

COMPARISON FLANGE BORES OF WELDING NECK FLANGE FOR ANSI WITH JIS

NOMINAL PIPE SIZE	O.D		SCH10		SCH20		SCH30		STD	SCH40		SCH60		XS	SCH80		SCH100		SCH120		SCH140		SCH160		XXS	
	JIS	ANSI	JIS	ANSI	JIS	ANSI	JIS	ANSI	JIS	ANSI	JIS	ANSI	JIS	ANSI	JIS	ANSI	JIS	ANSI	JIS	ANSI	JIS	ANSI	JIS	ANSI	JIS	ANSI
1/2 "	21.7	21.34	-	17.08	-	-	-	16.48	15.798	16.1	15.798	15.3	-	13.87	14.3	13.87	-	-	-	-	-	-	-	12.3	11.79	6.4
3/4 "	27.2	26.67	-	22.48	-	-	-	21.88	20.929	21.4	20.929	20.4	-	18.85	19.4	18.85	-	-	-	-	-	-	-	16.2	15.54	11.02
1 "	34.0	33.40	-	27.86	-	-	-	27.60	26.65	27.2	26.65	26.2	-	24.31	25.0	24.31	-	-	-	-	-	-	-	21.2	20.70	15.21
1 1/4 "	42.7	42.16	-	36.66	-	-	-	36.26	35.05	35.5	35.05	33.7	-	32.46	32.9	32.46	-	-	-	-	-	-	-	29.9	29.46	22.76
1 1/2 "	48.6	48.26	-	42.76	-	-	-	41.94	40.89	41.2	40.89	39.6	-	38.10	38.4	38.10	-	-	-	-	-	-	-	34.4	33.99	27.94
2 "	60.5	60.33	-	54.76	54.1	-	-	53.94	52.5	52.7	52.50	50.7	-	49.25	49.5	49.25	-	-	-	-	-	-	-	43.1	42.85	38.18
2 1/2 "	76.3	73.03	-	66.90	67.3	-	-	63.44	62.71	65.9	62.71	64.3	-	59.00	62.3	59.00	-	-	-	-	-	-	-	57.3	53.98	44.98
3 "	89.1	88.90	-	82.80	80.1	-	-	79.34	77.93	78.1	77.93	75.9	-	73.66	73.9	73.66	-	-	-	-	-	-	-	66.9	66.65	58.42
3 1/2 "	101.6	101.60	-	95.50	92.6	-	-	92.04	90.12	90.2	90.12	87.6	-	85.45	85.4	85.45	-	-	-	-	-	-	-	76.2	-	-
4 "	114.3	114.30	-	108.20	104.5	-	-	104.74	102.26	102.3	102.26	100.1	-	97.18	97.1	97.18	-	-	92.1	92.05	-	-	-	87.3	87.33	80.10
5 "	139.8	141.30	-	134.50	129.6	-	-	-	128.19	126.6	128.19	123.6	-	122.25	120.8	122.25	-	-	114.4	115.90	-	-	-	108.0	109.55	103.20
6 "	165.2	168.28	-	161.50	154.2	-	-	-	154.1	151	154.1	146.6	-	146.33	143.2	146.33	-	-	136.6	139.73	-	-	-	128.8	131.7	124.38
8 "	216.3	219.08	-	211.58	203.5	206.38	202.3	205.0	202.72	199.9	202.72	195.7	198.45	193.68	190.9	193.68	186.1	188.95	179.9	182.5	175.1	177.83	170.3	173.05	174.63	
10 "	267.4	273.05	-	264.62	254.5	260.35	251.7	257.45	254.51	248.7	254.51	242.0	247.65	247.65	237.2	242.93	230.9	236.58	224.5	230.23	216.6	222.25	210.2	215.90	222.20	
12 "	318.5	323.85	-	314.66	305.7	311.15	301.7	307.09	304.8	297.9	303.2	289.9	295.30	298.45	283.7	288.95	275.7	281.03	267.7	273.05	261.3	266.7	251.9	257.20	273.00	
14 "	355.6	355.60	342.8	342.9	339.8	339.80	336.6	336.6	336.6	333	333.35	325.4	325.48	330.2	317.6	317.50	308.0	308.0	300.0	300.08	292.0	292.1	284.2	284.18	-	
16 "	406.4	406.40	393.6	393.7	390.6	390.6	387.4	387.35	387.35	381.0	381.0	373.4	373.07	381.0	363.6	363.58	353.0	354.03	344.6	344.53	333.4	333.35	325.4	325.48	-	
18 "	457.2	457.20	444.4	444.3	441.4	441.2	435.0	434.7	437.9	428.6	428.5	419.2	418.9	431.6	409.6	409.3	398.4	398.3	387.4	387.1	377.8	377.7	366.8	366.5	-	
20 "	508.0	508.0	495.2	495.3	489.0	488.9	482.6	482.60	488.95	477.8	477.88	466.8	466.75	482.6	455.6	455.63	443.0	442.93	431.8	431.80	419.2	419.10	408.0	408.03	-	
24 "	-	609.6	-	597.30	-	590.9	-	581.5	590.9	-	575.0	574.6	560.8	584.6	547.6	548.1	-	532.2	517.6	518.0	-	505.3	490.6	490.9	-	
30 "	-	762.0	-	746.16	-	736.6	-	730.25	742.95	-	-	-	-	736.6	-	-	-	-	-	-	-	-	-	-	-	-

NOMINAL INSIDE DIAMETER AND WALL THICKNESS

NPS		OUTSIDE DIAMETER	CARBON AND ALLOY STEEL																				STAINLESS STEEL								NPS
		ID / WT	Sch. S5	Sch. S10	Sch. S20	Sch. S30	Sch. STD	Sch. S40	Sch. S60	Sch. XS	Sch. S80	Sch. S100	Sch. S120	Sch. S140	Sch. S160	Sch. XXS	Sch. S5S	Sch. S10S	Sch. S20S	Sch. S40S	Sch. S80S	INCH									
INCH	mm(DN)	ANSI																													
14"	350	355.6	ID 347.7	342.9	339.8	336.5	336.5	333.3	325.4	330.2	317.5	307.9	300.0	292.1	284.2	-	347.7	346.0	339.6	336.5	330.2	14"									
			WT 3.96	6.35	7.92	9.53	9.53	11.13	15.09	12.70	19.05	23.83	27.79	31.75	35.71	-	3.96	4.78	8.00	9.53	12.70										
16"	400	406.4	ID 398.0	393.7	390.6	387.3	387.3	381.0	373.1	381.0	363.5	354.0	344.5	333.3	325.4	-	398.0	396.8	390.4	387.3	381.0	16"									
			WT 4.19	6.35	7.92	9.53	9.53	12.70	16.66	12.70	21.44	26.19	30.96	36.53	40.49	-	4.19	4.78	8.00	9.53	12.70										
18"	450	457.2	ID 448.8	444.5	441.4	434.9	438.1	428.7	419.1	431.8	409.5	398.5	387.3	377.9	366.7	-	448.8	447.6	441.2	438.1	431.8	18"									
			WT 4.19	6.35	7.92	11.13	9.53	14.27	19.05	12.70	23.83	29.36	34.93	39.67	45.24	-	4.19	4.78	8.00	9.53	12.70										
20"	500	508.0	ID 498.4	495.3	488.9	482.6	488.9	477.8	466.8	482.6	455.6	442.9	431.8	419.1	408.0	-	498.4	496.9	489.0	488.9	482.6	20"									
			WT 4.78	6.35	9.53	12.70	9.53	15.09	20.62	12.70	26.19	32.54	38.10	44.45	50.01	-	4.78	5.54	9.50	9.53	12.70										
22"	550	558.8	ID 549.2	546.1	539.7	533.4	539.7	-	514.3	533.4	501.6	488.9	476.2	463.5	450.8	-	549.2	547.7	-	539.7	533.4	22"									
			WT 4.78	6.35	9.53	12.70	9.53	-	22.23	12.70	28.58	34.93	41.28	47.63	53.98	-	4.78	5.54	-	9.53	12.70										
24"	600	609.6	ID 598.5	596.9	590.5	581.1	590.5	574.6	560.4	584.2	547.7	531.8	517.6	504.9	490.5	-	598.5	596.9	-	590.5	584.2	24"									
			WT 5.54	6.35	9.53	14.27	9.53	17.48	24.61	12.70	30.96	38.89	46.02	52.37	59.54	-	5.54	6.35	-	9.53	12.70										
26"	650	660.4	ID 644.6	635.0	-	641.3	-	-	-	635.0	-	-	-	-	-	-	-	644.6	-	641.3	635.0	26"									
			WT 7.92	12.70	-	9.53	-	-	-	12.70	-	-	-	-	-	-	-	7.92	-	9.53	12.70										
28"	700	711.2	ID 695.4	685.8	679.4	692.1	-	-	-	685.8	-	-	-	-	-	-	-	695.4	-	692.1	685.8	28"									
			WT 7.92	12.70	15.88	9.53	-	-	-	12.70	-	-	-	-	-	-	-	7.92	-	9.53	12.70										
30"	750	762.0	ID 749.3	746.2	736.6	730.2	742.9	-	-	736.6	-	-	-	-	-	-	749.3	746.2	-	742.9	736.6	30"									
			WT 6.35	7.92	12.70	15.88	9.53	-	-	12.70	-	-	-	-	-	-	6.35	7.92	-	9.53	12.70										
32"	800	812.8	ID 797.0	787.4	781.0	793.7	777.8	-	-	787.4	-	-	-	-	-	-	-	797.0	-	793.7	787.4	32"									
			WT 7.92	12.70	15.88	9.53	17.48	-	-	12.70	-	-	-	-	-	-	-	7.92	-	9.53	12.70										
34"	850	863.6	ID 847.8	838.2	831.8	844.5	828.6	-	-	838.2	-	-	-	-	-	-	-	847.8	-	844.5	838.2	34"									
			WT 7.92	12.70	15.88	9.53	17.48	-	-	12.70	-	-	-	-	-	-	-	7.92	-	9.53	12.70										
36"	900	914.4	ID 898.6	889.0	882.6	895.3	876.3	-	-	889.0	-	-	-	-	-	-	-	878.6	-	895.3	889.0	36"									
			WT 7.92	12.70	15.88	9.53	19.05	-	-	12.70	-	-	-	-	-	-	-	7.92	-	9.53	12.70										
38"	950	965.2	ID 946.1	-	-	946.1	-	-	-	939.8	-	-	-	-	-	-	-	949.4	-	946.1	939.8	38"									
			WT 7.92	-	-	9.53	-	-	-	12.70	-	-	-	-	-	-	-	7.92	-	9.53	12.70										
40"	1000	1016.0	ID 996.9	-	-	996.9	-	-	-	990.6	-	-	-	-	-	-	-	1000.2	-	996.9	990.6	40"									
			WT 7.92	-	-	9.53	-	-	-	12.70	-	-	-	-	-	-	-	7.92	-	9.53	12.70										
42"	1050	1066.8	ID 1047.7	-	-	1047.7	-	-	-	1041.4	-	-	-	-	-	-	-	1051.0	-	1047.7	1041.4	42"									
			WT 7.92	-	-	9.53	-	-	-	12.70	-	-	-	-	-	-	-	7.92	-	9.53	12.70										
44"	1100	1117.6	ID 1098.5	-	-	1098.5	-	-	-	1092.2	-	-	-	-	-	-	-	1101.8	-	1098.5	1092.2	44"									
			WT 7.92	-	-	9.53	-	-	-	12.70	-	-	-	-	-	-	-	7.92	-	9.53	12.70										
46"	1500	1168.4	ID 1149.3	-	-	1149.3	-	-	-	1143.0	-	-	-	-	-	-	-	1152.6	-	1149.3	1143.0	46"									
			WT 7.92	-	-	9.53	-	-	-	12.70	-	-	-	-	-	-	-	7.92	-	9.53	12.70										
48"	1200	1219.2	ID 1200.1	-	-	1200.1	-	-	-	1193.8	-	-	-	-	-	-	-	1203.4	-	1200.1	1193.8	48"									
			WT 7.92	-	-	9.53	-	-	-	12.70	-	-	-	-	-	-	-	7.92	-	9.53	12.70										

NOMINAL INSIDE DIAMETER AND WALL THICKNESS

NPS		OUTSIDE DIAMETER	CARBON AND ALLOY STEEL																				STAINLESS STEEL								NPS
	ID	/	Sch. S5	Sch. S10	Sch. S20	Sch. S30	Sch. STD	Sch. S40	Sch. S60	Sch. XS	Sch. S80	Sch. S100	Sch. S120	Sch. S140	Sch. S160	Sch. XXS	Sch. S5S	Sch. S10S	Sch. S20S	Sch. S40S	Sch. S80S										
INCH	mm(DN)	ANSI	WT																			INCH									
1/8"	6	10.3	ID	7.8	7.8	7.4	6.8	6.8	5.9	5.5	5.5	—	—	—	4.0	0.6	—	7.8	7.3	6.8	5.5	1/8"									
			WT	—	1.24	—	1.45	1.73	1.73	2.20	2.41	2.41	—	—	3.15	4.83	—	1.24	1.50	1.73	2.41										
1/4"	8	13.7	ID	10.4	10.4	10.0	9.2	9.2	8.9	7.7	7.7	—	—	—	6.3	1.6	—	10.4	9.7	9.2	7.7	1/4"									
			WT	—	1.65	—	1.85	2.24	2.24	2.40	3.02	3.02	—	—	3.68	6.05	—	1.65	2.00	2.24	3.02										
3/8"	10	17.1	ID	13.8	13.8	13.4	12.5	12.5	11.5	10.7	10.7	—	—	—	9.1	4.3	—	13.8	13.1	12.5	10.7	3/8"									
			WT	—	1.65	—	1.85	2.31	2.31	2.80	3.20	3.20	—	—	4.01	6.40	—	1.65	2.00	2.31	3.20										
1/2"	15	21.3	ID	18.0	17.1	16.5	15.8	15.8	14.9	13.8	13.8	—	—	—	11.7	6.4	18.0	17.1	16.3	15.8	13.8	1/2"									
			WT	1.65	2.11	2.41	2.77	2.77	3.20	3.73	3.73	—	—	—	4.78	7.47	1.65	2.11	2.50	2.77	3.73										
3/4"	20	26.7	ID	23.4	22.5	21.9	21.0	21.0	19.9	18.9	18.9	—	—	—	15.6	11.1	23.4	22.5	21.7	21.0	18.9	3/4"									
			WT	1.65	2.11	2.41	2.87	2.87	3.40	3.91	3.91	—	—	—	5.56	7.82	1.65	2.11	2.50	2.87	3.91										
1"	25	33.5	ID	30.2	28.0	27.7	26.7	26.7	25.7	24.4	24.4	—	—	—	20.8	15.3	30.2	28.0	27.5	26.7	24.4	1"									
			WT	1.65	2.77	2.90	3.38	3.38	3.90	4.55	4.55	—	—	—	6.35	9.09	1.65	2.77	3.00	3.38	4.55										
1 1/4"	32	42.2	ID	38.9	36.7	36.3	35.1	35.1	33.2	32.5	32.5	—	—	—	29.5	22.8	38.9	36.7	36.2	35.1	32.5	1 1/4"									
			WT	1.65	2.77	2.97	3.56	3.56	4.50	4.85	4.85	—	—	—	6.35	9.70	1.65	2.77	3.00	3.56	4.85										
1 1/2"	40	48.3	ID	45.0	42.8	41.9	40.9	40.9	39.3	38.1	38.1	—	—	—	34.0	28.0	45.0	42.8	42.3	40.9	38.1	1 1/2"									
			WT	1.65	2.77	3.18	3.68	3.68	4.50	5.08	5.08	—	—	—	7.14	10.16	1.65	2.77	3.00	3.68	5.08										
2"	50	60.5	ID	57.2	55.0	54.1	52.7	52.7	50.7	49.4	49.4	—	—	—	43.0	38.4	57.2	55.0	53.5	52.7	49.4	2"									
			WT	1.65	2.77	3.20	3.18	3.91	4.90	5.54	5.54	—	—	—	8.74	11.07	1.65	2.77	3.50	3.91	5.54										
2 1/2"	65	73.2	ID	69.0	67.1	64.2	62.9	62.9	61.2	59.2	59.2	—	—	—	54.1	45.2	69.0	67.1	66.2	62.9	59.2	2 1/2"									
			WT	2.11	3.05	4.50	4.78	5.16	5.16	6.00	7.01	7.01	—	—	9.53	14.02	2.11	3.05	3.50	5.16	7.01										
3"	80	88.9	ID	84.7	82.8	79.9	77.9	77.9	75.7	73.7	73.7	—	—	—	66.6	58.4	84.7	82.8	80.9	77.9	73.7	3"									
			WT	2.11	3.05	4.50	4.78	5.49	6.60	7.62	7.62	—	—	—	11.13	15.24	2.11	3.05	4.00	5.49	7.62										
3 1/2"	90	101.6	ID	97.4	95.5	92.6	92.0	90.1	87.6	85.4	85.4	—	—	—	—	—	97.4	95.5	93.6	90.1	85.4	3 1/2"									
			WT	2.11	3.05	4.50	4.78	5.74	7.00	8.08	8.08	—	—	—	—	—	2.11	3.05	4.00	5.74	8.08										
4"	100	114.3	ID	110.1	108.2	104.5	104.7	102.3	102.3	100.1	97.2	97.2	—	92.0	—	87.3	80.1	110.1	108.2	106.3	102.3	97.2	4"								
			WT	2.11	3.05	4.90	4.78	6.02	6.02	7.10	8.56	8.56	—	11.13	—	13.49	17.12	2.11	3.05	4.00	6.02	8.56									
5"	125	141.2	ID	135.7	134.4	131.0	—	128.1	128.1	125.0	122.1	122.1	—	115.8	—	109.4	103.1	135.7	134.4	131.2	128.1	122.1	5"								
			WT	2.77	3.40	5.10	—	6.55	6.55	8.10	9.53	9.53	—	12.70	—	15.88	19.05	2.77	3.40	5.00	6.55	9.53									
6"	150	168.4	ID	162.9	161.6	157.4	—	154.2	154.2	149.8	146.5	146.5	—	139.9	—	131.9	124.5	162.9	161.6	158.4	154.2	146.5	6"								
			WT	2.77	3.40	5.50	—	7.11	7.11	9.30	10.97	10.97	—	14.27	—	18.26	21.95	2.77	3.40	5.00	7.11	10.97									
8"	200	219.2	ID	213.7	211.7	206.5	205.1	202.8	202.8	198.6	193.8	189.0	182.7	178.0	173.2	174.7	213.7	211.7	206.2	202.8	193.8	8"									
			WT	2.77	3.76	6.35	7.04	8.18	8.18	10.31	12.70	12.70	15.09	18.26	20.62	23.01	22.23	2.77	3.76	6.50	8.18	12.70									
10"	250	273	ID	266.2	264.6	260.3	257.4	254.5	254.5	247.6	247.6	242.8	236.5	230.1	222.2	215.8	222.2	266.2	264.6	260.0	254.5	247.6	10"								
			WT	3.40	4.19	6.35	7.80	9.27	9.27	12.70	12.70	15.09	18.26	21.44	25.40	28.58	25.40	3.40	4.19	6.50	9.27	12.70									
12"	300	323.8	ID	315.9	314.7	311.1	307.0	304.7	303.2	295.3	298.4	288.8	280.9	273.0	266.6	257.2	273.0	315.9	314.7	310.8	304.7	298.4	12"								
			WT	3.96	4.57	6.35	8.38	9.53	10.31	14.27	12.70	17.48	21.44	25.40	28.58	33.32	25.40	3.96	4.57	6.50	9.53	12.70									