



SHINSEI

STEEL FLANGES

PRODUCT CATALOGUE

ANSI STANDARD



CONTENT

Profile 3-4

Internationally Used Systems 5-6

Product



TYPE	STANDARD	PRESSURE CLASS	
SLIP- ON FLANGE (RAISED FACE)	ASME / ANSI B16.5	150#, 300#, 600#, 900#, 1500#, 2500#	7 - 9
BLIND FLANGE (RAISED FACE)	ASME / ANSI B16.5	150#, 300#, 600#, 900#, 1500#, 2500#	10 - 12
SOCKET WELDING v FLANGE (RAISED FACE)	ASME / ANSI B16.5	150#, 300#, 600#, 1500#	13 - 14
THREADED FLANGE (RAISED FACE)	ASME / ANSI B16.5	150#, 300#, 600#, 900#, 1500#, 2500#	15 - 17
WELDING NECK (RAISED FACE)	ASME / ANSI B16.5	150#, 300#, 600#, 900#, 1500#, 2500#	18 - 20
SLIP-ON LAP JOINT FLANGE	ASME / ANSI B16.5	150#, 300#, 600#, 900#, 1500#, 2500#	21 - 23
Ring Joint Dimensions	ASME / ANSI B16.5	150#, 300#, 600#, 900#, 1500#, 2500#	24 - 26



Dimensional Tolerance For Flanges 27

OUR PROFILE

Shinsei Industry Sdn. Bhd. ("SSI") was founded on 17th April 2013 in Penang, Malaysia.


It's a wholly-owned subsidiary of Shinsei Superinox Industry Pte Ltd which is incorporated in the Republic of Singapore.

SSI is the sole approved manufacturer for the Japanese brand name of forged flanges, . SSI and  are certified with PED, ISO 9001:2008 and SASOL.

 flanges has been in market since 2005 and are being used in various industries such as oil & gas, petrochemical, utilities, marine and shipbuilding and more. The  flanges markets reach include United States, Canada, Japan, Holland, Turkey, Belgium, Spain, France, South Africa, Brazil, Chile, Argentina, Mexico, UAE, Saudi Arabia, Australia, Singapore, Indonesia, Malaysia, Thailand, Vietnam and Taiwan.

SSI is located in the northern part of Malaysia, Penang city, which is a manufacturing hub with an efficient transportation network. The Company has an initial investment amount of US\$17 million. It occupies a land area of approximately 45,396 square metres and has a built up area of approximately 13,500 square metres. It has about 130 employees with an annual production capacity of stainless steel and carbon steel forged flanges of around 5,400 metric ton.

SSI is able to produce different standards such as JIS, ANSI, DIN, BS, EN and custom made forged flanges ranging from 3/8" to 24". With our unique, advance and complete set of forging facilities, we are also able to produce spare parts for machineries, motor vehicles and other industries requiring high quality with pressure and heat resistance forged spare parts.

Coupled with the strong technical support from Japan, state of the art machinery and equipment, standardised management system, complete testing measures and a comprehensive range of after-sales services, SSI is committed to deliver the highest quality of forged steel flanges under the brand name  to you!

QUALITY POLICY

To be a global leader in production of steel flanges who is committed to deliver high level of quality products and services through continual improvement initiatives in meeting customers' satisfaction.

INDUSTRIES SERVED



Chemicals and
Pharmaceuticals



Oil and Gas



Utilities



Engineering and
Construction



Power Generation



Marine and
Shipbuilding

SUMMARY OF PRODUCT

Type of Flanges

- Threaded
- Lap-Joint
- Plate
- Blind
- Socket-Weld
- Weld-Neck
- Slip-On
- Orifice
- Custom-made
- Flanges

Material Grade

- Stainless Steel
- Carbon Steel
- Alloy Steel
- Super Duplex
- Duplex
- Low Alloy Steel

Pressure Class

- Up to 400 Bar

Standard & Specifications

- ASME
- ASTM
- ANSI
- AWWA
- MSS
- JIS
- JPI
- DIN
- EN
- BS



Flanges Facing

- Raised Face
- Ring Joint
- Tongue & Groove
- Flat Face
- O-Ring Groove
- Male & Female

Diameters

- Up to 24 Inches

Large Diameters Flanges

- B16.47 Series A
- B.S.3293
- B16.47 Series B

PRODUCTION PROCESS



Internationally Used Systems



DIN (Deutsche Industrie Norm)

The most common and internationally used DIN-Standards:

DIN 50049	Documents on material testing
DIN 259	Threads corresponding to ISO 228
DIN 2999	Threads corresponding to ISO 7
DIN 2527	Blind flanges
DIN 2576	Plane welding flanges PN 10
DIN 2642F/G	Loose flanges PN 10 and collars
DIN 2633/35	Welding neck flanges PN 16-40
DIN 2605/09	Tube bends 3d (R=1.5 O.D)
DIN 2615	Tee



EN (European Standard)

EN 10204 defines the various types of inspection documents supplied to the purchaser for the delivery of iron and steel products. EN 10204, was approved by CEN on 1991-08-21.

The requirements in EN 10204/3.1B are the same as DIN 50049/3.1B. The new standard will be implemented in Europe and replace DIN 50049 step by step. Santrade's new purchase orders require inspection certificates 3.1B according to EN 10204.



ISO (International. Standardisation Organization)

The international. standardisation organization, ISO, has issued standards for tubes and tube fittings. The ISO system is predominant in Europe.

The following ISO standards are of interest:

ISO 5251	Stainless steel butt welding fittings Bends, 1,5D/3d, 90° and 180° with and without straight ends, bends 5d, 90°, without straight ends, concentric and eccentric reducers, equal and reducing tees, end caps. Beveling of ends.
ISO 7	Pipe threads where pressure-tight joints are made on the threads.



ANSI (American National Standard Institute)

The American ANSI system (formerly ASA and USAS) is a national system but is used throughout the world, particularly in Latin and North America; and within certain industries, e.g. the petrochemical industry. It can therefore be regarded as an internationally applied system.

For most sizes, the differences between ANSI and ISO outside diameters are negligible, and do not have to be taken into account. There are, however, two ANSI diameters, 73.02 and 141.3 mm, which differ significantly from their ISO counterparts, 76.1 and 139.7 mm.

The following standards apply to pipe, tube and tube fittings:

ANSI B 16.9	Butt welding fittings, e.g. elbows 90° and returns 180°, long radius (correspond to ISO 3d), tees and crosses, concentric and eccentric reducers, end caps, lap joint stub ends.
ANSI B 16.28	Wrought steel butt welding short radius elbows and returns.
ANSI B.16.25	Butt welding ends, end preparations,
ANSI B 16.5	Pipe flanges.
ANSI B 16.11	Forged steel fittings socket-welding and threaded.
ANSI B 16.3	Malleable iron threaded fittings, class 150 and 300 lb,
ANSI B 2.1	Pipe threads.
ANSI B 36.10	Seamless and welded stainless steel pipe, 1/8" -48", Schedule 80, 160, STD, XS and XXS.
ANSI B 36,19	Seamless and welded stainless steel pipe 1/8" Schedule 5S, 10S, 40S and 80S. Nominal diameters, wall thicknesses and wall thickness tolerances.



MSS (Manufacturer's Standardisation Society)

MSS-SP (Standard Practices) is a manufacturing standard that is used internationally, although it was developed in the United States.

The most frequently used part of this standard for tube fittings is MSS-SP43, which covers light, stainless steel butt weldings fittings. With regard to dimensions, this standard corresponds to ANSI B 16.9, but with closer tolerances on the outside diameter.



Nace MR0175 (National Association of Corrosion Engineers)

This standard covers material requirements for sulfide stress cracking resistant metallic materials for oilfield equipment. Our SAF2205 (UNS 531803) is listed under table 1- duplex (austenitic/ferritic) materials for direct exposure to sour environments. Under the same section we should add SAF 2507 (UNS S32750). According to paragraph 3.9.4, added in January 90, the hardness for cold worked, solution annealed duplex material may not be greater than 34 HRC.

Internationally Used Systems



ASTM (American Society for Testing and Materials)

For materials and testing information the ANSI standards contain references to ASTM specifications. The following ASTM standards are used for stainless fittings.

ASTM Specification A182/A182M .

Forged or rolled alloy-steel pipe flanges, forged fittings, and valves and parts for high-temperature service.

Specific stipulation:

This standard covers tube fittings manufactured according to ANSI B16.5, a dimensional standard for flanges and flanged fittings, and ANSI B16.11, which covers forged socket welding and threaded fittings.

The material shall be forged as close as practicable to the specified shape and size. Forged and rolled bar may be used for small cylindrically shaped parts.

All austenitic and austenitic/ferritic forgings shall be furnished in the heat-treated condition. The heat treatment may be performed before machining.

This specification also covers fittings made in SAF2205.

Identification marks consisting of the manufacturer's symbol or name and the heat number, designation of service rating, specification number, steel grade and size shall be stamped on each forging. The marking confirms that the forging has been delivered in accordance with the specification.

ASTM Specification A403/A403M

Wrought austenitic stainless steel piping fittings.

Specific stipulation:

This specification covers two general classes, WP and CR, of wrought austenitic stainless steel fittings of seamless and welded construction covered by the latest revision of ANSI B16.9, ANSI B16.11, ANSI B16.28, MSS Standard Practice SP-79 and MSS standard practice SP-43.

Class WP fittings are subdivided into three subclasses: Classes WP-S, WP-W, and WP-WX. They are manufactured to the requirements of ANSI B16.9, B16.11, B16.28, or MSS Standard Practice SP-79. Class WP-S fittings are manufactured from seamless product by a seamless method of manufacture (marked with class symbol WP-S); class WP-W fittings contain welds where the fitting, fabrication or construction welds have been radiographed (marked with class symbol WP-W); and class WP-WX fittings are those which contain welds where all welds have been radiographed (marked with class symbol WP-WX).

Class CR fittings are those manufactured to the requirements of MSS SP-43. Fittings according to class CR do not require non destructive testing. The material for fittings shall consist of forgings, bars, plates or seamless or welded tubular products. Fittings machined from bar shall be restricted to NPS 4 or smaller.

All fittings shall be furnished in the heat-treated condition. Fittings machined directly from solution annealed forgings and bar stock do not need to be resolution annealed. Hydrostatic testing is not required.

Each fitting shall be marked with the manufacturer's name or trademark, the schedule number or pressure rating, steel grade, class and size, and the heat number.

A certificate of compliance to the specification shall be the basis for approval.

ASTM Specification A815/A815M

Wrought ferritic, ferritic/austenitic and martensitic stainless steel piping fittings. This specification corresponds with ASTM A403 but covers also ferritic and ferritic/austenitic stainless steel.

UNS (Unified Numbering System for Metals and Alloys)

UNS is relatively new. It will replace AISI in the future. New materials are now listed under this number system. Most important for Sandvik are the following numbers:

UNS S 31803 = SAF 2205

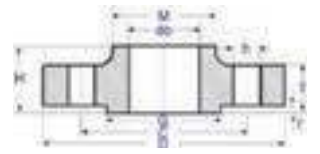
UNS S 32304 = SAF 2304

UNS S 32750 = SAF 2507

UNS N 08904 = 2RK65

UNS N 08028 = SAN28

Forged Stainless Steel Flanges - ANSI



ANSI /ASTM STANDARD - 150# SORF

SLIP- ON FLANGE (RAISED FACE)

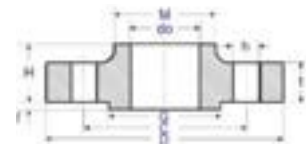
Nominal Pipe Size	Outside Dia. (mm)	Dia. of Bore (mm)	Thickness Min. (mm)	Length Thru. Hub (mm)	Dia. at Base of Hub (mm)	Dia. of Raised Face (mm)	Height of Raised Face (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	D	do	t	H	M	G	f		h	C	
1/2"	88.9	22.4	11.2	15.7	30.2	35.1	1.6	4	15.7	60.5	0.4
3/4"	98.6	27.7	12.7	15.7	38.1	42.9	1.6	4	15.7	69.9	0.6
1"	108.0	34.5	14.2	17.5	49.3	50.8	1.6	4	15.7	79.2	0.8
1.1/4"	117.3	43.5	15.7	20.6	58.7	63.5	1.6	4	15.7	88.9	1.0
1.1/2"	127.0	49.5	17.5	22.4	65.0	73.2	1.6	4	15.7	98.6	1.4
2"	152.4	62.0	19.1	25.4	77.7	91.9	1.6	4	19.1	120.7	2.1
2.1/2"	117.8	74.7	22.4	28.4	90.4	104.6	1.6	4	19.1	139.7	3.3
3"	190.5	90.7	23.9	30.2	108.0	127.0	1.6	4	19.1	152.4	3.9
3.1/2"	215.9	103.4	23.9	31.8	122.2	139.7	1.6	8	19.1	117.8	4.9
4"	228.6	116.1	23.9	33.3	134.9	157.2	1.6	8	19.1	190.5	5.4
5"	254.0	143.8	23.9	36.6	163.6	185.7	1.6	8	22.4	215.9	6.1
6"	279.4	170.7	25.4	39.6	192.0	215.9	1.6	8	22.4	241.3	7.5
8"	342.9	221.5	28.4	44.5	246.1	269.7	1.6	8	22.4	298.5	12.1
10"	406.4	276.4	30.2	49.3	304.8	323.9	1.6	12	25.4	362.0	16.5
12"	482.6	327.2	31.8	55.6	365.3	381.0	1.6	12	25.4	431.8	27.0
14"	533.4	359.2	35.1	57.2	400.1	412.8	1.6	12	28.4	476.2	35.0
16"	596.9	410.5	36.6	63.5	457.2	469.9	1.6	16	28.4	539.8	45.0
18"	365.0	461.8	39.6	68.3	505.0	533.4	1.6	16	31.8	577.9	49.0
20"	698.5	513.1	42.9	73.2	558.8	584.2	1.6	20	31.8	635.0	62.0
22"	749.3	564.4	46.0	79.4	609.6	641.2	1.6	20	35.1	692.1	85.0
24"	812.8	616.0	47.8	82.6	663.4	692.2	1.6	20	35.1	749.3	87.0

ANSI /ASTM STANDARD - 300# SORF

SLIP- ON FLANGE (RAISED FACE)

Nominal Pipe Size	Outside Dia. (mm)	Dia. of Bore (mm)	Thickness Min. (mm)	Length Thru. Hub (mm)	Dia. at Base of Hub (mm)	Dia. of Raised Face (mm)	Height of Raised Face (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	D	do	t	H	M	G	f		h	C	
1/2"	95.2	22.4	14.2	22.3	38.1	35.0	1.6	4	15.7	66.5	0.7
3/4"	117.3	27.7	15.7	25.4	47.7	42.9	1.6	4	19.0	82.5	1.2
1"	123.9	34.5	17.5	26.9	35.8	50.8	1.6	4	19.0	88.9	1.4
1.1/4"	133.3	43.5	19.0	26.9	63.5	63.5	1.6	4	19.0	98.5	1.7
1.1/2"	155.4	49.5	20.6	30.2	69.8	73.1	1.6	4	22.3	114.3	2.5
2"	165.1	62.0	22.3	33.2	84.0	91.9	1.6	8	19.0	127.0	2.9
2.1/2"	190.5	74.7	25.4	38.1	100.0	104.6	1.6	8	22.3	149.3	4.4
3"	209.5	90.7	28.4	42.9	117.3	127.0	1.6	8	22.3	168.1	5.6
3.1/2"	228.6	103.4	30.2	44.4	133.3	139.7	1.6	8	22.3	184.1	7.4
4"	254.0	116.1	31.7	47.7	146.0	157.2	1.6	8	22.3	200.1	10.0
5"	279.4	143.8	35.0	50.8	177.8	185.6	1.6	8	22.3	234.9	12.3
6"	317.5	170.7	36.5	52.3	206.2	215.9	1.6	12	22.3	269.7	15.6
8"	381.0	221.5	41.1	61.9	260.3	269.7	1.6	12	25.4	330.2	24.2
10"	444.5	276.3	47.7	66.5	320.5	323.8	1.6	16	28.4	387.3	34.1
12"	520.7	327.1	50.8	73.1	374.6	381.0	1.6	16	31.7	450.8	50.0
14"	584.2	359.1	53.8	76.2	425.4	412.7	1.6	20	31.7	514.3	70.0
16"	647.7	410.5	57.1	82.5	482.6	469.9	1.6	20	35.0	571.5	89.0
18"	711.2	461.8	60.4	88.9	533.4	533.4	1.6	24	35.0	628.6	109.0
20"	774.7	513.1	63.5	95.2	587.2	584.2	1.6	24	35.0	685.8	134.0
22"	838.2	564.4	66.7	101.6	641.2	641.2	1.6	24	41.1	742.9	168.8
24"	914.4	615.9	69.8	106.4	701.5	692.2	1.6	24	41.1	812.8	201.0

Forged Stainless Steel Flanges – ANSI



SLIP- ON FLANGE

ANSI /ASTM STANDARD – 600# SORF

SLIP- ON FLANGE (RAISED FACE)

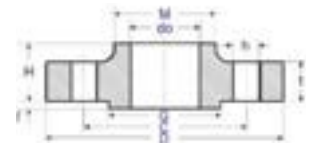
Nominal Pipe Size	Outside Dia. (mm)	Dia. of Bore (mm)	Thickness Min. (mm)	Length Thru. Hub (mm)	Dia. at Base of Hub (mm)	Dia. of Raiced Face (mm)	Height of Raiced Face (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	D	do	t	H	M	G	f		h	C	
1/2"	95.3	22.4	14.2	22.4	38.1	35.1	6.4	4	15.7	66.5	0.8
3/4"	117.3	27.7	15.7	25.4	47.8	42.9	6.4	4	19.1	82.6	1.3
1"	124.0	34.5	17.5	26.9	53.8	50.8	6.4	4	19.1	88.9	1.6
1.1/4"	133.4	43.2	20.6	28.4	63.5	63.5	6.4	4	19.1	98.6	2.1
1.1/2"	155.4	49.5	22.4	31.8	69.9	73.2	6.4	4	22.4	114.3	3.0
2"	165.1	62.9	25.4	36.6	84.1	91.9	6.4	8	19.1	127.0	3.6
2.1/2"	190.5	74.7	28.4	41.1	100.1	104.6	6.4	8	22.4	149.4	5.3
3"	209.6	90.7	31.8	46.0	117.3	127.0	6.4	8	22.4	168.1	7.0
3.1/2"	228.6	103.4	35.1	49.3	133.4	139.7	6.4	8	25.4	184.2	9.0
4"	273.1	116.1	38.1	53.8	152.4	157.2	6.4	8	25.4	215.9	14.5
5"	330.2	143.8	44.5	60.5	189.0	185.7	6.4	8	28.4	266.7	25.0
6"	355.6	170.7	47.8	66.5	222.3	215.9	6.4	12	28.4	292.1	29.0
8"	419.1	221.5	55.6	76.2	273.1	269.7	6.4	12	31.8	349.3	44.0
10"	508.0	276.4	63.5	85.9	342.9	323.9	6.4	16	35.1	431.8	71.0
12"	558.8	327.2	66.5	91.9	400.1	381.0	6.4	20	35.1	489.0	85.0
14"	603.3	359.2	69.9	93.7	431.8	412.8	6.4	20	38.1	527.1	99.0
16"	685.8	410.5	76.2	106.4	495.3	469.9	6.4	20	41.1	603.3	142.0
18"	743.0	461.8	82.6	117.3	546.1	533.4	6.4	20	44.5	654.1	173.0
20"	812.8	513.1	88.9	127.0	609.6	584.2	6.4	24	44.5	723.9	220.0
22"	869.9	564.4	95.2	133.3	666.7	641.2	6.4	24	47.6	777.9	300.0
24"	939.8	616.0	101.6	139.7	717.6	692.2	6.4	24	50.8	838.2	312.0

ANSI /ASTM STANDARD – 900# SORF

SLIP- ON FLANGE (RAISED FACE)

Nominal Pipe Size	Outside Dia. (mm)	Dia. of Bore (mm)	Thickness Min. (mm)	Length Thru. Hub (mm)	Dia. at Base of Hub (mm)	Dia. of Raiced Face (mm)	Height of Raiced Face (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	D	do	t	H	M	G	f		h	C	
1/2"	120.6	22.3	22.3	31.7	38.1	35.0	6.4	4	22.3	82.5	1.8
3/4"	130.0	27.7	25.4	35.0	44.4	42.9	6.4	4	22.3	88.9	2.4
1"	149.3	34.5	28.4	41.1	52.3	50.8	6.4	4	25.4	101.6	3.5
1.1/4"	158.7	43.2	28.4	41.1	63.5	63.5	6.4	4	25.4	111.2	4.0
1.1/2"	177.8	49.5	31.7	44.5	69.8	73.1	6.4	4	28.4	123.9	5.4
2"	215.9	62.0	38.1	57.1	104.6	91.9	6.4	8	25.4	165.1	10.0
2.1/2"	244.3	74.7	41.1	63.5	123.9	104.6	6.4	8	28.4	190.5	14.0
3"	241.3	90.7	38.1	53.8	127.0	127.0	6.4	8	25.4	190.5	12.0
4"	292.1	116.1	44.4	69.8	158.7	157.2	6.4	8	31.7	234.9	20.0
5"	349.2	143.8	50.8	79.2	190.5	185.6	6.4	8	35.0	279.4	32.0
6"	381.0	170.7	55.6	85.8	234.9	215.9	6.4	12	31.7	317.5	42.0
8"	469.9	221.5	63.5	101.6	298.4	269.7	6.4	12	38.1	393.7	71.0
10"	546.1	276.3	69.8	107.9	368.3	323.8	6.4	16	38.1	469.9	101.0
12"	609.6	327.1	79.2	117.3	419.1	381.0	6.4	20	38.1	533.4	133.0
14"	641.3	359.1	85.8	130.0	450.8	412.7	6.4	20	41.1	558.8	153.0
16"	704.8	410.5	88.9	133.3	508.0	469.9	6.4	20	44.4	615.9	185.0
18"	787.4	461.8	101.6	152.4	565.1	533.4	6.4	20	50.8	685.8	258.0
20"	857.2	513.1	107.9	158.7	622.3	584.2	6.4	20	53.8	749.3	317.0
24"	1041.4	615.9	139.7	203.2	749.3	692.1	6.4	20	66.5	901.7	606.0

Forged Stainless Steel Flanges - ANSI



ANSI /ASTM STANDARD - 1500# SORF

SLIP- ON FLANGE (RAISED FACE)

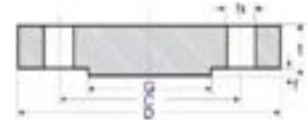
Nominal Pipe Size	Outside Dia. (mm)	Dia. of Bore (mm)	Thickness Min. (mm)	Length Thru. Hub (mm)	Dia. at Base of Hub (mm)	Dia. of Raised Face (mm)	Height of Raised Face (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	D	do	t	H	M	G	f		h	C	
1/2"	120.6	22.3	22.3	31.7	38.1	35.0	6.4	4	22.3	82.5	1.8
3/4"	130.0	27.7	25.4	35.0	44.4	42.9	6.4	4	22.3	88.9	2.4
1"	149.3	34.5	28.4	41.1	52.3	50.8	6.4	4	25.4	101.6	3.5
1.1/4"	158.7	43.2	28.4	41.1	63.5	63.5	6.4	4	25.4	111.2	4.0
1.1/2"	177.8	49.5	31.7	44.5	69.8	73.1	6.4	4	28.4	123.9	5.4
2"	215.9	62.0	38.1	57.1	104.6	91.9	6.4	8	25.4	165.1	10.0
2.1/2"	244.3	74.7	41.1	63.5	123.9	104.6	6.4	8	28.4	190.5	14.0
3"	266.7	90.7	47.7	73.1	133.3	127.0	6.4	8	31.7	203.2	21.5
4"	311.1	116.1	53.8	90.5	162.0	157.2	6.4	8	35.0	241.3	33.2
5"	374.6	143.8	73.1	104.8	196.8	185.6	6.4	8	41.1	292.1	60.8
6"	393.7	170.7	82.5	119.1	228.6	215.9	6.4	12	38.1	317.5	74.8
8"	482.6	221.5	91.9	142.9	292.1	269.7	6.4	12	44.4	393.7	118.0
10"	584.2	276.3	107.9	158.7	368.3	323.8	6.4	12	50.8	482.6	197.0
12"	673.1	327.1	123.9	181.0	450.8	381.0	6.4	16	53.8	571.5	264.0
14"	749.3	359.1	133.3	241.3	495.3	412.7	6.4	16	60.4	635.0	404.0
16"	825.5	410.5	146.0	260.3	552.4	469.9	6.4	16	66.5	704.8	522.0
18"	914.4	461.8	162.0	276.2	596.9	533.4	6.4	16	73.1	774.7	669.0
20"	984.2	513.1	177.8	292.1	641.3	584.2	6.4	16	79.2	831.8	805.0
24"	1168.4	615.9	203.2	330.2	762.0	692.1	6.4	16	91.9	990.6	1326.0

ANSI /ASTM STANDARD - 2500# SORF

SLIP- ON FLANGE (RAISED FACE)

Nominal Pipe Size	Outside Dia. (mm)	Dia. of Bore (mm)	Thickness Min. (mm)	Length Thru. Hub (mm)	Dia. at Base of Hub (mm)	Dia. of Raised Face (mm)	Height of Raised Face (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	D	do	t	H	M	G	f		h	C	
1/2"	133.4	22.3	30.2	39.7	42.9	35.1	6.4	4	22.4	88.9	3.0
3/4"	139.7	27.7	31.8	42.9	50.8	42.9	6.4	4	22.4	95.3	3.6
1"	158.8	34.5	35.1	47.6	57.2	50.8	6.4	4	25.4	108.0	5.0
1.1/4"	184.2	43.2	38.1	52.4	73.2	63.5	6.4	4	28.4	130.0	7.2
1.1/2"	203.2	49.5	44.5	60.3	79.2	73.2	6.4	4	31.8	146.1	10.0
2"	235.0	62.0	50.8	69.8	95.3	91.9	6.4	8	28.4	171.5	17.0
2.1/2"	266.7	74.7	57.2	79.4	114.3	104.6	6.4	8	31.8	196.9	25.0
3"	304.8	90.7	66.5	92.1	133.4	127.0	6.4	8	35.1	228.6	38.0
4"	355.6	116.1	76.2	107.9	165.1	157.2	6.4	8	41.1	273.1	56.0
5"	419.1	143.8	91.9	130.2	203.2	185.7	6.4	8	47.8	323.9	95.0
6"	482.6	170.7	108.0	152.4	235.0	215.9	6.4	8	53.8	368.3	147.0
8"	552.5	221.5	127.0	177.8	304.8	269.7	6.4	12	53.8	438.2	220.0
10"	673.1	276.3	165.1	228.6	374.4	323.9	6.4	12	66.5	539.8	410.0
12"	762.0	327.1	184.2	254.0	441.5	381.0	6.4	12	73.2	619.3	500.0

Forged Stainless Steel Flanges - ANSI



ANSI /ASTM STANDARD - 150# BLRF

BLIND FLANGE (RAISED FACE)

Nominal Pipe Size	Outside Dia. (mm)	Thickness Min. (mm)	Dia. of Raised Face (mm)	Height of Raised Face (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	D	t	G	f		h	C	
1/2"	88.9	11.2	35.1	1.6	4	15.7	60.5	0.5
3/4"	98.6	12.7	42.9	1.6	4	15.7	69.9	0.7
1"	108.0	14.2	50.8	1.6	4	15.7	79.2	0.9
1.1/4"	117.3	15.7	63.5	1.6	4	15.7	88.9	1.2
1.1/2"	127.0	17.5	73.2	1.6	4	15.7	98.6	1.6
2"	152.4	19.1	91.9	1.6	4	19.1	120.7	2.5
2.1/2"	177.8	22.4	104.6	1.6	4	19.1	139.7	4.0
3"	190.5	23.9	127.0	1.6	4	19.1	152.4	4.9
3.1/2"	215.9	23.9	139.7	1.6	8	19.1	177.8	6.2
4"	228.6	23.9	157.2	1.6	8	19.1	190.5	7.0
5"	254.0	23.9	185.7	1.6	8	22.4	215.9	8.7
6"	279.4	25.4	215.9	1.6	8	22.4	241.3	11.3
8"	342.9	28.4	269.7	1.6	8	22.4	298.5	20.0
10"	406.4	30.2	323.9	1.6	12	25.4	362.0	29.0
12"	482.6	31.8	381.0	1.6	12	25.4	431.8	44.0
14"	533.4	35.1	412.8	1.6	12	28.4	476.2	59.0
16"	596.9	36.6	469.9	1.6	16	28.4	539.7	76.0
18"	635.0	39.6	533.4	1.6	16	31.8	577.8	94.0
20"	698.5	42.9	584.2	1.6	20	31.8	635.0	122.0
22"	749.3	46.0	641.2	1.6	20	35.1	692.1	161.0
24"	812.8	47.8	692.2	1.6	20	35.1	749.3	185.0

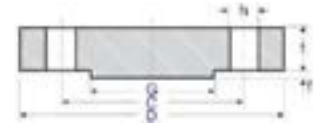
BLIND FLANGE

ANSI /ASTM STANDARD - 300# BLRF

BLIND FLANGE (RAISED FACE)

Nominal Pipe Size	Outside Dia. (mm)	Thickness Min. (mm)	Dia. of Raised Face (mm)	Height of Raised Face (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	D	t	G	f		h	C	
1/2"	95.2	14.2	35.0	1.6	4	15.7	66.7	0.7
3/4"	117.3	15.7	42.9	1.6	4	19.0	82.5	1.2
1"	123.9	17.5	50.8	1.6	4	19.0	88.9	1.4
1.1/4"	133.3	19.0	63.5	1.6	4	19.0	98.4	1.8
1.1/2"	155.4	20.6	73.1	1.6	4	22.3	114.3	2.7
2"	165.1	22.3	91.9	1.6	8	19.0	127.0	3.2
2.1/2"	190.5	25.4	104.6	1.6	8	22.3	149.2	4.9
3"	209.5	28.4	127.0	1.6	8	22.3	168.3	7.0
3.1/2"	228.6	30.2	139.7	1.6	8	22.3	184.1	9.0
4"	254.0	31.7	157.2	1.6	8	22.3	200.0	12.0
5"	279.4	35.0	185.6	1.6	8	22.3	234.9	16.0
6"	317.5	36.5	215.9	1.6	12	22.3	269.9	21.0
8"	381.0	41.1	269.7	1.6	12	25.4	330.2	35.0
10"	444.5	47.7	323.8	1.6	16	28.4	387.3	54.0
12"	520.7	50.8	381.0	1.6	16	31.7	450.8	87.9
14"	584.2	53.8	412.7	1.6	20	31.7	514.3	105.0
16"	647.7	57.1	469.9	1.6	20	35.0	571.5	137.0
18"	711.2	60.4	533.4	1.6	24	35.0	628.6	175.0
20"	774.7	63.5	584.2	1.6	24	35.0	685.8	221.0
22"	838.2	66.7	641.2	1.6	24	41.1	742.9	290.0
24"	914.4	69.8	692.1	1.6	24	41.1	812.8	340.0

Forged Stainless Steel Flanges - ANSI



ANSI /ASTM STANDARD - 600# BLRF

BLIND FLANGE (RAISED FACE)

BLIND FLANGE

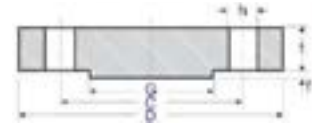
Nominal Pipe Size	Outside Dia. (mm)	Thickness Min. (mm)	Dia. of Raised Face (mm)	Height of Raised Face (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	D	t	G	f		h	C	
1/2"	95.3	14.2	35.1	6.4	4	15.7	66.5	0.8
3/4"	117.3	15.7	42.9	6.4	4	19.1	82.6	1.3
1"	124.0	17.5	50.8	6.4	4	19.1	88.9	1.6
1.1/4"	133.4	20.6	63.5	6.4	4	19.1	98.6	2.3
1.1/2"	155.4	22.4	73.2	6.4	4	22.4	114.3	3.3
2"	165.1	25.4	91.9	6.4	8	19.1	127.0	4.2
2.1/2"	190.5	28.4	104.6	6.4	8	22.4	149.4	6.2
3"	209.6	31.8	127.0	6.4	8	22.4	168.1	8.5
3.1/2"	228.6	35.1	139.7	6.4	8	25.4	184.2	11.0
4"	273.1	38.1	157.2	6.4	8	25.4	215.9	18.0
5"	330.2	44.5	185.7	6.4	8	28.4	266.7	30.0
6"	355.6	47.8	215.9	6.4	12	28.4	292.1	36.0
8"	419.1	55.6	269.7	6.4	12	31.8	349.3	65.9
10"	508.0	63.5	323.9	6.4	16	35.1	431.8	98.0
12"	558.8	66.5	381.0	6.4	20	35.1	489.0	124.0
14"	603.3	69.9	412.8	6.4	20	38.1	527.1	151.0
16"	685.8	76.2	469.9	6.4	20	41.1	603.3	214.0
18"	743.0	82.6	533.4	6.4	20	44.5	654.1	272.0
20"	812.8	88.9	584.2	6.4	24	44.5	723.9	349.0
22"	869.9	95.2	641.2	6.4	24	47.6	777.9	454.0
24"	939.8	101.6	692.2	6.4	24	50.8	838.2	533.0

ANSI /ASTM STANDARD - 900# BLRF

BLIND FLANGE (RAISED FACE)

Nominal Pipe Size	Outside Dia. (mm)	Thickness Min. (mm)	Dia. of Raised Face (mm)	Height of Raised Face (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	D	t	G	f		h	C	
1/2"	120.6	22.3	35.0	6.4	4	22.3	82.5	1.8
3/4"	130.1	25.4	42.9	6.4	4	22.3	88.9	2.5
1"	149.3	28.4	50.8	6.4	4	25.4	101.6	3.6
1.1/4"	158.7	28.4	63.5	6.4	4	25.4	111.2	4.2
1.1/2"	177.8	31.7	73.1	6.4	4	28.4	123.9	5.8
2"	215.9	38.1	91.9	6.4	8	25.4	165.1	11.0
2.1/2"	244.3	41.1	104.6	6.4	8	28.4	190.5	14.0
3"	241.3	38.1	127.0	6.4	8	25.4	190.5	13.1
4"	292.1	44.4	157.2	6.4	8	31.7	234.9	27.0
5"	349.2	50.8	185.6	6.4	8	35.0	279.4	36.5
6"	381.0	55.6	215.9	6.4	12	31.7	317.5	48.0
8"	469.9	63.5	269.7	6.4	12	38.1	393.7	83.0
10"	546.1	69.8	323.8	6.4	16	38.1	469.9	122.0
12"	609.6	79.2	381.0	6.4	20	38.1	533.4	173.0
14"	641.3	85.8	412.7	6.4	20	41.1	558.8	206.0
16"	704.8	88.9	469.9	6.4	20	44.4	615.9	259.0
18"	787.4	101.6	533.4	6.4	20	50.8	685.8	367.0
20"	857.2	107.9	584.2	6.4	20	53.8	749.3	463.0
24"	1041.4	139.7	692.1	6.4	20	66.5	901.7	876.0

Forged Stainless Steel Flanges - ANSI



ANSI /ASTM STANDARD - 1500# BLRF

BLIND FLANGE (RAISED FACE)

Nominal Pipe Size	Outside Dia. (mm)	Thickness Min. (mm)	Dia. of Raised Face (mm)	Height of Raised Face (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	D	t	G	f		h	C	
1/2"	120.6	22.3	35.0	6.4	4	22.3	82.5	1.8
3/4"	130.1	25.4	42.9	6.4	4	22.3	88.9	2.5
1"	149.3	28.4	50.8	6.4	4	25.4	101.6	3.6
1.1/4"	158.7	28.4	63.5	6.4	4	25.4	111.1	4.2
1.1/2"	177.8	31.7	73.1	6.4	4	28.4	123.8	5.8
2"	215.9	38.1	91.9	6.4	8	25.4	165.1	11.0
2.1/2"	244.3	41.1	104.6	6.4	8	28.4	190.5	14.0
3"	266.7	47.7	127.0	6.4	8	31.7	203.2	20.0
4"	311.1	53.8	157.2	6.4	8	35.0	241.3	30.0
5"	374.6	73.1	185.6	6.4	8	41.1	292.1	59.0
6"	393.7	82.5	215.9	6.4	12	38.1	317.5	72.0
8"	482.6	91.9	269.7	6.4	12	44.4	393.7	122.0
10"	584.2	107.9	323.8	6.4	12	50.8	482.6	210.0
12"	673.1	123.9	381.0	6.4	16	53.8	571.5	316.0
14"	749.3	133.3	412.7	6.4	16	60.4	635.0	420.0
16"	825.5	146.0	469.9	6.4	16	66.5	704.8	560.0
18"	914.4	162.0	533.4	6.4	16	73.1	774.7	760.0
20"	984.2	177.8	584.2	6.4	16	79.2	831.8	965.0
24"	1168.4	203.2	692.1	6.4	16	91.9	990.6	1558.0

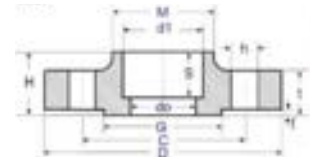
BLIND FLANGE

ANSI /ASTM STANDARD - 2500# BLRF

BLIND FLANGE (RAISED FACE)

Nominal Pipe Size	Outside Dia. (mm)	Thickness Min. (mm)	Dia. of Raised Face (mm)	Height of Raised Face (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	D	t	G	f		h	C	
1/2"	133.4	30.2	35.1	6.4	4	22.4	88.9	3.0
3/4"	139.7	31.8	42.9	6.4	4	22.4	95.3	3.5
1"	158.8	35.1	50.8	6.4	4	25.4	108.0	5.0
1.1/4"	184.2	38.1	63.5	6.4	4	28.4	130.0	7.4
1.1/2"	203.2	44.5	73.2	6.4	4	31.8	146.1	10.4
2"	235.0	50.8	91.9	6.4	8	28.4	171.5	16.0
2.1/2"	266.7	57.2	104.6	6.4	8	31.8	196.9	23.0
3"	304.8	66.5	127.0	6.4	8	35.1	228.6	35.0
4"	355.6	76.2	157.2	6.4	8	41.1	273.1	54.0
5"	419.1	91.9	185.7	6.4	8	47.8	323.9	91.0
6"	482.6	108.0	215.9	6.4	8	53.8	368.3	141.0
8"	552.5	127.0	269.7	6.4	12	53.8	438.2	214.0
10"	673.1	165.1	323.9	6.4	12	66.5	539.8	411.0
12"	762.0	184.1	381.0	6.4	12	73.2	619.3	592.0

Forged Stainless Steel Flanges - ANSI



ANSI /ASTM STANDARD - 150# SWRF

SOCKET WELD FLANGE (RAISED FACE)

Nominal Pipe Size	Dia. of Bore (mm)		Outside Dia. (mm)	Bore of Socket (mm)	Depth of Socket (mm)	Thickness Min. (mm)	Length Thru. Hub (mm)	Dia. at Base of Hub (mm)	Dia. of Raised Face (mm)	Height of Raised Face (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	Sch 40s/STD	Sch 80s/STD												
	do		D	dl	S	t	H	M	G	f		h	C	
1/2"	15.8	13.9	88.9	22.4	9.6	11.2	15.7	30.2	35.1	1.6	4	15.7	60.5	0.5
3/4"	20.9	18.8	98.6	27.7	11.1	12.7	15.7	38.1	42.9	1.6	4	15.7	69.9	0.6
1"	26.6	24.3	108.0	34.5	12.7	14.2	17.5	49.2	50.8	1.6	4	15.7	79.2	0.9
1.1/4"	35.1	32.5	117.3	43.2	14.2	15.7	20.6	58.7	63.5	1.6	4	15.7	88.9	1.1
1.1/2"	40.9	38.1	127.0	49.5	15.7	17.5	22.4	65.0	73.1	1.6	4	15.7	98.6	1.4
2"	52.5	49.3	152.4	62.0	17.5	19.1	25.4	77.7	91.9	1.6	4	19.1	120.7	2.1
2.1/2"	62.7	59.0	177.8	74.7	19.0	22.4	28.4	90.4	104.6	1.6	4	19.1	139.7	3.4
3"	77.9	73.7	190.5	90.7	20.6	23.9	30.2	108.0	127.0	1.6	4	19.1	152.4	3.9
3.1/2"	90.1	85.5	215.9	103.4	22.2	23.9	31.7	122.2	139.7	1.6	8	19.1	177.8	5.0
4"	102.3	97.2	228.6	116.1	23.8	23.9	33.3	134.9	157.2	1.6	8	19.1	190.5	5.9
5"	128.0	122.3	254.0	143.8	23.8	23.9	36.5	163.5	185.7	1.6	8	22.2	215.9	6.8
6"	154.1	146.3	279.4	170.7	27.0	25.4	39.7	192.1	215.9	1.6	8	22.2	241.3	8.6
8"	202.7	193.7	342.9	221.5	31.7	28.6	44.4	246.1	269.9	1.6	8	22.4	298.4	13.7
10"	254.4	247.7	406.4	276.3	33.3	30.2	49.2	304.8	323.8	1.6	12	25.4	361.9	19.6
12"	304.9	298.5	482.6	327.1	39.7	31.8	55.6	365.1	381.0	1.6	12	25.4	431.8	29.0
14"	336.6	330.2	533.4	359.1	41.3	34.9	57.1	400.0	412.7	1.6	12	28.6	476.2	41.0
16"	387.3	381.6	596.9	410.5	44.4	36.5	63.5	457.2	469.9	1.6	16	28.6	539.7	44.5
18"	438.1	431.8	635.0	461.8	49.2	39.7	68.3	504.8	533.4	1.6	16	31.7	577.8	59.0
20"	488.9	482.6	698.5	513.1	54.0	42.9	73.0	558.8	584.2	1.6	20	31.7	635.0	75.0
24"	590.5	584.2	812.8	615.9	63.5	47.6	82.5	663.6	692.1	1.6	20	34.9	749.3	99.0

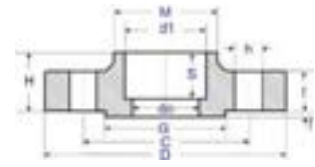
SOCKET WELDING FLANGE

ANSI /ASTM STANDARD - 300# SWRF

SOCKET WELD FLANGE (RAISED FACE)

Nominal Pipe Size	Dia. of Bore (mm)		Outside Dia. (mm)	Bore of Socket (mm)	Depth of Socket (mm)	Thickness Min. (mm)	Length Thru. Hub (mm)	Dia. at Base of Hub (mm)	Dia. of Raised Face (mm)	Height of Raised Face (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	Sch 40s/STD	Sch 80s/STD												
1/2"	do		D	dl	S	t	H	M	G	f		h	C	
1/2"	15.8	13.9	95.2	22.4	9.6	14.2	22.3	38.1	35.1	1.6	4	15.7	66.5	0.9
3/4"	20.9	18.8	117.3	27.7	11.1	15.7	25.4	47.7	42.9	1.6	4	19.1	82.5	1.2
1"	26.6	24.3	123.9	34.5	12.7	17.5	26.9	53.8	50.8	1.6	4	19.1	88.9	1.4
1.1/4"	35.1	32.5	133.3	43.2	14.2	19.0	26.9	63.5	63.5	1.6	4	19.1	98.5	1.8
1.1/2"	40.9	38.1	155.4	49.5	15.7	20.6	30.2	69.8	73.1	1.6	4	22.3	114.3	2.6
2"	52.5	49.3	165.1	62.0	17.5	22.3	33.2	84.0	91.9	1.6	8	19.1	127.0	3.0
2.1/2"	62.7	59.0	190.5	74.7	19.0	25.4	38.1	100.0	104.6	1.6	8	22.3	149.3	4.4
3"	77.9	73.7	209.5	90.7	20.6	28.4	42.9	117.3	127.0	1.6	8	22.3	168.1	6.0
3.1/2"	90.1	85.5	228.6	103.4	22.3	30.2	44.4	133.3	139.7	1.6	8	22.3	184.1	7.7
4"	102.3	97.2	254.0	116.1	23.8	31.8	47.6	146.0	157.2	1.6	8	22.3	200.0	10.0

Forged Stainless Steel Flanges – ANSI



ANSI /ASTM STANDARD – 600# SWRF

SOCKET WELD FLANGE (RAISED FACE)

Nominal Pipe Size	Dia. of Bore (mm)		Outside Dia. (mm)	Bore of Socket (mm)	Depth of Socket (mm)	Thickness Min. (mm)	Length Thru. Hub (mm)	Dia. at Base of Hub (mm)	Dia. of Raised Face (mm)	Height of Raised Face (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	Sch 40s/STD	Sch 80s/STD												
	do		D	dl	S	t	H	M	G	f		h	C	
1/2"	15.8	13.9	95.3	22.4	9.6	14.2	22.4	38.1	35.1	6.4	4	15.7	66.5	0.9
3/4"	20.9	18.8	117.3	27.7	11.1	15.7	25.4	47.8	42.9	6.4	4	19.1	82.6	1.3
1"	26.6	24.3	124.0	34.5	12.7	17.5	26.9	53.8	50.8	6.4	4	19.1	88.9	1.6
1.1/4"	35.1	32.5	133.4	43.2	14.2	20.6	28.4	63.5	63.5	6.4	4	19.1	98.6	2.1
1.1/2"	40.9	38.1	155.4	49.5	15.7	22.4	31.8	69.9	73.1	6.4	4	22.4	114.3	3.0
2"	52.5	49.3	165.1	62.0	17.5	25.4	36.6	84.1	91.9	6.4	8	19.1	127.0	3.7
2.1/2"	62.7	59.0	190.5	74.7	19.0	28.4	41.1	100.0	104.6	6.4	8	22.4	149.4	5.4
3"	77.9	73.7	209.6	90.7	20.6	31.8	46.0	117.3	127.0	6.4	8	22.4	168.1	7.1

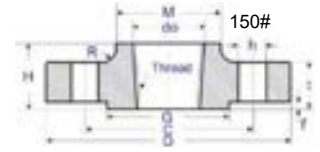
SOCKET WELDING FLANGE

ANSI /ASTM STANDARD – 1500# SWRF

SOCKET WELD FLANGE (RAISED FACE)

Nominal Pipe Size	Dia. of Bore (mm)		Outside Dia. (mm)	Bore of Socket (mm)	Depth of Socket (mm)	Thickness Min. (mm)	Length Thru. Hub (mm)	Dia. at Base of Hub (mm)	Dia. of Raised Face (mm)	Height of Raised Face (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	Sch 40s/STD	Sch 80s/STD												
	do		D	dl	S	t	H	M	G	f		h	C	
1/2"	15.8	13.9	120.6	22.4	9.6	22.3	31.7	38.1	35.1	6.4	4	22.3	82.5	1.8
3/4"	20.9	18.8	130.0	27.7	11.1	25.4	35.0	44.4	42.9	6.4	4	22.3	88.9	2.4
1"	26.6	24.3	149.3	34.5	12.7	28.4	41.1	52.3	50.8	6.4	4	25.4	101.6	3.5
1.1/4"	35.1	32.5	158.7	43.2	14.2	28.4	41.1	63.5	63.5	6.4	4	25.4	111.2	4.0
1.1/2"	40.9	38.1	177.8	49.5	15.7	31.7	44.5	69.8	73.1	6.4	4	28.4	123.9	5.4
2"	52.5	49.3	215.9	62.0	17.5	38.1	57.1	104.6	91.9	6.4	8	25.4	165.1	10.2
2.1/2"	62.7	59.0	244.3	74.7	19.0	41.1	63.5	123.9	104.6	6.4	8	28.4	190.5	13.9

Forged Stainless Steel Flanges – ANSI



ANSI /ASTM STANDARD – 150# THRF

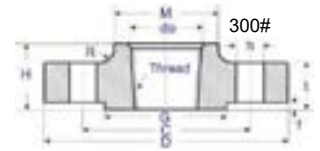
THREADED FLANGE (RAISED FACE)

Nominal Pipe Size	Outside Dia. (mm)	Dia. of Bore (mm)	Thickness Min. (mm)	Length Thru. Hub (mm)	Thread Length (mm)	Dia. at Base of Hub (mm)	Dia. of Raiced Face (mm)	Height of Raiced Face (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	D	do	t	H	T	M	G	f		h	C	
1/2"	88.9		11.2	15.7	16.0	30.2	35.1	1.6	4	15.7	60.5	0.4
3/4"	98.6		12.7	15.7	16.0	38.1	42.9	1.6	4	15.7	69.9	0.6
1"	108.0		14.2	17.5	17.0	49.3	50.8	1.6	4	15.7	79.2	0.8
1.1/4"	117.3		15.7	20.6	21.0	58.7	63.5	1.6	4	15.7	88.9	1.1
1.1/2"	127.0		17.5	22.4	22.0	65.0	73.2	1.6	4	15.7	98.6	1.4
2"	152.4		19.1	25.4	25.0	77.7	91.9	1.6	4	19.1	120.7	2.1
2.1/2"	177.8		22.4	28.4	29.0	90.4	104.6	1.6	4	19.1	139.7	3.3
3"	190.5	to be specified	23.9	30.2	30.0	108.0	127.0	1.6	4	19.1	152.4	3.9
3.1/2"	215.9	by end user	23.9	31.8	32.0	122.2	139.7	1.6	8	19.1	177.8	4.8
4"	228.6		23.9	33.3	33.0	134.9	157.2	1.6	8	19.1	190.5	5.3
5"	254.0		23.9	36.6	36.0	163.6	185.7	1.6	8	22.4	215.9	6.1
6"	279.4		25.4	39.6	40.0	192.0	215.9	1.6	8	22.4	241.3	7.6
8"	342.9		28.4	44.5	44.0	246.1	269.7	1.6	8	22.4	298.5	12.1
10"	406.4		30.2	49.3	49.0	304.8	323.9	1.6	12	25.4	362.0	16.5
12"	482.6		31.8	55.6	56.0	365.3	381.0	1.6	12	25.4	431.8	27.0
14"	533.4		35.1	57.2	79.0	400.1	412.8	1.6	12	28.4	476.3	35.0
16"	596.9		36.6	63.5	87.0	457.2	469.9	1.6	16	28.4	539.8	45.0
18"	635.0		39.6	68.3	97.0	505.0	533.4	1.6	16	31.8	577.9	49.0
20"	698.5		42.9	73.2	103.0	558.8	584.2	1.6	20	31.8	635.0	62.0
24"	812.8		47.8	82.6	111.0	663.4	692.1	1.6	20	35.1	749.3	87.0

THREADED FLANGE

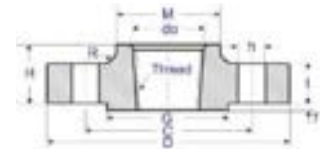
ANSI /ASTM STANDARD – 300# THRF

THREADED FLANGE (RAISED FACE)



Nominal Pipe Size	Outside Dia. (mm)	Dia. of Bore (mm)	Thickness Min. (mm)	Length Thru. Hub (mm)	Thread Length (mm)	Dia. at Base of Hub (mm)	Dia. of Raiced Face (mm)	Height of Raiced Face (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	D	do	t	H	T	M	G	f		h	C	
1/2"	95.2	23.6	14.2	22.3	15.7	38.1	35.0	1.6	4	15.7	66.5	0.7
3/4"	117.3	29.0	15.7	25.4	15.7	47.7	42.9	1.6	4	19.0	82.5	1.2
1"	123.9	35.8	17.5	26.9	17.5	53.8	50.8	1.6	4	19.0	88.9	1.4
1.1/4"	133.3	44.4	19.0	26.9	20.5	63.5	63.5	1.6	4	19.0	98.5	1.7
1.1/2"	155.4	50.5	20.6	30.2	22.3	69.8	73.1	1.6	4	22.3	114.3	2.5
2"	165.1	63.5	22.3	33.2	28.4	84.0	91.9	1.6	8	19.0	127.0	2.9
2.1/2"	190.5	76.2	25.4	38.1	31.7	100.0	104.6	1.6	8	22.3	149.3	4.4
3"	209.5	92.2	28.4	42.9	31.7	117.3	127.0	1.6	8	22.3	168.1	5.9
3.1/2"	228.6	104.9	30.2	44.4	36.5	133.3	139.7	1.6	8	22.3	184.1	7.4
4"	254.0	117.6	31.7	47.7	36.5	146.0	157.2	1.6	8	22.3	200.1	10.0
5"	279.4	144.5	35.0	50.8	42.9	177.8	185.6	1.6	8	22.3	234.9	12.3
6"	317.5	171.4	36.5	52.3	45.9	206.2	215.9	1.6	12	22.3	269.7	15.6
8"	381.0	222.2	41.1	61.9	50.8	260.3	269.7	1.6	12	25.4	330.2	24.2
10"	444.5	276.3	47.7	66.5	55.6	320.5	323.8	1.6	16	28.4	387.3	34.1
12"	520.7	328.7	50.8	73.1	60.4	374.6	381.0	1.6	16	31.7	450.8	50.0
14"	584.2	360.4	53.8	76.2	63.5	425.4	412.7	1.6	20	31.7	514.3	70.0
16"	647.7	411.2	57.1	82.5	68.3	482.6	469.9	1.6	20	35.0	571.5	89.0
18"	711.2	462.0	60.4	88.9	69.8	533.4	533.4	1.6	24	35.0	628.6	109.0
20"	774.7	512.8	63.5	95.2	73.1	587.2	584.2	1.6	24	35.0	685.8	134.0
24"	914.4	614.4	69.8	106.4	82.5	701.5	692.1	1.6	24	41.1	812.8	201.0

Forged Stainless Steel Flanges – ANSI



ANSI /ASTM STANDARD – 600# THRF

THREADED FLANGE (RAISED FACE)

Nominal Pipe Size	Outside Dia. (mm)	Dia. of Bore (mm)	Thickness Min. (mm)	Length Thru. Hub (mm)	Thread Length (mm)	Dia. at Base of Hub (mm)	Dia. of Raiced Face (mm)	Height of Raiced Face (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	D	do	t	H	T	M	G	f		h	C	
1/2"	95.3	23.6	14.2	22.4	15.7	38.1	35.1	6.4	4	15.7	66.5	0.8
3/4"	117.3	29.0	15.7	25.4	15.7	47.8	42.9	6.4	4	19.1	82.6	1.3
1"	124.0	35.8	17.5	26.9	17.5	53.8	50.8	6.4	4	19.1	88.9	1.6
1.1/4"	133.4	44.4	20.6	28.4	20.6	63.5	63.5	6.4	4	19.1	98.6	2.1
1.1/2"	155.4	50.5	22.4	31.8	22.4	69.9	73.1	6.4	4	22.4	114.3	3.0
2"	165.1	63.5	25.4	36.6	28.4	84.1	91.9	6.4	8	19.1	127.0	3.7
2.1/2"	190.5	76.2	28.4	41.1	31.8	100.1	104.6	6.4	8	22.4	149.4	5.3
3"	209.6	92.2	31.8	46.0	35.1	117.3	127.0	6.4	8	22.4	168.1	7.0
3.1/2"	228.6	104.9	35.1	49.3	39.6	133.4	139.7	6.4	8	25.4	184.2	8.9
4"	273.1	117.6	38.1	53.8	41.1	152.4	157.2	6.4	8	25.4	215.9	15.0
5"	330.2	144.5	44.5	60.5	47.8	189.0	185.7	6.4	8	28.4	266.7	25.0
6"	355.6	171.5	47.8	66.5	50.8	222.3	215.9	6.4	12	28.4	292.1	29.0
8"	419.1	222.3	55.6	76.2	57.2	273.1	269.7	6.4	12	31.8	349.3	44.0
10"	508.0	276.4	63.5	85.9	65.0	342.9	323.9	6.4	16	35.1	431.8	71.0
12"	558.8	328.7	66.5	91.9	69.9	400.1	381.0	6.4	20	35.1	489.0	85.0
14"	603.3	360.4	69.9	93.7	73.2	431.8	412.8	6.4	20	38.1	527.1	99.0
16"	685.8	411.2	76.2	106.4	77.7	495.3	469.9	6.4	20	41.1	603.3	142.0
18"	743.0	462.0	82.6	117.3	79.2	546.1	533.4	6.4	20	44.5	654.1	173.0
20"	812.8	512.8	88.9	127.0	82.6	609.6	584.2	6.4	24	44.5	723.9	220.0
24"	939.8	614.4	101.6	139.7	91.9	717.6	692.1	6.4	24	50.8	838.2	312.0

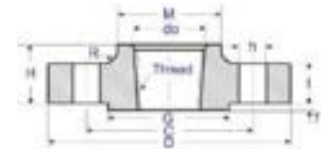
THREADED FLANGE

ANSI /ASTM STANDARD – 900# THRF

THREADED FLANGE (RAISED FACE)

Nominal Pipe Size	Outside Dia. (mm)	Dia. of Bore (mm)	Thickness Min. (mm)	Length Thru. Hub (mm)	Thread Length (mm)	Dia. at Base of Hub (mm)	Dia. of Raiced Face (mm)	Height of Raiced Face (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	D	do	t	H	T	M	G	f		h	C	
1/2"	120.6	23.6	22.3	31.7	22.3	38.1	34.9	6.4	4	22.3	82.5	1.8
3/4"	130.0	29.0	25.4	35.0	25.4	44.4	42.9	6.4	4	22.3	88.9	2.3
1"	149.3	35.8	28.4	41.1	28.4	52.3	50.8	6.4	4	25.4	101.6	3.6
1.1/4"	158.7	44.4	28.4	41.1	30.2	63.5	63.5	6.4	4	25.4	111.2	4.1
1.1/2"	177.8	50.5	31.7	44.5	31.8	69.8	73.1	6.4	4	28.4	123.9	5.4
2"	215.9	63.5	38.1	57.1	38.1	104.6	91.9	6.4	8	25.4	165.1	10.0
2.1/2"	244.3	76.2	41.1	63.5	47.7	123.9	104.6	6.4	8	28.4	190.5	14.0
3"	241.3	92.2	38.1	53.8	41.1	127.0	127.0	6.4	8	25.4	190.5	12.0
4"	292.1	117.6	44.4	69.8	47.8	158.7	157.2	6.4	8	31.7	234.9	20.0
5"	349.2	144.5	50.8	79.2	53.8	190.5	185.6	6.4	8	35.0	279.4	32.0
6"	381.0	171.4	55.6	85.8	57.1	234.9	215.9	6.4	12	31.7	317.5	42.0
8"	469.9	222.2	63.5	101.6	63.5	298.4	269.7	6.4	12	38.1	393.7	71.0
10"	546.1	276.3	69.8	107.9	71.4	368.3	323.8	6.4	16	38.1	469.9	101.0
12"	609.6	328.7	79.4	117.3	76.2	419.1	381.0	6.4	20	38.1	533.4	133.0
14"	641.3	360.4	85.7	130.0	82.5	450.8	412.7	6.4	20	41.3	558.8	153.0
16"	704.8	411.2	88.9	133.3	85.9	508.0	469.9	6.4	20	44.4	618.9	185.0
18"	787.4	462.0	101.6	152.4	88.9	565.1	533.4	6.4	20	50.8	685.8	258.0
20"	857.2	512.8	107.9	158.7	91.9	622.3	584.2	6.4	20	54.0	749.3	317.0
24"	1041.4	614.4	139.7	203.2	101.6	749.3	692.1	6.4	20	66.5	901.7	606.0

Forged Stainless Steel Flanges – ANSI



ANSI /ASTM STANDARD – 1500# THRF

THREADED FLANGE (RAISED FACE)

Nominal Pipe Size	Outside Dia. (mm)	Dia. of Bore (mm)	Thickness Min. (mm)	Length Thru. Hub (mm)	Thread Length (mm)	Dia. at Base of Hub (mm)	Dia. of Raiced Face (mm)	Height of Raiced Face (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	D	do	t	H	T	M	G	f		h	C	
1/2"	120.6	23.6	22.3	31.7	22.3	38.1	35.0	6.4	4	22.3	82.5	1.8
3/4"	130.0	29.0	25.4	35.0	25.4	44.4	42.9	6.4	4	22.3	88.9	2.3
1"	149.3	35.8	28.4	41.1	28.4	52.3	50.8	6.4	4	25.4	101.6	3.6
1.1/4"	158.7	44.4	28.4	41.1	30.2	63.5	63.5	6.4	4	25.4	111.2	4.0
1.1/2"	177.8	50.5	31.7	44.5	31.7	69.8	73.1	6.4	4	28.4	123.9	5.4
2"	215.9	63.5	38.1	57.1	38.1	104.6	91.9	6.4	8	25.4	165.1	10.0
2.1/2"	244.3	76.2	41.1	63.5	47.7	123.9	104.6	6.4	8	28.4	190.5	14.0
3"	266.7	92.2	47.7	73.1	50.8	133.3	127.0	6.4	8	31.7	203.2	18.0
4"	311.1	117.6	53.8	90.4	57.1	162.0	157.2	6.4	8	35.1	241.3	40.0
5"	374.6	144.5	73.1	104.6	63.5	196.8	185.6	6.4	8	41.1	292.1	52.0
6"	393.7	171.4	82.5	119.1	69.8	228.6	215.9	6.4	12	38.1	317.5	61.0
8"	482.6	222.2	91.9	142.7	76.2	292.1	269.7	6.4	12	44.4	393.7	103.0
10"	584.2	276.3	107.9	158.7	84.0	368.3	323.8	6.4	12	50.8	482.6	175.0
12"	673.1	328.7	123.9	180.8	91.9	450.8	381.0	6.4	16	53.8	571.5	264.0

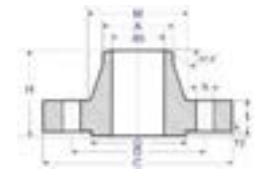
THREADED FLANGE

ANSI /ASTM STANDARD – 2500# THRF

THREADED FLANGE (RAISED FACE)

Nominal Pipe Size	Outside Dia. (mm)	Dia. of Bore (mm)	Thickness Min. (mm)	Length Thru. Hub (mm)	Thread Length (mm)	Dia. at Base of Hub (mm)	Dia. of Raiced Face (mm)	Height of Raiced Face (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	D	do	t	H	T	M	G	f		h	C	
1/2"	133.4	23.6	30.2	39.6	28.4	42.9	35.1	6.4	4	22.4	88.9	3.0
3/4"	139.7	29.0	31.8	42.9	31.8	50.8	42.9	6.4	4	22.4	95.3	3.5
1"	158.8	35.8	35.1	47.8	35.1	57.2	50.8	6.4	4	25.4	108.0	4.9
1.1/4"	184.2	44.5	38.1	52.3	38.1	73.2	63.5	6.4	4	28.4	130.0	7.2
1.1/2"	203.2	50.5	44.5	60.5	44.5	79.2	73.2	6.4	4	31.8	146.1	10.0
2"	235.0	63.5	50.8	69.9	50.8	95.3	91.9	6.4	8	28.4	171.5	15.0
2.1/2"	266.7	76.2	57.2	79.2	57.2	114.3	104.6	6.4	8	31.8	196.9	22.0
3"	304.8	92.2	66.5	91.9	63.5	133.4	127.0	6.4	8	35.1	228.6	33.0
4"	355.6	117.6	76.2	108.0	69.9	165.1	157.2	6.4	8	41.1	273.1	53.0
5"	419.1	144.5	91.9	130.0	76.2	203.2	185.7	6.4	8	47.8	323.9	84.0
6"	482.6	171.5	108.0	152.4	82.6	235.0	215.9	6.4	8	53.8	368.3	128.0
8"	552.5	222.3	127.0	177.8	95.3	304.8	269.7	6.4	12	53.8	438.2	188.0
10"	673.1	276.4	165.1	228.6	108.0	374.7	323.9	6.4	12	66.5	539.8	355.0
12"	762.0	328.7	184.2	254.0	120.7	441.5	381.0	6.4	12	73.2	619.3	504.0

Forged Stainless Steel Flanges – ANSI



ANSI /ASTM STANDARD – 150# WNRF

WELDING NECK FLANGE (RAISED FACE)

Nominal Pipe Size	Dia. of Bore (mm)			Outside Dia. (mm)	Thickness Min. (mm)	Length Thru. Hub (mm)	Outside Dia. of Neck (mm)	Dia. at Base of Hub (mm)	Dia. of Raised Face (mm)	Height of Raised Face (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	Sch 10S	Sch 40S/STD	Sch 80S/STD											
	do			C	t	H	A	M	G	f		h	D	
1/2"	17.1	15.8	13.9	88.9	11.2	47.8	21.3	30.2	35.1	1.6	4	15.7	60.5	0.5
3/4"	22.5	20.9	18.8	98.6	12.7	52.3	26.7	38.1	42.9	1.6	4	15.7	69.9	0.7
1"	27.9	26.6	24.5	108.0	14.2	55.6	33.5	49.3	50.8	1.6	4	15.7	79.2	1.0
1.1/4"	36.6	35.1	32.5	117.3	15.7	57.2	42.2	58.7	63.5	1.6	4	15.7	88.9	1.4
1.1/2"	42.7	40.9	38.1	127.0	17.5	62.0	48.3	65.0	73.2	1.6	4	15.7	98.6	1.8
2"	54.9	52.7	49.5	152.4	19.1	63.5	60.5	77.7	91.9	1.6	4	19.1	120.7	2.6
2.1/2"	67.2	62.7	59.0	177.8	22.4	69.9	73.2	90.4	104.6	1.6	4	19.1	139.7	4.2
3"	82.9	77.9	73.7	190.5	23.9	69.9	88.9	108.0	127.0	1.6	4	19.1	152.4	5.0
3.1/2"	95.6	90.1	85.5	215.9	23.9	71.4	101.6	122.2	139.7	1.6	8	19.1	177.8	6.1
4"	108.3	102.3	97.2	228.6	23.9	76.2	114.3	134.9	157.2	1.6	8	19.1	190.5	7.0
5"	134.4	128.2	122.3	254.0	23.9	88.9	141.2	163.6	185.7	1.6	8	22.4	215.9	8.6
6"	161.6	154.2	146.3	279.4	25.4	88.9	168.4	192.0	215.9	1.6	8	22.4	241.3	10.6
8"	211.6	202.7	193.7	342.9	28.4	101.6	219.2	246.1	269.7	1.6	8	22.4	298.5	17.6
10"	264.6	254.5	247.7	406.4	30.2	101.6	273.1	304.8	323.8	1.6	12	25.4	362.0	24.0
12"	314.6	304.9	298.5	482.6	31.8	114.3	323.9	365.3	381.0	1.6	12	25.4	431.8	37.0
14"	346.0	336.6	330.2	533.4	35.1	127.0	355.6	400.1	412.8	1.6	12	28.4	476.3	49.0
16"	396.8	387.3	381.0	596.9	36.6	127.0	406.4	457.2	469.9	1.6	16	28.4	539.8	61.0
18"	447.6	438.1	431.8	635.0	39.6	139.7	457.2	505.0	533.4	1.6	16	31.8	577.9	68.0
20"	497.0	488.9	482.6	698.5	42.9	144.5	508.0	558.8	584.2	1.6	20	31.8	635.0	85.0
22"	547.7	539.7	533.4	749.3	46.0	149.2	558.8	609.6	641.2	1.6	20	35.1	692.1	102.0
24"	598.5	590.5	584.2	812.8	47.8	152.4	609.6	663.4	692.2	1.6	20	35.1	749.3	115.0

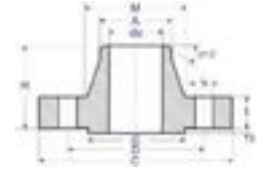
ANSI /ASTM STANDARD – 300# WNRF

WELDING NECK FLANGE (RAISED FACE)

Nominal Pipe Size	Dia. of Bore (mm)			Outside Dia. (mm)	Thickness Min. (mm)	Length Thru. Hub (mm)	Outside Dia. of Neck (mm)	Dia. at Base of Hub (mm)	Dia. of Raised Face (mm)	Height of Raised Face (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	Sch 10S	Sch 40S/STD	Sch 80S/STD											
	do			C	t	H	A	M	G	f		h	D	
1/2"	17.1	15.8	13.9	88.9	11.2	47.8	21.3	30.2	35.1	1.6	4	15.7	60.5	0.5
3/4"	22.5	20.9	18.8	98.6	12.7	52.3	26.7	38.1	42.9	1.6	4	15.7	69.9	0.7
1"	27.9	26.6	24.5	108.0	14.2	55.6	33.5	49.3	50.8	1.6	4	15.7	79.2	1.0
1.1/4"	36.6	35.1	32.5	117.3	15.7	57.2	42.2	58.7	63.5	1.6	4	15.7	88.9	1.4
1.1/2"	42.7	40.9	38.1	127.0	17.5	62.0	48.3	65.0	73.2	1.6	4	15.7	98.6	1.8
2"	54.9	52.7	49.5	152.4	19.1	63.5	60.5	77.7	91.9	1.6	4	19.1	120.7	2.6
2.1/2"	67.2	62.7	59.0	177.8	22.4	69.9	73.2	90.4	104.6	1.6	4	19.1	139.7	4.2
3"	82.9	77.9	73.7	190.5	23.9	69.9	88.9	108.0	127.0	1.6	4	19.1	152.4	5.0
3.1/2"	95.6	90.1	85.5	215.9	23.9	71.4	101.6	122.2	139.7	1.6	8	19.1	177.8	6.1
4"	108.3	102.3	97.2	228.6	23.9	76.2	114.3	134.9	157.2	1.6	8	19.1	190.5	7.0
5"	134.4	128.2	122.3	254.0	23.9	88.9	141.2	163.6	185.7	1.6	8	22.4	215.9	8.6
6"	161.6	154.2	146.3	279.4	25.4	88.9	168.4	192.0	215.9	1.6	8	22.4	241.3	10.6
8"	211.6	202.7	193.7	342.9	28.4	101.6	219.2	246.1	269.7	1.6	8	22.4	298.5	17.6
10"	264.6	254.5	247.7	406.4	30.2	101.6	273.1	304.8	323.8	1.6	12	25.4	362.0	24.0
12"	314.6	304.9	298.5	482.6	31.8	114.3	323.9	365.3	381.0	1.6	12	25.4	431.8	37.0
14"	346.0	336.6	330.2	533.4	35.1	127.0	355.6	400.1	412.8	1.6	12	28.4	476.3	49.0
16"	396.8	387.3	381.0	596.9	36.6	127.0	406.4	457.2	469.9	1.6	16	28.4	539.8	61.0
18"	447.6	438.1	431.8	635.0	39.6	139.7	457.2	505.0	533.4	1.6	16	31.8	577.9	68.0
20"	497.0	488.9	482.6	698.5	42.9	144.5	508.0	558.8	584.2	1.6	20	31.8	635.0	85.0
22"	547.7	539.7	533.4	749.3	46.0	149.2	558.8	609.6	641.2	1.6	20	35.1	692.1	102.0
24"	598.5	590.5	584.2	812.8	47.8	152.4	609.6	663.4	692.2	1.6	20	35.1	749.3	115.0

WELDING NECK FLANGE

Forged Stainless Steel Flanges – ANSI



ANSI /ASTM STANDARD – 600# WNRF

WELDING NECK FLANGE (RAISED FACE)

Nominal Pipe Size	Dia. of Bore (mm)			Outside Dia. (mm)	Thickness Min. (mm)	Length Thru. Hub (mm)	Outside Dia. of Neck (mm)	Dia. at Base of Hub (mm)	Dia. of Raised Face (mm)	Height of Raised Face (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	Sch 10S	Sch 40S/STD	Sch 80S/STD											
	do			C	t	H	A	M	G	f		h	D	
1/2"	17.1	15.8	13.9	95.3	14.2	52.3	21.3	38.1	34.9	6.4	4	15.7	66.5	0.9
3/4"	22.5	20.9	18.8	117.3	15.7	57.2	26.7	47.8	42.9	6.4	4	19.1	82.6	1.5
1"	27.9	26.6	24.5	124.0	17.5	62.0	33.5	53.8	50.8	6.4	4	19.1	88.9	1.8
1.1/4"	36.6	35.1	32.5	133.4	20.6	66.5	42.2	63.5	63.5	6.4	4	19.1	98.6	2.5
1.1/2"	42.7	40.9	38.1	155.4	22.4	69.9	48.3	69.9	73.0	6.4	4	22.4	114.3	3.5
2"	54.9	52.7	49.5	165.1	25.4	73.2	60.5	84.1	92.1	6.4	8	19.1	127.0	4.4
2.1/2"	67.2	62.7	59.0	190.5	28.4	79.2	73.2	100.1	104.8	6.4	8	22.4	149.4	6.4
3"	82.9	77.9	73.7	209.6	31.8	82.6	88.9	117.3	127.0	6.4	8	22.4	168.1	8.6
3.1/2"	95.6	90.1	85.5	228.6	35.1	85.9	101.6	133.4	139.7	6.4	8	25.4	184.2	11.7
4"	108.3	102.3	97.2	273.1	38.1	101.6	114.3	152.4	157.2	6.4	8	25.4	215.9	18.0
5"	134.4	128.2	122.3	330.2	44.5	114.3	141.2	189.0	185.7	6.4	8	28.4	266.7	30.0
6"	161.6	154.2	146.3	355.6	47.8	117.3	168.4	222.3	215.9	6.4	12	28.4	292.1	35.0
8"	211.6	202.7	193.7	419.1	55.6	133.4	219.2	273.1	269.9	6.4	12	31.8	349.3	54.0
10"	264.6	254.5	247.7	508.0	63.5	152.4	273.1	342.9	323.8	6.4	16	35.1	431.8	87.0
12"	314.6	304.9	298.5	558.8	66.5	155.4	323.9	400.1	381.0	6.4	20	35.1	489.0	103.0
14"	346.0	336.6	330.2	603.3	69.9	165.1	355.6	431.8	412.8	6.4	20	38.1	527.1	122.0
16"	396.8	387.3	381.0	685.8	76.2	177.8	406.4	495.3	469.9	6.4	20	41.1	603.3	170.0
18"	447.6	438.1	431.8	743.0	82.6	184.2	457.2	546.1	533.4	6.4	20	44.5	654.1	204.0
20"	497.0	488.9	482.6	812.8	88.9	190.5	508.0	609.6	584.2	6.4	24	44.5	723.9	254.0
22"	547.7	539.7	533.4	869.9	95.2	196.8	558.8	666.7	641.2	6.4	24	47.6	777.9	281.0
24"	598.5	590.5	584.2	939.8	101.6	203.2	609.6	717.6	692.2	6.4	24	50.8	838.2	358.0

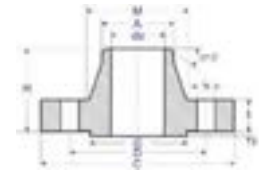
ANSI /ASTM STANDARD – 900# WNRF

WELDING NECK FLANGE (RAISED FACE)

Nominal Pipe Size	Dia. of Bore (mm)			Outside Dia. (mm)	Thickness Min. (mm)	Length Thru. Hub (mm)	Outside Dia. of Neck (mm)	Dia. at Base of Hub (mm)	Dia. of Raised Face (mm)	Height of Raised Face (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	Sch 10S	Sch 40S/STD	Sch 80S/STD											
	do			C	t	H	A	M	G	f		h	D	
1/2"	17.1	15.8	13.9	120.6	22.3	60.4	21.3	38.1	35.0	6.4	4	22.3	82.5	2.3
3/4"	22.5	20.9	18.8	130.2	25.4	69.8	26.7	44.4	42.9	6.4	4	22.3	88.9	2.7
1"	27.9	26.6	24.5	149.3	28.4	73.1	33.4	52.3	50.8	6.4	4	25.4	101.6	4.1
1.1/4"	36.6	35.1	32.5	158.7	28.4	73.1	42.2	63.5	63.5	6.4	4	25.4	111.2	4.5
1.1/2"	42.7	40.9	38.1	177.8	31.7	82.5	48.3	69.8	73.1	6.4	4	28.4	123.9	5.9
2"	54.9	52.7	49.5	215.9	38.1	101.6	60.3	104.6	91.9	6.4	8	25.4	165.1	11.3
2.1/2"	67.2	62.7	59.0	244.3	41.1	104.6	73.0	123.9	104.6	6.4	8	28.4	190.5	16.3
3"	82.9	77.9	73.7	241.3	38.1	101.6	88.9	127.0	127.0	6.4	8	25.4	190.5	14.0
4"	108.3	102.3	97.2	292.1	44.4	114.3	114.3	158.7	157.2	6.4	8	31.7	234.9	23.0
5"	134.4	128.2	122.3	349.2	50.8	127.0	141.2	190.5	185.6	6.4	8	35.0	279.4	38.0
6"	161.6	154.2	146.3	381.0	55.6	139.7	168.4	234.9	215.9	6.4	12	31.7	317.5	48.0
8"	211.6	202.7	193.7	469.9	63.5	162.0	219.2	298.4	269.7	6.4	12	38.1	393.7	82.0
10"	264.6	254.5	247.7	546.1	69.8	184.1	273.0	368.3	323.8	6.4	16	38.1	469.9	119.0
12"	314.6	304.9	298.5	609.6	79.2	200.1	323.8	419.1	381.0	6.4	20	38.1	533.4	157.0
14"	346.0	336.6	330.2	641.3	85.8	212.8	355.6	450.8	412.7	6.4	20	41.1	558.8	180.0
16"	396.8	387.3	381.0	704.8	88.9	215.9	406.4	508.0	469.9	6.4	20	44.4	615.9	217.0
18"	447.6	438.1	431.8	787.4	101.6	228.6	457.2	565.1	533.4	6.4	20	50.8	685.8	298.0
20"	497.0	488.9	482.6	857.2	107.9	247.6	508.0	622.3	584.2	6.4	20	53.8	749.3	362.0
24"	598.5	590.5	584.2	1041.4	139.7	292.1	609.6	749.3	692.1	6.4	20	66.5	901.7	665.0

WELDING NECK FLANGE

Forged Stainless Steel Flanges – ANSI



ANSI /ASTM STANDARD – 1500# WNRF

WELDING NECK FLANGE (RAISED FACE)

Nominal Pipe Size	Dia. of Bore (mm)			Outside Dia. (mm)	Thickness Min. (mm)	Length Thru. Hub (mm)	Outside Dia. of Neck (mm)	Dia. at Base of Hub (mm)	Dia. of Raised Face (mm)	Height of Raised Face (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	Sch 10S	Sch 40S/STD	Sch 80S/STD											
	do			C	t	H	A	M	G	f		h	D	
1/2"	17.1	15.8	13.9	120.6	22.3	60.4	21.3	38.1	35.0	6.4	4	22.3	82.5	2.3
3/4"	22.5	20.9	18.8	130.2	25.4	69.8	26.7	44.4	42.9	6.4	4	22.3	88.9	2.7
1"	27.9	26.6	24.5	149.3	28.4	73.1	33.4	52.3	50.8	6.4	4	25.4	101.6	4.1
1.1/4"	36.6	35.1	32.5	158.7	28.4	73.1	42.2	63.5	63.5	6.4	4	25.4	111.2	4.5
1.1/2"	42.7	40.9	38.1	177.8	31.7	82.5	48.3	69.8	73.1	6.4	4	28.4	123.9	5.9
2"	54.9	52.7	49.5	215.9	38.1	101.6	60.3	104.6	91.9	6.4	8	25.4	165.1	11.3
2.1/2"	67.2	62.7	59.0	244.3	41.1	104.6	73.0	123.9	104.6	6.4	8	28.4	190.5	16.3
3"	82.9	77.9	73.7	266.7	47.7	117.3	88.9	133.3	127.0	6.4	8	31.7	203.2	21.8
4"	108.3	102.3	97.2	311.1	53.8	123.9	114.3	162.0	157.2	6.4	8	35.0	241.3	33.0
5"	134.4	128.2	122.3	374.6	73.1	155.4	141.2	196.8	185.6	6.4	8	41.1	292.1	59.0
6"	161.6	154.2	146.3	393.7	82.5	171.4	168.4	228.6	215.9	6.4	12	38.1	317.5	75.0
8"	211.6	202.7	193.7	482.6	91.9	212.8	219.2	292.1	269.7	6.4	12	44.4	393.7	125.0
10"	264.6	254.5	247.7	584.2	107.9	254.0	273.0	368.3	323.8	6.4	12	50.8	482.6	206.0
12"	314.6	304.9	298.5	673.1	123.9	282.4	323.8	450.8	381.0	6.4	16	53.8	571.5	313.0
14"	346.0	336.6	330.2	749.3	133.3	298.4	355.6	495.3	412.7	6.4	16	60.4	635.0	380.0
16"	396.8	387.3	381.0	825.5	146.0	311.1	406.4	552.4	469.9	6.4	16	66.5	704.8	485.0
18"	447.6	438.1	431.8	914.4	162.0	327.1	457.2	596.9	533.4	6.4	16	73.1	774.7	644.0
20"	497.0	488.9	482.6	984.2	177.8	355.6	508.0	641.3	584.2	6.4	16	79.2	831.8	775.0
24"	598.5	590.5	584.2	1168.4	203.2	406.4	609.6	762.0	692.1	6.4	16	91.9	990.6	1232.0

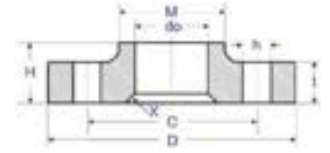
ANSI /ASTM STANDARD – 2500# WNRF

THREADED FLANGE (RAISED FACE)

Nominal Pipe Size	Dia. of Bore (mm)			Outside Dia. (mm)	Thickness Min. (mm)	Length Thru. Hub (mm)	Outside Dia. of Neck (mm)	Dia. at Base of Hub (mm)	Dia. of Raised Face (mm)	Height of Raised Face (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	Sch 10S	Sch 40S/STD	Sch 80S/STD											
	do			C	t	H	A	M	G	f		h	D	
1/2"				133.4	30.2	73.2	21.3	42.9	35.1	6.4	4	22.4	88.9	3.2
3/4"				139.7	31.8	79.2	26.7	50.8	42.9	6.4	4	22.4	95.3	3.7
1"				158.8	35.1	88.9	33.5	57.2	50.8	6.4	4	25.4	108.0	5.3
1.1/4"				184.2	38.1	95.3	42.2	73.2	63.5	6.4	4	28.4	130.0	7.8
1.1/2"				203.2	44.5	111.3	48.3	79.2	73.2	6.4	4	31.8	146.1	11.0
2"	to be	to be	to be	235.0	50.8	127.0	60.5	95.3	91.9	6.4	8	28.4	171.5	17.0
2.1/2"	specified	specified	specified	266.7	57.2	142.7	73.2	114.3	104.6	6.4	8	31.8	196.9	24.0
3"	by end	by end	by end	304.8	66.5	168.1	88.9	133.4	127.0	6.4	8	35.1	228.6	37.0
4"	user	user	user	355.6	76.2	190.5	114.3	165.1	157.2	6.4	8	41.1	273.1	56.0
5"				419.1	91.9	228.6	141.2	203.2	185.7	6.4	8	47.8	323.9	93.0
6"				482.6	108.0	273.1	168.4	235.0	215.9	6.4	8	53.8	368.3	143.0
8"				552.5	127.0	317.5	219.2	304.8	269.7	6.4	12	53.8	438.2	215.0
10"				673.1	165.1	419.1	273.0	374.7	323.9	6.4	12	66.5	539.8	406.0
12"				762.0	184.2	463.6	323.9	441.5	381.0	6.4	12	73.2	619.3	572.0

WELDING NECK FLANGE

Forged Stainless Steel Flanges - ANSI



ANSI /ASTM STANDARD - 150# SOLJ

SLIP-ON LAP JOINT FLANGE

Nominal Pipe Size	Outside Dia. (mm)	Dia. of Bore (mm)	Thickness Min. (mm)	Length Thru. Hub (mm)	Radius of Filler (mm)	Dia. at Base of Hub (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	D	do	t	H	X	M		h	C	
1/2"	88.9	22.9	11.2	15.7	3.0	30.2	4	15.7	60.5	0.4
3/4"	98.6	28.2	12.7	15.7	3.0	38.1	4	15.7	69.9	0.6
1"	108.0	35.1	14.2	17.5	3.0	49.3	4	15.7	79.2	0.8
1.1/4"	117.3	43.7	15.7	20.6	4.8	58.7	4	15.7	88.9	1.0
1.1/2"	127.0	50.0	17.5	22.4	6.4	65.0	4	15.7	98.6	1.3
2"	152.4	62.5	19.1	25.4	7.9	77.7	4	19.1	120.7	2.0
2.1/2"	177.8	75.4	22.4	28.4	7.9	90.4	4	19.1	139.7	3.3
3"	190.5	91.4	23.9	30.2	9.7	108.0	4	19.1	152.4	3.8
3.1/2"	215.9	104.1	23.9	31.8	9.7	122.2	8	19.1	177.8	4.8
4"	228.6	116.8	23.9	33.3	11.2	134.9	8	19.1	190.5	5.3
5"	254.0	144.5	23.9	36.6	11.2	163.6	8	22.4	215.9	6.1
6"	279.4	171.5	25.4	39.6	12.7	192.0	8	22.4	241.3	7.4
8"	342.9	222.3	28.4	44.5	12.7	246.1	8	22.4	298.5	12.1
10"	406.4	277.4	30.2	49.3	12.7	304.8	12	25.4	362.0	16.4
12"	482.6	328.2	31.8	55.6	12.7	365.3	12	25.4	431.8	27.0
14"	533.4	360.2	35.1	79.2	12.7	400.1	12	28.4	476.3	35.0
16"	596.9	411.2	36.6	87.4	12.7	457.2	16	28.4	539.8	45.0
18"	635.0	462.3	39.6	96.8	12.7	505.0	16	31.8	577.9	49.0
20"	698.5	514.4	42.9	103.1	12.7	558.8	20	31.8	635.0	62.0
24"	812.8	616.0	47.8	111.3	12.7	663.4	20	35.1	749.3	87.0

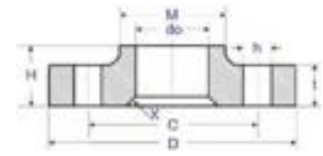
ANSI /ASTM STANDARD - 300# SOLJ

SLIP-ON LAP JOINT FLANGE

Nominal Pipe Size	Outside Dia. (mm)	Dia. of Bore (mm)	Thickness Min. (mm)	Length Thru. Hub (mm)	Radius of Filler (mm)	Dia. at Base of Hub (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	D	do	t	H	X	M		h	C	
1/2"	95.2	22.9	14.2	22.3	3.0	38.1	4	15.7	66.5	0.7
3/4"	117.3	28.2	15.7	25.4	3.0	47.7	4	19.0	82.5	1.1
1"	123.9	35.0	17.5	26.9	3.0	53.8	4	19.0	88.9	1.4
1.1/4"	133.3	43.7	19.0	26.9	4.8	63.5	4	19.0	98.5	1.7
1.1/2"	155.4	50.0	20.6	30.2	6.4	69.8	4	22.3	114.3	2.5
2"	165.1	62.5	22.3	33.2	7.8	84.0	8	19.0	127.0	2.9
2.1/2"	190.5	75.4	25.4	38.1	7.8	100.0	8	22.3	149.3	4.3
3"	209.5	91.4	28.4	42.9	9.6	117.3	8	22.3	168.1	5.8
3.1/2"	228.6	104.1	30.2	44.4	9.6	133.3	8	22.3	184.1	7.3
4"	254.0	116.8	31.7	47.7	11.1	146.0	8	22.3	200.1	10.0
5"	279.4	144.5	35.0	50.8	11.1	177.8	8	22.3	234.9	12.2
6"	317.5	171.4	36.5	52.3	12.7	206.2	12	22.3	269.7	15.5
8"	381.0	222.2	41.1	61.9	12.7	260.3	12	25.4	330.2	24.1
10"	444.5	277.4	47.9	95.2	12.7	320.5	16	28.4	387.3	34.4
12"	520.7	328.2	50.8	101.6	12.7	374.6	16	31.7	450.8	51.0
14"	584.2	360.2	53.8	111.2	12.7	425.4	20	31.7	514.3	71.0
16"	647.7	411.2	57.1	120.6	12.7	482.6	20	35.0	571.5	90.0
18"	711.2	462.3	60.4	130.0	12.7	533.4	24	35.0	628.6	111.0
20"	774.7	514.3	63.5	139.7	12.7	587.2	24	35.0	685.8	137.0
24"	914.4	615.9	69.8	152.4	12.7	701.5	24	41.1	812.8	204.0

SLIP-ON LAP JOINT FLANGE

Forged Stainless Steel Flanges - ANSI



ANSI /ASTM STANDARD - 600# SOLJ

SLIP-ON LAP JOINT FLANGE

Nominal Pipe Size	Outside Dia. (mm)	Dia. of Bore (mm)	Thickness Min. (mm)	Length Thru. Hub (mm)	Radius of Filler (mm)	Dia. at Base of Hub (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (kg)
	D	do	t	H	X	M		h	C	
1/2"	95.3	22.9	14.2	22.4	3.0	38.1	4	15.7	66.5	0.8
3/4"	117.3	28.2	15.7	25.4	3.0	47.8	4	19.1	82.6	1.3
1"	124.0	35.1	17.5	26.9	3.0	53.8	4	19.1	88.9	1.5
1.1/4"	133.4	43.7	20.6	28.4	4.8	63.5	4	19.1	98.6	2.0
1.1/2"	155.4	50.0	22.4	31.8	6.4	69.9	4	22.4	114.3	2.9
2"	165.1	62.5	25.4	36.6	7.9	84.1	8	19.1	127.0	3.6
2.1/2"	190.5	75.4	28.4	41.1	7.9	100.1	8	22.4	149.4	5.3
3"	209.6	91.4	31.8	46.0	9.7	117.3	8	22.4	168.1	7.0
3.1/2"	228.6	104.1	35.1	49.3	9.7	133.4	8	25.4	184.2	9.0
4"	273.1	116.8	38.1	53.8	11.2	152.4	8	25.4	215.9	14.4
5"	330.2	144.5	44.5	60.5	11.2	189.0	8	28.6	266.7	24.3
6"	355.6	171.5	47.8	66.5	12.7	222.3	12	28.6	292.1	28.5
8"	419.1	222.3	55.6	76.2	12.7	273.1	12	31.8	349.3	43.1
10"	508.0	277.4	63.5	111.3	12.7	342.9	16	35.1	431.8	70.5
12"	558.8	328.2	66.5	117.3	12.7	400.1	20	35.1	489.0	87.0
14"	603.3	360.2	69.9	127.0	12.7	431.8	20	38.1	527.1	100.0
16"	685.8	411.2	76.2	139.7	12.7	495.3	20	41.1	603.3	145.0
18"	743.0	462.3	82.6	152.4	12.7	546.1	20	44.5	654.1	177.0
20"	812.8	514.4	88.9	165.1	12.7	609.6	24	44.5	723.9	225.0
24"	939.8	616.0	101.6	184.1	12.7	717.5	24	50.8	838.2	318.0

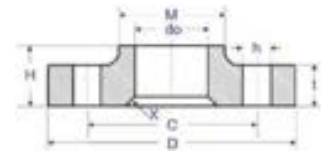
ANSI /ASTM STANDARD - 900# SOLJ

SLIP-ON LAP JOINT FLANGE

Nominal Pipe Size	Outside Dia. (mm)	Dia. of Bore (mm)	Thickness Min. (mm)	Length Thru. Hub (mm)	Radius of Filler (mm)	Dia. at Base of Hub (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (kg)
	D	do	t	H	X	M		h	C	
1/2"	120.6	22.9	22.3	31.7	3.0	38.1	4	22.3	82.5	1.8
3/4"	130.0	28.2	25.4	35.0	3.0	44.4	4	22.3	88.9	2.3
1"	149.3	35.0	28.4	41.1	3.0	52.3	4	25.4	101.6	3.4
1.1/4"	158.7	43.7	28.4	41.1	4.8	63.5	4	25.4	111.2	3.9
1.1/2"	177.8	50.0	31.7	44.4	6.4	69.8	4	28.4	123.9	5.3
2"	215.9	62.5	38.1	57.1	7.8	104.6	8	25.4	165.1	10.0
2.1/2"	244.3	75.4	41.1	63.5	7.8	123.9	8	28.4	190.5	14.0
3"	241.3	91.4	38.1	53.8	9.6	127.0	8	25.4	190.5	11.3
4"	292.1	116.8	44.4	69.8	11.1	158.7	8	31.7	234.9	19.2
5"	349.2	144.5	50.8	79.2	11.1	190.5	8	35.7	279.4	31.2
6"	381.0	171.4	55.6	85.8	12.7	234.9	12	31.7	317.5	40.5
8"	469.9	222.2	63.5	114.3	12.7	298.4	12	38.1	393.7	71.5
10"	546.1	277.4	69.8	127.0	12.7	368.3	16	38.1	469.9	104.0
12"	609.6	328.2	79.2	142.7	12.7	419.1	20	38.1	533.4	139.0
14"	641.3	360.2	85.8	155.4	12.7	450.8	20	41.1	558.8	161.0
16"	704.8	411.2	88.9	165.1	12.7	508.0	20	44.4	615.9	194.0
18"	787.4	462.3	101.6	190.5	12.7	565.1	20	50.8	685.8	267.0
20"	857.2	514.3	107.9	209.5	12.7	622.3	20	53.8	749.3	334.0
24"	1041.4	615.9	139.7	266.7	12.7	749.3	20	66.5	901.7	618.0

SLIP-ON LAP JOINT FLANGE

Forged Stainless Steel Flanges - ANSI



ANSI /ASTM STANDARD - 1500# SOLJ

SLIP-ON LAP JOINT FLANGE

Nominal Pipe Size	Outside Dia. (mm)	Dia. of Bore (mm)	Thickness Min. (mm)	Length Thru. Hub (mm)	Radius of Filler (mm)	Dia. at Base of Hub (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	D	do	t	H	X	M		h	C	
1/2"	120.6	22.9	22.3	31.7	3.0	38.1	4	22.3	82.5	1.8
3/4"	130.0	28.2	25.4	35.0	3.0	44.4	4	22.3	88.9	2.3
1"	149.3	35.0	28.4	41.1	3.0	52.3	4	25.4	101.6	3.4
1.1/4"	158.7	43.7	28.4	41.1	4.8	63.5	4	25.4	111.2	3.9
1.1/2"	177.8	50.0	31.7	44.4	6.4	69.8	4	28.4	123.9	5.3
2"	215.9	62.5	38.1	57.1	7.8	104.6	8	25.4	165.1	10.0
2.1/2"	244.3	75.4	41.1	63.5	7.8	123.9	8	28.4	190.5	14.0
3"	266.7	91.4	47.7	73.1	9.6	133.3	8	31.7	203.2	18.0
4"	311.1	116.8	53.8	90.4	11.1	162.0	8	35.0	241.3	28.0
5"	374.6	144.5	73.1	104.6	11.1	196.8	8	41.1	292.1	52.0
6"	399.7	171.4	82.5	119.1	12.7	228.6	12	38.1	317.5	62.0
8"	482.6	222.2	91.9	142.7	12.7	292.1	12	44.4	393.7	105.0
10"	584.2	277.4	107.9	177.8	12.7	368.3	12	50.8	482.6	179.0
12"	673.1	328.2	123.9	218.9	12.7	450.8	16	53.8	571.5	269.0
14"	749.3	360.2	133.3	241.3	12.7	495.3	16	60.4	635.0	365.0
16"	825.5	411.2	146.0	260.3	12.7	552.4	16	66.5	704.8	459.0
18"	914.4	462.3	162.0	276.2	12.7	596.9	16	73.1	774.7	598.0
20"	984.2	514.3	177.8	292.1	12.7	641.3	16	79.2	831.8	712.0
24"	1168.4	615.9	203.2	330.2	12.7	762.0	16	91.9	990.6	1090.0

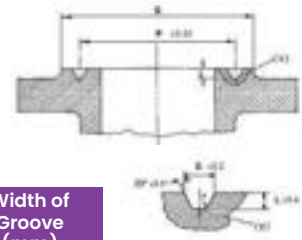
ANSI /ASTM STANDARD - 2500# SOLJ

SLIP-ON LAP JOINT FLANGE

Nominal Pipe Size	Outside Dia. (mm)	Dia. of Bore (mm)	Thickness Min. (mm)	Length Thru. Hub (mm)	Radius of Filler (mm)	Dia. at Base of Hub (mm)	Number of Bolt Holes	Dia. of Bolt Holes (mm)	Dia. of Bolt Circle (mm)	Approx. Weight (KG)
	D	do	t	H	X	M		h	C	
1/2"	133.4	22.9	30.2	39.6	3.0	42.9	4	22.4	88.9	3.0
3/4"	139.7	28.2	31.8	42.9	3.0	50.8	4	22.4	95.3	3.5
1"	158.8	35.1	35.1	47.8	3.0	57.2	4	25.4	108.0	4.8
1.1/4"	184.2	43.7	38.1	52.3	4.8	73.2	4	28.4	130.0	7.1
1.1/2"	203.2	50.0	44.5	60.5	6.4	79.2	4	31.8	146.1	10.0
2"	235.0	62.5	50.8	69.9	7.9	95.3	8	28.4	171.5	14.7
2.1/2"	266.7	75.4	57.2	79.2	7.9	114.3	8	31.8	196.9	22.0
3"	304.8	91.4	66.5	91.9	9.7	133.4	8	35.1	228.6	33.0
4"	355.6	116.8	76.2	107.9	11.2	165.1	8	41.1	273.1	53.0
5"	419.1	144.5	91.9	130.2	11.2	203.2	8	47.8	323.9	83.0
6"	482.6	171.5	108.0	152.4	12.7	235.0	8	53.8	368.3	127.0
8"	552.5	222.3	127.0	177.8	12.7	304.8	12	53.8	438.2	186.0
10"	673.1	277.4	165.1	228.6	12.7	374.7	12	66.5	539.8	352.0
12"	762.0	328.2	184.2	254.0	12.7	441.5	12	73.2	619.3	501.0

SLIP-ON LAP JOINT FLANGE

Forged Stainless Steel Flanges – ANSI



ANSI /ASTM STANDARD – 150#

RING JOINT DIMENSIONS

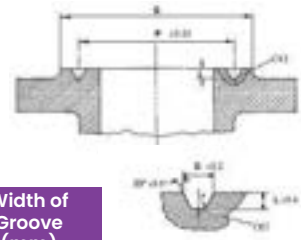
Nominal Pipe Size	Raised Face Ring Joint (mm)	Pitch Diameter Groove (mm)	Depth of Groove (mm)	Radius at Bottom (mm)	Width of Groove (mm)
	G	P	L	r	D
1"	63.5	47.6	6.35	0.8	8.7
1.1/4"	73.2	57.2	6.35	0.8	8.7
1.1/2"	82.5	65.1	6.35	0.8	8.7
2"	101.6	82.6	6.35	0.8	8.7
2.1/2"	120.7	101.6	6.35	0.8	8.7
3"	133.4	114.3	6.35	0.8	8.7
3.1/2"	153.9	131.8	6.35	0.8	8.7
4"	171.5	149.2	6.35	0.8	8.7
5"	193.5	171.5	6.35	0.8	8.7
6"	218.9	193.7	6.35	0.8	8.7
8"	273.1	247.7	6.35	0.8	8.7
10"	330.2	304.8	6.35	0.8	8.7
12"	406.4	381.0	6.35	0.8	8.7
14"	425.5	396.9	6.35	0.8	8.7
16"	482.6	454.0	6.35	0.8	8.7
18"	546.1	517.5	6.35	0.8	8.7
20"	596.9	558.8	6.35	0.8	8.7
24"	711.2	673.1	6.35	0.8	8.7

ANSI /ASTM STANDARD – 300-600#

RING JOINT DIMENSIONS

Nominal Pipe Size	Raised Face Ring Joint (mm)	Pitch Diameter Groove (mm)	Depth of Groove (mm)	Radius at Bottom (mm)	Width of Groove (mm)
	G	P	L	r	D
1/2"	50.8	34.1	5.60	0.8	7.1
3/4"	63.5	42.9	6.35	0.8	8.7
1"	69.9	50.8	6.35	0.8	8.7
1.1/4"	79.2	60.3	6.35	0.8	8.7
1.1/2"	90.4	68.3	6.35	0.8	8.7
2"	108.0	82.6	7.90	0.8	11.9
2.1/2"	127.0	101.6	7.90	0.8	11.9
3"	146.1	123.8	7.90	0.8	11.9
3.1/2"	158.8	131.8	7.90	0.8	11.9
4"	174.8	149.2	7.90	0.8	11.9
5"	209.5	181.0	7.90	0.8	11.9
6"	241.3	211.1	7.90	0.8	11.9
8"	301.8	269.9	7.90	0.8	11.9
10"	355.6	323.9	7.90	0.8	11.9
12"	412.8	381.0	7.90	0.8	11.9
14"	457.5	419.1	7.90	0.8	11.9
16"	508.0	469.9	7.90	0.8	11.9
18"	574.5	533.4	7.90	0.8	11.9
20"	635.0	584.2	9.50	1.6	13.5
24"	749.3	692.2	11.10	1.6	16.7

Forged Stainless Steel Flanges – ANSI



ANSI /ASTM STANDARD – 900#

RING JOINT DIMENSIONS

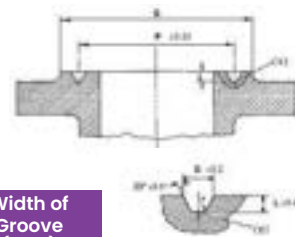
Nominal Pipe Size	Raised Face Ring Joint (mm)	Pitch Diameter Groove (mm)	Depth of Groove (mm)	Radius at Bottom (mm)	Width of Groove (mm)
	G	P	L	r	D
1/2"	60.5	39.7	6.35	0.8	8.7
3/4"	66.5	44.5	6.35	0.8	8.7
1"	71.4	50.8	6.35	0.8	8.7
1.1/4"	81.0	60.3	6.35	0.8	8.7
1.1/2"	91.9	68.3	6.35	0.8	8.7
2"	124.0	95.3	7.90	0.8	11.9
2.1/2"	136.7	108.0	7.90	0.8	11.9
3"	155.4	123.8	7.90	0.8	11.9
4"	180.8	149.2	7.90	0.8	11.9
5"	215.9	181.0	7.90	0.8	11.9
6"	241.3	211.1	7.90	0.8	11.9
8"	307.8	269.9	7.90	0.8	11.9
10"	362.0	323.9	7.90	0.8	11.9
12"	419.1	381.0	7.90	0.8	11.9
14"	466.9	419.1	11.10	1.5	16.7
16"	523.9	469.9	11.10	1.5	16.7
18"	593.9	533.4	12.70	1.5	19.8
20"	647.7	584.2	12.70	1.5	19.8
24"	771.7	692.2	15.90	2.3	27.0

ANSI /ASTM STANDARD – 1500#

RING JOINT DIMENSIONS

Nominal Pipe Size	Raised Face Ring Joint (mm)	Pitch Diameter Groove (mm)	Depth of Groove (mm)	Radius at Bottom (mm)	Width of Groove (mm)
	G	P	L	r	D
1/2"	60.5	39.7	6.35	0.8	8.7
3/4"	66.5	44.5	6.35	0.8	8.7
1"	71.4	50.8	6.35	0.8	8.7
1.1/4"	81.0	60.3	6.35	0.8	8.7
1.1/2"	91.9	68.3	6.35	0.8	8.7
2"	124.0	95.3	7.9	0.8	11.9
2.1/2"	136.7	108.0	7.9	0.8	11.9
3"	168.1	136.5	7.9	0.8	11.9
4"	193.5	161.9	7.9	0.8	11.9
5"	228.6	193.7	7.9	0.8	11.9
6"	247.7	211.1	9.5	1.6	13.5
8"	317.5	269.9	11.1	1.6	16.7
10"	371.3	323.9	11.1	1.6	16.7
12"	438.2	381.0	14.3	1.6	23.0
14"	489.0	419.1	15.9	2.4	27.0
16"	546.1	469.9	17.5	2.4	30.2
18"	612.6	533.4	17.5	2.4	30.2
20"	673.1	584.2	17.5	2.4	33.3
24"	793.8	692.2	20.6	2.4	36.5

Forged Stainless Steel Flanges – ANSI

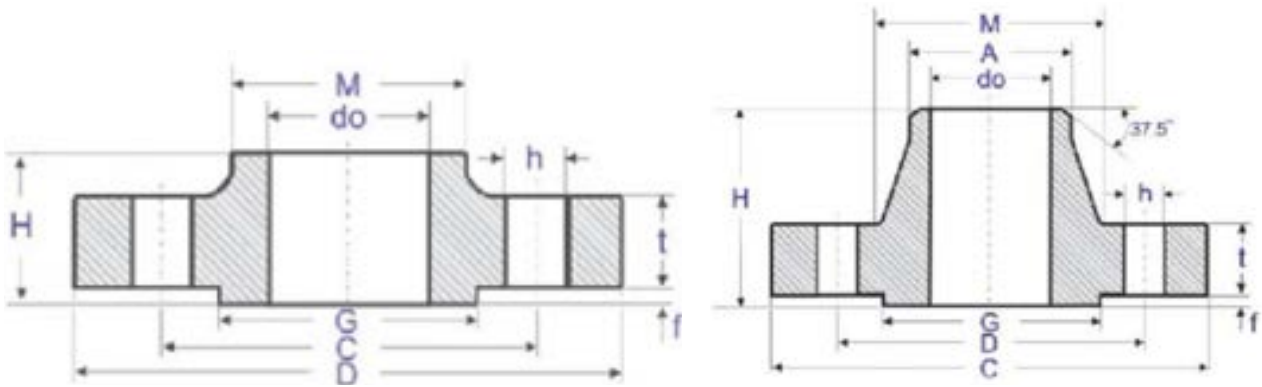


ANSI /ASTM STANDARD – 2500#

RING JOINT DIMENSIONS

Nominal Pipe Size	Raised Face Ring Joint (mm)	Pitch Diameter Groove (mm)	Depth of Groove (mm)	Radius at Bottom (mm)	Width of Groove (mm)
	G	P	L	r	D
1/2"	65.0	42.9	6.35	0.8	8.7
3/4"	73.2	50.8	6.35	0.8	8.7
1"	82.6	60.3	6.35	0.8	8.7
1.1/4"	101.6	72.2	7.90	0.8	11.9
1.1/2"	114.3	82.6	7.90	0.8	11.9
2"	133.4	101.6	7.90	0.8	11.9
2.1/2"	149.4	111.1	9.50	1.6	13.5
3"	168.1	127.0	9.50	1.6	13.5
4"	203.2	157.2	11.10	1.6	16.7
5"	241.3	190.5	12.70	1.6	19.8
6"	279.4	228.6	12.70	1.6	19.8
8"	339.9	279.4	14.30	1.6	23.0
10"	425.5	342.9	17.50	2.4	30.2
12"	495.3	406.4	17.50	2.4	33.3

DIMENSIONAL TOLERANCE FOR FLANGES



*Others:

SO / LJ / BL / TH / SW

WN

Dimension		Sizes	Tolerances	
			mm (Others)	mm (WN)
do	Inside Diameter	NPS ≤ 10"	+1.0mm, -0.0mm	±1.0mm
		12" ≤ NPS ≤ 18"		±1.6mm
		NPS ≥ 20"	+1.6mm, -0.0mm	±3.2mm, -1.6mm
G	Diameter of Raised Face	Raised face, 0.06" (1.6mm)	±1.0mm	±1.0mm
		Raised face, 0.25" (6.4mm)	±0.5mm	±0.5mm
*M	Diameter of Hub at Base	NPS ≤ 12"	+2.4mm, -1.6mm	-
		NPS ≥ 14"	±3.2mm	-
A	Diameter of Hub at Point of Welding	NPS ≤ 5"	-	+2.0mm, -1.0mm
		NPS ≥ 6"	-	+4.0mm, -1.0mm
C (Others)	Bolt Circle Diameter	ALL SIZES	±1.6mm	±1.6mm
D (WN)	Bolt Hole Diameter	ALL SIZES	±0.8mm	±0.8mm
h	Bolt Hole Concentricity	NPS ≤ 2-1/2"	±0.8mm	±0.8mm
		NPS ≥ 3"	±1.6mm	±1.6mm
H	Length Through Hub	NPS ≤ 4"	±1.6mm	±1.6mm
		5" ≤ NPS ≤ 10"	+1.6mm, -3.2mm	+1.6mm, -3.2mm
		NPS ≥ 12"	+3.0mm, -5.0mm	+3.0mm, -5.0mm
t	Thickness	NPS ≤ 18"	+3.0mm, -0.0mm	+3.0mm, -0.0mm
		NPS ≥ 20"	+5.0mm, -0.0mm	+5.0mm, -0.0mm

Notes : *M This dimension is for the large end of the hub, which may be **straight** or **tapered**. Taper shall not exceed 7 deg on (Others: SO / LJ / TH / SW) flanges.

Notes

Notes

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