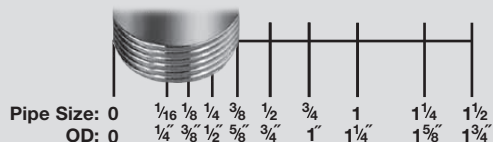



How to Measure Pipe Size for NPT or BSP Threads—Example shows pipe size 3/8.

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 male threads or the ID of female threads, 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 **4464KAC**. For information about fittings and pipe, see pages 2-3.

Medium-Pressure Stainless Steel Threaded Pipe Fittings

- Pipe Nipples and Pipe: Use threaded Schedule 40 standard-wall stainless steel (see pages 10-13)
- Flanges: Use threaded Class 150 low-pressure stainless steel (see page 9)

Choose these fittings when you want the same high-quality found in our low-pressure pipe fittings, but need more strength to handle higher pressures. Fittings that meet ANSI/MSS SP-114 adhere to high-quality standards for heat treating, material thickness, and marking.

304 stainless steel fittings have very good corrosion resistance. **316 stainless steel** fittings have excellent corrosion resistance. **Alloy 20 stainless steel** fittings have the best corrosion resistance of all the stainless steel fittings we offer. Alloy 20 stainless steel is also known as Carpenter 20 and resists cracking from stress and corrosion.

NPT Connectors, Adapters, and Caps—304 and 316 Stainless Steel

- Use with air, natural gas, oil, steam, water
- Maximum Pressure: 1,000 psi @ 72°F; 650 psi @ 350°F for steam

These Class 1000 fittings meet ANSI/MSS SP-114 and ASTM A182.

Female x butt weld straights are also known as half couplings.

Unions separate into three pieces so you can access your line without unthreading pipe connections.



Pipe Size	Straights	Straights, Female x Butt Weld	Unions	Caps
304 Stainless Steel				
1/8	4464K211 \$3.85	4464K221 \$2.26	4464K96 \$18.69	4464K84 \$3.86
1/4	4464K212 4.39	4464K222 2.75	4464K97 18.98	4464K85 3.89
3/8	4464K213 5.71	4464K223 3.09	4464K98 22.78	4464K86 5.26
1/2	4464K214 8.34	4464K224 4.29	4464K99 28.59	4464K87 5.38
3/4	4464K215 11.10	4464K225 5.82	4464K111 39.03	4464K88 7.81
1	4464K216 18.26	4464K226 9.85	4464K112 57.00	4464K89 11.45
1 1/4	4464K66 25.05	4464K78 13.69	4464K113 102.99	4464K91 27.17
1 1/2	4464K67 31.34	4464K79 18.78	4464K114 118.47	4464K92 33.90
2	4464K68 49.40	4464K81 25.22	4464K115 129.96	4464K93 41.08
2 1/2	4464K147 129.22	4464K161 79.59	4464K167 245.83	4464K164 83.76
3	4464K148 153.25	4464K227 98.37	4464K168 360.09	4464K165 132.38
4	4464K149 214.78	4464K228 153.28		4464K166 191.73
316 Stainless Steel				
1/8	4452K441 5.07	4452K511 3.31	4452K461★ 22.21	4452K451 5.42
1/4	4452K342 6.15	4452K512 3.89	4452K462★ 23.75	4452K452 5.82
3/8	4452K343 7.10	4452K313 3.77	4452K463★ 27.03	4452K453 7.25
1/2	4452K344 9.60	4452K314 5.42	4452K464★ 33.98	4452K454 7.83
3/4	4452K345 12.50	4452K315 7.85	4452K465★ 47.90	4452K455 11.46
1	4452K346 21.69	4452K316 12.79	4452K466★ 69.10	4452K456 17.57
1 1/4	4452K447 32.95	4452K517 19.37	4452K467★ 117.57	4452K457 51.97
1 1/2	4452K448 42.05	4452K518 25.89	4452K468★ 137.66	4452K458 56.81
2	4452K449 60.14	4452K519 33.73	4452K469★ 177.72	4452K459 67.37
2 1/2	4452K627 148.49	4452K631 102.23	4452K637★ 283.55	4452K634 110.42
3	4452K628 184.99	4452K632 117.70	4452K638★ 480.60	4452K635 142.88
4	4452K629 262.37	4452K633 184.59	4452K659★ 697.74	4452K658 221.85

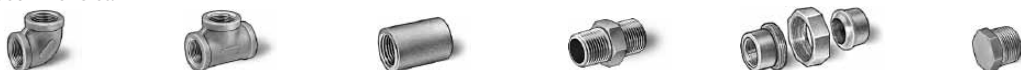
★ Nut is 304 stainless steel.

NPT Connectors and Plugs—Alloy 20 Stainless Steel

- Use with air, steam, water
- Maximum pressure (unless noted): 1/8-3/8 Pipe Size: 1,000 psi @ 72°F; 560 psi @ 360°F for steam
- 1/2-2 Pipe Size: 300 psi @ 72°F; 150 psi @ 360°F for steam

These Class 150 fittings meet ANSI/ASME B1.20.1, ANSI/MSS SP-114, ASTM B351, and ASTM B473.

Unions separate into three pieces so you can access your line without unthreading pipe connections.



Pipe Size	90° Elbows	Tees	Straights, Female	Straights, Male	Unions	Plugs
1/8	2698K66 \$93.33	2698K69 \$111.60	2698K73 \$53.73	2698K88 \$110.17	2698K82 \$120.98	2698K76 \$48.00
1/4	2698K67 93.33	2698K71 111.60	2698K74 53.73	2698K89 110.17	2698K83 120.98	2698K77 48.00
3/8	2698K68 93.33	2698K72 111.60	2698K75 53.73	2698K91 110.17	2698K84 120.98	2698K78 19.48
1/2	2698K11 62.74	2698K16 81.13	2698K22 48.00	2698K92 91.67	2698K85▲ 120.98	2698K27 25.43
3/4	2698K12 84.51	2698K17 95.14	2698K23 69.17	2698K93 102.58	2698K86▲ 158.33	2698K28 34.04
1	2698K13 91.87	2698K18 116.61	2698K24 97.32	2698K94 120.55	2698K87▲ 208.33	2698K29 59.43
1 1/2	2698K14 123.50	2698K19 167.19	2698K25 143.02			2698K79 125.02
2	2698K15 167.19	2698K21 222.31	2698K26 175.02			2698K81 185.50

■ Not rated for maximum pressure. ▲ Maximum pressure is 1000 psi @ 72°F; 560 @ 360°F for steam.

(Continued on following page)