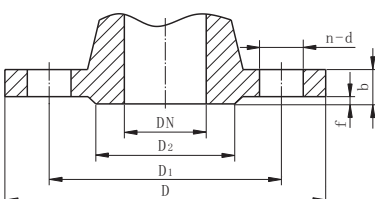
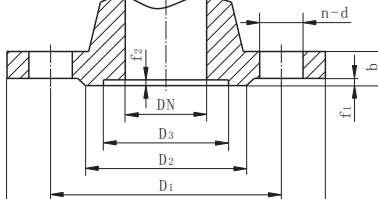


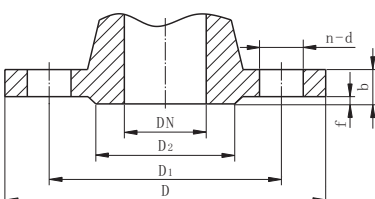
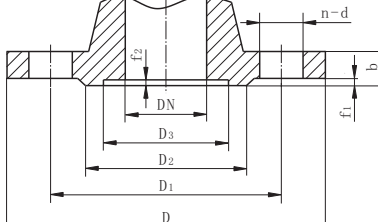
附件2: 国标法兰连接尺寸汇总表 GB/T9124.1-2019

																		
GB/T9124.1-2019 [突面RF]								GB/T9124.1-2019 [凹面F]										
公称压力 PN (MPa) Nominal Pressure	尺寸 Dimension (mm)							公称压力 PN (MPa) Nominal Pressure	尺寸 Dimension (mm)									
	DN	D	D1	D2	f	b	n-d		DN	D	D1	D2	D3	f2	f1	b	n-d	
1.6	15	95	65	45	2	16	4-14	4.0	15	95	65	45	40	2	4	16	4-14	
	20	105	75	58	2	18	4-14		20	105	75	58	51	2	4	18	4-14	
	25	115	85	68	2	18	4-14		25	115	85	68	58	2	4	18	4-14	
	32	140	100	78	2	18	4-18		32	140	100	78	66	2	4	18	4-18	
	40	150	110	88	3	18	4-18		40	150	110	88	76	3	4	18	4-18	
	50	165	125	102	3	18	4-18		50	165	125	102	88	3	4	20	4-18	
	65	185	145	122	3	18	8(4)-18*		65	185	145	122	110	3	4	22	8-18	
	80	200	160	138	3	20	8-18		80	200	160	138	121	3	4	24	8-18	
	100	220	180	158	3	20	8-18		100	235	190	162	150	3	4.5	24	8-22	
	125	250	210	188	3	22	8-18		125	270	220	188	176	3	4.5	26	8-26	
	150	285	240	212	3	22	8-22		150	300	250	218	204	3	4.5	28	8-26	
	200	340	295	268	3	24	12-22		200	375	320	285	260	3	4.5	34	12-30	
	250	405	355	320	3	26	12-26		250	450	385	345	313	3	4.5	38	12-33	
	300	460	410	378	4	28	12-26		300	515	450	410	364	4	4.5	42	16-33	
	350	520	470	438	4	30	16-26		350	580	510	465	422	4	5	46	16-36	
	400	580	525	490	4	32	16-30		400	660	585	535	474	4	5	50	16-39	
450	640	585	550	4	40	20-30	450	685	610	560	524	4	5	57	20-39			
2.5	15	95	65	45	2	16	4-14	6.3	15	105	75	45	40	2	4	20	4-14	
	20	105	75	58	2	18	4-14		20	130	90	58	51	2	4	22	4-18	
	25	115	85	68	2	18	4-14		25	140	100	68	58	2	4	24	4-18	
	32	140	100	78	2	18	4-18		32	155	110	78	66	2	4	26	4-22	
	40	150	110	88	3	18	4-18		40	170	125	88	76	3	4	28	4-22	
	50	165	125	102	3	20	4-18		50	180	135	102	88	3	4	26	4-22	
	65	185	145	122	3	22	8-18		65	205	160	122	110	3	4	26	8-22	
	80	200	160	138	3	24	8-18		80	215	170	138	121	3	4	28	8-22	
	100	235	190	162	3	24	8-22		100	250	200	162	150	3	4.5	30	8-26	
	125	270	220	188	3	26	8-26		125	295	240	188	176	3	4.5	34	8-30	
	150	300	250	218	3	28	8-26		150	345	280	218	204	3	4.5	36	8-33	
	200	360	310	278	3	30	12-26		200	415	345	285	260	3	4.5	42	12-36	
	250	425	370	335	3	32	12-30		250	470	400	345	313	3	4.5	46	12-36	
	300	485	430	395	4	34	16-30		10.0	15	105	75	45	40	2	4	20	4-14
	350	555	490	450	4	38	16-33			20	130	90	58	51	2	4	22	4-18
	400	620	550	505	4	40	16-36			25	140	100	68	58	2	4	24	4-18
450	670	600	555	4	46	20-36	32	155		110	78	66	2	4	26	4-22		
							40	170		125	88	76	3	4	28	4-22		
							50	195		145	102	88	3	4	30	4-26		
							65	220		170	122	110	3	4	34	8-26		
							80	230		180	138	121	3	4	36	8-26		
							100	265	210	162	150	3	4.5	40	8-30			
							150	355	290	218	204	3	4.5	44	12-33			
							200	430	360	285	260	3	4.5	52	12-36			

注:1、*处表示也可以采用4个螺栓孔, 应按客户要求提供。

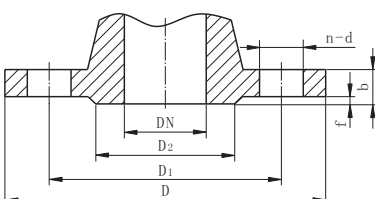
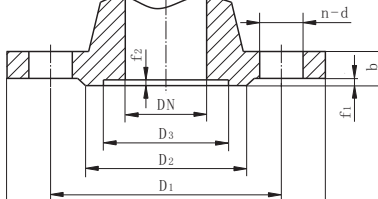
2、PN10bar的法兰尺寸在DN15~150时等同于PN16bar的法兰尺寸。

附件3:机械部法兰连接尺寸汇总表 JB/T79.1[2]-1994

																	
JB/T79.1-1994[突面RF]								JB/T79.2-1994[凹面F]									
公称压力 PN (MPa) Nominal Pressure	尺寸 Dimension (mm)							公称压力 PN (MPa) Nominal Pressure	尺寸 Dimension (mm)								
	DN	D	D1	D2	f	b	n-d		DN	D	D1	D2	D3	f2	f1	b	n-d
1.6	15	95	65	46	2	14	4-14	4.0	15	95	65	45	40	2	4	16	4-14
	20	105	75	55	2	14	4-14		20	105	75	55	51	2	4	16	4-14
	25	115	85	65	2	14	4-14		25	115	85	65	58	2	4	16	4-14
	32	135	100	78	2	16	4-18		32	135	100	78	66	2	4	18	4-18
	40	145	110	85	3	16	4-18		40	145	110	85	76	3	4	18	4-18
	50	160	125	100	3	16	4-18		50	160	125	100	88	3	4	20	4-18
	65	180	145	120	3	18	4-18		65	180	145	120	110	3	4	22	8-18
	80	195	160	135	3	20	8-18		80	195	160	135	121	3	4	22	8-18
	100	215	180	155	3	20	8-18		100	230	190	160	150	3	4.5	24	8-22
	125	245	210	185	3	22	8-18		125	270	220	188	176	3	4.5	28	8-26
	150	280	240	210	3	24	8-23		150	300	250	218	204	3	4.5	30	8-26
	175	310	270	240	3	26	8-23		175	350	295	258	234	3	4.5	34	12-30
	200	335	295	265	3	26	12-23		200	375	320	282	260	3	4.5	38	12-30
	250	405	355	320	3	30	12-26		250	445	385	345	313	3	4.5	42	12-34
	300	460	410	375	4	30	12-26		300	510	450	408	364	4	4.5	46	16-34
	350	520	470	435	4	34	16-26		350	580	525	485	4	4.5	46	16-34	
	400	580	525	485	4	36	16-30		400	610	550	505	4	4.5	48	16-36	
2.5	15	95	65	45	2	16	4-14	6.3	15	105	75	55	40	2	4	20	4-14
	20	105	75	55	2	16	4-14		20	125	90	68	51	2	4	20	4-18
	25	115	85	65	2	16	4-14		25	135	100	78	58	2	4	24	4-18
	32	135	100	78	2	18	4-18		32	150	110	82	66	2	4	24	4-22
	40	145	110	85	3	18	4-18		40	165	125	95	76	3	4	26	4-22
	50	160	125	100	3	20	4-18		50	175	135	105	88	3	4	26	4-22
	65	180	145	120	3	22	8-18		65	200	160	130	110	3	4	26	8-22
	80	195	160	135	3	22	8-18		80	210	170	140	121	3	4	28	8-22
	100	230	190	160	3	24	8-23		100	250	200	168	150	3	4.5	30	8-26
	125	270	220	188	3	28	8-26		125	295	240	202	176	3	4.5	34	8-30
	150	300	250	218	3	30	8-26		150	340	280	240	204	3	4.5	36	8-33
	175	330	280	248	3	32	12-26		175	370	310	270	234	3	4.5	42	12-33
	200	360	310	278	3	34	12-26		200	405	345	300	260	3	4.5	42	12-36
	250	425	370	332	3	36	12-30		250	470	400	312	313	3	4.5	48	16-36
	300	485	430	390	4	40	16-30		300	530	460	363	364	4	4.5	54	16-36
	350	550	490	448	4	44	16-34		350	610	550	505	4	4.5	48	16-36	
	400	610	550	505	4	48	16-36		400	610	550	505	4	4.5	48	16-36	
	15	95	65	45	2	16	4-14	10.0	15	105	75	55	40	2	4	20	4-14
	20	105	75	55	2	16	4-14		20	125	90	68	51	2	4	22	4-18
	25	115	85	65	2	16	4-14		25	135	100	78	58	2	4	24	4-18
	32	135	100	78	2	18	4-18		32	150	110	82	66	2	4	24	4-23
	40	145	110	85	3	18	4-18		40	165	125	95	76	3	4	26	4-23
	50	160	125	100	3	20	4-18		50	195	145	112	88	3	4	28	4-26
	65	180	145	120	3	22	8-18		65	220	170	138	110	3	4	32	8-26
	80	195	160	135	3	22	8-18		80	230	180	148	121	3	4	34	8-26
	100	230	190	160	3	24	8-23		100	265	210	172	150	3	4.5	38	8-30
	125	270	220	188	3	28	8-26		125	300	250	218	204	3	4.5	42	12-34
	150	300	250	218	3	30	8-26		150	350	290	250	204	3	4.5	46	12-34
	175	330	280	248	3	32	12-26		175	370	310	270	234	3	4.5	42	12-34
	200	360	310	278	3	34	12-26		200	430	360	312	260	3	4.5	54	12-36
	250	425	370	332	3	36	12-30		250	470	400	312	313	3	4.5	48	16-36
	300	485	430	390	4	40	16-30		300	530	460	363	364	4	4.5	54	16-36
	350	550	490	448	4	44	16-34		350	610	550	505	4	4.5	48	16-36	
	400	610	550	505	4	48	16-36		400	610	550	505	4	4.5	48	16-36	

注:表中红色数字表示与GB/T9124.1-2019标准的不同之处,黑色数字为相同之处。

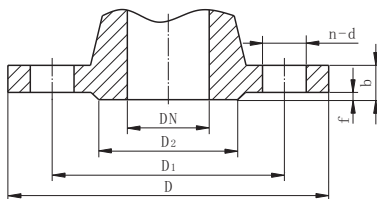
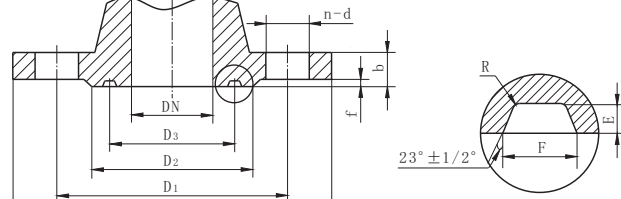
附件4:化工部法兰连接尺寸汇总表 HG/T20592-2009

																	
HG/T20592-2009 [突面RF]								HG/T20592-2009 [凹面FM]									
公称压力 PN (MPa) Nominal Pressure	尺寸 Dimension (mm)							公称压力 PN (MPa) Nominal Pressure	尺寸 Dimension (mm)								
	DN	D	D1	D2	f	b	n-d		DN	D	D1	D2	D3	f2	f1	b	n-d
1.6	15	95	65	45	2	16	4-14	4.0	15	95	65	45	40	2	4	16	4-14
	20	105	75	58	2	18	4-14		20	105	75	58	51	2	4	18	4-14
	25	115	85	68	2	18	4-14		25	115	85	68	58	2	4	18	4-14
	32	140	100	78	2	18	4-18		32	140	100	78	66	2	4	18	4-18
	40	150	110	88	2	18	4-18		40	150	110	88	76	2	4	18	4-18
	50	165	125	102	2	18	4-18		50	165	125	102	88	2	4	20	4-18
	65	185	145	122	2	18	8(4)-18		65	185	145	122	110	2	4	22	8-18
	80	200	160	138	2	20	8-18		80	200	160	138	121	2	4	24	8-18
	100	220	180	158	2	20	8-18		100	235	190	162	150	2	4.5	24	8-22
	125	250	210	188	2	22	8-18		125	270	220	188	176	2	4.5	26	8-26
	150	285	240	212	2	22	8-22		150	300	250	218	204	2	4.5	28	8-26
	200	340	295	268	2	24	12-22		200	375	320	285	260	2	4.5	34	12-30
	250	405	355	320	2	26	12-26		250	450	385	345	313	2	4.5	38	12-33
	300	460	410	378	2	28	12-26		300	515	450	410	364	2	4.5	42	16-33
	350	520	470	428	2	30	16-26		350	580	510	465	422	2	4.5	46	16-36
	400	580	525	490	2	32	16-30		400	660	585	535	474	2	4.5	50	16-39
2.5	15	95	65	45	2	16	4-14	6.3	15	105	75	45	40	2	4	20	4-14
	20	105	75	58	2	18	4-14		20	130	90	58	51	2	4	22	4-18
	25	115	85	68	2	18	4-14		25	140	100	68	58	2	4	24	4-18
	32	140	100	78	2	18	4-18		32	155	110	78	66	2	4	26	4-22
	40	150	110	88	2	18	4-18		40	170	125	88	76	2	4	26	4-22
	50	165	125	102	2	20	4-18		50	180	135	102	88	2	4	26	4-22
	65	185	145	122	2	22	8-18		65	205	160	122	110	2	4	26	8-22
	80	200	160	138	2	24	8-18		80	215	170	138	121	2	4	28	8-22
	100	235	190	162	2	24	8-22	100	250	200	162	150	2	4.5	30	8-26	
	125	270	220	188	2	26	8-26	125	295	240	188	176	2	4.5	34	8-30	
	150	300	250	218	2	28	8-26	150	345	280	218	204	2	4.5	36	8-33	
	200	360	310	278	2	30	12-26	200	415	345	285	260	2	4.5	42	12-36	
	250	425	370	335	2	32	12-30	10.0	15	105	75	45	40	2	4	20	4-14
	300	485	430	395	2	34	16-30		20	130	90	58	51	2	4	22	4-18
	350	555	490	450	2	38	16-33		25	140	100	68	58	2	4	24	4-18
	400	620	550	505	2	40	16-36		32	155	110	78	66	2	4	26	4-22
							40		170	125	88	76	2	4	28	4-22	
							50		195	145	102	88	2	4	30	4-26	
							65		220	170	122	110	2	4	34	8-26	
							80		230	180	138	121	2	4	36	8-26	
							100	265	210	162	150	2	4.5	40	8-30		
							150	355	290	218	204	2	4.5	44	12-33		
							200	430	360	285	260	2	4.5	52	12-36		

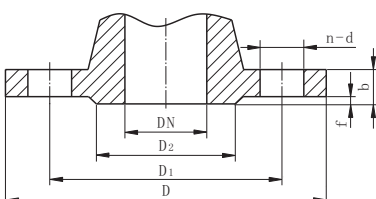
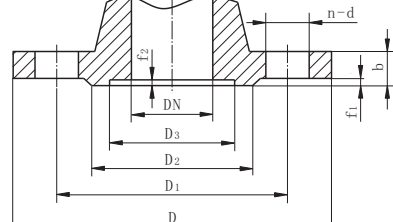
注:1、*处表示也可以采用4个螺栓孔,应按客户要求提供。

2、表中红色数字表示与GB/T9124.1-2019标准的不同之处,黑色数字为相同之处。

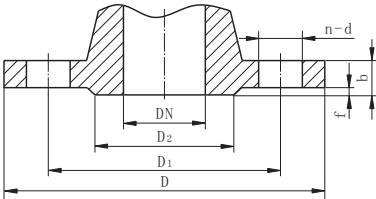
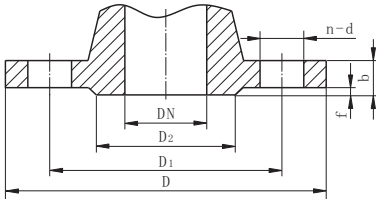
附件5:美标法兰连接尺寸汇总表 ANSI B16.5-2009

																				
ANSI B16.5-2009 [突面RF]								ANSI B16.5-2009 [环连接面RJ]												
公称压力 PN (Lb) Nominal Pressure	尺寸 Dimension (mm)							公称压力 PN (Lb) Nominal Pressure	尺寸 Dimension (mm)											
	DN	D	D1	D2	f	b	n-d		DN	D	D1	D2	D3	E	F	R	f	b	n-d	
150	1/2"	90	60.3	34.9	2	11.2	4-16	900	1/2"	120	82.6	60.5	39.7	6.35	8.74	0.8	7	22.3	4-22	
	3/4"	100	69.9	42.9	2	12.7	4-16		3/4"	130	88.9	66.5	44.5	6.35	8.74	0.8	7	25.4	4-22	
	1"	110	79.4	50.8	2	14.3	4-16		1"	150	102	71.5	50.8	6.35	8.74	0.8	7	28.6	4-25	
	1 1/4"	115	88.9	63.5	2	15.9	4-16		1 1/4"	160	111	81	60.3	6.35	8.74	0.8	7	28.6	4-25	
	1 1/2"	125	98.4	73	2	17.5	4-16		1 1/2"	180	124	92	68.3	6.35	8.74	0.8	7	31.8	4-29	
	2"	150	121	92.1	2	19.1	4-19		2"	215	165	124	95.3	7.92	11.9	0.8	7	38.1	8-25	
	2 1/2"	180	140	105	2	22.3	4-19		2 1/2"	245	191	137	108	7.92	11.9	0.8	7	41.3	8-29	
	3"	190	152	127	2	23.9	4-19		3"	240	191	156	124	7.92	11.9	0.8	7	38.1	8-25	
	4"	230	191	157	2	23.9	8-19		4"	290	235	181	149	7.92	11.9	0.8	7	44.5	8-32	
	5"	255	216	186	2	23.9	8-22		5"	350	279	216	181	7.92	11.9	0.8	7	50.8	8-35	
	6"	280	241	216	2	25.4	8-22		6"	380	318	241	211	7.92	11.9	0.8	7	55.6	12-32	
	8"	345	298	270	2	28.6	8-22		8"	470	394	308	270	7.92	11.9	0.8	7	63.5	12-38	
10"	405	362	324	2	30.2	12-25	10"	545	470	362	324	7.92	11.9	0.8	7	69.9	16-38			
12"	485	432	381	2	31.8	12-25	12"	610	533	419	381	7.92	11.9	0.8	7	79.4	20-38			
300	1/2"	95	66.7	34.9	2	14.3	4-16	1500	1/2"	120	82.6	60.5	39.7	6.35	8.74	0.8	7	22.3	4-22	
	3/4"	115	82.6	42.9	2	15.9	4-19		3/4"	130	88.9	66.5	44.5	6.35	8.74	0.8	7	25.4	4-22	
	1"	125	88.9	50.8	2	17.5	4-19		1"	150	102	71.5	50.8	6.35	8.74	0.8	7	28.6	4-25	
	1 1/4"	135	98.4	63.5	2	19.1	4-19		1 1/4"	160	111	81	60.3	6.35	8.74	0.8	7	28.6	4-25	
	1 1/2"	155	114	73	2	20.7	4-22		1 1/2"	180	124	92	68.3	6.35	8.74	0.8	7	31.8	4-29	
	2"	165	127	92.1	2	22.3	8-19		2"	215	165	124	95.3	7.92	11.9	0.8	7	38.1	8-25	
	2 1/2"	190	149	105	2	25.4	8-22		2 1/2"	245	191	137	108	7.92	11.9	0.8	7	41.3	8-29	
	3"	210	168	127	2	28.6	8-22		3"	265	203	168	137	7.92	11.9	0.8	7	47.7	8-32	
	4"	255	200	157	2	31.8	8-22		4"	310	241	194	162	7.92	11.9	0.8	7	54	8-35	
	5"	280	235	186	2	35	8-22		5"	375	292	229	194	7.92	11.9	0.8	7	73.1	8-42	
	6"	320	270	216	2	36.6	12-22		6"	395	318	248	211	9.53	13.5	1.5	7	82.6	12-38	
	8"	380	330	270	2	41.3	12-25		8"	485	393	318	270	11.1	16.7	1.5	7	92.1	12-45	
10"	445	387	324	2	47.7	16-29	10"	585	483	371	324	11.1	16.7	1.5	7	108	12-50			
12"	520	451	381	2	50.8	16-32	12"	675	572	438	381	14.3	23	1.5	7	124	16-54			
600	1/2"	95	66.7	34.9	7	14.3	4-16	2500	1/2"	135	88.9	65	42.9	6.35	8.74	0.8	7	30.2	4-22	
	3/4"	115	82.6	42.9	7	15.9	4-19		3/4"	140	95.2	73	50.8	6.35	8.74	0.8	7	31.8	4-22	
	1"	125	88.9	50.8	7	17.5	4-19		1"	160	108	82.5	60.3	6.35	8.74	0.8	7	35	4-25	
	1 1/4"	135	98.4	63.5	7	20.7	4-19		1 1/4"	185	130	102	72.2	7.92	11.9	0.8	7	38.1	4-29	
	1 1/2"	155	114	73	7	22.3	4-22		1 1/2"	205	146	114	82.6	7.92	11.9	0.8	7	44.5	4-32	
	2"	165	127	92.1	7	25.4	8-19		2"	235	171	133	102	7.92	11.9	0.8	7	50.9	8-29	
	2 1/2"	190	149	105	7	28.6	8-22		2 1/2"	265	197	149	111	9.53	13.5	1.5	7	57.2	8-32	
	3"	210	168	127	7	31.8	8-22		3"	305	229	168	127	9.53	13.5	1.5	7	66.7	8-35	
	4"	275	216	157	7	38.1	8-25		4"	355	273	203	157	11.1	16.7	1.5	7	76.2	8-42	
	5"	330	267	186	7	44.5	8-29		5"	420	324	241	191	12.7	19.8	1.5	7	92.1	8-48	
	6"	355	292	216	7	47.7	12-29		6"	485	368	279	229	12.7	19.8	1.5	7	108	8-54	
	8"	420	349	270	7	55.6	12-32		8"	550	438	340	279	14.3	23	1.5	7	127	12-54	

附件6: 日标法兰连接尺寸汇总表 JIS B2220-2012

																	
JIS B2220-2012 [突面RF]								JIS B2220-2012 [凹面F]									
公称压力 PN(K) Nominal Pressure	尺寸 Dimension (mm)							公称压力 PN(K) Nominal Pressure	尺寸 Dimension (mm)								
	DN	D	D1	D2	f	b	n-d		DN	D	D1	D2	D3	f2	f1	b	n-d
10	15A	95	70	51	1	12	4-15	30	15A	115	80	55	43	5	1	18	4-19
	20A	100	75	56	1	14	4-15		20A	120	85	60	51	5	1	18	4-19
	25A	125	90	67	1	14	4-19		25A	130	95	70	61	5	1	20	4-19
	32A	135	100	76	2	16	4-19		32A	140	105	80	71	5	2	22	4-19
	40A	140	105	81	2	16	4-19		40A	160	120	90	76	5	2	22	4-23
	50A	155	120	96	2	16	4-19		50A	165	130	105	91	5	2	22	8-19
	65A	175	140	116	2	18	4-19		65A	200	160	130	111	5	2	26	8-23
	80A	185	150	126	2	18	8-19		80A	210	170	140	121	5	2	28	8-23
	100A	210	175	151	2	18	8-19		100A	240	195	160	146	5	2	32	8-25
	125A	250	210	182	2	20	8-23		125A	275	230	195	176	5	2	36	8-25
	150A	280	240	212	2	22	8-23		150A	325	275	235	216	5	2	38	12-27
	200A	330	290	262	2	22	12-23		200A	370	320	280	261	5	2	42	12-27
	250A	400	355	324	2	24	12-25		250A	450	390	345	326	5	2	48	12-33
300A	445	400	368	3	24	16-25	300A	515	450	405	376	5	3	52	16-33		
16	15A	95	70	51	1	12	4-15	40	15A	115	80	55	43	5	1	20	4-19
	20A	100	75	56	1	14	4-15		20A	120	85	60	51	5	1	20	4-19
	25A	125	90	67	1	14	4-19		25A	130	95	70	61	5	1	22	4-19
	32A	135	100	76	2	16	4-19		32A	140	105	80	71	5	2	24	4-19
	40A	140	105	81	2	16	4-19		40A	160	120	90	76	5	2	24	4-23
	50A	155	120	96	2	16	8-19		50A	165	130	105	91	5	2	26	8-19
	65A	175	140	116	2	18	8-19		65A	200	160	130	111	5	2	30	8-23
	80A	200	160	132	2	20	8-23		80A	210	170	140	121	5	2	32	8-23
	100A	225	185	160	2	22	8-23		100A	250	205	165	146	5	2	36	8-25
	125A	270	225	195	2	22	8-25		125A	300	250	200	176	5	2	40	8-27
	150A	305	260	230	2	24	12-25		150A	355	295	240	216	5	2	44	12-33
	200A	350	305	275	2	26	12-25		200A	405	345	290	261	5	2	50	12-33
	250A	430	380	345	2	28	12-27		250A	475	410	355	326	5	2	56	12-33
300A	480	430	395	3	30	16-27	300A	540	470	410	376	5	3	60	16-39		
20	15A	95	70	51	1	14	4-15	63	15A	120	85	55	43	5	1	23	4-19
	20A	100	75	56	1	16	4-15		20A	135	95	60	51	5	1	25	4-23
	25A	125	90	67	1	16	4-19		25A	140	100	70	61	5	1	27	4-23
	32A	135	100	76	2	18	4-19		32A	150	110	80	71	5	2	30	4-23
	40A	140	105	81	2	18	4-19		40A	175	130	90	76	5	2	32	4-25
	50A	155	120	96	2	18	8-19		50A	185	145	105	91	5	2	34	8-23
	65A	175	140	116	2	20	8-19		65A	220	175	130	111	5	2	38	8-25
	80A	200	160	132	2	22	8-23		80A	230	185	140	121	5	2	40	8-25
	100A	225	185	160	2	24	8-23		100A	270	220	165	146	5	2	44	8-27
	125A	270	225	195	2	26	8-25		125A	325	265	200	176	5	2	50	8-33
	150A	305	260	230	2	28	12-25		150A	365	305	240	216	5	2	54	12-33
	200A	350	305	275	2	30	12-25		200A	425	360	290	261	5	2	60	12-33

附件7:德标法兰连接尺寸汇总表 DIN 2633~2638

 DIN 2633~2638 [突面RF]								 DIN 2633~2638 [突面RF]							
公称压力 PN (MPa) Nominal Pressure	尺寸 Dimension (mm)							公称压力 PN (MPa) Nominal Pressure	尺寸 Dimension (mm)						
	DN	D	D1	D2	f	b	n-d		DN	D	D1	D2	f	b	n-d
1.6	15	95	65	45	2	14	4-14	6.3	15	105	75	45	2	20	4-14
	20	105	75	58	2	16	4-14		-	-	-	-	-	-	-
	25	115	85	68	2	16	4-14		25	140	100	68	2	24	4-18
	32	140	100	78	2	16	4-18		-	-	-	-	-	-	-
	40	150	110	88	3	16	4-18		40	170	125	88	3	26	4-22
	50	165	125	102	3	18	4-18		50	180	135	102	3	26	4-22
	65	185	145	122	3	18	4-18		65	205	160	122	3	26	8-22
	80	200	160	138	3	20	8-18		80	215	170	138	3	28	8-22
	100	220	180	158	3	20	8-18		100	250	200	162	3	30	8-26
	125	250	210	188	3	22	8-18		125	295	240	188	3	34	8-30
	150	285	240	212	3	22	8-22		150	345	280	218	3	36	8-33
	200	340	295	268	3	24	12-22		200	415	345	285	3	42	12-36
	250	405	355	320	3	26	12-26		250	470	400	345	3	46	12-36
	300	460	410	378	4	28	12-26		300	530	460	410	4	52	16-36
2.5	15	95	65	45	2	16	4-14	10	15	105	75	45	2	20	4-14
	20	105	75	58	2	18	4-14		-	-	-	-	-	-	-
	25	115	85	68	2	18	4-14		25	140	100	68	2	24	4-18
	32	140	100	78	2	18	4-18		-	-	-	-	-	-	-
	40	150	110	88	3	18	4-18		40	170	125	88	3	26	4-22
	50	165	125	102	3	20	4-18		50	195	145	102	3	28	4-26
	65	185	145	122	3	22	8-18		65	220	170	122	3	30	8-26
	80	200	160	138	3	24	8-18		80	230	180	138	3	32	8-26
	100	235	190	162	3	24	8-22		100	265	210	162	3	36	8-30
	125	270	220	188	3	26	8-26		125	315	250	188	3	40	8-33
	150	300	250	218	3	28	8-26		150	355	290	218	3	44	12-33
	200	360	310	278	3	30	12-26		200	430	360	285	3	52	12-36
	250	425	370	335	3	32	12-30		250	505	430	345	3	60	16-39
	300	485	430	395	4	34	16-30		300	585	500	410	4	68	16-42
4.0	15	95	65	45	2	16	4-14	16	15	105	75	45	2	20	4-14
	20	105	75	58	2	18	4-14		-	-	-	-	-	-	-
	25	115	85	68	2	18	4-14		25	140	100	68	2	24	4-18
	32	140	100	78	2	18	4-18		-	-	-	-	-	-	-
	40	150	110	88	3	18	4-18		40	170	125	88	3	28	4-22
	50	165	125	102	3	20	4-18		50	195	145	102	3	30	4-26
	65	185	145	122	3	22	8-18		65	220	170	122	3	34	8-26
	80	200	160	138	3	24	8-18		80	230	180	138	3	36	8-26
	100	235	190	162	3	24	8-22		100	265	210	162	3	40	8-30
	125	270	220	188	3	26	8-26		125	315	250	188	3	44	8-33
	150	300	250	218	3	28	8-26		150	355	290	218	3	50	12-33
	200	375	320	285	3	34	12-30		200	430	360	285	3	60	12-36