

**LEAD VALVE**

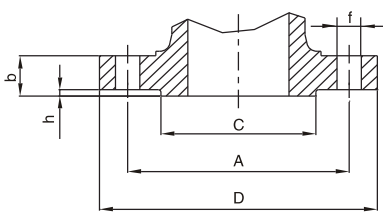
**PRODUCTS DATA SHEET**

**LEAD VALVE CO.,LTD.**

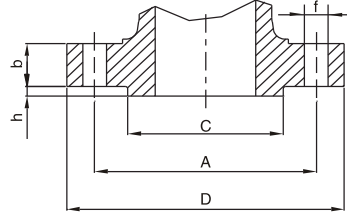
- Ball Valve
- Gate Valve
- Globe Valve
- Check Valve
- Forged Valve
- DIN Valve

## Flanges Dimensions—ASME B16.5

### Sizes 1/2" ÷ 24"—CALSSSES 150 ÷ 2500



Class 150 & 300



Class 600 & OVER

DN=Nominal pipe size(inches)  
 D=Outside diameter of flange  
 b<sup>\*</sup>=thickness of flange min.  
 C=Diameter of hub  
 h=Height of raised face  
 N=Number of bolt holes  
 f=Diameter of bolt holes  
 A=Diameter of bolt circle  
 RJ=Groove number

<sup>\*</sup>Raised face included for ANSI Class 150–300  
 Raised face not included for ANSI Class 600–900

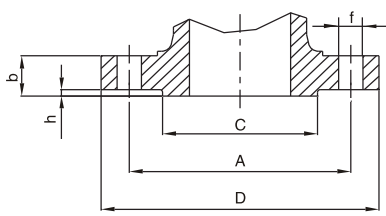
CLASS	DN	D	b	C	h	N	f	A	RJ
150	1/2"	89	11.1	34.9	1.60	4	15	60.3	
300	1/2"	95	14.3	34.9	1.60	4	15	66.7	–
600	1/2"	95	14.3	34.9	6.35	4	15	66.7	11
900–1500	1/2"	121	22.2	34.9	6.35	4	22	82.5	11
150	3/4"	98.4	12.7	42.9	1.60	4	15	69.8	12
300	3/4"	118	15.9	42.9	1.60	4	48	82.5	
600	3/4"	118	15.9	42.9	6.35	4	18	82.5	13
900–1500	3/4"	130	25.4	42.9	6.35	4	22	88.9	13
150	1"	108	14.3	50.8	1.60	4	15	79.4	14
300	1"	124	17.5	50.8	1.60	4	19	88.9	15
600	1"	124	17.5	50.8	6.35	4	19	88.9	16
900–1500	1"	149	28.6	50.8	6.35	4	25	102	16
150	1 1/4"	118	15.9	63.5	1.60	4	15	88.9	16
300	1 1/4"	133	19	63.5	1.60	4	18	98.4	17
600	1 1/4"	133	20.6	63.5	6.35	4	18	98.4	18
900–1500	1 1/4"	159	28.6	63.5	6.35	4	26	111	18
150	1 1/2"	127	17.5	73	1.60	4	15	98.4	18
300	1 1/2"	156	20.6	73	1.60	4	22	114	19
600	1 1/2"	156	22.2	73	6.35	4	22	114	20
900–1500	1 1/2"	178	31.8	73	6.35	4	30	124	20
150	2"	152	19	92.1	1.60	4	19	121	20
300	2"	165	22.2	92.1	1.60	8	18	127	22
600	2"	165	25.4	92.1	6.35	8	18	127	23
900–1500	2"	216	38.1	92.1	6.35	8	26	165	23
2500	2"	235	50.8	92.1	6.35	8	29	171	24
150	2 1/2"	178	22.2	105	1.60	4	19	140	26
300	2 1/2"	191	25.4	105	1.60	8	22	149	25
600	2 1/2"	191	28.6	105	6.35	8	22	149	26
900–1500	2 1/2"	245	41.3	105	6.35	8	30	191	26
2500	2 1/2"	267	57.2	105	6.35	8	32	197	27
150	3"	191	23.8	127	1.60	4	19	152	28
300	3"	210	28.6	127	1.60	8	22	168	29
600	3"	210	31.8	127	6.35	8	22	168	31
900	3"	241	38.1	127	6.35	8	25	191	31
1500	3"	267	47.6	127	6.35	8	32	203	35
2500	3"	305	66.7	127	6.35	8	34.9	229	32
150	4"	229	23.8	157	1.60	4	19	191	36
300	4"	254	31.7	157	1.60	8	22	200	37
600	4"	273	38.1	157	6.35	8	26	216	37
900	4"	292	44.45	157	6.35	8	32	235	37
1500	4"	311	54	157	6.35	8	35	241	39
2500	4"	356	76.2	157	6.35	8	41	273	38
150	5"	254	23.8	186	1.60	4	22	216	40
300	5"	279	34.9	186	1.60	8	22	235	41
600	5"	330	44.4	186	6.35	8	28	267	41
900	5"	349	50.8	186	6.35	8	36	279	41
1500	5"	375	73	186	6.35	8	42	292	44
2500	5"	416	92.1	186	6.35	8	48	324	42

CLASS	DN	D	b	C	h	N	f	A	RJ
150	6"	279	25.4	216	1.6	8	22	241	43
300	6"	318	36.5	216	1.6	12	22	270	45
600	6"	356	47.6	216	6.35	12	30	292	45
900	6"	381	55.6	216	6.35	12	32	318	45
1500	6"	394	82.6	216	6.35	12	39	318	46
2500	6"	483	108	216	6.35	8	54	368	47
150	8"	343	28.6	270	1.6	8	22	298	48
300	8"	381	41.3	270	1.6	12	26	330	49
600	8"	419	55.6	270	6.35	12	32	349	49
900	8"	470	63.5	270	6.35	12	39	394	49
1500	8"	483	92.1	270	6.35	12	45	394	50
2500	8"	552	127	270	6.35	12	54	438	51
150	10"	406	30.2	324	1.6	12	25	362	52
300	10"	445	47.6	324	1.6	16	28.6	387	53
600	10"	508	63.5	324	6.35	16	36	432	53
900	10"	546	69.8	324	6.35	16	38.1	470	53
1500	10"	584	108	324	6.35	12	52	483	54
2500	10"	673	165	324	6.35	12	67	540	55
150	12"	483	31.7	381	1.6	12	26	432	56
300	12"	521	50.8	381	1.6	16	32	451	57
600	12"	559	66.7	381	6.35	20	36	490	57
900	12"	610	79.4	381	6.35	20	39	533	57
1500	12"	673	124	381	6.35	16	55	572	58
2500	12"	762	184	381	6.35	12	73	619	60
150	14"	533	34.9	413	1.6	12	29	476	59
300	14"	584	54	413	1.6	20	32	514	61
600	14"	603	69.8	413	6.35	20	39	527	61
900	14"	641	85.7	413	6.35	20	42	559	62
1500	14"	749	133	413	6.35	16	60	635	63
150	16"	597	36.5	470	1.6	16	28	540	64
300	16"	648	57.2	470	1.6	20	36	572	65
600	16"	686	76.2	470	6.35	20	42	603	65
900	16"	705	88.9	470	6.35	20	45	616	66
1500	16"	826	146	470	6.35	16	65	705	67
150	18"	635	39.7	533	1.6	16	32	578	68
300	18"	711	60.3	533	1.6	24	36	629	69
600	18"	743	82.6	533	6.35	20	45	654	69
900	18"	787	102	533	6.35	20	52	686	70
1500	18"	914	162	533	6.35	16	75	775	71
150	20"	699	42.9	584	1.6	20	32	635	72
300	20"	775	63.5	584	1.6	24	36	686	73
600	20"	813	88.9	584	6.35	24	45	724	73
900	20"	857	108	584	6.35	20	55	749	74
1500	20"	984	178	584	6.35	16	80	832	75
150	24"	813	47.6	692	1.6	20	36	749	76
300	24"	914	69.8	692	1.6	24	42	813	77
600	24"	940	102	692	6.35	24	52	838	77
900	24"	1041	140	692	6.35	20	65	902	78
1500	24"	1168	203	692	6.35	16	93	991	79

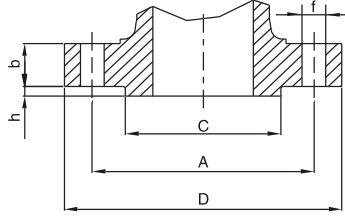
All dimensions in mm(except where differently indicated)

All data,subject to technical changes,are only for information and not for official use.

## Large Diameter Steel Flanges—Series A ASME B16.47—MSS SP—44 Sizes 26" ÷ 48"—CLASSES 150 ÷ 900



Class 150 & 300



Class 600 & OVER

DN=Nominal pipe size(inches)  
 D=Outside diameter of flange  
 b<sup>\*</sup>=thickness of flange min.  
 C=Diameter of hub  
 h=Height of raised face  
 N=Number of bolt holes  
 f=Diameter of bolt holes  
 A=Diameter of bolt circle  
 RJ=Groove number

<sup>\*</sup>Raised face included for ANSI Class 150–300  
 Raised face not included for ANSI Class 600–900

CLASS	DN	D	b	C	h	N	f	A	RJ
150	26"	870	68.3	749	1.6	24	35.1	806	
300	26"	972	79.2	749	1.6	28	44.5	876	93
600	26"	1016	108.0	749	1.6	28	50.8	914	93
900	26"	1086	139.7	953	1.6	20	73.2	953	100
150	28"	927	71.4	800	1.6	28	35.1	864	
300	28"	1035	85.9	800	1.6	28	44.5	940	94
600	28"	1073	111.3	800	1.6	28	53.8	965	94
900	28"	1168	142.7	1022	1.6	20	79.2	1022	101
150	30"	984	74.7	857	1.6	28	35.1	914	
300	30"	1092	91.9	857	1.6	28	47.8	997	95
600	30"	1130	114.3	857	1.6	28	53.8	1022	95
900	30"	1232	149.4	1086	1.6	20	79.2	1086	102
150	32"	1060	81.0	914	1.6	28	41.1	978	
300	32"	1149	98.6	914	1.6	28	50.8	1054	96
600	32"	1194	117.3	914	1.6	28	60.5	1080	96
900	32"	1314	158.8	1156	1.6	20	85.9	1156	103
150	34"	1111	82.6	965	1.6	32	41.1	1029	
300	34"	1207	101.6	965	1.6	28	50.8	1105	97
600	34"	1245	120.7	965	1.6	28	60.5	1130	97
900	34"	1397	165.1	1226	1.6	20	91.9	1226	104
150	36"	1168	90.4	1022	1.6	32	41.1	1086	
300	36"	1270	104.6	1022	1.6	32	53.8	1168	98
600	36"	1314	124.0	1022	1.6	28	66.5	1194	98
900	36"	1461	171.5	1289	1.6	20	91.9	1289	105

CLASS	DN	D	b	C	h	N	f	A	RJ
150	38"	1238	87.4	1073	1.6	32	41.1	1149	
300	38"	1168	108.0	1029	1.6	32	41.1	1092	
600	38"	1270	152.4	1054	1.6	28	60.5	1162	
900	38"	1461	190.5	1289	1.6	20	91.9	1289	
150	40"	1289	90.4	1124	1.6	36	41.1	1200	
300	40"	1238	114.3	1086	1.6	32	44.5	1156	
600	40"	1321	158.8	1111	1.6	32	60.5	1213	
900	40"	1511	196.9	1340	1.6	24	91.9	1340	
150	42"	1346	96.8	1194	1.6	36	41.1	1257	
300	42"	1289	119.1	1137	1.6	32	44.5	1207	
600	42"	1403	168.1	1168	1.6	28	66.5	1283	
900	42"	1562	206.2	1391	1.6	24	91.9	1391	
150	44"	1403	101.6	1245	1.6	40	41.1	1314	
300	44"	1353	124.0	1194	1.6	32	47.8	1264	
600	44"	1454	173.0	1226	1.6	32	66.5	1334	
900	44"	1648	214.4	1464	1.6	24	98.6	1464	
150	46"	1454	103.1	1295	1.6	40	41.1	1365	
300	46"	1416	128.5	1245	1.6	28	50.8	1321	
600	46"	1511	179.3	1276	1.6	32	66.5	1391	
900	46"	1734	225.6	1537	1.6	24	105	1537	
150	48"	1511	108.0	1359	1.6	44	41.1	1422	
300	48"	1467	133.4	1302	1.6	32	50.8	1372	
600	48"	1594	189.0	1334	1.6	32	73.2	1461	
900	48"	1784	233.4	1588	1.6	24	105	1588	

### Flanges Facing Finish

#### NOMINAL ROUGHNESS GRADES(R) FOR ROUGHNESS COMPARISON SPECIMENS—ASME B46.1

µm	µin.
0.006	0.025
0.0125	0.5
0.025	1
0.05	2
0.1	4
0.2	8
0.4	16
0.5	32
1.6	63
3.2	125
6.3	250
12.5	500
25	1000
50	2000
100	4000
200	8000
400	16000

The finish of contact faces of pipe flanges and connecting end flanges of fittings shall be judged by visual comparison with Ra standards.

#### ASME B16.5

##### TONGUE AND GROOVE—SMALL MALE AND FEMALE

The gasket contact surface shall not exceed 125 microinches (3.2 micrometers) roughness.

##### RING JOINT

the side wall surface of gasket groove shall not exceed 63 microinches (1.6 micrometers) roughness.

##### OTHER FLANGE FACINGS

either a serrated concentric or serrated spiral finish having a resultant surface finish from 125 microinches to 250 microinches (3.2 to 6.3 micrometers) average roughness.

#### MSS SP—6—STEEL

##### FLAT OR 1/6(1.6MM) RAISED FACE AND 1/4(6.4MM) RAISED AND LARGE MALE & FEMALE

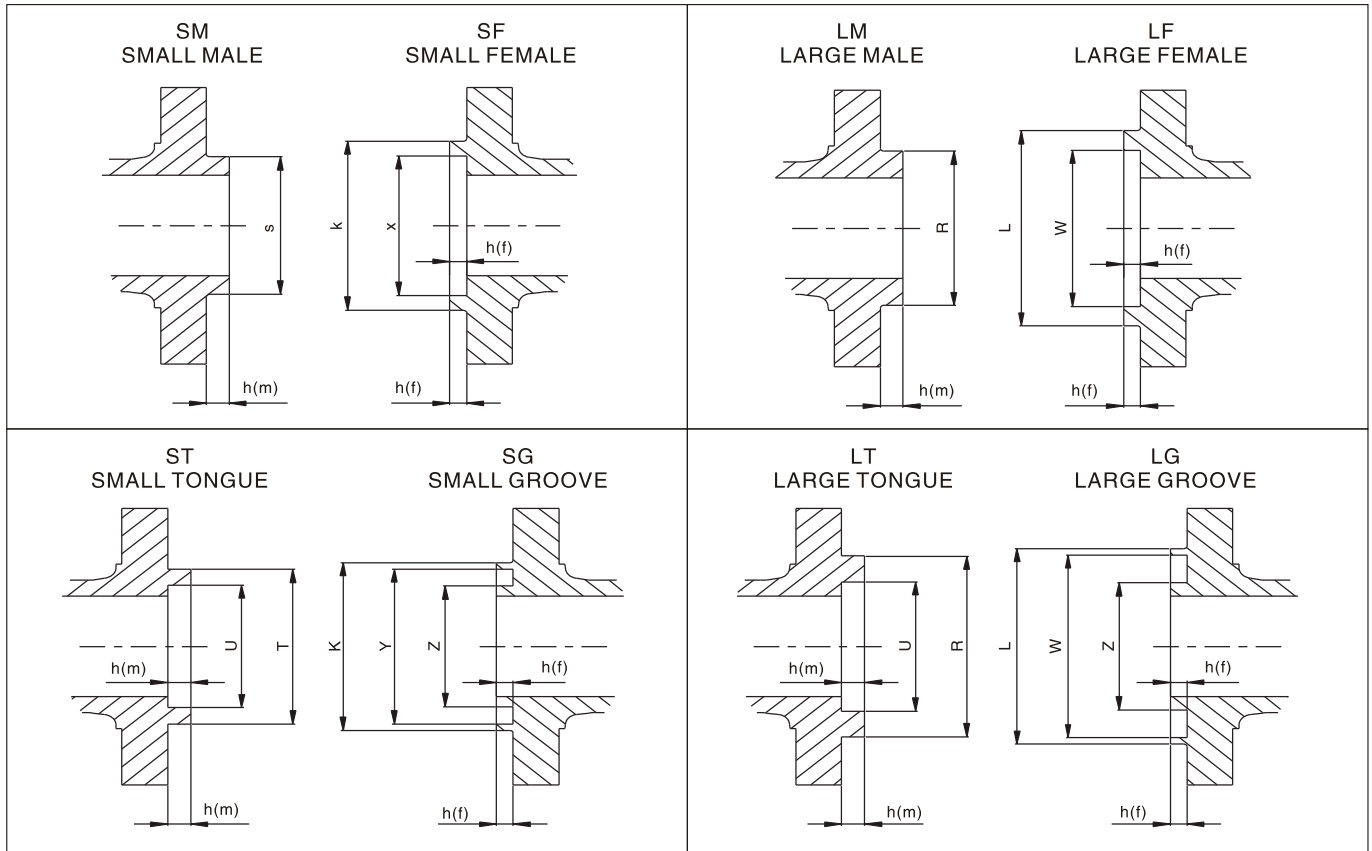
serrated: spiral or concentric, 45 to 55 per inch (18 to 21 per cm). Surface finish shall have a 125 to 250 microinches (3.2 to 6.3 micrometers) Ra.

SMALL MALE & FEMALE, LARGE & SMALL TONGUE & GROOVE serrated( as above) or non-serrated: 125 microinches (3.2 micrometers) Ra max.

##### RING JOINT

non-serrated: 63 microinches (1.6 micrometers) Ra max. According to ASME B46.1.

## End Flange Facings—ASME B16.05



## Face to Face Dimensions—ASME B16.10

Class	RF	MALE	FEMALE
150/300	SEE CATALOGUE	RF+13mm	RF+10mm
600/900/1500	SEE CATALOGUE	RF	RF-30mm

## Dimensions of Facing(mm)

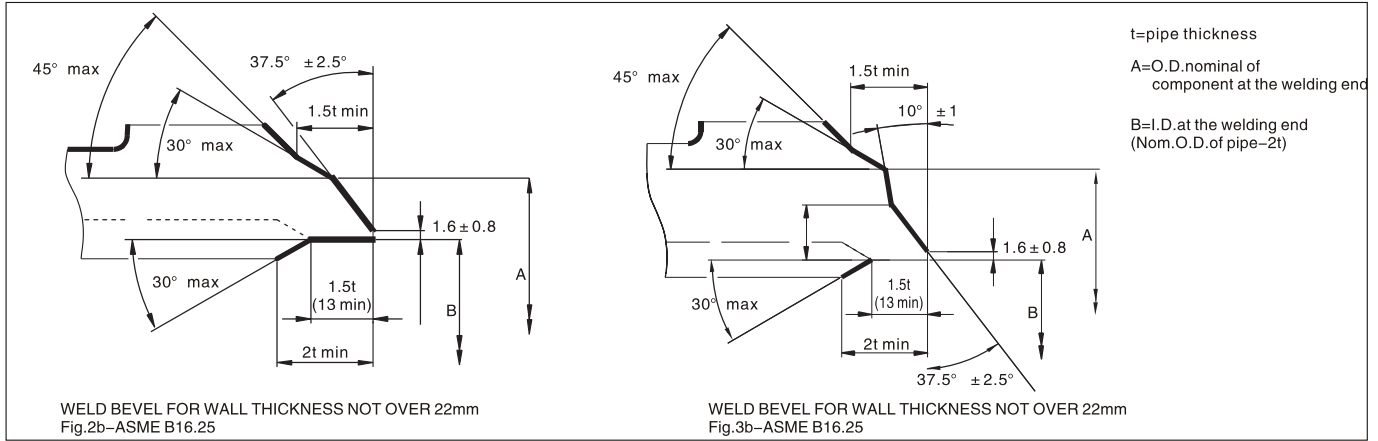
Nominal pipe size (inches)	Outside Diameter			INT. DIAM.	Outside Diameter			INT. DIAM.	Raised face height		Depth of groove or female	Outside diameter of raised portion	
	Raised face, lapped, large male and large tongue	Small male ★★	Small tongue		Large and small tongue	Large female and large groove	Small female		Small groove	Large and small groove ★★		150 and 300 Lbs. Class	Large and small male and tongue 400/2500 Lbs. Class
	R	S	T	U	W	X	Y	Z	h	h(m)	h(f)	k	L
1"1/2	73.1	44.4	63.5	53.8	74.6	45.9	65	52.3	1.6	6.35	4.8	84.1	84.1
2"	91.8	57.1	82.5	73.1	93.7	58.7	84.1	71.4	1.6	6.35	4.8	103.1	103.1
2"1/2	104.6	68.3	95.2	85.8	106.4	69.8	96.8	84.1	1.6	6.35	4.8	115.8	115.8
3"	127.0	84.1	117.3	107.9	128.5	85.8	119.1	106.4	1.6	6.35	4.8	138.2	138.2
4"	157.2	109.5	144.5	131.8	158.7	111.2	146.0	130.0	1.6	6.35	4.8	168.1	168.1
5"	185.7	136.6	173.0	160.3	187.4	138.1	174.7	158.7	1.6	6.35	4.8	196.8	196.8
6"	215.9	162.0	203.2	190.5	217.5	163.5	204.7	188.9	1.6	6.35	4.8	227.0	227.0
8"	269.7	212.8	254.0	238.2	271.5	214.3	255.5	236.5	1.6	6.35	4.8	281.0	281.0
10"	323.8	266.7	304.8	285.7	325.4	268.2	306.3	284.2	1.6	6.35	4.8	335.0	335.0
12"	381.0	317.5	361.9	342.9	382.5	319.0	363.5	341.3	1.6	6.35	4.8	392.1	392.1
14"	412.7	349.2	393.7	374.6	414.6	350.8	395.3	373.1	1.6	6.35	4.8	423.9	423.9
16"	469.9	400.0	447.5	425.4	471.4	401.6	449.3	423.9	1.6	6.35	4.8	481.0	481.0
18"	533.4	450.8	511.0	488.9	535.0	452.4	512.8	487.4	1.6	6.35	4.8	544.5	544.5
20"	584.2	501.6	558.8	533.4	585.7	503.2	560.3	531.8	1.6	6.35	4.8	595.3	595.3
24"	692.1	603.2	666.7	641.3	693.7	604.8	668.8	639.8	1.6	6.35	4.8	703.3	703.3

Large male and female faces and large tongue and groove are not applicable to class 150 because of potential dimensions conflict.

## Butt Welding Ends–ASME B16.25

### Socket Welding Ends–aSME B16.11

### Butt Welding Ends–ASME B16.25



DN (inches)	Nom. pipe O.D.	A (1)	Wall thickness of pipe												
			sch.20	sch.30	sch.std	sch.40	sch.60	sch.xs	sch.80	sch.100	sch.120	sch.140	sch.160	sch.xxs	
1 1/2	48.3	n.a.			3.68	3.68		5.08	5.08					7.14	10.16
2"	60.3	n.a.			3.91	3.91		5.54	5.54					8.74	11.07
2 1/2	73.0	75			5.16	5.16		7.01	7.01					9.52	14.02
3"	88.9	91			5.49	5.49		7.62	7.62					11.13	15.24
4"	114.3	117			6.02	6.02		8.56	8.56		11.13			13.49	17.12
5"	141.3	144			6.55	6.55		9.52	9.52		12.70			15.58	19.05
6"	168.3	172			7.11	7.11		10.97	10.97		14.27			18.26	21.95
8"	219.1	223	6.35	7.04	8.18	8.18	10.31	12.70	12.70	15.09	18.26	20.62	23.01	22.22	
10"	273.0	278	6.35	7.80	9.27	9.27	12.70	12.70	15.09	18.26	21.44	25.40	28.58	25.40	
12"	323.8	329	6.35	8.38	9.52	10.31	14.27	12.70	17.48	21.44	25.40	28.57	33.32		
14"	355.6	362	7.92	9.52	9.52	11.12	15.09	12.70	19.05	23.83	27.76	31.75	35.71		
16"	406.4	413	7.92	9.52	9.52	12.70	16.66	12.70	21.44	26.19	30.94	36.52	40.46		
18"	457.2	464	7.92	11.16	9.52	14.27	19.05	12.70	23.83	29.36	34.92	39.67	45.24		
20"	508.0	516	9.52	12.70	9.52	15.06	20.62	12.70	26.19	32.54	38.10	44.45	49.99		
24"	609.6	619	9.52	14.27	9.52	17.45	24.59	12.70	30.94	38.89	46.02	52.37	59.51		

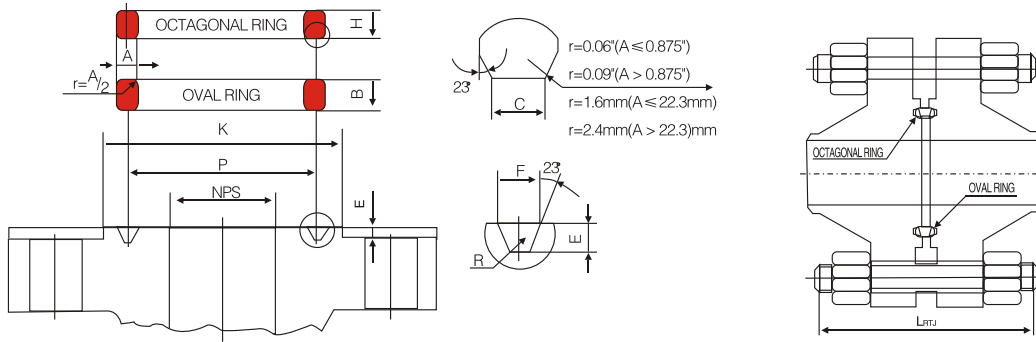
( 1 ) the diameters listed are not requirements

### Socket Welding Ends–ASME B16.11 (not for auxiliary connections–see ASME B16.34)

DN mm	Nominal pipe size (inches)	B mm (min.)	J mm (min.)	Class 3000 Sch.80		Class 6000 Sch.160		Class 9000 Wall Des.XXS	
				C mm (min.)	D mm (min.)	C mm (min.)	D mm (min.)	C mm (min.)	D mm (min.)
6	1/8"	10.8	9.5	3.18	6.1	3.43	3.2	-	-
8	1/4"	14.2	9.5	3.30	8.5	4.01	5.6	-	-
10	3/8"	17.6	9.5	3.50	11.8	4.37	8.4	-	-
15	1/2"	21.8	9.5	4.09	15.0	5.18	11.0	5.94	5.6
20	3/4"	27.2	12.5	4.27	20.2	6.04	14.8	6.93	10.3
25	1"	33.9	12.5	4.98	25.9	6.93	19.9	7.95	14.4
32	1 1/4	42.7	12.5	5.28	34.3	9.93	28.7	8.91	22.0
40	1 1/2	48.8	12.5	5.54	40.1	7.80	33.2	10.89	27.2
50	2"	61.2	16.0	6.04	51.7	9.50	42.1	-	37.4
65	2 1/2	73.9	16.0	7.67	61.2	-	-	-	-
80	3"	89.8	16.0	8.30	76.4	-	-	-	-
100	4"	115.2	16.0	9.35	100.7	-	-	-	-



## Ring-Joint Flanged Ends



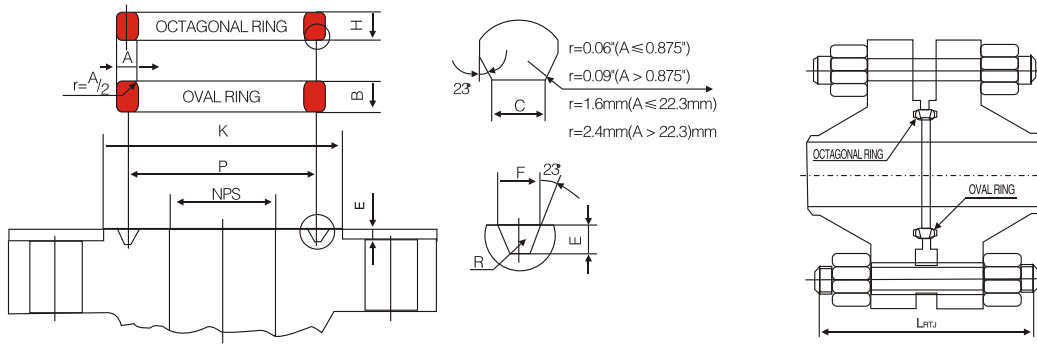
## Ring-Joint Flanged Ends

1		2		4		5		6		7		8		9		10		11		12		13		14		15		16		17		
ANSI Class-Lb								Annular Groove														150Lb		300Lb 600Lb		900Lb		1500Lb		2500Lb		
150 300 600 900 1500 2500 NPS								No	P		E		F		R		K															
									in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
								R22	3.250	82.55	0.250	6.35	0.344	8.74	0.03	0.76	4.00	101.60														
		2	2					R23	3.250	82.55	0.312	7.92	0.469	11.91	0.03	0.76			4.25	107.95									4.50	114.30		
					2			R24	3.750	95.25	0.312	7.92	0.469	11.91	0.03	0.76											4.88	123.95				
						2		R26	4.000	101.60	0.312	7.92	0.469	11.91	0.03	0.76			5.00	127.00									5.25	133.35		
2 1/2								R25	4.000	101.60	0.250	6.35	0.344	8.74	0.03	0.76	4.75	120.65														
	2 1/2	2 1/2						R26	4.000	101.60	0.312	7.92	0.469	11.91	0.03	0.76			5.00	127.00									5.25	133.35		
					2 1/2			R27	4.250	107.95	0.312	7.92	0.469	11.91	0.03	0.76											5.38	136.65				
						2 1/2		R28	4.375	111.13	0.375	9.53	0.531	13.49	0.03	0.76													5.88	149.35		
3								R29	4.500	114.30	0.250	6.35	0.344	8.74	0.03	0.76	5.25	133.35														
	3	3	3					R31	4.875	123.83	0.312	7.92	0.469	11.91	0.03	0.76			5.75	146.05	6.12	155.45										
						3		R32	5.000	127.00	0.375	9.53	0.531	13.49	0.06	1.52												6.62	168.15			
4								R36	5.875	149.23	0.250	6.35	0.344	8.74	0.03	0.76	6.75	171.45														
	4	4	4					R37	5.875	149.23	0.312	7.92	0.469	11.91	0.03	0.76			6.88	174.75	7.12	180.85										
					4			R38	6.188	157.18	0.438	11.13	0.656	16.66	0.06	1.52													8.00	203.20		
						4		R39	6.375	161.93	0.312	7.92	0.469	11.91	0.03	0.76											7.62	193.55				
5								R40	6.750	171.45	0.250	6.35	0.344	8.74	0.03	0.76	7.62	193.55														
	5	5	5					R41	7.125	180.98	0.312	7.92	0.469	11.91	0.03	0.76			8.25	209.55	8.50	215.90										
						5		R42	7.500	190.50	0.500	12.70	0.781	19.84	0.06	1.52												9.50	241.30			
							5	R44	7.625	193.68	0.312	7.92	0.469	11.91	0.03	0.76											9.00	228.60				
6								R43	7.625	193.68	0.250	6.35	0.344	8.74	0.03	0.76	8.62	218.95														
	6	6	6					R45	8.312	211.12	0.312	7.92	0.469	11.91	0.03	0.76			9.50	241.30	9.50	241.30										
					6			R46	8.312	211.12	0.375	9.53	0.531	13.49	0.06	1.52											9.75	247.65				
						6		R47	9.000	228.60	0.500	12.70	0.781	19.84	0.06	1.52													11.00	279.40		
8								R48	9.750	247.65	0.250	6.35	0.344	8.74	0.03	0.76	10.75	273.05														
	8	8	8					R49	10.625	269.88	0.312	7.92	0.469	11.91	0.03	0.76			11.88	301.75	12.12	307.85										
					8			R50	10.625	269.88	0.438	11.13	0.656	16.66	0.06	1.52													12.50			
						8		R51	11.000	279.40	0.562	14.27	0.906	23.01	0.06	1.52													13.38	339.85		

A) please to see FLANGED ENDS for other connection dimension.  
 B) flange metal ring gasket of the matching flange ASME B16.20  
 C) For the specification of NPS 2-21/2' of 900Lb will adopt the dimensions of 1500Lb.  
 D) the length LRTJ of the double-end bolt don't include the terminal length.



## Ring-Joint Flanged Ends



## Ring-Joint Flanged Ends

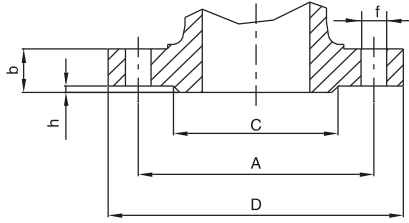
1		2		4		5		6		7		8		25		26		27		28		29		30		31		32		33		34											
ANSI Class-Lb												Metal joint ring										150Lb		300Lb		600Lb		900Lb		1500Lb		2500Lb											
150		300		600		900		1500		2500		No		A		B		H		C		LRTJ																					
NPS												in		mm		in		mm		in		mm		in		mm		in		mm		in		mm		in		mm		in		mm	
2												R22	0.313	7.95	0.56	14.22	0.50	12.70	0.206	5.23	3.75	95.25																					
		2		2								R23	0.438	11.13	0.69	17.53	0.63	16.00	0.305	7.75		4.00	101.60	4.25	107.95																		
						2						R24	0.438	11.13	0.69	17.53	0.63	16.00	0.305	7.75										5.75	146.05												
						2						R26	0.438	11.13	0.69	17.53	0.63	16.00	0.305	7.75												7.00	177.80										
2 1/2												R25	0.313	7.95	0.56	14.22	0.50	12.70	0.206	5.23	4.00	101.60																					
		2 1/2		2 1/2								R26	0.438	11.13	0.69	17.53	0.63	16.00	0.305	7.75		4.50	114.30	4.75	120.65							7.00	177.80										
						2 1/2						R27	0.438	11.13	0.69	17.53	0.63	16.00	0.305	7.75										6.25	158.75												
						2 1/2						R28	0.500	12.70	0.56	14.22	0.69	17.53	0.341	8.66													8.00	203.20									
3												R29	0.313	7.95	0.69	17.53	0.50	12.70	0.206	5.23	4.00	101.60																					
		3		3								R31	0.438	11.13	0.69	17.53	0.63	16.00	0.305	7.75		4.75	120.65	5.00	127.00	5.75	146.05																
						3						R32	0.500	12.70	0.75	19.05	0.69	17.53	0.341	8.66												9.00	228.60										
						3						R35	0.438	11.13	0.69	17.53	0.63	16.00	0.305	7.75									7.00	177.80													
4												R36	0.313	7.95	0.56	14.22	0.50	12.70	0.206	5.23	4.00	101.60																					
		4		4								R37	0.438	11.13	0.69	17.53	0.63	16.00	0.305	7.75		5.00	127.50	5.75	146.05	6.75	171.45																
						4						R38	0.625	15.88	0.88	22.35	0.81	20.57	0.413	10.49												10.25	260.35										
						4						R39	0.438	11.13	0.69	17.53	0.63	16.00	0.305	7.75									7.75	196.85													
5												R40	0.313	7.95	0.56	14.22	0.50	12.70	0.206	5.23	4.25	107.95																					
		5		5								R41	0.438	11.13	0.69	17.53	0.63	16.00	0.305	7.75		5.25	133.35	6.50	165.10	7.50	190.50																
						5						R42	0.750	19.05	1.00	25.40	0.94	23.88	0.485	12.32												12.25	311.15										
						5						R44	0.438	11.13	0.69	17.53	0.63	16.00	0.305	7.75									9.75	247.65													
6												R43	0.313	7.95	0.56	14.22	0.50	12.70	0.206	5.23	4.50	114.30																					
		6		6								R45	0.438	11.13	0.69	17.53	0.63	16.00	0.305	7.75		5.50	139.70	6.75	171.45	7.75	196.85																
						6						R46	0.500	12.70	0.75	19.05	0.69	17.53	0.341	8.66												14.00	355.60										
						6						R47	0.750	19.05	1.00	25.40	0.94	23.88	0.485	12.32									10.50	266.70													
8												R48	0.313	7.95	0.56	14.22	0.50	12.70	0.206	5.23	4.75	120.65																					
		8		8								R49	0.438	11.13	0.69	17.53	0.63	16.00	0.305	7.75		6.00	152.40	7.75	196.85	8.75	222.25																
						8						R50	0.625	15.88	0.88	22.35	0.81	20.57	0.413	10.49										12.75	323.85												
						8						R51	0.875	22.23	1.13	28.70	1.06	26.92	0.583	14.81											15.50	393.70											

A). Please to see FLANGED ENDS for other connection dimension.  
 b). Flange metal ring gasket of the matching flange ASME B16.20  
 c). For the specification of NPS 2-2 1/2' of 900Lb will adopt the dimensions of 1500Lb.  
 D). The length LRTJ of the double-end bolt don't include the terminal length.





## DIN Flanges Dimensions DN10 ÷ DN300



DN=Nominal pipe size  
 D=Outside diameter of flange  
 b=thickness of flange min.  
 C=Diameter of hub  
 h=Height of raised face  
 N°=Number of bolt holes  
 f=Diameter of bolt holes  
 A=Diameter of bolt circle

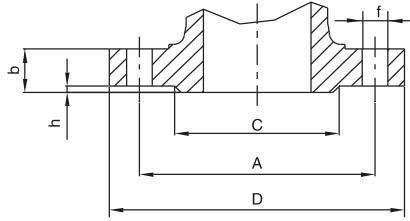
PN	DN	D	b	C	h	N°	f	A
6	10	75	12	35	2	4	11	50
10-16	10	90	14	40	2	4	14	60
25-40	10	90	16	40	2	4	14	60
64-100	10	100	20	40	2	4	14	70
160	10	100	20	40	2	4	15	70
250	10	125	24	40	2	4	18	85
6	15	80	12	40	2	4	11	55
10-16	15	95	14	45	2	4	14	65
25-40	15	95	16	45	2	4	14	65
64-100	15	105	20	45	2	4	14	75
160	15	105	20	45	2	4	15	75
250	15	130	26	45	2	4	18,5	90
6	20	90	14	50	2	4	11	65
10-16	20	105	16	58	2	4	14	75
25-40	20	105	18	58	2	4	14	75
64-100	20	130	24	58	2	4	18	90
160	25	100	14	60	2	4	11	75
250	25	115	16	68	2	4	14	85
6	25	115	18	68	2	4	14	85
10-16	25	140	24	68	2	4	18	100
25-40	25	140	24	68	2	4	18	100
64-100	25	150	28	68	2	4	19	105
160	32	120	14	70	2	4	14	90
250	32	140	16	78	2	4	18	100
6	32	140	18	78	2	4	18	100
10-16	32	155	24	78	2	4	22	110
25-40	40	130	14	80	3	4	14	100
64-100	40	150	16	88	3	4	18	110
160	40	150	18	88	3	4	18	110
250	40	170	26	85	3	4	22	125
6	40	170	28	88	3	4	22	125
10-16	40	185	34	88	3	4	25	135
25-40	50	140	14	90	3	4	14	110
64-100	50	165	18	102	3	4	18	125
160	50	165	20	102	3	4	18	125
250	50	180	26	102	3	4	22	135
6	50	195	28	102	3	4	26	145
10-16	50	195	30	102	3	4	26	145
25-40	50	200	38	102	3	4	26	150
64-100	65	160	14	110	3	4	14	130
160	65	185	18	122	3	4	18	145
250	65	185	22	122	3	8	18	145
6	65	205	26	120	3	8	22	160
10-16	65	220	30	120	3	8	26	170
25-40	65	220	34	122	3	8	26	180
64-100	65	230	42	122	3	8	30	180
160	80	190	16	128	3	4	18	150
250	80	200	20	138	3	8	18	160
6	80	200	20	138	3	8	18	160
10-16	80	200	24	138	3	8	18	160
25-40	80	215	28	138	3	8	22	170
64-100	80	230	32	138	3	8	24	180
160	80	230	36	138	3	8	40	180
250	80	255	46	138	3	8	31	200

PN	DN	D	b	C	h	N°	f	A
6	100	210	16	148	3	4	18	170
10-16	100	220	20	158	3	8	18	180
25-40	100	235	24	162	3	8	22	190
64	100	250	30	162	3	8	26	200
100	100	265	40	162	3	8	30	210
160	100	300	54	162	3	8	34	235
250	125	265	36	162	3	8	30	210
6	125	240	18	178	3	8	18	200
10-16	125	250	22	188	3	8	18	210
25-40	125	270	26	188	3	8	26	220
64	125	295	34	188	3	8	30	240
100	125	315	40	188	3	8	33	250
160	125	315	44	188	3	8	33	250
250	125	340	60	188	3	12	41	275
6	150	265	18	202	3	8	18	225
10-16	150	285	22	212	3	8	22	240
25-40	150	300	25	218	3	8	26	250
64	150	345	36	218	3	8	33	280
100	150	355	44	218	3	12	33	290
160	150	355	50	218	3	12	33	290
250	150	390	68	218	3	12	48	320
6	175	295	20	232	3	8	18	255
10-16	175	315	24	242	3	8	22	270
25	175	330	28	248	3	12	26	280
40	175	350	32	260	3	12	30	295
64	175	375	40	260	3	12	33	310
100	175	385	48	260	3	12	33	320
160	175	390	54	260	3	12	36	320
250	175	430	74	260	3	12	50	355
6	200	320	20	258	3	8	18	280
10	200	340	24	268	3	8	22	295
16	200	340	24	268	3	12	22	295
25	200	360	30	278	3	12	26	310
40	200	375	34	285	3	12	30	320
64	200	415	42	285	3	12	36	345
100	200	430	52	285	3	12	36	360
160	200	430	60	285	3	12	36	360
250	200	485	82	285	3	12	57	400
6	250	375	22	312	3	12	18	335
10	250	395	26	320	3	12	22	350
16	250	405	26	320	3	12	26	355
25	250	425	32	335	3	12	30	370
40	250	450	38	345	3	12	33	385
64	250	470	46	345	3	12	36	400
100	250	505	60	345	3	12	39	430
160	250	515	68	345	3	12	42	430
250	250	585	100	345	3	16	72	490
6	300	440	22	365	4	12	22	395
10	300	445	26	370	4	12	22	400
16	300	460	28	378	4	12	26	410
25	300	485	34	390	4	16	30	430
40	300	515	42	410	4	16	33	450
64	300	530	52	410	4	16	36	460
100	300	585	68	410	4	16	42	500
160	300	585	78	410	4	16	42	500
250	300	690	120	410	4	16	90	590

All dimensions in mm(except where differently indicated)

All data,subject to technical changes,are only for information and not for official use.

## DIN Flanges Dimensions DN350 ÷ DN1200



DN=Nominal pipe size  
 D=Outside diameter of flange  
 b=thickness of flange min.  
 C=Diameter of hub  
 h=Height of raised face  
 N=Number of bolt holes  
 f=Diameter of bolt holes  
 A=Diameter of bolt circle

PN	DN	D	b	C	h	N°	f	A
6	350	490	22	415	4	12	22	445
10	350	505	26	430	4	16	22	460
16	350	520	30	438	4	16	26	470
25	350	555	38	450	4	16	33	490
40	350	580	46	465	4	16	36	510
64	350	600	56	465	4	16	39	525
100	350	655	74	465	4	16	48	560
6	400	540	22	465	4	16	22	495
10	400	565	26	482	4	16	26	515
16	400	580	32	490	4	16	30	525
25	400	620	40	505	4	16	36	550
40	400	660	50	535	4	16	39	585
64	400	670	60	535	4	16	42	585
100	400	715	78	535	4	16	48	620
6	450	595	22	520	4	16	22	550
10	450	615	26	532	4	20	26	565
16	450	640	32	550	4	20	30	585
25	450	670	40	555	4	20	36	600
40	450	685	50	560	4	20	39	610
64	450	715	64	560	4	20	42	630
100	450	770	86	560	4	20	48	675
6	500	645	24	570	4	20	22	600
10	500	670	28	585	4	20	26	620
16	500	715	36	610	4	20	33	650
25	500	730	44	615	4	20	36	660
40	500	755	52	615	4	20	42	670
64	500	800	68	615	4	20	48	705
100	500	870	94	615	4	20	56	760
6	600	755	24	670	5	20	26	705
10	600	780	28	685	5	20	30	725
16	600	840	40	725	5	20	36	770
25	600	845	46	720	5	20	39	770
40	600	890	54	735	5	20	48	795
64	600	930	76	735	5	20	56	820
100	600	990	104	735	5	20	62	875

PN	DN	D	b	C	h	N°	f	A
6	700	860	24	775	5	24	25	810
10	700	895	30	800	5	24	30	840
16	700	910	42	795	5	24	36	840
25	700	960	50	820	5	24	42	875
40	700	995	64	840	5	24	48	900
64	700	1045	84	840	5	24	56	935
100	700	1145	120	840	5	24	70	1020
6	800	975	24	880	5	24	30	920
10	800	1015	32	905	5	24	33	950
16	800	1025	42	900	5	24	39	950
25	800	1085	64	930	5	24	48	990
40	800	1165	72	960	5	24	62	1050
64	800	1165	92	960	5	24	62	1050
100	800	n.a	n.a	n.a	n.a	n.a	n.a	n.a
6	900	1075	26	980	5	24	30	1020
10	900	1115	34	1005	5	28	33	1050
16	900	1125	44	1000	5	28	39	1050
25	900	1185	68	1030	5	28	48	1090
40	900	1250	78	1070	5	28	56	1140
64	900	1285	98	1070	5	28	62	1170
100	900	n.a	n.a	n.a	n.a	n.a	n.a	n.a
6	1000	1175	26	1080	5	28	30	1120
10	1000	1230	34	1110	5	28	36	1160
16	1000	1255	46	1115	5	28	42	1170
25	1000	1320	62	1140	5	28	56	1210
40	1000	1360	80	1180	5	28	56	1250
64	1000	1415	108	1180	5	28	70	1290
100	1000	n.a	n.a	n.a	n.a	n.a	n.a	n.a
6	1200	1405	28	1295	5	32	33	1340
10	1200	1455	38	1330	5	32	39	1380
16	1200	1485	52	1330	5	32	48	1390
25	1200	1530	70	1350	5	32	56	1420
40	1200	1575	88	1380	5	32	62	1460
64	1200	1665	126	1380	5	32	78	1530
100	1200	n.a	n.a	n.a	n.a	n.a	n.a	n.a

## Flanges–types of Contact Surfaces–DIN 2526



FLANGES WITH RAISED FACE



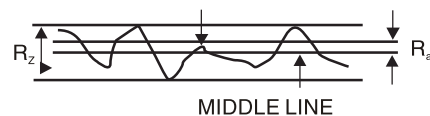
FLANGES WITHOUT RAISED FACE

- Type A–Contact face without stipulation
- Type B–Contact face  $R_z=160$ , turned (not finer than 40 micron)
- Type C–Raised face  $R_z=160$ (not finer than 40 micron)
- Type D–Raised face  $R_z=40$ , turned
- Type E–Raised face  $R_z=16$ , turned

### NOMINAL ROUGHNESS GRADES ( $R_a$ )

$R_a$ ( $\mu\text{m}$ )	$R_z$ ( $\mu\text{m}$ )
1.6	16
3.2	25
6.3	40
12.5	100
25	160

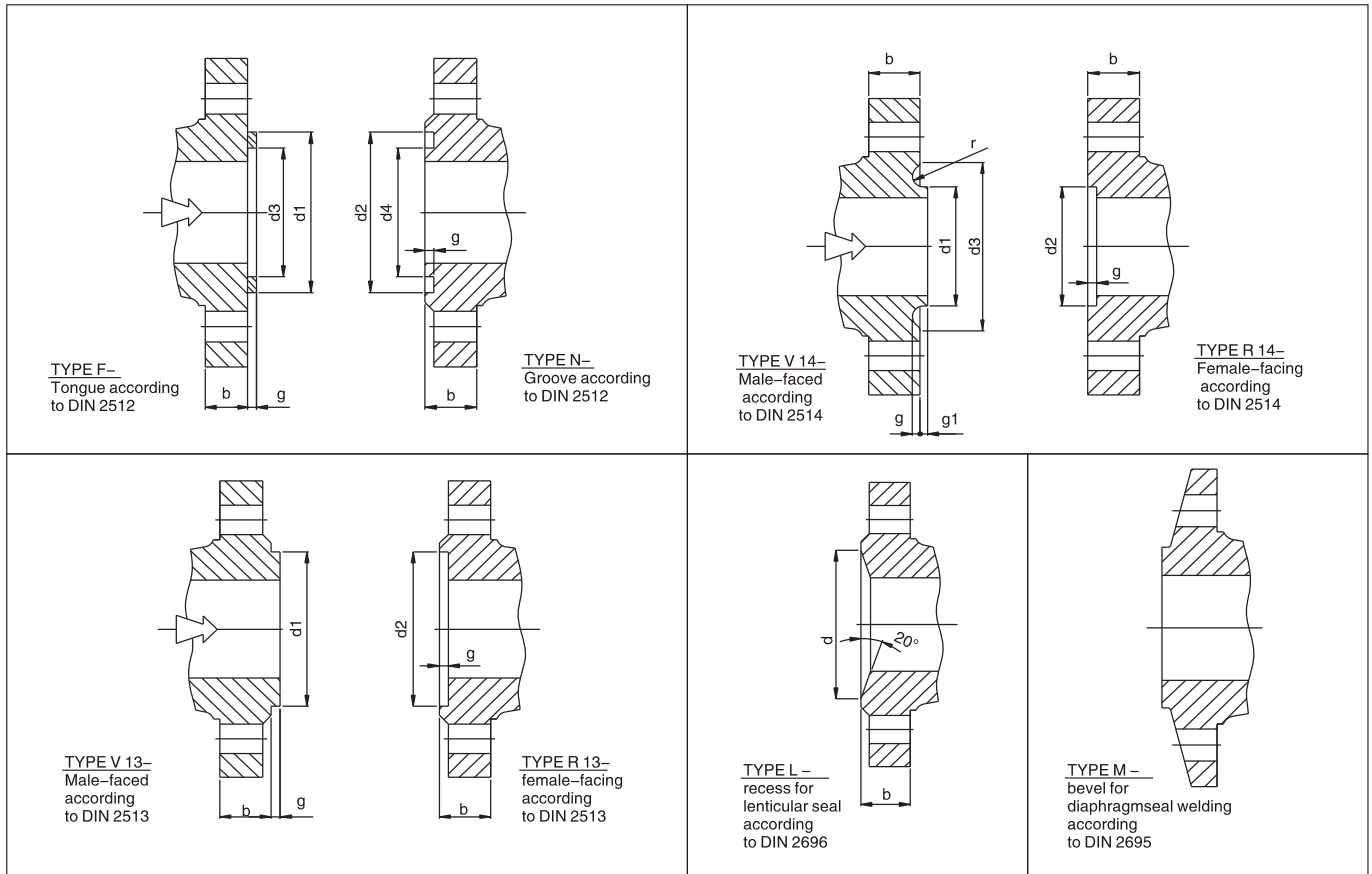
ROUGHNESS PROFILE



All dimensions in mm(except where differently indicated)

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## End Flange Facings–DIN 2526



## Dimensions of Facing

DN	DIN 2513				g	DIN 2512								DN	DIN 2514						Lenticular Seal DIN 2696	DN	
	PN ≤ 6		PN ≥ 10			PN ≤ 6				PN ≥ 10					PN 10 ÷ 40						PN 64:250		
	d1	d2	d1	d2		d1	d2	d3	d4	d1	d2	d3	d4		d1	d2	d3	g	g1	r			D
10	30	31	34	35	4	30	31	22	21	34	35	24	23	4	10	-	-	-	-	-	-	18	10
15	35	36	39	40	4	35	36	27	26	39	40	29	28	4	15	-	-	-	-	-	-	24	15
20	42	43	50	51	4	42	43	32	31	50	51	36	35	4	20	35	36	51	4	2	2.5	30	20
25	49	50	57	58	4	49	50	39	38	57	58	43	42	4	25	42	43	58	4	2	2.5	35	25
32	61	62	65	66	4	61	62	49	48	65	66	51	50	4	32	50	51	66	4	2	2.5	43	32
40	68	69	75	76	4	68	69	56	55	75	76	61	60	4	40	60	61	76	4	2	2.5	51	40
50	81	82	87	88	4	81	82	69	68	87	88	73	72	4	50	72	73	88	4	2	2.5	63	50
65	101	102	109	110	4	101	102	89	88	109	110	95	94	4	65	94	95	110	4	2	2.5	85	65
80	117	118	120	121	4	117	118	103	102	120	121	106	105	4	80	105	106	121	4	2	2.5	97	80
100	137	138	149	150	4.5	137	138	123	122	149	150	129	128	4.5	100	128	129	150	4.5	2.5	3	124	100
125	165	166	175	176	4.5	165	166	149	148	175	176	155	154	4.5	125	154	155	176	4.5	2.5	3	153	125
150	192	193	203	204	4.5	192	193	176	175	203	204	183	182	4.5	150	182	183	204	4.5	2.5	3	181	150
175	222	223	233	234	4.5	222	223	206	205	233	234	213	212	4.5	175	212	213	234	4.5	2.5	3	218	175
200	249	250	259	260	4.5	249	250	231	230	259	260	239	238	4.5	200	238	239	260	4.5	2.5	3	243	200
250	304	305	312	313	4.5	304	305	286	285	312	313	292	291	4.5	250	291	292	313	4.5	2.5	3	298	250
300	354	355	363	364	4.5	354	355	336	335	363	364	343	342	4.5	300	342	343	364	4.5	2.5	3	345	300
350	401	402	421	422	5	401	402	381	380	421	422	395	394	5	350	394	395	422	5	3	3.5	394	350
400	451	452	473	474	5	451	452	431	430	473	474	447	446	5	400	446	447	474	5	3	3.5	445	400
450	505	506	523	524	5	505	506	481	480	523	524	497	496	5	450	496	497	524	5	3	3.5	450	450
500	555	556	575	576	5	555	556	531	530	575	576	549	548	5	500	548	549	576	5	3	3.5	500	500
600	655	656	675	676	5	655	656	631	630	675	676	649	648	5	600	648	649	676	5	3	3.5	600	600
700	760	761	777	778	5	760	761	736	735	777	778	751	750	5	700	750	751	778	5	3	3.5	700	700
800	865	866	882	883	5	865	866	841	840	882	883	856	855	5	800	855	856	883	5	3	3.5	800	800
900	965	966	987	988	5	965	966	941	940	987	988	961	960	5	900	960	961	988	5	3	3.5	900	900
1000	1062	1063	1091	1092	6	1062	1063	1036	1035	1091	1092	1061	1060	6	1000	1060	1061	1092	6	3	4	1000	1000

All dimensions in mm(except where differently indicated)

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