	S	SE	- 64-04
6	152,40 x 2,77	10,39	W	WE	S	SE	- 96-04

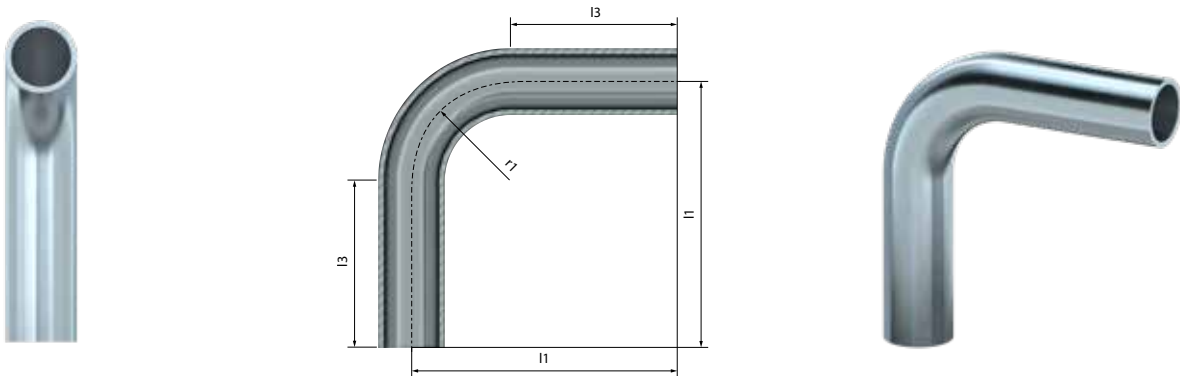
Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

Instrument Tubings

Size	Weight	Size	Weight
d x s mm	kg/m	d x s mm	kg/m
0,30 x 0,06	0,0004	5,00 x 1,00	0,1002
0,80 x 0,20	0,0030	6,00 x 0,50	0,0689
1,20 x 0,10	0,0028	6,00 x 1,00	0,1252
1,20 x 0,20	0,0050	6,00 x 1,50	0,1690
1,59 x 0,25	0,0084	6,35 x 0,89	0,1240
1,59 x 0,30	0,0097	7,00 x 0,50	0,0814
1,59 x 0,40	0,0119	8,00 x 0,50	0,0939
1,59 x 0,45	0,0128	8,00 x 1,00	0,1753
1,59 x 0,59	0,0148	8,00 x 1,50	0,2441
2,00 x 0,20	0,0090	9,53 x 0,89	0,1925
2,00 x 0,40	0,0160	9,53 x 1,65	0,3256
2,00 x 0,50	0,0188	10,00 x 0,50	0,1189
3,18 x 0,56	0,0367	10,00 x 1,00	0,2254
3,18 x 0,71	0,0432	12,00 x 0,20	0,0591
4,00 x 0,50	0,0438	12,00 x 2,00	0,5008
4,00 x 1,00	0,0751		

Further dimensions and materials on request. Subject to alteration.
These dimensions are only a selection of instrumentation and capillary tubes and not all are available from stock.

Elbows 90°
Imperial / ISO / Metric



METRIC / DIN 11865 LINE A

Size	d1	s1	l1	l3	r1	weldtron bf	weldtron ep		
DN	mm					1.4435 / 316L		Code	
4*	6,00	1,00	40,00	24,00	16,00	W	WE	-	E9-04M
6	8,00	1,00	45,00	25,00	20,00	W	WE	-	E9-06M
8	10,00	1,00	50,00	25,00	25,00	W	WE	-	E9-08M
10	13,00	1,50	51,00	25,00	26,00	W	WE	-	E9-10M
15	19,00	1,50	60,00	25,00	35,00	W	WE	-	E9-15M
20	23,00	1,50	65,00	25,00	40,00	W	WE	-	E9-20M
25	29,00	1,50	90,00	40,00	50,00	W	WE	-	E9-25M
32	35,00	1,50	95,00	40,00	55,00	W	WE	-	E9-32M
40	41,00	1,50	100,00	40,00	60,00	W	WE	-	E9-40M
50	53,00	1,50	110,00	40,00	70,00	W	WE	-	E9-50M
65	70,00	2,00	120,00	40,00	80,00	W	WE	-	E9-65M
80	85,00	2,00	145,00	55,00	90,00	W	WE	-	E9-80M
100	104,00	2,00	155,00	55,00	100,00	W	WE	-	E9-100M
150	154,00	2,00	325,00	100,00	225,00	W	WE	-	E9-150M

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.
* Does not apply to DIN 11865

ISO / DIN 11865 LINE B

Size	d1	s1	l1	l3	r1	weldtron bf	weldtron ep	safetron bf	safetron ep		
DN	mm					1.4435 / 316L				Code	
8	13,50	1,60	45,00	25,00	20,00	W	WE	S	SE	-	E9-08I
10	17,20	1,60	53,00	25,00	28,00	W	WE	S	SE	-	E9-10I
15	21,30	1,60	55,00	25,00	30,00	W	WE	S	SE	-	E9-15I
20	26,90	1,60	68,50	40,00	28,50	W	WE	S	SE	-	E9-20I
25	33,70	2,00	78,00	40,00	38,00	W	WE	S	SE	-	E9-25I
32	42,40	2,00	87,50	40,00	47,50	W	WE	S	SE	-	E9-32I
40	48,30	2,00	97,00	40,00	57,00	W	WE	S	SE	-	E9-40I
50	60,30	2,00	116,00	40,00	76,00	W	WE	S	SE	-	E9-50I
65	76,10	2,00	150,00	55,00	95,00	W	WE	S	SE	-	E9-65I
80	88,90	2,30	169,50	55,00	114,50	W	WE	S	SE	-	E9-80I
100	114,30	2,30	207,50	55,00	152,50	W	WE	S	SE	-	E9-100I

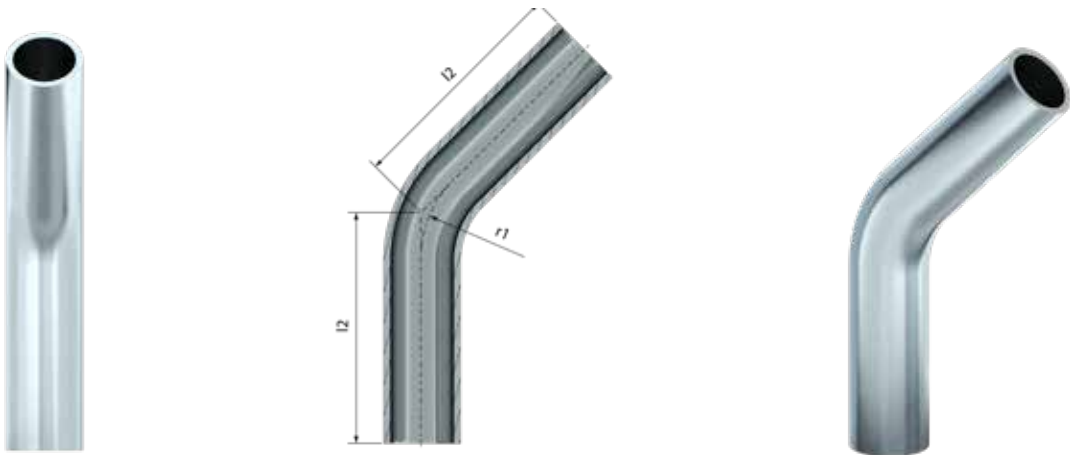
Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

IMPERIAL / DIN 11865 LINE C

Size	d1	s1	l1	l3	r1	weldtron bf	weldtron ep	safetron bf	safetron ep		
Inch	mm					1.4435 / 316L				Code	
1/4	6,35	0,89	66,68	52,40	14,30	W	WE	S	SE	-	E9-04
3/8	9,53	0,89	66,68	38,10	28,60	W	WE	S	SE	-	E9-06
1/2	12,70	1,65	76,20	47,60	28,60	W	WE	S	SE	-	E9-08
3/4	19,05	1,65	76,20	47,60	28,60	W	WE	S	SE	-	E9-12
1	25,40	1,65	76,20	38,10	38,10	W	WE	S	SE	-	E9-16
1 1/2	38,10	1,65	95,30	38,10	57,20	W	WE	S	SE	-	E9-24
2	50,80	1,65	120,70	44,50	76,20	W	WE	S	SE	-	E9-32
2 1/2	63,50	1,65	139,70	44,40	95,30	W	WE	S	SE	-	E9-40
3	76,20	1,65	158,80	44,50	114,30	W	WE	S	SE	-	E9-48
4	101,60	2,11	203,20	50,80	152,40	W	WE	S	SE	-	E9-64
6	152,40	2,77	292,10	63,50	228,60	W	WE	S	SE	-	E9-96

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

Elbows 45°
Imperial / ISO / Metric



ISO / DIN 11865 LINE B

					weldtron bf	weldtron ep	safetron bf	safetron ep	
Size	d1	s1	l2	r1					
Inch	mm				1.4435 / 316L				Code
13,50	13,50	1,60	33,30	20,00	W	WE	S	SE	- E4-08I
17,20	17,20	1,60	36,60	28,00	W	WE	S	SE	- E4-10I
21,30	21,30	1,60	37,40	30,00	W	WE	S	SE	- E4-15I
26,90	26,90	1,60	51,80	28,50	W	WE	S	SE	- E4-20I
33,70	33,70	2,00	55,70	38,00	W	WE	S	SE	- E4-25I
42,40	42,40	2,00	59,70	47,50	W	WE	S	SE	- E4-32I
48,30	48,30	2,00	63,60	57,00	W	WE	S	SE	- E4-40I
60,30	60,30	2,00	71,50	76,00	W	WE	S	SE	- E4-50I
76,10	76,10	2,00	94,40	95,00	W	WE	S	SE	- E4-65I
88,90	88,90	2,30	102,40	114,50	W	WE	S	SE	- E4-80I
114,30	114,30	2,30	118,20	152,50	W	WE	S	SE	- E4-100I
168,30	168,30	2,60	94,70	228,50	W	WE	S	SE	- E4-150I

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

METRIC / DIN 11865 LINE A

					weldtron bf	weldtron ep	
Size	d1	s1	l2	r1			
DN	mm				1.4435 / 316L		Code
4*	6,00	1,00	32,10	16,00	W	WE	- E4-04M
6	8,00	1,00	32,10	24,00	W	WE	- E4-06M
8	10,00	1,00	33,30	24,00	W	WE	- E4-08M
10	13,00	1,50	35,80	26,00	W	WE	- E4-10M
15	19,00	1,50	39,50	35,00	W	WE	- E4-15M
20	23,00	1,50	41,60	40,00	W	WE	- E4-20M
25	29,00	1,50	60,70	50,00	W	WE	- E4-25M
32	35,00	1,50	62,80	55,00	W	WE	- E4-32M
40	41,00	1,50	64,90	60,00	W	WE	- E4-40M
50	53,00	1,50	69,00	70,00	W	WE	- E4-50M
65	70,00	2,00	73,10	80,00	W	WE	- E4-65M
80	85,00	2,00	92,30	90,00	W	WE	- E4-80M
100	104,00	2,00	96,40	100,00	W	WE	- E4-100M
150	154,00	2,00	193,20	225,00	W	WE	- E4-150M

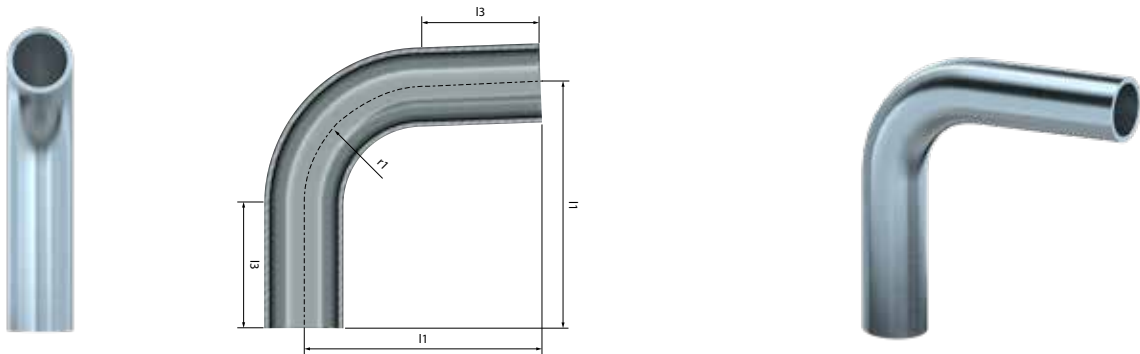
Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.
* Does not apply to DIN 11865

IMPERIAL / DIN 11865 LINE C

					weldtron bf	weldtron ep	safetron bf	safetron ep	
Size	d1	s1	l2	r1					
Inch	mm				1.4435 / 316L				Code
1/4	6,35	0,89	50,80	14,30	W	WE	S	SE	- E4-04
3/8	9,53	0,89	50,80	28,60	W	WE	S	SE	- E4-06
1/2	12,70	1,65	57,20	28,60	W	WE	S	SE	- E4-08
3/4	19,05	1,65	57,20	28,60	W	WE	S	SE	- E4-12
1	25,40	1,65	57,20	38,10	W	WE	S	SE	- E4-16
1 1/2	38,10	1,65	63,50	57,20	W	WE	S	SE	- E4-24
2	50,80	1,65	76,20	76,20	W	WE	S	SE	- E4-32
2 1/2	63,50	1,65	85,70	95,30	W	WE	S	SE	- E4-40
3	76,20	1,65	92,10	114,30	W	WE	S	SE	- E4-48
4	101,60	2,11	114,30	152,40	W	WE	S	SE	- E4-64
6	152,40	2,77	158,80	228,60	W	WE	S	SE	- E4-96

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

Elbows 88°
ISO

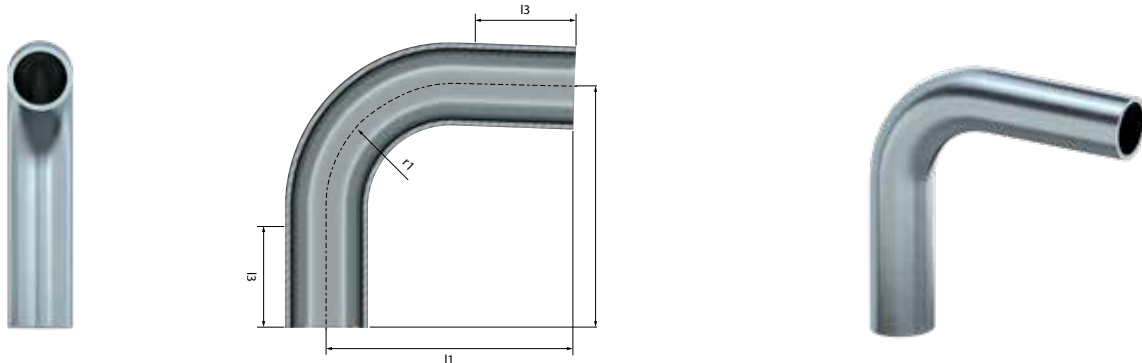


ISO / DIN 11865 LINE B

Size	d1	s1	l1	l3	r1	weldtron bf	weldtron ep	safetron bf	safetron ep		
DN	mm					1.4435 / 316L				Code	
8	13,50	1,60	45,00	25,00	20,00	W	WE	S	SE	-	E8-08I
10	17,20	1,60	53,00	25,00	28,00	W	WE	S	SE	-	E8-10I
15	21,30	1,60	55,00	25,00	30,00	W	WE	S	SE	-	E8-15I
20	26,90	1,60	68,50	40,00	28,50	W	WE	S	SE	-	E8-20I
25	33,70	2,00	78,00	40,00	38,00	W	WE	S	SE	-	E8-25I
32	42,40	2,00	87,50	40,00	47,50	W	WE	S	SE	-	E8-32I
40	48,30	2,00	97,00	40,00	57,00	W	WE	S	SE	-	E8-40I
50	60,30	2,00	116,00	40,00	76,00	W	WE	S	SE	-	E8-50I

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

Elbows 92°
ISO

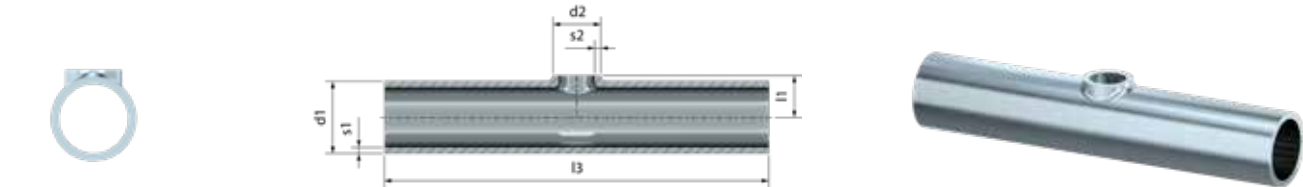


ISO / DIN 11865 LINE B

Size	d1	s1	l1	l3	r1	weldtron bf	weldtron ep	safetron bf	safetron ep		
DN	mm					1.4435 / 316L				Code	
8	13,50	1,60	45,00	25,00	20,00	W	WE	S	SE	-	E2-08I
10	17,20	1,60	53,00	25,00	28,00	W	WE	S	SE	-	E2-10I
15	21,30	1,60	55,00	25,00	30,00	W	WE	S	SE	-	E2-15I
20	26,90	1,60	68,50	40,00	28,50	W	WE	S	SE	-	E2-20I
25	33,70	2,00	78,00	40,00	38,00	W	WE	S	SE	-	E2-25I
32	42,40	2,00	87,50	40,00	47,50	W	WE	S	SE	-	E2-32I
40	48,30	2,00	97,00	40,00	57,00	W	WE	S	SE	-	E2-40I
50	60,30	2,00	116,00	40,00	76,00	W	WE	S	SE	-	E2-50I

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

T-Pieces Short Branch
Equal and Reduced / Imperial



IMPERIAL / DIN 11865 LINE C

Size	d1 x d 2	s1	s2	l3	l1	weldtron bf	weldtron ep	safetron bf	safetron ep		
Inch	mm	mm								1.4435 / 316L	Code
1/2 x 1/2	12,70 x 12,70	1,65	1,65	95,20	11,35	W	WE	S	SE	-	TES-08
3/4 x 1/2	19,05 x 12,70	1,65	1,65	101,60	11,03	W	WE	S	SE	-	TRS-12-08
3/4 x 3/4	19,05 x 19,05	1,65	1,65	101,60	11,03	W	WE	S	SE	-	TES-12
1 x 1/2	25,40 x 12,70	1,65	1,65	108,00	14,20	W	WE	S	SE	-	TRS-16-08
1 x 3/4	25,40 x 19,05	1,65	1,65	108,00	14,20	W	WE	S	SE	-	TRS-16-12
1 x 1	25,40 x 25,40	1,65	1,65	108,00	14,20	W	WE	S	SE	-	TES-16
1 1/2 x 3/4	38,10 x 19,05	1,65	1,65	120,60	20,55	W	WE	S	SE	-	TRS-24-12
1 1/2 x 1	38,10 x 25,40	1,65	1,65	120,60	20,55	W	WE	S	SE	-	TRS-24-16
1 1/2 x 1 1/2	38,10 x 38,10	1,65	1,65	120,60	21,05	W	WE	S	SE	-	TES-24
2 x 1	50,80 x 25,40	1,65	1,65	146,00	26,90	W	WE	S	SE	-	TRS-32-16
2 x 1 1/2	50,80 x 38,10	1,65	1,65	146,00	27,40	W	WE	S	SE	-	TRS-32-24
2 x 2	50,80 x 50,80	1,65	1,65	146,00	28,90	W	WE	S	SE	-	TES-32
2 1/2 x 1 1/2	63,50 x 38,10	1,65	1,65	158,80	33,75	W	WE	S	SE	-	TRS-40-24
2 1/2 x 2	63,50 x 50,80	1,65	1,65	158,80	35,25	W	WE	S	SE	-	TRS-40-32
2 1/2 x 2 1/2	63,50 x 63,50	1,65	1,65	158,80	35,25	W	WE	S	SE	-	TES-40
3 x 1	76,20 x 25,40	1,65	1,65	171,50	40,60	W	WE	S	SE	-	TRS-48-16
3 x 1 1/2	76,20 x 38,10	1,65	1,65	171,50	40,10	W	WE	S	SE	-	TRS-48-24
3 x 2	76,20 x 50,80	1,65	1,65	171,50	41,60	W	WE	S	SE	-	TRS-48-32
3 x 2 1/2	76,20 x 63,50	1,65	1,65	171,50	41,60	W	WE	S	SE	-	TRS-48-40
3 x 3	76,20 x 76,20	1,65	1,65	171,40	43,10	W	WE	S	SE	-	TES-48
4 x 1 1/2	101,60 x 38,10	2,11	1,65	209,60	53,80	W	WE	S	SE	-	TRS-64-24
4 x 2	101,60 x 50,80	2,11	1,65	209,60	54,30	W	WE	S	SE	-	TRS-64-32
4 x 2 1/2	101,60 x 63,50	2,11	1,65	209,60	54,30	W	WE	S	SE	-	TRS-64-40
4 x 3	101,60 x 76,20	2,11	1,65	209,60	55,80	W	WE	S	SE	-	TRS-64-48
4 x 4	101,60 x 101,60	2,11	1,65	209,60	56,80	W	WE	S	SE	-	TES-64

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

T-Pieces Short Branch
Equal and Reduced / ISO

ISO / DIN 11865 LINE B

Size	d1 x d 2	s1	s2	l3	l1	weldtron bf	weldtron ep	safetron bf	safetron ep		
Inch	mm									1.4435 / 316L	Code
8 x 8	13,50 x 13,50	1,60	1,60	64,00	11,75	W	WE	S	SE	-	TES-08I
10 x 8	17,20 x 13,50	1,60	1,60	68,00	10,10	W	WE	S	SE	-	TRS-10I-08I
10 x 10	17,20 x 17,20	1,60	1,60	68,00	10,10	W	WE	S	SE	-	TES-10I
15 x 8	21,30 x 13,50	1,60	1,60	72,00	12,15	W	WE	S	SE	-	TRS-15I-08I
15 x 10	21,30 x 17,20	1,60	1,60	72,00	12,15	W	WE	S	SE	-	TRS-15I-10I
15 x 15	21,30 x 21,30	1,60	1,60	72,00	12,15	W	WE	S	SE	-	TES-15I
20 x 10	26,90 x 17,20	1,60	1,60	110,00	14,95	W	WE	S	SE	-	TRS-20I-10I
20 x 15	26,90 x 21,30	1,60	1,60	110,00	14,95	W	WE	S	SE	-	TRS-20I-15I
20 x 20	26,90 x 26,90	1,60	1,60	110,00	14,95	W	WE	S	SE	-	TES-20I
25 x 15	33,70 x 21,30	2,00	1,60	120,00	18,35	W	WE	S	SE	-	TRS-25I-15I
25 x 20	33,70 x 26,90	2,00	1,60	120,00	18,35	W	WE	S	SE	-	TRS-25I-20I
25 x 25	33,70 x 33,70	2,00	2,00	120,00	18,35	W	WE	S	SE	-	TES-25I
32 x 15	42,40 x 21,30	2,00	1,60	130,00	22,70	W	WE	S	SE	-	TRS-32I-15I
32 x 20	42,40 x 26,90	2,00	1,60	130,00	22,70	W	WE	S	SE	-	TRS-32I-20I
32 x 25	42,40 x 33,70	2,00	2,00	130,00	22,70	W	WE	S	SE	-	TRS-32I-25I
32 x 32	42,40 x 42,40	2,00	2,00	130,00	23,20	W	WE	S	SE	-	TES-32I
40 x 15	48,30 x 21,30	2,00	1,60	130,00	25,65	W	WE	S	SE	-	TRS-40I-15I
40 x 20	48,30 x 26,90	2,00	1,60	130,00	25,65	W	WE	S	SE	-	TRS-40I-20I
40 x 25	48,30 x 33,70	2,00	2,00	130,00	25,65	W	WE	S	SE	-	TRS-40I-25I
40 x 32	48,30 x 42,40	2,00	2,00	130,00	26,15	W	WE	S	SE	-	TRS-40I-32I
40 x 40	48,30 x 48,30	2,00	2,00	130,00	26,65	W	WE	S	SE	-	TES-40I
50 x 20	60,30 x 26,90	2,00	1,60	180,00	32,65	W	WE	S	SE	-	TRS-50I-20I
50 x 25	60,30 x 33,70	2,00	2,00	180,00	31,65	W	WE	S	SE	-	TRS-50I-25I
50 x 32	60,30 x 42,40	2,00	2,00	180,00	32,15	W	WE	S	SE	-	TRS-50I-32I
50 x 40	60,30 x 48,30	2,00	2,00	180,00	32,65	W	WE	S	SE	-	TRS-50I-40I
50 x 50	60,30 x 60,30	2,00	2,00	180,00	33,65	W	WE	S	SE	-	TES-50I
65 x 25	76,10 x 33,70	2,00	2,00	220,00	40,55	W	WE	S	SE	-	TRS-65I-25I
65 x 32	76,10 x 42,40	2,00	2,00	220,00	40,05	W	WE	S	SE	-	TRS-65I-32I
65 x 40	76,10 x 48,30	2,00	2,00	220,00	40,55	W	WE	S	SE	-	TRS-65I-40I
65 x 50	76,10 x 60,30	2,00	2,00	220,00	41,55	W	WE	S	SE	-	TRS-65I-50I
65 x 65	76,10 x 76,10	2,00	2,00	220,00	43,05	W	WE	S	SE	-	TES-65I
80 x 32	88,90 x 42,40	2,30	2,00	260,00	46,95	W	WE	S	SE	-	TRS-80I-32I
80 x 40	88,90 x 48,30	2,30	2,00	260,00	46,95	W	WE	S	SE	-	TRS-80I-40I
80 x 50	88,90 x 60,30	2,30	2,00	260,00	47,95	W	WE	S	SE	-	TRS-80I-50I
80 x 65	88,90 x 76,10	2,30	2,00	260,00	49,45	W	WE	S	SE	-	TRS-80I-65I
80 x 80	88,90 x 88,90	2,30	2,30	260,00	49,45	W	WE	S	SE	-	TES-80I
100 x 50	114,30 x 60,30	2,30	2,00	320,00	60,65	W	WE	S	SE	-	TRS-100I-50I
100 x 65	114,30 x 76,10	2,30	2,00	320,00	62,15	W	WE	S	SE	-	TRS-100I-65I
100 x 80	114,30 x 88,90	2,30	2,30	320,00	62,15	W	WE	S	SE	-	TRS-100I-80I
100 x 100	114,30 x 114,30	2,30	2,30	320,00	63,15	W	WE	S	SE	-	TES-100I

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

T-Pieces Short Branch

Equal and Reduced / Metric

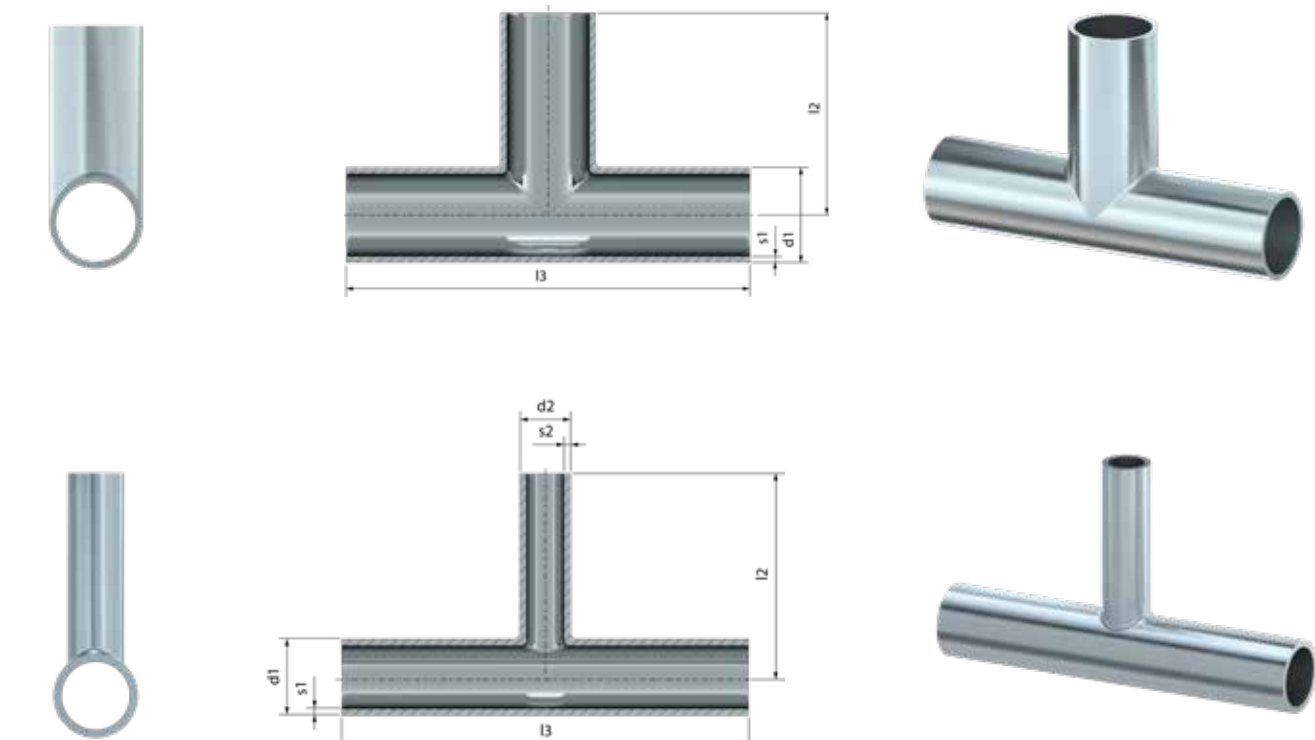
METRIC / DIN 11865 LINE A

						weldtron bf	weldtron ep		
Size	d1 x d 2	s1	s2	l3	l1				
Inch	mm	mm				1.4435 / 316L		Code	
10 x 10	13,00 x 13,00	1,50	1,50	70,00	11,50	W	WE	-	TES-10M
15 x 10	19,00 x 13,00	1,50	1,50	70,00	11,00	W	WE	-	TRS-15M-10M
15 x 15	19,00 x 19,00	1,50	1,50	70,00	11,00	W	WE	-	TES-15M
20 x 10	23,00 x 13,00	1,50	1,50	80,00	13,00	W	WE	-	TRS-20M-10M
20 x 15	23,00 x 19,00	1,50	1,50	80,00	13,00	W	WE	-	TRS-20M-15M
20 x 20	23,00 x 23,00	1,50	1,50	80,00	13,00	W	WE	-	TES-20M
25 x 10	29,00 x 13,00	1,50	1,50	100,00	16,00	W	WE	-	TRS-25M-10M
25 x 15	29,00 x 19,00	1,50	1,50	100,00	16,00	W	WE	-	TRS-25M-15M
25 x 20	29,00 x 23,00	1,50	1,50	100,00	16,00	W	WE	-	TRS-25M-20M
25 x 25	29,00 x 29,00	1,50	1,50	100,00	16,00	W	WE	-	TES-25M
32 x 15	35,00 x 19,00	1,50	1,50	110,00	19,00	W	WE	-	TRS-32M-15M
32 x 20	35,00 x 23,00	1,50	1,50	110,00	19,00	W	WE	-	TRS-32M-20M
32 x 25	35,00 x 29,00	1,50	1,50	110,00	19,00	W	WE	-	TRS-32M-25M
32 x 32	35,00 x 35,00	1,50	1,50	110,00	19,50	W	WE	-	TES-32M
40 x 20	41,00 x 23,00	1,50	1,50	120,00	22,00	W	WE	-	TRS-40M-20M
40 x 25	41,00 x 29,00	1,50	1,50	120,00	22,00	W	WE	-	TRS-40M-25M
40 x 32	41,00 x 35,00	1,50	1,50	120,00	22,50	W	WE	-	TRS-40M-32M
40 x 40	41,00 x 41,00	1,50	1,50	120,00	23,00	W	WE	-	TES-40M
50 x 25	53,00 x 29,00	1,50	1,50	160,00	28,00	W	WE	-	TRS-50M-25M
50 x 32	53,00 x 35,00	1,50	1,50	160,00	28,50	W	WE	-	TRS-50M-32M
50 x 40	53,00 x 41,00	1,50	1,50	160,00	29,00	W	WE	-	TRS-50M-40M
50 x 50	53,00 x 53,00	1,50	1,50	160,00	30,00	W	WE	-	TES-50M
65 x 32	70,00 x 35,00	2,00	1,50	210,00	37,00	W	WE	-	TRS-65M-32M
65 x 40	70,00 x 41,00	2,00	1,50	210,00	37,50	W	WE	-	TRS-65M-40M
65 x 50	70,00 x 53,00	2,00	1,50	210,00	38,50	W	WE	-	TRS-65M-50M
65 x 65	70,00 x 70,00	2,00	2,00	210,00	40,00	W	WE	-	TES-65M
80 x 40	85,00 x 41,00	2,00	1,50	260,00	45,00	W	WE	-	TRS-80M-40M
80 x 50	85,00 x 53,00	2,00	1,50	260,00	46,00	W	WE	-	-TRS-80M-50M
80 x 65	85,00 x 70,00	2,00	2,00	260,00	47,50	W	WE	-	-TRS-80M-65M
80 x 80	85,00 x 85,00	2,00	2,00	260,00	47,50	W	WE	-	-TES-80M
100 x 65	104,00 x 70,00	2,00	2,00	310,00	57,00	W	WE	-	TRS-100M-65M
100 x 80	104,00 x 85,00	2,00	2,00	310,00	57,00	W	WE	-	TRS-100M-80M
100 x 100	104,00 x 104,00	2,00	2,00	310,00	58,00	W	WE	-	TES-100M

Blue marked = Stock item

Further dimensions and materials on request. Subject to alteration.

T-Pieces
Equal and Reduced / Imperial



IMPERIAL LINE C

Size	d1 x d 2	s1	s2	l3	l1	weldtron bf	weldtron ep	safetron bf	safetron ep	1.4435 / 316L	Code
Inch	mm		mm								
1/4 x 1/4	6,35 x 6,35	0,89	0,89	89,00	44,50	W	WE	S	SE	-	TE-04
3/8 x 1/4	9,53 x 6,35	0,89	0,89	89,00	44,50	W	WE	S	SE	-	TR-06-04
3/8 x 3/8	9,53 x 9,53	0,89	0,89	89,00	44,50	W	WE	S	SE	-	TE-06
1/2 x 1/4	12,70 x 6,35	1,65	0,89	101,60	47,60	W	WE	S	SE	-	TR-08-04
1/2 x 3/8	12,70 x 9,53	1,65	0,89	101,60	47,60	W	WE	S	SE	-	TR-08-06
1/2 x 1/2	12,70 x 12,70	1,65	1,65	101,60	47,60	W	WE	S	SE	-	TE-08
3/4 x 1/4	19,05 x 6,35	1,65	0,89	108,00	50,80	W	WE	S	SE	-	TR-12-04
3/4 x 3/8	19,05 x 9,53	1,65	0,89	108,00	50,80	W	WE	S	SE	-	TR-12-06
3/4 x 1/2	19,05 x 12,70	1,65	1,65	108,00	50,80	W	WE	S	SE	-	TR-12-08
3/4 x 3/4	19,05 x 19,05	1,65	1,65	108,00	50,80	W	WE	S	SE	-	TE-12

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration

T-Pieces
Equal and Reduced / Imperial

IMPERIAL LINE C

Size	d1 x d 2	s1	s2	l3	l1	weldtron bf	weldtron ep	safetron bf	safetron ep	1.4435 / 316L	Code
Inch	mm		mm								
1 x 1/4	25,40 x 6,35	1,65	0,89	108,00	54,00	W	WE	S	SE	-	TR-16-04
1 x 3/8	25,40 x 9,53	1,65	0,89	108,00	54,00	W	WE	S	SE	-	TR-16-06
1 x 1/2	25,40 x 12,70	1,65	1,65	108,00	54,00	W	WE	S	SE	-	TR-16-08
1 x 3/4	25,40 x 19,05	1,65	1,65	108,00	54,00	W	WE	S	SE	-	TR-16-12
1 x 1	25,40 x 25,40	1,65	1,65	108,00	54,00	W	WE	S	SE	-	TE-16
1 1/2 x 1/2	38,10 x 12,70	1,65	1,65	120,60	60,30	W	WE	S	SE	-	TR-24-08
1 1/2 x 3/4	38,10 x 19,05	1,65	1,65	120,60	60,30	W	WE	S	SE	-	TR-24-12
1 1/2 x 1	38,10 x 25,40	1,65	1,65	120,60	60,30	W	WE	S	SE	-	TR-24-16
1 1/2 x 1 1/2	38,10 x 38,10	1,65	1,65	120,60	60,30	W	WE	S	SE	-	TE-24
2 x 1/2	50,80 x 12,70	1,65	1,65	146,00	66,70	W	WE	S	SE	-	TR-32-08
2 x 3/4	50,80 x 19,05	1,65	1,65	146,00	66,70	W	WE	S	SE	-	TR-32-12
2 x 1	50,80 x 25,40	1,65	1,65	146,00	66,70	W	WE	S	SE	-	TR-32-16
2 x 1 1/2	50,80 x 38,10	1,65	1,65	146,00	66,70	W	WE	S	SE	-	TR-32-24
2 x 2	50,80 x 50,80	1,65	1,65	146,00	73,00	W	WE	S	SE	-	TE-32
2 1/2 x 3/4	63,50 x 19,05	1,65	1,65	158,80	73,00	W	WE	S	SE	-	TR-40-12
2 1/2 x 1	63,50 x 25,40	1,65	1,65	158,80	73,00	W	WE	S	SE	-	TR-40-16
2 1/2 x 1 1/2	63,50 x 38,10	1,65	1,65	158,80	73,00	W	WE	S	SE	-	TR-40-24
2 1/2 x 2	63,50 x 50,80	1,65	1,65	158,80	73,00	W	WE	S	SE	-	TR-40-32
2 1/2 x 2 1/2	63,50 x 63,50	1,65	1,65	158,80	79,40	W	WE	S	SE	-	TE-40
3 x 1/2	76,20 x 12,70	1,65	1,65	171,50	79,40	W	WE	S	SE	-	TR-48-08
3 x 3/4	76,20 x 19,05	1,65	1,65	171,50	79,40	W	WE	S	SE	-	TR-48-12
3 x 1	76,20 x 25,40	1,65	1,65	171,50	79,40	W	WE	S	SE	-	TR-48-16
3 x 1 1/2	76,20 x 38,10	1,65	1,65	171,50	79,40	W	WE	S	SE	-	TR-48-24
3 x 2	76,20 x 50,80	1,65	1,65	171,50	79,40	W	WE	S	SE	-	TR-48-32
3 x 2 1/2	76,20 x 63,50	1,65	1,65	171,50	79,40	W	WE	S	SE	-	TR-48-40
3 x 3	76,20 x 76,20	1,65	1,65	171,40	85,70	W	WE	S	SE	-	TE-48
4 x 1/2	101,60 x 12,70	2,11	1,65	209,60	92,10	W	WE	S	SE	-	TR-64-08
4 x 3/4	101,60 x 19,05	2,11	1,65	209,60	92,10	W	WE	S	SE	-	TR-64-12
4 x 1	101,60 x 25,40	2,11	1,65	209,60	92,10	W	WE	S	SE	-	TR-64-16
4 x 1 1/2	101,60 x 38,10	2,11	1,65	209,60	92,10	W	WE	S	SE	-	TR-64-24
4 x 2	101,60 x 50,80	2,11	1,65	209,60	98,40	W	WE	S	SE	-	TR-64-32
4 x 2 1/2	101,60 x 63,50	2,11	1,65	209,60	98,40	W	WE	S	SE	-	TR-64-40
4 x 3	101,60 x 76,20	2,11	1,65	209,60	98,40	W	WE	S	SE	-	TR-64-48
4 x 4	101,60 x 101,60	2,11	2,11	209,60	104,80	W	WE	S	SE	-	TE-64
6 x 3	152,40 x 76,20	2,77	1,65	285,80	130,20	W	WE	S	SE	-	TR-96-48
6 x 4	152,40 x 101,60	2,77	2,11	285,80	130,20	W	WE	S	SE	-	TR-96-64

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration

T-Pieces
Equal and Reduced / ISO

ISO / DIN 11865 LINE B

Size	d1 x d 2	s1	s2	l3	l1					
Inch	mm		mm			1.4435 / 316L				Code
8 x 8	13,50 x 13,50	1,60	1,60	64,00	32,00	W	WE	S	SE	- TE-08I
10 x 8	17,20 x 13,50	1,60	1,60	68,00	34,00	W	WE	S	SE	- RT-10I-08I
10 x 10	17,20 x 17,20	1,60	1,60	68,00	34,00	W	WE	S	SE	- TE-10I
15 x 8	21,30 x 13,50	1,60	1,60	72,00	36,00	W	WE	S	SE	- RT-15I-08I
15 x 10	21,30 x 17,20	1,60	1,60	72,00	36,00	W	WE	S	SE	- RT-15I-10I
15 x 15	21,30 x 21,30	1,60	1,60	72,00	36,00	W	WE	S	SE	- TE-15I
20 x 8	26,90 x 13,50	1,60	1,60	110,00	55,00	W	WE	S	SE	- RT-20I-08I
20 x 10	26,90 x 17,20	1,60	1,60	110,00	55,00	W	WE	S	SE	- RT-20I-10I
20 x 15	26,90 x 21,30	1,60	1,60	110,00	55,00	W	WE	S	SE	- RT-20I-15I
20 x 20	26,90 x 26,90	1,60	1,60	110,00	55,00	W	WE	S	SE	- TE-20I
25 x 10	33,70 x 17,20	2,00	1,60	120,00	60,00	W	WE	S	SE	- RT-25I-10I
25 x 15	33,70 x 21,30	2,00	1,60	120,00	60,00	W	WE	S	SE	- RT-25I-15I
25 x 20	33,70 x 26,90	2,00	1,60	120,00	60,00	W	WE	S	SE	- RT-25I-20I
25 x 25	33,70 x 33,70	2,00	2,00	120,00	60,00	W	WE	S	SE	- TE-25I
32 x 15	42,40 x 21,30	2,00	1,60	130,00	65,00	W	WE	S	SE	- RT-32I-15I
32 x 20	42,40 x 26,90	2,00	1,60	130,00	65,00	W	WE	S	SE	- RT-32I-20I
32 x 25	42,40 x 33,70	2,00	2,00	130,00	65,00	W	WE	S	SE	- RT-32I-25I
32 x 32	42,40 x 42,40	2,00	2,00	130,00	65,00	W	WE	S	SE	- TE-32I
40 x 15	48,30 x 21,30	2,00	1,60	130,00	65,00	W	WE	S	SE	- RT-40I-15I
40 x 20	48,30 x 26,90	2,00	1,60	130,00	65,00	W	WE	S	SE	- RT-40I-20I
40 x 25	48,30 x 33,70	2,00	2,00	130,00	65,00	W	WE	S	SE	- RT-40I-25I
40 x 32	48,30 x 42,40	2,00	2,00	130,00	65,00	W	WE	S	SE	- RT-40I-32I
40 x 40	48,30 x 48,30	2,00	2,00	130,00	65,00	W	WE	S	SE	- TE-40I
50 x 20	60,30 x 26,90	2,00	1,60	180,00	90,00	W	WE	S	SE	- RT-50I-20I
50 x 25	60,30 x 33,70	2,00	2,00	180,00	90,00	W	WE	S	SE	- RT-50I-25I
50 x 32	60,30 x 42,40	2,00	2,00	180,00	90,00	W	WE	S	SE	- RT-50I-32I
50 x 40	60,30 x 48,30	2,00	2,00	180,00	90,00	W	WE	S	SE	- RT-50I-40I
50 x 50	60,30 x 60,30	2,00	2,00	180,00	90,00	W	WE	S	SE	- TE-50I
65 x 25	76,10 x 33,70	2,00	2,00	220,00	90,00	W	WE	S	SE	- RT-65I-25I
65 x 32	76,10 x 42,40	2,00	2,00	220,00	90,00	W	WE	S	SE	- RT-65I-32I
65 x 40	76,10 x 48,30	2,00	2,00	220,00	90,00	W	WE	S	SE	- RT-65I-40I
65 x 50	76,10 x 60,30	2,00	2,00	220,00	90,00	W	WE	S	SE	- RT-65I-50I
65 x 65	76,10 x 76,10	2,00	2,00	220,00	110,00	W	WE	S	SE	- TE-65I
80 x 32	88,90 x 42,40	2,30	2,00	260,00	110,00	W	WE	S	SE	- RT-80I-32I
80 x 40	88,90 x 48,30	2,30	2,00	260,00	110,00	W	WE	S	SE	- RT-80I-40I
80 x 50	88,90 x 60,30	2,30	2,00	260,00	110,00	W	WE	S	SE	- RT-80I-50I
80 x 65	88,90 x 76,10	2,30	2,00	260,00	110,00	W	WE	S	SE	- RT-80I-65I
80 x 80	88,90 x 88,90	2,30	2,30	260,00	130,00	W	WE	S	SE	- TE-80I
100 x 50	114,30 x 60,30	2,30	2,00	320,00	130,00	W	WE	S	SE	- RT-100I-50I
100 x 65	114,30 x 76,10	2,30	2,00	320,00	130,00	W	WE	S	SE	- RT-100I-65I
100 x 80	114,30 x 88,90	2,30	2,30	320,00	130,00	W	WE	S	SE	- RT-100I-80I
100 x 100	114,30 x 114,30	2,30	2,30	320,00	160,00	W	WE	S	SE	- TE-100I

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration

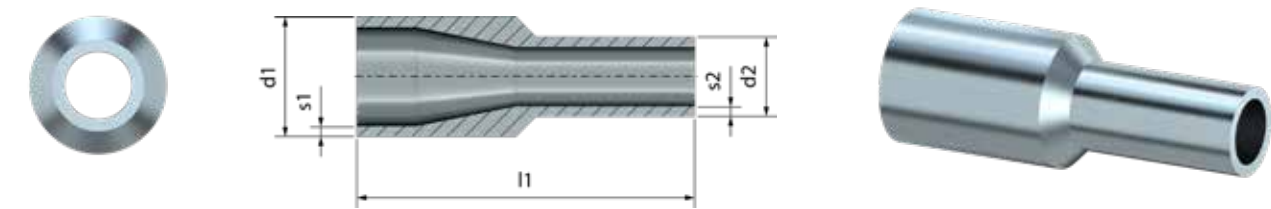
T-Pieces
Equal and Reduced / Metric

METRIC / DIN 11865 LINE A

Size	d1 x d 2	s1	s2	l3	l1			
Inch	mm		mm			1.4435 / 316L		Code
6 x 4*	8,00 x 6,00	1,00	1,00	60,00	30,00	W	WE	- TR-06M-04M
6 x 6	8,00 x 8,00	1,00	1,00	60,00	30,00	W	WE	- TE-06M
8 x 6	10,00 x 8,00	1,00	1,00	60,00	30,00	W	WE	- TR-08M-06M
8 x 8	10,00 x 10,00	1,00	1,00	60,00	30,00	W	WE	- TE-08M
10 x 6	13,00 x 8,00	1,50	1,00	60,00	35,00	W	WE	- TR-10M-06M
10 x 8	13,00 x 10,00	1,50	1,00	60,00	30,00	W	WE	- TR-10M-08M
10 x 10	13,00 x 13,00	1,50	1,50	70,00	35,00	W	WE	- TE-10M
15 x 8	19,00 x 10,00	1,50	1,00	70,00	35,00	W	WE	- TR-15M-06M
15 x 10	19,00 x 13,00	1,50	1,50	70,00	35,00	W	WE	- TR-15M-10M
15 x 15	19,00 x 19,00	1,50	1,50	70,00	35,00	W	WE	- TE-15M
20 x 10	23,00 x 13,00	1,50	1,50	80,00	40,00	W	WE	- TR-20M-10M
20 x 15	23,00 x 19,00	1,50	1,50	80,00	40,00	W	WE	- TR-20M-15M
20 x 20	23,00 x 23,00	1,50	1,50	80,00	40,00	W	WE	- TE-20M
25 x 10	29,00 x 13,00	1,50	1,50	100,00	50,00	W	WE	- TR-25M-10M
25 x 15	29,00 x 19,00	1,50	1,50	100,00	50,00	W	WE	- TR-25M-15M
25 x 20	29,00 x 23,00	1,50	1,50	100,00	50,00	W	WE	- TR-25M-20M
25 x 25	29,00 x 29,00	1,50	1,50	100,00	50,00	W	WE	- TE-25M
32 x 15	35,00 x 19,00	1,50	1,50	110,00	55,00	W	WE	- TR-32M-15M
32 x 20	35,00 x 23,00	1,50	1,50	110,00	55,00	W	WE	- TR-32M-20M
32 x 25	35,00 x 29,00	1,50	1,50	110,00	55,00	W	WE	- TR-32M-25M
32 x 32	35,00 x 35,00	1,50	1,50	110,00	55,00	W	WE	- -TE-32M
40 x 20	41,00 x 23,00	1,50	1,50	120,00	60,00	W	WE	- -RT-40M-20M
40 x 25	41,00 x 29,00	1,50	1,50	120,00	60,00	W	WE	- RT-40M-25M
40 x 32	41,00 x 35,00	1,50	1,50	120,00	60,00	W	WE	- RT-40M-32M
40 x 40	41,00 x 41,00	1,50	1,50	120,00	60,00	W	WE	- TE-40M
50 x 25	53,00 x 29,00	1,50	1,50	160,00	80,00	W	WE	- RT-50M-25M
50 x 32	53,00 x 35,00	1,50	1,50	160,00	80,00	W	WE	- RT-50M-32M
50 x 40	53,00 x 41,00	1,50	1,50	160,00	80,00	W	WE	- RT-50M-40M
50 x 50	53,00 x 53,00	1,50	1,50	160,00	80,00	W	WE	- TE-50M
65 x 32	70,00 x 35,00	2,00	1,50	210,00	80,00	W	WE	- RT-65M-32M
65 x 40	70,00 x 41,00	2,00	1,50	210,00	80,00	W	WE	- RT-65M-40M
65 x 50	70,00 x 53,00	2,00	1,50	210,00	80,00	W	WE	- RT-65M-50M
65 x 65	70,00 x 70,00	2,00	2,00	210,00	105,00	W	WE	- TE-65M
80 x 40	85,00 x 41,00	2,00	1,50	260,00	105,00	W	WE	- RT-80M-40M
80 x 50	85,00 x 53,00	2,00	1,50	260,00	105,00	W	WE	- RT-80M-50M
80 x 65	85,00 x 70,00	2,00	2,00	260,00	105,00	W	WE	- RT-80M-65M
80 x 80	85,00 x 85,00	2,00	2,00	260,00	130,00	W	WE	- TE-80M
100 x 50	104,00 x 53,00	2,00	2,00	310,00	130,00	W	WE	- RT-100M-50M
100 x 65	104,00 x 70,00	2,00	2,00	310,00	130,00	W	WE	- RT-100M-65M
100 x 80	104,00 x 85,00	2,00	2,00	310,00	130,00	W	WE	- RT-100M-80M
100 x 100	104,00 x 104,00	2,00	2,00	310,00	155,00	W	WE	- TE-100M

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration
* Does not apply to DIN 11865

Reducers
Concentric / Metric



METRIC / DIN 11865 LINE A

Size	d1 x d 2	s1	s2	l1	weldtron bf	weldtron ep		
DN	mm		mm		1.4435 / 316L		Code	
6 x 4*	8,00 x 6,00	1,00	1,00	38,00	W	WE	-	RC-06M-04M
8 x 4*	10,00 x 6,00	1,00	1,00	38,00	W	WE	-	RC-08M-04M
8 x 6	10,00 x 8,00	1,00	1,00	38,00	W	WE	-	RC-08M-06M
10 x 6	13,00 x 8,00	1,50	1,00	38,00	W	WE	-	RC-10M-06M
10 x 8	13,00 x 10,00	1,50	1,00	38,00	W	WE	-	-RC-10M-08M
15 x 8	19,00 x 10,00	1,50	1,00	60,00	W	WE	-	RC-15M-08M
15 x 10	19,00 x 13,00	1,50	1,50	60,00	W	WE	-	RC-15M-10M
20 x 10	23,00 x 13,00	1,50	1,50	60,00	W	WE	-	RC-20M-10M
20 x 15	23,00 x 19,00	1,50	1,50	60,00	W	WE	-	RC-20M-15M
25 x 15	29,00 x 19,00	1,50	1,50	70,00	W	WE	-	RC-25M-15M
25 x 20	29,00 x 23,00	1,50	1,50	70,00	W	WE	-	RC-25M-20M
32 x 15	35,00 x 19,00	1,50	1,50	80,00	W	WE	-	RC-32M-15M
32 x 20	35,00 x 23,00	1,50	1,50	80,00	W	WE	-	RC-32M-20M
32 x 25	35,00 x 29,00	1,50	1,50	80,00	W	WE	-	RC-32M-25M
40 x 20	41,00 x 23,00	1,50	1,50	90,00	W	WE	-	RC-40M-20M
40 x 25	41,00 x 29,00	1,50	1,50	90,00	W	WE	-	RC-40M-25M
40 x 32	41,00 x 35,00	1,50	1,50	90,00	W	WE	-	RC-40M-32M
50 x 25	53,00 x 29,00	1,50	1,50	90,00	W	WE	-	RC-50M-25M
50 x 32	53,00 x 35,00	1,50	1,50	90,00	W	WE	-	RC-50M-32M
50 x 40	53,00 x 41,00	1,50	1,50	90,00	W	WE	-	RC-50M-40M
65 x 40	70,00 x 41,00	2,00	1,50	110,00	W	WE	-	RC-65M-40M
65 x 50	70,00 x 53,00	2,00	1,50	110,00	W	WE	-	RC-65M-50M
80 x 50	85,00 x 53,00	2,00	1,50	110,00	W	WE	-	RC-80M-50M
80 x 65	85,00 x 70,00	2,00	2,00	110,00	W	WE	-	RC-80M-65M
100 x 65	104,00 x 70,00	2,00	2,00	135,00	W	WE	-	RC-100M-65M
100 x 80	104,00 x 85,00	2,00	2,00	135,00	W	WE	-	RC-100M-80M
150 x 80	154,00 x 85,00	2,00	2,00	170,00	W	WE	-	RC-150M-80M
150 x 100	154,00 x 104,00	2,00	2,00	170,00	W	WE	-	RC-150M-100M

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.
* Does not apply to DIN 11865

Reducers
Concentric / ISO

ISO / DIN 11865 LINE B

Size	d1 x d 2	s1	s2	l1	weldtron bf	weldtron ep	safetron bf	safetron ep
DN	mm		mm		1.4435 / 316L			Code
10 x 8	17,20 x 13,50	1,60	1,60	60,00	W	WE	S	SE - RC-10I-08I
15 x 8	21,30 x 13,50	1,60	1,60	60,00	W	WE	S	SE - RC-15I-08I
15 x 10	21,30 x 17,20	1,60	1,60	60,00	W	WE	S	SE - RC-15I-10I
20 x 8	26,90 x 13,50	1,60	1,60	60,00	W	WE	S	SE - RC-20I-08I
20 x 10	26,90 x 17,20	1,60	1,60	60,00	W	WE	S	SE - RC-20I-10I
20 x 15	26,90 x 21,30	1,60	1,60	60,00	W	WE	S	SE - RC-20I-15I
25 x 15	33,70 x 21,30	2,00	1,60	70,00	W	WE	S	SE - RC-25I-15I
25 x 20	33,70 x 26,90	2,00	1,60	70,00	W	WE	S	SE - RC-25I-20I
32 x 15	42,40 x 21,30	2,00	1,60	80,00	W	WE	S	SE - RC-32I-15I
32 x 20	42,40 x 26,90	2,00	1,60	80,00	W	WE	S	SE - RC-32I-20I
32 x 25	42,40 x 33,70	2,00	2,00	80,00	W	WE	S	SE - RC-32I-25I
40 x 15	48,30 x 21,30	2,00	1,60	90,00	W	WE	S	SE - RC-40I-15I
40 x 20	48,30 x 26,90	2,00	1,60	90,00	W	WE	S	SE - RC-40I-20I
40 x 25	48,30 x 33,70	2,00	2,00	90,00	W	WE	S	SE - RC-40I-25I
40 x 32	48,30 x 42,40	2,00	2,00	90,00	W	WE	S	SE - RC-40I-32I
50 x 20	60,30 x 26,90	2,00	1,60	100,00	W	WE	S	SE - RC-50I-20I
50 x 25	60,30 x 33,70	2,00	2,00	100,00	W	WE	S	SE - RC-50I-25I
50 x 32	60,30 x 42,40	2,00	2,00	100,00	W	WE	S	SE - RC-50I-32I
50 x 40	60,30 x 48,30	2,00	2,00	100,00	W	WE	S	SE - RC-50I-40I
65 x 25	76,10 x 33,70	2,00	2,00	110,00	W	WE	S	SE - RC-65I-25I
65 x 32	76,10 x 42,40	2,00	2,00	110,00	W	WE	S	SE - RC-65I-32I
65 x 40	76,10 x 48,30	2,00	2,00	110,00	W	WE	S	SE - RC-65I-40I
65 x 50	76,10 x 60,30	2,00	2,00	110,00	W	WE	S	SE - RC-65I-50I
80 x 50	88,90 x 60,30	2,30	2,00	110,00	W	WE	S	SE - RC-80I-50I
80 x 65	88,90 x 76,10	2,30	2,00	110,00	W	WE	S	SE - RC-80I-65I
100 x 65	114,30 x 76,10	2,30	2,00	135,00	W	WE	S	SE - RC-100I-65I
100 x 80	114,30 x 88,90	2,30	2,30	135,00	W	WE	S	SE - RC-100I-80I

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

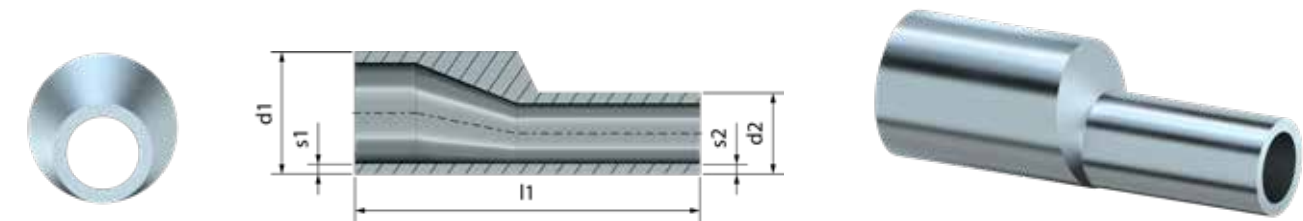
Reducers
Concentric / Imperial

IMPERIAL / DIN 11865 LINE C

					weldtron bf	weldtron ep	safetron bf	safetron ep		
Size	d1 x d 2	s1	s2	l1						
Inch	mm	mm			1.4435 / 316L				Code	
3/8 x 1/4	9,53 x 6,35	0,89	0,89	41,28	W	WE	S	SE	-	RC-06-04
1/2 x 1/4	12,70 x 6,35	1,65	0,89	47,63	W	WE	S	SE	-	RC-08-04
1/2 x 3/8	12,70 x 9,53	1,65	0,89	47,63	W	WE	S	SE	-	RC-08-06
3/4 x 1/4	19,05 x 6,35	1,65	0,89	38,00	W	WE	S	SE	-	RC-12-04
3/4 x 3/8	19,05 x 9,53	1,65	0,89	50,80	W	WE	S	SE	-	RC-12-06
3/4 x 1/2	19,05 x 12,70	1,65	1,65	53,98	W	WE	S	SE	-	RC-12-08
1 x 1/2	25,40 x 12,70	1,65	1,65	63,50	W	WE	S	SE	-	RC-16-08
1 x 3/4	25,40 x 19,05	1,65	1,65	53,98	W	WE	S	SE	-	RC-16-12
1 1/2 x 1/2	38,10 x 12,70	1,65	1,65	80,00	W	WE	S	SE	-	RC-24-08
1 1/2 x 3/4	38,10 x 19,05	1,65	1,65	76,20	W	WE	S	SE	-	RC-24-12
1 1/2 x 1	38,10 x 25,40	1,65	1,65	63,50	W	WE	S	SE	-	RC-24-16
2 x 1	50,80 x 25,40	1,65	1,65	85,73	W	WE	S	SE	-	RC-32-16
2 x 1 1/2	50,80 x 38,10	1,65	1,65	63,50	W	WE	S	SE	-	RC-32-24
2 1/2 x 1	63,50 x 25,40	1,65	1,65	100,00	W	WE	S	SE	-	RC-40-16
2 1/2 x 1 1/2	63,50 x 38,10	1,65	1,65	85,73	W	WE	S	SE	-	RC-40-24
2 1/2 x 2	63,50 x 50,80	1,65	1,65	63,50	W	WE	S	SE	-	RC-40-32
3 x 1 1/2	76,20 x 38,10	1,65	1,65	107,95	W	WE	S	SE	-	RC-48-24
3 x 2	76,20 x 50,80	1,65	1,65	85,73	W	WE	S	SE	-	RC-48-32
3 x 2 1/2	76,20 x 63,50	1,65	1,65	66,68	W	WE	S	SE	-	RC-48-40
4 x 2	101,60 x 50,80	2,11	1,65	130,18	W	WE	S	SE	-	RC-64-32
4 x 2 1/2	101,60 x 63,50	2,11	1,65	107,95	W	WE	S	SE	-	RC-64-40
4 x 3	101,60 x 76,20	2,11	1,65	98,43	W	WE	S	SE	-	RC-64-48
6 x 3	152,40 x 76,20	2,77	1,65	184,15	W	WE	S	SE	-	RC-96-64
6 x 4	152,40 x 101,60	2,77	2,11	142,88	W	WE	S	SE	-	RC-96-48

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

Reducers
Eccentric / Metric



METRIC / DIN 11865 LINE A

Size	d1 x d 2	s1	s2	l1	weldtron bf	weldtron ep	
DN	mm		mm		1.4435 / 316L		Code
8 x 6	10,00 x 8,00	1,00	1,00	38,00	W	WE	- RE-08M-06M
10 x 6	13,00 x 8,00	1,50	1,00	38,00	W	WE	- RE-10M-06M
10 x 8	13,00 x 10,00	1,50	1,00	38,00	W	WE	- RE-10M-08M
15 x 8	19,00 x 10,00	1,50	1,00	60,00	W	WE	- RE-15M-08M
15 x 10	19,00 x 13,00	1,50	1,50	60,00	W	WE	- RE-15M-10M
20 x 10	23,00 x 13,00	1,50	1,50	60,00	W	WE	- RE-20M-10M
20 x 15	23,00 x 19,00	1,50	1,50	60,00	W	WE	- RE-20M-15M
25 x 15	29,00 x 19,00	1,50	1,50	70,00	W	WE	- RE-25M-15M
25 x 20	29,00 x 23,00	1,50	1,50	70,00	W	WE	- RE-25M-20M
32 x 15	35,00 x 19,00	1,50	1,50	80,00	W	WE	- RE-32M-15M
32 x 20	35,00 x 23,00	1,50	1,50	80,00	W	WE	- RE-32M-20M
32 x 25	35,00 x 29,00	1,50	1,50	80,00	W	WE	- RE-32M-25M
40 x 20	41,00 x 23,00	1,50	1,50	90,00	W	WE	- RE-40M-20M
40 x 25	41,00 x 29,00	1,50	1,50	90,00	W	WE	- RE-40M-25M
40 x 32	41,00 x 35,00	1,50	1,50	90,00	W	WE	- RE-40M-32M
50 x 25	53,00 x 29,00	1,50	1,50	90,00	W	WE	- RE-50M-25M
50 x 32	53,00 x 35,00	1,50	1,50	90,00	W	WE	- RE-50M-32M
50 x 40	53,00 x 41,00	1,50	1,50	90,00	W	WE	- RE-50M-40M
65 x 40	70,00 x 41,00	2,00	1,50	110,00	W	WE	- RE-65M-40M
65 x 50	70,00 x 53,00	2,00	1,50	110,00	W	WE	- RE-65M-50M
80 x 50	85,00 x 53,00	2,00	1,50	110,00	W	WE	- RE-80M-50M
80 x 65	85,00 x 70,00	2,00	2,00	110,00	W	WE	- RE-80M-65M
100 x 65	104,00 x 70,00	2,00	2,00	135,00	W	WE	- RE-100M-65M
100 x 80	104,00 x 85,00	2,00	2,00	135,00	W	WE	- RE-100M-80M
150 x 80	154,00 x 85,00	2,00	2,00	170,00	W	WE	- RE-150M-80M
150 x 100	154,00 x 104,00	2,00	2,00	170,00	W	WE	- RE-150M-100M

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

Reducers
Eccentric / ISO

ISO / DIN 11865 LINE B

ISO / DIN 11865 LINE B						weldtron bf	weldtron ep	safetron bf	safetron ep	
Size	d1 x d 2	s1	s2	l1						
DN	mm		mm							
10 x 8	17,20 x 13,50	1,60	1,60	60,00	W	WE	S	SE	-	RE-10I-08I
15 x 8	21,30 x 13,50	1,60	1,60	60,00	W	WE	S	SE	-	-RE-15I-08I
15 x 10	21,30 x 17,20	1,60	1,60	60,00	W	WE	S	SE	-	RE-15I-10I
20 x 8	26,90 x 13,50	1,60	1,60	60,00	W	WE	S	SE	-	RE-20I-08I
20 x 10	26,90 x 17,20	1,60	1,60	60,00	W	WE	S	SE	-	RE-20I-10I
20 x 15	26,90 x 21,30	1,60	1,60	60,00	W	WE	S	SE	-	RE-20I-15I
25 x 15	33,70 x 21,30	2,00	1,60	70,00	W	WE	S	SE	-	RE-25I-15I
25 x 20	33,70 x 26,90	2,00	1,60	70,00	W	WE	S	SE	-	RE-25I-20I
32 x 15	42,40 x 21,30	2,00	1,60	80,00	W	WE	S	SE	-	RE-32I-15I
32 x 20	42,40 x 26,90	2,00	1,60	80,00	W	WE	S	SE	-	RE-32I-20I
32 x 25	42,40 x 33,70	2,00	2,00	80,00	W	WE	S	SE	-	RE-32I-25I
40 x 15	48,30 x 21,30	2,00	1,60	90,00	W	WE	S	SE	-	RE-40I-15I
40 x 20	48,30 x 26,90	2,00	1,60	90,00	W	WE	S	SE	-	RE-40I-20I
40 x 25	48,30 x 33,70	2,00	2,00	90,00	W	WE	S	SE	-	RE-40I-25I
40 x 32	48,30 x 42,40	2,00	2,00	90,00	W	WE	S	SE	-	RE-40I-32I
50 x 20	60,30 x 26,90	2,00	1,60	100,00	W	WE	S	SE	-	RE-50I-20I
50 x 25	60,30 x 33,70	2,00	2,00	100,00	W	WE	S	SE	-	RE-50I-25I
50 x 32	60,30 x 42,40	2,00	2,00	100,00	W	WE	S	SE	-	RE-50I-32I
50 x 40	60,30 x 48,30	2,00	2,00	100,00	W	WE	S	SE	-	RE-50I-40I
65 x 25	76,10 x 33,70	2,00	2,00	110,00	W	WE	S	SE	-	RE-65I-25I
65 x 32	76,10 x 42,40	2,00	2,00	110,00	W	WE	S	SE	-	RE-65I-32I
65 x 40	76,10 x 48,30	2,00	2,00	110,00	W	WE	S	SE	-	RE-65I-40I
65 x 50	76,10 x 60,30	2,00	2,00	110,00	W	WE	S	SE	-	RE-65I-50I
80 x 50	88,90 x 60,30	2,30	2,00	110,00	W	WE	S	SE	-	RE-80I-50I
80 x 65	88,90 x 76,10	2,30	2,00	110,00	W	WE	S	SE	-	RE-80I-65I
100 x 65	114,30 x 76,10	2,30	2,00	135,00	W	WE	S	SE	-	RE-100I-65I
100 x 80	114,30 x 88,90	2,30	2,30	135,00	W	WE	S	SE	-	RE-100I-80I
150 x 100	168,30 x 114,30	2,60	2,30	170,00	W	WE	S	SE	-	RE-150I-100I

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

Reducers

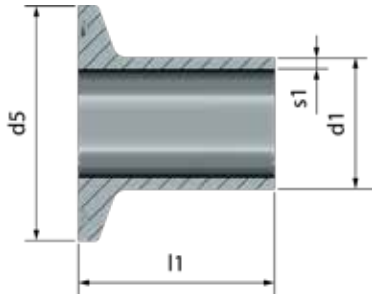
Eccentric / Imperial

IMPERIAL / DIN 11865 LINE C

Size	d1 x d 2	s1	s2	l1	weldtron bf	weldtron ep	safetron bf	safetron ep
Inch	mm	mm	1.4435 / 316L				Code	
1/2 x 1/4	12,70 x 6,35	1,65	0,89	47,63	W	WE	S	SE - RE-08-04
1/2 x 3/8	12,70 x 9,53	1,65	0,89	47,63	W	WE	SSE	- RE-08-06
3/4 x 3/8	19,05 x 9,53	1,65	0,89	50,80	W	WE	SSE	- RE-12-06
3/4 x 1/2	19,05 x 12,70	1,65	1,65	53,98	W	WE	SSE	- RE-12-08
1 x 1/2	25,40 x 12,70	1,65	1,65	63,50	W	WE	SSE	- RE-16-08
1 x 3/4	25,40 x 19,05	1,65	1,65	53,98	W	WE	SSE	- RE-16-12
1 1/2 x 1/2	38,10 x 12,70	1,65	1,65	80,00	W	WE	SSE	- RE-24-08
1 1/2 x 3/4	38,10 x 19,05	1,65	1,65	76,20	W	WE	SSE	- RE-24-12
1 1/2 x 1	38,10 x 25,40	1,65	1,65	63,50	W	WE	SSE	- RE-24-16
2 x 1	50,80 x 25,40	1,65	1,65	85,73	W	WE	SSE	- RE-32-16
2 x 1 1/2	50,80 x 38,10	1,65	1,65	63,50	W	WE	SSE	- RE-32-24
2 1/2 x 1	63,50 x 25,40	1,65	1,65	100,00	W	WE	SSE	- RE-40-16
2 1/2 x 1 1/2	63,50 x 38,10	1,65	1,65	85,73	W	WE	SSE	- RE-40-24
2 1/2 x 2	63,50 x 50,80	1,65	1,65	63,50	W	WE	SSE	- RE-40-32
3 x 1 1/2	76,20 x 38,10	1,65	1,65	107,95	W	WE	SSE	- RE-48-24
3 x 2	76,20 x 50,80	1,65	1,65	85,73	W	WE	SSE	- RE-48-32
3 x 2 1/2	76,20 x 63,50	1,65	1,65	66,68	W	WE	SSE	- RE-48-40
4 x 2	101,60 x 50,80	2,11	1,65	130,18	W	WE	SSE	- RE-64-32
4 x 2 1/2	101,60 x 63,50	2,11	1,65	107,95	W	WE	SSE	- RE-64-40
4 x 3	101,60 x 76,20	2,11	1,65	98,43	W	WE	SSE	- RE-64-48
6 x 3	152,40 x 76,20	2,77	1,65	184,15	W	WE	SSE	- RE-96-64
6 x 4	152,40 x 101,60	2,77	2,11	142,88	W	WE	SSE	- RE-96-48

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

Ferrules, Clamps, Gaskets and Caps acc. to DIN 32676 and ASME BPE
Imperial



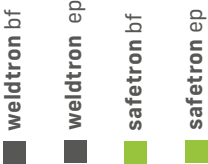
COMPLETE CONNECTION

Imperial	Size	Length		Pressure
Inch	d x s / mm	min. / mm	max. / mm	max. bar / psig
1/4	6,35 x 0,89	25,40	89,00	40 / 580
3/8	9,53 x 0,89	25,40	89,00	40 / 580
1/2	12,70 x 1,65	25,40	89,00	40 / 580
3/4	19,05 x 1,65	27,10	90,70	40 / 580
1	25,40 x 1,65	27,10	90,70	40 / 580
1 1/2	38,10 x 1,65	27,10	90,70	40 / 580
2	50,80 x 1,65	27,10	116,10	40 / 580
2 1/2	63,50 x 1,65	27,10	116,10	25 / 362
3	76,20 x 1,65	27,70	116,1	25 / 362
4	101,60 x 2,11	33,50	154,1	16 / 232
6	152,40 x 2,77	39,80	154,1	16 / 232

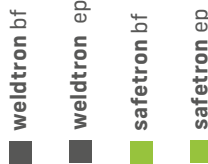
FERRULES

d1	s1	d5						
mm			l1	1.4435 / 316L				Code
6,35	0,89	25,00	44,50	W	WE	S	SE	- FA-04
9,53	0,89	25,00	44,50	W	WE	S	SE	- FA-06
12,70	1,65	25,00	44,50	W	WE	S	SE	- FA-08
19,05	1,65	25,00	44,50	W	WE	S	SE	- FA-12
25,40	1,65	50,50	44,50	W	WE	S	SE	- FA-16
38,10	1,65	50,50	44,50	W	WE	S	SE	- FA-24
50,80	1,65	64,00	57,20	W	WE	S	SE	- FA-32
63,50	1,65	77,50	57,20	W	WE	S	SE	- FA-40
76,20	1,65	91,00	57,20	W	WE	S	SE	- FA-48
101,60	2,11	119,00	57,20	W	WE	S	SE	- FA-64
152,40	2,77	167,00	76,20	W	WE	S	SE	- FA-96

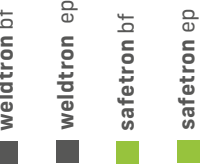
A*



B*



C*



*Dimensions acc. to ASME BPE. Ferrules acc. to DIN 32676 on request.

CLAMPS

d5		Single Pinned Wing Nut	Double Pinned Wing Nut	Double Pinned Hex Nut	Double Bolted High Pressure	3-Segment Clamp	Safety Clamp Wing Nut
Size	mm	Codes					
1	25,00	CL-SP-WN-1	CL-DP-WN-1	CL-DP-HN-1	CL-DB-HP-1		CL-S-WN-1
0	34,00	CL-SP-WN-0	CL-DP-WN-0	CL-DP-HN-0	CL-DB-HP-0		CL-S-WN-0
2	50,50	CL-SP-WN-2	CL-DP-WN-2	CL-DP-HN-2	CL-DB-HP-2	CL-S3-2	CL-S-WN-2
3	64,00	CL-SP-WN-3	CL-DP-WN-3	CL-DP-HN-3	CL-DB-HP-3	CL-S3-3	CL-S-WN-3
4	77,50	CL-SP-WN-4	CL-DP-WN-4	CL-DP-HN-4	CL-DB-HP-4	CL-S3-4	CL-S-WN-4
5	91,00	CL-SP-WN-5	CL-DP-WN-5	CL-DP-HN-5	CL-DB-HP-5	CL-S3-5	CL-S-WN-5
6	106,00	CL-SP-WN-6	CL-DP-WN-6	CL-DP-HN-6	CL-DB-HP-6		CL-S-WN-6
7	119,00	CL-SP-WN-7	CL-DP-WN-7	CL-DP-HN-7	CL-DB-HP-7	CL-S3-7	CL-S-WN-7
8	130,00	CL-SP-WN-8	CL-DP-WN-8	CL-DP-HN-8	CL-DB-HP-8		
9	167,00	CL-SP-WN-9	CL-DP-WN-9	CL-DP-HN-9	CL-DB-HP-9		
10	183,00		CL-DP-WN-10	CL-DP-HN-10	CL-DB-HP-10		

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

GASKETS

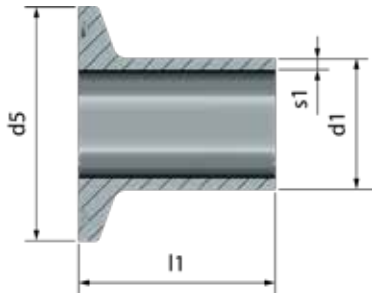
d1	PTFE	FKM	PTFE/FKM	EPDM	VMQ	PTFE/316	PTFE/EPDM	PTFE/EPDM
mm	Code		Material					
6,35	TC-GK-04-1	-	P	F	FP	E	M	P16 EP PTE
9,53	TC-GK-06-1	-	P	F	FP	E	M	P16 EP PTE
12,70	TC-GK-08-1	-	P	F	FP	E	M	P16 EP PTE
19,05	TC-GK-12-1	-	P	F	FP	E	M	P16 EP PTE
25,40	TC-GK-16-2	-	P	F	FP	E	M	P16 EP PTE
38,10	TC-GK-24-2	-	P	F	FP	E	M	P16 EP PTE
50,80	TC-GK-32-3	-	P	F	FP	E	M	P16 EP PTE
63,50	TC-GK-40-4	-	P	F	FP	E	M	P16 EP PTE
76,20	TC-GK-48-5	-	P	F	FP	E	M	P16 EP PTE
101,60	TC-GK-64-7	-	P	F	FP	E	M	P16 EP PTE
152,40	TC-GK-96-9	-	P	F	FP	E	M	P16 EP PTE

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

CAP 32676

d5	A	weld	weld	saf	saf	
mm		1.4435 / 316L				Code
25,00	4,75	W	WE	S	SE	- FTC-1
25,00	4,75	W	WE	S	SE	- FTC-1
25,00	4,75	W	WE	S	SE	- FTC-1
25,00	4,75	W	WE	S	SE	- FTC-1
50,50	6,35	W	WE	S	SE	- FTC-2
50,50	6,35	W	WE	S	SE	- FTC-2
64,00	6,35	W	WE	S	SE	- FTC-3
77,50	6,35	W	WE	S	SE	- FTC-4
91,00	6,35	W	WE	S	SE	- FTC-5
119,00	8,00	W	WE	S	SE	- FTC-7
167,00	14,00	W	WE	S	SE	- FTC-9

Ferrules, Clamps, Gaskets and Caps acc. to DIN 32676
ISO



COMPLETE CONNECTION

Metric	Size	Length		Pressure
DN	d x s / mm	min. / mm	max. / mm	max. bar / psig
8	13,50 x 1,60	25,40	57,20	40 / 580
10	17,20 x 1,60	25,40	57,2	40 / 580
15	21,30 x 1,60	44,70	73,70	40 / 580
20	26,90 x 1,60	44,70	73,70	40 / 580
25	33,70 x 2,00	44,70	73,70	40 / 580
32	42,40 x 2,00	44,70	73,70	40 / 580
40	48,30 x 2,00	44,70	73,70	40 / 580
50	60,30 x 2,00	57,70	73,70	25 / 362
65	76,10 x 2,00	57,70	97,70	25 / 362
80	88,90 x 2,30	57,7	97,70	16 / 232
100	114,30 x 2,30	57,70	97,70	16 / 232

FERRULES

d1	s1	d5
mm		
13,50	1,60	25,00
17,20	1,60	25,00
21,30	1,60	50,50
26,90	1,60	50,50
33,70	2,00	50,50
42,40	2,00	64,00
48,30	2,00	64,00
60,30	2,00	77,50
76,10	2,00	91,00
88,90	2,30	106,00
114,30	2,30	130,00

B

l1	weldtron bf	weldtron ep	safetron bf	safetron ep	Code	
mm	1.4435 / 316L					
28,60	W	WE	S	SE	-	FB-08I
28,60	W	WE	S	SE	-	FB-10I
36,00	W	WE	S	SE	-	FB-15I
36,00	W	WE	S	SE	-	FB-20I
36,00	W	WE	S	SE	-	FB-25I
36,00	W	WE	S	SE	-	FB-32I
36,00	W	WE	S	SE	-	FB-40I
36,00	W	WE	S	SE	-	FB-50I
48,00	W	WE	S	SE	-	FB-65I
48,00	W	WE	S	SE	-	FB-80I
48,00	W	WE	W	WE	-	FB-100I

C

l1	weldtron bf	weldtron ep	safetron bf	safetron ep	Code	
mm	1.4435 / 316L					
12,70	W	WE	S	SE	-	FC-08I
12,70	W	WE	S	SE	-	FC-10I
21,50	W	WE	S	SE	-	FC-15I
21,50	W	WE	S	SE	-	FC-20I
21,50	W	WE	S	SE	-	FC-25I
21,50	W	WE	S	SE	-	FC-32I
21,50	W	WE	S	SE	-	FC-40I
28,00	W	WE	S	SE	-	FC-50I
28,00	W	WE	S	SE	-	FC-65I
28,00	W	WE	S	SE	-	FC-80I
28,00	W	WE	S	SE	-	FC-100I

CLAMPS

d5		Single Pinned Wing Nut	Double Pinned Wing Nut	Double Pinned Hex Nut	Double Bolted High Pressure	3-Segment Clamp	Safety Clamp Wing Nut
Size	mm	Codes					
1	25,00	CL-SP-WN-1	CL-DP-WN-1	CL-DP-HN-1	CL-DB-HP-1		CL-S-WN-1
0	34,00	CL-SP-WN-0	CL-DP-WN-0	CL-DP-HN-0	CL-DB-HP-0		CL-S-WN-0
2	50,50	CL-SP-WN-2	CL-DP-WN-2	CL-DP-HN-2	CL-DB-HP-2	CL-S3-2	CL-S-WN-2
3	64,00	CL-SP-WN-3	CL-DP-WN-3	CL-DP-HN-3	CL-DB-HP-3	CL-S3-3	CL-S-WN-3
4	77,50	CL-SP-WN-4	CL-DP-WN-4	CL-DP-HN-4	CL-DB-HP-4	CL-S3-4	CL-S-WN-4
5	91,00	CL-SP-WN-5	CL-DP-WN-5	CL-DP-HN-5	CL-DB-HP-5	CL-S3-5	CL-S-WN-5
6	106,00	CL-SP-WN-6	CL-DP-WN-6	CL-DP-HN-6	CL-DB-HP-6		CL-S-WN-6
7	119,00	CL-SP-WN-7	CL-DP-WN-7	CL-DP-HN-7	CL-DB-HP-7	CL-S3-7	CL-S-WN-7
8	130,00	CL-SP-WN-8	CL-DP-WN-8	CL-DP-HN-8	CL-DB-HP-8		
9	167,00	CL-SP-WN-9	CL-DP-WN-9	CL-DP-HN-9	CL-DB-HP-9		
10	183,00		CL-DP-WN-10	CL-DP-HN-10	CL-DB-HP-10		

GASKETS

d1	PTFE		FKM	PTFE/FKM	EPDM	VMQ
mm	Code	Material				
13,50	TC-GK-08I-1	-	P	F	FP	E M
17,20	TC-GK-10I-1	-	P	F	FP	E M
21,30	TC-GK-15I-2	-	P	F	FP	E M
26,90	TC-GK-20I-2	-	P	F	FP	E M
33,70	TC-GK-25I-2	-	P	F	FP	E M
42,40	TC-GK-32I-3	-	P	F	FP	E M
48,30	TC-GK-40I-3	-	P	F	FP	E M
60,30	TC-GK-50I-4	-	P	F	FP	E M
76,10	TC-GK-65I-5	-	P	F	FP	E M
88,90	TC-GK-80I-6	-	P	F	FP	E M
114,30	TC-GK-100I-8	-	P	F	FP	E M

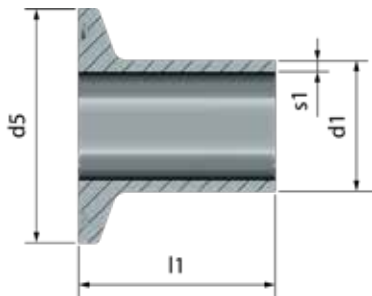
CAP 32676

d5	A	weldtron bf	weldtron ep	safetron bf	safetron ep	Code	
mm		1.4435 / 316L					
25,00	4,75	W	WE	S	SE	-	FTC-1
25,00	4,75	W	WE	S	SE	-	FTC-1
50,50	6,35	W	WE	S	SE	-	FTC-2
50,50	6,35	W	WE	S	SE	-	FTC-2
50,50	6,35	W	WE	S	SE	-	FTC-2
64,00	6,35	W	WE	S	SE	-	FTC-3
64,00	6,35	W	WE	S	SE	-	FTC-3
77,50	6,35	W	WE	S	SE	-	FTC-4
91,00	6,35	W	WE	S	SE	-	FTC-5
106,00	6,35	W	WE	S	SE	-	FTC-6
130,00	8,00	W	WE	S	SE	-	FTC-8

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

Ferrules, Clamps, Gaskets and Caps acc. to DIN 32676
Metric



COMPLETE CONNECTION

Metric	Size	Length		Pressure
DN	d x s / mm	min. / mm	max. / mm	max. bar / psig
6	8,00 x 1,00	25,4	57,2	40 / 580
8	10,00 x 1,00	25,4	57,2	40 / 580
10	13,00 x 1,50	37,7	58,9	40 / 580
15	19,00 x 1,50	37,7	58,9	40 / 580
20	23,00 x 1,50	37,7	58,9	40 / 580
25	29,00 x 1,50	44,7	73,7	40 / 580
32	35,00 x 1,50	44,7	73,7	40 / 580
40	41,00 x 1,50	44,7	73,7	25 / 362
50	53,00 x 1,50	44,7	73,7	25 / 362
65	70,00 x 2,00	57,7	97,7	16 / 232
80	85,00 x 2,00	57,7	97,7	16 / 232
100	104,00 x 2,00	57,7	97,7	16 / 232
150	154,00 x 2,00	57,7	133,7	16 / 232

FERRULES

d1	s1	d5
mm		
8,00	1,00	25,00
10,00	1,00	25,00
13,00	1,50	34,00
19,00	1,50	34,00
23,00	1,50	34,00
29,00	1,50	50,50
35,00	1,50	50,50
41,00	1,50	50,50
53,00	1,50	64,00
70,00	2,00	91,00
85,00	2,00	106,00
104,00	2,00	119,00
154,00	2,00	183,00

B	weldtron bf	weldtron ep
l1	1.4435 / 316L	Code
28,60	W WE -	FB-06M
28,60	W WE -	FB-08M
28,60	W WE -	FB-10M
28,60	W WE -	FB-15M
28,60	W WE -	FB-20M
36,00	W WE -	FB-25M
36,00	W WE -	FB-32M
36,00	W WE -	FB-40M
36,00	W WE -	FB-50M
48,00	W WE -	FB-65M
48,00	W WE -	FB-80M
48,00	W WE -	FB-100M
66,00	W WE -	FB-150M

C	weldtron bf	weldtron ep
l1	1.4435 / 316L	Code
12,70	W WE -	FC-06M
12,70	W WE -	FC-08M
18,00	W WE -	FC-10M
18,00	W WE -	FC-15M
18,00	W WE -	FC-20M
21,50	W WE -	FC-25M
21,50	W WE -	FC-32M
21,50	W WE -	FC-40M
21,50	W WE -	FC-50M
28,00	W WE -	FC-65M
28,00	W WE -	FC-80M
28,00	W WE -	FC-100M
28,00	W WE -	FC-150M

CLAMPS

d5		Single Pinned Wing Nut	Double Pinned Wing Nut	Double Pinned Hex Nut	Double Bolted High Pressure	3-Segment Clamp	Safety Clamp Wing Nut
Size	mm	Codes					
1	25,00	CL-SP-WN-1	CL-DP-WN-1	CL-DP-HN-1	CL-DB-HP-1		CL-S-WN-1
0	34,00	CL-SP-WN-0	CL-DP-WN-0	CL-DP-HN-0	CL-DB-HP-0		CL-S-WN-0
2	50,50	CL-SP-WN-2	CL-DP-WN-2	CL-DP-HN-2	CL-DB-HP-2	CL-S3-2	CL-S-WN-2
3	64,00	CL-SP-WN-3	CL-DP-WN-3	CL-DP-HN-3	CL-DB-HP-3	CL-S3-3	CL-S-WN-3
4	77,50	CL-SP-WN-4	CL-DP-WN-4	CL-DP-HN-4	CL-DB-HP-4	CL-S3-4	CL-S-WN-4
5	91,00	CL-SP-WN-5	CL-DP-WN-5	CL-DP-HN-5	CL-DB-HP-5	CL-S3-5	CL-S-WN-5
6	106,00	CL-SP-WN-6	CL-DP-WN-6	CL-DP-HN-6	CL-DB-HP-6		CL-S-WN-6
7	119,00	CL-SP-WN-7	CL-DP-WN-7	CL-DP-HN-7	CL-DB-HP-7	CL-S3-7	CL-S-WN-7
8	130,00	CL-SP-WN-8	CL-DP-WN-8	CL-DP-HN-8	CL-DB-HP-8		
9	167,00	CL-SP-WN-9	CL-DP-WN-9	CL-DP-HN-9	CL-DB-HP-9		
10	183,00		CL-DP-WN-10	CL-DP-HN-10	CL-DB-HP-10		

Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

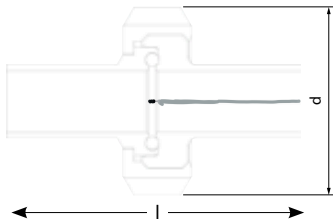
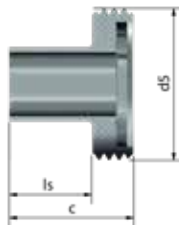
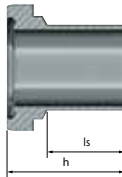
GASKETS

d1				PTFE	FKM	PTFE/	EPDM	VMQ
mm	Code		Materials					
8,00	TC-GK-06M-1	-	P	F	FP	E	M	
10,00	TC-GK-08M-1	-	P	F	FP	E	M	
13,00	TC-GK-10M-0	-	P	F	FP	E	M	
19,00	TC-GK-15M-0	-	P	F	FP	E	M	
23,00	TC-GK-20M-0	-	P	F	FP	E	M	
29,00	TC-GK-25M-2	-	P	F	FP	E	M	
35,00	TC-GK-32M-2	-	P	F	FP	E	M	
41,00	TC-GK-40M-2	-	P	F	FP	E	M	
53,00	TC-GK-50M-3	-	P	F	FP	E	M	
70,00	TC-GK-65M-5	-	P	F	FP	E	M	
85,00	TC-GK-80M-6	-	P	F	FP	E	M	
104,00	TC-GK-100M-7	-	P	F	FP	E	M	
154,00	TC-GK-150M-10	-	P	F	FP	E	M	

Blue marked = Stock item Further dimensions and materials on request. Subject to alteration.

CAP		weldtron bf	weldtron ep
d5	A	1.4435 / 316L	Code
25,00	4,75	W WE -	FTC-1
25,00	4,75	W WE -	FTC-1
34,00	6,35	W WE -	FTC-0
34,00	6,35	W WE -	FTC-0
34,00	6,35	W WE -	FTC-0
50,50	6,35	W WE -	FTC-2
50,50	6,35	W WE -	FTC-2
50,50	6,35	W WE -	FTC-2
64,00	6,35	W WE -	FTC-3
91,00	6,35	W WE -	FTC-5
106,00	6,35	W WE -	FTC-6
119,00	8,00	W WE -	FTC-7
183,00	14,00	W WE -	FTC-10

Screw Connection acc. to DIN 11864-1
Line A / Metric

																							
Metric	TUBE DIN 11866	COMPLETE CONNECTION	THREADED STUB (MALE)			weldtron bf	weldtron ep	safetron bf	safetron ep	GROOVE NUT			WELD STUB (LINER)		weldtron bf	weldtron ep	safetron bf	safetron ep					
	d x s	l	d	d5	ls	c					d	l4	ls	h									
DN	mm	mm		mm	mm	mm	1.4435/316L				mm	mm	Code	mm	mm	1.4435/316L				Size			
10	13,00 x 1,50	76,00	38,00	28 x 1/8"	27,00	41,00	W	WE	S	SE	-	SC-TS-10M	38,00	18,00	SC-GN-10	27,00	39,00	W	WE	S	SE	-	SC-WS-10M
15	19,00 x 1,50	76,00	44,00	34 x 1/8"	27,00	41,00	W	WE	S	SE	-	SC-TS-15M	44,00	18,00	SC-GN-15	27,00	39,00	W	WE	S	SE	-	SC-WS-15M
20	23,00 x 1,50	76,00	54,00	44 x 1/6"	26,00	43,00	W	WE	S	SE	-	SC-TS-20M	54,00	20,00	SC-GN-20	26,00	38,00	W	WE	S	SE	-	SC-WS-20M
25	29,00 x 1,50	77,00	63,00	52 x 1/6"	26,00	43,00	W	WE	S	SE	-	SC-TS-25M	63,00	21,00	SC-GN-25	26,00	40,00	W	WE	S	SE	-	SC-WS-25M
32	35,00 x 1,50	88,00	70,00	58 x 1/6"	32,00	48,00	W	WE	S	SE	-	SC-TS-32M	70,00	21,00	SC-GN-32	32,00	47,00	W	WE	S	SE	-	SC-WS-32M
40	41,00 x 1,50	88,00	78,00	65 x 1/6"	31,00	48,00	W	WE	S	SE	-	SC-TS-40M	78,00	21,00	SC-GN-40	31,00	47,00	W	WE	S	SE	-	SC-WS-40M
50	53,00 x 1,50	89,00	92,00	78 x 1/6"	30,00	48,00	W	WE	S	SE	-	SC-TS-50M	92,00	22,00	SC-GN-50	30,00	48,00	W	WE	S	SE	-	SC-WS-50M
65	70,00 x 2,00	113,00	112,00	95 x 1/6"	40,00	60,00	W	WE	S	SE	-	SC-TS-65M	112,00	25,00	SC-GN-65	40,00	61,00	W	WE	S	SE	-	SC-WS-65M
80	85,00 x 2,00	117,00	127,00	110 x 1/4"	40,00	64,00	W	WE	S	SE	-	SC-TS-80M	127,00	29,00	SC-GN-80	40,00	61,00	W	WE	S	SE	-	SC-WS-80M
100	104,00 x 2,00	120,00	148,00	130 x 1/4"	40,00	64,00	W	WE	S	SE	-	SC-TS-100M	148,00	31,00	SC-GN-100	40,00	66,00	W	WE	S	SE	-	SC-WS-100M

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	O-RING				EPDM		FPM/FEP*	
	d x s							
	DN	mm	Code					
	10	12,00 x 3,50	SC-GK-10M-0	-	E	FF		
	15	18,00 x 3,50	SC-GK-15M-0	-	E	FF		
	20	22,00 x 3,50	SC-GK-20M-0	-	E	FF		
	25	28,00 x 3,50	SC-GK-25M-2	-	E	FF		
	32	34,00 x 5,00	SC-GK-32M-2	-	E	FF		
	40	40,00 x 5,00	SC-GK-40M-2	-	E	FF		
	50	52,00 x 5,00	SC-GK-50M-3	-	E	FF		
65	68,00 x 5,00	SC-GK-65M-5	-	E	FF			
80	83,00 x 5,00	SC-GK-80M-6	-	E	FF			
100	102,00 x 5,00	SC-GK-100M-7	-	E	FF			

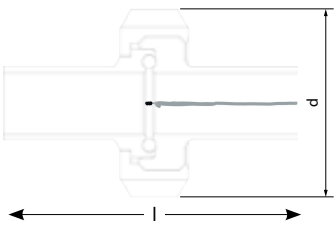
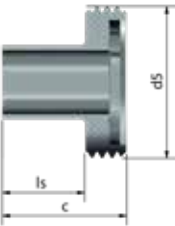
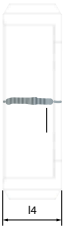
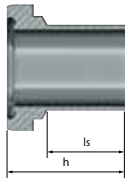
BLIND WELD STUB (LINER)		safetron bf		safetron ep			
d1	h						
mm		1.4435/316L		Code			
18,00	9,00	S	SE	-	SC-BWS-10M		
24,00	9,00	S	SE	-	SC-BWS-15M		
30,00	10,00	S	SE	-	SC-BWS-20M		
35,00	12,00	S	SE	-	SC-BWS-25M		
41,00	13,00	S	SE	-	SC-BWS-32M		
48,00	13,00	S	SE	-	SC-BWS-40M		
61,00	14,00	S	SE	-	SC-BWS-50M		
79,00	16,00	S	SE	-	SC-BWS-65M		
93,00	16,00	S	SE	-	SC-BWS-80M		
114,00	20,00	S	SE	-	SC-BWS-100M		

BLIND THREADED STUB (MALE)		safetron bf		safetron ep			
SW	c						
mm		1.4435/316L		Code			
SW 19	24,00	S	SE	-	SC-BTS-10M		
SW 24	24,00	S	SE	-	SC-BTS-15M		
SW 30	24,00	S	SE	-	SC-BTS-20M		
SW 41	24,00	S	SE	-	SC-BTS-25M		
SW 46	24,00	S	SE	-	SC-BTS-32M		
SW 50	24,00	S	SE	-	SC-BTS-40M		
SW 65	24,00	S	SE	-	SC-BTS-50M		
SW 80	28,00	S	SE	-	SC-BTS-65M		
SW 95	28,00	S	SE	-	SC-BTS-80M		
SW 115	30,00	S	SE	-	SC-BTS-100M		

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Screw Connection acc. to DIN 11864-1
Line B / ISO

														
	ISO	TUBE DIN 11866	COMPLETE CONNECTION	THREADED STUB (MALE)	weldtron bf	weldtron ep	safetron bf	safetron ep	GROOVE NUT	WELD STUB (LINER)	weldtron bf	weldtron ep	safetron bf	safetron ep
		d x s	l	d	d5	ls	c		d	l4	ls	h		
DN	mm	mm		mm					mm	mm	mm			
8	13,50 x 1,60	76,00	38,00	28 x 1/8"	27,00	41,00	W WE S SE - SC-TS-08I		38,0	18,00	27,00	39,00	W WE S SE - SC-WS-08I	
10	17,20 x 1,60	76,00	44,00	34 x 1/8"	27,00	41,00	W WE S SE - SC-TS-10I		44,0	18,00	27,00	39,00	W WE S SE - SC-WS-10I	
15	21,30 x 1,60	78,00	54,00	44 x 1/6"	26,00	43,00	W WE S SE - SC-TS-15I		54,0	20,00	27,00	40,00	W WE S SE - SC-WS-15I	
20	26,90 x 1,60	78,00	63,00	52 x 1/6"	26,00	43,00	W WE S SE - SC-TS-20I		63,0	21,00	27,00	41,00	W WE S SE - SC-WS-20I	
25	33,70 x 2,00	88,00	70,00	58 x 1/6"	32,00	48,00	W WE S SE - SC-TS-25I		70,0	21,00	32,00	47,00	W WE S SE - SC-WS-25I	
32	42,40 x 2,00	88,00	78,00	65 x 1/6"	31,00	48,00	W WE S SE - SC-TS-32I		78,0	21,00	32,00	47,00	W WE S SE - SC-WS-32I	
40	48,30 x 2,00	90,00	92,00	78 x 1/6"	30,00	48,00	W WE S SE - SC-TS-40I		92,0	22,00	31,00	48,00	W WE S SE - SC-WS-40I	
50	60,30 x 2,00	114,00	112,00	95 x 1/6"	40,00	60,00	W WE S SE - SC-TS-50I		112,0	25,00	40,00	62,00	W WE S SE - SC-WS-50I	
65	76,10 x 2,00	117,00	127,00	110 x 1/4"	40,00	64,00	W WE S SE - SC-TS-65I		127,0	29,00	40,00	61,00	W WE S SE - SC-WS-65I	
80	88,90 x 2,30	122,00	148,00	130 x 1/4"	40,00	64,00	W WE S SE - SC-TS-80I		148,0	31,00	40,00	68,00	W WE S SE - SC-WS-80I	

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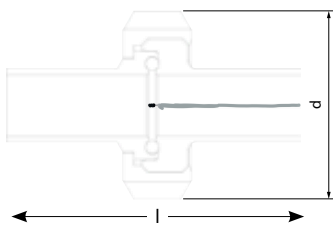
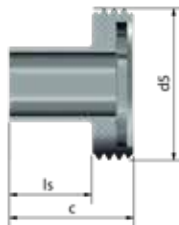
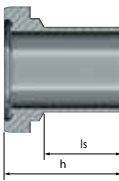
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	O-RING					BLIND WELD STUB (LINER)		BLIND THREADED STUB (MALE)		
	d x s					d1	h	SW	c	
DN	mm	Code		EPDM	FPM/FFP*	MVQ/PFA*				
8	12,00 x 3,50	SC-GK-08I-1	-	E	FF	MP				
10	16,00 x 3,50	SC-GK-10I-1	-	E	FF	MP				
15	20,00 x 3,50	SC-GK-15I-2	-	E	FF	MP				
20	26,00 x 3,50	SC-GK-20I-2	-	E	FF	MP				
25	32,00 x 5,00	SC-GK-25I-2	-	E	FF	MP				
32	40,50 x 5,00	SC-GK-32I-3	-	E	FF	MP				
40	46,50 x 5,00	SC-GK-40I-3	-	E	FF	MP				
50	58,50 x 5,00	SC-GK-50I-4	-	E	FF	MP				
65	73,50 x 5,00	SC-GK-65I-5	-	E	FF	MP				
80	86,50 x 5,00	SC-GK-80I-6	-	E	FF	MP				

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Subject to alteration. *Material is not part of the DIN 11864

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Screw Connection acc. to DIN 11864-1
Line C / Imperial

    	Imperial			TUBE DIN 11866			COMPLETE CONNECTION			THREADED STUB (MALE)			GROOVE NUT			WELD STUB (LINER)												
				d x s			l			d			d5			ls												
				Inch	mm	mm					mm	1.4435/316L	Code	mm	mm	Code	mm	1.4435/316L	Code									
				1/2"	12,70 x 1,65	76,00	38,00					W	WE	S	SE	-	SC-TS-08	27,00	39,00	W	WE	S	SE	-	SC-TS-08			
				3/4"	19,05 x 1,65	76,00	44,00					W	WE	S	SE	-	SC-TS-12	27,00	39,00	W	WE	S	SE	-	SC-TS-12			
				1"	25,40 x 1,65	77,00	63,00					W	WE	S	SE	-	SC-TS-16	27,00	40,00	W	WE	S	SE	-	SC-TS-16			
				1 1/2"	38,10 x 1,65	88,00	78,00					W	WE	S	SE	-	SC-TS-24	27,00	41,00	W	WE	S	SE	-	SC-TS-24			
				2"	50,80 x 1,65	89,00	92,00					W	WE	S	SE	-	SC-TS-32	32,00	47,00	W	WE	S	SE	-	SC-TS-32			
				2 1/2"	63,50 x 1,65	115,00	112,00					W	WE	S	SE	-	SC-TS-40	32,00	47,00	W	WE	S	SE	-	SC-TS-40			
				3"	76,20 x 1,65	117,00	127,00					W	WE	S	SE	-	SC-TS-48	31,00	48,00	W	WE	S	SE	-	SC-TS-48			
				4"	101,60 x 2,11	119,00	148,00					W	WE	S	SE	-	SC-TS-64	40,00	62,00	W	WE	S	SE	-	SC-TS-64			

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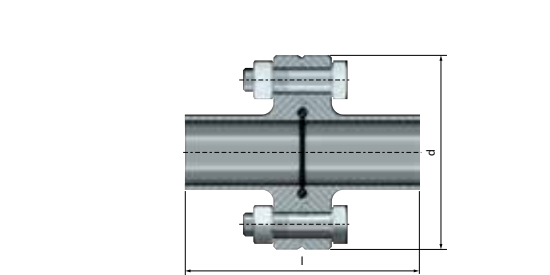
	O-RING											
	d x s			EPDM	FPM/FEP*							
	Inch	mm	Code									
	1/2"	12,00 x 3,50	SC-GK-08-1	-	E	FF						
	3/4"	18,00 x 3,50	SC-GK-12-1	-	E	FF						
	1"	24,00 x 3,50	SC-GK-16-2	-	E	FF						
	1 1/2"	37,00 x 5,00	SC-GK-24-2	-	E	FF						
	2"	50,00 x 5,00	SC-GK-32-3	-	E	FF						
	2 1/2"	62,00 x 5,00	SC-GK-40-4	-	E	FF						
	3"	75,00 x 5,00	SC-GK-48-5	-	E	FF						
4"	100,00 x 5,00	SC-GK-64-7	-	E	FF							

BLIND WELD STUB (LINER)		safetron bf		safetron ep			BLIND THREADED STUB (MALE)		safetron bf		safetron ep		
d1	h						SW	c					
mm		1.4435/316L		Code			mm		1.4435/316L		Code		
18,00	9,00	S	SE	-	SC-BWS-08		SW19	22,00	S	SE	-	SC-BTS-08	
24,00	9,00	S	SE	-	SC-BWS-12		SW24	22,00	S	SE	-	SC-BTS-12	
35,00	12,00	S	SE	-	SC-BWS-16		SW30	24,00	S	SE	-	SC-BTS-16	
48,00	13,00	S	SE	-	SC-BWS-24		SW41	24,00	S	SE	-	SC-BTS-24	
61,00	14,00	S	SE	-	SC-BWS-32		SW46	24,00	S	SE	-	SC-BTS-32	
79,00	16,00	S	SE	-	SC-BWS-40		SW50	24,00	S	SE	-	SC-BTS-40	
93,00	16,00	S	SE	-	SC-BWS-48		SW65	24,00	S	SE	-	SC-BTS-48	
114,00	20,00	S	SE	-	SC-BWS-64		SW80	28,00	S	SE	-	SC-BTS-64	

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Blue marked = Stock item Further dimensions and materials on request. Subject to alteration.

Flange Connection acc. to DIN 11864-2
Line A / Metric



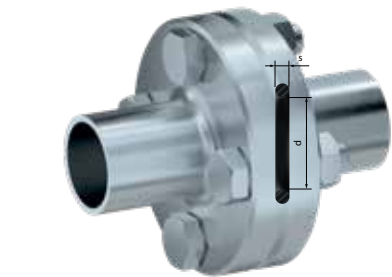
Metric	TUBE DIN 11866		COMPLETE CONNECTION	
	d x s		l	d
	DN	mm	mm	mm
	10	13,00 x 1,50	80,00	54,00
	15	19,00 x 1,50	80,00	59,00
	20	23,00 x 1,50	80,00	64,00
	25	29,00 x 1,50	80,00	70,00
	32	35,00 x 1,50	90,00	76,00
	40	41,00 x 1,50	90,00	82,00
	50	53,00 x 1,50	90,00	94,00
	65	70,00 x 2,00	108,00	113,00
	80	85,00 x 2,00	116,00	133,00
	100	104,00 x 2,00	116,00	159,00

Blue marked = Stock item Further dimensions and materials on request. Subject to alteration.

FLANGE GROOVE (MALE)			weldtron bf	weldtron ep	safetron bf	safetron ep			
c	ls	d1							
mm			1.4435/316L				Code		
41,50	26,00	37,00	W	WE	S	SE	-	SC-FG-10M	
41,50	26,00	42,00	W	WE	S	SE	-	SC-FG-15M	
41,50	26,00	47,00	W	WE	S	SE	-	SC-FG-20M	
41,50	26,00	53,00	W	WE	S	SE	-	SC-FG-25M	
46,50	31,00	59,00	W	WE	S	SE	-	SC-FG-32M	
46,50	31,00	65,00	W	WE	S	SE	-	SC-FG-40M	
46,50	31,00	77,00	W	WE	S	SE	-	SC-FG-50M	
55,50	42,00	95,00	W	WE	S	SE	-	SC-FG-65M	
59,50	42,00	112,00	W	WE	S	SE	-	SC-FG-80M	
59,50	42,00	137,00	W	WE	S	SE	-	SC-FG-100M	

FLANGE COLLAR (FEMALE)		weldtron bf	weldtron ep	safetron bf	safetron ep			FLANGE BORE	MOUNTING BOLTS
h								A1	G
mm		1.4435/316L				Code			
40,00		W	WE	S	SE	-	-SC-FC-10M	4 x Ø 9,00	4/M8 x 30
40,00		W	WE	S	SE	-	-SC-FC-15M	4 x Ø 9,00	4/M8 x 30
40,00		W	WE	S	SE	-	-SC-FC-20M	4 x Ø 9,00	4/M8 x 30
40,00		W	WE	S	SE	-	-SC-FC-25M	4 x Ø 9,00	4/M8 x 30
45,00		W	WE	S	SE	-	-SC-FC-32M	4 x Ø 9,00	4/M8 x 30
45,00		W	WE	S	SE	-	-SC-FC-40M	4 x Ø 9,00	4/M8 x 30
45,00		W	WE	S	SE	-	-SC-FC-50M	4 x Ø 9,00	4/M8 x 30
54,00		W	WE	S	SE	-	-SC-FC-65M	8 x Ø 9,00	8/M8 x 30
58,00		W	WE	S	SE	-	-SC-FC-80M	8 x Ø 11,00	8/M10 x 35
58,00		W	WE	S	SE	-	-SC-FC-100M	8 x Ø 11,00	8/M10 x 40

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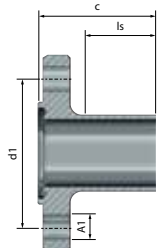
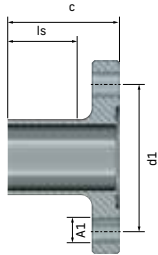
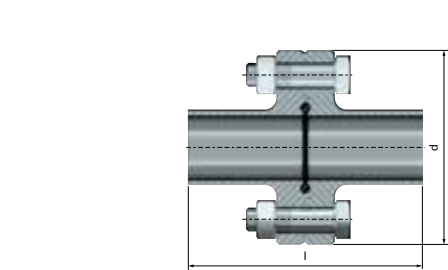
O-RING							
d x s				EPDM	FPM/FFP*		
DN	mm	Code					
10	12,00 x 3,50	SC-GK-10M-0	-	E	FF		
15	18,00 x 3,50	SC-GK-15M-0	-	E	FF		
20	22,00 x 3,50	SC-GK-20M-0	-	E	FF		
25	28,00 x 3,50	SC-GK-25M-2	-	E	FF		
32	34,00 x 5,00	SC-GK-32M-2	-	E	FF		
40	40,00 x 5,00	SC-GK-40M-2	-	E	FF		
50	52,00 x 5,00	SC-GK-50M-3	-	E	FF		
65	68,00 x 5,00	SC-GK-65M-5	-	E	FF		
80	83,00 x 5,00	SC-GK-80M-6	-	E	FF		
100	102,00 x 5,00	SC-GK-100M-7	-	E	FF		

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BLIND FLANGE COLLAR (FEMALE)		safetron bf	safetron ep					BLIND FLANGE GROOVE (MALE)		safetron bf	safetron ep		
h						c							
mm		1.4435/316L		Code		mm		1.4435/316L		Code			
10,00		S	SE	-	SC-BFC-10M	11,50		S	SE	-	SC-BFG-10M		
10,00		S	SE	-	SC-BFC-15M	11,50		S	SE	-	SC-BFG-15M		
10,00		S	SE	-	SC-BFC-20M	11,50		S	SE	-	SC-BFG-20M		
10,00		S	SE	-	SC-BFC-25M	11,50		S	SE	-	SC-BFG-25M		
10,00		S	SE	-	SC-BFC-32M	11,50		S	SE	-	SC-BFG-32M		
10,00		S	SE	-	SC-BFC-40M	11,50		S	SE	-	SC-BFG-40M		
10,00		S	SE	-	SC-BFC-50M	11,50		S	SE	-	SC-BFG-50M		
10,00		S	SE	-	SC-BFC-65M	11,50		S	SE	-	SC-BFG-65M		
12,00		S	SE	-	SC-BFC-80M	13,50		S	SE	-	SC-BFG-80M		
14,00		S	SE	-	SC-BFC-100M	15,50		S	SE	-	SC-BFG-100M		

Blue marked = Stock item Further dimensions and materials on request. Subject to alteration.

Flange Connection acc. to DIN 11864-2
Line B / ISO



ISO	TUBE DIN 11866	COMPLETE CONNECTION	
	d x s	l	d
DN	mm	mm	
8	13,50 x 1,60	80,00	54,00
10	17,20 x 1,60	80,00	59,00
15	21,30 x 1,60	80,00	62,00
20	26,90 x 1,60	80,00	69,00
25	33,70 x 2,00	90,00	74,00
32	42,40 x 2,00	90,00	82,00
40	48,30 x 2,00	90,00	88,00
50	60,30 x 2,00	108,00	103,00
65	76,1x 2,00	112,00	125,00
80	88,90 x 2,30	116,00	137,00
100	114,30 x 2,30	116,00	168,00

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FLANGE GROOVE (MALE)			weldtron bf	weldtron ep	safetron bf	safetron ep
c	ls	d1				
mm			1.4435/316L			
			Code			
41,50	26,00	37,00	W	WE	S	SE
41,50	26,00	42,00	W	WE	S	SE
41,50	26,00	45,00	W	WE	S	SE
41,50	26,00	52,00	W	WE	S	SE
46,50	31,00	57,00	W	WE	S	SE
46,50	31,00	65,00	W	WE	S	SE
46,50	31,00	71,00	W	WE	S	SE
55,50	42,00	85,00	W	WE	S	SE
57,50	42,00	104,00	W	WE	S	SE
59,50	42,00	116,00	W	WE	S	SE
59,50	42,00	146,00	W	WE	S	SE

FLANGE COLLAR (FEMALE)			weldtron bf	weldtron ep	safetron bf	safetron ep	FLANGE BORE	MOUNTING BOLTS
h							A1	G
mm			1.4435/316L					
			Code					
40,00	W	WE	S	SE	-	SC-FC-08I	4 x Ø 9,00	4/M8 x 30
40,00	W	WE	S	SE	-	SC-FC-10I	4 x Ø 9,00	4/M8 x 30
40,00	W	WE	S	SE	-	SC-FC-15I	4 x Ø 9,00	4/M8 x 30
40,00	W	WE	S	SE	-	SC-FC-20I	4 x Ø 9,00	4/M8 x 30
45,00	W	WE	S	SE	-	SC-FC-25I	4 x Ø 9,00	4/M8 x 30
45,00	W	WE	S	SE	-	SC-FC-32I	4 x Ø 9,00	4/M8 x 30
45,00	W	WE	S	SE	-	SC-FC-40I	4 x Ø 9,00	4/M8 x 30
54,00	W	WE	S	SE	-	SC-FC-50I	4 x Ø 9,00	4/M8 x 30
56,00	W	WE	S	SE	-	SC-FC-65I	8 x Ø 11,00	8/M10 x 30
58,00	W	WE	S	SE	-	SC-FC-80I	8 x Ø 11,00	8/M10 x 35
58,00	W	WE	S	SE	-	SC-FC-100I	8 x Ø 11,00	8/M10 x 35

Blue marked = Stock item Further dimensions and materials on request. Subject to alteration.



O-RING					
d x s			EPDM	FPM/FEP*	MVQ/PFA*
DN	mm	Code			
8	12,00 x 3,50	SC-GK-08I-1	-	E	FF
10	16,00 x 3,50	SC-GK-10I-1	-	E	FF
15	20,00 x 3,50	SC-GK-15I-2	-	E	FF
20	26,00 x 3,50	SC-GK-20I-2	-	E	FF
25	32,00 x 5,00	SC-GK-25I-2	-	E	FF
32	40,50 x 5,00	SC-GK-32I-3	-	E	FF
40	46,50 x 5,00	SC-GK-40I-3	-	E	FF
50	58,50 x 5,00	SC-GK-50I-4	-	E	FF
65	73,50 x 5,00	SC-GK-65I-5	-	E	FF
80	86,50 x 5,00	SC-GK-80I-6	-	E	FF

Blue marked = Stock item Further dimensions and materials on request.
Subject to alteration. *Material is not part of the DIN 11864

BLIND FLANGE COLLAR (FEMALE)					BLIND FLANGE GROOVE (MALE)						
h	safetron bf		safetron ep		h	c	safetron bf		safetron ep		c
mm	1.4435/316L			Code	mm	1.4435/316L			Code		
10	S	SE	-	SC-BFC-08I	11,50	S	SE	-	SC-BFG-08I		
10	S	SE	-	SC-BFC-10I	11,50	S	SE	-	SC-BFG-10I		
10	S	SE	-	SC-BFC-15I	11,50	S	SE	-	SC-BFG-15I		
10	S	SE	-	SC-BFC-20I	11,50	S	SE	-	SC-BFG-20I		
10	S	SE	-	SC-BFC-25I	11,50	S	SE	-	SC-BFG-25I		
10	S	SE	-	SC-BFC-32I	11,50	S	SE	-	SC-BFG-32I		
10	S	SE	-	SC-BFC-40I	11,50	S	SE	-	SC-BFG-40I		
10	S	SE	-	SC-BFC-50I	11,50	S	SE	-	SC-BFG-50I		
12	S	SE	-	SC-BFC-65I	13,50	S	SE	-	SC-BFG-65I		
12	S	SE	-	SC-BFC-80I	15,50	S	SE	-	SC-BFG-80I		
14	S	SE	-	SC-BFC-100I	15,50	S	SE	-	SC-BFG-100I		

Blue marked = Stock item Further dimensions and materials on request. Subject to alteration.

Flange Connection acc. to DIN 11864-2
Line C / Imperial



Imperial	TUBE DIN 11866	COMPLETE CONNECTION	
	d x s	l	d
DN	mm	mm	
1/2"	12,70 x 1,65	80,00	54,00
3/4"	19,05 x 1,65	80,00	59,00
1"	25,40 x 1,65	80,00	66,00
1 1/2"	38,10 x 1,65	90,00	79,00
2"	50,80 x 1,65	90,00	92,00
2 1/2"	63,50 x 1,65	108,00	107,00
3"	76,20 x 1,65	112,00	125,00
4"	101,60 x 2,11	116,00	157,00

Blue marked = Stock item Further dimensions and materials on request. Subject to alteration.

FLANGE GROOVE (MALE)			weldtron bf	weldtron ep	safetron bf	safetron ep		
c	ls	d1						
mm			1.4435/316L				Code	
41,50	26,00	37,00	W	WE	S	SE	-	SC-FG-08
41,50	26,00	42,00	W	WE	S	SE	-	SC-FG-12
41,50	26,00	49,00	W	WE	S	SE	-	SC-FG-16
46,50	31,00	62,00	W	WE	S	SE	-	SC-FG-24
46,50	31,00	75,00	W	WE	S	SE	-	SC-FG-32
55,50	42,00	89,00	W	WE	S	SE	-	SC-FG-40
57,50	42,00	104,00	W	WE	S	SE	-	SC-FG-48
59,50	42,00	135,00	W	WE	S	SE	-	SC-FG-64

FLANGE COLLAR (FEMALE)		weldtron bf	weldtron ep	safetron bf	safetron ep		
h							
mm		1.4435/316L				Code	
40,00	W	WE	S	SE	-	-SC-FC-08	4 x Ø 9,00
40,00	W	WE	S	SE	-	-SC-FC-12	4 x Ø 9,00
40,00	W	WE	S	SE	-	-SC-FC-16	4 x Ø 9,00
45,00	W	WE	S	SE	-	-SC-FC-24	4 x Ø 9,00
45,00	W	WE	S	SE	-	-SC-FC-32	4 x Ø 9,00
54,00	W	WE	S	SE	-	-SC-FC-40	8 x Ø 9,00
56,00	W	WE	S	SE	-	-SC-FC-48	8 x Ø 11,00
58,00	W	WE	S	SE	-	-SC-FC-64	8 x Ø 11,00

Blue marked = Stock item Further dimensions and materials on request. Subject to alteration.

FLANGE BORE	MOUNTING BOLTS
A1	G
4 x Ø 9,00	4/M8 x 30
4 x Ø 9,00	4/M8 x 30
4 x Ø 9,00	4/M8 x 30
4 x Ø 9,00	4/M8 x 30
4 x Ø 9,00	4/M8 x 30
8 x Ø 9,00	8/M8 x 30
8 x Ø 11,00	8/M10 x 30
8 x Ø 11,00	8/M10 x 35



O-RING					
d x s				EPDM	FPM/FEP*
DN	mm	Code			
1/2"	12,00 x 3,50	SC-GK-08-1	-	E	FF
3/4"	18,00 x 3,50	SC-GK-12-1	-	E	FF
1"	24,00 x 3,50	SC-GK-16-2	-	E	FF
1 1/2"	37,00 x 5,00	SC-GK-24-2	-	E	FF
2"	50,00 x 5,00	SC-GK-32-3	-	E	FF
2 1/2"	62,00 x 5,00	SC-GK-40-4	-	E	FF
3"	75,00 x 5,00	SC-GK-48-5	-	E	FF
4"	100,00 x 5,00	SC-GK-64-7	-	E	FF

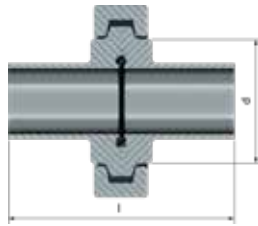
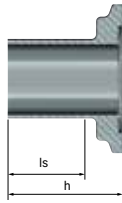
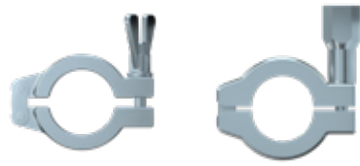
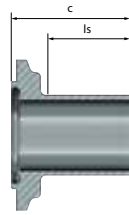
Blue marked = Stock item Further dimensions and materials on request.
Subject to alteration.*Material is not part of the DIN 11864

BLIND FLANGE COLLAR (FEMALE)		safetron bf	safetron ep		
h					
mm		1.4435/316L		Code	
10,00	S	SE	-	SC-BFC-08	
10,00	S	SE	-	SC-BFC-12	
10,00	S	SE	-	SC-BFC-16	
10,00	S	SE	-	SC-BFC-24	
10,00	S	SE	-	SC-BFC-32	
10,00	S	SE	-	SC-BFC-40	
12,00	S	SE	-	SC-BFC-48	
14,00	S	SE	-	SC-BFC-64	

Blue marked = Stock item Further dimensions and materials on request. Subject to alteration.

BLIND FLANGE GROOVE (MALE)		safetron bf	safetron ep		
c					
mm		1.4435/316L		Code	
11,50	S	SE	-	SC-BFG-08	
11,50	S	SE	-	SC-BFG-12	
11,50	S	SE	-	SC-BFG-16	
11,50	S	SE	-	SC-BFG-24	
11,50	S	SE	-	SC-BFG-32	
11,50	S	SE	-	SC-BFG-40	
13,50	S	SE	-	SC-BFG-48	
15,50	S	SE	-	SC-BFG-64	

Clamp Connection acc. to DIN 11864-3
Line A / Metric

Metric																							
	TUBE DIN 11866		COMPLETE CONNECTION	CLAMP COLLAR (FEMALE)		weldtron bf	weldtron ep	safetron bf	safetron ep	CLAMPS		Double Pinned Wing Nut	Double Pinned Hex Nut	CLAMP GROOVE (MALE)		weldtron bf	weldtron ep	safetron bf	safetron ep				
	d x s	l	d	ls	h					Size	Flange			ls	h								
DN	mm	mm		mm		1.4435/316L				mm		Code		mm		1.4435/316L				Size			
10	13,00 x 1,50	76,00	38,00	26,0	38,0	W	WE	S	SE	-	SC-CC-10M	0	34,00	CL-DP-WN-1	CL-DP-HN-1	27,00	39,00	W	WE	S	SE	-	SC-CG-10M
15	19,00 x 1,50	76,00	44,00	26,0	38,0	W	WE	S	SE	-	SC-CC-15M	0	50,50	CL-DP-WN-0	CL-DP-HN-0	27,00	39,00	W	WE	S	SE	-	SC-CG-15M
20	23,00 x 1,50	76,00	54,00	26,0	38,0	W	WE	S	SE	-	SC-CC-20M	2	64,00	CL-DP-WN-2	CL-DP-HN-2	26,00	38,00	W	WE	S	SE	-	SC-CG-20M
25	29,00 x 1,50	77,00	63,00	28,0	38,5	W	WE	S	SE	-	SC-CC-25M	2	77,50	CL-DP-WN-3	CL-DP-HN-3	26,00	40,00	W	WE	S	SE	-	SC-CG-25M
32	35,00 x 1,50	88,00	70,00	30,0	44,0	W	WE	S	SE	-	SC-CC-32M	2	91,00	CL-DP-WN-4	CL-DP-HN-4	32,00	47,00	W	WE	S	SE	-	SC-CG-32M
40	41,00 x 1,50	88,00	78,00	30,0	44,0	W	WE	S	SE	-	SC-CC-40M	3	106,00	CL-DP-WN-5	CL-DP-HN-5	31,00	47,00	W	WE	S	SE	-	SC-CG-40M
50	53,00 x 1,50	89,00	92,00	30,0	44,5	W	WE	S	SE	-	SC-CC-50M	4	119,00	CL-DP-WN-6	CL-DP-HN-6	30,00	48,00	W	WE	S	SE	-	SC-CG-50M
65	70,00 x 2,00	113,00	112,00	40,0	56,5	W	WE	S	SE	-	SC-CC-65M	5	130,00	CL-DP-WN-7	CL-DP-HN-7	40,00	61,00	W	WE	S	SE	-	SC-CG-65M
80	85,00 x 2,00	117,00	127,00	40,0	58,5	W	WE	S	SE	-	SC-CC-80M	6	167,00	CL-DP-WN-8	CL-DP-HN-8	40,00	61,00	W	WE	S	SE	-	SC-CG-80M
100	104,00 x 2,00	120,00	148,00	40,0	60,0	W	WE	S	SE	-	SC-CC-100M	8	183,00	CL-DP-WN-9	CL-DP-HN-9	40,00	66,00	W	WE	S	SE	-	SC-CG-100M

Blue marked = Stock item

Further dimensions and materials on request. Subject to alteration.

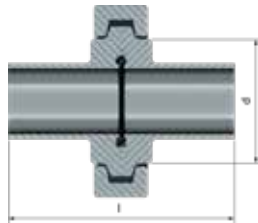
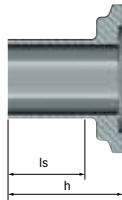
Blue marked = Stock item

Further dimensions and materials on request. Subject to alteration.

											
	O-RING			BLIND CLAMP COLLAR (FEMALE)		safetron bf	safetron ep	BLIND CLAMP GROOVE (MALE)		safetron bf	safetron ep
	d x s			h				h			
DN	mm	Code		mm	1.4435/316L		Code	mm	1.4435/316L		Code
10	12,00 x 3,50	SC-GK-10M-0	-	11,50	S	SE	-	13,00	S	SE	-
15	18,00 x 3,50	SC-GK-15M-0	-	11,50	S	SE	-	13,00	S	SE	-
20	22,00 x 3,50	SC-GK-20M-0	-	11,50	S	SE	-	13,00	S	SE	-
25	28,00 x 3,50	SC-GK-25M-2	-	11,50	S	SE	-	13,00	S	SE	-
32	34,00 x 5,00	SC-GK-32M-2	-	11,50	S	SE	-	13,00	S	SE	-
40	40,00 x 5,00	SC-GK-40M-2	-	11,50	S	SE	-	13,00	S	SE	-
50	52,00 x 5,00	SC-GK-50M-3	-	13,50	S	SE	-	15,00	S	SE	-
65	68,00 x 5,00	SC-GK-65M-5	-	13,50	S	SE	-	15,00	S	SE	-
80	83,00 x 5,00	SC-GK-80M-6	-	13,50	S	SE	-	15,00	S	SE	-
100	102,00 x 5,00	SC-GK-100M-7	-	13,50	S	SE	-	15,00	S	SE	-

Blue marked = Stock item Further dimensions and materials on request. Subject to alteration. *Material is not part of the DIN 11864

Clamp Connection acc. to DIN 11864-3
Line B / ISO

ISO																							
	TUBE DIN 11866		COMPLETE CONNECTION	CLAMP COLLAR (FEMALE)		weldtron bf	weldtron ep	safetron bf	safetron ep	CLAMPS		Double Pinned Wing Nut	Double Pinned Hex Nut	CLAMP GROOVE (MALE)		weldtron bf	weldtron ep	safetron bf	safetron ep				
	d x s	l	d	ls	h					Size	Flange			ls	h								
DN	mm	mm		mm		1.4435/316L				mm		Code		mm		1.4435/316L				Size			
8	13,50 x 1,60	80,00	38,00	26,00	38,00	W	WE	S	SE	-	SC-CC-08I	0	34,00	CL-DP-WN-0	CL-DP-HN-0	27,00	39,00	W	WE	S	SE	-	SC-CG-10M
10	17,20 x 1,60	80,00	44,00	26,00	38,00	W	WE	S	SE	-	SC-CC-10I	0	50,50	CL-DP-WN-2	CL-DP-HN-2	27,00	39,00	W	WE	S	SE	-	SC-CG-15M
15	21,30 x 1,60	80,00	54,00	26,00	39,00	W	WE	S	SE	-	SC-CC-15I	0	64,00	CL-DP-WN-3	CL-DP-HN-3	26,00	38,00	W	WE	S	SE	-	SC-CG-20M
20	26,90 x 1,60	80,00	63,00	30,00	39,00	W	WE	S	SE	-	SC-CC-20I	2	77,50	CL-DP-WN-4	CL-DP-HN-4	26,00	40,00	W	WE	S	SE	-	SC-CG-25M
25	33,70 x 2,00	90,00	70,00	30,00	44,00	W	WE	S	SE	-	SC-CC-25I	2	91,00	CL-DP-WN-5	CL-DP-HN-5	32,00	47,00	W	WE	S	SE	-	SC-CG-32M
32	42,40 x 2,00	90,00	78,00	30,00	44,00	W	WE	S	SE	-	SC-CC-32I	3	106,00	CL-DP-WN-6	CL-DP-HN-6	31,00	47,00	W	WE	S	SE	-	SC-CG-40M
40	48,30 x 2,00	90,00	92,00	30,00	45,00	W	WE	S	SE	-	SC-CC-40I	3	119,00	CL-DP-WN-7	CL-DP-HN-7	30,00	48,00	W	WE	S	SE	-	SC-CG-50M
50	60,30 x 2,00	108,00	112,00	30,00	57,00	W	WE	S	SE	-	SC-CC-50I	5	130,00	CL-SP-WN-8	CL-DP-HN-8	40,00	61,00	W	WE	S	SE	-	SC-CG-65M
65	76,10 x 2,00	116,00	127,00	40,00	58,50	W	WE	S	SE	-	SC-CC-65I	6	167,00	CL-SP-WN-9	CL-DP-HN-9	40,00	61,00	W	WE	S	SE	-	SC-CG-80M
80	88,90 x 2,30	116,00	148,00	40,00	61,00	W	WE	S	SE	-	SC-CC-80I	7	183,00	CL-DP-HN-10		40,00	66,00	W	WE	S	SE	-	SC-CG-100M

Blue marked = Stock item

Further dimensions and materials on request. Subject to alteration.

Blue marked = Stock item

Further dimensions and materials on request. Subject to alteration.



O-RING



d x s		Code		EPDM	FPM/FEP*
DN	mm				
8	12,00 x 3,50	SC-GK-08I-1	-	E	FF
10	16,00 x 3,50	SC-GK-10I-1	-	E	FF
15	20,00 x 3,50	SC-GK-15I-2	-	E	FF
20	26,00 x 3,50	SC-GK-20I-2	-	E	FF
25	32,00 x 5,00	SC-GK-25I-2	-	E	FF
32	40,50 x 5,00	SC-GK-32I-3	-	E	FF
40	46,50 x 5,00	SC-GK-40I-3	-	E	FF
50	58,50 x 5,00	SC-GK-50I-4	-	E	FF
65	73,50 x 5,00	SC-GK-65I-5	-	E	FF
80	86,50 x 5,00	SC-GK-80I-6	-	E	FF

Blue marked = Stock item

Further dimensions and materials on request. Subject to alteration.*Material is not part of the DIN 11864

BLIND CLAMP COLLAR (FEMALE)



h	safetron bf	safetron ep	Code
mm	1.4435/316L		
11,50	S	SE	SC-BCC-08I
11,50	S	SE	SC-BCC-10I
11,50	S	SE	SC-BCC-15I
11,50	S	SE	SC-BCC-20I
11,50	S	SE	SC-BCC-25I
11,50	S	SE	SC-BCC-32I
11,50	S	SE	SC-BCC-40I
13,50	S	SE	SC-BCC-50I
13,50	S	SE	SC-BCC-65I
13,50	S	SE	SC-BCC-80I

Blue marked = Stock item

Further dimensions and materials on request. Subject to alteration.

BLIND CLAMP GROOVE (MALE)

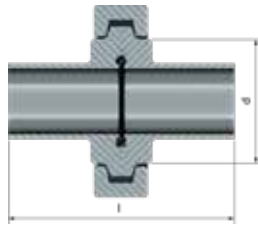
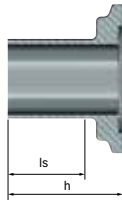
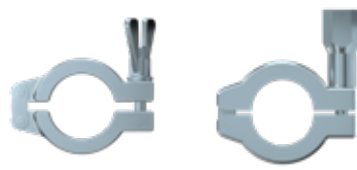
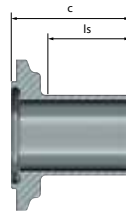


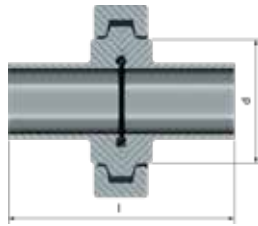
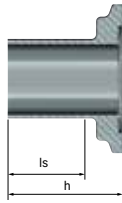
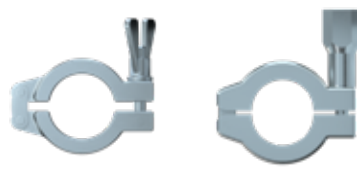
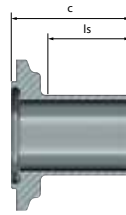
h	safetron bf	safetron ep	Code
mm	1.4435/316L		
13,00	S	SE	SC-BCG-08I
13,00	S	SE	SC-BCG-10
13,00	S	SE	SC-BCG-15I
13,00	S	SE	SC-BCG-20I
13,00	S	SE	SC-BCG-25I
13,00	S	SE	SC-BCG-32I
13,00	S	SE	SC-BCG-40I
15,00	S	SE	SC-BCG-50I
15,00	S	SE	SC-BCG-65I
15,00	S	SE	SC-BCG-80I

Blue marked = Stock item

Further dimensions and materials on request. Subject to alteration.

Clamp Connection acc. to DIN 11864-3
Line C / Imperial

Imperial																											
	TUBE DIN 11866			COMPLETE CONNECTION				CLAMP COLLAR (FEMALE)				CLAMPS				CLAMP GROOVE (MALE)											
	d x s			l				ls				h				ls											
Inch	mm			mm				mm				mm				mm											
1/2"	12,70 x 1,65			76,00				38,00				26,00				38,00				26,00				38,00			
3/4"	19,05 x 1,65			76,00				44,00				26,00				38,00				26,00				38,00			
1"	25,40 x 1,65			77,00				63,00				26,00				38,50				26,00				38,50			
1 1/2"	38,10 x 1,65			88,00				78,00				30,00				44,00				30,00				44,00			
2"	50,80 x 1,65			89,00				92,00				30,00				44,50				30,00				44,50			
2 1/2"	63,50 x 1,65			115,00				112,00				40,00				57,50				40,00				57,50			
3"	76,20 x 1,65			117,00				127,00				40,00				58,50				40,00				58,50			
4"	101,60 x 2,11			119,00				148,00				40,00				59,50				40,00				59,50			
Blue marked = Stock item Further dimensions and materials on request. Subject to alteration.																											

																											
	TUBE DIN 11866			COMPLETE CONNECTION				CLAMP COLLAR (FEMALE)				CLAMPS				CLAMP GROOVE (MALE)											
	d x s			l				ls				h				ls											
Inch	mm			mm				mm				mm				mm											
1/2"	12,70 x 1,65			76,00				38,00				26,00				38,00				26,00				38,00			
3/4"	19,05 x 1,65			76,00				44,00				26,00				38,00				26,00				38,00			
1"	25,40 x 1,65			77,00				63,00				26,00				38,50				26,00				38,50			
1 1/2"	38,10 x 1,65			88,00				78,00				30,00				44,00				30,00				44,00			
2"	50,80 x 1,65			89,00				92,00				30,00				44,50				30,00				44,50			
2 1/2"	63,50 x 1,65			115,00				112,00				40,00				57,50				40,00				57,50			
3"	76,20 x 1,65			117,00				127,00				40,00				58,50				40,00				58,50			
4"	101,60 x 2,11			119,00				148,00				40,00				59,50				40,00				59,50			
Blue marked = Stock item Further dimensions and materials on request. Subject to alteration.																											



O-RING



d x s

EPDM

FPM/FEP*

DN	mm	Code			
1/2"	12,00 x 3,50	SC-GK-08-1	-	E	FF
3/4"	18,00 x 3,50	SC-GK-12-1	-	E	FF
1"	24,00 x 3,50	SC-GK-16-2	-	E	FF
1 1/2"	37,00 x 5,00	SC-GK-24-2	-	E	FF
2"	50,00 x 5,00	SC-GK-32-3	-	E	FF
2 1/2"	62,00 x 5,00	SC-GK-40-4	-	E	FF
3"	75,00 x 5,00	SC-GK-48-5	-	E	FF
4"	100,00 x 5,00	SC-GK-64-7	-	E	FF

Blue marked = Stock item

Further dimensions and materials on request.

Subject to alteration. *Material is not part of the DIN 11864

BLIND CLAMP COLLAR (FEMALE)

h

safetron bf

safetron ep



mm	1.4435/316L	Code
11,50	S SE	- SC-BCC-08
11,50	S SE	- SC-BCC-12
11,50	S SE	- SC-BCC-16
11,50	S SE	- SC-BCC-24
13,50	S SE	- SC-BCC-32
13,50	S SE	- SC-BCC-40
13,50	S SE	- SC-BCC-48
13,50	S SE	- SC-BCC-64

Blue marked = Stock item

Further dimensions and materials on request. Subject to alteration.

BLIND CLAMP GROOVE (MALE)

h

safetron bf

safetron ep

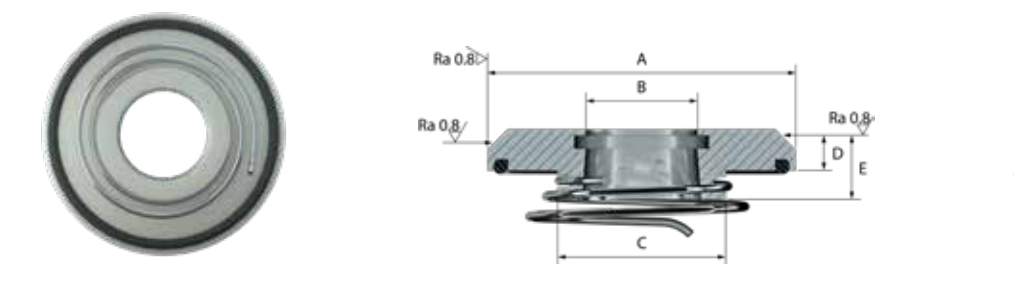


mm	1.4435/316L	Code
13,00	S SE	- SC-BCG-08
13,00	S SE	- SC-BCG-12
13,00	S SE	- SC-BCG-16
13,00	S SE	- SC-BCG-24
15,00	S SE	- SC-BCG-32
15,00	S SE	- SC-BCG-40
15,00	S SE	- SC-BCG-48
15,00	S SE	- SC-BCG-64

Blue marked = Stock item

Further dimensions and materials on request. Subject to alteration.

CleanShut
Wall and Ceiling Feedthroughs



METRIC

Size	OD Tube	A	B	C	D	E	Order Code			
DN		mm					Code		PVDF	
10	13,00	64,00	13,20	34,00	10,00	18,00	WFT	- 10M	-	PV
15	19,00	75,00	19,20	45,00	10,00	18,00	WFT	- 15M	-	PV
20	23,00	75,00	23,20	45,00	10,00	18,00	WFT	- 20M	-	PV
25	29,00	87,00	29,20	57,00	10,00	18,00	WFT	- 25M	-	PV
32	35,00	87,00	35,20	57,00	10,00	18,00	WFT	- 32M	-	PV
40	41,00	105,00	41,20	75,00	10,00	20,00	WFT	- 40M	-	PV
50	53,00	105,00	53,20	75,00	10,00	20,00	WFT	- 50M	-	PV
65	70,00	138,00	70,20	108,00	10,00	22,00	WFT	- 65M	-	PV
80	85,00	138,00	85,20	108,00	10,00	22,00	WFT	- 80M	-	PV
100	104,00	149,00	104,20	127,00	10,00	22,00	WFT	- 100M	-	PV

ISO		mm					Code		PVDF	
8	13,50	64,00	13,70	34,00	10,00	18,00	WFT	- 8I	-	PV
15	21,30	75,00	21,50	45,00	10,00	18,00	WFT	- 15I	-	PV
20	26,90	75,00	27,10	45,00	10,00	18,00	WFT	- 20I	-	PV
25	33,70	87,00	33,90	57,00	10,00	18,00	WFT	- 25I	-	PV
32	42,40	105,00	42,60	75,00	10,00	20,00	WFT	- 32I	-	PV
40	48,30	105,00	48,50	75,00	10,00	20,00	WFT	- 40I	-	PV
50	60,30	138,00	60,50	108,00	10,00	22,00	WFT	- 50I	-	PV
65	76,10	138,00	76,30	108,00	10,00	22,00	WFT	- 65I	-	PV
80	88,90	149,00	89,10	127,00	10,00	22,00	WFT	- 80I	-	PV

IMPERIAL

Inch		mm					Code		PVDF	
1/2	12,70	64,00	12,90	34,00	10,00	18,00	WFT	- 08	-	PV
3/4	19,05	75,00	19,25	45,00	10,00	18,00	WFT	- 12	-	PV
1	25,40	75,00	25,60	45,00	10,00	18,00	WFT	- 16	-	PV
1 1/2	38,10	105,00	38,30	75,00	10,00	20,00	WFT	- 24	-	PV
2	50,80	105,00	51,00	75,00	10,00	20,00	WFT	- 32	-	PV
2 1/2	63,50	138,00	63,70	108,00	10,00	22,00	WFT	- 40	-	PV
3	76,20	138,00	76,40	108,00	10,00	22,00	WFT	- 48	-	PV
4	101,60	149,00	101,80	127,00	10,00	22,00	WFT	- 64	-	PV

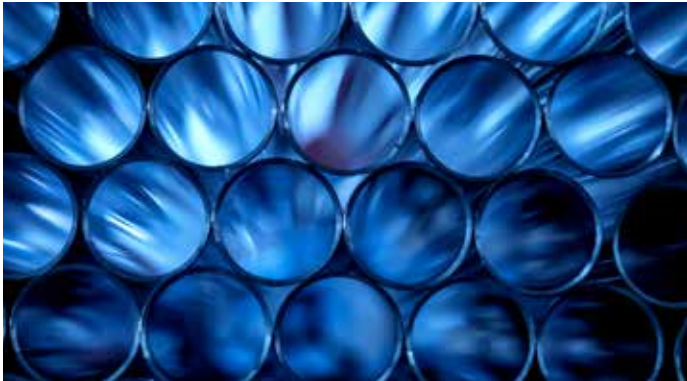
Blue marked = Stock item
Further dimensions and materials on request. Subject to alteration.

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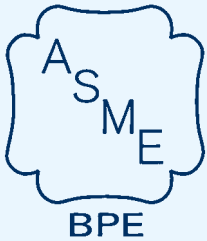
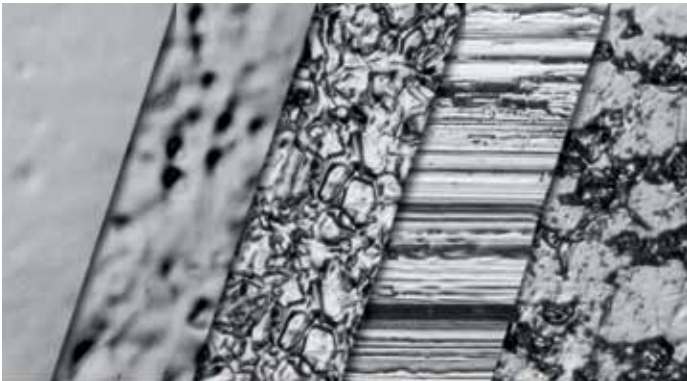


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