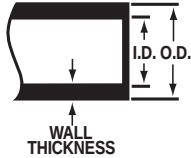




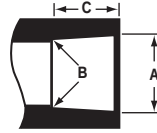
## ASTM STANDARD DIMENSIONS

**SCHEDULE 80 PIPE DIMENSIONS  
ASTM D 1785**



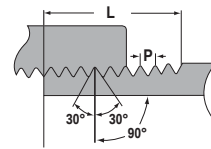
| Nominal Pipe Size In. | Mean Outside Diameter In. | O. D. Tolerance In. | Minimum Wall Thickness In. |
|-----------------------|---------------------------|---------------------|----------------------------|
| 1/8                   | 0.405                     | ± 0.004             | 0.095                      |
| 1/4                   | 0.540                     | ± 0.004             | 0.119                      |
| 3/8                   | 0.675                     | ± 0.004             | 0.126                      |
| 1/2                   | 0.840                     | ± 0.004             | 0.147                      |
| 3/4                   | 1.050                     | ± 0.004             | 0.154                      |
| 1                     | 1.315                     | ± 0.005             | 0.179                      |
| 1-1/4                 | 1.660                     | ± 0.005             | 0.191                      |
| 1-1/2                 | 1.900                     | ± 0.006             | 0.200                      |
| 2                     | 2.375                     | ± 0.006             | 0.218                      |
| 2-1/2                 | 2.875                     | ± 0.007             | 0.276                      |
| 3                     | 3.500                     | ± 0.008             | 0.300                      |
| 4                     | 4.500                     | ± 0.009             | 0.337                      |
| 5                     | 5.563                     | ± 0.010             | 0.375                      |
| 6                     | 6.625                     | ± 0.011             | 0.432                      |
| 8                     | 8.625                     | ± 0.015             | 0.500                      |
| 10                    | 10.750                    | ± 0.015             | 0.593                      |
| 12                    | 12.750                    | ± 0.015             | 0.687                      |

**SCHEDULE 80 SOCKET DIMENSIONS  
ASTM D 2467**



| Nominal Size In. | Diameter   |          |             | Socket Length Minimum C |
|------------------|------------|----------|-------------|-------------------------|
|                  | Entrance A | Bottom B | Tolerance A |                         |
| 1/8              | 0.417      | 0.401    | ± 0.004     | 0.500                   |
| 1/4              | 0.552      | 0.536    | ± 0.004     | 0.625                   |
| 3/8              | 0.687      | 0.671    | ± 0.004     | 0.750                   |
| 1/2              | 0.848      | 0.836    | ± 0.004     | 0.875                   |
| 3/4              | 1.058      | 1.046    | ± 0.004     | 1.000                   |
| 1                | 1.325      | 1.310    | ± 0.005     | 1.125                   |
| 1-1/4            | 1.670      | 1.655    | ± 0.005     | 1.250                   |
| 1-1/2            | 1.912      | 1.894    | ± 0.006     | 1.375                   |
| 2                | 2.387      | 2.369    | ± 0.006     | 1.500                   |
| 2-1/2            | 2.889      | 2.868    | ± 0.007     | 1.750                   |
| 3                | 3.516      | 3.492    | ± 0.008     | 1.875                   |
| 4                | 4.518      | 4.491    | ± 0.009     | 2.250                   |
| 5                | 5.583      | 5.553    | ± 0.010     | 2.625                   |
| 6                | 6.647      | 6.614    | ± 0.011     | 3.000                   |
| 8                | 8.655      | 8.610    | ± 0.015     | 4.000                   |
| 10               | 10.780     | 10.735   | ± 0.015     | 5.000                   |
| 12               | 12.780     | 12.735   | ± 0.015     | 6.000                   |
| 14               | 14.030     | 13.985   | ± 0.015     | 7.000                   |

**AMERICAN NATIONAL STANDARD  
TAPER PIPE THREADS (NPT) ANSI  
B1 .20.1 ASTM F 1498**



| Nominal Size In. | Threads Per Inch | Effective Thread Length L | Pitch Of Thread P |
|------------------|------------------|---------------------------|-------------------|
| 1/8              | 27               | 0.2639                    | 0.03704           |
| 1/4              | 18               | 0.4018                    | 0.05556           |
| 3/8              | 18               | 0.4078                    | 0.05556           |
| 1/2              | 14               | 0.5337                    | 0.07143           |
| 3/4              | 14               | 0.5457                    | 0.07143           |
| 1                | 11-1/2           | 0.6828                    | 0.08696           |
| 1-1/4            | 11-1/2           | 0.7068                    | 0.08696           |
| 1-1/2            | 11-1/2           | 0.7235                    | 0.08696           |
| 2                | 11-1/2           | 0.7565                    | 0.08696           |
| 2-1/2            | 8                | 1.1375                    | 0.12500           |
| 3                | 8                | 1.2000                    | 0.12500           |
| 4                | 8                | 1.3000                    | 0.12500           |
| 5                | 8                | 1.4063                    | 0.12500           |
| 6                | 8                | 1.5125                    | 0.12500           |
| 8                | 8                | 1.7125                    | 0.12500           |



## STANDARD COMPARISONS

SPEARS® IPS-to-Metric transition unions are listed by nominal size. The chart below compares nominal and actual\* pipe O.D. for each size according to the designated standard.

| JIS K6741 (mm) |         | DIN 8062 (mm) |         | ASTM D1785 (in.) |         | NPT—ANSI B1.20.1** Tapered Thread |             | BSP—BS21,DIN 2999,ISO 7/1 Thread |                |
|----------------|---------|---------------|---------|------------------|---------|-----------------------------------|-------------|----------------------------------|----------------|
| Nominal        | Actual* | O.D.          | Actual* | Nominal          | Actual* | Designation                       | Threads/in. | Designation                      | Threads/25.4mm |
| 16             | 22      | 15            | 20      | 1/2              | .840    | 1/2                               | 14          | 1/2                              | 14             |
| 20             | 26      | 20            | 25      | 3/4              | 1.050   | 3/4                               | 14          | 3/4                              | 14             |
| 25             | 32      | 25            | 32      | 1                | 1.315   | 1                                 | 11.5        | 1                                | 11             |
| 30             | 38      | 38            | 40      | 1-1/4            | 1.660   | 1-1/4                             | 11.5        | 1-1/4                            | 11             |
| 40             | 48      | 40            | 50      | 1-1/2            | 1.900   | 1-1/2                             | 11.5        | 1-1/2                            | 11             |
| 50             | 60      | 50            | 63      | 2                | 2.375   | 2                                 | 11.5        | 2                                | 11             |
| 75             | 89      | 80            | 90      | 3                | 3.500   | 3                                 | 8           | 3                                | 11             |
| 100            | 114     | 100           | 110     | 4                | 4.500   | 4                                 | 8           | 4                                | 11             |

\*Specified dimension, certain tolerances apply

\*\*NPT and BSP have different thread angles and not compatible.

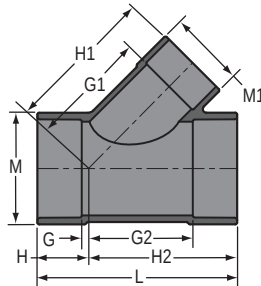


## Schedule 80 Fittings

### REDUCING WYE

Socket x Socket x Socket

1/2" - 2-1/2" 235 psi @ 73°F  
 3" - 6" 150 psi @ 73°F  
 8" & Up & All Fab 100 psi @ 73°F



| Part Number          | Size              | G       | G1       | G2      | H       | H1       | H2       | L        | M       | M1      | Approx. Wt. (Lbs.) |
|----------------------|-------------------|---------|----------|---------|---------|----------|----------|----------|---------|---------|--------------------|
| 875-131 <sup>1</sup> | 1x1x3/4           | 1/4     | 2-7/32   | 1-27/32 | 1-3/8   | 2-31/32  | 2-31/32  | 4-11/32  | 1-11/16 | 1-11/16 | .35                |
| 875-167 <sup>1</sup> | 1-1/4x1-1/4x3/4   | 3/8     | 2-3/4    | 2-1/4   | 1-5/8   | 3-3/4    | 3-1/2    | 5-1/8    | 2-1/16  | 2-1/16  | .61                |
| 875-168 <sup>1</sup> | 1-1/4x1-1/4x1     | 3/8     | 2-5/8    | 2-1/4   | 1-5/8   | 3-3/4    | 3-1/2    | 5-1/8    | 2-1/16  | 2-1/16  | .56                |
| 875-210 <sup>1</sup> | 1-1/2x1-1/2x3/4   | 1/2     | 3-1/2    | 2-9/16  | 1-7/8   | 4-1/2    | 3-15/16  | 5-13/16  | 2-11/32 | 2-11/32 | .88                |
| 875-211 <sup>1</sup> | 1-1/2x1-1/2x1     | 1/2     | 3        | 2-9/16  | 1-7/8   | 4-5/32   | 3-15/16  | 5-13/16  | 2-11/32 | 2-11/32 | .83                |
| 875-212 <sup>1</sup> | 1-1/2x1-1/2x1-1/4 | 1/2     | 3-1/4    | 2-9/16  | 1-7/8   | 4-1/2    | 3-15/16  | 5-13/16  | 2-11/32 | 2-11/32 | .74                |
| 875-248 <sup>1</sup> | 2x2x3/4           | 5/8     | 4-5/32   | 3-7/32  | 2-5/32  | 5-5/32   | 4-7/8    | 6-7/8    | 2-7/8   | 2-7/8   | 1.46               |
| 875-250 <sup>1</sup> | 2x2x1-1/4         | 5/8     | 3-5/16   | 3-3/8   | 2-5/32  | 5        | 4-3/4    | 6-7/8    | 2-7/8   | 2-7/8   | 1.46               |
| 875-291 <sup>1</sup> | 2-1/2x2-1/2x1-1/2 | 1       | 6-1/4    | 4-9/16  | 3-1/16  | 7-5/8    | 6-5/8    | 9-11/16  | 4-3/16  | 4-3/16  | 4.34               |
| 875-292 <sup>1</sup> | 2-1/2x2-1/2x2     | 1/2     | 3-3/4    | 4-3/4   | 2-1/2   | 6-7/8    | 6-1/2    | 9-3/8    | 4-1/4   | 4-1/4   | 3.97               |
| 875-335 <sup>1</sup> | 3x3x1             | 11/16   | 5-7/8    | 4-7/32  | 2-9/16  | 6-15/16  | 6-1/8    | 8-23/32  | 4-3/16  | 4-3/16  | 3.27               |
| 875-336 <sup>1</sup> | 3x3x1-1/4         | 7/8     | 5-3/4    | 4-1/8   | 2-3/4   | 7        | 6        | 8-3/4    | 4-3/16  | 4-3/16  | 3.21               |
| 875-337 <sup>1</sup> | 3x3x1-1/2         | 2-5/8   | 5-1/2    | 4-1/4   | 2-5/8   | 6-7/8    | 6-1/8    | 8-3/4    | 4-3/16  | 4-3/16  | 3.14               |
| 875-338 <sup>1</sup> | 3x3x2             | 1       | 5-11/32  | 4-3/4   | 2-7/8   | 6-31/32  | 6-5/8    | 9-1/2    | 4-3/16  | 4-3/16  | 3.48               |
| 875-339 <sup>1</sup> | 3x3x2-1/2         | 7/8     | 4-1/8    | 4-21/32 | 2-3/4   | 6-3/4    | 6        | 8-3/4    | 4-3/16  | 4-3/16  | 2.97               |
| 875-419 <sup>1</sup> | 4x4x1-1/2         | 1       | 6-5/8    | 5-1/4   | 3-1/4   | 8-13/16  | 7-1/2    | 10-3/4   | 5-1/4   | 5-3/16  | 6.04               |
| 875-420              | 4x4x2             | -7/8    | 5-5/32   | 4-11/16 | 1-3/8   | 6-11/16  | 6-15/16  | 8-5/16   | 5-9/32  | 2-29/32 | 2.78               |
| 875-421F             | 4x4x2-1/2         | 4-9/16  | 8-13/16  | 9-1/16  | 6-13/16 | 10-1/2   | 11-5/16  | 18-1/8   | 5-1/4   | 3-1/2   | 5.37               |
| 875-422              | 4x4x3             | 1/2     | 5-7/16   | 5-7/32  | 2-3/4   | 7-5/16   | 7-15/32  | 10-7/32  | 5-1/4   | 4-3/16  | 3.98               |
| 875-528 <sup>1</sup> | 6x6x2             | 1/16    | 8-13/16  | 6-9/16  | 3-1/16  | 10-5/16  | 9-9/16   | 12-5/8   | 7-9/16  | 5-7/16  | 9.78               |
| 875-528F             | 6x6x2             | 1-15/16 | 9-3/16   | 8-9/16  | 5-3/16  | 10-15/16 | 11-13/16 | 17       | 7-1/2   | 2-13/16 | 9.36               |
| 875-530 <sup>1</sup> | 6x6x3             | -1/16   | 8-3/8    | 6-11/16 | 3       | 10-1/4   | 9-11/16  | 12-5/8   | 7-9/16  | 5-3/8   | 9.60               |
| 875-530F             | 6x6x3             | 2-15/16 | 10-5/16  | 9-9/16  | 6-3/16  | 12-9/16  | 12-13/16 | 19       | 7-1/2   | 4-1/8   | 13.92              |
| 875-532              | 6x6x4             | 31/32   | 6-9/16   | 5-11/16 | 3-15/16 | 8-27/32  | 8-23/32  | 12-21/32 | 7-9/16  | 5-7/16  | 8.61               |
| 875-578 <sup>1</sup> | 8x8x2             | 2       | 14-15/16 | 11-1/4  | 6       | 16-9/16  | 16-7/16  | 21-1/4   | 9-11/16 | 9-11/16 | 34.05              |
| 875-578F             | 8x8x2             | 7/8     | 10-1/2   | 9-1/2   | 5-1/8   | 12-1/4   | 13-3/4   | 18-7/8   | 9-5/8   | 2-13/16 | 17.93              |
| 875-579F             | 8x8x2-1/2         | 1-7/16  | 10-15/16 | 10-1/16 | 5-11/16 | 12-15/16 | 14-5/16  | 20       | 9-5/8   | 3-7/16  | 21.92              |
| 875-580F             | 8x8x3             | 1-15/16 | 11-5/8   | 10-9/16 | 6-3/16  | 13-7/8   | 14-13/16 | 21       | 9-5/8   | 4-1/8   | 21.92              |
| 875-582              | 8x8x4             | 11/16   | 9-1/8    | 8-1/4   | 3-5/16  | 11-3/8   | 12-1/4   | 15-9/16  | 9-3/4   | 5-1/4   | 14.60              |
| 875-582F             | 8x8x4             | 2-15/16 | 11-7/8   | 11-9/16 | 7-3/16  | 14-1/8   | 15-13/16 | 23       | 9-5/8   | 5-3/16  | 18.50              |
| 875-585 <sup>1</sup> | 8x8x6             | 2       | 12-15/16 | 11-1/4  | 6       | 15-15/16 | 15-1/4   | 21-1/4   | 9-11/16 | 9-11/16 | 30.74              |
| 875-585F             | 8x8x6             | 4-15/16 | 13-15/16 | 13-9/16 | 9-3/16  | 17-3/16  | 17-13/16 | 27       | 9-5/8   | 7-1/2   | 32.97              |
| 875-621 <sup>1</sup> | 10x10x2           | 3-3/4   | 6        | 14-1/2  | 9       | 17-1/2   | 19-3/4   | 28-3/4   | 11      | 7-1/2   | 30.84              |

<sup>1</sup> Outlet sized with bushing