

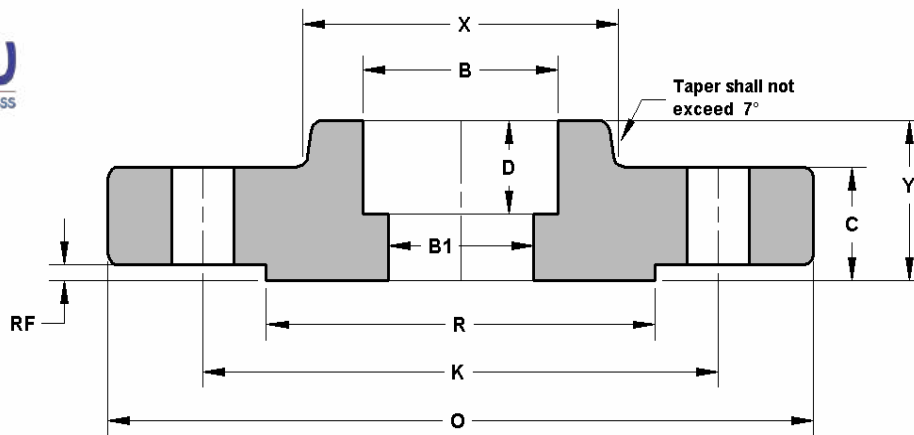
ANSI FLANGES

B 16.5

SOCKET WELDING FLANGES

STD 150 Lbs

ANSI / ASME B 16.5



Dimensions are in mm.

Cod.	DN	O	C	X	K	Y	RF	R	B	B1	D	Ø FORI HOLES	N. FORI HOLES	Kg. APPROX
FSSW15021	1/2	88.9	11.1	30.2	60.4	15.7	1.5	35.0	22.3	15.7	9.6	15.7	4	0.4
FSSW15027	3/4	98.5	12.7	38.1	69.8	15.7	1.5	42.9	27.6	20.8	11.1	15.7	4	0.7
FSSW15033	1"	107.9	14.2	49.2	79.2	17.5	1.5	50.8	34.5	26.6	12.7	15.7	4	0.8
FSSW15042	1"1/4	117.3	15.7	58.6	88.9	20.5	1.5	63.5	43.1	35.0	14.2	15.7	4	1.1
FSSW15048	1"1/2	127.0	17.5	65.0	98.5	22.3	1.5	73.1	49.5	40.8	15.7	15.7	4	1.4
FSSW15060	2"	152.4	19.0	77.7	120.6	25.4	1.5	91.9	61.9	52.5	17.5	19.0	4	2.2
FSSW15073	2"1/2	177.8	22.3	90.4	139.7	28.4	1.5	104.6	74.6	62.7	19.0	19.0	4	3.6
FSSW15089	3"	190.5	23.8	107.9	152.4	30.2	1.5	127.0	90.6	77.9	20.5	19.0	4	4.1

SOCKET WELDING FLANGES

STD 300 Lbs

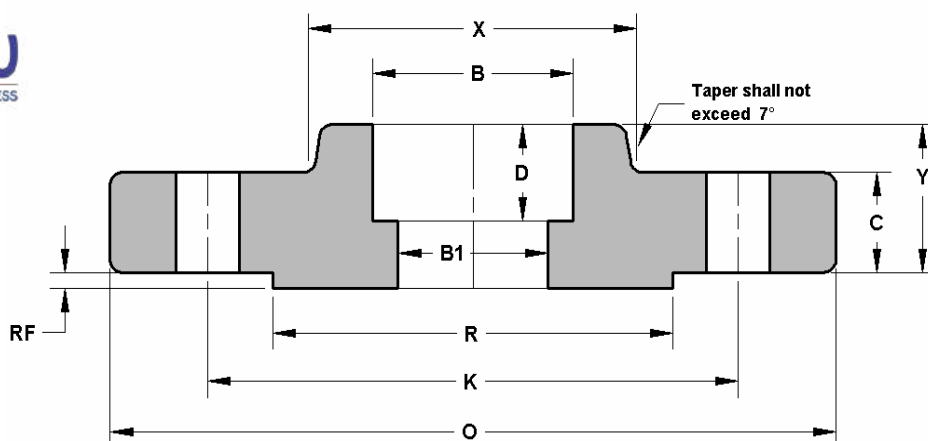
ANSI / ASME B 16.5

FSSW30021	1/2	95.2	14.2	38.1	66.5	22.3	1.5	35.0	22.3	15.7	9.6	15.7	4	0.7
FSSW30027	3/4	117.3	15.7	47.7	82.5	25.4	1.5	42.9	27.6	20.8	11.1	19.0	4	1.2
FSSW30033	1"	123.9	17.5	53.8	88.9	26.9	1.5	50.8	34.5	26.6	12.7	19.0	4	1.4
FSSW30042	1"1/4	133.3	19.0	63.5	98.5	26.9	1.5	63.5	43.1	35.0	14.2	19.0	4	1.9
FSSW30048	1"1/2	155.4	20.5	69.8	114.3	30.2	1.5	73.1	49.5	40.8	15.7	22.3	4	2.8
FSSW30060	2"	165.1	22.3	84.0	127.0	33.2	1.5	91.9	61.9	52.5	17.5	19.0	8	3.3
FSSW30073	2"1/2	190.5	25.4	100.0	149.3	38.1	1.5	104.6	74.6	62.7	19.0	22.3	8	4.6
FSSW30089	3"	209.5	28.4	117.3	168.1	42.9	1.5	127.0	90.6	77.9	20.5	22.3	8	6.3

SOCKET WELDING FLANGES

STD 600 Lbs

ANSI / ASME B 16.5



Dimensions are in mm.

Cod.	DN	O	C	X	K	Y	RF	R	B	B1	D	Ø FORI HOLES	N. FORI HOLES	Kg. APPROX
FSSW60021	1/2	95.2	14.2	38.1	66.5	22.3	6.3	35.0	22.3	15.7	9.6	15.7	4	1.0
FSSW60027	3/4	117.3	15.7	47.7	82.5	25.4	6.3	42.9	27.6	20.8	11.1	19.0	4	1.6
FSSW60033	1"	123.9	17.5	53.8	88.9	26.9	6.3	50.8	34.5	26.6	12.7	19.0	4	1.8
FSSW60042	1"1/4	133.3	20.5	63.5	98.5	28.4	6.3	63.5	43.1	35.0	14.2	19.0	4	2.6
FSSW60048	1"1/2	155.4	22.3	69.8	114.3	31.7	6.3	73.1	49.5	40.8	15.7	22.3	4	3.3
FSSW60060	2"	165.1	25.4	84.0	127.0	36.5	6.3	91.9	61.9	52.5	17.5	19.0	8	3.9
FSSW60073	2"1/2	190.5	28.4	100.0	149.3	41.1	6.3	104.6	74.6	62.7	19.0	22.3	8	6.0
FSSW60089	3"	209.5	31.7	117.3	168.1	45.9	6.3	127.0	90.6	77.9	20.5	22.3	8	7.4

SOCKET WELDING FLANGES

1500 Lbs

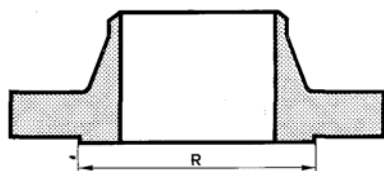
ANSI / ASME B 16.5

FSSW150021	1/2	120.6	22.3	38.1	82.5	31.7	6.3	35.0	22.3		9.6	22.3	4	1.7
FSSW150027	3/4	130.0	25.4	44.4	88.9	35.0	6.3	42.9	27.6		11.1	22.3	4	2.4
FSSW150033	1"	149.3	28.4	52.3	101.6	41.1	6.3	50.8	34.5		12.7	25.4	4	3.5
FSSW150042	1"1/4	158.7	28.4	63.5	111.2	41.1	6.3	63.5	43.1		14.2	25.4	4	4.0
FSSW150048	1"1/2	177.8	31.7	69.8	123.9	44.4	6.3	73.1	49.5		15.7	28.4	4	5.5
FSSW150060	2"	215.9	38.1	104.6	165.1	57.1	6.3	91.9	61.9		17.5	25.4	8	10.0
FSSW150073	2"1/2	244.3	41.1	123.9	190.5	63.5	6.3	104.6	74.6		19.0	28.4	8	13.9
FSSW150089	3"	266.7	47.7	133.3	203.2		6.3	127.0				31.7	8	

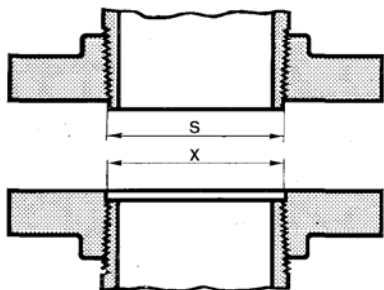
FINITURA FACCE DI CONTATTO FLANGES FACINGS



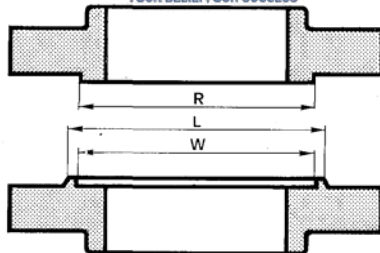
ANSI / ASME B 16.5



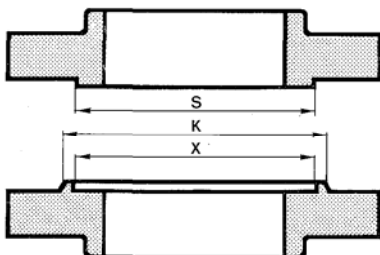
FACCIA A SEMPLICE RISALTO
RAISED FACE



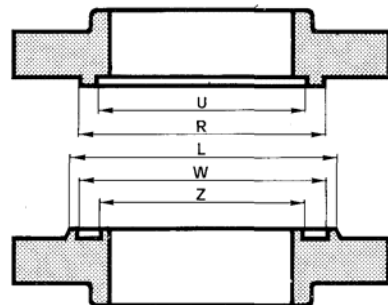
INCAMERATURA SEMPLICE STRETTA
(sulla estremità del tubo)
SMALL MALE AND FEMALE
(on end of pipe)



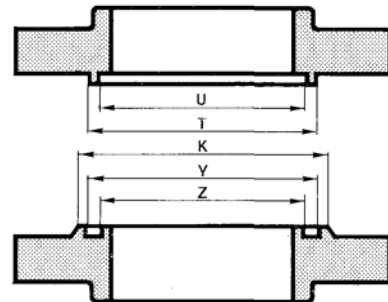
INCAMERATURA SEMPLICE LARGA
LARGE MALE AND FEMALE



INCAMERATURA SEMPLICE STRETTA
SMALL MALE AND FEMALE



INCAMERATURA DOPPIA LARGA
LARGE TONGUE AND GROOVE



INCAMERATURA DOPPIA STRETTA
SMALL TONGUE AND GROOVE

Dimensions in mm.

DN	R	S	T	U	W	X	Y	Z	K	L
1/2	34.9	18.3	35.1	25.4	36.5	19.9	36.5	23.8	44	46
3/4	42.4	23.8	42.9	33.3	44.4	25.4	44.4	31.8	52	54
1"	50.8	30.2	47.8	38.1	52.4	31.8	49.2	36.5	57	62
1"1/4	63.5	38.1	57.2	47.6	65.1	39.7	58.7	46.0	67	75
1"1/2	73.0	44.4	63.5	54.0	74.6	46.0	65.1	52.4	73	84
2"	92.1	57.2	82.6	73.0	93.7	58.8	84.1	71.4	92	103
2"1/2	104.8	68.3	95.2	85.7	106.4	69.8	96.8	84.1	105	116
3"	127.0	84.1	117.5	108.0	128.6	85.7	119.1	106.4	127	138
3"1/2	139.7	96.8	130.2	120.6	141.3	98.4	131.8	119.1	140	151
4"	157.2	109.5	144.5	131.8	158.8	111.1	146.0	130.2	157	168
5"	185.7	136.5	173.0	160.3	187.3	138.1	174.6	158.8	186	197
6"	215.9	161.9	203.2	190.5	217.5	163.5	204.8	188.9	216	227
8"	269.9	212.7	254.0	238.1	271.5	214.3	255.6	236.5	270	281
10"	323.8	266.7	304.8	285.8	325.4	268.3	306.4	284.2	324	335
12"	381.0	317.5	362.0	342.9	382.6	319.1	363.5	341.3	381	392
14"	412.8	349.2	393.7	374.6	414.3	350.8	395.3	373.1	413	424
16"	469.9	400.0	447.5	425.4	471.5	401.6	449.3	423.9	470	481
18"	533.4	450.8	511.2	489.0	535.0	452.4	512.8	487.4	533	544
20"	584.2	501.6	558.8	533.4	585.8	503.2	560.4	531.8	584	595
24"	692.2	603.2	666.8	641.4	693.7	604.8	668.3	639.8	692	703

Le flange classe 150 e 300 sono normalmente fornite con mm. 2 di risalto incluso nello spessore minimo della flangia.

Le flange classe 400-600-900-1500-2500 sono normalmente fornite con mm. 7 di risalto aggiunto allo spessore minimo della flangia.

L'altezza del maschio è mm. 7

La profondità dell'incameratura femmina è mm. 5

L'incameratura larga non è applicabile alle flange classe 150.

Class 150 and 300 are regularly furnished with 2 mm. raised face which is included in the minimum flange thickness.

Class 400-600-900-1500-2500 flanges are regularly furnished with 7 mm. raised faces which is additional to the minimum flange thickness.

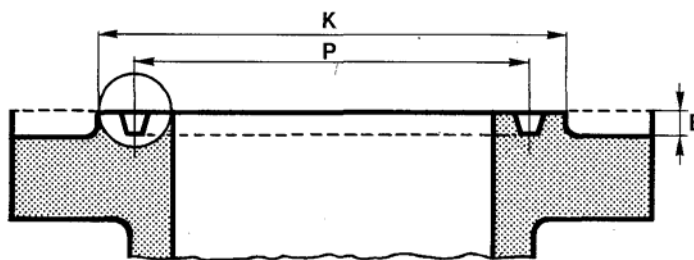
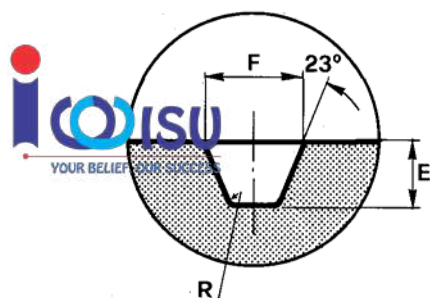
Height of large or small male and tongues is 7 mm.

Depth of groove or female is 5 mm.

Large male and female faces and large tongue and groove are not applicable to 150 class flanges.

DIMENSIONI SCANALATURE RING-JOINT DIMENSIONS OF RING-JOINT FACINGS

ANSI / ASME B 16.5

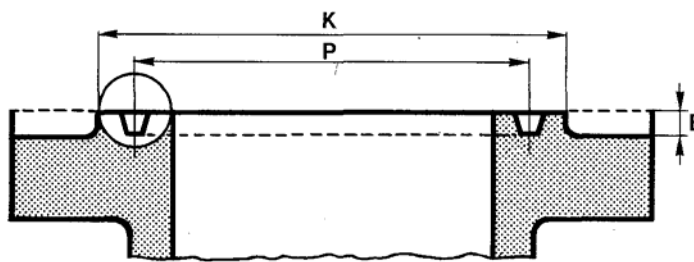
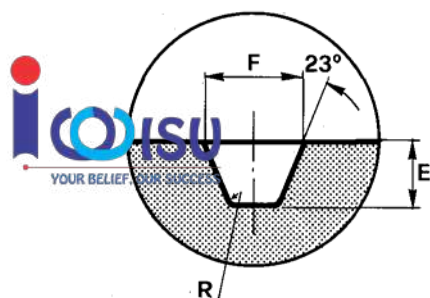


Dimensions in mm.

	150 Lbs						300 - 400 - 600 - 900 Lbs						900 Lbs					
DN	RING	P	E	F	R	K	RING	P	E	F	R	K	RING	P	E	F	R	K
1/2							R11	34.11	5.56	7.14	0.8	51.0						
3/4							R13	42.86	6.35	8.74	0.8	63.5						
1"	R15	47.63	6.35	8.74	0.8	63.5	R16	50.80	6.35	8.74	0.8	70.0						
1" 1/4	R17	57.15	6.35	8.74	0.8	73.0	R18	60.33	6.35	8.74	0.8	79.5						
1" 1/2	R19	65.09	6.35	8.74	0.8	82.5	R20	68.26	6.35	8.74	0.8	90.5						
2"	R22	82.55	6.35	8.74	0.8	102	R23	82.55	7.92	11.91	0.8	108						
2" 1/2	R25	101.60	6.35	8.74	0.8	121	R26	101.60	7.92	11.91	0.8	127						
3"	R29	114.30	6.35	8.74	0.8	133	R31	123.83	7.92	11.91	0.8	146	R31	123.83	7.92	11.91	0.8	156
3" 1/2	R33	131.76	6.35	8.74	0.8	154	R34	131.76	7.92	11.91	0.8	159						
4"	R36	149.23	6.35	8.74	0.8	171	R37	149.23	7.92	11.91	0.8	175	R37	149.23	7.92	11.91	0.8	181
5"	R40	171.45	6.35	8.74	0.8	194	R41	180.98	7.92	11.91	0.8	210	R41	180.98	7.92	11.91	0.8	216
6"	R43	193.68	6.35	8.74	0.8	219	R45	211.13	7.92	11.91	0.8	241	R45	211.13	7.92	11.91	0.8	241
8"	R48	247.65	6.35	8.74	0.8	273	R49	269.88	7.92	11.91	0.8	302	R49	269.88	7.92	11.91	0.8	308
10"	R52	304.80	6.35	8.74	0.8	330	R53	323.85	7.92	11.91	0.8	356	R53	323.85	7.92	11.91	0.8	362
12"	R56	381.00	6.35	8.74	0.8	406	R57	381.00	7.92	11.91	0.8	413	R57	381.00	7.92	11.91	0.8	419
14"	R59	396.88	6.35	8.74	0.8	425	R61	419.10	7.92	11.91	0.8	457	R62	419.10	11.13	16.66	1.5	467
16"	R64	454.03	6.35	8.74	0.8	483	R65	469.90	7.92	11.91	0.8	508	R66	469.90	11.13	16.66	1.5	524
18"	R68	517.53	6.35	8.74	0.8	546	R69	533.40	7.92	11.91	0.8	575	R70	533.40	12.70	19.84	1.5	594
20"	R72	558.80	6.35	8.74	0.8	597	R73	584.20	9.52	13.49	1.5	635	R74	584.20	12.70	19.84	1.5	648
24"	R76	673.10	6.35	8.74	0.8	711	R77	692.15	11.13	16.66	1.5	749	R78	692.15	15.88	26.97	2.4	772

DIMENSIONI SCANALATURE RING-JOINT DIMENSIONS OF RING-JOINT FACINGS

ANSI / ASME B 16.5



Dimensions in mm.

DN	1500 Lbs						2500 Lbs					
	RING	P	E	F	R	K	RING	P	E	F	R	K
1/2	R12	39.69	6.35	8.74	0.8	60.5	R13	42.86	6.35	8.74	0.8	65.0
3/4	R14	44.45	6.35	8.74	0.8	66.5	R16	50.80	6.35	8.74	0.8	73.0
1"	R16	50.80	6.35	8.74	0.8	71.5	R18	60.33	6.35	8.74	0.8	82.5
1"1/4	R18	60.33	6.35	8.74	0.8	81.0	R21	72.23	7.92	11.91	0.8	102
1"1/2	R20	68.26	6.35	8.74	0.8	92.0	R23	82.55	7.92	11.91	0.8	114
2"	R24	95.25	7.92	11.91	0.8	124	R26	101.60	7.92	11.91	0.8	133
2"1/2	R27	107.95	7.92	11.91	0.8	137	R28	111.13	9.52	13.49	0.8	149
3"	R35	136.53	7.92	11.91	0.8	168	R32	127.00	9.52	13.49	1.5	168
3"1/2												
4"	R39	161.93	7.92	11.91	0.8	194	R38	157.16	11.13	16.66	1.5	203
5"	R44	193.68	7.92	11.91	0.8	229	R42	190.50	12.70	19.84	1.5	241
6"	R46	211.14	9.52	13.49	1.5	248	R47	228.60	12.70	19.84	1.5	279
8"	R50	269.88	11.13	16.66	1.5	318	R51	279.40	14.27	23.01	1.5	340
10"	R54	323.85	11.13	16.66	1.5	371	R55	342.91	17.48	30.18	2.4	425
12"	R58	381.00	14.27	23.01	1.5	438	R60	406.40	17.48	33.32	2.4	495
14"	R63	419.10	15.88	26.97	2.4	489						
16"	R67	469.90	17.48	30.18	2.4	546						
18"	R71	533.40	17.48	30.18	2.4	613						
20"	R75	584.20	17.48	33.32	2.4	673						
24"	R79	692.15	20.62	36.53	2.4	794						

La profondità della scanalatura è in aggiunta allo spessore minimo della flangia.

L'altezza del risalto è uguale alla profondità della scanalatura ma non è soggetta alla sua tolleranza.

Se non indicato in ordine può essere fornito il risalto oppure la superficie intera.

Nel 3" con flange libere il ring-Joint sarà R30 anziché r31.

Depth of groove is added to the minimum flange thickness.

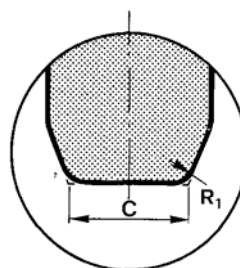
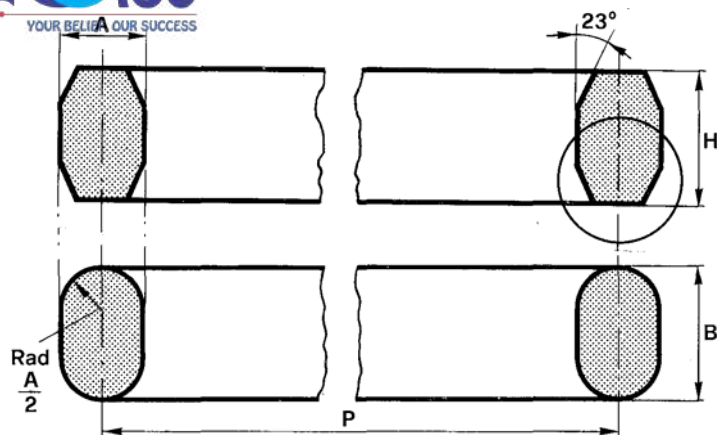
Raised face is equal to the groove dimension but is not subject at his tolerance.

Raised portion or full-face may be supplied unless specified in the order.

In 3" lapped flanges the ring number shall be R30 instead R31.

NUMERO E DIMENSIONI DELLE GUARNIZIONI RING JOINT NUMBERS AND DIMENSIONS OF RING-JOINT GASKETS

**ANSI B 16.20
BS 1560/2**



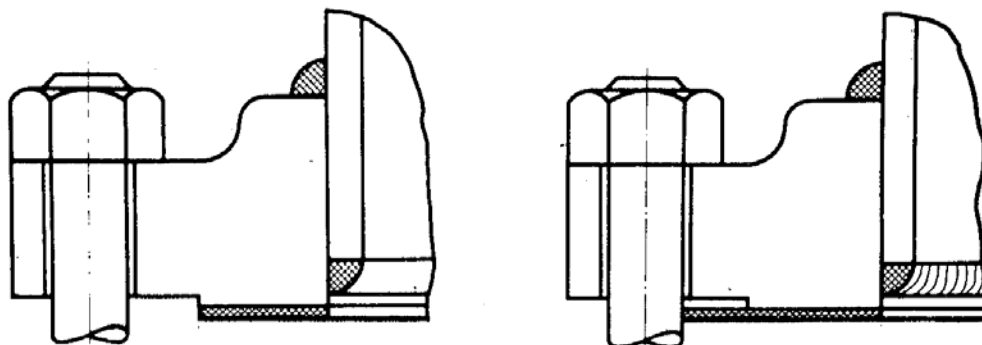
R_1 = mm. 1.6 per anelli ampi mm. 22.2 ed minori
= mm. 2.4 per anelli ampi mm. 25.4 ed oltre
 R_1 = 1.6 mm. for ring widths 22.2 mm. and smaller
= 2.4 mm. for ring widths 25.4 mm. and larger

Dimensions in mm.

RING	P	A	B	H	C	RING	P	A	B	H	C
R11	34.1	6.4	11.1	9.5	4.3	R46	211.1	12.7	19.0	17.5	8.7
R12	39.7	7.9	14.3	12.7	5.2	R47	228.6	19.0	25.4	23.8	12.3
R13	42.9	7.9	14.3	12.7	5.2	R48	247.6	7.9	14.3	12.7	5.2
R14	44.4	7.9	14.3	12.7	5.2	R49	269.9	11.1	17.5	15.9	7.7
R15	47.6	7.9	14.3	12.7	5.2	R50	269.9	15.9	22.2	20.6	10.5
R16	50.8	7.9	14.3	12.7	5.2	R51	279.4	22.2	28.6	27.0	14.8
R17	57.2	7.9	14.3	12.7	5.2	R52	304.8	7.9	14.3	12.7	5.2
R18	60.3	7.9	14.3	12.7	5.2	R53	323.8	11.1	17.5	15.9	7.7
R19	65.1	7.9	14.3	12.7	5.2	R54	323.8	15.9	22.2	20.6	10.5
R20	68.3	7.9	14.3	12.7	5.2	R55	342.9	28.6	36.5	34.9	19.8
R21	72.2	11.1	17.5	15.9	7.7	R56	381.0	7.9	14.3	12.7	5.2
R22	82.6	7.9	14.3	12.7	5.2	R57	381.0	11.1	17.5	15.9	7.7
R23	82.6	11.1	17.5	15.9	7.7	R58	381.0	22.2	28.6	27.0	14.8
R24	95.2	11.1	17.5	15.9	7.7	R59	396.9	7.9	14.3	12.7	5.2
R25	101.6	7.9	14.3	12.7	5.2	R60	406.4	31.8	39.7	38.1	22.3
R26	101.6	11.1	17.5	15.9	7.7	R61	419.1	11.1	17.5	15.9	7.7
R27	108.0	11.1	17.5	15.9	7.7	R62	419.1	15.9	22.2	20.6	10.5
R28	111.1	12.7	19.0	17.5	8.7	R63	419.1	25.4	33.3	31.8	17.3
R29	114.3	7.9	14.3	12.7	5.2	R64	454.0	7.9	14.3	12.7	5.2
R30	117.5	11.1	17.5	15.9	7.7	R65	469.9	11.1	17.5	15.9	7.7
R31	123.8	11.1	17.5	15.9	7.7	R66	469.9	15.9	22.2	20.6	10.5
R32	127.0	12.7	19.0	17.5	8.7	R67	469.9	28.6	36.5	34.9	19.8
R33	131.8	7.9	14.3	12.7	5.2	R68	517.5	7.9	14.3	12.7	5.2
R34	131.8	11.1	17.5	15.9	7.7	R69	533.4	11.1	17.5	15.9	7.7
R35	136.5	11.1	17.5	15.9	7.7	R70	533.4	19.0	25.4	23.8	12.3
R36	149.2	7.9	14.3	12.7	5.2	R71	533.4	28.6	36.5	34.9	19.8
R37	149.2	11.1	17.5	15.9	7.7	R72	558.8	7.9	14.3	12.7	5.2
R38	157.2	15.9	22.2	20.6	10.5	R73	584.2	12.7	19.0	17.5	8.7
R39	161.9	11.1	17.5	15.9	7.7	R74	584.2	19.1	25.4	23.8	12.3
R40	171.4	7.9	14.3	12.7	5.2	R75	584.2	31.8	39.7	38.1	22.3
R41	181.0	11.1	17.5	15.9	7.7	R76	673.1	7.9	14.3	12.7	5.2
R42	190.5	19.0	25.4	23.8	12.3	R77	692.2	15.9	22.2	20.6	10.5
R43	193.7	7.9	14.3	12.7	5.2	R78	692.2	25.4	33.3	31.8	17.3
R44	193.7	11.1	17.5	15.9	7.7	R79	692.2	34.9	44.4	41.3	24.8
R45	211.1	11.1	17.5	15.9	7.7						

GUARNIZIONE GRUPPO 1a e 1b
GASKETS 1a and 1b GROUP

ANSI / ASME B 16.5



Dimensions in mm.

DN	DIAMETRO ESTERNO					OUTSIDE DIAMETER			
	INTERNO INSIDE Ø	AUTOCENTRANTE				SELF CENTERING			
		RF	150	300	400	600	900	1500	2500
1/2	21	35	48	54	54	54	64	64	70
3/4	27	43	57	67	67	67	70	70	76
1"	33	51	67	73	73	73	79	79	86
1"1/4	42	64	76	83	83	83	89	89	105
1"1/2	49	73	86	95	95	95	98	98	117
2"	60	92	105	111	111	111	143	143	146
2"1/2	73	105	124	130	130	130	165	165	168
3"	89	127	137	149	149	149	168	175	197
3"1/2	102	140	162	165	162	162			
4"	114	157	175	181	178	194	206	210	235
5"	141	185	197	216	213	241	248	254	279
6"	168	216	222	251	248	267	289	283	318
8"	219	270	279	308	305	321	359	352	387
10"	273	324	340	362	359	400	435	435	476
12"	324	381	410	422	419	457	498	520	550
14"	356	413	451	486	483	492	520	580	
16"	406	470	515	540	535	565	575	640	
18"	457	533	550	595	595	615	640	705	
20"	508	584	605	655	650	685	700	755	
24"	610	692	720	775	770	790	840	900	

TIRANTI E VITI DI ACCOPPIAMENTO PER FLANGE STUB BOLTS AND BOLTS FOR FLANGES



ANSI / ASME B 16.5

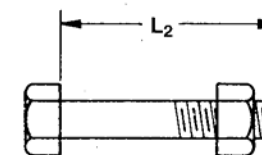
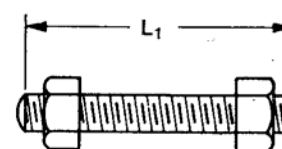
Viti – Bolts: UNI 5737

Tiranti – Stud Bolts: ANSI B16.5

Dadi – Nuts: UNI 5587

Filettatura - Threads: UNI 4534

Dimensions in mm.

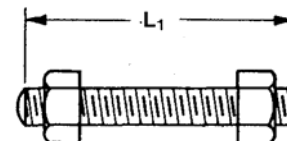


DN NPS	150 Lbs.					300 Lbs.					400 Lbs.					600 Lbs.				
	N°	Ø	L1		L2	N°	Ø	L1		L2	N°	Ø	L1			N°	Ø	L1		
			R.F.	R.J.	R.F.			R.F.	R.J.	R.F.			R.F.	MF GT.	R.J.			R.F.	MF GT.	R.J.
1/2	4	M14	60	-	45	4	M14	65	75	55						4	M14	80	70	75
3/4	4	M14	65	-	50	4	M18	75	90	60						4	M18	90	80	90
1"	4	M14	65	80	55	4	M18	80	90	65						4	M18	90	85	90
1"1/4	4	M14	70	80	55	4	M18	80	95	65						4	M18	100	90	100
1"1/2	4	M14	70	95	60	4	M20	90	105	75						4	M20	105	100	105
2"	4	M18	80	95	65	8	M18	90	105	75						8	M18	105	100	110
2"1/2	4	M18	90	100	75	8	M20	100	115	85						8	M20	120	115	125
3"	4	M18	90	105	75	8	M20	110	125	90						8	M20	125	120	130
3"1/2	8	M18	90	105	75	8	M20	110	125	95						8	M24	140	130	140
4"	8	M18	90	105	75	8	M20	110	130	95	8	M24	140	130	140	8	M24	145	140	150
5"	8	M20	90	110	80	8	M20	120	135	100	8	M24	145	140	150	8	M27	165	160	165
6"	8	M20	100	115	85	12	M20	125	140	105	12	M24	150	145	155	12	M27	170	165	175
8"	8	M20	110	120	90	12	M24	140	155	110	12	M27	170	165	175	12	M30	195	185	195
10"	12	M24	115	130	95	16	M27	155	170	130	16	M30	190	185	195	16	M33	215	210	220
12"	12	M24	120	135	100	16	M30	170	185	145	16	M33	205	195	205	20	M33	220	215	225
14"	12	M27	130	150	110	20	M30	175	195	150	20	M33	210	205	210	20	M36	235	230	235
16"	16	M27	135	150	115	20	M33	190	205	160	20	M36	220	215	225	20	M39	255	245	255
18"	16	M30	150	160	125	24	M33	195	210	170	24	M36	230	220	230	20	M42	275	265	275
20"	20	M30	160	170	135	24	M33	205	225	180	24	M39	245	240	250	24	M42	290	280	305
24"	20	M33	175	185	145	24	M39	230	255	195	24	M45	270	265	280	24	M48	330	320	330

TIRANTI E VITI DI ACCOPPIAMENTO PER FLANGE STUB BOLTS AND BOLTS FOR FLANGES

ANSI / ASME B 16.5

Viti – Bolts: UNI 5737
Tiranti – Stud Bolts: ANSI B16.5
Dadi – Nuts: UNI 5587



Filettatura - Threads: UNI 4534

Dimensions in mm.

DN NPS	900 Lbs.					1500 Lbs.					2500 Lbs.				
	N°	Ø	L1			N°	Ø	L1			N°	Ø	L1		
			R.F.	MF GT.	R.J.			R.F.	MF GT.	R.J.			R.F.	MF GT.	R.J.
1/2						4	M20	105	100	105	4	M20	125	115	125
3/4						4	M20	115	105	115	4	M20	125	120	125
1"						4	M24	125	120	125	4	M24	140	130	140
1" 1/4						4	M24	125	120	125	4	M27	150	145	155
1" 1/2						4	M27	140	135	140	4	M30	170	165	175
2"						8	M24	145	140	145	8	M27	175	170	180
2" 1/2						8	M27	160	150	160	8	M30	195	190	205
3"	8	M24	145	140	150	8	M30	180	170	180	8	M33	220	215	230
3" 1/2															
4"	8	M30	170	165	175	8	M33	195	190	200	8	M39	255	245	265
5"	8	M33	190	185	195	8	M39	250	240	250	8	M45	300	290	310
6"	12	M30	195	185	195	12	M36	260	255	265	8	M52	345	335	355
8"	12	M36	220	215	225	12	M42	290	285	300	12	M52	380	375	395
10"	16	M36	235	230	235	12	M48	335	330	345	12	M64	485	480	510
12"	20	M36	255	250	255	16	M52	375	370	390	12	72	540	530	560
14"	20	M39	275	265	280	16	M56	405	400	425					
16"	20	M42	285	280	295	16	M64	445	440	470					
18"	20	M48	325	320	340	16	72	495	485	515					
20"	20	M52	345	340	360	16	76	540	525	565					
24"	20	M68	435	430	455	16	90	615	610	645					

VITI – BOLTS TIRANTI – STUD BOLTS			
Classe Class		ASTM spec.	
		Design.	Grade
Acciaio a basso C. Low carbon steel		A307	B
Acciai Legati Alloy steels	Acciai Ferritici Ferritic Steels	A193	B7 B16
Acciai Inossidabili Stainless Steel	Acciai Austenitici Austenitic Steel	A193 A320	B8 B8A B8M B8MA
Acciai Legati Alloy Steel	Acciai Ferritici Ferritic Steel	A320	L7 L43
DADI – NUTS			
Classe Class		ASTM spec.	
		Design.	Design.
Acciaio a basso C. Low carbon steel		A307	B
Acciai Legati Alloy steels	Acciai Ferritici Ferritic Steels	A194	2H 3 4
Acciai Inossidabili Stainless Steel	Acciai Austenitici Austenitic Steel	A194	8 8A 8M 8MA

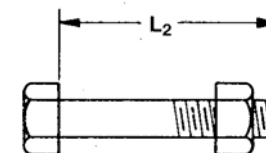
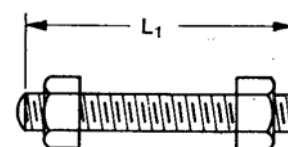
TIRANTI E VITI DI ACCOPPIAMENTO PER FLANGE STUB BOLTS AND BOLTS FOR FLANGES

ANSI / ASME B 16.5

Viti – Bolts: ANSI B18.2.1
Tiranti – Stud Bolts: ANSI B18.2.1
Dadi – Nuts: ANSI B18.2.2



Filettatura - Threads: ASA B1.1 up to/fino a 1" – 8UN 1.1/8" oltre/over

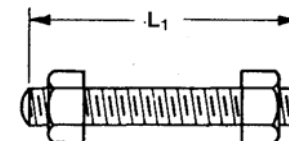


DN NPS	150 Lbs.					300 Lbs.					400 Lbs.					600 Lbs.				
	N°	Ø	L1		L2	N°	Ø	L1		L2	N°	Ø	L1			N°	Ø	L1		
			R.F.	R.J.				R.F.	R.J.				R.F.	MF GT.	R.J.			R.F.	MF GT	R.J.
1/2	4	1/2	2 1/4	-	2	4	1/2	2 1/2	3	2 1/4						4	1/2	3	2 3/4	3
3/4	4	1/2	2 1/2	-	2	4	5/8	3	3 1/2	2 1/2						4	5/8	3 1/2	3 1/4	3 1/2
1"	4	1/2	2 1/2	3	2 1/4	4	5/8	3	3 1/2	2 1/2						4	5/8	3 1/2	3 1/4	3 1/2
1" 1/4	4	1/2	2 3/4	3 1/4	2 1/4	4	5/8	3 1/4	3 3/4	2 3/4						4	5/8	3 3/4	3 1/2	3 3/4
1" 1/2	4	1/2	2 3/4	3 1/4	2 1/2	4	3/4	3 1/2	4	3						4	3/4	4 1/4	4	4 1/4
2"	4	5/8	3 1/4	3 3/4	2 3/4	8	5/8	3 1/2	4	3						8	5/8	4 1/4	4	4 1/4
2" 1/2	4	5/8	3 1/2	4	3	8	3/4	4	4 1/2	3 1/4						8	3/4	4 3/4	4 1/2	4 3/4
3"	4	5/8	3 1/2	4	3	8	3/4	4 1/4	4 3/4	3 1/2						8	3/4	5	4 3/4	5
3" 1/2	8	5/8	3 1/2	4	3	8	3/4	4 1/4	5	3 3/4						8	7/8	5 1/2	5 1/4	5 1/2
4"	8	5/8	3 1/2	4	3	8	3/4	4 1/2	5	3 3/4	8	7/8	5 1/2	5 1/4	5 1/2	8	7/8	5 3/4	5 1/2	5 3/4
5"	8	3/4	3 3/4	4 1/4	3 1/4	8	3/4	4 3/4	5 1/4	4 1/4	8	7/8	5 3/4	5 1/2	5 3/4	8	1	6 1/2	6 1/4	6 1/2
6"	8	3/4	4	4 1/2	3 1/4	12	3/4	4 3/4	5 1/2	4 1/4	12	7/8	6	5 3/4	6	12	1	6 3/4	6 1/2	6 3/4
8"	8	3/4	4 1/4	4 3/4	3 1/2	12	7/8	5 1/2	6	4 3/4	12	1	6 3/4	6 1/2	6 3/4	12	1 1/8	7 1/2	7 1/4	7 3/4
10"	12	7/8	4 1/2	5	4	16	1	6 1/4	6 3/4	5 1/2	16	1 1/8	7 1/2	7 1/4	7 1/2	16	1 1/4	8 1/2	8 1/4	8 1/2
12"	12	7/8	4 3/4	5 1/4	4	16	1 1/8	6 3/4	7 1/4	5 3/4	16	1 1/4	8	7 3/4	8	20	1 1/4	8 3/4	8 1/2	8 3/4
14"	12	1	5 1/4	5 3/4	4 1/2	20	1 1/8	7	7 1/2	6 1/4	20	1 1/4	8 1/4	8	8 1/4	20	1 3/8	9 1/4	9	9 1/4
16"	16	1	5 1/4	5 3/4	4 1/2	20	1 1/4	7 1/2	8	6 1/2	20	1 3/8	8 3/4	8 1/2	8 3/4	20	1 1/2	10	9 3/4	10
18"	16	1 1/8	5 3/4	6 1/4	5	24	1 1/4	7 3/4	8 1/4	6 3/4	24	1 3/8	9	8 3/4	9	20	1 5/8	10 3/4	10 1/2	10 3/4
20"	20	1 1/8	6 1/4	6 3/4	5 1/2	24	1 1/4	8	8 3/4	7 1/4	24	1 1/2	9 1/2	9 1/4	9 3/4	24	1 5/8	11 1/4	11	11 1/2
24"	20	1 1/4	6 3/4	7 1/4	6	24	1 1/2	9	10	8	24	1 3/4	10 1/2	10 1/4	11	24	1 5/8	13	12 3/4	13 1/4

TIRANTI E VITI DI ACCOPPIAMENTO PER FLANGE STUB BOLTS AND BOLTS FOR FLANGES

ANSI / ASME B 16.5

Viti – Bolts: ANSI B18.2.1
Tiranti – Stud Bolts: ANSI B18.2.1
Dadi – Nuts: ANSI B18.2.2



Filettatura - Threads: ASA B1.1 up to/ fino a 1" – 8UN 1.1/8" oltre/over

Dimensions in mm.

DN NPS	900 Lbs.					1500 Lbs.					2500 Lbs.				
	N°	Ø	L1			N°	Ø	L1			N°	Ø	L1		
			R.F.	MF GT.	R.J.			R.F.	MF GT.	R.J.			R.F.	MF GT.	R.J.
1/2						4	3/4	4 1/4	4	4 1/4	4	3/4	4 3/4	4 1/2	4 3/4
3/4						4	3/4	4 1/2	4 1/4	4 1/2	4	3/4	5	4 3/4	5
1"						4	7/8	5	4 3/4	5	4	7/8	5 1/2	5 1/4	5 1/2
1"1/4						4	7/8	5	4 3/4	5	4	1	6	5 3/4	6
1"1/2						4	1	5 1/2	5 1/4	5 1/2	4	1 1/8	6 3/4	6 1/2	6 3/4
2"						8	7/8	5 3/4	5 1/2	5 3/4	8	1	7	6 3/4	7
2"1/2						8	1	6 1/4	6	6 1/4	8	1 1/8	7 3/4	7 1/2	8
3"	8	7/8	5 3/4	5 1/2	5 3/4	8	1 1/8	7	6 3/4	7	8	1 1/4	8 3/4	8 1/2	9
3"1/2															
4"	8	1 1/8	6 3/4	6 1/2	6 3/4	8	1 1/4	7 3/4	7 1/2	7 3/4	8	1 1/2	10	9 3/4	10 1/4
5"	8	1 1/4	7 1/2	7 1/4	7 1/2	8	1 1/2	9 3/4	9 1/2	9 3/4	8	1 3/4	11 3/4	11 1/2	12 1/4
6"	12	1 1/8	7 1/2	7 1/4	7 3/4	12	1 3/8	10 1/4	10	10 1/2	8	2	13 1/2	13 1/4	14
8"	12	1 3/8	8 3/4	8 1/2	8 3/4	12	1 5/8	11 1/2	11 1/4	12 3/4	12	2	15	14 3/4	15 1/2
10"	16	1 3/8	9 1/4	9	9 1/4	12	1 7/8	13 1/4	13	13 1/2	12	2 1/2	19 1/4	19	20
12"	20	1 3/8	10	9 3/4	10	16	2	14 3/4	14 1/2	15 1/4	12	2 3/4	21 1/4	21	22
14"	20	1 1/2	10 3/4	10 1/2	11	16	2 1/4	16	15 3/4	16 3/4					
16"	20	1 5/8	11 1/4	11	11 1/2	16	2 1/2	17 1/2	17 1/4	18 1/2					
18"	20	1 7/8	12 3/4	12 1/2	13 1/4	16	2 3/4	19 1/2	19 1/4	20 3/4					
20"	20	2	13 3/4	13 1/2	14 1/4	16	3	21 1/4	21	22 1/4					
24"	20	2 1/2	17 1/4	17	18	16	3 1/2	24 1/4	24	25 1/2					

VITI – BOLTS TIRANTI – STUD BOLTS			
Classe Class		ASTM spec.	
		Design	Grade
Acciaio a basso C. Low carbon steel		A307	B
Acciai Legati Alloy steels	Acciai Ferritici Ferritic Steels	A193	B7 B16
Acciai Inossidabili Stainless Steel	Acciai Austenitici Austenitic Steel	A193 A320	B8 B8A B8M B8MA
Acciai Legati Alloy Steel	Acciai Ferritici Ferritic Steel	A320	L7 L43
DADI – NUTS			
Classe Class		ASTM spec.	
		Design	Grade
Acciaio a basso C. Low carbon steel		A307	B
Acciai Legati Alloy steels	Acciai Ferritici Ferritic Steels	A194	2H 3 4
Acciai Inossidabili Stainless Steel	Acciai Austenitici Austenitic Steel	A194	8 8A 8M 8MA

FINITURA SUPERFICI DI CONTATTO TYPES OF FINISH FOR MATING SURFACES

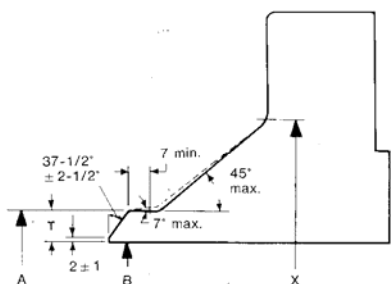
ANSI / ASME B 16.5

RIF. INDEX	DESCRIZIONE NOMINATION	NW	TIPO TYPE	PROFILO PROFILE
1	STOCK FINISH	DN NPS $\leq 12''$	Spiral	
2	STOCK FINISH	DN NPS $\geq 14''$	Spiral	
3	SPIRAL SERRATED	Per tutti i diametri For all sizes	Spiral	
4	CONCENTRIC-SERRATED	Per tutti i diametri For all sizes	Concentric	
5	SMOOTH FINISH	Per tutti i diametri For all sizes		
6	COLD WATER FINISH	Per tutti i diametri For all sizes		

ESTREMITÀ DA SALDARE DI TESTA WELDING BEVEL STANDARDS

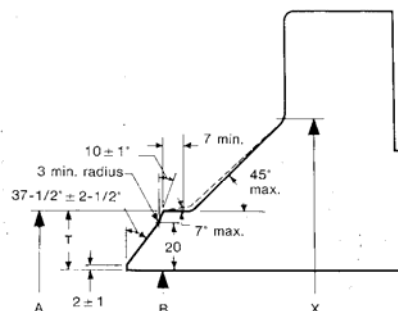
ESECUZIONE PER ACCOPPIAMENTO A TUBI DI
SPESSORE T DA 5 A 22 mm. INCLUSO.

FOR WALL THICKNESSES T 5 mm TO 22 mm. INCLUSIVE.



ESECUZIONE PER ACCOPPIAMENTO A TUBI DI
SPESSORE T MAGGIORE DI 22 mm.

FOR WALL THICKNESSES T GREATER THAN 22 mm.



LE FLANGE CON SPESSORE T < 5 mm SONO FORNITE CON ESTREMITÀ TRONCA SE NON ALTRIMENTI SPECIFICATO DAL CLIENTE.

FLANGES HAVING A WALL THICKNESSES T < 5 mm ARE FURNISHED WITH SQUARE ENDS UNLESS OTHERWISE SPECIFIED BY THE CUSTOMER.

TOLLERANZE FLANGE FLANGES TOLLERANCES

ANSI / ASME B 16.5

SLIP-ON, BLIND		
Diametro Esterno	Diametro ≤ 610	± 2
	Diametro > 610	± 3
Diametro Interno	FILETTATE: secondo i calibri	
	DN $\leq 10''$	+ 1 - 0
	DN $\geq 12''$	+ 2 - 0
Diametro collare alla base	DN $\leq 12''$	+ 2,4 - 1,6
	DN $\geq 14''$	$\pm 3,2$
Diametro Rialto	Rialto da 2	± 1
	Rialto da 7 Incameratura M-F	$\pm 0,5$
Imbocco Filettatura	DN $\leq 10''$	+ 1 - 0
	DN $\geq 12''$	+ 2 - 0
Fori	Diametro cerchio fori	± 2
	Distanza tra i fori	$\pm 0,8$
	Eccentricità dei fori riferita al diametro interno ed alla superficie di contatto	MAX. 0,8
Spessore Flangia	DN $\leq 18''$	+ 3 - 0
	DN $\geq 20''$	+ 5 - 0
Altezza totale della flangia	DN $\leq 10''$	± 2
	DN $\geq 12''$	± 3

SLIP-ON, BLIND		
Outside Diameter	Diameter ≤ 610	± 2
	Diameter > 610	± 3
Inside Diameter	THREADED: standard sizes limited	
	10" and less	+ 1 - 0
	12" and more	+ 2 - 0
Outside Diameter of neck in the bottom	12" and less	+ 2,4 - 1,6
	14" and more	$\pm 3,2$
Raised face Diameter	Raised face of 2 RF	± 1
	Raised face of 7 RF Male-Female "anular" insert	$\pm 0,5$
Wide mouthed Diameter	10" and less	+ 1 - 0
	12" and more	+ 2 - 0
Hole	Hole diameter	± 2
	Distance between holes	$\pm 0,8$
	Excentricity of holes in reference to the interior diameter and to the contac face	MAX. 0,8
Base Thickness	18" and less	+ 3 - 0
	20" and more	+ 5 - 0
Total height of flange	10" and less	± 2
	12" and more	± 3

WELDING NECK		
Diametro Esterno	Diametro ≤ 610	± 2
	Diametro > 610	± 3
Diametro Interno	DN $\leq 10''$	$\pm 0,8$
	DN 12" a 18"	$\pm 1,6$
	DN $\geq 20''$	+ 3,2 - 1,6
Diametro collare alla base	≤ 610	$\pm 1,6$
	> 610	$\pm 3,2$
Diametro collare	DN $\leq 5''$	+ 2,4 - 0,8
	DN $\geq 6''$	+ 4 - 0,8
Diametro Rialto	Rialto da 2	± 1
	Rialto da 7 incameratura M-F	$\pm 0,5$
Fori	Diametro cerchio fori	± 2
	Distanza tra i fori	$\pm 0,8$
	Eccentricità dei fori riferita al diametro interno ed alla superficie di contatto	MAX. 0,8
Spessore Flangia	DN $\leq 18''$	+ 3 - 0
	DN $\geq 20''$	+ 5 - 0
Altezza totale della flangia	DN $\leq 10''$	± 2
	DN $\geq 12''$	± 3

WELDING NECK		
Outside Diameter	Diameter ≤ 610	± 2
	Diameter > 610	± 3
Inside Diameter	10" and less	$\pm 0,8$
	12" to 18"	$\pm 1,6$
	20" and more	+ 3,2 - 1,6
Outside Diameter of neck in the bottom	≤ 610	$\pm 1,6$
	> 610	$\pm 3,2$
Neck Diameter	5" and less	+ 2,4 - 0,8
	6" and more	+ 4 - 0,8
Raised face Diameter	Raised face of 2 RF	± 1
	Raised face of 7 RF Male-Female "anular" insert	$\pm 0,5$
Hole	Hole diameter	± 2
	Distance between holes	$\pm 0,8$
	Excentricity of holes in reference to the interior diameter and to the contac face	MAX. 0,8
Base Thickness	18" and less	+ 3 - 0
	20" and more	+ 5 - 0
Total height of flange	10" and less	± 2
	12" and more	± 3

Dimensioni in mm