

TABEL E FF

I.D. same as ANSI 150LBS

SIZE		O.D	I.D	Thk	K	Bolt.D	Bolt	Weight
		(mm)	(mm)	(mm)	(mm)	(mm)	No.	Kg/Pc
DN 15	½"	95.3	22.3	6.4	66.8	12.7	4	0.32
DN 20	¾"	101.6	27.7	6.4	73.2	12.7	4	0.35
DN 25	1"	114.3	34.5	7.2	82.6	12.7	4	0.50
DN 32	1¼"	120.7	43.2	7.9	87.4	12.7	4	0.59
DN 40	1½"	133.4	49.5	8.7	98.6	12.7	4	0.79
DN 50	2"	152.4	62.0	9.5	114.3	15.9	4	1.08
DN 65	2½"	165.1	74.7	10.3	127.0	15.9	4	1.32
DN 80	3"	184.2	90.7	11.1	146.1	15.9	4	1.70
DN 100	4"	215.9	116.1	12.7	177.8	15.9	8	2.45
DN 125	5"	254.0	143.8	14.3	209.6	15.9	8	3.71
DN 150	6"	279.4	170.7	17.5	235.0	19.0	8	5.00
DN 200	8"	336.6	221.5	19.1	292.1	19.0	8	7.26
DN 250	10"	406.4	276.3	22.2	355.6	19.0	12	11.63
DN 300	12"	457.2	327.1	25.4	406.4	22.2	12	15.14
DN 350	14"	527.1	359.1	25.4	469.9	22.2	12	22.51
DN 400	16"	577.9	410.5	25.4	520.7	22.2	12	25.13
DN 450	18"	641.4	461.8	28.6	584.2	22.2	16	33.74
DN 500	20"	704.9	513.1	34.9	641.4	22.2	16	48.84
DN 600	24"	825.5	615.9	38.1	755.7	25.4	16	68.93

TABEL E FF BLIND

SIZE		O.D	I.D	Thk	K	Bolt.D	Bolt	Weight
		(mm)	(mm)	(mm)	(mm)	(mm)	No.	Kg/Pc
DN 15	½"	95.3		6.4	66.8	12.7	4	0.33
DN 20	¾"	101.6		6.4	73.2	12.7	4	0.38
DN 25	1"	114.3		7.2	82.6	12.7	4	0.55
DN 32	1¼"	120.7		7.9	87.4	12.7	4	0.68
DN 40	1½"	133.4		8.7	98.6	12.7	4	0.93
DN 50	2"	152.4		9.5	114.3	15.9	4	1.31
DN 65	2½"	165.1		10.3	127.0	15.9	4	1.68
DN 80	3"	184.2		11.1	146.1	15.9	4	2.27
DN 100	4"	215.9		12.7	177.8	15.9	8	3.51
DN 125	5"	254.0		14.3	209.6	15.9	8	5.54
DN 150	6"	279.4		17.5	235.0	19.0	8	8.16
DN 200	8"	336.6		19.1	292.1	19.0	8	13.07
DN 250	10"	406.4		22.2	355.6	19.0	12	22.14
DN 300	12"	457.2		25.4	406.4	22.2	12	31.99
DN 350	14"	527.1		25.4	469.9	22.2	12	42.82
DN 400	16"	577.9		25.4	520.7	22.2	12	51.66
DN 450	18"	641.4		28.6	584.2	22.2	16	71.55
DN 500	20"	704.9		34.9	641.4	22.2	16	105.81
DN 600	24"	825.5		38.1	755.7	25.4	16	158.53

JIS 5K FF I.D. same as ANSI 150LBS

SIZE		O.D	I.D	Thk	K	Bolt.D	Bolt	Weight
		(mm)	(mm)	(mm)	(mm)	(mm)	No.	Kg/Pc
DN 10	3/8"	75	18.3	9	55	12	4	0.26
DN 15	1/2"	80	22.3	9	60	12	4	0.30
DN 20	3/4"	85	27.7	10	65	12	4	0.36
DN 25	1"	95	34.5	10	75	12	4	0.45
DN 32	1 1/4"	115	43.2	12	90	15	4	0.78
DN 40	1 1/2"	120	49.5	12	95	15	4	0.82
DN 50	2"	130	62.0	14	105	15	4	1.06
DN 65	2 1/2"	155	74.7	14	130	15	4	1.52
DN 80	3"	180	90.7	14	145	19	4	1.97
DN 90	3 1/2"	190	103.4	14	155	19	4	2.08
DN 100	4"	200	116.1	16	165	19	8	2.34
DN 125	5"	235	143.8	16	200	19	8	3.14
DN 150	6"	265	170.7	18	230	19	8	4.26
DN 200	8"	320	221.5	20	280	23	8	6.09
DN 250	10"	385	276.3	22	345	23	12	8.94
DN 300	12"	430	327.1	22	390	23	12	9.76
DN 350	14"	480	359.1	24	435	25	12	13.98
DN 400	16"	540	410.5	24	495	25	16	16.83
DN 450	18"	605	461.8	24	555	25	16	21.24
DN 500	20"	655	513.1	24	605	25	20	22.80
DN 550	22"	720	564.4	26	665	27	20	29.87
DN 600	24"	770	615.9	26	715	27	20	32.08
DN 750	30"	945	766.0	28	880	33	24	48.63

JIS 5K FF BLIND

SIZE		O.D	I.D	Thk	K	Bolt.D	Bolt	Weight
		(mm)	(mm)	(mm)	(mm)	(mm)	No.	Kg/Pc
DN 10	3/8"	75		9	55	12	4	0.28
DN 15	1/2"	80		9	60	12	4	0.32
DN 20	3/4"	85		10	65	12	4	0.41
DN 25	1"	95		10	75	12	4	0.52
DN 32	1 1/4"	115		12	90	15	4	0.92
DN 40	1 1/2"	120		12	95	15	4	1.00
DN 50	2"	130		14	105	15	4	1.39
DN 65	2 1/2"	155		14	130	15	4	2.01
DN 80	3"	180		14	145	19	4	2.69
DN 90	3 1/2"	190		14	155	19	4	3.01
DN 100	4"	200		16	165	19	8	3.68
DN 125	5"	235		16	200	19	8	5.19
DN 150	6"	265		18	230	19	8	7.51
DN 200	8"	320		20	280	23	8	12.17
DN 250	10"	385		22	345	23	12	19.35
DN 300	12"	430		22	390	23	12	24.35
DN 350	14"	480		24	435	25	12	33.17
DN 400	16"	540		24	495	25	16	41.90
DN 450	18"	605		24	555	25	16	52.98
DN 500	20"	655		24	605	25	20	61.98
DN 550	22"	720		26	665	27	20	81.22
DN 600	24"	770		26	715	27	20	93.23

JIS 10K FF I.D. same as ANSI 150LBS

SIZE		O.D	I.D	Thk	K	Bolt.D	Bolt	Weight
		(mm)	(mm)	(mm)	(mm)	(mm)	No.	Kg/Pc
DN 10	3/8"	90	18.3	12	65	15	4	0.51
DN 15	1/2"	95	22.3	12	70	15	4	0.57
DN 20	3/4"	100	27.7	14	75	15	4	0.72
DN 25	1"	125	34.5	14	90	19	4	1.13
DN 32	1 1/4"	135	43.2	16	100	19	4	1.48
DN 40	1 1/2"	140	49.5	16	105	19	4	1.56
DN 50	2"	155	62.0	16	120	19	4	1.86
DN 65	2 1/2"	175	74.7	18	140	19	4	2.63
DN 80	3"	185	90.7	18	150	19	8	2.58
DN 100	4"	210	116.1	18	175	19	8	3.09
DN 125	5"	250	143.8	20	210	23	8	4.66
DN 150	6"	280	170.7	22	240	23	8	6.14
DN 200	8"	330	221.5	22	290	23	12	7.30
DN 250	10"	400	276.3	24	355	25	12	11.33
DN 300	12"	445	327.1	24	400	25	16	12.06
DN 350	14"	490	359.1	26	445	25	16	16.30
DN 400	16"	560	410.5	28	510	27	16	23.16
DN 450	18"	620	461.8	30	565	27	20	29.12
DN 500	20"	675	513.1	30	620	27	20	33.07
DN 550	22"	745	564.4	32	680	33	20	42.60
DN 600	24"	795	615.9	32	730	33	24	44.95

JIS 10K FF BLIND

SIZE		O.D	I.D	Thk	K	Bolt.D	Bolt	Weight
		(mm)	(mm)	(mm)	(mm)	(mm)	No.	Kg/Pc
DN 10	3/8"	90		12	65	15	4	0.54
DN 15	1/2"	95		12	70	15	4	0.60
DN 20	3/4"	100		14	75	15	4	0.79
DN 25	1"	125		14	90	19	4	1.23
DN 32	1 1/4"	135		16	100	19	4	1.66
DN 40	1 1/2"	140		16	105	19	4	1.80
DN 50	2"	155		16	120	19	4	2.24
DN 65	2 1/2"	175		18	140	19	4	3.26
DN 80	3"	185		18	150	19	8	3.50
DN 100	4"	210		18	175	19	8	4.60
DN 125	5"	250		20	210	23	8	7.23
DN 150	6"	280		22	240	23	8	10.12
DN 200	8"	330		22	290	23	12	13.99
DN 250	10"	400		24	355	25	12	22.69
DN 300	12"	445		24	400	25	16	27.98
DN 350	14"	490		26	445	25	16	37.09
DN 400	16"	560		28	510	27	16	52.42
DN 450	18"	620		30	565	27	20	68.79
DN 500	20"	675		30	620	27	20	82.03
DN 550	22"	745		32	680	33	20	105.80
DN 600	24"	795		32	730	33	24	120.21

JIS 20K FF

I.D. same as ANSI 150LBS

SIZE		O.D	I.D	Thk	K	Bolt.D	Bolt	Weight
		(mm)	(mm)	(mm)	(mm)	(mm)	No.	Kg/Pc
10	3/8"	90	18.3	14	65	15	4	0.60
15	1/2"	95	22.3	14	70	15	4	0.66
20	3/4"	100	27.7	16	75	15	4	0.83
25	1"	125	34.5	16	90	19	4	1.29
32	1 1/4"	135	43.2	18	100	19	4	1.66
40	1 1/2"	140	49.5	18	105	19	4	1.75
50	2"	155	62.0	18	120	19	8	1.93
65	2 1/2"	175	74.7	20	140	19	8	2.75
80	3"	200	90.7	22	160	23	8	3.76
90	3 1/2"	210	103.4	24	170	23	8	4.34
100	4"	225	116.1	24	185	23	8	4.90
125	5"	270	143.8	26	225	25	8	7.61
150	6"	305	170.7	28	260	25	12	9.79
200	8"	350	221.5	30	305	25	12	12.26
250	10"	430	276.3	34	380	27	12	21.04
300	12"	480	327.1	36	430	27	16	24.94
350	14"	540	359.1	40	480	33	16	36.02
400	16"	605	410.5	46	540	33	16	51.36
450	18"	675	461.8	48	605	33	20	65.65
500	20"	730	513.1	50	660	33	20	76.83
550	22"	795	564.4	52	720	39	20	91.26
600	24"	845	615.9	54	770	39	24	99.83

JIS 20K FF BLIND

SIZE		O.D	I.D	Thk	K	Bolt.D	Bolt	Weight
		(mm)	(mm)	(mm)	(mm)	(mm)	No.	Kg/Pc
10	3/8"	90		14	65	15	4	0.62
15	1/2"	95		14	70	15	4	0.71
20	3/4"	100		16	75	15	4	0.90
25	1"	125		16	90	19	4	1.41
32	1 1/4"	135		18	100	19	4	1.87
40	1 1/2"	140		18	105	19	4	2.03
50	2"	155		18	120	19	8	2.36
65	2 1/2"	175		20	140	19	8	3.44
80	3"	200		22	160	23	8	4.88
90	3 1/2"	210		24	170	23	8	5.93
100	4"	225		24	185	23	8	6.90
125	5"	270		26	225	25	8	10.95
150	6"	305		28	260	25	12	14.85
200	8"	350		30	305	25	12	21.39
250	10"	430		34	380	27	12	37.13
300	12"	480		36	430	27	16	48.82
350	14"	540		40	480	33	16	68.00
400	16"	605		46	540	33	16	99.42
450	18"	675		48	605	33	20	129.11
500	20"	730		50	660	33	20	158.45
550	22"	795		52	720	39	20	193.96
600	24"	845		54	770	39	24	226.83

DIN 2501 PN10 RF

I.D. same as ANSI 150LBS

SIZE		O.D (mm)	I.D (mm)	Thickness		Raised Face		K (mm)	Bolt.D (mm)	Bolt No.
				FULL	FLANGE	Thk	OD			
DN 15	½"	95	22.3	14	12	2	45	65	14	4
DN 20	¾"	105	27.7	16	14	2	58	75	14	4
DN 25	1"	115	34.5	16	14	2	68	85	14	4
DN 32	1¼"	140	43.2	16	14	2	78	100	18	4
DN 40	1½"	150	49.5	16	13	3	88	110	18	4
DN 50	2"	165	62.0	18	15	3	102	125	18	4
DN 65	2½"	185	74.7	18	15	3	122	145	18	4
DN 80	3"	200	90.7	20	17	3	138	160	18	8
DN 100	4"	220	116.1	20	17	3	158	180	18	8
DN 125	5"	250	143.8	22	19	3	188	210	18	8
DN 150	6"	285	170.7	22	19	3	212	240	22	8
DN 200	8"	340	221.5	24	21	3	268	295	22	8
DN 250	10"	395	276.3	26	23	3	320	350	22	12
DN 300	12"	445	327.1	26	22	4	370	400	22	12
DN 350	14"	505	359.1	26	22	4	430	460	22	16
DN 400	16"	565	410.5	26	22	4	482	515	26	16
DN 450	18"	615	461.8	28	24	4	532	565	26	20
DN 500	20"	670	513.1	28	24	4	585	620	26	20
DN 600	24"	780	615.9	28	23	5	685	725	30	20

DIN 2501 PN10 RF BLIND

SIZE		O.D (mm)	I.D (mm)	Thickness		Raised Face		K (mm)	Bolt.D (mm)	Bolt No.
				FULL	FLANGE	Thk	OD			
DN 15	½"	95		14	12	2	45	65	14	4
DN 20	¾"	105		16	14	2	58	75	14	4
DN 25	1"	115		16	14	2	68	85	14	4
DN 32	1¼"	140		16	14	2	78	100	18	4
DN 40	1½"	150		16	13	3	88	110	18	4
DN 50	2"	165		18	15	3	102	125	18	4
DN 65	2½"	185		18	15	3	122	145	18	4
DN 80	3"	200		20	17	3	138	160	18	8
DN 100	4"	220		20	17	3	158	180	18	8
DN 125	5"	250		22	19	3	188	210	18	8
DN 150	6"	285		22	19	3	212	240	22	8
DN 200	8"	340		24	21	3	268	295	22	8
DN 250	10"	395		26	23	3	320	350	22	12
DN 300	12"	445		26	22	4	370	400	22	12
DN 350	14"	505		26	22	4	430	460	22	16
DN 400	16"	565		26	22	4	482	515	26	16
DN 450	18"	615		28	24	4	532	565	26	20
DN 500	20"	670		28	24	4	585	620	26	20
DN 600	24"	780		28	23	5	685	725	30	20

DIN 2501 PN16 RF I.D. same as ANSI 150LBS

SIZE		O.D (mm)	I.D (mm)	Thickness		Raised Face		K (mm)	Bolt.D (mm)	Bolt No.	Weight Kg/Pc
				FULL	FLANGE	Thk	OD				
DN 15	1/2"	95	22.3	14	12	2	45	65	14	4	0.60
DN 20	3/4"	105	27.7	16	14	2	58	75	14	4	0.85
DN 25	1"	115	34.5	16	14	2	68	85	14	4	1.02
DN 32	1 1/4"	140	43.2	16	14	2	78	100	18	4	1.48
DN 40	1 1/2"	150	49.5	16	13	3	88	110	18	4	1.61
DN 50	2"	165	62.0	18	15	3	102	125	18	4	2.18
DN 65	2 1/2"	185	74.7	18	15	3	122	145	18	4	2.72
DN 80	3"	200	90.7	20	17	3	138	160	18	8	3.28
DN 100	4"	220	116.1	20	17	3	158	180	18	8	3.62
DN 125	5"	250	143.8	22	19	3	188	210	18	8	4.89
DN 150	6"	285	170.7	22	19	3	212	240	22	8	5.97
DN 200	8"	340	221.5	24	21	3	268	295	22	12	8.33
DN 250	10"	405	276.3	26	23	3	320	355	26	12	11.83
DN 300	12"	460	327.1	28	24	4	378	410	26	12	15.25
DN 350	14"	520	359.1	30	26	4	438	470	26	16	22.62
DN 400	16"	580	410.5	32	28	4	490	525	30	16	28.42
DN 450	18"	640	461.8	32	28	4	550	585	30	20	33.17
DN 500	20"	715	513.1	34	30	4	610	650	33	20	44.77
DN 600	24"	840	615.9	36	31	5	725	770	36	20	62.26

DIN 2501 PN16 RF BLIND

SIZE	SIZE	O.D (mm)	I.D (mm)	Thickness		Raised Face		K (mm)	Bolt.D (mm)	Bolt No.	Weight Kg/Pc
				FULL	FLANGE	Thk	OD				
DN 15	1/2"	95		14	12	2	45	65	14	4	0.64
DN 20	3/4"	105		16	14	2	58	75	14	4	0.93
DN 25	1"	115		16	14	2	68	85	14	4	1.14
DN 32	1 1/4"	140		16	14	2	78	100	18	4	1.66
DN 40	1 1/2"	150		16	13	3	88	110	18	4	1.85
DN 50	2"	165		18	15	3	102	125	18	4	2.60
DN 65	2 1/2"	185		18	15	3	122	145	18	4	3.34
DN 80	3"	200		20	17	3	138	160	18	8	4.30
DN 100	4"	220		20	17	3	158	180	18	8	5.29
DN 125	5"	250		22	19	3	188	210	18	8	7.71
DN 150	6"	285		22	19	3	212	240	22	8	9.95
DN 200	8"	340		24	21	3	268	295	22	12	15.63
DN 250	10"	405		26	23	3	320	355	26	12	24.14
DN 300	12"	460		28	24	4	378	410	26	12	33.82
DN 350	14"	520		30	26	4	438	470	26	16	46.60
DN 400	16"	580		32	28	4	490	525	30	16	61.85
DN 450	18"	640		32	28	4	550	585	30	20	75.48
DN 500	20"	715		34	30	4	610	650	33	20	100.26
DN 600	24"	840		36	31	5	725	770	36	20	146.93

DIN 2501 PN 40 RF

I.D. same as ANSI 150LBS

SIZE	SIZE	O.D (mm)	I.D (mm)	Thickness		Raised Face		K (mm)	Bolt.D (mm)	Bolt No.
				FULL	FLANGE	Thk	OD			
15	½"	95.0	22.3	16	14	2	45	65	14	4
20	¾"	105.0	27.7	18	16	2	58	75	14	4
25	1"	115.0	34.5	18	16	2	68	85	14	4
32	1¼"	140.0	43.2	18	16	2	78	100	18	4
40	1½"	150.0	49.5	18	15	3	88	110	18	4
50	2"	165.0	62.0	20	17	3	102	125	18	4
65	2½"	185.0	74.7	22	19	3	122	145	18	8
80	3"	200.0	90.7	24	21	3	138	160	18	8
100	4"	235.0	116.1	24	21	3	162	190	22	8
125	5"	270.0	143.8	26	23	3	188	220	26	8
150	6"	300.0	170.7	28	25	3	218	250	26	8
200	8"	375.0	221.5	34	31	3	285	320	30	12
250	10"	450.0	276.3	38	35	3	345	385	33	12
300	12"	515.0	327.1	42	38	4	410	450	33	16
350	14"	580.0	359.1	46	42	4	465	510	36	16
400	16"	660.0	410.5	50	46	4	535	585	39	16
500	20"	755.0	513.1	56	52	4	615	670	42	20

DIN 2501 PN 40 RF BLIND

SIZE	SIZE	O.D (mm)	I.D (mm)	Thickness		Raised Face		K (mm)	Bolt.D (mm)	Bolt No.
				FULL	FLANGE	Thk	OD			
15	½"	95.0		16	14	2	45	65	14	4
20	¾"	105.0		18	16	2	58	75	14	4
25	1"	115.0		18	16	2	68	85	14	4
32	1¼"	140.0		18	16	2	78	100	18	4
40	1½"	150.0		18	15	3	88	110	18	4
50	2"	165.0		20	17	3	102	125	18	4
65	2½"	185.0		22	19	3	122	145	18	8
80	3"	200.0		24	21	3	138	160	18	8
100	4"	235.0		24	21	3	162	190	22	8
125	5"	270.0		26	23	3	188	220	26	8
150	6"	300.0		28	25	3	218	250	26	8
200	8"	375.0		34	31	3	285	320	30	12
250	10"	450.0		38	35	3	345	385	33	12
300	12"	515.0		42	38	4	410	450	33	16
350	14"	580.0		46	42	4	465	510	36	16
400	16"	660.0		50	46	4	535	585	39	16
500	20"	755.0		56	52	4	615	670	42	20

ANSI 150LBS RF BLIND

SIZE		O.D	I.D	Thickness		Raised Face		PCD	Bolt.D	Bolt No.	Weight
DN	INCH	(mm)	(mm)	FULL FLANGE		Thk	OD	(mm)	(mm)		Kg/Pcs
(mm)	(")	D	A	T	i	f	d4	K	d2		
15	½"	89.0		11.1	9.5	1.6	35.0	60.3	15.8	4	0.43
20	¾"	98.5		12.8	11.2	1.6	42.9	69.8	15.8	4	0.62
25	1"	108.0		14.3	12.7	1.6	50.9	79.3	15.8	4	0.87
32	1¼"	117.5		15.9	14.3	1.6	63.6	88.9	15.8	4	1.17
40	1½"	127.1		17.5	15.9	1.6	73.1	98.4	15.8	4	1.55
50	2"	152.5		19.1	17.5	1.6	92.0	120.6	19.0	4	2.43
65	2½"	177.9		22.3	20.7	1.6	104.8	139.7	19.0	4	3.99
80	3"	190.6		23.8	22.2	1.6	127.1	152.4	19.0	4	4.95
100	4"	228.7		23.8	22.2	1.6	157.2	190.5	19.0	8	7.10
125	5"	254.1		23.8	22.2	1.6	185.8	215.9	22.2	8	8.73
150	6"	279.5		25.5	23.9	1.6	216.0	241.3	22.2	8	11.38
200	8"	343.0		28.6	27.0	1.6	269.9	298.4	22.2	8	19.77
250	10"	406.5		30.2	28.6	1.6	323.9	361.9	25.4	12	28.94
300	12"	482.7		31.8	30.2	1.6	381.1	431.8	25.4	12	43.72
350	14"	533.5		35.0	33.4	1.6	412.8	476.2	28.5	12	58.43
400	16"	597.0		36.5	34.9	1.6	470.0	539.7	28.5	16	76.61
450	18"	635.1		39.7	38.1	1.6	533.5	577.8	31.7	16	94.20
500	20"	698.6		42.9	41.3	1.6	584.3	635.0	31.7	20	122.89
550	22"	749.4		46.1	44.5	1.6	641.4	692.1	34.9	20	152.31
600	24"	812.9		47.7	46.1	1.6	692.2	749.3	34.9	20	186.67
750	30"	984.2		54.0	52.4	1.6	857.2	914.4	34.9	28	310.90

ANSI 300LBS RF BLIND

SIZE		O.D	I.D	Thickness		Raised Face		PCD	Bolt.D	Bolt No.	Weight
DN	INCH	(mm)	(mm)	FULL	FLANGE	Thk	OD	(mm)	(mm)		Kg/Pcs
(mm)	(")	D	A	T	i	f	d4	K	d2		
15	½"	95.3		14.3	12.7	1.6	35.0	66.6	15.8	4	0.65
20	¾"	117.5		15.9	14.3	1.6	42.9	82.5	19.0	4	1.11
25	1"	123.9		17.5	15.9	1.6	50.9	88.9	19.0	4	1.40
32	1¼"	133.4		19.1	17.5	1.6	63.6	98.4	19.0	4	1.81
40	1½"	155.6		20.7	19.1	1.6	73.1	114.3	22.2	4	2.69
50	2"	165.2		22.3	20.7	1.6	92.1	127.0	19.0	8	3.22
65	2½"	190.6		25.5	23.9	1.6	104.8	149.2	22.2	8	4.91
80	3"	209.6		28.6	27.0	1.6	127.1	168.2	22.2	8	6.85
100	4"	254.1		31.8	30.2	1.6	157.2	200.0	22.2	8	11.60
125	5"	279.5		35.0	33.4	1.6	185.8	234.9	22.2	8	15.70
150	6"	317.6		36.5	34.9	1.6	216.0	269.8	22.2	12	21.01
200	8"	381.1		41.3	39.7	1.6	269.9	330.2	25.4	12	34.57
250	10"	444.6		47.7	46.1	1.6	323.9	387.3	28.5	16	53.82
300	12"	520.8		50.9	49.3	1.6	381.1	450.8	31.7	16	79.43
350	14"	584.3		54.0	52.4	1.6	412.8	514.3	31.7	20	106.08
400	16"	647.8		57.2	55.6	1.6	470.0	571.5	34.9	20	138.45
450	18"	711.3		60.4	58.8	1.6	533.5	628.6	34.9	24	176.61
500	20"	774.8		63.6	62.0	1.6	584.3	685.8	34.9	24	222.91
600	24"	914.5		69.9	68.3	1.6	692.2	812.8	41.2	24	341.65

ANSI 150LBS SORF

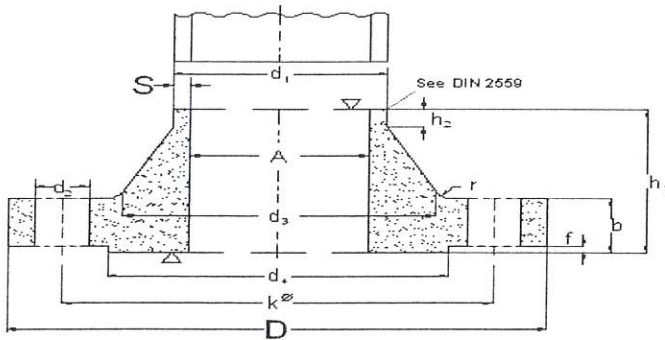
SIZE		O.D	I.D	Thickness		Slip On		Raised Face		PCD	Bolt.D	Bolt No.	Weight
DN	INCH	(mm)	(mm)	FULL	LANG	Thk	OD	Thk	OD	(mm)	(mm)		Kg/Pcs
(mm)	(")	D	A	H	b	L	m	f	g	K	d2		
15	½"	89.0	22.3	15.9	9.5	4.8	30.2	1.6	35.0	60.3	15.8	4	0.40
20	¾"	98.5	27.6	15.9	11.2	3.1	38.2	1.6	42.9	69.8	15.8	4	0.57
25	1"	108.0	34.5	17.5	12.7	3.2	49.2	1.6	50.9	79.3	15.8	4	0.78
32	1¼"	117.5	43.1	20.7	14.3	4.8	58.8	1.6	63.6	88.9	15.8	4	1.05
40	1½"	127.1	49.5	22.3	15.9	4.8	65.1	1.6	73.1	98.4	15.8	4	1.33
50	2"	152.5	61.9	25.5	17.5	6.4	77.8	1.6	92.0	120.6	19.0	4	2.06
65	2½"	177.9	74.6	28.6	20.7	6.3	90.5	1.6	104.8	139.7	19.0	4	3.31
80	3"	190.6	90.6	30.2	22.2	6.4	108.0	1.6	127.1	152.4	19.0	4	3.90
100	4"	228.7	116.0	33.4	22.2	9.6	135.0	1.6	157.2	190.5	19.0	8	5.35
125	5"	254.1	143.7	36.5	22.2	12.7	163.5	1.6	185.8	215.9	22.2	8	6.10
150	6"	279.5	170.6	39.7	23.9	14.2	192.1	1.6	216.0	241.3	22.2	8	7.50
200	8"	343.0	221.4	44.5	27.0	15.9	246.1	1.6	269.9	298.4	22.2	8	12.17
250	10"	406.5	276.3	49.2	28.6	19.0	304.9	1.6	323.9	361.9	25.4	12	16.61
300	12"	482.7	327.1	55.6	30.2	23.8	365.2	1.6	381.1	431.8	25.4	12	26.33
350	14"	533.5	359.1	57.2	33.4	22.2	400.1	1.6	412.8	476.2	28.5	12	34.78
400	16"	597.0	410.4	63.6	34.9	27.1	457.3	1.6	470.0	539.7	28.5	16	45.10
450	18"	635.1	461.7	68.3	38.1	28.6	504.9	1.6	533.5	577.8	31.7	16	49.15
500	20"	698.6	513.0	73.1	41.3	30.2	558.9	1.6	584.3	635.0	31.7	20	62.29
550	22"	749.4	564.3	79.4	44.5	33.3	609.7	1.6	641.4	692.1	34.9	20	72.29
600	24"	812.9	615.9	82.6	46.1	34.9	663.6	1.6	692.2	749.3	34.9	20	87.48
750	30"	984.2	768.3	88.9	52.4	34.9	831.8	1.6	857.2	914.4	34.9	28	135.26

ANSI 300LBS SORF

S I Z E		O.D	I.D	Thickness		Slip On		Raised Face		PCD	Bolt.D	Bolt No.	Weight
DN	INCH	(mm)	(mm)	FULL	FLANGE	Thk	OD	Thk	OD	(mm)	(mm)		Kg/Pcs
(mm)	(")	D	A	H	b	L	m	f	g	K	d2		
15	½"	95.3	22.3	22.3	12.7	8.0	38.2	1.6	35.0	66.6	15.8	4	0.65
20	¾"	117.5	27.6	25.5	14.3	9.6	47.7	1.6	42.9	82.5	19.0	4	1.13
25	1"	123.9	34.5	27.0	15.9	9.5	54.0	1.6	50.9	88.9	19.0	4	1.37
32	1¼"	133.4	43.1	27.0	17.5	7.9	63.6	1.6	63.6	98.4	19.0	4	1.70
40	1½"	155.6	49.5	30.2	19.1	9.5	69.9	1.6	73.1	114.3	22.2	4	2.52
50	2"	165.2	61.9	33.4	20.7	11.1	84.2	1.6	92.1	127.0	19.0	8	2.91
65	2½"	190.6	74.6	38.2	23.9	12.7	100.0	1.6	104.8	149.2	22.2	8	4.38
80	3"	209.6	90.6	42.9	27.0	14.3	117.5	1.6	127.1	168.2	22.2	8	5.90
100	4"	254.1	116.0	47.7	30.2	15.9	146.1	1.6	157.2	200.0	22.2	8	9.72
125	5"	279.5	143.7	50.9	33.4	15.9	177.9	1.6	185.8	234.9	22.2	8	12.31
150	6"	317.6	170.6	52.4	34.9	15.9	206.4	1.6	216.0	269.8	22.2	12	15.75
200	8"	381.1	221.4	61.9	39.7	20.6	260.4	1.6	269.9	330.2	25.4	12	24.41
250	10"	444.6	276.3	66.7	46.1	19.0	320.7	1.6	323.9	387.3	28.5	16	34.37
300	12"	520.8	327.1	73.1	49.3	22.2	374.7	1.6	381.1	450.8	31.7	16	50.26
350	14"	584.3	359.1	76.3	52.4	22.3	425.5	1.6	412.8	514.3	31.7	20	70.11
400	16"	647.8	410.4	82.6	55.6	25.4	482.7	1.6	470.0	571.5	34.9	20	88.89
450	18"	711.3	461.7	89.0	58.8	28.6	533.5	1.6	533.5	628.6	34.9	24	109.46
500	20"	774.8	513.0	95.3	62.0	31.7	587.4	1.6	584.3	685.8	34.9	24	135.23
600	24"	914.5	615.9	106.4	68.3	36.5	701.7	1.6	692.2	812.8	41.2	24	202.83

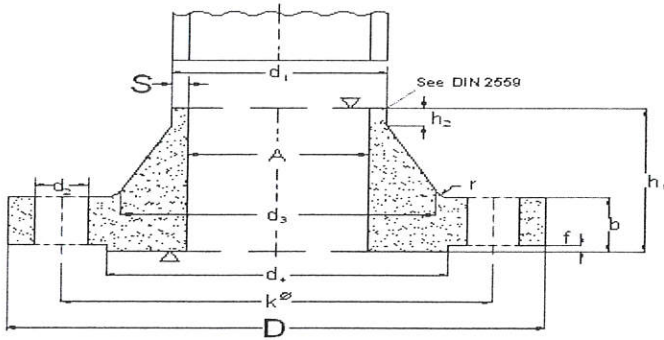
PN16 SORF

SIZE		O.D (mm)	I.D (mm)	Thickness		Slip On		Raised Face		K (mm)	Bolt.D (mm)	Bolt No.	Weight Kgs/Pc
				Full	Flange	Thk	OD	Thk	OD				
DN 15	½"	95	22.3	20	12	6	32	2	45.0	65	14	4	0.61
DN 20	¾"	105	27.7	24	14	8	39	2	58.0	75	14	4	0.89
DN 25	1"	115	34.5	24	14	8	46	2	68.0	85	14	4	1.07
DN 32	1-¼"	140	43.2	26	14	10	56	2	78.0	100	18	4	1.56
DN 40	1-½"	150	49.5	26	13	10	64	3	88.0	110	18	4	1.71
DN 50	2"	165	62.0	28	15	10	74	3	102.0	125	18	4	2.28
DN 65	2-½"	185	74.7	32	15	14	92	3	122.0	145	18	4	2.97
DN 80	3"	200	90.7	34	17	14	110	3	138.0	160	18	8	3.61
DN 100	4"	220	116.1	40	17	20	130	3	158.0	180	18	8	4.05
DN 125	5"	250	143.8	44	19	22	158	3	188.0	210	18	8	5.48
DN 150	6"	285	116.1	44	19	22	184	3	212.0	240	22	8	10.89
DN 200	8"	340	221.5	44	19	22	234	3	268.0	295	22	12	8.35
DN 250	10"	405	276.1	46	23	20	288	3	320.0	355	26	12	12.68
DN 300	12"	460	327.1	46	24	18	342	4	370.0	410	26	12	16.21



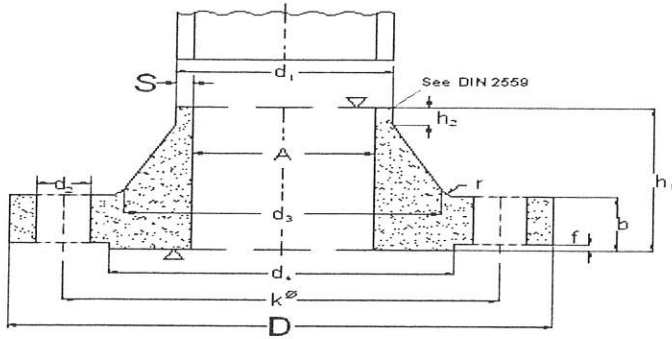
ANSI 150LBS WNRF

SIZE		PIPE		FLANGE					NECK				RAISED FACE		DRILLING		WEIGHT
Inch	DN	d1	D	A	b	b-f	K	h1	h2	d3	s	r	f	d4	nr	d2	UNIT NW
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Kgs
1/2"	15	21.3	89.0	15.8	11.1	9.5	60.3	47.6	6	30.2	2.75	4	1.6	35.0	4	15.8	0.49
3/4"	20	26.7	98.5	20.9	12.8	11.2	69.8	52.4	6	38.1	2.90	4	1.6	42.9	4	15.8	0.73
1"	25	33.5	108.0	26.7	14.3	12.7	79.4	55.6	6	49.2	3.40	4	1.6	50.9	4	15.8	1.04
1 1/4"	32	42.2	117.5	35.1	15.9	14.3	88.9	57.1	6	58.7	3.55	6	1.6	63.6	4	15.8	1.37
1 1/2"	40	48.3	127.1	40.9	17.5	15.9	98.4	61.9	7	65.1	3.70	6	1.6	73.1	4	15.8	1.76
2"	50	60.4	152.5	52.6	19.1	17.5	120.6	63.5	8	77.8	3.90	6	1.6	92.0	4	19.0	2.64
2 1/2"	65	73.1	177.9	62.7	22.3	20.7	139.7	69.8	10	90.5	5.20	6	1.6	104.8	4	19.0	4.19
3"	80	88.9	190.6	78.0	23.8	22.2	152.4	69.8	10	107.9	5.45	8	1.6	127.1	4	19.0	5.01
4"	100	114.3	228.7	102.4	23.8	22.2	190.5	76.2	12	134.9	5.95	8	1.6	157.2	8	19.0	6.99
5"	125	141.2	254.1	128.3	23.8	22.2	215.9	88.9	12	163.5	6.45	8	1.6	185.8	8	22.2	8.79
6"	150	168.4	279.5	154.2	25.5	23.9	241.3	88.9	12	192.1	7.10	10	1.6	216.0	8	22.2	10.87
8"	200	219.2	343.0	202.7	28.6	27.0	298.4	101.6	16	246.1	8.25	10	1.6	269.9	8	22.2	17.86
10"	250	273.0	406.5	254.5	30.2	28.6	361.9	101.6	16	304.8	9.25	12	1.6	323.9	12	25.4	24.35
12"	300	323.8	482.7	304.8	31.8	30.2	431.8	114.3	16	365.1	9.50	12	1.6	381.1	12	25.4	37.30
14"	350	355.6	533.5	336.6	35.0	33.4	476.2	127.0	16	400.0	9.50	12	1.6	412.8	12	28.5	49.47
16"	400	406.4	597.0	387.4	36.5	34.9	539.7	127.0	16	457.2	9.50	12	1.6	470.0	16	28.5	61.17
18"	450	457.2	635.1	438.2	39.7	38.1	577.8	139.7	16	504.8	9.50	12	1.6	533.5	16	31.7	69.58
20"	500	508.0	698.6	489.0	42.9	41.3	635.0	144.5	16	558.8	9.50	12	1.6	584.3	20	31.7	86.01
24"	600	609.6	812.9	590.6	47.7	46.1	749.3	152.4	18	663.6	9.50	12	1.6	692.2	20	34.9	116.95
28"	700	711.2	927.1	692.2	52.4	50.8	863.6	128.6	18	781.0	9.50	12	1.6	793.7	28	34.9	142.14



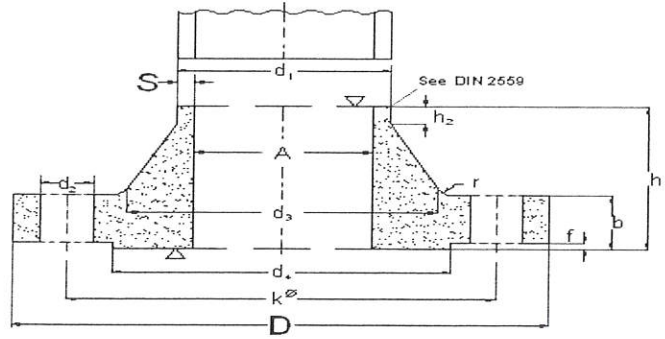
ANSI 300LBS WNRF

SIZE		PIPE		FLANGE				NECK				RAISED FACE		DRILLING		WEIGHT	
		d_1	D	A	b	$b-f$	K	h_1	h_2	d_3	s	r	f	d_4	nr	d_2	UNIT NW
Inch	DN	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Kgs
1/2"	15	21.3	95.3	15.8	14.3	12.7	66.6	52.4	6	38.1	2.75	4	1.6	35.0	4	15.8	0.77
3/4"	20	26.7	117.5	20.9	15.9	14.3	82.5	57.1	6	47.6	2.90	4	1.6	42.9	4	19.0	1.30
1"	25	33.5	123.9	26.7	17.5	15.9	88.9	61.9	6	54.0	3.40	4	1.6	50.9	4	19.0	1.64
1 1/4"	32	42.2	133.4	35.1	19.1	17.5	98.4	65.1	6	63.5	3.55	6	1.6	63.6	4	19.0	2.09
1 1/2"	40	48.3	155.6	40.9	20.7	19.1	114.3	68.3	7	69.8	3.70	6	1.6	73.1	4	22.2	2.98
2"	50	60.4	165.2	52.6	22.3	20.7	127.0	69.8	8	84.1	3.90	6	1.6	92.1	8	19.0	3.50
2 1/2"	65	73.1	190.6	62.7	25.5	23.9	149.2	76.2	10	100.0	5.20	6	1.6	104.8	8	22.2	5.31
3"	80	88.9	209.6	78.0	28.6	27.0	168.2	79.4	10	117.5	5.45	8	1.6	127.1	8	22.2	7.09
4"	100	114.3	254.1	102.4	31.8	30.2	200.0	85.7	12	146.0	5.95	8	1.6	157.2	8	22.2	11.46
5"	125	141.2	279.5	128.3	35.0	33.4	234.9	98.4	12	177.8	6.45	8	1.6	185.8	8	22.2	15.35
6"	150	168.4	317.6	154.2	36.5	34.9	269.8	98.4	12	206.4	7.10	10	1.6	216.0	12	22.2	19.59
8"	200	219.2	381.1	202.7	41.3	39.7	330.2	111.1	16	260.3	8.25	10	1.6	269.9	12	25.4	30.37
10"	250	273.0	444.6	254.5	47.7	46.1	387.3	117.5	16	320.7	9.25	12	1.6	323.9	16	28.5	43.66
12"	300	323.8	520.8	304.8	50.9	49.3	450.8	130.2	16	374.6	9.50	12	1.6	381.1	16	31.7	63.02
14"	350	355.6	584.3	336.6	54.0	52.4	514.3	142.9	16	425.4	9.50	12	1.6	412.8	20	31.7	87.68
16"	400	406.4	647.8	387.4	57.2	55.6	571.5	146.0	16	482.6	9.50	12	1.6	470.0	20	34.9	108.80
18"	450	457.2	711.3	438.2	60.4	58.8	628.6	158.7	16	533.4	9.50	12	1.6	533.5	24	34.9	134.35
20"	500	508.0	774.8	489.0	63.6	62.0	685.8	161.9	16	587.4	9.50	12	1.6	584.3	24	34.9	162.43
24"	600	609.6	914.5	590.6	69.9	68.3	812.8	168.3	18	701.7	9.50	12	1.6	692.2	24	41.2	234.66



PN 16 WNRF SCH40 d1 (pipe) same as ANSI 150LBS

SIZE		PIPE		FLANGE					NECK				RAISED FACE		DRILLING		WEIGHT
DN	Inch	d1	D	A	b	b-f	K	h1	h2	d3	s	r	f	d4	nr	d2	UNIT NW
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Kgs
15	½"	21.3	95	15.8	14	12	65	35	6	32	2.75	4	2	45	4	14	0.67
20	¾"	26.7	105	20.9	16	14	75	38	6	40	2.90	4	2	58	4	14	0.97
25	1"	33.5	115	26.7	16	14	85	38	6	45	3.40	4	2	68	4	14	1.17
32	1¼"	42.2	140	35.1	16	14	100	40	6	56	3.55	6	2	78	4	18	1.70
40	1½"	48.3	150	40.9	16	13	110	42	7	64	3.70	6	3	88	4	18	1.90
50	2"	60.4	165	52.6	18	15	125	45	8	75	3.90	6	3	102	4	18	2.57
65	2½"	73.1	185	62.7	18	15	145	45	10	90	5.20	6	3	122	4	18	3.29
80	3"	88.9	200	78.0	20	17	160	50	10	105	5.45	8	3	138	8	18	4.09
100	4"	114.3	220	102.4	20	17	180	52	12	131	5.95	8	3	158	8	18	4.77
125	5"	141.2	250	128.3	22	19	210	55	12	156	6.45	8	3	188	8	18	6.49
150	6"	168.4	285	154.2	22	19	240	55	12	184	7.10	10	3	212	8	22	8.03
200	8"	219.2	340	202.7	24	21	295	62	16	235	8.25	10	3	268	12	22	11.68
250	10"	273.0	405	254.5	26	23	355	70	16	292	9.25	12	3	320	12	26	17.34
300	12"	323.8	460	304.8	28	24	410	78	16	344	9.50	12	4	378	12	26	22.89
350	14"	355.6	520	336.6	30	26	470	82	16	390	9.50	12	4	438	16	26	32.71
400	16"	406.4	580	387.4	32	28	525	85	16	445	9.50	12	4	490	16	30	40.90
450	18"	457.2	640	438.2	34	30	585	85	16	490	9.50	12	4	550	20	30	48.75
500	20"	508.0	715	489.0	34	30	650	90	16	548	9.50	12	4	610	20	33	61.83
600	24"	609.6	840	590.6	36	31	770	95	18	652	9.50	12	5	725	20	36	84.44



PN 40 WNRF SCH40 d1 (pipe) same as ANSI 150LBS

SIZE		PIPE		FLANGE					NECK				RAISED FACE		DRILLING		WEIGHT
		d1	D	A	b	b-f	K	h1	h2	d3	s	r	f	d4	nr	d2	UNIT NW
Inch	DN	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Kgs
1/2"	15	21.3	95	15.8	16	14	65	38	6	32	2.75	4	2	45	4	14	0.77
3/4"	20	26.7	105	20.9	18	16	75	40	6	40	2.90	4	2	58	4	14	1.09
1"	25	33.5	115	26.7	18	16	85	40	6	45	3.40	4	2	68	4	14	1.32
1 1/4"	32	42.2	140	35.1	18	16	100	42	6	56	3.55	6	2	78	4	18	1.92
1 1/2"	40	48.3	150	40.9	18	15	110	45	7	64	3.70	6	3	88	4	18	2.15
2"	50	60.4	165	52.6	20	17	125	48	8	75	3.90	6	3	102	4	18	2.87
2 1/2"	65	73.1	185	62.7	22	19	145	52	10	90	5.20	6	3	122	8	18	3.91
3"	80	88.9	200	78.0	24	21	160	58	12	105	5.45	8	3	138	8	18	4.93
4"	100	114.3	235	102.4	24	21	190	65	12	134	5.95	8	3	162	8	22	6.72
5"	125	141.2	270	128.3	26	23	220	68	12	162	6.45	8	3	188	8	26	9.14
6"	150	168.4	300	154.2	28	25	250	75	12	192	7.10	10	3	218	8	26	12.15
8"	200	219.2	375	202.7	34	31	320	88	16	244	8.25	10	3	285	12	30	21.54
10"	250	273.0	450	254.5	38	35	385	105	18	306	9.25	12	3	345	12	33	35.10
12"	300	323.8	515	304.8	42	38	450	115	18	362	9.50	12	4	410	16	33	48.33
14"	350	355.6	580	336.6	46	42	510	125	20	408	9.50	12	4	465	16	36	69.10
16"	400	406.4	660	387.4	50	46	585	135	20	462	9.50	12	4	535	16	39	95.70
18"	450	457.2	685	438.2	50	46	610	135	20	500	9.50	12	4	560	20	39	90.83
20"	500	508.0	755	489.0	52	48	670	140	20	562	9.50	12	4	615	20	42	114.16
24"	600	609.6	890	590.6	72	67	795	150	20	666	9.50	12	5	735	20	48	195.41