Stainless Steel Pipe Flanges



How to Measure Pipe Size for Unthreaded Pipe and Fittings - Example shows pipe size 3/6.

Pipe size is not an actual measured size, but rather an industry designation. Align your pipe or fitting with the "0" line. The line on the opposite edge gives the pipe size. You can also measure the OD of your pipe and butt-weld fitting or the ID of your socket-connect fitting and slip-on. weld flange, then find the corresponding pipe size in the chart. If your measurement doesn't match an OD or ID listed, round to the nearest 1/8".



 $(m{i})$ To measure larger pipe sizes, go to mcmaster.com and search for 4347KAC. For information about fittings and pipe, see pages 2-3.

High-Pressure Stainless Steel Unthreaded Pipe Flanges



Raised Surface on Back (Flanges, except Stub End)



Flat Surface on Back (Stub End)

- Use with air, hydraulic fluid, natural gas, oil, steam, water (unless noted)
- Maximum Pressure (unless noted): Class 300: 300 psi @ 72° F; 300 psi @ 360° F for steam Class 600: 1,200 psi @ 72° F; 840 psi @ 400° F for steam
- Pipe: Use unthreaded Schedule 40
- standard-wall stainless steel (see page 39) Fittings: Use butt-weld Schedule 40 standard-wall stainless steel (see page 36)

Use these heavy duty forged flanges for high-pressure applications. Bolt two flat-surface flanges or two raised-surface flanges of same size together with a gas-

ket (sold separately on pages 3619-3624) to create an access point in a pipe line. Flanges come with a material certificate with traceable lot number and test report. They meet ASTM A182 and ANSI/ASME B16.5, unless noted. Class 300 flanges also meet MSS SP-6 and SP-25.

304 stainless steel flanges offer very good corrosion resistance. 316 stainless steel flanges have excellent corrosion resistance.

Butt-weld flanges are also known as weld-neck flanges; the flange neck has a beveled end that, when flush to pipe, creates a trough for a strong weld. Slip-on weld flanges have no internal stop; slide a pipe through the flange and weld on both sides. Socket-connect flanges have an internal stop that supports the pipe when welding and prevents the pipe from sliding all the way through. **Stub-end** flanges are also known as lap-joint flanges; use them with a stub-end fitting included). The stub-end fitting slides into the flange and welds to pipe (not the flange). Since the flange isn't welded to the pipe, it can be disconnected easily for frequent cleaning and inspecting. Cap flanges are also known as blind flanges.









Stub-End Fitting (not included)



Pipe	Flange	For Bolt		3	60	00	00
Size	OD	Dia. (No.)	Butt Weld	Slip-On Weld	Socket Connect	Stub End	Cap
Class 300 Forged Flanges							
304/304L Stainless Steel							
1/2		1/2" (4)		4448T251\$43.01	4448T264 \$50.80	4448T297\$48.65	4448T275 \$40.18
3/4	45/8"	⁵ /8″ (4)	4448T287 51.78	4448T252 44.43	4448T265 44.43	4448T298 48.65	4448T276 47.68
1	47/8"	5/8" (4)	4448T288 55.12	4448T253 54.95	4448T266 54.01	4448T299 . 52.80	4448T277 52.43
11/4	51/4"	5/8" (4)	4448T289 89.80	4448T254 75.71	4448T267 84.67	4448T311 85.37	4448T278 79.44
11/2		3/4" (4)	4448T291 91.84	4448T255 89.87	4448T268 79.87	4448T312 . 98.13	4448T279 83.69
2	61/2"	5/8" (8)	4448T292 103.69	4448T256 . 89.36	4448T269 111.02	4448T313 113.22	4448T281 101.24
21/2	71/2"	3/4" (8)	4448T293 165.33	4448T257 171.55	4448T271 178.23	4448T314 183.24	4448T282 148.22
3	81/4"	3/4" (8)	4448T294 148.95	4448T258 . 159.38	4448T272 . 175.08	4448T315 168.98	4448T283 130.13
4	10″	³ / ₄ " (8) ³ / ₄ " (12)	4448T295 214.48	4448T259 209.33	4448T273 ▲ 267.18	4448T262 . 217.30	4448T284 203.63
		3/4" (12)	4448T296 451.56	4448T261 361.82	4448T274 ▲ 493.80	4448T263 394.02	4448T285 352.04
8	15"	7/8" (12)	4448T45 477.69	4448T43 417.22		4448T47 474.72	4448T48 481.22
10	171/2"	1" (16)	4448T46 649.76	4448T44 602.64			4448T49 673.14
316/316L Stainless Steel 1/2 33/4" 1/2" (4) 4452T296 55.73 4452T261 55.44 4452T274 57.71 4452T317 53.70 4452T285 47.4							
		1/2" (4) 5/8" (4)	4452T296 55.73	4452T261 55.44	4452T274 . 57.71	4452T317 53.70	4452T285 . 47.40
3/4			4452T297 67.42	4452T262 57.96	4452T275 59.55	4452T318 60.38	4452T286 58.23
1		- (11) (4452T263 70.82	4452T276 . 62.39	4452T319 . 65.87	4452T287 60.14
1 1/4 1 1/2	5 1/4" 61/8"	⁵ /8" (4) ³ /4" (4)		4452T264 . 95.92 4452T265 . 97.42	4452T277 . 95.78	4452T321 90.87	4452T288 107.96 4452T289 88.67
					4452T278 110.55	4452T322 . 102.31	
2		5/8" (8)	4452T312 133.00	4452T266. 121.56	4452T279. 121.57	4452T323 122.55	4452T291 91.85
21/2	71/2"	3/4" (8)	4452T313 204.37	4452T267 213.26	4452T281 197.77	4452T324 202.81	4452T292 183.73
3	8 ¹ / ₄ " 10"	3/4" (8) 3/4" (8)	4452T314. 197.10	4452T268 . 191.32	4452T282 234.82	4452T325 . 201.92	4452T293 209.09
4	10	3/4" (12)	4452T315 321.18 4452T316 536.31	4452T269 273.48 4452T271 532.67	4452T283 ▲ 328.94 4452T284 ▲ 530.65	4452T272 284.31 4452T273 546.48	4452T294 263.35 4452T295 520.34
0	15"	9/4 (12) 7/6" (12)	4452T113 613.44	4452T111 491.05		4452T115 559.60	4452T116 545.24
10	1716"	1/8 (12)	4452T114 841.79	4452T112754.10		44521115 559.60	4452T117 860.91
Class 60	17 72	I (10)	44321114041.79	44321112734.10			44321117 000.91
Class 600 Forged Flanges 304/304L Stainless Steel							
	33/4"		1538N55 70.92	1538N15 59.64	1538N35 70.30	1538N75 66.96	1538N91 60.26
3/4			1538N56 70.92	1538N16 64.48	1538N36 74.16	1538N76 73.66	1538N92 71.92
1			1538N57 72.40	1538N17 69.56	1538N37 80.60	1538N77 77.38	1538N93 80.36
11/4		5/8" (4)	1538N58 153.76	1538N18 137.98	1538N38 143.62	1538N78 152.18	1538N94 155.35
11/2		3/4" (4)	1538N59 115.32	1538N19 101.56	1538N39 118.04	1538N79 111.10	1538N95 111.22
2		3/4" (4) 5/8" (8)	1538N61 123.88	1538N21 107.14	1538N41 130.58	1538N81 121.64	1538N96 125.74
21/2	71/2"	3/4" (8)	1538N62 183.18	1538N22 175.85	1538N42 194.91	1538N82 205.16	1538N97 215.42
3	81/4"	3/4" (8)	1538N63 191.75	1538N23 187.80	1538N43 221.85	1538N83 202.69	1538N98 207.07
4	103/4"	′/8″ (8)	1538N64 362.50	1538N24 326.43		1538N84 355.47	1538N99 376.65
316/316L Stainless Steel							
1/2			1503N31 74.64	1503N11 65.48	1503N21 74.16	1503N41 73.66	1503N51 70.30
3/4	45/8"	5/8″ (4)	1503N32 83.82	1503N12 71.42	1503N22 78.98	1503N42 83.32	1503N52 76.38
1,	47/8"	5/8" (4)	1503N33 92.00	1503N13 78.98	1503N23 86.80	1503N43 90.28	1503N53 86.80
11/4			1503N34 159.73	1503N14 151.51	1503N24 152.18	1503N44 158.27	1503N54 163.45
11/2	61/8"	3/4" (4)	1503N35 129.42	1503N15 108.44	1503N25 121.53	1503N45 133.92	1503N55 130.58
2	61/2"	5/8" (8)	1503N36 139.22	1503N16 117.24	1503N26 147.89	1503N46 156.24	1503N56 140.62
21/2	71/2"	3/4" (8)	1503N37 221.33	1503N17 167.92	1503N27 279.00	1503N47 197.47	1503N57 205.22
3	81/4"	3/4" (8)	1503N38 223.20 1503N39 450.02	1503N18 204.18	1503N28 295.53	1503N48 251.10	1503N58 245.93
4	103/4"	1/8" (8)	1503N39 450.02	1503N19 448.47		1503N49 491.87	1503N59 460.35

▲ Not for use with steam. Does not meet ANSI/ASME B16.5.