CFZFL 富泽法兰 FUZE FLANGE

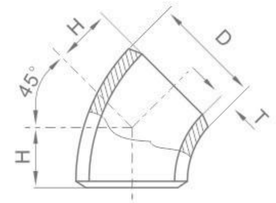
管线稳固
富泽守护

管件系列

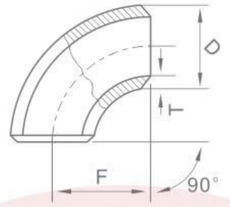
PIPE FITTING SERIES

TS CE ISO 9001 ISO 14001 ISO 45001

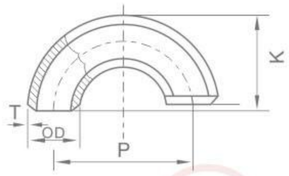
对焊弯头
BUTT-WELDING ELBOW



45° 弯头 Elbow



90° 弯头 Elbow



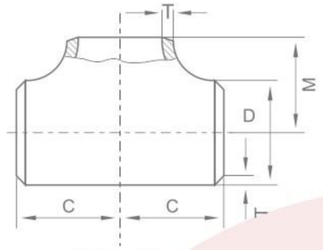
180° 弯头 Elbow

GB12459、GB/T13401

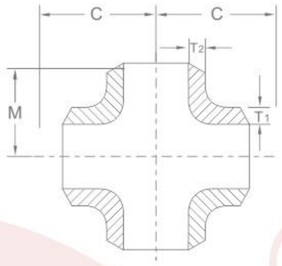
公称通径 Norminal Pipe size DN	端部外径 Outside Diameter at Bevel D		中心至端面 Center to End			中心至中心 Center to Center		背面至端面 Back to Faces	
			45° 弯头 Elbows.	90° 弯头 Elbows.		180° 弯头 Return		180° 弯头 Return	
			H	F		P		K	
	A系列 Series A	B系列 Series B	长半径 Long Radius	长半径 Long Radius	短半径 Short Radius	长半径 Long Radius	短半径 Short Radius	长半径 Long Radius	短半径 Short Radius
15	21.3	18	16	38	-	76	-	48	-
20	26.9	25	16	38	-	76	-	51	-
25	33.7	32	16	38	25	76	51	56	41
32	42.4	38	20	48	32	95	64	70	52
40	48.3	45	24	57	38	114	76	83	62
50	60.3	57	32	76	51	152	102	106	81
65	76.1(73)	76	40	95	64	191	127	132	100
80	88.9	89	47	114	76	229	152	159	121
90	101.6	-	55	133	89	267	178	184	140
100	114.3	108	63	152	102	305	203	210	159
125	139.7	133	79	190	127	381	254	262	197
150	168.3	159	95	229	152	457	305	313	237
200	219.1	219	126	305	203	610	406	414	313
250	273.0	273	158	381	254	762	508	518	391
300	323.9	325	189	457	305	914	610	619	467
350	355.6	377	221	533	356	1067	711	711	533
400	406.4	426	253	610	406	1219	813	813	610
450	457.2	478	284	686	457	1372	914	914	686
500	508.0	529	316	762	508	1524	1016	1016	762
550	559	-	347	838	559				
600	610	630	379	914	610				
650	660	-	410	991	660				
700	711	720	442	1067	711				
750	762	-	473	1143	762				
800	813	820	505	1219	813				
850	864	-	537	1295	864				
900	914	920	568	1372	914				
950	965	-	600	1448	965				
1000	1016	1020	631	1524	1016				
1050	1067	-	663	1600	1067				
1100	1118	1120	694	1676	1118				
1150	1168	-	726	1753	1168				
1200	1220	1120	758	1829	1219				
1300	1320.8	821	1981	1981	1321				
1400	1422.4	883	2134	2134	1420				
1500	1524	947	2286	2286	1524				
1600	1625.6	1010	2438	2438	1620				
1700	1727.2	1073	2591	2591	1727				
1800	1828.8	1137	2743	2743	1827				
2000	2032	1263	3048	3048	2032				
2200	2235.2	1388	3352	3352	2236				

注：1）尽可能不采用括号内数值。
2）优先选用A系列。

对焊等径三通、四通
BUTT-WELDING STRAIGHT TEES AND CROSSES



等径三通
Straight Outlet Tee



等径四通
Straight Outlet Cross

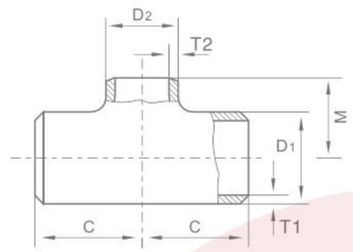
GB12459、GB/T13401

公称通径 Nor-minal Pipe Size DN	端部外径 Outside Diameter at Bevel		中心至端面 Center to end	
	D		C	M
	A系列 Series A	B系列 Series B		
15	21.3	18	25	
20	26.9	25	29	
25	33.7	32	38	
32	42.4	38	48	
40	48.3	45	57	
50	60.3	57	64	
65	76.1(73)	76	76	
80	88.9	89	86	
90	101.6	-	95	
100	114.3	108	105	
125	139.7	133	124	
150	168.3	159	143	
200	219.1	219	178	
250	273.0	273	216	
300	323.9	325	254	
350	355.6	377	279	
400	406.4	426	305	

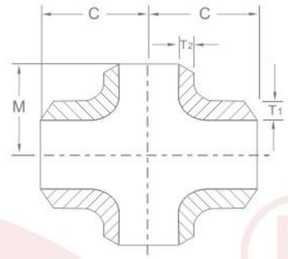
公称通径 Nor-minal Pipe Size DN	端部外径 Outside Diameter at Bevel		中心至端面 Center to end	
	D		C	M
	A系列 Series A	B系列 Series B		
450	457.2	478	343	
500	508.0	529	381	
550	559	-	419	
600	610	630	432	
650	660	-	495	
700	711	720	521	
750	762	-	559	
800	813	820	597	
850	864	-	635	
900	914	920	673	
950	965	-	711	
1000	1016	1020	749	
1050	1067	-	762	711
1100	1118	1120	813	762
1150	1168	-	851	800
1200	1220	1120	889	838

注：1）尽可能不采用括号内数值。　2）优先选用A系列。

对焊异径三通、四通
BUTT-WELDING REDUCING TEES AND CROSSES



异径三通
Reducing Outlet Tee



异径四通
Reducing Cross

GB12459、GB/T13401

公称通径 Norminal Pipe Size DN	端部外径 Outside Diameter at Bevel				中心至端面 Center to End	
	D1		D2		C	M
	A系列 Series A	B系列 Series B	A系列 Series A	B系列 Series B		
20x15	26.9	25	21.3	18	29	29
25x20	33.7	32	26.9	25	38	38
25x15	33.7	32	21.3	18	38	38
32x25	42.4	38	33.7	32	48	48
32x20	42.4	38	26.9	25	48	48
32x15	42.4	38	21.3	18	48	48
40x32	48.3	45	42.4	38	57	57
40x25	48.3	45	33.7	32	57	57
40x20	48.3	45	26.9	25	57	57
40x15	48.3	45	21.3	18	57	57
50x40	60.3	57	48.3	45	64	60
50x32	60.3	57	42.4	38	64	57
50x25	60.3	57	33.7	32	64	51
50x20	60.3	57	26.9	25	64	44
65x50	6.1(73)	76	60.3	57	76	70
65x40	6.1(73)	76	48.3	45	76	67
65x32	6.1(73)	76	42.4	38	76	64
65x25	6.1(73)	76	33.7	32	76	57
80x65	88.9	89	76.1(73)	76	86	83
80x50	88.9	89	60.3	57	86	76
80x40	88.9	89	48.3	45	86	73
80x32	88.9	89	42.4	38	86	70
90x80	101.6	–	88.9	–	95	92
90x65	101.6	–	76.1(73)	–	95	89
90x50	101.6	–	60.3	–	95	83
90x40	101.6	–	48.3	–	95	79

公称通径 Norminal Pipe Size DN	端部外径 Outside Diameter at Bevel				中心至端面 Center to End	
	D1		D2		C	M
	A系列 Series A	B系列 Series B	A系列 Series A	B系列 Series B		
100×90	114.3	–	101.6	–	105	102
100×80	114.3	108	88.9	89	105	98
100×65	114.3	108	76.1(73)	76	105	95
100×50	114.3	108	60.3	57	105	89
100×40	114.3	108	48.3	45	105	86
125×100	139.7	133	114.3	108	124	117
125×90	139.7	–	101.6	–	124	114
125×80	139.7	133	88.9	89	124	111
125×65	139.7	133	76.1(73)	76	124	108
125×50	139.7	133	60.3	57	124	105
150×125	168.3	159	139.7	133	143	137
150×100	168.3	159	114.3	108	143	130
150×90	168.3	–	101.6	–	143	127
150×80	168.3	159	88.9	89	143	124
150×65	168.3	159	76.1(73)	76	143	121
200×150	219.1	219	168.3	159	178	168
200×125	219.1	219	139.7	133	178	162
200×100	219.1	219	114.3	108	178	156
200×90	219.1	219	101.6	–	178	152
250×200	273.0	273	219.1	219	216	208
250×150	273.0	273	168.3	159	216	194
200×125	273.0	273	139.7	133	216	191
200×100	273.0	273	114.3	108	216	184
300×250	323.9	325	273.0	273	254	241
300×200	323.9	325	219.1	219	254	229
300×150	323.9	325	168.3	159	254	219

对焊异径三通、四通
BUTT-WELDING REDUCING TEES AND CROSSES

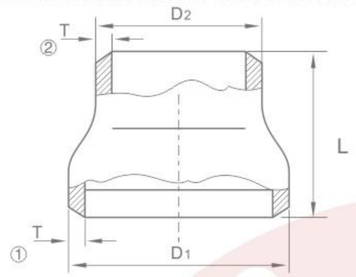
GB12459, GB/T13401

公称通径 Norminal Pipe Size DN	端部外径 Outside Diameter at Bevel				中心至端面 Center to End	
	D_1		D_2			
	A系列 Series A	B系列 Series B	A系列 Series A	B系列 Series B	C	M
300×125	323.9	325	139.7	133	254	216
350x300	355.6	377	323.9	325	279	270
350x250	355.6	377	273.0	273	279	257
350x200	355.6	377	219.1	219	279	248
350x150	355.6	377	168.3	159	279	238
400x350	406.4	426	355.6	377	305	305
400x300	406.4	426	323.9	325	305	295
400x250	406.4	426	273.0	273	305	283
400x200	406.4	426	219.1	219	305	273
400x150	406.4	426	168.3	159	305	264
450x400	457.2	478	406.4	426	343	330
450x350	457.2	478	355.6	377	343	330
450x300	457.2	478	323.9	325	343	321
450x250	457.2	478	273.0	273	343	308
450x200	457.2	478	219.1	219	343	298
500x450	508.0	529	457.2	478	381	368
500x400	508.0	529	406.4	426	381	356
500x350	508.0	529	355.6	377	381	356
500x300	508.0	529	323.9	325	381	346
500x250	508.0	529	273.0	273	381	333
500x200	508.0	529	219.1	219	381	324
550x500	559	–	508	–	419	406
550x450	559	–	457	–	419	394
550x400	559	–	406	–	419	381
600x550	610	–	559	–	432	432
600x500	610	630	508	530	432	432
600x450	610	630	457	480	432	419
650x600	660	–	610	–	495	483
650x550	660	–	559	–	495	470
650x500	660	–	508	–	495	457
700x650	711	–	660	–	521	521
700x600	711	720	610	630	521	508

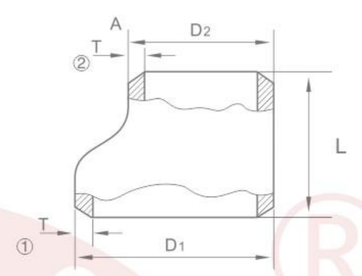
公称通径 Norminal Pipe Size DN	端部外径 Outside Diameter at Bevel				中心至端面 Center to End	
	D_1		D_2			
	A系列 Series A	B系列 Series B	A系列 Series A	B系列 Series B	C	M
700x550	711	–	599	–	521	495
750x700	762	–	711	–	559	546
750x650	762	–	660	–	559	546
750x600	762	–	610	–	559	533
800x750	813	–	762	–	597	584
800x700	813	820	711	720	597	572
800x650	813	–	660	–	597	572
850x800	864	–	813	–	635	622
850x750	864	–	762	–	635	610
850x700	864	–	711	–	635	597
900x850	914	–	864	–	673	660
900x800	914	920	813	820	673	648
900x750	914	–	762	–	673	635
950x900	965	–	914	–	711	711
950x850	965	–	864	–	711	698
950x800	965	–	813	–	711	686
1000x950	1016	–	965	–	749	749
1000x900	1016	1020	914	920	749	737
1000x850	1016	–	864	–	749	724
1050x1000	1067	–	1016	–	762	711
1050x950	1067	–	965	–	762	711
1050x900	1067	–	914	–	762	711
1100x1050	1118	–	1067	–	813	762
1100x1000	1118	1120	1016	1020	813	749
1100x950	1118	–	965	–	813	737
1150x1100	1168	–	1118	–	851	800
1150x1050	1168	–	1067	–	851	787
1150x1000	1168	–	1016	–	851	775
1200x1150	1220	–	1168	–	889	838
1200x1100	1220	1220	1118	1120	889	838
1200x1050	1220	–	1067	–	889	813

注：1）尽可能不采用括号内数值。　2）优先选用A系列。

对焊同心、偏心异径管
BUTT-WELDING CONCENTRIC & ECCENTRIC REDUCERS



同心大小头
Concentric Reducers



偏心大小头
Eccentric Reducers

GB12459, GB/T13401

公称通径 Norminal Pipe Size DN	端部外径 Outside Diameter at Bevel				长度 End to End L
	D_1		D_2		
	A系列 Series A	B系列 Series B	A系列 Series A	B系列 Series B	
20x15	26.9	25	21.3	18	38
25x20	33.7	32	26.9	25	51
25x15	33.7	32	21.3	18	51
32x25	42.4	38	33.7	32	51
32x20	42.4	38	26.9	25	51
32x15	42.4	38	21.3	18	51
40x32	48.3	45	42.4	38	64
40x25	48.3	45	33.7	32	64
40x20	48.3	45	26.9	25	64
40x15	48.3	45	21.3	18	64
50x40	60.3	57	48.3	45	76
50x32	60.3	57	42.4	38	76
50x25	60.3	57	33.7	32	76
50x20	60.3	57	26.9	25	76
65x50	76.1(73)	76	60.3	57	89
65x40	76.1(73)	76	48.3	45	89
65x32	76.1(73)	76	42.4	38	89
65x25	76.1(73)	76	33.7	32	89
80x65	88.9	89	76.1(73)	76	89
80x50	88.9	89	60.3	57	89
80x40	88.9	89	48.3	45	89
80x32	88.9	89	42.4	38	89
90x80	101.6	–	88.9	–	102
90x65	101.6	–	76.1(73)	–	102
90x50	101.6	–	60.3	–	102
90x40	101.6	–	48.3	–	102
90x32	101.6	–	42.4	–	102
100x90	114.3	–	101.6	–	102
100x80	114.3	108	88.9	89	102
100x65	114.3	108	76.1(73)	76	102
100x50	114.3	108	60.3	57	102
100x40	114.3	108	48.3	45	102
125x100	139.7	133	114.3	108	127
125x90	139.7	–	101.6	–	127
125x80	139.7	133	88.9	89	127

公称通径 Norminal Pipe Size DN	端部外径 Outside Diameter at Bevel				长度 End to End L
	D_1		D_2		
	A系列 Series A	B系列 Series B	A系列 Series A	B系列 Series B	
125x65	139.7	133	76.1(73)	76	127
125x50	139.7	133	60.3	57	127
150x125	168.3	159	139.7	133	140
150x100	168.3	159	114.3	108	140
150x90	168.3	–	101.6	–	140
150x80	168.3	159	88.9	89	140
150x65	168.3	159	76.1(73)	76	140
200x150	219.1	219	168.3	159	152
200x125	219.1	219	139.7	133	152
200x100	219.1	219	114.3	108	152
200x90	219.1	–	101.6	–	152
250x200	273.0	273	219.1	219	178
250x150	273.0	273	168.3	159	178
250x125	273.0	273	139.7	133	178
250x100	273.0	273	114.3	108	178
300x250	323.9	325	273.0	273	203
300x200	323.9	325	219.1	219	203
300x150	323.9	325	168.3	159	203
300x125	323.9	325	139.7	133	203
350x300	355.6	377	323.9	325	330
350x250	355.6	377	273.0	273	330
350x200	355.6	377	219.1	219	330
350x150	355.6	377	168.3	159	330
400x350	406.4	426	355.6	377	356
400x300	406.4	426	323.9	325	356
400x250	406.4	426	273.0	273	356
400x200	406.4	426	219.1	219	356
450x400	457.2	478	406.4	426	381
450x350	457.2	478	355.6	377	381
450x300	457.2	478	323.9	325	381
450x250	457.2	478	273.0	273	381
500x450	508.0	529	457.2	478	508
500x400	508.0	529	406.4	426	508
500x350	508.0	529	355.6	377	508
500x300	508.0	529	323.9	325	508

对焊同心、偏心异径管
BUTT-WELDING CONCENTRIC & ECCENTRIC REDUCERS

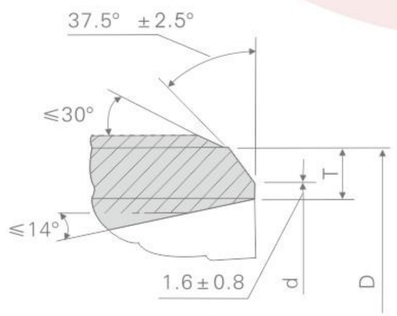
GB12459, GB/T13401

公称通径 Norminal Pipe size DN	端部外径 Outside Diameter at Bevel D1 A系列 Series A	D1 B系列 Series B	D2 A系列 Series A	D2 B系列 Series B	长度 End to End L
550x500	559	–	508	–	508
550x450	559	–	457	–	508
550x400	559	–	406	–	508
550x350	559	–	356	–	508
600x550	610	–	559	–	508
600x500	610	630	508	530	508
600x450	610	630	457	480	508
600x400	610	630	406	426	508
650x600	660	–	610	–	610
650x550	660	–	559	–	610
650x500	660	–	508	–	610
650x450	660	–	457	–	610
700x650	711	–	660	–	610
700x600	711	720	610	630	610
700x550	711	–	559	–	610
700x500	711	720	508	530	610
750x700	762	–	711	–	610
750x650	762	–	660	–	610
750x600	762	–	610	–	610
750x550	762	–	559	–	610
800x750	813	–	762	–	610
800x700	813	820	711	720	610
800x650	813	–	660	–	610
800x600	813	820	610	630	610
850x800	864	–	813	–	610
850x750	864	–	762	–	610
850x700	864	–	711	–	610
850x650	864	–	660	–	610

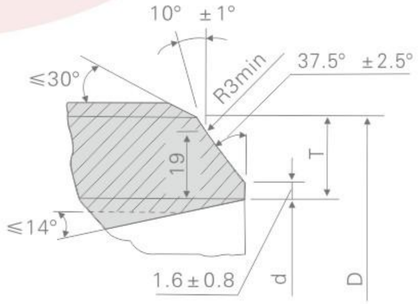
公称通径 Norminal Pipe size DN	端部外径 Outside Diameter at Bevel D1 A系列 Series A	D1 B系列 Series B	D2 A系列 Series A	D2 B系列 Series B	长度 End to End L
900x850	914	–	864	–	610
900x800	914	920	813	820	610
900x750	914	–	762	–	610
900x700	914	920	711	720	610
950x900	965	–	914	–	610
950x850	965	–	864	–	610
950x800	965	–	813	–	610
950x750	965	–	762	–	610
1000x950	1016	–	965	–	610
1000x900	1016	1020	914	920	610
1000x850	1016	–	864	–	610
1000x800	1016	1020	813	820	610
1050x1000	1067	–	1016	–	610
1050x950	1067	–	965	–	610
1050x900	1067	–	914	–	610
1050x850	1067	–	864	–	610
1100x1050	1118	–	1067	–	610
1100x1000	1118	1120	1016	1020	610
1100x950	1118	–	965	–	610
1100x900	1118	1120	914	920	610
1150x1100	1168	–	1118	–	711
1150x1050	1168	–	1067	–	711
1150x1000	1168	–	1016	–	711
1150x950	1168	–	965	–	711
1200x1150	1220	–	1168	–	711
1200x1100	1220	1220	1118	1120	711
1200x1050	1220	–	1067	–	711
1200x1000	1220	1220	1016	1020	711

注：1）尽可能不采用括号内数值。　2）优先选用A系列。

规定的对焊管件端坡口的结构型式 GB12459 GB/T13401
End Preperation of Butt-welding Fittings to GB 12459&GB/T 13401

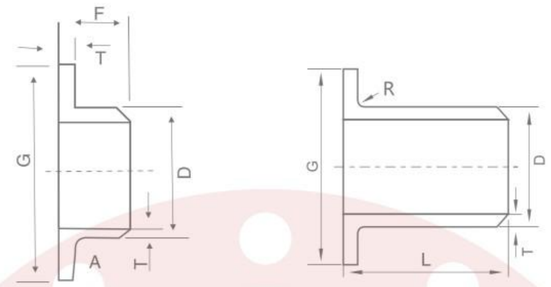


（a）壁厚≤22



（b）壁厚≥22

翻边接头
LAP JOINT STUB ENDS



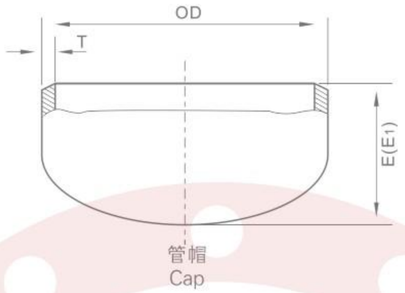
翻边接头
Lap joint stub ends

尺寸/SE对焊环 Size SE butt welding ring

公称通径 Norminal Pipe size DN(in)	端部外径 Outside Diameter at Bevel D A系列 SeriesA	B系列 SeriesB	长度 Length L	圆角半径 Redius of fillet R	搭线直径 Diameter of Lap G
15	21.3	18	38	2	46
20	26.9	25	40	2	56
25	33.7	32	40	3	65
32	42.4	38	42	3	76
40	48.3	45	45	3	84
50	60.3	57	48	3	99
65	76.1	76	48	3	118
80	88.9	89	50	4	132
100	114.3	108	52	4	156
125	139.7	133	55	4	184
150	168.3	159	55	4	211
200	219.1	219	62	5	266
250	273	273	70	5	319
300	323.9	325	78	5	370
350	355.6	377	82	5	429
400	406.4	426	85	5	480
450	457	478	87	5	548
500	508	529	90	6	609
600	610	630	95	6	720

注：1、本表尺寸适用对焊环松套钢制管法兰（HG20599-97）PN1.6Mpa。
2、客户要求不同压力及型号，请在合同上注册。

对焊管帽
BUTT-WELDING CAPS



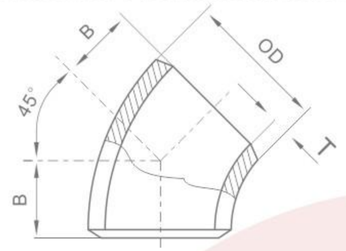
GB 12459、GB/T 13401

公称通径 Norminal Pipe size DN	端部外径D Outside Diameter at Bevel		全长 Length		对尺寸E的限制厚度 Limiting Wall Thickness for Length E
	A系列 Series A	B系列 Series B	E	E1	
15	21.3	18	25	-	-
20	26.9	25	25	-	-
25	33.7	32	38	-	-
32	42.4	38	38	-	-
40	48.3	45	38	-	-
50	60.3	57	38	44	5.5
65	76.1(73)	76	38	51	7.0
80	88.9	89	51	64	7.6
90	101.6	-	64	76	8.1
100	114.3	108	64	76	8.6
125	139.7	133	76	89	9.5
150	168.3	159	89	102	11.0
200	219.1	219	102	127	12.7
250	273.0	273	127	152	12.7
300	323.9	325	152	178	12.7
350	355.6	377	165	191	12.7
400	406.4	426	178	203	12.7
450	457.2	478	203	229	12.7
500	508.0	529	229	254	12.7

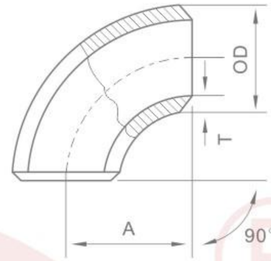
公称通径 Norminal Pipe size DN	端部外径D Outside Diameter at Bevel		全长 Length
	A系列 Series A	B系列 Series B	E
550	559	–	254
600	610	630	267
650	660	–	267
700	711	720	267
750	762	–	267
800	813	820	267
850	864	–	267
900	914	920	267
950	965	–	305
1000	1016	1020	305
1050	1067	–	305
1100	1118	1120	343
1150	1168	–	343
1200	1220	1220	343

注：1）DN600的管帽，当壁厚超过13mm时其E值改为305mm。
2）尽可能不采用括号内的数值。
3）管帽的全长不大于限制厚度时为E，超过限制厚度为E1。

对焊长、短半径弯头
BUTT-WELDING LONG AND SHORT RADIUS ELBOWS



45° 弯头 Elbow

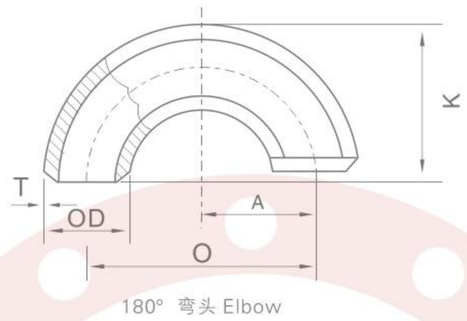


90° 弯头 Elbow

ASME B16.9,B16.28

公称通径 Nominal Pipe Size (NPS)	端部外径 Outside Diameter At Bevel OD		中心至端面 Center-to-end A 长半径 Long Radius		A 短半径 Short Radius		B 长半径 Long Radius		B 短半径 Short Radius	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
1/2	0.84	21.3	1.5	38	–	–	0.62	16	–	–
3/4	1.05	26.7	1.12	29	–	–	0.44	11	–	–
1	1.32	33.4	1.5	38	1	25	0.88	22	0.41	10
11/4	1.66	42.2	1.88	48	1.25	32	–	25	0.52	13
11/2	1.9	48.3	2.25	57	1.5	38	1.12	29	0.62	16
2	2.38	60.3	3	76	2	51	1.38	35	0.83	21
21/2	2.88	73.0	3.75	95	2.5	64	1.75	44	1.04	26
3	3.5	88.9	4.5	114	3	76	2	51	1.24	32
31/2	4	101.6	5.25	133	3.5	89	2.25	57	1.45	37
4	4.5	114.3	6	152	4	102	2.5	64	1.66	42
5	5.56	141.3	7.5	190	5	127	3.12	79	2.07	53
6	6.62	168.3	9	229	6	152	3.75	95	2.50	63
8	8.62	219.1	12	305	8	203	5	127	3.31	84
10	10.75	273.0	15	381	10	254	6.25	159	4.14	105
12	12.75	323.8	18	457	12	305	7.5	190	4.97	126
14	14	355.6	21	533	14	356	8.75	222	5.80	147
16	16	406.4	24	610	16	406	10	254	6.63	168
18	18	457	27	686	18	457	11.25	286	7.46	189
20	20	508	30	762	20	508	12.5	318	8.28	210
22	22	559	33	838	22	559	13.5	343	9.11	232
24	24	610	36	914	24	610	15	381	9.94	253
26	26	660	39	991	26	660	16	405	10.77	274
28	28	711	42	1067	28	711	17.25	438	11.60	295
30	30	762	45	1143	30	762	18.5	470	12.43	316
32	32	813	48	1219	32	813	19.75	502	14.89	378
34	34	864	51	1295	34	864	21	533	14.08	358
36	36	914	54	1372	36	914	22.25	565	14.91	379
38	38	965	57	1448	38	965	23.62	600	15.74	400
40	40	1016	60	1524	40	1016	24.88	632	16.57	421
42	42	1067	63	1600	42	1067	26	660	17.40	442
44	44	1118	66	1676	44	1118	27.38	695	18.23	463
46	46	1168	69	1753	46	1168	28.62	727	19.05	484
48	48	1219	72	1829	48	1219	29.88	759	19.88	505

对焊长、短半径弯头
BUTT-WELDING LONG AND SHORT RADIUS ELBOWS

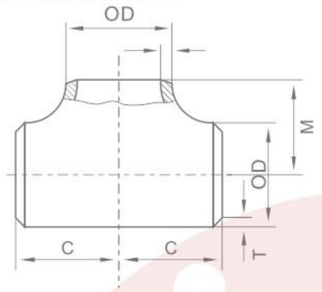


180° 弯头 Elbow

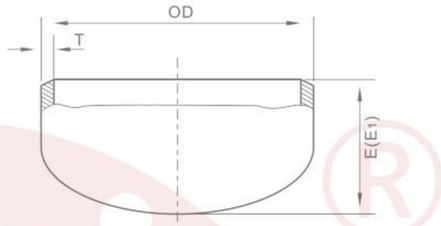
ASME B16.9,B16.28

公称通径 Nominal Pipe Size (NPS)	端部外径 Outside Diameter At Bevel OD		中心至端面 Center-to-end 180°弯头 Returns O				长度 End-to-end 180°弯头 Returns K			
			长半径 Long Radius		短半径 Short Radius		长半径 Long Radius		短半径 Short Radius	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
1/2	0.84	21.3	3	76	–	–	1.88	48	–	–
3/4	1.05	26.7	2.25	57	–	–	1.69	43	–	–
1	1.32	33.4	3	76	2	51	2.19	56	1.62	41
1 1/4	1.66	42.2	3.75	95	5	64	2.75	70	2.06	52
1 1/2	1.9	48.3	4.5	114	3	76	3.25	83	2.44	62
2	2.38	60.3	6	152	4	102	4.19	106	3.19	81
2 1/2	2.88	73.0	7.5	190	5	127	5.19	132	3.94	100
3	3.5	88.9	9	229	6	152	6.25	159	4.75	121
3 1/2	4	101.6	10.5	267	7	178	7.25	184	5.5	140
4	4.5	114.3	12	305	8	203	8.25	210	6.25	159
5	5.56	141.3	15	381	10	254	10.31	262	7.75	197
6	6.62	168.3	18	457	12	305	12.31	313	9.31	237
8	8.62	219.1	24	610	16	406	16.31	414	12.31	313
10	10.75	273.0	30	762	20	508	20.38	518	15.38	391
12	12.75	323.8	36	914	24	610	24.38	619	18.38	467
14	14	355.6	42	1067	28	711	28	711	21	533
16	16	406.4	48	1219	32	813	32	813	24	610
18	18	457	54	1372	36	914	36	914	27	686
20	20	508	60	1524	40	1016	40	1016	30	762
22	22	559	66	1676	44	1118	44	1118	33	838
24	24	610	72	1829	48	1219	48	1219	36	914

对焊三通和管帽
BUTT-WELDING TEES AND CAPS



等径三通
Straight Outlet Tee



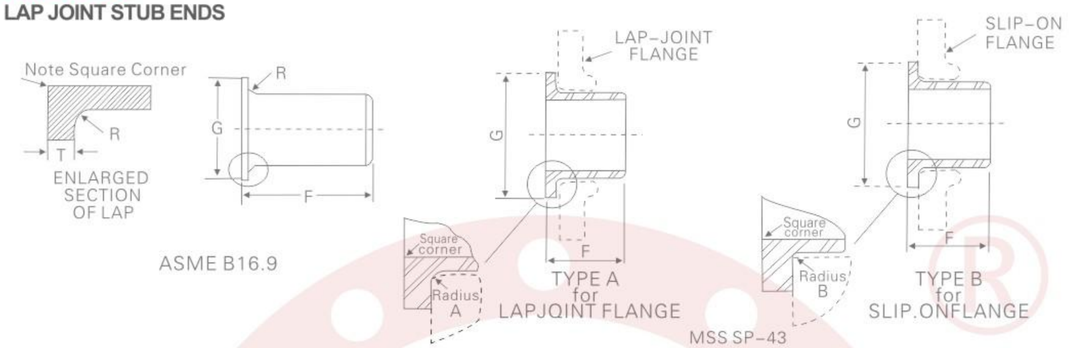
管帽
Cap

ASME B16.9

公称通径 Nominal Pipe Size (NPS)	端部外径 Outside Diameter At Bevel OD		中心至端面 Center-to-end 等径三通 Straight Outlet Tees				长度 End-to-end 管帽 Caps					
			C		M(1)		长度 Length(2) E		对尺寸E的限制厚度 Limiting Wall Thickness For Length "E"		长度 Length(3) E1	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
1/2	0.84	21.3	1	25	1	25	1	25	0.18	4.58	1	25
3/4	1.05	26.7	1.12	29	1.12	29	1	25	0.15	3.81	1	25
1	1.32	33.4	1.5	38	1.5	38	1.5	38	0.18	4.57	1.5	38
1 1/4	1.66	42.2	1.88	48	1.88	48	1.5	38	0.19	4.83	1.5	38
1 1/2	1.9	48.3	2.25	57	2.25	57	1.5	38	0.2	5.08	1.5	38
2	2.38	60.3	2.5	64	2.5	64	1.5	38	0.22	5.59	1.75	44
2 1/2	2.88	73.0	3	76	3	76	1.5	38	0.28	7.11	2	51
3	3.5	88.9	3.38	86	3.38	86	2	51	0.3	7.62	2.5	64
3 1/2	4	101.6	3.75	95	3.75	95	2.5	64	0.32	8.13	3	76
4	4.5	114.3	4.12	105	4.12	105	2.5	64	0.37	8.64	3	76
5	5.56	141.3	4.88	124	4.88	124	3	76	0.38	9.65	3.5	89
6	6.62	168.3	5.62	143	5.62	143	3.5	89	0.43	10.92	4	102
8	8.62	219.1	7	178	7	178	4	102	0.5	12.7	5	127
10	10.75	273.0	8.5	216	8.5	216	5	127	0.5	12.7	6	152
12	12.75	323.8	10	254	10	254	6	152	0.5	12.7	7	178
14	14	355.6	11	279	11	279	6.5	165	0.5	12.7	7.5	191
16	16	406.4	12	305	12	305	7	178	0.5	12.7	8	203
18	18	457.2	13.5	343	13.5	343	8	203	0.5	12.7	9	229
20	20	508	15	381	15	381	9	229	0.5	12.7	10	254
22	22	558.8	16.5	419	16.5	419	10	254	0.5	12.7	10	254
24	24	609.6	17	432	17	432	10.5	267	0.5	12.7	12	305
26	26	660.4	19.5	495	19.5	495	10.5	267	–	–	–	–
28	28	711.2	20.2	521	20.2	521	10.5	267	–	–	–	–
30	30	762	22	559	22	559	10.5	267	–	–	–	–
32	32	812.8	23.5	597	23.5	597	10.5	267	–	–	–	–
34	34	863.6	25	635	25	635	10.5	267	–	–	–	–
36	36	914.4	26.5	673	26.5	673	10.5	267	–	–	–	–
38	38	965.2	28	711	28	711	12	305	–	–	–	–
40	40	1016	29.5	749	29.5	749	12	305	–	–	–	–
42	42	1066.8	30	762	28	711	12	305	–	–	–	–
44	44	1117.6	32	813	30	762	13.5	343	–	–	–	–
46	46	1168.4	33.5	851	31.5	800	13.5	343	–	–	–	–
48	48	1219.2	35	889	33	838	13.5	343	–	–	–	–

NOTES:
(1) Outlet dimension M for NPS 26 and larger is recommended but not required.
(2)Length E applies for thickness not exceeding that given in column "Limiting Wall Thickness for Length E"
(3)Length E1 applies for thickness greater that given in column "Limiting Wall Thickness for Length E" for NPS 24 and smaller.

翻边接头
LAP JOINT STUB ENDS

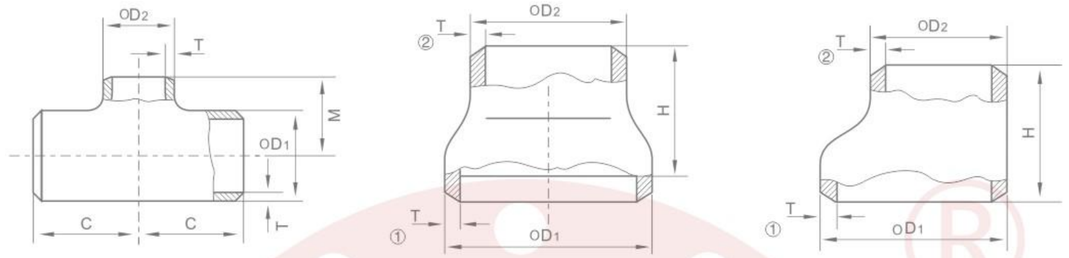


ASME B16.9 MSS SP-43

公称通径 Nominal Pipe Size (NPS)	端部外径 Outside Diameter At Bevel OD		端部外径 Outside Diameter of Barrel Max		端部外径 Outside Diameter of Barrel Min		端部外径 Diameter OF LAP G (Nominal&Max)	
	IN	MM	IN	MM	IN	MM	IN	MM
1/2	0.84	21.3	0.896	22.8	0.809	20.5	1.38	35
3/4	1.05	26.7	1.106	28.1	1.019	25.9	1.69	43
1	1.32	33.4	1.376	35	1.284	32.6	2	51
1 1/4	1.65	42.2	1.716	43.6	1.629	41.4	2.5	64
1 1/2	1.9	48.3	1.965	49.9	1.869	47.5	2.88	73
2	2.38	60.3	2.456	62.4	2.344	59.5	3.62	92
2 1/2	2.88	70.0	2.966	75.3	2.844	72.2	4.12	106
3	3.5	88.9	3.596	91.3	3.469	88.1	5	127
3 1/2	4	110.6	4.096	104	3.969	100.8	5.5	140
4	4.5	114.3	4.593	116.7	4.469	113.5	6.19	157
5	5.56	141.3	5.683	144.3	5.532	140.5	7.31	185
6	6.62	168.3	6.743	171.3	6.594	167.5	8.5	218
8	8.62	219.1	8.743	222.1	8.594	218.3	10.62	270
10	10.75	273.0	10.913	277.2	10.719	272.3	12.75	324
12	12.75	323.8	12.913	328	12.719	323.1	15	381
14	14	355.6	14.17	359.9	13.969	354.8	16.25	413
16	16	406.4	16.18	411	15.969	405.6	18.5	370
18	18	457	18.19	462	17.969	456	21	533
20	20	508	20.24	514	19.969	507	23	584
22	22	559	22.24	565	21.969	558	25.25	641
24	24	610	24.24	616	23.969	609	27.25	692

公称通径 Nominal Pipe Size (NPS)	长度 Length F ASME Long		长度 Length F ASME Short & MSS		半径 Radius R MSS Type A & ASME (Nominal&Max)		半径 Radius R MSS Type B (Max)	
	IN	MM	IN	MM	IN	MM	IN	MM
1/2	3	76	2	51	0.12	1.38	0.03	0.8
3/4	3	76	2	51	0.12	1.69	0.03	0.8
1	4	102	2	51	0.12	2	0.03	0.8
1 1/4	4	102	2	51	0.19	2.5	0.03	0.8
1 1/2	4	102	2	51	0.25	2.88	0.03	0.8
2	6	152	2.5	64	0.31	3.62	0.03	0.8
2 1/2	6	152	2.5	64	0.31	4.12	0.03	0.8
3	6	152	2.5	64	0.38	5	0.03	0.8
3 1/2	6	152	3	76	0.38	5.5	0.03	0.8
4	6	152	3	76	0.44	6.19	0.03	0.8
5	8	203	3	76	0.44	7.31	0.06	1.5
6	8	203	3.5	89	0.5	8.5	0.06	1.5
8	8	203	4	102	0.5	10.62	0.06	1.5
10	10	254	5	127	0.5	12.75	0.06	1.5
12	10	254	6	152	0.5	15	0.06	1.5
14	12	305	6	152	0.5	16.25	0.06	1.5
16	12	305	6	152	0.5	18.5	0.06	1.5
18	12	305	6	152	0.5	21	0.06	1.5
20	12	305	6	152	0.5	23	0.06	1.5
22	12	305	6	152	0.5	25.25	0.06	1.5
24	12	305	6	152	0.5	27.25	0.06	1.5

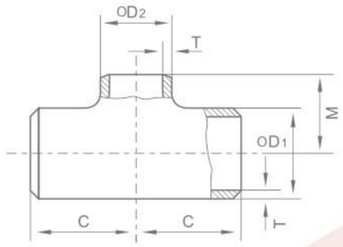
异径三通和同心，偏心异径管
REDUCING TEES AND CONCENTRIC & ECCENTRIC REDUCERS



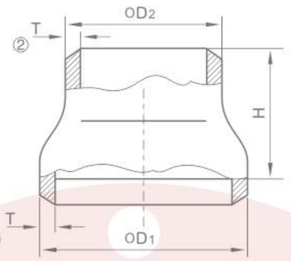
ASME B16.9

公称通径 Nominal Pipe Size (NPS)	端部外径 Outside Diameter At Bevel OD1		OD2		中心至端面 Center-to-end C		M		长度 End-to-end H	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
3/4x1/2	1.05	26.7	0.84	21.3	1.12	29	1.12	29	1.5	38
1x3/4	1.32	33.4	1.05	26.7	1.5	38	1.5	38	2	51
1x1/2	1.32	33.4	0.84	21.3	1.5	38	1.5	38	2	51
1 1/4x1	1.66	42.2	1.32	33.4	1.88	48	1.88	48	2	51
1 1/4x3/4	1.66	42.2	1.05	26.7	1.88	48	1.88	48	2	51
1 1/4x1/2	1.66	42.2	0.84	21.3	1.88	48	1.88	48	2	51
1 1/2x1 1/4	1.9	42.2	1.66	42.2	2.25	57	2.25	57	2.5	64
1 1/2x1	1.9	48.3	1.32	33.4	2.25	57	2.25	57	2.5	64
1 1/2x3/4	1.9	48.3	1.05	26.7	2.25	57	2.25	57	2.5	64
1 1/2x1/2	1.9	48.3	0.84	21.3	2.25	57	2.25	57	2.5	64
2x1 1/2	2.38	60.3	1.9	48.3	2.5	64	2.38	60	3	76
2x1 1/4	2.38	60.3	1.66	4.2	2.5	64	2.25	57	3	76
2x1	2.38	60.3	1.32	33.4	2.5	64	2	51	3	76
2x3/4	2.38	60.3	1.05	26.7	2.5	64	1.75	44	3	76
2x1/2	2.38	60.3	0.84	21.3	2.5	64	*	*	3	76
2 1/2x2	2.88	73	2.38	60.3	3	76	2.75	70	3.5	89
2 1/2x1 1/2	2.88	73	1.9	48.3	3	76	2.62	67	3.5	89
2 1/2x1 1/4	2.88	73	1.66	42.2	3	76	2.5	64	3.5	89
2 1/2x1	2.88	73	1.32	33.4	3	76	2.25	57	3.5	89
2 1/2x3/4	2.88	73	1.05	26.7	3	76	*	*	3.5	89
2 1/2x1/2	2.88	73	0.84	21.3	3	76	*	*	3.5	89
3x2 1/2	3.5	88.9	2.88	73	3.38	86	3.25	83	3.5	89
3x2	3.5	88.9	2.38	60.3	3.38	86	3	76	3.5	89
3x1 1/2	3.5	88.9	1.9	48.3	3.38	86	2.88	73	3.5	89
3x1 1/4	3.5	88.9	1.66	42.2	3.38	86	2.75	70	3.5	89
3x1	3.5	88.9	1.32	33.4	3.38	86	*	*	3.5	89
3x3/4	3.5	88.9	1.05	26.7	3.38	86	*	*	3.5	89
3x1/2	3.5	88.9	0.84	21.3	3.38	86	*	*	3.5	89
3 1/2x3	4	101.6	3.5	88.9	3.75	95	3.62	92	4	102
3 1/2x2 1/2	4	101.6	2.88	73	3.75	95	3.5	89	4	102
3 1/2x2	4	101.6	2.38	60.3	3.75	95	3.25	83	4	102
3 1/2x1 1/2	4	101.6	1.9	48.3	3.75	95	3.12	79	4	102
3 1/2x1 1/4	4	101.6	1.66	42.2	3.75	95	*	*	4	102
4x3 1/2	4.5	114.3	4	101.6	4.12	105	4	102	4	102
4x3	4.5	114.3	3.5	88.9	4.12	105	3.88	98	4	102
4x2 1/2	4.5	114.3	2.88	73	4.12	105	3.75	95	4	102
4x2	4.5	114.3	2.38	60.3	4.12	105	3.5	89	4	102
4x1 1/2	4.5	114.3	1.9	48.3	4.12	105	3.38	86	4	102
4x1 1/4	4.5	114.3	1.66	42.2	4.12	105	*	*	4	102
4x1	4.5	114.3	1.32	33.4	4.12	105	*	*	4	102

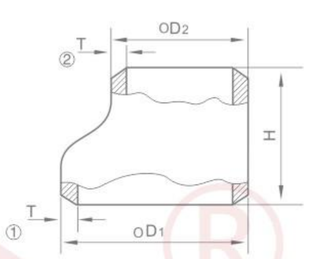
异径三通和同心，偏心异径管
REDUCING TEES AND CONCENTRIC & ECCENTRIC REDUCERS



异径三通
Reducing Outlet Tee



同心大小头
Concentric Reducers



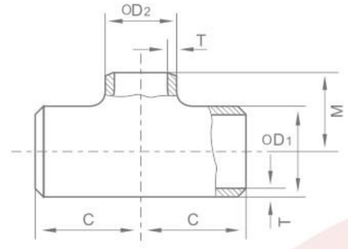
偏心大小头
Eccentric Reducers

ASME B16.9

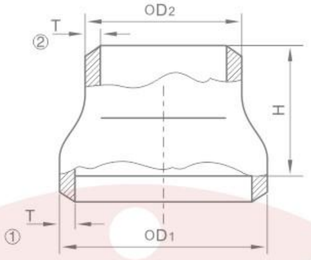
公称通径 Nominal Pipe Size (NPS)	端部外径 Outside Diameter At Bevel				中心至端面 Center-to-end				长度 End-to-end	
	OD1		OD2		C		M(1)		H	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
5x4	5.56	141.3	4.5	114.3	4.88	124	4.62	117	5	127
5x31/3	5.56	141.3	4	101.6	4.88	124	4.5	114	5	127
5x3	5.56	141.3	3.5	88.9	4.88	124	4.38	111	5	127
5x21/2	5.56	141.3	2.88	73	4.88	124	4.25	108	5	127
5x2	5.56	141.3	2.38	60.3	4.88	124	4.12	105	5	127
5x11/2	5.56	141.3	1.9	48.3	4.88	124	*	*	5	127
5x11/4	5.56	141.3	1.66	42.2	4.88	124	*	*	5	127
6x5	6.62	168.3	5.56	141.3	5.62	143	5.38	137	5.5	140
6x4	6.62	168.3	4.5	114.3	5.62	143	5.12	130	5.5	140
6x31/2	6.62	168.3	4	101.6	5.62	143	5	127	5.5	140
6x3	6.62	168.3	3.5	88.9	5.62	143	4.88	124	5.5	140
6x21/2	6.62	168.3	2.88	73	5.62	143	4.75	121	5.5	140
6x2	6.62	168.3	2.38	60.3	5.62	143	*	*	5.5	140
8x6	8.62	219.1	6.62	168.3	7	178	6.62	168	6	152
8x5	8.62	219.1	5.56	141.3	7	178	6.38	162	6	152
8x4	8.62	219.1	4.5	114.3	7	178	6.12	156	6	152
8x31/2	8.62	219.1	4	101.6	7	178	6	152	6	152
8x3	8.62	219.1	3.5	88.9	7	178	*	*	6	152
10x8	10.75	273	8.62	219.1	8.5	216	8	203	7	178
10x6	10.75	273	6.62	168.3	8.5	216	7.62	194	7	178
10x5	10.75	273	5.56	141.3	8.5	216	7.5	191	7	178
10x4	10.75	273	4.5	114.3	8.5	216	7.25	184	7	178
10x3	10.75	273	3.5	88.9	8.5	216	*	*	7	178
12x10	12.75	323.8	10.75	273	10	254	9.5	241	8	203
12x8	12.75	323.8	8.62	219.1	10	254	9	229	8	203
12x6	12.75	323.8	6.62	168.3	10	254	8.62	219	8	203
12x5	12.75	323.8	5.56	141.3	10	254	8.5	216	8	203
12x4	12.75	323.8	4.5	114.3	10	254	*	*	8	203
14x12	14	355.6	12.75	323.8	11	279	10.62	270	13	330
14x10	14	355.6	10.75	273	11	279	10.12	257	13	330
14x8	14	355.6	8.62	219.1	11	279	9.75	248	13	330
14x6	14	355.6	6.62	168.3	11	279	9.38	238	13	330
14x5	14	355.6	5.56	141.3	11	279	*	*	13	330
16x14	16	406.4	14	355.6	12	305	12	305	14	356
16x12	16	406.4	12.75	323.8	12	305	11.62	295	14	356
16x10	16	406.4	10.75	273	12	305	11.12	283	14	356
16x8	16	406.4	8.62	219.1	12	305	10.75	273	14	356
16x6	16	406.4	6.62	168.3	12	305	10.38	264	14	356
18x16	18	457	16	406.4	13.5	343	13	330	15	381

NOTE:(1)Outlet dimensions M for run sizes NPS 14 and lrger is recommended but not reqired.

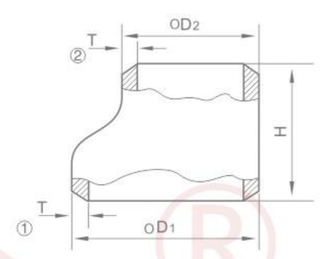
异径三通和同心，偏心异径管
REDUCING TEES AND CONCENTRIC & ECCENTRIC REDUCERS



异径三通
Reducing Outlet Tee



同心大小头
Concentric Reducers



偏心大小头
Eccentric Reducers

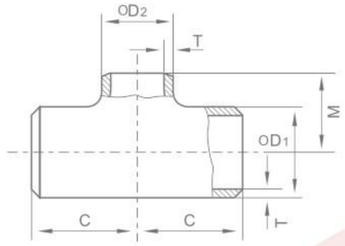
ASME B16.9

公称通径 Nominal Pipe Size (NPS)	端部外径 Outside Diameter At Bevel				中心至端面 Center-to-end				长度 End-to-end	
	OD1		OD2		C		M(1)		H	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
18x14	18	457	14	355.6	13.5	343	13	330	15	381
18x12	18	457	12.75	323.8	13.5	343	12.62	321	15	381
18x10	18	457	10.75	273	13.5	343	12.12	308	5	381
18x8	18	457	8.62	219.1	13.5	343	11.75	298	15	381
20x18	20	508	18	457.2	15	381	14.5	368	20	508
20x16	20	508	16	406.4	15	381	14	356	20	508
20x14	20	508	14	355.6	15	381	14	356	20	508
20x12	20	508	12.75	323.8	15	381	13.62	346	20	508
20x10	20	508	10.75	273	15	381	13.12	333	20	508
20x8	20	508	8.62	219.1	15	381	12.75	324	20	508
22x20	22	559	20	508	16.5	419	16	406	20	508
22x18	22	559	18	457.2	16.5	419	15.5	394	20	508
22x16	22	559	16	406.4	16.5	419	15	381	20	508
22x14	22	559	14	355.6	16.5	419	15	381	20	508
22x12	22	559	12.75	323.8	16.5	419	14.62	371	20	508
22x10	22	559	10.75	273	16.5	419	14.12	359	20	508
24x22	24	610	22	558.8	17	432	17	432	20	508
24x20	24	610	20	508	17	432	17	432	20	508
24x18	24	610	18	457.2	17	432	16.5	419	20	508
22x16	24	610	16	406.4	17	432	16	406	20	508
22x14	24	610	14	355.6	17	432	16	405	20	508
24x12	24	610	12.75	323.8	17	432	15.62	397	20	508
24x10	24	610	10.75	273	17	432	15.12	384	20	508
26x24	26	660	24	609.6	19.5	495	19	483	24	610
26x22	26	660	22	558.8	19.5	495	18.5	470	24	610
26x20	26	660	20	508	19.5	495	18	457	24	610
26x18	26	660	18	457.2	19.5	495	17.5	444	24	610
26x16	26	660	16	406.4	19.5	495	17	432	24	610
26x14	26	660	14	355.6	19.5	495	17	432	24	610
26x12	26	660	12.75	323.8	19.5	495	16.62	422	24	610
28x26	28	711	26	660.4	20.5	521	20.5	521	24	610
28x24	28	711	24	609.6	20.5	521	20	508	24	610
28x22	28	711	22	558.8	20.5	521	19.5	495	24	610
28x20	28	711	20	508	20.5	521	19	483	24	610
28x18	28	711	18	457.2	20.5	521	18.5	470	24	610
28x16	28	711	16	406.4	20.5	521	18	457	24	610
28x14	28	711	14	355.6	20.5	521	18	457	24	610
28x12	28	711	12.75	323.8	20.5	521	17.62	448	24	610
30x28	30	762	28	711.2	22	559	21.5	546	24	610

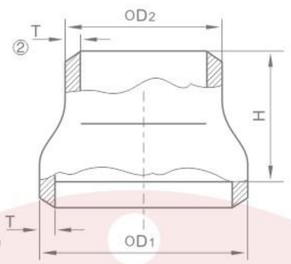
NOTE:(1)Outlet dimensions M for run sizes NPS 14 and lrger is recommended but not reqired.

异径三通和同心，偏心异径管

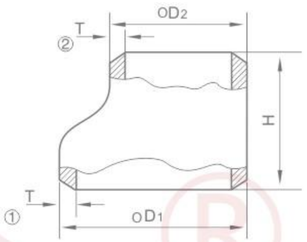
REDUCING TEES AND CONCENTRIC & ECCENTRIC REDUCERS



异径三通
Reducing Outlet Tee



同心大小头
Concentric Reducers



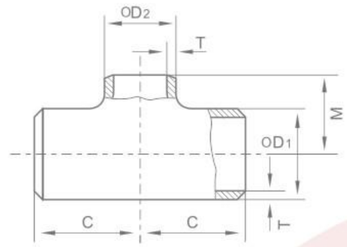
偏心大小头
Eccentric Reducers

ASME B16.9

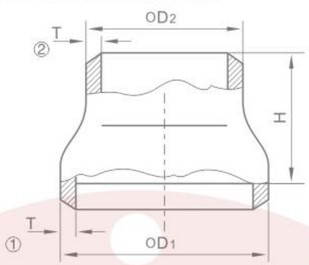
公称通径 Nominal Pipe Size (NPS)	端部外径 Outside Diameter At Bevel				中心至端面 Center-to-end				长度 End-to-end	
	OD1		OD2		C		M(1)		H	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
30x26	30	762	26	660.4	22	559	21.5	546	24	610
30x24	30	762	24	609.6	22	559	21	533	24	610
30x22	30	762	22	558.8		559	20.5	521	24	610
30x20	30	762	20	508	22	559	20	508	24	610
30x18	30	762	18	457.2	22	559	19.5	495	24	610
30x16	30	762	16	406.4	22	559	19	483	24	610
30x14	30	762	14	355.6	22	559	19	483	24	610
30x12	30	762	12.75	323.8	22	559	18.62	473	24	610
30x10	30	762	10.75	273	22	559	18.12	460	24	610
32x30	32	813	30	762	23.5	597	23	584	24	610
32x28	32	813	28	711.2	23.5	597	22.5	572	24	610
32x26	32	813	26	660.4	23.5	597	22.5	572	24	610
32x24	32	813	24	609.6	23.5	597	22	559	24	610
32x22	32	813	22	558.8	23.5	597	21.5	546	24	610
32x20	32	813	20	508	23.5	597	21	533	24	610
32x18	32	813	18	457.2	23.5	597	20.5	521	24	610
32x16	32	813	16	406.4	23.5	597	20	508	24	610
32x14	32	813	14	355.6	23.5	597	20	508	24	610
34x32	34	864	32	812.8	25	635	24.5	622	24	610
34x30	34	864	30	762	25	635	24	610	24	610
34x28	34	864	28	711.2	25	635	23.5	597	24	610
34x26	34	864	26	660.4	25	635	23.5	597	24	610
34x24	34	864	24	609.6	25	635	23	584	24	610
34x22	34	864	22	558.8	25	635	22.5	572	24	610
34x20	34	864	20	508	25	635	22	559	24	610
34x18	34	864	18	457.2	25	635	21.5	546	24	610
34x16	34	864	16	406.4	25	635	21	533	24	610
36x34	36	914	34	863.6	26.5	673	26	660	24	610
36x32	36	914	32	812.8	26.5	673	25.5	648	24	610
36x30	36	914	30	762	26.5	673	25	635	24	610
36x28	36	914	28	711.2	26.5	673	24.5	622	24	610
36x26	36	914	26	660.4	26.5	673	24.5	622	24	610
36x24	36	914	24	609.6	26.5	673	24	610	24	610
36x22	36	914	22	558.8	26.5	673	23.5	597	24	610
36x20	36	914	20	508	26.5	673	23	584	24	610
36x18	36	914	18	457.2	26.5	673	22.5	572	24	610
36x16	36	914	16	406.4	26.5	673	22	559	24	610
38x36	38	965	36	914.4	28	711	28	711	24	610
38x34	38	965	34	863.6	28	711	27.5	698	24	610

NOTE:(1)Outlet dimensions M for run sizes NPS 14 and lrger is recommended but not reqired.

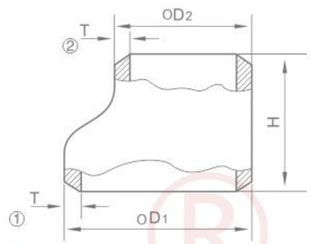
异径三通和同心，偏心异径管
REDUCING TEES AND CONCENTRIC & ECCENTRIC REDUCERS



异径三通
Reducing Outlet Tee



同心大小头
Concentric Reducers

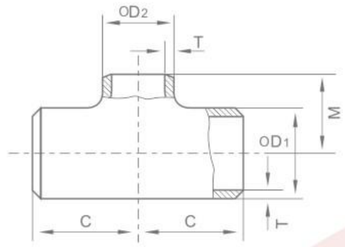


偏心大小头
Eccentric Reducers
ASME B16.9

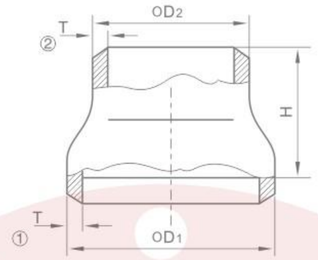
公称通径 Nominal Pipe Size (NPS)	端部外径 Outside Diameter At Bevel				中心至端面 Center-to-end				长度 End-to-end	
	OD1		OD2		C		M(1)		H	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
38x32	38	965	32	812.8	28	711	27	686	24	610
38x30	38	965	30	762	28	711	26.5	673	24	610
38x28	38	965	28	711.2	28	711	25.5	648	24	610
38x26	38	965	26	660.4	28	711	25.5	648	24	610
38x24	38	965	24	609.6	28	711	25	635	24	610
38x22	38	965	22	558.8	28	711	24.5	622	24	610
38x20	38	965	20	508	28	711	24	610	24	610
38x18	38	965	18	457.2	28	711	23.5	597	24	610
40x38	40	1016	38	965.2	29.5	749	29.5	749	24	610
40x36	40	1016	36	914.4	29.5	749	29	737	24	610
40x34	40	1016	34	863.6	29.5	749	28.5	724	24	610
40x32	40	1016	32	812.8	29.5	749	28	711	24	610
40x30	40	1016	30	762	29.5	749	27.5	698	24	610
40x28	40	1016	28	711.2	29.5	749	27	673	24	610
40x26	40	1016	26	660.4	29.5	749	26.5	673	24	610
40x24	40	1016	24	609.6	29.5	749	26.5	660	24	610
40x22	40	1016	22	558.8	29.5	749	26	648	24	610
40x20	40	1016	20	508	29.5	749	25	635	24	610
40x18	40	1016	18	457.2	29.5	749	24.5	622	24	610
42x40	42	1067	40	1016	30	762	28	711	24	610
42x38	42	1067	38	965.2	30	762	28	711	24	610
42x36	42	1067	36	914.4	30	762	28	711	24	610
42x34	42	1067	34	863.6	30	762	28	711	24	610
42x32	42	1067	32	812.8	30	762	28	711	24	610
42x30	42	1067	30	762	30	762	28	711	24	610
42x28	42	1067	28	711.2	30	762	27.5	698	24	610
42x26	42	1067	26	660.4	30	762	27.5	698	24	610
42x24	42	1067	24	609.6	30	762	26	660	24	610
42x22	42	1067	22	558.8	30	762	26	660	24	610
42x20	42	1067	20	508	30	762	26	660	24	610
42x18	42	1067	18	457.2	30	762	25.5	648	24	610
42x16	42	1067	16	406.4	30	762	25	635	24	610
44x42	44	1118	42	1066.8	32	813	30	762	24	610
44x40	44	1118	40	1016	32	813	29.5	749	24	610
44x38	44	1118	38	965.2	32	813	29	737	24	610
44x36	44	1118	36	914.4	32	813	28.5	724	24	610
44x34	44	1118	34	863.6	32	813	28.5	724	24	610
44x32	44	1118	32	812.8	32	813	28	711	24	610
44x30	44	1118	30	762	32	813	28	711	24	610

NOTE:(1)Outlet dimensions M for run sizes NPS 14 and lrger is recommended but not reqired.

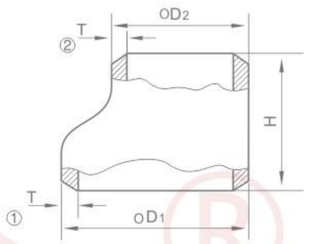
异径三通和同心，偏心异径管
REDUCING TEES AND CONCENTRIC & ECCENTRIC REDUCERS



异径三通
Reducing Outlet Tee



同心大小头
Concentric Reducers



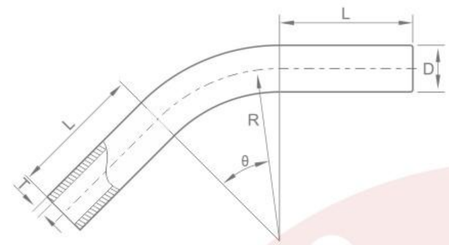
偏心大小头
Eccentric Reducers

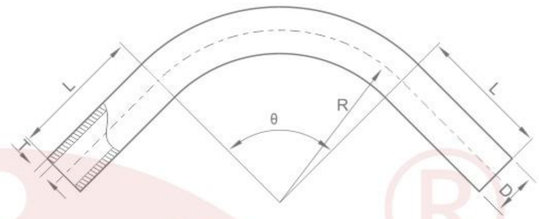
ASME B16.9

公称通径 Nominal Pipe Size (NPS)	端部外径 Outside Diameter At Bevel				中心至端面 Center - to - end				长度 End - to - end	
	OD_1		OD_2		C		M(1)		H	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
44x28	44	1118	28	711.2	32	813	27.5	698	24	610
44x26	44	1118	26	660.4	32	813	27.5	698	24	610
44x24	44	1118	24	609.6	32	813	27.5	698	24	610
44x22	44	1118	22	558.8	32	813	27	698	24	610
44x20	44	1118	20	508	32	813	27	698	24	610
46x44	46	1168	44	1117.6	33.5	851	34.5	800	28	711
46x42	46	1168	42	1066.8	33.5	851	31	787	28	711
46x40	46	1168	40	1016	33.5	851	30.5	775	28	711
46x38	46	1168	38	965.2	33.5	851	30	762	28	711
46x36	46	1168	36	914.4	33.5	851	30	762	28	711
46x34	46	1168	34	863.6	33.5	851	29.5	749	28	711
46x32	46	1168	32	812.8	33.5	851	29.5	749	28	711
46x30	46	1168	30	762	33.5	851	29	737	28	711
46x28	46	1168	28	711.2	33.5	851	29	737	28	711
46x26	46	1168	26	660.4	33.5	851	29	737	28	711
46x24	46	1168	24	609.6	33.5	851	28.5	724	28	711
46x22	46	1168	22	558.8	33.5	851	28.5	724	28	711
48x46	48	1219	46	1168.4	35	889	33	838	28	711
48x44	48	1219	44	1117.6	35	889	33	838	28	711
48x42	48	1219	42	1066.8	35	889	32	813	28	711
48x40	48	1219	40	1016	35	889	32	813	28	711
48x38	48	1219	38	965.2	35	889	32	813	28	711
48x36	48	1219	36	914.4	35	889	31	787	28	711
48x34	48	1219	34	863.6	35	889	31	787	28	711
48x32	48	1219	32	812.8	35	889	31	787	28	711
48x30	48	1219	30	762	35	889	30	762	28	711
48x28	48	1219	28	711.2	35	889	30	762	28	711
48x26	48	1219	26	660.4	35	889	30	762	28	711
48x24	48	1219	24	609.6	35	889	29	737	28	711
48x22	48	1219	20	558.8	35	889	29	737	28	711

NOTE:(1)Outlet dimensions M for run sizes NPS 14 and lrger is recomended but not reqired.

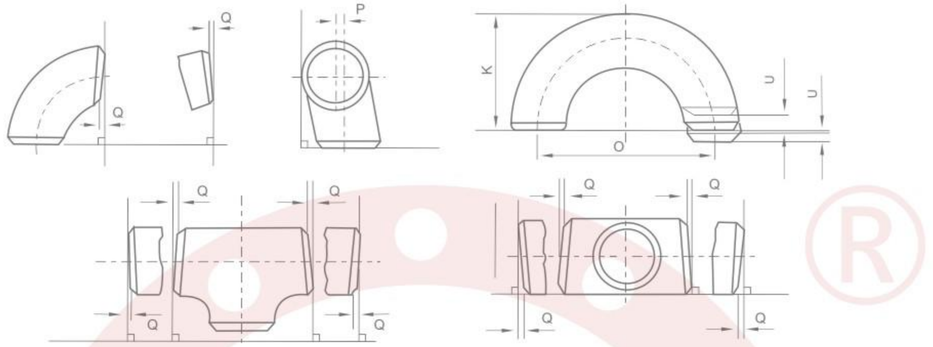
弯管
BEND





项目 Item	内容 Description
标准 Standard	按DL/T515《电站弯管》、SY5257《钢制弯管》执行，或按顾客提出的标准或技术要求执行 according toDL/T515《power stationBend》,SY5257 《steel Bend》, or customer`s technical drawings
材料 Material	碳钢、合金钢、不锈钢 carbon steel,alloy steel,stainless steel
弯曲半径 R Bend Radius R	R≤6000mm≥,且R≥3D （用R等于3D、4D、5D、6D、7D、8D、9D、10D来表示弯曲半径，D为管子外径） R≥3D（R=3D、4D、5D、6D°、7D、8D、9D、10D）D: outside diameter
弯曲半径 θ BendAnlge θ	常用为15°、45°、60°、90°、135°、和180°、，也可以按顾客提出的角度弯制 normally 15°、30°、45°、60°、90°、135°、80° or at customer`s option
直段长度 L Length of Straight L	弯管两端直段长度一般在300mm–1500mm,由顾客确定长度的大小 normally beween 300mm and 1500mm in length of straight,It is at customet`s option
外径 D Outside Diameter D	D≤1220mm
壁厚 T Wall Thickness T	T≤120mm
端部坡口 End Bevel	按对焊管件焊端坡口结构型执行 according to welding bevel of butt welding fitting
重量 Weight	重量/kg Weight/kg = $\frac{0.0433(D-T)TR\theta}{100000}$ + L(双直管段重量) L(Weight of Double Sides Straight Length)

公差表
TOLERANCE TABLE



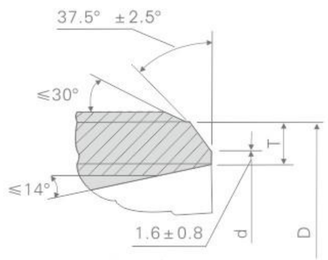
公差表 Tolerance table

mm

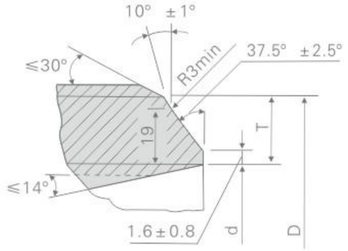
所有管件 Parts of all pipes					90°、45° 弯头、三通、四通结构尺寸 Elbows,Tess Ceter-to=End Dimmension	异径接头 翻边管高度 Reducer Lao joint Stub Ensd Overall Length	管帽 Caps	180° 弯头 elbow piece		
公称通径 Nominal diaeter		端面外径 Outside Diameter at Bevel	端部内径 Inside Diameter at Bevel	壁厚 Thickness			高度 Overall Length	中心距 center-to center dimension	高度 Back-to Face dimension	端面误差 Alignment of Ends
DN	NPS	OD D1 D2	ID	T	ABCM	HF	E E1	O	K	U
15–65	1/2–21/2	+1.6–0.8	0.8	壁厚 Thickness T 不小于工程壁厚的87.5% No less than 87.5% of nominal wall thickness	2	2	3	6	6	1
80–90	3–31/2	+1.6	1.6		2	2	3	6	6	1
100	4	+1.6	1.6		2	2	3	6	6	1
125–200	5–8	+2.4–1.6	1.6		2	2	6	6	6	1
250–450	10–18	+4.0–3.2	3.2		2	2	6	10	6	2
500–600	20–24	+6.4–4.8	4.8		2	2	6	10	6	2
650–750	26–30	+6.4–4.8	4.8		3	5	10	–	–	–
800–1200	37–48	+6.4–4.8	4.8		5	5	10	–	–	–
13000–15000	52–60	+9.5–6.4	6.4		9.5	–	–	–	–	–
16000–17000	64–68	+12–9.5	9.5		12	–	–	–	–	–
18000–2000	72–80	+16–12	12		16	–	–	–	–	–

公称通径 Nominal Pipe Size		DN NPS	15–100 1/2–4	125–200 5–8	250–300 10–12	350–400 14–16	450–600 18–24	650–750 26–30	800–1050 32–42	1100–1200 44–48	1300–1500 52–60
倾斜度偏差 Angularity tolerance	角度偏移 Off Angle	Q	1	2	3	3	4	5	5	5	6.4
	平面偏移 Off Plian	P	2	4	5	6	10	10	13	19	20

规定的对焊管件端坡口的结构型式 ASME/ANSI B16.9 B16.28
End Preperation of Butt–welding Fittings to ASME/ANSI B16.9 B16.28



（a）壁厚≤22



（b）壁厚≥22

外径和壁厚表
OUTSIDE DIAMETER AND WALL THICKNESS TABLE

公称通径 Nominal Pipe Size	外径 Outside Diameter		公称壁厚 T Nominal Wall Thickness													
DN	A	B	SCH 5s	SCH 10s	SCH 20s	LG	SCH 20	SCH 30	STD	SCH 40	SCH 60	XS	SCH 80	SCH 100	SCH 120	SCH 140	SCH 160
15	21.3	18	1.6	2.1	2.6	–	–	–	–	2.9	–	–	3.6	–	–	–	4.5
20	26.9	25	1.6	2.1	2.6	–	–	–	–	2.9	–	–	4.0	–	–	–	5.6
25	33.7	32	1.6	2.8	3.2	–	–	–	–	3.2	–	–	4.5	–	–	–	6.3
32	42.4	38	1.6	2.8	3.2	–	–	–	–	3.6	–	–	5.0	–	–	–	6.3
40	48.3	45	1.6	2.8	3.2	–	–	–	–	3.6	–	–	5.0	–	–	–	7.1
50	60.3	57	1.6	2.8	3.6	–	3.2	–	–	4.0	–	–	5.6	–	–	–	8.8
65	76.1(73)	76	2.0	3.0	3.6	–	4.5	–	–	5.0	–	–	7.1	–	–	–	10.0
80	88.9	89	2.0	3.0	4.0	–	4.5	–	–	5.6	–	–	8.0	–	–	–	11.0
90	101.6	–	2.0	3.0	4.0	–	4.5	–	–	5.6	–	–	8.0	–	–	–	12.5
100	114.3	108	2.0	3.0	4.0	–	5.0	–	–	5.9	–	–	8.8	–	11.0	–	14.2
125	139.7	133	2.9	3.4	5.0	–	5.0	–	–	6.3	–	–	10.0	–	12.5	–	16.0
150	168.3	159	2.9	3.4	5.0	–	5.6	–	–	7.1	–	–	11.0	–	14.2	–	17.5
200	219.1	219	2.9	4.0	6.3	–	6.3	7.1	–	8.0	10.0	–	12.5	16.0	17.5	20.0	22.2
250	273.0	273	3.6	4.0	6.3	–	6.3	8.0	–	8.8	12.5	–	16.0	17.5	22.2	25.0	28.0
300	323.9	325	4.0	4.5	6.3	–	6.3	8.8	–	10.0	14.2	–	17.5	22.2	25.0	28.0	32.0
350	355.6	377	4.0	5.0	–	8.0	8.0	10.0	10.0	11.0	16.0	13.0	20.0	25.8	28.0	32.0	36.0
400	406.4	426	4.0	5.0	–	8.0	8.0	10.0	10.0	12.5	17.5	13.0	22.2	28.0	30.0	36.0	40.0
450	457.2	478	4.0	5.0	–	8.0	8.0	11.0	10.0	14.2	20.0	13.0	25.0	30.0	36.0	40.0	45.0
500	508.0	529	5.0	5.6	–	8.0	10.0	12.5	10.0	16.0	20.0	13.0	28.0	32.0	40.0	45.0	50.0
550	559	–	5.0	5.6	–	8.0	–	–	10.0	–	–	13.0	30.0	–	–	–	–
600	610	630	5.6	6.3	–	8.0	–	–	10.0	17.5	–	13.0	32.0	–	–	–	–
650	660	–	–	–	–	8.0	–	–	10.0	–	–	13.0	–	–	–	–	–
700	711	720	–	–	–	8.0	–	–	10.0	–	–	13.0	–	–	–	–	–
750	762	–	–	–	–	8.0	–	–	10.0	–	–	13.0	–	–	–	–	–
800	813	820	–	–	–	8.0	–	–	10.0	–	–	13.0	–	–	–	–	–
850	864	–	–	–	–	8.0	–	–	10.0	–	–	13.0	–	–	–	–	–
900	914	920	–	–	–	8.0	–	–	10.0	–	–	13.0	–	–	–	–	–
950	965	–	–	–	–	8.0	–	–	10.0	–	–	13.0	–	–	–	–	–
1000	1016	1020	–	–	–	8.0	–	–	10.0	–	–	13.0	–	–	–	–	–
1050	1067	–	–	–	–	8.0	–	–	10.0	–	–	13.0	–	–	–	–	–
1100	1118	1120	–	–	–	8.0	–	–	10.0	–	–	13.0	–	–	–	–	–
1150	1168	–	–	–	–	8.0	–	–	10.0	–	–	13.0	–	–	–	–	–
1200	1220	1220	–	–	–	8.0	–	–	10.0	–	–	13.0	–	–	–	–	–

SCH5s、10s、20s用于不锈钢管件
SCH5s、10s、20s applies for stainless steel fittings.

外径和壁厚表
OUTSIDE DIAMETER AND WALL THICKNESS TABLE

公称通径 Nominal Pipe Size	外径 Outside Diameter	公称壁厚 T Nominal Wall Thickness 公称压力 MPa Nominal Pressure						
DN	D	10	1.6	2.5	4.0	6.4	10.0	16.0
15	18	3	3	3	3	3	–	–
20	25	3	3	3	3	3	–	–
25	32	3.5	3.5	3.5	3.5	3.5	4.5	6.5
32	38	3.5	3.5	3.5	3.5	3.5	4.5	7
40	45	3.5	3.5	3.5	3.5	3.5	4.5	7
50	57	3.5	3.5	3.5	3.5	3.5	5	7
65	76	4	4	4	4	4.5	6	8
80	89	4	4	4	4	5	7	9
100	108	4	4	4	4	6	8	10
125	133	4	4	4	4	7	10	11
150	159	4.5	4.5	4.5	4.5	8	12	14
200	219	6	6	6	7	10	14	18
250	273	8	8	8	8	11	16	24
300	325	8	8	8	9	12	18	28
350	377	9	9	9	9	15	22	30
400	428	9	9	9	11	16	24	34
450	478	9	9	10	12	18	26	38
500	529	9	9	11	14	20	28	40
600	630	9	9	12	15	22	–	–

外径和壁厚表
OUTSIDE DIAMETER AND WALL THICKNESS TABLE

公称通径 Nominal Pipe Size		外径 Outside Diameter	公称壁厚 T Nominal Wall Thickness																
DN	NPS	D	SCH 5s	SCH 10s	SCH 10	SCH 20	SCH 30	SCH 40s	STD	SCH 40	SCH 60	SCH 80s	XS	SCH 80	SCH 100	SCH 120	SCH 140	SCH 160	XXS
6	1/8	10.3	–	1.24	–	–	–	1.73	1.73	1.73	–	2.41	2.41	2.41	–	–	–	–	–
8	1/4	13.7	–	1.65	–	–	–	2.24	2.24	2.24	–	3.02	3.02	3.02	–	–	–	–	–
10	3/8	17.1	–	1.65	–	–	–	2.31	2.31	2.31	–	3.20	3.20	3.20	–	–	–	–	–
15	1/2	21.3	1.65	2.11	–	–	–	2.77	2.77	2.77	–	3.73	3.73	3.73	–	–	–	4.78	7.47
20	3/4	26.7	1.65	2.11	–	–	–	2.87	2.87	2.87	–	3.91	3.91	3.91	–	–	–	5.56	7.82
25	1	33.4	1.65	2.77	–	–	–	3.38	3.38	3.38	–	4.55	4.55	4.55	–	–	–	6.35	9.09
32	1 1/4	42.2	1.65	2.77	–	–	–	3.56	3.56	3.56	–	4.85	4.85	4.85	–	–	–	6.35	9.70
40	1 1/2	48.3	1.65	2.77	–	–	–	3.68	3.68	3.68	–	5.08	5.08	5.08	–	–	–	7.14	10.15
50	2	60.3	1.65	2.77	–	–	–	3.91	3.91	3.91	–	5.54	5.54	5.54	–	–	–	8.74	11.07
65	2 1/2	73.0	2.11	3.05	–	–	–	5.16	5.16	5.16	–	7.01	7.01	7.01	–	–	–	9.53	14.02
80	3	88.9	2.11	3.05	–	–	–	5.49	5.49	5.49	–	7.62	7.62	7.62	–	–	–	11.13	15.24
90	3 1/2	101.6	2.11	3.05	–	–	–	5.74	5.74	5.74	–	8.08	8.08	8.08	–	–	–	–	–
100	4	114.3	2.11	3.05	–	–	–	6.02	6.02	6.02	–	8.56	8.56	8.56	–	11.13	–	13.49	17.12
125	5	141.3	2.77	3.40	–	–	–	6.55	6.55	6.55	–	9.53	9.53	9.53	–	12.70	–	15.88	19.05
150	6	168.3	2.77	3.40	–	–	–	7.11	7.11	7.11	–	10.97	10.97	–	–	14.27	–	18.26	21.95
200	8	219.1	2.77	3.76	–	6.35	7.04	8.18	8.18	8.18	10.31	12.70	12.70	12.70	15.09	18.26	20.62	23.01	22.23
250	10	273.1	3.40	4.19	–	6.35	7.80	9.27	9.27	9.27	12.70	15.09	12.70	15.09	18.26	21.44	25.40	28.58	25.40
300	12	323.9	3.96	4.57	–	6.35	8.38	9.53	9.53	10.31	14.27	17.48	12.70	21.44	25.40	28.58	33.32	25.40	
350	14	355.6	3.96	4.78	6.35	7.92	9.53	–	9.53	11.13	15.09	–	12.70	23.83	27.79	31.75	35.71	–	
400	16	406.4	4.19	4.78	6.35	7.92	9.53	–	9.53	12.70	16.66	–	12.70	26.19	30.96	36.53	40.49	–	
450	18	457.2	4.19	4.78	6.35	7.92	11.13	–	9.53	14.27	19.05	–	12.70	29.36	34.93	39.67	45.24	–	
500	20	508	4.78	5.54	6.35	9.53	12.70	–	9.53	15.09	20.62	–	12.70	32.54	38.10	44.45	50.01	–	
–	22	559	4.78	5.54	6.35	9.53	12.70	–	9.53	–	22.23	–	12.70	34.93	41.28	47.63	53.98	–	
600	24	610	5.54	6.35	6.35	9.53	14.27	–	9.53	17.48	24.61	–	12.70	38.89	46.02	52.37	59.54	–	
–	26	660	–	–	7.92	12.70	–	–	9.53	–	–	–	12.70	–	–	–	–	–	
700	28	711	–	–	7.92	12.70	15.88	–	9.53	–	–	–	12.70	–	–	–	–	–	
–	30	762	6.35	7.92	7.92	12.70	15.88	–	9.53	–	–	–	12.70	–	–	–	–	–	
800	32	813	–	–	7.92	12.70	15.88	–	9.53	17.48	–	–	12.70	–	–	–	–	–	
–	34	864	–	–	7.92	12.70	15.88	–	9.53	17.48	–	–	12.70	–	–	–	–	–	
900	36	914	–	–	7.92	12.70	15.88	–	9.53	19.05	–	–	12.70	–	–	–	–	–	
–	38	965	–	–	–	–	–	–	9.53	–	–	–	12.70	–	–	–	–	–	
1000	40	1016	–	–	–	–	–	–	9.53	–	–	–	12.70	–	–	–	–	–	
–	42	1067	–	–	–	–	–	–	9.53	–	–	–	12.70	–	–	–	–	–	
1100	44	1118	–	–	–	–	–	–	9.53	–	–	–	12.70	–	–	–	–	–	
–	46	1168	–	–	–	–	–	–	9.53	–	–	–	12.70	–	–	–	–	–	
1200	48	1219	–	–	–	–	–	–	9.53	–	–	–	12.70	–	–	–	–	–	

SCH5s、10s、40s、80s用于不锈钢管件
SCH5s、10s、40s、80s applies for stainless steel fittings.

中国压力管道管件常用材料
COMMON MATERIAL OF PRESSURE PIPE FITTING IN CHINA

	牌号 Grade	标准号 Standard and Code	类型 Type	化学成份 Chemical Compositin %, max									力学性能 Mechanical Properties				
				C	Si	Mn	Cr	Ni	Cu Mo	P	S	Other	ϕb MPa min	ϕa MPa min	ϕ5 % min	HB max	Other
奥氏体不锈钢 Austenitic Stainless Steel	00Cr17Ni14Mo2	GB 1220	棒BAR	0.030	1.00	2.00	16.00–18.00	12.00–15.00	2.00–3.00	0.035	0.030	–	480	177	40	187	ϕ%: 60
	00Cr17Ni14Mo2	GB 4237	板PLATE	0.030	1.00	2.00	16.00–18.00	12.00–15.00	2.00–3.00	0.035	0.030	–	480	177	40	187	–
	00Cr17Ni14Mo2	GB/T14976	管PIPE	0.030	1.00	2.00	16.00–18.00	12.00–15.00	2.00–3.00	0.035	0.030	–	480	175	35	–	–
	00Cr19Ni10	GB 1220	棒BAR	0.030	1.00	2.00	18.00–20.00	8.00–12.00	–	0.035	0.030	–	480	177	40	187	ϕ%: 60
	00Cr19Ni10	GB 4237	板PLATE	0.030	1.00	2.00	18.00–20.00	8.00–12.00	–	0.035	0.030	–	480	177	40	187	–
	00Cr19Ni10	GB/T14976	管PIPE	0.030	1.00	2.00	18.00–20.00	8.00–12.00	–	0.030	0.030	–	480	175	35	–	–
	0Cr17Ni12Mo2	GB 1220	棒BAR	0.08	1.00	2.00	16.00–18.50	10.00–14.00	2.00–3.00	0.035	0.030	–	520	205	40	187	ϕ%: 60
	0Cr1 7Ni12Mo2	GB 4237	板PLATE	0.08	1.00	2.00	16.00–18.00	10.00–14.00	2.00–3.00	0.035	0.030	–	520	205	40	187	–
	0Cr17Ni12Mo2	GB/T14976	管PIPE	0.08	1.00	2.00	16.00–18.50	10.00–14.00	2.00–3.00	0.035	0.030	–	520	205	35	–	–
	0Cr18Ni9	GB 1220	棒BAR	0.07	1.00	2.00	17.00–19.00	8.00–11.00	–	0.035	0.030	–	520	205	40	187	ϕ%: 60
	0Cr18Ni9	GB 4237	板PLATE	0.07	1.00	2.00	17.00–19.00	8.00–11.00	–	0.035	0.030	–	520	205	40	187	–
	0Cr18Ni9	GB/T14976	管PIPE	0.07	1.00	2.00	17.00–19.00	8.00–11.00	–	0.035	0.030	–	520	205	35	–	–
	0Cr18Ni10Ti	GB 1220	棒BAR	0.08	1.00	2.00	17.00–19.00	9.00–12.00	–	0.035	0.030	Ti: 5C	520	205	40	187	ϕ%: 50
	0Cr18Ni10Ti	GB 4237	板PLATE	0.08	1.00	2.00	17.00–19.00	9.00–12.00	–	0.035	0.030	Ti: 5C	520	205	40	187	–
	0Cr18Ni10Ti	GB/T14976	管PIPE	0.08	1.00	2.00	17.00–19.00	9.00–12.00	–	0.030	0.030	Ti: 5C	520	205	35	–	–
	0Cr18Ni12Mo2Ti	GB 1220	棒BAR	0.08	1.00	2.00	16.00–19.00	11.00–14.00	1.80–2.50	0.035	0.030	Ti: 5C–0.7	530	205	40	187	ϕ%: 55
	0Cr18Ni12Mo2Ti	GB 4237	板PLATE	0.08	1.00	2.00	16.00–19.00	11.00–14.00	1.80–2.50	0.035	0.030	Ti: 5C–0.7	530	205	37	187	–
	0Cr18Ni12Mo2Ti	GB/T14976	管PIPE	0.08	1.00	2.00	16.00–19.00	11.00–14.00	1.80–2.50	0.035	0.030	Ti: 5C–0.7	530	205	35	–	–
	1Cr18Ni9	GB 4237	板PLATE	0.15	1.00	2.00	17.00–19.00	8.00–10.00	–	0.035	0.030	–	520	205	40	187	–
	1Cr18Ni9	GB 5310	管PIPE	0.15	1.00	2.00	17.00–19.00	8.00–10.00	–	0.035	0.030	Cu: 0.20	520	205	35	–	–
双相不锈钢 Biphase Stainless Steel	0Cr26Ni5Mo2	GB 1220	棒BAR	0.08	1.00	1.50	23.00–28.00	3.00–6.00	1.00–3.00	0.035	0.030	–	590	390	18	277	ϕ%: 40
	0Cr26Ni5Mo2	GB 4237	板PLATE	0.08	1.00	1.50	23.00–28.00	3.00–6.00	1.00–3.00	0.035	0.030	–	590	390	18	277	–
	0Cr26Ni5Mo2	GB 14976	管PIPE	0.08	1.00	1.50	23.00–28.00	3.00–6.00	1.00–3.00	0.035	0.030	–	590	390	18	–	–
	00Cr18Ni5Mo3Si2	GB 1220	棒BAR	0.030	1.30–2.00	1.00–2.00	18.00–19.50	4.50–5.50	2.50–3.00	0.035	0.030	–	590	390	20		ϕ%: 40
	00Cr18Ni5Mo3Si2	GB 4237	板PLATE	0.030	1.30–2.00	1.00–2.00	18.0–19.5	4.5–5.5	2.5–3.0	0.030	0.030	N: 0.10	590	390	20		–
低温钢 Low Temperature Steel	09MnNiDR	GB 3531	板PLATE	0.012	0.15–0.50	1.20–1.60	0.25	0.30–0.80	0.08	0.025	0.020	Nb: 0.04; Als:0.015	440–570	290	22	–	Akv J: 27
	16Mn	GB 6479	管PIPE	0.12–0.20	0.20–0.60	1.20–1.60	–	–	–	0.040	0.040	Cu: 0.25	490–670	320	21		ak J/cm2: 59
	16Mng	GB 731	板PLATE	0.20	0.20–0.55	1.20–1.60	0.30	0.30	0.10	0.035	0.030	Cu: 0.30	510–655	345	21		ak J: 27
	16MnDR	GB 3531	板PLATE	0.20	0.15–0.50	1.20–1.60	0.25	0.40	0.08	0.030	0.025	Cu: 0.25	490–620	315	21	–	ak J: 24
	16MnR	GB 6654	板PLATE	0.20	0.20–0.55	1.20–1.60	0.30	0.30	–	0.035	0.030	Cu: 0.30	510–640	345	21		ak J: 31

合作基于"信任"
信任基于服务与品质

COLLABORATION IS BASED ON 'TRUST'TRUST IS BASED ON SERVING QUALITY