



SIAG (E)

ISO 9001:2015, ISO 14001:2015, ISO 45001:2018
& PED 2014/68/EU Manufacturing Certified
Company



Flanges
Ferrous &
Non-Ferrous
Metal etc.

FLANGES



Eckhardt[®]
Steel & Alloys

Technical Guide
Version 6.0



Eckhardt[®]
Steel & Alloys

ISO 9001:2015, ISO 14001:2015,
ISO 45001:2018 & PED 2014/68/EU
Certified Manufacturing Company

One Stop Solution

About ECKHARDT

"Many factors combine to archive the success of business i.e. the right product mix, a broad knowledge of products & their application, good business relationships, logistics & financials expertise, proximity to the customer and last but not the least the appropriate range of support service. At 'Eckhardt', all these have been combined to create a new dimension."

Formed by a group of young professionals Eckhardt is one of the leading Manufacturer & Exporter of Stainless Steel, Carbon Steel, Alloy Steel, Nickel Alloys, Aluminum, Copper, Cupro Nickel, Brass, Phosphorus Bronze, Lead, Zinc, Monel[®], Inconel[®], Hastalloy[®] & other Ferrous and Non Ferrous Metals in form of :

Pipes & Tubes, Line Pipes OCTG & Drill Pipes : In Seamless and Welded in all Grades (IBR & NON IBR),

Buttwelded Pipe Fittings, Socket welded, Screwed Fittings : Such as Elbow, Return Bend, Straight and Reducing Tee, Crosses, Lap Joint Stubend, Reducers, Unions, Caps, Bush, Plug, Nipples, Couplings, Threadolets, Weldolets Elbowlets etc.

Flanges & Forging : Such WNRF, SORF, SOFF, BLRF, SWRF, LAP JOINT, WNRTJ, BLRTJ, SPECTACLE BLIND, SPADE etc.

Tube Fitting & Ferrules Fittings; Hose assembly & hydraulic Fittings

Long Radius Bends : 1/2" NB to 32" NB in 5mm to 50mm Thk RADIUS 2, 5 D / 3D / 5D / 10D UPTO 22D For Pig Launching stream & general Purpose Fittings.

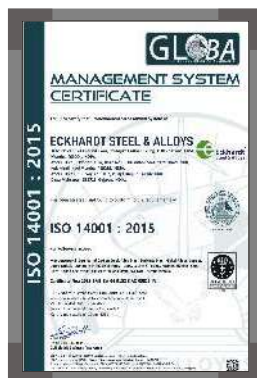
Plate / Sheet / Coils / Round Bars : CromeMoly (SA387 Gr. 11/22/91/5) Nickel & Nickel Alloys / Mild Steel / Boiler Quality / Corten / Hardox / Dillidur 400v / Sailma / Ship Building with class approval etc.

Fasteners & Gaskets : Such as nuts, Bolts, studs, washers, Valves & all project reuriment at one stop etc.

We are approved suppliers to various Govt. Departments & public sector all over the country & abroad regularly supplying to them for a long time. We have got ready stock of the above items in various sizes as per National / International Standards and specification and the same shall be supplied as per your requirements at very reasonable rates. We can arrange any third party inspection agency like LRS, DNV-GL, ABS, IRS, IBR, TUV, BVQI, RINA, MECON, TCS, PDIL, GOLF, LLOYDS etc.

Quality Policy

"We at ECKHARDT STEEL & ALLOYS, Manufacturers, Exporter of Ferrous and Non Ferrous metals in the Form of Pipes, Tubes, Pipe Fittings, Flanges, Sheets, Plates & Rods are Committed to Increase our market share by satisfying Our customers Requirements through offering Products at Best Prices, on timely Delivery and Better Support. We shall Continually Improve in Knowing our customer needs and Proactively acting on things required to satisfy the same."



The quality assurance system assures every product to go through the following Quality systems.

- Material Control System
- Certification & Supplementary Test
- Process Control System
- Machining & Dimensional Control
- Finishing & Marking & Packing

As we are very much interested to do business with you on long term basis, we request you to please enlist our name in your approved vendor list and send us your valued purchase inquire from time to so as to enable us to our most competitive rates and terms.



PRODUCT RANGE



Pipes :-

Stainless Steel : ASTM A312 TP 304/ 304L/ 304H/ 316/ 316L/ 317/ 317L/ 321/310/ 347/ 904L etc.

Carbon Steel : ASTM A53 GR. B/ A106 GR. B/ API 5L GRADE B/ API 5L GR.X42/46/52/56/60/65/70/ A333 Gr.3/ Gr.6 etc.

Alloy Steel : ASTM A335 GR. P1/ P5/ P9/ P11/ P22/ P91/ P92 etc.

High Nickel Alloys : Monel[®], Nickel, Inconel[®], Hastelloy[®], Copper, Brass, Bronze, Titanium, Tantalum, Bismuth, Aluminium, High Speed Steel, Zinc, Lead etc.

Types : Round , Square, Rectangular.

Size : 1/4" NB to 32" NB (Seamless & Welded)

Wall Thickness : Sch. 5S to Sch. XXS

Size : 1/4" OD to 6"OD

Wall Thickness : 22SWG to 10SWG



Butt-Weld Fittings :-

Stainless Steel : ASTM A403 WP 304/ 304L/ 304H/316/ 316L/ 317/ 317L/ 321/ 310/ 347/904L etc.

Carbon Steel : ASTM A234 WPB/A420 WPL3/A420 WPL6/ MSS-SP-75 WPHY 42/46/52 / 56/60/65/70

Alloy Steel : ASTM A234 WP1/ WP5/ WP9/ WP11/ WP22/ WP91 / WP92 etc.

Duplex & Super Duplex Steel : UNS S31803, UNS S32750, UNS S32760, 904L, Alloy 20, 254 SMO

High Nickel Alloy : Monel[®], Nickel, Inconel[®], Hastelloy[®], Copper, Brass, Bronze, Titanium, Tantalum, Bismuth, Aluminium, High Speed Steel, Zinc, Lead, etc.

Types : Elbow, Tee, Reducer, Return Bends, Stub-Ends, Cap, Collar, Cross, Insert etc.

Size : 1/4" NB TO 32" NB. (Seamless & Welded)

Wall Thickness : Sch. 5S To Sch. XXS.



Screwed & Forged Fittings :-

Stainless Steel : ASTM A182 F304/ 304L/ 304H/ 316/ 316L/ 317/ 317L/ 321/310/ 347/ 904L etc.

Carbon Steel : ASTM A105 / A694 F42/46/ 52/56/ 60/ 65/70 / A350 LF3/ A350 LF2.

Alloy Steel : ASTM A182 F1/ F5/ F9/ F11/ F22/ F91 etc.

Others : Monel[®], Nickel, Inconel[®], Hastelloy[®], Copper, Brass, Bronze, Titanium, Tantalum, Bismuth, Aluminium, High Speed Steel, Zinc, Lead, etc.

Types : Elbow, Tee, Union, Cross, Coup, Bushing , Plug, Swage Nipple, Welding Boss, Hexagon Nipple, Barrel Nipple, Welding Nipple, Parraler Nipple, Street Elbow, Hexagon Nut, Hose Nipple, Bend, Adapter, Insert, Weldolet, Elbowlet, Sockolet, Thredolet, Nipolet, Letrolet, etc.

Size : 1/4" NB TO 4" NB. (Socketweld & Threaded)

Class : 3000#, 6000#, 9000#.

PRODUCT RANGE



Flanges :-

Stainless Steel Flanges : ASTM A182 F304/304L/304H/316/316L/317/317L/321/310/347/904L etc.

Carbon Steel Flanges: ASTM A105/A694F42/46/52/56/60/65/70/A350 LF3/A350 LF2, etc.

Alloy Steel Flanges : ASTM A182 F1/F5/F9/F11/F22/F91 etc.

Duplex Steel Flanges : 2205 (Duplex[®]), 2507 (Super Duplex) UNS - 31803, 32750, 32990

Others: Monel[®], Nickel, Inconel[®], Hastelloy[®], Copper, Brass, Bronze, Titanium, Tantalum, Bismuth, Aluminium, High Speed Steel, Zinc, Lead, etc.

Types : Weldneck, Slipon, Blind, Socket Weld, Lap Joint, Spectacles, Ring Joint, Oriface, Long Weldneck, Deck Flange, etc.

Size : 1/2" NB TO 48" NB.

Class : 150#, 300#, 400#, 600#, 900#, 1500# & 2500#. also as per National & International Standard.

Flanges such as SORF, SOFF, SOLI SWRF, SWFF, WNRF, WNFF, WNRTJ, LWNRF, BLRF, BLFF, BLRTJ, Treaded, Spectacle Blind, Orifice & Studding Outlet are manufactured according to ANSI B 16.5, B 16.47 Series A (MSS SP-44), B 16.47 Series B (API 605), MSS SP-43, DIN 2527, DIN 2566, DIN 2576, DIN 2632, DIN 2633, DIN 2634, DIN 2635, DIN 2642, BS 10, IS 1538 & IS 6392, etc.



Sheet, Plates & Coils

S. S. Sheets & Plates as per ASTM A240, Gr. TP 304, 304L, 304LN, 309, 309S, 309H, 310H, 316, 316L, 316H, 316LN, 316Ti, 317, 317L, 321, 321H, 347, 348, 3487H, 409, 410, 416, 420, 430 etc.

Alloy Steel Plates : as per ASTM A387 Gr.2, 5, 9, 11, 12 & 22, 91 in class 1 & 2 ASTM A 204 Gr. A & B, DIN 17175 Gr. 15Mo3 & 16Mo3 with IBR Test Certificate.

Carbon Steel / Boiler Quality Plates : as per IS 2062 Gr. A, B & C, IS 2002 Gr. 1 & 2 ASTM A516 Gr. 60 & 70, ASTM A 515 Gr. 70, A572 Gr. 50 etc.



Rods / Bars & Wires

Material Grade : Stainless Steel, Nickel Alloys, Carbon Steel, Alloy Steel, IBR Non IBR.

High Nickel Alloy : Monel[®], Nickel, Inconel[®], Hastelloy[®], Copper, Brass, Bronze, Titanium, Tantalum, Bismuth, Aluminium, High Speed Steel, Zinc, Lead, etc.

Types : Rods, Hex, Square, Wires, Billets, etc.



Ship Building Plates

LRS/ABS/DNV GL/IRS/RINA/BV Class Approved Marine Grade Plates / Bulb Flats / Angle / Channel / Pipes etc.

Ship Building Copper / Cupro Nickel (CuNi) / Brass/ Bronze/ Admiralty brass Products in form of Pipe, Fittings, Flanges, Sheet, Plates, Ship Shafts, Propellor & Other marine equipments etc widely used in marine industries.

Inconel[®], Incoloy[®], Monel[®], Hastelloy[®], Duplex[®]
are Registered Trade Marks of their Respective Owners



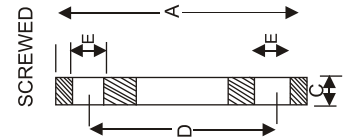
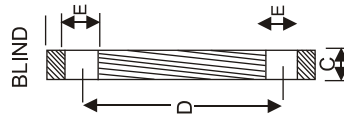
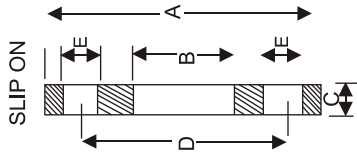
FLANGES



- Stainless Steel** : ASTM A182 F304/ 304L/ 304H/ 316/ 316L/ 317/ 317L/ 321/ 310/ 347/904L/ Etc.
- Carbon Steel** : ASTM A105/ A694 F42/ 46/ 52/ 56/ 60/ 65/ 70/ A350 LF3/ A350 LF2, Etc.
- Alloy Steel** : ASTM A 182 F1/ F5/ F9/ F11/ F22/ F91/ F92 Etc.
ASTM A519 Gr. 4130 / Gr. 4140, API 6A Type - 10000 / 15000/ 25000 PSI
- Duplex Steel** : 2205 (Duplex), 2507 (Super Duplex)
UNS - 31803, 32750, 32760, 32990
- Others** : Monel[®], Nickel, Inconel[®], Hastelloy[®], Copper, Brass, Bronze, Titanium, Tantalum, Bismuth, Aluminium, High Speed Steel, Zinc, Lead, etc.
- Types** : Weldneck, Slipon, Blind, Socket Weld, Lap Joint, Spectacles, Ring Joint, Oriface, Long Weldneck, Deck Flange, Etc.
- Size** : 1/8" NB TO 48" NB
- Class** : 150#, 300#, 400#, 600#, 900#, 1500# & 2500#.
Also as per the National & International Standard.

FLANGES

BRITISH STANDARD - 10


Table D : For Working steam pressure upto 50 lbs per sq. inch.

Nominal pipe size	O.D. of Pipe	Dia. of Flange	Dia. of Bolt Circle	No. of Bolt	Dia. of Bolt	Thickness
1/2"	27/32"	3.3/4"	2.5/8"	4	1/2"	3/16"
3/4"	1.1/16"	4"	2.7/8"	4	1/2"	3/16"
1"	1.11/32"	4.1/2"	3.1/4"	4	1/2"	3/16"
1.1/4"	1.11/16"	4.3/4"	3.7/16"	4	1/2"	1/4"
1.1/2"	1.28/32"	5.1/4"	3.7/8"	4	1/2"	1/4"
2"	2.3/8"	6"	4.1/2"	4	5/8"	5/16"
2.1/2"	3"	6.1/2"	5"	4	5/8"	5/16"
3"	3.1/2"	7.1/4"	5.3/4"	4	5/8"	3/8"
3.1/2"	4"	8"	6.1/2"	4	5/8"	3/8"
4"	4.1/2"	8.1/2"	7"	4	5/8"	3/8"
5"	5.1/2"	10"	8.1/4"	8	5/8"	1/2"
6"	6.1/2"	11"	9.1/4"	8	5/8"	1/2"
7"	7.1/2"	12"	10.1/4"	8	5/8"	1/2"
8"	8.5/8"	13.1/4"	11.1/2"	8	5/8"	1.1/2"
9"	9.5/8"	14.1/2"	12.3/4"	8	5/8"	5/8"
10"	10.3/4"	16"	14"	8	3/4"	5/8"
12"	12.3/4"	18"	16"	12	3/4"	5/8"
14"	14"	20.3/4"	18.1/2"	12	7/8"	3/4"
16"	16"	22.3/4"	20.1/2"	12	7/8"	3/4"
18"	18"	25.1/4"	23"	12	7/8"	7/8"
20"	20"	27.3/4"	25.1/4"	16	7/8"	1"
24"	24"	32.1/2"	29.3/4"	16	1"	1.1/8"

Table E : For Working steam pressure 50 lbs and upto 100 per sq. inch.

Nominal pipe size	Dia. of Flange	Dia. of Bolt Circle	No. of Bolt	Dia. of Bolt	Thickness
1/2"	3.3/4"	2.5/8"	4	1/2"	1/4"
3/4"	4"	2.7/8"	4	1/2"	1/4"
1"	4.1/2"	3.1/4"	4	1/2"	9/32"
1.1/4"	4.3/4"	3.7/16"	4	1/2"	5/16"
1.1/2"	5.1/4"	3.7/8"	4	1/2"	11/32"
2"	6"	4.1/2"	4	5/8"	3/8"
2.1/2"	6.1/2"	5"	4	5/8"	13/32"
3"	7.1/4"	5.3/4"	4	5/8"	7/16"
3.1/2"	8"	6.1/2"	8	5/8"	15/32"
4"	8.1/2"	7"	8	5/8"	1/2"
5"	10"	8.1/4"	8	5/8"	9/16"
6"	11"	9.1/4"	8	3/4"	11/16"
7"	12"	10.1/4"	8	3/4"	3/4"
8"	13.1/4"	11.1/2"	8	3/4"	3/4"
9"	14.1/2"	12.3/4"	12	3/4"	13/16"
10"	16"	14"	12	3/4"	7/8"
12"	18"	16"	12	7/8"	1"
14"	20.3/4"	18.1/2"	12	7/8"	1"
16"	22.3/4"	20.1/2"	12	7/8"	1"
18"	25.1/4"	23"	16	7/8"	1.1/8"
20"	27.3/4"	25.1/4"	16	7/8"	1.1/4"
24"	32.1/2"	29.3/4"	16	1.1/8"	1.1/2"

Table F : For Working steam pressure 100 lbs and upto 150 per sq. inch.

Nominal pipe size	O.D. of Pipe	Dia. of Bolt Circle	No. of Bolt	Dia. of Bolt	Thickness
1/2"	3.3/4"	2.5/8"	4	1/2"	3/8"
3/4"	4"	2.7/8"	4	1/2"	3/8"
1"	4.3/4"	3.7/16"	4	5/8"	3/8"
1.1/4"	5.1/4"	3.7/8"	4	5/8"	1/2"
1.1/2"	5.1/2"	4.1/8"	4	5/8"	1/2"
2"	6.1/2"	5"	4	5/8"	5/8"
2.1/2"	7.1/4"	5.3/4"	8	5/8"	5/8"
3"	8"	6.1/2"	8	5/8"	5/8"
3.1/2"	8.1/2"	7"	8	5/8"	3/4"
4"	9"	7.1/2"	8	5/8"	3/4"
5"	11"	9.1/4"	8	3/4"	7/8"
6"	12"	10.1/4"	12	3/4"	7/8"
7"	13.1/4"	11.1/2"	12	3/4"	7/8"
8"	14.1/2"	12.3/4"	12	3/4"	1"
9"	16"	14"	12	7/8"	1"
10"	17"	15"	12	7/8"	1"
12"	19.1/4"	17.1/4"	16	7/8"	1.1/8"
14"	21.3/4"	19.1/2"	16	1"	1.1/4"
16"	24"	21.3/4"	20	1"	1.1/4"
18"	26.1/2"	24"	20	1.1/8"	1.3/8"
20"	29"	26.1/2"	24	1.1/8"	1.1/2"
24"	33.1/2"	30.3/4"	24	1.1/4"	1.5/8"

Table H : For Working steam pressure 150 lbs and upto 250 per sq. inch.

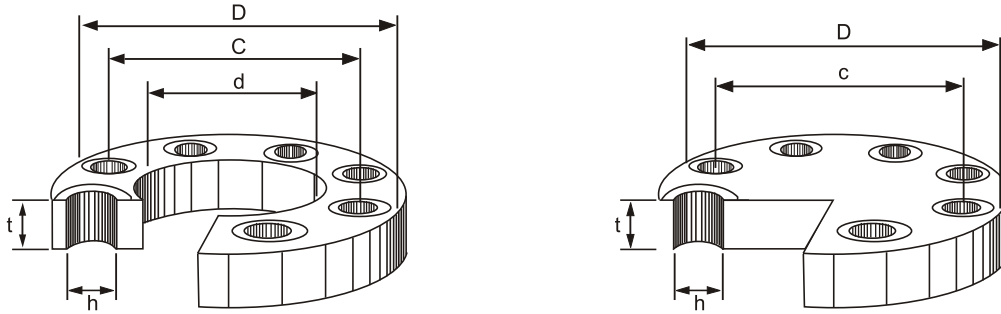
Nominal pipe size	Dia. of Flange	Dia. of Bolt Circle	No. of Bolt	Dia. of Bolt	Thickness
1/2"	4.1/2"	3.1/4"	4	5/8"	1/2"
3/4"	4.1/2"	3.1/4"	4	5/8"	1/2"
1"	4.3/4"	3.7/16"	4	5/8"	9/16"
1.1/4"	5.1/4"	3.7/8"	4	5/8"	11/16"
1.1/2"	5.1/2"	4.1/8"	4	5/8"	11/16"
2"	6.1/2"	5"	4	5/8"	3/4"
2.1/2"	7.1/4"	5.3/4"	8	5/8"	3/4"
3"	8"	6.1/2"	8	5/8"	7/8"
3.1/2"	8.1/2"	7"	8	5/8"	7/8"
4"	9"	7.1/2"	8	5/8"	1"
5"	11"	9.1/4"	8	3/4"	1.1/8"
6"	12"	10.1/4"	12	3/4"	1.1/8"
7"	13.1/4"	11.1/2"	12	3/4"	1.1/4"
8"	14.1/2"	12.3/4"	12	3/4"	1.1/4"
9"	16"	14"	12	7/8"	1.3/8"
10"	17"	15"	12	7/8"	1.3/8"
12"	19.1/4"	17.1/4"	16	7/8"	1.1/2"
14"	21.3/4"	19.1/2"	16	1"	1.5/8"
16"	24"	21.3/4"	20	1"	1.3/4"
18"	26.1/2"	24"	20	1.1/8"	1.7/8"
20"	29"	26.1/2"	24	1.1/8"	2"
24"	33.1/2"	30.3/4"	24	1.1/4"	2.1/4"

FLANGES

ISO 9001:2015, ISO 14001:2015, ISO 45001:2018
 & PED 2014/68/EU Certified Manufacturing Company

JIS B2220 - Flanges 5K & 10K

Available in Carbon Steel and Stainless Steel



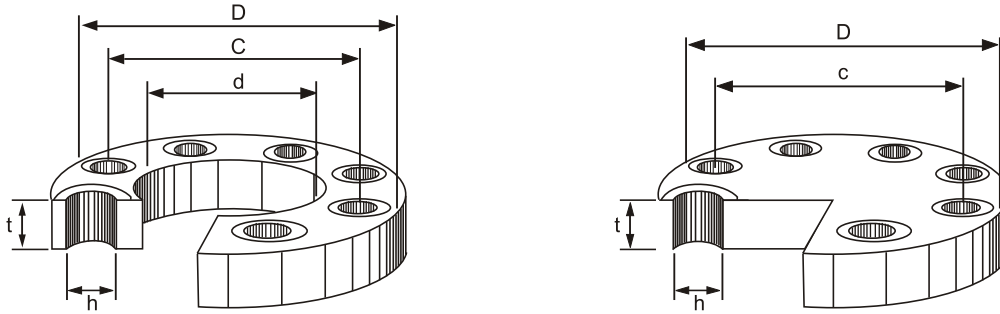
	JIS 5K								JIS 10K							
	Weight (kg)								Weight (kg)							
Size	d	D	C	No.	h	t	SO	BL	d	D	C	No.	h	t	SO	BL
010	17.8	75	55	4	12	9	0.27	0.30	17.8	90	65	4	15	12	0.52	0.54
015	22.2	80	60	4	12	9	0.30	0.40	22.2	95	70	4	15	12	0.57	0.61
020	27.7	85	65	4	12	10	0.37	0.50	27.7	100	75	4	15	14	0.73	0.79
025	34.5	95	75	4	12	10	0.45	0.60	34.5	125	90	4	19	14	1.13	1.24
032	43.2	115	90	4	15	12	0.78	0.90	43.2	135	100	4	19	16	1.48	1.66
040	49.1	120	95	4	15	12	0.83	1.00	49.1	140	165	4	19	16	1.56	1.81
050	61.1	130	105	4	15	14	1.07	1.40	61.1	155	120	4	19	16	1.88	2.23
065	77.1	155	130	4	15	14	1.49	2.00	77.1	175	140	4	19	18	2.60	3.24
080	90.0	180	145	4	19	14	1.99	2.70	90.0	185	150	8	19	18	2.61	3.50
090	101.6	190	155	4	19	14	2.09	3.00	102.6	195	160	8	19	18	2.75	4.00
100	115.4	200	165	8	19	16	2.39	3.70	115.4	210	175	8	19	18	3.14	4.60
125	141.2	235	200	8	19	16	3.23	5.20	141.2	250	210	8	23	20	4.77	7.30
150	166.6	265	230	8	19	18	4.41	7.50	166.6	280	240	8	23	22	6.34	10.10
175	192.1	300	260	8	23	18	5.51	9.50	192.1	302	265	12	23	22	6.82	11.80
200	218.0	320	280	8	23	20	6.33	12.20	218.0	330	290	12	23	22	7.53	14.00
250	269.5	385	345	12	23	22	9.45	19.30	269.5	400	355	12	25	24	11.80	22.70
300	21.0	430	390	12	23	22	10.30	24.30	321.0	445	400	16	25	24	13.50	29.50
350	358.1	480	435	12	25	24	14.00	33.20	358.1	490	445	16	25	26	16.40	37.10
400	409.0	540	495	16	25	24	16.90	41.90	409.0	560	510	16	27	28	23.00	52.50
450	460.0	605	555	16	25	24	21.60	53.00	460.0	620	565	20	27	30	29.50	68.80
500	511.0	655	605	20	25	24	23.10	61.90	511.0	675	620	20	27	30	33.50	82.10
550	562.0	720	665	20	27	26	30.30	81.20	562.0	745	680	20	33	32	43.10	105.80
600	613.0	770	715	20	27	26	32.70	93.20	613.0	795	730	24	33	32	45.70	120.20
650	664.0	825	770	24	27	26	35.90	106.90	664.0	845	780	24	33	34	52.10	145.00
700	715.0	875	820	24	27	26	38.20	120.60	715.0	905	840	24	33	34	59.50	167.20
750	766.0	945	880	24	33	28	48.70	150.50	766.0	970	900	24	33	36	73.20	204.20
800	817.0	995	930	24	33	28	51.60	167.40	817.0	1020	950	28	33	36	76.40	225.20
900	919.0	1095	1030	24	33	30	61.10	218.10	919.0	1120	1050	28	33	38	89.40	288.40
1000	1021.0	1195	1130	28	33	32	70.50	277.30	1021.0	1235	1160	28	39	40	109.20	367.70

FLANGES

ISO 9001:2015, ISO 14001:2015, ISO 45001:2018
 & PED 2014/68/EU Certified Manufacturing Company

JIS B2220 - Flanges 16K & 20K

Available in Carbon Steel and Stainless Steel



	JIS 16K								JIS 20K							
	Weight (kg)								Weight (kg)							
Size	d	D	C	No.	h	t	SO	BL	d	D	C	No.	h	t	SO	BL
010	17.8	90	65	4	15	12	0.51	0.53	17.8	90	65	4	15	14	0.60	0.60
015	22.2	95	70	4	15	12	0.56	0.60	22.2	95	70	4	15	14	0.70	0.70
020	27.7	100	75	4	15	14	0.72	0.79	27.7	100	75	4	15	16	0.80	0.90
025	34.5	125	90	4	19	14	1.13	1.23	34.5	125	90	4	19	16	1.30	1.50
032	43.2	135	100	4	19	16	1.46	1.66	43.2	135	100	4	19	18	1.60	1.80
040	49.1	140	105	4	19	16	1.56	1.81	49.1	140	105	4	19	18	1.70	2.00
050	61.1	155	120	8	19	16	1.70	2.10	61.1	155	120	8	19	18	1.90	2.40
065	77.1	175	140	8	19	18	2.40	3.10	77.1	175	140	8	19	20	2.60	3.40
080	90.0	200	160	8	23	20	3.50	4.50	90.0	200	160	8	23	22	3.80	4.90
090	102.6	210	170	8	23	20	3.50	5.00	102.6	210	170	8	23	24	4.40	6.00
100	115.4	200	185	8	23	22	4.50	6.30	115.4	225	185	8	23	24	4.90	6.90
125	141.2	270	225	8	25	22	6.50	9.20	141.2	270	225	8	25	26	7.80	11.00
150	166.6	305	260	12	25	24	8.70	12.80	166.6	305	260	12	25	28	10.10	14.90
175	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
200	218.0	350	305	12	25	26	10.90	18.60	218.0	350	305	12	25	30	12.60	21.40
250	269.5	430	380	12	27	28	18.00	30.60	269.5	430	380	12	27	34	21.90	37.20
300	321.0	480	430	16	27	30	21.50	40.70	321.0	480	430	16	27	36	25.80	48.80
350	358.1	540	480	16	33	34	30.80	57.80	358.1	540	480	16	33	40	36.20	68.00
400	409.0	605	540	16	33	38	42.80	82.20	409.0	605	540	16	33	46	51.70	99.40
450	460.0	675	605	20	33	40	55.10	107.60	460.0	675	605	20	33	48	66.10	129.10
500	511.0	730	660	20	33	42	65.10	133.10	511.0	730	660	20	33	50	77.40	158.40
550	562.0	795	720	20	39	44	77.90	164.10	562.0	795	720	20	39	52	92.20	194.00
600	613.0	845	770	24	39	46	86.00	193.20	613.0	845	770	24	39	54	101.10	226.90
650	664.0	895	820	24	39	48	96.30	227.50	664.0	945	850	24	48	60	147.60	311.60
700	715.0	960	875	24	42	50	114.10	272.60	715.0	995	900	24	48	64	168.00	370.90
750	766.0	1020	935	24	42	52	132.70	321.90	766.0	1080	970	24	56	68	212.70	460.10
800	817.0	1085	990	24	48	54	152.10	375.60	817.0	1140	1030	24	56	72	248.50	546.50
900	919.0	1185	1090	28	48	58	178.10	481.80	919.0	1250	1140	28	56	76	296.90	694.90
1000	1021.0	1320	1210	28	56	62	235.30	636.00	1021.0	-	-	-	-	-	-	-

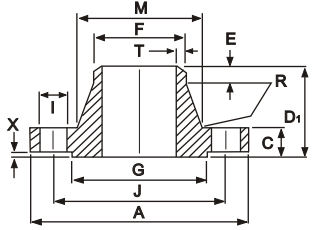
BS4504 PN10 / PN16 FLANGES

ISO 9001:2015, ISO 14001:2015, ISO 45001:2018
& PED 2014/68/EU Certified Manufacturing Company

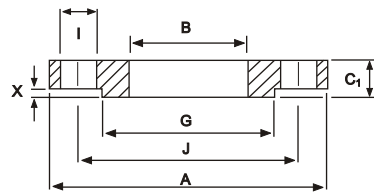
BS4504 PN10 FLANGES

Dimensions in mm

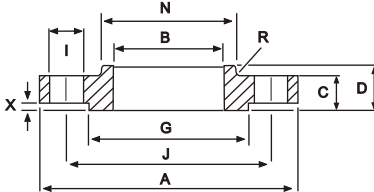
CODE 111



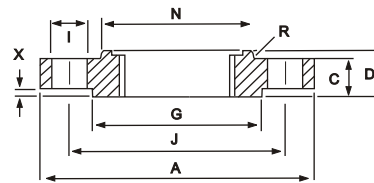
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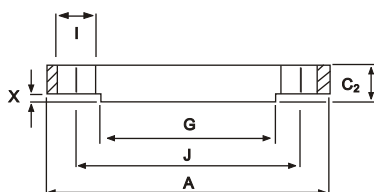
CODE 112



CODE 113



CODE 105



Nom. Size NB	Flange						Raised Face		Boss	Drilling			Bolting	Neck					Bore Diameter B
	A	C	C1	C2	D	D1	G	X	N	No.	I	J		M	F	E	R	T	
10	90	14	14	14	20	35	40	2	30	4	14	60	M12	28	17.2	6	3	1.8	18.0
15	95	14	14	14	20	35	45	2	35	4	14	65	M12	32	21.3	6	3	2.0	22.0
20	105	16	16	16	24	38	58	2	45	4	14	75	M12	39	26.9	6	4	2.3	27.5
25	115	16	16	16	24	38	68	2	52	4	14	85	M12	46	33.4	6	4	2.6	34.5
32	140	16	18	16	26	40	78	2	60	4	18	100	M16	56	42.2	6	5	2.6	43.0
40	150	16	18	16	26	42	88	3	70	4	18	110	M16	64	48.3	7	5	2.6	49.5
50	165	18	20	18	28	45	102	3	84	4	18	125	M16	74	60.3	8	5	2.9	61.5
65	185	18	20	18	32	45	122	3	104	4/8	18	145	M16	92	73.0	10	6	2.9	74.0
80	200	20	20	20	34	50	138	3	118	8	18	160	M16	110	88.9	10	6	3.2	90.5
100	220	20	22	20	40	52	162	3	140	8	18	180	M16	130	114.3	12	6	3.6	116.0
125*	250	22	22	22	44	55	188	3	168	8	18	210	M16	158	141.3	12	6	4.0	142.5
150	285	22	24	22	44	55	212	3	195	8	22	240	M20	184	168.3	12	8	4.5	170.5
200	340	24	24	24	44	62	268	3	246	8	22	295	M20	234	219.1	16	8	5.6	221.5
250	395	26	26	26	46	68	320	3	298	12	22	350	M20	288	273.0	16	10	6.3	276.5
300	445	26	28	26	46	68	370	4	350	12	22	400	M20	342	323.9	16	10	7.1	327.6
350	505	26	28	26	53	68	430	4	400	16	22	460	M20	390	355.6	16	10	7.1	359.0
400	565	26	32	26	57	72	482	4	459	16	26	515	M24	440	406.4	16	10	7.1	411.0
450	615	28	36	28	63	72	532	4	502	20	26	565	M24	488	457.0	16	12	7.1	462.0
500	670	28	38	28	67	75	585	4	559	20	26	620	M24	540	508.0	16	12	7.1	513.5
600	780	28	42	34	75	80	685	5	658	20	30	725	M27	640	610.0	18	12	7.1	616.5
700	895	30	-	38	-	80	800	5	-	24	30	840	M27	746	711.0	18	12	8.0	-
800	1015	32	-	42	-	90	905	5	-	24	33	950	M30	848	813.0	18	12	8.0	-
900	1115	34	-	46	-	95	1005	5	-	28	33	1050	M30	948	914.0	20	12	10.0	-
1000	1230	34	-	52	-	95	1110	5	-	28	36	1160	M33	1050	1016.0	20	12	10.0	-
1200	1455	38	-	60	-	115	1330	5	-	32	39	1380	M36	1256	1220.0	25	12	11.0	-
1400	1675	42	-	-	-	120	1535	5	-	36	42	1590	M39	1460	1420.0	25	12	12.0	-
1600	1915	46	-	-	-	130	1760	5	-	40	48	1820	M45	1666	1620.0	25	12	14.0	-
1800	2115	50	-	-	-	140	1960	5	-	44	48	2020	M45	1866	1820.0	30	15	15.0	-
2000	2325	54	-	-	-	150	2170	5	-	48	48	2230	M45	2070	2020.0	30	15	16.0	-
2200	2550	58	-	-	-	160	2370	6	-	52	56	2440	M52	2275	2220.0	35	15	-	-
2400	2760	62	-	-	-	170	2570	6	-	56	56	2650	M52	2478	2420.0	35	15	-	-
2600	2960	65	-	-	-	180	2780	6	-	60	56	2850	M52	2680	2620.0	40	18	-	-
2800	3180	70	-	-	-	190	3000	6	-	64	56	3070	M52	2882	2820.0	40	18	-	-
3000	3405	75	-	-	-	200	3210	6	-	68	62	3290	M56	3085	3020.0	40	18	-	-

* Care should be taken with these sizes as the pipe o.d. does not relate to normal stainless steel dimensions.

1. Weldnecks (Code 111) are bored to suit schedule of pipework used.
2. Code 105 flanges are supplied flat faced unless otherwise requested by the purchaser.
3. For information sizes NB 10 to DN150 use PN16 dimensions.

BS4504 PN16 FLANGES

Dimensions in mm

Nom. Size NB	Flange						Raised Face		Boss	Drilling			Bolting	Neck					Bore Diameter B
	A	C	C1	C2	D	D1	G	X	N	No.	I	J		M	F	E	R	T	
10	90	14	14	14	20	35	40	2	30	4	14	60	M12	28	17.2	6	3	1.8	18.0
15	95	14	14	14	20	35	45	2	35	4	14	65	M12	32	21.3	6	3	2.0	22.0
20	105	16	16	16	24	38	58	2	45	4	14	75	M12	39	26.9	6	4	2.3	27.5
25	115	16	16	16	24	38	68	2	52	4	14	85	M12	46	33.4	6	4	2.6	34.5
32	140	16	18	16	26	40	78	2	60	4	18	100	M16	56	42.2	6	5	2.6	43.0
40	150	16	18	16	26	42	88	3	70	4	18	110	M16	64	48.3	7	5	2.6	49.5
50	165	18	20	18	28	45	102	3	84	4	18	125	M16	74	60.3	8	5	2.9	61.5
65	185	18	20	18	32	45	122	3	104	4/8	18	145	M16	92	73.0	10	6	2.9	74.0
80	200	20	20	20	34	50	138	3	118	8	18	160	M16	110	88.9	10	6	3.2	90.5
100	220	20	22	20	40	52	162	3	140	8	18	180	M16	130	114.3	12	6	3.6	116.0
125*	250	22	22	22	44	55	188	3	168	8	18	210	M16	158	141.3	12	6	4.0	142.5
150	285	22	24	22	44	55	212	3	195	8	22	240	M20	184	168.3	12	8	4.5	170.5
200	340	24	24	24	44	62	268	3	246	12	22	295	M20	234	219.1	16	8	5.6	221.5
250	405	26	29	26	46	70	320	3	298	12	26	355	M24	288	273.0	16	10	6.3	276.5
300	460	28	32	28	46	78	378	4	350	12	26	410	M24	342	323.9	16	10	7.1	327.6
350	520	30	35	30	57	82	438	4	400	16	26	470	M24	390	355.6	16	10	8.0	359.0
400	580	32	38	32	63	85	490	4	456	16	30	525	M27	444	406.4	16	10	8.0	411.0
450	640	34	42	36	63	87	550	4	502	20	30	585	M27	490	457.0	16	12	8.0	462.0
500	715	34	46	36	73	90	610	4	559	20	33	650	M30	546	508.0	16	12	8.0	513.5
600	840	36	52	44	83	95	725	5	658	20	36	770	M33	650	610.0	18	12	8.8	616.5
700	910	36	60	48	83	100	795	5	760	24	36	840	M33	750	711.0	18	12	8.6	-
800	1025	38	68	52	90	105	900	5	864	24	39	950	M36	848	813.0	20	12	10.0	-
900	1125	40	76	58	94	110	1000	5	968	28	39	1050	M39	948	914.0	20	12	10.0	-
1000	1255	42	84	64	100	120	1115	5	1072	28	42	1170	M39	1056	1016.0	22	12	10.0	-
1200	1485	48	98	76	-	130	1330	5	-	32	48	1390	M45	1260	1220.0	30	12	12.5	-
1400	1685	52	-	-	-	145	1530	5	-	36	48	1590	M45	1465	1420.0	30	12	14.2	-
1600	1930	58	-	-	-	160	1750	5	-	40	56	1820	M52	1668	1620.0	35	12	16.0	-
1800	2130	62	-	-	-	170	1950	5	-	44	56	2020	M52	1870	1820.0	35	15	17.5	-
2000	2435	66	-	-	-	190	2150	5	-	48	62	2230	M56	2072	2020.0	40	15	20.0	-

* Care should be taken with these sizes as the pipe o.d. does not relate to normal stainless steel dimensions.

1. Weldnecks (Code 111) are bored to suit schedule of pipework used.
2. Code 105 flanges are supplied flat faced unless otherwise requested by the purchaser.



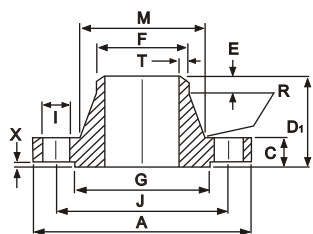
BS4504 PN25 / PN40 FLANGES

ISO 9001:2015, ISO 14001:2015, ISO 45001:2018
& PED 2014/68/EU Certified Manufacturing Company

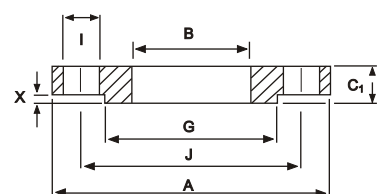
BS4504 PN25 FLANGES

Dimensions in mm

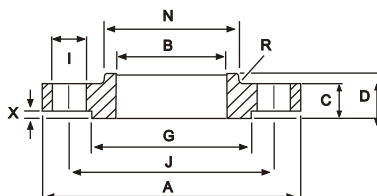
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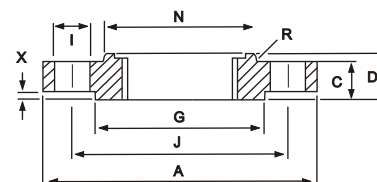
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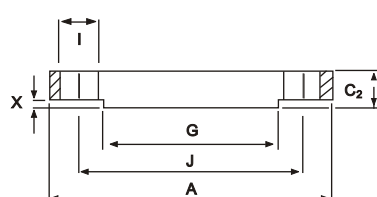
CODE 112



CODE 113



CODE 105



Nom. Size NB	Flange						Raised Face		Boss N	Drilling			Bolting	Neck					Bore Diameter B
	A	C	C1	C2	D	D1	G	X		No.	I	J		M	F	E	R	T	
10	90	16	14	16	22	35	40	2	30	4	14	60	M12	28	17.2	6	3	1.8	18.0
15	95	16	14	16	22	38	45	2	35	4	14	65	M12	32	21.3	6	3	2.0	22.0
20	105	18	16	18	26	40	58	2	45	4	14	75	M12	40	26.9	6	4	2.3	27.5
25	115	18	16	18	28	40	68	2	52	4	14	85	M12	46	33.4	6	4	2.6	34.5
32	140	18	18	18	30	42	78	2	60	4	18	100	M16	56	42.2	7	5	2.6	43.0
40	150	18	18	18	32	45	88	3	70	4	18	110	M16	64	48.3	7	5	2.9	49.5
50	165	20	20	20	34	48	102	3	84	4	18	125	M16	74	60.3	8	5	2.9	61.5
65	185	22	22	22	38	52	122	3	104	8	18	145	M16	92	73.0	10	6	2.9	74.0
80	200	24	24	24	40	58	138	3	118	8	18	160	M16	110	88.9	12	6	3.2	90.5
100	235	24	26	24	44	65	162	3	145	8	22	190	M20	134	114.3	12	6	3.6	116.0
125*	270	26	28	26	48	68	188	3	170	8	26	220	M24	162	141.3	12	6	4.0	142.5
150	300	28	30	28	52	75	218	3	200	8	26	250	M24	190	168.3	12	8	4.5	170.5
200	360	30	32	30	52	80	278	3	256	12	26	310	M24	244	219.1	16	8	6.3	221.5
250	425	32	35	32	60	88	335	3	310	12	30	370	M27	296	273.0	18	10	7.1	276.5
300	485	34	38	34	67	92	395	4	364	16	30	430	M27	350	323.9	18	10	8.0	327.5
350	555	38	42	38	72	100	450	4	418	16	33	490	M30	398	355.6	20	10	8.8	359.5
400	620	40	46	40	78	110	505	4	472	16	36	550	M33	452	406.4	20	10	8.8	411.0
450	670	42	50	44	84	110	555	4	520	20	36	600	M33	500	457.0	20	12	8.8	462.0
500	730	44	56	45	90	125	615	4	580	20	36	660	M33	558	508.0	20	12	10.0	513.5
600	845	46	68	54	100	125	720	5	684	20	39	770	M36	660	610.0	20	12	11.0	616.5
700	960	46	-	-	-	125	820	5	-	24	42	875	M39	760	711.0	20	12	12.5	-
800	1085	50	-	-	-	135	930	5	-	24	48	990	M45	864	813.0	22	12	14.2	-
900	1185	54	-	-	-	145	1030	5	-	28	48	1090	M45	968	914.0	24	12	16.0	-
1000	1320	58	-	-	-	155	1140	5	-	28	56	1210	M52	1070	1016.0	24	12	17.5	-
1200	1530	-	-	-	-	-	1350	5	-	32	56	1420	M52	-	1220.0	-	12	12.5	-
1400	1755	-	-	-	-	-	1560	5	-	36	62	1640	M56	-	1420.0	-	12	14.2	-
1600	1975	-	-	-	-	-	1780	5	-	40	62	1860	M56	-	1620.0	-	15	16.0	-
1800	2185	-	-	-	-	-	1985	5	-	44	70	2070	M64	-	1820.0	-	15	17.5	-
2000	2425	-	-	-	-	-	2210	5	-	48	70	2300	M64	-	2020.0	-	15	20.0	-

* Care should be taken with these sizes as the pipe o.d. does not relate to normal stainless steel dimensions.
 1. Weldnecks (Code 111) are bored to suit schedule of pipework used.
 2. Code 105 flanges are supplied flat faced unless otherwise requested by the purchaser.
 3. For information sizes NB10 to NB150 use PN40 dimensions.

BS4504 PN40 FLANGES

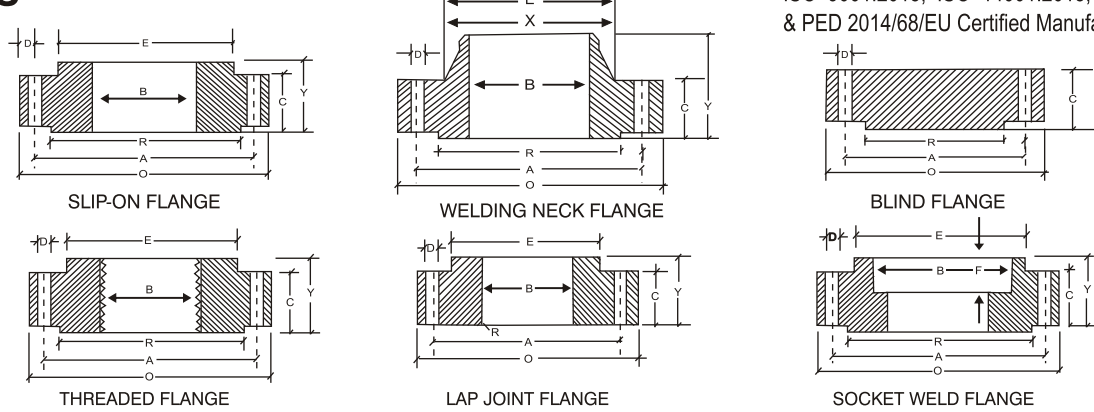
Dimensions in mm

Nom. Size NB	Flange						Raised Face		Boss N	Drilling			Bolting	Neck					Bore Diameter B
	A	C	C1	C2	D	D1	G	X		No.	I	J		M	F	E	R	T	
10	90	16	14	16	22	35	40	2	30	4	14	60	M12	28	17.2	6	3	1.8	18.0
15	95	16	14	16	22	38	45	2	35	4	14	65	M12	32	21.3	6	3	2.0	22.0
20	105	18	16	18	26	40	58	2	45	4	14	75	M12	40	26.9	6	4	2.3	27.5
25	115	18	16	18	28	40	68	2	52	4	14	85	M12	46	33.4	6	4	2.6	34.5
32	140	18	18	18	30	42	78	2	60	4	18	100	M16	56	42.2	6	5	2.6	43.5
40	150	18	18	18	32	45	88	3	70	4	18	110	M16	64	48.3	7	5	2.6	49.5
50	165	20	20	20	34	48	102	3	84	4	18	125	M16	74	60.3	8	5	2.9	61.5
65	185	22	22	22	38	52	122	3	104	8	18	145	M16	92	76.1	10	6	2.9	77.5
80	200	24	24	24	40	58	138	3	118	8	18	160	M16	110	88.9	12	6	3.2	90.5
100	235	24	26	24	44	65	162	3	145	8	22	190	M20	134	114.3	12	6	3.6	116.0
125*	270	26	28	26	48	68	188	3	170	8	26	220	M24	162	141.3	12	6	4.0	142.5
150	300	28	30	28	52	75	218	3	200	8	26	250	M24	190	168.3	12	8	4.5	170.5
200	375	34	36	36	52	88	285	3	260	12	30	320	M27	244	219.1	16	8	6.3	221.5
250	450	38	42	38	60	105	345	3	312	12	33	385	M30	306	273.0	18	10	7.1	276.5
300	515	42	48	42	67	115	410	4	380	16	33	450	M30	362	323.9	18	10	8.0	327.5
350	580	46	54	46	72	125	465	4	424	16	36	510	M33	408	355.6	20	10	8.8	359.5
400	660	50	60	50	78	135	535	4	478	16	33	385	M36	462	406.4	20	10	11.0	411.0
450	685	50	66	54	84	135	560	4	522	20	39	610	M36	500	457.0	20	12	12.5	462.0
500	755	52	72	56	90	140	615	4	576	20	42	670	M39	562	508.0	20	12	14.2	513.5
600	890	60	84	70	100	150	735	5	686	20	48	795	M45	666	610.0	20	12	16.0	616.5

* Care should be taken with these sizes as the pipe o.d. does not relate to normal stainless steel dimensions.
 1. Weldnecks (Code 111) are bored to suit schedule of pipework used.
 2. Code 105 flanges are supplied flat faced unless otherwise requested by the purchaser.

FLANGES

ISO 9001:2015, ISO 14001:2015, ISO 45001:2018
& PED 2004/68/EU Certified Manufacturing Company



DIMENSIONS OF CLASS 150 FLANGES AS PER B 16.5

Nominal Pipe Size	Flange Dia O	Dia of Bolt Circle A	No. of Bolt Holes D	No. of Holes C	No. of Holes C	Dia of Hub E	Length through Hub			Dia Bore		Dia of R/F R	Depth of Socket F	Pipe Dia X
							S/O & S/W Y	W/N Y	L/J Y	S/O & S/W B	L/J B			
15	88.9	60.3	15.9	4	11.1	30.2	15.9	47.6	15.9	22.3	22.9	34.9	9.5	21.33
20	98.4	69.8	15.9	4	12.7	38.1	15.9	52.4	15.9	27.7	28.2	42.9	11.1	26.67
25	107.9	79.4	15.9	4	14.3	49.2	17.5	55.6	17.5	34.5	35.0	50.8	12.7	33.40
32	117.5	88.9	15.9	4	15.9	58.7	20.6	57.1	20.6	43.2	43.7	63.5	14.3	42.16
40	127.0	98.4	15.9	4	17.5	65.1	22.2	61.9	22.2	49.5	50.0	73.0	15.9	48.26
50	152.4	120.6	19.0	4	19.0	77.8	25.4	63.5	25.4	62.0	62.5	92.1	17.5	60.31
65	177.8	139.7	19.0	4	22.2	90.5	28.6	69.8	28.6	74.7	75.4	104.8	19.0	73.02
80	190.5	152.4	19.0	4	23.8	107.9	30.2	69.8	30.2	90.7	91.4	127.0	20.6	88.90
100	228.6	190.5	19.0	8	23.8	134.9	33.3	76.2	33.3	116.1	116.8	157.2	23.8	114.30
125	254.0	215.9	22.2	8	23.8	163.5	36.5	88.9	36.5	143.8	144.5	185.7	23.8	141.30
150	279.4	241.3	22.2	8	25.4	192.1	39.7	88.9	39.7	170.1	171.4	215.9	27.0	168.27
200	342.9	298.4	22.2	8	28.6	246.1	44.4	101.6	44.4	221.5	222.2	269.9	31.7	219.07
250	406.4	361.9	25.4	12	30.2	304.8	49.2	101.6	49.2	276.3	277.4	323.8	33.3	273.05
300	482.6	431.8	25.4	12	31.8	365.1	55.6	114.3	55.6	327.1	328.2	381.0	39.7	323.85
350	533.4	476.2	28.6	12	34.9	400.0	57.1	127.0	79.4	359.1	360.2	412.7	41.3	355.60
400	596.9	539.7	28.6	16	36.5	457.2	63.5	127.0	87.3	41.5	411.2	469.9	44.4	406.40
450	635.0	577.8	31.7	16	39.7	504.8	68.3	139.7	96.8	461.8	462.3	533.4	49.2	457.00
500	698.5	635.0	31.7	20	42.9	558.8	73.0	144.5	103.2	513.1	514.3	584.2	54.0	508.00
600	812.8	749.3	34.9	20	47.6	663.6	82.5	152.4	111.1	615.9	615.9	692.1	63.5	609.60

DIMENSIONS OF CLASS 300 FLANGES AS PER B 16.5

Nominal Pipe Size	Flange Dia O	Dia of Bolt Circle A	No. of Bolt Holes D	No. of Holes C	No. of Holes C	Dia of Hub E	Length through Hub			Dia Bore		Dia of R/F R	Depth of Socket F	Pipe Dia X
							S/O & S/W Y	W/N Y	L/J Y	S/O & S/W B	L/J B			
15	95.2	66.7	15.9	4	14.3	38.1	22.2	52.4	22.2	22.3	22.9	34.9	9.5	21.33
20	117.5	82.5	19.0	4	15.9	47.6	25.4	57.1	25.4	27.7	28.2	42.9	11.1	26.67
25	123.8	88.9	19.0	4	17.5	54.0	27.0	61.9	27.0	34.5	35.0	50.8	12.7	33.40
32	133.3	98.4	19.0	4	19.0	63.5	27.0	65.1	27.0	43.2	43.7	63.5	14.3	42.16
40	155.6	114.3	22.2	4	20.3	69.8	30.2	68.3	30.2	49.5	50.0	73.0	15.9	48.26
50	165.1	127.0	19.0	8	22.2	84.1	33.3	69.8	33.3	62.0	62.5	92.1	17.5	60.31
65	190.5	149.2	22.2	8	25.4	100.0	38.1	76.2	38.1	74.7	75.4	104.8	19.0	73.02
80	209.5	168.3	22.2	8	28.6	117.5	42.9	79.4	42.9	90.7	91.4	127.0	20.6	88.90
100	254.0	200.0	22.2	8	31.8	146.0	47.6	85.7	47.6	116.1	116.8	157.2	23.8	114.30
125	279.4	234.9	22.2	8	34.9	177.8	50.8	98.4	50.8	143.8	144.5	185.7	-	141.30
150	317.5	269.9	22.2	12	38.5	206.4	52.4	98.4	62.4	170.7	171.4	215.9	-	168.27
200	381.0	330.2	25.4	12	41.3	260.3	61.9	111.1	61.9	221.5	222.2	269.9	-	219.07
250	444.5	387.3	28.6	16	47.6	320.7	66.7	117.5	95.2	276.3	277.4	323.8	-	273.05
300	520.7	450.8	31.7	16	50.8	374.6	73.0	130.2	101.6	327.1	328.2	381.0	-	323.85
350	584.2	514.3	31.7	20	54.0	425.4	76.2	142.9	111.1	359.1	360.2	412.7	-	355.60
400	647.7	571.5	34.9	20	57.2	482.6	82.5	146.0	120.6	410.5	411.2	469.9	-	406.40
450	711.2	628.5	34.9	24	60.3	533.4	88.9	158.7	130.2	461.8	462.3	533.4	-	457.00
500	774.7	685.8	34.9	24	63.5	587.4	95.2	161.9	139.7	513.1	514.3	584.2	-	508.00
600	914.4	812.8	41.3	24	69.8	701.7	106.4	168.3	152.4	615.9	615.9	692.1	-	609.60

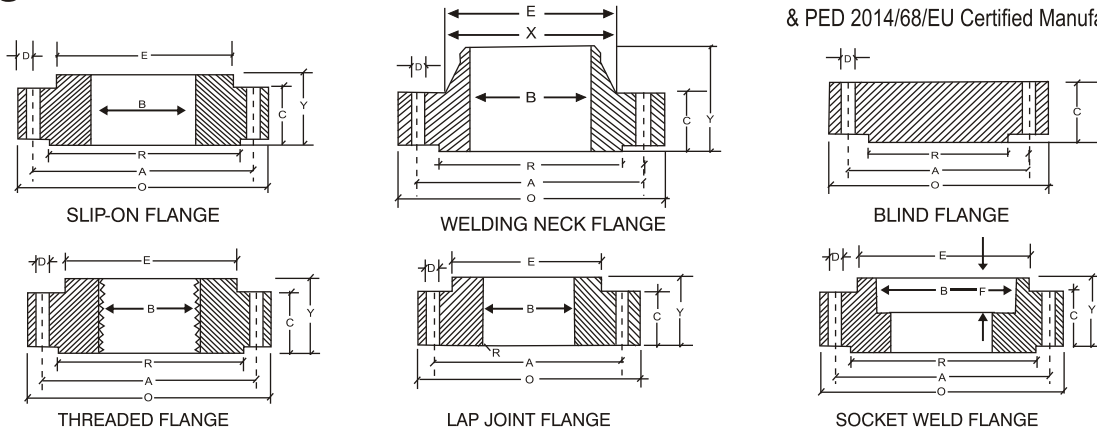
DIMENSIONS OF CLASS 600 FLANGES AS PER B 16.5

Nominal Pipe Size	Flange Dia O	Dia of Bolt Circle A	No. of Bolt Holes D	No. of Holes C	No. of Holes C	Dia of Hub E	Length through Hub			Dia Bore		Dia of R/F R	Depth of Socket F	Pipe Dia X
							S/O & S/W Y	W/N Y	L/J Y	S/O & S/W B	L/J B			
15	95.2	66.7	15.9	4	14.3	38.1	22.2	52.4	22.3	22.3	22.8	34.9	9.5	21.33
20	117.5	82.5	19.0	4	15.9	47.6	25.4	57.1	25.4	27.7	28.1	42.9	11.1	26.67
25	123.8	88.9	19.0	4	17.5	54.0	27.0	61.9	26.9	34.5	35.0	50.8	12.7	33.40
32	133.3	98.4	19.0	4	20.6	63.5	28.6	66.7	28.4	43.2	43.6	63.5	14.2	42.16
40	155.6	114.3	22.2	4	22.2	69.8	31.7	69.8	31.7	49.5	50.0	73.0	15.8	48.26
50	165.1	127.0	19.0	8	25.4	84.1	36.5	73.0	36.5	62.0	62.4	92.1	17.4	60.31
65	190.5	149.2	22.2	8	28.6	100.0	41.3	79.4	41.1	74.7	75.4	104.8	19.0	73.02
80	209.5	168.3	22.2	8	31.8	117.5	46.0	82.5	45.9	90.7	91.4	127.0	-	88.90
100	273.0	215.9	25.4	8	38.1	152.4	54.0	101.6	53.8	116.1	116.8	157.2	-	114.30
125	330.2	266.7	28.6	8	44.4	188.9	60.3	114.3	60.4	143.8	141.5	185.7	-	141.30
150	355.6	292.1	28.6	12	47.6	222.2	66.7	117.5	66.5	170.7	171.4	215.9	-	168.27
200	419.1	349.2	31.7	12	55.6	273.0	76.2	133.3	76.2	221.5	222.2	269.9	-	219.07
250	508.0	431.8	34.9	16	63.5	342.9	85.7	152.4	111.2	276.3	277.3	323.8	-	273.05
300	558.8	488.9	34.9	20	66.7	400.0	92.1	155.6	117.3	327.1	328.1	381.0	-	323.85
350	603.2	527.0	38.1	20	69.9	431.8	93.7	165.1	127.0	359.1	360.1	412.7	-	355.80
400	685.8	603.2	41.3	20	76.2	495.3	106.4	177.8	139.7	410.5	411.2	469.9	-	406.40
450	742.9	654.0	44.4	20	82.6	546.1	117.5	184.1	152.4	461.8	462.2	533.4	-	457.20
500	812.8	729.9	44.4	24	88.9	609.6	127.0	190.5	165.1	513.1	514.3	584.2	-	508.00
600	939.8	838.2	50.8	24	101.6	717.5	139.7	203.2	184.1	615.9	615.9	692.1	-	609.60

Metric value are direct conversion from Inches table of B16.5

Flanges except Lap Joint Will be furnished with (1.6 mm) raised face, Which is included in " Thickness" (C) and Length Through Hub (Y).

FLANGES



DIMENSIONS OF CLASS 900 FLANGES AS PER B 16.5

Nominal Pipe Size	Flange Dia O	Dia of Bolt Circle A	No. of Bolt Holes D	No. of Holes	Thk. of Flange C	Dia of Hub E	Length through Hub			Dia Bore		Dia of R/F R	Depth of Socket F	Pipe Dia X
							S/O & S / W Y	W/N Y	L/J Y	S/O & S / W B	L/J B			
15	120.6	82.5	22.2	4	22.2	38.1	31.7	60.3	31.7	22.3	22.8	34.9	9.5	21.33
20	130.2	88.9	22.2	4	25.4	44.4	34.9	69.8	35.0	27.7	28.1	42.9	11.1	26.67
25	149.2	101.6	25.4	4	28.6	52.4	41.3	73.0	41.1	34.5	35.0	50.8	12.7	33.40
32	158.7	111.1	25.4	4	28.6	63.5	41.3	73.0	41.1	43.2	43.6	63.5	14.2	42.16
40	177.8	123.8	28.6	4	31.8	69.8	44.4	82.5	44.4	49.5	50.0	73.0	15.8	48.26
50	215.9	165.1	25.4	8	38.1	104.9	57.1	101.6	57.1	62.0	62.4	92.1	17.4	60.31
65	244.5	190.5	28.6	8	41.3	123.8	63.5	104.8	63.5	74.7	75.4	104.8	19.0	73.02
80	2241.3	190.5	25.4	8	38.1	127.0	53.9	101.6	53.8	90.7	91.4	127.0	-	88.90
100	292.1	234.9	31.7	8	44.4	158.7	69.8	114.3	69.8	116.0	116.8	157.1	-	114.30
125	349.2	279.4	35.0	8	50.8	190.5	79.3	127.0	79.2	143.7	114.5	185.7	-	141.30
150	381.0	317.5	31.7	12	55.6	234.9	85.5	139.7	85.8	170.6	171.4	215.9	-	168.27
200	469.9	393.7	38.1	12	63.5	298.4	101.6	162.0	114.3	221.4	222.2	269.8	-	219.07
250	546.1	469.9	38.1	16	69.8	368.3	107.9	184.1	127.0	276.3	277.3	323.8	-	273.05
300	609.6	533.4	38.1	20	79.3	419.1	117.4	200.0	142.7	327.1	328.1	381.0	-	323.85

DIMENSIONS OF CLASS 1500 FLANGES AS PER B 16.5

Nominal Pipe Size	Flange Dia O	Dia of Bolt Circle A	No. of Bolt Holes D	No. of Holes	Thk of Flange C	Dia of Hub E	Length through Hub			Dia Bore		Dia of R/F R	Depth of Socket F	Pipe Dia X
							S/O & S / W Y	W/N Y	L/J Y	S/O & S / W B	L/J B			
15	120.6	82.5	22.2	4	22.2	38.1	31.7	60.3	31.7	22.3	22.8	34.9	9.5	21.33
20	130.2	88.9	22.2	4	25.4	44.4	34.9	69.8	34.9	27.7	28.1	42.9	11.1	26.67
25	149.2	101.6	25.4	4	28.6	52.4	41.3	73.0	41.3	34.5	35.0	50.8	12.7	33.40
32	158.7	111.1	25.4	4	28.6	63.5	41.3	73.0	41.3	43.2	43.6	63.5	14.2	42.16
40	177.8	123.8	28.6	4	31.8	69.8	44.4	82.5	44.4	49.5	50.0	73.0	15.8	48.26
50	215.9	165.1	25.4	8	38.1	104.8	57.1	101.6	57.1	62.0	62.0	92.1	17.4	60.31
65	244.5	190.5	28.6	8	41.3	123.8	63.5	104.8	63.5	74.7	75.4	104.8	19.0	73.02
80	266.7	203.2	31.7	8	47.6	133.3	73.0	117.5	73.0	90.7	91.7	127.0	-	88.90
100	311.1	241.3	34.9	8	54.0	161.9	90.5	123.0	90.4	116.1	116.8	157.2	-	114.30
125	374.6	292.1	41.3	8	73.0	196.8	104.8	155.6	104.8	143.8	144.5	185.7	-	141.30
150	393.7	317.5	38.1	12	82.6	228.6	119.1	171.4	119.1	170.7	171.4	215.9	-	168.27
200	482.6	393.7	44.4	12	92.1	292.1	142.9	212.7	142.8	221.5	222.2	269.9	-	219.07
250	584.2	482.6	50.8	12	107.9	368.3	158.7	254.0	177.8	276.3	277.3	323.8	-	273.05
300	673.1	571.5	54.0	16	123.8	450.8	181.0	282.6	218.9	327.1	328.1	381.0	-	323.85

DIMENSIONS OF CLASS 2500 FLANGES PER B 16.5

Nominal Pipe Size	Flange Dia O	Dia of Bolt Circle A	No. of Bolt Holes D	No. of Holes	No. of Holes	Dia of Hub E	Length through Hub			Dia Bore		Dia of R/F R	Depth of Socket F	Pipe Dia X
							S/O & S / W Y	W/N Y	L/J Y	S/O & S / W B	L/J B			
15	133.3	88.9	22.2	4	30.2	42.9	39.7	73.0	39.7	22.3	22.3	34.9	-	21.33
20	139.7	95.2	22.2	4	31.7	50.8	42.9	79.4	42.9	27.7	27.7	42.9	-	26.67
25	158.7	107.9	25.4	4	34.9	57.1	47.7	88.9	47.7	34.5	34.5	50.8	-	33.40
32	184.1	130.2	28.6	4	38.1	73.0	52.4	95.2	52.4	43.2	43.2	63.5	-	42.16
40	203.2	146.0	31.7	4	44.4	79.4	60.3	111.1	60.3	49.5	49.5	73.0	-	48.26
50	234.9	171.4	28.6	8	50.8	95.2	69.8	127.0	69.8	62.4	62.0	92.1	-	60.31
65	266.7	196.8	31.7	8	57.1	114.3	79.4	142.9	79.4	74.7	74.7	104.8	-	73.02
80	304.8	228.6	34.9	8	66.7	133.3	92.1	168.3	92.1	90.7	90.7	127.0	-	88.90
100	355.6	273.0	41.3	8	76.2	165.1	107.9	190.5	107.9	116.1	116.1	157.2	-	114.30
125	416.1	323.8	47.6	8	92.1	203.2	130.0	228.6	130.0	143.8	143.8	185.7	-	141.30
150	482.6	368.3	54.0	8	107.9	234.9	152.4	273.0	152.4	170.7	170.7	215.1	-	168.27
200	552.4	438.1	54.0	12	127.0	304.8	177.8	317.5	177.8	221.5	221.5	269.9	-	219.07
250	673.1	539.7	66.7	12	165.1	374.6	228.6	419.1	228.6	276.3	276.3	323.8	-	273.05
300	762.0	619.1	73.0	12	184.1	441.3	254.9	463.5	254.0	327.1	327.1	381.0	-	323.85

Clientele



Eckhardt Steel & Alloys

ISO 9001:2015, ISO 14001:2015,
ISO 45001:2018 & PED 2014/68/EU
Manufacturing Certified Company

more than 1000 + A Group clients

300+
INTERNATIONAL CLIENTS

700+
HAPPY CLIENTS

50+
INDUSTRY EXPERIENCE

INDIAN CLIENTS

OVERSEAS CLIENT

FORMULAE OF CALCULATING WEIGHT

- WEIGHT OF STAINLESS STEEL / CARBON STEEL PIPES & TUBES
 $OD \text{ (mm)} - W.T. \text{ (mm)} \times W.T. \text{ (mm)} \times 0.02466 = \text{KG/MTR}$
- WEIGHT OF COPPER PIPES & TUBES
 $O.D. \text{ (mm)} - W.T. \text{ (mm)} \times W.T. \text{ (mm)} \times 0.0285 = \text{KG/MTR}$
- WEIGHT OF ALUMINIUM PIPES & TUBES
 $O.D. \text{ (mm)} - W.T. \text{ (mm)} \times W.T. \text{ (mm)} \times 0.0082 = \text{KG/MTR}$
- WEIGHT OF LEAD PIPES & TUBES
 $O.D. \text{ (mm)} - W.T. \text{ (mm)} \times W.T. \text{ (mm)} \times 0.0345 = \text{KG/MTR}$
- SHEET WIDTH REQD FOR ROLLED & WELDED PIPES
 $O.D. \text{ (mm)} - Thk. \text{ (mm)} \times 3.14 = \text{SHEET WIDTH (mm)}$
- WEIGHT FOR SQUARE / RECTANGLE PIPES
 $\text{Length From 4 Angle (OD)} / 3.14 - \text{Thk (mm)} \times \text{Thk. (mm)} \times 0.00756 = \text{KG/PER FEET}$
- WEIGHT OF STAINLESS STEEL CIRCLE & BLANKS
 $O.D. \text{ (mm)} \times O.D. \text{ (mm)} \times \text{Thk (mm)} / 160 / 1000 = \text{KG/PCS.}$
- WEIGHT OF STAINLESS STEEL SHEETS & PLATES
 $\text{Length (mtr)} \times \text{Width (mtr)} \times \text{Thk. (mm)} \times 8 = \text{KG/SHEET}$
- WEIGHT OF CARBON STEEL SHEETS & PLATES
 $\text{Length (mtr)} \times \text{Width (mtr)} \times \text{Thk. (mm)} \times 7.85 = \text{KG/SHEET}$
- WEIGHT OF ALUMINIUM SHEETS & PLATES
 $\text{Length (mtr)} \times \text{Width (mtr)} \times \text{Thk. (mm)} \times 2.66 = \text{KG/SHEET}$
- WEIGHT OF LEAD SHEETS & PLATES
 $\text{Length (mtr)} \times \text{Width (mtr)} \times \text{Thk. (mm)} \times 11.2 = \text{KG/SHEET}$
- WEIGHT OF STAINLESS STEEL ROUNDS / ROUND BAR
 $\text{Dia. (mm)} \times \text{Dia. (mm)} \times 0.00623 = \text{KG/MTR}$
- WEIGHT OF STAINLESS STEEL HEXAGONAL RODS
 $\text{Dia. (mm)} \times \text{Dia. (mm)} \times 0.00679 = \text{KG/MTR}$
- WEIGHT OF STAINLESS STEEL SQUARE RODS
 $\text{Dia. (mm)} \times \text{Dia. (mm)} \times 0.00787 = \text{KG/MTR}$



ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 & PED 2014/68/EU Certified Manufacturing Company

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