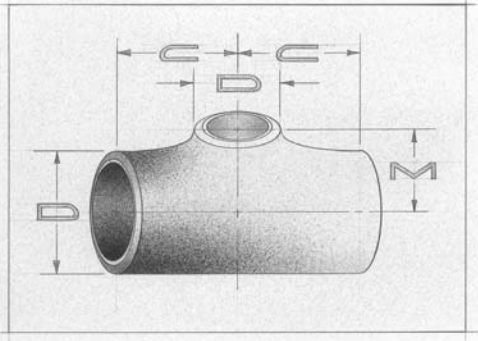


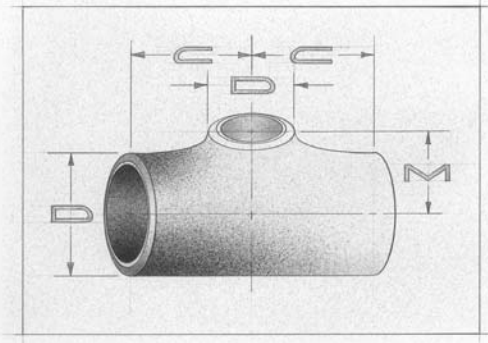
# Reducing TEES



| <b>Key</b>   |  |                   |        |  |  |  |   |  |  |   |   |
|--|--|-------------------|--------|--|--|--|---|--|--|---|---|
| Reducing Sizes   |  | Nominal Pipe Size |        | "D" Outside Diameter at Bevel                |  |  |   | Center-to-End                                |  |   |   |
|  |  |                   |        | Run  |  | Outlet                                       |   | "C" Run                                      |  | "M" Outlet                                  |   |
| inches   | mm   | inches            | mm     | inches                                       | mm   | inches                                       | mm  | inches                                       | mm   | inches                                      | mm  |
| ½ x ½ x ¼  | 12.70 x 12.70 x 6.35   | ½                 | 12.70  | 0.84   | 21.34  | 0.54   | 13.72   | 1.00   | 25.40  | 1.00  | 25.40   |
| ¾ x ¾ x ½  | 19.05 x 19.05 x 12.70  | ¾                 | 19.05  | 1.05   | 26.67  | 0.84   | 21.34   | 1.12   | 28.45  | 1.12  | 28.45   |
| 1 x 1 x ¾<br>1 x 1 x ½   | 25.40 x 25.40 x 19.05<br>25.40 x 25.40 x 12.70   | 1                 | 25.40  | 1.32<br>1.32                                 | 33.53<br>33.53   | 1.05<br>0.84                                 | 26.67<br>21.34  | 1.50<br>1.50                                 | 38.10<br>38.10   | 1.50<br>1.50                                | 38.10<br>38.10  |
| 1¼ x 1¼ x 1<br>1¼ x 1¼ x ¾<br>1¼ x 1¼ x ½                                    | 31.75 x 31.75 x 25.40<br>31.75 x 31.75 x 19.05<br>31.75 x 31.75 x 12.70  | 1¼                | 31.75  | 1.66<br>1.66<br>1.66                         | 42.17<br>42.17<br>42.17                                  | 1.32<br>1.05<br>0.84                         | 33.53<br>26.67<br>21.34                               | 1.88<br>1.88<br>1.88                         | 47.75<br>47.75<br>47.75                                  | 1.88<br>1.88<br>1.88                        | 47.75<br>47.75<br>47.75                               |
| 1½ x 1½ x 1¼<br>1½ x 1½ x 1<br>1½ x 1½ x ¾<br>1½ x 1½ x ½                    | 38.10 x 38.10 x 31.75<br>38.10 x 38.10 x 25.40<br>38.10 x 38.10 x 19.05<br>38.10 x 38.10 x 12.70   | 1½                | 38.10  | 1.90<br>1.90<br>1.90<br>1.90                 | 48.26<br>48.26<br>48.26<br>48.26                         | 1.66<br>1.32<br>1.05<br>0.84                 | 42.17<br>33.53<br>26.67<br>21.34                      | 2.25<br>2.25<br>2.25<br>2.25                 | 57.15<br>57.15<br>57.15<br>57.15                         | 2.25<br>2.25<br>2.25<br>2.25                | 57.15<br>57.15<br>57.15<br>57.15                      |
| 2 x 2 x 1½<br>2 x 2 x 1¼<br>2 x 2 x 1<br>2 x 2 x ¾                           | 50.80 x 50.80 x 38.10<br>50.80 x 50.80 x 31.75<br>50.80 x 50.80 x 25.40<br>50.80 x 50.80 x 19.05   | 2                 | 50.80  | 2.38<br>2.38<br>2.38<br>2.38                 | 60.45<br>60.45<br>60.45<br>60.45                         | 1.90<br>1.66<br>1.32<br>1.05                 | 48.26<br>42.17<br>33.53<br>26.67                      | 2.50<br>2.50<br>2.50<br>2.50                 | 63.50<br>63.50<br>63.50<br>63.50                         | 2.38<br>2.25<br>2.00<br>1.75                | 60.45<br>57.15<br>50.80<br>44.45                      |
| 2½ x 2½ x 2<br>2½ x 2½ x 1½<br>2½ x 2½ x 1¼<br>2½ x 2½ x 1                   | 63.50 x 63.50 x 50.80<br>63.50 x 63.50 x 38.10<br>63.50 x 63.50 x 31.75<br>63.50 x 63.50 x 25.40   | 2½                | 63.50  | 2.88<br>2.88<br>2.88<br>2.88                 | 73.15<br>73.15<br>73.15<br>73.15                         | 2.38<br>1.90<br>1.66<br>1.32                 | 60.45<br>48.26<br>42.17<br>33.53                      | 3.00<br>3.00<br>3.00<br>3.00                 | 76.20<br>76.20<br>76.20<br>76.20                         | 2.75<br>2.62<br>2.50<br>2.25                | 69.85<br>66.55<br>63.50<br>57.15                      |
| 3 x 3 x 2½<br>3 x 3 x 2<br>3 x 3 x 1½<br>3 x 3 x 1¼                          | 76.20 x 76.20 x 63.50<br>76.20 x 76.20 x 50.80<br>76.20 x 76.20 x 38.10<br>76.20 x 76.20 x 31.75   | 3                 | 76.20  | 3.50<br>3.50<br>3.50<br>3.50                 | 88.90<br>88.90<br>88.90<br>88.90                         | 2.88<br>2.38<br>1.90<br>1.66                 | 73.15<br>60.45<br>48.26<br>42.17                      | 3.38<br>3.38<br>3.38<br>3.38                 | 85.85<br>85.85<br>85.85<br>85.85                         | 3.25<br>3.00<br>2.88<br>2.75                | 82.55<br>76.20<br>73.15<br>69.85                      |
| 3½ x 3½ x 3<br>3½ x 3½ x 2½<br>3½ x 3½ x 2<br>3½ x 3½ x 1½                   | 88.90 x 88.90 x 76.20<br>88.90 x 88.90 x 63.50<br>88.90 x 88.90 x 50.80<br>88.90 x 88.90 x 38.10   | 3½                | 88.90  | 4.00<br>4.00<br>4.00<br>4.00                 | 101.60<br>101.60<br>101.60<br>101.60                     | 3.50<br>2.88<br>2.38<br>1.90                 | 88.90<br>73.15<br>60.45<br>48.26                      | 3.75<br>3.75<br>3.75<br>3.75                 | 95.25<br>95.25<br>95.25<br>95.25                         | 3.62<br>3.50<br>3.25<br>3.12                | 91.95<br>88.90<br>82.55<br>79.25                      |
| 4 x 4 x 3½<br>4 x 4 x 3<br>4 x 4 x 2½<br>4 x 4 x 2<br>4 x 4 x 1½             | 101.60 x 101.60 x 88.90<br>101.60 x 101.60 x 76.20<br>101.60 x 101.60 x 63.50<br>101.60 x 101.60 x 50.80<br>101.60 x 101.60 x 38.10                              | 4                 | 101.60 | 4.50<br>4.50<br>4.50<br>4.50<br>4.50         | 114.30<br>114.30<br>114.30<br>114.30<br>114.30           | 4.00<br>3.50<br>2.88<br>2.38<br>1.90         | 101.60<br>88.90<br>73.15<br>60.45<br>48.26            | 4.12<br>4.12<br>4.12<br>4.12<br>4.12         | 104.65<br>104.65<br>104.65<br>104.65<br>104.65           | 4.00<br>3.88<br>3.75<br>3.50<br>3.38        | 101.60<br>98.55<br>95.25<br>88.90<br>85.85            |
| 5 x 5 x 4<br>5 x 5 x 3½<br>5 x 5 x 3<br>5 x 5 x 2½<br>5 x 5 x 2              | 127.00 x 127.00 x 101.60<br>127.00 x 127.00 x 88.90<br>127.00 x 127.00 x 76.20<br>127.00 x 127.00 x 63.50<br>127.00 x 127.00 x 50.80                             | 5                 | 127.00 | 5.56<br>5.56<br>5.56<br>5.56<br>5.56         | 141.22<br>141.22<br>141.22<br>141.22<br>141.22           | 4.50<br>4.00<br>3.50<br>2.88<br>2.38         | 114.30<br>101.60<br>88.90<br>73.15<br>60.45           | 4.88<br>4.88<br>4.88<br>4.88<br>4.88         | 123.95<br>123.95<br>123.95<br>123.95<br>123.95           | 4.62<br>4.50<br>4.38<br>4.25<br>4.12        | 117.35<br>114.30<br>111.25<br>107.95<br>104.65        |
| 6 x 6 x 5<br>6 x 6 x 4<br>6 x 6 x 3½<br>6 x 6 x 3<br>6 x 6 x 2½<br>6 x 6 x 2 | 152.40 x 152.40 x 127.00<br>152.40 x 152.40 x 101.60<br>152.40 x 152.40 x 88.90<br>152.40 x 152.40 x 76.20<br>152.40 x 152.40 x 63.50<br>152.40 x 152.40 x 50.80 | 6                 | 152.40 | 6.62<br>6.62<br>6.62<br>6.62<br>6.62<br>6.62 | 168.15<br>168.15<br>168.15<br>168.15<br>168.15<br>168.15 | 5.56<br>4.50<br>4.00<br>3.50<br>2.88<br>2.38 | 141.22<br>114.30<br>101.60<br>88.90<br>73.15<br>60.45 | 5.62<br>5.62<br>5.62<br>5.62<br>5.62<br>5.62 | 142.75<br>142.75<br>142.75<br>142.75<br>142.75<br>142.75 | 5.38<br>5.12<br>5.00<br>4.88<br>4.75<br>*** | 136.65<br>130.05<br>127.00<br>123.95<br>120.65<br>*** |

\*\*Call factory for Nominal Wall Thickness and Inside Diameter measurements on ¼"  
\*\*\*Call factory for dimensions.

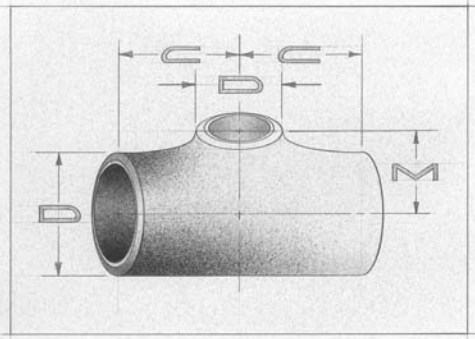
# Reducing TEES



| Key  |  | Nominal Wall Thickness: inches<br>mm<br>Inside Diameter: inches<br>mm<br>Weight: Call factory for weights |    |          |    |         |           |    |         |         |     |         |     |         |         |   |
|--|--|---|----|----------|----|---------|-----------|----|---------|---------|-----|---------|-----|---------|---------|---|
|  |  | Reducing Sizes  |    | Schedule |    |         |           |    |         |         |     |         |     |         |         |   |
| inches   | mm   | L.W.G.  | 10 | 20       | 30 | 40      | STD<br>WT | 60 | XS      | 80      | 100 | 120     | 140 | 160     | XXS     |   |
| ½ x ½ x ¾  | 12.70 x 12.70 x 6.35   | -   | -  | -        | -  | .109    | .109      | -  | .147    | .147    | -   | -       | -   | .188    | .294    |   |
|  |  | -   | -  | -        | -  | 2.769   | 2.769     | -  | 3.734   | 3.734   | -   | -       | -   | 4.775   | 7.468   |   |
|  |  | -   | -  | -        | -  | .622    | .622      | -  | .546    | .546    | -   | -       | -   | .464    | .252    |   |
|  |  | -   | -  | -        | -  | 15.799  | 15.799    | -  | 13.868  | 13.868  | -   | -       | -   | 11.786  | 6.401   |   |
| ¾ x ¾ x 1½   | 19.05 x 19.05 x 12.70  | -   | -  | -        | -  | .113    | .113      | -  | .154    | .154    | -   | -       | -   | .219    | .308    |   |
|  |  | -   | -  | -        | -  | 2.870   | 2.870     | -  | 3.912   | 3.912   | -   | -       | -   | 5.563   | 7.823   |   |
|  |  | -   | -  | -        | -  | .824    | .824      | -  | .742    | .742    | -   | -       | -   | .612    | .434    |   |
|  |  | -   | -  | -        | -  | 20.930  | 20.930    | -  | 18.847  | 18.847  | -   | -       | -   | 15.545  | 11.024  |   |
| 1 x 1 x ¾<br>1 x 1 x ½   | 25.40 x 25.40 x 19.05<br>25.40 x 25.40 x 12.70   | -   | -  | -        | -  | .133    | .133      | -  | .179    | .179    | -   | -       | -   | .250    | .358    |   |
|  |  | -   | -  | -        | -  | 3.378   | 3.378     | -  | 4.547   | 4.547   | -   | -       | -   | 6.350   | 9.093   |   |
|  |  | -   | -  | -        | -  | 1.049   | 1.049     | -  | .957    | .957    | -   | -       | -   | .815    | .599    |   |
|  |  | -   | -  | -        | -  | 26.645  | 26.645    | -  | 24.308  | 24.308  | -   | -       | -   | 20.701  | 15.215  |   |
| 1¼ x 1¼ x 1<br>1¼ x 1¼ x ¾<br>1¼ x 1¼ x ½                                    | 31.75 x 31.75 x 25.40<br>31.75 x 31.75 x 19.05<br>31.75 x 31.75 x 12.70  | -   | -  | -        | -  | .140    | .140      | -  | .191    | .191    | -   | -       | -   | .250    | .382    |   |
|  |  | -   | -  | -        | -  | 3.556   | 3.556     | -  | 4.851   | 4.851   | -   | -       | -   | 6.350   | 9.703   |   |
|  |  | -   | -  | -        | -  | 1.380   | 1.380     | -  | 1.278   | 1.278   | -   | -       | -   | 1.160   | .896    |   |
|  |  | -   | -  | -        | -  | 35.052  | 35.052    | -  | 32.461  | 32.461  | -   | -       | -   | 29.464  | 22.758  |   |
| 1½ x 1½ x 1¼<br>1½ x 1½ x 1<br>1½ x 1½ x ¾<br>1½ x 1½ x ½                    | 38.10 x 38.10 x 31.75<br>38.10 x 38.10 x 25.40<br>38.10 x 38.10 x 19.05<br>38.10 x 38.10 x 12.70   | -   | -  | -        | -  | .145    | .145      | -  | .200    | .200    | -   | -       | -   | .281    | .400    |   |
|  |  | -   | -  | -        | -  | 3.683   | 3.683     | -  | 5.080   | 5.080   | -   | -       | -   | 7.137   | 10.160  |   |
|  |  | -   | -  | -        | -  | 1.610   | 1.610     | -  | 1.500   | 1.500   | -   | -       | -   | 1.338   | 1.100   |   |
|  |  | -   | -  | -        | -  | 40.894  | 40.894    | -  | 38.100  | 38.100  | -   | -       | -   | 33.985  | 27.940  |   |
| 2 x 2 x 1½<br>2 x 2 x 1¼<br>2 x 2 x 1<br>2 x 2 x ¾                           | 50.80 x 50.80 x 38.10<br>50.80 x 50.80 x 31.75<br>50.80 x 50.80 x 25.40<br>50.80 x 50.80 x 19.05   | -   | -  | -        | -  | .154    | .154      | -  | .218    | .218    | -   | -       | -   | .344    | .436    |   |
|  |  | -   | -  | -        | -  | 3.912   | 3.912     | -  | 5.537   | 5.537   | -   | -       | -   | 8.738   | 11.074  |   |
|  |  | -   | -  | -        | -  | 2.067   | 2.067     | -  | 1.939   | 1.939   | -   | -       | -   | 1.687   | 1.503   |   |
|  |  | -   | -  | -        | -  | 52.502  | 52.502    | -  | 49.251  | 49.251  | -   | -       | -   | 42.850  | 38.176  |   |
| 2½ x 2½ x 2<br>2½ x 2½ x 1½<br>2½ x 2½ x 1¼<br>2½ x 2½ x 1                   | 63.50 x 63.50 x 50.80<br>63.50 x 63.50 x 38.10<br>63.50 x 63.50 x 31.75<br>63.50 x 63.50 x 25.40   | -   | -  | -        | -  | .203    | .203      | -  | .276    | .276    | -   | -       | -   | .375    | .552    |   |
|  |  | -   | -  | -        | -  | 5.156   | 5.156     | -  | 7.010   | 7.010   | -   | -       | -   | 9.525   | 14.021  |   |
|  |  | -   | -  | -        | -  | 2.469   | 2.469     | -  | 2.323   | 2.323   | -   | -       | -   | 2.125   | 1.771   |   |
|  |  | -   | -  | -        | -  | 62.713  | 62.713    | -  | 59.004  | 59.004  | -   | -       | -   | 53.975  | 44.983  |   |
| 3 x 3 x 2½<br>3 x 3 x 2<br>3 x 3 x 1½<br>3 x 3 x 1¼                          | 76.20 x 76.20 x 63.50<br>76.20 x 76.20 x 50.80<br>76.20 x 76.20 x 38.10<br>76.20 x 76.20 x 31.75   | -   | -  | -        | -  | .216    | .216      | -  | .300    | .300    | -   | -       | -   | .438    | .600    |   |
|  |  | -   | -  | -        | -  | 5.486   | 5.486     | -  | 7.620   | 7.620   | -   | -       | -   | 11.125  | 15.240  |   |
|  |  | -   | -  | -        | -  | 3.068   | 3.068     | -  | 2.900   | 2.900   | -   | -       | -   | 2.624   | 2.300   |   |
|  |  | -   | -  | -        | -  | 77.927  | 77.927    | -  | 73.660  | 73.660  | -   | -       | -   | 66.650  | 58.420  |   |
| 3½ x 3½ x 3<br>3½ x 3½ x 2½<br>3½ x 3½ x 2<br>3½ x 3½ x 1½                   | 88.90 x 88.90 x 76.20<br>88.90 x 88.90 x 63.50<br>88.90 x 88.90 x 50.80<br>88.90 x 88.90 x 38.10   | -   | -  | -        | -  | .226    | .226      | -  | .318    | .318    | -   | -       | -   | -       | .636*   |   |
|  |  | -   | -  | -        | -  | 5.740   | 5.740     | -  | 8.077   | 8.077   | -   | -       | -   | -       | 16.154  |   |
|  |  | -   | -  | -        | -  | 3.548   | 3.548     | -  | 3.364   | 3.364   | -   | -       | -   | -       | 2.728   |   |
|  |  | -   | -  | -        | -  | 90.119  | 90.119    | -  | 85.446  | 85.446  | -   | -       | -   | -       | 69.291  |   |
| 4 x 4 x 3½<br>4 x 4 x 3<br>4 x 4 x 2½<br>4 x 4 x 2<br>4 x 4 x 1½             | 101.60 x 101.60 x 88.90<br>101.60 x 101.60 x 76.20<br>101.60 x 101.60 x 63.50<br>101.60 x 101.60 x 50.80<br>101.60 x 101.60 x 38.10                              | .188  | -  | -        | -  | .237    | .237      | -  | .337    | .337    | -   | .438    | -   | .531    | .674    |   |
|  |  | 4.775   | -  | -        | -  | 6.020   | 6.020     | -  | 8.560   | 8.560   | -   | 11.125  | -   | 13.487  | 17.120  |   |
|  |  | 4.124   | -  | -        | -  | 4.026   | 4.026     | -  | 3.826   | 3.826   | -   | 3.624   | -   | 3.438   | 3.152   |   |
|  |  | 104.749   | -  | -        | -  | 102.260 | 102.260   | -  | 97.180  | 97.180  | -   | 92.050  | -   | 87.325  | 80.061  |   |
|  |  | -   | -  | -        | -  | -       | -         | -  | -       | -       | -   | -       | -   | -       | -       | - |
|  |  | -   | -  | -        | -  | -       | -         | -  | -       | -       | -   | -       | -   | -       | -       | - |
| 5 x 5 x 4<br>5 x 5 x 3½<br>5 x 5 x 3<br>5 x 5 x 2½<br>5 x 5 x 2              | 127.00 x 127.00 x 101.60<br>127.00 x 127.00 x 88.90<br>127.00 x 127.00 x 76.20<br>127.00 x 127.00 x 63.50<br>127.00 x 127.00 x 50.80                             | -   | -  | -        | -  | .258    | .258      | -  | .375    | .375    | -   | .500    | -   | .625    | .750    |   |
|  |  | -   | -  | -        | -  | 6.553   | 6.553     | -  | 9.525   | 9.525   | -   | 12.700  | -   | 15.875  | 19.050  |   |
|  |  | -   | -  | -        | -  | 5.047   | 5.047     | -  | 4.813   | 4.813   | -   | 4.563   | -   | 4.313   | 4.063   |   |
|  |  | -   | -  | -        | -  | 128.194 | 128.194   | -  | 122.250 | 122.250 | -   | 115.900 | -   | 109.550 | 103.200 |   |
|  |  | -   | -  | -        | -  | -       | -         | -  | -       | -       | -   | -       | -   | -       | -       | - |
|  |  | -   | -  | -        | -  | -       | -         | -  | -       | -       | -   | -       | -   | -       | -       | - |
| 6 x 6 x 5<br>6 x 6 x 4<br>6 x 6 x 3½<br>6 x 6 x 3<br>6 x 6 x 2½<br>6 x 6 x 2 | 152.40 x 152.40 x 127.00<br>152.40 x 152.40 x 101.60<br>152.40 x 152.40 x 88.90<br>152.40 x 152.40 x 76.20<br>152.40 x 152.40 x 63.50<br>152.40 x 152.40 x 50.80 | .219  | -  | -        | -  | .280    | .280      | -  | .432    | .432    | -   | .562    | -   | .719    | .864    |   |
|  |  | 5.563   | -  | -        | -  | 7.112   | 7.112     | -  | 10.973  | 10.973  | -   | 14.275  | -   | 18.263  | 21.946  |   |
|  |  | 6.187   | -  | -        | -  | 6.065   | 6.065     | -  | 5.761   | 5.761   | -   | 5.501   | -   | 5.187   | 4.897   |   |
|  |  | 157.150   | -  | -        | -  | 154.051 | 154.051   | -  | 146.329 | 146.329 | -   | 139.725 | -   | 131.750 | 124.384 |   |
|  |  | -   | -  | -        | -  | -       | -         | -  | -       | -       | -   | -       | -   | -       | -       | - |
|  |  | -   | -  | -        | -  | -       | -         | -  | -       | -       | -   | -       | -   | -       | -       | - |

\*Not given in ASME B36.10

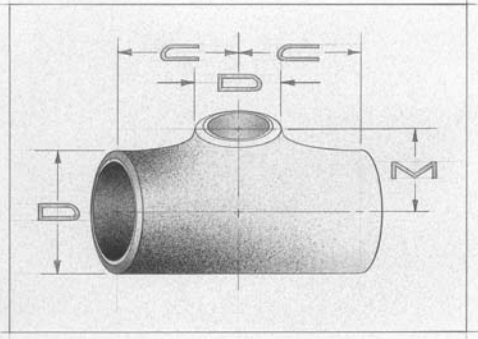
# Reducing TEES



| <b>Key</b>          |                          |                   |        |                               |        |              |        |               |        |              |        |
|---------------------|--------------------------|-------------------|--------|-------------------------------|--------|--------------|--------|---------------|--------|--------------|--------|
| Reducing Sizes      |                          | Nominal Pipe Size |        | "D" Outside Diameter at Bevel |        |              |        | Center-to-End |        |              |        |
|                     |                          |                   |        | Run                           |        | Outlet       |        | "C" Run       |        | "M" Outlet   |        |
| inches              | mm                       | inches            | mm     | inches                        | mm     | inches       | mm     | inches        | mm     | inches       | mm     |
| <b>8 x 8 x 6</b>    | 203.20 x 203.20 x 152.40 | <b>8</b>          | 203.20 | <b>8.62</b>                   | 218.95 | <b>6.62</b>  | 168.15 | <b>7.00</b>   | 177.80 | <b>6.62</b>  | 168.15 |
| <b>8 x 8 x 5</b>    | 203.20 x 203.20 x 127.00 |                   |        | <b>8.62</b>                   | 218.95 | <b>5.56</b>  | 141.22 | <b>7.00</b>   | 177.80 | <b>6.38</b>  | 162.05 |
| <b>8 x 8 x 4</b>    | 203.20 x 203.20 x 101.60 |                   |        | <b>8.62</b>                   | 218.95 | <b>4.50</b>  | 114.30 | <b>7.00</b>   | 177.80 | <b>6.12</b>  | 155.45 |
| <b>8 x 8 x 3½</b>   | 203.20 x 203.20 x 88.90  |                   |        | <b>8.62</b>                   | 218.95 | <b>4.00</b>  | 101.60 | <b>7.00</b>   | 177.80 | <b>6.00</b>  | 152.40 |
| <b>8 x 8 x 3</b>    | 203.20 x 203.20 x 76.20  |                   |        | <b>8.62</b>                   | 218.95 | <b>3.50</b>  | 88.90  | <b>7.00</b>   | 177.80 | ***          | ***    |
| <b>10 x 10 x 8</b>  | 254.00 x 254.00 x 203.20 | <b>10</b>         | 254.00 | <b>10.75</b>                  | 273.05 | <b>8.62</b>  | 218.95 | <b>8.50</b>   | 215.90 | <b>8.00</b>  | 203.20 |
| <b>10 x 10 x 6</b>  | 254.00 x 254.00 x 152.40 |                   |        | <b>10.75</b>                  | 273.05 | <b>6.62</b>  | 168.15 | <b>8.50</b>   | 215.90 | <b>7.62</b>  | 193.55 |
| <b>10 x 10 x 5</b>  | 254.00 x 254.00 x 127.00 |                   |        | <b>10.75</b>                  | 273.05 | <b>5.56</b>  | 141.22 | <b>8.50</b>   | 215.90 | <b>7.50</b>  | 190.50 |
| <b>10 x 10 x 4</b>  | 254.00 x 254.00 x 101.60 |                   |        | <b>10.75</b>                  | 273.05 | <b>4.50</b>  | 114.30 | <b>8.50</b>   | 215.90 | <b>7.25</b>  | 184.15 |
| <b>12 x 12 x 10</b> | 304.80 x 304.80 x 254.00 | <b>12</b>         | 304.80 | <b>12.75</b>                  | 323.85 | <b>10.75</b> | 273.05 | <b>10.00</b>  | 254.00 | <b>9.50</b>  | 241.30 |
| <b>12 x 12 x 8</b>  | 304.80 x 304.80 x 203.20 |                   |        | <b>12.75</b>                  | 323.85 | <b>8.62</b>  | 218.95 | <b>10.00</b>  | 254.00 | <b>9.00</b>  | 228.60 |
| <b>12 x 12 x 6</b>  | 304.80 x 304.80 x 152.40 |                   |        | <b>12.75</b>                  | 323.85 | <b>6.62</b>  | 168.15 | <b>10.00</b>  | 254.00 | <b>8.62</b>  | 218.95 |
| <b>12 x 12 x 5</b>  | 304.80 x 304.80 x 127.00 |                   |        | <b>12.75</b>                  | 323.85 | <b>5.56</b>  | 141.22 | <b>10.00</b>  | 254.00 | <b>8.50</b>  | 215.90 |
| <b>12 x 12 x 4</b>  | 304.80 x 304.80 x 101.60 |                   |        | ***                           | ***    | ***          | ***    | ***           | ***    | ***          | ***    |
| <b>14 x 14 x 12</b> | 355.60 x 355.60 x 304.80 | <b>14</b>         | 355.60 | <b>14.00</b>                  | 355.60 | <b>12.75</b> | 323.85 | <b>11.00</b>  | 279.40 | <b>10.62</b> | 269.75 |
| <b>14 x 14 x 10</b> | 355.60 x 355.60 x 254.00 |                   |        | <b>14.00</b>                  | 355.60 | <b>10.75</b> | 273.05 | <b>11.00</b>  | 279.40 | <b>10.12</b> | 257.05 |
| <b>14 x 14 x 8</b>  | 355.60 x 355.60 x 203.20 |                   |        | <b>14.00</b>                  | 355.60 | <b>8.62</b>  | 218.95 | <b>11.00</b>  | 279.40 | <b>9.75</b>  | 247.65 |
| <b>14 x 14 x 6</b>  | 355.60 x 355.60 x 152.40 |                   |        | <b>14.00</b>                  | 355.60 | <b>6.62</b>  | 168.15 | <b>11.00</b>  | 279.40 | <b>9.38</b>  | 238.25 |
| <b>16 x 16 x 14</b> | 406.40 x 406.40 x 355.60 | <b>16</b>         | 406.40 | <b>16.00</b>                  | 406.40 | <b>14.00</b> | 355.60 | <b>12.00</b>  | 304.80 | <b>12.00</b> | 304.80 |
| <b>16 x 16 x 12</b> | 406.40 x 406.40 x 304.80 |                   |        | <b>16.00</b>                  | 406.40 | <b>12.75</b> | 323.85 | <b>12.00</b>  | 304.80 | <b>11.62</b> | 295.15 |
| <b>16 x 16 x 10</b> | 406.40 x 406.40 x 254.00 |                   |        | <b>16.00</b>                  | 406.40 | <b>10.75</b> | 273.05 | <b>12.00</b>  | 304.80 | <b>11.12</b> | 282.45 |
| <b>16 x 16 x 8</b>  | 406.40 x 406.40 x 203.20 |                   |        | <b>16.00</b>                  | 406.40 | <b>8.62</b>  | 218.95 | <b>12.00</b>  | 304.80 | <b>10.75</b> | 273.05 |
| <b>16 x 16 x 6</b>  | 406.40 x 406.40 x 152.40 |                   |        | <b>16.00</b>                  | 406.40 | <b>6.62</b>  | 168.15 | <b>12.00</b>  | 304.80 | <b>10.38</b> | 263.65 |
| <b>18 x 18 x 16</b> | 457.20 x 457.20 x 406.40 | <b>18</b>         | 457.20 | <b>18.00</b>                  | 457.20 | <b>16.00</b> | 406.40 | <b>13.50</b>  | 342.90 | <b>13.00</b> | 330.20 |
| <b>18 x 18 x 14</b> | 457.20 x 457.20 x 355.60 |                   |        | <b>18.00</b>                  | 457.20 | <b>14.00</b> | 355.60 | <b>13.50</b>  | 342.90 | <b>13.00</b> | 330.20 |
| <b>18 x 18 x 12</b> | 457.20 x 457.20 x 304.80 |                   |        | <b>18.00</b>                  | 457.20 | <b>12.75</b> | 323.85 | <b>13.50</b>  | 342.90 | <b>12.62</b> | 320.55 |
| <b>18 x 18 x 10</b> | 457.20 x 457.20 x 254.00 |                   |        | <b>18.00</b>                  | 457.20 | <b>10.75</b> | 273.05 | <b>13.50</b>  | 342.90 | <b>12.12</b> | 307.85 |
| <b>18 x 18 x 8</b>  | 457.20 x 457.20 x 203.20 |                   |        | <b>18.00</b>                  | 457.20 | <b>8.62</b>  | 218.95 | <b>13.50</b>  | 342.90 | <b>11.75</b> | 298.45 |
| <b>20 x 20 x 18</b> | 508.00 x 508.00 x 457.20 | <b>20</b>         | 508.00 | <b>20.00</b>                  | 508.00 | <b>18.00</b> | 457.20 | <b>15.00</b>  | 381.00 | <b>14.50</b> | 368.30 |
| <b>20 x 20 x 16</b> | 508.00 x 508.00 x 406.40 |                   |        | <b>20.00</b>                  | 508.00 | <b>16.00</b> | 406.40 | <b>15.00</b>  | 381.00 | <b>14.00</b> | 355.60 |
| <b>20 x 20 x 14</b> | 508.00 x 508.00 x 355.60 |                   |        | <b>20.00</b>                  | 508.00 | <b>14.00</b> | 355.60 | <b>15.00</b>  | 381.00 | <b>14.00</b> | 355.60 |
| <b>20 x 20 x 12</b> | 508.00 x 508.00 x 304.80 |                   |        | <b>20.00</b>                  | 508.00 | <b>12.75</b> | 323.85 | <b>15.00</b>  | 381.00 | <b>13.62</b> | 345.95 |
| <b>20 x 20 x 10</b> | 508.00 x 508.00 x 254.00 |                   |        | <b>20.00</b>                  | 508.00 | <b>10.75</b> | 273.05 | <b>15.00</b>  | 381.00 | <b>13.12</b> | 333.25 |
| <b>20 x 20 x 8</b>  | 508.00 x 508.00 x 203.20 |                   |        | <b>20.00</b>                  | 508.00 | <b>8.62</b>  | 218.95 | <b>15.00</b>  | 381.00 | <b>12.75</b> | 323.85 |
| <b>22 x 22 x 20</b> | 558.80 x 558.80 x 508.00 |                   |        | <b>22</b>                     | 558.80 | <b>22.00</b> | 558.80 | <b>20.00</b>  | 508.00 | <b>16.50</b> | 419.10 |
| <b>22 x 22 x 18</b> | 558.80 x 558.80 x 457.20 | <b>22.00</b>      | 558.80 |                               |        | <b>18.00</b> | 457.20 | <b>16.50</b>  | 419.10 | <b>15.50</b> | 393.70 |
| <b>22 x 22 x 16</b> | 558.80 x 558.80 x 406.40 | <b>22.00</b>      | 558.80 |                               |        | <b>16.00</b> | 406.40 | <b>16.50</b>  | 419.10 | <b>15.00</b> | 381.00 |
| <b>22 x 22 x 14</b> | 558.80 x 558.80 x 355.60 | <b>22.00</b>      | 558.80 |                               |        | <b>14.00</b> | 355.60 | <b>16.50</b>  | 419.10 | <b>15.00</b> | 381.00 |
| <b>22 x 22 x 12</b> | 558.80 x 558.80 x 304.80 | <b>22.00</b>      | 558.80 |                               |        | <b>12.75</b> | 323.85 | <b>16.50</b>  | 419.10 | <b>14.62</b> | 371.35 |
| <b>22 x 22 x 10</b> | 558.80 x 558.80 x 254.00 | <b>22.00</b>      | 558.80 |                               |        | <b>10.75</b> | 273.05 | <b>16.50</b>  | 419.10 | <b>14.12</b> | 358.65 |
| <b>24 x 24 x 22</b> | 609.60 x 609.60 x 558.80 | <b>24</b>         | 609.60 |                               |        | <b>24.00</b> | 609.60 | <b>22.00</b>  | 558.80 | <b>17.00</b> | 431.80 |
| <b>24 x 24 x 20</b> | 609.60 x 609.60 x 508.00 |                   |        | <b>24.00</b>                  | 609.60 | <b>20.00</b> | 508.00 | <b>17.00</b>  | 431.80 | <b>17.00</b> | 431.80 |
| <b>24 x 24 x 18</b> | 609.60 x 609.60 x 457.20 |                   |        | <b>24.00</b>                  | 609.60 | <b>18.00</b> | 457.20 | <b>17.00</b>  | 431.80 | <b>16.50</b> | 419.10 |
| <b>24 x 24 x 16</b> | 609.60 x 609.60 x 406.40 |                   |        | <b>24.00</b>                  | 609.60 | <b>16.00</b> | 406.40 | <b>17.00</b>  | 431.80 | <b>16.00</b> | 406.40 |
| <b>24 x 24 x 14</b> | 609.60 x 609.60 x 355.60 |                   |        | <b>24.00</b>                  | 609.60 | <b>14.00</b> | 355.60 | <b>17.00</b>  | 431.80 | <b>16.00</b> | 406.40 |
| <b>24 x 24 x 12</b> | 609.60 x 609.60 x 304.80 |                   |        | <b>24.00</b>                  | 609.60 | <b>12.75</b> | 323.85 | <b>17.00</b>  | 431.80 | <b>15.62</b> | 396.75 |
| <b>24 x 24 x 10</b> | 609.60 x 609.60 x 254.00 |                   |        | <b>24.00</b>                  | 609.60 | <b>10.75</b> | 273.05 | <b>17.00</b>  | 431.80 | <b>15.12</b> | 384.05 |
| <b>30 x 30 x 24</b> | 762.00 x 762.00 x 609.60 |                   |        | <b>30</b>                     | 762.00 | <b>30.00</b> | 762.00 | <b>24.00</b>  | 609.60 | <b>22.00</b> | 558.80 |
| <b>30 x 30 x 20</b> | 762.00 x 762.00 x 508.00 | <b>30.00</b>      | 762.00 |                               |        | <b>20.00</b> | 508.00 | <b>22.00</b>  | 558.80 | <b>20.00</b> | 508.00 |
| <b>30 x 30 x 18</b> | 762.00 x 762.00 x 457.20 | <b>30.00</b>      | 762.00 |                               |        | <b>18.00</b> | 457.20 | <b>22.00</b>  | 558.80 | <b>19.50</b> | 493.30 |
| <b>30 x 30 x 16</b> | 762.00 x 762.00 x 406.40 | <b>30.00</b>      | 762.00 |                               |        | <b>16.00</b> | 406.40 | <b>22.00</b>  | 558.80 | <b>19.00</b> | 482.60 |

\*\*\*Call factory for dimensions.

# Reducing TEES



| Key          |                          | Nominal Wall Thickness: inches<br>mm<br>Inside Diameter: inches<br>mm<br>Weight: Call factory for weights |         |          |         |         |         |         |         |         |         |         |         |         |         |
|--------------|--------------------------|---|---------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|              |                          | Reducing Sizes  |         | Schedule |         |         |         |         |         |         |         |         |         |         |         |
| inches       | mm                       | L.W.G.  | 10      | 20       | 30      | 40      | STD WT  | 60      | XS      | 80      | 100     | 120     | 140     | 160     | XXS     |
| 8 x 8 x 6    | 203.20 x 203.20 x 152.40 | .219  | -       | .250     | .277    | .322    | .322    | .406    | .500    | .500    | .594    | .719    | .812    | .906    | .875    |
| 8 x 8 x 5    | 203.20 x 203.20 x 127.00 | 5.563   | -       | 6.350    | 7.036   | 8.179   | 8.179   | 10.312  | 12.700  | 12.700  | 15.088  | 18.263  | 20.625  | 23.012  | 22.225  |
| 8 x 8 x 4    | 203.20 x 203.20 x 101.60 | 8.187   | -       | 8.125    | 8.071   | 7.981   | 7.981   | 7.813   | 7.625   | 7.625   | 7.437   | 7.187   | 7.001   | 6.813   | 6.875   |
| 8 x 8 x 3½   | 203.20 x 203.20 x 88.90  | 207.949   | -       | 206.375  | 205.003 | 202.717 | 202.717 | 198.450 | 193.675 | 193.675 | 188.900 | 182.550 | 177.825 | 173.050 | 174.625 |
| 8 x 8 x 3    | 203.20 x 203.20 x 76.20  |   |         |          |         |         |         |         |         |         |         |         |         |         |         |
| 10 x 10 x 8  | 254.00 x 254.00 x 203.20 | .219  | -       | .250     | .307    | .365    | .365    | .500    | .500    | .594    | .719    | .844    | 1.000   | 1.125   | 1.000   |
| 10 x 10 x 6  | 254.00 x 254.00 x 152.40 | 5.563   | -       | 6.350    | 7.798   | 9.271   | 9.271   | 12.700  | 12.700  | 15.088  | 18.263  | 21.438  | 25.400  | 28.575  | 25.400  |
| 10 x 10 x 5  | 254.00 x 254.00 x 127.00 | 10.312  | -       | 10.250   | 10.136  | 10.020  | 10.020  | 9.750   | 9.750   | 9.562   | 9.312   | 9.062   | 8.750   | 8.500   | 8.750   |
| 10 x 10 x 4  | 254.00 x 254.00 x 101.60 | 261.925   | -       | 260.350  | 257.454 | 254.508 | 254.508 | 247.650 | 247.650 | 242.875 | 236.525 | 230.175 | 222.250 | 215.900 | 222.250 |
| 12 x 12 x 10 | 304.80 x 304.80 x 254.00 | .250  | -       | .250     | .330    | .406    | .375    | .562    | .500    | .688    | .844    | 1.000   | 1.125   | 1.312   | 1.000   |
| 12 x 12 x 8  | 304.80 x 304.80 x 203.20 | 6.350   | -       | 6.350    | 8.382   | 10.312  | 9.525   | 14.275  | 12.700  | 17.475  | 21.438  | 25.400  | 28.575  | 33.325  | 25.400  |
| 12 x 12 x 6  | 304.80 x 304.80 x 152.40 | 12.250  | -       | 12.250   | 12.090  | 11.938  | 12.000  | 11.626  | 11.750  | 11.374  | 11.062  | 10.750  | 10.500  | 10.126  | 10.750  |
| 12 x 12 x 5  | 304.80 x 304.80 x 127.00 | 311.150   | -       | 311.150  | 307.086 | 303.225 | 304.800 | 295.300 | 298.450 | 288.900 | 280.975 | 273.050 | 266.700 | 257.200 | 273.050 |
| 12 x 12 x 4  | 304.80 x 304.80 x 101.60 |   |         |          |         |         |         |         |         |         |         |         |         |         |         |
| 14 x 14 x 12 | 355.60 x 355.60 x 304.80 | .250  | .250    | .312     | .375    | .438    | .375    | .594    | .500    | .750    | .938    | 1.094   | 1.250   | 1.406   | -       |
| 14 x 14 x 10 | 355.60 x 355.60 x 254.00 | 6.350   | 6.350   | 7.925    | 9.525   | 11.125  | 9.525   | 15.088  | 12.700  | 19.050  | 23.825  | 27.788  | 31.750  | 35.712  | -       |
| 14 x 14 x 8  | 355.60 x 355.60 x 203.20 | 13.500  | 13.500  | 13.376   | 13.250  | 13.124  | 13.250  | 12.812  | 13.000  | 12.500  | 12.124  | 11.812  | 11.500  | 11.188  | -       |
| 14 x 14 x 6  | 355.60 x 355.60 x 152.40 | 342.900   | 342.900 | 339.750  | 336.550 | 333.350 | 336.550 | 325.425 | 330.200 | 317.500 | 307.950 | 300.025 | 292.100 | 284.175 | -       |
| 16 x 16 x 14 | 406.40 x 406.40 x 355.60 | .250  | .250    | .312     | .375    | .500    | .375    | .656    | .500    | .844    | 1.031   | 1.219   | 1.438   | 1.594   | -       |
| 16 x 16 x 12 | 406.40 x 406.40 x 304.80 | 6.350   | 6.350   | 7.925    | 9.525   | 12.700  | 9.525   | 16.662  | 12.700  | 21.438  | 26.187  | 30.963  | 36.525  | 40.488  | -       |
| 16 x 16 x 10 | 406.40 x 406.40 x 254.00 | 15.500  | 15.500  | 15.376   | 15.250  | 15.000  | 15.250  | 14.688  | 15.000  | 14.312  | 13.938  | 13.562  | 13.124  | 12.812  | -       |
| 16 x 16 x 8  | 406.40 x 406.40 x 203.20 | 393.700   | 393.700 | 390.550  | 387.350 | 381.000 | 387.350 | 373.075 | 381.000 | 363.525 | 354.025 | 344.475 | 333.350 | 325.425 | -       |
| 16 x 16 x 6  | 406.40 x 406.40 x 152.40 |   |         |          |         |         |         |         |         |         |         |         |         |         |         |
| 18 x 18 x 16 | 457.20 x 457.20 x 406.40 | .250  | .250    | .312     | .438    | .562    | .375    | .750    | .500    | .938    | 1.156   | 1.375   | 1.562   | 1.781   | -       |
| 18 x 18 x 14 | 457.20 x 457.20 x 355.60 | 6.350   | 6.350   | 7.925    | 11.125  | 14.275  | 9.525   | 19.050  | 12.700  | 23.825  | 29.362  | 34.925  | 39.675  | 45.237  | -       |
| 18 x 18 x 12 | 457.20 x 457.20 x 304.80 | 17.500  | 17.500  | 17.376   | 17.124  | 16.876  | 17.250  | 16.500  | 17.000  | 16.124  | 15.688  | 15.250  | 14.876  | 14.438  | -       |
| 18 x 18 x 10 | 457.20 x 457.20 x 254.00 | 444.500   | 444.500 | 441.350  | 434.950 | 428.650 | 438.150 | 419.100 | 431.800 | 409.550 | 398.475 | 387.350 | 377.850 | 366.725 | -       |
| 18 x 18 x 8  | 457.20 x 457.20 x 203.20 |   |         |          |         |         |         |         |         |         |         |         |         |         |         |
| 20 x 20 x 18 | 508.00 x 508.00 x 457.20 | .250  | .250    | .375     | .500    | .594    | .375    | .812    | .500    | 1.031   | 1.281   | 1.500   | 1.750   | 1.969   | -       |
| 20 x 20 x 16 | 508.00 x 508.00 x 406.40 | 6.350   | 6.350   | 9.525    | 12.700  | 15.088  | 9.525   | 20.625  | 12.700  | 26.187  | 32.537  | 38.100  | 44.450  | 50.013  | -       |
| 20 x 20 x 14 | 508.00 x 508.00 x 355.60 | 19.500  | 19.500  | 19.250   | 19.000  | 18.812  | 19.250  | 18.376  | 19.000  | 17.938  | 17.438  | 17.000  | 16.500  | 16.062  | -       |
| 20 x 20 x 12 | 508.00 x 508.00 x 304.80 | 495.300   | 495.300 | 488.950  | 482.600 | 477.825 | 488.950 | 466.750 | 482.600 | 455.625 | 442.925 | 431.800 | 419.100 | 407.975 | -       |
| 20 x 20 x 10 | 508.00 x 508.00 x 254.00 |   |         |          |         |         |         |         |         |         |         |         |         |         |         |
| 20 x 20 x 8  | 508.00 x 508.00 x 203.20 |   |         |          |         |         |         |         |         |         |         |         |         |         |         |
| 22 x 22 x 20 | 558.80 x 558.80 x 508.00 | -   | .250    | .375     | .500    | -       | .375    | .875    | .500    | 1.125   | 1.375   | 1.625   | 1.875   | 2.125   | -       |
| 22 x 22 x 18 | 558.80 x 558.80 x 457.20 | -   | 6.350   | 9.525    | 12.700  | -       | 9.525   | 22.225  | 12.700  | 28.575  | 34.925  | 41.275  | 47.625  | 53.975  | -       |
| 22 x 22 x 16 | 558.80 x 558.80 x 406.40 | -   | 21.500  | 21.250   | 21.000  | -       | 21.250  | 20.250  | 21.000  | 19.750  | 19.250  | 18.750  | 18.250  | 17.750  | -       |
| 22 x 22 x 14 | 558.80 x 558.80 x 355.60 | -   | 546.100 | 539.750  | 533.400 | -       | 539.750 | 514.350 | 533.400 | 501.650 | 488.950 | 476.250 | 463.550 | 450.850 | -       |
| 22 x 22 x 12 | 558.80 x 558.80 x 304.80 |   |         |          |         |         |         |         |         |         |         |         |         |         |         |
| 22 x 22 x 10 | 558.80 x 558.80 x 254.00 |   |         |          |         |         |         |         |         |         |         |         |         |         |         |
| 24 x 24 x 22 | 609.60 x 609.60 x 558.80 | .250  | .250    | .375     | .562    | .688    | .375    | .969    | .500    | 1.219   | 1.531   | 1.812   | 2.062   | 2.344   | -       |
| 24 x 24 x 20 | 609.60 x 609.60 x 508.00 | 6.350   | 6.350   | 9.525    | 14.275  | 17.475  | 9.525   | 24.613  | 12.700  | 30.963  | 38.887  | 46.025  | 52.375  | 59.538  | -       |
| 24 x 24 x 18 | 609.60 x 609.60 x 457.20 | 23.500  | 23.500  | 23.250   | 22.876  | 22.624  | 23.250  | 22.062  | 23.000  | 21.562  | 20.938  | 20.376  | 19.876  | 19.312  | -       |
| 24 x 24 x 16 | 609.60 x 609.60 x 406.40 | 596.900   | 596.900 | 590.500  | 581.050 | 574.650 | 590.550 | 560.375 | 584.200 | 547.675 | 531.825 | 517.550 | 504.850 | 490.525 | -       |
| 24 x 24 x 14 | 609.60 x 609.60 x 355.60 |   |         |          |         |         |         |         |         |         |         |         |         |         |         |
| 24 x 24 x 12 | 609.60 x 609.60 x 304.80 |   |         |          |         |         |         |         |         |         |         |         |         |         |         |
| 24 x 24 x 10 | 609.60 x 609.60 x 254.00 |   |         |          |         |         |         |         |         |         |         |         |         |         |         |
| 30 x 30 x 24 | 762.00 x 762.00 x 609.60 | -   | .312    | .500     | .625    | -       | .375    | -       | .500    | -       | -       | -       | -       | -       | -       |
| 30 x 30 x 20 | 762.00 x 762.00 x 508.00 | -   | 7.925   | 12.700   | 15.875  | -       | 9.525   | -       | 12.700  | -       | -       | -       | -       | -       | -       |
| 30 x 30 x 18 | 762.00 x 762.00 x 457.20 | -   | 29.376  | 29.000   | 28.750  | -       | 29.250  | -       | 29.000  | -       | -       | -       | -       | -       | -       |
| 30 x 30 x 16 | 762.00 x 762.00 x 406.40 | -   | 746.150 | 736.600  | 730.250 | -       | 742.950 | -       | 736.600 | -       | -       | -       | -       | -       | -       |