













# **MANUFACTURER OF**

# STAINLESS STEEL

BUTT WELD, FORGE FITTINGS & ELECTROPOLISH PHARMA FITTINGS

**Email:** info@diamondmetalind.com **Web:** www.diamondmetalind.com



# **About Company**

We take pride in introducing ourselves as one of the leading importers, manufacturers, stockists and suppliers of a comprehensive range of premium quality Stainless Steel and Ferrous and Non-Ferrous metal items which are required by your company in all aspects of Project implementation, Maintenance, Modernization etc.

Our offerings include stainless steel pipes / tubes, plates, coils, sheets, rods, strips, nuts and bolts. **Diamond Metal Industries** products are known for their high performance, durability and effectiveness.

Established in 1990, the company has always achieved a good growth rate and success, a direct result of our efficient service to trade and industry. We area proprietorship firm, working under the capable guidance of our proprietor, Mr. Bhagwan Singh, who has vast experience and extensive knowledge of this industry. **Diamond Metal Industries** was established with the objective of always putting customer interest first; that is what we did and what we are still doing today.

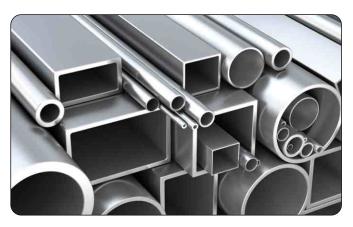
# **Our Product Line:**

**Stainless Steel:** Pipes & Tubes (Seamless / Welded / Fabricated), Sheets, Plates, Rods, Wires, Pipes Fittings and Components in AISI 304, 304L, 309, 310, 316, 316L, 317L, 321, 410, 420 & 431 Grades etc in all dimensions in indigenous and imported make

**SS / CS / AS Fittings :** Butt-welded /Stock- welded / Forged and Compression type with Ferules as per ASTM A403, WPS, A182, A105, A234, WPB, WPS, WP11, WP12, WP22, etc. as per your project requirements.

We also stock Monel, Nickel, Hastalloy, Inconel 600 / 800, Copper, Brass, Aluminum, Lead, Tin, Zinc and other minor metals in various sizes and shapes.

**Alloy Steel / Carbon Steel :** Pipes and Tubes (ERW & W / Seamless) as per ASTM A335, P5, P11, P12, P22 and ASTM A 106, Gr. B, Sa179, BS-3059 Part I & II, IS- 1269



Over the years, we have gained sufficient experience in this field and received substantial business from reputed concerns in the chemical industry. petrochemical corporations, oil refineries, pharmaceutical companies, pulp and paper mills, cement plants, and fertilizer plants We have also been suppliers to dairies, breweries, sugar mills, nuclear and thermal power stations, engineering concerns as well as projects of national importance. Many of our clients place orders with us on a repeated basis, which speaks volumes of the quality of our products and service.





# **Manufacturing & Quality**

**Diamond Metal Industries** is one of the firms engaged in Manufacturing & Processing large variety of Butt-Welding/Forged Pipe-Fittings, Flanges, Pipes, in Stainless Steel, Carbon Steel, Alloy Steel, Nickel / Super Alloys & many other Ferrous / Non-Ferrous Metals. They find application in Refining, Petrochemical, Chemical, Oil & Gas, Fertilizers, Pharmaceutical, Food & Beverage, Sugar, Paper, Power, Shipbuilding, Aerospace, Engineering, Nuclear, Defense and Research sectors. Our products match National/International standards and meet customer requirements/ specifications/drawings. Our customers are end- users, fabricators and distributors around the world.

We have complete in-house facilities for manufacturing of Butt-weld Fittings & Long Radius and Piggable Bends. These comprise Hot Forging, Cold Forging, Bending, Pressing, Welding, Grinding, Gauging, Handling, Hydraulic Testing, Heat Treatment, Annealing, Shot Blasting, Pickling & Passivating, Anti-Rust Coating & Packing.

Each manufacturing phase, from forging to welding, machining to testing, is carried out with a vast array of modern equipment and machinery. We exercise control over every bit of material throughout the manufacturing process, thanks to our rigorous QA & QC procedures. We also engage the services of external chemical and mechanical laboratories well equipped to perform both destructive and non-destructive examinations. We provide original Material Test Certificates, Government / Lloyds approved Laboratory Test Certificates, Third Party Inspection Certificates and Guarantee/Warranty Certificates for the supplies.

We wish to always be a reference for reliability, competence and service in the industry. We build lasting relationships with customers and contribute to their success, because we know that their success is ours as well.

The mission of Diamond Metal Industries is to provide the best customer service by supplying products manufactured with the latest technology, respecting delivery time lines, monitoring work progress and satisfying urgent customer requirements by leveraging our vast inventory of raw material, semi-finished and finished products.

In recent years, the need for operating safety requirements for pipe systems has been rising exponentially. To meet this growing volume of requirements, **Diamond Metal Industries** has done pioneering work in the field of Development & Manufacture of seamless and welded fittings.

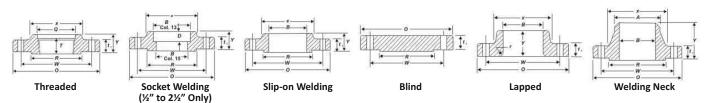
The advanced technology, supported by the superior design and construction of our manufacturing equipment, enables us to not only meet the requirements of internationally accepted manufacturing standards, but also cope with the growing demand for special fittings.

Our heat treatment facilities are equipped with high precision temperature control, which enables optimal adjustment of material properties.

Our quality assurance system is documented in an approved quality assurance manual and covers all production processes. We exercise rigorous control over dimensions and mechanical properties — starting from the raw material, through all the production phases, to laboratory tests on the finished product—in order to maintain the high quality levels of **Diamond Metal Industries** products.



# **FLANGES**



# **DIMENSIONS OF CLASS 150 FLANGES AS PER ANSI B 16.5**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
				Dril	ling			Hub	Leng	ht Thru	Hub			Bore		Comer		
Nominal Pipe Size NPS	Outside Diameter of Flange O	of Flange,	Thickness Lap Joint Min., t1	Diameter of Blot Circle W	Diameter of Blot Holes	Numbers of Blots	Diameter of Hub, X	Diameter Begin- ning of Chamfer Welding Neck A	Threaded /Slip-On /Socket Welding, Y	Lapped Y	Welding, Y	Threaded/ Lenght Threaded Min. B	Slip-On/ Socket Welding. Min. B	Lapped Min. B	Welding Neck/ Socket Welding B (Note(2)	Radius of Bore Lapped Flange and Pipe, R	Depth of Socket D	Diameter of RF, R
1/2 3/4 1 1 1/4 1 1/2	90 100 110 115 125	9.6 11.2 12.7 14.3 15.9	11.2 12.7 14.3 15.9 17.5	60.3 6.9.9 79.4 88.9 984	15.9 15.9 15.9 15.9 15.9	4 4 4 4 4	30 38 49 59 65	21.3 26.7 33.4 42.2 48.3	14 14 16 19 21	16 16 17 21 22	46 51 54 56 60	16 16 17 21 22	22.2 27.7 34.5 43.2 49.5	22.9 28.2 34.9 43.7 50.0	15.8 20.9 26.6 35.1 40.9	3 3 5 6	10 11 13 14 16	34.9 42.9 50.8 63.5 73.0
2 2 1/2 3 3½ 4	150 180 190 215 230	17.5 20.7 22.3 22.3 22.3	19.1 22.3 23.9 23.9 23.9 23.9	120.7 139.7 152.4 177.8 190.5	19.1 19.1 19.1 19.1 19.1	4 4 4 8 8	78 90 108 122 135	6.0.3 73.0 88.9 101.6 114.3	24 27 29 30 32	25 29 30 32 33	62 68 68 70 75	25 29 30 32 33	61.9 74.6 90.7 103.4 116.1	62.5 75.4 91.4 104.1 116.8	52.5 62.7 77.9 90.1 102.9	8 8 10 10 11	17 19 21 -	92.1 104.8 127.0 139.7 157.2
5 6 8 10 12	255 280 345 4.5 845	22.3 23.9 27.0 28.6 3.2	23.9 25.4 28.6 30.2 31.8	215.9 241.3 298.2 362.0 431.8	22.3 22.3 22.3 25.4 25.4	8 8 8 12 12	164 192 246 3.5 365	141.3 168.3 219.1 273.0 323.8	35 38 43 48 54	36 40 44 49 55	87 87 100 100 113	36 40 44 49 55	143.8 170.7 221.5 276.2 327.0	144.4 171.4 222.2 277.4 328.2	128.2 154.1 202.7 254.6 304.8	11 13 13 13 13	1 1 1 1	185.7 215.9 269.9 323.8 381.0
14 16 18 20 24	535 595 635 700 815	33.4 35.0 38.1 41.3 46.1	35.0 36.6 39.7 42.9 47.7	476.3 539.8 577.9 635.0 749.3	28.6 28.6 31.8 31.8 35.0	12 16 16 20 20	400 457 505 559 663	355.6 406.4 457.0 508.0 610.0	56 62 67 71 81	79 87 97 103 111	125 125 138 143 151	57 64 68 73 83	359.2 410.5 461.8 513.1 616.0	360.2 411.2 462.3 514.4 616.0	To be Specified by Purchaser	13 13 13 13 13		412.8 469.9 533.4 584.2 692.2

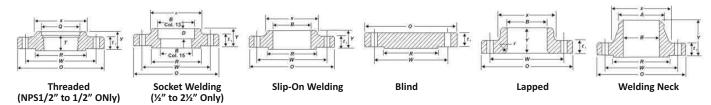
# **DIMENSIONS OF CLASS 300 FLANGES AS PER ANSI B 16.5**

1	2	3	4	5	6	7	75	9	10	11	12	13	14	15	16	17	18	19	20
			*	7 74	Drilling	//	87 /		Lengh	t Thru	Hub			Bore					
Nominal Pipe Size NPS	Outside Diameter of Flange O	Thickne s of Flange, Min., t1	Thickness Lap Joir t Min., t1	Diamet .* c i b 'ot Circle W	Liameter of Blot Holes	Numbers of Blots	Diameter of Hub, X	Hub Diameter Begin- ning of Chamfer Welding Neck A	Threaded /Slip-On /Socket Welding, Y	Lapped Y	Welding, Y	Threaded/ Lenght Threaded Min. B	Slip-On/ Socket Welding. Min. B	Lapped Min. B	Welding Neck/ Socket Welding B (Note(2)	Comer Radius of Bore Lapped Flange and Pipe, R	Counter Bore Threaded FLANGE Min Q	Depth of Socket D	Diameter of RF, R
1/2 3/4 1 1 1/4 1 1/2	95 115 125 135 155	12.7 14.9 15.9 17.5 19.1	14.3 15.9 17.5 19.1 20.7	66.7 82.6 88.9 98.4 114.3	15.9 19.1 19.1 19.1 22.2	4 4 4 4	38 48 54 64 70	21.3 26.7 33.4 42.2 48.3	21 24 25 25 29	22 25 27 27 30	51 56 60 64 67	16 16 18 21 23	22.2 27.7 34.5 43.2 49.5	22.9 28.2 34.9 43.7 50.2	15.8 20.9 26.6 35.1 40.9	3 3 5 6	23.6 29.0 35.8 44.4 50.3	10 11 13 14 16	34.9 42.9 50.8 63.5 73.0
2 2 1/2 3 3½ 4	165 190 210 230 255	207 23.9 27.0 28.6 30.2	22.3 25.4 28.6 30.2 31.8	127.0 149.2 168.3 184.2 200.0	19.0 22.3 22.3 22.3 22.3	4 4 4 8 8	84 100 117 133 146	60.3 73.0 88.9 101.6 114.3	32 37 41 43 46	33 38 43 44 48	68 75 78 79 84	29 32 32 37 37	61.9 74.6 90.7 103.4 116.1	62.5 754 91.4 104.1 116.1	52.5 62.7 77.9 90.1 102.3	8 8 10 10 11	63.5 76.2 92.2 104.9 117.6	17 19 21 -	92.1 104.8 127.0 139.7 157.2
5 6 8 10 12	280 320 380 445 520	33.4 35.0 39.7 46.1 49.3	35.0 36.6 41.3 47.7 50.8	235.0 269.9 330.2 387.4 450.8	22.3 22.3 25.4 28.6 31.8	8 8 8 12 12	178 206 260 321 375	141.3 168.3 219.1 273.0 323.8	49 51 60 65 71	51 52 62 95 102	97 97 110 116 129	43 47 51 56 61	143.8 170.7 221.5 276.2 327.0	144.4 171.4 222.2 277.4 328.2	128.2 154.1 202.7 254.6 304.8	11 13 13 13 13	144.4 171.1 222.2 276.2 328.3	- - - -	185.7 215.9 269.9 323.8 381.0
14 16 18 20 24	585 650 710 775 915	52.4 55.6 58.8 62.0 68.3	54.0 57.2 60.4 63.5 69.9	514.4 571.5 628.6 685.8 812.8	31.8 35.0 35.0 35.0 41.3	12 16 16 20 20	425 483 533 587 702	355.6 406.4 457.0 508.0 610.0	75 81 87 94 105	111 121 130 140 152	141 144 157 160 167	64 69 70 74 83	359.2 410.5 461.8 513.1 616.0	360.2 411.2 462.3 514.4 616.0	To be Specified by Purchaser	13 13 13 13 13	360.4 411.2 462.0 512 614.4	- - - -	412.8 469.9 533.4 584.2 692.2

NOTE: (1) Height of RE 2mm
(2) Dimensions column 16 Correspond to the inside diameters of pipe as given in ASME B36.10M for Standard Wall Pipe,
Thickness of Standard Wall is the same as Schedule 40 in Size NPS 10 and smaller. These bore size are furnished unless Otherwise specified by the Purchaser.



# **FLANGES**



# **DIMENSIONS OF CLASS 600 FLANGES AS PER ANSI B 16.5**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
					Drilling		Hub Diameter	Le	ngth Thru H	lub			Bore		Corner Radius of			
Nominal Pipe Size NPS	Outside Diameter of Flange O	Thickness of Flanges Min f	Diameter of Hub, X	Diameter of Bolt Circle W	Diameter of Bolt Holes in	Number of Bolts	Begin- ning of Chamfer Welding Neck A	Threaded/ Slip-On Y	Lapped, Y	Welding Neck Y	Threaded / Length Threaded Flange Min., T	Slip-On Min., B	Lapped Min., B	Welding Neck B	Bore of Lapped Flange and Pipe, r	Counter- Bore Threaded Flange Min., Q	Diameter of RF R	Socket Weld D
3/4 1 1 1/4 1½	95 115 125 135 155	14.3 15.9 17.5 20.7 22.3	38 48 54 64 70	66.7 82.6 88.9 98.4 114.3	15.9 19.1 19.1 19.1 22.3	4 4 4 4	21.3 26.7 33.4 42.2 48.3	22 25 27 29 32	22 25 27 29 32	52 57 62 67 70	16 16 18 21 23	22.2 27.7 34.5 43.2 49.5	22.9 28.2 34.9 43.7 50.0		3 3 5 6	23.6 29.6 35.8 44.4 50.6	10 11 13 14 16	34.9 42.9 50.8 63.5 73.0
2 2½ 3 4	165 190 210 230	25.4 28.6 31.8 35.0	84 100 117 133	127.0 149.2 168.3 184.2	19.1 22.3 22.3 25.4	8 8 8	60.3 73.0 88.9 101.6	37 41 46 49	37 41 46 49	73 79 83 86	29 32 35 40	61.9 74.6 90.7 103.4	62.5 75.4 91.4 104.1	To be	8 8 10 10	63.5 76.2 92.2 104.9	17 19 21	92.7 104.8 127.0 139.7
5 6 8 10 12	330 355 420 510 560	44.5 47.7 55.6 63.5 66.7	189 222 273 343 400	266.7 292.1 349.2 431.8 489.0	28.6 28.6 31.8 35.0 35.0	8 12 12 16 20	141.36 168.3 219.1 273.0 323.8	60 67 76 86 92	60 67 76 111 117	114 117 133 152 156	48 51 58 66 70	143.8 170.7 221.5 276.2 327.0	144.4 171.4 222.2 277.4 328.2	Specified by Purchaser	22 13 13 13 13	144.4 171.4 222.2 276.2 328.6	- - - -	185.7 215.9 269.9 323.8 381.0
14 16 18 20 24	605 605 745 815 940	69.9 76.2 82.6 88.9 101.6	432 495 546 610 718	527.0 603.0 654.0 723.9 838.2	38.1 41.3 44.5 44.5 50.8	20 20 20 24 24	355.6 406.4 457.0 508.0 610.0	94 106 117 127 140	94 140 152 165 184	165 178 184 190 203	74 48 80 83 93	359.2 410.5 461.8 513.1 616.0	360.2 411.2 162.3 514.4 616.0		13 13 13 13 13	360.4 411.2 462.0 512.8 614.4	- - - -	412.8 469.9 533.4 584.2 692.2

# Note: (1) Height of 7mm DIMENSIONS OF CLASS 1500 FLANGES AS PER ANSI B 16.5

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
					Drilling		Hub Diameter	Le	ngth Thru H	lub			Bore		Corner Radius of			
Nominal Pipe Size NPS	Outside Diameter of Flange O	Thickness of Flanges Min f	Diameter of Hub, X	Diameter of Bolt Circle W	Diameter of Bolt Holes in	Number of Bolts	Begin- ning of Chamfer Welding Neck A	Threaded/ Slip-On Y	Lapped, Y	Welding Neck Y	Threaded / Length Threaded Flange Min., T	Slip-On Min., B	Lapped Min., B	Welding Neck B	Bore of Lapped Flange and Pipe, r	Counter- Bore Threaded Flange Min., Q	Diameter of RF R	Socket Weld D
3/4 1 1 1/4 1½	121 130 149 159 178	22.3 25.4 28.6 28.6 31.8	38 44 52 64 70	82.6 88.9 101.6 111.1 123.8	22.3 22.3 25.4 254 28.6	4 4 4 4	21.3 26.7 33.4 42.2 48.3	32 35 41 41 44	32 35 41 41 44	60 70 73 73 83	23 26 29 31 32	22.2 27.7 34.5 43.2 49.5	22.9 28.2 34.9 43.7 50.0		3 3 5 6	23.6 29.0 35.8 44.4 50.6	10 11 13 14 16	34.9 42.9 50.8 63.5 73.0
2 2½ 3 4	216 244 267 311	38.1 41.3 47.7 54.0	105 124 133 162	165.1 190.5 203.2 241.3	25.4 28.6 31.8 35.0	8 8 8	60.3 73.0 88.9 114.3	57 64 –	57 64 73 90	102 105 117 124	39 48 – –	61.9 74.6 –	62.5 75.4 91.4 116.8	To be	8 8 10 11	63.5 76.2 – –	17 19 -	92.1 104.8 127.0 139.7
5 6 8 10 12	375 394 483 584 673	73.1 82.6 92.1 108.0 123.9	197 229 292 368 451	292.1 317.5 393.7 482.6 571.5	41.3 38.1 44.5 50.8 54.0	8 12 12 12 16	141.36 168.3 219.1 273.0 323.8		105 119 143 178 219	156 171 213 254 283	- - - -	- - - -	144.4 171.4 222.2 277.4 328.2	Specified by Purchaser	11 13 13 13 13	11111		157.2 215.9 269.9 323.8 381.0
14 16 18 20 24	749 826 914 984 1168	133.4 146.1 162.0 177.8 203.2	495 552 597 641 762	635.0 704.8 774.7 831.8 990.6	60.7 66.7 73.0 79.4 92.1	16 16 16 16 16	355.6 406.4 457.0 508.0 610.0		241 260 276 292 330	298 311 327 356 408	- - - -	- - - -	360.2 411.2 462.3 514.4 616.0		13 13 13 13 13	11111		412.8 469.9 533.4 584.2 692.2

Note: (1) Height of 7mm



# **DIMENSIONS OF FLANGES AS PER TABLE BS-10**

**TABLE - D**For Working Steam Pressure upto 50 lbs per sq. inch

Nominal Pipe Size	O.D. of Pipe	0.D.	P.C.D.	No. of Bolt	Dia of Bolt	Thickness
1/2"	21.3	95.3	66.7	4	12.7	4.8
3/4"	26.7	101.6	73.0	4	12.7	4.8
1"	33.4	114.3	82.6	4	12.7	4.8
11/4"	42.2	120.7	87.3	4	12.7	6.4
11/2"	48.3	133.4	98.4	4	12.7	6.4
2"	60.3	152.4	114.3	4	15.9	7.9
21/2"	73.0	165.1	127.0	4	15.9	7.9
3"	88.9	184.2	146.1	4	15.9	9.5
31/2"	101.6	203.2	165.1	4	15.9	9.5
4"	114.3	215.9	177.8	4	15.9	9.5
5"	141.3	254.0	209.6	8	15.9	12.7
6"	168.3	279.4	228.6	8	15.9	12.7
7"	190.5	304.8	260.4	8	15.9	12.7
8"	219.1	336.6	292.1	8	15.9	12.7
9"	244.5	368.3	323.9	8	15.9	15.9
10"	273.0	406.4	355.6	8	19.1	15.9
12"	323.9	457.2	406.4	12	19.1	15.9
14"	355.6	527.1	469.9	12	22.2	19.1
16"	406.4	577.9	520.7	12	22.2	19.1
18"	457.2	641.4	584.2	12	22.2	22.2
20"	508.0	704.9	641.4	16	22.5	25.4
24"	609.6	825.5	755.7	16	25.4	28.6

TABLE - F For Working Steam Pressure
From 100 lbs to 150 lbs per sq. inch

	FIOIII	ו פעו טטו	1 20 ID2 F	Jei sq.	IIICII	
Nominal Pipe Size	O.D. of Pipe	0.D.	P.C.D.	No. of Bolt	Dia of Bolt	Thickness
1/2"	21.3	95.3	66.7	4	12.7	9.5
3/4"	26.7	101.6	73.0	4	12.7	9.5
1"	33.4	120.7	87.3	4	15.9	9.5
11/4"	42.2	133.4	98.4	4	15.9	12.7
11/2"	48.3	139.7	104.8	4	15.9	12.7
2"	60.3	165.1	127.0	4	15.9	15.9
21/2"	73.0	184.2	146.1	8	15.9	15.9
3"	88.9	203.2	165.1	8	15.9	15.9
31/2"	101.6	215.9	177.8	8	15.9	19.1
4"	114.3	228.6	190.5	8	15.9	19.1
5"	141.3	279.4	235.0	8	19.1	22.2
6"	168.3	304.8	260.4	12	19.1	22.2
7"	190.5	336.6	292.1	12	19.1	22.2
8"	219.1	368.3	323.9	12	19.1	25.4
9"	244.5	406.4	355.6	12	22.2	25.4
10"	273.0	431.8	381.0	12	22.2	25.4
12"	323.9	489.0	438,2	16	22,2	28.6
14"	355.6	552.5	495.3	16	25.4	31.8
16"	406.4	609.6	552.5	20	25.4	31.8
18"	457.2	673.1	609.6	20	28.6	34.9
20"	508.0	736.6	673.1	24	28.6	38.1
24"	609.6	850.9	781.1	24	31.8	41.3

**TABLE - E** 

For Working Steam Pressure from 50 lbs to 100 lbs per sq. inch

	ing Otour		110111 30 10	0 .0 .00	po.	040.
Nominal Pipe Size	O.D. of Pipe	0.D.	P.C.D.	No. of Bolt	Dia of Bolt	Thickness
1/2"	21.3	95.3	66.3	4	12.7	6.4
3/4"	26.7	101.6	73.0	4	12.7	6.4
1"	33.4	114.3	82.6	4	12.7	7.1
11/4"	42.2	120.7	87.3	4	12.7	7.9
11/2"	48.3	133.4	98.4	4	12.7	8.7
2"	60.3	152.4	114.3	4	15.9	9.5
21/2"	73.0	165.1	127.0	4	15.9	10.3
3"	88.9	184.2	146.1	4	15.9	11.1
31/2"	101.6	203.2	165.1	8	15.9	11.9
4"	114.3	215.9	177.8	8	15.9	12.7
5"	141.3	254.0	209.6	8	15.9	14.3
6"	168.3	279.4	228.6	8	19.1	17.5
7"	190.5	304.8	260.4	8	19.1	19.1
8"	219.1	336.6	292.1	8	19.1	19.1
9"	244.5	368.3	323.9	12	19.1	20.6
10"	273.0	406.4	355.6	12	19.1	22.2
12"	323.9	257.2	406.4	12	22,2	25.4
14"	355.6	527.2	469.9	12	22.2	25.4
16"	406.4	577.9	520.7	12	22.2	25.4
18"	457.2	641.4	584.2	16	22.2	28.6
20"	508.0	704.9	647.4	16	22.2	31.8
24"	609.6	825.5	755.7	16	25.4	38.1

**TABLE - H** For Working Steam Pressure From 150 lbs to 250 lbs per sq. inch

Nominal Pipe Size	O.D. of Pipe	0.D.	P.C.D.	No. of Bolt	Dia of Bolt	Thickness
1/2"	21.3	114.3	82.6	4	15.9	12.7
3/4"	26.7	114.3	82.6	4	15.9	12.7
1"	33.4	120.7	87.3	4	15.9	14.3
11/4"	42.2	133.4	98.4	4	15.9	17.5
11/2"	48.3	139.7	104.8	4	15.9	17.5
2"	60.3	165.1	127.0	4	15.9	19.1
21/2"	73.0	184.2	146.1	8	15.9	19.1
3"	88.9	203.2	165.1	8	15.9	22.2
31/2"	101.6	215.9	177.8	8	15.9	22.2
4"	114.3	228.6	190.5	8	15.9	25.4
5"	141.3	279.4	235.0	8	19.1	28.6
6"	168.3	302.8	260.4	12	19.1	28.6
7"	190.5	336.6	292.1	12	19.1	31.8
8"	219.1	368.3	323.9	12	19.1	31.8
9"	244.5	406.4	355.6	12	22.2	34.9
10"	273.0	431.8	381.0	12	22.2	34.9
12"	323.9	489.0	438,2	16	22,2	38.1
14"	355.6	552.5	495.3	16	25.4	41.3
16"	406.4	609.6	552.5	20	25.4	44.5
18"	457.2	673.1	609.6	20	28.6	47.6
20"	508.0	736.6	673.1	24	28.6	50.8
24"	609.6	850.9	781.1	24	31.8	57.2

Note: For 12.7 mm and 15.87 mm Bolts Dia the diameters of the holes will be 1.58 mm larger and for 19.01 and above the Hole Dia will be 3.17 larger



# **DIMENSIONS OF LONG RADIUS ELBOW ANSI B 16.9, B-16.28**

Nominal	Diameter	Out Side Diameter	Centre	to end	Centre to Centre		90° L/R	Elbow Approx	x Weight	
NPS	DN	OD	Α	В	0	Sch-5	Sch-10	Sch-20	Sch-40 STD	Sch-80
1/2	15	18 218	38	38	76	0.04 0.05	0.04 0.06	0.06 0.07	0.08 0.08	0.08 0.10
3/4	20	25 26.7	38	19	76	0.06 0.06	0.07 0.08	0.08 0.09	0.09 0.10	0.13 0.13
1	25	32 33.4	38	38	76	0.06 0.08	0.08 0.13	0.09 0.135	0.10 0.15	0.13 0.19
11/4	32	38 42.2	48	48	95	0.11 0.13	0.18 0.25	0.21 0.23	0.23 0.26	0.31 0.35
1½	40	45 48.3	57	57	114	0.16 0.17	0.26 0.28	0.30 0.61	0.34 0.66	0.44 0.90
2	50	57 60.3	76	76	152	0.25 0.29	0.24 0.48	0.57 0.61	0.62 0.66	0.85 0.90
21/2	65	75 76.1	95	44	190	0.55 0.57	0.80 0.83	0.97 1.10	1.35 1.30	1.72 1.80
3	80	89	114	114	229	0.80	1.17	1.15	2.04	2.86
31/2	90	101.6	133	133	267	1.08	1.17	1.15	2.04	2.86
4	100	108 114.3	152	64	305	1.31 1.39	1.91 2.03	2.65 2.87	3.54 3.76	5.13 5.46
5	125	133 141.3 139.7	190	190	381	2.68 2.82 2.87	3.24 3.45 3.41	4.81 5.12 5.06	6.16 6.54 6.47	8.71 9.25 9.14
6	150	159 168.3	229	229	457	3.85 4.10	4.69 4.96	6.97 7.24	9.56 9.95	14.4 15.0
8	200	219 218.3	305	305	610	7.15 7.05	9.65 9.53	16.1 15.9	20.4 20.1	31.0 30.5
10	250	273 267.4	381	381	762	13.7 13.2	16.7 16.3	25.8 24.6	36.2 35.4	57.2 56.2
12	300	325 323.9 318.5	457	457	914	23.0 22.6 22.3	26.1 26.0 25.3	36.1 36.0 35.3	55.7 55.5 56.1	95.2 94.8 92.7
14	350	377 355.6	533	533	1067	30.8 34.7	36.9 34.7	30.2 56.7	83.1 78.2	147.0 138.0
16	400	426 406.4 508	610	610	1219	41.8 39.9 71.48	47.7 45.5 82.72	78.0 74.3 118.37	122.0 116.0 141.17	211.0 201.0 186.94
18	450	478 457.2	686	686	1372	53.11 50.78	60.52 57.86	100.62 96.14	199.44 114.14	158.10 151.03
20	500	559 508	838	343	1524	86.58 71.48	100.21 82.72	144.06 118.87	171.14 141.17	265.75 186.94
22	550	559	838	343	1676	86.58	100.21	144.06	171.14	226.75
24	600	630 610	914	914	1829	123.32 119.37	141.16 136.64	177.37 171.67	210.78 203.98	279.45 270.40

# **Dimensions of Short Radius Elbow**

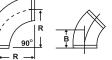
		ore Radio				90° L/R	Elbow Approx	Weight	
Nominal Size	DN	Out Side Diameter	Centre to end	Centre to end	Sch-5	Sch-10	Sch-20	Sch-40 STD	Sch-80
1	25	33.5	50.8	41.1	0.05	0.05	0.09	0.1	0.13
11⁄4	32	42.2	63.5	52.3	0.08	0.08	0.16	0.17	0.23
11/2	40	48.3	76.2	62.0	0.11	0.11	0.21	0.24	0.33
2	50	60.5	101.6	81.0	0.19	0.19	0.41	0.44	0.60
21/2	65	73.2	127	100.1	0.39 0.37	0.39 0.37	0.65 0.62	0.91 0.87	1.21 1.15
3	80	88.9	152.4	120.7	0.54	0.54	1.01	1.36	1.84
31/2	90	101.6	177.8	139.7	0.73	0.73	1.36	1.91	2.62
4	100	114.3	203.2	158.8	0.89 0.94	0.89 0.94	1.65 1.75	2.44 2.59	3.39 3.59
5	125	141.2	254.0	196.9	1.79 1.90 1.88	1.79 1.90 1.88	3.17 3.38 3.34	4.10 4.37 4.32	5.83 6.22 6.14
6	150	168.1	304.8	236.5	2.72 2.57 2.66	2.72 2.57 2.66	4.84 4.56 4.74	6.79 6.40 6.65	10.23 9.63 10.02
8	200	218.9	406.4	312.7	4.74 4.68	4.74 4.68	10.61 10.46	13.65 13.46	20.74 20.44
10	250	273.1	508.0	390.7	9.08 8.89	9.08 8.89	16.64 16.29	24.22 23.70	32.75 32.04
12	300	323.9	609.6	466.9	15.12 15.07 14.79	15.12 15.07 14.79	23.88 23.80 23.36	35.76 35.64 34.79	47.18 47.10 46.12
14	350	355.6	711.2	533.4	20.51 19.33	20.51 19.33	40.99 38.61	48.62 45.79	64.24 60.46
16	400	406.4	812.8	609.6	27.98 26.68	27.98 26.68	52.95 50.47	62.84 59.89	83.11 79.17
18	450	457.2	914.4	658.8	35.38 33.83	35.38 33.83	67.01 64.05	79.57 76.04	105.32 100.61
20	500	508.0	1016.0	762.0	-	-	-	-	-
22	550	558.8	1117.6	838.2	-	-	-	-	-
24	600	609.6	1219.2	914.4	-	-	-	-	-

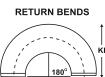


# **BUTT WELDING FITTINGS TO ANSI B16.9, B 16.28**

# STAINLESS STEEL ASTM A 403/CARBON STEEL ASTM A 234

**ELBOWS** 





LAP JOINT CAPS STUB ENDS

**EQUAL** 

CONC AND ECC. REDUCERS

SHORT STUBENDS











	DIDE	WA	LL TH	CKNE	SS	R/	ADIUS		R							L			
NOM BORE	O.D.	58	108	40S	80S	1D	1.5D	2D	3D	Α	В	С	E	G	SHORT	LONG	н	D	н
1/2	21.34	1.65	2.11	2.77	3.73	12.7	19.05	25.4	38.1	12.7	15.9	25.4	25.4	34.9	50.8	76.2	50.8	42	8
3/4	26.67	1.65	2.11	2.87	3.91	19.05	28.57	38.10	57.15	19.05	11.1	28.6	25.4	42.8	50.8	76.2	50.8	52	8
1	33.40	1.65	2.77	3.38	4.55	25.4	38.1	50.8	76.2	25.4	22.2	38.1	38.1	50.8	50.8	101.6	50.8	62	10
1 1/4	42.16	1.65	2.77	3.56	4.85	31.75	47.6	63.5	95.25	31.75	25.0	47.6	38.1	63.5	50.8	101.6	50.8	72	12
1 1/2	48.26	1.65	2.77	3.68	5.08	38.1	57.15	76.2	114.3	38.10	28.6	57.2	38.1	73.0	50.8	101.6	63.5	82	12
2	60.32	1.65	2.77	3.91	5.54	50.8	76.2	101.6	152.4	50.8	34.0	63.5	38.1	92.0	63.5	152.4	76.2	98	16
2 1/2	73.02	2.11	3.05	5.16	7.01	63.5	95.25	127.0	190.5	63.5	44.0	76.2	38.1	104.8	63.5	152.4	88.9	118	16
3	88.90	2.11	3.05	5.49	7.62	76.2	114.30	152.4	228.6	76.2	50.8	85.7	50.8	127.0	63.5	152.4	88.9	130	18
3 1/2	101.60	2.11	3.05	5.74	8.08	88.9	133.35	177.8	266.7	88.9	57.2	95.3	63.5	139.7	76.2	152.4	101.6	140	18
4	114.30	2.11	3.05	6.02	8.56	101.6	152.4	203.2	304.8	101.6	63.5	104.8	63.5	157.2	76.2	152.4	101.6	168	20
5	141.30	2.77	3.40	6.55	9.52	127.0	190.5	254.0	381.0	127.0	82.6	123.8	76.2	185.7	76.2	203.2	127.0	188	25
6	168.27	2.77	3.40	7.11	10.97	152.4	228.6	304.8	457.2	152.4	95.3	142.7	88.9	215.9	88.9	203.2	139.7	215	25
8	219.07	2.77	3.76	8.18	12.7	203.2	304.8	406.4	609.6	203.2	127.0	177.5	101.6	270.0	101.6	203.2	152.4	270	30
10	273.05	3.40	4.19	9.27	12.7	254.0	381.0	508.0	762.0	254.0	158.7	215.9	127.0	324.0	127.0	254.0	177.8	330	35
12	323.85	3.96	4.57	9.52	12.7	304.8	457.2	609.6	914.4	304.8	190.5	254.0	,152.4	381.0	152.4	254.0	203.2	400	40
14	355.60	3.96	4.76	9.52	12.7	355.6	533.4	711.2	1066	355.6	222.2	280.0	165.1	412.8	152.4	305.0	330.2		
16	406.40	4.19	4.76	9.52	12.7	406.4	609.6	812.8	1219	406.4	254.0	304.8	177.8	470.0	152.4	305.0	355.6	-	-
18	457.20	4.19	4.76	9.52	12.7	457.2	685.8	914.4	1372	457.2	285.7	343.0	203.2	533.4	152.4	305.0	381.0	-	-
20	508.00	4.76	5.54	9.52	12.7	508.0	762.0	1016	1524	508.0	317.6	381.0	228.6	584.2	152.4	305.0	508.0	'	-
24	609.60	5.54	6.35	9.52	12.7	609.6	914.4	1219	1829	-	381.0	431.8	266.7	698.5	152.4	305.0	508.0	-	



# S.S. PIPE AND TUBES SCHEDULE DIMENSIONS, WALL THICKNESS, WT./MTR. (KG) ANSI B 36.19

		D. Tubi Size P.	nominal in inch	1/8"	1/4"	3/8	1/2	3/4	1	1 1/4	1 1/2	2	21/2	3	3 1/2	4	5	9	8	10	12	14	16	18	20	22	24	56	28	30	32	34	36
			kg/m	-			2.54	3.63	5.45	7.75	9.54	13.44	20.39	27.65		40.99	57.37	79.11	107.78	154.97	186.75								-				1
		Double Extra Strong	m m	:			7.47	7.82	60.6	9.70	10.16	11.07	14.02	15.24	:	17.12	19.05	21.95	22.22	25.40	25.40					-		:	:			:	;
		ong	kg/m	0.46	08.0	1.10	1.62	2.19	3.23	4.46	5.40	7.47	11.40	15.25	18.82	22.29	30.92	42.52	64.57	81.46	98.76	107.28	123.18	139.07	154.97	170.86	202.75	202.65	218.54	234.44	234.44	250.83	282.12
		Extra-Strong	mm	2.41	3.02	3.20	3.73	3.91	4.55	4.48	2.08	5.54	7.01	7.62	80.8	8.56	9.52	10.97	12.70	12.70	12.70	12.70	12.70	12.70	12.70	12.70	12.70 2	12.70	12.70 2	12.70	12.70	12.70	12.70 2
		p.	kg/m	98:0	0.63	0.85	1.26	1.68	2.50	3.38	4.05	5.43	8.62	11.28	13.56	16.06	21.76	28.23	42.49	60.24	73.76	81.21	93.13	105.05	116.97	128.89	140.81	152.73	152.73	164.65	176.57	188.50	212.34
		Standard	mm	1.73	2.24	2.31	2.77	2.87	3.38	3.56	3.68	3.91	5.16	5.49	5.74	6.02	6.55	7.11	8.18	9.27	9.52	9.52	9.52	9.52	9.52	9.52	9.52	9.52	9.52	9.52	9.52	9.52	9.52 2
			kg/m	-	-	-	1.95	2.89	4.23	5.60	7.23	11.10	14.90	21.30		33.51	49.05	67.47	111.18	172.11	238.60	281.49	364.94	459.18	564.24	671.28	806.74	-	-	-	-	1	1
		160	mm +	-	-	-	4.78	2.56	6.35	6.35	7.14	8.74	9.52	11.13	:	13.49	15.88	18.26	23.01	28.58	33.32 2	35.71 2	40.49 3	39.67	44.45 5	47.62 6	52.37 8	:	-	-	-	:	1
			kg/m r		:	:		-	-	:	-	-	-	- 1	:	28.25	40.24	54.20	90.32	132.85	186.75	224.36	286.33	363.33	441.06	526.24	639.18	:	-	:	:	:	:
		120	mm k	-	1	1										11.13	12.70 4	14.27 5	18.26	21.44 1:	25.40 18	27.79 22	30.96	34.92 36	38.10 4	41.28 5	46.02 6	-	-		-		
			m/	-	1	1	,	,	1	-	-	-	-	-		-	-	-	75.79	114.59 2	159.67	194.64 2	245.34 3	309.55 3-	381.20 3	450.75 4	546.84 4			1	1	,	1
		100	mm kg	-		;	-		;			;		;	-		-	-	15.09 7	18.26	21.44	23.83	26.19 24	29.36 30	32.54 38	34.92	38.89 5		-				
ghts	٥		m/	0.46	08:0	1.10	1.62	2.19	3.23	4.46	5.40	7.47	11.40	15.25	18.62	22.29	30.92	42.52	64.57	95.84	131.81	157.94 2:	203.26 2	254.24 29	310.91	373.27	30		-				-
and Weights	Schedule	80	mm kg	2.41 0	3.02	3.20	3.73	3.91	4.55	4.85	5.08	5.54 7	7.01	7.62	8.08	8.56 2	9.52 3	10.97	12.70 6	15.09 99	17.48 13	19.05 15	21.44 20	23.83 25	26.19 31	28.58 37	30.96 441.				_		
			kg/m m	- 2.	- 3.	- 3.	- 3	- 33	- 4.	- 4.	- 5	- 5.	- 7.	- 7.	- 89	- 8	- 6	- 10	53.07 12	81.46 15	108.97	126.51 19	160.04 21	205.62 23	247.79 26	293.80 28	354.62 30	-	-	-	-	-	1
Thickr	Number of	09	mm k	-	-	-	-		-	-	-	-	-	-	-	-	-	-	10.31	12.70 8	14.27 10	15.09 12	16.66	19.05 20	20.92	22.22	24.61 35	-	-	-	-	:	1
Nominal Thickness			kg/m	98:0	0.63	0.85	1.26	1.68	2.50	3.33	4.05	5.43	8.62	11.28	13.56	16.06	21.76	28.23	42.49	60.24	79.71	94.31	123.18	155.90	183.14	:	254.74	-	:	-	342.17	364.01	420.21
		40	mm	1.78	2.24	2.31	2.77	2.87	3.38	3.56	3.08	3.91	5.16	5.49	5.74	6.02	9:22	7.11	8.18	9.27	10.31	11.13	12.70	14.21	15.09	;	17.48	:	;	;	17.48	17.48	19.05
			kg/m	1	-	1			-	1		-	-	-					36.76	96.03	65.14	81.21	93.13	122.12	154.97	170.86	209.54	-	271.94	219.81	311.67	331.54	351.41
		30	шш	·	;	;	:	;	;	;	;	;	;	;	;	;	;	·	7.04	7.80	8:38	9.52	9.52	11.13	12.70	12.70	14.27	:	15.88	15.88	15.88	15.88	15.88
		20	kg/m	0.345	0.580	0.750	0.957	1.500	1.916	2.910	3.370	4.263	6.846	8.423	10.838	12.255	16.900	24.150	33.28	41.73	49.68	86'.29	77.92	87.85	116.97	128.89	140.81	202.65	218.54	234.44	250.33	266.22	282.12
		2	mm	1.60	2:00	2:00	2.0	2.5	2.5	3.00	3.0	3.0	4.00	4.00	4.5	4.5	5.00	6.35	6.35	6.35	6.35	7.92	7.92	7.92	9.52	9.52	9.52	12.70	12.70	12.70	12.70	12.70	12.70
		10	kg/m	:	-	-	:	:	-	:	:	-	-	-	:	-	:		-	-	-	54.63	62.58	70.53	78.47	86.42	94.37	127.58	137.52	147.45	157.39	157.32	177.26
			ш	:	1	1	:	;	1	;	:	1	-	:	;		;	1	:	-	-	6.35	6.35	6.35	6.35	6.35	6.35	7.92	7.92	7.92	7.92	7.92	7.92
		10S	kg/m	0.28	0.49	0.63	1.00	1.28	2.08	2.69	3.12	3.94	5.26	6.45	7.40	8.34	11.56	13.82	19.94	27.83	36.00	41.18	47.33	53.18	68.50	73.81	94.37	-	1	:	:	:	ı
			m m	1.28	1.65	1.65	2.11	2.11	2.77	2.77	2.77	2.77	3.05	3.05	3.05	3.05	3.40	3.40	3 3.76	2 4.19	0 4.57	3 4.78	0 4.78	3 4.78	5.54	5.54	0 6.35	-	1	-	-	-	1
		58	kg/	-	-	-	08:0	1.03	1.29	1.65	1.90	2.38	3.70	4.50	5.20	5.61	9.45	11.31	14.78	22.62	33.00	34.23	41.60	46.83	59.22	63.75	82.60	-	-	-	-	-	1
			ide mm m	3	- 2	-	3 1.65	7 1.65	4 1.65	2 1.65	8 1.65	3 1.65	0 2.11	9 2.11	.6 2.11	.3 2.11	.3 2.77	.3 2.77	.1 2.77	.1 3.40	.9 3.96	9:396	.4 4.19	.2 4.19	.0 4.78	.8 4.78	.6 5.54	4.	.2	0:	- 8:	9.	1
	Diametro Tubi	<u>D</u>	inal Out Side ch in mm	10.3	13.7	17.1	2 21.3	4 26.7	33.4	/4 42.2	/2 48.8	60.3	/2 73.0	88.9	/2 101.6	114.3	141.3	168.3	219.1	273.1	323.9	355.6	3 406.4	457.2	508.0	558.8	9:609 1	660.4	3 711.2	762.0	812.8	863	914.4
	Diar	2710	Nominal in inch	1/8"	1/4"	3/8	1/2	3/4	-	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	2	9	8	10	12	14	16	18	20	22	24	26	78	30	32	34	36



# **ELECTRO POLISHED AND NON ELECTRO POLISHED TUBES**



**Diamond Metal Industries** is a stockiest of electro-polished as well as non electro-polished SS tubes. We keep high quality and greater durable tubes with various grades such as 316L, 316, 304L, 304. There are choice with tubes of semi-seamless , seamless, electro-resistance welded as well. Tubes are available in various types as per their surface finishes, like electro-polished, matt, mirror, mechanical finish, bright annealed. This finishes may vary from 0.4 μRa to 0.8 μRa. Sulfur controlled tubes are also available as per customers requirements. We provide tubes with higher mechanical as well as metallurgical measures. Raw material used to manufacture tubes are of high quality to achieve high quality finally. We avail tubes of greater mechanical properties, good weld-ability, globally accepted dimensional standards and strength. Tubes manufactured by skilled, passionate, technically sound personals. These type of tubes are usually used in pharmaceuticals, food & beverages, dairy and cosmetics industries.

### **SPECIFICATIONS:**

Grade	316L, 316, 304L, 304		
Surface finish	Matt, mechanical, electro polished, mirror, bright annealed – inside and outside		
Standard	ASTM A249, A269, A270		
Outer diameter Size	1/4" OD to 6.0" OD		
Wall Thickness	14 SWG to 20 SWG		
Length	6 meters		
Туре	Semi-seamless, seamless, Electro-resistance welded		
Tubes used for utilities	and the state of t		

# **ELECTRO POLISHED AND NON ELECTRO POLISHED FITTINGS**

**Diamond Metal Industries** is a manufacturer of electro-polished as well as non electro-polished SS fittings. We make high quality and greater durable fittings like Bend, Tee, Reducer, Triclover (TC) Liner, TC Clamp, Pipe Holding Clamp, SMS Union. All fittings are manufactured in ASME BPE standard. There are choice with tubes of semi-seamless , seamless, electro-resistance welded as well in bend, equal and unequal tee, reducer. TC liners are manufactured in single piece. Bend, Tee and reducer are available in various types as per their surface finishes, like electro-polished, matt, mirror, mechanical finish, bright annealed. This finishes may vary from 0.4 μRa to 0.8 μRa. We manufacture fittings with higher mechanical as well as metallurgical measures and greater dimensional accuracy. Raw material used to manufacture tubes are of high quality to achieve high quality finally. Fittings manufactured of greater mechanical properties, good weld-ability, globally accepted dimensional standards and strength. Fittings manufactured by skilled, passionate, technically sound manpower.





### **SPECIFICATIONS:**

Grade	316L, 316, 304L, 304		
Surface finish	Matt, mechanical, electro polished, mirror, bright annealed – inside and outside		
Standard	ASTM A249, A269, A270		
Outer diameter Size	1/4" OD to 6.0" OD		
Wall Thickness	14 SWG to 20 SWG		
Туре	Semi-seamless, seamless, Electro-resistance welded		
Tubes used for utilities	, , , , , , , ,		



Mixing Vessels, Process Vessels, Manufacturing Vessels, Pressure Vessels, Holding Vessels **Diamond Metal Industries** offer various range in industrial storage tanks for especially pharmaceutical, food and beverage, dairy and cosmetics industries. We offer tanks with various materials like SS 316L, 316, 304L, 304, M.S. with many surface finishes like matt, mirror, mechanical finish which may vary from  $0.4~\mu Ra$  to  $0.8~\mu Ra$  internally and externally. Capacity of 10L to 5kL volume can be achieve. In Mixing Vessels Stirrer is available with top as well as bottom mounted as per clients' need. In tanks and vessels heating and cooling mechanism can be provided like steam and/or electrical heating and cooling with chilled water or brine. Tanks and vessels are designed to sustain pressure and temperature for uninterrupted operation. Tank and vessel' drain ability is also taken care in design. Compressed air receiver is also available to serve our customers. They are more reliable as mechanical properties are concerned and we follow ASTM and GMP standards. We are pioneer to manufacture tanks for Purified water, water for injection, liquid or semi liquid products. Materials used are of genuine manufacturer so quality can not be compromised.

**Diamond Metal Industries** provide best solution for heat exchange between different media. Purified water, Water for Injection, Pure steam, RO Water etc. are usual media to be cooled by means of chilled / cooled water and heated by means of hot water, steam. While using heat exchanger in sanitary application internal surface finish is electro polish is must for critical purposes like full drainabilty and zero dead leg. Our heat exchanger are designed to achieve higher thermal efficiency by means of its parts like buffel and exposure area of tubes in shell and tube type heat exchanger. Sample cooler of pure steam can be mostly used in pharmaceuticals industry like injectable plants. Whole heat exchanging systems are designed to operate manually, semi automatically or fully automatically.





Filter Housing, Filter paper holder

Diamond metal Industries manufacture Filter Housing and filter paper holder in many manner. Different types of filter housings are available as per its use like inline filter housing, vent filter housing. Material of construction are SS 316L, 316, 304L, 304 as per utility and as per clients' need. Material quality and skilled personals are involved to make it most efficient and elegant equipment for filtration purpose and durable working. Housing can be of single cartridge or multi cartridge. Sampling and vent provision are also given to regularly check up of the media to be passed. Our filter housing is can be use in compressed air, purified Water, Water for injection, RO Water, Raw Water, pharmaceuticals products. DMI make filter housings are manufactured under ASTM and GMP standard and they are also eligible for integrity testing.

**Diamond Metal Industries** always welcome new designs and new products which are customized by clients. There are many other products we can manufacture like spool pieces, sample bottles, odd size and standard fittings, SS Pendants etc. Custom fabricated parts are usually process oriented in industry. Surface finish can be achieve like matt, mechanical, electro-polished, mirror





# STOCKS & SUPPLIERS: FLANGE



Socket Weld The socket weld flange is similar to a slip-on flange, except that it has a bore and a counter bore. These act as a socket, holding the pipe in place before welding, hence the name. The counter bore is slightly larger than the OD of the matching pipe, allowing the pipe to be inserted into the flange, while the diameter of the smaller bore is the same as the ID of the matching pipe. This difference in bore size acts only as a restriction to the depth insertion of the pipe, and therefore eliminates any restriction in flow.

The socket weld flange is similar to a slip-on flange, except that it has a bore and a counter bore. These act as a socket, holding the pipe in place before welding, hence the name. The counter bore is slightly larger than the OD of the matching pipe, allowing the pipe to be inserted into the flange, while the diameter of the smaller bore is the same as the ID of the matching pipe. This difference in bore size acts only as a restriction to the depth insertion of the pipe, and there fore eliminates any restriction in flow.





Large Diameter We stock many large diameter flanges in 304/304L, 316/316L and also A-105 - carbon steel. These range in size from 28" to 36" for stainless and 28" to 36" for carbon. We can also easily solve your purchasing problems when it comes to plate flanges - AWWA C207 - and B16.47 Series A (MSS SP-44) and Series B (API-65), as well as B16.1 specifications. Other large diameter flanges, including larger sizes of those mentioned above, can be sourced to meet any requirement you may have.

Spectacle Blind These types of flanges are made from plate, and come in 3 different types.

The first and most widely used type are spec blinds - short for spectacle: these are flanges with two equal outside diameter (OD) parts welded together by way of a 'bridge'. One of the parts also contains an inside diameter (ID), while the other is a blank, or blind. A whole is put at the half way mark of the bridge. These are also called spectacles, figure 8's, and figure 8 blanks, because of their resemblance to reading glasses (spectacles) and figure 8's. These are referred to as 'Line Blanks' in the ASME/ANSI standards.

The second and third types are quite similar: both havelonger bridges, referred to as 'paddles', which resemble longer handles. One type has only an OD, and so is a blind plate - similar in appearance to a large pizza oven peel. These are referred to as paddle blinds. The other type is exactly the same but comes with an ID as well, enabling flow-through when installed in a piping system. These pieces have holes in the paddle which enables field personnel to determine by sight which piece is installed in a system. These are referred to as paddle spacers, and are often supplied in sets together with the paddle blinds.

All 3 types of these flanges are used in piping systems or pressure vessels where the flow needs to be interrupted from time to time. They are installed between two pipe flanges (as specified above), and by way of a screw inserted into the hole in the bridge or paddle, they are able to rotate or 'swing' into and out of position to interrupt or allow the flow, as the user sees fit. Our spec blind flanges are available with raised, flat, or RTJ faces. These flanges are available in all of our stainless steel and chrome-moly grades, from 1/2" to 24" and beyond, class 150 to 2500. We can also source many of your other grade requirements. 10





# STOCKS & SUPPLIERS: OTHER STOCKIEST



Stainless Steel, Duplex, Super Duplex

Seamless: ASTMA312, A213, A269, A790, DIN 14404

Welded: ASTMA312, A358, A249, A790, A928, DIN 14461

**Grade:** 304, 304L, 304H, 304LN, 316, 316L, 316H, 316TI, 316LN.

317, 317L, 317LN, 3098S, 309H, 310S, 310H, 321, 321H, 347, 317H,

317LN, \$31254, S\$31803, S32750, S32760, S32550

**Size:** 1/8" to 24" (Seamless) & 1" to 48" (Welded)

**Thickness:** 0.5mm to 75mm

Types: Bolts, Nuts, Washers, Anchor Fasteners, Stud Bolts, Eye Bolt, Stud,

Threaded Rod, Cotter Pin, Socket Screw.

**Stainless Steel:** AISI 302, 304, 304L, 316, 316L, 310, 317, 317L, 321, 347, 410, 420, 9041, etc

**Alloy Steel:** 4.6, 5.6, 6.6, 8.8,10.9 & 12.9 / 'R1, 'S1, T Conditions.

Carbon Steel: Bare Condition, Galvanized, Phosphetised, Cadmium Plated,

Hot Deep, Galvanized, Bloodied, Nickel Chrome Plated, etc.

Non Ferrous Metal: Copper, Brass, Aluminium, Titanium, Al. Bronze,

Phosphorous Bronze, etc.







Sheet, Rods & Plates

Stainless Steel Coils: Thickness: 0.31mm & Above

Width: 1000mm / 1220mm /1525mm /2000mm

Stainless Steel Plates: Thickness: 3mm & above Width: 1000mm to 3200mm

Length: 2438mm / 3048mm / 6096mm to 13500mm

Stainless Steel Sheets: Thickness: 0.25mm & above

Width : 6mm  $\sim$  2000mm Length : 1000mm  $\sim$  1000mm

Rods: 6mm & above





	→ FORMULA OF CALCULATING WEIGHT •	
	WEIGHT OF STAINLESS STEEL / CARBON STEEL PIPES & TUBES OD (mm) - W.T. (mm) X W.T. (mm) X 0.022466 = KG / MTR.	
	WEIGHT OF STAINLESS STEEL SHEET Length (mm) x Width (mm) x Thk. (mm) x 8 = KG. / SHEET	
	WEIGHT OF STAINLESS STEEL SHEET Length (mm) x Width (mm) x Thk. (mm) x 7.85 = KG. / SHEET	
	WEIGHT OF STAINLESS STEEL SHEET CIRCLE & BLANKS O.D. (mm) x O.D. (min) x Thk. (mm) / 160 / 1000= KG./PCS.	
	WEIGHT OF STAINLESS STEEL ROUNDS Dia. (mm) x Dia. (mm) x 0.00623 = KG./ MTR.	
	WEIGHT OF STAINLESS STEEL HEXAGONAL RODS Dia. (mm) x Dia. (mm) x 0.00679= KG. / MTR.	
	WEIGHT OF STAINLESS STEEL SQUARE RODS Dia. (mm) x Dia. (mm) x 0.00787= KG. / MTR.	
	WEIGHT OF COPPER PIPES O.D. (mm) - W.T. (mm) x W.T. (mm) x 0.0285 = KG / MTR.	
	WEIGHT OF ALUMINUM PIPES O.D. (mm) - W.T. (mm) x W.T. (mm) x 0.0282 = KG / MTR.	
	WEIGHT OF ALUMINUM SHEET Length (mtr.) x Width (mm) x Thk. (mm) x 2.66= KG. / SHEET	
	WEIGHT OF LEAD SHEET Length (mtr.) x Width (mm) x Thk. (mm) x 11.2 = KG. / MTR.	
	SHEET WIDTH REQD. FOR ROLLED & WELDED PIPE O.D. (mm) - THk.( mm) x 3.14 = SHEET WIDTH (mm)	
0	WEIGHT FOR SQUARE / RECTANGLE PIPES Length from 4 Angle (OD) / 3.14 - Thk. (mm) x Thk. (mm) x 0.00756 = KG. / PER FEET	
	WEIGHT FOR CONVERSION OF MTR. TO FEET Weight of 1 Mtr. 3.2808 = Feet	
	FORMULA FOR HEALTHY BUSINESS  Honesty + Quality of Goods + Quick Service  + Reasonable rate = Good Health of Business	

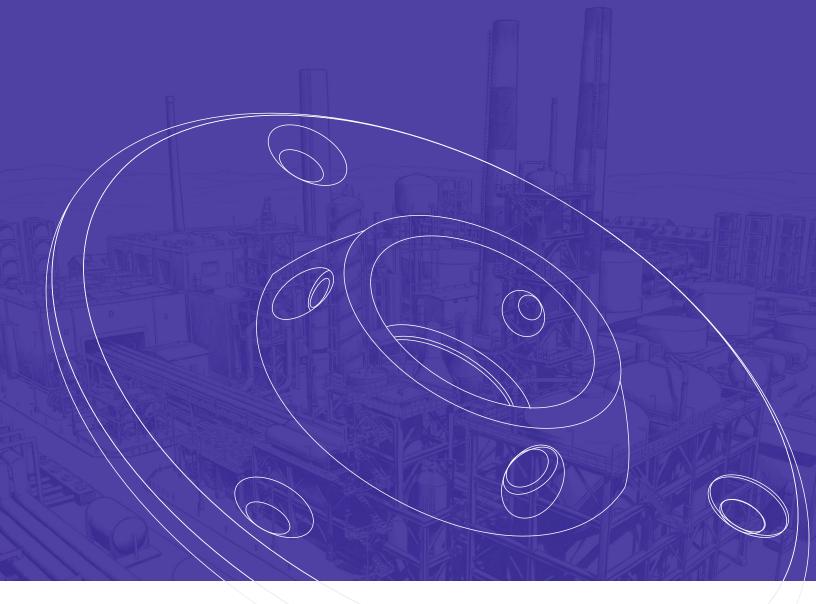


# APPLICATION INDUSTRIES •—



- OIL & GAS INDUSTRIES
- PHARMACY INDUSTRIES
- ◆ STEEL & POWER
- ENGINEERING
- CEMENT INDUSTRIES
- REFINERY PLANT
- SHIPBUILDING
- **◆ FIRE FALLING SYSTEMS**
- **◆ CHEMICAL**
- FERTILIZER
- PAPER & PULP MILLS
- SUGAR INDUSTRIES
- WATER PIPING SYSTEMS
- BEVERAGE INDUSTRIES











- (G)
- +91 99798 72956
- info@diamondmetalind.com
- www.diamondmetalind.com
- 0

### **UNIT-1**

B-6, Hind Industrial Estate, Opp. Pushpak Estate, Nr. Gujarat Bottling, Rakhial, Ahmedabad - 380023

### **UNIT-2**

Plot No. 37/N, 37/O, Panchamrut Industrial Estate - 3, Vanch - Dhamatvan Road, Village - Dhamatvan, Ahmedabad - 382 435