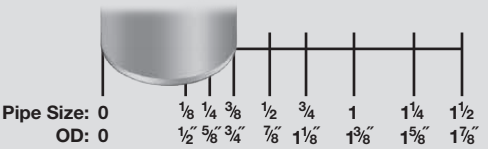
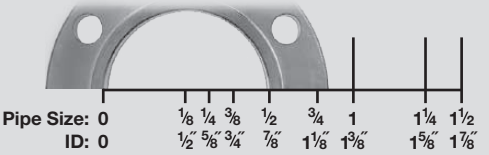
How to Measure Pipe Size for Unthreaded Pipe and Fittings—Example shows pipe size 3⁄8 for pipe and pipe size 1⁄2 for flanges.

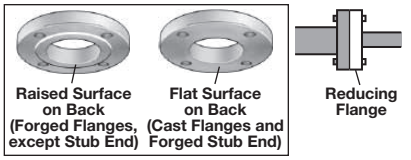
Pipe size is not an actual measured size, but rather an industry designation. Align your pipe or fitting with the "0" line as shown. The line on the opposite edge gives the pipe size. You can also measure the OD of your pipe and butt-weld fitting or the ID of your slip-on weld flange, then find the corresponding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





To measure larger pipe sizes, go to mcmaster.com and search for **4347KAC**. For information about fittings and pipe, see pages 2-3.

Low-Pressure Stainless Steel Unthreaded Pipe Flanges *(Cont. from previous page)*



Bolt two flat-surface flanges or two raised-surface flanges of the same size together with a gasket (sold separately on pages 3619-3624) to create an access point in a pipe line.

304 stainless steel flanges offer very good corrosion resistance, and **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. **Cap** flanges are also known as blind flanges.

Class 150 Forged Reducing Flanges

- Use with air, natural gas, oil, steam, water
- Maximum Pressure: 150 psi @ 72° F; 150 psi @ 360° F for steam
- Pipe Nipples and 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)

Forged flanges have better strength than cast flanges. Reducing flanges let you transition your piping system to a smaller pipe size. All meet ANSI/ASME B16.5.

Pipe Size: Slip-On Weld	Pipe Size: Flanged	Flange OD	For Bolt Dia. (No.)	Slip-On Weld	
304/304L Stainless Steel					
3⁄4	1	4 1⁄4"	1⁄2" (4)	44685K344	$52.66
1	1 1⁄2	5"	1⁄2" (4)	44685K345	71.38
1	2	6"	5⁄8" (4)	44685K131	92.44
1 1⁄2	2	6"	5⁄8" (4)	44685K346	92.44
2	3	7 1⁄2"	5⁄8" (4)	44685K132	139.24
2	4	9"	5⁄8" (8)	44685K347	172.31
3	4	9"	5⁄8" (8)	44685K133	189.54
4	6	11"	3⁄4" (8)	44685K134	277.88
6	8	13 1⁄2"	3⁄4" (8)	44685K135	496.73
316/316L Stainless Steel					
3⁄4	1	4 1⁄4"	1⁄2" (4)	44695K272	71.27
1	1 1⁄2	5"	1⁄2" (4)	44695K273	90.42
1	2	6"	5⁄8" (4)	44695K131	125.20
1 1⁄2	2	6"	5⁄8" (4)	44695K274	104.33
2	3	7 1⁄2"	5⁄8" (4)	44695K132	198.90
2	4	9"	5⁄8" (8)	44695K275	210.60
3	4	9"	5⁄8" (8)	44695K133	263.25
4	6	11"	3⁄4" (8)	44695K134	376.53
6	8	13 1⁄2"	3⁄4" (8)	44695K135	601.20

Class 150 Cast Flanges

- Use with air, natural gas, oil, water
- Maximum Pressure: 150 psi @ 72° F
- Pipe Nipples and 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)

Cast flanges are also called MSS flanges. All meet ASTM A341. **Slip-on weld** flanges meet MSS SP-51. **Cap** flanges meet MSS SP-42.

Pipe Size	Flange OD	For Bolt Dia. (No.)	Slip-On Weld		Cap	
304 Stainless Steel						
1⁄2	3 1⁄2"	1⁄2" (4)	43505K341	$29.02	43505K381	$32.22
3⁄4	3 7⁄8"	1⁄2" (4)	43505K342	30.63	43505K382	34.81
1	4 1⁄4"	1⁄2" (4)	43505K343	40.86	43505K383	43.21
1 1⁄4	4 5⁄8"	1⁄2" (4)	43505K344	46.40	43505K384	55.75
1 1⁄2	5"	1⁄2" (4)	43505K345	57.10	43505K385	58.58
2	6"	5⁄8" (4)	43505K346	68.13	43505K386	79.53
2 1⁄2	7"	5⁄8" (4)	43505K347	92.70	43505K387	96.83
3	7 1⁄2"	5⁄8" (4)	43505K348	99.74	43505K388	106.35
316 Stainless Steel						
1⁄2	3 1⁄2"	1⁄2" (4)	43615K551	35.56	43615K571	37.49
3⁄4	3 7⁄8"	1⁄2" (4)	43615K552	40.59	43615K572	43.43
1	4 1⁄4"	1⁄2" (4)	43615K553	51.15	43615K573	51.48
1 1⁄4	4 5⁄8"	1⁄2" (4)	43615K554	58.14	43615K574	65.94
1 1⁄2	5"	1⁄2" (4)	43615K555	67.47	43615K575	72.51
2	6"	5⁄8" (4)	43615K556	87.37	43615K576	96.38
2 1⁄2	7"	5⁄8" (4)	43615K557	111.46	43615K577	121.45
3	7 1⁄2"	5⁄8" (4)	43615K558	128.08	43615K578	149.51

Metric Forged Flanges

- Use with air, natural gas, oil, steam, water
- Maximum Pressure: 230 psi @ 72° F; 304/304L SS: 125 psi @ 300° F for steam 316/316L SS: 145 psi @ 300° F for steam

Meet DIN EN 1092-1.

Pipe Size	Flange OD, mm	For Bolt Dia. (No.), mm	Butt Weld		Slip-On Weld		Cap	
304/304L Stainless Steel								
1	115	12 (4)	1442N16	$102.22	1442N11	$80.00	1442N22	$84.44
2	165	16 (4)	1442N17	162.22	1442N12	133.33	1442N23	124.44
3	200	16 (8)	1442N18	229.09	1442N13	236.00	1442N24	236.00
4	220	16 (8)	1442N19	272.73	1442N14	262.00	1442N25	250.00
6	285	20 (8)	1442N21	570.91	1442N15	530.00	1442N26	527.27
316/316L Stainless Steel								
1	115	12 (4)	1458N16	128.00	1458N11	96.00	1458N22	106.00
2	165	16 (4)	1458N17	206.00	1458N12	174.00	1458N23	150.00
3	200	16 (8)	1458N18	318.18	1458N13	310.91	1458N24	314.55
4	220	16 (8)	1458N19	398.18	1458N14	350.91	1458N25	354.55
6	285	20 (8)	1458N21	658.46	1458N15	603.33	1458N26	615.38