

Table 1. Thread Form and Gasket Recess Dimensions

Thread Series Designation	Diameter of Waterway C inch (mm)	Length of Nipple Minimum L inch (mm)	Length of Pilot to the Start of Second Thread I inch (mm)	Depth of Coupling H inch (mm)	Diameter of Gasket Seat K inch (mm)	Length of Internal Thread T inch (mm)	Blunt Start from Face to Start Second Thread J inch (mm)
3/4 inch 11-1/2 NH	0.75 + 0.030 0.75 - 0.010 (19.05 +0.76) (19.05 -0.25)	0.56 (14.22)	0.13 ± 0.016 (3.30 ± 0.42)	0.53 + 0.031 (13.46 + 0.79)	1.44 + 0.016 (36.58 + 0.41)	0.38 ± 0.016 (9.65 ± 0.41)	0.13 ± 0.016 (3.30 ± 0.41)
1 inch 11-1/2 NPSH	1.00 + 0.030 1.00 - 0.010 (25.40 +0.76) (25.40 - 0.25)	0.56 (14.22)	0.16 ± 0.016 (4.06 ± 0.41)	0.53 + 0.031 (13.46 + 0.79)	1.44 + 0.016 (36.58 + 0.41)	0.38 ± 0.016 (9.65 ± 0.41)	0.16 ± 0.016 (4.06 ± 0.41)
1-1/2 inch 9 NH	1.50 + 0.030 1.50 - 0.010 (38.10 +0.76) (38.10 - 0.25)	0.63 (16.00)	0.16 ± 0.016 (4.06 ± 0.41)	0.59 + 0.031 (15.00 + 0.79)	2.06 + 0.016 (52.32 + 0.41)	0.44 ± 0.031 (11.18 ± 0.79)	0.16 ± 0.016 (4.06 ± 0.41)
2-1/2 inch 7-1/2 NH	2.50 + 0.030 2.50 - 0.010 (63.50 + 0.76) (63.50 - 0.25)	1.00 (25.40)	0.25 ± 0.031 (6.35 ± 0.79)	0.94 + 0.031 (23.88 + 0.79)	3.19 + 0.016 (81.03 + 0.41)	0.69 ± 0.031 (17.53 ± 0.79)	0.25 ± 0.031 (6.35 ± 0.79)
2-1/2 inch 8 NPSH	2.50 + 0.030 2.50 - 0.010 (63.50 + 0.76) (63.50 - 0.25)	1.00 (25.40)	0.25 ± 0.031 (6.35 ± 0.79)	0.94 + 0.031 (23.88 + 0.79)	3.19 + 0.016 (81.03 + 0.41)	0.69 ± 0.031 (17.58 ± 0.79)	0.25 ± 0.031 (6.35 ± 0.79)
4 inch 4 NH	4.00 + 0.030 4.00 - 0.010 (101.6 +0.76) (101.6 - 0.25)	1.25 (31.75)	0.44 ± 0.031 (11.18 ± 0.79)	1.19 + 0.031 (30.23 + 0.79)	5.13 + 0.016 (130.3 + 0.41)	0.88 ± 0.031 (22.35 ± 0.79)	0.38 ± 0.031 (9.65 ± 0.79)

Table 2. Limiting Thread Dimensions and Tolerances.

Nipple (External) Threads

Thread Series Designation	Threads per inch tpi	Pitch p inch (mm)	Height of Thread H inch (mm)	Major Diameter inch (mm)			Pitch Diameter inch (mm)			Minor Diameter Maximum inch (mm)
				Maximum	Minimum	Tolerance	Maximum	Minimum	Tolerance	
3/4 NH	11-1/2	0.08696 (2.20878)	0.05648 (1.43459)	1.0625 (26.9875)	1.0455 (26.5557)	0.0170 (0.4318)	1.0060 (25.5524)	0.9975 (25.3365)	0.0085 (0.2159)	0.9495 (24.1173)
1 NPSH	11-1/2	0.08696 (2.20878)	(0.05648 1.43459)	1.2951 (32.8955)	1.2781 (32.4637)	0.0170 (0.4318)	1.2386 (31.4604)	1.2301 (31.2445)	0.0085 (0.2159)	1.1821 (30.0253)
1-1/2 NH	9	0.11111 (2.82219)	0.07217 (1.83312)	1.9900 (50.5460)	1.9678 (49.9821)	0.0222 (0.5639)	1.9178 (48.7121)	1.9067 (48.4302)	0.0111 (0.2819)	1.8457 (46.8808)
2-1/2 NH	7-1/2	0.13333 (3.38658)	0.08660 (2.19964)	3.0686 (77.9424)	3.0366 (77.1296)	0.0320 (0.8128)	2.9820 (75.7428)	2.9660 (75.3364)	0.0160 (0.4064)	2.8954 (73.5432)
2-1/2 NPSH	8	0.12500 (3.1750)	0.08119 (2.0622)	2.8434 (72.2224)	2.8212 (71.6585)	0.0222 (0.5639)	2.7622 (70.1599)	2.7511 (69.8779)	0.0111 (0.2819)	2.6810 (68.0974)
4 NH	4	0.25000 (6.3500)	0.16238 (4.1245)	5.0109 (127.277)	4.9609 (126.007)	0.0500 (1.2700)	4.8485 (123.1519)	4.8235 (122.5169)	0.0250 (0.6350)	4.6861 (119.0269)

Swivel (Internal) Threads

Thread Series Designation	Threads per inch tpi	Pitch p inch (mm)	Height of Thread H inch (mm)	Minor Diameter inch (mm)			Pitch Diameter inch (mm)			Major Diameter Minimum inch (mm)
				Minimum	Maximum	Tolerance	Minimum	Maximum	Tolerance	
3/4 NH	11-1/2	0.08696 (2.20878)	0.05648 (1.43459)	0.9595 (24.3713)	0.9765 (24.8031)	0.0170 (0.4318)	1.0160 (25.8064)	1.0245 (26.0223)	0.0085 (0.2159)	1.0725 (27.2415)
1 NPSH	11-1/2	0.08696 (2.20878)	0.05648 (1.43459)	1.1921 (30.2793)	1.2091 (30.7111)	0.0170 (0.4318)	1.2486 (31.7144)	1.2571 (31.9303)	0.0085 (0.2159)	1.3051 (33.1495)
1-1/2 NH	9	0.11111 (2.82219)	0.07217 (1.83312)	1.8577 (47.1856)	1.8799 (47.7495)	0.0222 (0.5639)	1.9298 (49.0169)	1.9409 (49.2989)	0.0111 (0.2819)	2.0020 (50.8508)
2-1/2 NH	7-1/2	0.13333 (3.38658)	0.08660 (2.19964)	2.9104 (73.9242)	2.9424 (74.7370)	0.0320 (0.8128)	2.9970 (76.1238)	3.0130 (76.5302)	0.0160 (0.4064)	3.0836 (78.3234)
2-1/2 NPSH	8	0.12500 (3.1750)	0.08119 (2.0622)	2.6930 (68.4022)	2.7152 (68.9661)	0.02220 (0.5639)	2.7742 (70.4647)	2.7853 (70.7466)	0.0111 (0.2819)	2.8554 (72.5272)
4 NH	4	0.25000 (6.3500)	0.16238 (4.1245)	4.7111 (119.6619)	4.7611 (120.9319)	0.05000 (1.2700)	4.8735 (123.787)	4.8985 (124.422)	0.0250 (0.6350)	5.0359 (127.912)

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Table 3. "GO" and "NOT GO" Limits of Size of Gages for Nipple (External) Threads, American National Hose-Coupling Threads (NPSH), American Fire-Hose Coupling Threads (NH)

Thread Series Designation	"GO" or Maximum Gage inch (mm)				"NOT GO" or Minimum Gage inch (mm)			
	Pitch Diameter		Minor Diameter		Pitch Diameter		Minor Diameter	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
3/4 inch 11-1/2 NH	X-1.0060 (25.5524) Y-1.0058 (25.5473)	X-1.0057 (25.5548) Y-1.0054 (25.5372)	0.9595 (24.3713)	0.9589 (24.3561)	0.9978 (25.3441)	0.9975 (25.3365)	0.9793 (24.8742)	0.9787 (24.8590)
1 inch 11-1/2 NPSH	X-1.2386 (31.4604) Y-1.2384 (31.4554)	X-1.2383 (31.4528) Y-1.2380 (31.4452)	1.1921 (30.2793)	1.1915 (30.2641)	1.2304 (31.2522)	1.2301 (31.2445)	1.2119 (30.7823)	1.2113 (30.7670)
1-1/2 inch 9 NH	X-1.9178 (48.7121) Y-1.9176 (48.7070)	X-1.9175 (48.7045) Y-1.9171 (48.6943)	1.8577 (47.1856)	1.8570 (47.1678)	1.9070 (48.4378)	1.9067 (48.4302)	1.8833 (47.8358)	1.8826 (47.8180)
2-1/2 inch 7-1/2 NH	2.9820 (75.7428)	2.9810 (75.7174)	2.9104 (73.9242)	2.9094 (73.8988)	2.9670 (75.3618)	2.9660 (75.3364)	2.9114 (73.9496)	2.9104 (73.9242)
2-1/2 inch 8 NPSH	X-2.7622 (70.1599) Y-2.7618 (70.1497)	X-2.7617 (70.1472) Y-2.7612 (70.1345)	2.6930 (68.4022)	2.6923 (68.3844)	2.7516 (69.8906)	2.7511 (69.8779)	2.7247 (69.2074)	2.7240 (69.1896)
4 inch 4 NH	4.8485 (123.1519)	4.8479 (123.1366)	4.7111 (119.6619)	4.7096 (119.6238)	4.8241 (122.5321)	4.8235 (122.5169)	4.7709 (121.1809)	4.7694 (121.1427)

Notes for Table 3 - The minor diameters of plug gages and the major diameters of ring gages are undercut beyond the nominal diameters to give a clearance for grinding or lapping. The allowable variation in lead between any two threads not farther apart than the length of engagement is ± 0.0005 inch (0.0127mm). The allowable variations in one-half angle of thread is ± 10 minutes.

Table 4. "GO" and "NOT GO" Limits of Size of Gages for Coupling (Internal) Threads, American National Hose-Coupling Threads (NPSH), American National Fire-Hose Coupling Threads (NH)

Thread Series Designation	"GO" or Minimum Gage inch (mm)				"NOT GO" or Maximum Gage inch (mm)			
	Major Diameter		Pitch Diameter		Major Diameter		Pitch Diameter	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
3/4 inch 11-1/2 NH	1.0731 (27.2567)	1.0725 (27.2415)	1.0163 (25.8140)	1.0160 (26.8064)	1.0622 (26.9799)	1.0616 (26.9646)	1.0245 (26.0223)	1.0242 (26.0147)
1 inch 11-1/2 NPSH	1.3057 (33.1648)	1.3051 (34.2925)	1.2489 (31.7221)	1.2486 (31.7144)	1.2948 (32.8879)	1.2942 (32.8727)	1.2571 (31.9303)	1.2568 (31.9227)
1-1/2 inch 9 NH	2.0027 (50.8686)	2.0020 (50.8508)	1.9301 (49.0245)	1.9298 (49.0169)	1.9890 (50.5206)	1.9883 (50.5028)	1.9409 (49.2989)	1.9406 (49.2912)
2-1/2 inch 7-1/2 NH	3.0846 (78.3488)	3.0836 (78.3234)	2.9980 (76.1492)	2.9970 (76.1238)	3.0836 (78.3234)	3.0826 (78.2980)	3.0130 (76.5302)	3.0120 (76.5048)
2-1/2 inch 8 NPSH	2.8561 (72.5449)	2.8554 (72.5272)	2.7747 (70.4774)	2.7742 (70.4647)	2.8394 (72.1208)	2.8387 (72.1030)	2.7853 (70.7466)	2.7848 (70.7339)
4 inch 4 NH	5.0374 (127.950)	5.0359 (127.912)	4.8741 (123.8021)	4.8735 (123.7869)	5.0068 (127.173)	5.0053 (127.135)	4.8985 (124.4219)	4.8979 (124.4067)

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Notes for Table 4 - The minor diameters of plug gages and the major diameters of ring gages are undercut beyond the nominal diameters to give a clearance for grinding or lapping. The allowable variation in lead between any two threads not farther apart than the length of engagement is ± 0.0005 inch (0.0127mm). The allowable variations in one-half angle of thread is ± 10 minutes.