



WENZHOU ONEMO STAINLESS STEEL CO.,LTD

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ONEMO STAINLESS STEEL

STAINLESS STEEL
SOLUTION





OMSS
STAINLESS STEEL SOLUTIONS

温州万默不锈钢有限公司
WENZHOU ONEMO STAINLESS STEEL CO., LTD.

COMPANY + PROFILE



万默成立于2010年5月, 位于中国温州。公司通过了国际ISO, CE和3A认证。生产的主要产品有3A, SMS, DIN, ISO, IDF, RJT, AS, BPE等标准连接管件以及配套的不锈钢蝶阀, 球阀, 止回阀, 隔膜阀等阀门和人孔。我们会持续不断的更新我们的产品线, 为您带来更新的解决方案, 请随时跟我们联系。感谢您选择万默, 让我们一起合作共赢。我们的使命: 一切从客户需求出发

Onemo was founded in May 2010 and is located in Wenzhou, China. The company has obtained International ISO, CE, and 3A certifications. The main products produced include standard connecting fittings such as 3A, SMS, DIN, ISO, IDF, RJT, AS, BPE, as well as matching stainless steel butterfly valves, ball valves, check valves, diaphragm valves and manholes. We will continuously update our product line to bring you updated solutions. Please feel free to contact us at any time. Thank you for choosing Onemo.

Let's work together for a win-win situation.

Our mission: Everything starts from customer needs

QUALIFICATION CERTIFICATE



BEVERAGES



BEER



DAIRY



BIOPHARMACEUTICAL



CHEMICALS



OIL/GAS



SEMICONDUCTOR



AUTOMOBILE MAKING

APPLICATION SCENARIOS

PRODUCT INSPECTION

"Quality as the foundation, inspection as the guideline." Wanmo has always adhered to this principle and integrated product inspection throughout the entire production process. Relying on the ISO, CE and 3A international certification systems, we conduct strict all-dimensional inspections on connection pipe fittings compliant with multiple standards such as 3A and SMS, as well as supporting products like stainless-steel butterfly valves and ball valves. From the selection of raw materials to the delivery of finished products, every process undergoes precise inspection to ensure stable product performance and reliable quality.

We take "starting from all customer needs" as our mission, closely align inspection standards with customer expectations, and use professional inspections to build a solid foundation of trust for cooperation. We continuously upgrade inspection technologies and equipment and simultaneously iterate the product line to provide you with better products and solutions.

SPECTROMETER MEASUREMENT

DIMENSION MEASUREMENT

HELIUM MEASUREMENT

CONCENTRICITY DETECTION

SURFACE ROUGHNESS MEASUREMENT

COMPARISON RULER DETECTION

HEIGHT DETECTION

ULTRASONIC CLEANING

PACKING AND DELIVERY

MANUFACTURE PROCESS



产品购销合同 Contract

合同编号: OM2507059
签订地点: 温州 (传真合同有效)
签订时间: 2025/7/11
交货时间: 2025/7/26



PRODUCT CATALOG



A01-A48

Stainless steel Components Fitting



B01-B13

BPE, Pharmaceutical Fitting
Semi-Conductor Fitting



C01-C10

Pipe holder Clamp



D01-D13

Ultra-cleaning pipe fittings



E01-E04

Vacuum fittings



F01-F28

Industry pipe fittings



G01-G16

Stainless Steel Flange



H01-H05

Sanitary Sight Glass



I 01-I 05

Product Center

STAINLESS STEEL COMPONENTS FITTING



3A Tube Fittings

2WK SHORT 45° ELBOW



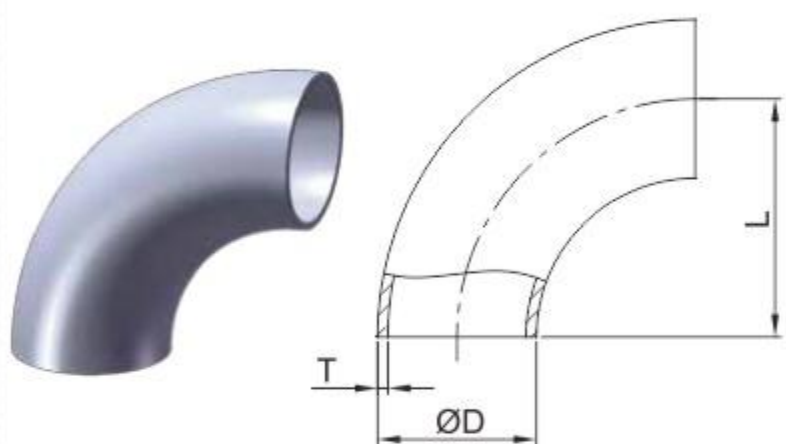
SIZE	ØD	L	T	Part Number
1/2"	12.7	13.16	1.65	2WK-4-0.5
3/4"	19.05	23.8	1.65	2WK-4-0.75
1"	25.4	15.8	1.65	2WK-4-1
1.5"	38.1	23.8	1.65	2WK-4-1.5
2"	50.8	31.75	1.65	2WK-4-2
2.5"	63.5	39.6	1.65	2WK-4-2.5
3"	76.2	47.6	1.65	2WK-4-3
4"	101.6	63.5	2.1	2WK-4-4
6"	152.4	95.25	2.77	2WK-4-6

L2KS LONG 45° ELBOW



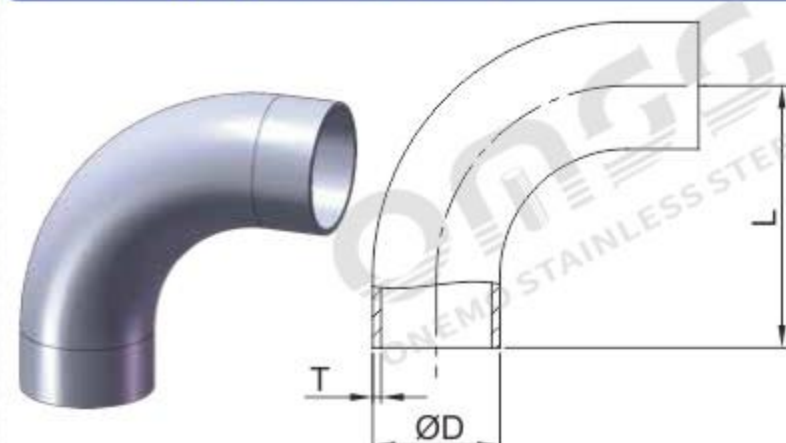
SIZE	ØD	L	T	Part Number
1/2"	12.7	30.2	1.65	L2KS-4-0.5
3/4"	19.05	30.2	1.65	L2KS-4-0.75
1"	25.4	30.2	1.65	L2KS-4-1
1.5"	38.1	41.3	1.65	L2KS-4-1.5
2"	50.8	58.7	1.65	L2KS-4-2
2.5"	63.5	76.2	1.65	L2KS-4-2.5
3"	76.2	93.7	1.65	L2KS-4-3
4"	101.6	122.2	2.1	L2KS-4-4
6"	152.4	158.2	2.77	L2KS-4-6

2WCL SHORT WELD 90° ELBOW



SIZE	ØD	L	T	Part Number
1/2"	12.7	19.05	1.65	2WCL-4-0.5
3/4"	19.05	28.58	1.65	2WCL-4-0.75
1"	25.4	38.1	1.65	2WCL-4-1
1.5"	38.1	57.2	1.65	2WCL-4-1.5
2"	50.8	76.2	1.65	2WCL-4-2
2.5"	63.5	95.25	1.65	2WCL-4-2.5
3"	76.2	114.3	1.65	2WCL-4-3
4"	101.6	152.4	2.1	2WCL-4-4
6"	152.4	228.6	2.77	2WCL-4-6
8"	203.2	304.8	2.77	2WCL-4-8

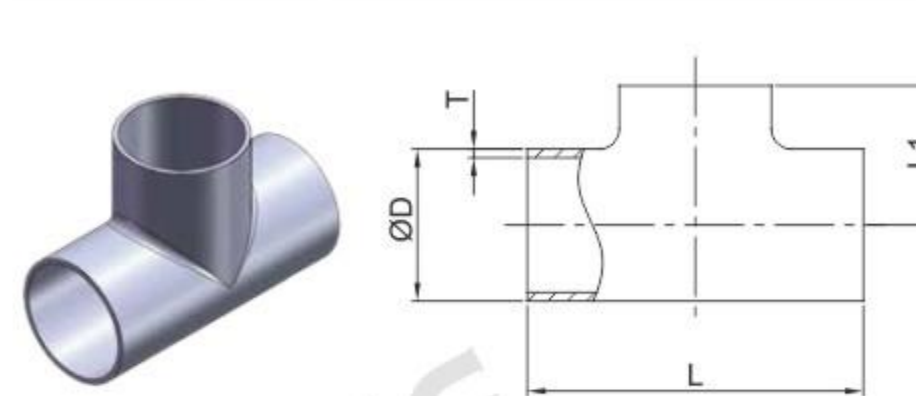
L2S LONG WELD 90° ELBOW



SIZE	ØD	L	T	Part Number
1/2"	12.7	45	1.65	L2S-4-0.5
3/4"	19.05	60	1.65	L2S-4-0.75
1"	25.4	52.4	1.65	L2S-4-1
1.5"	38.1	74.6	1.65	L2S-4-1.5
2"	50.8	103.2	1.65	L2S-4-2
2.5"	63.5	131.8	1.65	L2S-4-2.5
3"	76.2	160.3	1.65	L2S-4-3
4"	101.6	211.1	2.1	L2S-4-4
6"	152.4	292.1	2.77	L2S-4-6

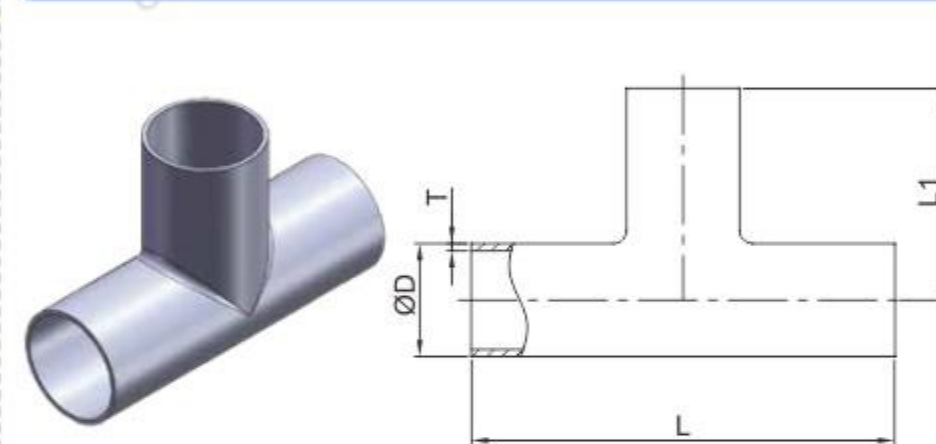
3A Tube Fittings

7WWW SHORT EQUAL WELD TEE



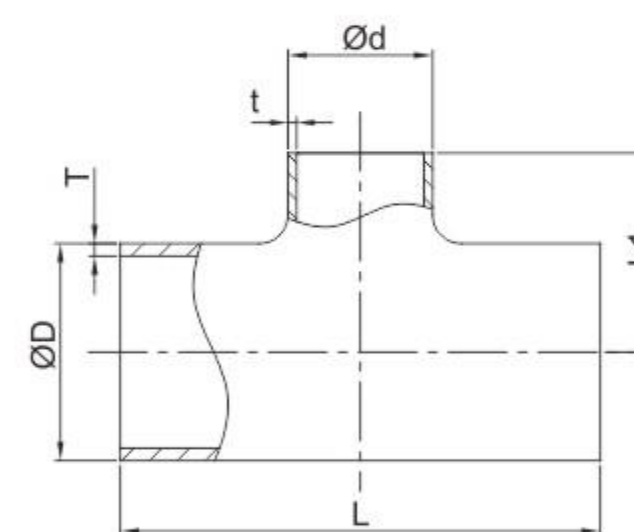
SIZE	ØD	L	L1	T	Part Number
1/2"	12.7	38.1	19.05	1.65	7WWW-4-0.5
3/4"	19.05	57.2	28.6	1.65	7WWW-4-0.75
1"	25.4	57.2	28.6	1.65	7WWW-4-1
1.5"	38.1	84.2	42.1	1.65	7WWW-4-1.5
2"	50.8	104.8	52.4	1.65	7WWW-4-2
2.5"	63.5	119	59.5	1.65	7WWW-4-2.5
3"	76.2	131.8	65.9	1.65	7WWW-4-3
4"	101.6	174.6	87.3	2.1	7WWW-4-4
6"	152.4	254	127	2.77	7WWW-4-6

7W LONG EQUAL WELD TEE



SIZE	ØD	L	L1	T	Part Number
1/2"	12.7	95.2	47.6	1.65	7W-4-0.5
3/4"	19.05	95.2	47.6	1.65	7W-4-0.75
1"	25.4	95.2	47.6	1.65	7W-4-1
1.5"	38.1	114.4	57.2	1.65	7W-4-1.5
2"	50.8	152.4	76.2	1.65	7W-4-2
2.5"	63.5	152.4	76.2	1.65	7W-4-2.5
3"	76.2	165.2	82.6	1.65	7W-4-3
4"	101.6	196.8	98.4	2.1	7W-4-4
6"	152.4	285.8	142.9	2.77	7W-4-6

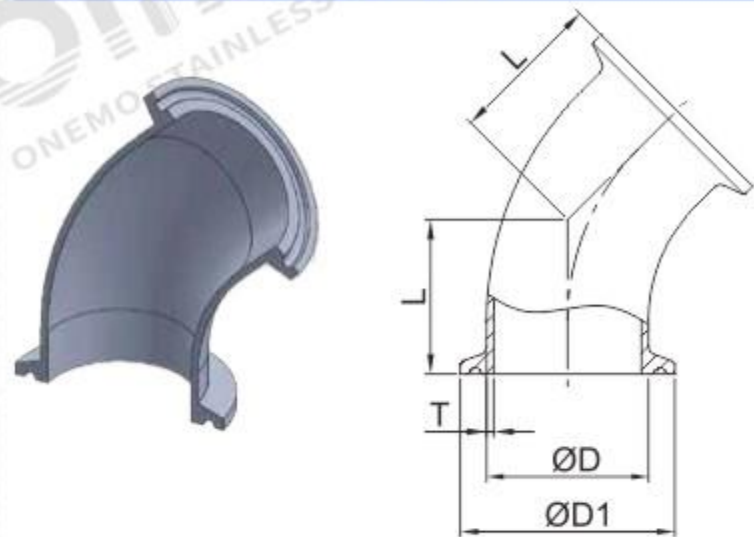
7RW LONG REDUCING WELD TEE



SIZE	ØD	Ød	L	L1	T	t	Part Number
1"×1/2"	25.4	12.7	95.5	25.4	1.65	1.65	7RW-4-1"×1/2"
1"×3/4"	25.4	19.05	95.5	28.45	1.65	1.65	7RW-4-1"×3/4"
1.5"×1/2"	38.1	12.7	114.3	31.75	1.65	1.65	7RW-4-1.5"×1/2"
1.5"×3/4"	38.1	19.05	114.3	35.05	1.65	1.65	7RW-4-1.5"×3/4"
1.5"×1"	38.1	25.4	114.3	54	1.65	1.65	7RW-4-1.5"×1"
2"×1/2"	50.8	12.7	152.4	38.1	1.65	1.65	7RW-4-2"×1/2"
2"×3/4"	50.8	19.05	152.4	41.4	1.65	1.65	7RW-4-2"×3/4"
2"×1"	50.8	25.4	152.4	60.3	1.65	1.65	7RW-4-2"×1"
2"×1.5"	50.8	38.1	152.4	63.5	1.65	1.65	7RW-4-2"×1.5"
2.5"×1"	63.5	25.4	152.4	69.85	1.65	1.65	7RW-4-2.5"×1"
2.5"×1.5"	63.5	38.1	152.4	69.85	1.65	1.65	7RW-4-2.5"×1.5"
2.5"×2"	63.5	50.8	152.4	82.55	1.65	1.65	7RW-4-2.5"×2"
3"×1"	76.2	25.4	165.1	79.38	1.65	1.65	7RW-4-3"×1"
3"×1.5"	76.2	38.1	165.1	76.2	1.65	1.65	7RW-4-3"×1.5"
3"×2"	76.2	50.8	165.1	88.9	1.65	1.65	7RW-4-3"×2"
3"×2.5"	76.2	63.5	165.1	82.55	1.65	1.65	7RW-4-3"×2.5"
4"×1"	101.6	25.4	196.8	92.08	2.1	1.65	7RW-4-4"×1"
4"×1.5"	101.6	38.1	196.8	92.08	2.1	1.65	7RW-4-4"×1.5"
4"×2"	101.6	50.8	196.8	101.6	2.1	1.65	7RW-4-4"×2"
4"×2.5"	101.6	63.5	196.8	95.25	2.1	1.65	7RW-4-4"×2.5"
4"×3"	101.6	76.2	196.8	95.25	2.1	1.65	7RW-4-4"×3"
6"×2"	152.4	50.8	285.8	120.65	2.77	1.65	7RW-4-6"×2"
6"×3"	152.4	76.2	285.8	120.65	2.77	1.65	7RW-4-6"×3"
6"×4"	152.4	101.6	285.8	123.8	2.77	2.1	7RW-4-6"×4"

3A Tube Fittings

2KMP TRI-CLAMP 45° ELBOW



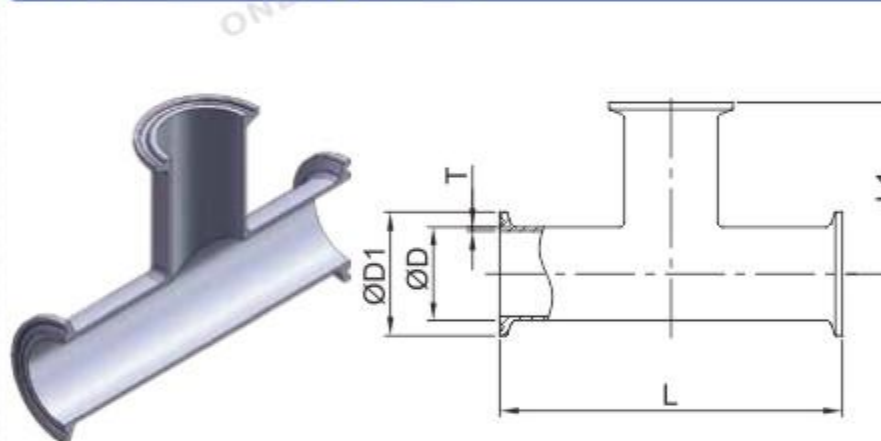
SIZE	ØD	ØD1	L	T	Part Number
1/2"	12.7	25.2	19.8	1.65	2KMP-4-0.5
3/4"	19.05	25.2	24.6	1.65	2KMP-4-0.75
1"	25.4	50.5	28.5	1.65	2KMP-4-1
1.5"	38.1	50.5	36.5	1.65	2KMP-4-1.5
2"	50.8	64	44.45	1.65	2KMP-4-2
2.5"	63.5	77.5	52.3	1.65	2KMP-42.5
3"	76.2	91	60.3	1.65	2KMP-4-3
4"	101.6	119	76.2	2.1	2KMP-4-4
6"	152.4	166.87	117.5	2.77	2KMP-4-6

2CMP TRI-CLAMP 90° ELBOW



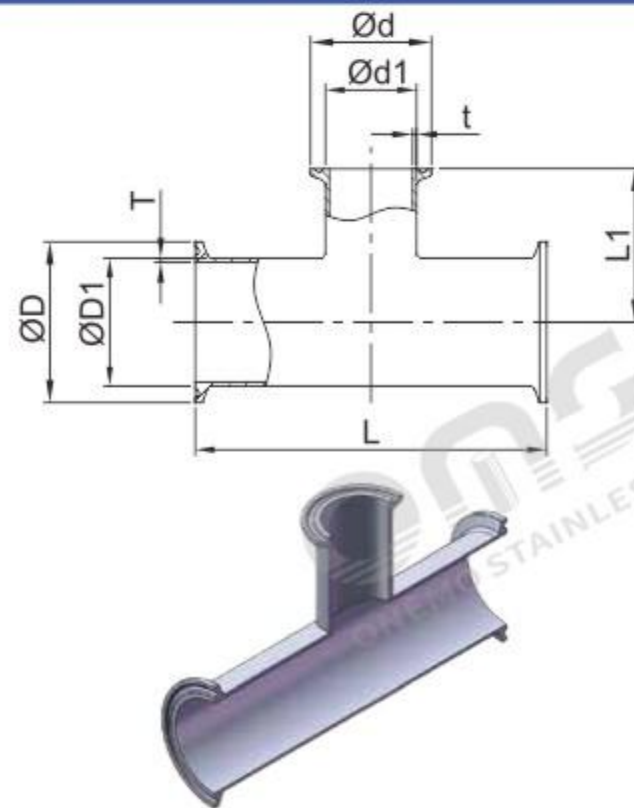
SIZE	ØD	ØD1	L	T	Part Number
1/2"	12.7	25.2	41.3	1.65	2CMP-4-0.5
3/4"	19.05	25.2	41.3	1.65	2CMP-4-0.75
1"	25.4	50.5	50.8	1.65	2CMP-4-1
1.5"	38.1	50.5	69.9	1.65	2CMP-4-1.5
2"	50.8	64	88.9	1.65	2CMP-4-2
2.5"	63.5	77.5	107.95	1.65	2CMP-42.5
3"	76.2	91	127	1.65	2CMP-4-3
4"	101.6	119	168.2	2.1	2CMP-4-4
6"	152.4	166.87	250.8	2.77	2CMP-4-6

7MP TRI-CLAMP EQUAL TEE



SIZE	ØD	ØD1	L	L1	T	Part Number
1/2"	12.7	25.2	63.5	31.75	1.65	7MP-4-0.5
3/4"	19.05	25.2	120.6	60.3	1.65	7MP-4-0.75
1"	25.4	50.5	120.6	60.3	1.65	7MP-4-1
1.5"	38.1	50.5	139.8	69.9	1.65	7MP-4-1.5
2"	50.8	64	177.8	88.9	1.65	7MP-4-2
2.5"	63.5	77.5	177.8	88.9	1.65	7MP-42.5
3"	76.2	91	190.6	95.3	1.65	7MP-4-3
4"	101.6	119	228.4	114.2	2.1	7MP-4-4
6"	152.4	166.87	330.2	165.1	2.77	7MP-4-6

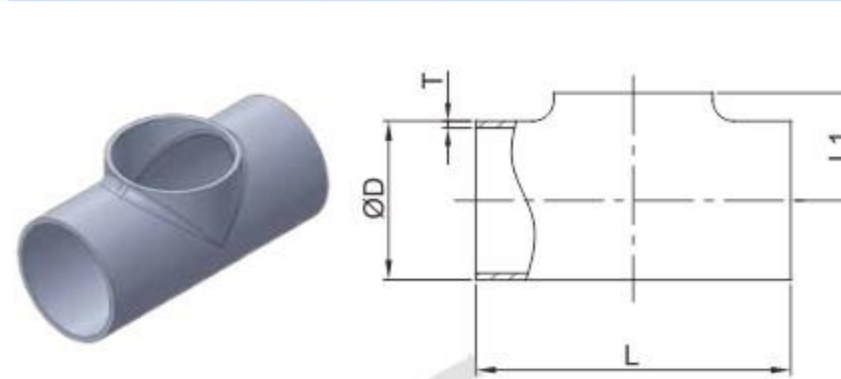
7RMP TRI-CLAMP REDUCING TEE



SIZE	ØD	ØD1	Ød	Ød1	L	L1	T	t	Part Number
1.5"×1"	50.5	38.1	50.5	25.4	139.7	66.68	1.65	1.65	7RMP-4-1.5"×1"
2"×1"	64	50.8	50.5	25.4	177.8	73	1.65	1.65	7RMP-4-2"×1"
2"×1.5"	64	50.8	50.5	38.1	177.8	76.2	1.65	1.65	7RMP-4-2"×1.5"
2.5"×1.5"	77.5	63.5	50.5	38.1	177.8	82.55	1.65	1.65	7RMP-4-2.5"×1.5"
2.5"×2"	77.5	63.5	64	50.8	177.8	95.25	1.65	1.65	7RMP-4-2.5"×2"
3"×1.5"	91	76.2	50.5	38.1	190.5	88.9	1.65	1.65	7RMP-4-3"×1.5"
3"×2"	91	76.2	64	50.8	190.5	101.6	1.65	1.65	7RMP-4-3"×2"
3"×2.5"	91	76.2	77.5	63.5	190.5	95.25	1.65	1.65	7RMP-4-3"×2.5"
4"×2"	119	101.6	64	50.8	228.4	114.3	2.1	1.65	7RMP-4-4"×2"
4"×2.5"	119	101.6	77.5	63.5	228.4	107.95	2.1	1.65	7RMP-4-4"×2.5"
4"×3"	119	101.6	91	76.2	228.4	107.95	2.1	1.65	7RMP-4-4"×3"

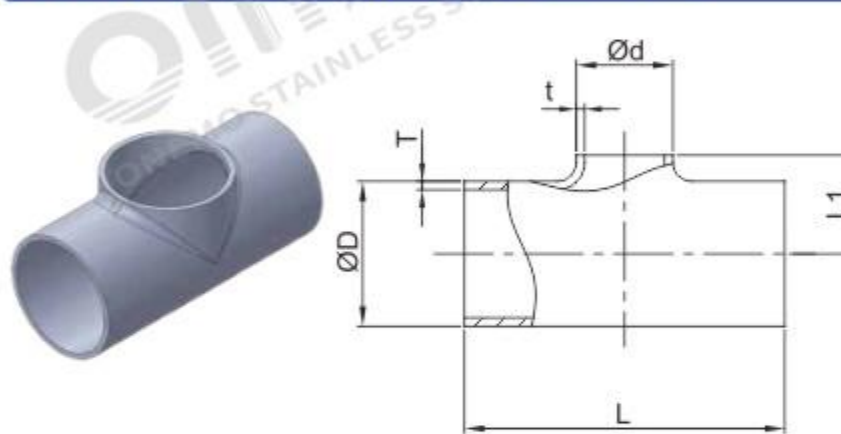
3A Tube Fittings

7WO Pull TEE WITHOUT STRAIGHT END



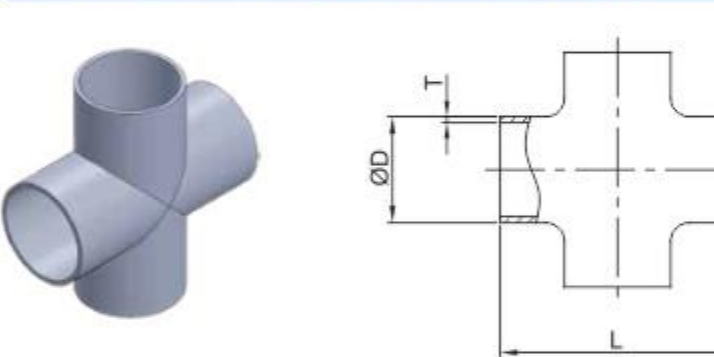
SIZE	ØD	L	L1	T	Part Number
1"	25.4	57.2	16	1.65	7WO-4-1
1.5"	38.1	84.2	22	1.65	7WO-4-1.5
2"	50.8	104.8	29	1.65	7WO-4-2
2.5"	63.5	119	35	1.65	7WO-42.5
3"	76.2	131.8	41	1.65	7WO-4-3
4"	101.6	174.6	54	2.1	7WO-4-4

7RWS REDUCING TEE WITHOUT STRAIGHT END



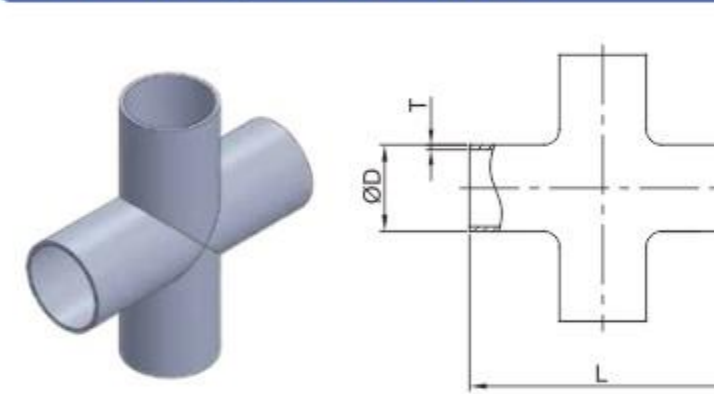
SIZE	ØD	Ød	L	L1	T	t	Part Number
1.5"×1"	38.1	25.4	84.2	22	1.65	1.65	7RWS-4-1.5"×1"
2"×1.5"	50.8	38.1	104.8	29	1.65	1.65	7RWS-4-2"×1.5"
2.5"×2"	63.5	50.8	119	35	1.65	1.65	7RWS-4-2.5"×2"
3"×2"	76.2	50.8	131.8	41	1.65	1.65	7RWS-4-3"×2"
3"×2.5"	76.2	63.5	131.8	41	1.65	1.65	7RWS-4-3"×2.5"
4"×2"	101.6	50.8	235	54	2.1	1.65	7RWS-4-4"×2"
4"×2.5"	101.6	63.5	235	54	2.1	1.65	7RWS-4-4"×2.5"
4"×3"	101.6	76.2	235	54	2.1	1.65	7RWS-4-4"×3"

9WWW SHORT EQUAL WELD CROSS



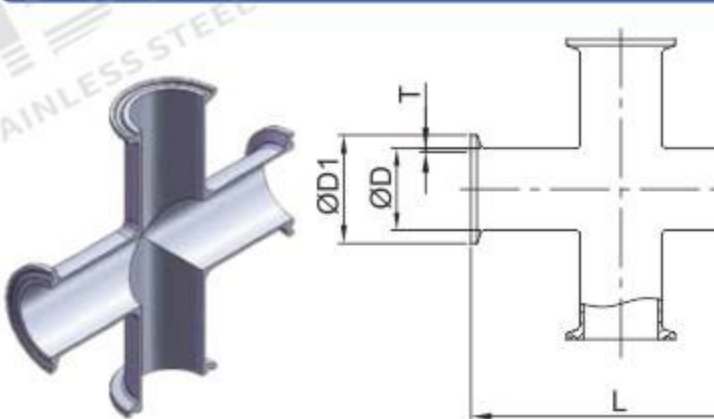
SIZE	ØD	L	T	Part Number
1"	25.4	57.2	1.65	9WWW-4-1
1.5"	38.1	84.2	1.65	9WWW-4-1.5
2"	50.8	104.8	1.65	9WWW-4-2
2.5"	63.5	119	1.65	9WWW-42.5
3"	76.2	131.8	1.65	9WWW-4-3
4"	101.6	174.6	2.1	9WWW-4-4

9W LONG EQUAL WELD CROSS



SIZE	ØD	L	T	Part Number
1/2"	12.7	38.1	1.65	9W-4-0.5
3/4"	19.05	95.25	1.65	9W-4-0.75
1"	25.4	95.2	1.65	9W-4-1
1.5"	38.1	114.4	1.65	9W-4-1.5
2"	50.8	152.4	1.65	9W-4-2
2.5"	63.5	152.4	1.65	9W-42.5
3"	76.2	165.2	1.65	9W-4-3
4"	101.6	196.8	2.1	9W-4-4

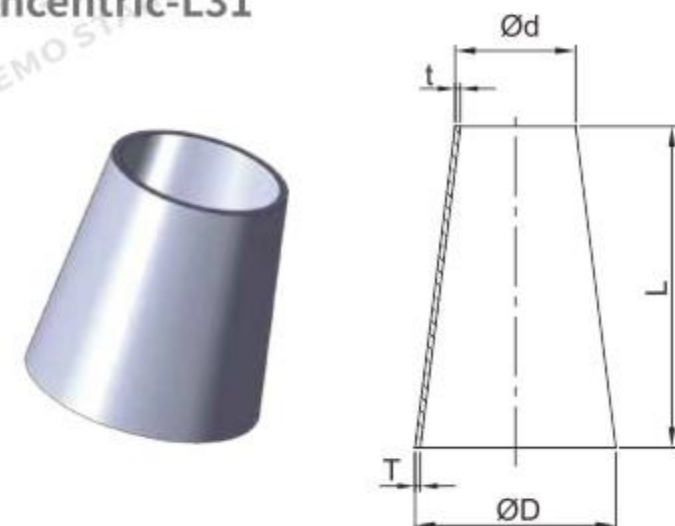
9MP CLAMP LONG CROSS



SIZE	ØD	ØD1	L	T	Part Number
1"	25.4	50.5	120.6	1.65	9MP-4-1
1.5"	38.1	50.5	139.8	1.65	9MP-4-1.5
2"	50.8	64	177.8	1.65	9MP-4-2
2.5"	63.5	77.5	177.8	1.65	9MP-42.5
3"	76.2	91	190.6	1.65	9MP-4-3
4"	101.6	119	228.4	2.1	9MP-4-4

WELD REDUCERS

Concentric-L31



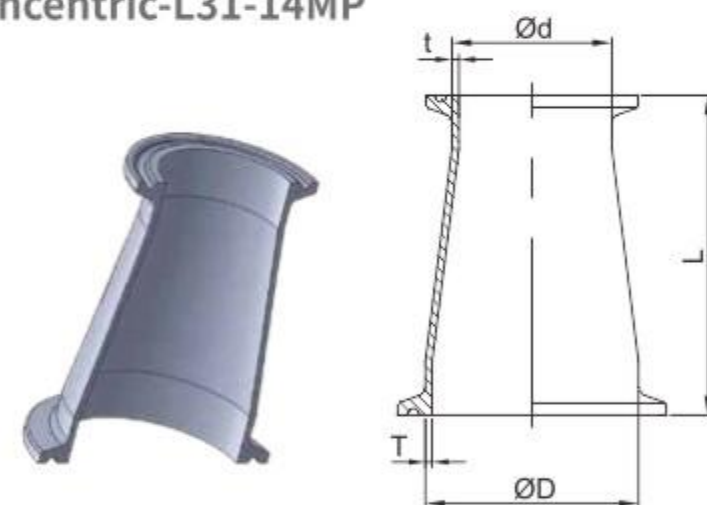
SIZE	ØD	Ød	L	T	t	Part Number
3/4"×1/2"	19.05	12.7	25.4	1.65	1.65	L31-L32-4-3/4"×1/2"
1"×1/2"	25.4	12.7	50.8	1.65	1.65	L31-L32-4-1"×1/2"
1"×3/4"	25.4	19.05	25.4	1.65	1.65	L31-L32-4-1"×3/4"
1.5"×1/2"	38.1	12.7	101.6	1.65	1.65	L31-L32-4-1.5"×1/2"
1.5"×3/4"	38.1	19.05	76.2	1.65	1.65	L31-L32-4-1.5"×3/4"
1.5"×1"	38.1	25.4	50.8	1.65	1.65	L31-L32-4-1.5"×1"
2"×1/2"	50.8	12.7	152.4	1.65	1.65	L31-L32-4-2"×1/2"
2"×3/4"	50.8	19.05	127	1.65	1.65	L31-L32-4-2"×3/4"
2"×1"	50.8	25.4	101.6	1.65	1.65	L31-L32-4-2"×1"
2"×1.5"	50.8	38.1	50.8	1.65	1.65	L31-L32-4-2"×1.5"
2.5"×1"	63.5	25.4	152.4	1.65	1.65	L31-L32-4-2.5"×1"
2.5"×1.5"	63.5	38.1	101.6	1.65	1.65	L31-L32-4-2.5"×1.5"
2.5"×2"	63.5	50.8	50.8	1.65	1.65	L31-L32-4-2.5"×2"
3"×1"	76.2	25.4	203.2	1.65	1.65	L31-L32-4-3"×1"
3"×1.5"	76.2	38.1	152.4	1.65	1.65	L31-L32-4-3"×1.5"
3"×2"	76.2	50.8	101.6	1.65	1.65	L31-L32-4-3"×2"
3"×2.5"	76.2	63.5	50.8	1.65	1.65	L31-L32-4-3"×2.5"
4"×1"	101.6	25.4	304.8	2.1	1.65	L31-L32-4-4"×1"
4"×1.5"	101.6	38.1	254	2.1	1.65	L31-L32-4-4"×1.5"
4"×2"	101.6	50.8	203.2	2.1	1.65	L31-L32-4-4"×2"
4"×2.5"	101.6	63.5	152.4	2.1	1.65	L31-L32-4-4"×2.5"
4"×3"	101.6	76.2	101.6	2.1	1.65	L31-L32-4-4"×3"
6"×2"	152.4	50.8	139.7	2.77	1.65	L31-L32-4-6"×2"
6"×3"	152.4	76.2	139.7	2.77	1.65	L31-L32-4-6"×3"
6"×4"	152.4	101.6	139.7	2.77	2.1	L31-L32-4-6"×4"

Eccentric-L32



TRI-CLAMP REDUCERS

Concentric-L31-14MP

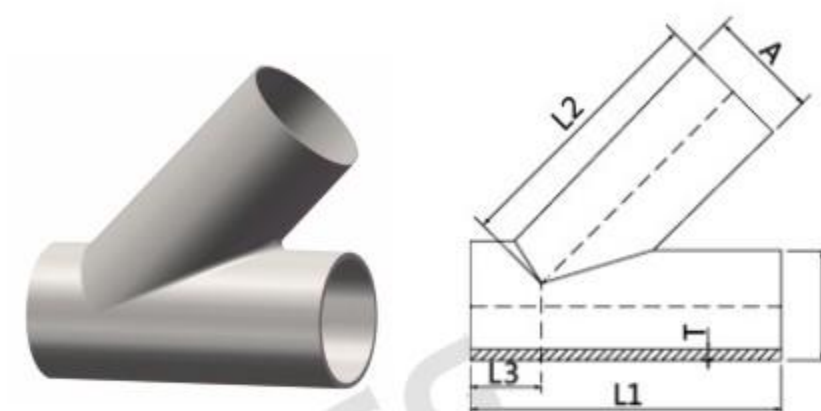


SIZE	ØD	Ød	L	T	t	Part Number
3/4"×1/2"	19.05	12.7	50.8	1.65	1.65	L31-L32-14MP-4-3/4"×1/2"
1"×1/2"	25.4	12.7	76.2	1.65	1.65	L31-L32-14MP-4-1"×1/2"
1"×3/4"	25.4	19.05	50.8	1.65	1.65	L31-L32-14MP-4-1"×3/4"
1.5"×1/2"	38.1	12.7	127	1.65	1.65	L31-L32-14MP-4-1.5"×1/2"
1.5"×3/4"	38.1	19.05	101.6	1.65	1.65	L31-L32-14MP-4-1.5"×3/4"
1.5"×1"	38.1	25.4	76.2	1.65	1.65	L31-L32-14MP-4-1.5"×1"
2"×1/2"	50.8	12.7	177.8	1.65	1.65	L31-L32-14MP-4-2"×1/2"
2"×3/4"	50.8	19.05	152.4	1.65	1.65	L31-L32-14MP-4-2"×3/4"
2"×1"	50.8	25.4	127	1.65	1.65	L31-L32-14MP-4-2"×1"
2"×1.5"	50.8	38.1	76.2	1.65	1.65	L31-L32-14MP-4-2"×1.5"
2.5"×1.5"	63.5	38.1	127	1.65	1.65	L31-L32-14MP-4-2.5"×1.5"
2.5"×2"	63.5	50.8	76.2	1.65	1.65	L31-L32-14MP-4-2.5"×2"
3"×1"	76.2	25.4	228.6	1.65	1.65	L31-L32-14MP-4-3"×1"
3"×1.5"	76.2	38.1	177.8	1.65	1.65	L31-L32-14MP-4-3"×1.5"
3"×2"	76.2	50.8	127	1.65	1.65	L31-L32-14MP-4-3"×2"
3"×2.5"	76.2	63.5	76.2	1.65	1.65	L31-L32-14MP-4-3"×2.5"
4"×1.5"	101.6	38.1	282.5	2.1	1.65	L31-L32-14MP-4-4"×1.5"
4"×2"	101.6	50.8	231.7	2.1	1.65	L31-L32-14MP-4-4"×2"
4"×2.5"	101.6	63.5	180.9	2.1	1.65	L31-L32-14MP-4-4"×2.5"
4"×3"	101.6	76.2	130.1	2.1	1.65	L31-L32-14MP-4-4"×3"
6"×3"	152.4	76.2	165.1	2.77	1.65	L31-L32-14MP-4-6"×3"
6"×4"	152.4	101.6	165.1	2.77	2.1	L31-L32-14MP-4-6"×4"

Eccentric-L32-14MP

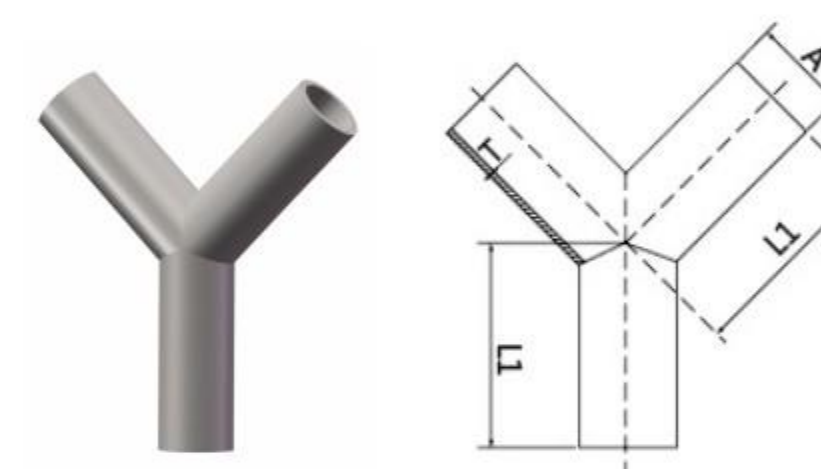


28WA Butt Weld Y-Type Tee



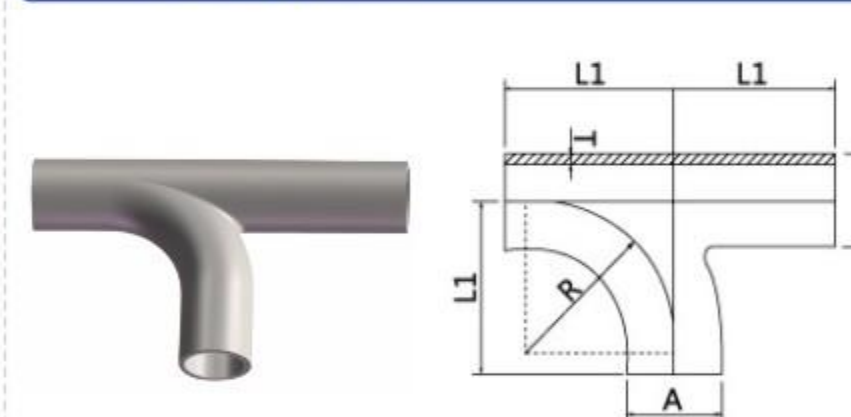
Size	A	L1	L2	L3	T	Part Number
1/2"	12.7	152.4	127	25.4	1.65	28WA-4-0.5
3/4"	19.05	152.4	127	25.4	1.65	28WA-4-0.75
1"	25.4	152.4	127	25.4	1.65	28WA-4-1
1 1/2"	38.1	187.3	173.1	30.2	1.65	28WA-4-1.5
2"	50.8	222.2	180.9	41.3	1.65	28WA-4-2
2 1/2"	63.5	254	215.9	38.1	1.65	28WA-4-2.5
3"	76.2	273.1	225.4	47.6	1.65	28WA-4-3
4"	101.6	325.5	273.1	52.4	2.11	28WA-4-4
6"	152.4	419.1	317.5	101.6	2.8	28WA-4-6

28W Butt Weld Y-Type Tee



Size	A	L1	T	Part Number
1/2"	12.7	50.8	1.65	28W-4-0.5
3/4"	19.05	50.8	1.65	28W-4-0.75
1"	25.4	76.2	1.65	28W-4-1
1 1/2"	38.1	76.2	1.65	28W-4-1.5
2"	50.8	101.6	1.65	28W-4-2
2 1/2"	63.5	127	1.65	28W-4-2.5
3"	76.2	152.4	1.65	28W-4-3
4"	101.6	203.2	2.11	28W-4-4
6"	152.4	203.2	2.8	28W-4-6

Butt Weld R-Type Tee



Size	A	R	L1	T	Part Number
1"	25.4	38.1	65	1.65	R-TEE-1
1 1/2"	38.1	57.2	85	1.65	R-TEE-1.5
2"	50.8	76.2	110	1.65	R-TEE-2
2 1/2"	63.5	95.3	135	1.65	R-TEE-2.5
3"	76.2	114.3	155	1.65	R-TEE-3
4"	101.6	152.4	195	2.11	R-TEE-4

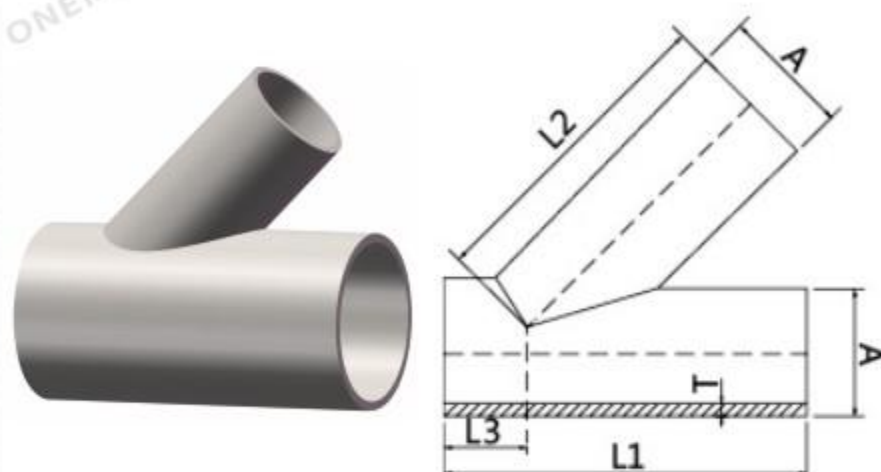
90°Clamp Double Elbow



Size	A	K1	L1	Part Number
1"	25.4	50.5	50.8	R-TEE-1
1 1/4"	31.75	50.5	69.85	R-TEE-1.25
1 1/2"	38.1	50.5	60.4	R-TEE-1.5
2"	50.8	64	88.9	R-TEE-2
2 1/2"	63.5	77.5	107.9	R-TEE-2.5
3"	76.2	91	127	R-TEE-3
4"	101.6	119	168.4	R-TEE-4

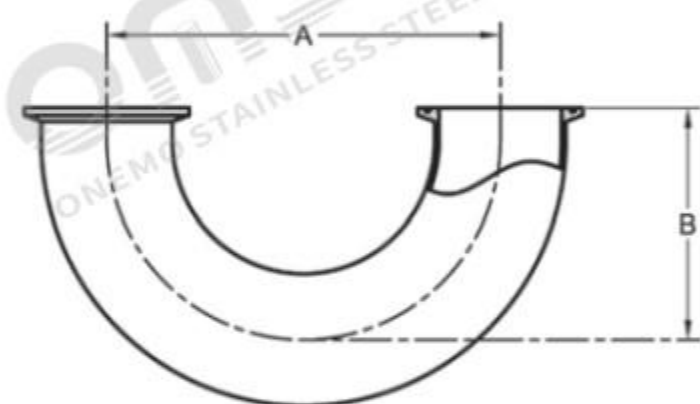
3A Tube Fittings

28WAR Reducing Lateral WYE, Weld ends



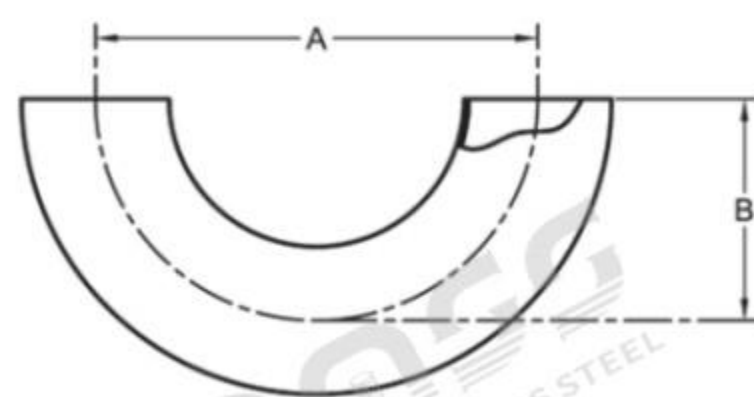
Size	A×B	L1	L2	L3	T1×T2	Part Number
1 1/2"-1"	38.1×25.4	187.3	157.2	30.2	1.65×1.65	28WAR-4-1 1/2"-1"
2"-1"	50.8×25.4	222.2	181	41.3	1.65×1.65	28WAR-4-2"-1"
2"-1 1/2"	50.8×38.1	222.2	181	41.3	1.65×1.65	28WAR-4-2"-1 1/2"
2 1/2"-1"	63.5×25.4	254	215.9	38.1	1.65×1.65	28WAR-4-2 1/2"-1"
2 1/2"-1 1/2"	63.5×38.1	254	215.9	38.1	1.65×1.65	28WAR-4-2 1/2"-1 1/2"
2 1/2"-2"	63.5×50.8	254	215.9	38.1	1.65×1.65	28WAR-4-2 1/2"-2"
3"-1"	76.2×25.4	273.1	225.4	47.6	1.65×1.65	28WAR-4-3"-1"
3"-1 1/2"	76.2×38.1	273.1	225.4	47.6	1.65×1.65	28WAR-4-3"-1 1/2"
3"-2"	76.2×50.8	273.1	225.4	47.6	1.65×1.65	28WAR-4-3"-2"
3"-2 1/2"	76.2×63.5	273.1	225.4	47.6	1.65×1.65	28WAR-4-3"-2 1/2"
4"-1"	101.6×25.4	325.5	273.1	52.4	2.11×1.65	28WAR-4-4"-1"
4"-1 1/2"	101.6×38.1	325.5	273.1	52.4	2.11×1.65	28WAR-4-4"-1 1/2"
4"-2"	101.6×50.8	274.7	273.1	52.4	2.11×1.65	28WAR-4-4"-2"
4"-2 1/2"	101.6×63.5	325.5	273.1	52.4	2.11×1.65	28WAR-4-4"-2 1/2"
4"-3"	101.6×76.2	325.5	273.1	52.4	2.11×1.65	28WAR-4-4"-3"

2UMP-180 DEGREE RETURN BEND, CLAMP ENDS



Size	A	B	Part Number
1	3	2	2UMP-180-4-1
1 1/2	4.5	2.75	2UMP-180-4-1.5
2	6	3.5	2UMP-180-4-2
2 1/2	7.5	4.25	2UMP-180-4-2.5
3	9	5	2UMP-180-4-3
4	12	6.625	2UMP-180-4-4
6	18	9.875	2UMP-180-4-6

2WU-180 DEGREE RETURN BEND, WELD ENDS



Size	A	B	Part Number
1	3	1.5	2WU-180-4-1
1 1/2	4.5	2.25	2WU-180-4-1.5
2	6	3	2WU-180-4-2
2 1/2	7.5	3.75	2WU-180-4-2.5
3	9	4.5	2WU-180-4-3
4	12	6	2WU-180-4-4

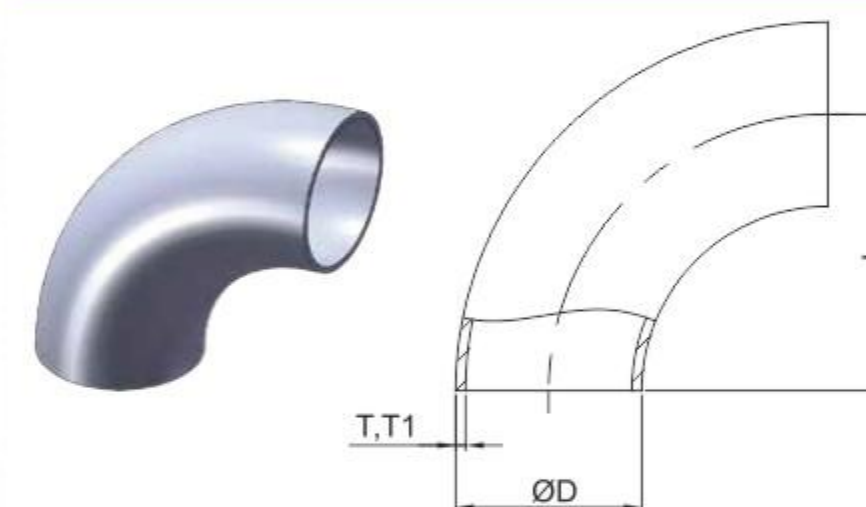
SMS Tubular Items

L2KS1D LONG 45° ELBOW



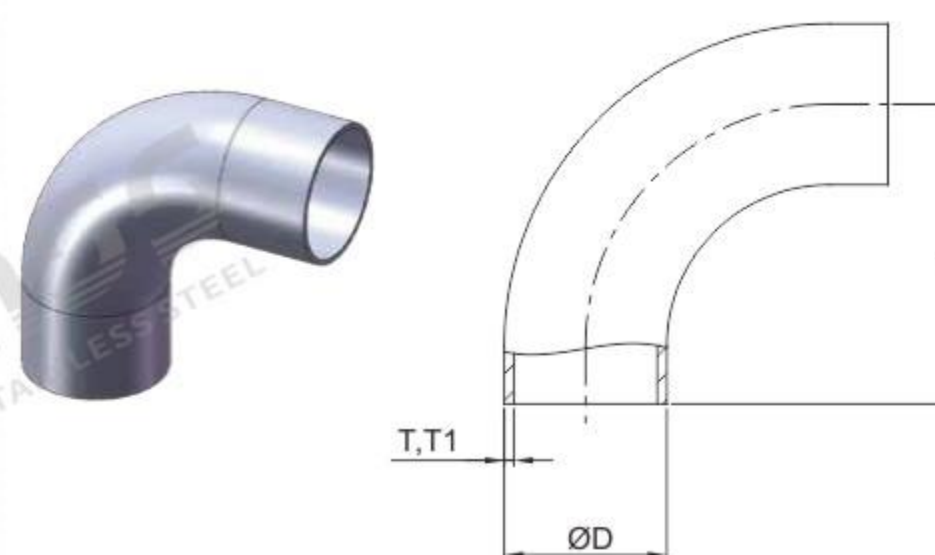
SIZE	ØD	L	T	T1	Part Number
25	25	42.33	1.25	1.5	SMS-L2KA1D-4-25
38	38	48.72	1.25	1.5	SMS-L2KA1D-4-38
50	51	58.15	1.25	1.5	SMS-L2KA1D-4-50
63	63.5	75.3	1.5	1.5	SMS-L2KA1D-4-63
76	76.1	79.37	1.6	2	SMS-L2KA1D-4-76
100	104	85.54	2	2	SMS-L2KA1D-4-100

2WCL SHORT 90° ELBOW



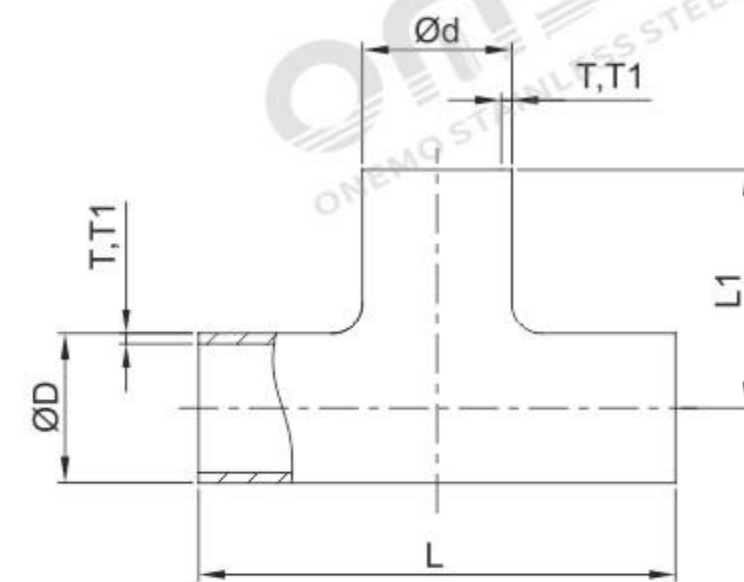
SIZE	ØD	L	T	T1	Part Number
25	25	37.5	1.25	1.5	SMS-2WCL-4-25
38	38	57	1.25	1.5	SMS-2WCL-4-38
50	51	76.5	1.25	1.5	SMS-2WCL-4-50
63	63.5	95.25	1.5	1.5	SMS-2WCL-4-63
76	76.1	114.15	1.6	2	SMS-2WCL-4-76
100	104	152.1	2	2	SMS-2WCL-4-100

L2S1D LONG 90° ELBOW

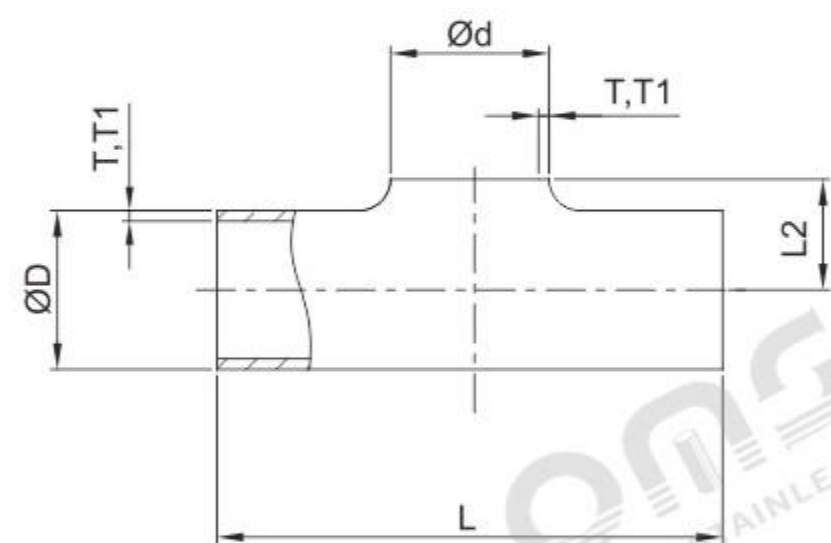


SIZE	ØD	L	T	T1	Part Number
25	25	55	1.25	1.5	SMS-L2S1D-4-25
38	38	70	1.25	1.5	SMS-L2S1D-4-38
50	51	82	1.25	1.5	SMS-L2S1D-4-50
63	63.5	105	1.5	1.5	SMS-L2S1D-4-63
76	76.1	110	1.6	2	SMS-L2S1D-4-76
100	101.6	150	2	2	SMS-L2S1D-4-100
	104	150	2	2	

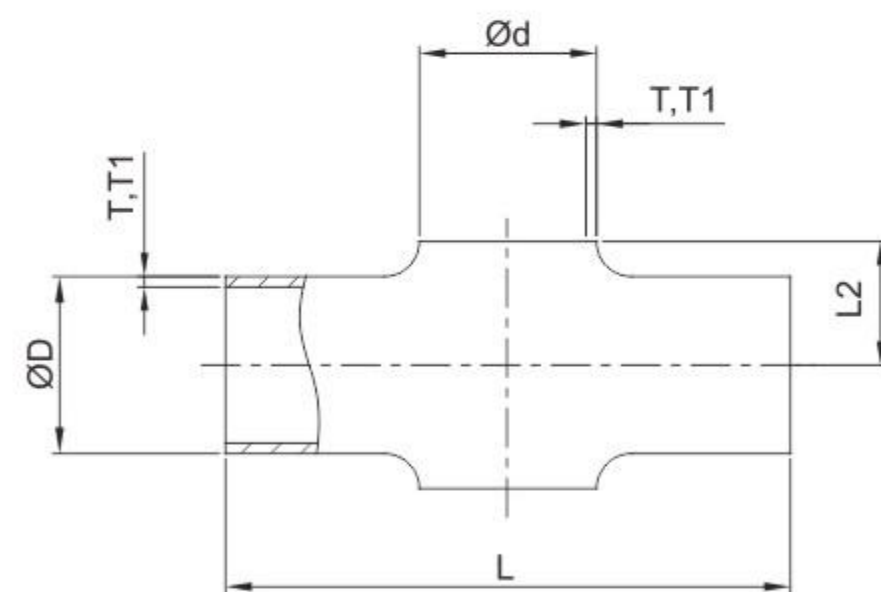
SMS 7W
Tee With Stright-End



SMS 7WO
TEE Without Straight-End

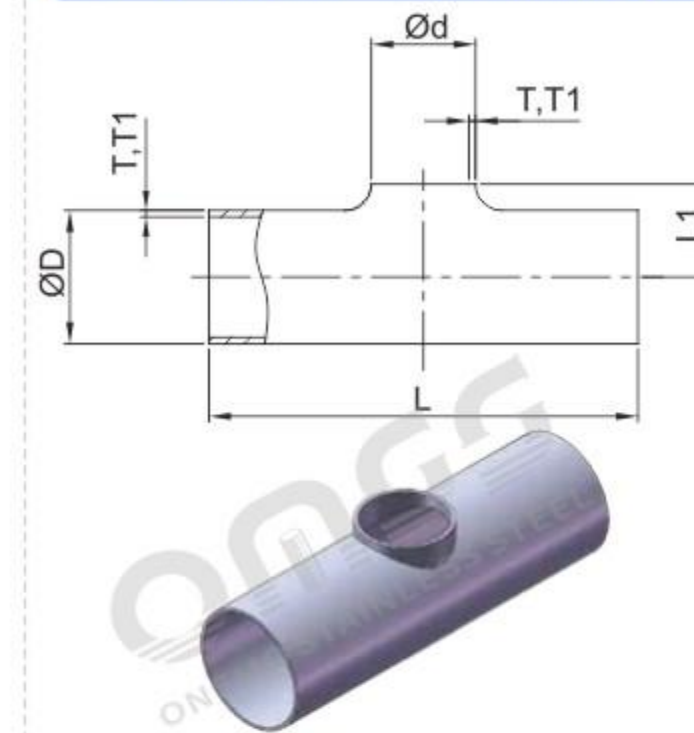


SMS 9WO
Welding Cross Without Straight-End



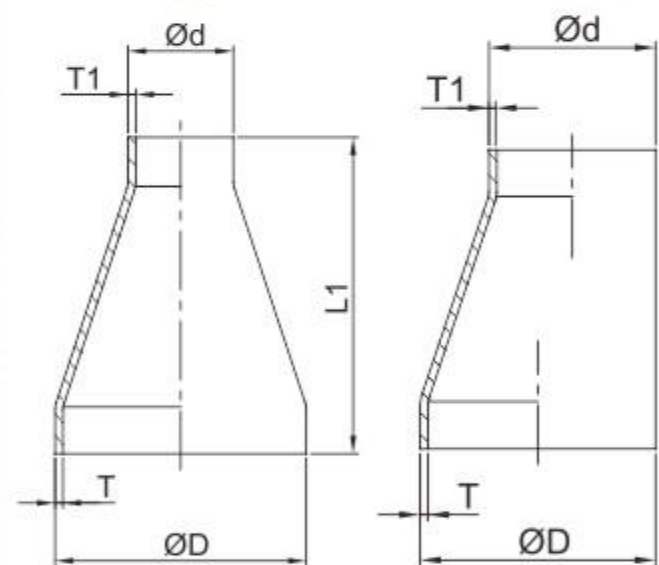
SIZE	ØD	ψd	L	L1	L2	T	T1	Part Number
25	25	25	110	55	14	1.25	1.5	SMS-7W-7WO-9WO-4-25
38	38	38	140	70	21	1.25	1.5	SMS-7W-7WO-9WO-4-38
50	51	51	164	82	28.5	1.25	1.5	SMS-7W-7WO-9WO-4-50
63	63.5	63.5	210	105	36	1.5	1.5	SMS-7W-7WO-9WO-4-63
76	76.1	76.1	220	110	43	1.6	2	SMS-7W-7WO-9WO-4-76
100	104	104	300	150	58	2	2	SMS-7W-7WO-9WO-4-100

TWO WELDING REDUCING TEE WITHOUT STRAIGHT-END



SIZE	ØD	Ød	L	L1	T	T1	Part Number
38*25	38	25	140	21	1.25	1.5	SMS 7WO-4-3825
50*25	51	25	164	29	1.25	1.5	SMS 7WO-4-5025
50*38	51	38	164	29	1.25	1.5	SMS 7WO-4-5038
63*25	63.5	25	210	34.5	1.5	1.5	SMS 7WO-4-6325
63*38	63.5	38	210	35	1.5	1.5	SMS 7WO-4-6338
63*50	63.5	51	210	36	1.5	1.5	SMS 7WO-4-6350
76*25	76.1	25	220	41	1.6	2	SMS 7WO-4-7625
76*38	76.1	38	220	42	1.6	2	SMS 7WO-4-7638
76*50	76.1	51	220	43	1.6	2	SMS 7WO-4-7650
76*63	76.1	63.5	220	43	1.6	2	SMS 7WO-4-7663
100*25	104	25	300	56	2	2	SMS 7WO-4-10025
100*38	104	38	300	56	2	2	SMS 7WO-4-10038
100*50	104	51	300	57	2	2	SMS 7WO-4-10050
100*63	104	63.5	300	58	2	2	SMS 7WO-4-10063
100*76	104	76.1	300	58	2	2	SMS 7WO-4-10076

WELD REDUCER

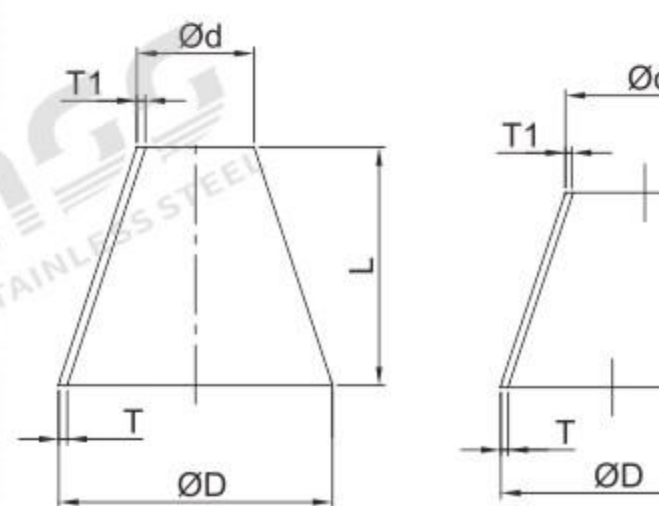


SMS L31SE
Concentric Reducer

SMS L32SE
Eccentric Reducer

SIZE	ØD	Ød	L	L1	T	T1	Part Number
38*25	38	25	39	46	1.25	1.25	SMS-L31SE-L32SE-4-3825
50*25	51	25	57	68	1.25	1.25	SMS-L31SE-L32SE-4-5025
50*38	51	38	39	47	1.25	1.25	SMS-L31SE-L32SE-4-5038
63*25	63.5	25	74	92	1.5	1.25	SMS-L31SE-L32SE-4-6325
63*38	63.5	38	57	70	1.5	1.25	SMS-L31SE-L32SE-4-6338
63*50	63.5	51	39	44	1.5	1.25	SMS-L31SE-L32SE-4-6350
76*25	76.1	25	92	—	1.6	1.25	SMS-L31SE-L32SE-4-7625
76*38	76.1	38	74	92	1.6	1.25	SMS-L31SE-L32SE-4-7638
76*50	76.1	51	57	68	1.6	1.25	SMS-L31SE-L32SE-4-7650
76*63	76.1	63.5	39	47	1.6	1.5	SMS-L31SE-L32SE-4-7663
100*50	104	51	95	117	2	1.25	SMS-L31SE-L32SE-4-10050
100*63	104	63.5	78	94	2	1.5	SMS-L31SE-L32SE-4-10063
100*76	104	76.1	60	74	2	1.6	SMS-L31SE-L32SE-4-10076

W/O STRAIGHT END REDUCER

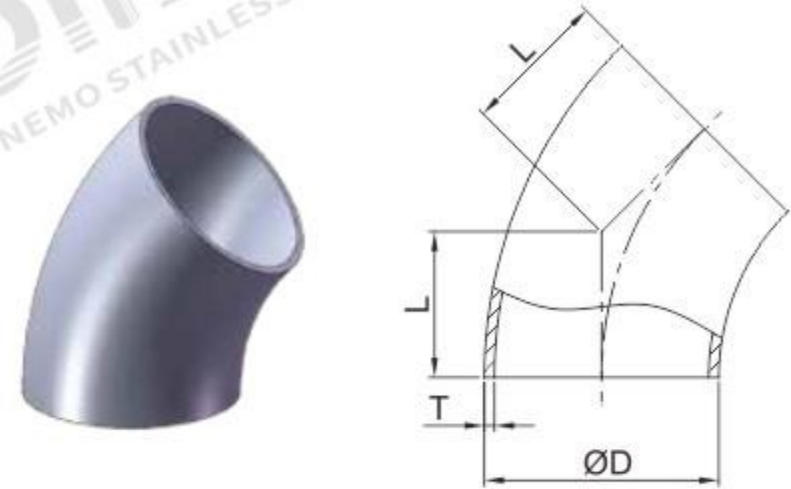


SMS L31
Concentric Reducer

SMS L32
Eccentric Reducer

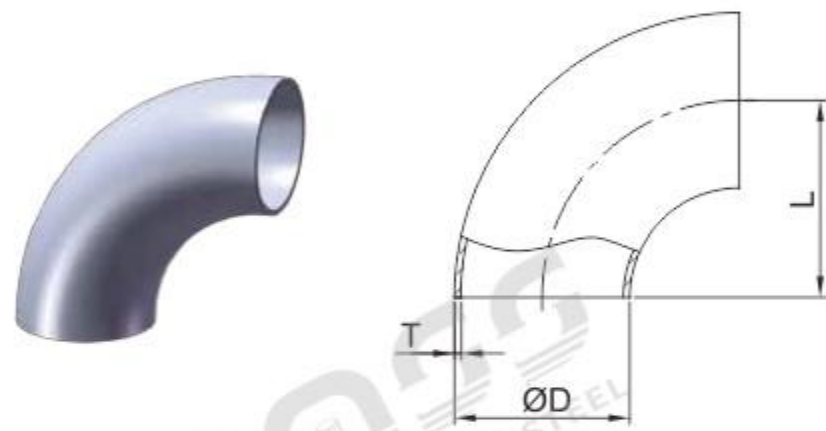
SIZE	ØD	Ød	L1	T	T1	Part Number
38*25	38	25	39	1.25	1.25	SMS-L31-L32-4-3825
50*25	51	25	78	1.25	1.25	SMS-L31-L32-4-5025
50*38	51	38	39	1.25	1.25	SMS-L31-L32-4-5038
63*25	63.5	25	116	1.5	1.25	SMS-L31-L32-4-6325
63*38	63.5	38	76	1.5	1.25	SMS-L31-L32-4-6338
63*50	63.5	51	38	1.5	1.25	SMS-L31-L32-4-6350
76*25	76.1	25	153	1.6	1.25	SMS-L31-L32-4-7625
76*38	76.1	38	114	1.6	1.25	SMS-L31-L32-4-7638
76*50	76.1	51	75	1.6	1.25	SMS-L31-L32-4-7650
76*63	76.1	63.5	38	1.6	1.5	SMS-L31-L32-4-7663
100*38	104	38	198	2	1.25	SMS-L31-L32-4-10038
100*50	104	51	159	2	1.25	SMS-L31-L32-4-10050
100*63	104	63.5	122	2	1.5	SMS-L31-L32-4-10063
100*76	104	76.1	84	2	1.6	SMS-L31-L32-4-10076

2WK SHORT 45° ELBOW



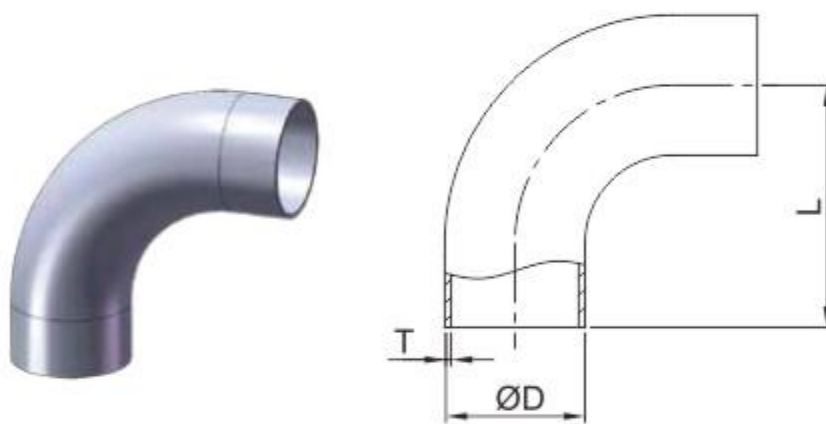
SIZE	ØD	L	T	Part Number
DN20	22/23	16.6	1.5	DIN-2WK-4-DN20
DN25	28/29	20.7	1.5	DIN-2WK-4-DN25
DN32	34/35	22.8	1.5	DIN-2WK-4-DN32
DN40	40/41	24.9	1.5	DIN-2WK-4-DN40
DN50	52/53	29	1.5	DIN-2WK-4-DN50
DN65	70	33.1	2	DIN-2WK-4-DN65
DN80	85	37.3	2	DIN-2WK-4-DN80
DN100	104	41.4	2	DIN-2WK-4-DN100

2WCL SHORT 90° ELBOW



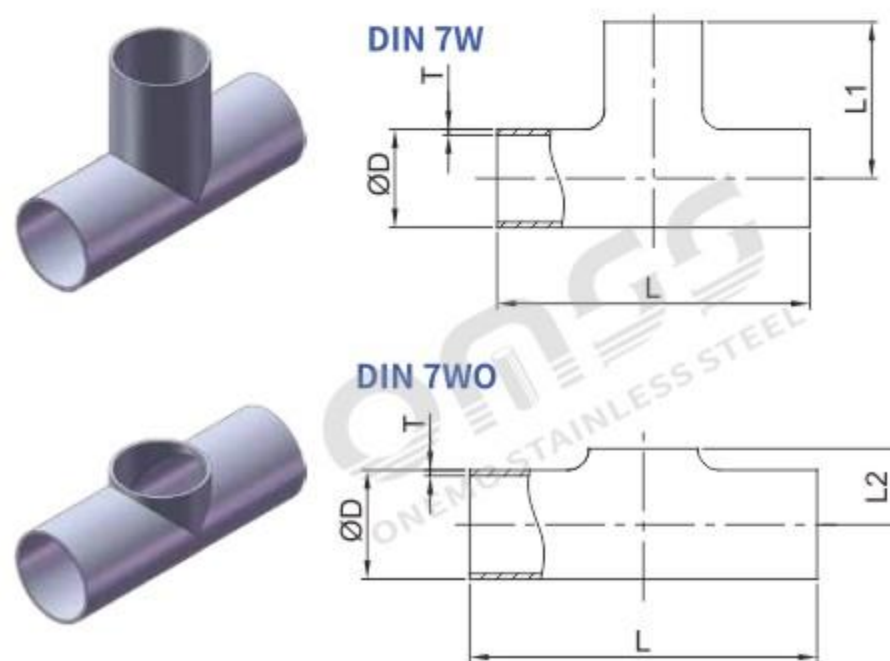
SIZE	ØD	L	T	Part Number
DN10	12/13	26	1.5	DIN-2WCL-4-DN10
DN15	18/19	35	1.5	DIN-2WCL-4-DN15
DN20	22/23	40	1.5	DIN-2WCL-4-DN20
DN25	28/29	50	1.5	DIN-2WCL-4-DN25
DN32	34/35	55	1.5	DIN-2WCL-4-DN32
DN40	40/41	60	1.5	DIN-2WCL-4-DN40
DN50	52/53	70	1.5	DIN-2WCL-4-DN50
DN65	70	80	2	DIN-2WCL-4-DN65
DN80	85	90	2	DIN-2WCL-4-DN80
DN100	101.6	152.4	2	DIN-2WCL-4-DN100
	104	100	2	

L2S LONG 90° ELBOW



SIZE	ØD	L	T	Part Number
DN20	22/23	52	1.5	DIN-L2S-4-DN20
DN25	28/29	65	1.5	DIN-L2S-4-DN25
DN32	34/35	73	1.5	DIN-L2S-4-DN32
DN40	40/41	80	1.5	DIN-L2S-4-DN40
DN50	52/53	92	1.5	DIN-L2S-4-DN50
DN65	70	105	2	DIN-L2S-4-DN65
DN80	85	119	2	DIN-L2S-4-DN80
DN100	101.6	175	2	DIN-L2S-4-DN100
	104	140	2	

TEE & PULL TEE



SIZE	ØD	L	L1	L2	T	Part Number
DN10	12/13	52	26	11	1.5	DIN-7W-4-DN10
DN15	18/19	70	35	11	1.5	DIN-7W-4-DN15
DN20	22/23	80	40	13	1.5	DIN-7W-4-DN20
DN25	28/29	100	50	16	1.5	DIN-7W-4-DN25
DN32	34/35	110	55	19.5	1.5	DIN-7W-4-DN32
DN40	40/41	120	60	23	1.5	DIN-7W-4-DN40
DN50	52/53	140	70	30	1.5	DIN-7W-4-DN50
DN65	70	160	80	40	2	DIN-7W-4-DN65
DN80	85	180	90	47.5	2	DIN-7W-4-DN80
DN100	101.6	300	150	56	2	DIN-7W-4-DN100
	104	200	100	58	2	
DN125	129	375	187.5	74	2	DIN-7W-4-DN125
DN150	154	450	225	90	2	DIN-7W-4-DN150
DN200	204	600	300	115	2	DIN-7W-4-DN200

REDUCING TEE & REDUCING PULL TEE



SIZE	ØD	Ød	L	L1	L2	T	t	Part Number
15*10	18/19	12/13	70	29	10.5	1.5	1.5	DIN-7RW-7RWO-4-1510
20*10	22/23	12/13	80	31	12.5	1.5	1.5	DIN-7RW-7RWO-4-2010
20*15	22/23	18/19	80	37	13	1.5	1.5	DIN-7RW-7RWO-4-2015
25*15	28/29	18/19	100	40	16	1.5	1.5	DIN-7RW-7RWO-4-2515
25*20	28/29	22/23	100	43	16	1.5	1.5	DIN-7RW-7RWO-4-2520
32*15	34/35	18/19	110	43	19.5	1.5	1.5	DIN-7RW-7RWO-4-3215
32*20	34/35	22/23	110	46	19.5	1.5	1.5	DIN-7RW-7RWO-4-3220
32*25	34/35	28/29	110	53	19.5	1.5	1.5	DIN-7RW-7RWO-4-3225
40*20	40/41	22/23	120	49	22	1.5	1.5	DIN-7RW-7RWO-4-4020
40*25	40/41	28/29	120	56	22.5	1.5	1.5	DIN-7RW-7RWO-4-4025
40*32	40/41	34/35	120	58	22	1.5	1.5	DIN-7RW-7RWO-4-4032
50*25	52/53	28/29	140	62	28	1.5	1.5	DIN-7RW-7RWO-4-5025
50*32	52/53	34/35	140	64	28.5	1.5	1.5	DIN-7RW-7RWO-4-5032
50*40	52/53	40/41	140	66	29	1.5	1.5	DIN-7RW-7RWO-4-5040
65*32	70	34/35	160	72.5	37	2	1.5	DIN-7RW-7RWO-4-6532
65*40	70	40/41	160	74.5	37	2	1.5	DIN-7RW-7RWO-4-6540
65*50	70	52/53	160	78.5	38.5	2	1.5	DIN-7RW-7RWO-4-6550
80*40	85	40/41	180	82	45	2	1.5	DIN-7RW-7RWO-4-8040
80*50	85	52/53	180	86	46	2	1.5	DIN-7RW-7RWO-4-8050
80*65	85	70	180	87.5	47.5	2	2	DIN-7RW-7RWO-4-8065
100*50	104	52/53	200	95.5	55.5	2	1.5	DIN-7RW-7RWO-4-10050
100*65	104	70	200	97	57	2	2	DIN-7RW-7RWO-4-10065
100*80	104	85	200	99.5	57	2	2	DIN-7RW-7RWO-4-10080
125*65	129	70	375	109.5	69.5	2	2	DIN-7RW-7RWO-4-12565
125*80	129	85	375	112	69.5	2	2	DIN-7RW-7RWO-4-12580
125*100	129	104	375	112.5	70	2	2	DIN-7RW-7RWO-4-125100
150*80	154	85	450	124.5	82	2	2	DIN-7RW-7RWO-4-15080
150*100	154	104	450	125	83	2	2	DIN-7RW-7RWO-4-150100
150*125	154	129	450	200	86.5	2	2	DIN-7RW-7RWO-4-150125
200*100	204	104	600	150	108	2	2	DIN-7RW-7RWO-4-200100
200*125	204	129	600	225	111.5	2	2	DIN-7RW-7RWO-4-200125
200*150	204	154	600	250	115	2	2	DIN-7RW-7RWO-4-200150

CONCENTRIC REDUCER/ECCENTRIC REDUCER



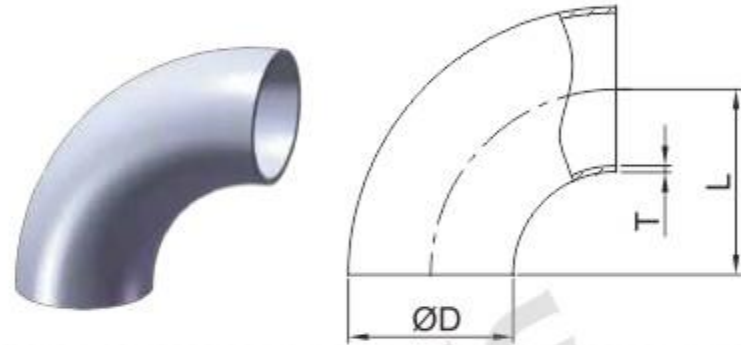
SIZE	ØD	Ød	L	L1	T	t	Part Number
32*25	34/35	28/29	25	16.5	1.5	1.5	DIN-L31-L32-4-3225
40*25	40/41	28/29	23	33	1.5	1.5	DIN-L31-L32-4-4025
40*32	40/41	34/35	23	16.5	1.5	1.5	DIN-L31-L32-4-4032
50*25	52/53	28/29	27	66	1.5	1.5	DIN-L31-L32-4-5025
50*32	52/53	34/35	28	49.5	1.5	1.5	DIN-L31-L32-4-5032
50*40	52/53	40/41	27	33	1.5	1.5	DIN-L31-L32-4-5040
65*25	70	28/29	35	75	2	1.5	DIN-L31-L32-4-6525
65*40	70	40/41	39	77	2	1.5	DIN-L31-L32-4-6540
65*50	70	52/53	29	44	2	1.5	DIN-L31-L32-4-6550
80*50	85	52/53	45	85	2	1.5	DIN-L31-L32-4-8050
80*65	85	70	33	41.2	2	2	DIN-L31-L32-4-8065
100*50	104	52/53	50	137.5	2	1.5	DIN-L31-L32-4-10050
100*65	104	70	44	93.5	2	2	DIN-L31-L32-4-10065
100*80	104	85	60	52.4	2	2	DIN-L31-L32-4-10080

L2KS LONG 45° ELBOW



SIZE	ØD	L	T	Part Number
1"	25.4	30.2	1.65	BS-L2SK-4-1
1.5"	38.1	41.3	1.65	BS-L2SK-4-1.5
2"	50.8	58.7	1.65	BS-L2SK-4-2
2.5"	63.5	76.2	1.65	BS-L2SK-4-2.5
3"	76.2	93.7	1.65	BS-L2SK-4-3
4"	101.6	122.2	2.1	BS-L2SK-4-4

2WCL SHORT WELD 90° ELBOW



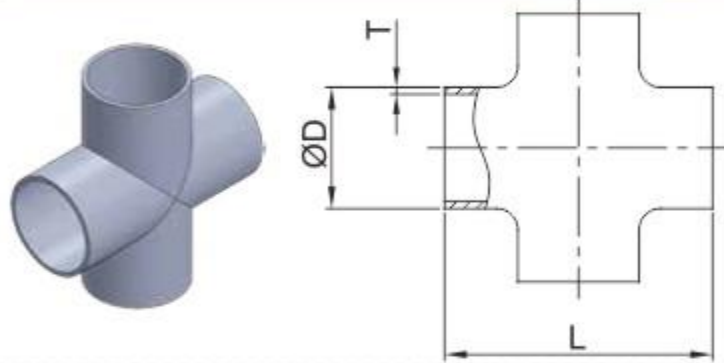
SIZE	ØD	L	T	Part Number
1"	25.4	43.5	1.65	BS-2WCL-4-1
1.5"	38.1	63.5	1.65	BS-2WCL-4-1.5
2"	50.8	88.5	1.65	BS-2WCL-4-2
2.5"	63.5	113.5	1.65	BS-2WCL-4-2.5
3"	76.2	133.5	1.65	BS-2WCL-4-3
4"	101.6	173.5	2.1	BS-2WCL-4-4

L2S LONG WELD 90° ELBOW



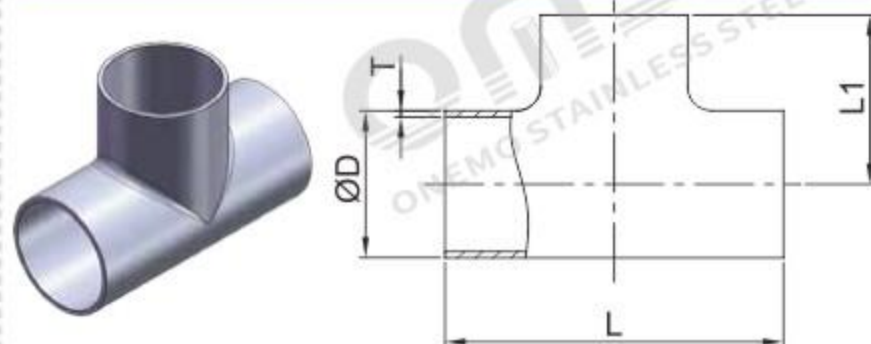
SIZE	ØD	L	T	Part Number
1/2"	12.7	45	1.65	BS-L2S-4-0.5
3/4"	19.05	60	1.65	BS-L2S-4-0.75
1"	25.4	65	1.65	BS-L2S-4-1
1.5"	38.1	85	1.65	BS-L2S-4-1.5
2"	50.8	110	1.65	BS-L2S-4-2
2.5"	63.5	135	1.65	BS-L2S-4-2.5
3"	76.2	155	1.65	BS-L2S-4-3
4"	101.6	195	2.1	BS-L2S-4-4

9W CROSS



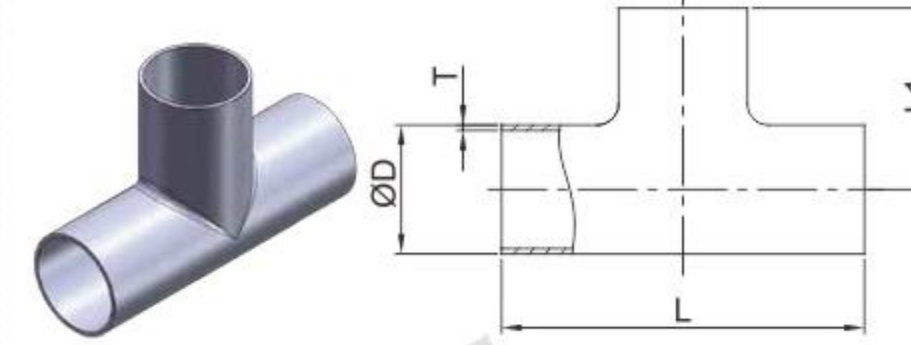
SIZE	ØD	L	T	Part Number
1"	25.4	130	1.65	BS-9W-4-1
1.5"	38.1	170	1.65	BS-9W-4-1.5
2"	50.8	220	1.65	BS-9W-4-2
2.5"	63.5	270	1.65	BS-9W-4-2.5
3"	76.2	310	1.65	BS-9W-4-3
4"	101.6	390	2.1	BS-9W-4-4

7WWW SHORT TEE



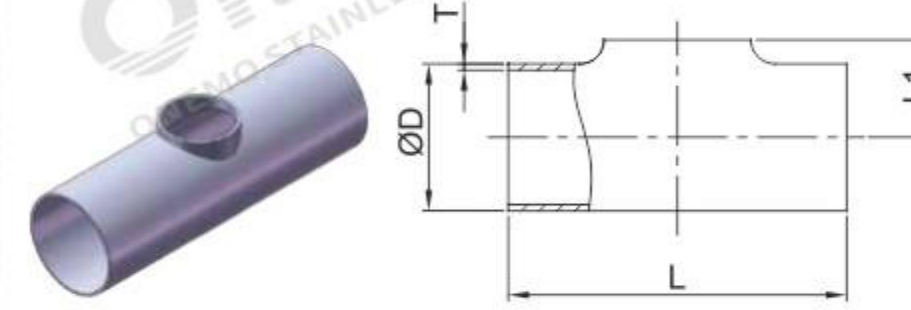
SIZE	ØD	L	L1	T	Part Number
1"	25.4	87	43.5	1.65	BS-7WWW-4-1
1.5"	38.1	127	63.5	1.65	BS-7WWW-4-1.5
2"	50.8	177	88.5	1.65	BS-7WWW-4-2
2.5"	63.5	227	113.5	1.65	BS-7WWW-4-2.5
3"	76.2	267	133.5	1.65	BS-7WWW-4-3
4"	101.6	347	173.5	2.1	BS-7WWW-4-4

7W LONG TEE



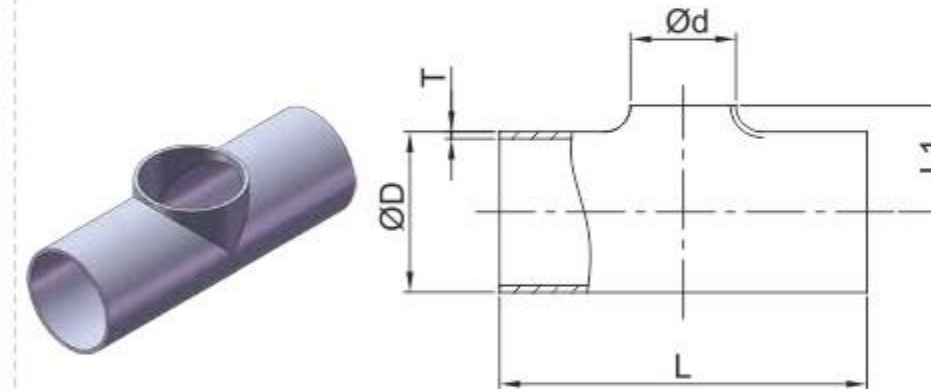
SIZE	ØD	L	L1	T	Part Number
1"	25.4	130	65	1.65	BS-7W-4-1
1.5"	38.1	170	85	1.65	BS-7W-4-1.5
2"	50.8	220	110	1.65	BS-7W-4-2
2.5"	63.5	270	135	1.65	BS-7W-4-2.5
3"	76.2	310	155	1.65	BS-7W-4-3
4"	101.6	390	195	2.1	BS-7W-4-4

TWO PULL TEE



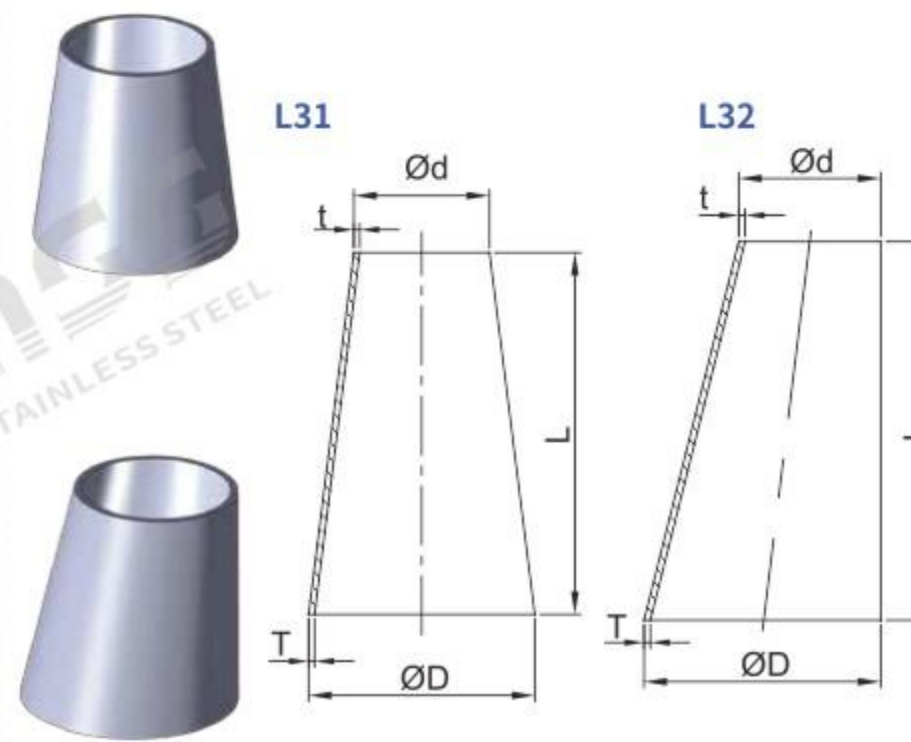
SIZE	ØD	L	L1	T	Part Number
1"	25.4	87	13.8	1.65	BS-TWO-4-1
1.5"	38.1	127	19.9	1.65	BS-TWO-4-1.5
2"	50.8	177	27.6	1.65	BS-TWO-4-2
2.5"	63.5	227	34.9	1.65	BS-TWO-4-2.5
3"	76.2	267	40.9	1.65	BS-TWO-4-3
4"	101.6	347	54.7	2.1	BS-TWO-4-4

TRWO REDUCING PULL TEE



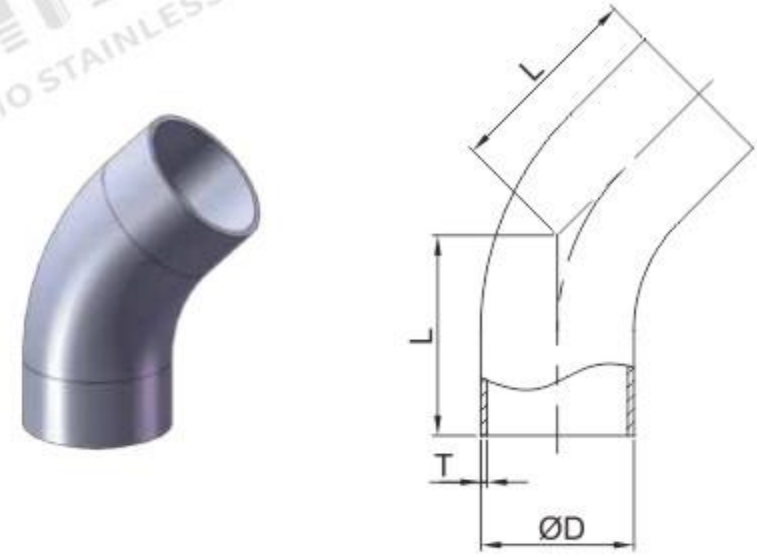
SIZE	ØD	Ød	L	L1	T	Part Number
1.5"×1"	38.1	25.4	127	22	1.65	BS-7RWO-4-1.5"×1"
2"×1"	50.8	25.4	177	29	1.65	BS-7RWO-4-2"×1"
2"×1.5"	50.8	38.1	177	29	1.65	BS-7RWO-4-2"×1.5"
2.5"×1"	63.5	25.4	227	35	1.65	BS-7RWO-4-2.5"×1"
2.5"×1.5"	63.5	38.1	227	35	1.65	BS-7RWO-4-2.5"×1.5"
2.5"×2"	63.5	50.8	227	35	1.65	BS-7RWO-4-2.5"×2"
3"×1"	76.2	25.4	267	41	1.65	BS-7RWO-4-3"×1"
3"×1.5"	76.2	38.1	267	41	1.65	BS-7RWO-4-3"×1.5"
3"×2"	76.2	50.8	267	41	1.65	BS-7RWO-4-3"×2"
3"×2.5"	76.2	63.5	267	41	1.65	BS-7RWO-4-3"×2.5"
4"×2"	101.6	50.8	347	55	2.1	BS-7RWO-4-4"×2"
4"×2.5"	101.6	63.5	347	55	2.1	BS-7RWO-4-4"×2.5"
4"×3"	101.6	76.2	347	55	2.1	BS-7RWO-4-4"×3"

WELD REDUCERS



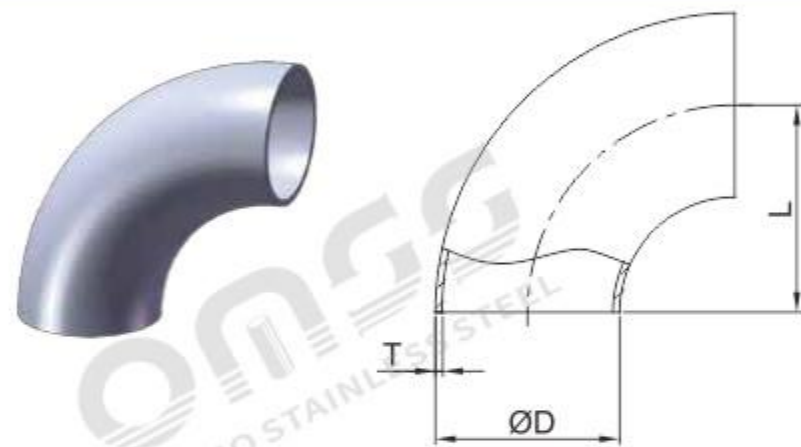
SIZE	ØD	Ød	L	L1	T	t	Part Number
1.5"×1"	38.1	25.4	29	35	1.65	1.65	BS-L31-L32-4-1.5"×1"
2"×1"	50.8	25.4	53	54	1.65	1.65	BS-L31-L32-4-2"×1"
2"×1.5"	50.8	38.1	41	36	1.65	1.65	BS-L31-L32-4-2"×1.5"
2.5"×1"	63.5	25.4	82	76	1.65	1.65	BS-L31-L32-4-2.5"×1"
2.5"×1.5"	63.5	38.1	64	66	1.65	1.65	BS-L31-L32-4-2.5"×1.5"
2.5"×2"	63.5	50.8	40	35	1.65	1.65	BS-L31-L32-4-2.5"×2"
3"×1"	76.2	25.4	110	112	1.65	1.65	BS-L31-L32-4-3"×1"
3"×1.5"	76.2	38.1	81	78	1.65	1.65	BS-L31-L32-4-3"×1.5"
3"×2"	76.2	50.8	55	66	1.65	1.65	BS-L31-L32-4-3"×2"
3"×2.5"	76.2	63.5	41	44	1.65	1.65	BS-L31-L32-4-3"×2.5"
4"×1.5"	101.6	38.1	135	122	2.1	1.65	BS-L31-L32-4-4"×1.5"
4"×2"	101.6	50.8	106	97	2.1	1.65	BS-L31-L32-4-4"×2"
4"×2.5"	101.6	63.5	76	73	2.1	1.65	BS-L31-L32-4-4"×2.5"
4"×3"	101.6	76.2	53	77	2.1	1.65	BS-L31-L32-4-4"×3"

L2KS LONG 45° ELBOW



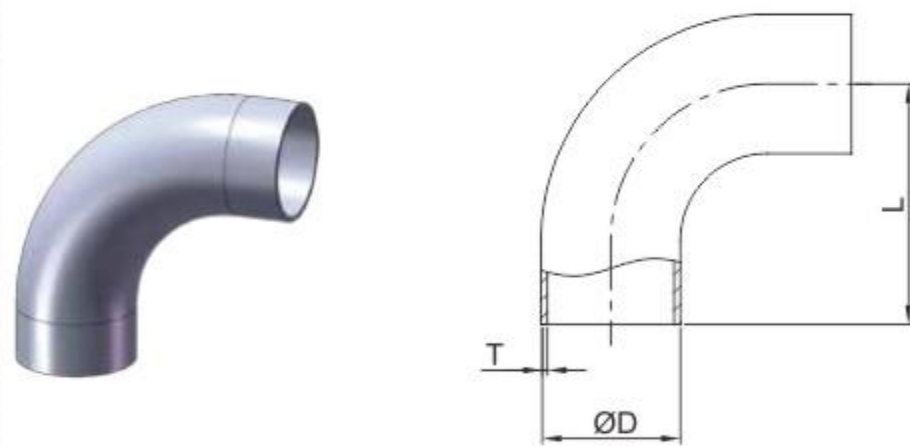
SIZE	ØD	L	T	Part Number
1/2"	12.7	37.91	1.6	AS-L2SK-4-0.5
3/4"	19.1	41.85	1.6	AS-L2SK-4-0.75
1"	25.4	45.78	1.6/2	AS-L2SK-4-1
1.25"	31.8	45.78	1.6/2	AS-L2SK-4-1.25
1.5"	38.1	53.61	1.6/2	AS-L2SK-4-1.5
2"	50.8	61.56	1.6/2	AS-L2SK-4-2
2.5"	63.5	69.35	1.6/2	AS-L2SK-4-2.5
3"	76.2	77.3	1.6/2	AS-L2SK-4-3
4"	101.6	93.13	1.6/2	AS-L2SK-4-4

2WCL SHORT WELD 90° ELBOW



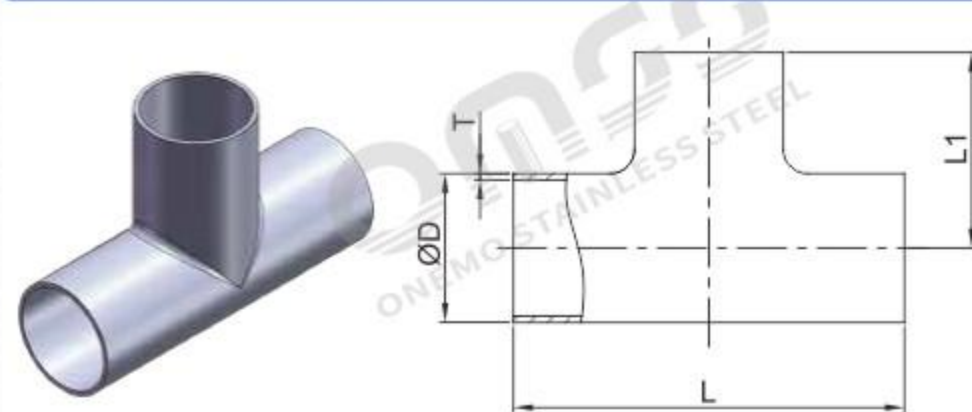
SIZE	ØD	L	T	Part Number
1/2"	12.7	19.1	1.6	AS-2WCL-4-0.5
3/4"	19.1	28.6	1.6	AS-2WCL-4-0.75
1"	25.4	38.1	1.6/2	AS-2WCL-4-1
1.25"	31.8	47.7	1.6/2	AS-2WCL-4-1.25
1.5"	38.1	57	1.6/2	AS-2WCL-4-1.5
2"	50.8	76.2	1.6/2	AS-2WCL-4-2
2.5"	63.5	95	1.6/2	AS-2WCL-4-2.5
3"	76.2	114.2	1.6/2	AS-2WCL-4-3
4"	101.6	152.4	1.6/2	AS-2WCL-4-4

L2S LONG WELD 90° ELBOW



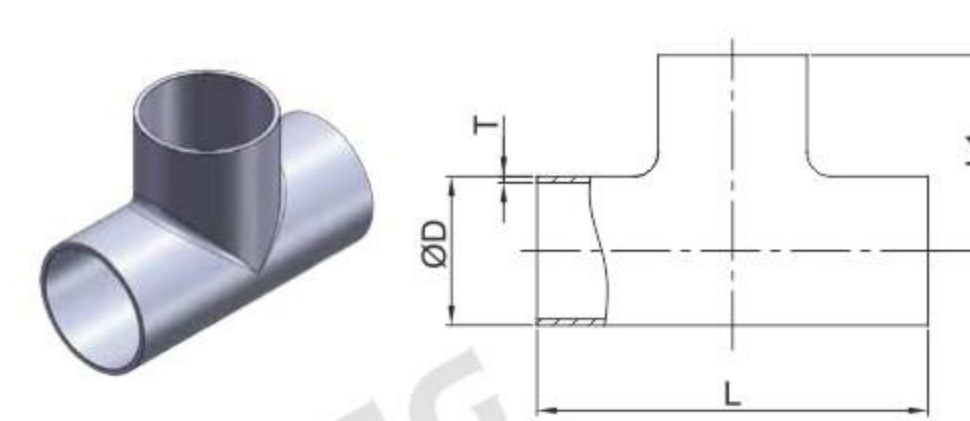
SIZE	ØD	L	T	Part Number
1/2"	12.7	49.1	1.6/2	AS-L2S-4-0.5
3/4"	19.1	58.6	1.6/2	AS-L2S-4-0.75
1"	25.4	68.1	1.6/2	AS-L2S-4-1
1.25"	31.8	77.7	1.6/2	AS-L2S-4-1.25
1.5"	38.1	87	1.6/2	AS-L2S-4-1.5
2"	50.8	106.2	1.6/2	AS-L2S-4-2
2.5"	63.5	125	1.6/2	AS-L2S-4-2.5
3"	76.2	144.2	1.6/2	AS-L2S-4-3
4"	101.6	182.4	1.6/2	AS-L2S-4-4

7W LONG EQUAL WELD TEE



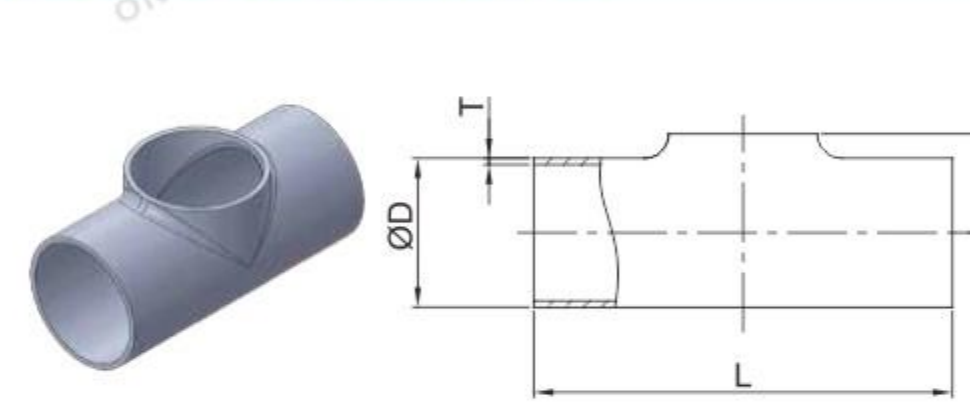
SIZE	ØD	L	L1	T	Part Number
1/2"	12.7	98.2	49.1	1.6/2	AS-7W-4-0.5
3/4"	19.1	117.2	58.6	1.6/2	AS-7W-4-0.75
1"	25.4	136.2	68.1	1.6/2	AS-7W-4-1
1.25"	31.8	155.4	77.7	1.6/2	AS-7W-4-1.25
1.5"	38.1	174	87	1.6/2	AS-7W-4-1.5
2"	50.8	212.4	106.2	1.6/2	AS-7W-4-2
2.5"	63.5	250	125	1.6/2	AS-7W-4-2.5
3"	76.2	288.4	144.2	1.6/2	AS-7W-4-3
4"	101.6	364.8	182.4	1.6/2	AS-7W-4-4

7WWW SHORT EQUAL WELD TEE



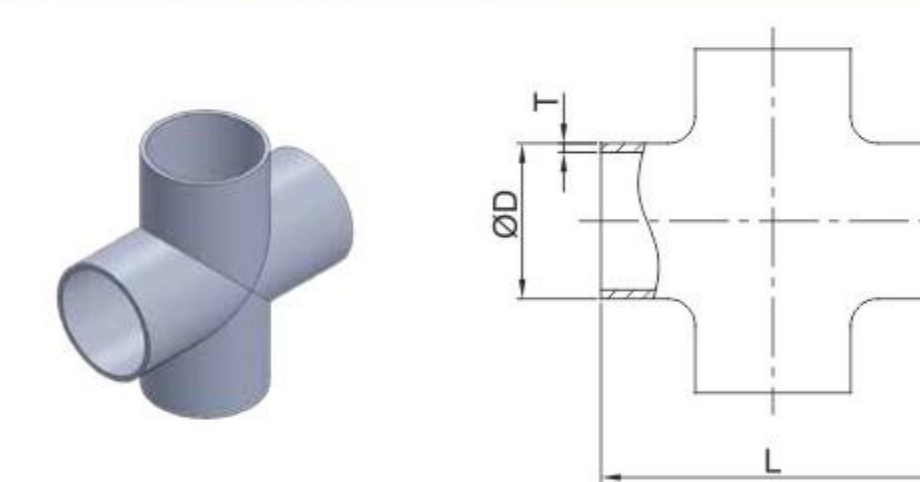
SIZE	ØD	L	L1	T	Part Number
1/2"	12.7	38.2	19.1	1.6/2	AS-7WWW-4-0.5
3/4"	19.1	57.2	28.6	1.6/2	AS-7WWW-4-0.75
1"	25.4	76.2	38.1	1.6/2	AS-7WWW-4-1
1.25"	31.8	95.4	47.7	1.6/2	AS-7WWW-4-1.25
1.5"	38.1	114	57	1.6/2	AS-7WWW-4-1.5
2"	50.8	152.4	76.2	1.6/2	AS-7WWW-4-2
2.5"	63.5	190	95	1.6/2	AS-7WWW-4-2.5
3"	76.2	228.4	144.2	1.6/2	AS-7WWW-4-3
4"	101.6	304.8	152.4	1.6/2	AS-7WWW-4-4

7WO EQUAL TEE W/O STRAIGHT END



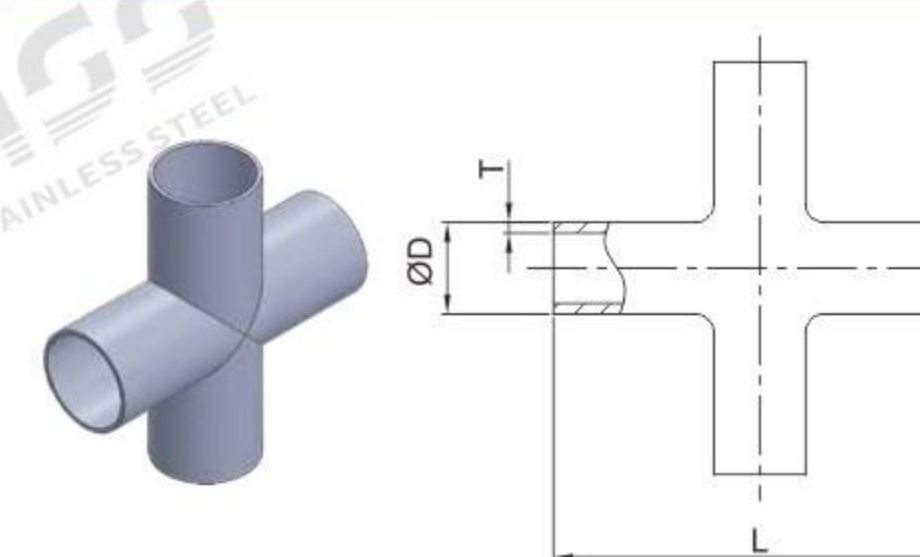
SIZE	ØD	L	L1	T	Part Number
1/2"	12.7	38.2	9.35	1.6/2	AS-7WO-4-0.5
3/4"	19.1	57.2	12.55	1.6/2	AS-7WO-4-0.75
1"	25.4	76.2	15.7	1.6/2	AS-7WO-4-1
1.25"	31.8	95.4	18.9	1.6/2	AS-7WO-4-1.25
1.5"	38.1	114	22.05	1.6/2	AS-7WO-4-1.5
2"	50.8	152.4	28.4	1.6/2	AS-7WO-4-2
2.5"	63.5	190	34.75	1.6/2	AS-7WO-4-2.5
3"	76.2	228.4	41.1	1.6/2	AS-7WO-4-3
4"	101.6	304.8	53.8	1.6/2	AS-7WO-4-4

9WWW SHORT CROSS WELD END

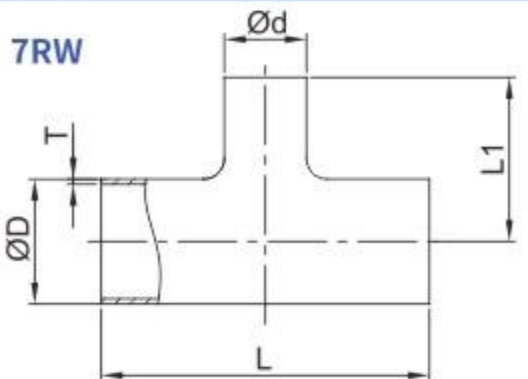
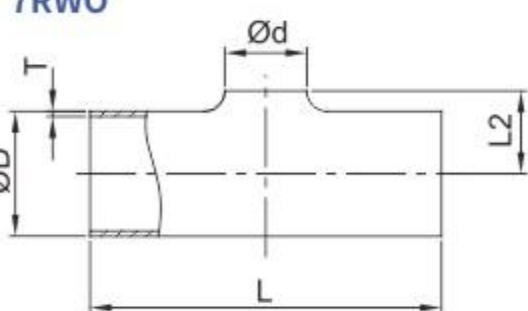


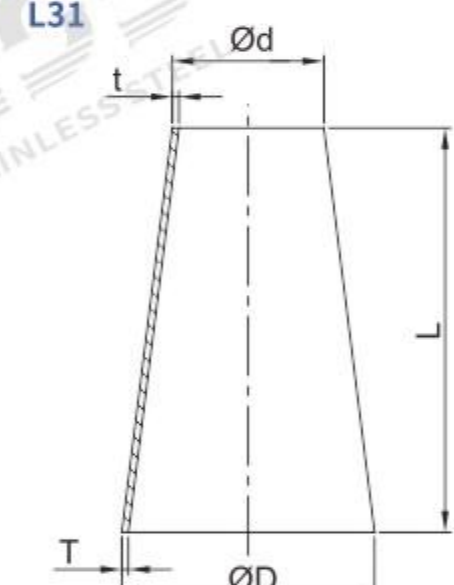
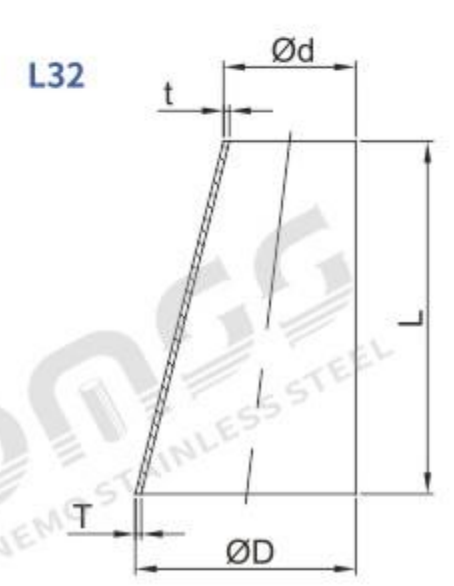
SIZE	ØD	L	T	Part Number
1/2"	12.7	38.2	1.6/2	AS-9WWW-4-0.5
3/4"	19.1	57.2	1.6/2	AS-9WWW-4-0.75
1"	25.4	76.2	1.6/2	AS-9WWW-4-1
1.25"	31.8	95.4	1.6/2	AS-9WWW-4-1.25
1.5"	38.1	114	1.6/2	AS-9WWW-4-1.5
2"	50.8	152.4	1.6/2	AS-9WWW-4-2
2.5"	63.5	190	1.6/2	AS-9WWW-4-2.5
3"	76.2	228.4	1.6/2	AS-9WWW-4-3
4"	101.6	304.8	1.6/2	AS-9WWW-4-4

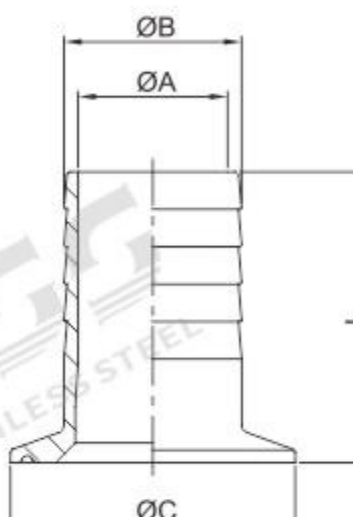
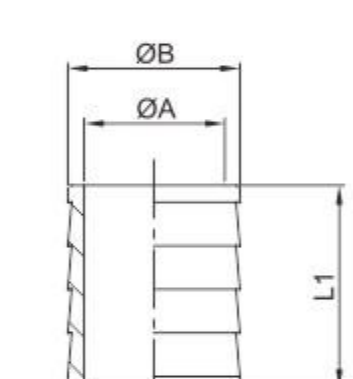
9W LONG CROSS WELD END

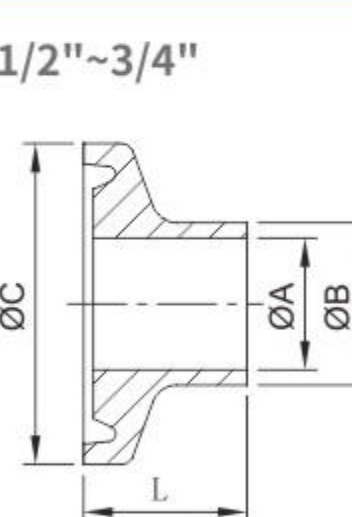
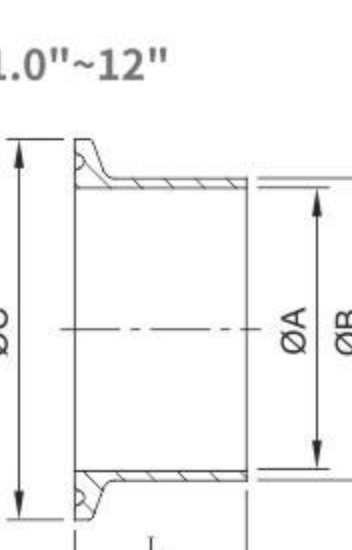


SIZE	ØD	L	T	Part Number
1/2"	12.7	98.2	1.6/2	AS-9W-4-0.5
3/4"	19.1	117.2	1.6/2	AS-9W-4-0.75
1"	25.4	136.2	1.6/2	AS-9W-4-1
1.25"	31.8	155.4	1.6/2	AS-9W-4-1.25
1.5"	38.1	174	1.6/2	AS-9W-4-1.5
2"	50.8	212.4	1.6/2	AS-9W-4-2
2.5"	63.5	250	1.6/2	AS-9W-4-2.5
3"	76.2	288.4	1.6/2	AS-9W-4-3
4"	101.6	364.8	1.6/2	AS-9W-4-4

REDUCING TEE/REDUCING TEE		SIZE	ØD	Ød	L	L1	L2	T	Part Number
		1.5"1"	38.1	25.4	160	80	22.05	1.6/2	AS-7RW-7RWO-4-1.5"1"
		2"1"	50.8	25.4	160	80	28.4	1.6/2	AS-7RW-7RWO-4-2"1"
		2"1.5"	50.8	38.1	160	80	28.4	1.6/2	AS-7RW-7RWO-4-2"1.5"
		2.5"1.5"	63.5	38.1	160	80	34.75	1.6/2	AS-7RW-7RWO-4-2.5"1.5"
		2.5"2"	63.5	50.8	160	80	37.75	1.6/2	AS-7RW-7RWO-4-2.5"2"
		3"1.5"	76.2	38.1	160	80	41.1	1.6/2	AS-7RW-7RWO-4-3"1.5"
		3"2"	76.2	50.8	160	80	41.1	1.6/2	AS-7RW-7RWO-4-3"2"
		3"2.5"	76.2	63.5	190.5	95.3	41.1	1.6/2	AS-7RW-7RWO-4-3"2.5"
		4"2"	101.6	50.8	160	80	53.8	1.6/2	AS-7RW-7RWO-4-4"2"
		4"2.5"	101.6	63.5	190.5	95.3	53.8	1.6/2	AS-7RW-7RWO-4-4"2.5"
		4"3"	101.6	76.2	228.6	114.3	53.8	1.6/2	AS-7RW-7RWO-4-4"3"

CONCENTRIC REDUCER/ECCENTRIC REDUCER		SIZE	ØD	Ød	L	T	t	Part Number
		3/4"1/2"	19.1	12.7	19.1	1.6/2	1.6	AS-L31-L32-4-3/4"1/2"
		1"1/2"	25.4	12.7	25.4	1.6/2	1.6	AS-L31-L32-4-1"1/2"
		1"3/4"	25.4	19.1	25.4	1.6/2	1.6	AS-L31-L32-4-1"3/4"
		1.25"3/4"	31.8	19.1	31.8	1.6/2	1.6	AS-L31-L32-4-1.25"3/4"
		1.25"1"	31.8	25.4	31.8	1.6/2	1.6/2	AS-L31-L32-4-1.25"1"
		1.5"3/4"	38.1	19.1	38.1	1.6/2	1.6	AS-L31-L32-4-1.5"3/4"
		1.5"1"	38.1	25.4	38.1	1.6/2	1.6/2	AS-L31-L32-4-1.5"1"
		1.5"1.25"	38.1	31.8	38.1	1.6/2	1.6/2	AS-L31-L32-4-1.5"1.25"
		2"1/2"	50.8	12.7	50.8	1.6/2	1.6	AS-L31-L32-4-2"1/2"
		2"3/4"	50.8	19.1	50.8	1.6/2	1.6	AS-L31-L32-4-2"3/4"
		2"1"	50.8	25.4	50.8	1.6/2	1.6/2	AS-L31-L32-4-2"1"
		2"1.25"	50.8	31.8	50.8	1.6/2	1.6/2	AS-L31-L32-4-2"1.25"
		2"1.5"	50.8	38.1	50.8	1.6/2	1.6/2	AS-L31-L32-4-2"1.5"
		2.5"1"	63.5	25.4	63.5	1.6/2	1.6/2	AS-L31-L32-4-2.5"1"
		2.5"1.25"	63.5	31.8	63.5	1.6/2	1.6/2	AS-L31-L32-4-2.5"1.25"
		2.5"1.5"	63.5	38.1	63.5	1.6/2	1.6/2	AS-L31-L32-4-2.5"1.5"
		2.5"2"	63.5	50.8	63.5	1.6/2	1.6/2	AS-L31-L32-4-2.5"2"
		3"1"	76.2	25.4	76.2	1.6/2	1.6/2	AS-L31-L32-4-3"1"
		3"1.25"	76.2	31.8	76.2	1.6/2	1.6/2	AS-L31-L32-4-3"1.25"
		3"1.5"	76.2	38.1	76.2	1.6/2	1.6/2	AS-L31-L32-4-3"1.5"
		3"2"	76.2	50.8	76.2	1.6/2	1.6/2	AS-L31-L32-4-3"2"
		3"2.5"	76.2	63.5	76.2	1.6/2	1.6/2	AS-L31-L32-4-3"2.5"
		4"1"	101.6	25.4	101.6	1.6/2	1.6/2	AS-L31-L32-4-4"1"
		4"1.25"	101.6	31.8	101.6	1.6/2	1.6/2	AS-L31-L32-4-4"1.25"
		4"1.5"	101.6	38.1	101.6	1.6/2	1.6/2	AS-L31-L32-4-4"1.5"
		4"2"	101.6	50.8	101.6	1.6/2	1.6/2	AS-L31-L32-4-4"2"
		4"2.5"	101.6	63.5	101.6	1.6/2	1.6/2	AS-L31-L32-4-4"2.5"
		4"3"	101.6	76.2	101.6	1.6/2	1.6/2	AS-L31-L32-4-4"3"
		5"2"	127	50.8	127	1.6/2	1.6/2	AS-L31-L32-4-5"2"
		5"3"	127	76.2	127	1.6/2	1.6/2	AS-L31-L32-4-5"3"
		5"4"	127	101.6	127	1.6/2	1.6/2	AS-L31-L32-4-5"4"
		6"2"	152.4	50.8	152.4	1.6/2	1.6/2	AS-L31-L32-4-6"2"
		6"2.5"	152.4	63.5	152.4	1.6/2	1.6/2	AS-L31-L32-4-6"2.5"
		6"3"	152.4	76.2	152.4	1.6/2	1.6/2	AS-L31-L32-4-6"3"
		6"4"	152.4	101.6	152.4	1.6/2	1.6/2	AS-L31-L32-4-6"4"
		6"5"	152.4	127	152.4	1.6/2	1.6/2	AS-L31-L32-4-6"5"

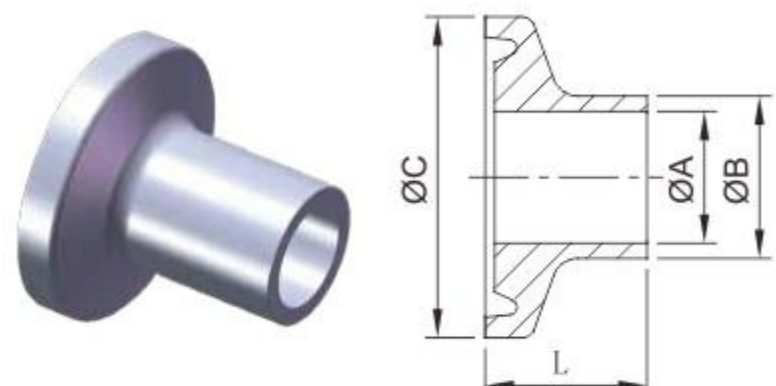
14MPHR/14WHR HOSE ADAPTER		SIZE	ØA	ØB	ØC	L	L1	Part Number
		1/2"1/2"	9.5	13.7	25.2	38	25.3	14MPHR/14WHR-4-1/2"1/2"
		3/4"3/4"	15.8	21.4	25.2	38	25.3	14MPHR/14WHR-4-3/4"3/4"
		1"1/2"	9.5	13.7	50.5	38	25.3	14MPHR/14WHR-4-1"1/2"
		1"3/4"	15.8	21.4	50.5	38	25.3	14MPHR/14WHR-4-1"3/4"
		1"1"	20.6	25.4	50.5	43	30.3	14MPHR/14WHR-4-1"1"
		1.5"1/2"	9.5	13.7	50.5	38	25.3	14MPHR/14WHR-4-1.5"1/2"
		1.5"3/4"	15.8	21.4	50.5	38	25.3	14MPHR/14WHR-4-1.5"3/4"
		1.5"1.5"	20.6	25.4	50.5	43	25.3	14MPHR/14WHR-4-1.5"1.5"
		1.5"1.5"	33.2	38.1	50.5	43	30.3	14MPHR/14WHR-4-1.5"1.5"
		2"1.5"	33.2	38.1	64	43	30.3	14MPHR/14WHR-4-2"1.5"
		2"2"	46	50.8	64	58.7	46	14MPHR/14WHR-4-2"2"
		2.5"2.5"	58.7	63.5	77.5	59.5	46.8	14MPHR/14WHR-4-2.5"2.5"
		3"3"	72	76.2	91	78.6	65.9	14MPHR/14WHR-4-3"3"
		4"4"	97.6	101.6	119	85.5	72.8	14MPHR/14WHR-4-4"4"

3A Welding Ferrule		SIZE	ØA	ØB	ØC	L	L	L	Part Number
		1/4"	3.9	6.35	25	12.7	21.5	28.6	14WMP/14MMP/14AM7-0.25
		1/2"	9.4	12.7	25	12.7	21.5	28.6	14WMP/14MMP/14AM7-0.5
		DN15	9.7	12.7	25.4	12.7	21.5	28.6	14WMP/14MMP/14AM7-DN15
		3/4"	15.75	19.05	25	12.7	21.5	28.6	14WMP/14MMP/14AM7-0.75
		DN20	15.95	19.05	25.4	12.7	21.5	28.6	14WMP/14MMP/14AM7-DN20
		1"	22.1	25.4	50.5	12.7	21.5	28.6	14WMP/14MMP/14AM7-1
		DN25	22.5	25	50.5	—	21.5	28.6	14WMP/14MMP/14AM7-DN25
		1.25"	28.45	31.75	50.5	12.7	21.5	28.6	14WMP/14MMP/14AM7-1.25
		1.5"	34.8	38.1	50.5	12.7	21.5	28.6	14WMP/14MMP/14AM7-1.5
		DN38	35.5	38.1	50.5	—	21.5	28.6	14WMP/14MMP/14AM7-DN38
		2.0"	47.5	50.8	64	12.7	21.5	28.6	14WMP/14MMP/14AM7-2.0
		DN51	48.5	51	64	—	21.5	28.6	14WMP/14MMP/14AM7-DN51
		2.5"	60.2	63.5	77.5	12.7	21.5	28.6	14WMP/14MMP/14AM7-2.5
		DN63.5	60.5	63.5	77.5	—	21.5	28.6	14WMP/14MMP/14AM7-DN63.5
		DN76	72.9	76.1	91	—	21.5	28.6	14WMP/14MMP/14AM7-DN76
		3.0"	72.9	76.2	91	12.7	21.5	28.6	14WMP/14MMP/14AM7-3.0
		DN104	100	104	119	—	21.5	28.6	14WMP/14MMP/14AM7-DN104
		4.0"	97.4	101.6	119	15.8	21.5	28.6	14WMP/14MMP/14AM7-4.0
		6.0"	146.86	152.5	166.87	—	21.5	28.6 or 38.1	14WMP/14MMP/14AM7-6.0
		8.0"	197.66	203.3	217.67	—	21.5	28.6 or 38.1	14WMP/14MMP/14AM7-8.0
		10"	247.2	254	268.47	—	21.5	28.6 or 38.1	14WMP/14MMP/14AM7-10
		12"	298	304.8	319.27	—	21.5	28.6 or 38.1	14WMP/14MMP/14AM7-12

Ferrule Adapter

SMS Welding Ferrule

1/2"~3/4"

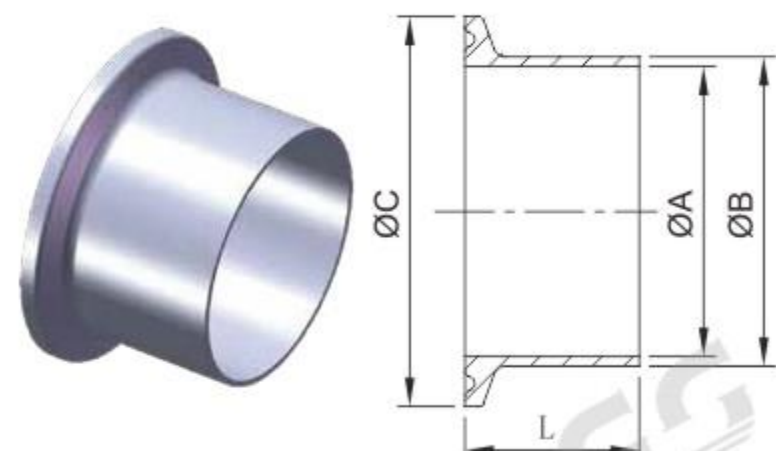


1.0"~12"



SIZE	ØA	ØB	ØC	L	L	L	Part Number
1/4"	3.9	6.35	25	12.7	21.5	28.6	SMS-14AM7-0.25
1/2"	9.4	12.7	25	12.7	21.5	28.6	SMS-14AM7-0.5
DN15	9.7	12.7	25.4	12.7	21.5	28.6	SMS-14AM7-DN15
3/4"	15.75	19.05	25	12.7	21.5	28.6	SMS-14AM7-0.75
DN20	15.95	19.05	25.4	12.7	21.5	28.6	SMS-14AM7-DN20
1"	22.1	25.4	50.5	12.7	21.5	28.6	SMS-14AM7-1
DN25	22.5	25	50.5	—	21.5	28.6	SMS-14AM7-DN25
1.25"	28.45	31.75	50.5	12.7	21.5	28.6	SMS-14AM7-1.25
1.5"	34.8	38.1	50.5	12.7	21.5	28.6	SMS-14AM7-1.5
DN38	35.5	38.1	50.5	—	21.5	28.6	SMS-14AM7-DN38
2.0"	47.5	50.8	64	12.7	21.5	28.6	SMS-14AM7-2.0
DN51	48.5	51	64	—	21.5	28.6	SMS-14AM7-DN51
2.5"	60.2	63.5	77.5	12.7	21.5	28.6	SMS-14AM7-2.5
DN63.5	60.5	63.5	77.5	—	21.5	28.6	SMS-14AM7-DN63.5
DN76	72.9	76.1	91	—	21.5	28.6	SMS-14AM7-DN76
3.0"	72.9	76.2	91	12.7	21.5	28.6	SMS-14AM7-3.0
DN104	100	104	119	—	21.5	28.6	SMS-14AM7-DN104
4.0"	97.4	101.6	119	15.8	21.5	28.6	SMS-14AM7-4.0
6.0"	146.86	152.5	166.87	—	21.5	28.6 or 38.1	SMS-14AM7-6.0
8.0"	197.66	203.3	217.67	—	21.5	28.6 or 38.1	SMS-14AM7-8.0
10"	247.2	254	268.47	—	21.5	28.6 or 38.1	SMS-14AM7-10
12"	298	304.8	319.27	—	21.5	28.6 or 38.1	SMS-14AM7-12

DIN Ferrule

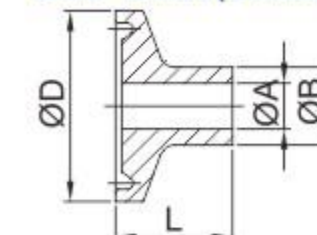


SIZE	DA		DB		ØC	L	Part Number
	ØA	ØB	ØA	ØB			
DN6	6	8	—	—	34	12.7	D14AM-DN6
DN8	8	10	—	—	34	12.7	D14AM-DN8
DN10	10	13	9	12	34	18	D14AM-DN10
DN15	16	19	15	18	34	18	D14AM-DN15
DN20	20	23	19	22	34	18	D14AM-DN20
DN25	26	29	25	28	50.5	21.5	D14AM-DN25
DN32	32	35	31	34	50.5	21.5	D14AM-DN32
DN40	38	41	37	40	50.5	21.5	D14AM-DN40
DN50	50	53	49	52	64	21.5	D14AM-DN50
DN65	66	70	66	70	91	28	D14AM-DN65
DN80	81	85	81	85	106	28	D14AM-DN80
DN101.6	—	—	97.6	101.6	119	28	D14AM-DN101.6
DN100	100	104	100	104	119	28	D14AM-DN100
DN125	125	129	125	129	155	28	D14AM-DN125
DN150	150	154	150	154	183	28	D14AM-DN150
DN200	200	204	200	204	233.5	28	D14AM-DN200

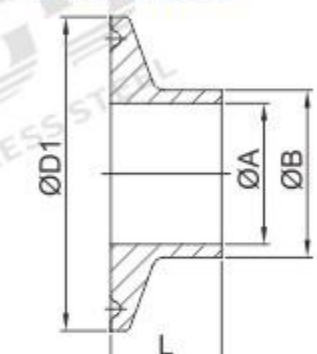
Ferrule Adapter

ISO Ferrule

DN6~DN10(DIN32676)

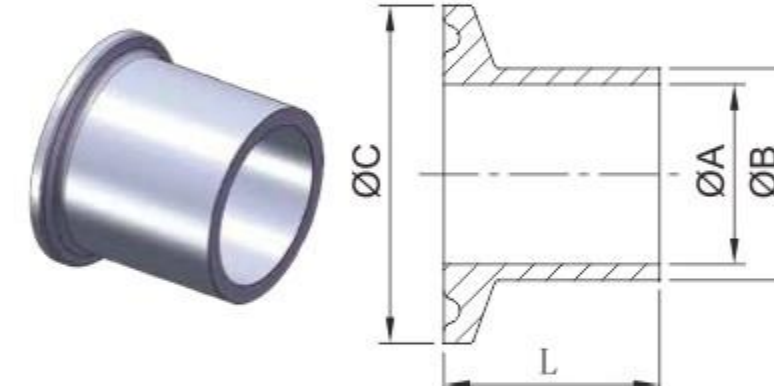


DN15~DN200(DIN32676)
DN8~DN200



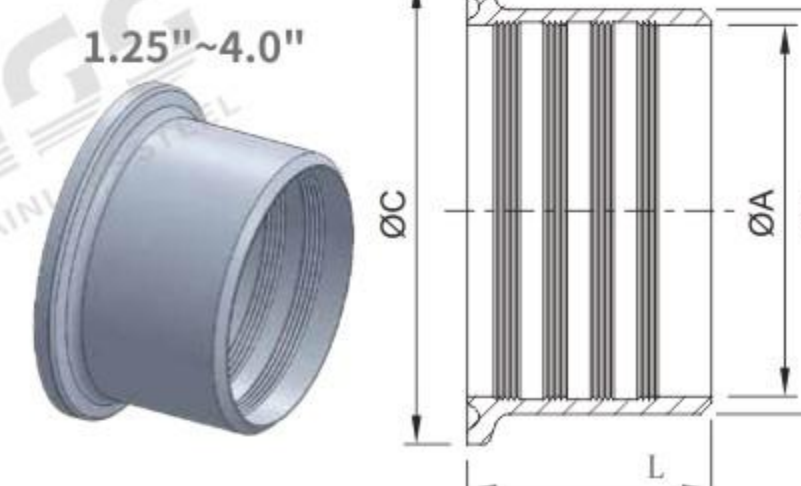
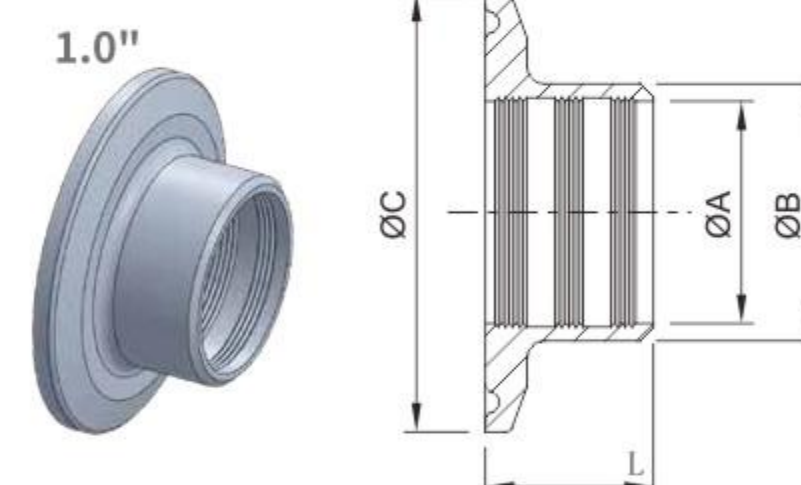
SIZE	ØA	ØB	ØD	ØD1	L	Part Number
DN6	7	10.2	25	—	12.7	S14AM-DN6
DN8	10.3	13.5	25	34	12.7	S14AM-DN8
DN10	14	17.2	25	34	12.7	S14AM-DN10
DN15	18.1	21.3	50.5	34	21.5	S14AM-DN15
DN20	23.7	26.9	50.5	50.5	21.5	S14AM-DN20
DN25	30.5	33.7	50.5	50.5	21.5	S14AM-DN25
DN32	39.2	42.4	50.5	50.5	21.5	S14AM-DN32
DN40	45.1	48.3	64	64	21.5	S14AM-DN40
DN50	56.3	60.3	77.5	77.5	28	S14AM-DN50
DN65	72.1	76.1	91	91	28	S14AM-DN65
DN80	84.9	88.9	106	106	28	S14AM-DN80
DN100	109.1	114.3	130	130	28	S14AM-DN100
DN125	133.7	139.7	155	155	28	S14AM-DN125
DN150	162.3	168.3	183	183	28	S14AM-DN150
DN200	211.1	219.1	233.5	233.5	28	S14AM-DN200

14MPW Heavy Tank Ferrule



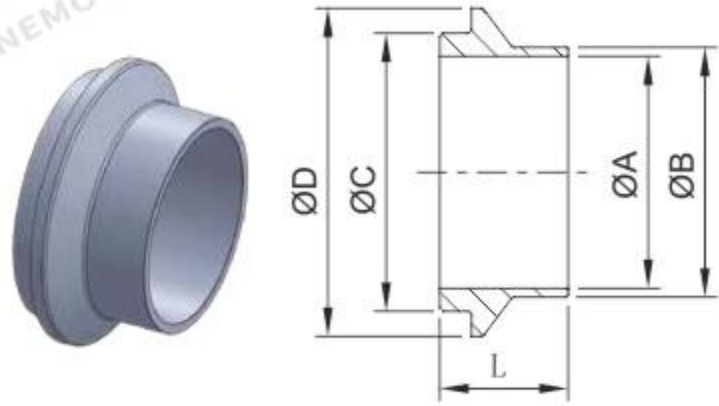
SIZE	ØA	ØB	ØC	L	Part Number
1/2"	8.15	12.75	25.2	54	14MPW-4-0.5
3/4"	14.6	19.05	25.2	54	14MPW-4-0.75
1.0"	22.1	29.5	50.5	41.3	14MPW-4-1
1.5"	34.8	42.6	50.5	41.3	14MPW-4-1.5
2.0"	47.5	55.7	64	44.5	14MPW-4-2.0
2.5"	60.2	68.8	77.5	44.5	14MPW-4-2.5
3.0"	72.9	81.9	91	46.1	14MPW-4-3.0
4.0"	97.4	108.1	119	54	14MPW-4-4.0
6.0"	146.25	157.3	166.87	63.5	14MPW-4-6.0
8.0"	197.05	208.1	217.67	63.5	14MPW-4-8.0

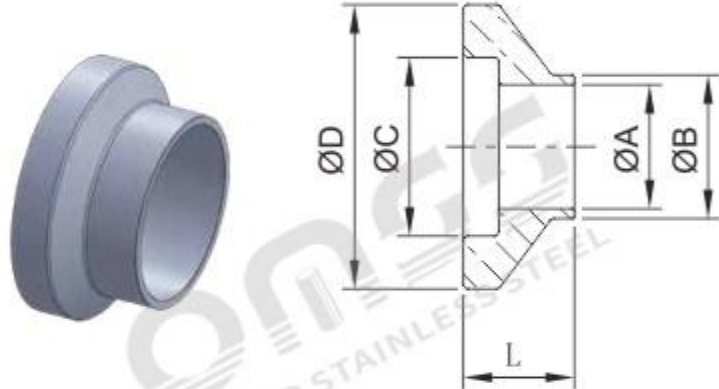
14RMP 3A Roll-on Ferrule

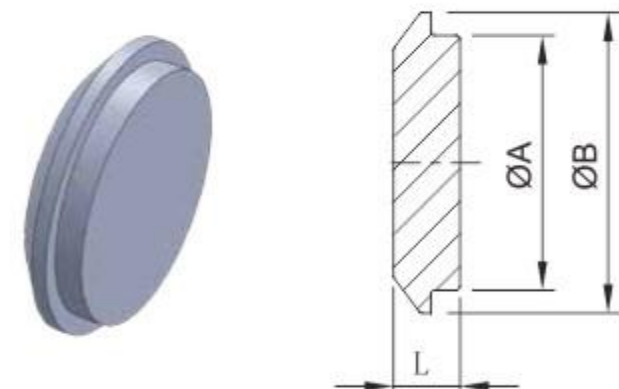


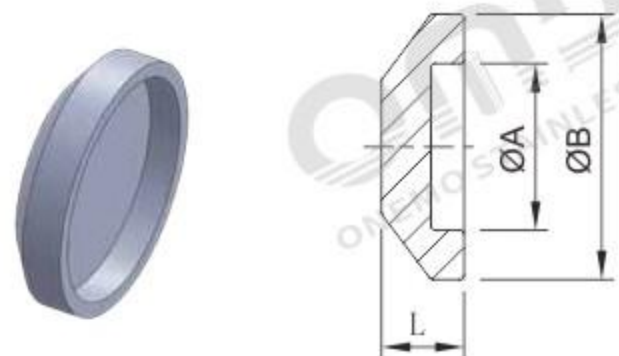
SIZE	ØA	ØB	ØC	L	Part Number
1.0"	25.5	29.5	50.5	19.1	14RMP-4-1
1.25"	31.9	36.3	50.5	21.5	14RMP-4-1.25
1.5"	38.2	42.6	50.5	28.6	14RMP-4-1.5
2.0"	50.9	55.7	64	33.3	14RMP-4-2
2.5"	63.6	68.8	77.5	34.9	14RMP-4-2.5
3.0"	76.3	81.9	91	36.5	14RMP-4-3
4.0"	101.7	108.1	119	38.1	14RMP-4-4

I-Line Ferrule Adapter

14WI I-Line Ferrule Male		SIZE	ØA	ØB	ØC	ØD	L	Part Number
		1.0"	22.1	25.65	31.5	50.67	19.84	14WI-4-1
		1.5"	34.8	38.35	44.2	50.67	23.8	14WI-4-1.5
		2.0"	47.5	51.05	56.9	67.05	26.19	14WI-4-2
		2.5"	60.2	63.75	69.6	84	29.36	14WI-4-2.5
		3.0"	72.89	76.45	83.82	98.3	30.94	14WI-4-3
		4.0"	97.38	101.85	109.14	123.7	34.11	14WI-4-4

15WI I-Line Ferrule Female		SIZE	ØA	ØB	ØC	ØD	L	Part Number
		1.0"	22.1	25.65	31.88	50.67	19.84	15WI-4-1
		1.5"	34.8	38.35	44.58	50.67	23.8	15WI-4-1.5
		2.0"	47.5	51.05	57.28	67.05	26.19	15WI-4-2
		2.5"	60.2	63.75	69.98	84	29.36	15WI-4-2.5
		3.0"	72.89	76.45	84.2	98.3	30.94	15WI-4-3
		4.0"	97.38	101.85	109.6	123.7	34.11	15WI-4-4

16AI-14I Male I-Line End Cap		SIZE	ØA	ØB	L	Part Number
		1.0"	31.5	50.67	12.37	16AI-14I-4-1
		1.5"	44.2	50.67	12.37	16AI-14I-4-1.5
		2.0"	56.9	67.05	14.11	16AI-14I-4-2
		2.5"	69.6	84	18.72	16AI-14I-4-2.5
		3.0"	83.82	98.3	19.32	16AI-14I-4-3
		4.0"	109.14	123.7	19.32	16AI-14I-4-4

16AI-15I Female I-Line End Cap		SIZE	ØA	ØB	L	Part Number
		1.0"	31.88	50.67	12.75	16AI-15I-4-1
		1.5"	44.58	50.67	12.75	16AI-15I-4-1.5
		2.0"	57.28	67.05	17.66	16AI-15I-4-2
		2.5"	69.98	84	18.77	16AI-15I-4-2.5
		3.0"	84.2	98.3	19.37	16AI-15I-4-3
		4.0"	109.6	123.7	19.37	16AI-15I-4-4

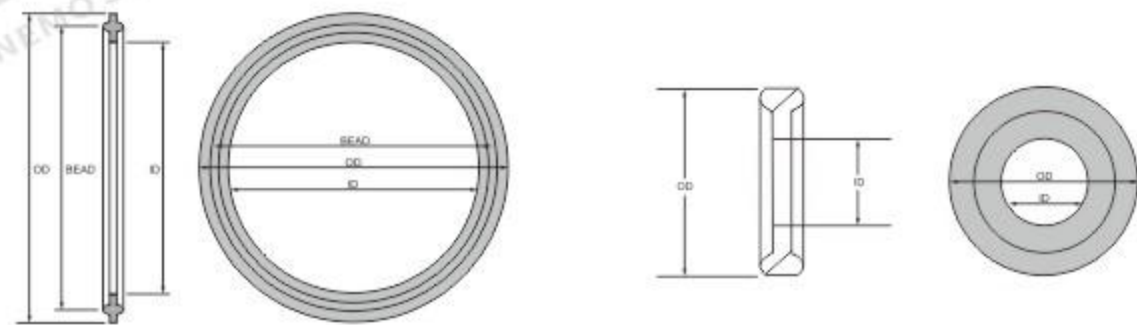
Dimensional Chart For Tri-Clamp® Gaskets

ID		OD		Bead		Series A DIN32676	Series B ISO1127	Series C ASME BPE	ISO 2852	SMS 3019	BS 4825-3	SCH 5 BS	Special Size
inch	mm	inch	mm	inch	mm								
0.17	4.20	0.86	21.80	0.80	20.20								X
0.19	4.80	0.86	21.80	0.80	20.20			1/4"					
0.24	6.20	0.86	21.80	0.80	20.20	DN06							
0.28	7.20	0.86	21.80	0.80	20.20		DN06						
0.31	8.00	0.86	21.80	0.80	20.20			3/8"					
0.32	8.20	0.86	21.80	0.80	20.20	DN08							
0.38	9.60	0.86	21.80	0.80	20.20			1/2"			1/2"		
0.41	10.50	0.86	21.80	0.80	20.20		DN08						
0.48	12.20	0.86	21.80	0.80	20.20								X
0.56	14.20	0.86	21.80	0.80	20.20		DN10						
0.63	16.00	0.86	21.80	0.80	20.20			3/4"			3/4"		
0.88	22.30	1.34	34.00	0.80	20.20			1" Type A					
*21.8mm gaskets do not have a ferrule bead (Including 1" Type A). 21.8mm sizes utilize size:13MHMM-304-050/075													
0.39	10.00	1.34	34.00	1.08	27.50					DN12			
0.40	10.20	1.34	34.00	1.08	27.50	DN10			DN12				
0.41	10.50	1.34	34.00	1.08	27.50								X
0.43	10.90	1.34	34.00	1.08	27.50				DN12.7				
0.56	14.20	1.34	34.00	1.08	27.50								X
0.61	15.40	1.34	34.00	1.08	27.50				DN17.2				
0.64	16.20	1.34	34.00	1.08	27.50	DN15				DN18			
0.72	18.30	1.34	34.00	1.08	27.50								X
0.77	19.50	1.34	34.00	1.08	27.50				DN21.3				
0.80	20.20	1.34	34.00	1.08	27.50	DN20							
0.88	22.30	1.34	34.00	1.08	27.50								X
Above sizes utilize clamp size: 13MHMM-304-34mm (Including 1" Type A)													
0.40	10.20	2.00	50.50	1.71	43.50								X
0.56	14.20	2.00	50.50	1.71	43.50								X
0.64	16.20	2.00	50.50	1.71	43.50								X
0.72	18.30	2.00	50.50	1.71	43.50		DN15						
0.80	20.20	2.00	50.50	1.71	43.50								X
0.88	22.30	2.00	50.50	1.71	43.50			1"					
0.90	22.80	2.00	50.50	1.71	43.50				DN25	DN25			
0.94	23.90	2.00	50.50	1.71	43.50		DN20						
1.03	26.20	2.00	50.50	1.71	43.50	DN25							
1.18	29.90	2.00	50.50	1.71	43.50		DN25						
1.20	30.50	2.00	50.50	1.71	43.50								1"
1.24	31.50	2.00	50.50	1.71	43.50				DN33.7	DN33.7			
1.27	32.50	2.00	50.50	1.71	43.50	DN32							
1.38	35.00	2.00	50.50	1.71	43.50			1.5"			1.5"		
1.41	35.80	2.00	50.50	1.71	43.50				DN38	DN38			
1.50	38.20	2.00	50.50	1.71	43.50	DN40							
1.52	38.60	2.00	50.50	1.71	43.50								X
Above sizes utilize clamp size: 13MHMM-304-100/150													
1.49	37.80	2.52	64.00	2.22	56.50					DN40			
1.52	38.60	2.52	64.00	2.22	56.50		DN32						
1.75	44.50	2.52	64.00	2.22	56.50		DN40						
1.78	45.30	2.52	64.00	2.22	56.50								1.5"
1.88	47.70	2.52	64.00	2.22	56.50			2"			2"		
1.92	48.80	2.52	64.00	2.22	56.50				DN51	DN51			
1.98	50.20	2.52	64.00	2.22	56.50	DN50							
Above sizes utilize clamp size: 13MHMM-304-200													

Dimensional Chart For Tri-Clamp® Gaskets

ID		OD		Bead		Series A DIN32676	Series B ISO1127	Series C ASME BPE	ISO 2852	SMS 3019	BS 4825-3	SCH 5 BS	Special Size
inch	mm	inch	mm	inch	mm								
2.22	56.50	3.05	77.50	2.78	70.50	DN50							
2.26	57.40	3.05	77.50	2.78	70.50	2"							
2.38	60.40	3.05	77.50	2.78	70.50	2.5"							
2.38	60.50	3.05	77.50	2.78	70.50	DN63.5 DN63.5							
Above sizes utilize clamp size: 13MHHM-304-250													
2.61	66.20	3.58	91.00	3.29	83.50	DN65							
2.64	67.00	3.58	91.00	3.29	83.50	DN70							
2.72	69.00	3.58	91.00	3.29	83.50	2.5"							
2.85	72.30	3.58	91.00	3.29	83.50	DN65							
2.88	73.10	3.58	91.00	3.29	83.50	3" DN76.1 DN76.1 3"							
Above sizes utilize clamp size: 13MHHM-304-300													
3.20	81.20	4.17	106.00	3.82	97.00	DN80							
3.33	84.50	4.17	106.00	3.82	97.00	DN80							
3.35	85.10	4.17	106.00	3.82	97.00	DN88.9 DN88.9 3"							
Above sizes utilize clamp size: 13MHHM-V-304-300													
3.84	97.60	4.67	119.00	4.33	110.00	4" 4"							
3.85	97.80	4.67	119.00	4.33	110.00	DN101.6 DN101.6							
3.94	100.20	4.67	119.00	4.33	110.00	DN100							
Above sizes utilize clamp size: 13MHHM-304-400													
4.33	109.90	5.12	130.00	4.80	122.00	DN100							
4.35	110.50	5.12	130.00	4.80	122.00	DN114.3 DN114.3 4"							
Above sizes utilize clamp size: 13MHHM-V-304-400													
4.86	123.50	5.68	144.20	5.29	134.30	5"							
Above sizes utilize clamp size: 13MHHM-304-500													
4.93	125.20	6.10	155.00	5.75	146.00	DN125							
5.30	134.70	6.10	155.00	5.75	146.00	DN125							
5.35	135.90	6.10	155.00	5.75	146.00	DN139.7 DN139.7 5"							
Above sizes utilize clamp size: 13MHHM-V-304-500													
5.79	147.10	6.57	167.00	6.16	156.50	6"							
Above sizes utilize clamp size: 13MHHM-304-600													
5.91	150.20	7.20	183.00	6.85	174.00	DN150							
6.43	163.30	7.20	183.00	6.85	174.00	DN150 DN168.3 DN168.3 6"							
Above sizes utilize clamp size: 13MHHM-V-304-600													
7.78	197.60	8.56	217.40	8.15	207.00	8"							
Above sizes utilize clamp size: 13MHHM-304-800													
7.88	200.20	9.19	233.50	8.86	225.00	DN200							
8.43	214.10	9.19	233.50	8.86	225.00	DN200 DN219.1 DN219.1 8"							
Above sizes utilize clamp size: 13MHHM-V-304-800													
9.77	248.20	10.66	271.00	10.14	257.60	DN250* 10"							
Above sizes utilize clamp size: 13MHHM-304-1000													
10.49	266.50	11.32	287.60	11.00	279.40	10"							
Above sizes utilize clamp size: 13MHHM-V-304-1000													
11.81	300.00	12.56	319.00	12.17	309.00	DN300* 12"							
Above sizes utilize clamp size: 13MHHM-304-1200													
12.44	316.00	13.31	338.10	12.93	328.42	Above sizes utilize clamp size: 13MHHM-V-304-1200							
Above sizes utilize clamp size: 13MHHM-V-304-1200													
12"													
Above sizes utilize clamp size: 13MHHM-V-304-1200													

* Not included in the sanitary standard



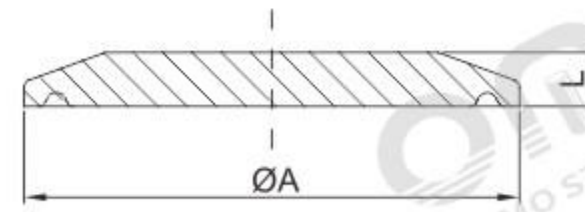
Ferrule Seal

(PTFE)ISO TYPE 13PG	SIZE	ØA	ØB	Part Number	(EPDM)DIN TYPE 13PG	SIZE	ØA	ØB	Part Number
	DN8	11.1	33.2	ISO-13FG-DN8-PTFE		DN10	9.8	33.2	D13FG-DN10-EPDM
	DN12	14.8	33.2	ISO-13FG-DN12-PTFE		DN15	15.8	33.2	D13FG-DN15-EPDM
	DN15	18.9	33.2	ISO-13FG-DN15-PTFE		DN20	19.8	33.2	D13FG-DN20-EPDM
	DN20	24.5	49.7	ISO-13FG-DN20-PTFE		DN28	25.8	49.7	D13FG-DN28-EPDM
	DN25	31.3	49.7	ISO-13FG-DN25-PTFE		DN34	31.8	49.7	D13FG-DN34-EPDM
	DN32	40	49.7	ISO-13FG-DN32-PTFE		DN40	37.8	49.7	D13FG-DN40-EPDM
	DN40	45.9	63.2	ISO-13FG-DN40-PTFE		DN52	49.8	63.2	D13FG-DN52-EPDM
	DN50	57.1	76.7	ISO-13FG-DN50-PTFE		DN70	66.8	90.2	D13FG-DN70-EPDM
	DN65	72.9	90.2	ISO-13FG-DN65-PTFE		DN85	81.8	105.2	D13FG-DN85-EPDM
	DN80	85.7	105.2	ISO-13FG-DN80-PTFE		DN101.6	98.4	118.2	D13FG-DN101.6-EPDM
	DN100	109.9	129.2	ISO-13FG-DN100-PTFE		DN104	100.8	118.2	D13FG-DN104-EPDM
	DN125	134.5	154.2	ISO-13FG-DN125-PTFE		DN125	125.8	154.2	D13FG-DN125-EPDM
	DN150	163.1	182.2	ISO-13FG-DN150-PTFE		DN150	150.8	182.2	D13FG-DN150-EPDM
	DN200	211.9	232.7	ISO-13FG-DN200-PTFE		DN200	200.8	232.7	D13FG-DN200-EPDM

Flanged type 13FG	SIZE	ØA	ØB	Part Number
	1.0"	22.8	52.7	13FG-4-1
	1.5"	35.8	52.7	13FG-4-1.5
	2.0"	48.8	66.2	13FG-4-2
	2.5"	60.5	79.7	13FG-4-2.5
	3.0"	73.1	93.2	13FG-4-3
	4.0"	97.8	121.2	13FG-4-4
	6.0"	148	169.1	13FG-4-6
	10"	249	270.7	13FG-4-10
	12"	300	321.5	13FG-4-12

Ferrule Adapter

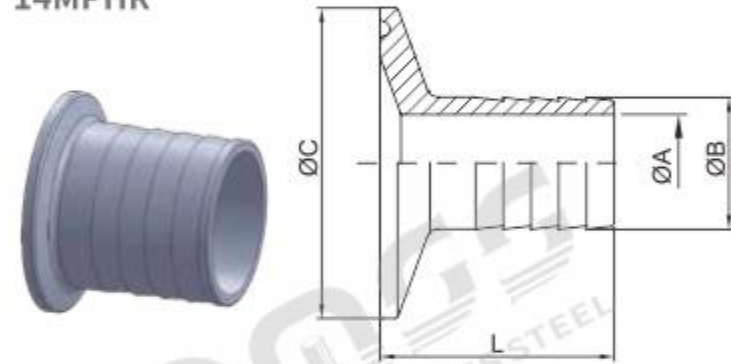
BLANK CAP 16AMP



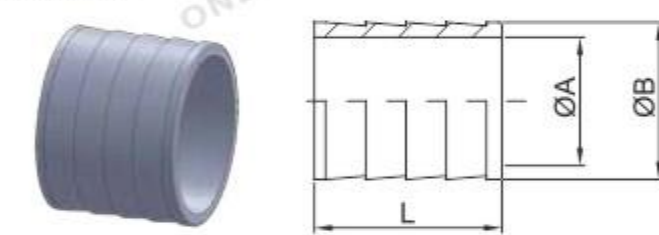
3A	1/2"-3/4"		A37	1"			1.5"		2"		2.5"		3"		4"			6"			8"		10"		12"	
DIN	—	—	DN10	DN15	DN20	DN25	DN32	DN40	DN50	—	DN65	DN80	DN100	—	DN125	—	DN150	—	DN200	—	—					
ISO	—	—	DN8	DN12	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	—	DN100	DN125	—	DN150	—	DN200	—	—					
ψA	25	34	34	34	34	50.5	50.5	50.5	64	77.5	91	106	119	130	155	166.8	183	217.7	233.5	268.5	319.3					
L	6	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	7.9	7.9	7.9	11.1	11.1	11.1	11.1	11.1	11.1					

14MPHR/14WHR HOSE ADAPTER

14MPHR

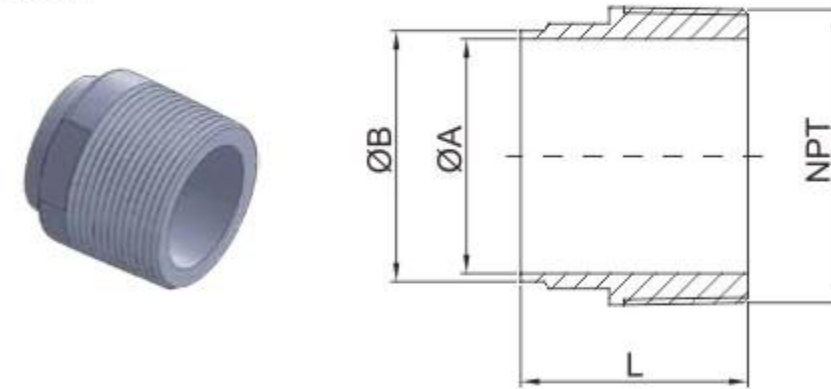


14WHR



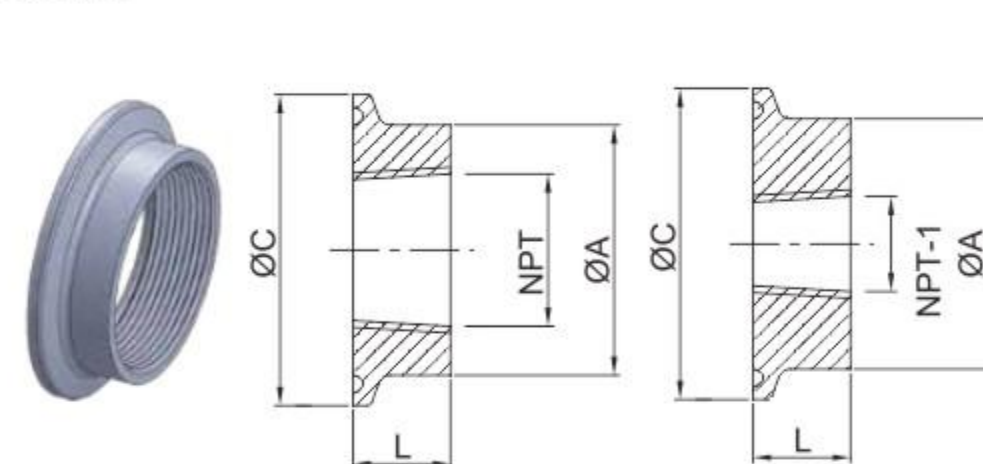
SIZE	ØA	ØB	ØC	L	L1	Part Number
1/2"×1/2"	9.5	13.7	25.2	38	25.3	14MPHR-14WHR-4-1/2"×1/2"
3/4"×3/4"	15.8	21.4	25.2	38	25.3	14MPHR-14WHR-4-3/4"×3/4"
1"×1/2"	9.5	13.7	50.5	38	25.3	14MPHR-14WHR-4-1"×1/2"
1"×3/4"	15.8	21.4	50.5	38	25.3	14MPHR-14WHR-4-1"×3/4"
1"×1"	20.6	25.4	50.5	43	30.3	14MPHR-14WHR-4-1"×1"
1.5"×1/2"	9.5	13.7	50.5	38	25.3	14MPHR-14WHR-4-1.5"×1/2"
1.5"×3/4"	15.8	21.4	50.5	38	25.3	14MPHR-14WHR-4-1.5"×3/4"
1.5"×1.0"	20.6	25.4	50.5	43	25.3	14MPHR-14WHR-4-1.5"×1.0"
1.5"×1.5"	33.2	38.1	50.5	43	30.3	14MPHR-14WHR-4-1.5"×1.5"
2"×1.5"	33.2	38.1	64	43	30.3	14MPHR-14WHR-4-2"×1.5"
2"×2"	46	50.8	64	58.7	46	14MPHR-14WHR-4-2"×2"
2.5"×2.5"	58.7	63.5	77.5	59.5	46.8	14MPHR-14WHR-4-2.5"×2.5"
3"×3"	72	76.2	91	78.6	65.9	14MPHR-14WHR-4-3"×3"
4"×4"	97.6	101.6	119	85.5	72.8	14MPHR-14WHR-4-4"×4"

B19W



SIZE	ØA±0.12	ØB±0.12	(H) NPT	L	Part Number
1/2"	9.4	12.7	1/2"-14T NPT	41.3	B19W-4-0.5
3/4"	15.75	19.05	3/4"-14T NPT	41.3	B19W-4-0.75
1.0"	22.1	25.4	1.0"-11.5T NPT	44.5	B19W-4-1
1.5"	34.8	38.1	1.5"-11.5T NPT	44.5	B19W-4-1.5
2.0"	47.5	50.8	2.0"-11.5T NPT	46	B19W-4-2
2.5"	60.2	63.5	2.5"-8T NPT	58.7	B19W-4-2.5
3.0"	72.9	76.2	3.0"-8T NPT	63.5	B19W-4-3
4.0"	97.4	101.6	4.0"-8T NPT	65.1	B19W-4-4
6.0"	146.9	152.4	6.0"-8T NPT	76.2	B19W-4-6

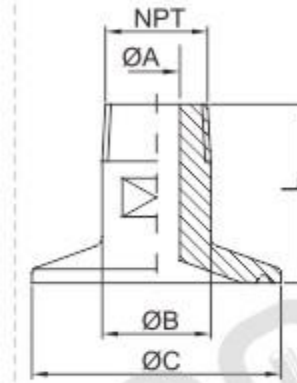
23BMP



SIZE	ØA ^{+0.13} ₀	ØC±0.07	ØL	NPT	NPT-1	Part Number
1.0"	25.4	50.5	15.8	1.0"-11.5T NPT	1/2"-14T NPT	23BMP-4-1
1.5"	38.1	50.5	15.8	1.5"-11.5T NPT	3/4"-14T NPT	23BMP-4-1.5
2.0"	50.8	64	15.8	2.0"-11.5T NPT	3/4"-14T NPT	23BMP-4-2
2.5"	63.5	77.5	15.8	2.5"-8T NPT	3/4"-14T NPT	23BMP-4-2.5
3.0"	76.2	91	15.8	3.0"-8T NPT	3/4"-14T NPT	23BMP-4-3
4.0"	101.6	119	15.8	4.0"-8T NPT	3/4"-14T NPT	23BMP-4-4
6.0"	101.6	166.8	15.8	6.0"-8T NPT	3/4"-14T NPT	23BMP-4-6

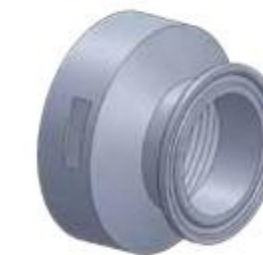
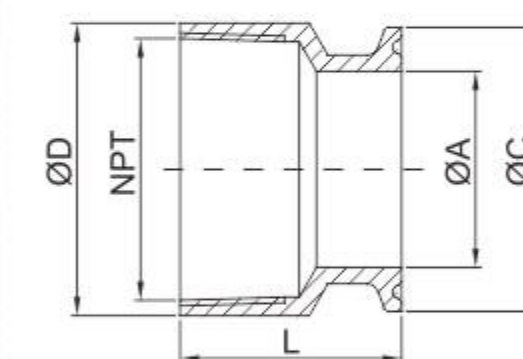
Ferrule Adapter

21MP



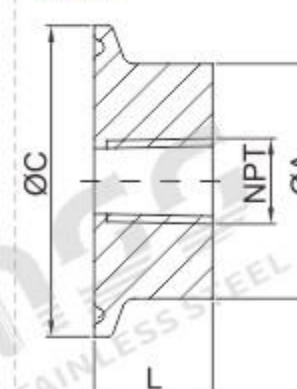
SIZE	ØA	ØB	ØC	L	NPT	Part Number	SIZE	ØA	ØB	ØC	L	NPT	Part Number
1/2"×1/2"	9.4	12.7	25.2	45	1/2"-18T	21MP-4-1/2"×1/2"	2"×4"	97.6	50.8	64	75	4"-8T	21MP-4-2"×4"
3/4"×1/2"	15.75	19.05	25.2	45	1/2"-18T	21MP-4-3/4"×1/2"	2.5"×1"	22.1	63.5	77.5	50	1"-11.5T	21MP-4-2.5"×1"
3/4"×3/4"	15.75	19.05	25.2	45	3/4"-18T	21MP-4-3/4"×3/4"	2.5"×1.5"	34.8	63.5	77.5	50	1.5"-11.5T	21MP-4-2.5"×1.5"
1"×1.5"×1/4"	3.18	14	50.5	40	1/4"-18T	21MP-4-1"×1.5"×1/4"	2.5"×2"	47.6	63.5	77.5	55	2"-11.5T	21MP-4-2.5"×2"
1"×1.5"×3/8"	6.35	18	50.5	40	3/8"-18T	21MP-4-1"×1.5"×3/8"	2.5"×2.5"	60.2	63.5	77.5	60	2.5"-8T	21MP-4-2.5"×2.5"
1"×1.5"×1/2"	9.7	22	50.5	40	1/2"-14T	21MP-4-1"×1.5"×1/2"	2.5"×3"	72.9	63.5	77.5	70	3"-8T	21MP-4-2.5"×3"
1"×1.5"×3/4"	15.75	27	50.5	45	3/4"-14T	21MP-4-1"×1.5"×3/4"	2.5"×4"	97.6	63.5	77.5	75	4"-8T	21MP-4-2.5"×4"
1"×1.5"×1"	22.1	34	50.5	50	1"-11.5T	21MP-4-1"×1.5"×1"	3"×1"	22.1	76.2	91	55	1"-11.5T	21MP-4-3"×1"
1"×1.5"×1.25"	28.6	38.1	50.5	50	1.2"-11.5T	21MP-4-1"×1.5"×1.25"	3"×1.5"	34.8	76.2	91	55	1.5"-11.5T	21MP-4-3"×1.5"
1"×1.5"×1.5"	34.8	38.1	50.5	50	1.5"-11.5T	21MP-4-1"×1.5"×1.5"	3"×2"	47.5	76.2	91	55	2"-11.5T	21MP-4-3"×2"
1"×1.5"×2"	47.5	38.1	50.5	55	2"-11.5T	21MP-4-1"×1.5"×2"	3"×2.5"	60.2	76.2	91	60	2.5"-8T	21MP-4-3"×2.5"
2"×1/4"	3.18	50.8	64	40	1/4"-18T	21MP-4-2"×1/4"	3"×3"	72.9	76.2	91	70	3"-8T	21MP-4-3"×3"
2"×3/8"	6.35	50.8	64	40	3/8"-18T	21MP-4-2"×3/8"	3"×4"	97.6	76.2	91	75	4"-8T	21MP-4-3"×4"
2"×1/2"	9.4	50.8	64	40	1/2"-14T	21MP-4-2"×1/2"	4"×1"	22.1	101.6	119	55	1"-11.5T	21MP-4-4"×1"
2"×3/4"	15.75	50.8	64	50	3/4"-14T	21MP-4-2"×3/4"	4"×1.5"	34.8	101.6	119	55	1.5"-11.5T	21MP-4-4"×1.5"
2"×1"	22.1	50.8	64	50	1"-11.5T	21MP-4-2"×1"	4"×2"	47.5	101.6	119	55	2"-11.5T	21MP-4-4"×2"
2"×1.5"	34.8	50.8	64	50	1.5"-11.5T	21MP-4-2"×1.5"	4"×2.5"	60.2	101.6	119	60	2.5"-8T	21MP-4-4"×2.5"
2"×2"	47.5	50.8	64	55	2"-11.5T	21MP-4-2"×2"	4"×3"	72.9	101.6	119	70	3"-8T	21MP-4-4"×3"
2"×2.5"	60.2	50.8	64	60	2.5"-8T	21MP-4-2"×2.5"	4"×4"	97.6	101.6	119	75	4"-8T	21MP-4-4"×4"
2"×3"	72.9	50.8	64	70	3"-8T	21MP-4-2"×3"							

22MP



SIZE	ØA	ØC	ØD	NPT	L	Part Number
1/2"×1/2"	9.5	—	30	1/2" NPT	33	22MP-4-1/2"×1/2"
3/4"×3/4"	15.8	—	30	3/4" NPT	33	22MP-4-3/4"×3/4"
1.0"×1.5"×1.2"	22.2	34.9	50.5	1.2" NPT	39	22MP-4-1.0"×1.5"×1.2"
1.0"×1.5"×1.5"	22.2	34.9	50.5	1.5" NPT	39	22MP-4-1.0"×1.5"×1.5"
1.0"×1.5"×2.0"	22.2	34.9	50.5	2.0" NPT	39	22MP-4-1.0"×1.5"×2.0"
2.0"×2.0"	47.6	—	64	2.0" NPT	39	22MP-4-2.0"×2.0"
2.5"×2.5"	60.3	—	77.5	2.5" NPT	50	22MP-4-2.5"×2.5"
3.0"×2.5"	73	—	91	2.5" NPT	50	22MP-4-3.0"×2.5"
3.0"×3.0"	73	—	91	3.0" NPT	52	22MP-4-3.0"×3.0"
4.0"×4.0"	97.6	—	119	4.0" NPT	54	22MP-4-4.0"×4.0"

22MP



SIZE	ØA	ØC	L	NPT	Part Number	SIZE	ØA	ØC	L	NPT	Part Number
1.0"×1.5"×1/4"	38.1	50.5	19	1/4" NPT	22MP-4-1.0"×1.5"×1/4"	2.5"×1.0"	63.5	77.5	35	1.0" NPT	22MP-4-2.5"×1.0"
1.0"×1.5"×3/8"	38.1	50.5	19	3/8" NPT	22MP-4-1.0"×1.5"×3/8"	2.5"×1.5"	63.5	77.5	35	1.5" NPT	22MP-4-2.5"×1.5"
1.0"×1.5"×1/2"	38.1	50.5	19	1/2" NPT	22MP-4-1.0"×1.5"×1/2"	2.5"×2.0"	63.5	77.5	35	2.0" NPT	22MP-4-2.5"×2.0"
1.0"×1.5"×3/4"	38.1	50.5	19	3/4" NPT	22MP-4-1.0"×1.5"×3/4"	3.0"×1.0"	76.2	91	35	1.0" NPT	22MP-4-3.0"×1.0"
1.0"×1.5"×1.0"	38.1	50.5	19	1.0" NPT	22MP-4-1.0"×1.5"×1.0"	3.0"×1.5"	76.2	91	35	1.5" NPT	22MP-4-3.0"×1.5"
2.0"×1/4"	50.8	64	19	1/4" NPT	22MP-4-2.0"×1/4"	3.0"×2.0"	76.2	91	35	2.0" NPT	22MP-4-3.0"×2.0"
2.0"×3/8"	50.8	64	19	3/8" NPT	22MP-4-2.0"×3/8"	4.0"×1.0"	101.6	119	35	1.0" NPT	22MP-4-4.0"×1.0"
2.0"×1/2"	50.8	64	19	1/2" NPT	22MP-4-2.0"×1/2"	4.0"×1.5"	101.6	119	35	1.5" NPT	22MP-4-4.0"×1.5"
2.0"×3/4"	50.8	64	19	3/4" NPT	22MP-4-2.0"×3/4"	4.0"×2.0"	101.6	119	35	2.0" NPT	22MP-4-4.0"×2.0"
2.0"×1.0"	50.8	64	19	1.0" NPT	22MP-4-2.0"×1.0"	4.0"×2.5"	101.6	119	35	2.5" NPT	22MP-4-4.0"×2.5"
2.0"×1.5"	50.8	64	19	1.5" NPT	22MP-4-2.0"×1.5"	4.0"×3.0"	101.6	119	35	3.0" NPT	22MP-4-4.0"×3.0"

DIN-13 ROUND NUT



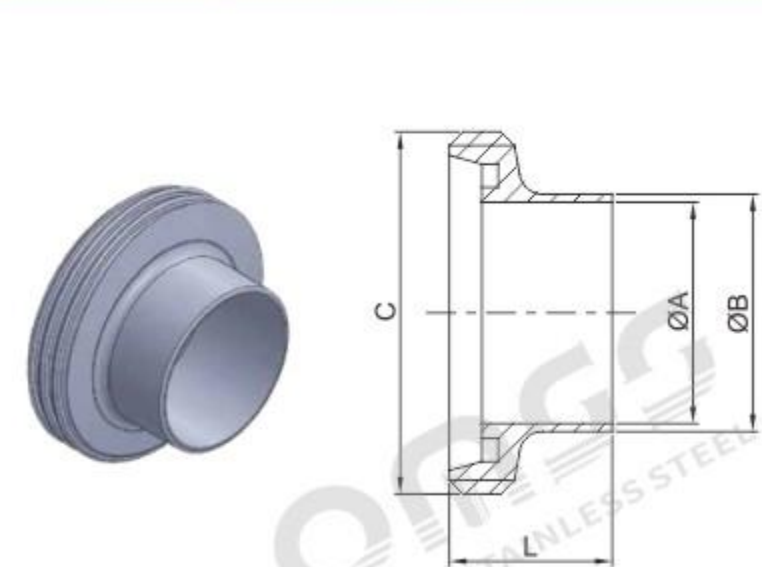
SIZE	ØA	B	ØC	D	L	SLOTS	Part Number	
10	19	RD 28*1/8	38	15	18	4	DIN-13R-4-10	DIN-13RBN-4-10
15	25	RD 34*1/8	44	15	18	4	DIN-13R-4-15	DIN-13RBN-4-15
20	31	RD 44*1/6	54	17	20	4	DIN-13R-4-20	DIN-13RBN-4-20
25	36	RD 52*1/6	63	18	21	4	DIN-13R-4-25	DIN-13RBN-4-25
32	42	RD 58*1/6	70	18	21	4	DIN-13R-4-32	DIN-13RBN-4-32
40	49	RD 65*1/6	78	18	21	4	DIN-13R-4-40	DIN-13RBN-4-40
50	62	RD 78*1/6	92	19	22	4	DIN-13R-4-50	DIN-13RBN-4-50
65	80	RD 95*1/6	112	21	25	6	DIN-13R-4-65	DIN-13RBN-4-65
80	94	RD110*1/4	127	25	29	6	DIN-13R-4-80	DIN-13RBN-4-80
90	104	RD120*1/4	138	26	30	6	DIN-13R-4-90	DIN-13RBN-4-90
100	115	RD130*1/4	148	26	31	6	DIN-13R-4-100	DIN-13RBN-4-100
125	138	RD160*1/4	178	30	35	6	DIN-13R-4-125	DIN-13RBN-4-125
150	164	RD190*1/4	210	34	40	6	DIN-13R-4-150	DIN-13RBN-4-150

DIN-14DA/DB WELDING LINER



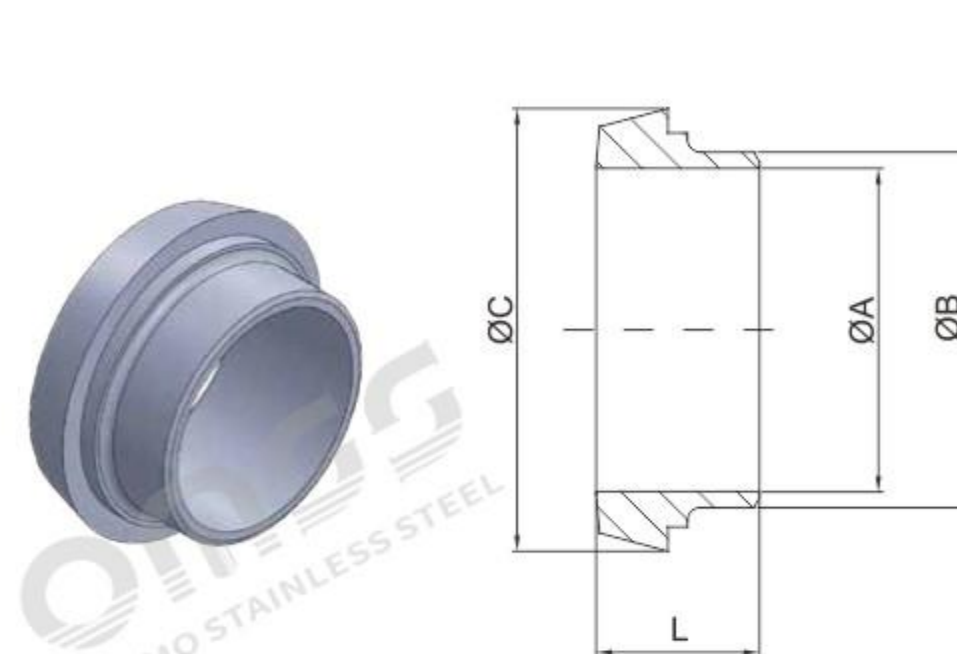
SIZE	DA		DB		ØC	L	Part Number
	ØA	ØB	ØA	ØB			
10	10	13	9	12	22.5	17	DIN-14DA/DB-4-10
15	16	19	15	18	28.5	17	DIN-14DA/DB-4-15
20	20	23	19	22	36.5	18	DIN-14DA/DB-4-20
25	26	29	25	28	44	22	DIN-14DA/DB-4-25
32	32	35	31	34	50	25	DIN-14DA/DB-4-32
40	38	41	37	40	56	26	DIN-14DA/DB-4-40
50	50	53	49	52	68.5	28	DIN-14DA/DB-4-50
60	57	61	57	61	76	30	DIN-14DA/DB-4-60
65	66	70	66	70	86	32	DIN-14DA/DB-4-65
80	81	85	81	85	100	37	DIN-14DA/DB-4-80
100	100	104	100	104	121	44	DIN-14DA/DB-4-100
125	125	129	125	129	150	34	DIN-14DA/DB-4-125
150	150	154	150	154	176	37	DIN-14DA/DB-4-150

DIN-15DA/DB WELDING MALE



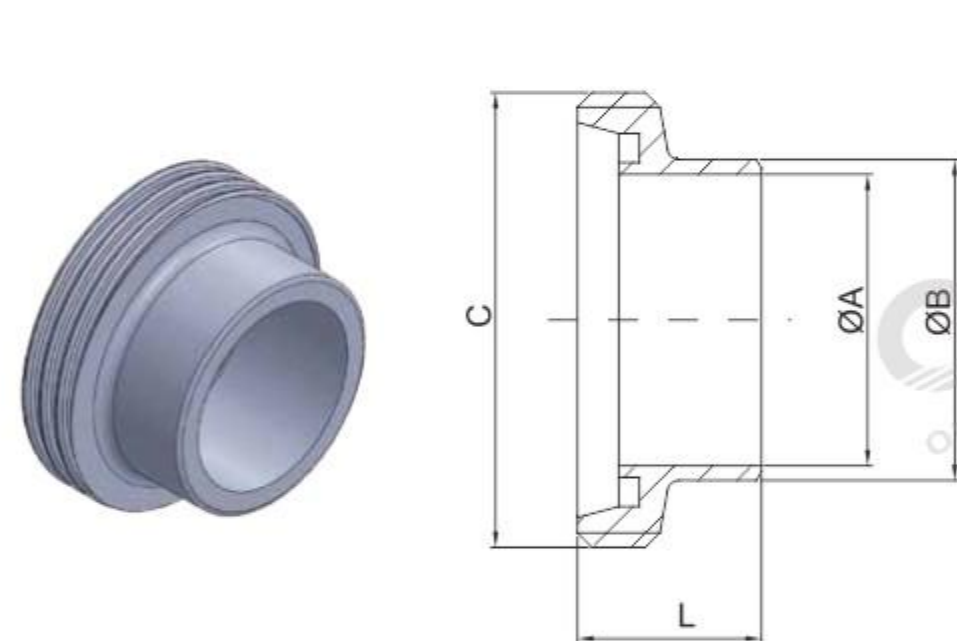
SIZE	DA		DB		C	L	Part Number
	ØA	ØB	ØA	ØB			
10	10	13	9	12	RD 28*1/8	21	DIN-15DA/DB-4-10
15	16	19	15	18	RD 34*1/8	21	DIN-15DA/DB-4-15
20	20	23	19	22	RD 44*1/6	24	DIN-15DA/DB-4-20
25	26	29	25	28	RD 52*1/6	29	DIN-15DA/DB-4-25
32	32	35	31	34	RD 58*1/6	32	DIN-15DA/DB-4-32
40		41	37	40	RD 65*1/6	33	DIN-15DA/DB-4-40
50	50	53	49	52	RD 78*1/6	35	DIN-15DA/DB-4-50
60	57	61	57	61	RD 85*1/6	36	DIN-15DA/DB-4-60
65	66	70	66	70	RD 95*1/6	40	DIN-15DA/DB-4-65
80	81	85	81	85	RD 110*1/4	45	DIN-15DA/DB-4-80
90	89	93	89	93	RD 120*1/4	54	DIN-15DA/DB-4-90
100	100	104	100	104	RD 130*1/4	54	DIN-15DA/DB-4-100
125	125	129	125	129	RD 160*1/4	46	DIN-15DA/DB-4-125
150	150	154	150	154	RD 190*1/4	50	DIN-15DA/DB-4-150

DIN-14 WELDING LINER



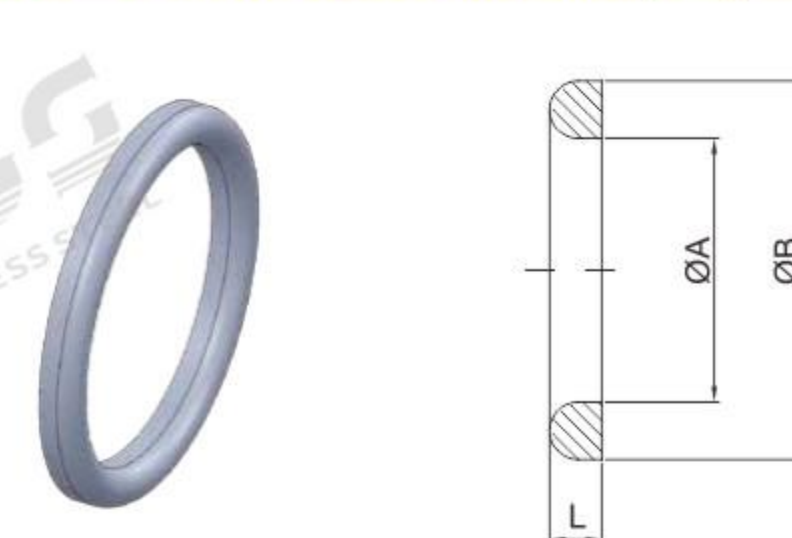
SIZE	ØA	ØB	ØC	L	Part Number
10	10	15	22	17	DIN-14-4-10
15	16	21	28	17	DIN-14-4-15
20	20	25	36	18	DIN-14-4-20
25	26	31	44	22	DIN-14-4-25
32	32	37	50	25	DIN-14-4-32
40	38	43	56	26	DIN-14-4-40
50	50	55	68	28	DIN-14-4-50
60	57	63	76	30	DIN-14-4-60
65	66	72	86	32	DIN-14-4-65
80	81	87	100	37	DIN-14-4-80
100	99	104	121	44	DIN-14-4-100
125	125	132	150	34	DIN-14-4-125
150	150	157	176	37	DIN-14-4-150

DIN-15 WELDING MALE



SIZE	ØA	ØB	C	L	Part Number
10	10	15	RD 28*1/8	21	DIN-15-4-10
15	16	21	RD 34*1/8	21	DIN-15-4-15
20	20	25	RD 44*1/6	24	DIN-15-4-20
25	26	31	RD 52*1/6	29	DIN-15-4-25
32	32	37	RD 58*1/6	32	DIN-15-4-32
40	38	43	RD 65*1/6	33	DIN-15-4-40
50	50	55	RD 78*1/6	35	DIN-15-4-50
60	57	63	RD 85*1/6	36	DIN-15-4-60
65	66	72	RD 95*1/6	40	DIN-15-4-65
80	81	87	RD 110*1/4	45	DIN-15-4-80
100	99	104	RD 130*1/4	54	DIN-15-4-100
125	125	132	RD 160*1/4	46	DIN-15-4-125
150	150	157	RD 190*1/4	50	DIN-15-4-150

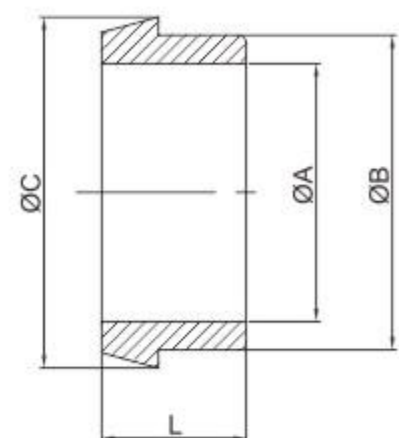
DIN SEAL RING EPDM, SILICONE, Viton(FKM))



SIZE	ØA	ØB	L	Part Number
10	12	20	9	FKM-4-10
15	18	26	9	FKM-4-15
20	23	33	11	FKM-4-20
25	30	40	13	FKM-4-25
32	36	46	13	FKM-4-32
40	42	52	13	FKM-4-40
50	54	64	14	FKM-4-50
65	71	81	16	FKM-4-65
80	85	95	16	FKM-4-80
100	104	114	20	FKM-4-100
125	130	142	22	FKM-4-125
150	155	167	24	FKM-4-150

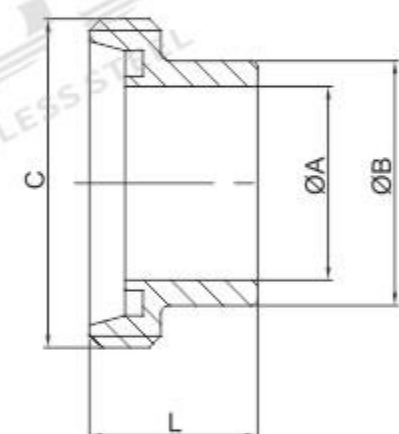
DIN 11851 Unions

DIN-14T WELDING LINER



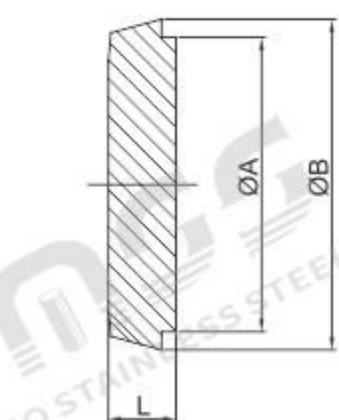
SIZE	ØA	ØB	ØC	L	Part Number
10	10	18	22	17	DIN-14T-4-10
15	16	24	28	17	DIN-14T-4-15
20	20	30	36	18	DIN-14T-4-20
25	26	35	44	22	DIN-14T-4-25
32	32	41	50	25	DIN-14T-4-32
40	38	48	56	26	DIN-14T-4-40
50	50	61	68	28	DIN-14T-4-50
65	66	79	86	32	DIN-14T-4-65
80	81	93	100	37	DIN-14T-4-80
100	99	112	121	44	DIN-14T-4-100
	100	114	121	44	

DIN-15T WELDING MALE



SIZE	ØA	ØB	C	L	Part Number
10	10	18	RD 28*1/8	21	DIN-15T-4-10
15	16	24	RD 34*1/8	21	DIN-15T-4-15
20	20	30	RD 44*1/6	24	DIN-15T-4-20
25	26	35	RD 52*1/6	29	DIN-15T-4-25
32	32	41	RD 58*1/6	32	DIN-15T-4-32
40	38	48	RD 65*1/6	33	DIN-15T-4-40
50	50	61	RD 78*1/6	35	DIN-15T-4-50
65	66	79	RD 95*1/6	40	DIN-15T-4-65
80	81	93	RD 110*1/4	45	DIN-15T-4-80
100	99	112	RD 130*1/4	54	DIN-15T-4-100
	100	114	RD 130*1/4	54	

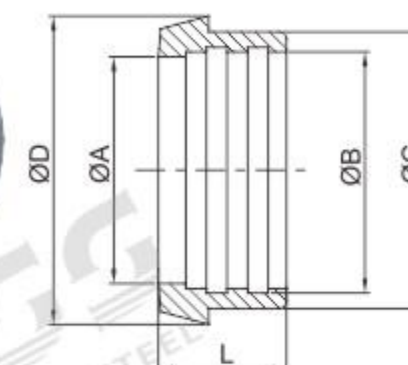
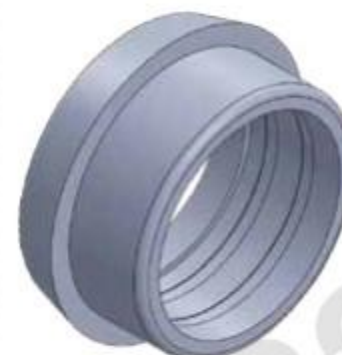
DIN-14B END CAP



SIZE	ØA	ØB	L	Part Number
10	18	22.5	9	DIN-14B-4-10
15	24	28.5	9	DIN-14B-4-15
20	30	36.5	11	DIN-14B-4-20
25	35	44	13	DIN-14B-4-25
32	41	50	13	DIN-14B-4-32
40	48	56	13	DIN-14B-4-40
50	61	68.5	14	DIN-14B-4-50
65	79	86	16	DIN-14B-4-65
80	93	100	16	DIN-14B-4-80
100	114	121	20	DIN-14B-4-100
125	137	150	22	DIN-14B-4-125
150	163	176	24	DIN-14B-4-150

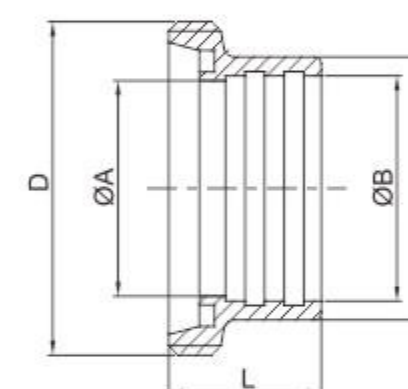
DIN 11851 Expanding/Imperial Unions

DIN-14R EXPANDING LINER



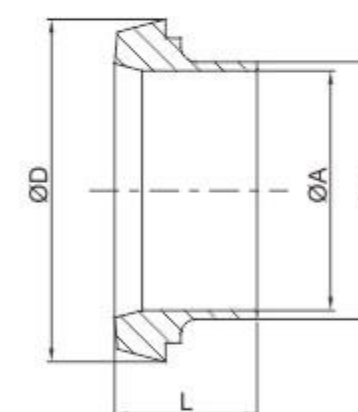
SIZE	ØA	ØB	ØC	ØD	L	Part Number
10	10	12.2	18	22	17	DIN-14R-4-10
15	16	18.2	24	28	17	DIN-14R-4-15
20	20	22.2	30	36	18	DIN-14R-4-20
25	26	28.2	35	44	22	DIN-14R-4-25
32	32	34.2	41	50	25	DIN-14R-4-32
40	38	40.2	48	56	26	DIN-14R-4-40
50	50	52.2	61	68	28	DIN-14R-4-50
65	66	70.3	79	86	32	DIN-14R-4-65
80	81	85.3	93	100	37	DIN-14R-4-80
100	100	104.3	114	121	44	DIN-14R-4-100
125	125	129.3	137	150	34	DIN-14R-4-125
150	150	154.3	163	176	37	DIN-14R-4-150

DIN-15R EXPANDING MALE



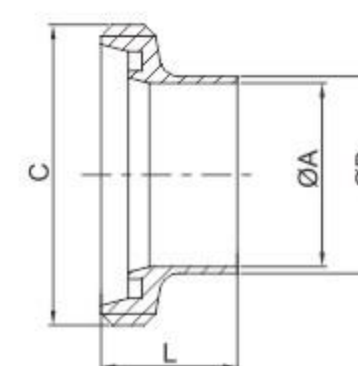
SIZE	ØA	ØB	ØC	D	L	Part Number
10	10	12.2	18	RD 28*1/8	21	DIN-15R-4-10
15	16	18.2	24	RD 34*1/8	21	DIN-15R-4-15
20	20	22.2	30	RD 44*1/6	24	DIN-15R-4-20
25	26	28.2	35	RD 52*1/6	29	DIN-15R-4-25
32	32	34.2	41	RD 58*1/6	32	DIN-15R-4-32
40	38	40.2	48	RD 65*1/6	33	DIN-15R-4-40
50	50	52.2	61	RD 78*1/6	35	DIN-15R-4-50
65	66	70.3	79	RD 95*1/6	40	DIN-15R-4-65
80	81	85.3	93	RD 110*1/4	45	DIN-15R-4-80
100	100	104.3	114	RD 130*1/4	54	DIN-15R-4-100
125	125	129.3	137	RD 160*1/4	46	DIN-15R-4-125
150	150	154.3	163	RD 190*1/4	50	DIN-15R-4-150

DIN-14I IMPERIAL WELDING LINER



SIZE	ØA	ØB	ØD	L	Part Number
1/2"	9.4	12.7	22	17	DIN-14I-4-0.5
3/4"	15.75	19.05	36	18	DIN-14I-4-0.75
1"	22.1	25.4	44	22	DIN-14I-4-1
1 1/2"	34.8	38.1	56	26	DIN-14I-4-1.5
2"	47.5	50.8	68	28	DIN-14I-4-2
2 1/2"	60.2	63.5	86	32	DIN-14I-4-2.5
3"	72.9	76.2	100	37	DIN-14I-4-3
4"	97.6	101.6	121	44	DIN-14I-4-4

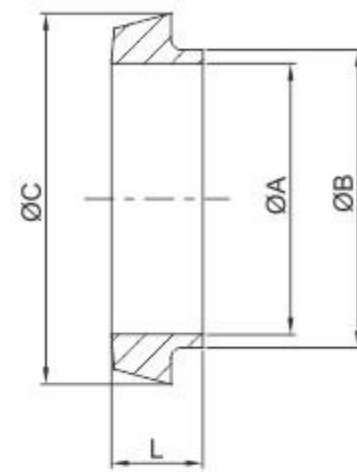
DIN-15I IMPERIAL WELDING MALE



SIZE	ØA	ØB	C	L	Part Number
1/2"	9.4	12.7	RD 28*1/8	21	DIN-15I-4-0.5
3/4"	15.75	19.05	RD 44*1/6	24	DIN-15I-4-0.75
1"	22.1	25.4	RD 52*1/6	29	DIN-15I-4-1
1 1/2"	34.8	38.1	RD 65*1/6	33	DIN-15I-4-1.5
2"	47.5	50.8	RD 78*1/6	35	DIN-15I-4-2
2 1/2"	60.2	63.5	RD 95*1/6	40	DIN-15I-4-2.5
3"	72.9	76.2	RD 110*1/4	45	DIN-15I-4-3
4"	97.6	101.6	RD 130*1/4	54	DIN-15I-4-4

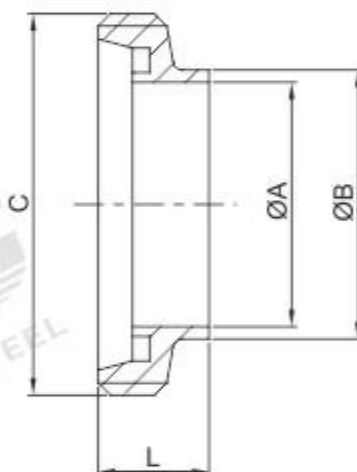
DIN 11851 Expanding/Imperial Unions

DIN-14E SHORT WELDING LINER



SIZE	ØA	ØB	ØC	L	Part Number
10	9	12	22.5	13	DIN-14E-4-10
15	15	18	28.5	13	DIN-14E-4-15
20	19	22	36.5	13	DIN-14E-4-20
25	25	28	44	15	DIN-14E-4-25
32	31	34	50	15	DIN-14E-4-32
40	37	40	56	15	DIN-14E-4-40
50	49	52	68.5	16	DIN-14E-4-50
65	66	70	86	17	DIN-14E-4-65
80	81	85	100	17	DIN-14E-4-80
100	100	104	121	20	DIN-14E-4-100
125	125	129	150	23.5	DIN-14E-4-125
150	150	154	176		DIN-14E-4-150

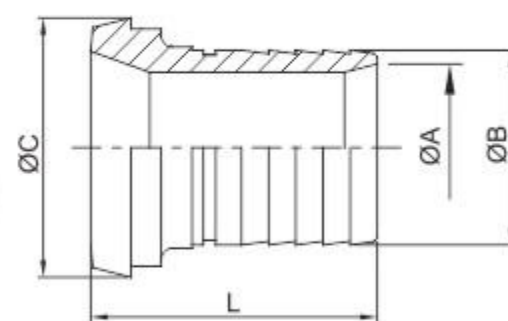
DIN-15E SHORT WELDING MALE



SIZE	ØA	ØB	C	L	Part Number
10	9	12	RD 28*1/8	17	DIN-15E-4-10
15	15	18	RD 34*1/8	17	DIN-15E-4-15
20	19	22	RD 44*1/6	19	DIN-15E-4-20
25	25	28	RD 52*1/6	22	DIN-15E-4-25
32	31	34	RD 58*1/6	22	DIN-15E-4-32
40	37	40	RD 65*1/6	22	DIN-15E-4-40
50	49	52	RD 78*1/6	23	DIN-15E-4-50
65	66	70	RD 95*1/6	25	DIN-15E-4-65
80	81	85	RD 110*1/4	25	DIN-15E-4-80
100	100	104	RD 130*1/4	30	DIN-15E-4-100
125	125	129	RD 160*1/4	35.5	DIN-15E-4-125
150	150	154	RD 190*1/4	40	DIN-15E-4-150

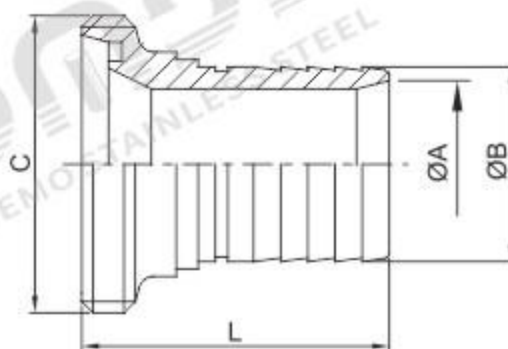
DIN 11851 Hose Adapter

DIN-14AHR HOSE ADAPTER



SIZE	ØA	ØB	ØC	L	Part Number
25	22.2	25	44	67	DIN-14AHR-4-25
32	28.7	32.2	50	71	DIN-14AHR-4-32
40	34	38	56	78	DIN-14AHR-4-40
50	47	50.5	68	89	DIN-14AHR-4-50
65	59	63.2	86	100	DIN-14AHR-4-65
80	71.5	75.5	100	108	DIN-14AHR-4-80
100	95	100.8	121	120	DIN-14AHR-4-100

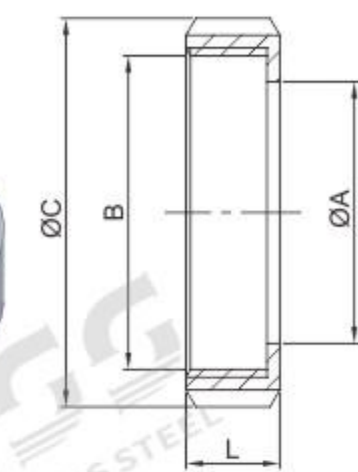
DIN-15AHR HOSE ADAPTER



SIZE	ØA	ØB	C	L	Part Number
25	22.2	25	RD 52*1/6	69	DIN-15AHR-4-25
32	28.7	32.2	RD 58*1/6	73	DIN-15AHR-4-32
40	34	38	RD 65*1/6	80	DIN-15AHR-4-40
50	47	50.5	RD 78*1/6	90	DIN-15AHR-4-50
65	59	63.2	RD 95*1/6	108	DIN-15AHR-4-65
80	71.5	75.5	RD 110*1/4	116	DIN-15AHR-4-80
100	95	100.8	RD 130*1/4	128	DIN-15AHR-4-100

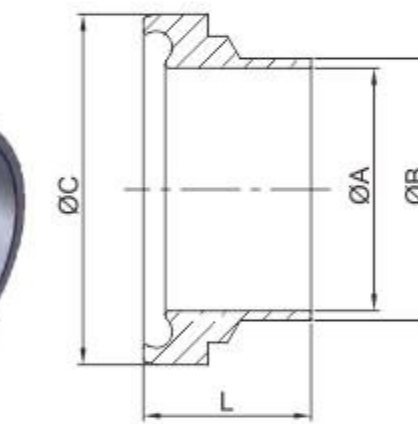
DIN 11853-1 Unions Form A

DIN-13R ROUND NUT



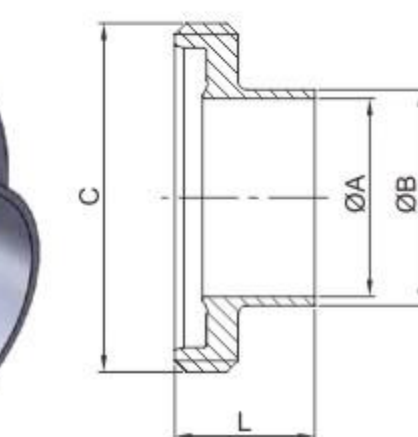
SIZE	ØA	B	ØC	L	SLOTS	Part Number
10	19	RD 28*1/8	38	18	4	DIN-13R-4-10
15	25	RD 34*1/8	44	18	4	DIN-13R-4-15
20	31	RD 44*1/6	54	20	4	DIN-13R-4-20
25	36	RD 52*1/6	63	21	4	DIN-13R-4-25
32	42	RD 58*1/6	70	21	4	DIN-13R-4-32
40	49	RD 65*1/6	78	21	4	DIN-13R-4-40
50	62	RD 78*1/6	92	22	4	DIN-13R-4-50
65	80	RD 95*1/6	112	25	6	DIN-13R-4-65
80	94	RD110*1/4	127	29	6	DIN-13R-4-80
90	104	RD120*1/4	138	30	6	DIN-13R-4-90
100	115	RD130*1/4	148	31	6	DIN-13R-4-100
125	138	RD160*1/4	178	35	6	DIN-13R-4-125
150	164	RD190*1/4	210	40	6	DIN-13R-4-150

LINER PARTS



DIN	ØA	ØB	ISO	ØA	ØB	INCH	ØA	ØB	ØC	L
DN10	10	13	DN8	10.3	13.5	1/2"	9.4	12.7	21.9	17
DN15	16	19	DN10	14	17.2	3/4"	15.75	19.5	27.9	17
DN20	20	23	DN15	18.1	21.3	—	—	—	42.9	18
DN25	26	29	DN20	23.7	26.9	1"	22.1	25.4	48.9	22
DN32	32	35	DN25	29.7	33.7	—	—	—	54.9	25
DN40	38	41	DN32	38.4	42.4	1.5"	34.8	38.1	66.9	26
DN50	50	53	DN40	44.3	48.3	2"	47.5	50.8	66.9	30
DN65	66	70	DN50	56.3	60.3	2.5"	60.2	63.5	84.9	34
DN80	81	85	DN65	72.1	76.1	3"	72.9	76.2	98.9	38
DN100	100	104	DN80	84.3	88.9	4"	97.4	101.6	118.9	46

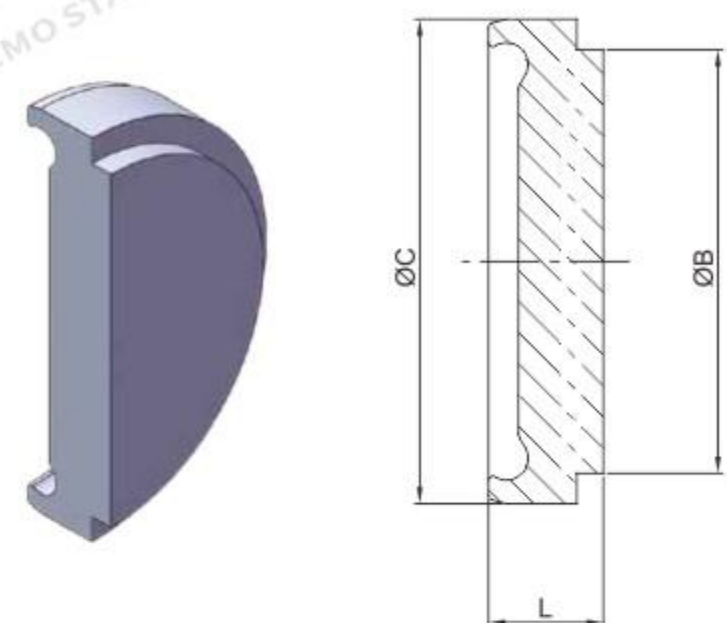
MALE PARTS



DIN	ØA	ØB	ISO	ØA	ØB	INCH	ØA	ØB	C	L
DN10	10	13	DN8	10.3	13.5	1/2"	9.4	12.7	RD28*1/8	19
DN15	16	19	DN10	14	17.2	3/4"	15.75	19.5	RD34*1/8	19
DN20	20	23	DN15	18.1	21.3	—	—	—	RD44*1/6	21
DN25	26	29	DN20	23.7	26.9	1"	22.1	25.4	RD52*1/6	26
DN32	32	35	DN25	29.7	33.7	—	—	—	RD58*1/6	30
DN40	38	41	DN32	38.4	42.4	1.5"	34.8	38.1	RD65*1/6	31
DN50	50	53	DN40	44.3	48.3	2"	47.5	50.8	RD78*1/6	31
DN65	66	70	DN50	56.3	60.3	2.5"	60.2	63.5	RD95*1/6	36
DN80	81	85	DN65	72.1	76.1	3"	72.9	76.2	RD110*1/4	42
DN100	100	104	DN80	84.3	88.9	4"	97.4	101.6	RD130*1/4	50

DIN 11853-1& 11864-1 Unions Form A

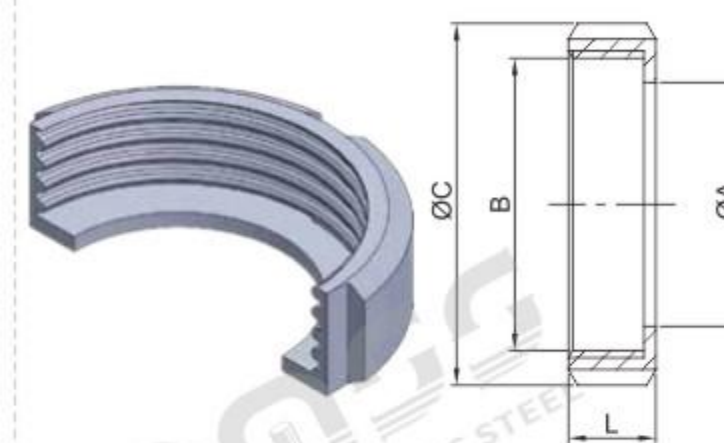
DIN/ISO/IMPERIAL- LINER BLANK CAP



SIZE	ØB	ØC	L
DN10 1/2"	18	21.9	9
DN15 3/4"	24	27.9	9
DN20	30	35.9	10
DN25 1"	35	42.9	12
DN32	41	48.9	13
DN40 1.5"	48	54.9	13
DN50 2"	61	66.9	14
DN65 2.5"	79	84.9	16
DN80 3"	93	98.9	16
DN100 4"	114	118.9	20

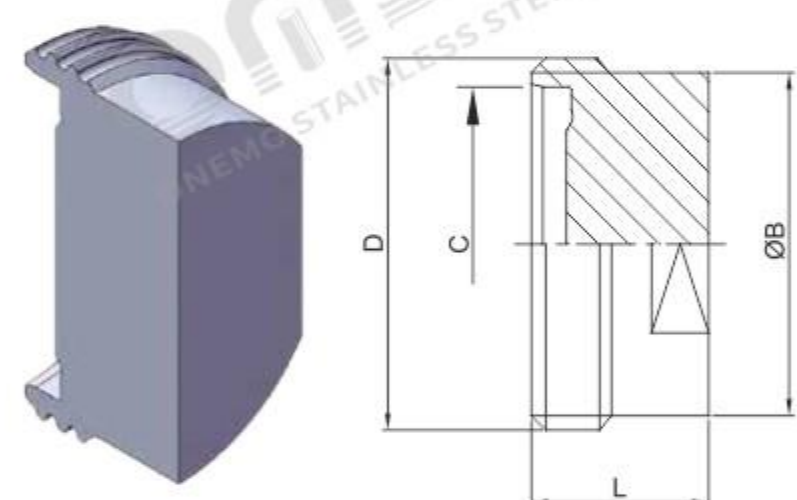
DIN 11643-1 Unions Form A

DIN-13R ROUND NUT



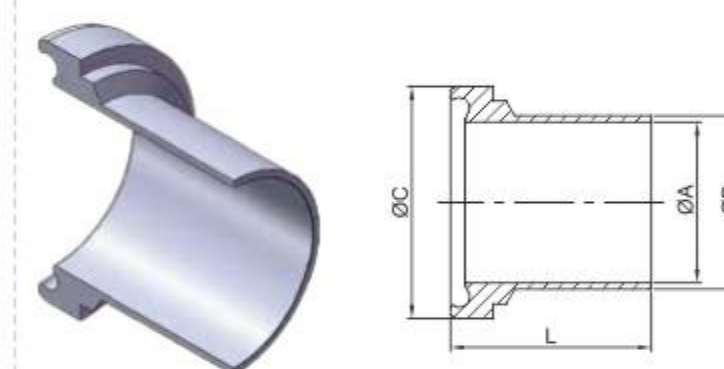
SIZE	ØA	B	ØC	L	SLOTS	Part Number
10	19	RD 28*1/8	38	18	4	DIN-13R-4-10
15	25	RD 34*1/8	44	18	4	DIN-13R-4-15
20	31	RD 44*1/6	54	20	4	DIN-13R-4-20
25	36	RD 52*1/6	63	21	4	DIN-13R-4-25
32	42	RD 58*1/6	70	21	4	DIN-13R-4-32
40	49	RD 65*1/6	78	21	4	DIN-13R-4-40
50	62	RD 78*1/6	92	22	4	DIN-13R-4-50
65	80	RD 95*1/6	112	25	6	DIN-13R-4-65
80	94	RD110*1/4	127	29	6	DIN-13R-4-80
90	104	RD120*1/4	138	30	6	DIN-13R-4-90
100	115	RD130*1/4	148	31	6	DIN-13R-4-100
125	138	RD160*1/4	178	35	6	DIN-13R-4-125
150	164	RD190*1/4	210	40	6	DIN-13R-4-150

DIN/ISO/IMPERIAL- MALE BLANK CAP



SIZE	ØB	ØC	D	L
DN10 1/2"	23	22	RD28*1/8	24
DN15 3/4"	28	28	RD34*1/8	24
DN20	34	36	RD44*1/6	24
DN25 1"	44	43	RD52*1/6	24
DN32	53	49	RD58*1/6	24
DN40 1.5"	60	55	RD65*1/6	24
DN50 2"	72	67	RD78*1/6	24
DN65 2.5"	87	85	RD95*1/6	28
DN80 3"	100	99	RD110*1/4	28
DN100 4"	120	119	RD130*1/4	30

LINER PARTS



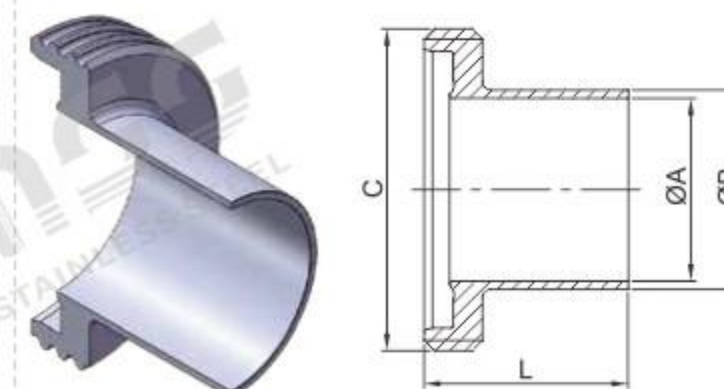
DIN	ØA	ØB	L	ISO	ØA	ØB	L	ØC	INCH	ØA	ØB	L	ØC
DN10	10	13	39	DN8	10.3	13.5	39	21.9	1/2"	9.4	12.7	39	21.9
DN15	16	19	39	DN10	14	17.2	39	27.9	3/4"	15.75	19.5	39	27.9
DN20	20	23	38	DN15	18.1	21.3	40	42.9	—	—	—	—	35.9
DN25	26	29	40	DN20	23.7	26.9	41	48.9	1"	22.1	25.4	41	42.9
DN32	32	35	47	DN25	29.7	33.7	47	54.9	—	—	—	—	48.9
DN40	38	41	47	DN32	38.4	42.4	47	66.9	1.5"	34.8	38.1	47	54.9
DN50	50	53	48	DN40	44.3	48.3	48	66.9	2"	47.5	50.8	48	66.9
DN65	66	70	61	DN50	56.3	60.3	62	84.9	2.5"	60.2	63.5	62	84.9
DN80	81	85	61	DN65	72.1	76.1	61	98.9	3"	72.9	76.2	61	98.9
DN100	100	104	66	DN80	84.3	88.9	68	118.9	4"	97.4	101.6	68	118.9

SEAL

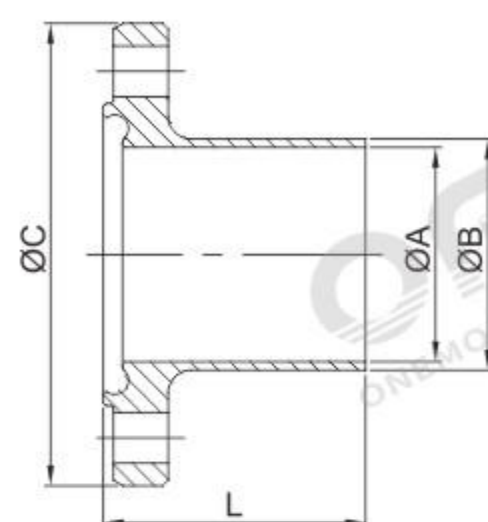


DIN	ISO	ØA	ØA	INCH	ØA	L
DN10	DN8	12	12	1/2"	12	3.5
DN15	DN10	16	18	3/4"	18	3.5
DN20	DN15	20	22	—	—	3.5
DN25	DN20	26	28	1"	24	3.5
DN32	DN25	32	34	—	—	5
DN40	DN32	40.5	40	1.5"	37	5
DN50	DN40	46.5	52	2"	50	5
DN65	DN50	58.5	68	2.5"	62	5
DN80	DN65	73.5	83	3"	75	5
DN100	DN80	86.5	102	4"	100	5

MALE PARTS



DIN	ØA	ØB	L	ISO	ØA	ØB	L	C	INCH	ØA	ØB	L
DN10	10	13	41	DN8	10.3	13.5	41	RD28*1/8	1/2"	9.4	12.7	41
DN15	16	19	41	DN10	14	17.2	41	RD34*1/8	3/4"	15.75	19.5	41
DN20	20	23	43	DN15	18.1	21.3	43	RD44*1/6	—	—	—	—
DN25	26	29	43	DN20	23.7	26.9	43	RD52*1/6	1"	22.1	25.4	43
DN32	32	35	48	DN25	29.7	33.7	48	RD58*1/6	—	—	—	—
DN40	38	41	48	DN32	38.4	42.4	48	RD65*1/6	1.5"	34.8	38.1	48.5
DN50	50	53	48	DN40	44.3	48.3	49	RD78*1/6	2"	47.5	50.8	48.5
DN65	66	70	60	DN50	56.3	60.3	60	RD95*1/6	2.5"	60.2	63.5	60
DN80	81	85	64	DN65	72.1	76.1	64	RD110*1/4	3"	72.9	76.2	64
DN100	100	104	64	DN80	84.3	88.9	64	RD130*1/4	4"	97.4	101.6	64



DIN Nutflansch (NF)

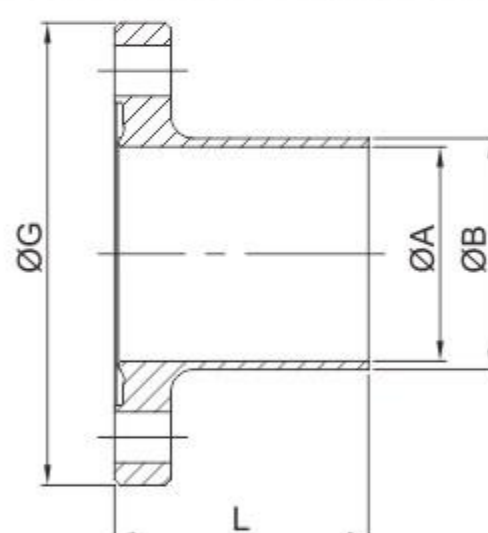
SIZE	ØA	ØB	ØC	L
DN10	10	13	54	41.5
DN15	16	19	59	41.5
DN20	20	23	64	41.5
DN25	26	29	70	41.5
DN32	32	35	76	46.5
DN40	38	41	82	46.5
DN50	50	53	94	46.5
DN65	66	70	113	55.5
DN80	81	85	133	59.5
DN100	100	104	159	59.5
DN125	125	129	183	61.5
DN150	150	154	213	61.5

ISO Nutflansch (NF)

SIZE	ØA	ØB	ØC	L
13.5	10.3	13.5	54	41.5
17.2	14	17.2	59	41.5
21.3	18.1	21.3	62	41.5
26.9	23.7	26.9	69	41.5
33.7	29.7	33.7	74	46.5
42.4	38.4	42.4	82	46.5
48.3	44.3	48.3	88	46.5
60.3	56.3	60.3	103	55.5
76.1	72.1	76.1	125	57.5
88.9	84.3	88.9	137	59.5
114.3	109.7	114.3	168	59.5

IMPERIAL Nutflansch (NF)

SIZE	ØA	ØB	ØC	L
1/2"	9.4	12.7	54	41.5
3/4"	15.75	19.05	59	41.5
1"	22.1	25.4	66	41.5
1.5"	34.8	38.1	79	46.5
2"	47.5	50.8	92	46.5
2.5"	60.2	63.5	107	55.5
3"	72.9	76.2	125	57.5
4"	97.38	101.6	157	59.5



DIN Bundflansch (BF)

SIZE	ØA	ØB	ØC	L
DN10	10	13	54	40
DN15	16	19	59	40
DN20	20	23	64	40
DN25	26	29	70	40
DN32	32	35	76	45
DN40	38	41	82	45
DN50	50	53	94	45
DN65	66	70	113	54
DN80	81	85	133	58
DN100	100	104	159	58
DN125	125	129	183	60
DN150	150	154	213	60

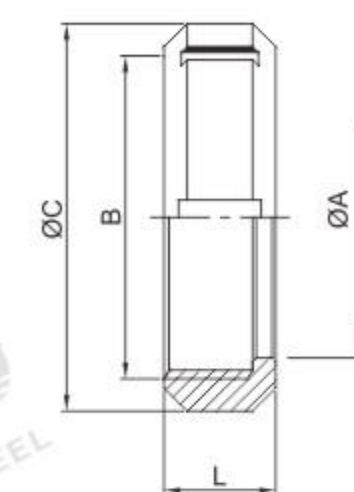
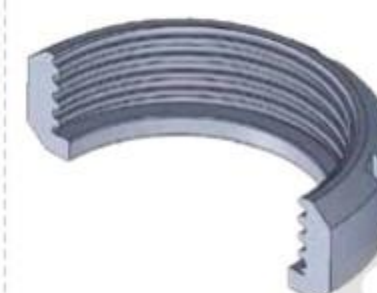
ISO Bundflansch (BF)

SIZE	ØA	ØB	ØC	L
13.5	10.3	13.5	54	41.5
17.2	14	17.2	59	41.5
21.3	18.1	21.3	62	41.5
26.9	23.7	26.9	69	41.5
33.7	29.7	33.7	74	46.5
42.4	38.4	42.4	82	46.5
48.3	44.3	48.3	88	46.5
60.3	56.3	60.3	103	55.5
76.1	72.1	76.1	125	57.5
88.9	84.3	88.9	137	59.5
114.3	109.7	114.3	168	59.5

IMPERIAL Bundflansch (BF)

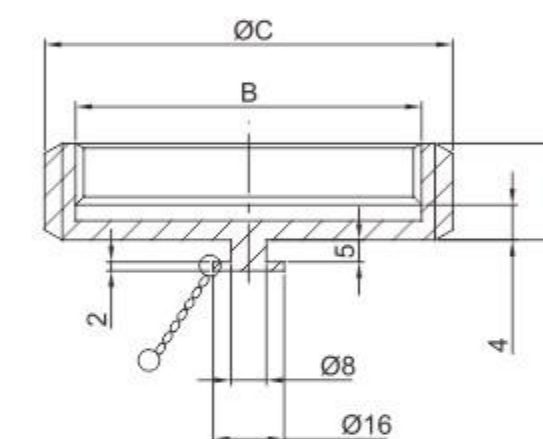
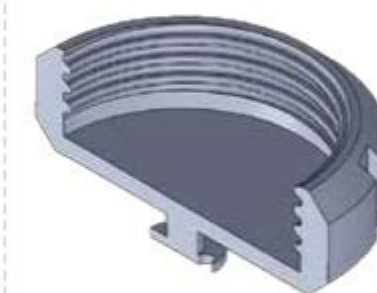
SIZE	ØA	ØB	ØC	L
1/2"	9.4	12.7	54	40
3/4"	15.75	19.05	59	40
1"	22.1	25.4	66	40
1.5"	34.8	38.1	79	45
2"	47.5	50.8	92	45
2.5"	60.2	63.5	107	54
3"	72.9	76.2	125	56
4"	97.38	101.6	157	58

SMS-13R NUT 6 SLOTS



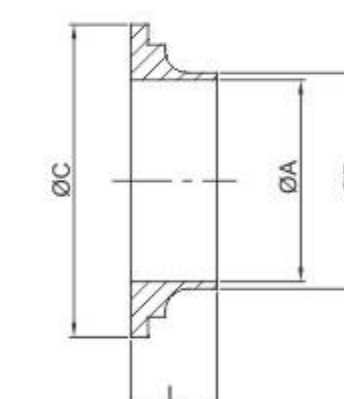
SIZE	ØA	B	ØC	L	Part Number
25	32	RD 40*1/6	51	19	SMS-13R-4-25
32	40	RD 48*1/6	60	22	SMS-13R-4-32
38	48	RD 60*1/6	74	23	SMS-13R-4-38
50	60.5	RD 70*1/6	84	24	SMS-13R-4-50
63	74	RD 85*1/6	100	28	SMS-13R-4-63
76	87	RD 98*1/6	114	30	SMS-13R-4-76
101.6	113	RD125*1/4	138	31	SMS-13R-4-101.6
104	113	RD125*1/4	138	31	SMS-13R-4-104
101.6-B	117	RD132*1/6	150	31	SMS-13R-4-101.6-B

SMS-13RBN ROUND BLANK NUT



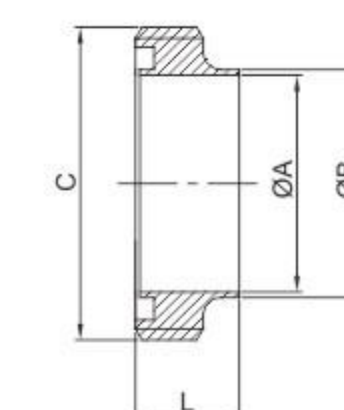
SIZE	B	ØC	L	Part Number
25	RD 40*1/6	51	19	SMS-13RBN-4-25
32	RD 48*1/6	60	22	SMS-13RBN-4-32
38	RD 60*1/6	74	23	SMS-13RBN-4-38
50	RD 70*1/6	84	24	SMS-13RBN-4-50
63	RD 85*1/6	100	28	SMS-13RBN-4-63
76	RD 98*1/6	114	30	SMS-13RBN-4-76
104	RD125*1/4	138	31	SMS-13RBN-4-104

SMS-14 LONG WELDING LINER



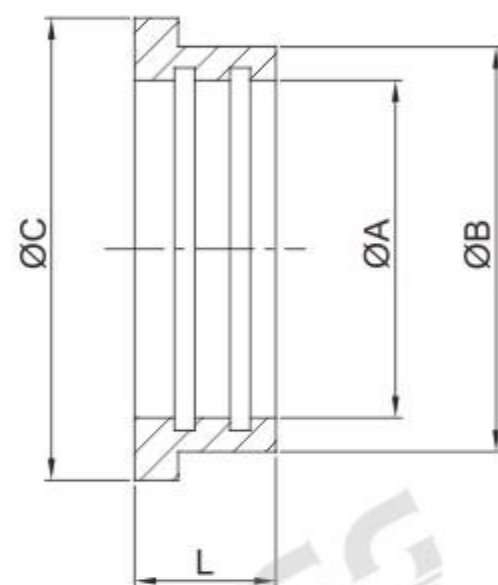
SIZE	ØA	ØB	ØC	L	Part Number
25	22.5	25	35.5	15.5	SMS-14-4-25
38	35.5	38	55	16	SMS-14-4-38
50	48.5	51	65	17	SMS-14-4-50
63	60.5	63.5	80	17	SMS-14-4-63
76	72.9	76.1	93	19	SMS-14-4-76
101.6	97.6	101.6	118	19	SMS-14-4-101.6
104	100	104	118	19	SMS-14-4-104
104-B	98.5	102.5	127	19	SMS-14-4-104-B

SMS-15 LONG WELDING MALE



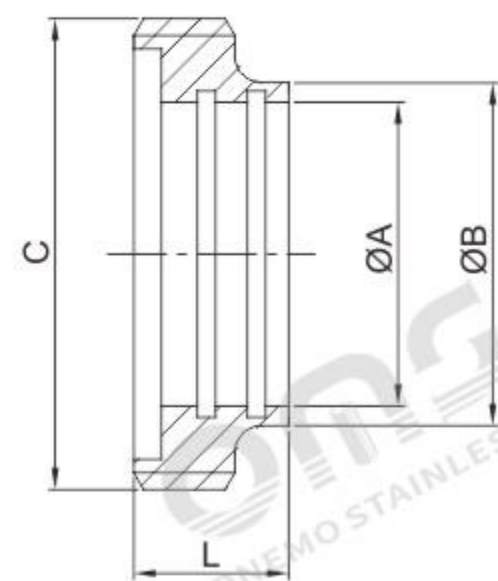
SIZE	ØA	ØB	ØC	L	Part Number
25	22.5	25	RD 40*1/6	19	SMS-15-4-25
38	35.5	38	RD 60*1/6	23	SMS-15-4-38
50	48.5	51	RD 70*1/6	23	SMS-15-4-50
63	60.5	63.5	RD 85*1/6	27	SMS-15-4-63
76	72.9	76.1	RD 98*1/6	27	SMS-15-4-76
101.6	97.6	101.6	RD125*1/4	30	SMS-15-4-101.6
104	100	104	RD125*1/4	30	SMS-15-4-104
104-B	98.5	102.5	RD132*1/6	35	SMS-15-4-104-B

SMS-14R EXPANDING LINER



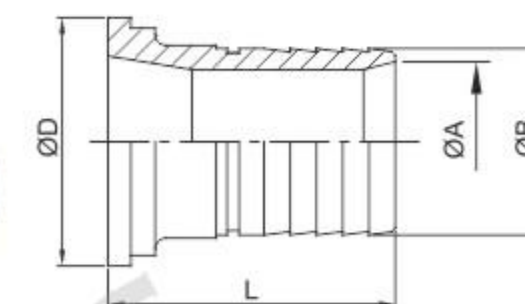
SIZE	ØA	ØB	ØC	L	Part Number
25	25	32	35.5	17	SMS-14R-4-25
32	32	40	43.5	17	SMS-14R-4-32
38	38	47.9	55	20	SMS-14R-4-38
40	40	48	55	20	SMS-14R-4-40
50	51	60.4	65	20	SMS-14R-4-50
63	63.5	73.5	80	25	SMS-14R-4-63
76	76.1	86.5	93	30	SMS-14R-4-76
101.6	101.6	112.5	118	27	SMS-14R-4-101.6
104	104	112.5	118	27	SMS-14R-4-104

SMS-15R EXPANDING MALE



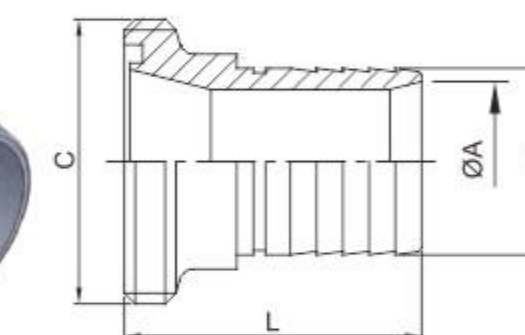
SIZE	ØA	ØB	C	L	Part Number
25	25	32	RD 40*1/6	20	SMS-15R-4-25
32	32	40	RD 48*1/6	20	SMS-15R-4-32
38	38	47.9	RD 60*1/6	23	SMS-15R-4-38
40	40	48	RD 60*1/6	23	SMS-15R-4-40
50	51	60.4	RD 70*1/6	25	SMS-15R-4-50
63	63.5	73.5	RD 85*1/6	30	SMS-15R-4-63
76	76.1	86.5	RD 98*1/6	35	SMS-15R-4-76
101.6	101.6	112.5	RD125*1/4	30	SMS-15R-4-101.6
104	104	112.5	RD125*1/4	30	SMS-15R-4-104

SMS-14AHR HOSE ADAPTER



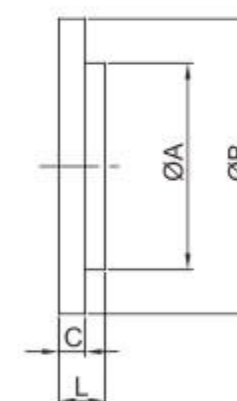
SIZE	ØA	ØB	ØD	L	Part Number
25	22.2	25	35.5	60.5	SMS-14AHR-4-25
38	34	38	55	72	SMS-14AHR-4-38
50	47	50.5	65	82	SMS-14AHR-4-50
63	59	63.2	80	95	SMS-14AHR-4-63
76	71.5	75.5	93	97	SMS-14AHR-4-76
104	95	100.8	118	109	SMS-14AHR-4-104

SMS-15AHR HOSE ADAPTER



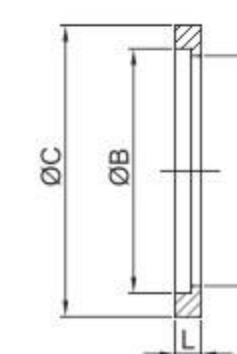
SIZE	ØA	ØB	C	L	Part Number
25	22.2	25	RD 40*1/6	64	SMS-15AHR-4-25
38	34	38	RD 60*1/6	79	SMS-15AHR-4-38
50	47	50.5	RD 70*1/6	89	SMS-15AHR-4-50
63	59	63.2	RD 85*1/6	102	SMS-15AHR-4-63
76	71.5	75.5	RD 98*1/6	105	SMS-15AHR-4-76
104	95	100.8	RD125*1/4	120	SMS-15AHR-4-104

SMS-14B BLANK END CAP



SIZE	ØA	ØB	C	L	Part Number
25	32	35.5	3.5	7.5	SMS-14B-4-25
38	48	55	5	9	SMS-14B-4-38
50	60	65	5	10	SMS-14B-4-50
63	73.5	80	5	10	SMS-14B-4-63
76	86	93	5	11	SMS-14B-4-76
104	118	118	6	11	SMS-14B-4-104
104-B	128	128	6	11	SMS-14B-4-104-B

SEAL RING L TYPE (EPDM, SILICONE, VITON (FKM))



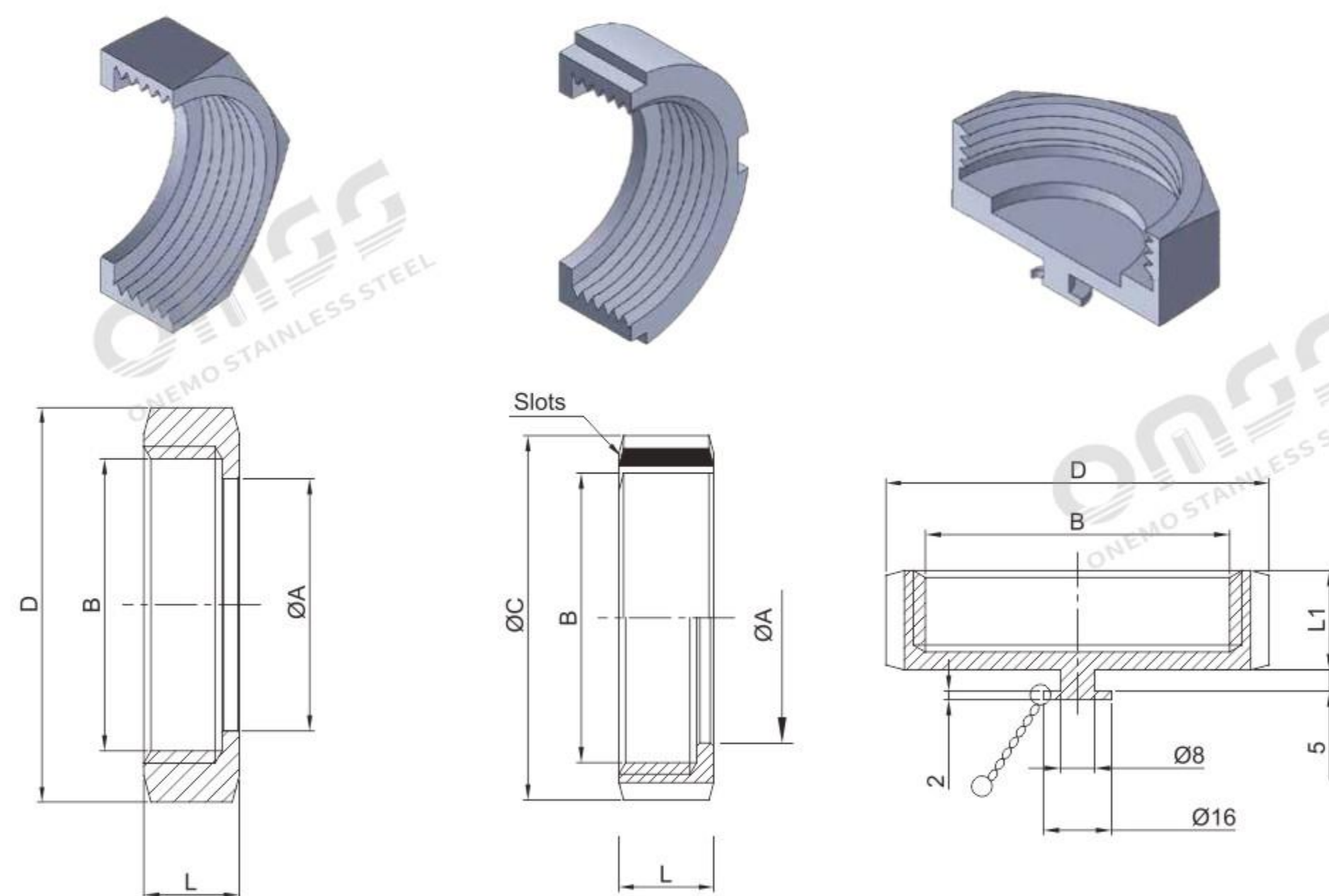
SIZE	ØA	ØB	C	L
25	22.8	25.1	31.8	5.3
38	35.8	38.1	47.8	5.3
50	48.8	51.5	60.8	5.3
63	61	63.6	73.3	5.3
76	73.4	76.1	85.8	5.3
104	100.5	104	115.7	5.3



RJT-13H

RJT-13R

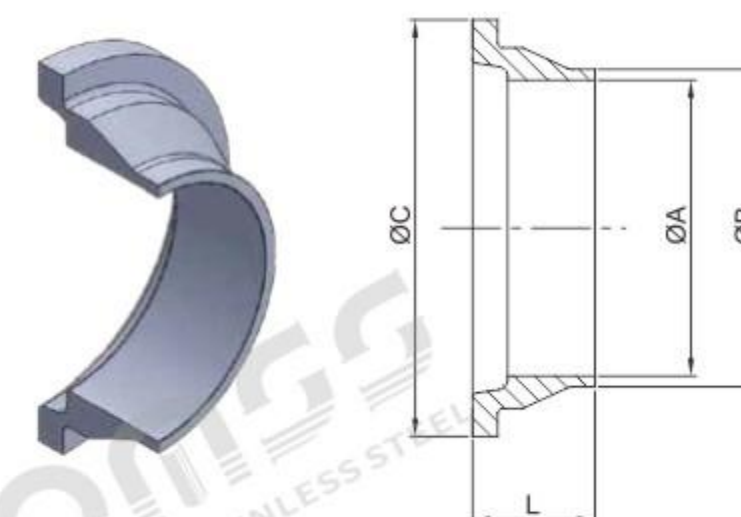
RJT-13HBN



RJT-13 NUT

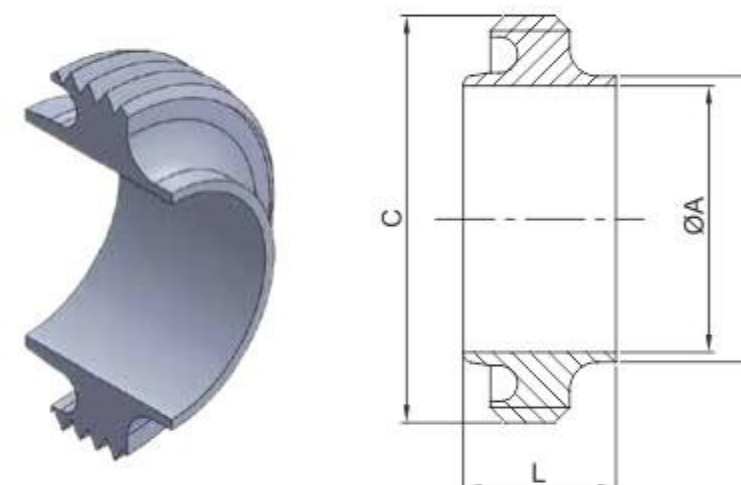
SIZE	ØA	B	ØC	D	L	L1	SLOTS	Part Number
1/2"	14.5	19.6 *10TP WHIT	—	28.5	16	—	—	RJT-13H/RJT-13R/RJT-13HBN-4-0.5
3/4"	21	26.2 *10TP WHIT	—	33	16	—	—	RJT-13H/RJT-13R/RJT-13HBN-4-0.75
1"	33.45	42.266 *8TP WHIT	58.5	50.8	22.2	23.5	4	RJT-13H/RJT-13R/RJT-13HBN-4-1
1.5"	46	54.966 *8TP WHIT	74	65	22.2	23.5	4	RJT-13H/RJT-13R/RJT-13HBN-4-1.5
2"	58.67	67.92 *6TP WHIT	85.5	79.4	22.2	23.5	6	RJT-13H/RJT-13R/RJT-13HBN-4-2
2.5"	71.4	80.62 *6TP WHIT	98.5	92	22.2	23.5	6	RJT-13H/RJT-13R/RJT-13HBN-4-2.5
3"	84.1	93.32 *6TP WHIT	111.6	104.8	22.2	23.5	8	RJT-13H/RJT-13R/RJT-13HBN-4-3
4"	109.7	118.72 *6TP WHIT	138	130	22.2	23.5	8	RJT-13H/RJT-13R/RJT-13HBN-4-4
6"	163	169.52 *6TP WHIT	197	184	24	—	10	RJT-13H/RJT-13R/RJT-13HBN-4-6

RJT-14 WELDING LINER



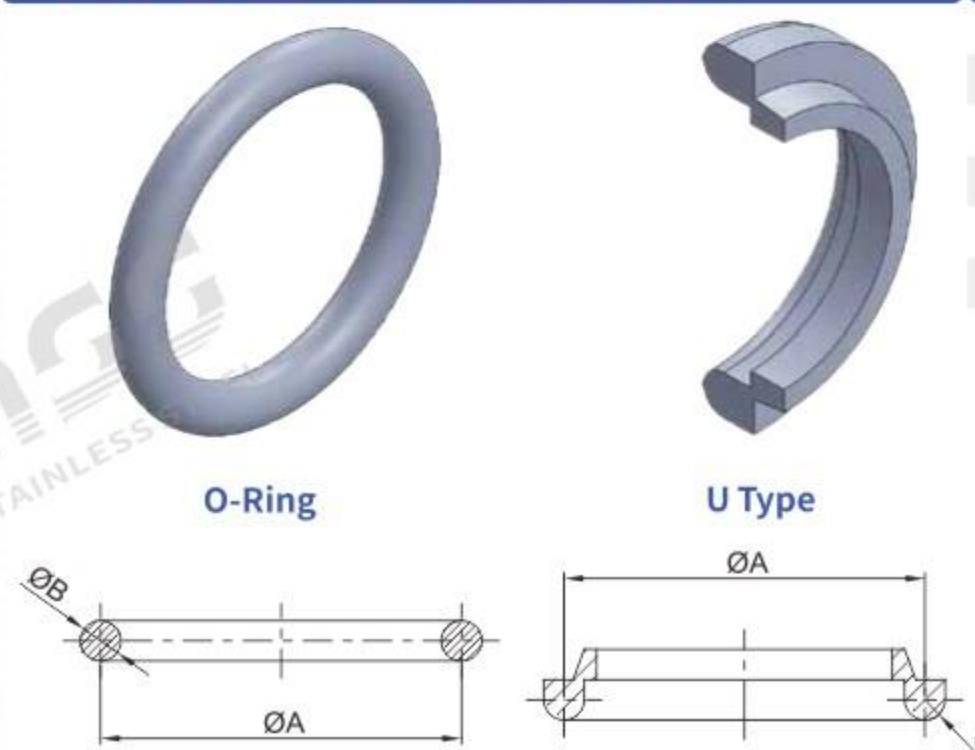
SIZE	ØA	ØB	ØC	L	Part Number
1/2"	9.6	14	18	11.4	RJT-14-4-0.5
3/4"	16	20	23.1	11.4	RJT-14-4-0.75
1"	22.1	25.4	41.3	19.5	RJT-14-4-1
1.5"	34.8	38.1	54	19.5	RJT-14-4-1.5
2"	47.5	50.8	66.7	19.5	RJT-14-4-2
2.5"	60.2	63.5	79.4	19.5	RJT-14-4-2.5
3"	72.9	76.2	92.1	19.5	RJT-14-4-3
4"	97.6	101.6	117.5	19.5	RJT-14-4-4
6"	146.86	152.4	169.1	23.5	RJT-14-4-6

RJT-15 WELDING MALE



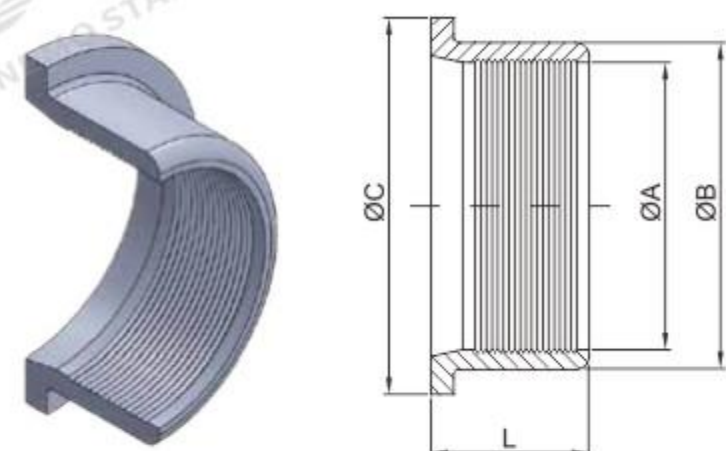
SIZE	ØA	ØB	C	L	Part Number
1/2"	9.6	13.7	21.2 *10TP WHIT	16.5	RJT-15-4-0.5
3/4"	16	20	27.6 *10TP WHIT	16.5	RJT-15-4-0.75
1"	22.1	25.4	45.72 *8TP WHIT	27	RJT-15-4-1
1.5"	34.8	38.1	58.42 *8TP WHIT	27	RJT-15-4-1.5
2"	47.5	50.8	72.72 *6TP WHIT	27	RJT-15-4-2
2.5"	60.2	63.5	85.42 *6TP WHIT	27	RJT-15-4-2.5
3"	72.9	76.2	98.12 *6TP WHIT	27	RJT-15-4-3
4"	97.6	101.6	123.52 *6TP WHIT	27	RJT-15-4-4
104	100	104	123.52 *6TP WHIT	27	RJT-15-4-104
6"	146.86	152.4	174.32 *6TP WHIT	24	RJT-15-4-6

RJT-SEAL RING (EPDM/SILICON VITON(FKM))



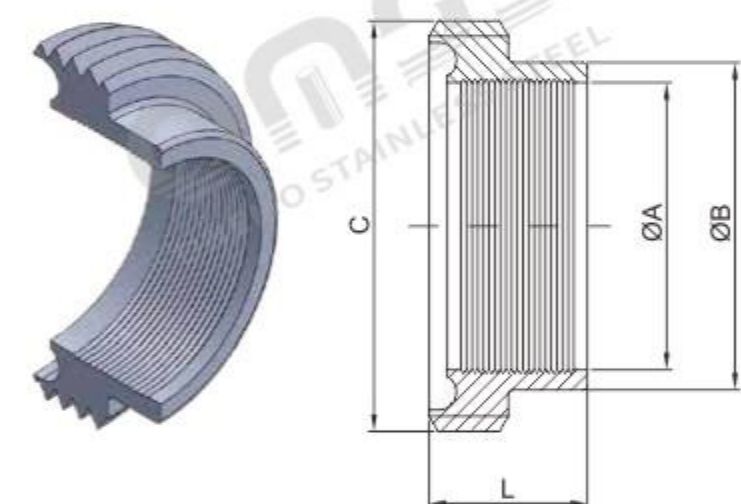
SIZE	ØA	ØB	ØC
1"	33.3	6.6	R 3.2
1.5"	46	6.6	R 3.2
2"	58.7	6.6	R 3.2
2.5"	71.4	6.6	R 3.2
3"	84.1	6.6	R 3.2
4"	109.5	6.6	R 3.2
6"	162.6	6.6	R 3.2

RJT -14R EXPANDING LINER



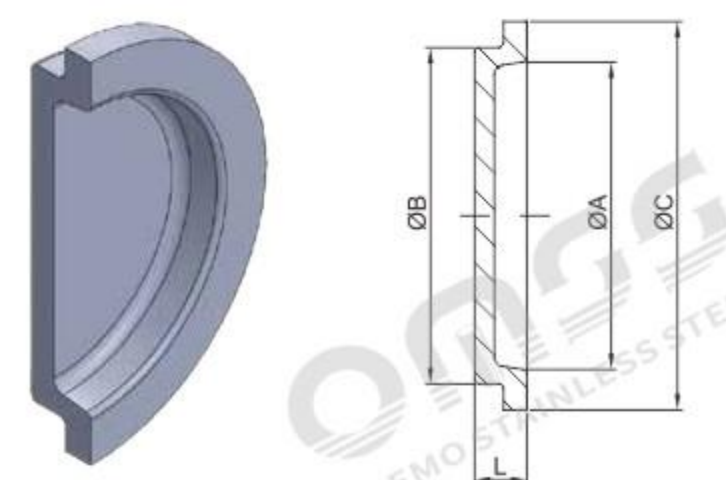
SIZE	ØA	ØB	ØC	L	Part Number
1"	22.5	32.5	41.3	20	RJT-14R-4-1
1.5"	38.2	45.2	54	24	RJT-14R-4-1.5
2"	50.9	57.9	66.7	28	RJT-14R-4-2
2.5"	63.6	70.6	79.4	32	RJT-14R-4-2.5
3"	76.3	83.3	92.1	32	RJT-14R-4-3
4"	101.7	108.7	117.5	32	RJT-14R-4-4

RJT -15R EXPANDING MALE



SIZE	ØA	ØB	C	L	Part Number
1"	22.5	32.5	45.72 *8TP WHIT	20	RJT-15R-4-1
1.5"	38.2	45.2	58.42 *8TP WHIT	24	RJT-15R-4-1.5
2"	50.9	57.9	72.72 *6TP WHIT	28	RJT-15R-4-2
2.5"	63.6	70.6	85.42 *6TP WHIT	32	RJT-15R-4-2.5
3"	76.3	83.3	98.12 *6TP WHIT	32	RJT-15R-4-3
4"	101.7	108.7	123.52 *6TP WHIT	32	RJT-15R-4-4

RJT -14B BLANK END CAP

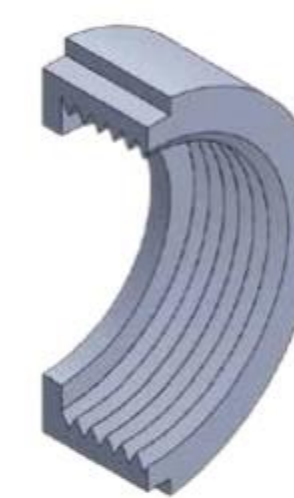


SIZE	ØA	ØB	ØC	L	Part Number
1"	37.8	32.5	41.3	9	RJT-14B-4-1"
1.5"	40.5	45.2	54	9	RJT-14B-4-1.5"
2"	53.2	57.9	66.7	9	RJT-14B-4-2"
2.5"	65.9	70.6	79.4	9	RJT-14B-4-2.5"
3"	78.2	83.3	92.1	9	RJT-14B-4-3"
4"/104	104	108.7	117.5	9	RJT-14B-4-4"/104

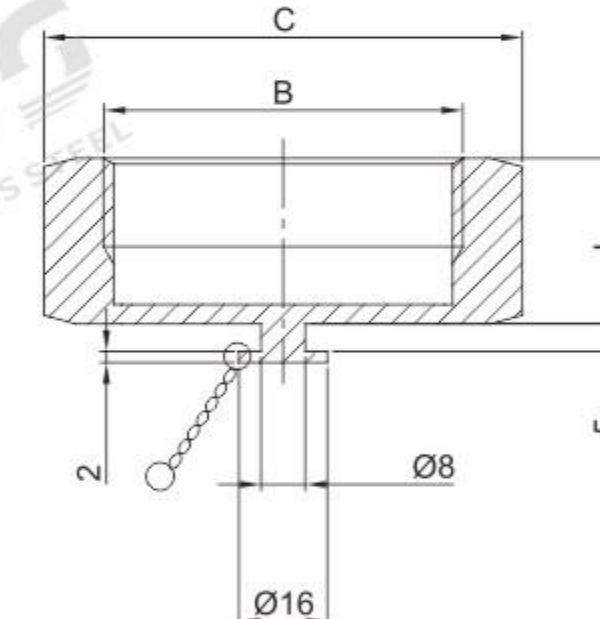
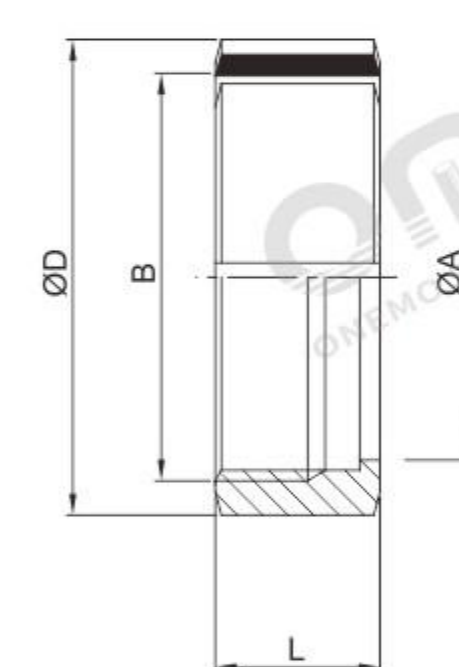
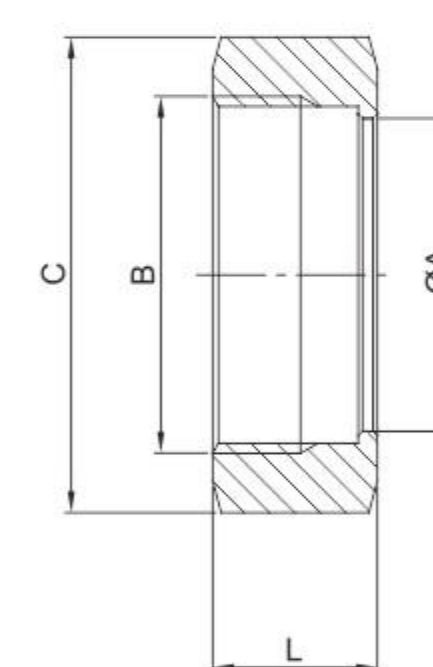
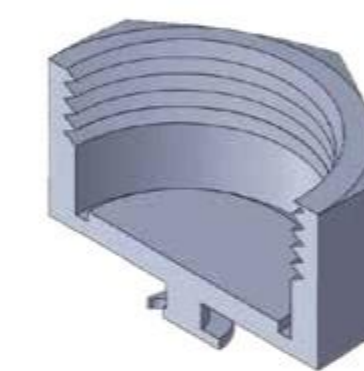
IDF-13H



IDF-13R



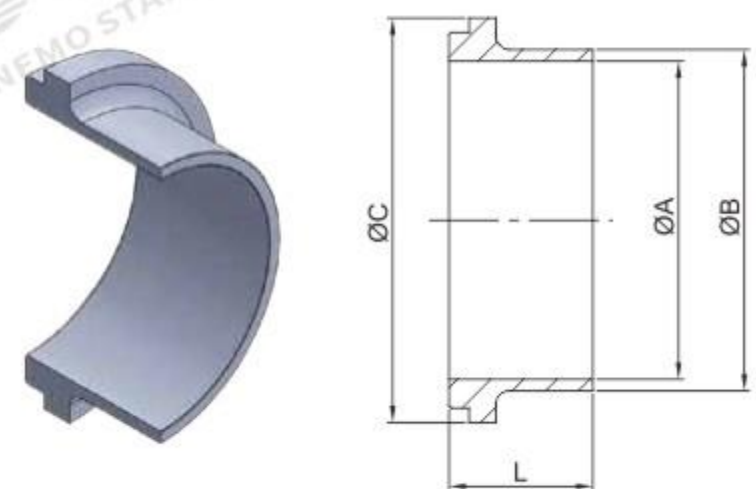
IDF-13HBN



IDF-13 NUT

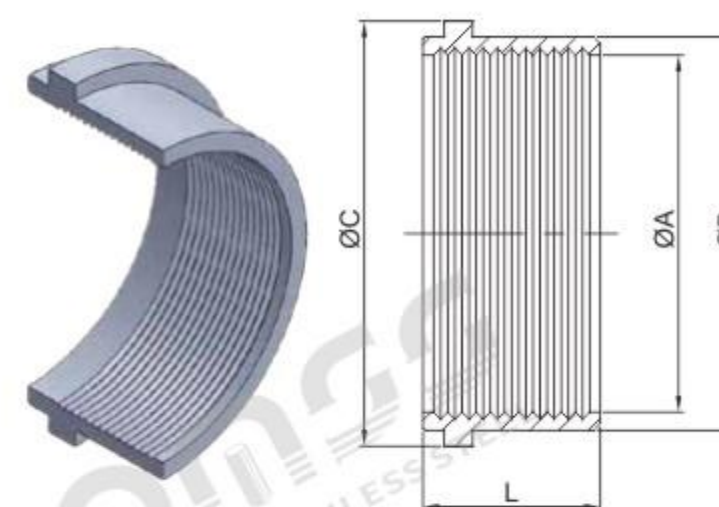
SIZE	ØA	B	C	ØD	L	Part Number
1"	30.5	34.34*8T ACME	46	48	30	IDF-13H/IDF-13R/IDF-13HBN-4-1
1.5"	43.5	47.86*8T ACME	60	64	30	IDF-13H/IDF-13R/IDF-13HBN-4-1.5
2"	57	61.37*8T ACME	75	77	30	IDF-13H/IDF-13R/IDF-13HBN-4-2
2.5"	70.7	74.88*8T ACME	90	91	30	IDF-13H/IDF-13R/IDF-13HBN-4-2.5
R 3"	83.3	84.4 *8T ACME	106	106	30	IDF-13H/IDF-13R/IDF-13HBN-4-R-3
H 3"	83.3	84.4 *8T ACME	105	105	30	IDF-13H/IDF-13R/IDF-13HBN-4-H-3
R 4"	112	115.41*8T ACME	135	135	34.9	IDF-13H/IDF-13R/IDF-13HBN-4-R-4
H 4"	112	122.05*6T ACME	133	133	34.9	IDF-13H/IDF-13R/IDF-13HBN-4-H-4

IDF-14 WELDING LINER



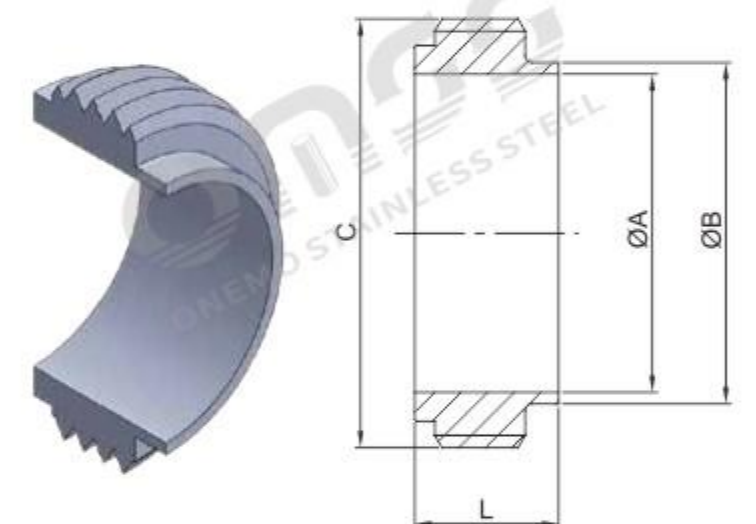
SIZE	IDF		JIS		ØC	L	Part Number
	ØA	ØB	ØA	ØB			
1"	22.6	25.6	23	25.4	33.8	21.5	IDF-14-4-1
1.5"	35.6	38.6	35.7	38.1	47	21.5	IDF-14-4-1.5
2"	48.6	51.6	47.8	50.8	60.5	21.5	IDF-14-4-2
2.5"	60.3	64.1	59.5	63.5	74	21.5	IDF-14-4-2.5
3"	72.9	76.7	72.3	76.3	87.5	21.5	IDF-14-4-3
4"	97.6	101.6	—	—	114.1	30	IDF-14-4-R-4
4"	97.6	102.5	97.6	101.6	120.6	30	IDF-14-4-H-4

IDF-14R RESSESSLESS LINER



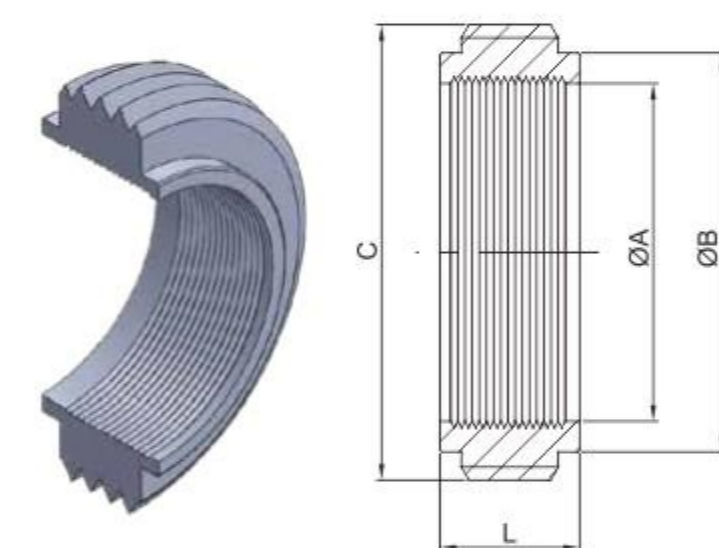
SIZE	ØA	ØB	ØC	L	Part Number
1"	25.5	29.2	33.8	20	IDF-14R-4-1
1.5"	38.2	42.7	47	20	IDF-14R-4-1.5
2"	50.9	56.2	60.5	25	IDF-14R-4-2
2.5"	63.6	69.9	74	30	IDF-14R-4-2.5
3"	76.3	82.6	87.5	30	IDF-14R-4-3
4"	101.7	108.4	114.1	30	IDF-14R-4-R-4
4"	101.7	111.1	120.6	30	IDF-14R-4-H-4

IDF-15 WELDING MALE



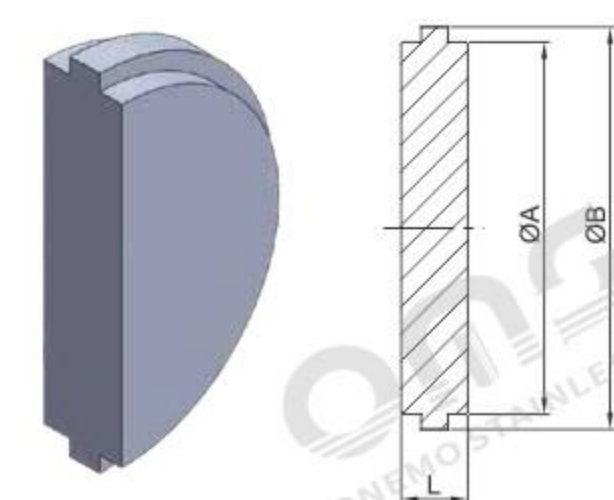
SIZE	IDF		JIS		C	L	Part Number
	ØA	ØB	ØA	ØB			
1"	22.1	25.4	23	25.4	37.13*8T ACME	21.5	IDF-15-4-1
1.5"	34.8	38.1	35.7	38.1	50.65*8T ACME	21.5	IDF-15-4-1.5
2"	47.5	50.8	47.8	50.8	64.16*8T ACME	21.5	IDF-15-4-2
2.5"	60.2	63.5	59.5	63.5	77.76*8T ACME	21.5	IDF-15-4-2.5
3"	72.9	76.2	72.3	76.3	91.19*8T ACME	21.5	IDF-15-4-3
4"	97.6	101.6	—	—	118.2*8T ACME	30	IDF-15-4-R-4
4"	97.6	102.5	97.6	101.6	125.9*6T ACME	30	IDF-15-4-H-4

IDF-15R RESSESSLESS MALE



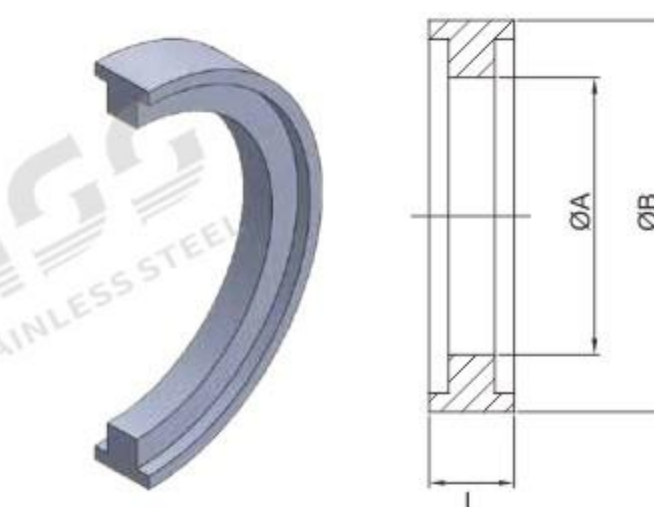
SIZE	ØA	ØB	C	L	Part Number
1"	25.5	29.2	37.13*8T ACME	19.5	IDF-15R-4-1
1.5"	38.2	42.7	50.65*8T ACME	19.5	IDF-15R-4-1.5
2"	50.9	56.2	64.16*8T ACME	19.5	IDF-15R-4-2
2.5"	63.6	69.9	77.76*8T ACME	25	IDF-15R-4-2.5
3"	76.3	82.6	91.19*8T ACME	30	IDF-15R-4-3
4"	101.7	108.4	118.2*8T ACME	35	IDF-15R-4-R-4
4"	101.7	111.1	125.9*6T ACME	35	IDF-15R-4-H-4

IDF-14B BLANK END CAP



SIZE	ØA	ØB	L	Part Number
1"	29.2	33.8	10.5	IDF-14B-4-1
1.5"	42.7	47	10.5	IDF-14B-4-1.5
2"	56.2	60.5	10.5	IDF-14B-4-2
2.5"	69.9	74	10.5	IDF-14B-4-2.5
3"	82.6	87.5	10.5	IDF-14B-4-3
4"	111.1	114.1	12.6	IDF-14B-4-R-4
4"	111.1	120.6	12.6	IDF-14B-4-H-4

IDF SEAL RING



SIZE	ØA	ØB	L
1"	23	32.5	7
1.5"	36	46	7
2"	49	59.5	7
2.5"	60.7	73.2	7
3"	73.2	86.5	7
4"	98	113	7
4"	98	119.6	7

MACON NUT 4 SLOTS M-13R

13R

13RBN

SIZE	ØA	B	ØC	L
DN33	37	39*11TPI WHIT	50	25
DN43	47	M55*P3.0	70	25
DN53	57	M67*P3.0	80	25
DN63	67	M79*P3.5	95	25
DN73	77	M90*P3.5	106	25
DN83	90	M102*P4.0	118	25
DN103	112	M125*P4.0	139	25
DN103	112	M125*P4.0	139	26

MACON LINER M-14

ØE

ØD

ØC

ØA

ØB

L

SIZE	ØA	ØB	ØC	ØD	ØE	L
DN33	33.3	36	28	31.5	38	22
DN38	38.2	46	35.9	44.5	50	29
DN40/43	43.3	46.3	40	44.5	50	22
DN51	51.2	56	48.5	54.5	62.5	29
DN50/53	53.3	56.3	50	54.5	62.5	22
DN60/63	63.3	66.3	60	64.5	73.5	22
DN70/73	73.3	76.3	70	74.5	85	22
DN76	72	76	70	74.5	85	22
DN80/83	83.3	86.3	80	84.5	96	22
DN103	104.2	108	100	104.5	119	22



MACON MALE M-15

E

ØD

ØC

ØA

ØB

L

SIZE	ØA	ØB	ØC	ØD	E	L
DN33	33.3	36.3	30	32	40.5*11TPI WHIT	22
DN38	38.2	46	35.9	45	M55*P3.0	30
DN43	43.3	46.3	40	45	M55*P3.0	22
DN51	51.2	56	48.5	55	M67*P3.0	30
DN53	53.3	56.3	50	55	M67*P3.0	22
DN60/63	63.3	66.3	60	66	M79*P3.5	22
DN70/73	73.3	76.3	70	76	M90*P3.5	22
DN76	72	76	70	76	M90*P3.5	22
DN80/83	83.3	86.3	80	86	M102*P4.0	22
DN103	104.2	108	100	106	M125*P4.0	22

M-14AHR MACON LINER HOSE ADAPTER

ØC

ØA

ØB

L

SIZE	ØA	ØB	ØC	L
DN40/43	34/36.5	40	50.8	82
DN50/53	47	50.5	63	92
DN60/63	59	53.2	75	102
DN70/73	66.3	70	85	104
DN80/83	71.5	75.5	97	110

M-15AHR MACON MALE HOSE ADAPTER

C

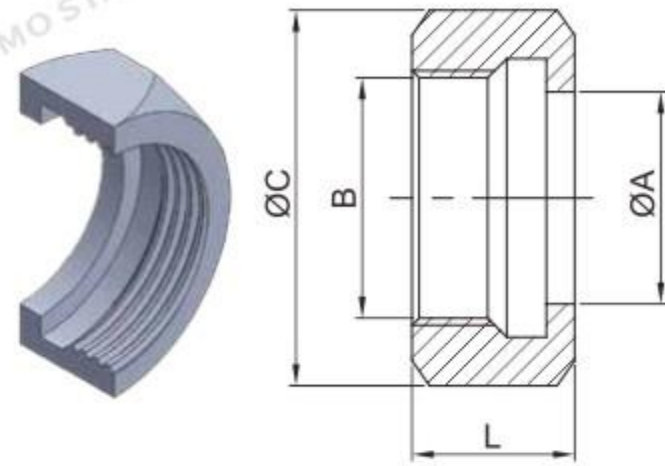
ØA

ØB

L

SIZE	ØA	ØB	C	L
DN40/43	34/36.5	40	M55*P3.0	84
DN50/53	47	50.5	M67*P3.0	94
DN60/63	59	53.2	M79*P3.5	104
DN70/73	66.3	70	M90*P3.5	106
DN80/83	71.5	75.5	M102*P4.0	112

3A-13H HEXAGONAL NUT



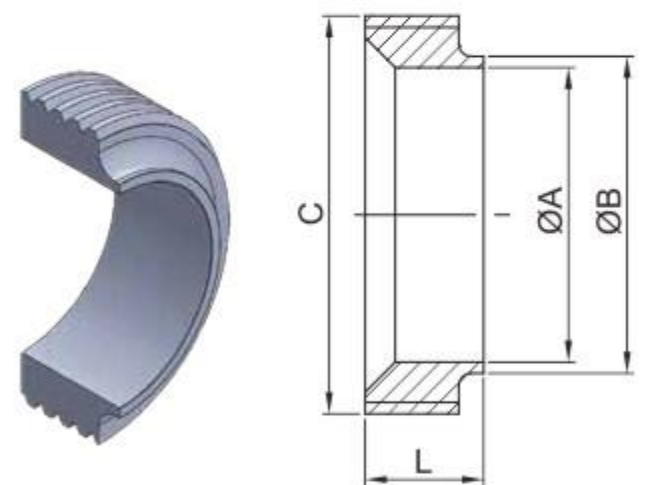
SIZE	ØA	B	ØC	L	Part Number
1"	30.3	38.02 ACME 8TPI	46	23	3A-13H-4-1
1.5"	43.4	51.54 ACME 8TPI	61.1	24.6	3A-13H-4-1.5
2"	56.5	65.05 ACME 8TPI	76.2	27	3A-13H-4-2
2.5"	69.6	78.56 ACME 8TPI	91.3	29.6	3A-13H-4-2.5
3"	82.7	92.08 ACME 8TPI	106.4	32.5	3A-13H-4-3
4"	108.9	120.14 ACME 6TPI	137.6	38.1	3A-13H-4-4

3A-14PRF SHORT BEVEL SEAT WELD LINER



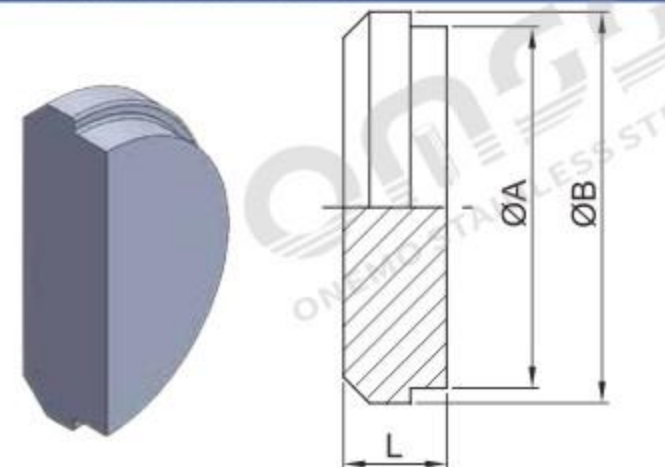
SIZE	ØA	ØB	ØC	ØD	L	Part Number
1"	22.1	25.4	29.5	33.3	18.3	3A-14PRF-4-1
1.5"	34.8	38.1	42.6	46.8	18.3	3A-14PRF-4-1.5
2"	47.5	50.8	55.7	60.3	19.1	3A-14PRF-4-2
2.5"	60.2	63.5	68.8	73.8	22.3	3A-14PRF-4-2.5
3"	72.9	76.2	91.9	87.3	23.1	3A-14PRF-4-3
4"	97.6	101.6	108.1	114.3	26.2	3A-14PRF-4-4

3A-15TRF SHORT BEVEL SEAT WELD MALE



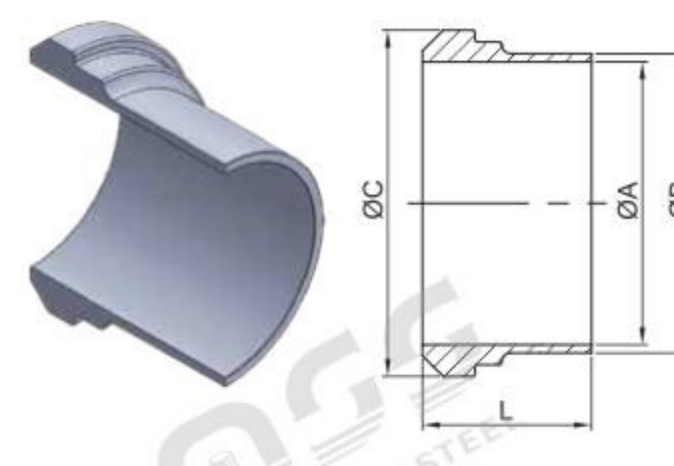
SIZE	ØA	ØB	C	L	Part Number
1"	22.1	25.4	37.13 ACME 8TPI	18.3	3A-15TRF-4-1
1.5"	34.8	38.1	50.65 ACME 8TPI	18.3	3A-15TRF-4-1.5
2"	47.5	50.8	64.17 ACME 8TPI	19.1	3A-15TRF-4-2
2.5"	60.2	63.5	77.67 ACME 8TPI	22.2	3A-15TRF-4-2.5
3"	72.9	76.2	91.19 ACME 8TPI	23.1	3A-15TRF-4-3
4"	97.6	101.6	119.25 ACME 6TPI	26.2	3A-15TRF-4-4

3A-16A BLANK END CAP



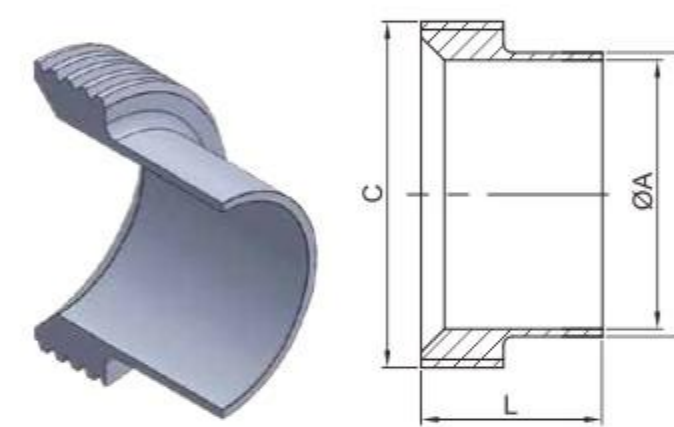
SIZE	ØA	ØB	L	Part Number
1"	29.5	33.3	11.9	3A-16A-4-1
1.5"	42.6	46.8	14.3	3A-16A-4-1.5
2"	55.7	60.3	15.9	3A-16A-4-2
2.5"	68.8	73.8	16.7	3A-16A-4-2.5
3"	81.9	87.3	18.3	3A-16A-4-3
4"	108.1	114.3	20.6	3A-16A-4-4

3A-14A LONG WELD LINER



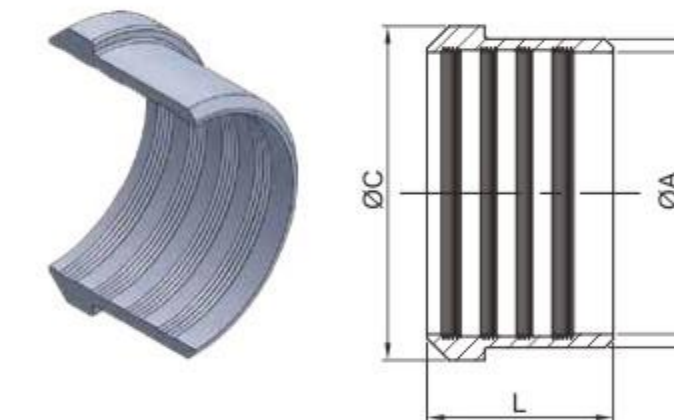
SIZE	ØA	ØB	ØC	L	Part Number
1"	22.1	25.4	33.3	34.9	3A-14A-4-1
1.5"	34.8	38.1	46.8	38.1	3A-14A-4-1.5
2"	47.5	50.8	60.3	38.1	3A-14A-4-2
2.5"	60.2	63.5	73.8	44.5	3A-14A-4-2.5
3"	72.9	76.2	87.3	44.5	3A-14A-4-3
4"	97.6	101.6	114.3	44.5	3A-14A-4-4

3A-15A LONG WELD MALE



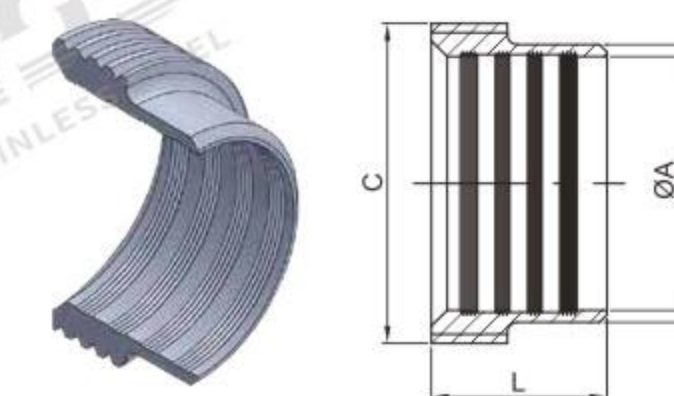
SIZE	ØA	ØB	C	L	Part Number
1"	22.1	25.4	37.13 ACME 8TPI	34.9	3A-15A-4-1
1.5"	34.8	38.1	50.65 ACME 8TPI	38.1	3A-15A-4-1.5
2"	47.5	50.8	64.17 ACME 8TPI	38.1	3A-15A-4-2
2.5"	60.2	63.5	77.67 ACME 8TPI	44.5	3A-15A-4-2.5
3"	72.9	76.2	91.19 ACME 8TPI	44.5	3A-15A-4-3
4"	97.6	101.6	119.25 ACME 6TPI	44.5	3A-15A-4-4

3A-14R RECESSLESS LINER



SIZE	ØA	ØB	ØC	L	Part Number
1"	22.5	29.5	33.3	19.1	3A-14R-4-1
1.5"	38.2	42.6	46.8	28.6	3A-14R-4-1.5
2"	50.9	55.7	60.3	33.3	3A-14R-4-2
2.5"	63.6	68.8	73.8	34.9	3A-14R-4-2.5
3"	76.3	81.9	87.3	36.5	3A-14R-4-3
4"	101.7	108.1	114.3	38.1	3A-14R-4-4

3A-15R RECESSLESS MALE



SIZE	ØA	ØB	C	L	Part Number
1"	22.5	29.5	37.13 ACME 8TPI	20.6	3A-15R-4-1
1.5"	38.2	42.6	50.65 ACME 8TPI	28.6	3A-15R-4-1.5
2"	50.9	55.7	64.17 ACME 8TPI	34.9	3A-15R-4-2
2.5"	63.6	68.8	77.67 ACME 8TPI	38.1	3A-15R-4-2.5
3"	76.3	81.9	91.19 ACME 8TPI	41.3	3A-15R-4-3
4"	101.7	108.1	119.25 ACME 6TPI	41.3	3A-15R-4-4

BPE, PHARMACEUTICAL FITTING SEMI-CONDUCTOR FITTING



Cse High Purit Y Tube & Fitti Ng Valve (Asme Bpe Standard)

Pharmaceutical/Biotechnology fitting.

Material: low sulphur ASTM SS316L , S: ≤ 0.005%~0.017%,

MTR certificate will be offered.
Surface options:

Ra Reading for Tubing

As drawing and / or mechanically polished			Mechanically Polished and Electropolished or Electropolished		
Surface Designation	RaAverage μ-in	μ-m	Surface Designation	RaAverage μ-in	μ-m
SF1	20	0.5	SF4	15	0.38
SF2	25	0.63	SF5	20	0.5
SF3	30	0.76	SF6	25	0.63

Ra Reading for Fitting

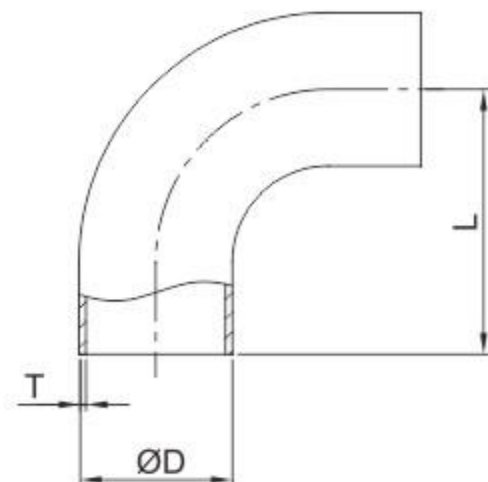
Mechanically polished			Mechanically Polished and Electropolished		
Surface Designation	RaAverage μ-in	μ-m	Surface Designation	RaAverage μ-in	μ-m
SF1	20	0.5	SF4	15	0.38
SF2	25	0.63	SF5	20	0.5
SF3	30	0.76	SF6	25	0.63

Outer surface: Tubes and fittings Ra ≤ 32 μin (0.8 μm)

CSE SEMI-CONDUCTOR/MICRO-ELECTRONICS

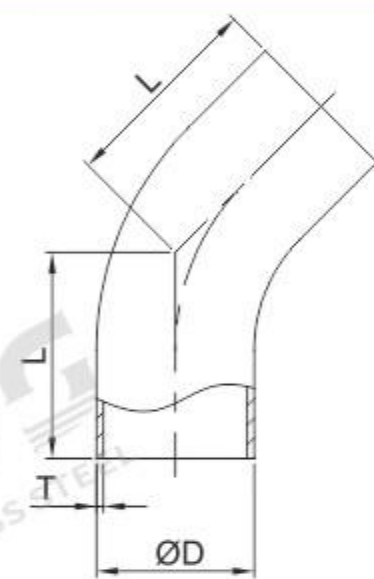


DT-4.1.1-1 LONG WELD 90° ELBOW (DT-7)



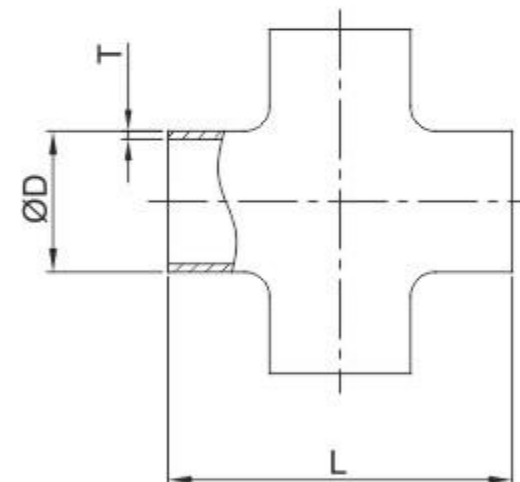
SIZE	ØD	L	T	Part Number
1/2"	12.7	76.2	1.65	DT-4.1.1-1-4-0.5
3/4"	19.05	76.2	1.65	DT-4.1.1-1-4-0.75
1"	25.4	76.2	1.65	DT-4.1.1-1-4-1
1.5"	38.1	95.25	1.65	DT-4.1.1-1-4-1.5
2"	50.8	120.65	1.65	DT-4.1.1-1-4-2
2.5"	63.5	139.7	1.65	DT-4.1.1-1-4-2.5
3"	76.2	158.75	1.65	DT-4.1.1-1-4-3
4"	101.6	203.2	2.1	DT-4.1.1-1-4-4

DT-4.1.1-4 LONG 45° ELBOW (DT-8)



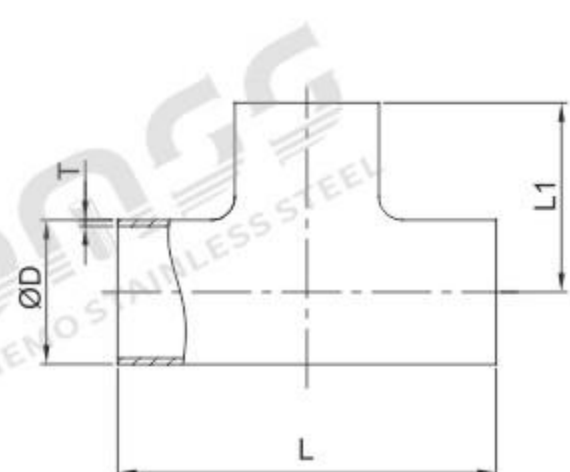
SIZE	ØD	L	T	Part Number
1/2"	12.7	57.15	1.65	DT-4.1.1-4-4-0.5
3/4"	19.05	57.15	1.65	DT-4.1.1-4-4-0.75
1"	25.4	57.15	1.65	DT-4.1.1-4-4-1
1.5"	38.1	63.5	1.65	DT-4.1.1-4-4-1.5
2"	50.8	76.2	1.65	DT-4.1.1-4-4-2
2.5"	63.5	85.6	1.65	DT-4.1.1-4-4-2.5
3"	76.2	91.95	1.65	DT-4.1.1-4-4-3
4"	101.6	114.3	2.1	DT-4.1.1-4-4-4

DT-4.1.2-1C CROSS (DT-9)



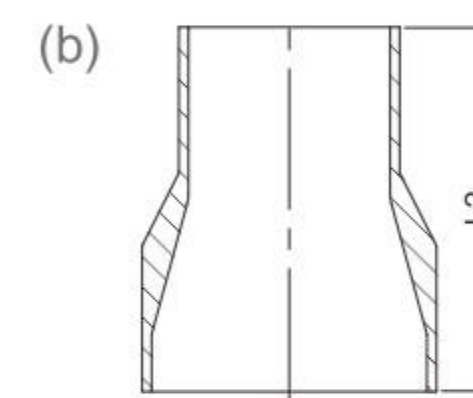
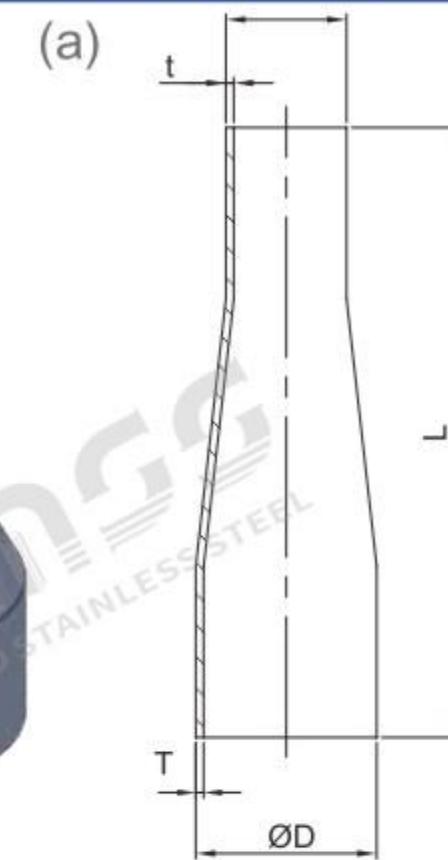
SIZE	ØD	L	T	Part Number
1/2"	12.7	95.2	1.65	DT-4.1.2-1C-4-0.5
3/4"	19.05	101.6	1.65	DT-4.1.2-1C-4-0.75
1"	25.4	108	1.65	DT-4.1.2-1C-4-1
1.5"	38.1	120.6	1.65	DT-4.1.2-1C-4-1.5
2"	50.8	146	1.65	DT-4.1.2-1C-4-2
2.5"	63.5	158.8	1.65	DT-4.1.2-1C-4-2.5
3"	76.2	171.4	1.65	DT-4.1.2-1C-4-3
4"	101.6	209.6	2.1	DT-4.1.2-1C-4-4

DT-4.1.2-1T TEE (DT-9)



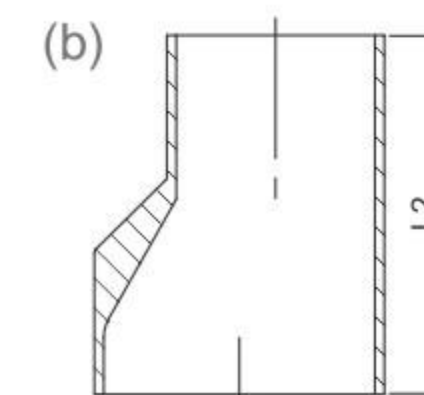
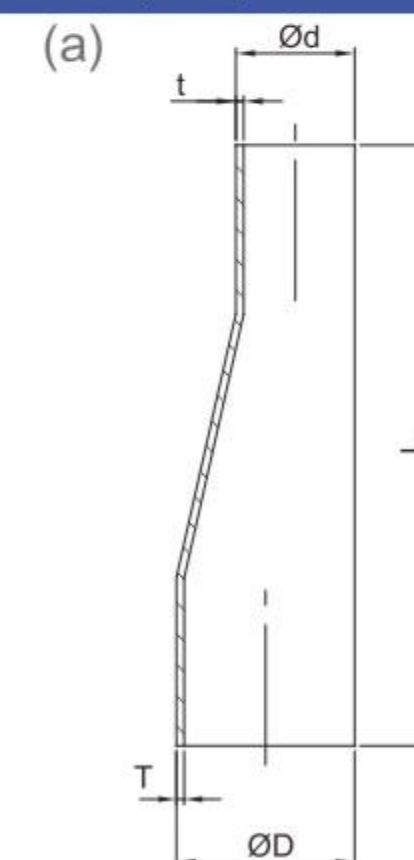
SIZE	ØD	L	L1	T	Part Number
1/2"	12.7	95.2	47.5	1.65	DT-4.1.2-1T-4-0.5
3/4"	19.05	101.6	50.8	1.65	DT-4.1.2-1T-4-0.75
1"	25.4	108	53.85	1.65	DT-4.1.2-1T-4-1
1.5"	38.1	120.6	60.2	1.65	DT-4.1.2-1T-4-1.5
2"	50.8	146	73	1.65	DT-4.1.2-1T-4-2
2.5"	63.5	158.8	79.25	1.65	DT-4.1.2-1T-4-2.5
3"	76.2	171.4	85.6	1.65	DT-4.1.2-1T-4-3
4"	101.6	209.6	104.65	2.1	DT-4.1.2-1T-4-4

DT-4.1.3-1 CONCENTRIC REDUCER (DT-11)



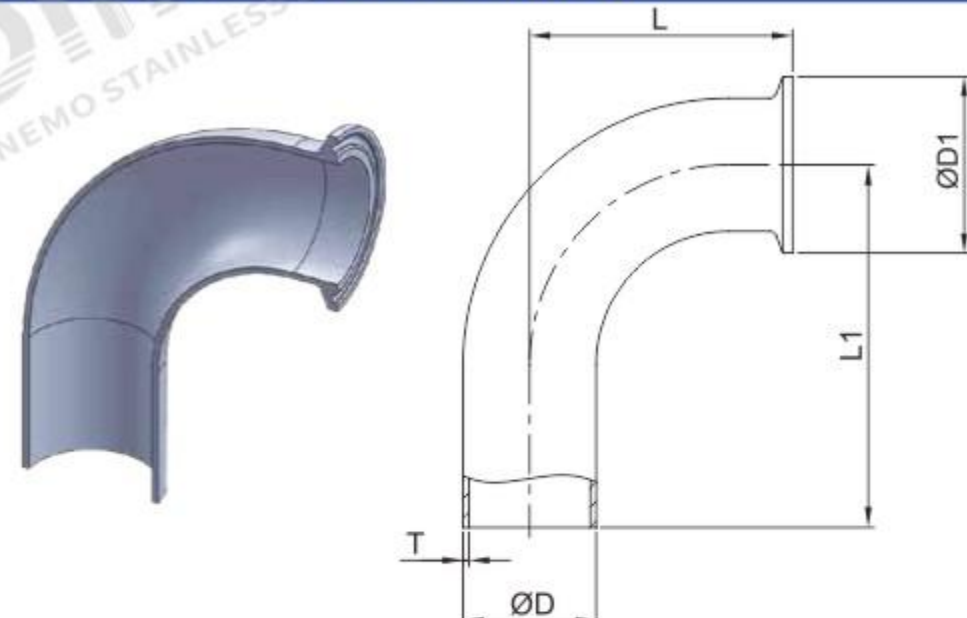
SIZE	ØD	Ød	L	T	t	L2	Part Number
3/4"×1/2"	19.05	12.7	101.6	1.65	1.65	54	DT-4.1.3-1-4-3/4"×1/2"
1"×1/2"	25.4	12.7	114.3	1.65	1.65	63.5	DT-4.1.3-1-4-1"×1/2"
1"×3/4"	25.4	19.05	101.6	1.65	1.65	54	DT-4.1.3-1-4-1"×3/4"
1.5"×1/2"	38.1	12.7	139.7	1.65	1.65	—	DT-4.1.3-1-4-1.5"×1/2"
1.5"×3/4"	38.1	19.05	127	1.65	1.65	76.2	DT-4.1.3-1-4-1.5"×3/4"
1.5"×1"	38.1	25.4	127	1.65	1.65	63.5	DT-4.1.3-1-4-1.5"×1"
2"×1/2"	50.8	12.7	196.9	1.65	1.65	—	DT-4.1.3-1-4-2"×1/2"
2"×3/4"	50.8	19.05	184.2	1.65	1.65	—	DT-4.1.3-1-4-2"×3/4"
2"×1"	50.8	25.4	184.2	1.65	1.65	85.7	DT-4.1.3-1-4-2"×1"
2"×1.5"	50.8	38.1	133.4	1.65	1.65	63.5	DT-4.1.3-1-4-2"×1.5"
2.5"×1.5"	63.5	38.1	184.2	1.65	1.65	85.7	DT-4.1.3-1-4-2.5"×1.5"
2.5"×2"	63.5	50.8	139.7	1.65	1.65	63.5	DT-4.1.3-1-4-2.5"×2"
3"×1.5"	76.2	38.1	235	1.65	1.65	108	DT-4.1.3-1-4-3"×1.5"
3"×2"	76.2	50.8	190.5	1.65	1.65	85.7	DT-4.1.3-1-4-3"×2"
3"×2.5"	76.2	63.5	139.7	1.65	1.65	66.7	DT-4.1.3-1-4-3"×2.5"
4"×1.5"	101.6	38.1	342.9	2.1	1.65	—	DT-4.1.3-1-4-4"×1.5"
4"×2"	101.6	50.8	298.5	2.1	1.65	130.2	DT-4.1.3-1-4-4"×2"
4"×2.5"	101.6	63.5	247.7	2.1	1.65	108	DT-4.1.3-1-4-4"×2.5"
4"×3"	101.6	76.2	196.9	2.1	2.1	98.4	DT-4.1.3-1-4-4"×3"

DT-4.1.3-1 ECCENTRIC REDUCER (DT-11)



SIZE	ØD	Ød	L	T	t	L2	Part Number
3/4"×1/2"	19.05	12.7	101.6	1.65	1.65	54	DT-4.1.3-1-4-3/4"×1/2"
1"×1/2"	25.4	12.7	114.3	1.65	1.65	63.5	DT-4.1.3-1-4-1"×1/2"
1"×3/4"	25.4	19.05	101.6	1.65	1.65	54	DT-4.1.3-1-4-1"×3/4"
1.5"×1/2"	38.1	12.7	139.7	1.65	1.65	—	DT-4.1.3-1-4-1.5"×1/2"
1.5"×3/4"	38.1	19.05	127	1.65	1.65	76.2	DT-4.1.3-1-4-1.5"×3/4"
1.5"×1"	38.1	25.4	127	1.65	1.65	63.5	DT-4.1.3-1-4-1.5"×1"
2"×1/2"	50.8	12.7	196.9	1.65	1.65	—	DT-4.1.3-1-4-2"×1/2"
2"×3/4"	50.8	19.05	184.2	1.65	1.65	—	DT-4.1.3-1-4-2"×3/4"
2"×1"	50.8	25.4	184.2	1.65	1.65	85.7	DT-4.1.3-1-4-2"×1"
2"×1.5"	50.8	38.1	133.4	1.65	1.65	63.5	DT-4.1.3-1-4-2"×1.5"
2.5"×1.5"	63.5	38.1	184.2	1.65	1.65	85.7	DT-4.1.3-1-4-2.5"×1.5"
2.5"×2"	63.5	50.8	139.7	1.65	1.65	63.5	DT-4.1.3-1-4-2.5"×2"
3"×1.5"	76.2	38.1	235	1.65	1.65	108	DT-4.1.3-1-4-3"×1.5"
3"×2"	76.2	50.8	190.5	1.65	1.65	85.7	DT-4.1.3-1-4-3"×2"
3"×2.5"	76.2	63.5	139.7	1.65	1.65	66.7	DT-4.1.3-1-4-3"×2.5"
4"×1.5"	101.6	38.1	342.9	2.1	1.65	—	DT-4.1.3-1-4-4"×1.5"
4"×2"	101.6	50.8	298.5	2.1	1.65	130.2	DT-4.1.3-1-4-4"×2"
4"×2.5"	101.6	63.5	247.7	2.1	1.65	108	DT-4.1.3-1-4-4"×2.5"
4"×3"	101.6	76.2	196.9	2.1	2.1	98.4	DT-4.1.3-1-4-4"×3"

DT-4.1.1-2 90° CLAMP/WELD ELBOW (DT-12)



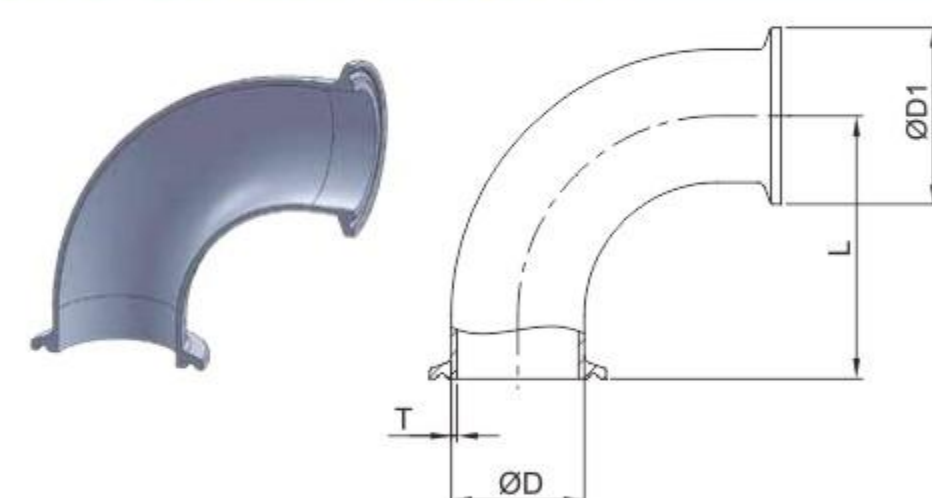
SIZE	ØD	ØD1	L	L1	T	Part Number
1/2"	12.7	25	41.3	76.2	1.65	DT-4.1.1-2-4-0.5
3/4"	19.05	25	41.3	76.2	1.65	DT-4.1.1-2-4-0.75
1"	25.4	50.4	50.8	76.2	1.65	DT-4.1.1-2-4-1
1.5"	38.1	50.4	69.9	95.3	1.65	DT-4.1.1-2-4-1.5
2"	50.8	63.9	88.9	120.7	1.65	DT-4.1.1-2-4-2
2.5"	63.5	77.4	108	139.7	1.65	DT-4.1.1-2-4-2.5
3"	76.2	90.9	127	158.8	1.65	DT-4.1.1-2-4-3
4"	101.6	118.9	168.3	203.2	2.1	DT-4.1.1-2-4-4
6"	152.4	166.9	266.7	292.1	2.77	DT-4.1.1-2-4-6

DT-4.1.1-5 45° CLAMP/WELD ELBOW (DT-13)



SIZE	ØD	ØD1	L	L1	T	Part Number
1/2"	12.7	25	57.2	25.4	1.65	DT-4.1.1-5-4-0.5
3/4"	19.05	25	57.2	25.4	1.65	DT-4.1.1-5-4-0.75
1"	25.4	50.4	57.2	28.6	1.65	DT-4.1.1-5-4-1
1.5"	38.1	50.4	63.5	36.5	1.65	DT-4.1.1-5-4-1.5
2"	50.8	63.9	76.2	44.5	1.65	DT-4.1.1-5-4-2
2.5"	63.5	77.4	85.7	52.4	1.65	DT-4.1.1-5-4-2.5
3"	76.2	90.9	92.1	60.3	1.65	DT-4.1.1-5-4-3
4"	101.6	118.9	114.3	79.4	2.1	DT-4.1.1-5-4-4
6"	152.4	166.9	158.8	133.4	2.77	DT-4.1.1-5-4-6

DT-4.1.1-3 90° CLAMP ELBOW (DT-16)



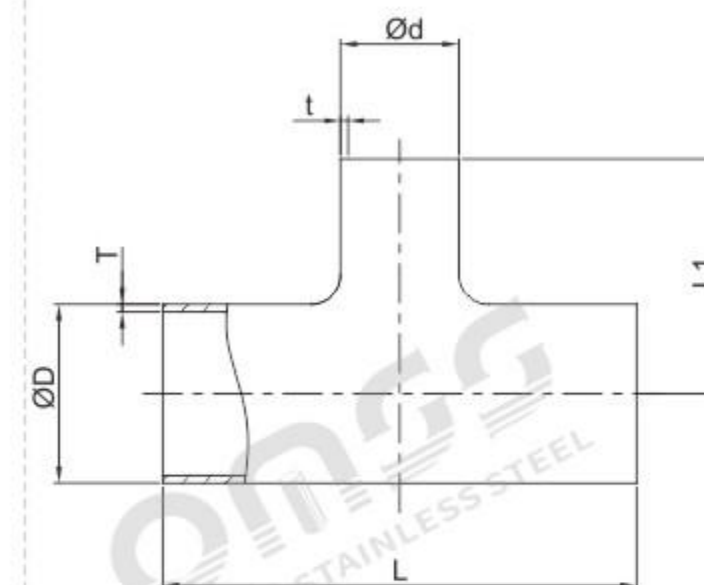
SIZE	ØD	ØD1	L	T	Part Number
1/2"	12.7	25	41.3	1.65	DT-4.1.1-3-4-0.5
3/4"	19.05	25	41.3	1.65	DT-4.1.1-3-4-0.75
1"	25.4	50.4	50.8	1.65	DT-4.1.1-3-4-1
1.5"	38.1	50.4	69.9	1.65	DT-4.1.1-3-4-1.5
2"	50.8	63.9	88.9	1.65	DT-4.1.1-3-4-2
2.5"	63.5	77.4	108	1.65	DT-4.1.1-3-4-2.5
3"	76.2	90.9	127	1.65	DT-4.1.1-3-4-3
4"	101.6	118.9	168.3	2.1	DT-4.1.1-3-4-4
6"	152.4	166.9	266.7	2.77	DT-4.1.1-3-4-6

DT-4.1.1-6 45° CLAMP ELBOW (DT-17)



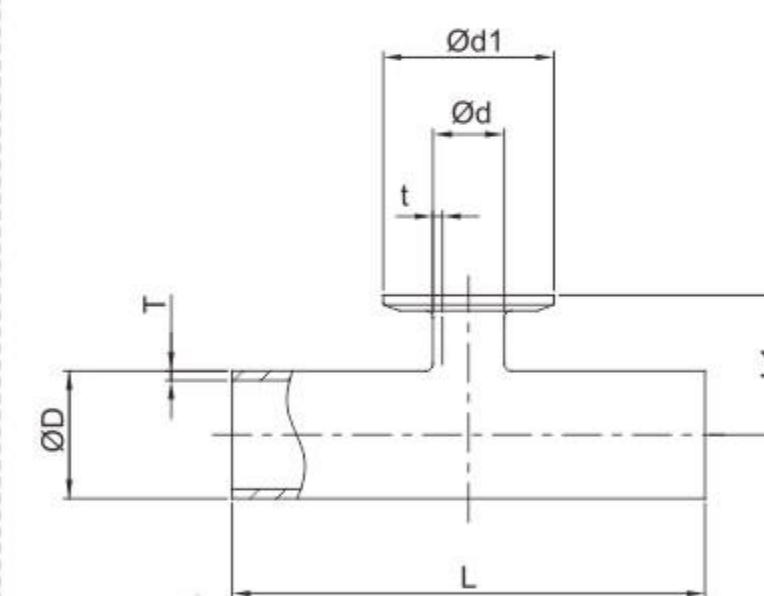
SIZE	ØD	ØD1	L	T	Part Number
1/2"	12.7	25	25.4	1.65	DT-4.1.1-6-4-0.5
3/4"	19.05	25	25.4	1.65	DT-4.1.1-6-4-0.75
1"	25.4	50.4	28.6	1.65	DT-4.1.1-6-4-1
1.5"	38.1	50.4	36.5	1.65	DT-4.1.1-6-4-1.5
2"	50.8	63.9	44.5	1.65	DT-4.1.1-6-4-2
2.5"	63.5	77.4	52.4	1.65	DT-4.1.1-6-4-2.5
3"	76.2	90.9	60.3	1.65	DT-4.1.1-6-4-3
4"	101.6	118.9	79.4	2.1	DT-4.1.1-6-4-4
6"	152.4	146.86	133.4	2.77	DT-4.1.1-6-4-6

DT-4.1.2-6 REDUCING TEE (DT-10)



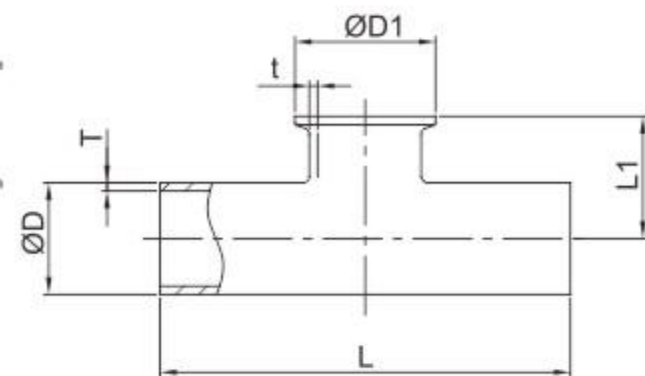
SIZE	ØD	Ød	L	L1	T	t	Part Number
3/4"×1/2"	19.05	12.7	101.6	50.8	1.65	1.65	DT-4.1.2-6-4-3/4"×1/2"
1"×1/2"	25.4	12.7	108	54	1.65	1.65	DT-4.1.2-6-4-1"×1/2"
1"×3/4"	25.4	19.05	108	54	1.65	1.65	DT-4.1.2-6-4-1"×3/4"
1.5"×1/2"	38.1	12.7	120.6	60.3	1.65	1.65	DT-4.1.2-6-4-1.5"×1/2"
1.5"×3/4"	38.1	19.05	120.6	60.3	1.65	1.65	DT-4.1.2-6-4-1.5"×3/4"
1.5"×1"	38.1	25.4	120.6	60.3	1.65	1.65	DT-4.1.2-6-4-1.5"×1"
2"×1/2"	50.8	12.7	145.8	66.7	1.65	1.65	DT-4.1.2-6-4-2"×1/2"
2"×3/4"	50.8	19.05	145.8	66.7	1.65	1.65	DT-4.1.2-6-4-2"×3/4"
2"×1"	50.8	25.4	145.8	66.7	1.65	1.65	DT-4.1.2-6-4-2"×1"
2"×1.5"	50.8	38.1	158.8	73	1.65	1.65	DT-4.1.2-6-4-2"×1.5"
2.5"×1/2"	63.5	12.7	158.8	73	1.65	1.65	DT-4.1.2-6-4-2.5"×1/2"
2.5"×3/4"	63.5	19.05	158.8	73	1.65	1.65	DT-4.1.2-6-4-2.5"×3/4"
2.5"×1"	63.5	25.4	158.8	73	1.65	1.65	DT-4.1.2-6-4-2.5"×1"
2.5"×1.5"	63.5	38.1	158.8	73	1.65	1.65	DT-4.1.2-6-4-2.5"×1.5"
2.5"×2"	63.5	50.8	158.8	73	1.65	1.65	DT-4.1.2-6-4-2.5"×2"
3"×1/2"	76.2	12.7	171.2	79.4	1.65	1.65	DT-4.1.2-6-4-3"×1/2"
3"×3/4"	76.2	19.05	171.2	79.4	1.65	1.65	DT-4.1.2-6-4-3"×3/4"
3"×1"	76.2	25.4	171.2	79.4	1.65	1.65	DT-4.1.2-6-4-3"×1"
3"×1.5"	76.2	38.1	171.2	79.4	1.65	1.65	DT-4.1.2-6-4-3"×1.5"
3"×2"	76.2	50.8	171.2	79.4	1.65	1.65	DT-4.1.2-6-4-3"×2"
3"×2.5"	76.2	63.5	171.2	79.4	1.65	1.65	DT-4.1.2-6-4-3"×2.5"
4"×1"	101.6	25.4	209.3	92.1	2.1	1.65	DT-4.1.2-6-4-4"×1"
4"×1.5"	101.6	38.1	209.3	92.1	2.1	1.65	DT-4.1.2-6-4-4"×1.5"
4"×2"	101.6	50.8	209.3	98.4	2.1	1.65	DT-4.1.2-6-4-4"×2"
4"×2.5"	101.6	63.5	209.3	98.4	2.1	1.65	DT-4.1.2-6-4-4"×2.5"
4"×3"	101.6	76.2	209.3	98.4	2.1	1.65	DT-4.1.2-6-4-4"×3"

DT-4.1.2-7 SHORT OUTLET W/C REDUCING TEE (DT-14)



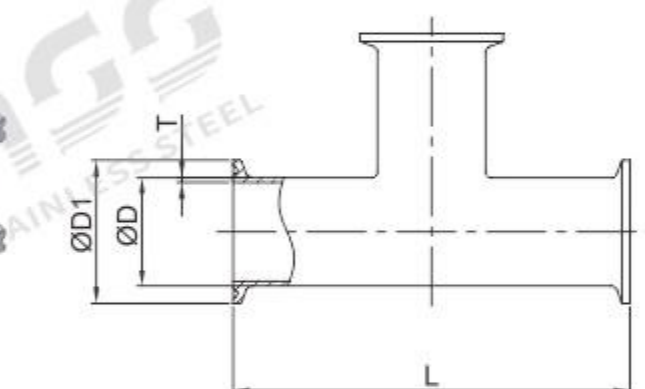
SIZE	ØD	Ød	Ød1	L	L1	T	t	Part Number
3/4"×1/2"	19.05	12.7	25	101.6	25.4	1.65	1.65	DT-4.1.2-7-4-3/4"×1/2"
1"×1/2"	25.4	12.7	25	108	28.6	1.65	1.65	DT-4.1.2-7-4-1"×1/2"
1"×3/4"	25.4	19.05	25	108	28.6	1.65	1.65	DT-4.1.2-7-4-1"×3/4"
1.5"×1/2"	38.1	12.7	25	120.6	34.9	1.65	1.65	DT-4.1.2-7-4-1.5"×1/2"
1.5"×3/4"	38.1	19.05	25	120.6	34.9	1.65	1.65	DT-4.1.2-7-4-1.5"×3/4"
1.5"×1"	38.1	25.4	50.4	120.6	34.9	1.65	1.65	DT-4.1.2-7-4-1.5"×1"
2"×1/2"	50.8	12.7	25	146	41.3	1.65	1.65	DT-4.1.2-7-4-2"×1/2"
2"×3/4"	50.8	19.05	25	146	41.3	1.65	1.65	DT-4.1.2-7-4-2"×3/4"
2"×1"	50.8	25.4	50.4	146	41.3	1.65	1.65	DT-4.1.2-7-4-2"×1"
2"×1.5"	50.8	38.1	50.4	146	41.3	1.65	1.65	DT-4.1.2-7-4-2"×1.5"
2.5"×1/2"	63.5	12.7	25	158.8	47.6	1.65	1.65	DT-4.1.2-7-4-2.5"×1/2"
2.5"×3/4"	63.5	19.05	25	158.8	47.6	1.65	1.65	DT-4.1.2-7-4-2.5"×3/4"
2.5"×1"	63.5	25.4	50.4	158.8	47.6	1.65	1.65	DT-4.1.2-7-4-2.5"×1"
2.5"×1.5"	63.5	38.1	50.4	158.8	47.6	1.65	1.65	DT-4.1.2-7-4-2.5"×1.5"
2.5"×2"	63.5	50.8	63.9	158.8	47.6	1.65	1.65	DT-4.1.2-7-4-2.5"×2"
3"×1/2"	76.2	12.7	25	171.4	54	1.65	1.65	DT-4.1.2-7-4-3"×1/2"
3"×3/4"	76.2	19.05	25	171.4	54	1.65	1.65	DT-4.1.2-7-4-3"×3/4"
3"×1"	76.2	25.4	50.4	171.4	54	1.65	1.65	DT-4.1.2-7-4-3"×1"
3"×1.5"	76.2	38.1	50.4	171.4	54	1.65	1.65	DT-4.1.2-7-4-3"×1.5"
3"×2"	76.2	50.8	63.9	171.4	54	1.65	1.65	DT-4.1.2-7-4-3"×2"
3"×2.5"	76.2	63.5	77.4	171.4	54	1.65	1.65	DT-4.1.2-7-4-3"×2.5"
4"×1"	101.6	25.4	50.4	209.6	66.7	2.1	1.65	DT-4.1.2-7-4-4"×1"
4"×1.5"	101.6	38.1	50.4	209.6	66.7	2.1	1.65	DT-4.1.2-7-4-4"×1.5"
4"×2"	101.6	50.8	63.9	209.6	66.7	2.1	1.65	DT-4.1.2-7-4-4"×2"
4"×2.5"	101.6	63.5	77.4	209.6	66.7	2.1	1.65	DT-4.1.2-7-4-4"×2.5"
4"×3"	101.6	76.2	90.9	209.6	66.7	2.1	1.65	DT-4.1.2-7-4-4"×3"

DT-4.1.2-2 EQUAL OUTLET WELD/CLAMP TEE



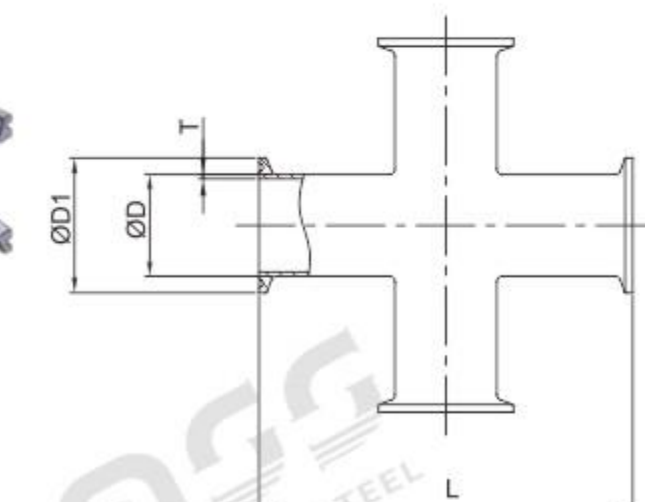
SIZE	ØD	ØD1	L	L1	T	Part Number
1/2"	12.7	25	95.2	25.4	1.65	DT-4.1.2-2-4-0.5
3/4"	19.05	25	101.6	28.6	1.65	DT-4.1.2-2-4-0.75
1"	25.4	50.4	108	28.6	1.65	DT-4.1.2-2-4-1
1.5"	38.1	50.4	120.6	34.9	1.65	DT-4.1.2-2-4-1.5
2"	50.8	63.9	146	41.3	1.65	DT-4.1.2-2-4-2
2.5"	63.5	77.4	158.8	47.6	1.65	DT-4.1.2-2-4-2.5
3"	76.2	90.9	171.4	54	1.65	DT-4.1.2-2-4-3
4"	101.6	118.9	209.6	69.9	2.1	DT-4.1.2-2-4-4

DT-4.1.2-4T CLAMP TEE (DT-18)



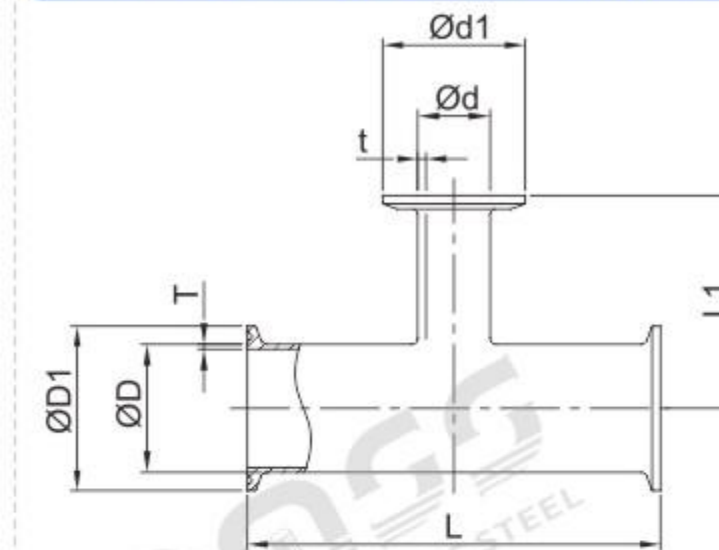
SIZE	ØD	ØD1	L	T	Part Number
1/2"	12.7	25	114.4	1.65	DT-4.1.2-4T-4-0.5
3/4"	19.05	25	120.6	1.65	DT-4.1.2-4T-4-0.75
1"	25.4	50.4	133.4	1.65	DT-4.1.2-4T-4-1
1.5"	38.1	50.4	146	1.65	DT-4.1.2-4T-4-1.5
2"	50.8	63.9	171.4	1.65	DT-4.1.2-4T-4-2
2.5"	63.5	77.4	182.2	1.65	DT-4.1.2-4T-4-2.5
3"	76.2	90.9	196.8	1.65	DT-4.1.2-4T-4-3
4"	101.6	118.9	241.4	2.1	DT-4.1.2-4T-4-4

DT-4.1.2-4C CLAMP CROSS (DT-18)



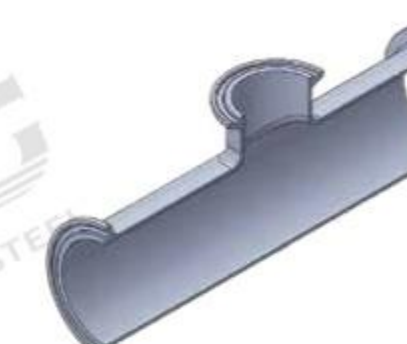
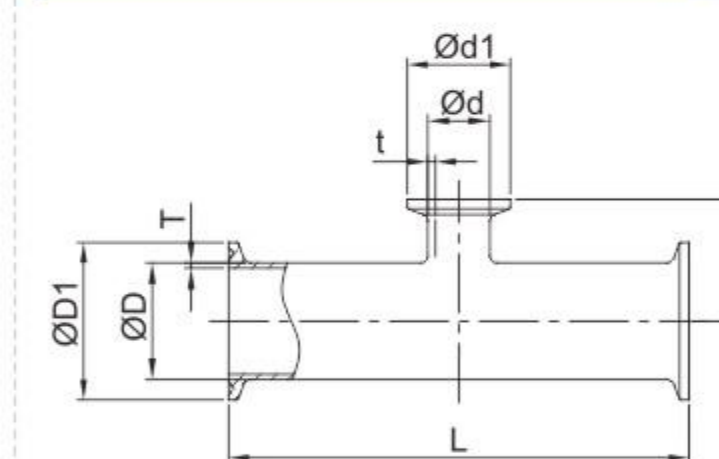
SIZE	ØD	ØD1	L	T	Part Number
1/2"	12.7	25	114.4	1.65	DT-4.1.2-4C-4-0.5
3/4"	19.05	25	120.6	1.65	DT-4.1.2-4C-4-0.75
1"	25.4	50.4	133.4	1.65	DT-4.1.2-4C-4-1
1.5"	38.1	50.4	146	1.65	DT-4.1.2-4C-4-1.5
2"	50.8	63.9	171.4	1.65	DT-4.1.2-4C-4-2
2.5"	63.5	77.4	182.2	1.65	DT-4.1.2-4C-4-2.5
3"	76.2	90.9	196.8	1.65	DT-4.1.2-4C-4-3
4"	101.6	118.9	241.4	2.1	DT-4.1.2-4C-4-4

DT-4.1.2-8 REDUCING TEE CLAMP END (DT-19)



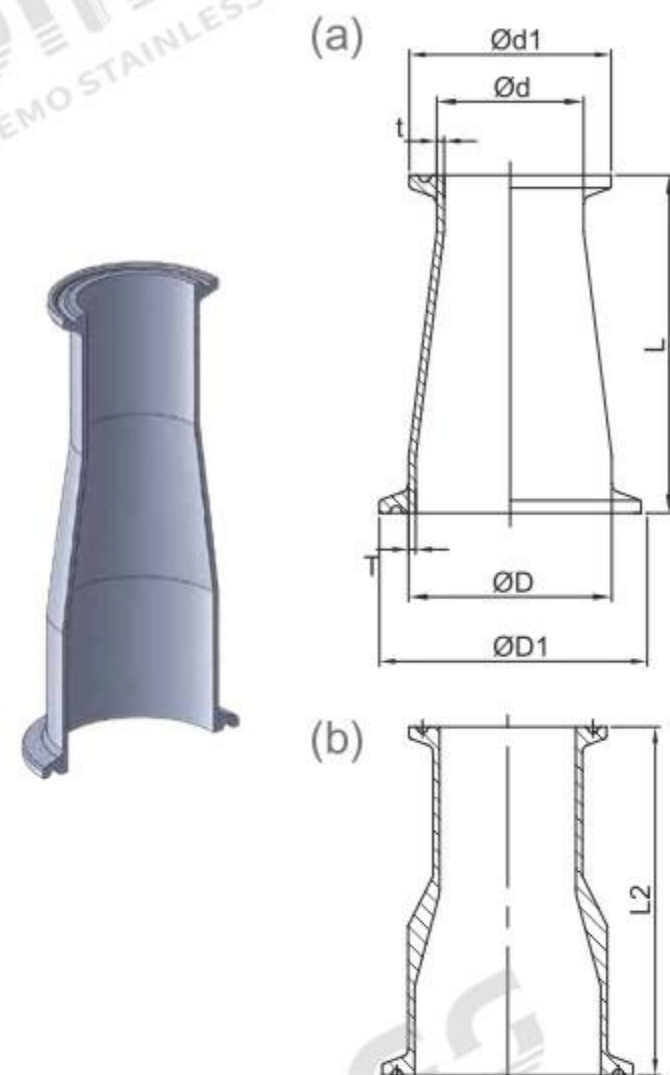
SIZE	ØD	ØD1	Ød	Ød1	L	L1	T	t	Part Number
3/4"×1/2"	19.05	25	12.7	25	127	63.5	1.65	1.65	DT-4.1.2-8-4-3/4"×1/2"
1"×1/2"	25.4	50.4	12.7	25	133.4	66.7	1.65	1.65	DT-4.1.2-8-4-1"×1/2"
1"×3/4"	25.4	50.4	19.05	25	133.4	66.7	1.65	1.65	DT-4.1.2-8-4-1"×3/4"
1.5"×1/2"	38.1	50.4	12.7	25	146	73	1.65	1.65	DT-4.1.2-8-4-1.5"×1/2"
1.5"×3/4"	38.1	50.4	19.05	25	146	73	1.65	1.65	DT-4.1.2-8-4-1.5"×3/4"
1.5"×1"	38.1	50.4	25.4	50.4	146	73	1.65	1.65	DT-4.1.2-8-4-1.5"×1"
2"×1"	50.8	63.9	25.4	50.4	171.4	79.4	1.65	1.65	DT-4.1.2-8-4-2"×1"
2"×1.5"	50.8	63.9	38.1	50.4	171.4	79.4	1.65	1.65	DT-4.1.2-8-4-2"×1.5"
2.5"×1"	63.5	77.4	25.4	50.4	184.2	85.7	1.65	1.65	DT-4.1.2-8-4-2.5"×1"
2.5"×1.5"	63.5	77.4	38.1	50.4	184.2	85.7	1.65	1.65	DT-4.1.2-8-4-2.5"×1.5"
2.5"×2"	63.5	77.4	50.8	63.9	184.2	85.7	1.65	1.65	DT-4.1.2-8-4-2.5"×2"
3"×1"	76.2	90.9	25.4	50.4	196.8	92.1	1.65	1.65	DT-4.1.2-8-4-3"×1"
3"×1.5"	76.2	90.9	38.1	50.4	196.8	92.1	1.65	1.65	DT-4.1.2-8-4-3"×1.5"
3"×2"	76.2	90.9	50.8	63.9	196.8	92.1	1.65	1.65	DT-4.1.2-8-4-3"×2"
3"×2.5"	76.2	90.9	63.5	77.4	196.8	92.1	1.65	1.65	DT-4.1.2-8-4-3"×2.5"
4"×1"	101.6	118.9	25.4	50.4	241.4	104.8	2.1	1.65	DT-4.1.2-8-4-4"×1"
4"×1.5"	101.6	118.9	38.1	50.4	241.4	104.8	2.1	1.65	DT-4.1.2-8-4-4"×1.5"
4"×2"	101.6	118.9	50.8	63.9	241.4	111.1	2.1	1.65	DT-4.1.2-8-4-4"×2"
4"×2.5"	101.6	118.9	63.5	77.4	241.4	111.1	2.1	1.65	DT-4.1.2-8-4-4"×2.5"
4"×3"	101.6	118.9	76.2	90.9	241.4	111.1	2.1	1.65	DT-4.1.2-8-4-4"×3"

DT-4.1.2-9 7RMP REDUCING TEE CLAMP END (DT-20)



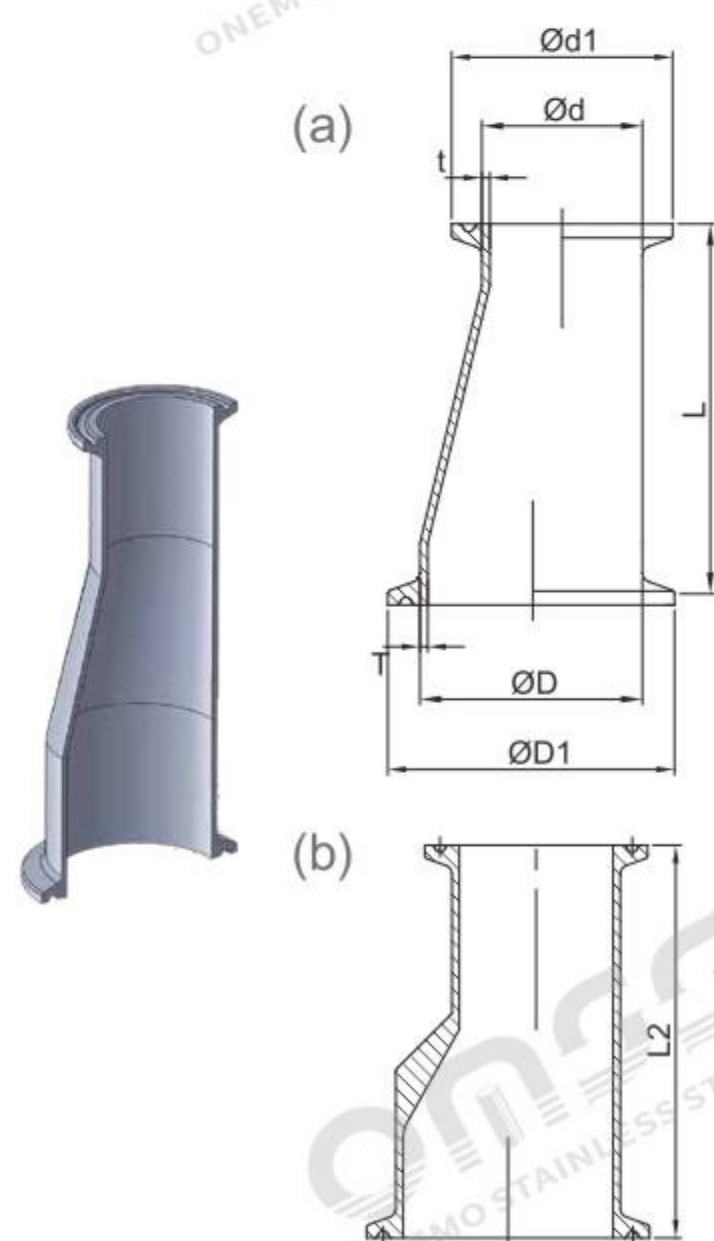
SIZE	ØD	ØD1	Ød	Ød1	L	L1	T	t	Part Number
3/4"×1/2"	19.05	25	12.7	25	127	25.4	1.65	1.65	DT-4.1.2-9 7RMP-4-3/4"×1/2"
1"×1/2"	25.4	50.4	12.7	25	133.4	28.6	1.65	1.65	DT-4.1.2-9 7RMP-4-1"×1/2"
1"×3/4"	25.4	50.4	19.05	25	133.4	28.6	1.65	1.65	DT-4.1.2-9 7RMP-4-1"×3/4"
1.5"×1/2"	38.1	50.4	12.7	25	146	34.9	1.65	1.65	DT-4.1.2-9 7RMP-4-1.5"×1/2"
1.5"×3/4"	38.1	50.4	19.05	25	146	34.9	1.65	1.65	DT-4.1.2-9 7RMP-4-1.5"×3/4"
1.5"×1"	38.1	50.4	25.4	50.4	146	34.9	1.65	1.65	DT-4.1.2-9 7RMP-4-1.5"×1"
2"×1"	50.8	63.9	25.4	50.4	171.4	41.3	1.65	1.65	DT-4.1.2-9 7RMP-4-2"×1"
2"×1.5"	50.8	63.9	38.1	50.4	171.4	41.3	1.65	1.65	DT-4.1.2-9 7RMP-4-2"×1.5"
2.5"×1"	63.5	77.4	25.4	50.4	184.2	47.6	1.65	1.65	DT-4.1.2-9 7RMP-4-2.5"×1"
2.5"×1.5"	63.5	77.4	38.1	50.4	184.2	47.6	1.65	1.65	DT-4.1.2-9 7RMP-4-2.5"×1.5"
2.5"×2"	63.5	77.4	50.8	63.9	184.2	47.6	1.65	1.65	DT-4.1.2-9 7RMP-4-2.5"×2"
3"×1"	76.2	90.9	25.4	50.4	196.8	54	1.65	1.65	DT-4.1.2-9 7RMP-4-3"×1"
3"×1.5"	76.2	90.9	38.1	50.4	196.8	54	1.65	1.65	DT-4.1.2-9 7RMP-4-3"×1.5"
3"×2"	76.2	90.9	50.8	63.9	196.8	54	1.65	1.65	DT-4.1.2-9 7RMP-4-3"×2"
3"×2.5"	76.2	90.9	63.5	77.4	196.8	54	1.65	1.65	DT-4.1.2-9 7RMP-4-3"×2.5"
4"×1"	101.6	118.9	25.4	50.4	241.4	66.7	2.1	1.65	DT-4.1.2-9 7RMP-4-4"×1"
4"×1.5"	101.6	118.9	38.1	50.4	241.4	66.7	2.1	1.65	DT-4.1.2-9 7RMP-4-4"×1.5"
4"×2"	101.6	118.9	50.8	63.9	241.4	66.7	2.1	1.65	DT-4.1.2-9 7RMP-4-4"×2"
4"×2.5"	101.6	118.9	63.5	77.4	241.4	66.7	2.1	1.65	DT-4.1.2-9 7RMP-4-4"×2.5"
4"×3"	101.6	118.9	76.2	90.9	241.4	66.7	2.1	1.65	DT-4.1.2-9 7RMP-4-4"×3"

DT-4.1.3-3 CLAMP CONCENTRIC REDUCER (DT-21)

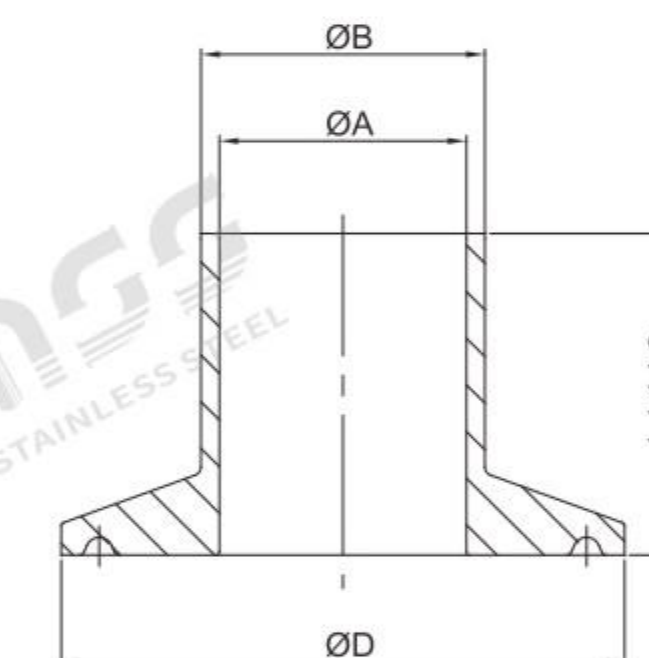
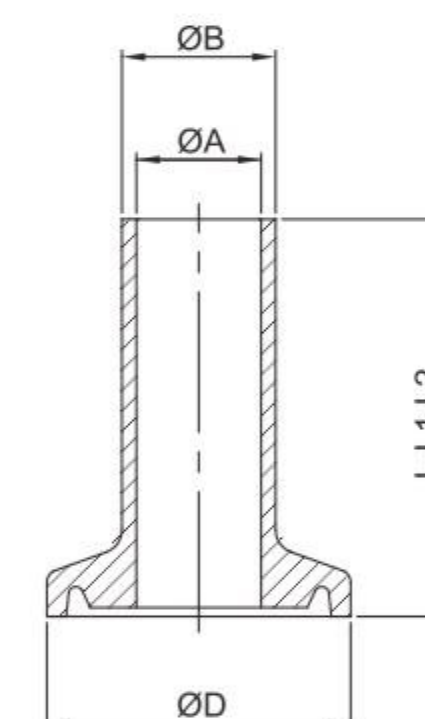
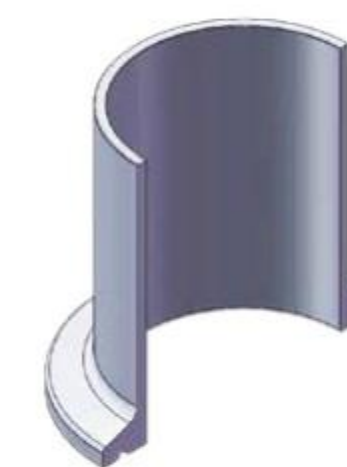


SIZE	$\varnothing D$	$\varnothing D1$	$\varnothing d$	$\varnothing d1$	L	T	t	L2	Part Number
3/4"×1/2"	19.05	25	12.7	25	50.8	1.65	1.65	79.4	DT-4.1.3-3-4-3/4"×1/2"
1"×1/2"	25.4	50.4	12.7	25	63.5	1.65	1.65	88.9	DT-4.1.3-3-4-1"×1/2"
1"×3/4"	25.4	50.4	19.05	25	50.8	1.65	1.65	79.4	DT-4.1.3-3-4-1"×3/4"
1.5"×1/2"	38.1	50.4	12.7	25	88.9	1.65	1.65		DT-4.1.3-3-4-1.5"×1/2"
1.5"×3/4"	38.1	50.4	19.05	25	76.2	1.65	1.65	101.6	DT-4.1.3-3-4-1.5"×3/4"
1.5"×1"	38.1	50.4	25.4	50.4	76.2	1.65	1.65	88.9	DT-4.1.3-3-4-1.5"×1"
2"×1/2"	50.8	63.9	12.7	25	139.7	1.65	1.65		DT-4.1.3-3-4-2"×1/2"
2"×3/4"	50.8	63.9	19.05	25	127	1.65	1.65		DT-4.1.3-3-4-2"×3/4"
2"×1"	50.8	63.9	25.4	50.4	127	1.65	1.65	111.1	DT-4.1.3-3-4-2"×1"
2"×1.5"	50.8	63.9	38.1	50.4	76.2	1.65	1.65	88.9	DT-4.1.3-3-4-2"×1.5"
2.5"×1.5"	63.5	77.4	38.1	50.4	127	1.65	1.65	111.1	DT-4.1.3-3-4-2.5"×1.5"
2.5"×2"	63.5	77.4	50.8	63.9	76.2	1.65	1.65	88.9	DT-4.1.3-3-4-2.5"×2"
3"×1.5"	76.2	90.9	38.1	50.4	117.8	1.65	1.65	133.4	DT-4.1.3-3-4-3"×1.5"
3"×2"	76.2	90.9	50.8	63.9	127	1.65	1.65	111.1	DT-4.1.3-3-4-3"×2"
3"×2.5"	76.2	90.9	63.5	77.4	76.2	1.65	1.65	92.1	DT-4.1.3-3-4-3"×2.5"
4"×1.5"	101.6	118.9	38.1	50.4	282.6	2.1	1.65		DT-4.1.3-3-4-4"×1.5"
4"×2"	101.6	118.9	50.8	63.9	231.8	2.1	1.65	158.8	DT-4.1.3-3-4-4"×2"
4"×2.5"	101.6	118.9	63.5	77.4	181	2.1	1.65	136.5	DT-4.1.3-3-4-4"×2.5"
4"×3"	101.6	118.9	76.2	90.9	130.2	2.1	2.1	127	DT-4.1.3-3-4-4"×3"

DT-4.1.3-3 CLAMP ECCENTRIC REDUCER (DT-21)



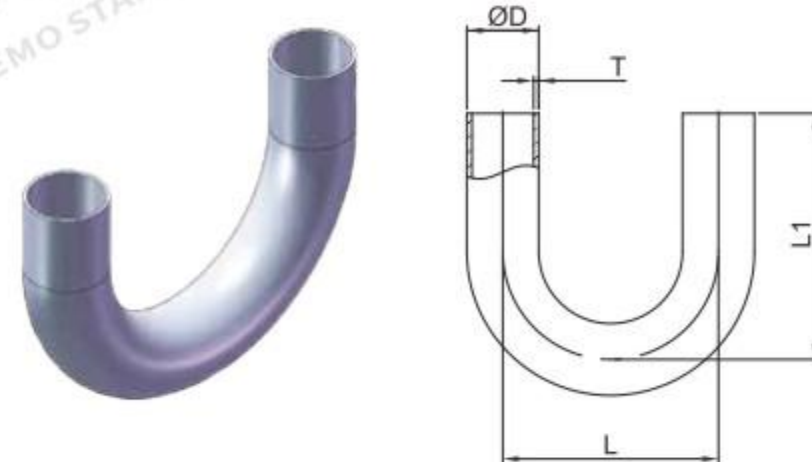
SIZE	$\varnothing D$	$\varnothing D1$	$\varnothing d$	$\varnothing d1$	L	T	t	L2	Part Number
3/4"×1/2"	19.05	25	12.7	25	50.8	1.65	1.65	79.4	DT-4.1.3-3-4-3/4"×1/2"
1"×1/2"	25.4	50.4	12.7	25	63.5	1.65	1.65	88.9	DT-4.1.3-3-4-1"×1/2"
1"×3/4"	25.4	50.4	19.05	25	50.8	1.65	1.65	79.4	DT-4.1.3-3-4-1"×3/4"
1.5"×1/2"	38.1	50.4	12.7	25	88.9	1.65	1.65		DT-4.1.3-3-4-1.5"×1/2"
1.5"×3/4"	38.1	50.4	19.05	25	76.2	1.65	1.65	101.6	DT-4.1.3-3-4-1.5"×3/4"
1.5"×1"	38.1	50.4	25.4	50.4	76.2	1.65	1.65	88.9	DT-4.1.3-3-4-1.5"×1"
2"×1/2"	50.8	63.9	12.7	25	139.7	1.65	1.65		DT-4.1.3-3-4-2"×1/2"
2"×3/4"	50.8	63.9	19.05	25	127	1.65	1.65		DT-4.1.3-3-4-2"×3/4"
2"×1"	50.8	63.9	25.4	50.4	127	1.65	1.65	111.1	DT-4.1.3-3-4-2"×1"
2"×1.5"	50.8	63.9	38.1	50.4	76.2	1.65	1.65	88.9	DT-4.1.3-3-4-2"×1.5"
2.5"×1.5"	63.5	77.4	38.1	50.4	127	1.65	1.65	111.1	DT-4.1.3-3-4-2.5"×1.5"
2.5"×2"	63.5	77.4	50.8	63.9	76.2	1.65	1.65	88.9	DT-4.1.3-3-4-2.5"×2"
3"×1.5"	76.2	90.9	38.1	50.4	117.8	1.65	1.65	133.4	DT-4.1.3-3-4-3"×1.5"
3"×2"	76.2	90.9	50.8	63.9	127	1.65	1.65	111.1	DT-4.1.3-3-4-3"×2"
3"×2.5"	76.2	90.9	63.5	77.4	76.2	1.65	1.65	92.1	DT-4.1.3-3-4-3"×2.5"
4"×1.5"	101.6	118.9	38.1	50.4	282.6	2.1	1.65		DT-4.1.3-3-4-4"×1.5"
4"×2"	101.6	118.9	50.8	63.9	231.8	2.1	1.65	158.8	DT-4.1.3-3-4-4"×2"
4"×2.5"	101.6	118.9	63.5	77.4	181	2.1	1.65	136.5	DT-4.1.3-3-4-4"×2.5"
4"×3"	101.6	118.9	76.2	90.9	130.2	2.1	2.1	127	DT-4.1.3-3-4-4"×3"

(Type A)
1/2"~1"(Type B)
1"~6"

DT-4.1.4-1WELD FERRULE (DT-22)

TYPE	SIZE	$\varnothing A$	$\varnothing B$	$\varnothing D$	L	L1	L2	Part Number
A	1/4"	4.6	6.35	25	12.7	28.7	44.5	DT-4.1.4-1-4-0.25
	3/8"	7.75	9.53	25	12.7	28.7	44.5	DT-4.1.4-1-4-0.375
	1/2"	9.4	12.7	25	12.7	28.7	44.5	DT-4.1.4-1-4-0.5
	3/4"	15.75	19.05	25	12.7	28.7	44.5	DT-4.1.4-1-4-0.75
	1.0"	22.1	25.4	34	12.7	28.7	44.5	DT-4.1.4-1-4-1
B	1.0"	22.1	25.4	50.4	12.7	28.7	44.5	DT-4.1.4-1-4-1
	1.5"	34.8	38.1	50.4	12.7	28.7	44.5	DT-4.1.4-1-4-1.5
	2.0"	47.5	50.8	63.9	12.7	28.7	57.2	DT-4.1.4-1-4-2
	2.5"	60.2	63.5	77.4	12.7	28.7	57.2	DT-4.1.4-1-4-2.5
	3.0"	72.9	76.2	90.9	12.7	28.7	57.2	DT-4.1.4-1-4-3
	4.0"	97.4	101.6	118.9	15.9	28.7	57.2	DT-4.1.4-1-4-4
	6.0"	146.9	152.4	166.9	19.1	38.1	76.2	DT-4.1.4-1-4-6

DT-4.1.1-7 180° WELD ELBOW (DT-23)



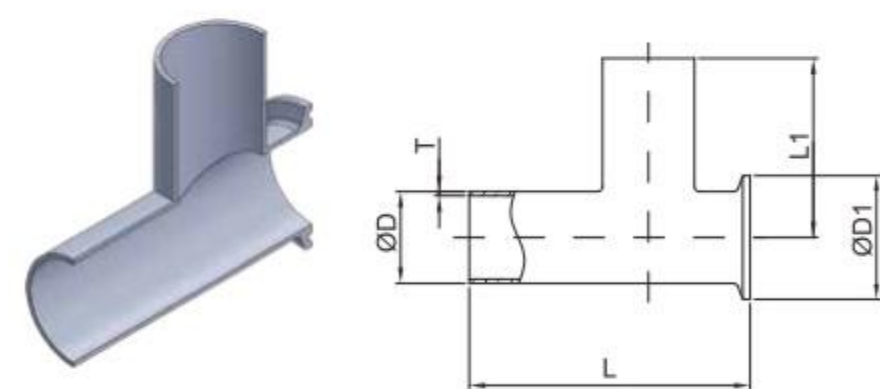
SIZE	ØD	L	L1	T	Part Number
1/2"	12.7	114.3	76.2	1.65	DT-4.1.1-7-4-0.5
3/4"	19.05	144.3	76.2	1.65	DT-4.1.1-7-4-0.75
1"	25.4	76.2	76.2	1.65	DT-4.1.1-7-4-1
1.5"	38.1	76.2	114.3	1.65	DT-4.1.1-7-4-1.5
2"	50.8	152.4	127	1.65	DT-4.1.1-7-4-2
2.5"	63.5	190.5	146.1	1.65	DT-4.1.1-7-4-2.5
3"	76.2	228.6	165.1	1.65	DT-4.1.1-7-4-3
4"	101.6	304.8	215.9	2.1	DT-4.1.1-7-4-4
6"	152.4	457.2	292.1	2.77	DT-4.1.1-7-4-6

DT-4.1.1-8 180° CLAMP ELBOW (DT-24)



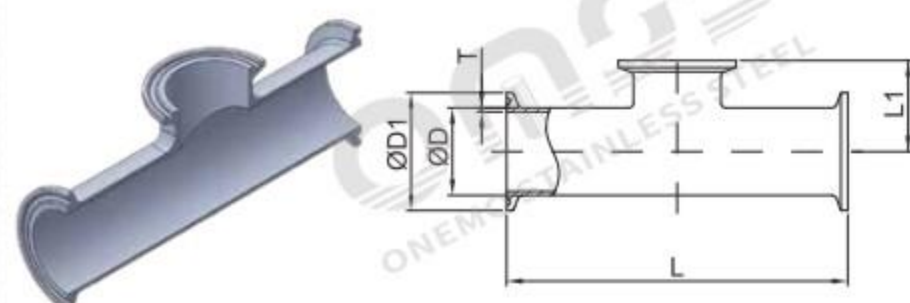
SIZE	ØD	ØD1	L	L1	T	Part Number
1/2"	12.7	25	114.3	88.9	1.65	DT-4.1.1-8-4-0.5
3/4"	19.05	25	144.3	88.9	1.65	DT-4.1.1-8-4-0.75
1"	25.4	50.4	76.2	88.9	1.65	DT-4.1.1-8-4-1
1.5"	38.1	50.4	76.2	127	1.65	DT-4.1.1-8-4-1.5
2"	50.8	63.9	152.4	139.7	1.65	DT-4.1.1-8-4-2
2.5"	63.5	77.4	190.5	158.8	1.65	DT-4.1.1-8-4-2.5
3"	76.2	90.9	228.6	177.8	1.65	DT-4.1.1-8-4-3
4"	101.6	118.9	304.8	231.8	2.1	DT-4.1.1-8-4-4
6"	152.4	166.9	457.2	330.2	2.77	DT-4.1.1-8-4-6

DT-4.1.1-3 SHORT OUTLET RUN WELD/CLAMP TEE (DT-25)



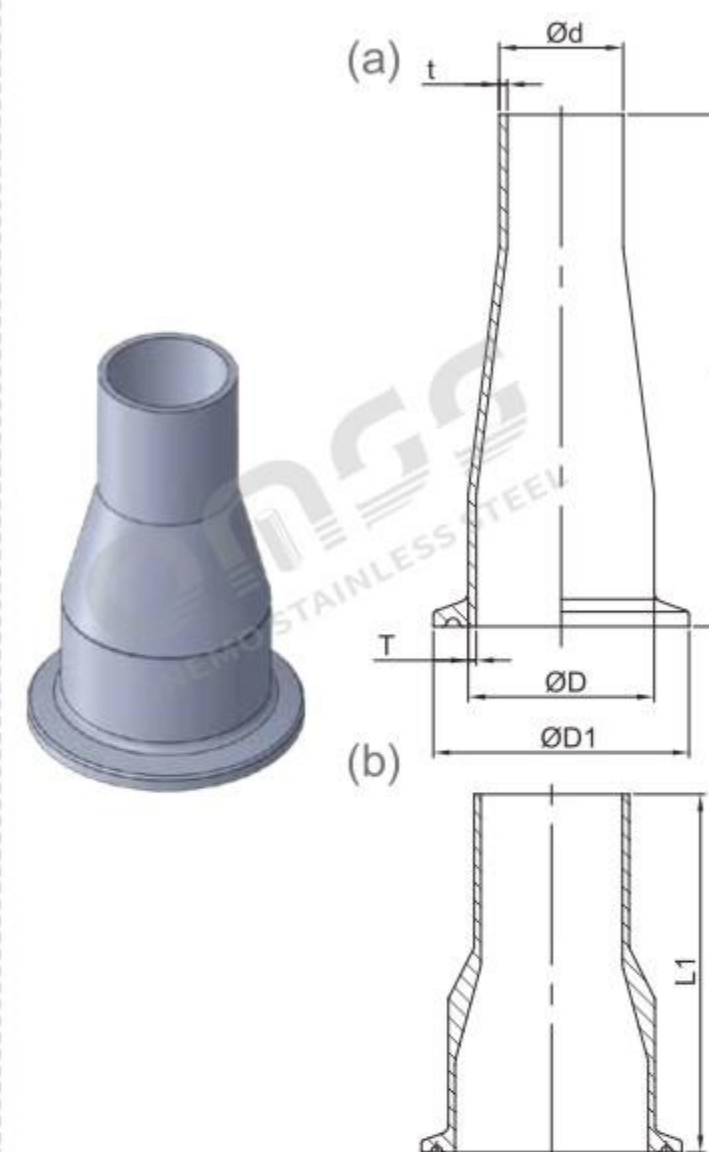
SIZE	ØD	ØD1	L	L1	T	Part Number
1/2"	12.7	25	47.6	22.2	1.65	DT-4.1.1-3-4-0.5
3/4"	19.05	25	50.8	25.4	1.65	DT-4.1.1-3-4-0.75
1"	25.4	50.4	54	28.6	1.65	DT-4.1.1-3-4-1
1.5"	38.1	50.4	60.3	34.9	1.65	DT-4.1.1-3-4-1.5
2"	50.8	63.9	73	41.3	1.65	DT-4.1.1-3-4-2
2.5"	63.5	77.4	79.4	47.6	1.65	DT-4.1.1-3-4-2.5
3"	76.2	90.9	85.7	54	1.65	DT-4.1.1-3-4-3
4"	101.6	118.9	104.8	69.9	2.1	DT-4.1.1-3-4-4
6"	152.4	166.9	142.9	117.5	2.77	DT-4.1.1-3-4-6

DT-4.1.2-5 SHORT OUTLET TEE CLAMP END (DT-27)



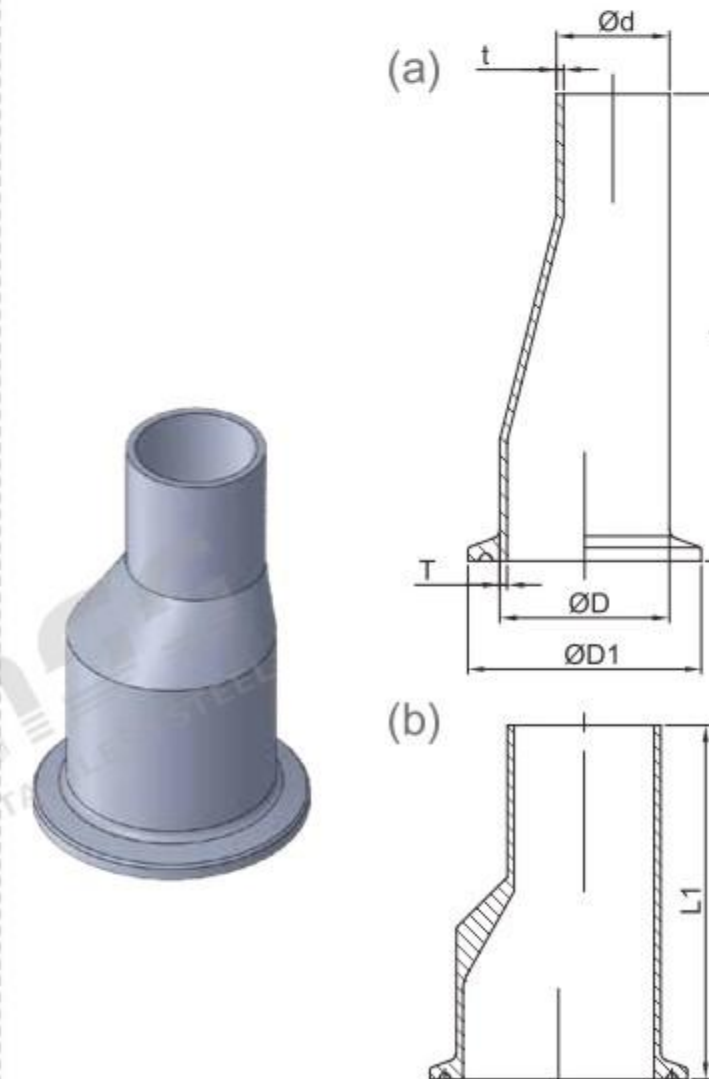
SIZE	ØD	ØD1	L	L1	T	Part Number
1/2"	12.7	25	114.4	25.4	1.65	DT-4.1.2-5-4-0.5
3/4"	19.05	25	120.6	28.6	1.65	DT-4.1.2-5-4-0.75
1"	25.4	50.4	133.4	28.6	1.65	DT-4.1.2-5-4-1
1.5"	38.1	50.4	146	34.9	1.65	DT-4.1.2-5-4-1.5
2"	50.8	63.9	171.4	41.3	1.65	DT-4.1.2-5-4-2
2.5"	63.5	77.4	184.2	47.6	1.65	DT-4.1.2-5-4-2.5
3"	76.2	90.9	196.8	54	1.65	DT-4.1.2-5-4-3
4"	101.6	118.9	241.4	69.9	2.1	DT-4.1.2-5-4-4
6"	152.4	166.87	362	117.5	2.77	DT-4.1.2-5-4-6

DT-4.1.3-2AC CONCENTRIC REDUCER (DT-26)



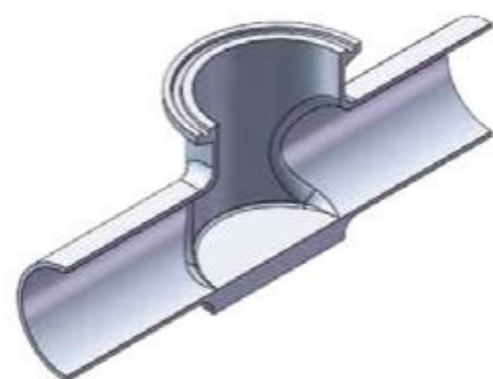
SIZE	ØD	ØD1	Ød	T	t	L	L1	Part Number
3/4"×1/2"	19.05	25	12.7	1.65	1.65	76.2	66.7	DT-4.1.3-2AC-4-3/4"×1/2"
1"×1/2"	25.4	50.4	12.7	1.65	1.65	88.9	76.2	DT-4.1.3-2AC-4-1"×1/2"
1"×3/4"	25.4	50.4	19.05	1.65	1.65	76.2	66.7	DT-4.1.3-2AC-4-1"×3/4"
1.5"×1/2"	38.1	50.4	12.7	1.65	1.65	114.3		DT-4.1.3-2AC-4-1.5"×1/2"
1.5"×3/4"	38.1	50.4	19.05	1.65	1.65	101.6	88.9	DT-4.1.3-2AC-4-1.5"×3/4"
1.5"×1"	38.1	50.4	25.4	1.65	1.65	101.6	76.2	DT-4.1.3-2AC-4-1.5"×1"
2"×1/2"	50.8	63.9	12.7	1.65	1.65	165.1		DT-4.1.3-2AC-4-2"×1/2"
2"×3/4"	50.8	63.9	19.05	1.65	1.65	152.4		DT-4.1.3-2AC-4-2"×3/4"
2"×1"	50.8	63.9	25.4	1.65	1.65	152.4	98.4	DT-4.1.3-2AC-4-2"×1"
2"×1.5"	50.8	63.9	38.1	1.65	1.65	101.6	76.2	DT-4.1.3-2AC-4-2"×1.5"
2.5"×1.5"	63.5	77.4	38.1	1.65	1.65	152.4	98.4	DT-4.1.3-2AC-4-2.5"×1.5"
2.5"×2"	63.5	77.4	50.8	1.65	1.65	107.9	76.2	DT-4.1.3-2AC-4-2.5"×2"
3"×1.5"	76.2	90.9	38.1	1.65	1.65	203.2	120.7	DT-4.1.3-2AC-4-3"×1.5"
3"×2"	76.2	90.9	50.8	1.65	1.65	158.8	98.4	DT-4.1.3-2AC-4-3"×2"
3"×2.5"	76.2	90.9	63.5	1.65	1.65	108	79.4	DT-4.1.3-2AC-4-3"×2.5"
4"×1.5"	101.6	118.9	38.1	2.1	1.65	308		DT-4.1.3-2AC-4-4"×1.5"
4"×2"	101.6	118.9	50.8	2.1	1.65	263.5	146.1	DT-4.1.3-2AC-4-4"×2"
4"×2.5"	101.6	118.9	63.5	2.1	1.65	212.7	123.8	DT-4.1.3-2AC-4-4"×2.5"
4"×3"	101.6	118.9	76.2	2.1	2.1	161.9	114.3	DT-4.1.3-2AC-4-4"×3"

DT-4.1.3-2AE ECCENTRIC REDUCER (DT-26)

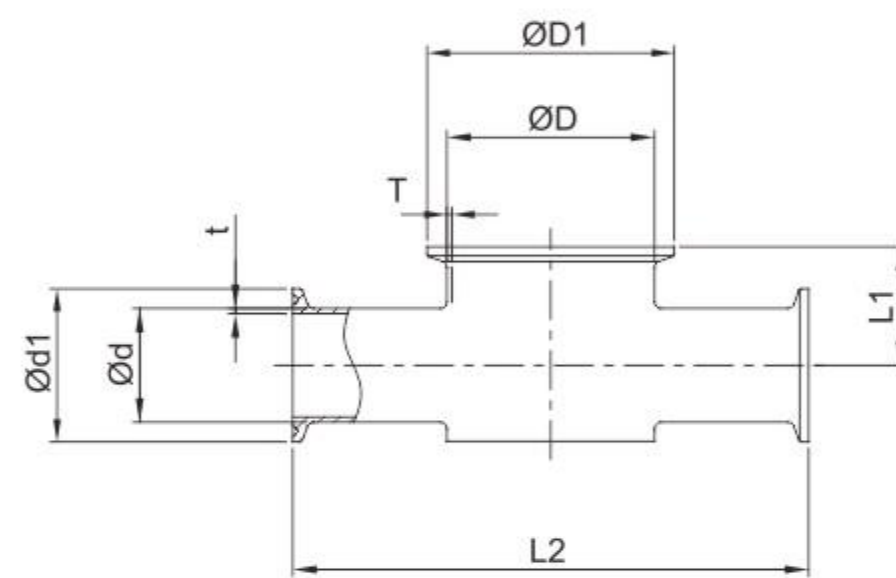
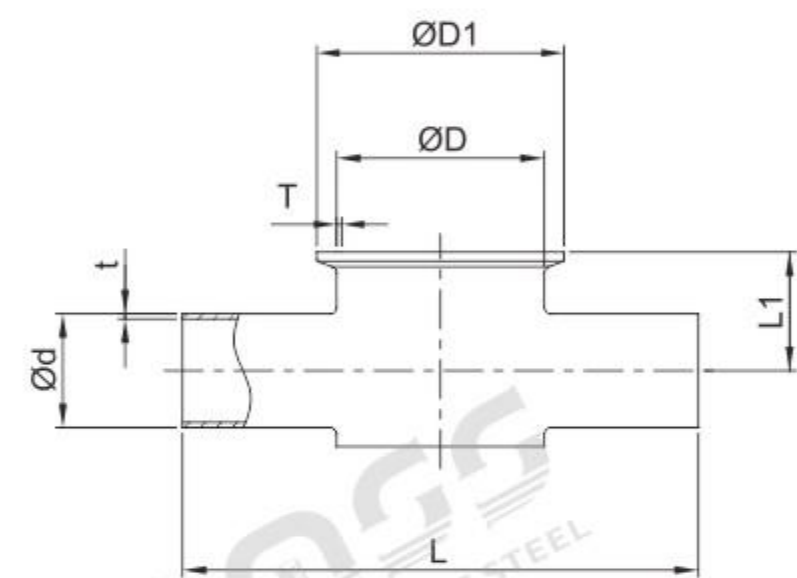


SIZE	ØD	ØD1	Ød	T	t	L	L1	Part Number
3/4"×1/2"	19.05	25	12.7	1.65	1.65	76.2	66.7	DT-4.1.3-2AE-4-3/4"×1/2"
1"×1/2"	25.4	50.4	12.7	1.65	1.65	88.9	76.2	DT-4.1.3-2AE-4-1"×1/2"
1"×3/4"	25.4	50.4	19.05	1.65	1.65	76.2	66.7	DT-4.1.3-2AE-4-1"×3/4"
1.5"×1/2"	38.1	50.4	12.7	1.65	1.65	114.3		DT-4.1.3-2AE-4-1.5"×1/2"
1.5"×3/4"	38.1	50.4	19.05	1.65	1.65	101.6	88.9	DT-4.1.3-2AE-4-1.5"×3/4"
1.5"×1"	38.1	50.4	25.4	1.65	1.65	101.6	76.2	DT-4.1.3-2AE-4-1.5"×1"
2"×1/2"	50.8	63.9	12.7	1.65	1.65	165.1		DT-4.1.3-2AE-4-2"×1/2"
2"×3/4"	50.8	63.9	19.05	1.65	1.65	152.4		DT-4.1.3-2AE-4-2"×3/4"
2"×1"	50.8	63.9	25.4	1.65	1.65	152.4	98.4	DT-4.1.3-2AE-4-2"×1"
2"×1.5"	50.8	63.9	38.1	1.65	1.65	101.6	76.2	DT-4.1.3-2AE-4-2"×1.5"
2.5"×1.5"	63.5	77.4	38.1	1.65	1.65	152.4	98.4	DT-4.1.3-2AE-4-2.5"×1.5"
2.5"×2"	63.5	77.4	50.8	1.65	1.65	107.9	76.2	DT-4.1.3-2AE-4-2.5"×2"
3"×1.5"	76.2	90.9	38.1	1.65	1.65	203.2	120.7	DT-4.1.3-2AE-4-3"×1.5"
3"×2"	76.2	90.9	50.8	1.65	1.65	158.8	98.4	DT-4.1.3-2AE-4-3"×2"
3"×2.5"	76.2	90.9	63.5	1.65	1.65	108	79.4	DT-4.1.3-2AE-4-3"×2.5"
4"×1.5"	101.6	118.9	38.1	2.1	1.65	308		DT-4.1.3-2AE-4-4"×1.5"
4"×2"	101.6	118.9	50.8	2.1	1.65	263.5	146.1	DT-4.1.3-2AE-4-4"×2"
4"×2.5"	101.6	118.9	63.5	2.1	1.65	212.7	123.8	DT-4.1.3-2AE-4-4"×2.5"
4"×3"	101.6	118.9	76.2	2.1	2.1	161.9	114.3	DT-4.1.3-2AE-4-4"×3"

DT-4.1.2-10 (DT-28)



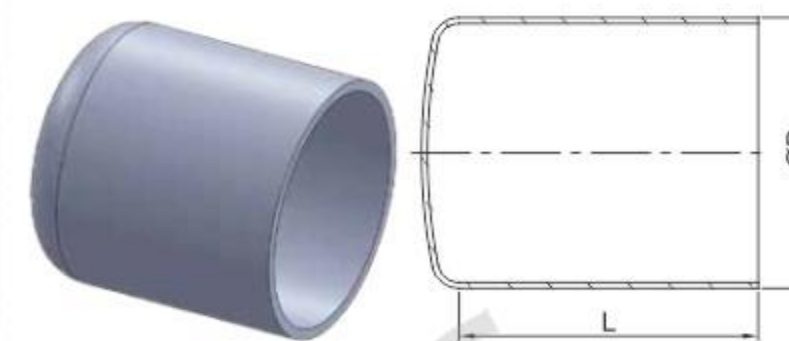
DT-4.1.2-11 (DT-29)



INSTRUMENT TEE WELD/CLAMP END

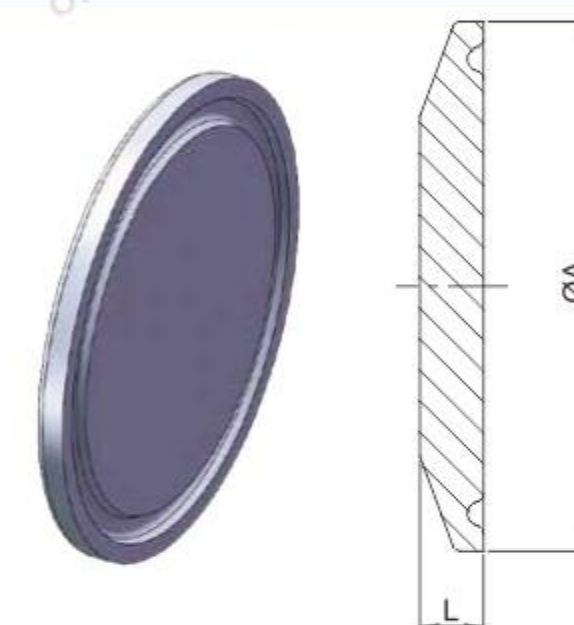
SIZE	ØD	ØD1	Ød	Ød1	L	L1	T	t	Part Number
1"1/2"	25.4	50.4	12.7	25	127	22.2	1.65	1.65	DT-4.1.2-10-DT-4.1.2-11-4-1"1/2"
1"3/4"	25.4	50.4	19.05	25	127	25.4	1.65	1.65	DT-4.1.2-10-DT-4.1.2-11-4-1"3/4"
1.5"1/2"	38.1	50.4	12.7	25	127	22.2	1.65	1.65	DT-4.1.2-10-DT-4.1.2-11-4-1.5"1/2"
1.5"3/4"	38.1	50.4	19.05	25	127	25.4	1.65	1.65	DT-4.1.2-10-DT-4.1.2-11-4-1.5"3/4"
1.5"1"	38.1	50.4	25.4	50.4	127	28.6	1.65	1.65	DT-4.1.2-10-DT-4.1.2-11-4-1.5"1"
2"1/2"	50.8	63.9	12.7	25	139.8	25.4	1.65	1.65	DT-4.1.2-10-DT-4.1.2-11-4-2"1/2"
2"3/4"	50.8	63.9	19.05	25	139.8	28.6	1.65	1.65	DT-4.1.2-10-DT-4.1.2-11-4-2"3/4"
2"1"	50.8	63.9	25.4	50.4	139.8	31.8	1.65	1.65	DT-4.1.2-10-DT-4.1.2-11-4-2"1"
2"1.5"	50.8	63.9	38.1	50.4	139.8	38.1	1.65	1.65	DT-4.1.2-10-DT-4.1.2-11-4-2"1.5"
2.5"1/2"	63.5	77.4	12.7	25	170	35	1.65	1.65	DT-4.1.2-10-DT-4.1.2-11-4-2.5"1/2"
2.5"3/4"	63.5	77.4	19.05	25	170	38.1	1.65	1.65	DT-4.1.2-10-DT-4.1.2-11-4-2.5"3/4"
2.5"1"	63.5	77.4	25.4	50.4	170	41.3	1.65	1.65	DT-4.1.2-10-DT-4.1.2-11-4-2.5"1"
2.5"1.5"	63.5	77.4	38.1	50.4	170	44.5	1.65	1.65	DT-4.1.2-10-DT-4.1.2-11-4-2.5"1.5"
2.5"2"	63.5	77.4	50.8	63.9	170	48	1.65	1.65	DT-4.1.2-10-DT-4.1.2-11-4-2.5"2"
3"1/2"	76.2	90.9	12.7	25	180	38.1	1.65	1.65	DT-4.1.2-10-DT-4.1.2-11-4-3"1/2"
3"3/4"	76.2	90.9	19.05	25	180	41.3	1.65	1.65	DT-4.1.2-10-DT-4.1.2-11-4-3"3/4"
3"1"	76.2	90.9	25.4	50.4	180	44.5	1.65	1.65	DT-4.1.2-10-DT-4.1.2-11-4-3"1"
3"1.5"	76.2	90.9	38.1	50.4	180	48	1.65	1.65	DT-4.1.2-10-DT-4.1.2-11-4-3"1.5"
3"2"	76.2	90.9	50.8	63.9	180	50.8	1.65	1.65	DT-4.1.2-10-DT-4.1.2-11-4-3"2"
3"2.5"	76.2	90.9	63.5	77.4	180	54	1.65	1.65	DT-4.1.2-10-DT-4.1.2-11-4-3"2.5"
4"1/2"	101.6	118.9	12.7	25	220	79.4	1.65	1.65	DT-4.1.2-10-DT-4.1.2-11-4-4"1/2"
4"3/4"	101.6	118.9	19.05	25	220	82.6	1.65	1.65	DT-4.1.2-10-DT-4.1.2-11-4-4"3/4"
4"1"	101.6	118.9	25.4	50.4	220	85.7	2.1	1.65	DT-4.1.2-10-DT-4.1.2-11-4-4"1"
4"1.5"	101.6	118.9	38.1	50.4	220	88.9	2.1	1.65	DT-4.1.2-10-DT-4.1.2-11-4-4"1.5"
4"2"	101.6	118.9	50.8	63.9	220	95.2	2.1	1.65	DT-4.1.2-10-DT-4.1.2-11-4-4"2"
4"2.5"	101.6	118.9	63.5	77.4	220	98.4	2.1	1.65	DT-4.1.2-10-DT-4.1.2-11-4-4"2.5"
4"3"	101.6	118.9	76.2	90.9	220	101.6	2.1	1.65	DT-4.1.2-10-DT-4.1.2-11-4-4"3"

DT-4.1.5-1 AUTOMATIC TUBE WELD CAP (DT-30)



SIZE	ØD	L	Part Number
1/2"	12.7	38.1	DT-4.1.5-1-4-0.5
3/4"	19.05	38.1	DT-4.1.5-1-4-0.75
1"	25.4	38.1	DT-4.1.5-1-4-1
1.5"	38.1	38.1	DT-4.1.5-1-4-1.5
2"	50.8	38.1	DT-4.1.5-1-4-2
2.5"	63.5	38.1	DT-4.1.5-1-4-2.5
3"	76.2	44.5	DT-4.1.5-1-4-3
4"	101.6	50.8	DT-4.1.5-1-4-4
6"	152.4	63.5	DT-4.1.5-1-4-6

DT-4.1.5-2 SOLID END CAP HYGIENIC CLAMP JOINE(DT-31)



SIZE	ØD	L	Part Number
1/2"	25	4.7	DT-4.1.5-1-4-0.5
3/4"	25	4.7	DT-4.1.5-1-4-0.75
1"	50.4	6.4	DT-4.1.5-1-4-1
1.5"	50.4	6.4	DT-4.1.5-1-4-1.5
2"	63.9	6.4	DT-4.1.5-1-4-2
2.5"	77.4	6.4	DT-4.1.5-1-4-2.5
3"	90.9	6.4	DT-4.1.5-1-4-3
4"	118.9	7.9	DT-4.1.5-1-4-4
6"	166.9	11.1	DT-4.1.5-1-4-6

PIPE HOLDER CLAMP



Tubing Hanger



管支架
Pipe Holder



带底盘管支架
With The Chassis Tube Bracket



管支架
tube bracket



平板管支架
Flat tube bracket



管支架
Pipe Holder



六角管支架
Hexagonal tube bracket



六角管支架
Hexagonal tube bracket



带底盘六角管支架
With hexagonal tube chassis bracket



冲压卡箍
Stamping clamp



双备卡箍
Dual standby clamp



止回阀冲压卡箍
Check valve stamping clamp



六角管支架带白色PVC内嵌
Hanger/pvc Insert



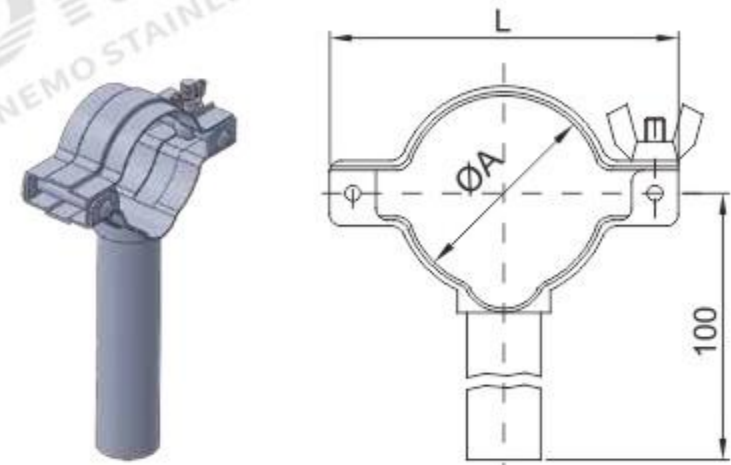
内螺纹平板管支架
Thread flat tube bracket



管支架
tube bracket

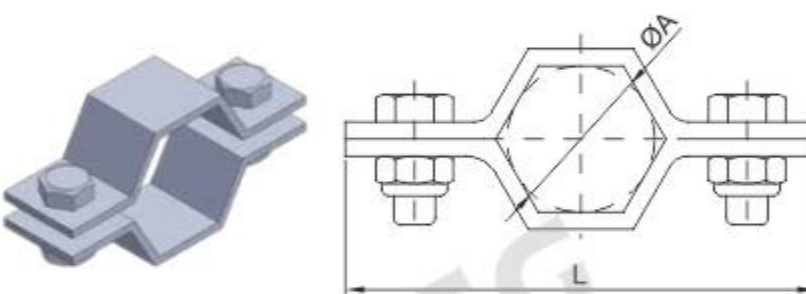
Tubing Hanger

TH-1



SIZE	ØA	L	Part Number
1"	25.4	66	TH-1-4-1
1.5"	38.1	76	TH-1-4-1.5
2"	50.8	90	TH-1-4-2
2.5"	63.5	105	TH-1-4-2.5
3"	76.2	120	TH-1-4-3
4"	101.6/104	146	TH-1-4-4

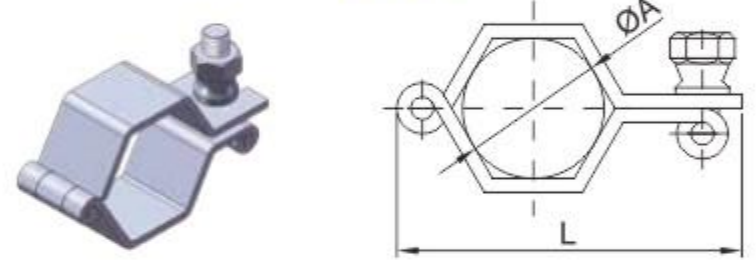
TH-2



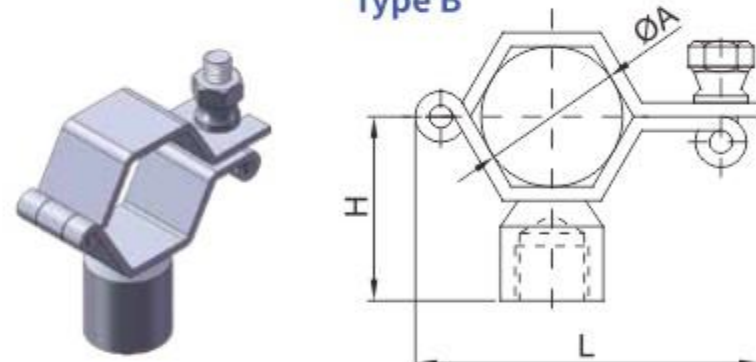
ISO	ØA	L	SMS	ØA	L	Part Number
ISO-21.3	21.3	68	DN25	25	74	TH-2-4-ISO-21.3
ISO-26.9	26.9	74	DN38	38	87	TH-2-4-ISO-26.9
ISO-33.7	33.7	82	DN50	51	105	TH-2-4-ISO-33.7
ISO-42.4	42.4	93	DN63	63.5	117	TH-2-4-ISO-42.4
ISO-48.3	48.3	101	DN76	76.1	133	TH-2-4-ISO-48.3
ISO-60.3	60.3	114	DN104	104	165	TH-2-4-ISO-60.3
ISO-88.9	88.9	149				TH-2-4-ISO-88.9
ISO-114.3	114.3	177				TH-2-4-ISO-114.3

TH-3

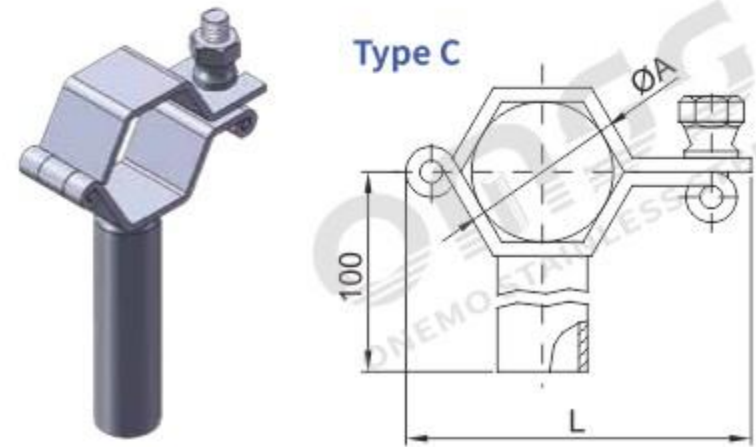
Type A



Type B



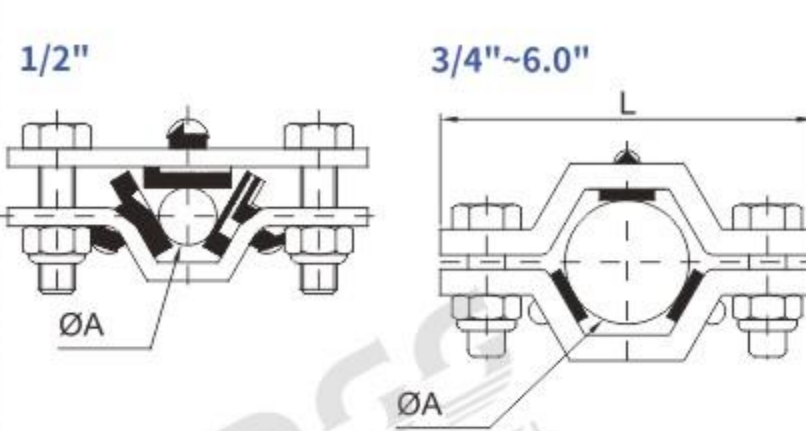
Type C



DIN	ØA	H	L	SMS	ØA	L	Part Number
DN25	28	46.5	64	DN25	25	61	TH-3-A/B/C-DN25
DN32	34	49.5	64	—	—	—	TH-3-A/B/C-DN32
DN40	40	52.5	78	DN38	38	76	TH-3-A/B/C-DN40
DN50	52	58.5	90	DN50	51	90	TH-3-A/B/C-DN50
DN65	70	67.5	111	DN63	63.5	106	TH-3-A/B/C-DN65
DN80	85	75	129	DN76	76.1	120	TH-3-A/B/C-DN80
DN100	101.6	83	150	DN100	104	154	TH-3-A/B/C-DN100

Tubing Hanger

TH-4 Type A

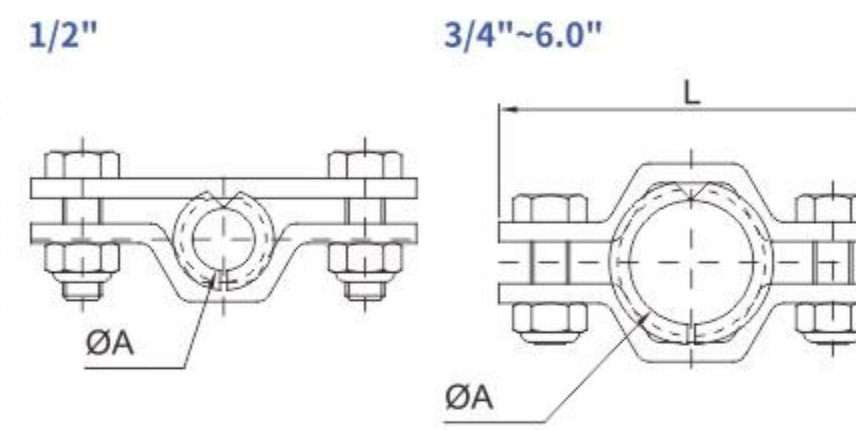


SIZE	ØA	L	Part Number
1/2"	12.7	79	TH-4-A-4-0.5
3/4"	19.05	79	TH-4-A-4-0.75
1"	25.4	79	TH-4-A-4-1
1.5"	38.1	95	TH-4-A-4-1.5
2"	50.8	117.9	TH-4-A-4-2
2.5"	63.5	120	TH-4-A-4-2.5
3"	76.2	135.1	TH-4-A-4-3
4"	101.6/104	168.4	TH-4-A-4-4
6"	152.4	225	TH-4-A-4-6

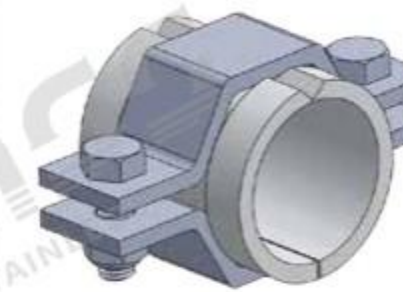


Rubber Grommets

TH-4 Type B



SIZE	ØA	L	Part Number
1/2"	12.7	79	TH-4-B-4-0.5
3/4"	19.05	79	TH-4-B-4-0.75
1"	25.4	79	TH-4-B-4-1
1.5"	38.1	95	TH-4-B-4-1.5
2"	50.8	117.9	TH-4-B-4-2
2.5"	63.5	120	TH-4-B-4-2.5
3"	76.2	135.1	TH-4-B-4-3
4"	101.6/104	168.4	TH-4-B-4-4
6"	152.4	225	TH-4-B-4-6



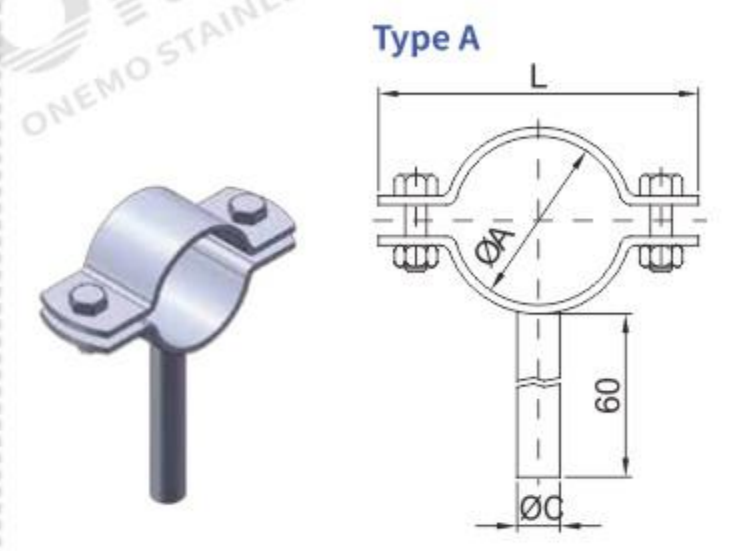
PP Sleeve
B

Options: odies with holes or without

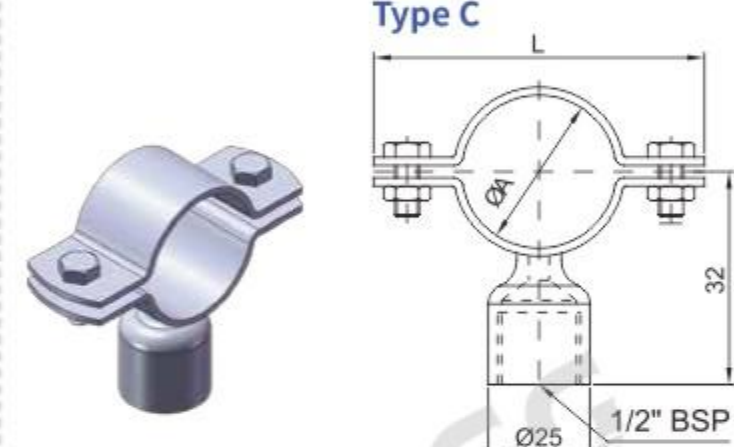
Tubing Hanger

TH-5(TYPE A, TYPE C)

Type A



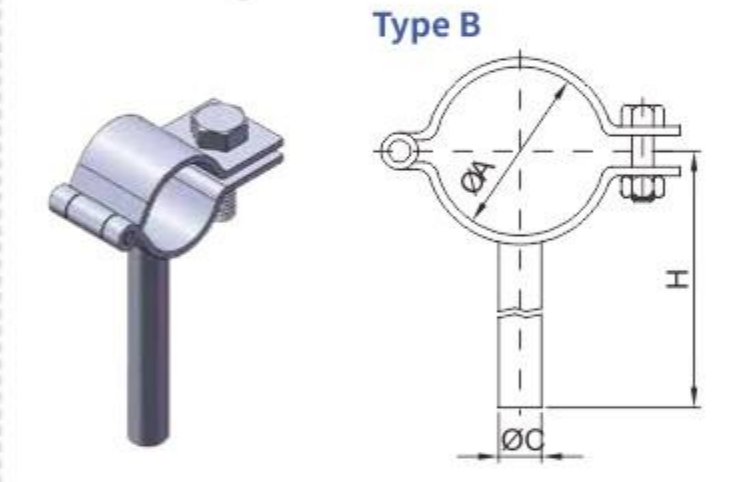
Type C



3A	ØA	DIN	ØA	ØC	L
1/2"	12.7	DN10	12/13	6	58
3/4"	19.05	DN15	18/19	8	65
—	—	DN20	22/23	8	68
1"	25.4	DN25	28/29	8	73
1.25"	31.75	DN32	34/35	10	79
1.5"	38.1	DN40	40/41	10	85
2"	50.5	DN50	52/53	12	97
2.5"	63.5	DN65	70	12	125
3"	76.2	DN80	85	15	144
4"	101.6	DN100	104	15	158
5"	127	DN125	129	18	207
6"	152.4	DN150	154	18	232

TH-5 (TYPE B)

Type B

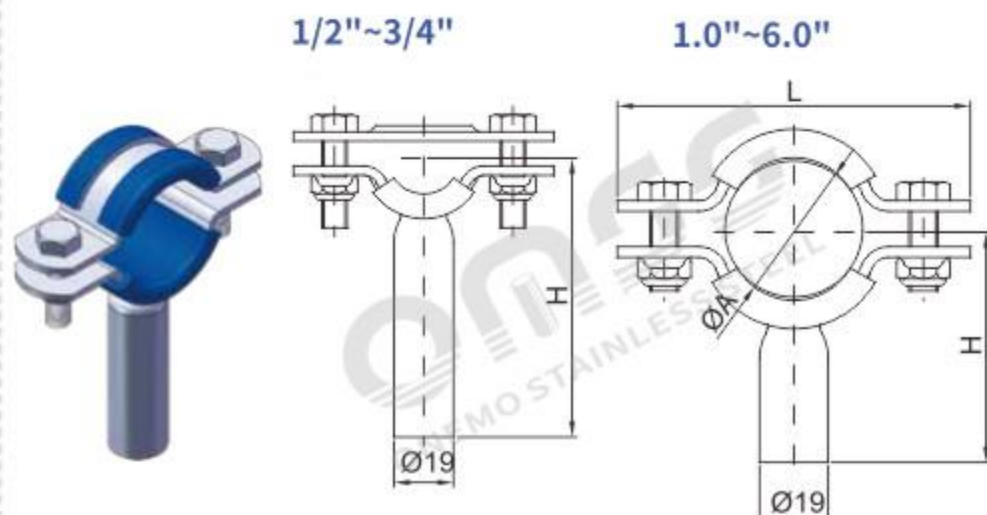


SIZE	ØA	ØC	H	Part Number
NW20	22	10	61	TH-5-4-NW20
NW25	28	10	64	TH-5-4-NW25
NW32	34	10	67	TH-5-4-NW32
NW40	40	10	70	TH-5-4-NW40
NW50	52	10	76	TH-5-4-NW50
NW65	70	10	85	TH-5-4-NW65
NW80	85	10	92.5	TH-5-4-NW80
NW100	104	10	102	TH-5-4-NW100
NW125	129	12	114.5	TH-5-4-NW125
NW150	154	12	127	TH-5-4-NW150
NW200	204	12	152	TH-5-4-NW200

TH-6

1/2"~3/4"

1.0"~6.0"



SIZE	ØA	H	L	Part Number
1/2"	12.7	90	183	TH-6-4-0.5
3/4"	19.05	90	183	TH-6-4-0.75
1"	25.4	90	183	TH-6-4-1
1.5"	38.1	90	97.7	TH-6-4-1.5
2"	50.8	90	117.7	TH-6-4-2
2.5"	63.5	90	124	TH-6-4-2.5
3"	76.2	90	140.5	TH-6-4-3
4"	101.6	90	162	TH-6-4-4
6"	152.4	145	217	TH-6-4-6

Sanitary Clamp Series





单销卡箍 13 MHH
Single pin clamp 13 MHH
材质为:SUS304、SUS316L
管道流量控制:Φ12.7-305 及 1/2"-12"
Material quality:SUS304、SUS316L
Flux domination of pipeline:Φ12.7-305 &1/2"-12"



单销卡箍 13 MHH
Single pin clamp 13 MHH
材质为:SUS304
管道流量控制:Φ12.7-305 及 1/2"-12"
Material quality:SUS304
Flux domination of pipeline:Φ12.7-305 &1/2"-12"



止回阀卡箍
High pressure clamp
材质为:SUS304
管道流量控制:Φ63-114 及 2.5"-4.5"
Material quality:SUS304
Flux domination of pipeline:Φ63-114 &2.5"-4.5"



双销卡箍 13 MHHM
Double pin clamp 13 MHHM
材质为:SUS304
管道流量控制:Φ12.7-219 及 1/2"-8"
Material quality:SUS304
Flux domination of pipeline:Φ12.7-219 &1/2"-8"



双销卡箍 13 SF
Single pin clamp 13 SF
材质为:SUS304
管道流量控制:Φ12.7-219 及 1/2"-8"
Material quality:SUS304
Flux domination of pipeline:Φ12.7-219 &1/2"-8"



双销卡箍 13 SF
Single pin clamp 13 SF
材质为:SUS304
管道流量控制:Φ12.7-219 及 1/2"-8"
Material quality:SUS304
Flux domination of pipeline:Φ12.7-219 &1/2"-8"



双销卡箍 13 EU
Single pin clamp 13 LP
材质为:SUS304
管道流量控制:Φ25-218 及 1"-8"
Material quality:SUS304
Flux domination of pipeline:Φ25-218 &1"-8"



单销卡箍 13 IS
Single pin clamp
材质为:SUS304
管道流量控制:Φ25-108 及 1"-4"
Material quality:SUS304
Flux domination of pipeline:Φ25-108&1"-4"



单销卡箍 13 IU
Single pin clamp
材质为:SUS304
管道流量控制:Φ25-108 及 1"-4"
Material quality:SUS304
Flux domination of pipeline:Φ25-108 &1"-4"



13 MHH-10



13 MHH-11



13 MHH-12



13 SP-1



13 MHH-13

C

04

C

05

Sanitary Clamp Series



真空卡箍 13KF
vacuum clamp 13KF

材质为:铝制
管道流量控制:DN10-DN80
Material quality:Aluminum Make
Flux domination of pipeline:DN10-DN80



真空卡箍 13KF
vacuum clamp 13KF

材质为:SUS304
管道流量控制:DN10-DN80
Material quality:SUS304
Flux domination of pipeline:DN10-DN80



三节卡箍
Three piece clamp

材质为:SUS304
管道流量控制:Φ25-108 及 1" -4"
Material quality:SUS304
Flux domination of pipeline: Φ25-108 &1" -4"



三节卡箍
Three piece clamp

材质为:SUS304
管道流量控制:Φ25-219 及 1" -8"
Material quality:SUS304
Flux domination of pipeline:Φ25-219 &1" -8"



考贝林卡箍 Clamp

材质为:SUS304,SUS316L
管道流量控制:DN20-DN300
Material quality:SUS304,SUS316L
Flux domination of pipeline:DN20-300



沟槽卡箍 Clamp

材质为:SUS304
管道流量控制:DN20-DN300
Material quality:SUS304
Flux domination of pipeline:DN20-300



安全卡箍 Safety Clapm

材质为:SUS304
管道流量控制:DN25-DN100
Material quality:SUS304
Flux domination of pipeline:DN25-100



高压卡箍 13MHP
High pressure clamp

材质为:SUS304
管道流量控制:Φ12.7-305 及 1/2" -12"
Material quality:SUS304
Flux domination of pipeline:Φ12.7-305 & 1/2" -12"



管支架 Pipe holder

材质为:SUS304
管道流量控制:Φ25-152 及 1" -6"
Material quality:SUS304
Flux domination of pipeline:Φ25-152 &1" -6"



3A 管支架
3A Pipe Holder



管支架 Pipe holder

材质为:SUS304
管道流量控制:Φ25-152 及 1" -6"
Material quality:SUS304
Flux domination of pipeline:Φ25-152 &1" -6"



13SP-2



13SP-3



13SP-4

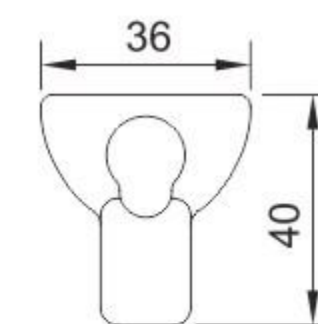


T1

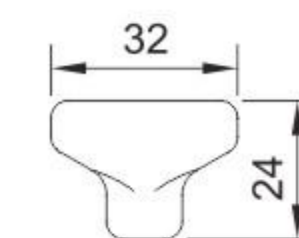


13MHH-14

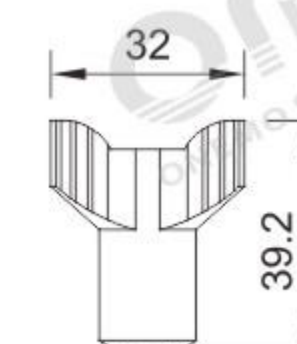
Heavy Duty Clamp-Ring



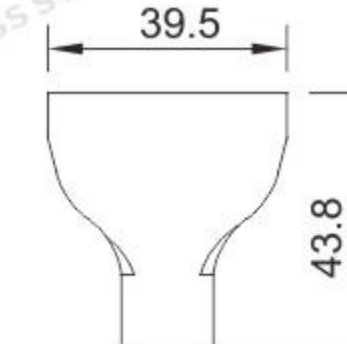
13MHH-8



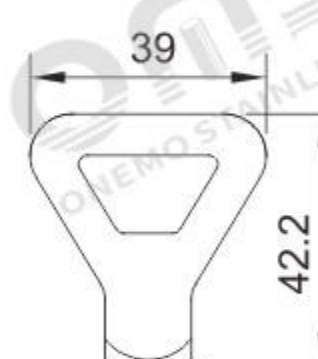
13MHH-10



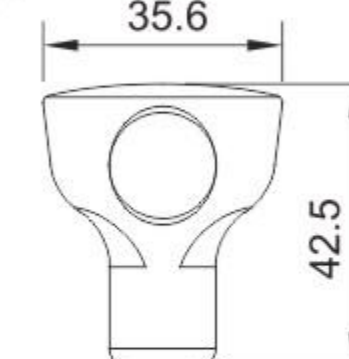
13MHH-11



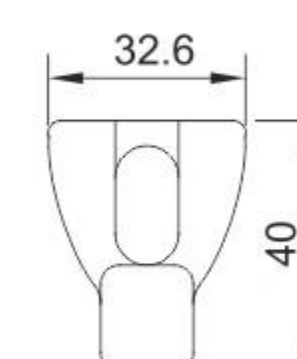
13MHH-12



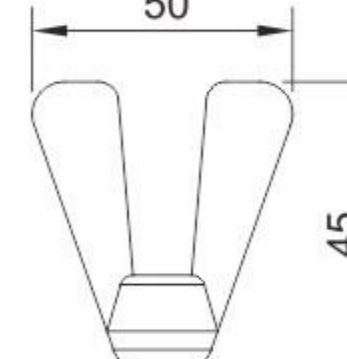
13MHH-13



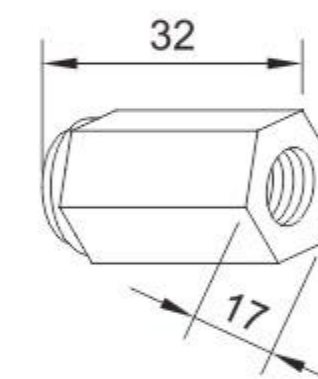
13MHH-14



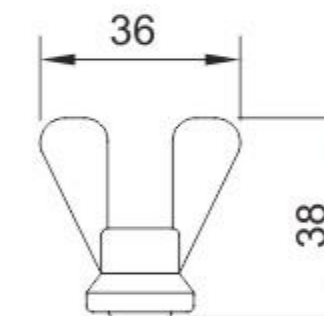
13SP-2



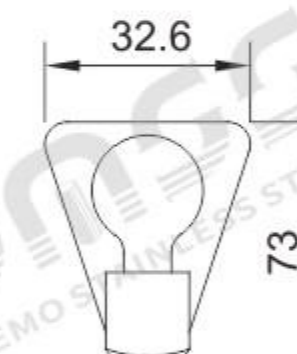
F2



H17

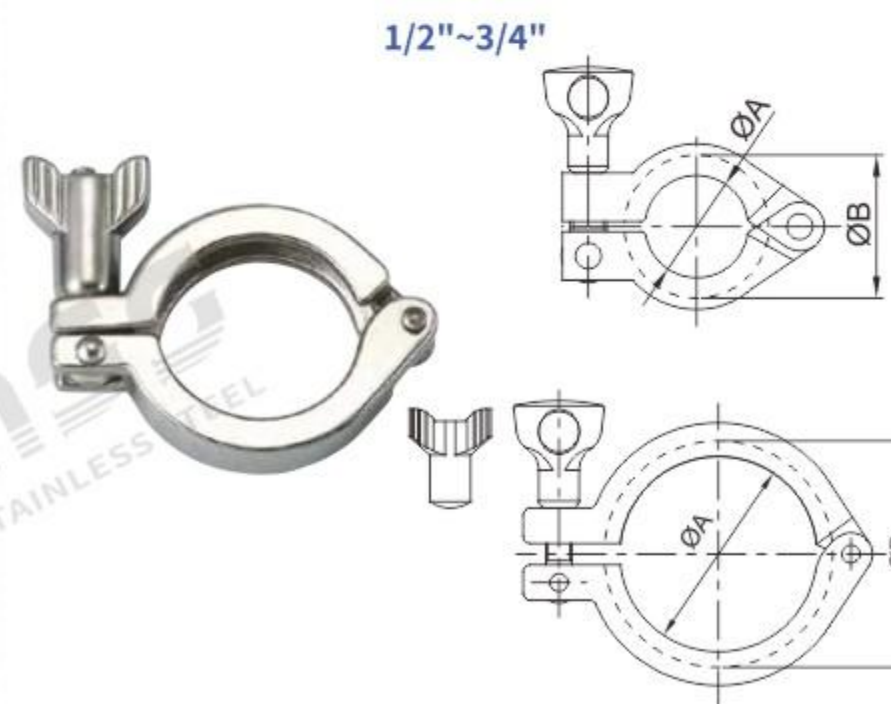


T1



G1-M10

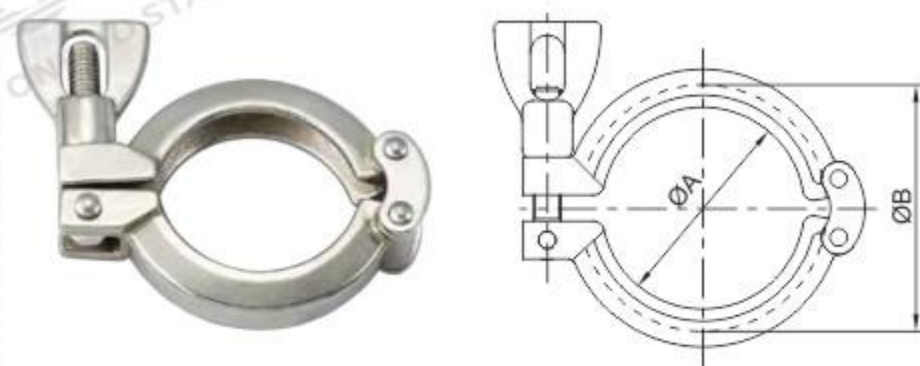
13MHH HEAVY DUTY SINGLE PIN CLAMP



SIZE	ØA	ØB	Part Number
1/2"~3/4"	20	28.2	13MHH-4-1/2"~3/4"
A37	27.8	37	13MHH-4-A37
1"~1.5"	44.4	53.6	13MHH-4-1"~1.5"
2"	57.8	67	13MHH-4-2
2.5"	71.4	80.6	13MHH-4-2.5
3"	84	94	13MHH-4-3
3.5"	99	109.2	13MHH-4-3.5
4"	110	122	13MHH-4-4
4.5"	123	133.2	13MHH-4-4.5
6"	155.4	170.4	13MHH-4-6
8"	205	220	13MHH-4-8

Heavy Duty Clamp-Ring

13SF HEAVY DUTY DOUBLE PIN CLAMP



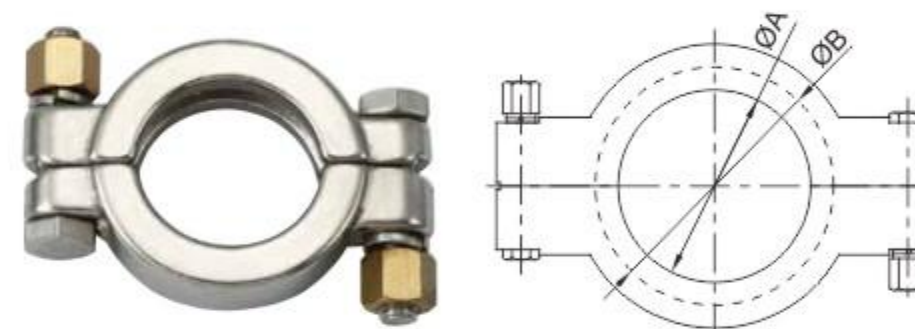
SIZE	ØA	ØB	Part Number
1/2"~3/4"	20	28	13SF-4-0.5~0.75
A37	27.5	42.9	13SF-4-A37
1"~1.5"	45	53.6	13SF-4-1~1.5
2"	59	72	13SF-4-2
2.5"	67	84	13SF-4-2.5
3"	85	98	13SF-4-3
4"	114	127	13SF-4-4

13MHM DOUBLE PIN CLAMP



SIZE	ØA	ØB	Part Number
1/2"~3/4"	20	28	13MHM-4-0.5~0.75
1"~1.5"	43.6	53.6	13MHM-4-1~1.5
2"	57	67	13MHM-4-2
2.5"	70.6	80.6	13MHM-4-2.5
3"	84	94	13MHM-4-3
4"	112	122	13MHM-4-4
6"	155	170	13MHM-4-6
8"	205	220.8	13MHM-4-8

13MHP HIGH PRESSURE BOLTED CLAMP



SIZE	ØA	ØB	Part Number
1/2"~3/4"	20	28	13MHP-4-0.5~0.75
1"~1.5"	43.3	52	13MHP-4-1~1.5
2"	56.4	65.5	13MHP-4-2
2.5"	69.5	79	13MHP-4-2.5
3"	77.6	92.5	13MHP-4-3
4"	108.8	120.5	13MHP-4-4
6"	158	170	13MHP-4-6
6.5"	173	186.2	13MHP-4-6.5
8"	222.5	237.5	13MHP-4-8
10"	258.2	272.8	13MHP-4-10
12"	309	327.6	13MHP-4-12

13MHHS 3 PIECE CLAMP



SIZE	ØA	B	Part Number
1"~1.5"	54	80	13MHHS-4-1~1.5
2"	67.5	94	13MHHS-4-2
2.5"	80.9	109	13MHHS-4-2.5
3"	94	126	13MHHS-4-3
4"	122.4	154	13MHHS-4-4
12"	323.4	369	13MHHS-4-12

Heavy Duty Clamp-Ring

13CS DOUBLE PIN CLAMP



SIZE	ØA	ØB	Part Number
1/2"~3/4"	20.6	28.3	13CS-4-0.5~0.75
DN10-20	27.2	37	13CS-4-DN10-20
1.5"	41.02	53.5	13CS-4-1.5
DN25-40	44.5	54.5	13CS-4-DN25-40
2.0"	54.5	67	13CS-4-2
DN50	57	68	13CS-4-DN50
2.5"	68	80.5	13CS-4-2.5
3.0"	81.5	94	13CS-4-3
DN65	84	95	13CS-4-DN65
DN80	99	110	13CS-4-DN80
4.0"	109.5	122	13CS-4-4
DN100	112	123	13CS-4-DN100
DN115	123	134	13CS-4-DN115
DN125	144	159	13CS-4-DN125
6.0"	157.6	175.1	13CS-4-6
DN150	172	187	13CS-4-DN150
8.0"	207.4	225.9	13CS-4-8
DN200	222.5	237.5	13CS-4-DN200
DN250	257	272	13CS-4-DN250
DN300	308	323	13CS-4-DN300

13IU BOLTED CLAMP



SIZE	ØA	ØB	Part Number
1"~1.5"	45	55	13IU-4-1~1.5
2.0"	63	73	13IU-4-2
2.5"	74	89	13IU-4-2
3.0"	88	102	13IU-4-3
4.0"	111	128	13IU-4-4

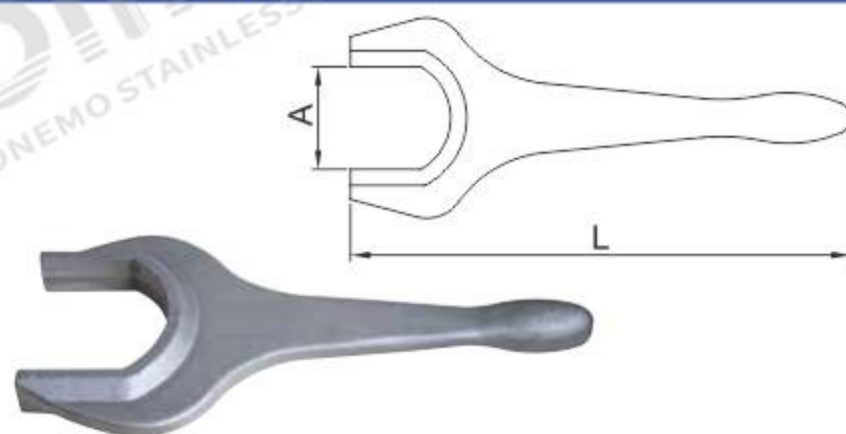
13IS I-LINE CLAMP



SIZE	ØA	ØB	Part Number
1.0"~1.5"	44.4	53.4	13IS-4-1~1.5
2.0"	57.8	72.2	13IS-4-2
2.5"	71.4	88.1	13IS-4-2.5
3.0"	84	102.4	13IS-4-3
4.0"	110	127.8	13IS-4-4
6.0"	155.4	195.3	13IS-4-6

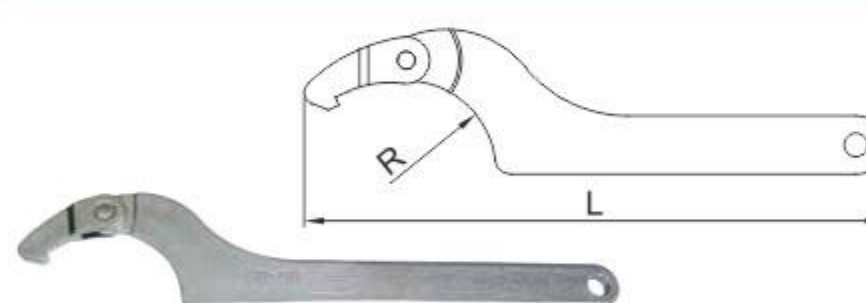
Kinds of Parts

HEXAGONAL SPANNER



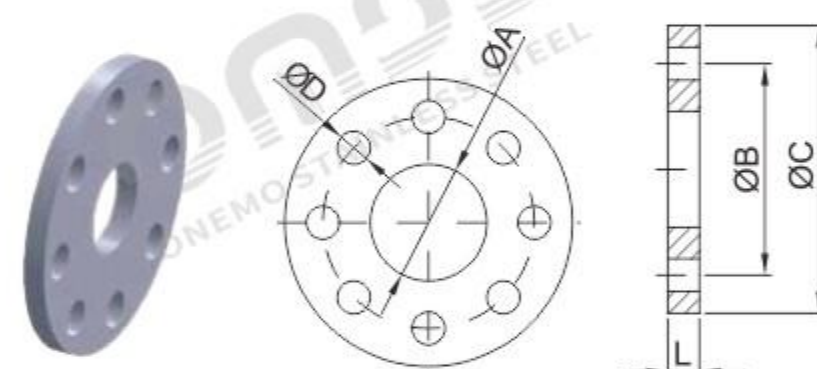
SIZE	ØA	L	Part Number
1"	51.8	240	25H-1
1.5"	66	288	25H-1.5
2"	80.4	300	25H-2
2.5"	93.2	326	25H-2.5
3"	106.3	440	25H-3
4"	121.5	448	25H-4

DIN SPANNER



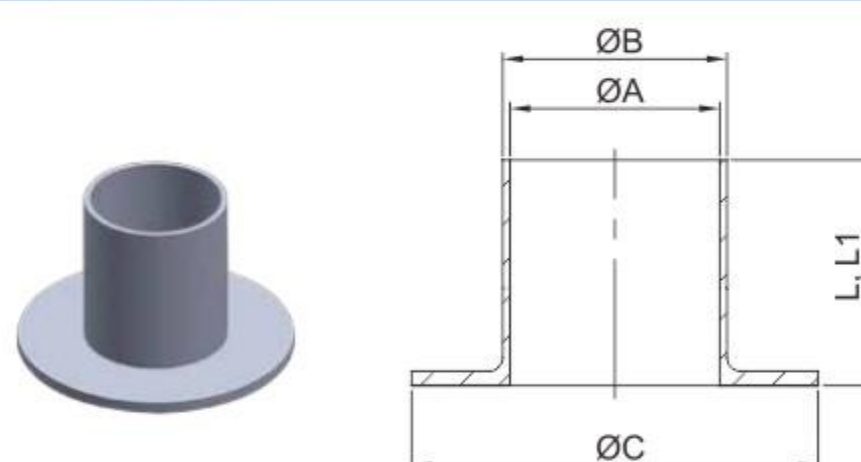
SIZE	ØA	L	Part Number
DN10~DN20	22	175	DIN25H-DN10~DN20
DN25~DN40	31	247	DIN25H-DN25~DN40
DN50~DN100	49	290	DIN25H-DN50~DN100
DN125~DN150	82.5	515	DIN25H-DN125~DN150

BACK-UP FLANGE



SIZE	ØA	ØB	ØC	ØD	L	Part Number
1"	27	79.4	108	4-15.9	9.5	B38-1
1.5"	39.7	98.4	127	4-15.9	9.5	B38-1.5
2"	52.4	120.7	152.4	4-19.05	11.1	B38-2
2.5"	65.1	139.7	177.8	4-19.05	11.1	B38-2.5
3"	77.8	152.4	190.5	4-19.05	12.7	B38-3
4"	103.2	190.5	228.6	8-19.05	12.7	B38-4
6"	154	241.3	279.4	8-22.2	14.3	B38-6

14VB STUB END



SIZE	ØA	ØB	ØC	L	L1	Part Number
1"	22.1	25.4	50.8	6.5	41.3	14VB-4-1
1.5"	34.8	38.1	73	6.5	44.5	14VB-4-1.5
2"	47.5	50.8	92.1	6.5	38.1	14VB-4-2
2.5"	60.2	63.5	104.8	6.5	50.8	14VB-4-2.5
3"	72.9	76.2	127	7.4	57.2	14VB-4-3
4"	97.4	101.6	157.2	7.4	66.7	14VB-4-4
6"	146.86	152.4	215.9	8.8	76.2	14VB-4-6

16W CAP



SIZE	ØA	T	L	Part Number
1/2"	12.7	1.65	6.4	16W-4-0.5
3/4"	19.05	1.65	7.9	16W-4-0.75
1"	25.4	1.65	19.1	16W-4-1
1.5"	38.1	1.65	14.2	16W-4-1.5
2"	50.8	1.65	19.1	16W-4-2
2.5"	63.5	1.65	25.4	16W-4-2.5
3"	76.2	1.65	31.8	16W-4-3
4"	101.6	2.1	38.1	16W-4-4
6"	152.4	2.77	57.2	16W-4-6

ULTRA-CLEANING PIPE FITTINGS

JIS G3459 Standard Product Range
And Tolerances

(Unit):mm

dimension	OD	depth		tolerance		product type				types of pipes	
		SCH5	SCH10	OD	depth	AP	BA	MP	EP	welded pipe	seamless pipe
6A	10.5	1.0	1.2	±0.1	±10%	●	●		●		●
8A	13.8	1.2	1.65			●	●		●		●
10A	17.3	1.2	1.65			●	●		●		●
15A	21.7	1.65	2.1			●	●	●	●	●	●
20A	27.2	1.65	2.1			●	●	●	●	●	●
25A	34	1.65	2.8	±0.3		●	●	●	●	●	●
32A	42.7	1.65	2.8			●	●	●	●	●	●
40A	48.6	1.65	2.8			●	●	●	●	●	●
50A	60.5	1.65	2.8	±0.5		●	●	●	●	●	●
65A	76.3	2.1	3.0			●	●	●	●	●	●
80A	89.1	2.1	3.0			●	●	●	●	●	●
90A	101.6	2.1	3.0	±1		●	●	●	●	●	●
100A	114.3	2.1	3.0			●	●	●	●	●	●
125A	139.8	2.8	3.4	±1%		●	●	●	●	●	●
150A	165.2	2.8	3.4			●	●	●	●	●	
200A	216.3	2.8	4.0			●	●	●	●	●	
250A	267.4	3.4	4.0			●	●	●	●	●	
300A	318.5	4.0	4.5	±0.5%	±12.5%	●	●	●	●	●	
350A	355.6	4.0	5.0			●	●	●	●	●	
400A	406.4	4.5	5.0			●	●	●	●	●	
450A	457.2	4.5	5.0			●	●	●	●	●	
500A	508.2	5.0	5.5			●	●	●	●	●	
550A	558.5	5.0	5.5			●	●	●	●	●	
600A	609.6	5.5	6.5			●	●	●	●	●	
650A	660.4	5.5	8.0			●	●	●	●	●	
700A	711.2	5.5	8.0			●	●	●	●	●	

ASTM A269



TUBE/PIPE	Size	OD	T	A	Kg/m
	1/4"	6.35	0.89/1.0	6000	0.124
	3/8"	9.53	0.89/1.0	6000	0.197
	1/2"	12.70	1.24/1.0	6000	0.354
	5/8"	15.88	1.24/1.65	6000	0.452
	3/4"	19.05	1.65/1.24	6000	0.720
	1"	25.40	1.65/1.24	6000	0.982
	1 1/4"	31.75	1.65	6000	1.237
	1 1/2"	38.10	1.65	6000	1.508
	2"	50.80	1.65	6000	2.033
	2 1/2"	63.50	1.65	6000	2.558
	3"	76.20	1.65	6000	3.084
	4"	101.60	2.11	6000	5.263
	5"	127.00	2.11	6000	6.565
	6"	152.40	2.77	6000	10.326

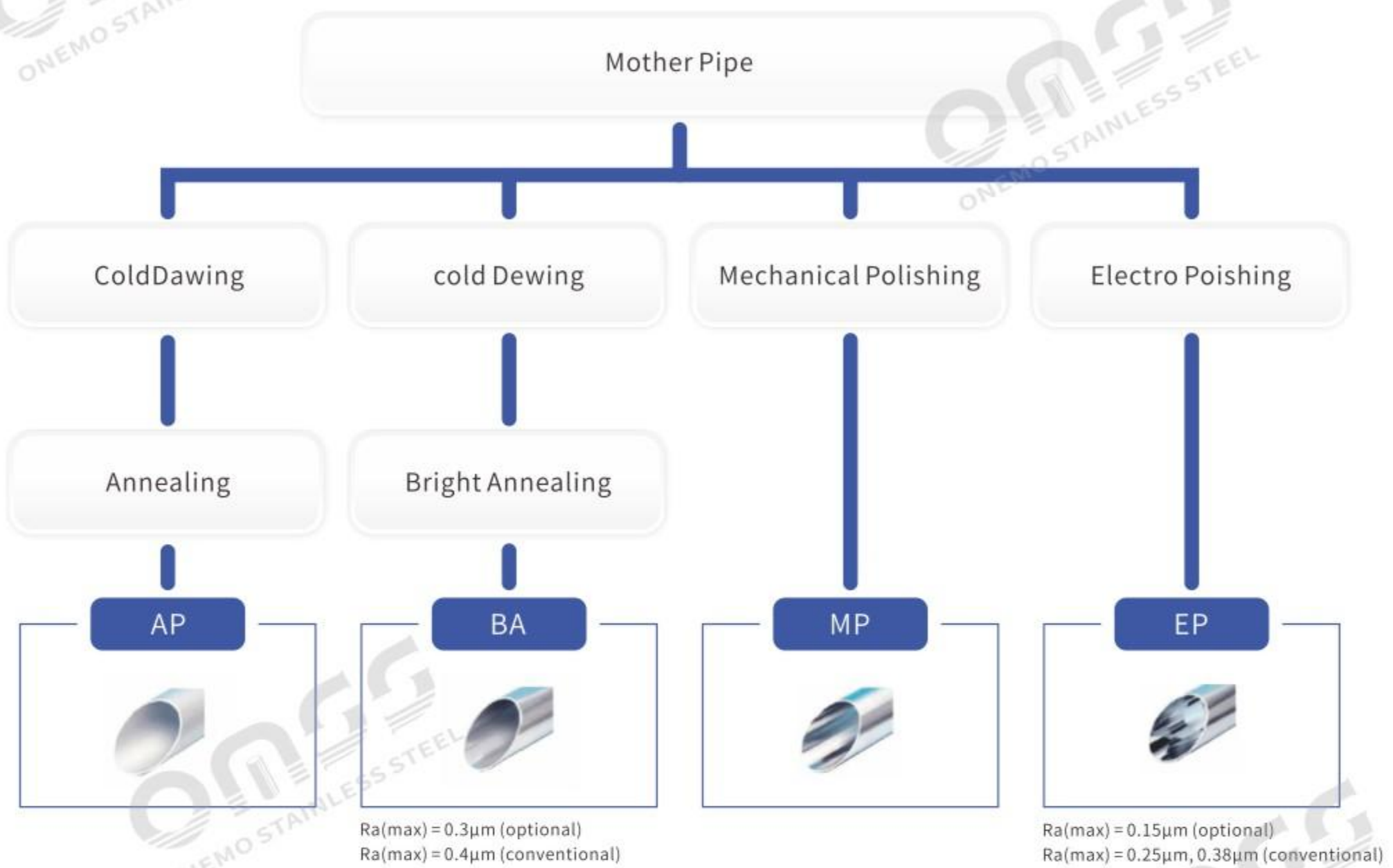
Spec:ASTM A269
Material: 304L/316L
Surface Finish:AP/BA/MP/EP

90°Elbow	Size	OD	T	A	I	R
	1/4"	6.35	0.89/1.0	49.0	29.0	20.0
	3/8"	9.53	0.89/1.0	52.0	29.0	23.0
	1/2"	12.70	1.24/1.0	54.0	29.0	25.0
	5/8"	15.88	1.24/1.65	64.0	36.0	28.0
	3/4"	19.05	1.65/1.24	66.0	36.0	30.0
	1"	25.40	1.65/1.24	69.0	36.0	33.0
	1 1/4"	31.75	1.65	84.0	36.0	47.6
	1 1/2"	38.10	1.65	104.0	46.0	57.2
	2"	50.80	1.65	123.0	46.0	76.2
	2 1/2"	63.50	1.65	147.0	51.0	95.3
	3"	76.20	1.65	147.0	51.0	95.3
	4"	101.60	2.11	185.0	51.0	133.4
	5"	127.00	2.11	250.0	56.0	190.5
	6"	152.40	2.77	290.0	61.4	228.5

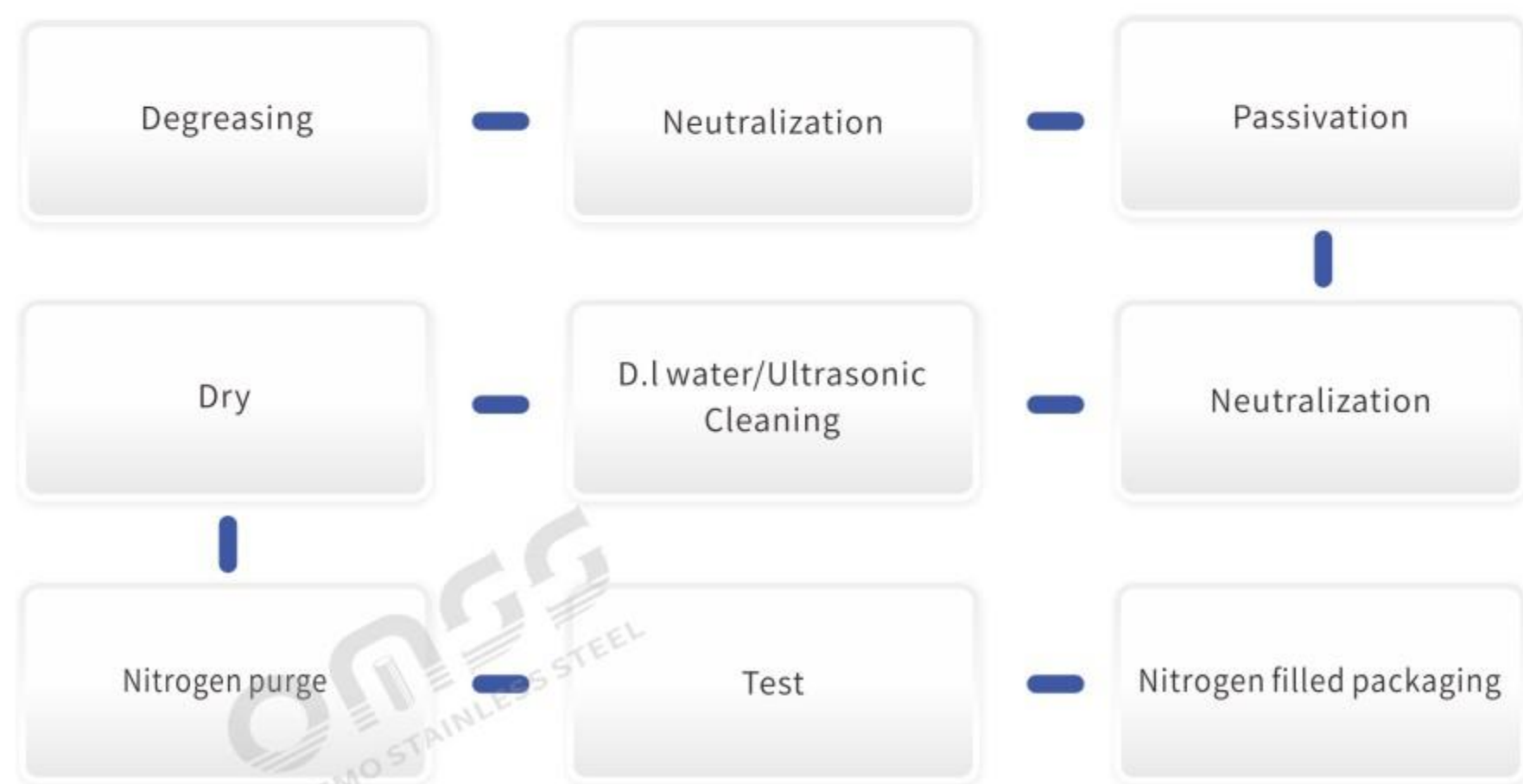
Spec:ASTM A269
Material: 304L/316L
Surface Finish:AP/BA/MP/EP



Surface treatment grade



HIGH PURITY CLEANING&PACKING PROCESS



Tensile Test

Tensile Test

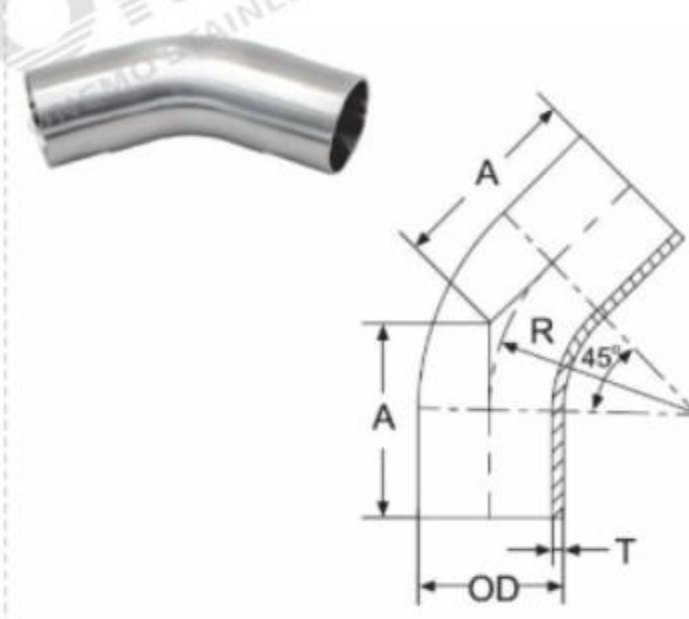
(Unit):mm

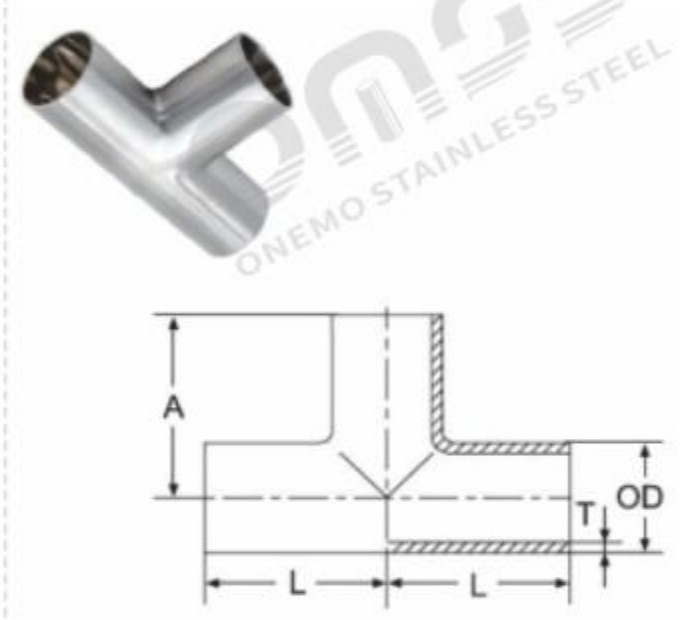
			Hardness value HRB	Yield strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation rate (%)
AP/BA MP/EP	SUS304	JIS	≤95	Min 205	Min 520	Min 35
	SUS316	JIS	≤95	Min 205	Min 520	Min 35
	SUS316L	JIS	≤95	Min 175	Min 480	Min 35

Product Range And Tolerances

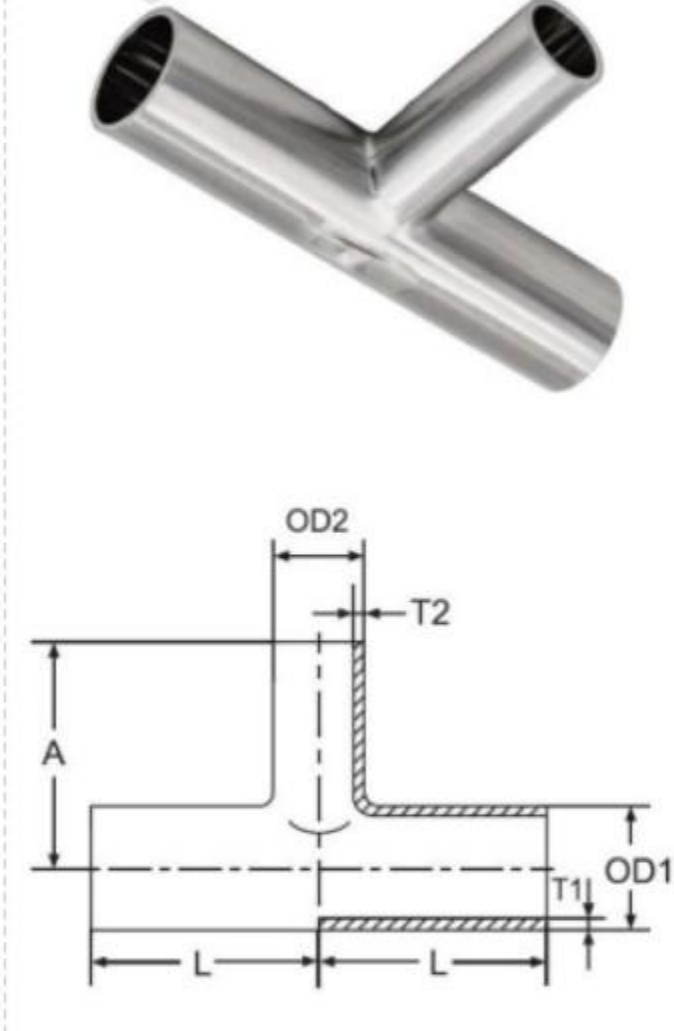
(Unit):mm

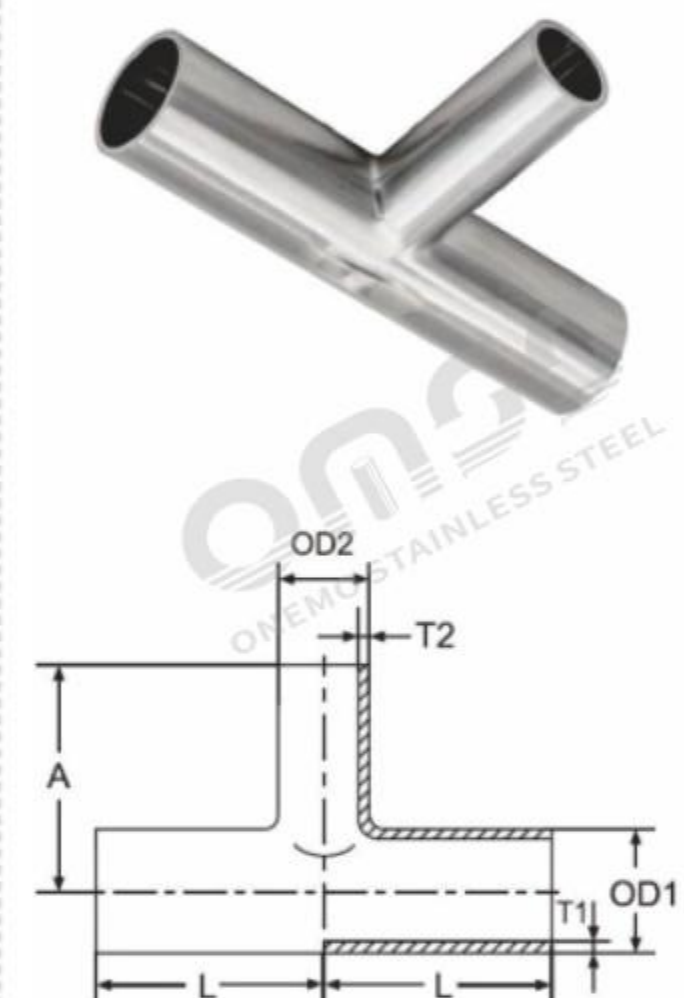
size	OD	depth	tolerance		product type				types of pipes	
			OD	depth	AP	BA	MP	EP	welded pipe	seamless pipe
1/8"	3.18	0.5	±0.06	±12.5%	●	●		●		●
1/4"	6.35	1.0(0.89)	±0.06		●	●		●		●
3/8"	9.53	1.0(0.89)	±0.06		●	●		●		●
1/2"	12.7	1.0,1.24(1.65)	±0.06		●	●		●		●
5/8"	15.88	1.0(1.24)	±0.06		●	●		●		●
3/4"	19.05	1.24,1.65	±0.06		●	●	●	●	●	●
1"	25.4	1.24,1.65	±0.1		●	●	●	●	●	●
1.5"	38.1	1.65	±0.3	±10%	●	●	●	●	●	●
2"	50.8	1.65	±0.3		●	●	●	●	●	●
2.5"	63.5	1.65	±0.5		●	●	●	●	●	●
3"	76.2	1.65	±0.5		●	●	●	●	●	●
4"	101.6	2.11	±0.8		●	●	●	●	●	●
6"	152.4	2.77,3.05	±1%		●	●	●	●	●	●

45° Elbow	Size	OD	T	A	I	R
	1/4"	6.35	0.89/1.0	38.0	29.0	20.0
	3/8"	9.53	0.89/1.0	39.0	29.0	23.0
	1/2"	12.70	1.24/1.0	40.0	29.0	25.0
	5/8"	15.88	1.24/1.65	48.0	36.0	28.0
	3/4"	19.05	1.65/1.24	49.0	36.0	30.0
	1"	25.40	1.65/1.24	50.0	36.0	33.0
	1 1/4"	31.75	1.65	56.0	36.0	47.6
	1 1/2"	38.10	1.65	70.0	46.0	57.2
	2"	50.80	1.65	78.0	46.0	76.2
	2 1/2"	63.50	1.65	91.0	51.0	95.3
	3"	76.20	1.65	91.0	51.0	95.3
	4"	101.60	2.11	107.0	51.0	133.4
	5"	127.00	2.11	140.0	56.0	190.5
	6"	152.40	2.77	155.0	56.0	228.5

Equal Tee	Size	OD	T	L	A
	1/4"	6.35	0.89/1.0	35.0	35.0
	3/8"	9.53	0.89/1.0	37.0	37.0
	1/2"	12.70	1.24/1.0	39.0	39.0
	5/8"	15.88	1.24/1.65	49.0	49.0
	3/4"	19.05	1.65/1.24	52.0	52.0
	1"	25.40	1.65/1.24	55.0	55.0
	1 1/4"	31.75	1.65	59.0	59.0
	1 1/2"	38.10	1.65	74.0	74.0
	2"	50.80	1.65	77.0	77.0
	2 1/2"	63.50	1.65	90.0	90.0
	3"	76.20	1.65	97.0	97.0
	4"	101.60	2.11	110.0	110.0
	5"	127.00	2.11	140.0	140.0
	6"	152.40	2.77	160.0	160.0



Reducing Tee	Size	OD1xT1	OD2xT2	L	A
	3/8"x1/4"	9.35x0.89/1.0	6.35x0.89/1.0	37	37
	1/2"x1/4"	12.7x1.24/1.0	6.35x0.89/1.0	39	39
	1/2"x3/8"	12.7x1.24/1.0	9.53x0.89/1.0	39	39
	3/4"x1/4"	19.05x1.65/1.24	6.35x0.89/1.0	47	44
	3/4"x3/8"	19.05x1.65/1.24	9.53x0.89/1.0	47	44
	3/4"x1/2"	19.05x1.65/1.24	12.7x0.89/1.0	47	44
	1"x1/4"	25.4x1.65/1.24	6.35x0.89/1.0	47	47
	1"x3/8"	25.4x1.65/1.24	9.53x0.89/1.0	47	47
	1"x1/2"	25.4x1.65/1.24	12.7x1.24/1.0	47	47
	1"x3/4"	25.4x1.65/1.24	19.05x1.65/1.0	55	55
	1 1/2"x1/2"	38.1x1.65	12.7x1.24/1.0	57	54
	1 1/2"x3/4"	38.1x1.65	19.05x1.65/1.0	68	62
	1 1/2"x1"	38.1x1.65	25.4x1.65/1.0	68	62
	2"x1/2"	50.8x1.65	12.7x1.24/1.0	57	57
	2"x3/4"	50.8x1.65	19.05x1.65/1.0	68	65
	2"x1"	50.8x1.65	25.4x1.65/1.0	68	65
	2"x1 1/2"	50.8x1.65	38.1x1.65	77	77
	2 1/2"x1/2"	63.5x1.65	12.7x1.24/1.0	61	63
	2 1/2"x3/4"	63.5x1.65	19.05x1.65/1.24	72	71
	2 1/2"x1"	63.5x1.65	25.4x1.65/1.24	72	71
	2 1/2"x1 1/2"	63.5x1.65	38.1x1.65	90	83
	2 1/2"x2"	63.5x1.65	50.8x1.65	90	83
	3"x1/2"	76.2x1.65	12.7x1.24/1.0	61	71
	3"x3/4"	76.2x1.65	19.05x1.65/1.24	72	79
	3"x1"	76.2x1.65	25.4x1.65/1.24	72	79
	3"x1 1/2"	76.2x1.65	38.1x1.65	90	90
	3"x2"	76.2x1.65	50.8x1.65	90	90
	3"x2 1/2"	76.2x1.65	63.5x1.65	97	97
	4"x1/2"	101.6x2.11	12.7x1.24/1.0	661	87
	4"x3/4"	101.6x2.11	19.05x1.65/1.24	72	95
	4"x1"	101.6x2.11	25.4x1.65/1.24	72	95
	4"x1 1/2"	101.6x2.11	38.1x1.65	90	105
	4"x2"	101.6x2.11	50.8x1.65	90	105
	4"x2 1/2"	101.6x2.11	63.5x1.65	110	110
	4"x3"	101.6x2.11	76.2x1.65	110	110
	6"x4"	152.4x2.77	101.6x2.11	140	145

Reducing Tee		OD1	OD2	L	A
	3/8"	(9.53)	1/4"	37	37
	1/2"	(12.7)	3/8", 1/4"	39	39
	3/4"	(19.05)	1/2", 3/8", 1/4", 8A	47	44
			5/8", 10A	52	52
	1"	(25.4)	1/2", 3/8", 1/4", 8A	47	47
			3/4", 5/8", 15A, 10A	55	55
	1 1/4"	(31.75)	1/2", 3/8", 1/4", 8A	47	50
			1", 3/4", 5/8", 20A, 15A, 10A	59	59
	1 1/2"	(38.1)	1/2", 3/8", 1/4", 8A	57	54
			1 1/4", 1", 3/4", 5/8"	68	62
	2"	(50.8)	25A, 20A, 15A, 10A	68	62
			1/2", 3/8", 1/4", 8A	57	57
			1 1/4", 1", 3/4", 5/8"	68	65
			25A, 20A, 15A, 10A	68	65
	2 1/2"	(63.5)	1 1/2", 40A, 32A	77	77
			1/2", 3/8", 1/4", 8A	61	63
			1 1/4", 1", 3/4", 5/8"	72	71
			25A, 20A, 15A, 10A	72	71
	3"	(76.2)	2", 1 1/2", 50A, 40A, 32A	90	83
			1/2", 3/8", 1/4", 8A	60	71
			1 1/4", 1", 3/4", 5/8"	72	79
			25A, 20A, 15A, 10A	72	79
	4"	(101.6)	2", 1 1/2", 50A, 40A, 32A	90	90
			2 1/2", 65A	97	97
			1/2", 3/8", 1/4", 8A	61	87
			1 1/4", 1", 3/4", 5/8"	72	95
	5"	(127.0)	25A, 20A, 15A, 10A	72	95
			2", 1 1/2", 50A, 40A, 32A	90	105
			3", 2 1/2", 80A, 65A	110	110
			1/2", 3/8", 1/4", 8A	70	100
	6"	(152.4)	1 1/4", 1", 3/4", 5/8"	90	110
			25A, 20A, 15A, 10A	90	110
			2", 1 1/2", 50A, 40A, 32A	110	120
			4", 3", 2 1/2", 80A, 65A	140	140
			1/2", 3/8", 1/4", 8A	80	115
			1 1/4", 1", 3/4", 5/8"	100	125
			25A, 20A, 15A, 10A	100	125
			2", 1 1/2", 50A, 40A, 32,	120	135
			4", 3", 2 1/2", 100A, 80A, 65A	140	145
			5", 125A	160	160

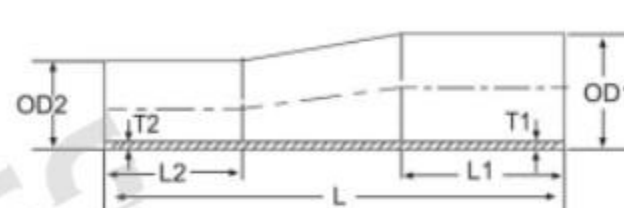
ASTM269/A270

Reducer



Concentric Reducer

Reducer



Eccentric Reducer

Size	OD1xT1	OD2xT2	L	L1	L2
3/8"x1/4"	9.35x0.89/1.0	6.35x0.89/1.0	70	29	29
1/2"x1/4"	12.7x1.24/1.0	6.35x0.89/1.0	75	29	29
1/2"x3/8"	12.7x1.24/1.0	9.53x0.89/1.0	75	29	29
3/4"x1/4"	19.05x1.65/1.24	6.35x0.89/1.0	100	36	29
3/4"x3/8"	19.05x1.65/1.24	9.53x0.89/1.0	100	36	29
3/4"x1/2"	19.05x1.65/1.24	12.7x1.24/1.0	100	36	29
1"x1/4"	25.4x1.65/1.24	6.35x0.89/1.0	105	36	29
1"x3/8"	25.4x1.65/1.24	9.53x0.89/1.0	105	36	29
1"x1/2"	25.4x1.65/1.24	12.7x1.24/1.0	105	36	29
1"x3/4"	25.4x1.65/1.24	19.05x1.65/1.0	105	36	36
1 1/2"x1/4"	38.1x1.65	6.35x0.89/1.0	125	46	29
1 1/2"x3/8"	38.1x1.65	9.53x0.89/1.0	125	46	29
1 1/2"x1/2"	38.1x1.65	12.7x1.24/1.0	125	46	29
1 1/2"x3/4"	38.1x1.65	19.05x1.65/1.0	125	46	36
1 1/2"x1"	38.1x1.65	25.4x1.65/1.0	125	46	36
1"x1/4"	50.8x1.65	6.35x0.89/1.0	130	46	29
2"x3/8"	50.8x1.65	9.53x0.89/1.0	130	46	29
2"x1/2"	50.8x1.65	12.7x1.24/1.0	130	46	29
2"x3/4"	50.8x1.65	19.05x1.65/1.24	130	46	36
2"x1"	50.8x1.65	25.4x1.65/1.24	130	46	36
2"x1 1/2"	50.8x1.65	38.1x1.65	130	46	46
3"x1/2"	76.2x1.65	12.7x1.24/1.0	165	51	29
3"x3/4"	76.2x1.65	19.05x1.65/1.24	165	51	36
3"x1"	76.2x1.65	25.4x1.65/1.24	165	51	36
3"x1 1/2"	76.2x1.65	38.1x1.65	165	51	46
3"x2"	76.2x1.65	50.8x1.65	165	51	46
4"x3/4"	101.6x2.11	19.05x1.65/1.24	175	51	36
4"x1"	101.6x2.11	25.4x1.65/1.24	175	51	36
4"x1 1/2"	101.6x2.11	38.1x1.65	175	51	46
4"x2"	101.6x2.11	50.8x1.65	175	51	46
4"x2 1/2"	101.6x2.11	63.5x1.65	175	51	51
4"x3"	101.6x2.11	76.2x1.65	175	51	51
5"x1/2"	127.0*2.11	12.7x1.24/1.0	230	56	29
5"x3/4"	127.0*2.11	19.05x1.65/1.24	230	56	36
5"x1"	127.0*2.11	25.4x1.65/1.24	230	56	36
5"x1 1/2"	127.0*2.11	38.1x1.65	230	56	46
5"x2"	127.0*2.11	50.8x1.65	230	56	46
5"x2 1/2"	127.0*2.11	63.5x1.65	230	56	51
5"x3"	127.0*2.11	76.2x1.65	230	56	51
5"x4"	127.0*2.11	101.6x2.11	230	56	51
6"x1/2"	152.4x2.77	12.7x1.24/1.0	250	62	29
6"x3/4"	152.4x2.77	19.05x1.65/1.24	250	62	36
6"x1"	152.4x2.77	25.4x1.65/1.24	250	62	36
6"x1 1/2"	152.4x2.77	38.1x1.65	250	62	46

ASTM269/A270						
Reducer	Size	OD1xT1	OD2xT2	L	L1	L2
	6"x2"	152.40*2.77	50.8x1.65	250	62	46
	6"x2 1/2"	152.40*2.77	63.5x1.65	250	62	51
	6"x3"	152.40*2.77	76.2x1.65	250	62	51
	6"x4"	152.40*2.77	101.6x2.11	250	62	51
	6"x5"	152.40*2.77	127.0x2.11	250	62	56

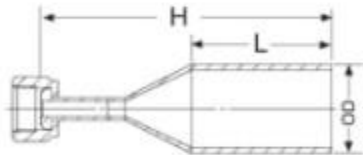
Cap Reducer	OD1	OD2	A	L
3/4"		1/4"~1/2", 8A	19.1	54
		10A	19.1	60
1"		1/4"~1/2", 8A	25.4	60
		3/4", 10A~15A	25.4	67
1 1/4"		1/4"~1/2", 8A	38.1	73
		3/4"~1", 10A~20A	38.1	80
1 1/2"		1/4"~1/2", 8A	38.1	73
		3/4"~1 1/4", 10A~25A	38.1	80
2"		1/4"~1/2", 8A	38.1	73
		3/4"~1 1/4", 10A~25A	38.1	80
		1 1/2", 32A~40A	38.1	90
		1/4"~1/2", 8A	38.1	73
2 1/2"		3/4"~1 1/4", 10A~25A	38.1	80
		1 1/2"~2", 32A~50A	38.1	90
		1/4"~1/2", 8A	38.1	73
		3/4"~1 1/4", 10A~25A	38.1	80
3"		1 1/2"~2", 32A~50A	38.1	90
		2 1/2"	38.1	95
		1/4"~1/2", 8A	63.5	98
		3/4"~1 1/4", 10A~25A	63.5	105
4"		1 1/2"~2", 32A~50A	63.5	115
		2 1/2"~3", 65A, 89A	63.5	125

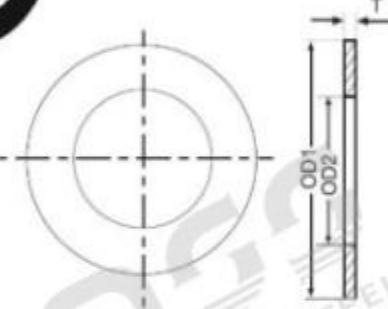


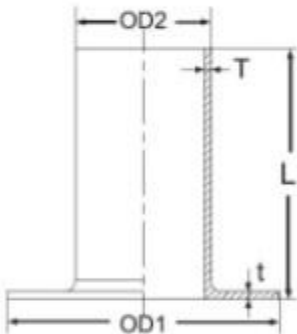
Welding Cap	Size	OD	T	L
	1/4"	6.35	1.0	12.7
	3/8"	9.53	1.0	12.7
	1/2"	12.70	1.24	12.7
	3/4"	19.05	1.65	19.1
	1"	25.40	1.65	25.4
	1 1/2"	38.10	1.65	38.1
	2"	50.80	1.65	38.1
	2 1/2"	63.50	1.65	38.1
	3"	76.20	1.65	38.1
	4"	101.60	2.11	63.5
	6"	152.40	2.77	63.5

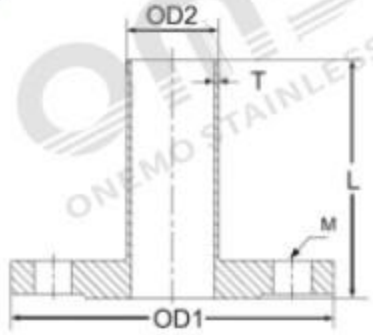
Joint Cap Reducer	Size	OD	E	Q(Female)	Q (Male)
	3/4"	19.05	19.1	48	58
	1"	25.40	25.4	55	65
	1 1/2"	38.10	38.1	68	78
	2"	50.80	38.1	68	78
	2 1/2"	63.50	38.1	68	78
	3"	75.20	38.1	68	78
	4"	101.60	63.5	94	104

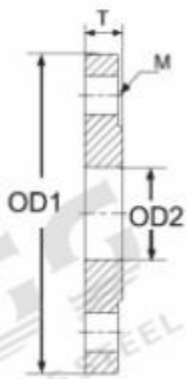
Joint Tee	Size	OD	C	Q(Female)	Q (Male)
	1/4"	6.35	43	31.5	41.5
	3/8"	9.53	45	33.5	43.5
	3/4"	19.05	52	38	48
	1"	25.40	55	42	52
	1 1/2"	38.10	68	48	58
	2"	50.80	68	55	65
	2 1/2"	63.50	72	61.5	72.5
	3"	76.20	72	68	78
	4"	101.60	72	81	91

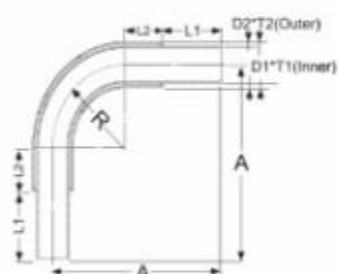
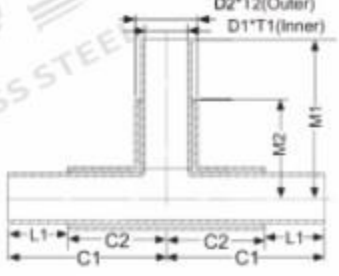
Joint Reducer	Size	OD	H(Female)	H (Male)
 	3/8"	9.53	80	90
	1/2"	12.70	85	95
	5/8"	15.87	100	110
	3/4"	19.05	110	120
	1"	25.40	115	125

Teflon Packing	Size	OD1	OD2	T
 	3/4"	58	19.5	2
	1"	63	26	2
	1 1/4"	74	32.5	2
	1 1/2"	84	38.5	2
	2"	89	51.5	2
	2 1/2"	104	64	2
	3"	124	77	2
	4"	144	102.5	2
	6"	220	153.5	2

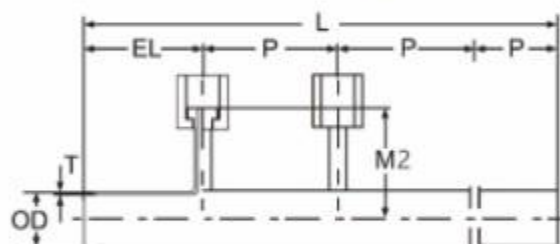
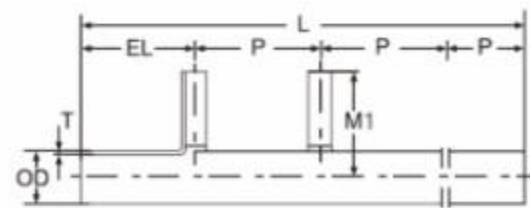
Clean Cap	Size	OD1	OD2	T	L	t
 	3/4"	51	19.05	1.65	55	2
	1"	56	25.40	1.65	55	2
	1 1/4"	67	31.80	1.65	55	2
	1 1/2"	76	38.10	1.65	70	2
	2"	81	50.80	1.65	70	2
	2 1/2"	96	63.5	1.65	70	2
	3"	116	76.20	1.65	75	2
	4"	136	101.60	2.11	75	2.5
	5"	182	127.00	2.11	85	3
	6"	212	152.40	2.77	90	3

Clean Cap	Size	OD1	OD2	T	L	M
 	3/4"	95	19.05	1.65	100	4-M12
	1"	100	25.40	1.65	100	4-M12
	1 1/4"	125	31.80	1.65	100	4-M16
	1 1/2"	135	38.10	1.65	100	4-M16
	2"	140	50.80	1.65	100	4-M16
	2 1/2"	155	63.5	1.65	100	4-M16
	3"	175	76.20	1.65	100	4-M16
	4"	195	101.60	2.11	100	8-M16
	5"	250	127.00	2.11	200	8-M20
	6"	280	152.40	2.77	200	8-M20

Flat Cap	Size	OD1	OD2	T	M
 	3/4"	95	20	12	4-M12
	1"	100	26	14	4-M12
	1 1/4"	125	33	14	4-M16
	1 1/2"	135	39	16	4-M16
	2"	140	52	16	4-M16
	2 1/2"	155	64	16	4-M16
	3"	175	77	18	4-M16
	4"	195	102	18	8-M16
	5"	250	128	20	8-M20
	6"	280	154	22	8-M20

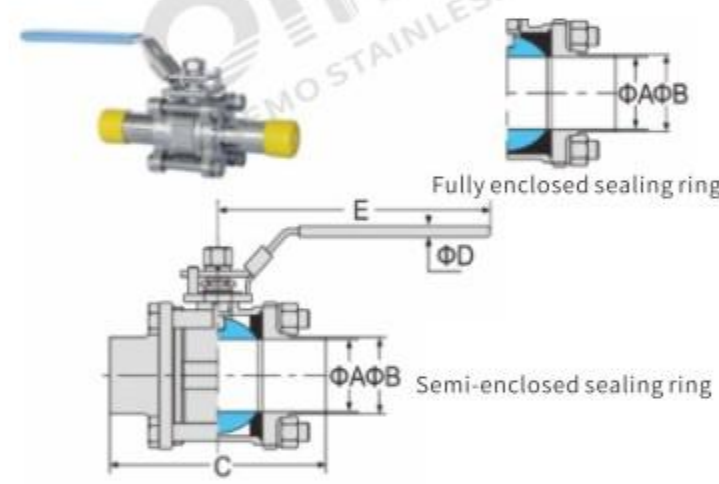
Coxial-Fitting	inner tube	outer pipe	L1	L2	R	A	B	C1 M1	C2 M2
 	1/4"x0.89/1t	1/2"x1.24t	40	29	25	94	80	82	42
	1/4"x0.89/1t	8Ax5S	40	29	26	94	80	82	42
	3/8"x0.89/1t	5/8"x1.24t	40	36	28	104	88	89	49
	3/8"x0.89/1t	10Ax5S	40	36	30	104	89	89	49
	1/2"x1.24t	3/4"x1.24/1.65t	40	36	35	111	91	92	52
	1/2"x1.24t	15Ax5S	40	36	38	114	92	92	52
	3/4"x1.24/1.65t	1"x1.65	40	36	47.6	124	96	95	55
	3/4"x1.24/1.65t	20Ax5S	40	36	47.6	124	96	95	55
	1"x1.65t	1 1/2"x1.65	40	36	57.2	134	100	99	59
	1"x1.65t	25Ax5S	40	36	57.2	134	100	99	59
 	1 1/2"x1.65t	2"x1.65t	40	46	95.3	188	132	123	77
	2"x1.65t	2 1/2"x1.65t	40	51	120	217	147	136	90
	10Ax5S	20Ax5S	40	36	47.6	124	96	95	55
	15Ax5S	25Ax5S	40	36	57.2	134	100	99	59
	20Ax5S	32Ax5S	40	46	76.2	163	118	114	74
	25Ax5S	40Ax5S	40	46	95.3	182	126	117	77
	32Ax5S	50Ax5S	46	46	47.6	143	124	129	83

Multi Channel Joint Tee



Size	OD	T	EL	P	M1	M2
1/4"	6.35	0.89	76.2	152.4	35	31.5
3/8"	9.53	0.89	76.2	152.4	37	33.5
1/2"	12.70	1.24	76.2	152.4	39	35
5/8"	15.87	1.24	76.2	152.4	44	36.5
3/4"	19.05	1.65	76.2	152.4	44	38
1"	25.40	1.65	76.2	152.4	47	42
1 1/2"	38.10	1.65	76.2	152.4	54	48
2"	50.80	1.65	76.2	152.4	57	55
2 1/2"	63.50	2.65	76.2	152.4	63	61.5
3"	76.20	2.65	76.2	152.4	71	68
4"	101.60	2.10	76.2	152.4	87	81

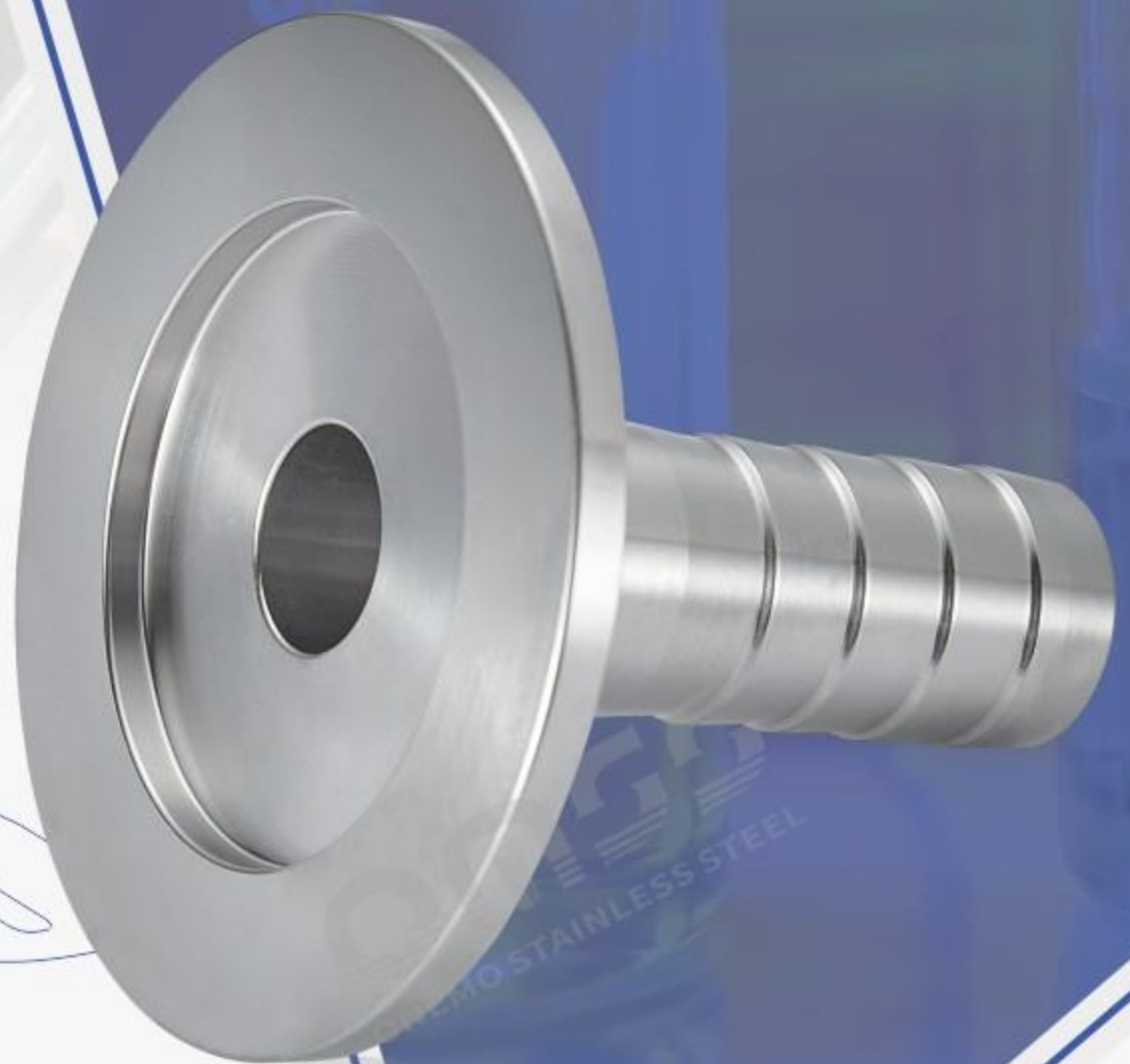
Manual Ball Valve



Size	A	B	C	D	E
1/2"	10.22	12.70	120	60	125
3/4"	15.8	19.05	156	68	125
1"	22.1	25.40	164	74	170
1 1/2"	34.8	38.10	194	89	205
2"	47.5	50.80	222	97	205
2 1/2"	60.2	63.50	235	130	265
3"	72.9	76.20	248	140	265
4"	97.4	101.60	325	166	310
5"	121.46	127.00	350	166	500
6"	146.86	152.40	385	166	500

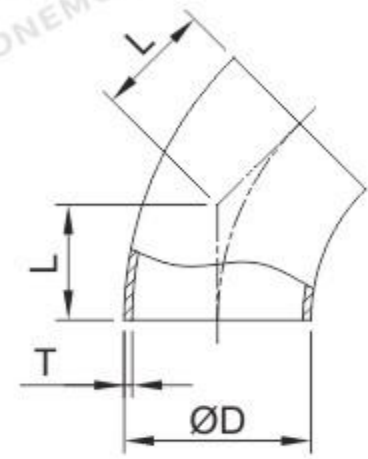
Connection methods: ferrule, flange, welding, etc.
Drive methods: manual, electric, pneumatic
Structural forms: three - piece type (fully enclosed or semi - enclosed)

VACUUM
FITTINGS



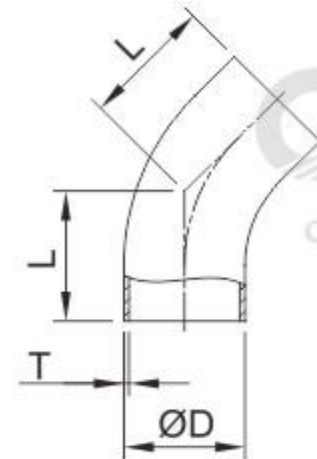
Vacuum Components

45° Short Elbow



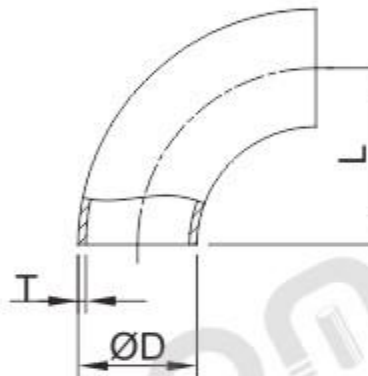
SIZE	ØD	L	T
1.0"	25.4	15.8	1.65
1.5"	38.1	23.8	1.65
2.0"	50.8	31.75	1.65
2.5"	63.5	39.6	1.65
3.0"	76.2	47.6	1.65
4.0"	101.6	63.5	2.1

45° Long Elbow



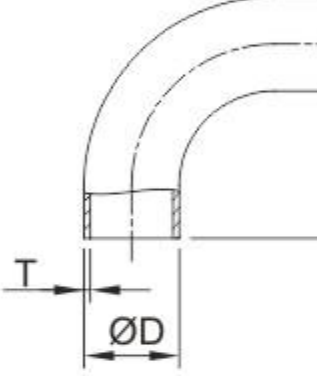
SIZE	ØD	L	T
1.0"	25.4	30.2	1.65
1.5"	38.1	41.3	1.65
2.0"	50.8	58.7	1.65
2.5"	63.5	76.2	1.65
3.0"	76.2	93.7	1.65
4.0"	101.6	122.2	2.1

90° Short Elbow



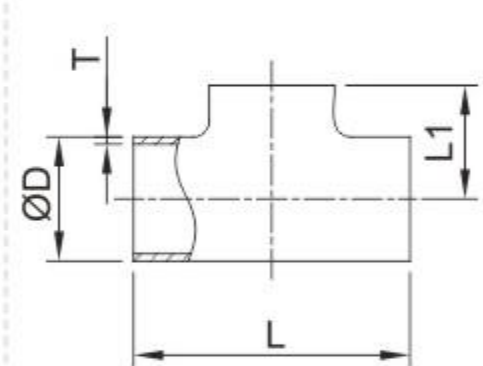
SIZE	ØD	L	T
1.0"	25.4	38.1	1.65
1.5"	38.1	57.2	1.65
2.0"	50.8	76.2	1.65
2.5"	63.5	95.25	1.65
3.0"	76.2	114.3	1.65
4.0"	101.6	152.4	2.1

90° Long Elbow



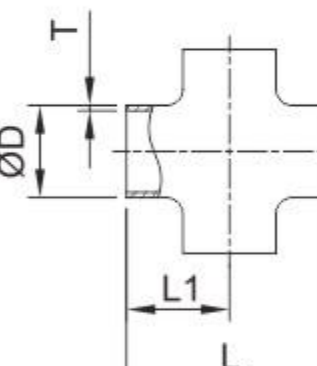
SIZE	ØD	L	T
1.0"	25.4	52.4	1.65
1.5"	38.1	74.6	1.65
2.0"	50.8	103.2	1.65
2.5"	63.5	131.8	1.65
3.0"	76.2	160.3	1.65
4.0"	101.6	211.1	2.1

Welding Tee



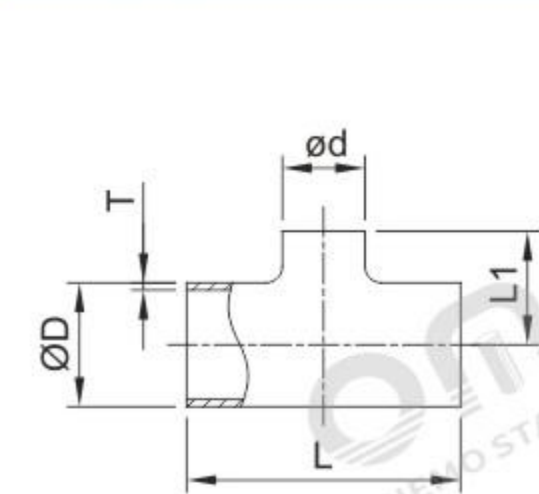
SIZE	ØD	L	L1	T
1.0"	25.4	95.2	47.6	1.65
1.5"	38.1	114.4	57.2	1.65
2.0"	50.8	152.4	76.2	1.65
2.5"	63.5	152.4	76.2	1.65
3.0"	76.2	165.2	82.6	1.65
4.0"	101.6	196.8	98.4	2.1

Cross



SIZE	ØD	L	L1	T
1.0"	25.4	95.2	47.6	1.65
1.5"	38.1	114.4	57.2	1.65
2.0"	50.8	152.4	76.2	1.65
2.5"	63.5	152.4	76.2	1.65
3.0"	76.2	165.2	82.6	1.65
4.0"	101.6	196.8	98.4	2.1

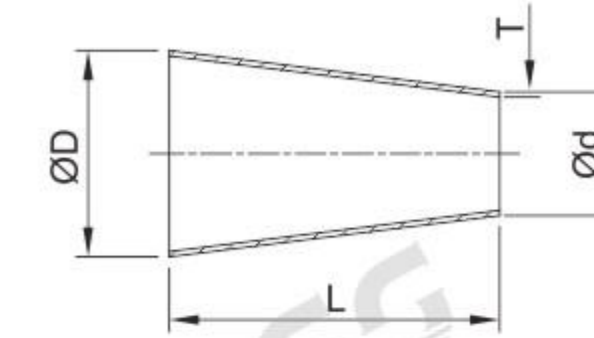
Reducing Tee



SIZE	ØD	Ød	L	L1	T
1.5"x1.0"	38.1	25.4	114.3	53.98	1.65
2.0"x1.0"	50.8	25.4	152.4	60.3	1.65
2.0"x1.5"	50.8	38.1	152.4	63.5	1.65
2.5"x1.5"	63.5	38.1	152.4	69.85	1.65
2.5"x2.0"	63.5	50.8	152.4	82.55	1.65
3.0"x1.5"	76.2	38.1	165.1	76.2	1.65
3.0"x2.0"	76.2	50.8	165.1	88.90	1.65
3.0"x2.5"	76.2	63.5	165.1	82.55	1.65
4.0"x2.0"	101.6	50.8	196.8	101.6	2.1
4.0"x2.5"	101.6	63.5	196.8	95.25	2.1
4.0"x3.0"	101.6	76.2	196.8	95.25	2.1

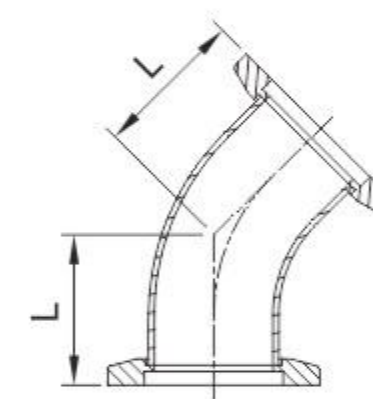
Vacuum Components

Concentric Reducer



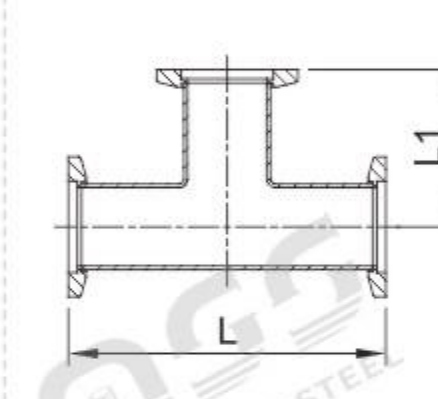
SIZE	ØD	Ød	L	T
1.5"x1.0"	38.1	25.4	50.8	1.65
2.0"x1.5"	50.8	38.1	50.8	1.65
2.5"x1.5"	63.5	38.1	101.6	1.65
2.5"x2.0"	63.5	50.8	50.8	1.65
3.0"x1.5"	76.2	38.1	152.4	1.65
3.0"x2.0"	76.2	50.8	101.6	1.65
3.0"x2.5"	76.2	63.5	50.8	1.65
4.0"x1.5"	101.6	38.1	254	2.1
4.0"x2.0"	101.6	50.8	203.2	2.1
4.0"x2.5"	101.6	63.5	152.4	2.1
4.0"x3.0"	101.6	76.2	101.6	2.1

45° Elbow Flange



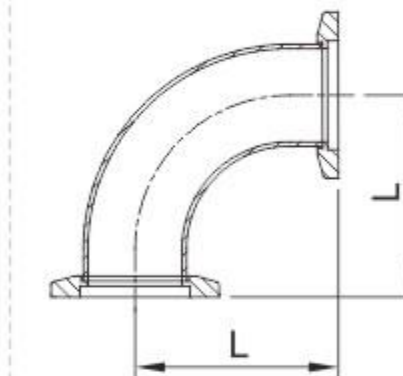
SIZE	ØD	L
KF25	1.0"	28.44
KF40	1.5"	42.67
KF50	2.0"	50.54

Tee Flange



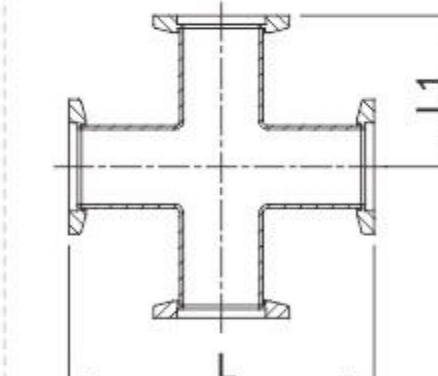
SIZE	O.D	L	L1
KF25	1.0"	100.07	50.03
KF40	1.5"	130.04	65.02
KF50	2.0"	139.95	70.01

90° Elbow Flange



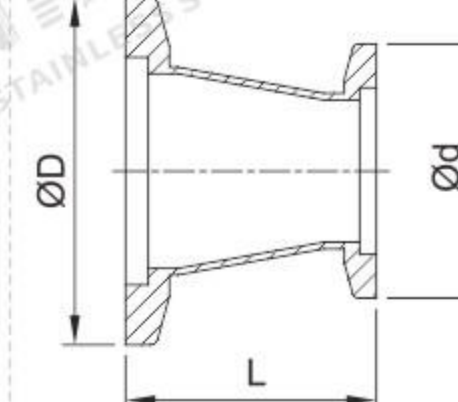
SIZE	O.D	L
KF25	1.0"	51.6
KF40	1.5"	61.0
KF50	2.0"	80.0

4-Way Cross Flange



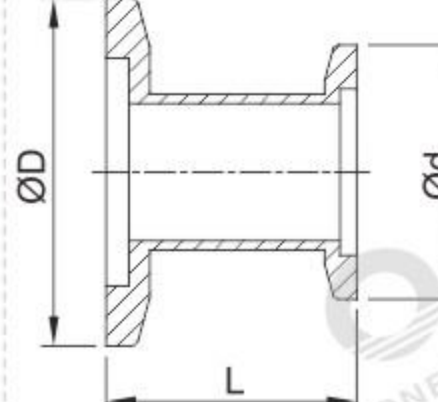
SIZE	O.D	L	L1
KF25	1.0"	103.2	51.6
KF40	1.5"	122.0	61.0
KF50	2.0"	160.0	80.0

Conical Reducer



ØD	Ød	L
KF25	KF16	39.9
KF40	KF16	39.9
KF40	KF25	39.9
KF50	KF16	39.9
KF50	KF25	39.9
KF50	KF40	39.9

Straight Reducer

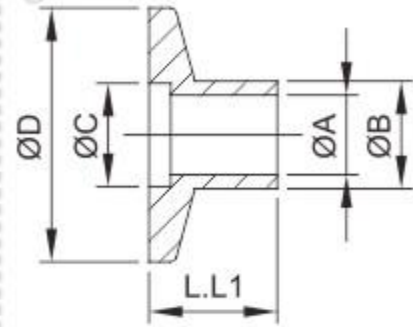


ØD	Ød	L
KF25	KF16	39.9
KF40	KF16	39.9
KF40	KF25	39.9
KF50	KF16	39.9
KF50	KF25	39.9
KF50	KF40	39.9

Vacuum Components

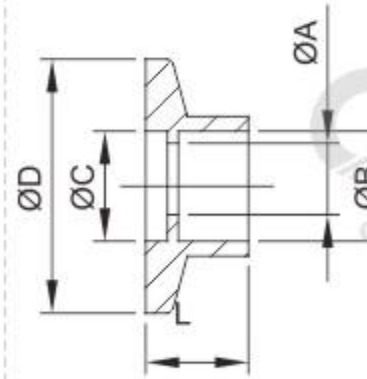
Weld Flange

SIZE	ØA	ØB	ØC	ØD	L	L1
KF-10	9.4	12.7	12.2	30	12.7	40
KF-16	15.7	19.05	17.3	30	12.7	40
KF-25	22.1	25.4	26.2	40	12.7	40
KF-40	38	38.1	41.1	55	19.1	40
KF-50	46.5	50.8	52.3	75	19.1	40



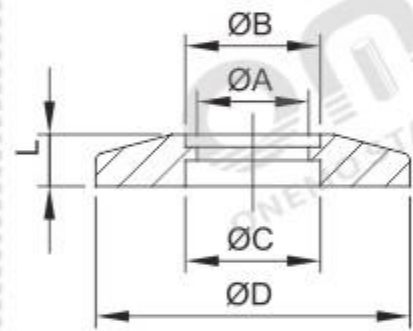
Socket Weld Flange

SIZE	ØA	ØB	ØC	ØD	L
KF-10	9.4	13.0	12.2	30.0	12.7
KF-16	15.7	19.3	17.3	30.0	12.7
KF-25	22.1	25.7	26.2	40.0	12.7
KF-40	34.8	38.4	41.1	55.0	12.7
KF-50	47.5	51.1	52.3	75.0	12.7



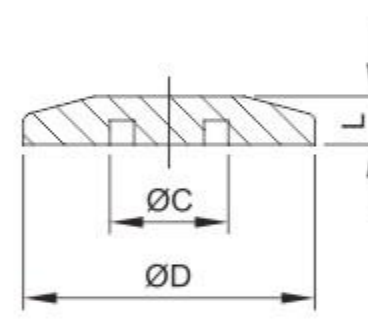
Bored Flange

SIZE	ØA	ØB	ØC	ØD	L
KF-10	11.17	12.95	12.2	30	5
KF-16	17.27	19.3	17.3	30	5
KF-25	22.6	25.9	26.2	40	5
KF-40	35.3	38.6	41.1	55	5
KF-50	48	51.1	52.3	75	5



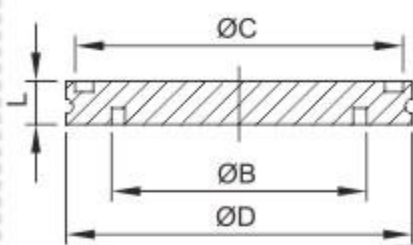
Blank Flange

SIZE	ØC	ØD	L
KF-10	12.2	30	5.1
KF-16	17.3	30	5.1
KF-25	26.2	40	5.1
KF-40	41.1	55	5.1
KF-50	52.3	75	5.1



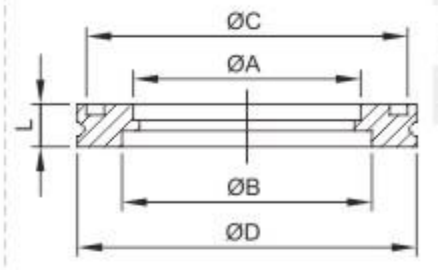
ISO-Blank Flange

SIZE	ØB	ØC	ØD	L
ISO-63	70	90	95	12
ISO-80	83	105	110	12
ISO-100	102	125	130	12
ISO-160	153	175	180	12



ISO-Bored Flange

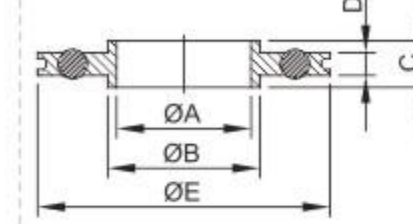
SIZE	ØA	ØB	ØC	ØD	L
ISO-63	63.7	70	90	95	12
ISO-80	76.4	83	105	110	12
ISO-100	101.8	102	125	130	12
ISO-160	152.9	153	175	180	12



Centreing Ring (SS304 & Alu Material) with O-Ring (VITON (FKM))

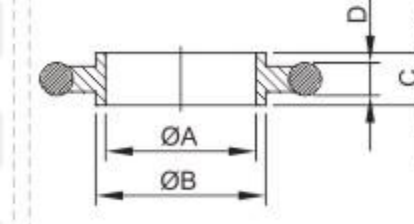
ISO-Type

SIZE	ØA	ØB	C	D	ØE
ISO-63-V-U	66.8	69.6	8	3.81	91
ISO-80-V-U	79.75	82.6	8	3.81	104
ISO-100-V-U	98.8	101.6	8	3.81	123
ISO-160-V-U	149.86	152.6	8	3.81	170
ISO-200-V-U	207.8	212.6	8	3.81	234
ISO-250-V-U	257.5	260.4	8	3.81	285
ISO-320-V-U	312	317.3	12	5.58	340
ISO-400-V-U	394	399.2	12	5.58	416
ISO-500-V-U	494	500.2	12	5.6	555

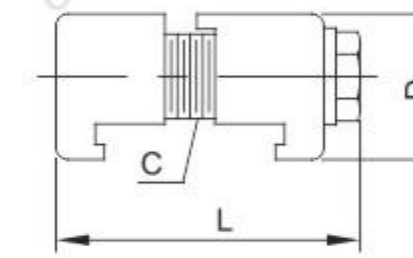


KF-Type

SIZE	ØA	ØB	C	D
KF-10	10	12	8	3.9
KF-16	16	17	8	3.9
KF-25	25	26	8	3.9
KF-40	40	41	8	3.9
KF-50	50	52	8	3.9

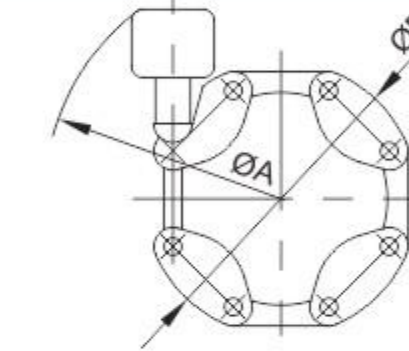


ISO-Double Claw Clamp



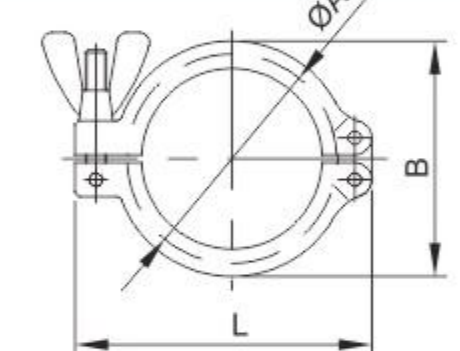
SIZE	C	D	L
ISO-63	M8	24.1	50.3
ISO-80	M8	24.1	50.3
ISO-100	M8	24.1	50.3
ISO-160	M10	27.9	50

Chain Clamp (Alu, Plastic & SS304 material Link Steel)



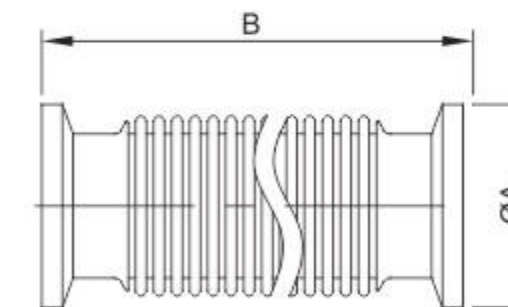
SIZE	ØA	ØB
ISO-KF NW10/16	115.1	59.9
ISO-KF NW20/25	1.9	52.1
ISO-KF NW32/40	34.1	5.1
ISO-KF NW50	151.9	104.9

KF-Clamps-Aluminum



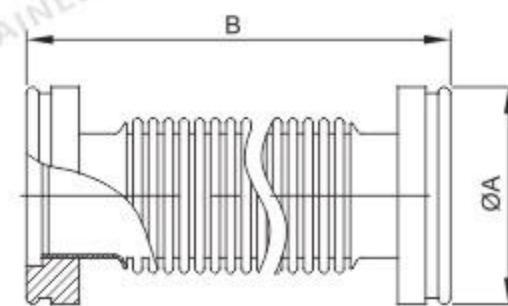
SIZE	ØA	ØB	L
10/16	35	45	62
20/25	45	55	73
32/40	60	70	86.1
50	80	96	123

NW FLEXIBLE HOSES



SIZE	ØA	B	SIZE	ØA	ØB
KF-16-250	30	250	KF-40-250	55	250
KF-16-500	30	500	KF-40-500	55	500
KF-16-750	30	750	KF-40-750	55	750
KF-16-1000	30	1000	KF-40-1000	55	1000
KF-25-250	40	250	KF-50-250	75	250
KF-25-500	40	500	KF-50-500	75	500
KF-25-750	40	750	KF-50-750	75	750
KF-25-1000	40	1000	KF-50-1000	75	1000

ISO FLEXIBLE HOSES



SIZE	ØA	ØB	SIZE	ØA	ØB
ISO-63-250	95	250	ISO-80-750	110	750
ISO-63-500	95	500	ISO-80-1000	110	1000
ISO-63-750	95	750	ISO-100-250	130	250
ISO-63-1000	95	1000	ISO-100-500	130	500
ISO-80-250	110	250	ISO-100-750	130	750
ISO-80-500	110	500	ISO-100-1000	130	1000

INDUSTRY PIPE FITTINGS



Seamless Pipe Main Products



Super Austenitic Stainless Steel Seamless Pipe And Tube

Material	N08904(904L),S31254(6Mo),N08367(6Mo),N08925(6Mo), N08926(6Mo).
Specifications	Outside diameter Φ6-762mm; Wall thickness: 0.5-65mm, maximum length 18000mm.
Executive standard	ASTM A312,ASTM A213,ASTM A269,ASTM B677

Anti-corrosion Alloy Seamless Tube

Material	N08800,N08810,N08811,N08825,N08020,N08028,N06600,N06601,N06690,N06625, NO4400.
Specifications	Outside diameter Φ6-630mm; Wall thickness: 0.5-65mm, maximum length 18000mm.
Executive standard	ASME SB163,ASME SB165,ASME SB167,ASME SB407,ASME Sb423, ASME SB444,ASME SB622,ASME SB668,ASME SB677.ASME SB690.ASEM SB729

Common Austenitic Stainless Steel Seamless Pipe And Tube

Material	304,304L,304N,321,321H,316,316H,316L,316LN,316T, 316MOD, 317L,347,347H,347HFG 309S,310S,310HR3C,S30815(253MA).
Specifications	Outside diameter Φ6-762mm; Wall thickness: 0.5-65mm, maximum length 18000mm.
Executive standard	G/T 14975-2012,GB/T 14976-2012.GB 13296-2013,GB 5310-2017. GB 9948-2013,GB/T38810-2020,GB/T 40317-2021,GB40297-2021.GB 37578-2019 ASTM A312,ASME SA213,ASME SA269,JIS G3463-20062012,JIS G3459-2012,GOST 9941-81. DIN 2462,1-1981,DIN 17456,DIN 17458,EN 10216-5

Seamless Duplex Stainless Steel Pipe

Material	S31803,S22053,S22253.S32750,S32760,S31500,32001.S32003.S32304.
Specifications	Outside diameter Φ6-630mm; Wall thickness: 0.5-65mm, maximum length 18000mm.
Executive standard	ASTM A789(ASME Sa789),ASTM A790(ASME Sa790),GB 21833.1-2020,GB/ 21833.2-2020

Hastelloy Seamless Tube

Material	HASTELLOY C276;C22-B-2;B-3;C2000; G35.
Specifications	Outside diameter Φ6-480mm; Wall thickness: 0.5-65mm, maximum length 18000mm.
Executive standard	ASTM B622,ASTM B829

Titanium And Titanium Alloy Seamless Tube

Material	Ta1; TA2; TA3/TA9.
Specifications	Outside diameter Φ6-325mm; Wall thickness: 0.5-65mm, maximum length 18000mm.
Executive standard	ASTM B338,GBT 3625-2007.JIS H4631-2007

Test Items Of
Common Product Standards

Standard	Chemical composition	Tensile Test	Impact test		Flattening	Flaring	Bending	Hardness	Corrosion Test					Metallographic Examination					ET	UT	HT	size	Surface	Remarks
			-196	normal temperature					Intergranular	Pitting Corrosion	Inclusion	Granularity	Ferrites											
GB/T 14976-2012	✓	✓	×	×	×	×	×	×	✓	×	×	×	×	×	×	×	×	×	×	×	✓	✓	✓	ET/UT/HT
GB/T 13296-2013	✓	✓	×	×	✓	✓	×	×	✓	×	×	×	×	×	×	×	×	×	×	✓	✓	✓	✓	ET/HT
GB 5310-2008	✓	✓	×	✓	✓	×	✓	✓	×	×	✓	✓	×	×	×	×	×	×	×	✓	✓	✓	✓	
GB 9948-2013	✓	✓	×	✓	✓	✓	×	✓	✓	×	×	×	×	×	×	×	×	×	×	✓	✓	✓	✓	ET/MFL/HT
ASTM A312	✓	✓	×	×	✓	×	×	×	×	×	×	×	×	×	×	×	×	×	×	✓	✓	✓	✓	ET/UT/HT
ASTM 213	✓	✓	×	×	✓	✓	×	✓	×	×	×	✓	×	×	×	×	×	×	×	✓	✓	✓	✓	ET/HT
ASTM A269	✓	✓	×	×	×	✓	×	✓	×	×	×	×	×	×	×	×	×	×	×	✓	✓	✓	✓	ET/UT/HT
JIS G3459	✓	✓	×	×	✓	×	×	×	×	×	×	✓	×	×	×	×	×	×	×	✓	✓	✓	✓	ET/UT/HT
JIS G3463	✓	✓	×	×	✓	✓	×	×	×	×	×	✓	×	×	×	×	×	×	×	✓	✓	✓	✓	ET/UT/HT
DIN 17456	✓	✓	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	✓	✓	✓	✓	
DIN 17458	✓	✓	×	×	✓	×	×	×	×	×	×	×	×	×	×	×	×	×	×	✓	✓	✓	✓	Flattening/Faaring
GB/T 21833-2008	✓	✓	×	×	✓	✓	×	✓	×	×	×	×	✓	×	×	×	×	×	×	✓	✓	✓	✓	ET/UT/HT
ASTM A790	✓	✓	×	×	✓	×	×	✓	×	×	×	×	×	×	×	×	×	×	×	✓	✓	✓	✓	ET/UT/HT
GB/T 38810-2020	✓	✓	✓	×	✓	✓	×	✓	✓	×	×	×	×	×	×	×	×	×	×	✓	✓	✓	✓	ET/HT
GB/T 40317-2021	✓	✓	✓	×	✓	✓	×	×	×	×	×	×	×	×	×	×	×	×	×	✓	✓	✓	✓	
GB/T 37578-2019	✓	✓	×	×	✓	✓	×	×	✓	✓	×	✓	×	×	×	×	×	×	×	✓	✓	✓	✓	ET/HT
GB/T 40297-2021	✓	✓	×	×	✓	✓	✓	✓	✓	×	✓	✓	×	×	×	×	×	×	×	✓	✓	✓	✓	HT,N.T.TENSILE
EN 10216-5	✓	✓	✓	×	✓	✓	×	×	✓	×	×	×	×	×	×	×	×	×	×	✓	✓	✓	✓	HT TENSILE

Note: ET-Eddy current testing; UT-Ultrasonic flaw detection; HT-Hydraulic test. H.T.: High Temperature; N. T.: Normal Temperature.

SURFACE POLISHING VS
ROUGHNESS OF STAINLESS STEEL SEAMLESS TUBE

Stainless Steel Seamless Pipe Surface Roughness Corresponding Table		
1	400 Grit/400#	Equivalent to Ra 0.1~0.2μm
2	350 Grit/350#	Equivalent to Ra 0.2~0.25μm
3	300 Grit/300#	Equivalent to Ra 0.3~0.4μm
4	250 Grit/250#	Equivalent to Ra 0.4~0.8μm
5	200 Grit/200#	Equivalent to Ra 0.6~1.2μm
6	150 Grit/150#	Equivalent to Ra 0.8~1.6μm
7	100 Grit/100#	Equivalent to Ra 1.6~3.2μm

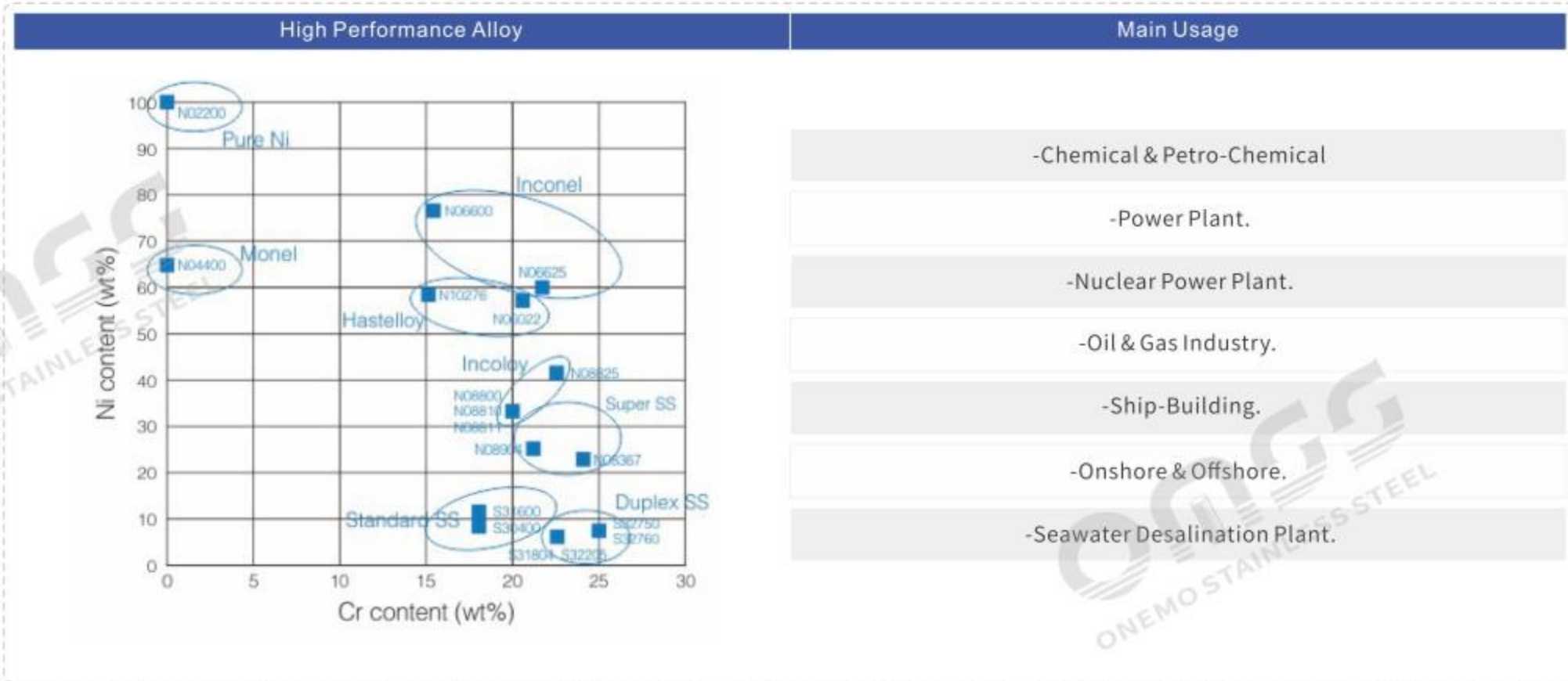
Chemical Composition

Nickel & Nickel Alloys		UNS	Chemical Composition, %(Maximum, unless a range or minimum is indicated.)												Density (g/cm³)
			Ni	Cr	Cu	Fe	Mo	C	Mn	Si	S	P	N	others	
Alloy 200	Nickel 200	N02200	99.0min	-	0.25	0.4	-	0.15	0.35	0.35	0.01	-	-	-	8.89
Alloy 201	Nickel 201	N02201	99.0min	-	0.25	0.4	-	0.02	0.35	0.35	0.01	-	-	-	8.89
Alloy 400	*Monel 400	N04400	63.0min	-	28-34	2.5	-	0.3	2.0	0.5	0.024	-	-	-	8.83
Alloy 625	*Inconel 625	N06625	58.0min	20.0-23.0	-	5.0	8-10	0.1	0.5	0.5	0.015	0.015	-	Al: 0.4 Ti: 0.4 Nb+Ta: 3.15-4.15	8.44
Alloy 800H	*Incoloy 800H	N08810	30.0-35.0	19.0-23.0	0.75	39.5min	-	0.05-0.1	1.5	1.0	0.015			Al: 0.15-0.6 Ti: 0.15-0.6	8.00
Alloy 800HT	*Incoloy 800HT	N08811	30.0-35.0	19.0-23.0	.75	39.5min	-	0.06-0.1	1.5	1.0	0.015			Al: 0.15-0.6 Ti: 0.15-0.6 Nb+Ta: 0.85-1.2	8.00
Alloy 825	*Incoloy 825	N08825	38.0-46.0	19.5-23.5	1.5-3.0	22.0min	2.5-3.5	0.05	1.0	0.5	0.03	-	-	Al: 0.2 Ti: 0.6-1.2	8.13
Alloy C-22	*Hastelloy C-22	N06022	**remainder	20.0-22.5	-	2.0-6.0	12.5-14.5	0.015	0.5	0.08	0.02	0.02	-	W: 2.5-3.5 Co: 2.5 V: 0.35	8.69
Alloy C-276	*Hastelloy C-276	N10276	**remainder	14.5-16.5	-	4.0-7.0	15.0-17.0	0.01	1.0	0.08	0.03	0.04	-	W: 3.0-4.5 Co: 2.5 V: 0.35	8.87
Alloy B-2	*Hastelloy B-2	N10665	**remainder	1.0	-	2.0	26.0-30.0	0.02	1.0	0.1	0.03	0.04	-	Co: 1.0	9.22
Alloy B-3	*Hastelloy B-3	N10675	65.0min	1.0-3.0	0.2	1.0-3.0	27.0-32.0	0.01	3.0	0.1	0.01	0.03	-	Al: 0.5, W: 3.0 Co: 3.0, V: 0.2 Ti: 2.0, Nb: 0.2 Ta: 0.2, Zr: 0.1 Ni+Mo: 94.0-98.0	9.22
Alloy 20	*Carpenter 20Cb3	N08020	32.0-38.0	19.0-21.0	3.0-4.0	**remainder	2.0-3.0	0.07	2.0	1.0	0.035	0.045	-		8.05

1. Chemical Requirements: Nickel20, Monel 400, incoly based on B163, inconel 625 based on B444, Hastelloy based on B622, Alloy 20 based on B729, it can differ from the cross-referenced specification.
2.* Registered Trademarks of Special Metals Corp. (Monel, Inconel, Incoloy, Haynes International inc(Hastelloy), Carpenter Technology (Carpenter).
3.* "remainder" is the difference between the sum of results of all elements determined and 100%

Special Stainless Steel		UNS	Chemical Composition, %(Maximum, unless a range or minimum is indicated.)											Density (g/cm³)
			Ni	Cr	Cu	Mo	C	Mn	Si	S	P	N	others	
Duplex	Austenitic-Ferritic Cr-Ni-Mo-N Stainless	S31803	4.5-6.5	21.0-23.0	-	2.5-3.5	0.03	2.0	1.0	0.02	0.03	0.08-0.20	-	7.80
Duplex	Austenitic-Ferritic Cr-Ni-Mo-N Stainless(2205)	S32205	4.5-6.5	22.0-23.0	-	3.0-3.5	0.03	2.0	1.0	0.02	0.03	0.14-0.20	-	7.80
Super Duplex Alloy 2507	Austenitic-Ferritic Cr-Ni-Mo-N Stainless(2507)	S32750	6.0-8.0	24.0-26.0	0.5	3.0-5.0	0.03	1.2	0.8	0.02	0.035	0.24-0.32	-	7.81
Super Duplex Alloy S32760	Austenitic-Ferritic Cr-Ni-Mo-Cu-W Stainless	S32760	6.0-8.0	24.0-26.0	0.5-1.0	3.0-4.0	0.03	1.0	1.0	0.01	0.03	0.20-0.30	W:0.5-1.0 *PREN:40min	7.81
Stainless 6Mo	Austenitic Ni-Cr-Mo-N Stainless	N08367	23.5-25.5	20.0-22.0	0.75	6.0-7.0	0.03	2.0	1.0	0.03	0.04	0.18-0.25	-	8.05
Stainless 6Mo Alloy 254	Austenitic Cr-Ni-Mo-Cu-N Stainless	S31254	17.5-18.5	19.5-20.5	0.5-1.0	6.0-6.5	0.02	1.0	0.8	0.01	0.03	0.18-0.22	-	8.05
Alloy 904L	Ni-Cr-Mo Alloy	N08904	23.0-28.0	19.0-23.0	1.0-2.0	4.0-5.0	0.02	2.0	1.0	0.03	0.04	0.01	-	8.05

1. Chemical Reuirements: Duplex & super Duplex based on ASTM A790,6Mo & 904L based on ASTM A312. It can dier from the cross-referenced specification
2.*PREN: %Cr+3.3x%Mo + 16x%N.



Chemical Composition

Austenitic Stainless Steel		UNS	Chemical Composition, %(Maximum, unless a range or minimum is indicated.)											Density (g/cm³)
			Ni	Cr	Cu	Mo	C	Mn	Si	S	P	N	others	
Grade 304	18%Cr-8%Ni	S30400	8.0-11.0	18.0-20.0	-	-	0.08	2.00	1.00	0.03	0.045	-	-	7.93
Grade 304L	18%Cr-8%Ni-0.035%C	S30403	8.0-13.0	18.0-20.0	-	-	0.035	2.00	1.00	0.03	0.045	-	-	7.93
Grade 316	18%Cr-8%Ni-Mo	S31600	11.0-14.0	16.0-18.0	-	2.00-3.00	0.08	2.00	1.00	0.03	0.045	-	-	7.93
Grade 316L	18%Cr-8%Ni-Mo-0.035%C	S31603	10.0-14.0	16.0-18.0	-	2.00-3.00	0.035	2.00	1.00	0.03	0.045	-	-	7.93
Grade 310S	25%Cr-20%Ni	S31008	19.0-22.0	24.0-26.0	-	0.75	0.08	2.00	1.00	0.03	0.045	-	-	8.00
Grade 321H	18%Cr-8%Ni-Ti-(0.04-0.10)%C	S32109	9.0-12.0	17.0-19.0	-	-	0.04-0.1	2.00	1.00	0.03	0.045	-	Ti:4xC-0.60	8.00
Grade 347H	18%Cr-8%Ni-Cb+Ta-(0.04-0.10)%C	S34709	9.0-13.0	17.0-19.0	-	-	0.01-0.1	2.00	1.00	0.03	0.045	-	Nb:8xC-1.0	8.00

1. Chemical Requirements based on ASTM A312. It can differ from the cross-referenced specification.

1. Chemical Requirements based on ASTM A312. It can differ from the cross-referenced specification.

Copper-Nickel	UNS	Chemical Composition,%(Maximum, unless a range or minimum is indicated.)												Density (g/cm ³)
		Ni(Ind Co)	Cr	Cu(Ind Ag)	Fe	Mo	C	Mn	Si	S	P	N	others	
Copper-Nickel,10%	C70600 UNS 7060X	9.0-11.0	-	*remainder	1.0-1.8	-	-	1.00	-	-	-	-	Zn:1.0 Pb:0.05	8.94
90/10 Copper-Nickel	C70620	9.0-11.0	-	86.5min	1.0-1.8	-	0.05	1.00	-	-	-	-	Zn:0.5 Pb:0.02	8.94
70/30 Copper-Nickel	C71500	29.0-33.0	-	*remainder	04-1.0	-	-	1.00	-	-	-	-	Zn:1.0 Pb:0.05	8.94

1. Chemical Requirements based on ASTM B466. It can differ from the cross-referenced specification.

2. * "remainder" is the difference between the sum of results of all elements determined and 100%.

1. Chemical Requirements based on ASTM B466. It can differ from the cross-referenced specification.
2.* "remainder" is the difference between the sum of results of all elements determined and 100%.

Titanium	UNS	Chemical Composition, %(Maximum, unless a range or minimum is indicated.)												Density (g/cm ³)
		Ni	Cr	Cu	Fe	Mo	C	O	Si	H	PD	N	others	
Titanium Gr2	R50400	-	-	-	0.3	-	0.08	0.25	-	0.015	-	0.03	each:0.1 total:0.4	4.51

1. Chemical Requirements based on ASTM B466. It can differ from the cross-referenced specification.

2. * "remainder" is the difference between the sum of results of all elements determined and 100%.

1. Chemical Requirements based on ASTM B466. It can differ from the cross-referenced specification.
2.* "remainder" is the difference between the sum of results of all elements determined and 100%.

Carbon & Low-Alloy			UNS	Chemical Composition, %(Maximum, unless a range or minimum is indicated.)											Density (g/cm³)
				Ni	Cr	Cu	Mo	C	Mn	Si	S	P	N	others	
LOW Temperature Alloy	A333 Gr.3	3 1/2% Ni	-	3.18-3.82	-	-	-	0.19	0.19	0.18-0.37	0.025	0.025	-	-	7.85
High Temperature Alloy	A335 P5	5%Cr-1/2% Mo	K41545	-	4.0-6.0	-	0.45-0.65	0.15	0.3-0.6	0.5	0.025	0.025	-	-	7.83
	A335 P9	9%Cr-1% Mo	S50400	-	8.0-10.0	-	0.9-1.10	0.15	0.3-0.6	0.25-1.0	0.025	0.025	-	-	7.83
	A335 P11	1 1/2%Cr-1/2% Mo	K11597	-	1.0-1.5	-	0.44-0.65	0.05-0.15	0.3-0.6	0.5-1.0	0.025	0.025	-	-	7.83
	A335 P22	2 1/4%Cr-1%Mo	K21590	-	1.9-2.6	-	0.87-1.13	0.05-0.15	0.3-0.6	0.5	0.025	0.025	-	V:0.18-0.25	7.83
	A335 P91	9%Cr-1%Mo-0.2%V+Cb+N	K91560	0.4	8.0-9.5	-	0.85-1.05	0.08-0.12	0.3-0.6	0.2-0.5	0.01	0.02	0.03-0.07	Al:0.02	7.83
High Yield Strength Steel	API-5L Gr-X52	PSL 1 SMLS	-	-	-	-	-	0.28	1.40	-	0.03	0.03	-	Ti:0.04	7.38
		PSL 1 Welded	-	-	-	-	-	0.26	1.40	-	0.03	0.03	-	Nb+V+Ti:0.15max	
		PSL 2 SMLS	-	-	-	-	-	0.24	1.40	-	0.015	0.025	-	Ti:0.04	
		PSL 2 Welded	-	-	-	-	-	0.22	1.40	-	0.015	0.025	-	Nb+V+Ti:0.15max	
	API-5L Gr-X65	PSL 1 SMLS	-	-	-	-	-	0.28	1.40	-	0.03	0.03	-	Ti:0.04	7.38
		PSL 1 Welded	-	-	-	-	-	0.26	1.45	-	0.03	0.03	-	Nb+V+Ti:0.15max	
PSL 2 SMLS		-	-	-	-	-	0.24	1.40	-	0.015	0.025	-	V:0.18-0.25		
PSL 2 Welded		-	-	-	-	-	0.22	1.45	-	0.015	0.025	-	Al:0.02		

1.Chemical Requirements: Low Temp. Alloy based on ASTM A333, High Temp.Alloy based on A335, High yield steel based on API 5L. It can differ from the cross-referenced specification.

1.Chemical Requirements: Low Temp. Alloy based on ASTM A333, High Temp.Alloy based on A335, High yield steel based on API 5L. It can difer from the cross-referenced specification.

Cross Table For Materials

Nickel & Nickel Alloys	*Trademark	UNS	PIPE		Tube		Bar/Billet	Forging	Flange	Plate	Fitting	
			SMLS	Welded	SMLS	Welded						
Alloy 200	Nickel 200	N02200	B161	B725 B474(EFW)	B161 B163	B730	B160	B564	B564	B162	B366	WPN
Alloy 201	Nickel 201	N02201	B161	B725 B474(EFW)	B161 B163	B730	B160	-	-	B162	B366	WPNL
Alloy 400	*Monel 400	N04400	B165	B725 B474(EFW)	B163	B730	B164	B564	B564	B127	B366	WPNC
Alloy 625	*Inconel 625	N06625	B444	B705 B474(EFW)	B444	B704 B751	B446	B564	B564	B443	B366	WPNCMC
Alloy 800H	*Incoloy 800H	N08810	B407	B514 A358(EFW)	B163 B407	B515	B408	B564	B564	A240 B409	B366	WPNIC10
Alloy 800HT	*Incoloy 800HT	N08811	B407	-	B163 B407	B515	B408	B564	B564	A240 B409	B366	WPNIC11
Alloy 825	*Incoloy 825	N08825	B423	B705 A474(EFW)	B163	B704	B425	B564	B564	B424	B366	WPNICMC
Alloy C-22	*Hastelloy C-276	N10276	B4622	B619	B622	B626	B574	B564	B564	B575	B366	WPHC276
Alloy C-276	*Hastelloy C-22	N06022	B622	B619	B622	B626	B574	B564	B564	B575	B366	WPHC22
Alloy B-2	*Hastelloy B-2	N10665	B622	B619	B622	B626	B335	B564	B564	B333	B366	WPHB-2
Alloy B-3	*Hastelloy B-3	N10675	B622	B619	B622	B626	B335	B564	B564	B333	B366	WPHB-3
Alloy 20	*Carpenter 20Cb-3	N08020	B729	B464 B474(EFW) A358(EFW)	B729	B468	B473	A182 F20 B462	A182 F20 B462	A240 B463	B366	WP20CB

1. * Registered Trademarks of Special Metals Corp.(Monel, Inconel, Incoloy), Haynes International Inc.(Hastelloy), Carpenter Technology (Carpenter).

Special Stainless Steel	Description	UNS	PIPE		Tube		Bar/Billet	Forging	Flange	Plate	Fitting	
			SMLS	Welded	SMLS	Welded						
Duplex	Austenitic-Ferritic Cr-Ni-Mo-N Stainless	S31803	A790	A790 A928(EFW)	A789	A789	A479 A276	-	A182 F51	A240 B480	A815	WPS 31803
Duplex	Austenitic-Ferritic Cr-Ni-Mo-N Stainless(2205)	S32205	A790	A790 A928	A789	A789	A479 A276	-	A182 F60	A240	A815	WPS 32205
Super Duplex	Austenitic-Ferritic Cr-Ni-Mo-N Stainless(2207)	S32750	A790	A790 A928	A789	A789	A479 A276	-	A182 F53	A240	A815	WPS 32750
Super Duplex Alloy S32760	Austenitic-Ferritic Cr-Ni-Mo-Cu-W Stainless	S32760	A790	A790 A928	A789	A789	A479 A276	-	A182 F55	A240	A815	WPS 32760
Stainless 6Mo	Austenitic Ni-Cr-Mo-N Stainless	N08367	A312	A312 A358(EFW) B675	A269	A249 A269 B676	B472	-	B462 B564	A240 A688	A366	WP6XN
Stainless 6Mo Alloy 254	Austenitic Cr-Ni-Mo-Cu-N Stainless	S31254	A312	A312 A358(EFW)	A269	A249 A269 A276	A479 A276	-	A182 F44 A473 F44	A240 A480	A403	WPS 31254
Alloy 904L	Ni-Cr-Mo Alloy	N08904	A312	A312 A358(EFW)	A269	A249 A269 A484	A479 A484	-	A182 F904L	A240 A480	A403	WP 904L

Austenitic Stainless	Steel Composition	UNS	PIPE		Tube		Bar/Billet	Forging	Flange	Plate	Fitting	
			SMLS	Welded	SMLS	Welded						
Grade 304	18%Cr-8%Ni	S30400	A312 TP304	-	A269	A269	-	-	A182 F51	A240-Type 304	A815	WPS 31803
Grade 304L	18%Cr-8%Ni-0.035%C	S30403	A312 TP304L	-	A269	A269	-	-	A182 F60	A240-Type 304L	A815	WPS 32205
Grade 316	18%Cr-8%Ni-Mo	S31600	A312 TP316	-	A269	A269	-	-	A182 F53	A240-Type 316	A815	WPS 32750
Grade 316L	18%Cr-8%Ni-Mo-0.035%C	S31603	A312 TP316L	-	A269	A269	-	-	A182 F55	A240-Type 316L	A815	WPS 32760
Grade 310S	25%Cr-20%Ni	S31008	A312 TP310S	-	-	-	-	-	B462 B564	A240-Type 310S	A366	WP6XN
Grade 321H	18%Cr-8%Ni-Ti-(0.04-0.10)%C	S32109	A312 TP321H	-	-	-	-	-	A182 F44 A473 F44	A240-Type 321H	A403	WPS 31254
Grade 347H	18%Cr-8%Ni-Cb+Ta-(0.04-0.10)%C	S34709	A312 TP347H	-	-	-	-	-	A182 F904L	A240-Type 347H	A403	WP 904L

Copper Nickel		UNS	PIPE		Tube		Bar/Billet	Forging	Flange	Plate	Fitting	
			SMLS	Welded	SMLS	Welded						
Copper-Nickel,10%		C70600 UNS 7060X	B466	B467 B608	B111 B466	B543	B122 B151	-	-	-	B171 B122	-
90/10 Copper-Nickel		C70620	B466	B467 B608	B111 B466	B543	B122 B124 B151	-	-	-	B171 B122	-
70/30 Copper-Nickel		C71500	B466	B467 B608	B111 B466	B543	B122 B151	-	-	-	B171 B122	-

Titanium		UNS	PIPE		Tube		Bar/Billet	Forging	Flange	Plate	Fitting	
			SMLS	Welded	SMLS	Welded						
Titanium Gr2		R50400	B861	B862	B338	B338	B348	-	B381 F2	B265	B363	Wp2

Low-Alloy &High Yield		UNS	PIPE		Tube		Bar/Billet	Forging	Flange	Plate	Fitting	
			SMLS	Welded	SMLS	Welded						
Low Temperature Alloy	3 1/2% Ni	-	A333 Gr.3		-	-	-	-	A350 LF3	A203-D	A420	WP3
High Temperature Alloy	5%Cr-1/2%Mo	K41545	A335 P5	-	-	-	-	-	A182 F5	A387-5	A234	WP5
	9%Cr-1%Mo	S50400	A335 P9	-	-	-	-	-	A182 F9	A387-11	A234	WP9
	1 1/4%Cr-1/2%Mo	K11597	A335 P11	-	-	-	-	-	A182 F11	A387-22	A234	WP11
	2 1/4%Cr-1%Mo	K21590	A335 P22	-	-	-	-	-	A182 F22	A387-91	A234	WP22
High Yield strength steel	Gbade X52	-	API 5L X52		-	-	-	-	A694 F52	API 5L X52	A860 MSS SP-75	WPHY52 WPHY52
	Gbade X65	-	API 5L X65		-	-	-	-	A694 F65	API 5L X65	A860 MSS SP-75	WPHY52 WPHY52

Pipe Schedule&Weight

NPS		DN		OD		JIS	ASME B36.19-2004				ASME B36.10-2004														
in	mm	ANSI	JIS	SGP	S5S	S10S	S40S	S80S	S5	S10	S20	S30	STD	S40	S60	XS	S80	S100	S120	S140	S160	XXS			
1/8	6	0.405	10.3			1.24	1.73	2.41		1.24		1.45	1.73			2.41									
1/4	8	0.540	13.7			1.65	2.24	3.02		1.65		1.85	2.24			3.02									
3/8	10	0.675	17.1			1.65	2.31	3.20		1.65		1.85	2.31			3.20									
1/2	15	0.840	21.3	21.7	2.8	1.65	2.11	2.77	3.73	1.65	2.11	2.41	2.77			3.73					4.78	7.47			
3/4	20	1.050	26.7	27.2	2.8	1.65	2.11	2.87	3.91	1.65	2.11	2.41	2.87			3.91					5.56	7.82			
1	25	1.315	33.4	34	3.2	1.65	2.77	3.38	4.55	1.65	2.77	2.90	3.38			4.55					6.35	9.09			
1.25	32	1.660	42.2	42.7	3.5	1.65	2.77	3.56	4.85	1.65	2.77	2.97	3.56			4.85					6.35	9.70			
1.5	40	1.900	48.3	48.6	3.5	1.65	2.77	3.68	5.08	1.65	2.77	3.18	3.68			5.08					7.14	10.15			
2	50	2.375	60.3	60.5	3.8	1.65	2.77	3.91	5.54	1.65	2.77	3.18	3.91			5.54					8.74	11.07			
2.5	65	2.875	73.0	76.3	4.2	2.11	3.05	5.16	7.01	2.11	3.06	4.78	5.16			7.01					9.53	14.02			
3	80	3.500	88.9	89.1	4.2	2.11	3.05	5.49	7.62	2.11	3.05	4.78	5.49			7.62					11.13	15.24			
3.5	90	4.000	101.6	101.6	4.2	2.11	3.05	5.74	8.08	2.11	3.06	4.78	5.74			8.08									
4	100	4.500	114.3	114.3	4.5	2.11	3.05	6.02	8.52	2.11	3.05	4.78	6.02			8.52			11.13		13.49	17.12			
5	125	5.563	141.3	139.8	4.5	2.77	3.40	6.55	9.53	2.77	3.40	6.55	9.53			9.53			12.70		15.88	19.05			
6	150	6.625	168.3	165.2	5	2.77	3.40	7.11	10.97	2.77	3.40	7.11	10.97			10.97			14.27		18.26	21.95			
8	200	8.625	219.1	216.3	5.8	2.77	3.76	8.18	12.70	2.77	3.76	6.35	7.04	8.18	10.31	12.70	15.09	18.26	20.62	23.01	22.23				
10	250	10.750	273.0	267.4	6.6	3.40	4.19	9.27	12.70	3.40	4.19	6.35	7.80	9.27	12.70	15.09	18.26	21.44	25.40	28.58	25.40				
12	300	12.750	323.8	318.5	6.9	3.96	4.57	9.53	12.70	3.96	4.57	6.35	8.38	9.53	10.31	14.27	17.48	21.44	25.40	28.58	33.32	26.40			
14	350	14.000	355.6		7.9	3.96	4.78	9.53	12.70	3.96	4.78	6.35	9.53	11.13	15.09	12.70	19.05	23.83	27.79	31.75	35.71				
16	400	16.000	406.4		7.9	4.19	4.78	9.53	12.70	4.19	4.78	6.35	9.53	12.70	16.66	12.70	21.44	26.19	30.96	36.53	40.49				
18	450	18.000	457.2		7.9	4.19	4.78	9.53	12.70	4.19	4.78	6.35	9.53	12.70	16.66	12.70	21.44	26.19	30.96	36.53	40.49				
20	500	20.000	508.0		7.9	4.78	5.54	9.53	12.70	4.78	5.54	6.35	9.53	12.70	16.66	12.70	21.44	26.19	30.96	36.53	40.49				
22	550	22.000	558.8		7.9	4.78	5.54	9.53	12.70	4.78	5.54	6.35	9.53	12.70	16.66	12.70	21.44	26.19	30.96	36.53	40.49				
24	600	24.000	609.6		7.9	5.54	6.35	9.53	12.70	5.54	6.35	6.35	9.53	12.70	16.66	12.70	21.44	26.19	30.96	36.53	40.49				
26	650	26.000	660.4		7.9																				
28	700	28.000	711.2		7.9																				
30	750	30.000	762.0		7.9	6.35	7.92		6.35	7.92	12.70	15.88	9.53			12.70									
32	800	32.000	812.8		7.9																				
34	850	34.000	863.6		7.9																				
36	900	36.000	914.4		7.9																				
38	950	38.000	965.2		7.9																				
40	1000	40.000	1016.0		7.9																				
42	1050	42.000	1066.8		7.9																				
44	1100	44.000	1117.6		7.9																				
46	1150	46.000	1168.4		7.9																				
48	1200	48.000	1219.2		7.9																				

NOTE: The values shown in this table are based on weights for carbon steel. (Density=7.85g/cm³) So, for different grades of Stainless steel, permit considerable variations in weight. (Ferritic stainless steel may be about 5% less, and the austenitic stainless steels approx. 2% greater.)

Comparison Of Domestic And International Tolerance

Specification	Size	Outer diameter allowable deviation		Size	Thickness allowable deviation		Size	Length allowable deviation	
		Usually	High						
GBIT 14976-2012	(6,10)	+0.20/-0.20	±0.15	≤3	±12%S	±10%S		L1	0-20
	(10,30)	+0.30/-0.30	±0.20	(1.03)				L2	0-10
	(30,50)	+0.40/-0.40	±0.30					L3	0-5
	D>50-219	±0.85%	±0.75%D	S>3	(+12.5%/-10%) S	±10%S			
	D>219	±0.9%D	±0.8%D						
GB 13296-2013	6-30	+0.15/-0.20		≤38	±20%S				
	(30,50)	+0.30/-0.30		S>3	(+12%-10%)			0-10	
	D=50	(+/-)0.75%			≥22%S				
ASTMA213	D<25.4	+1.10/-0.10							
	(25.4,38.1)	+0.15/-0.15		D≤38.1	+20%/-0		D>50.8	+3/-0	
	(38.1,50.8)	+0.20/-0.20							
	(50.8,63.5)	+0.25/-0.25							
	(63.5,76.2)	+0.30/-0.30							
	(76.2,101.6)	+0.38/-0.38		D>38.1	+22%/-0		D≥50.8	+5/-0	
	(101.6,190.5)	+0.38/-0.64							
ASTMA269	D<12.7				(+/-)15%			+3.2/-0	
	(12.7,38.1)	+0.13/-0.13							
	(38.1,88.9)	+0.25/-0.25							
	(88.9,139.7)	+0.38/-0.38			(+/-)10%			+4.8/-0	
	(139.7,203.2)	+0.76/-0.76							
	203.3-304.8	±1.01							
	203.2-355.6	±1.26							
ASTMA312	(10.29,49.26)	+0.40/-0.80			10.29-73.03				
	(49.26,114.30)	+0.08/-0.80			+20%-12.5%				
	(114.30,219.08)	+1.6/-0.80			88.90-762.00				
	(219.08,457.20)	+2.4/-0.80			t/D≤5% +20%-12.5%				
	(457.20,508.00)	+3.2/-0.80			88.9-762.00				
	(508.00,609.60)	±4.0/-0.80			t/D≤5% +15%-12.5%				
JISG 3459	D<30	+0.30/-0.30		S<2	(+/-)20				
	D≥30	+1%/-1%		S≥2	(+/-)10%				

Comparison Of Domestic
And International Tolerance

Specification	Size	Outer diameter allowable deviation		Size	Thickness allowable deviation		Length	Allowable deviation
		Usually	High		Usually	High		
EN10216-5	D≤219.1	D3 Grade	D4 Grade		D3 Grade	D4 Grade	L≤6000	+15 0
		±0.75D or ±0.30mm Whichever is greater	±0.7D or ±0.10mm Whichever is greater		±10%S or ±0.2mm Whichever is greater	±0.75%S or ±0.15mm Whichever is greater	6000<L≤12000	+10 0
							L>12000	+Protocol 0

Size	Size	Outer diameter allowable deviation	Size	Thickness allowable deviation	Size	Length allowable deviation
Specification						
DIN 17456 DIN 17458	D2	(+-)1.0%(+-)0.5min	T3	(+-)10% 0.2min	D≤40:L 1m D≤40:L(1-2)m D≤40=L(2-3)m D≤40:L(3-4)m D≤40:L(4-8)m	+1/-0
						+2/-0
	D3	(+-)0.75%(+-)0.3min	T4	(+-)7.5% 0.15min		+3/-0
						+4/-0
						+5/-0
	D4	(+-)5%(+-)0.1min	40<D<168	+5/-0		
				L≤6m	+10/-0	
				L>6m	+5/-0	
ASTMA511 TABLE4	D<12.7	+0.13/-0.13		(+-)15%	(+-)10%	+3.2/-0
	(12.7,38.1)					
	(38.1,88.9)					
	(88.9,139.7)					
	(139.7,203.2)					
	(203.2,219.8)					
	(219.8,323.85)					
ASTMA511 TABLE4	D≤76.2	+0.56/-0.58	S≤2.77	(+-)16.5%	+4.76/-0	
			2.77<S≤4.37	(+-)15%		
			4.37<S≤5.16	(+-)14%		
			S>5.16	(+-)12.5%		
	(76.2 139.7)	+0.79/-0.79	S≤2.77	(+-)16.5%		
			2.77<S≤4.37	(+-)15%		
			4.37<S≤5.16	(+-)14%		
			S>5.16	(+-)12.5%		
	(139.7 203.2)	+1.19/-1.19	4.37<S≤5.16	(+-)14%		
			S>5.16	(+-)12.5%		

Stainless Steel Welded Pipe
Production Workshop



Production &Testing Equipment

Name	Quantity	Technical Parameter
Plate Shearing Machine	2	Cutting Thickness 60mm/18M
Edge Milling Machine	2	
Bending Machine	2	Diameter 168-1829 Max thickness 60mm
Plate Bending Machine	3	Max OD 2800MM Max thickness 60mm
Pipe Rolling Machine	2	Max thickness 60mm
Linking Machine	1	
Automatic Welding Machine	9	Max OD 2800MMM
Four Column Hydraulic F	4	Diameter 168-1722
Annealing Furace	2	24M
Pressure Machine	1	
Milling/ Beveling Machine	2	
Hydraulic Testing Machine	1	
Automatic Hydraulic Testing Mac	1	
Flume Type Ultrasonic Testing Machine	1	
Eddy Current Ultrasonic Integrated Machine	3	
Physical and Chemical Test Equipment	full set	
X RAY Test machine and Room	1	

Stainless Steel
Welded Pipe

Product specifications	6mm-2800mmx0.6mm-60mm, maximum length:18000mm. products of special specifications can be produced and supplied upon agreement.
Product material	TP304, TP304L, TP321, TP321H, TP316, TP316L, TP316Ti, TP310S, TP347, TP317L, S31803, 32750, 316L MOD/724L, 904L, S31254(254MA), N08810, N08825, N06600, N06625
Executive standard	GB/T12770-2002 Welded stainless steel tubes for machine structures. GB/T12771-2008 Welded stainless steel pipes for liquid delivery. GB/TT12771-2019 Welded stainless steel pipes for fluid transport. ASTM A312/A312M-2018 Standard Specification for Seamless, Welded and Heavily Cold Worked Austenitic Stainless Steel Pipes. ASTM A358/A358M-2015 Standard Specification for Electric-Fusion-Welded Austenitic Chromium--Nickel Stainless Steel Pipe for High-Temperature Service and General Applications ASTM A789/A789M-05b Standard Specification for Seamless and Welded Ferritic/Austenitic Stainless Steel Tubing for General Service. ASTM A928/A928M-05b Standard Specification for Ferritic/Austenitic (Duplex) Stainless Steel Pipe Electric Fusion Welded with Addition of Filler Metal. ASTM A790/A790M-05a \$tandard Specification for Seamless and Welded Ferritic/Austenitic Stainless Steel Pipe. GB/T 21832.1-2018 Welded austenitic-ferritic (duplex) stainless steel tubesand pipes-Part 1: Tubes for heat exchanger. GB/T 21832.2-2018 Welded austenitic-ferritic (duplex) stainless steel tubesand pipes-Part 2: Pipes for fluid transport.



Stainless Steel Welded Pipe



Stainless steel pipe for industrial application

ASTM A312/A358/A778(B36.19M) Specification Table IIS G3459 Specification Table

Nominal Diameter		Outside diameter	Nominal Wall Thickness		
N.B	NPS		SCH 5S	SCH 10S	SCH 40S
		mm	mm	mm	mm
6	1/8"	10.29	/	1.24	1.73
8	1/4"	13.72	1.24	1.65	2.24
10	3/8"	17.15	1.24	1.65	2.31
15	1/2"	21.34	1.65	2.11	2.77
20	3/4"	26.67	1.65	2.11	2.87
25	1"	33.40	1.65	2.77	3.38
32	1 1/4"	42.16	1.65	2.77	3.56
40	1 1/2"	48.26	1.65	2.77	3.68
50	2"	50.33	1.65	2.77	3.91
65	2 1/2"	73.03	2.11	3.05	5.16
80	3"	88.90	2.11	3.05	5.49
90	3 1/2"	101.60	2.11	3.05	5.74
100	4"	114.30	2.11	3.05	6.02
125	5"	141.30	2.77	3.40	6.55
150	6"	168.28	2.77	3.40	7.11
200	8"	219.08	2.77	3.76	8.18
250	10"	273.05	3.40	4.19	9.27
300	12"	323.85	3.96	4.57	9.53

Nominal Diameter		Outside diameter	Nominal Wall Thickness			
N.B	NPS		SCH 5S	SCH 10S	SCH 20S	SCH 40S
		mm	mm	mm	mm	mm
6	1/8"	10.50	1.00	1.20	1.50	1.70
8	1/4"	13.72	1.20	1.65	2.00	2.20
10	3/8"	17.36	1.20	1.65	2.00	2.30
15	1/2"	21.70	1.65	2.10	2.50	2.80
20	3/4"	27.20	1.65	2.10	2.50	2.90
25	1"	34.00	1.65	2.80	3.00	3.40
32	1 1/4"	42.70	1.65	2.80	3.00	3.60
40	1 1/2"	48.60	1.65	2.80	3.00	3.70
50	2"	60.50	1.65	2.80	3.50	3.90
65	2 1/2"	76.30	2.10	3.00	3.50	5.20
80	3"	89.10	2.10	3.00	4.00	5.50
90	3 1/2"	101.60	2.10	3.00	4.00	5.70
100	4"	114.30	2.10	3.00	4.00	6.00
125	5"	139.80	2.80	3.40	5.00	6.60
150	6"	165.20	2.80	3.40	5.00	7.11
200	8"	216.30	2.80	4.00	6.50	8.20
250	10"	267.40	3.40	4.40	6.50	9.30
300	12"	318.50	4.00	4.50	6.50	10.30

Specification(mm)	Nominal WallThickness																			
Outside diameter	1.20	1.60	2.00	2.30	2.60	2.90	3.20	3.60	4.00	4.50	5.00	5.60	6.30	7.10	8.00	8.80	10.00	11.00	12.50	14.20
13.50	●	●	●																	
17.20	●	●	●																	
21.30	●	●	●	●																
26.90	●	●	●	●	●															
33.70	●	●	●	●	●	●														
42.40	●	●	●	●	●	●	●													
48.30	●	●	●	●	●	●	●	●												
60.30		●	●	●	●	●	●	●	●											
76.10		●	●	●	●	●	●	●	●											
88.90		●	●	●	●	●	●	●	●	●										
101.60			●	●	●	●	●	●	●	●	●									
114.30			●	●	●	●	●	●	●	●	●	●								
139.70			●	●	●	●	●	●	●	●	●	●	●							
168.30			●	●	●	●	●	●	●	●	●	●	●	●						
219.10			●	●	●	●	●	●	●	●	●	●	●	●	●					
273.00					●	●	●	●	●	●	●	●	●	●	●	●				
323.90									●	●	●	●	●	●	●	●	●			
355.60									●	●	●	●	●	●	●	●	●	●		
406.40									●	●	●	●	●	●	●	●	●	●	●	
457.00									●	●	●	●	●	●	●	●	●	●	●	●
508.00									●	●	●	●	●	●	●	●	●	●	●	●
610.00									●	●	●	●	●	●	●	●	●	●	●	●

ASTM A312/A358/A409 Specification Table

800	32"
850	34"
900	36"
1000	40"

JIS G3468 Specification Table

Application: Petrochemical, Papermaking, Energy, Steam, Sewage Engineering.

Large Diameter Industrial Stainless Steel Pipe

Application: Petrochemical, Papermaking, Energy, Steam, Sewage Engineering

Stainless Steel Welded Pipe

Stainless steel tube for boilers, heat exchangers and condensers

ASTM A269 Specification Table

Outside diameter		Thickness(mm)												
inch	mm	0.5	0.6	0.7	0.8	0.9	1.0	1.2	1.5	2.0	2.5	3.0	4.0	5.0
1/2"	9.5	●	●	●	●	●	●	●						
	12	●	●	●	●	●	●	●						
	12.70	●	●	●	●	●	●	●						
	13	●	●	●	●	●	●	●						
5/8"	14	●	●	●	●	●	●	●						
	15.90	●	●	●	●	●	●	●	●					
3/4"	19.1			●	●	●	●	●		●				
7/8"	22.20			●	●	●	●	●	●	●				
1"	25.40				●	●	●	●	●	●		●		
1 1/8"	28.60				●	●	●	●	●	●		●		
1 1/4"	31.80				●	●	●	●	●	●		●	●	
1 1/2"	38.10					●	●	●	●	●	●	●		
2"	40					●	●	●	●	●	●	●		
	45					●	●	●	●	●	●	●		
	50.80					●	●	●	●	●	●	●		
2 1/4"	52					●	●	●	●	●	●	●		
	57.15					●	●	●	●	●	●	●		
	60.30						●	●	●	●	●	●	●	
2 1/2"	63.50						●	●	●	●	●	●	●	
	70						●	●	●	●	●	●	●	
	76.20						●	●	●	●	●	●	●	
3 1/2"	85						●	●	●	●	●	●	●	
	88.90						●	●	●	●	●	●	●	●
	101.60						●	●	●	●	●	●	●	●
4 1/8"	104.78						●	●	●	●	●	●	●	●
4 1/4"	107.95						●	●	●	●	●	●	●	●
4 1/2"	114.30							●	●	●	●	●	●	●
5 1/4"	133.35								●	●	●	●	●	●
6 1/4"	158.75									●	●	●	●	●
8 5/8"	219.08										●	●	●	●

ASTMA249 Specification Table

Outside diameter		Thickness(mm)												
inch	mm	0.5	0.6	0.7	0.8	0.9	1.0	1.2	1.5	2.0	2.5	3.0	4.0	5.0
	9.5													
	12													
1/2"	12.70													
	13													
	14													
5/8"	15.90			●	●	●	●	●	●					
3/4"	19.1			●	●	●	●	●		●				
7/8"	22.20			●	●	●	●	●	●	●				
1"	25.40				●	●	●	●	●	●				
1 1/8"	28.60				●	●	●	●	●	●				
1 1/4"	31.80				●	●	●	●	●	●				
1 1/2"	38.10					●	●	●	●	●				
	40					●	●	●	●	●				
	45					●	●	●	●	●				
2"	50.80					●	●	●	●	●				
	52					●	●	●	●	●				
2 1/4"	57.15						●	●	●	●				
2 3/8"	60.30						●	●	●	●				
2 1/2"	63.50						●	●	●	●				
	70						●	●	●	●				
3"	76.20						●	●	●	●				
	85							●	●	●				
3 1/2"	88.90								●	●				
4"	101.60								●	●				
4 1/8"	104.78								●	●	●	●	●	
4 1/4"	107.95								●	●	●	●	●	
4 1/2"	114.30								●	●	●	●	●	
5 1/4"	133.35										●	●	●	
6 1/4"	158.75													
8 5/8"	219.08													

Application: High-Pressure and Ultra-High-Pressure Power Station Boilers, Superheating Steam Tube, Boiling Water Pipe & Superheating Tube for Locomotive Boilers.

Dimensional tolerance table

ASTMA269

Outside diameter	Thickness(mm)	Length(mm)
<38.1	±0.13	
≥38.1-88.9	±0.25	OD<38.7 ±3.2-0
≥88.9-139.7	±0.38	
≥139.7-203.2	±0.76	
≥203.2-304.8	±1.01	OD≥38.7 ±4.8-0
≥304.8-355.6	±1.26	

ASTMA249

Outside diameter	Thickness(mm)	Length(mm)
<25.4	±0.13	
≥25.4-38.1	±0.25	
≥38.1-50.8	±0.38	OD<50.8 ±3.0-0
≥50.8-63.5	±0.76	
≥63.5-76.2	±1.01	
≥76.2-101.6	±1.26	OD≥50.8 ±5.0-0
≥101.6-190.5	±0.38-0.64	
≥190.5-228.6	±0.38-1.14	



Ba Tubing And Coiled Tubing



- Sanitary tubing
- Pharmaceutical & BPE tubing
- Semiconductor Tubing

UHP Tube				
Alloy				
Specification	Grade	OD	WT	L
ASTM A 269 ASTM A 269 ASTM A 270	3004 304L 3016 3016L	1.0"-6.0"	0.065"-0.120"	1"-20"
EN 10217-7	1.4404	1.0"-6.0"	0.065"-0.120"	1"-20"

Standard Specification

Inch Size	OD	WT		Tolerance			Roughness Average			
		T1	T2	OD	WT	L	AP Grade	BA Grade	MP Grade	EP Grade
1"	25.4	0.065	1.65	-.006"/+.004"	+/-7%	-0/+1.18"				
1 1/4"	31.8	0.065	1.65	-.006"/+.002"	+/-7%	-0/+1.18"				
1 1/2"	38.1	0.065	1.65	-.006"/+.002"	+/-7%	-0/+1.18"				
2"	50.8	0.065	1.65	-.008"/+.002"	+/-7%	-0/+1.18"				
2 1/2"	63.5	0.065	1.65	-.008"/+.002"	+/-7%	-0/+1.18"	40Ra	40Ra	20Ra	15Ra
3"	76.2	0.065	1.65	-.010"/+.002"	+/-7%	-0/+1.18"				
4"	101.6	0.083	2.11	-.015"/+.003"	+/-7%	-0/+1.18"				
6"	152.4	0.109	2.77	-.030"/+.030"	+/-7%	-0/+1.18"				

Inch Size	OD	WT		Tolerance			Roughness Average			
		T1	T2	OD	WT	L	AP Grade	BA Grade	MP Grade	EP Grade
15A	21.7	1.2	1.65		+/-7%	-0/+1.18"				
20A	27.2	1.2	1.65	+/-1.0%	+/-7%	-0/+1.18"				
25A	34.0	1.65	2.11	+/-1.0%	+/-7%	-0/+1.18"				
32A	42.7	1.65	2.11	+/-1.0%	+/-7%	-0/+1.18"				
40A	48.6	1.65	2.8	+/-1.0%	+/-7%	-0/+1.18"	40Ra	40Ra	20Ra	15Ra
50A	60.5	1.65	2.8	+/-1.0%	+/-7%	-0/+1.18"				
65A	76.3	2.1	3	+/-1.0%	+/-7%	-0/+1.18"				
80A	89.1	2.1	3	+/-1.0%	+/-7%	-0/+1.18"				
100A	114.3	2.1	3	+/-1.0%	+/-7%	-0/+1.18"				

Ba Tubing
And Coiled Tubing



Physical Characteristic						
Material	Standard	Yield Strength (N/mm ²)	Tensile Strength (N/mm ²)	Hardness (HRB)	Elongation (%)	
304	ASTM	min205	min515	145-188	min 35	
	JIS	min205	min520			
316L	ASTM	min170	min485	150-187		
		min175	min480			

Industrial
Pipe Fittings

SIZE	{Seamless}1/2"-24"(DN15-DN600);{Welded}1/2"-48"(DN15-DN1200)
Standard	GB/T12459,GB/T13401,SH3408,SH3409,EN10253-4, ASME B16.9,MSS SP-43,DIN 2605,JIS B2313 GOST17378-2001,GOST17379-2001,GOST 17375-2006,GOST 17376-2018
Thickness	SCH5S-XXS
Grade	304/L/H,316/L/Ti/H,317L,310/S,347/H,321/H, 904/L,S32750/SAF2507,S32205/SAF2205,S31803,S32760 SMO254,N04400,N06600,N06625,N08020,N08800,N08810,N08825,N10276



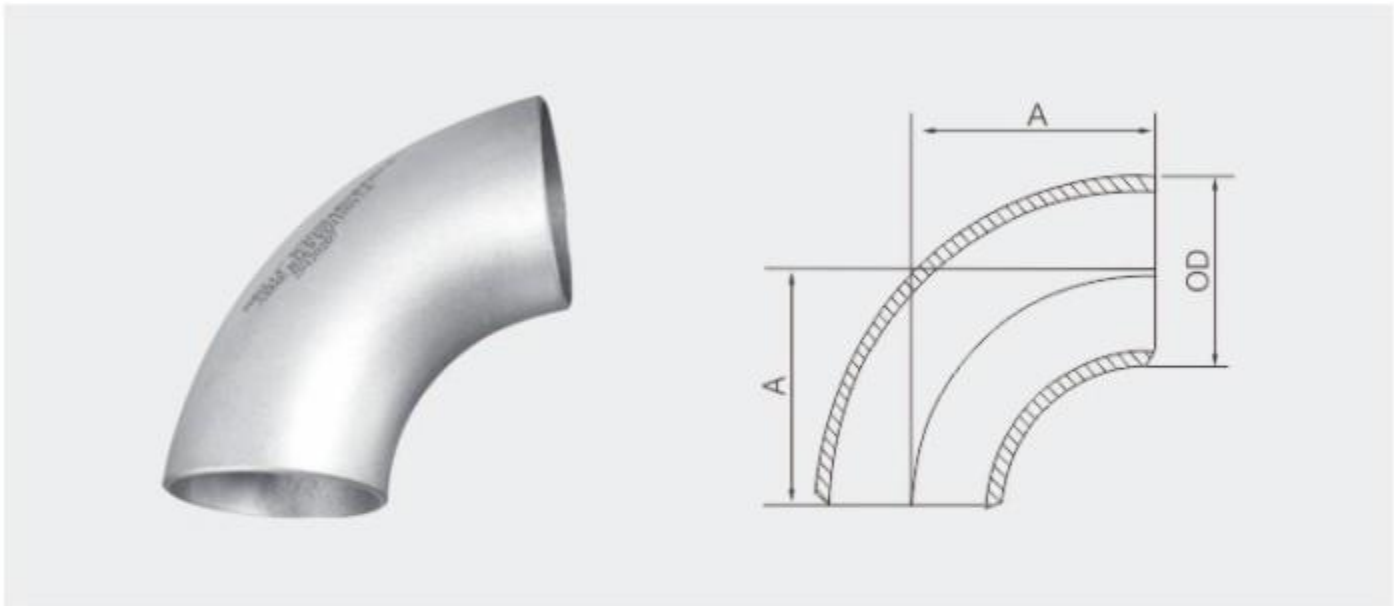
Butt Welding Pipe Fitting



Elbow (90°.45°.180°)



Manufacture Standard
ASME/ANSI B16.9, B16.28
DIN2605
GB12459(Seamless)
GB/T13401(Welded)
SH3408 HG21635(Seamless)
SH3409 HG23631(Welded)



Type	Straight Radius(1.0D、1.5D、3D、5D、8D、10D...) Non-standard with straight edn.
Raw Material	Seamless pipe, Welded pipe, Steel sheet, Forging (High pressure)
Manufacture Process	Extrusion moulding, Pressing, Cold-Working, Machining, Hot-bending, Welded, Heat treatment

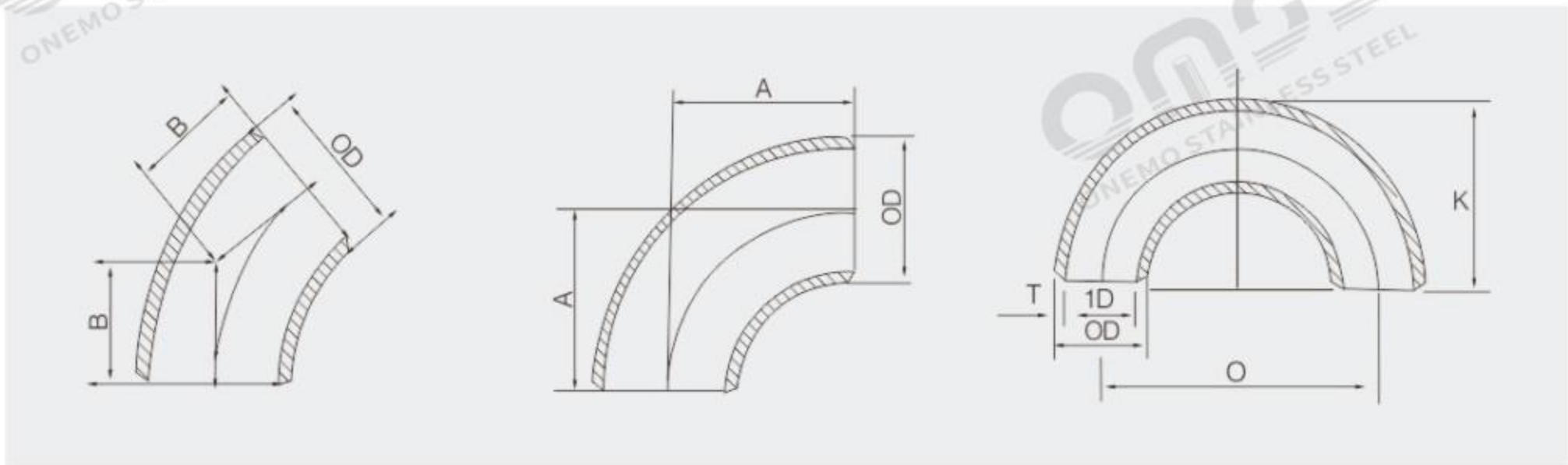
Long Radius 90° Elbow 1.5D

Nominal Diameter		Dimension					Schedule/TheoreticWeight(kg)					
NPS	DN	A	B	O	K		5S	10S	STD	SCH40	XS	SCH80
1/2	15	38	16	76	48		0.05	0.06	0.08	0.08	0.1	0.1
3/4	20	38	16	76	51		0.06	0.08	0.11	0.08	0.1	0.1
1	25	38	16	76	56		0.08	0.13	0.15	0.15	0.19	0.19
1 1/4	32	48	20	95	70		0.13	0.21	0.25	0.25	0.33	0.33
1 1/2	40	57	24	114	83		0.17	0.28	0.36	0.36	0.49	0.49
2	50	76	32	152	106		0.29	0.47	0.65	0.65	0.9	0.9
2 1/2	65	95	40	191	132		0.57	0.83	1.36	1.29	1.71	1.71
3	80	114	47	229	159		0.8	1.17	2.03	2.03	2.74	2.74
3 1/2	90	133	55	267	184		1.08	1.57	2.74	2.74	3.82	3.82
4	100	152	63	305	210		1.39	2.03	3.85	3.85	5.34	5.34
5	125	190	79	381	262		2.82	3.45	6.51	6.51	9.27	9.27
6	150	229	95	457	313		3.85	4.69	10.1	10.1	15.3	15.3
8	200	305	126	610	414		7.15	9.65	20.4	20.4	30.9	30.9
10	250	381	158	763	518		13.7	16.7	36.1	36.1	48.8	57.3
12	300	457	189	914	619		22.6	26	53.1	57.8	70	94.7
14	350	533	221	1067	711		29	34.7	68.1	79.2	90	132
16	400	610	253	1219	813		39.9	45.5	89.3	118	118	195

Nominal Diameter		Dimension					Schedule/TheoreticWeight(kg)					
NPS	DN	A	B	O	K		5S	10S	STD	SCH40	XS	SCH80
18	450	686	284	1372	914		50.5	57.7	113	168	150	274
20	500	762	316	1524	1016		71.3	81.5	140	219	186	372
22	550	838	347	1676	1118		86.3	98.8	170		225	492
24	600	914	379	1829	1219		118	137	202	366	269	634
26	650	991	410						238		316	
28	700	1067	442						276		367	
30	750	1143	473				216	264	318		421	
32	800	1219	505						362	656	480	
34	850	1295	537						408	742	542	
36	900	1372	568						458	906	608	
38	950	1448	600						509		678	
40	1000	1524	631						564		752	
42	1050	1600	663						622		829	
44	1100	1676	694						683		910	
46	1150	1753	726						747		995	
48	1200	1829	758						813		1084	

Note:
1. The listed weight is only for C.S. Fitting. Times 1.015 for 304 S.S. And 1.020 for 316s.s.
2. The listed theoretic weight is only for 90° elbow the weight of 45° elbow is half of it, And double if for 180° elbow

Elbow (90°.45°.180°)



45°,90°, 180°Elbow(1.0D)

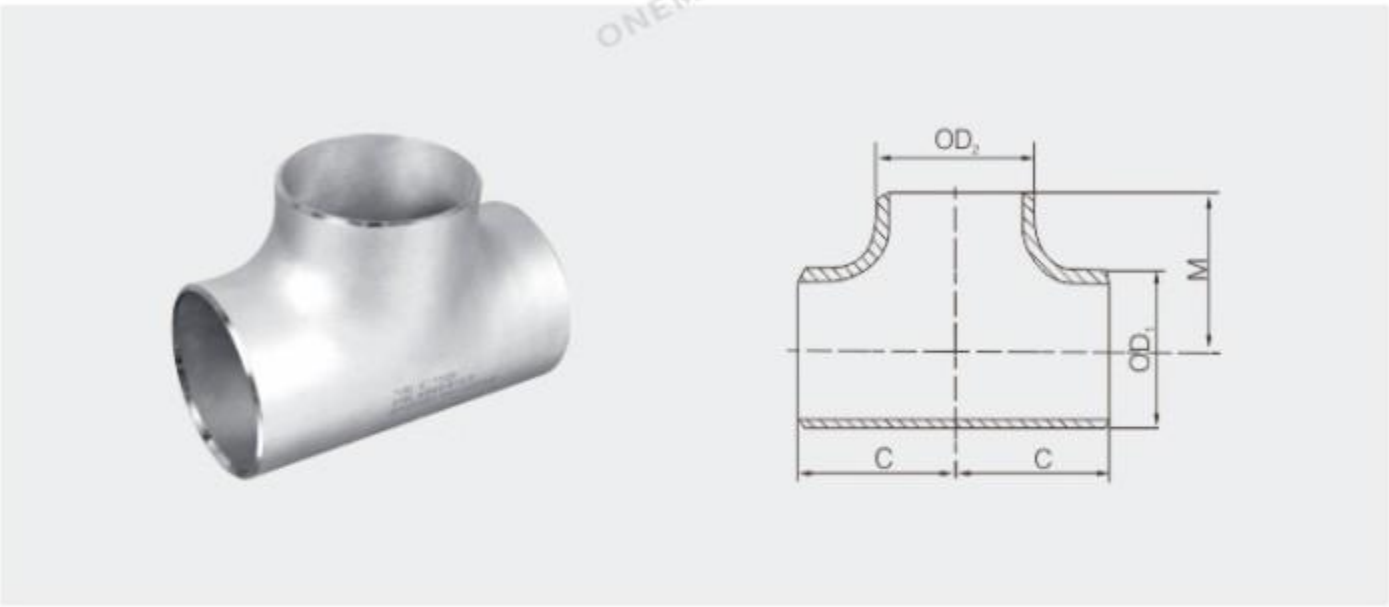
Nominal Diameter		Dimension(mm)				
NPS	DN	OD	A	O	K	B
1	25	33	25	51	41	10
1 1/4	32	42	32	64	52	13
1 1/2	40	48	38	76	62	16
2	50	60	51	102	81	21
2 1/2	65	73	64	127	100	26
3	80	89	76	152	121	32
3 1/2	90	102	89	178	140	-
4	100	114	102	203	159	42
5	125	141	127	254	197	53
6	150	168	152	305	237	63
8	200	219	203	406	313	84
10	250	273	254	508	391	105
12	300	324	305	610	467	126
14	350	356	356	711	533	148
16	400	406	406	813	610	168
18	450	457	457	914	686	189
20	500	508	508	1016	762	210
22	550	559	559	1118	838	-
24	600	610	610	1219	914	253

Large Bend Radius 90° Elbow(2.5D/5D/10D)

Nominal Diameter		Dimension(mm)			
NPS	DN	OD	A(2.5D)	A(5D)	A(10D)
1	15	21.3	42.5	-	-
3/4	20	26.9	57.5	-	-
1	25	33.7	72.5	-	-
1 1/4	32	42.4	92.5	-	-
1 1/2	40	48.3	107.5	-	-
2	50	60.3	135	254	508
2 1/2	65	76.1	175	318	635
3	80	88.9	205	381	763
4	100	114.3	270	508	1016
5	125	139.7	330	635	1270
6	150	168.3	390	762	1524
8	200	219.1	510	1016	2032
10	250	273	650	1270	2540
12	300	323.9	772	1524	3048
14	350	355.6	850	1778	3556
16	400	406.4	970	2032	4064
18	450	457	1122	2286	4572
20	500	508	1245	2540	5080
24	600	610	1525	3050	6100
28	700	711	1778	3555	7110
32	800	813	2033	4065	8130
36	900	914	2285	4570	9140
40	1000	1016	2540	5080	10160
48	1200	1220	3050	6100	12200
56	1400	1420	3550	7100	14200
64	1600	1620	4050	8100	16200

Tee (Equal/Reducing)

Manufacture Standard
ASME/ANSI B16.9
DIN2615
GB12459(Seamless)
GB/T13401(Welded)
SH3408(Seamless)
SH3409(Welded)



Type	Equal, Reducing
Raw Material	Seamless pipe, Welded pipe, Steel sheet, Forging (High pressure)
Manufacture Process	Extrusion moulding, Hot Pressing, Cold-Machining, Hot-machining, Welded, Heat treatment

Equal Tee

Nominal Diameter		Center to end	Schedule/TheoreticWeight(kg)					
DN	DPS	CIM	5S	108	STD	SCH40	XS	SCH80
15	1/2	25	0.05	0.07	0.16	0.16	0.2	0.2
20	3/4	29	0.08	0.1	0.2	0.2	0.27	0.27
25	1	38	0.13	0.21	0.29	0.29	0.35	0.35
32	1 1/4	48	0.21	0.34	0.53	0.53	0.65	0.65
40	1 1/2	57	0.28	0.47	0.77	0.77	0.96	0.96
50	2	64	0.4	0.64	1.29	1.29	1.87	1.87
65	2 1/2	76	0.74	1.03	2.68	2.68	3.08	3.18
80	3	86	0.96	1.35	3.82	3.82	4.5	4.5
90	3 1/2	95	1.22	1.71				
100	4	105	1.49	2.12	6	6	8.44	8.44
125	5	124	2.85	3.45	9.93	9.93	12.9	12.9
150	6	143	3.88	4.7	16.5	16.5	19.3	19.3
200	8	178	6.27	8.91	27.7	27.7	34.5	34.5
250	10	216	11.4	13.4	41.3	41.3	58.5	67.5
300	12	254	18.7	21	66.7	70.5	84.8	115
350	14	279	25.7	31.7	102	105	108.9	162.3
400	16	305	31.4	36.1	110	129.8	167	195

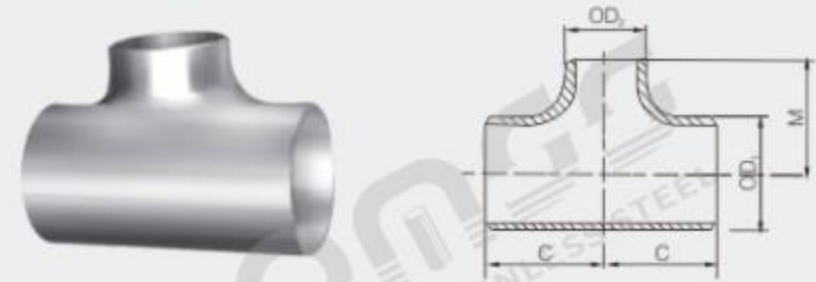
Nominal Diameter		Center to end	Schedule/TheoreticWeight(kg)					
DN	DPS	C/M	5S	108	STD	SCH40	XS	SCH80
450	18	343	39.8	45.5	108	136	120.5	226
500	20	381	56.3	65.3	112.4	178	149.4	308
550	22	419	73.5	85.2	146.6		195.5	440
600	24	432	93.7	107	161.4	296	215	524
650	26	495			176		235	
700	28	521			198		264	
750	30	559	176	200	228		304	
800	32	597			260		346	
850	34	635			295		392	
900	36	673			331		441	
950	38	711			370		492	
1000	40	749			411		547	
1050	42	762			422		562	
1100	44	813			479		637	
1150	46	851			520		694	
1200	48	889			568		758	

Note: The weight is for extrusion moulding tee with inner bevel from NPS 1/2-16 STD-SCH80.

Tee (Equal/Reducing)

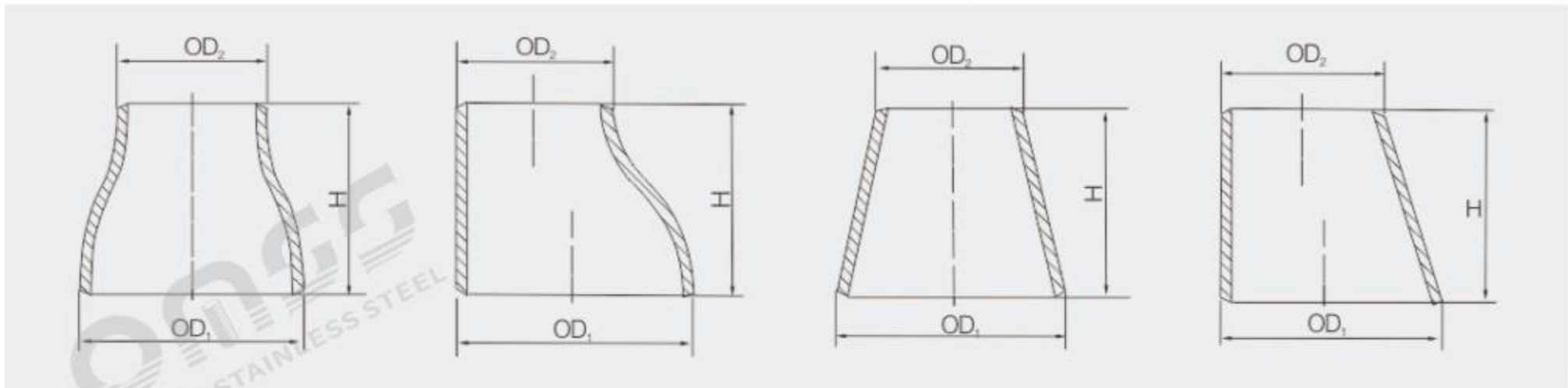
Reducing Tee

Nominal Diameter		C	M	Schedule/Theoretic weight(kg)					
DN	DPS			5S	10S	STD	SCH40	XS	SCH80
50x25	2x1	64	51	0.4	0.84	0.94	0.94	1.34	1.34
80x50	3x2	86	76	1.07	1.55	2.79	2.79	3.85	3.85
100x50	4x2	105	89	1.57	2.29	4.41	4.41	6.12	6.12
100x80	4x3		98	1.61	2.33	4.6	4.6	6.52	6.52
125x100	5x4	124	117	3.15	3.9	7.52	7.52	10.8	10.8
150x80	6x4	143	124	3.93	4.82	10	10	15.3	15.3
150x100	6x4		130	3.95	4.87	10.2	10.2	15.6	15.6
150x125	6x5		137	4.13	5.08	10.6	10.6	16.3	16.3
200x100	8x4	178	156	6.84	9.39	20.2	20.2	31.3	31.3
200x125	8x5		162	7.03	9.55	20.7	20.7	32.2	32.2
200x150	8x6		168	7.17	9.74	21.1	21.1	32.8	32.8
250x100	10x4	216	184	11.7	14.4	32.2	32.2	43.8	52.1
250x125	10x5		191	11.9	14.6	32.7	32.7	44.5	52.9
250x150	10x6		194	12.1	15	33.4	33.4	45.4	54
250x200	10x8		203	13.3	16.4	36.4	36.4	49.8	59.2
300x125	12x5	254	216	19.1	22.1	46.4	50.2	61.4	84.6
300x150	12x6		219	19.5	22.7	47.1	51	62.8	86.4
300x200	12x8		229	20	23.1	48.2	52.2	64.2	88.4
300x250	12x10		241	20.3	23.4	49	53.1	65.5	90.2
350x150	14x6	279.4	238.1	22.3	27.1	55.5	64.8	73.3	110
350x200	14x8		247.7	23.1	27.9	55.8	65.2	74	111
350x250	14x10		257.2	23.7	28.6	57.1	66.7	76	114
350x300	14x12		269.9	24.2	29.2	58.4	68.2	77.3	116
400x150	16x6	304.8	263.5	27.7	31.8	58.4	85.8	77.5	155
400x200	16x8		273.1	28.1	32.3	59.6	86.8	79.5	157
400x250	16x10		282.6	28.7	33	61.4	88.7	81.3	161
400x300	16x12		295.8	28.2	34.4	63.4	90.8	83.8	168
400x350	16x14		304.8	30.4	34.9	64.9	93.4	85.9	170
450x250	18x10	342.9	308	37.3	42.6	76.7	127	102	212
450x300	18x12		320.7	37.3	42.6	78.7	127	104	212
450x350	18x14		330.2	38.3	43.8	80.2	130	106	218
450x400	18x16		330.2	39	44.5	81.5	133	108	222
500x300	20x12	381	346.1	52.8	61.2	95.9	167	127	289
500x350	20x14		355.6	53.7	62.3	97.4	170	129	294
500x400	20x16		355.6	54.7	63.4	98.7	173	131	299
500x450	20x18		368.3	55.4	64.2	101	175	134	303
550x300	22x12	419.1	371.5	64	74.2	115		152	382
550x350	22x14		381	65.5	75.9	116		154	391
550x400	22x16		381	66.2	76.7	117		156	395
550x450	22x18		393.7	67.7	78.5	120		159	404
550x500	22x20		406.4	70.7	81.9	123		163	422
600x350	24x14	431.8	406.4	81.7	93.5	130	257	172	456
600x400	24x16		406.4	83.2	95.7	131	263	174	466
600x450	24x18		419.1	84.5	96.9	134	266	177	473
600x500	24x20		431.8	86.4	99.4	137	272	181	482
600x550	24x22		431.8	90.1	103	138		183	503
650x400	26x16	495.3	431.8			160		213	
650x450	26x18		444.5			163		217	
650x500	26x20		457.5			166		221	
650x550	26x22		469			169		225	
650x600	26x24		482.6			172		230	
700x450	28x18	520.9	469.9			183		244	
700x500	28x20		482.6			186		248	
700x550	28x22		495.3			189		252	
700x600	28x24		508			193		257	
700x650	28x26		520.7			196		262	
750x500	30x20	558.8	508	153	174	212		283	



Nominal Diameter		C	M	Schedule/Theoretic weight(kg)					
DN	DPS			5S	10S	STD	SCH40	XS	SCH80
750x550	30x22			520.7	157	195	215		287
750x600	30x24			533.4	158	197	219		292
750x650	30x26			546.1			222		297
750x700	30x28			546.1			224		299
800x550	32x22	596.9	546.1				242		322
800x600	32x24			558.8			246	475	327
800x650	32x26			571.5			249		332
800x700	32x28			571.5			251		334
800x750	32x30			584.2			255		340
850x600	34x24	635	584.2				276	545	347
850x650	34x26			596.9			279		372
850x700	34x28			596.9			281		374
850x750	34x30			609.4			285		380
850x800	34x32			522.3			290	601	386
900x650	36x26	673.1	622.3				310	667	414
900x700	36x28			622.3			312		416
900x750	36x30			635			316		422
900x800	36x32			647.7			321	690	428
900x850	36x34			660.4			326	736	434
950x900	38x28	711.2	647.7				346		460
950x750	38x30			673.1			353		469
950x800	38x32			685.8			357		475
950x850	38x34			698.5			362		481
950x900	38x36			711.2			368		492
1000x750	40x30			698.5			388		516
1000x800	40x32	749.3	711.2				392		522
1000x850	40x40			723.9			397		528
1000x900	40x36			736.6			403		536
1000x950	40x38			749.3			408		543
1050x800	42x32	762	711.2				411		548
1050x850	42x34			711.2			414		550
1060x900	42x36			711.2			416		553
1050x950	42x38			711.2			418		556
1050x1000	42x40			711.2			420		559
1100x850	44x34	812.8	723.9				456		606
1100x900	44x36			723.9			458		609
1100x950	44x38			736.6			463		615
1100x1000	44x40			749.3			468		622
1100x1050	44x42			762			473		629
1150x900	46x36	850.9	762				499		666
1150x950	46x38			762			501		669
1150x1000	46x40			774.7			506		676
1150x1050	46x42			787.4			511		683
1150x1100	46x44			800.1			517		691
1200x950	48x38	889	812.8				549		733
1200x1000	48x40			812.8			551		736
1200x1050	48x42			812.8			553		739
1200x1100	48x44			838.2			562		751
1200x1150	48x46			838.2			565		755

Reducer



Manufacture Standard
ASME/ANSI B16.9
DIN2616GB12459(Seamless)
GB/T13401(Welded)
SH3408(Seamless)
SH3409(Welded)

Type	Concentric, Eccentric, with hem, without hem
Raw Material	Seamless pipe, Welded pipe, Steel sheet
Manufacture Process	Pressing(Cold Working, Hot Working), Machining, Welded, Heat treatment

Reducer

Nominal Diameter		Length	Schedule/TheoreticWeight(kg)					
DN	NPS		5S	10S	STD	SCH40	XS	SCH80
50x25	2x1							
x32	x1 1/4	76	0.17	0.27	0.41	0.41	0.56	0.56
x40	x1 1/2							
65x32	2 1/2x1 1/4							
x40	x1 1/2	89	0.3	0.43	0.77	0.77	1.01	1.01
x50	x2							
80x40	3X1 1/2							
x50	x2	89	0.37	0.53	1	1	1.36	1.36
x65	x2 1/2							
100x50	4x2							
x65	x2 1/2	102	0.57	0.82	1.63	1.63	2.27	2.27
x80	x3							
125x65	5x2 1/2							
x80	x3	127	1.11	1.35	2.77	2.77	3.92	3.92
x100	x4							
150x80	6x3							
x100	x4	140	1.48	1.81	3.95	3.95	5.94	5.94
x125	x5							
200x100	8x4							
x125	x5	152	2.04	2.75	6.49	6.49	9.84	9.84
x150	x6							

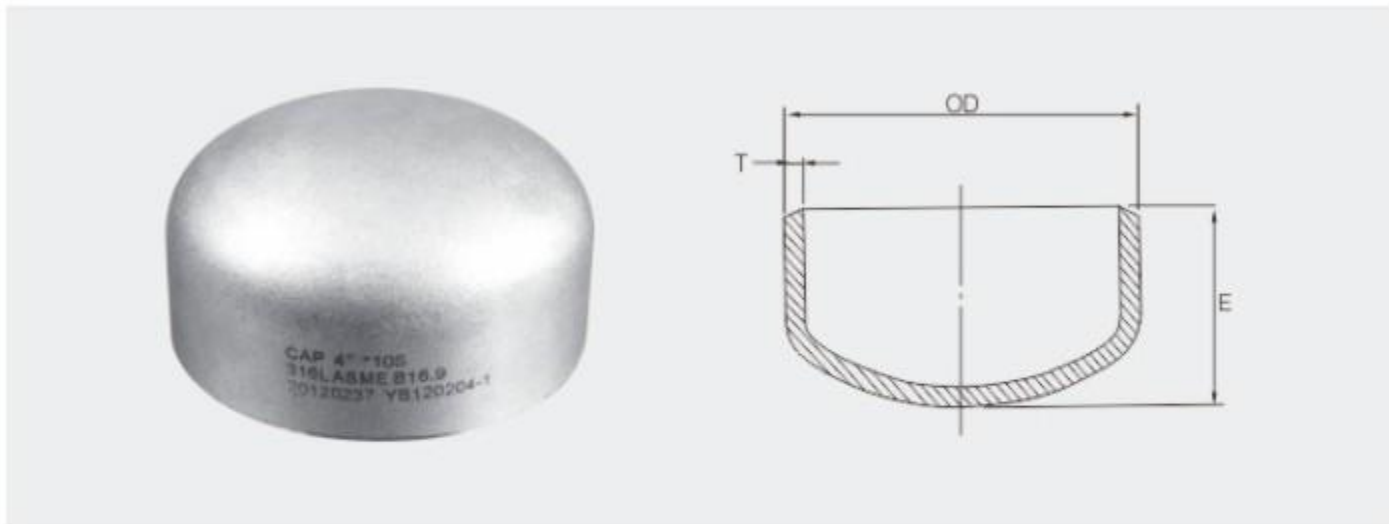
Nominal Diameter		Length	Schedule/TheoreticWeight(kg)					
DN	NPS		5S	10S	STD	SCH40	XS	SCH80
250X125	10x5							
X150	x6	178	3.43	4.21	10.7	10.7	14.5	16.3
x200	x8							
300X150	12x6							
x200	x8	203	5.97	6.88	15	16.2	19.8	27.3
x250	x10							
350X200	14x8							
x250	x10	330	11	13.2	26.8	29.5	35.5	49.2
x300	x12							
400x200	16x8							
x250	x10	356	14.1	16.1	33.1	41	44	67.5
x300	x12							
x350	x14							
450X250	18x10							
x300	x12	381	17.1	19.5	39.9	50	56	91.2
x350	x14							
x400	x16							

Reducing Tee

Nominal Diameter		Length		Schedule/TheoreticWeight(kg)						
DN	DPS	H	SS	10S	7.9	STD 9.53	XS 12.7	SCH40	SCH80	
500x250	20x10		24	27.8	37.6	45	59.7	70.5	119	
x300	x12	508	25.4	29.4	40.1	48	63.7	75.3	127	
x350	x14		26.3	30.4	42	50.3	66.7	81.7	133	
x400	x16		27.7	32	44.5	53.3	70.7	83.6	141	
x450	x18		29.1	33.7	47	56.3	74.5	88.4	150	
550x300	22x12		26.8	31.7	42.6	51.1	67.8	85	147	
x350	x14	508	28.1	32.9	44.5	53.3	70.7	89	154	
x400	x16		29.4	34	47	56.3	74.8	94	163	
x450	x18		30.8	35	49.5	59.3	78.8	99	172	
x500	x20		32.1	37.3	52	62.4	82.8	104	181	
600x300	24x12		33.1	37.7	45.1	54.1	71.8	97.4	168	
x350	x14	508	34.6	39.5	47	56.3	74.7	101	175	
x400	x16		36.1	41.3	49.5	59.3	78.8	107	185	
x450	x18		37.6	43.1	52	62.4	82.8	112	195	
x500	x20		39.2	44.9	54	65.4	86.7	118	205	
x550	x22		40.9	46.8	57	68.4	90.9	125	215	
650x350	26x14				59.4	71.2	94.6			
x400	x16	610			62.4	74.8	99.4			
x450	x18				65.4	78.5	104			
x500	x20				68.4	82.1	109			
x550	x22				71.5	85.7	114			
x600	x24				74.5	89.3	119			
700x350	28x14				62.4	74.8	99.4			
x400	x16	610			65.4	78.4	104			
x450	x18		56.4	71.9	68.4	82.1	109			
x500	x20		58.9	74.6	71.5	85.7	114			
x550	x22		61.4	77.3	74.5	89.3	119			
x600	x24		63.9	80	77.5	93	124			
x650	x26		66.4	82.7	80.5	96.6	129			
750x400	30x16				68.4	82.9	109			
x450	x18	610			71.4	85.7	116			
x500	x20				74.5	89.3	119			
x550	x22				77.5	93	124			
x600	x24				80.5	96.6	129			
x700	x26				83.5	100	133			
x700	x28				83.5	104	138			
800x400	32x16				72.4	87	116			
x450	x18	610			74.5	89.3	119			
x500	x20				77.5	92.9	124			
x550	x22				80.5	96.6	126			
x600	x24				83.5	100	133			
x650	x26				86.5	104	138			
x700	x28				89.6	107	143			
x750	x30				92	111	148			
850x450	34x18				77.4	93	124			
x500	x20	610			80.5	96.3	129			
x550	x22				83.5	100	133			
x600	x24				86.5	104	138			
x650	x26				89.6	107	143			
x700	x28				92.6	111	148			
x750	x30				95.6	115	153			
x800	x32				98.6	118	156			
900x450	36x18				80.5	96.6	129			
x500	x20	610			83.5	100	133			
x550	x22				86.5	104	138			
x600	x24				89.6	107	143			
x650	x26				92.6	111	148			
x700	x28				95.6	115	153			
x750	x30				98.6	118	158			
x800	x32				102	122	163			
x850	x34				105	126	167			

Nominal Diameter		Length		Schedule/TheoreticWeight(kg)						
DN	DPS	H	SS	10S	7.9	STD 9.53	XS 12.7	SCH40	SCH80	
950x500	38x20				87.5	105	140			
x550	x22				89.6	107	144			
x600	x24				92.6	111	147			
x650	x26				95.6	115	153			
x700	x28	610			98.5	118	158			
x750	x30				102	122	162			
x800	x32				105	126	167			
x850	x34				108	127	172			
x900	x36				111	133	177			
1000x500	40x20				89.6	107	143			
x600	x24				95.6	115	153			
x650	x26				98.6	118	158			
x700	x28				102	122	162			
x750	x30	610			105	126	167			
x800	x32				108	129	172			
x850	x34				111	133	177			
x900	x36				114	136	182			
x950	x38				117	140	187			
1050x550	42x22				95.6	115	153			
x600	x24				98.6	118	158			
x650	x26				102	122	162			
x700	x28				105	126	167			
x750	x30				108	129	172			
x800	x32	610			111	133	177			
x850	x34				114	136	182			
x900	x36				117	140	187			
x950	x38				120	144	192			
x1000	x40				123	147	196			
1100x550	44x22				98.6	118	158			
x600	x24				102	122	162			
x650	x26				105	126	167			
x700	x28				108	129	172			
x750	x30				111	133	177			
x800	x32	610			114	136	182			
x850	x34				117	140	187			
x900	x36				120	144	192			
x950	x38				123	147	196			
x1000	x40				126	151	201			
x1050	x42				129	155	206			
1150x600	46x24				105	147	195			
x650	x26				126	151	201			
x700	x28				129	155	206			
x750	x30				133	159	212			
x800	x32				136	163	218			
x850	x34	711			140	168	223			
x900	x36				143	172	229			
x950	x38				147	176	235			
x1000	x40				150	180	240			
x1050	x42				154	185	246			
x1100	x44				157	187	252			
1200x600	48x24				126	151	201			
x650	x26				129	155	206			
x700	x28				133	159	212			
x750	x30				136	163	218			
x800	x32				140	168	223			
x850	x34	711			143	172	229			
x900	x36				147	176	235			
x950	x38				150	180	240			
x1000	x40				154	185	246			
1050	x42				157	189	252			
x1100	x44				161	193	257			
x1150	x46				164	197	263			

Manufacture Standard
ASME/ANSI B16.9
GB12459(Seamless)
GB/T13401(Welded)
SH3408(Seamless)
SH3409(Welded)



Type	Oval, Butterfly (with Straight End)
Raw Material	Steel Sheet
Manufacture Process	Cold Pressing, Hot Pressing, Cold-machining, Heat machining, Welding, Heat treatment

Cap

Nominal Diameter		Length		Schedule/TheoreticWeight(kg)						
DN	NPS	E	(T)	E1	SS	10S	STD	SCH40	XS	SCH80
15	1/2	25		25	0.022	0.028	0.032	0.032	0.045	0.045
20	3/4	25		25	0.029	0.035	0.059	0.059	0.073	0.073
25	1	38		38	0.052	0.087	0.1	0.1	0.13	0.13
32	1 1/4	38		38	0.065	0.11	0.14	0.14	0.18	0.18
40	1 1/2	38		38	0.076	0.127	0.17	0.17	0.22	0.22
50	2	38	(5.5)	44	0.1	0.17	0.23	0.23	0.32	0.32
65	2 1/2	38	(7)	51	0.16	0.23	0.37	0.37	0.47	0.47
80	3	51	(7.6)	64	0.25	0.37	0.64	0.64	0.85	0.85
90	3 1/2	64	(8.1)	76	0.36	0.51	0.96	0.96	1.36	1.36
100	4	64	(8.6)	76	0.41	0.59	1.15	1.15	1.57	1.57
125	5	76	(9.5)	89	0.8	0.99	1.9	1.9	2.65	2.65
150	6	89	(11)	102	1.13	1.39	2.92	2.92	4.28	4.28
200	8	102	(12.7)	127	1.74	2.38	5.08	5.08	7.58	7.58
250	10	127	(12.7)	152	3.36	4.14	9.07	9.07	12	16.4
300	12	152	(12.7)	178	5.41	6.15	13.4	14.4	17.2	26.4
350	14	165	(12.7)	191	6.7	8.02	16.1	18.8	20.5	34.8
400	16	178	(12.7)	203	8.83	10.1	20.3	26.2	26.2	49

When T is less than the dimension in parentheses, the height E is available. Otherwise E is unavailable.

Nominal Diameter		Length		Schedule/TheoreticWeight(kg)						
DN	NPS	E	(T)	E1	5S	10S	STD	SCH40	XS	SCH80
450	18	203	(12.7)	229	11.3	12.9	25.9	41.5	33.6	69
500	20	229	(12.7)	254	16	18.4	32.2	54	42.6	93.7
550	22	254	(12.7)	254	19.4	22.5	38.7	78.3	51.5	116
600	24	267	(12.7)	305	26.9	30.9	46.3	90.1	59.4	160
650	26	267					50.5		67.3	
700	28	267					56.2		74.9	
750	30	267			41.4	51.6	62.1		82.8	
800	32	267					68.4	126	91.6	
850	34	267					75	137	100	
900	36	267					81.9	163	109	
950	38	305					94.4		126	
1000	40	305					102		137	
1050	42	305					110		147	
1100	44	343					125		167	
1150	46	343					134		179	
1120	48	343					141		191	

Lap Joint Stub End
(For Lap Joint Flange)

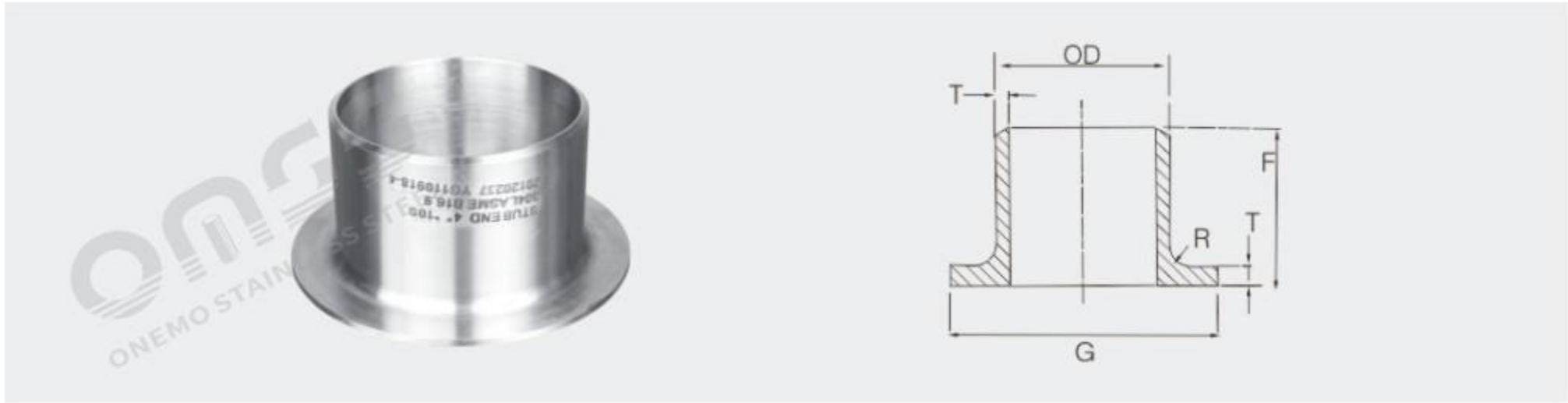


Stub End(America System)	Stub End (America System)	Japan System	Lapped Joints
ASME/ANSI B16.9(Long Type) MSS SP43(Short Type)			
HG20621(SHort Type)	HG20599	Company Standard	
Gb9118 I Long Type), II Short Type			GB
Sh3406 LL Long Type), L Short Type)			

Stub End (America System) ASME/ANSI B16.9/MSS SP43/SH3406/HG20621/GB9118

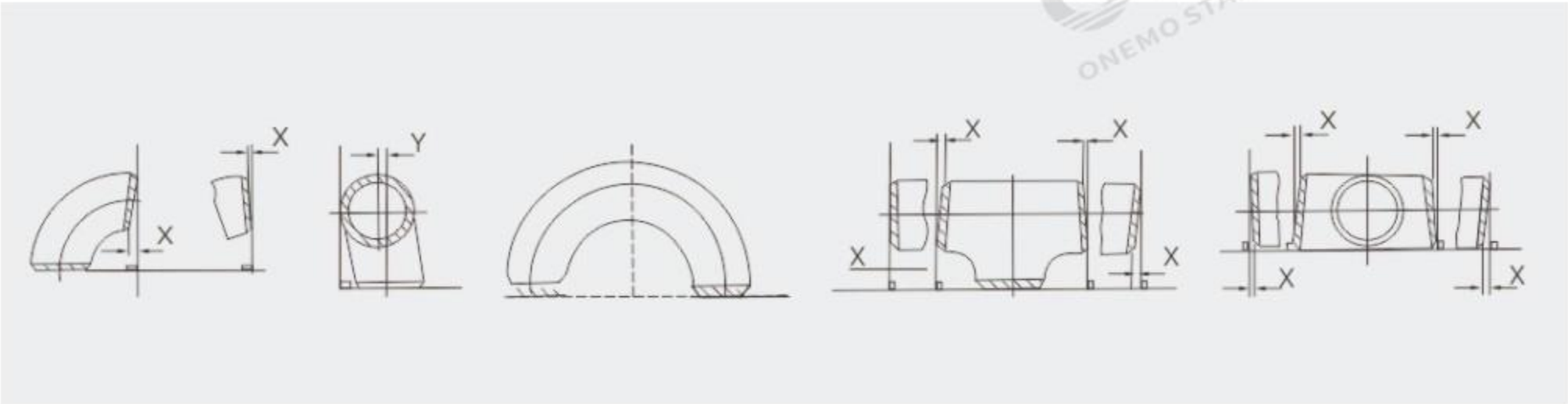
Nominal Diameter		G	Length (F)		Nominal Wall Thickness					
					5S		10S		SCH40	
N.B	NPS		Long type	Short type	Long type	Short type	Long type	Short type	Long type	Short type
15	1/2	35	76	51	0.067	0.049	0.084	0.062	0.106	0.08
20	3/4	43	76	51	0.087	0.064	0.11	0.081	0.14	0.1
25	1	51	102	51	0.144	0.082	0.23	0.134	0.28	0.16
32	1 1/4	64	102	51	0.188	0.11	0.31	0.18	0.39	0.23
40	1 1/4	73	102	51	0.219	0.13	0.36	0.21	0.47	0.28
50	2	92	152	64	0.406	0.2	0.67	0.34	0.92	0.47
65	2 1/2	105	152	64	0.626	0.31	0.9	0.45	1.47	0.74
80	3	127	152	64	0.781	0.4	1.1	0.57	1.95	1.01
90	3 1/2	140	152	76	0.896	0.52	1.3	0.65	2.35	1.38
100	4	157	203	76	1.024	0.61	1.5	0.87	2.82	1.68
125	5	186	203	76	2.153	0.99	2.6	1.21	4.96	2.08
150	6	216	203	89	2.59	1.34	3.2	1.65	6.48	3.37
200	8	270	254	102	3.41	1.96	4.6	2.65	9.82	5.67
250	10	324	254	127	6.39	3.6	7.8	4.38	17	9.55
300	12	381	305	152	8.9	5.9	10.3	6.74	21	13.8
350	14	413	305	152	11.6	6.6	13.9	7.49		16.88
400	16	470	305	152	14.2	7.8	16.1	8.8		
450	18	533	305	152	16.2	9	18.5	10.5		
500	20	584	305	152	20	11.1	23.8	13.2		
550	22	641		152	22.8	12.8	26.4	14.8		
600	24	692	305	152	28.2	16.13	33	18.5		

Lap Joint Stub End
(For Lap Joint Flange)



Nominal Diameter		PN6			PN10			PN16			PN25			PN40		
N.B	NPS	F	G	T	F	G	T	F	G	T	F	G	T	F	G	T
10	3/8	28	33	1.8	35	41	1.8	35	41	1.8	35	41	1.8	35	41	1.8
15	1/2	30	38	2	38	46	2	38	46	2	38	46	2	38	46	2
20	3/4	32	48	2.3	40	56	2.3	40	56	2.3	40	56	2.3	40	56	2.3
25	1	35	58	2.6	40	65	2.6	40	65	2.6	40	65	2.6	40	65	2.6
32	1 1/4	35	69	2.6	42	76	2.6	42	75	2.6	42	76	2.6	42	76	2.6
40	1 1/2	38	78	2.6	45	84	2.6	45	84	2.6	45	84	2.6	45	84	2.6
50	2	38	88	2.9	48	99	2.9	48	99	2.9	48	99	2.9	48	99	2.9
65	2 1/2	38	108	2.9	48	118	2.9	48	118	2.9	52	118	2.9	52	118	2.9
80	3	42	124	3.2	50	132	3.2	50	132	3.2	58	132	3.2	58	132	3.2
100	4	45	144	3.6	52	156	3.6	52	156	3.6	65	156	3.6	65	156	3.6
125	5	48	174	4	55	184	4	55	184	4	68	184	4	68	184	4
150	6	48	199	4.5	55	211	4.5	55	211	4.5	75	211	4.5	75	211	4.5
200	8	55	254	5.9	62	266	5.9	62	266	5.9	80	274	6.3	88	284	6.3
250	10	60	309	6.3	68	319	6.3	70	319	6.3	88	330	7.1	105	345	7.1
300	12	62	363	7.1	68	370	7.1	78	370	7.1	92	389	8	115	409	8
350	14	62	413	7.1	68	429	7.1	82	429	8	100	448	8	125	465	8.8
400	16	65	463	7.1	72	480	7.1	85	480	8	110	503	8.8	135	535	11
450	18	65	518	7.1	72	530	7.1	87	548	8	110	548	8.8	135	560	12.5
500	20	68	568	7.1	75	582	7.1	90	609	8	125	609	10	140	615	14.2
600	24	70	667	7.1	80	682	7.1	95	720	8.8	125	720	11	150	735	16

Angularity Tolerance
Of Butt-Welding Fittings



ASME/ANSI B16.9, B16.28

Nominal Diameter		O.D. For bevel end	I.D. For end	Wall thickness	90°45°Elbow		Tee		Reducer	Cap	180°Elbow		
N.B	NPS				A	B	C	M	H	E	O	K	Unevenness
15-65	1/2- 2 1/2	+1.6 -0.8	±0.8	-12.50%	±1.6	±1.6	±1.6	±1.6	±1.6	±3.2	±6.4	±6.4	±0.8
80-100	3-4	±1.6	±1.6		±1.6	±1.6	±1.6	±1.6	±1.6	±3.2	±6.4	±6.4	±0.8
125-200	5-8	+2.4 -1.6	±1.6		±2.4	±2.4	±2.4	2.4	±2.4	±6.4	±9.6	±9.6	±0.8
250-450	10-18	+4.0 -3.2	±3.2		±2.4	±2.4	±2.4	2.4	±2.4	±6.4	±9.6	±9.6	±0.8
500-600	20-24	+6.4 -4.8	±4.8		±3.2	±3.2	±3.2	±3.2	±4.8	±9.6	±12.8	±12.8	±0.8
650-750	26-30	+6.4 -4.8	±4.8		±3.2	±3.2	±3.2	±3.2	±4.8	±9.6	±12.8	±12.8	±0.8
800-1200	32-48	+9.6 -6.4	±6.4		±9.6	±9.6	±9.6	±9.6	±9.6	±12.8	±16.0	±16.0	±0.8
1250-1500	50-60	+12.7 -9.6	±9.6		±12.7	±12.7	±12.7	±12.7	±12.7	±16.0	±20.0	±20.0	±0.8
1550-1750	62-70	+16 -12	±12		±16	±16	±16	±16	±16	±16.0	±20.0	±20.0	±0.8
1800-2000	72-80	+16 -12	±12		±16	±16	±16	±16	±16	±16.0	±20.0	±20.0	±0.8

The Pressure Limit Of Butt Welding Fitting(MSS SP43)

Temperature °C	Pressure (Bar)	
	SCH10S	SCH5S
38	18.9	15.5
50	18.3	15.2
100	16.3	13.6
125	15.4	12.9
150	14.4	12.0
175	13.5	11.4
200	12.6	10.5
225	11.6	9.6
250	10.7	8.7
275	9.9	7.9
300	9.3	7.3
325	8.7	6.7
350	8.1	6.1
375	7.5	5.5
400	6.8	5.0

The operating pressure for tee with cross welded seam is less than 70 percent of listed pressure

Nominal Diameter		Angular deviation (mm)	Plane deviation(mm)
DN	NPS		
15-100	1/2-4	0.8	1.6
125-200	5-8	1.6	6.2
250-300	10-12	2.4	4.8
350-400	14-16	2.4	6.4
450-600	18-24	3.2	9.6
650-750	26-30	4.8	9.6
800-1050	32-42	4.8	12.7
1100-1200	44-48	4.8	19
1250-1500	50-60	6.4	6.4
1550-1750	62-70	9.6	9.6
1800-2000	72-80	12	12

Stainless Steel Flange
Proruciton Testing And Service

WHY CHOOSE US?

- Pml and dimensional inspection for all raw materials and keep thephoto with a report.
- ITP will be supplied for each order with a report.
- Solution heat treatment ensures the fnished product has excellent mechanical properties.
- CNC machine tool, accurate to 0.01mm, which ensures dimensional accuracy.
- Each product will undergo 100% dimensional inspectionPMLinspection, appearance and marking inspection, and keep the photo.
- Each order will have a production process card and report.
- We can do full sets of mechanical and chemical test, such as tensile, impact, chemical...

1	Ultrasonic Test
2	Watching Spectrometer (Pml)
3	Hardness Test (Afr Solution)
4	Penetrate Test (PT)
5	Tensile Test
6	Impact Test



Stainless Steel Flange
Proruciton Testing And Service



Product
Introduction



type	Slip-on flange, Welding neck flange, Welding flange, Blind flange, Socket welding flange, Threaded flange, Lap joint flange and all kinds of Special flange.
Standard	HG20593~HG20623-97,GB/T9113-GB/T9123-2000,JB/T79-JB/T86-94,SH3406-96,ANSI B16.5, ANSI B16.47 Series A&B,DIN2527~DIN2367,JIS B2220,GOST 12820-80,EN1092-1
Size	1/2"~120"(DN15-DN3000)
Pressure	From 150psi-2500psi(0.6Mpa-42.0Mpa)
Material	Stainless steel(304,304L,304H,316,316L,316Ti,316H,321,321H,347H,310S,317L,904L,S31254/SMO254) Duplex steel(S31803/S32205/12205,S32750/2507.S32760) Special Alloy(N04400/400,N06625/625,N08825/825,N10276/C276,800/800H, 600/600H)
Production art	Steel Closed Hot Die Forging & Machining
Surface	Finishing machining: Coat, Galvanization and all king of special surface can make according to customer's requirements. Stainless steel(duplex steel): Machining surface, Sandblast, Then passivation.
Stock	≤20"(DN500) have huge quantity diferent materials, specifications and sizes stock can meet the shortest time delivery

Tolerance
B16.47 & B16.36 Flanges

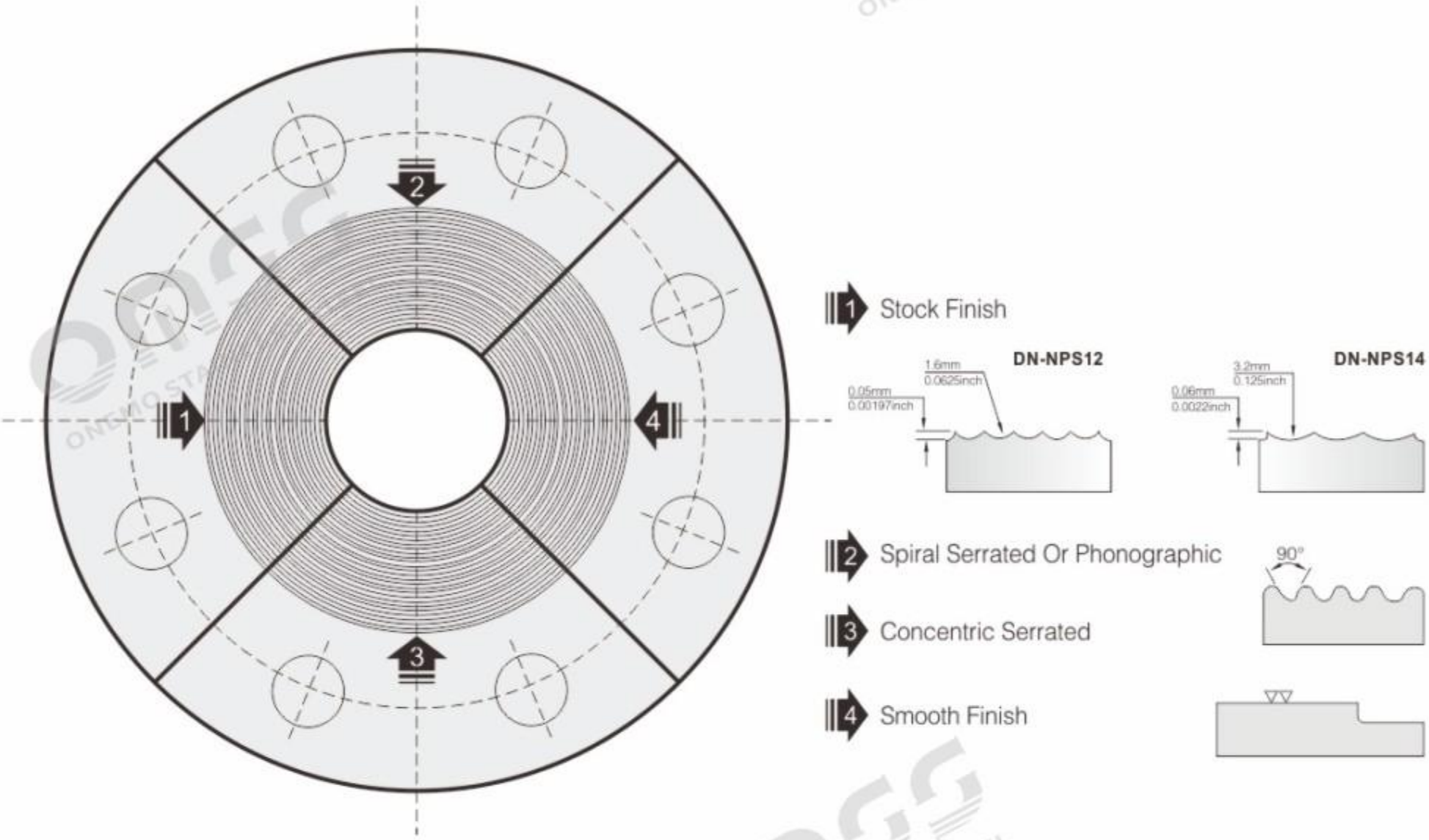
B16.47 Large Diameter Flanges Welding Neck & Blind Flanges			
OUTSIDE DIAMETER O	All Sizes	±0.12"	±3.0mm
	Normal Inside Diameter Welding End	+0.12"	+3.0mm
INSIDE DIAMETER B		-0.06"	-1.5mm
	Inside Counter Type	+0.00"	+0.00mm
		-0.06"	-1.5mm
DIAMETER OF CONTACT FACE R	Backing Ring Contact Surface	+0.10"-0	+2.5mm-0
	0.06" Raised Face	±0.08"	±2.0mm
	0.25" Raised Face	±0.04"	±1.0mm
DIAMETER OF HUB AT BASE X	Hub Diameter	±0.12"	±3.0mm
DIAMETER OF HUB AT POINT OF WELDING A	Outside Diameter of Welding End	+1.21"	+5.3mm
		-0.06"	-1.5mm
DRILLING	Bolt Circle	±0.06"	±1.5mm
	Bolt Hole Spacing	±0.03"	±0.08mm
	Eccentricity		
	Bolt Hole With Respect to Facing	0.06" max	1.5mm max
	Eccentricity of Bolt Circle With Respect to bore	0.03" max	0.8mm max
	Eccentricity of Facing With Respect to bore	0.03" max	0.8mm max
FLANGE THICKNESS c	Upto 1.0" (25.4mm)	+0.12"-0	+3.2mm-0
	1.0" to 2.0" (25.4mm to 50.8mm)	+0.19"-0	+5.0mm-0
	>2.0" to 3.0" (50.8mm to 76.2mm)	+0.31"-0	+7.9mm-0
	Over 3.0" (76.2mm)	+0.38"-0	+9.7mm-0
LENGTH THRU HUB Y	All Sizes	±0.19"	±5.0mm

This tolerance is not covered in ASTM /ANSI B 16.47, but maker's option.

Tolerance For Ring Joint Facing			
Ring Type Joint	Depth-E	+0.16"	+0.4mm
		-0.0	-0.0
	Width-F	±0.008"	±2.00mm
	Pitch Diameter-P	±0.005"	±0.13mm
	Radius at Bottom-R	max	max
	23 Angle	±12%	±12%

B 16.36 Orifice Flanges			
Tolerance on all dimensions shall be as shown in ANSI/ASME B 16.5 except for those shown below			
Ring Type Joint	Tolerance On Location of Center of Pressure Tap Holes From Flange Face Shall Be		
	Flange smaller than nominal size 4"	±0.02"	±0.50mm
	Flange Nominal Size 4" Larger	±0.03"	±0.80mm
	Bore Diameter Tolerance (Welding Neck Flanges only)	±12% Nominal Value	

Flange Facing Finishes
Face Preparation



Stock Finish	The most widely used of any gasket finish, because practically, is suitable for all ordinary service conditions. This is a continuous spiral aroove. Flanges size 12" (304,8mm) and smaller, are produced with a 1/16" round-nosed tool. For size 14" (355.6mm) and larger, the finish is made with 1/8" round-nosed tool.
Spiral Serrated Or Phonographic	This finish is produced by using a 90° round-nosed tool.
Concentric Serrated	This finish is produced by using a 90° round-nosed tool.
Smooth Finish	The cutting tool employed shall have an approximate 0.06" radius. The resultant surface finish shall have a 125 u inch to 250 u inch. (ANSI B 16.5 para 6.4.5) 1. Raised Face, And Large Male And Female Either a serrated-concentric or serrated-spiral finish having from 45 to 55 grooves per inch is used. (1.8 to 2.2 grooves per mm) the cutting tool employed has an approximate 0.06 inch radius, The resultant surface finish shall have a 12.5 u inch (3.2 u m) to 250 u inch (6.4 u m) approximate roughness 2. Tongue And Groove, And Small Male And Female The gasket contact surface does not exceed 125 u inch (3.2 u m) roughness 3. Ring Joint The inside wall surface of gasket groove does not exceed 63 u inch (1.6 u m) roughness. 4. Blind Blind flanges need not be faced in the center if when this center part is raised, its diameter is at least 1 inch smaller than the inside diameter of fittings of corresponding pressure class. When the center part is depressed, it's diameter is not greater than the inside diameter of the corresponding pressure class fitting. machining of the depressed center is not required.

Flange Facing Finishes
Roughness Values

Conversion Table of N-Numbers, Ra and Rz in µm and µ"

	N0	N1	N2	N3	N4	N5	N6	N7	N8	N9	N10	N11	N12	N13
Ra µm	0.0125	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50.0	100
CLA µ"	0.5	1	2	4	8	16	32	63	125	250	500	1000	2000	4000
Approx. Rz µm"	0.11	0.22	0.45	0.8	1.0	1.6	3.0	5.9	12	23	46	90	180	360
	to	to	to	to	to	to	to	to	to	to	to	to	to	to
Approx. Rz µm"	0.16	0.30	0.60	1.1	1.8	2.8	4.8	8.0	16	32	57	110	220	430
	4.5	9	18	32	40	64	122	233	463	926	1852	3600	7200	14400
	to	to	to	to	to	to	to	to	to	to	to	to	to	to
Range of ratio to Rz:Ra	7	12	24	44	72	112	192	315	625	1250	2300	4400	8800	17200
	0.1	9:1	9:1	8:1	5:1	4:1	3.8:1	3.7:1	3.7:1	3.7:1	3.7:1	3.6:1	3.6:1	3.6:1
	to	to	to	to	to	to	10	to	to	to	to	to	to	to
	13:1	12:1	12:1	11:1	9:1	7:1	6:1	5:1	5:1	5:1	4.6:1	4.4:1	4.4:1	4.3:1

Nose Radius Selection

Surface finish Ra Value(µm)	Nose radius, r e (mm)					
	0.2	0.4	0.8	1.2	1.6	2.4
	Deed rate, f (mm/rev)					
0.6	0.05	0.07	0.10	0.12	0.14	0.17
1.6	0.08	0.12	0.16	0.20	0.23	0.29
3.2	0.12	0.16	0.23	0.29	0.33	0.40
6.3		0.23	0.33	0.40	0.47	0.57
8.0			0.40	0.49	0.57	0.69

NOTES

1. Ra is the international symbol for average roughness.
2. Ra=AA (arithmetic average)= CLA (center line average)
3. RMS (root mean square) is obsoleted.
4. Ra is approximately 10% finer than RMS

Theoretical Surface Finish Value

Formulas					
RPM	$N = \frac{V_c \cdot 1000}{\pi \cdot D}$	(rev/mim)	Power Demand	$P_c = \frac{V_c \cdot f \cdot a_p}{25}$	(KW)
Cutting speed	$V_c = \frac{N \cdot \pi \cdot D}{1000}$	(m/mim)		$P_c = \frac{V_c \cdot f \cdot a_p}{60 \cdot 0.0001}$	(KW)
Surface finish	$R_a = \frac{6.50}{r \cdot \epsilon}$	(µM)		$K_c = \frac{1 - 0.01 \cdot Y_0}{h^{mc}} \cdot K_c 1.1$	(N/m²)
	$R_a = \frac{R_t}{3.5}$	(µm)		$h = f \cdot \sin k$	(cm³/min)
	$R_a = \frac{f^2}{8 \cdot r \cdot \epsilon}$	(µm)		$Q = V_c \cdot f \cdot a_p$	(µm)
Profile Depth	$R_a = \frac{f^2 \cdot 1000}{8 \cdot r \cdot \epsilon}$	(µm)	Metal Removal Rate		

Definitions			
ap= Depth of cut	(mm)	Pc= Power demand	(kw)
D= Workpiece diameter	(mm)	Q= Metal removal rate	(cm³/min)
f= Feed rate	(mm/rev)	Ra= Surface finish	(µm)
h= Chip thickness	(mm)	re= Nose radius	(mm)
K= Constant		Rt= Profile depth	(µm)
1.4 for steels and stainless steels		Ry= max. height of profile	(µm)
& 1.0 for cast iron		Vc= Cutting speed	(m/min)
K= Specific cutting force	(N/mm²)	x= Setting angle	(°)
kc1.1 = cutting force(1mm2)	(N/mm²)	n= Efficiency	
mc= Exponent		Y0= Cutting rate angle	(°)
n= RPM	(rev/min)		

Stainless Steel
Chemical Components Form



Theoretical Surface Finish Value

Material	C%	Si%	Mn%	P%	S%	Cr%	Mo%	Ni%	N%
EN10222-5:1.4301	≤0.07	≤1.00	≤2.00	≤0.045	≤0.015	17-19.5		8.0-10.5	≤0.11
EN17440:1.4306	≤0.030	≤1.00	≤2.00	≤0.045	≤0.015	18-20.0		10-12.0	≤0.11
EN10222-5:1.4401	≤0.07	≤1.00	≤2.00	≤0.045	≤0.015	16.5-18.50	2.0-2.5	10-13.0	≤0.11
EN10222-5:1.4404	≤0.030	≤1.00	≤2.00	≤0.045	≤0.015	15.5-18.5	2.0-2.5	10-13.0	≤0.11
EN10222-5:1.4541	≤0.08	≤1.00	≤2.00	≤0.045	≤0.015	17-19.0		9.0-12.0	Ti:5x%C-0.70
EN10222-5:11.4571	≤0.08	≤1.00	≤2.00	≤0.045	≤0.015	16.5-18.5	2.0-2.5	10.5-13.5	Ti:5x%C-0.70

Material	C%	Si%	Mn%	P%	S%	Cr%	Mo%	Ni%	N%
ASTM A182-F304	≤0.08	≤1.00	≤2.00	≤0.045	≤0.030	18-20.0		8.0-11.0	
ASTM A182-F304L	≤0.030	≤1.00	≤2.00	≤0.045	≤0.030	18-20.0		10-13.0	
ASTM A182-F316	≤0.08	≤1.00	≤2.00	≤0.045	≤0.030	16-18.0	2.0-3.0	10-14.0	
ASTM A182-F316L	≤0.030	≤1.00	≤2.00	≤0.045	≤0.030	16-18.0	2.0-3.0	10-15.0	
ASTM A182-F321	≤0.08	≤1.00	≤2.00	≤0.045	≤0.030	17-19.0		9.0-12.0	Ti:5x%C-0.70
ASTM A276-F316Ti	≤0.08	≤1.00	≤2.00	≤0.045	≤0.030	16-18.0	2.0-3.0	10-14.0	≤10

Stainless Steel
Mechanical Properties Form

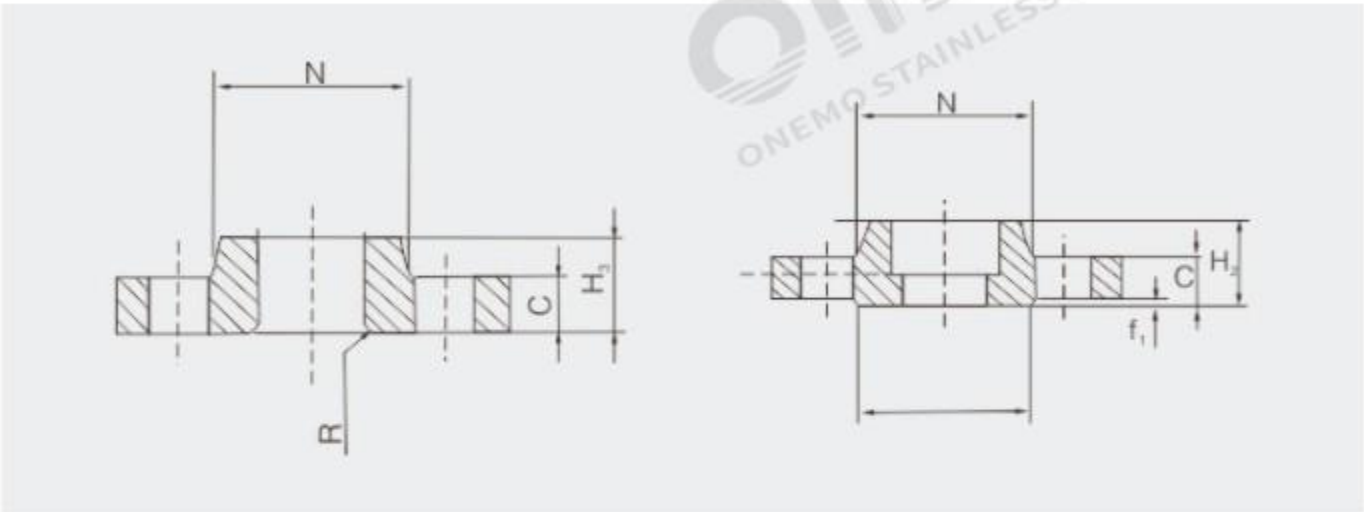
Theoretical Surface Finish Value

Material	Yield Strength (Mpa)		Tensile strength Rm Mpa	Elongation Rm Mpa	Reduction ψ%
	Rp0.2	Rp0.1			
EN10222-5:1.4301	≥200	≥230	500-700	≥35%	
DIN17440:1.4306	≥180	≥215	460-680	≥40%	
EN10222-5:1.4401	≥205	≥240	510-710	≥35%	
EN10222-5:1.4404	≥190	≥225	490-690	≥35%	
EN10222-5:1.4541	≥200	≥235	510-710	≥30%	
EN10222-5:1.4571	≥210	≥245	510-710	≥35%	

Material	Yield Strength (Mpa)		Tensile strength Rm Mpa	Elongation Rm Mpa	Reduction ψ%
	Rp0.2	Rp0.1			
ASTM A182-F304	≥205		≥515	≥30%	≥50%
ASTM A182-F:304L	≥170		≥485	≥30%	≥50%
ASTM A182-F316	≥205		≥515	≥30%	≥50%
ASTM A182-F316L	≥170		≥485	≥30%	≥50%
ASTM A182-F321	≥205		≥515	≥30%	≥50%
ASTM A276-F316Ti	≥205		≥515	≥30%	≥40%

Steel Flange
(American System)

Manufacture Standard
ASME B16.5
ISO7005-1
HG20615~HG20622
BS1560-3.1
NFE29-203
JPI7S-15 GB9112~9124
SH3406

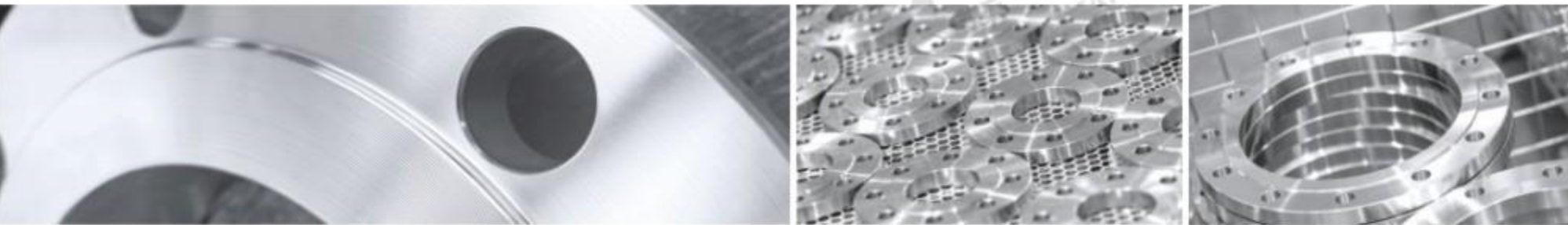


American System Flange Class 150 (PN20)

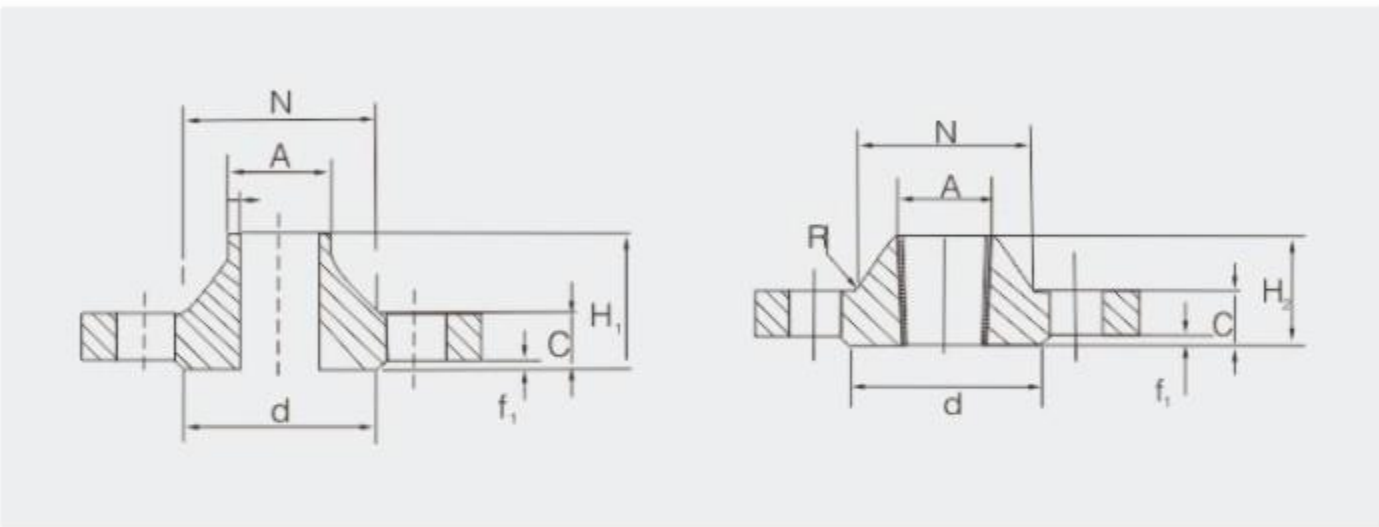
Nominal Diameter	O.D. of Pipe	O.D. of flange	Diameter male	Diameter of bolt holes	Diameter of bolt holes	NO. of bolt holes	NO. of bolt holes	Thickness of flange	Diameter of Hub	Height of flange				Approximate weight of lange(kg)			
DN	NPS	A	D	d	K	L		C1	N	H1	H2	H3		W1	W2	W3	W4
15	1/2	21.3	90	35	60.5	16	4	M14	11.5	30	48	16	16	0.54	0.42	0.53	0.43
20	3/4	26.9	100	43	70	16	4	M14	13	38	52	16	16	0.78	0.6	0.73	0.63
25	1	33.7	110	51	79.5	16	4	M14	14.5	49	56	17	17	1.12	0.83	0.89	0.89
(32)	1 1/4	42.4	120	63.5	89	16	4	M14	16	59	57	21	21	1.46	1.12	1.17	1.2
40	1 1/2	48.3	130	73	98.5	16	4	M14	17.5	65	62	22	22	1.86	1.43	1.48	1.58
50	2	60.3	150	92	120.5	18	4	M16	19.5	78	64	25	25	2.69	2.07	2.1	2.39
(65)	2 1/2	76.1	180	105	139.5	18	4	M16	22.5	90	70	29	29	4.4	3.53	3.56	4.07
80	3	88.9	190	127	152.5	18	4	M16	24	108	70	30	30	5.11	4.01	3.96	4.92
(90)	3 1/2	101.6	216	140	178	18	8	M16	24	122	71	32	32	5.45	4.99	4.99	5.9
100	4	114.3	230	157.5	190.5	18	8	M16	24	135	76	33	33	7.29	5.4	5.57	7.13
(125)	(5)	139.7	255	186	216	22	8	M20	24	164	89	36	36	9.43	6.29	6.33	9.31
150	6	168.1	280	216	241.5	22	8	M20	25.5	192	89	40	40	11.59	7.82	7.67	11.7
200	8	219.1	345	270	298.5	22	8	M20	29	246	102	44	44	19.17	12.75	12.67	20.46
250	10	273	405	324	362	26	12	M24	30.5	305	102	49	49	25.46	16.78	16.56	29.19
300	12	323.9	485	381	432	26	12	M24	32	365	114	56	56	38.99	26.91	27.2	44.11
350	14	355.6	535	413	476	29.5	12	M27	35	400	127	57	79	53.3	35.24	39.29	58.83
400	16	406.4	600	470	540	29.5	16	M27	37	457	127	64	87	68.5	46.46	52	78.19
450	18	457	635	533.5	578	32.2	16	M0	40	505	140	68	97	79.99	49.26	56.21	94.72
500	20	508	700	584	635	32.5	20	M30	43	559	145	73	103	101	62.94	73.4	123.6
550	22	559	750	641	692	35.5	20	M33M	46	610	149			113.5			150.7
600	24	610	815	692	749.5	35.5	20	M33	48	664	152	83	111	139	88.11	99.83	187.1

Note: 1-Weldina neck flange(wN), 2-Slip-on hubbed flange(So),threaded flange(TH), Socket welding flange(Sw), 3-Lap joint flange(LJ). 4-Blind flange(BL).

Blind Flange 15olbs Asme B16.5



Manufacture Standard
ASME B16.5
ASME B16.36(Orifice flange)
ISO7005-1.HG20615~HG20622
BS1560-3.1.NFE29-203
JPI7S-15 GB9112~9124,SH3406

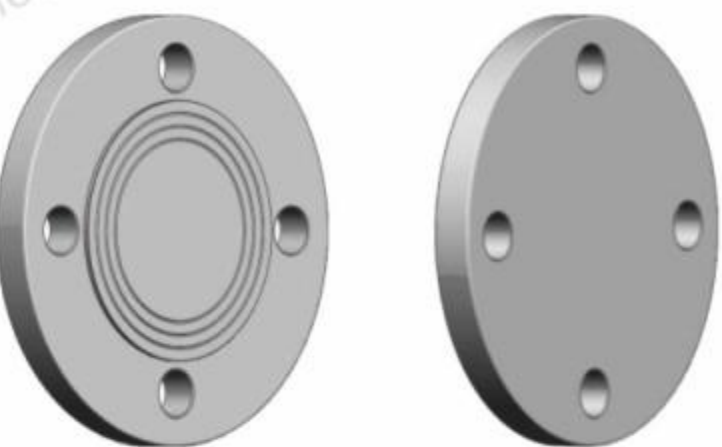


American System Flange Class 300 (Pn50)

Nominal Diameter	O.D. of Pipe	O.D. of flange	Diameter male	Diameter of bolt holes	Diameter of bolt holes	NO. of bolt holes	NO. of bolt holes	Thickness of flange	Diameter of Hole for orifice flange	Diameter of Hub	Height of flange				Approximate weight of lange(kg)					
DN	NPS	A	D	d	K	L		C1 - C0	TT	N	H0	H1	H2	H3	W1	W2	W3	W4		
15	1/2	21.3	96	35	66.5	16	4	M14	14.5	-	38	-	52	22	22	0.8	0.64	0.71	0.63	
20	3/4	26.9	120	43	82.5	18	4	M16	16	-	48	-	57	25	25	1.41	1.15	1.26	1.15	
25	1	33.7	125	51	89	18	4	M16	17.5	38	54	82.5	62	27	27	1.72	1.37	1.47	1.4	
(32)	1 1/4	42.4	135	63.5	98.5	18	4	M16	19.5	-	64	-	65	27	27	2.25	1.76	1.86	1.88	
40	1 1/2	48.3	155	73	114.5	22	4	M20	21	38	63.5	70	85	68	30	3.11	2.53	2.65	2.65	
50	2	60.3	165	92	127	18	8	M16	22.5	38	63.5	84	85	70	33	3.79	2.91	2.98	3.38	
(65)	2 1/2	76.1	190	105	149	22	8	M20	25.5	38	63.5	100	89	76	38	5.74	4.43	4.47	5.09	
80	3	88.9	210	127	168.5	22	8	M20	29	38	9.53	118	89	79	43	7.74	6.16	6.14	7.22	
(90)	3 1/2	101.6	229	140	184	22	8	M20	30	-	-	140	-	81	45	45	9.1	7.72	7.26	9.53
100	4	114.3	255	157.5	200	22	8	M20	32	38	12.7	146	92	86	48	48	12	9.74	10.05	11.62
(125)	(5)	139.7	280	186	235	22	8	M20	35	-	-	178	-	98	51	51	16.05	12.39	12.56	15.76
150	6	168.1	320	216	270	22	12	M20	37	38	12.7	206	100	98	52	52	21.29	16.76	16.42	22.16
200	8	219.1	380	270	330	26	12	M24	41.5	41.5	12.7	260	111	111	62	62	32.2	24.93	24.42	35.14
250	10	273	445	324	387.5	29.5	16	M27	48	48	12.7	321	117	117	67	95	47.01	35.59	38.85	54.99
300	12	323.9	520	381	451	32.5	16	M30	51	51	12.7	375	130	130	73	102	66.64	50.91	55.75	79.96
350	14	355.6	585	413	514.5	32.5	20	M30	54	54	12.7	426	143	143	76	111	95.69	72.6	81	108.4
400	16	406.4	650	470	571.5	35.5	20	M33	57.5	57.5	12.7	483	146	146	83	121	121	91.63	104.9	141.2
450	18	457	710	533.5	628.5	35.5	24	M33	60.5	60.5	12.7	533	159	159	89	130	150.2	111.6	128.6	178.8
500	20	508	775	584	686	35.5	24	M33	63.5	63.5	12.7	587	162	162	95	140	181.6	136	156	223.3
550	22	559	840	641	743	42	24	M39	66.5	-	-	640	-	165	-	-	199.4	-	-	268
600	24	610	915	692	813	42	24	M39	70	70	12.7	702	168	168	104	152	265	202.1	235.1	342

Note: 1-Welding neck flange(W), 2-Slip-on hubbed flange(SO), threaded flange(TH), Socket welding flange(Sw), 3-Lap joint flange(LJ), 4-Blind flange(BL), 0-Orifice flange(welding neck)

Blind Flange 15olbs Asme B16.5

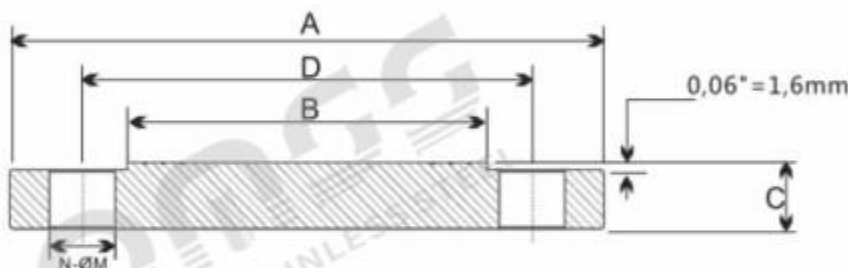


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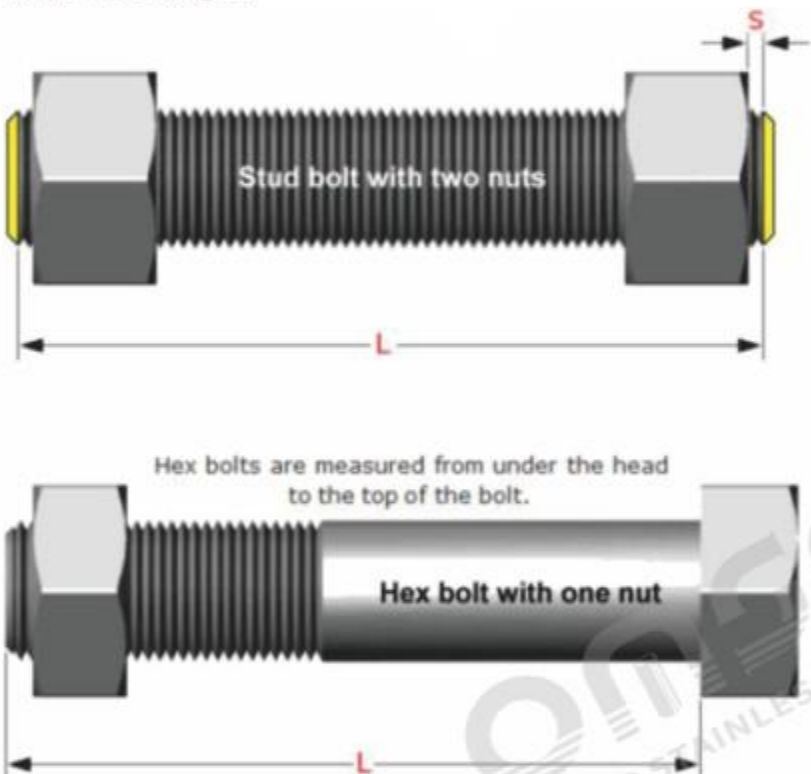
Features&Specificatuons

- Forged and Heat treated
- Available inT 304 and 316L
- Matching Seal can be supplied
- Stub bolt, Hex bolt and nuts can be supplied
- Conform to ASME B16.5 standard

The drawing of stud bolt with nuts & machine bolt with nuts for ASME B16.5 flanges.



DIMENSIONS ARE IN "MM"



DIMENSIONS ARE IN "MM"

Size	A	B	C	D	N	M
1/2"	88.90	35.05	11.18	60.45	4	16.00
3/4"	98.55	42.93	12.70	69.85	4	16.00
1"	107.95	50.80	14.22	79.50	4	16.00
1-1/4"	117.35	63.50	16.00	88.90	4	16.00
1-1/2"	127.00	73.15	17.53	98.55	4	16.00
2"	152.40	92.20	19.05	120.65	4	19.05
2-1/2"	177.80	104.90	22.35	139.70	4	19.05
3"	190.50	127.00	23.88	152.40	4	19.05
3-1/2"	215.90	139.70	23.88	177.80	8	19.05
4"	228.60	157.23	23.88	190.50	8	19.05
5"	254.00	185.67	23.88	245.90	8	22.35
6"	279.40	215.90	25.40	241.30	8	22.35
8"	342.90	270.00	28.70	298.45	8	22.35
10"	406.40	323.85	30.23	361.95	12	25.40

Blind Flange 15olbs Asme B16.5

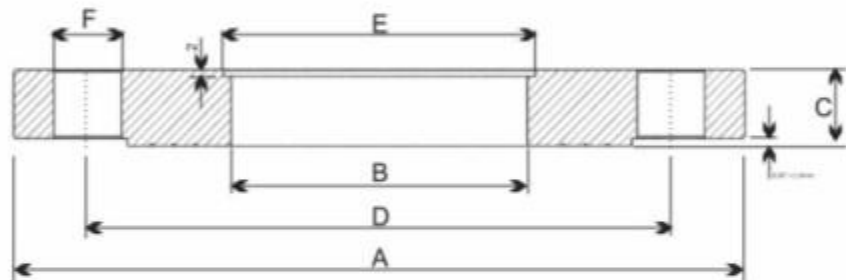


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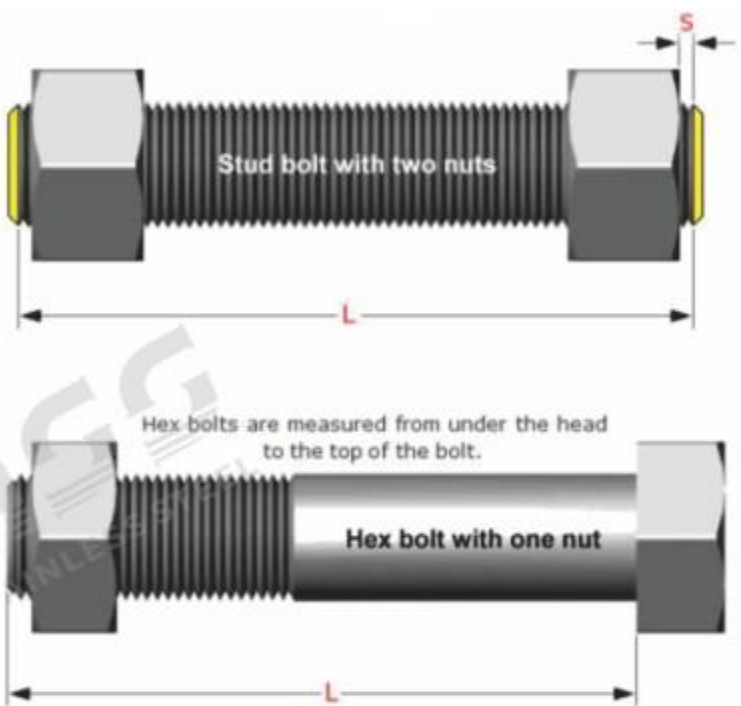
Features&Specificatuons

- Forged and Heat treated
- Available inT 304 and 316L
- Matching Seal can be supplied
- Stub bolt, Hex bolt and nuts can be supplied
- Conform to EN1092-1 standard

The drawing of stud bolt with nuts & machine boltwith nuts for EN1092-1 flanges



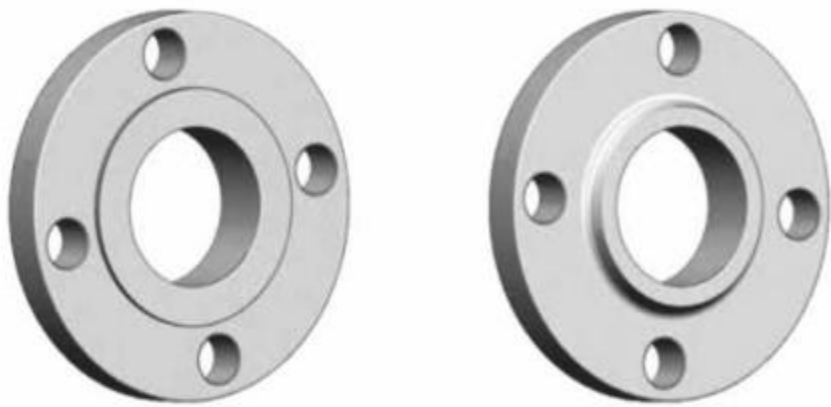
DIMENSIONS ARE IN "MM"



DIMENSIONS ARE IN "MM"

Size	A	B	C	D	E	F
DN15	95	16	14	65	19.5	14
DN20	105	20	14	75	23.5	14
DN25	115	26	16	85	29.5	14
DN32	140	32	18	100	35.5	18
DN40	150	38	18	110	41.5	18
DN50	165	50	20	125	53.5	18
DN65	185	66	20	145	70.5	18
DN80	200	81	20	160	85.5	18
DN100	220	100	20	180	104.5	18
DN125	250	125	22	210	129.5	18
DN150	285	150	22	240	155	22
DN200	340	200	24	295	205	22
DN250	405	250	26	355	255	26
DN300	460	300	28	410	307	26

Slip On Flange 150lbs Astm A182 Asme B16.5

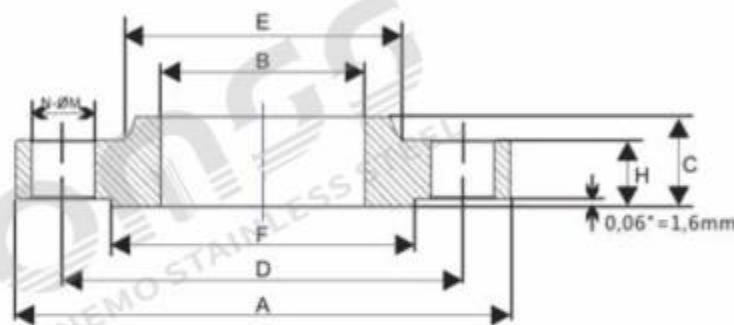


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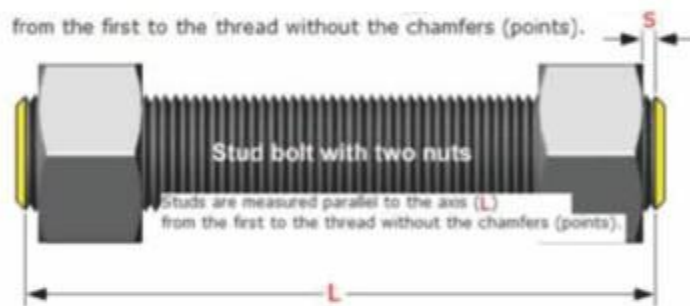
Features&Specifications

- Forged and Heat treated
- Available in T 304 and 316L
- Matching Seal can be supplied
- Stub bolt, Hex bolt and nuts can be supplied
- Conform to ASME B16.5 standard

The drawing of stud bolt with nuts & machine bolt with nuts for ASME B16.5 Class 150 flanges.



DIMENSIONS ARE IN "MM"



Slip On Flange 150lbs Astm A182 Asme B16.5

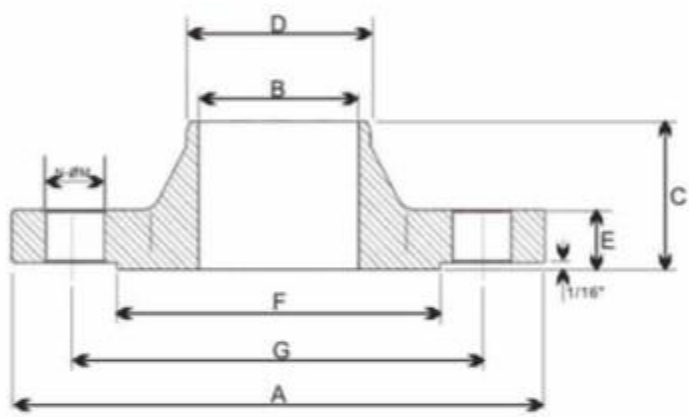


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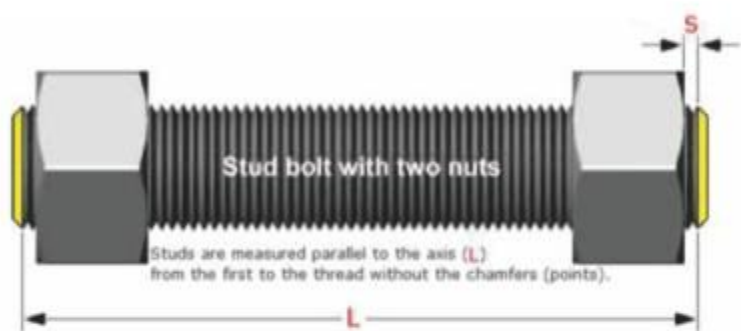
Features&Specifications

- Forged and Heat treated
- Available in T 304 and 316L
- Matching Seal can be supplied
- Stub bolt, Hex bolt and nuts can be supplied
- Conform to ASME B16.5 standard

The drawing of stud bolt with nuts & machine bolt with nuts for ASME B16.5 Class 150 flanges



DIMENSIONS ARE IN "MM"



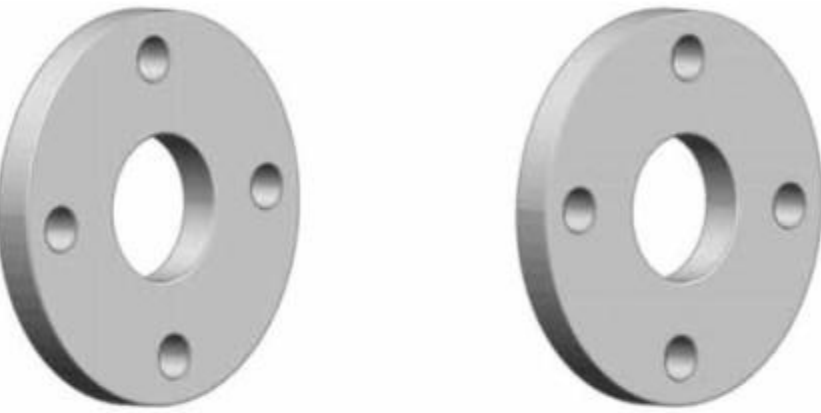
DIMENSIONS ARE IN "MM"

Size	A	B	C	D	E	F	H
1/2"	88.90	22.4	15.75	60.45	30.23	35.05	11.18
3/4"	98.55	27.7	15.75	69.85	38.1	42.93	12.70
1"	107.95	34.5	17.53	79.25	49.28	50.80	14.22
1-1/4"	117.35	43.2	20.57	88.90	58.68	63.50	15.75
1-1/2"	127.00	49.5	22.35	98.55	65.02	73.15	17.53
2"	152.40	62.0	25.40	120.65	77.72	92.20	19.05
2-1/2"	177.80	74.7	28.45	139.70	90.42	104.90	22.35
3"	190.50	90.7	30.23	152.40	107.95	127.00	23.88
3-1/2"	215.90	103.4	31.75	177.80	122.17	139.70	23.88
4"	228.60	116.1	33.27	190.50	134.87	157.23	23.88
5"	254.00	143.8	36.58	215.90	163.58	185.67	23.88
6"	279.40	170.7	39.62	241.30	192.05	215.90	25.40
8"	342.90	221.5	44.45	298.45	246.13	270.00	28.45
10"	406.40	276.4	49.28	361.95	304.80	323.85	30.23

DIMENSIONS ARE IN "MM"

Size	A	B	C	D	E	F	G
1/2"	88.90	15.8	47.75	21.3	11.18	35.05	60.45
3/4"	98.55	20.9	52.32	26.7	12.70	42.93	69.85
1"	107.95	26.6	55.63	33.4	14.22	50.80	79.50
1-1/4"	117.35	35.1	57.15	42.2	16.00	63.50	88.90
1-1/2"	127.00	40.9	61.98	48.3	17.53	73.15	98.55
2"	152.40	52.5	63.5	60.3	19.05	92.20	120.65
2-1/2"	177.80	62.7	69.85	73	22.35	104.90	139.70
3"	190.50	77.9	69.85	88.9	23.88	127.00	152.40
3-1/2"	215.90	90.1	71.37	101.6	23.88	139.70	177.80
4"	228.60	102.3	76.2	114.3	23.88	157.23	190.50
5"	254.00	128.2	88.9	141.3	23.88	185.67	215.90
6"	279.40	154.1	88.9	168.3	25.40	215.90	241.30
8"	342.90	202.7	101.6	219.1	28.70	270.00	298.45
10"	406.40	254.6	101.6	273	30.23	323.85	361.95

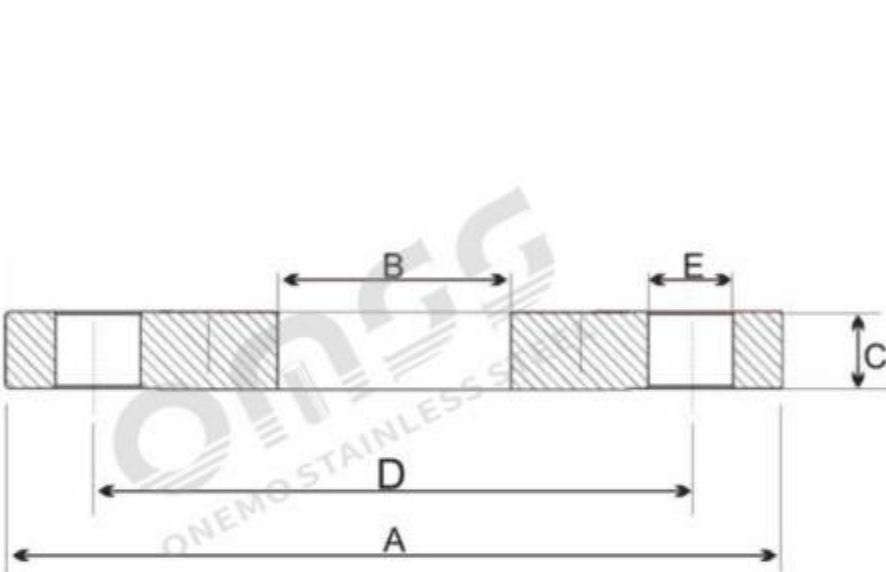
ISO DIN2576 Flat Face Flange



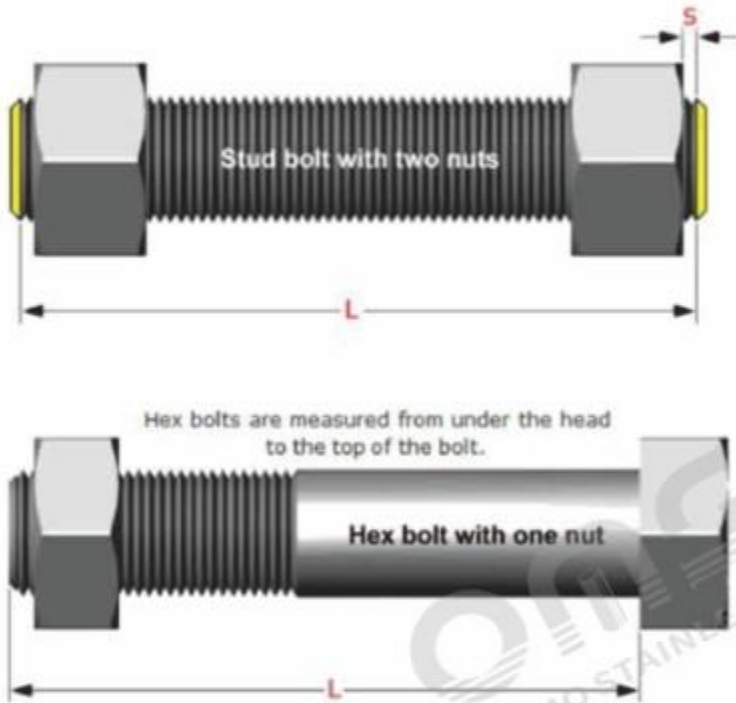
mod.SIG/86

Features&Specifications

- Forged and Heat treated
- Available in T 304 and 316L
- Matching Seal can be supplied
- Stub bolt, Hex bolt and nuts can be supplied
- Conform to ISO DIN2576 standard



DIMENSIONS ARE IN "MM"



DIMENSIONS ARE IN "MM"

Size	A	B	C	D	E
DN10/17.2	90	17.7	14	60	14
DN15/21.3	95	22	14	65	14
DN20/26.9	105	27.6	16	75	14
DN25/33.7	115	34.4	16	85	14
DN32/42.4	140	43.1	16	100	18
DN40/48.3	150	49	16	110	18
DN50/60.3	165	61.1	18	125	18
DN65/76.1	185	77.1	18	145	18
DN80/88.9	200	90.3	20	160	18
DN100/114.3	220	115.9	20	180	18
DN125/139.7	250	141.6	22	210	18
DN150/168.3	285	170.5	22	240	22
DN200/219.1	340	221.8	24	295	22
DN250/273	395	276.2	26	350	22

ISO DIN2576 Flat Face Flange

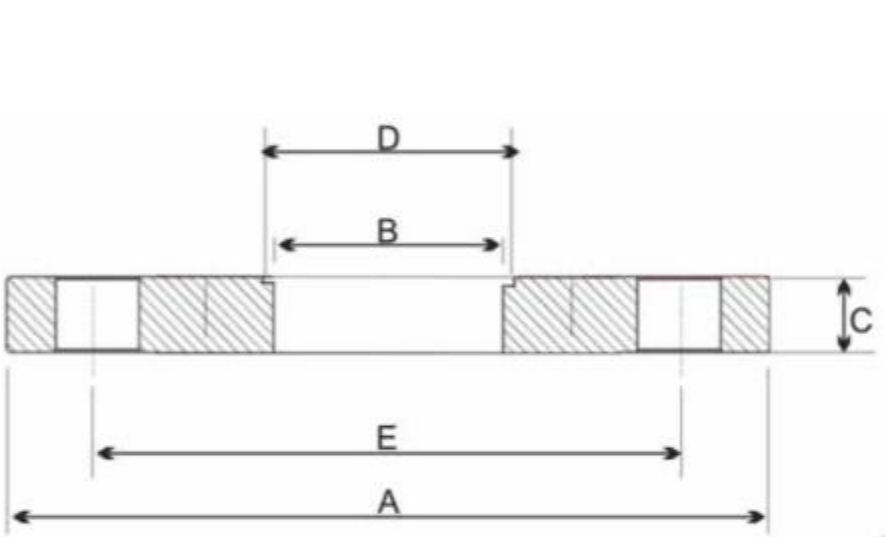


mod.SIG/89

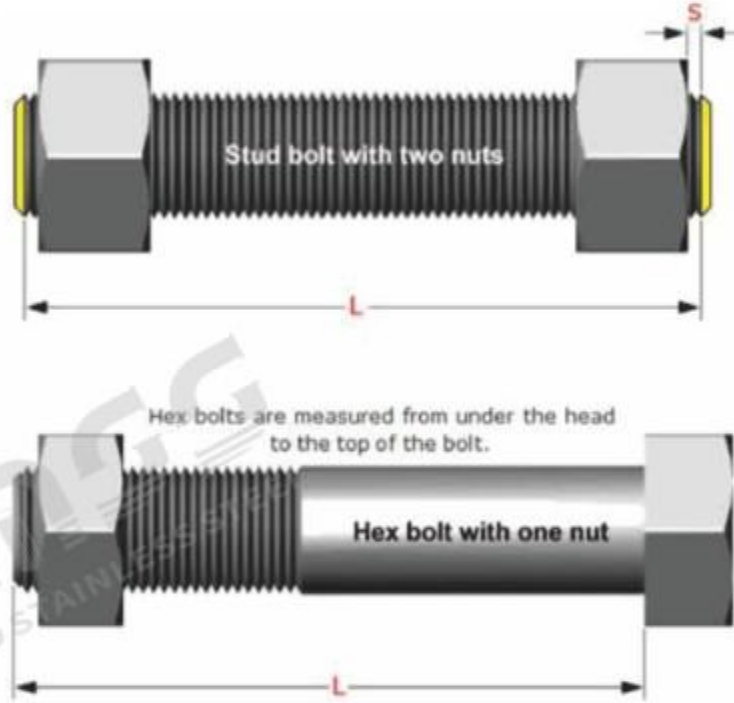
Features&Specifications

- Forged and Heat treated
- Available in T 304 and 316L
- Matching Seal can be supplied
- Stub bolt, Hex bolt and nuts can be supplied
- Conform to Sanitary A270 Tubes

The drawing of stud bolt with nuts & machine bolt with nuts for ASME B16.5 flanges



DIMENSIONS ARE IN "MM"



DIMENSIONS ARE IN "MM"

Size	A	B	C	D	E
1/2"	888.9	9.4	11.1	13.0	60.3
3/4"	98.4	15.7	12.7	19.3	69.8
1"	107.9	22.1	14.3	25.7	79.4
1-1/2"	127	34.8	17.5	38.3	98.4
2	152.4	47.5	19	51	120.6
2-1/2"	177.8	60.2	22.2	63.7	139.7
3"	190.5	72.9	23.8	76.4	152.4
4"	228.6	97.4	23.8	101.9	190.5
6"	279.4	148.2	23.8	15.4	241.3

Flange Approx. Weight

Weight=kg/pcs

NPS	DN	Welding Neck							Slip on							Threaded						
		#150	#300	#400	#600	#900	#1500	#2500	#150	#300	#400	#600	#900	#1500	#2500	#150	#300	#400	#600	#900	#1500	#2500
1/2	15	0.60	1.50	1.50	1.50	2.00	2.00	3.60	0.80	1.20	1.30	1.30	1.70	1.70	3.00	0.80	1.20	1.40	1.40	1.80	1.80	3.00
3/4	20	0.80	1.80	2.00	2.00	3.00	3.00	4.00	0.90	1.30	1.40	1.40	2.30	2.30	4.00	0.90	1.30	1.60	1.60	2.40	2.40	4.00
1	25	1.10	2.00	2.50	2.50	4.00	4.00	6.00	1.00	1.40	1.80	1.80	3.40	3.40	5.00	1.00	1.40	2.10	2.10	3.50	3.50	5.00
1.25	32	1.40	2.50	3.20	3.20	4.60	4.60	9.00	1.30	1.80	2.10	2.10	3.90	3.90	8.00	1.30	1.90	2.60	2.60	4.00	4.00	8.00
1.5	40	1.80	3.50	4.50	4.50	6.50	6.50	13.00	1.50	2.50	3.10	3.10	5.40	5.40	11.00	1.50	2.80	3.30	3.30	5.50	5.50	11.00
2	50	2.70	4.00	5.50	5.50	11.50	11.50	19.00	2.30	3.00	4.00	4.00	9.50	9.80	17.00	2.30	3.30	4.40	4.40	10.00	10.00	17.00
2.5	65	4.00	5.00	8.00	8.00	15.80	15.80	24.00	3.70	4.50	5.40	5.40	13.70	13.70	25.00	3.70	4.60	6.00	6.00	13.90	13.90	25.00
3	80	4.50	7.00	10.50	10.50	14.50	22.00	43.00	4.20	6.00	7.00	7.00	11.60		38.00	4.20	6.30	7.40	7.40	11.90	18.10	38.00
3.5	90	6.20	9.20	15.60	15.60				5.30	7.50	8.90	8.90				5.30	7.80	9.50	9.50			
4	100	7.00	11.00	16.00	19.00	23.00	30.00	66.00	5.90	10.10	13.00	16.00	19.80		58.00	5.90	10.20	15.00	17.00	20.00	28.90	58.00
5	125	8.60	14.00	19.00	31.00	37.00	58.00	111.00	7.00	12.50	18.50	25.30	32.00		95.00	7.00	12.90	20.00	27.00	33.00	52.00	95.00
6	150	10.80	19.00	26.00	37.00	50.00	70.00	172.00	8.50	17.50	25.00	30.00	41.00		146.00	8.50	18.00	28.00	32.00	42.00	61.00	146.00
8	200	18.00	30.00	40.00	53.00	85.00	119.00	261.00	13.50	26.00	34.00	43.00	71.00		220.00	13.50	26.00	37.00	46.00	72.00	105.00	220.00
10	250	24.00	41.00	57.00	86.00	118.00	204.00	485.00	19.50	38.00	54.00	70.00	100.00		420.00	19.50	38.00	60.00	74.00	101.00	176.00	420.00
12	300	37.00	62.00	80.00	102.00	163.00	303.00	730.00	29.00	52.00	70.00	86.00	133.00		590.00	29.00	52.00	76.00	90.00	134.00	266.00	590.00
14	350	47.00	84.00	105.00	150.00	186.00	400.00		39.00	74.00	85.00	100.00	152.00			39.00	74.00	93.00	108.00	154.00		
16	400	58.00	111.00	131.00	190.00	224.00	510.00		47.00	100.00	120.00	142.00	184.00			47.00	100.00	132.00	150.00	186.00		
18	450	64.00	138.00	159.00	240.00	300.00			54.00	127.00	150.00	175.00	258.00			54.00	127.00	165.00	188.00	260.00		
20	500	77.00	171.00	190.00	295.00	373.00			70.00	147.00	185.00	221.00	317.00			70.00	147.00	205.00	230.00	320.00		
22	550																					
24	600	118.00	247.00	275.00	365.00	680.00			95.00	208.00	260.00	315.00	608.00			95.00	213.00	285.00	325.00	611.00		
26	650	136.00	304.00	340.00	404.00				107.00	255.00	295.00	425.00										
28	700	143.00	367.00	400.00	480.00				126.00	321.00	354.00	470.00										
30	750	163.00	422.00	454.00	560.00				140.00	362.00	408.00	533.00										
32	800	197.00	465.00	522.00	680.00				168.00	398.00	465.00	624.00										
34	850	211.00	545.00	590.00	750.00				179.00	480.00	522.00	681.00										
36	900	236.00	590.00	670.00	795.00				205.00	540.00	601.00	726.00										
38	950	270.00							230.00													
40	1000	310.00							270.00													
42	1050	340.00							310.00													
44	1100	395.00							340.00													
46	1150	470.00							375.00													
48	1200	563.00							426.00													

NPS	DN	Bored							Lapped							Socketed Welding						
		#150	#300	#400	#600	#900	#1500	#2500	#150	#300	#400	#600	#900	#1500	#2500	#150	#300	#400	#600	#900	#1500	#2500
1/2	15	1.20	1.50	1.50	1.50	1.80	1.80	3.30	0.80	1.20	1.30	1.30	1.70	1.70	3.00	0.80	1.20		1.30		1.70	
3/4	20	1.30	1.60	1.60	1.60	2.70	2.70	3.90	0.90	1.30	1.40	1.40	2.30	2.30	4.00	0.90	1.30		1.40		2.30	
1	25	1.40	2.00	2.00	2.00	4.00	4.00	5.00	1.00	1.40	1.80	1.80	3.40	3.40	5.00	1.00	1.40		1.80		3.40	
1.25	32	1.80	2.50	2.80	2.80	5.80	5.80	8.10	1.30	1.80	2.10	2.10	3.90	3.90	8.00	1.30	1.80		2.60		3.90	
1.5	40	2.20	3.00	3.50	3.50	6.50	6.50	11.50	1.50	2.50	3.10	3.10	5.40	5.40	11.00	1.40	2.50		3.10		5.40	
2	50	2.80	3.50	4.50	4.50	11.50	11.50	17.60	2.30	3.00	4.00	4.00	9.80	9.80	17.00	2.30	3.00		4.00		9.80	
2.5	65	4.70	5.50	6.50	6.50	15.50	15.50	26.00	3.70	4.50	5.40	5.40	11.60	13.70	24.00	3.00	4.50		5.50		13.70	
3	80	5.50	7.00	9.00	9.00	14.50	22.00	39.00	4.20	6.00	7.00	7.00	13.70	18.00	36.00	3.50	6.00		7.00			
3.5	90	6.80	9.00	11.20	11.20				5.30	7.50	8.90	8.90										
4	100	8.00	12.00	15.00	18.50	24.00	33.00	60.00	5.90	10.10	13.00	16.00	19.80	28.00	55.00							
5	125	9.00	15.80	21.00	30.00	39.00	60.00	100.00	7.00	12.50	18.50	25.00	32.00	52.00	93.00							
6	150	12.00	23.00	28.00	39.00	51.00	72.00	140.00	8.50	17.50	25.00	30.00	41.00	61.00	142.00							
8	200	20.00	37.00	43.00	63.00	89.00	122.00	236.00	13.50	26.00	34.00	43.00	71.00	104.00	214.00							
10	250	32.00	58.00	65.00	105.00	130.00	210.00	450.00	19.50	38.00	54.00	70.00	100.00	175.00	407.00							
12	300	40.00	83.00	95.00	134.00	175.00	315.00	650.00	29.00	52.00	70.00	86.00	133.00	264.00	573.00							
14	350	59.00	107.00	126.00	163.00	206.00			39.00	74.00	85.00	100.00	152.00									
16	400	77.00	139.00	163.00	239.00	259.00			47.00	100.00	120.00	142.00	184.00									
18	450	95.00	177.00	206.00	298.00	367.00			54.00	127.00	150.00	175.00	258.00									
20	500	123.00	223.00	256.00	375.00	463.00			70.00	147.00	185.00	221.00	317.00									
22	550																					
24	600	186.00	342.00	387.00	573.00	875.00			95.00	208.00	260.00	315.00	608.00									
26	650	323.00	505.00	565.00	900.00	1140.00																
28	700	382.00	615.00	715.00	945.00	1400.00																
30	750	450.00	705.00	830.00	1115.00	1690.00																
32	800	560.00	820.00	955.00	1315.00	2025.00																
34	850	630.00	950.00	1120.00	1495.00	2410.00																
36	900	765.00	1085.00	1290.00	1750.00	2785.00																
38	950	850.00																				
40	1000	955.00																				
42	1050	1075.00																				
44	1100	1200.00																				
46	1150	1380.00																				
48	1200	1590.00																				

NOTE : The values shown in this table are based on weights for carbon steel (Density-7.85g/cm³)

SANITARY

Sanitary Sight Glass

Applications

- Sanitary sight glass is comprised of stainless steel frame and glass. Through it, operator can observe the flowing of the liquid substance clearly and precisely in the fields of food, cosmetics, pharmaceutical and fine chemicals industries.

Materials

- Product wetted steel parts: 304 / 316L
- Other steel parts: 304
- The material of glass: silicon boride glass or, tempered glass sealing silicon boride glass or, tempered glass
- Sealing elements:EPDM(standard) NBR,PTFE(optional)

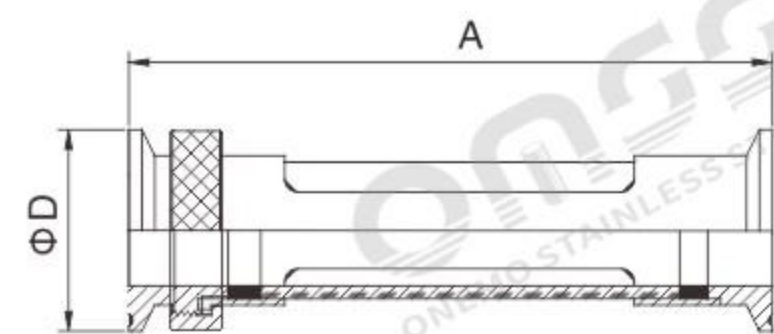
Technical Data

Working temperature: -20 ~ 135℃ (when the sealing is EPDM.)

Max.Operating Pressure (bar)

DIN	25	32	40	50	65	80	100
PYREX玻璃glass	10	10	10	8	7	6	5

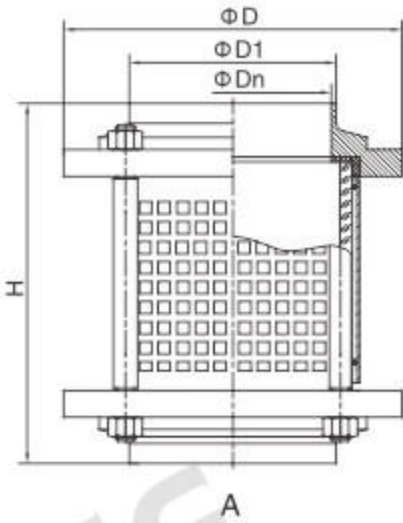
Locking type Straight Endoscopic



ST-V1140		
SIZE	A	D
1"	155	50.5
1 1/4"	155	50.5
1 1/2"	155	50.5
2"	155	64

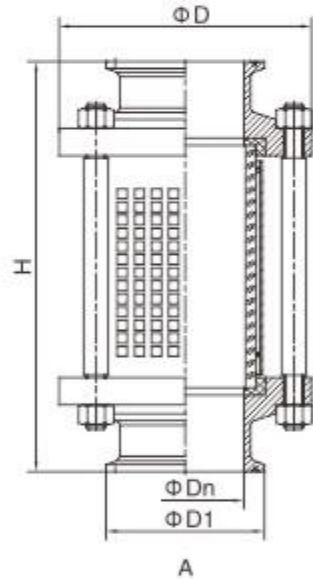


Sanitary Sight Glass



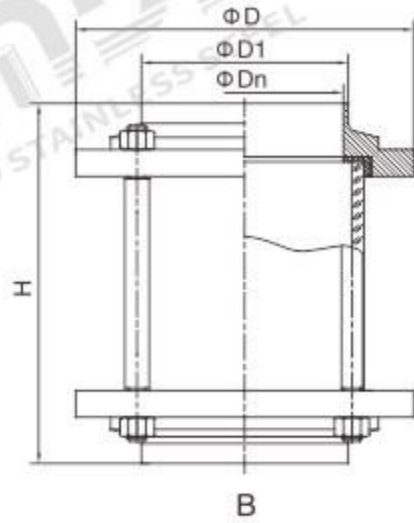
Welded Straight Sight Glass

SIZE	H	D	D1	Dn
DN20	140.5	78	22	19
DN25	140.5	78	28	25
DN32	140.5	82	34	31
DN40	140.5	88	40	37
DN50	140.5	102	52	49
DN65	149	124	70	66
DN80	151	139	85	81
DN100	155	154	104	100
DN125	158	185	129	125



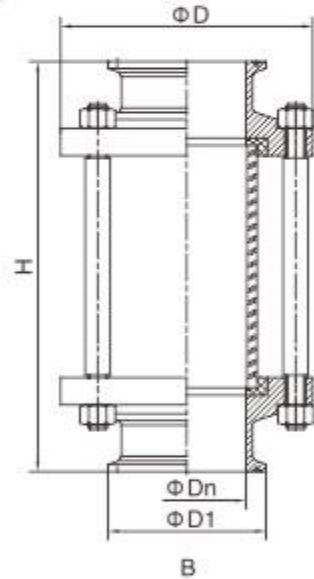
Clamped Straight Sight Glass

SIZE	H	D	D1	Dn
DN20	159	78	34	19
DN25	159	78	50.5	25
DN32	163	82	50.5	31
DN40	163	88	50.5	37
DN50	165	100	64	49
DN65	169	127	91	66
DN80	175	140	106	81
DN100	179	160	119	100



Welded Straight Sight Glass

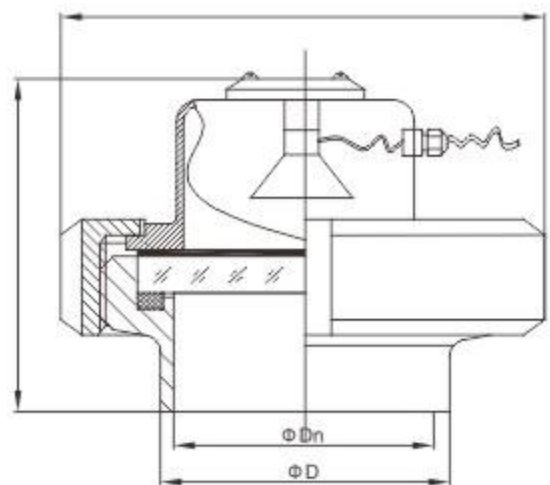
SIZE	H	D	D1	Dn
1"	144	78	25.4	22.4
1 1/4"	144	80	31.8	38.8
1 1/2"	144	80	38.1	35.1
2"	144	100	50.8	48.8
2 1/2"	144	117	63.5	59.5
3"	150	129	76.2	72.2
3 1/2"	150	140	89	85
4"	156	160	101.6	97.6



Clamped Straight Sight Glass

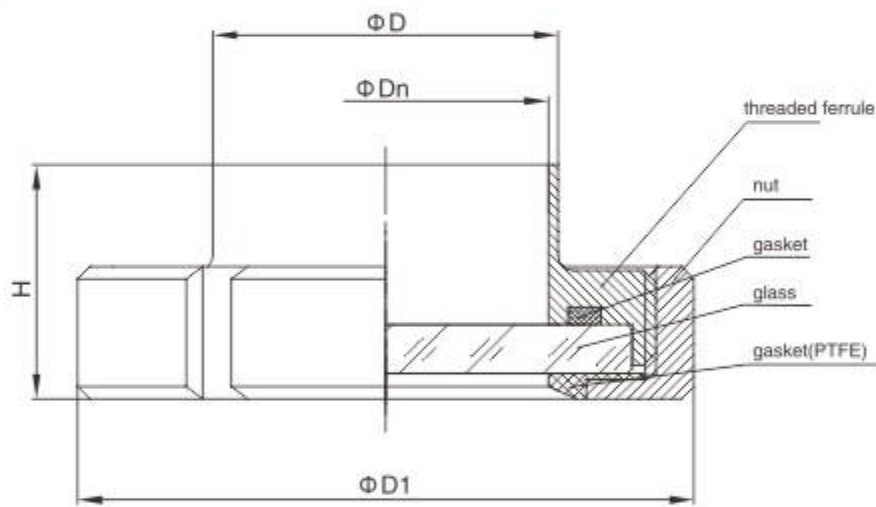
SIZE	H	D	D1	Dn
1"	156	78	50.5	22.4
1 1/4"	156	78	50.5	28.8
1 1/2"	160	86	50.5	35.1
2"	164	102	64	47.8
2 1/2"	168	115	77.5	59.5
3"	172	124	91	72.2
3 1/2"	175	140	106	84.9
4"	188	154	119	97.6

Sanitary Sight Glass



Stainless steel Luminaire Sight Glass

SIZE	Dn	D	H	D5
DN80	81	87	90	125
DN100	100	106	100	146
DN125	125	132	90	178
DN150	150	157	96	210



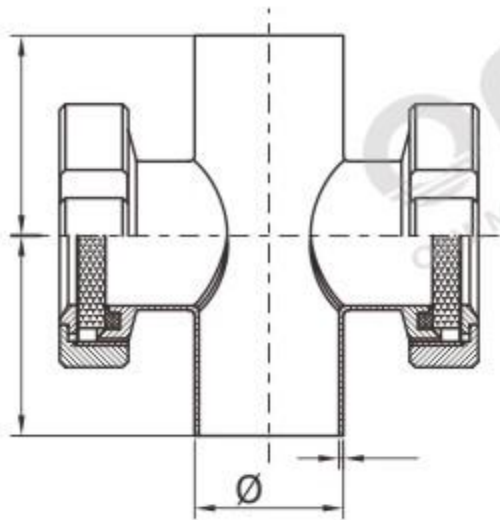
Union Type Sight Glass

SIZE	H	D1	D	Dn
DN25	28	63	28	25
DN32	28	70	34	31
DN40	28	78	40	37
DN50	28	92	52	49
DN65	30	112	70	66
DN80	33	127	85	81
DN100	37	148	104	100
DN125	40	178	129	125
DN150	42	210	154	150

Union Type Sight Glass

SIZE	H	D1	D	Dn
1"	25	54	25.4	22.4
1 1/4"	25	70	31.8	28.8
1 1/2"	28	72	38.1	35.1
2"	28	92	50.8	47.8
2 1/2"	32	97	63.5	59.5
3"	33	112	76.2	72.2
3 1/2"	34	125	89.0	85.0
4"	36	148	101.6	97.6

Sanitary Sight Glass

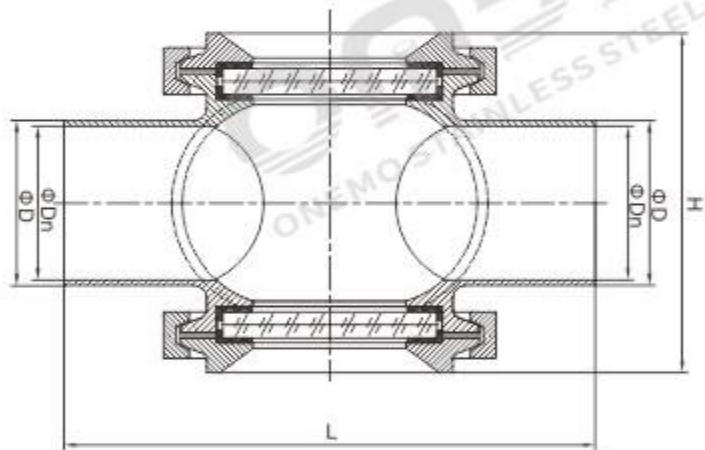


Cross Sight Glass

SIZE	H	D	T
DN25	50	28	1.5
DN32	55	34	1.5
DN40	60	40	1.5
DN50	70	52	1.5
DN65	80	70	2.0
DN80	90	85	2.0
DN100	100	104	2.0

Cross Sight Glass

SIZE	H	D	T
1"	33.5	25.4	1.65
1 1/4"	38	31.8	1.65
1 1/2"	48.5	38.1	1.65
2"	60.5	50.8	1.65
2 1/2"	83.5	63.5	1.65
3"	88.5	76.2	1.65
4"	127	101.6	2.1



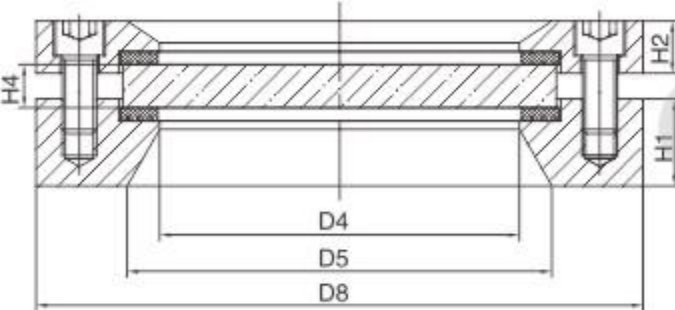
Four-Way Ball Type Sight Glass

SIZE	D	Dn	H	L
DN25	28	25	64	100
DN32	34	31	78	100
DN40	40	37	83	130
DN50	52	49	99	164
DN65	70	66	125	190
DN80	85	81	138	210
DN100	104	100	140	230

Four-Way Ball Type Sight Glass

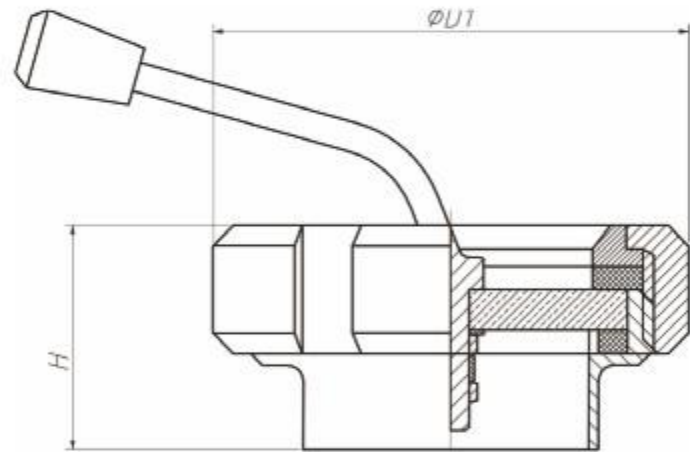
SIZE	D	Dn	H	L
1"	25.4	22.4	64	100
1 1/4"	31.8	28.8	78	100
1 1/2"	38.1	35.1	83	130
2"	50.8	47.8	99	164
2 1/2"	63.5	59.5	125	190
3"	76.2	72.2	138	210
4"	101.6	97.6	140	230

Sanitary Sight Glass



Flanged Sight Glass

SIZE	H4	D4	D5	D8	H1	H2
DN25	10	48	63	100	20	12
DN32	10	63	78	115	20	12
DN40	10	63	78	115	20	12
DN50	10	83	98	140	20	12
DN65	15	108	123	165	25	15
DN80	15	108	123	165	25	15
DN100	20	133	148	190	25	20
DN125	20	158	173	224	25	20
DN150	25	183	198	250	30	25
DN200	30	233	248	310	30	30



Union Type Sight Glass with Wiper

SIZE	H	ΦD1	ΦD
DN25	39	63	28
DN32	42	70	34
DN40	43	78	40
DN50	46	92	52
DN65	52	112	20
DN80	58	127	85
DN100	68	148	104

Whitened threaded pipe fittings SERIES



90°弯头 (316)
90°elbow(316)



三通 (316)
tee(316)



有边外接头 (316)
socket banded(316)



六角外牙内接头 (316)
hex nipple(316)



(由任)活接头 316
union(316)



45°弯头 (316)
45°elbow(316)



四通 (304)
cross(304)



异径三通 (304)
reduced tee(304)



异径弯头 (304)
RED elbow(304)



异径有边外接头 (304)
TT socket(304)



内外牙接头 (304)
m&f socket(304)



内外牙弯头 (304)
Street elbow (304)

Whitened threaded
pipe fittings SERIES



90°弯头 (304)
90°elbow (304)



三通 (304)
tee(304)



有边外接头 (304)
socket banded (304)



六角外牙内接头 (304)
hex nipple(304)



(由任)活接头 304
union(304)



外牙内接大小头
RED hex nipple



45°弯头
45°elbow



圆管帽 (304)
round cap



六角管帽
hex cap



六角卜芯 (304)
hexagon bushing(304)



六角塞头
hex plug



四角塞头 (304)
square plug(304)

Whitened threaded
pipe fittings SERIES



弯头带外丝牙
elbow outside union



内接带外牙接头
female outside union



弯头带接头
elbow & union



活接带外丝牙 (304)
outside socket woggle joint(304)



三通带接头
tee strip joint



45°弯头 (304)
45°elbow



皮管外牙 (304)
hose nipple (304)



六角外丝水管接头
hex hose nipple



管子全外牙接头
male full thread coupling



丝扣螺母 (304)
lock nut(304)



内牙过桥弯 (304)
bridge elbow (304)



仪表管弯接头 (304)
meter pipe elbow(304)

Stainless steel compression fittings / grooved fittings



等径直通
Straight Through



变径直通
Variable Diameter Through



移动活接
Mobile Union



外螺纹直通接头
Male Thread Through Joint



法兰接头
Flange Joint



90°弯头
90°Elbow



45°弯头
45°Elbow



外螺纹 90° 接头
Male 90° Connector



异径四通
Reducing Cross



异径三通
Reducing Tee



等径四通
Equal Diameter Cross



等径三通
Equal Diameter Tee

Stainless steel compression fittings / grooved fittings



加长 90° 弯头
Long 90° Elbow



偏心大小头
Eccentric head



同心大小头
Concentric



异径三通
Reducing Tee



加长三通
Long Tee



翻边接头
Flanged joints



NPT 真空外螺纹快装接头
NPT male thread quick connector vacuum



NPT 真空内螺纹快装接头
NPT thread quick connector vacuum



NPT 真空外螺纹快装接头
NPT male thread quick connector vacuum



NPT 真空内螺纹快装接头
NPT thread quick connector vacuum



安全卡箍专用接头
Safety Clamp special connector



非标接头
Non-standard connector



非标接头
Non-standard connector



变径三通
Reducing Tee



真空网板
Vacuum stuffy board

Stainless steel
water supply pipe

STAINLESS STEEL PIPE SPECIFICATION TABLE

国标 I 系列(GB/T 19228.2-2011)		
公称通径 (DN)	管材外径 (mm)	壁厚 (mm)
DN 15	16.0	0.8
DN 20	20.0	1.0
DN 25	25.4	1.0
DN 32	32.0	1.2
DN 40	40.0	1.2
DN 50	50.8	1.2
DN 60	63.5	1.5
DN 65	76.1	2.0
DN 80	88.9	2.0
DN 100	101.6	2.0
DN 125	133.0	2.5
DN 150	159.0	2.5
DN 200	219.0	3.0
DN 250	273.0	4.0
DN 300	325.0	4.0



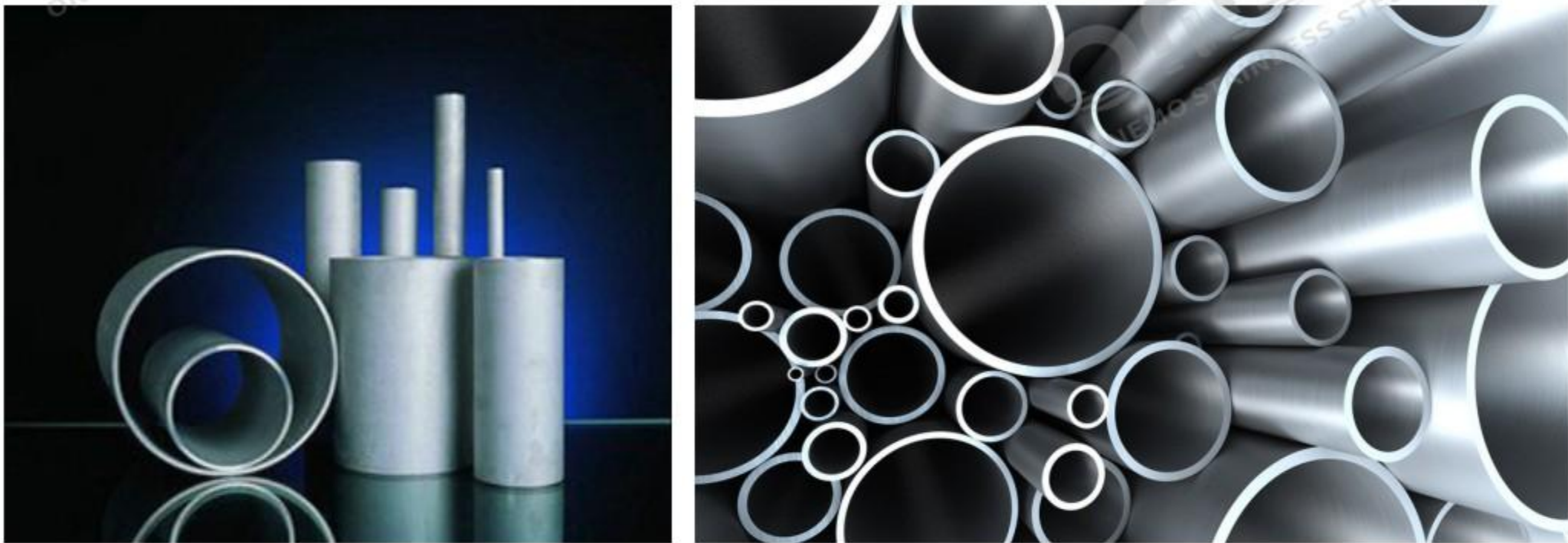
水务系列(CJ/T 151-2016)		
公称通径 (DN)	管材外径 (mm)	壁厚 (mm)
DN 15	18.0	1.0
DN 20	22	1.2
DN 25	28	1.2
DN 32	35	1.5
DN 40	42	1.5
DN 50	54	1.5
DN 65	76.1	2.0
DN 80	88.9	2.0
DN 100	108.0	2.0
DN 125	133.0	2.5
DN 150	159.0	2.5
DN 200	219.0	3.0
DN 250	273.0	4.0
DN 300	325.0	4.0

欧标系列		
公称通径 (DN)	管材外径 (mm)	壁厚 (mm)
DN 15	18 (15)	1.5
DN 20	22	1.5
DN 25	28	1.5
DN 32	35	1.5
DN 40	42	1.5
DN 50	54	1.5
DN 65	76.1	2.0
DN 80	88.9	2.0
DN 100	108.0	2.0
DN 125	133.0	2.5
DN 150	159.0	2.5
DN 200	219.0	3.0
DN 250	273.0	4.0
DN 300	325.0	4.0

STAINLESS STEEL COATED PIPE SPECIFICATION TABLE

公称通径 (DN)	管材外径 (mm)		覆塑层厚度(mm)	
	国标 I 系列	欧标系列	热水用管厚度	防腐管厚度
DN 15	16.0	18 (15)	1.8	0.4
DN 20	20.0	22.0	1.8	0.4
DN 25	25.4	28.0	1.8	0.4
DN 32	32.0	35.0	2.5	0.5
DN 40	40.0	42.0	2.5	0.5
DN 50	50.8	54.0	2.5	0.5
DN 60	63.5	-	2.5	1.2
DN 65	76.1	76.1	3.0	1.2
DN 80	88.9	88.9	3.0	1.2
DN 100	101.6	108.0	3.0	1.2

Stainless steel pipes



材质 (Grade): TP304/304L,TP316/316L
标准 (Standard): GB/T12771-2008:《流体输送用不锈钢焊接钢管》
HG20537.3-1992:《化工装置用奥氏体不锈钢焊接钢管技术条件》
HG20537.4-1992:《化工装置用奥氏体不锈钢大口径焊接钢管技术条件》
ASTM A312/A312M《Standard Specification for Seamless, Welded, and Heavily Cold Worked Austenitic Stainless Steel Pipes》
外径 (O.D): 8mm~1020mm
壁厚 (W.T): 0.6mm~18mm
焊接方式 (Welding method): 氩弧焊或氩弧焊 + 等离子焊 (TIG or TIG+Plasma)
产品应用 (Application): 化学 & 石油化学等相关 (Chemical& Petrochemical use etc.,)
包装方式 (Packing): 捆包或木箱包装 (Sea Worthy Bundle or wooden case)

产品规格 PRODUCT SPECIFICATION

外径 (mm)	厚度 1.0 (mm)	厚度 1.2 (mm)	厚度 1.5 (mm)	厚度 1.8 (mm)	厚度 2.0 (mm)	厚度 2.2 (mm)	厚度 2.5 (mm)	厚度 2.8 (mm)	厚度 3.0 (mm)	厚度 3.2 (mm)	厚度 3.5 (mm)	厚度 4.0 (mm)	厚度 4.5 (mm)
33.4	✓	✓	✓	✓	✓	✓	✓	✓	✓				
38.1		✓	✓	✓	✓	✓	✓	✓	✓				
40		✓	✓	✓	✓	✓	✓	✓	✓				
42.3		✓	✓	✓	✓	✓	✓	✓	✓				
45		✓	✓	✓	✓	✓	✓	✓	✓				
50.8		✓	✓	✓	✓	✓	✓	✓	✓				
57		✓	✓	✓	✓	✓	✓	✓	✓	✓			
60.3		✓	✓	✓	✓	✓	✓	✓	✓	✓			
63.5		✓	✓	✓	✓	✓	✓	✓	✓	✓			
76.2			✓	✓	✓	✓	✓	✓	✓	✓			
88.9			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

外径 (mm)	厚度 1.0 (mm)	厚度 1.0 (mm)	厚度 1.0 (mm)	厚度 1.0 (mm)	厚度 1.0 (mm)	厚度 1.0 (mm)	厚度 1.0 (mm)	厚度 1.0 (mm)	厚度 1.0 (mm)	厚度 1.0 (mm)	厚度 1.0 (mm)	厚度 1.0 (mm)	厚度 1.0 (mm)	厚度 1.0 (mm)
101.6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
108	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
114.3		✓	✓	✓	✓	✓	✓	✓	✓	✓				
133			✓	✓	✓	✓	✓	✓	✓	✓				
139.7				✓	✓	✓	✓	✓	✓	✓				
159				✓	✓	✓	✓	✓	✓	✓	✓			
168.3				✓	✓	✓	✓	✓	✓	✓	✓	✓		
219				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
250				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
273				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
323.9				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
325				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

备注:除以上规格外,我们还可以根据客户要求订做其他规格、材质管道产品。

Stainless steel thin tube



材质 (Grade): 201,202,301,TP304/304L,TP316/316L
规格 (DN): ϕ mm~ ϕ 16mm
壁厚 (W.T): 0.5mm~1.5mm
产品特点 (Features): 不锈钢光亮软态细管,具有表面光亮,内壁洁净,塑性高,韧性好,易变形加工等优点
(Stainless steel bright soft-state thin tube with a bright surface, inner cleansing, high plasticity,toughness is good, easy to defom and processing advantages of)
产品应用 (Aplication): 冷凝器,热泪盈眶换热器,电加热管等行业 (Condenser, heat call device, electric heating pipe, etc.)
包装方式 (Packing): 捆包或木箱包装 (Sea Worthy Bundle or Wooden case)

产品规格 PRODUCT SPECIFICATION

外径 (mm)	厚度 1.0 (mm)	厚度 1.5 (mm)	厚度 1.8 (mm)	厚度 2.0 (mm)	厚度 1.2 (mm)	厚度 2.2 (mm)
6	✓	✓	✓	✓		
8			✓	✓	✓	
10			✓	✓	✓	✓
12			✓	✓	✓	✓
14			✓	✓	✓	✓
16			✓	✓	✓	✓

备注:除以上规格外,我们还可以根据客户要求订做其他规格、材质管道产品。

Stainless steel heat exchange pipe stainless steel boiler pipe stainless steel condenser pipe

PROCESS CHARACTERISTICS

After cold processing, fine binding and bright annealing, the dimensional accuracy can reach 0.2%, the inner surface finish Ra@0.25@um.- Ra@0.80@um size :1/4 "-4" (seamless φ6.35-φ101.6).

MATERIAL

304, 304L, 321, 316, 316L, 310S, 347H, 2205, 2507, 904L, etc.

PROCESS SIZE

Conventional diameter 16mm, 19mm, 25mm, 32mm, 38mm in stock, according to the requirements of the size, the longest can be done 30m, according to the application of different, can be used cold drawing (annealing, pickling for soft industrial pipe) and cold rolling (wall thickness uniform, hard state does not annealing inside and outside bright, bright back. Soft industrial pipe after fire) two processes.

DETECTION

According to customer requirements can do water pressure, ultrasonic, eddy current testing.

PRODUCT CHARACTERISTICS

Stainless steel boiler tube, stainless steel heat exchange tube, stainless steel condensation tube, with high temperature steam resistance, impact corrosion resistance, ammonia corrosion resistance; Anti-fouling, non-tolerance. Easy to stain, anti-oxidation corrosion; Long service life, reduce maintenance time, save costs; Good tube loading process, direct tube change, uniform tube wall, safe and reliable, the overall thermal conductivity is better than copper tube; It is the ideal heat exchange product for the transformation of old units and the manufacture of new equipment.

PRODUCTION STANDARD

GB3087-1999 "Seamless Steel tubes for low and medium pressure boilers", GB53101995 "Seamless steel tubes for high pressure boilers", GB13296-2007 "Seamless Stainless steel tubes for boilers and heat exchangers", ASME Sa213 "Seamless ferrite and austenitic alloy steel tubes for boilers, superheaters and heat exchangers".



BA Bright annealed precision pipe Sanitary pipe and clean pipe

The sanitary stainless steel seamless pipe produced by our factory is reprocessed by multi-roll finishing mill on the basis of ordinary industrial pipe, which has the characteristics of high precision, uniform wall thickness, smooth and bright inside and outside surfaces.

COMMONLY USED MATERIAL

304(06Cr19Ni10), 304L(022Cr19Ni10), 316L(022Cr17Ni12Mo2) and other commonly used materials;

SPECIFICATION

Outer diameter φ6~φ219X wall thickness 0.7~12, unit (mm); Can be customized according to demand.

EXECUTIVE STANDARD

ASTM A270 - US, DIN 11850 - European, QBT 2467

PRODUCTION PROCESS FLOW

The finished pipe of the big brand is the base material -- multi-roll finishing rolling -- bright annealing -- inner surface polishing -- outer surface polishing -- inspection and acceptance -- packing and warehousing.

COMMON SURFACE FINISH IS

180 mesh (equivalent to Ra0.6~0.8μm), 240 mesh (equivalent to Ra0.4~0.6μm), 320 mesh (equivalent to Ra0.2~0.4μm) three grades of polishing.

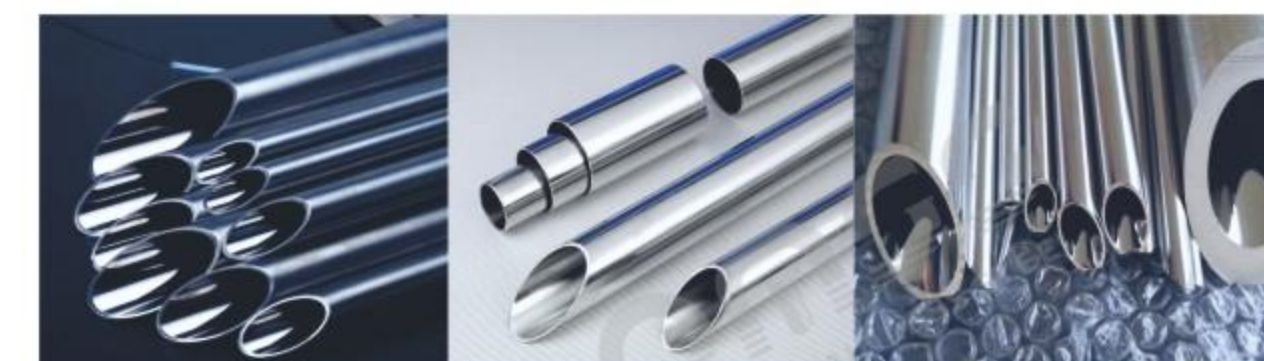
PACKING REQUIREMENT

Cover each set with a plastic film, cover both ends with a plastic door cover, and then install a wooden box. It is suitable for pharmaceutical, food, beverage, drinking water and electronics, electrical appliances, meters and other fields with high product precision. (vacuum annealed demagnetization)

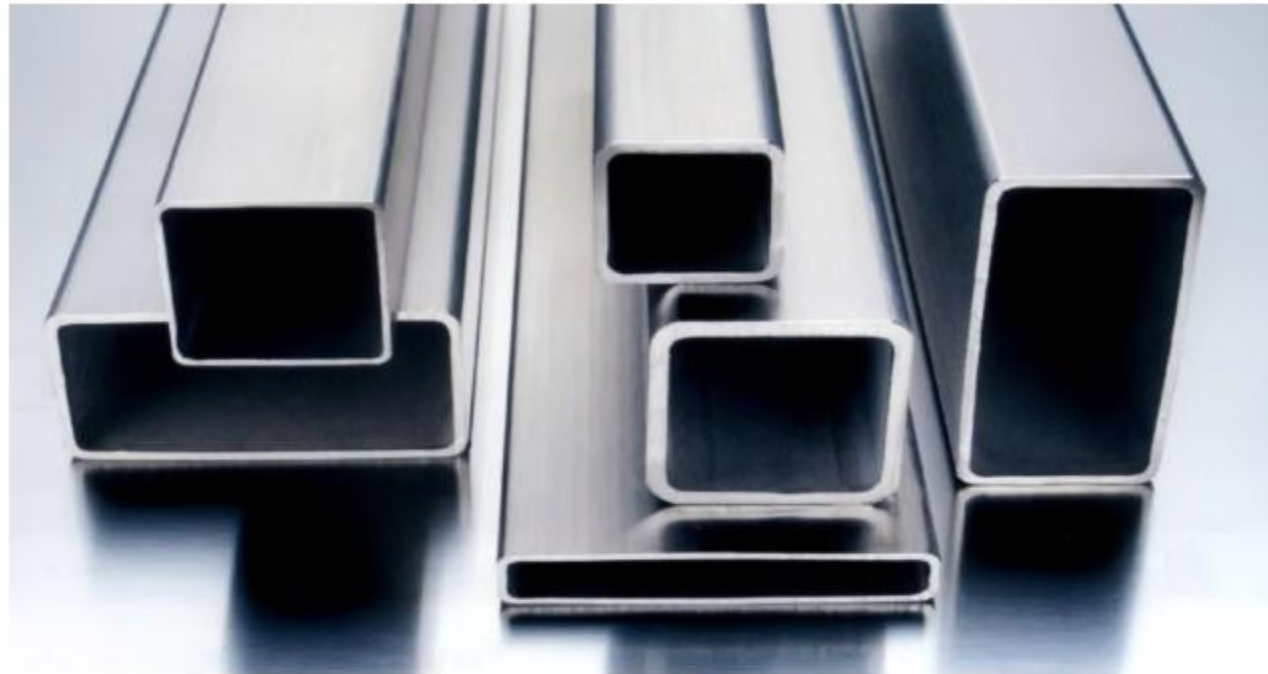


BA Bright annealed precision pipe Sanitary pipe and clean pipe

The main material of stainless steel EP tube :304/316L and other electrolytic chemical polishing on the basis of BA, and the inner wall roughness is increased by half value on the basis of BA tube.



Results/Decorative stainless steel square tubes



材质 (Grade): TP304/304L, TP316/316L

标准 (Standard): GB/T 12770-2002: 《机械结构用不锈钢焊接管》《Welded Stainless Steel Tubes for Machine Structures》

GB/T 18705-2002: 《装饰用焊接不锈钢管》《Welded Stainless Steel Pipes for decoration》

ASTM A554-08a: 《Standard Specification for welded Stainless Steel Mechanical Tubes》

外径 (O.D) 10mm x 10mm ~ 150mm x 150mm

壁厚 (W.T): 0.8mm ~ 4mm

焊接方式 (Welding method): 氩弧焊或氩弧焊 + 等离子焊 (TLG or TLG+Plasma)

产品应用 (Application): 食品 & 家具 / 建筑行业 (Machinery&Furniture/ Construction and Other Industries)

包装方式 (Packing): 捆包或木箱包装 (Sea Worthy Bundle or Wooden case)

产品规格 PRODUCT SPECIFICATION

外径×外径 (mm) × (mm)	壁厚 (mm)							
	厚度 (mm) 0.80	厚度 (mm) 1.00	厚度 (mm) 1.20	厚度 (mm) 1.50	厚度 (mm) 2.00	厚度 (mm) 2.50	厚度 (mm) 3.00	厚度 (mm) 4.00
10×10	✓	✓	✓	✓				
15×15	✓	✓	✓	✓				
19×19	✓	✓	✓	✓				
20×20	✓	✓	✓	✓				
25×25		✓	✓	✓	✓			
30×30		✓	✓	✓	✓	✓		
38×38			✓	✓	✓	✓		
40×40			✓	✓	✓	✓	✓	
50×50				✓	✓	✓	✓	
60×60				✓	✓	✓	✓	
80×80					✓	✓	✓	✓
100×100					✓	✓	✓	✓
120×120					✓	✓	✓	✓
150×150					✓	✓	✓	✓
备注: 理论计算公式 Note: Theoretical calculation formula								
钢号: 304 304L 321 公式: $W=0.00793 \times 4 \times (a-S) \times S$ Steel Grade: 304 304L 321 Formulas: $W=0.00793 \times 4 \times (a-S) \times S$								

备注: 除以上规格外, 我们还可以根据客户要求订做其他规格、材质管道产品。



材质 (Grade): 201, 202, 301, TP304/304L, TP316/316L

标准 (Standard): GB/T 12770-2002: 《机械结构用不锈钢焊接管》《Welded Stainless Steel Tubes for Mechanical Structures》

GB/T 18705-2002: 《装饰用焊接不锈钢管》《Welded Stainless Steel Pipes for decoration》

ASTM A554-08a: 《Standard Specification for welded Stainless Steel Mechanical Tubes》

外径 (O.D) 20mm x 10mm ~ 150mm x 100mm

壁厚 (W.T): 0.8mm ~ 4mm

焊接方式 (Welding method): 氩弧焊或氩弧焊 + 等离子焊 (TLG or TLG+Plasma)

产品应用 (Application): 机械 & 家具 / 建筑行业 (Machinery&Furniture/ Construction and Other Industries)

包装方式 (Packing): 捆包或木箱包装 (Sea Worthy Bundle or Wooden case)

产品规格 PRODUCT SPECIFICATION

外径×外径 (mm) × (mm)	壁厚 (mm)							
	厚度 (mm) 0.80	厚度 (mm) 1.00	厚度 (mm) 1.20	厚度 (mm) 1.50	厚度 (mm) 2.00	厚度 (mm) 2.50	厚度 (mm) 3.00	厚度 (mm) 4.00
20×10	✓	✓	✓	✓				
30×15	✓	✓	✓	✓				
38×25		✓	✓	✓	✓			
40×20	✓	✓	✓	✓	✓			
50×10		✓	✓	✓				
50×25		✓	✓	✓	✓			
50×30		✓	✓	✓	✓			
50×35		✓	✓	✓	✓	✓		
60×30			✓	✓	✓	✓		
60×40				✓	✓	✓	✓	
75×45				✓	✓	✓	✓	
80×40				✓	✓	✓	✓	
80×60					✓	✓	✓	
100×50					✓	✓	✓	
100×60					✓	✓	✓	
120×60					✓	✓	✓	
150×100					✓	✓	✓	✓
备注: 理论计算公式 Note: Theoretical calculation formula								
钢号: 304 304L 321 公式: $W=0.00793 \times 4 \times [(L+B) \div 2 - S] \times S$ Steel Grade: 304 304L 321 Formulas: $W=0.00793 \times [(L+B) \div 2 - S] \times S$								

备注: 除以上规格外, 我们还可以根据客户要求订做其他规格、材质管道产品。