



SUBASH BISHNOI
9717416525, 9928796525



SURYA STEEL

Importers, Stockists & Suppliers



TECHNICAL HANDBOOK OF
FERROUS & NON-FERROUS METAL



10541/1A, GF Bagichi Allaiddin, Gali No. 3, Motia Khan, Paharganj, New Delhi- 110055

Mobile: 9717416525, 9928796525, Tel.: 011-69093028

E-mail: suryasteel6525@gmail.com

Website: suryasteelindia.in



COMPANY PROFILE

Company Name SURYA STEEL

Address 10541/1A, GF Bagichi Allauddin, Gali No. 3,
Motia Khan, Paharganj, New Delhi - 110055

Shop Tel. No. 011-69093028

Contact No. 9717416525, 9928796525

Pin Code 110055

City New Delhi

Head Office Delhi

Country India

Business Type Importer, Stockists & Suppliers

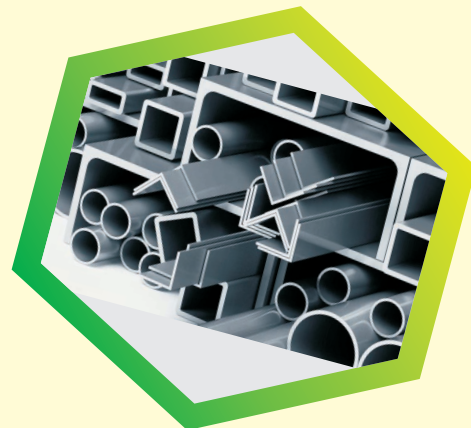
Proprietor Subash Bishnoi

Bank HDFC Bank

E-mail suryasteel6525@gmail.com

Website suryasteelindia.in

GSTIN 07APUPC8808H1ZI



Company Profile

Surya Steel is one of major importers, dealers and stockists of a wide range of Steel Pipe, Stainless Steel Pipe, Ferrous and Non-Ferrous Metals. Now one of the successful company in India with rapid growth. We have focused at large on our customers through years of experiences and have gained a strong client database which has made us one of the Major Suppliers of Ferrous and Non-Ferrous Metals to the prominent organisations in the Indian territory including Fertilizers, Heavy Machine Tool Companies, Chemical Plants, Power Sector, Distrilleries, Refineries etc.

Our Marketing and sales team with highly qualified employees are much dedicated and loyal to their work and they have not only increased our reputation as a Company, but also have developed trust and understanding through years of services.

Today we are capable to manufacture world class Pipe-Fittings & Flanges Strictly as per the requirements of our customers with strict quality control in STAINLESS STEEL (AISI 304, 304L, 321, 316, 316L, 317, 317L, 310, 310S etc.,) CARBON STEEL, ALLOY STEEL, HASTALLOY, MONEL, INCONEL, COPPER and BRASS. We are specialists in Manufacturing of S.S. Pipe Fittings, Dairy Fittings and all types of Pipe Fittings of Elbows, Tees etc. in Raised Face, Lapped Joint Face, Large Male-Female, Small Male-Female, Large Tongue & Groove, Small Tongue & Groove, Ring joint and Flanges. Pipe Fittings & Flanges as per special requirements also shall be manufactured by us.

We are extremely particular about quality and this is reflected in our products. We have adopted stringent quality measures to ensure high quality in accordance to the relevant Standards & Codes.

Our mission is to provide the best customers services by supplying world class materials strictly as per the requirements of our clients at reasonable rates irrespective of the quantities small or big, but in respect of agreed delivery time. We are very keen to start long and fruitful business relationship with any reputed organisation in the world.



CHEMICAL COMPOSITION OF STAINLESS STEEL / MECHANICAL PROPERTIES

Grade designation	C %	MN %	SI %	S %	P %	CR %	NI %	MO %	TI %	UTS	YS %	% EL	R.A %
AISI	MAX	MAX	MAX	MAX	MAX					Kg/mm ² min	(0.2% Offset Kg/mm ² min)	Min	
302	0.15	2.00	0.75	0.030	0.045	17.00	8.00			53	21	40	50
						19.00	10.00						
304	0.08	2.00	0.75	0.030	0.045	18.00	8.00			53	21	40	50
						20.00	12.00						
304L	0.03	2.00	0.75	0.030	0.045	18.00	8.00			53	21	40	50
						20.00	12.00						
309	0.20	2.00	0.75	0.030	0.045	22.00	12.00			53	21	40	50
						24.00	15.00						
309S	0.08	2.00	0.75	0.030	0.045	22.00	12.00			53	21	40	50
						24.00	15.00						
310	0.25	2.00	0.75	0.030	0.045	24.00	19.00			53	21	40	50
						26.00	22.00						
310S	0.08	2.00	0.75	0.030	0.045	24.00	19.00			53	21	40	50
						26.00	22.00						
316	0.08	2.00	0.75	0.030	0.045	16.00	10.00	2.00		53	21	40	50
						18.00	14.00	3.00					
316L	0.03	2.00	0.75	0.030	0.045	16.00	10.00	2.00		53	21	40	50
						18.00	14.00	3.00					
316Ti	0.08	2.00	0.75	0.030	0.045	16.00	10.00	2.00	5 x C				
						18.00	14.00	3.00	min				
317	0.08	2.00	0.75	0.030	0.045	16.00	10.00	3.00					
						18.00	14.00	4.00					
321	0.08	2.00	0.75	0.030	0.045	17.00	9.00		5xC	53	21	40	50
						19.00	12.00		min				
347	0.08	2.00	0.75	0.030	0.045	17.00	9.00	NS+	To				
						19.00	13.00	10xC	min				
410	0.15	1.00	0.75	0.030	0.040	11.50				49	28	20	50
						13.50							
420	0.15	1.00	0.75	0.030	0.040	12.00				49	28	20	45
						14.00							
430	0.12	1.00	0.75	0.030	0.040	16.00				49	28	20	45
						18.00							
431	0.20	1.00	0.75	0.030	0.040	15.00				49	28	20	45
						17.00							



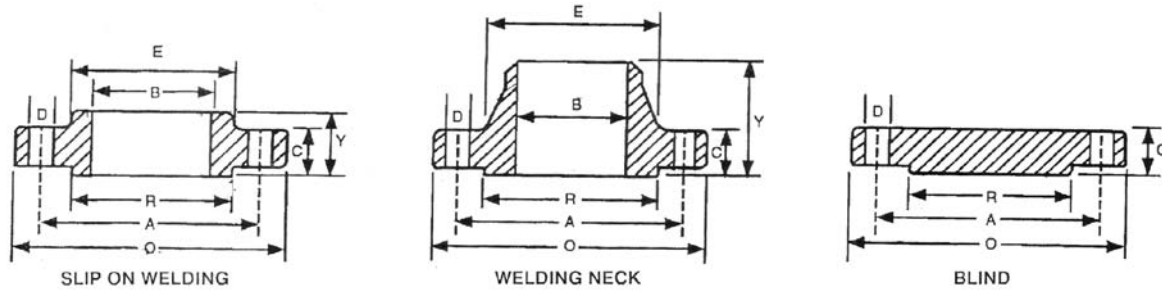
STAINLESS STEEL SEAMLESS PIPE DIMENSIONS IN MM & WEIGHT PER KG/MTR.

NOMINAL CORE			SCHEDULE 5 S		SCHEDULE 10 S		SCHEDULE 20 S		SCHEDULE 40 S		SCHEDULE 80 S		SCHEDULE 160 S		SCHEDULE X X S	
MM	Inch	MM	WT mm	Weight (KG/M)	WT mm	Weight (KG/M)	WT mm	Weight (KG/M)	WT mm	Weight (KG/M)	WT mm	Weight (KG/M)	WT mm	Weight (KG/M)	WT mm	Weight (KG/M)
3	1/8	10.3	-	-	1.24	0.28	-	-	1.73	0.37	2.41	0.47	-	-	-	-
6	1/4	13.7	-	-	1.65	0.49	-	-	2.24	0.630	3.02	0.80	-	-	-	-
10	3/8	17.1	-	-	1.65	0.63	-	-	2.31	0.840	3.20	1.10	-	-	-	-
15	1/2	21.3	1.65	0.80	2.11	1.00	2.30	1.07	2.77	1.27	3.73	1.62	4.75	1.94	7.47	2.55
20	3/4	26.7	1.65	1.03	2.11	1.28	2.55	1.52	2.87	1.69	3.91	2.20	5.56	2.90	7.82	3.64
25	1	33.4	1.65	1.30	2.77	2.09	2.55	1.94	3.38	2.50	4.55	3.24	6.35	4.24	9.09	5.45
32	1.1/4	42.2	1.65	1.65	2.77	2.70	3.00	2.90	3.56	3.39	4.85	4.447	6.35	5.61	9.70	7.77
40	1.1/2	48.30	1.65	1.91	2.77	2.70	3.00	2.90	3.56	3.399	5.06	4.47	6.35	5.61	9.70	7.77
50	2	60.3	1.65	2.40	2.77	3.93	3.00	4.24	3.91	5.44	5.54	7.48	8.74	11.11	11.07	13.44
65	2.1/2	73.0	2.11	3.69	3.05	5.26	4.00	6.81	5.16	6.63	7.01	11.41	9.53	14.91	14.02	20.39
80	3	88.9	2.11	4.51	3.05	6.45	4.00	8.37	5.49	11.29	7.62	15.27	11.1	21.30	15.24	27.68
100	4	114.3	2.11	5.84	3.05	8.36	4.50	12.18	6.02	16.07	8.56	22.32	13.49	33.54	17.12	41.03
125	5	141.3	2.77	9.47	3.40	11.57	5.00	16.80	6.55	21.8	9.53	30.97	15.88	49.11	19.05	57.43
150	6	168.3	2.77	11.32	3.40	13.84	6.35	25.36	7.11	28.26	11.0	4.256	18.25	67.53	21.95	79.22
200	8	219.1	2.77	14.79	3.76	19.96	6.35	33.31	8.18	42.55	12.7	64.64	23.01	111.27	22.23	107.92
250	10	273.1	3.40	22.63	4.19	27.78	6.35	41.77	8.74	60.31	15.1	96.01	28.58	172.33	25.40	155.15
300	12	323.9	3.96	31.25	4.57	36.00	6.35	49.7	9.53	73.88	17.45	132.08	33.32	238.76	25.40	186.97
350	14	355.6	3.96	34.36	4.78	41.3	7.92	67.80	11.13	94.59	Formula : Pipe Weight +Kg/Mtr = O.D. - thk x thk x O.D. 0.02466= Kg/Mtr Permissible variation in outs all Diameter (mm)					
400	16	406.4	4.19	41.56	4.78	47.29	7.92	77.83	12.7	123.30						
450	18	457.0	4.19	46.81	4.78	53.26	7.92	87.71	14.27	155.80						
500	20	508.0	4.78	59.25	5.54	68.61	9.53	117.14	15.09	183.43						
600	24	610.0	5.54	82.47	6.35	94.45	9.53	141.12	17.48	255.41						

STAINLESS STEEL TUBE

Weight & Thickness of S.S. Pipe & Tubes for Boilers, Heat Exchangers

SIZE	O.D.	10G (3.25)	12G (2.64)	14G (2.03)	16G (1.62)	18G (1.210)	20G (0.91)	22G (0.71)
1/4	6.35	0.075	0.070	0.065	0.058	0.046	0.037	0.030
5/16	7.93	0.114	0.105	0.089	0.079	0.060	0.048	0.038
3/8	9.52	0.152	0.135	0.113	0.097	0.080	0.058	0.046
1/2	12.7	0.226	0.200	0.157	0.134	0.105	0.079	0.063
3/4	19.05	0.386	0.326	0.256	0.215	0.161	0.124	0.097
1	25.4	0.541	0.450	0.351	0.294	0.218	0.167	0.131
1.1/4	31.82	0.696	0.580	0.448	0.375	0.275	0.200	-
1.1/2	38.1	0.851	0.700	0.542	0.452	0.332	-	-
1.3/4	44.45	0.020	0.832	0.646	0.530	0.390	-	-
2	50.8	0.161	0.960	0.733	0.607	0.447	-	-
2.1/4	57.15	0.315	1.085	0.828	0.687	0.504	-	-
2.1/2	63.5	1.472	1.210	0.924	0.792	0.562	-	-
2.3/4	69.85	1.630	1.338	1.022	0.847	0.619	-	-
3	76.2	1.782	1.460	1.115	0.924	0.676	-	-
3.1/2	88.9	2.092	1.718	1.306	1.082	0.791	-	-
4	101.6	2.403	1.971	1.497	1.239	0.905	-	-
4.1/2	114.3	2.713	2.224	1.608	1.397	1.020	-	-
5	127.0	3.023	2.477	1.879	1.554	1.134	-	-
5.1/2	139.7	3.336	2.730	2.070	1.713	1.250	-	-
6	152.4	3.654	2.983	2.261	1.875	1.364	-	-
6.1/2	165.1	3.975	3.256	2.452	2.028	1.478	-	-



DIMENSIONS OF CLASS 150 FLANGES (ANSI B 16.5)

(in mm)

Nominal Pipe Size (inch) (mm)		Flange Dia O	Dia of Bolt Circle A	Dia of Bolt Holes B	No. of Holes	Thk of Flange C	Dia of Hub E	Length through Hub			Dia of Bore		Dia of R/F R	Depth of Socket F
								S/O & S/W Y	W/N Y	L/J Y	S/O & S/W B	L/J B		
1/2	15	88.9	60.3	15.9	4	11.1	30	14	46	16	22.2	22.9	34.9	10
3/4	20	98.4	69.9	15.9	4	12.7	38	14	51	16	27.7	28.2	42.9	11
1	25	107.9	79.4	15.9	4	14.3	49	16	54	17	34.5	34.9	50.8	13
1¼	32	117.5	88.9	15.9	4	15.9	59	19	56	21	43.2	43.7	63.5	14
1½	40	127.0	98.4	15.9	4	17.5	65	21	60	22	49.5	50.0	73.0	16
2	50	152.4	120.7	19.0	4	19.0	78	24	62	25	61.9	62.5	92.1	17
2½	65	177.8	139.7	19.0	4	22.2	90	27	68	29	74.6	75.4	104.8	19
3	80	190.5	152.4	19.0	4	23.8	108	29	68	30	90.7	91.4	127.0	21
4	100	228.6	190.5	19.0	8	23.8	135	32	75	33	116.1	116.8	157.2	-
5	125	254.6	215.9	22.2	8	23.8	164	35	87	36	143.8	114.4	185.7	-
6	150	279.4	241.3	22.2	8	25.4	192	38	87	40	170.7	171.4	215.9	-
8	200	342.9	298.5	22.2	8	28.6	246	43	100	44	221.5	222.2	269.9	-
10	250	406.4	362.0	25.4	12	30.2	305	48	100	49	276.2	277.4	323.8	-
12	300	482.6	431.8	25.4	12	31.8	365	54	113	56	327.0	328.2	381.0	-
14	350	533.4	476.3	28.6	12	34.9	400	56	125	79	359.2	360.2	412.8	-
16	400	596.9	539.8	28.6	16	36.5	457	62	125	87	410.5	411.2	469.9	-
18	450	596.0	577.9	31.7	16	39.7	505	67	138	97	461.8	462.3	533.4	-
20	500	698.5	635.0	31.7	20	42.9	559	71	143	103	513.1	514.3	584.2	-
24	600	812.8	749.3	34.9	20	47.6	663	81	151	111	616.0	616.0	692.2	-

DIMENSIONS OF CLASS 300 FLANGES (ANSI B 16.5)

(in mm)

Nominal Pipe Size (inch) (mm)		Flange Dia O	Dia of Bolt Circle A	Dia of Bolt Holes D	No. of Holes	Thk of Flange C	Dia of Hub E	Length through Hub			Dia of Bore		Dia of R/F R	Depth of Socket F
								S/O & S/W Y	W/N Y	L/J Y	S/O & S/W B	L/J B		
1/2	15	95.2	66.7	15.9	4	14.3	38	21	51	22	22.2	22.9	34.9	10
3/4	20	117.5	82.6	19.0	4	15.9	48	24	56	25	27.7	28.2	42.9	11
1	25	123.8	88.9	19.0	4	17.5	54	25	60	27	34.5	34.9	50.8	13
1¼	32	133.3	98.4	19.0	4	19.1	64	25	64	27	43.2	43.7	63.5	14
1½	40	155.6	114.3	22.2	4	20.7	70	29	67	30	49.5	50.0	73.0	16
2	50	165.1	127.0	19.0	8	22.3	84	32	68	33	61.9	62.5	92.1	17
2½	65	190.5	149.2	22.2	8	25.4	100	37	75	38	74.6	75.4	104.8	19
3	80	209.5	168.3	22.2	8	28.6	117	41	78	43	90.7	91.4	127.0	21
4	100	254	200.0	22.2	8	31.8	146	46	84	48	116.1	116.8	157.2	-
5	125	279.4	235.0	22.2	8	35.0	178	49	97	51	143.8	144.4	185.7	-
6	150	317.5	269.9	22.2	12	36.6	206	51	97	52	170.7	171.4	215.9	-
8	200	381	330.2	25.4	12	41.3	260	60	110	62	221.5	222.2	269.9	-
10	250	444.5	387.4	28.6	16	47.7	321	65	116	95	276.2	277.4	323.8	-
12	300	520.5	450.8	31.7	16	50.8	375	71	129	102	327.0	328.2	381.0	-
14	350	584.2	514.4	31.7	20	54.0	425	75	141	111	359.2	360.2	412.8	-
16	400	647.7	571.5	34.9	20	57.2	483	81	144	121	410.5	411.2	469.9	-
18	450	711.2	628.6	34.9	24	60.4	533	87	157	130	461.8	462.3	533.4	-
20	500	774.7	685.8	34.9	24	63.5	587	94	160	140	513.1	514.4	584.2	-
24	600	914.4	812.8	41.3	24	69.9	702	105	167	152	616.0	616.0	692.2	-

1) Thickness "C" is Exclusive of Raised Face Thickness of 2 mm for Class 150 and 300.



B.S. 10 Table 'D'

Nominal Pipe Size (in mm)	Diameter of Flange	Diameter of Bolt Circle (PCD)	Number of Bolts	Diameter of Bolts	Thickness of Flange
mm	mm	mm	mm	mm	mm
15	95	67	4	13	5
20	102	73	4	13	5
25	114	83	4	13	5
32	121	87	4	12	6
40	133	98	4	13	6
50	152	114	4	16	8
65	165	127	4	16	8
80	184	145	4	16	10
100	216	178	4	16	10
125	254	210	8	16	13
150	279	235	8	16	13
200	337	292	8	16	13
250	406	356	8	19	16
300	457	406	12	19	16
350	527	470	12	22	19
400	578	521	12	22	19
450	641	584	12	22	22
500	705	641	16	22	25
600	826	756	16	25	29

B.S. 10 Table 'F'

Nominal Pipe Size (in mm)	Diameter of Flange	Diameter of Bolt Circle (PCD)	Number of Bolts	Diameter of Bolts	Thickness of Flange
mm	mm	mm	mm	mm	mm
15	95	67	4	13	10
20	102	83	4	13	10
25	121	87	4	16	10
32	133	98	4	16	13
40	140	105	4	16	13
50	165	127	4	16	16
65	184	145	8	6	16
80	203	165	8	16	16
100	229	191	8	16	19
125	279	235	8	19	22
150	305	260	12	19	22
200	368	324	12	19	25
250	432	381	12	22	25
300	489	438	16	22	29
350	552	495	16	25	32
400	610	552	20	25	32
450	673	610	20	29	35
500	737	673	24	29	38
600	851	781	24	32	38

B.S. 10 Table 'E'

Nominal Pipe Size (in mm)	Diameter of Flange	Diameter of Bolt Circle (PCD)	Number of Bolts	Diameter of Bolts	Thickness of Flange
mm	mm	mm	mm	mm	mm
15	95	67	4	13	6
20	102	73	4	13	6
25	114	83	4	13	7
32	121	87	4	13	8
40	133	98	4	13	9
50	152	114	4	16	10
65	165	127	4	16	10
80	184	145	4	16	11
100	216	178	4	16	13
125	254	210	8	16	14
150	279	235	8	19	17
200	337	292	8	19	19
250	406	356	8	19	22
300	457	406	12	22	25
350	527	470	12	22	25
400	578	521	12	22	25
450	641	584	12	22	29
500	705	641	16	22	32
600	826	756	16	25	38

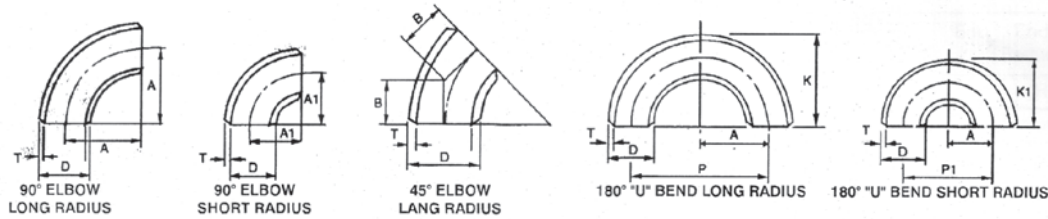
B.S. 10 Table 'F'

Nominal Pipe Size (in mm)	Diameter of Flange	Diameter of Bolt Circle (PCD)	Number of Bolts	Diameter of Bolts	Thickness of Flange
mm	mm	mm	mm	mm	mm
15	114	83	4	16	13
20	114	83	4	16	13
25	121	87	4	16	14
32	133	98	4	16	17
40	140	105	4	16	17
50	165	127	4	16	19
65	184	145	8	16	19
80	203	165	8	16	22
100	229	191	8	16	25
125	279	235	8	19	29
150	305	260	12	19	29
200	368	324	12	19	32
250	432	381	12	22	35
300	489	438	16	22	38
350	552	495	16	25	41
400	610	552	20	25	44
450	673	610	20	29	48
500	737	673	24	29	51
600	851	781	24	32	57



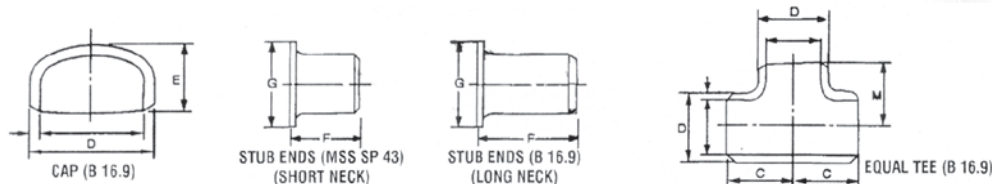
SURYA STEEL

Mobile: 9717416525
9928796525



DIMENSIONS OF BUTTWELD FITTINGS (ANSI B 16.9 & B 16.28)

Nominal Pipe Size		OD D			90° L/R B			Centre to End						Centre to Centre						Back to Face					
								45° L/R B			90° S/R A1			180° L/R P			180° S/R P1			180° L/R K			180° S/R K1		
Inch.	mm	Min	Nom	Max	Min	Nom	Max	Min	Nom	Max	Min	Nom	Max	Min	Nom	Max	Min	Nom	Max	Min	Nom	Max	Min	Nom	Max
1/2	15	20	21	22	36	38	40	14	16	18	-	-	-	69	76	83	-	-	-	41	48	55	-	-	-
3/4	20	26	27	28	36	38	40	17	19	21	-	-	-	69	76	83	-	-	-	36	43	50	-	-	-
1	25	32	33	34	36	38	40	20	22	24	23	25	27	69	76	83	44	51	58	49	56	63	34	41	48
1¼	32	41	42	43	46	48	50	23	25	27	30	32	34	88	95	102	57	64	71	63	70	77	45	52	59
1½	40	47	48	49	55	57	59	27	29	31	36	38	40	107	114	121	69	76	83	76	83	90	55	62	69
2	50	59	60	61	74	76	78	33	35	37	49	51	53	145	152	159	95	102	109	99	106	113	74	81	88
2½	65	72	73	74	93	95	97	42	44	46	62	64	66	184	191	198	120	127	134	125	132	139	93	100	107
3	80	88	89	90	112	114	116	49	51	53	74	76	78	222	229	236	145	152	159	152	159	166	114	121	128
4	100	113	114	116	150	152	154	62	64	66	100	102	104	298	305	312	196	203	210	203	210	217	152	159	166
5	125	140	141	144	188	190	192	77	79	81	125	127	129	374	381	388	247	254	261	255	262	269	190	197	204
6	150	167	168	171	227	229	231	93	95	97	150	152	154	450	457	464	298	305	312	306	313	320	230	237	244
8	200	217	219	221	303	305	307	125	127	129	201	203	205	603	610	617	399	406	413	407	414	421	306	313	320
10	250	270	273	277	379	381	383	157	159	161	252	254	256	752	762	772	498	508	518	511	518	525	384	391	398
12	300	321	324	328	454	457	460	187	190	193	302	305	308	904	914	924	600	610	620	612	619	626	460	467	474
14	350	353	356	360	530	533	536	219	222	225	353	356	359	1057	1067	1077	701	711	721	704	711	718	526	533	540
16	400	403	406	410	607	610	613	251	254	257	403	406	409	1209	1219	1299	803	813	823	806	813	820	603	610	617
18	450	454	457	461	683	686	689	283	286	289	454	457	460	1362	1372	1382	904	914	924	907	914	921	679	686	693
20	500	503	508	514	759	762	765	315	318	321	505	508	511	1514	1524	1534	1006	1016	1026	1009	1016	1023	755	762	769
24	600	605	610	616	911	914	917	378	381	384	607	610	613	1819	1829	1839	1209	1219	1229	1212	1219	1226	907	914	921



DIMENSIONS OF BUTTWELD FITTINGS (ANSI B 16.9 & MSS SP 43)

Nominal Pipe Size	OD D		CAP						Stubend G		B 16.9 F			MSS SP 43 F			Equal Tees					
	Inch.	mm	Min	Nom	Max	Min	Nom	Max	Min	Max	Min	Nom	Max	Min	Nom	Max	Min	Nom	Max	Min	Nom	Max
1/2	15	20	21	22	22	25	28	34	35	74	76	78	49	51	53	23	25	27	23	25	27	
3/4	20	26	27	28	22	25	28	42	43	74	76	78	49	51	53	27	29	31	27	29	31	
1	25	32	33	34	35	38	41	50	51	100	102	104	49	51	53	36	38	40	36	38	40	
1 1/4	32	41	42	43	35	38	41	63	64	100	102	104	49	51	53	46	48	50	46	48	50	
1 1/2	40	47	48	49	35	38	41	72	73	100	102	104	49	51	53	55	57	59	55	57	59	
2	50	59	60	61	35	38	41	91	92	150	152	154	62	64	66	62	64	66	62	64	66	
2 1/2	65	72	73	74	35	38	41	104	105	150	152	154	62	64	66	74	76	78	74	76	78	
3	80	88	89	90	48	51	54	126	127	150	152	154	62	64	66	84	86	88	84	86	88	
4	100	113	114	116	61	64	67	156	157	150	152	154	74	76	78	103	105	107	103	105	107	
5	125	140	141	144	69	76	83	185	186	201	203	205	74	76	78	122	124	126	122	124	126	
6	150	167	168	171	82	89	96	215	216	201	203	205	87	89	91	141	143	145	141	143	145	
8	200	217	219	221	95	102	109	269	270	201	203	205	100	102	104	176	178	180	176	178	180	
10	250	270	273	277	120	127	134	322	324	252	254	256	125	127	129	214	216	218	214	216	218	
12	300	321	324	328	145	152	159	379	381	252	254	257	150	152	154	251	254	257	251	254	257	
14	350	353	356	360	158	165	172	411	413	302	305	308	150	152	154	276	279	282	276	279	282	
16	400	403	406	410	171	178	185	468	470	302	305	308	150	152	154	302	305	308	302	305	308	
18	450	454	457	461	196	203	210	531	533	302	305	308	150	152	154	340	343	346	340	343	346	
20	500	503	508	514	222	229	236	582	584	302	305	308	150	152	154	378	381	384	378	381	384	
24	600	605	610	616	260	267	274	690	692	302	305	308	150	152	154	429	432	435	429	432	435	

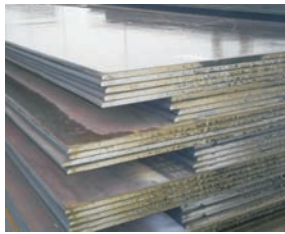
Mobile: 9717416525, 9928796525 Phone: 011-69093028
E-mail: suryasteel6525@gmail.com, Website: suryasteelindia.in



SHEETS, COILS, STRIPS

ITEMS	RANGE	FINISH
(1) S.S. Sheets	0.5 mm To 3 mm (thick)	CR
(2) S.S. Coils	0.2 mm To 6 mm (thick)	HR, CR
(3) S.S. Plates	4 mm To 50 mm (thick)	HR
(4) S.S. Flats	20 mm To 100 mm (width) 5 mm To 25 mm (thick)	HR
(5) S.S. Angles	20 mm To 100 mm (width) 3 mm To 10 mm (thick)	HR
(6) S.S. Circles	0.5 mm To 50 mm (thick) (Any Diameter)	HR, CR
(7) S.S. Designer Sheets	1 mm to 4 mm (thick)	Various Design

Grades available : 200, 300 & 400 series



WEIGHT PER SHEET

U.S.A. / Gross britainne In kg/per sheet				U.S.A. / Gross britainne In kg/per m2	
Thickness in mm	Size in mm			Thickness in mm	Weight Kg / m2
	2000 x 1000	2500 x 1250	3000 x 1500		
0.50	8.00	12.50	-	0.50	4.00
0.56	8.96	14.00	-	0.56	4.43
0.63	10.08	15.75	-	0.63	5.04
0.75	12.00	18.75	-	0.75	6.00
0.88	14.08	22.00	-	0.88	7.04
1.00	16.00	25.00	-	1.00	8.00
1.13	18.00	28.25	-	1.13	9.04
1.25	20.00	31.25	-	1.25	10.00
1.38	22.00	34.50	-	1.38	11.04
1.50	24.00	37.50	54.00	1.50	12.00
1.75	28.00	43.75	63.00	1.75	14.00
2.00	32.00	50.00	72.00	2.00	16.00
2.25	36.00	56.25	81.00	2.25	18.00
2.50	40.00	62.50	90.00	2.50	20.00
2.75	44.00	68.75	99.00	2.75	22.00
3.00	48.00	75.00	108.00	3.00	24.00
3.25	52.00	81.25	117.00	3.25	26.00
3.50	56.00	87.50	126.00	3.50	28.00
3.75	60.00	93.75	135.00	3.75	30.00
4.00	64.00	100.00	144.00	4.00	32.00
4.25	68.00	106.00	153.00	4.25	34.00
4.50	72.00	112.50	162.00	4.50	36.00
5.00	80.00	125.00	180.00	5.00	40.00
5.50	88.00	137.50	198.00	5.50	44.00
6.00	96.00	150.00	216.00	6.00	48.00
6.50	104.00	162.00	234.00	6.50	52.00
7.00	112.00	175.00	252.00	7.00	56.00
7.50	120.00	187.50	270.00	7.50	60.00
8.00	128.00	200.00	288.00	8.00	64.00



STAINLESS STEEL RODS



Size Range : 2.00 mm to 84.00 mm
Length : 1- 12 mtrs.
Packing : 100 - 1000 kg bundles
suitable for Transport by Road / Sea

Applications :
Thread Rolling & Architecture & Building & Construction
Kitchen Applications & White Goods & Domestic
Industrial & Engineering Applications

SEAMLESS & ERW :

Specifications :
202, 304, 304L, 316, 316L, 310S, 321, 321H

DIMENSIONS AND WEIGHT CHART OF STAINLESS STEEL ROD, HEXAGONAL BAR & SQUARE BAR IN SS. 304, 316, 316L WEIGHT OF STEEL ROUND BAR

SIZE MM	WEIGHT IN Kg.		SIZE MM	WEIGHT IN Kg.		SIZE MM	WEIGHT IN Kg.		SIZE MM	WEIGHT IN Kg.	
	Wt. Per Ft.	Wt. Per M.		Wt. Per Ft.	Wt. Per M.		Wt. Per Ft.	Wt. Per M.		Wt. Per Ft.	Wt. Per M.
5.0	.047	.154	20	.753	2.47	45	3.80	12.48	110	22.74	74.6
6.0	.068	.222	21	.829	2.72	48	4.33	14.21	120	27.07	88.8
6.5	.079	.260	22	.908	2.98	50	4.70	15.41	130	31.70	104
7.0	.092	.302	23	.994	3.26	52	5.08	16.67	140	36.88	121
7.5	.106	.347	24	1.08	3.55	55	5.69	18.65	150	42.37	139
8.0	.120	.395	25	1.17	3.85	56	5.89	19.33	160	48.16	158
8.5	.136	.445	26	1.27	4.17	58	6.32	20.74	170	54.26	178
9.0	.152	.499	27	1.37	4.50	60	6.77	22.20	180	60.96	200
9.5	.169	.556	28	1.47	4.83	62	7.22	23.70	190	67.97	223
10	.188	.617	30	1.69	5.55	64	7.70	25.25	200	75.3	247
11	.227	.746	32	1.92	6.31	65	7.94	26.05	220	90.8	298
12	.271	.888	33	2.05	6.71	68	8.69	28.51	240	108	355
13	.317	1.04	35	2.30	7.55	70	9.21	30.21	250	117	385
14	.369	1.21	36	2.44	7.99	72	9.74	31.96	260	127	417
15	.424	1.39	37	2.60	8.53	75	10.57	34.68	280	147	483
16	.482	1.58	38	2.71	8.90	80	12.03	39.46	300	169	555
17	.543	1.78	39	2.86	9.38	90	15.22	49.94	320	192	631
18	.610	2.00	40	3.01	9.86	100	18.79	61.65	340	217	713
19	.680	.023	42	3.32	10.88	105	20.95	68.73	350	230	755

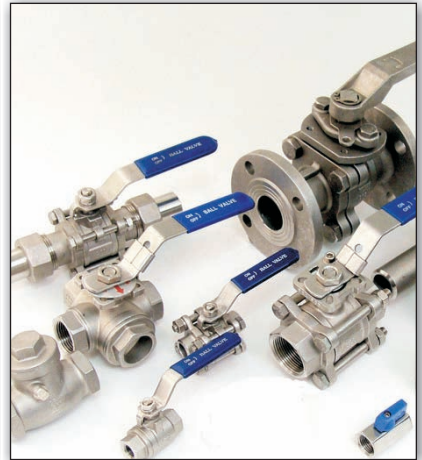
WEIGHT OF STEEL HEXAGON BAR

SIZE A/F MM	WEIGHT IN Kg.		SIZE A/F MM	WEIGHT IN Kg.		SIZE A/F MM	WEIGHT IN Kg.		SIZE A/F MM	WEIGHT IN Kg.	
	Wt. Per Ft.	Wt. Per M.		Wt. Per Ft.	Wt. Per M.		Wt. Per Ft.	Wt. Per M.		Wt. Per Ft.	Wt. Per M.
11	.251	.823	17	.597	.196	24	1.20	3.92	24	1.20	3.92
12	.298	.979	18	.671	2.20	25	1.30	4.25	25	1.30	4.25
13	.351	1.15	19	.747	2.45	27	1.51	4.96	27	1.51	4.96
14	.405	1.33	20	.829	2.72	30	1.87	6.12	30	1.87	6.12
16	.530	1.74	22	1.00	3.29	32	2.12	6.960	32	2.12	6.960

WEIGHT OF STEEL SQUARE BAR

SIZE A/F MM	WEIGHT IN Kg.		SIZE A/F MM	WEIGHT IN Kg.		SIZE A/F MM	WEIGHT IN Kg.		SIZE A/F MM	WEIGHT IN Kg.	
	Wt. Per Ft.	Wt. Per M.		Wt. Per Ft.	Wt. Per M.		Wt. Per Ft.	Wt. Per M.		Wt. Per Ft.	Wt. Per M.
6	.0862	.282	15	.540	1.77	24	1.38	4.52	38	3.44	11.3
8	.153	.502	16	.613	2.01	25	1.50	4.91	40	3.84	12.6
9	.194	.636	17	.692	2.27	27	1.74	5.72	45	4.85	15.9
10	.239	.785	18	.774	2.54	28	1.88	6.15	50	5.97	19.6
12	.344	1.13	19	.863	2.83	30	2.15	7.06	55	7.75	25.4
13	.405	1.33	20	.957	3.14	32	2.45	8.04	60	9.21	30.24
14	.469	1.54	22	1.16	3.80	36	3.11	10.2	65	11.00	36.00

PRODUCTS RANGE



STAINLESS STEEL : Sheets, Plates, Tubes, Pipes, Rods, Wires, Strips and Pipe fitting like Ball Valves, Elbow, bends, Stubend, Tees, Flanges, Reducer, Bolts and Nuts, Screws in the grade of AISI 304, 304L, 316L, 310, 321, 410 & 420 etc.

NON FERROUS : Copper, Brass, Aluminium, Phosphorous, Bronze, Gun Metal, Lead, Zinc, Tin Metal, Nickel, Monel, Inconel, Hastelloy in all Shapes and Sizes:-

We are also specialists in Copper Tubes Refrigeration quality of 50' and 100' coils in various sizes and thickness.

ALLOY STEELS : En-8, 9, 19, 24, 31, 36, 45, 47, 20, Mn-Cr5 etc. SAE 8620, OHNS, HCHCR, H.S.S. Magnese strips in all shapes and sizes.

BUTT WELD FITTINGS

Range	- 15 NB to 1200 NB in Sch. 5, 10, 20, 30, 40, 60, 80, 100, 120, 140, 160, XXS
Type	- Bend – Long & Short Radius to 1.5D, 2D, 3D, 5D, 6D, 10D etc. Elbow – 45 Deg., 90 Deg., & 180 Deg. Tee – Equal Tee, Unequal Tee Reducer – Con. & Ecc, CAP, Nipple Swage & Barrel, Stubend – Long & Short etc.
Stainless Steel	- ASTM A 403 WP – TP 304, H. L., 316, H. L. Ti, 309, 310, 317L, 321, 347, 904L, 202
Carbon Steel	- ASTM A234 WPB, A-420 WPL6
Alloy Steel	- ASTM A234 WP – P5, P9, P11, P12, P21, P22, P91, & P92
Mild Steel & Galvanized	- ISI Mark
Nickel Alloy	- Cupro Nickel, Hastelloy, Nickel, Monel, Inconel, Alloy 20 etc.
Other Form of Fitting	- DAIRY FITTING & ALSO PER DRAWING
Other Services	- Polish, Heat Treatment, Galvanizing, Sand Blasting etc.
Test Certificate	- MTC, IBR TC, Lab. TC from Govt. App. Lab with Third Party Inspection

Stockists of :



Stockists of :



Quality Control Norms :

- Chemical Testing
- Dimension Inspection
- Hardness Testing
- Hydro Testing
- Radiography
- Tensile Testing
- Visual Inspection



SURYA STEEL

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9928796525



Three PC Ball Valve



T C Ball Valve



Y-Type Strainer



Spray Ball Welded



Camlock Coupling



TC Clamp



Tee



Elbow



Union



Elbow



Tee



Blind Flange



Reducing Elbow



Cross



Male Female Bush



Flange SORF



Long Stub End



Reducer



Hex Nipple



Forged Steel Cross



S/W Coupling



Barrel Nipple



Check Nut



End Cap



High Pressure Tee



S/W Tee



S/W Elbow 45°



Sample Cock Valve



Weld Neck Flange



Float Valve



Two Way Valve (SMS)



Three Way Valve (SMS)



Tanker Valve



Butterfly Valve with Union



Butterfly Valve Welded



Micro Valve with Union



Disk Filter with Union



In Line Filter



TC Butterfly Valve



Tanker Valve



Spray Boll Removing



Diaphragm Valve

Mobile: 9717416525, 9928796525 Phone: 011-69093028
E-mail: suryasteel6525@gmail.com, Website: suryasteelindia.in



SURYA STEEL

Mobile: 9717416525
9928796525



NRV with Union (SMS)



N R V Welded



Angular Valve



Reducer Concentric



Reducing Incentric



Reducing Liner



Inline Side Glass



DN-100, Side Glass



Welded Union



Tee



U-Bend



Bend



Din Union



SMS Union



Blind Nut



Bend 45°



Long Bend



Bend 45°



Boll Feet



C-Spayner



Foot Valve



TC Clamp



Welded Clamp



Socket Clamp



Wafer Check Valve



Disc Check Valve



NRV Horizontal



Male Connector



Male Elbow



Union Elbow



NRV Vertical



Three Way Valve



Ball Valve



Union



Female Connector



Union Tee



Globe Valve



Gate Valve



Flange Type Ball Valve



Three Way Manifold



Two Way Manifold



Nut Ferrule Valve

Mobile: 9717416525, 9928796525 Phone: 011-69093028
E-mail: suryasteel6525@gmail.com, Website: suryasteelindia.in



SPECIAL FORMULA

- 1) **Weight of Stainless Steel Pipes**
 $\text{O.D. (mm)} - \text{W.T. (mm)} \times \text{W.T. (mm)} \times 0.00756 = \text{Kg. (per ft.)}$
 $\text{O.D. (mm)} - \text{W.T. (mm)} \times \text{W.T. (mm)} \times 0.0248 = \text{Kg. (per mtr.)}$
- 2) **Weight of Stainless Steel Rounds**
 $\text{Dia (mm)} \times \text{Dia (mm)} \times 0.0019 \text{ kg (Per ft.)}$
- 3) **Weight of Stainless Steel Hexagonal Rods**
 $\text{Dia (mm)} \times \text{Dia (mm)} \times 0.00215 \text{ kg (Per ft.)}$
- 4) **Weight of Stainless Steel Square Rods**
 $\text{Dia (mm)} \times \text{Dia (mm)} \times 0.0024 \text{ kg (Per ft.)}$
- 5) **Weight of Stainless Steel Sheets**
 $(\text{A}) \text{ Length (mtr.)} \times \text{Width (mtr.)} \times \text{Thk (mm.)} \times 8 = \text{Kg (Per Sheet)}$
- 6) **Weight of Stainless Steel Circle in MM per PIECE**
 $\text{Dia (mm)} \times \text{Dia (mm)} \times \text{Thk (mm)} + 160000 = \text{Weight Per Pc.}$
- 7) **Weight of Stainless Steel Flat in MM per ft.**
 $\text{Weight} \times -304 \times \text{Thickness} \times 8 = \text{Weight Per ft.}$
- 8) **Weight of Copper Pipe**
 $\text{O.D. (mm)} - \text{W.T. (mm)} \times 0.0087 = \text{kg (Per ft.)}$
- 9) **Weight of S.S. Sheets, Plate, Pipe, round, Hex, Circle, Square**
 $\text{Flat} \div 3 = \text{Aluminium Weight Approx.}$
- 10) **Making of pipe from Sheet or Plate :**
 $\text{O.D. - thick} \times 3.14 = \text{Width of Cutting Sheet of Plate}$
- 11) **Pressure Conversion :**
 $\text{kg/mm}^2 \times 1422.3 = \text{Psi} = \text{kg / cm}^2 \times 14.223$
- 12)

1 Feet	=	0.3048 meter
1 Mtr.	=	3.2808 ft.
1 Inch	=	25.4 mm
1 pound	=	0.454 (45359243) kgs.



PAPER MILLS



POWER HOUSE



FERTILIZER PLANT



DAM PROJECT



PETROCHEMICALS



STEEL PLANT



SUGAR PLANT



OFFSHORE PLATFORM



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Mobile: 9717416525, 9928796525, Tel.: 011-69093028

E-mail: suryasteel6525@gmail.com

Website: suryasteelindia.in

Mobile: 9717416525, 9928796525 Phone: 011-69093028
E-mail: suryasteel6525@gmail.com, Website: suryasteelindia.in