

### PIPE DATA

#### Carbon and Alloy Steel - Stainless Steel

| Nominal Pipe Size, Inches | Outside Diam., (D) Inches | Identification   |                        |                            | Wall Thickness (t), Inches | Inside Diameter (d), Inches | Area of Metal, Square Inches | Transverse Internal Area |                 | Moment of Inertia (I), Inches <sup>4</sup> | Weight Pipes, Pounds per foot | Weight Water, Pounds per foot of pipe | External Surface, Sq. Ft. per foot of pipe | D / t    |
|---------------------------|---------------------------|------------------|------------------------|----------------------------|----------------------------|-----------------------------|------------------------------|--------------------------|-----------------|--|-------------------------------|---------------------------------------|--|----------|
|                           |                           | Steel            |                        | Stainless Steel Sched. No. |                            |                             |                              | (a) Square Inches        | (A) Square Feet |  |                               |                                       |  |          |
|                           |                           | Iron Pipe Size   | Sched. No.             |                            |                            |                             |                              |                          |                 |  |                               |                                       |  |          |
| 1/8                       | 0.405                     | STD<br>XS        | 40<br>80               | 10S                        | 0.049                      | 0.307                       | 0.0548                       | 0.0740                   | 0.00051         | 0.00088                                    | 0.19                          | 0.032                                 | 0.106                                      | 8.265306 |
|                           |                           |                  |                        | 40S                        | 0.068                      | 0.269                       | 0.0720                       | 0.0568                   | 0.00040         | 0.00106                                    | 0.24                          | 0.025                                 | 0.106                                      | 5.955882 |
|                           |                           |                  |                        | 80S                        | 0.095                      | 0.215                       | 0.0925                       | 0.0364                   | 0.00025         | 0.00122                                    | 0.31                          | 0.016                                 | 0.106                                      | 4.263158 |
| 1/4                       | 0.540                     | STD<br>XS        | 40<br>80               | 10S                        | 0.065                      | 0.410                       | 0.0970                       | 0.1320                   | 0.00091         | 0.00279                                    | 0.33                          | 0.057                                 | 0.141                                      | 8.307692 |
|                           |                           |                  |                        | 40S                        | 0.088                      | 0.364                       | 0.1250                       | 0.1041                   | 0.00072         | 0.00331                                    | 0.42                          | 0.045                                 | 0.141                                      | 6.136364 |
|                           |                           |                  |                        | 80S                        | 0.119                      | 0.302                       | 0.1574                       | 0.0716                   | 0.00050         | 0.00377                                    | 0.54                          | 0.031                                 | 0.141                                      | 4.537815 |
| 3/8                       | 0.675                     | STD<br>XS        | 40<br>80               | 10S                        | 0.065                      | 0.545                       | 0.1246                       | 0.2333                   | 0.00162         | 0.00586                                    | 0.42                          | 0.101                                 | 0.178                                      | 10.38462 |
|                           |                           |                  |                        | 40S                        | 0.091                      | 0.493                       | 0.1670                       | 0.1910                   | 0.00133         | 0.00729                                    | 0.57                          | 0.083                                 | 0.178                                      | 7.417582 |
|                           |                           |                  |                        | 80S                        | 0.126                      | 0.423                       | 0.2173                       | 0.1405                   | 0.00098         | 0.00862                                    | 0.74                          | 0.061                                 | 0.178                                      | 5.357143 |
| 1/2                       | 0.840                     | STD<br>XS<br>XXS | 40<br>80<br>160        | 5S                         | 0.065                      | 0.710                       | 0.1583                       | 0.3959                   | 0.00275         | 0.01197                                    | 0.54                          | 0.172                                 | 0.220                                      | 12.92308 |
|                           |                           |                  |                        | 10S                        | 0.083                      | 0.674                       | 0.1974                       | 0.3568                   | 0.00248         | 0.01431                                    | 0.67                          | 0.155                                 | 0.220                                      | 10.12048 |
|                           |                           |                  |                        | 40S                        | 0.109                      | 0.622                       | 0.2503                       | 0.3040                   | 0.00211         | 0.01709                                    | 0.85                          | 0.132                                 | 0.220                                      | 7.706422 |
|                           |                           |                  |                        | 80S                        | 0.147                      | 0.546                       | 0.3200                       | 0.2340                   | 0.00163         | 0.02008                                    | 1.09                          | 0.102                                 | 0.220                                      | 5.714286 |
|                           |                           |                  |                        |                            | 0.187                      | 0.466                       | 0.3836                       | 0.1706                   | 0.00118         | 0.02212                                    | 1.31                          | 0.074                                 | 0.220                                      | 4.491979 |
|                           |                           |                  |                        |                            | 0.294                      | 0.252                       | 0.5043                       | 0.0500                   | 0.00035         | 0.02424                                    | 1.71                          | 0.022                                 | 0.220                                      | 2.857143 |
| 3/4                       | 1.050                     | STD<br>XS<br>XXS | 40<br>80<br>160        | 5S                         | 0.065                      | 0.920                       | 0.2011                       | 0.6648                   | 0.00462         | 0.02450                                    | 0.69                          | 0.288                                 | 0.275                                      | 16.15385 |
|                           |                           |                  |                        | 10S                        | 0.083                      | 0.884                       | 0.2521                       | 0.6138                   | 0.00426         | 0.02969                                    | 0.86                          | 0.266                                 | 0.275                                      | 12.6506  |
|                           |                           |                  |                        | 40S                        | 0.113                      | 0.824                       | 0.3326                       | 0.5330                   | 0.00371         | 0.03704                                    | 1.13                          | 0.231                                 | 0.275                                      | 9.292035 |
|                           |                           |                  |                        | 80S                        | 0.154                      | 0.742                       | 0.4335                       | 0.4330                   | 0.00300         | 0.04479                                    | 1.47                          | 0.188                                 | 0.275                                      | 6.818182 |
|                           |                           |                  |                        |                            | 0.219                      | 0.612                       | 0.5698                       | 0.2961                   | 0.00206         | 0.05269                                    | 1.94                          | 0.128                                 | 0.275                                      | 4.794521 |
|                           |                           |                  |                        |                            | 0.308                      | 0.434                       | 0.7180                       | 0.1480                   | 0.00103         | 0.05792                                    | 2.44                          | 0.064                                 | 0.275                                      | 3.409091 |
| 1                         | 1.315                     | STD<br>XS<br>XXS | 40<br>80<br>160        | 5S                         | 0.065                      | 1.185                       | 0.2553                       | 1.1029                   | 0.00766         | 0.04999                                    | 0.87                          | 0.478                                 | 0.344                                      | 20.23077 |
|                           |                           |                  |                        | 10S                        | 0.109                      | 1.097                       | 0.4130                       | 0.9452                   | 0.00656         | 0.07569                                    | 1.40                          | 0.409                                 | 0.344                                      | 12.06422 |
|                           |                           |                  |                        | 40S                        | 0.133                      | 1.049                       | 0.4939                       | 0.8640                   | 0.00600         | 0.07340                                    | 1.68                          | 0.375                                 | 0.344                                      | 9.887218 |
|                           |                           |                  |                        | 80S                        | 0.179                      | 0.957                       | 0.6388                       | 0.7190                   | 0.00499         | 0.10560                                    | 2.17                          | 0.312                                 | 0.344                                      | 7.346369 |
|                           |                           |                  |                        |                            | 0.250                      | 0.815                       | 0.8365                       | 0.5217                   | 0.00362         | 0.12510                                    | 2.84                          | 0.230                                 | 0.344                                      | 5.26     |
|                           |                           |                  |                        |                            | 0.358                      | 0.599                       | 1.0760                       | 0.2820                   | 0.00196         | 0.14050                                    | 3.66                          | 0.122                                 | 0.344                                      | 3.673184 |
| 1 1/4                     | 1.660                     | STD<br>XS<br>XXS | 40<br>80<br>160        | 5S                         | 0.065                      | 1.530                       | 0.3257                       | 1.8390                   | 0.01277         | 0.10380                                    | 1.11                          | 0.797                                 | 0.435                                      | 25.53846 |
|                           |                           |                  |                        | 10S                        | 0.109                      | 1.442                       | 0.4717                       | 1.6330                   | 0.01134         | 0.16050                                    | 1.81                          | 0.708                                 | 0.435                                      | 15.22936 |
|                           |                           |                  |                        | 40S                        | 0.140                      | 1.380                       | 0.6685                       | 1.4950                   | 0.01040         | 0.19470                                    | 2.27                          | 0.649                                 | 0.435                                      | 11.85714 |
|                           |                           |                  |                        | 80S                        | 0.191                      | 1.278                       | 0.8815                       | 1.2830                   | 0.00891         | 0.24180                                    | 3.00                          | 0.555                                 | 0.435                                      | 8.691099 |
|                           |                           |                  |                        |                            | 0.250                      | 1.160                       | 1.1070                       | 1.0570                   | 0.00734         | 0.28390                                    | 3.76                          | 0.458                                 | 0.435                                      | 6.64     |
|                           |                           |                  |                        |                            | 0.382                      | 0.896                       | 1.5340                       | 0.6300                   | 0.00438         | 0.34110                                    | 5.21                          | 0.273                                 | 0.435                                      | 4.34555  |
| 1 1/2                     | 1.900                     | STD<br>XS<br>XXS | 40<br>80<br>160        | 5S                         | 0.065                      | 1.770                       | 0.3747                       | 2.4610                   | 0.01709         | 0.15790                                    | 1.28                          | 1.066                                 | 0.497                                      | 29.23077 |
|                           |                           |                  |                        | 10S                        | 0.109                      | 1.682                       | 0.6133                       | 2.2220                   | 0.01543         | 0.24680                                    | 2.09                          | 0.963                                 | 0.497                                      | 17.43119 |
|                           |                           |                  |                        | 40S                        | 0.145                      | 1.610                       | 0.7995                       | 2.0360                   | 0.01414         | 0.30990                                    | 2.72                          | 0.882                                 | 0.497                                      | 13.10345 |
|                           |                           |                  |                        | 80S                        | 0.200                      | 1.500                       | 1.0680                       | 1.7670                   | 0.01225         | 0.39120                                    | 3.63                          | 0.765                                 | 0.497                                      | 9.5      |
|                           |                           |                  |                        |                            | 0.281                      | 1.338                       | 1.4290                       | 1.4060                   | 0.00976         | 0.48240                                    | 4.86                          | 0.608                                 | 0.497                                      | 6.761566 |
|                           |                           |                  |                        |                            | 0.400                      | 1.100                       | 1.8850                       | 0.9500                   | 0.00660         | 0.56780                                    | 6.41                          | 0.420                                 | 0.497                                      | 4.75     |
| 2                         | 2.375                     | STD<br>XS<br>XXS | 40<br>80<br>160        | 5S                         | 0.065                      | 2.245                       | 0.4717                       | 3.9580                   | 0.02749         | 0.31490                                    | 1.61                          | 1.720                                 | 0.622                                      | 36.53846 |
|                           |                           |                  |                        | 10S                        | 0.109                      | 2.157                       | 0.7760                       | 3.6540                   | 0.02538         | 0.49920                                    | 2.64                          | 1.580                                 | 0.622                                      | 21.78899 |
|                           |                           |                  |                        | 40S                        | 0.154                      | 2.067                       | 1.0750                       | 3.3550                   | 0.02330         | 0.66570                                    | 3.65                          | 1.450                                 | 0.622                                      | 15.42208 |
|                           |                           |                  |                        | 80S                        | 0.218                      | 1.939                       | 1.4770                       | 2.9530                   | 0.02050         | 0.86790                                    | 5.02                          | 1.280                                 | 0.622                                      | 10.8945  |
|                           |                           |                  |                        |                            | 0.344                      | 1.687                       | 2.1900                       | 2.2410                   | 0.01556         | 1.16200                                    | 7.46                          | 0.970                                 | 0.622                                      | 6.90407  |
|                           |                           |                  |                        |                            | 0.436                      | 1.503                       | 2.6560                       | 1.7740                   | 0.01232         | 1.31100                                    | 9.03                          | 0.770                                 | 0.622                                      | 5.447248 |
| 2 1/2                     | 2.875                     | STD<br>XS<br>XXS | 40<br>80<br>160        | 5S                         | 0.083                      | 2.709                       | 0.7280                       | 5.7640                   | 0.04002         | 0.71000                                    | 2.48                          | 2.500                                 | 0.753                                      | 34.63855 |
|                           |                           |                  |                        | 10S                        | 0.120                      | 2.635                       | 1.0390                       | 5.4530                   | 0.03787         | 0.98730                                    | 3.53                          | 2.360                                 | 0.753                                      | 23.95833 |
|                           |                           |                  |                        | 40S                        | 0.203                      | 2.469                       | 1.7040                       | 4.7880                   | 0.03322         | 1.53000                                    | 5.79                          | 2.070                                 | 0.753                                      | 14.16256 |
|                           |                           |                  |                        | 80S                        | 0.276                      | 2.323                       | 2.2540                       | 4.2380                   | 0.02942         | 1.92400                                    | 7.66                          | 1.870                                 | 0.753                                      | 10.41667 |
|                           |                           |                  |                        |                            | 0.375                      | 2.125                       | 2.9450                       | 3.5460                   | 0.02463         | 2.35300                                    | 10.01                         | 1.540                                 | 0.753                                      | 7.666667 |
|                           |                           |                  |                        |                            | 0.552                      | 1.771                       | 4.0280                       | 2.4640                   | 0.01710         | 2.87100                                    | 13.69                         | 1.070                                 | 0.753                                      | 5.208333 |
| 3                         | 3.500                     | STD<br>XS<br>XXS | 40<br>80<br>160        | 5S                         | 0.083                      | 3.334                       | 0.8910                       | 8.7300                   | 0.06063         | 1.30100                                    | 3.03                          | 3.780                                 | 0.916                                      | 42.16867 |
|                           |                           |                  |                        | 10S                        | 0.120                      | 3.260                       | 1.2740                       | 8.3470                   | 0.05796         | 1.82200                                    | 4.33                          | 3.620                                 | 0.916                                      | 29.16667 |
|                           |                           |                  |                        | 40S                        | 0.216                      | 3.068                       | 2.2280                       | 7.3930                   | 0.05130         | 3.01700                                    | 7.58                          | 3.200                                 | 0.916                                      | 16.2037  |
|                           |                           |                  |                        | 80S                        | 0.300                      | 2.900                       | 3.0160                       | 6.6050                   | 0.04587         | 3.89400                                    | 10.25                         | 2.860                                 | 0.916                                      | 11.66667 |
|                           |                           |                  |                        |                            | 0.438                      | 2.624                       | 4.2050                       | 5.4080                   | 0.03755         | 5.03200                                    | 14.32                         | 2.350                                 | 0.916                                      | 7.990868 |
|                           |                           |                  |                        |                            | 0.600                      | 2.300                       | 5.4660                       | 4.1550                   | 0.02885         | 5.99300                                    | 18.58                         | 1.800                                 | 0.916                                      | 5.833333 |
| 3 1/2                     | 4.000                     | STD<br>XS        | 40<br>80               | 5S                         | 0.083                      | 3.834                       | 1.0210                       | 11.5450                  | 0.08017         | 1.96000                                    | 3.48                          | 5.000                                 | 1.047                                      | 48.19277 |
|                           |                           |                  |                        | 10S                        | 0.120                      | 3.760                       | 1.4630                       | 11.1040                  | 0.07711         | 2.75500                                    | 4.97                          | 4.810                                 | 1.047                                      | 33.33333 |
|                           |                           |                  |                        | 40S                        | 0.226                      | 3.548                       | 2.6800                       | 9.8860                   | 0.06870         | 4.78800                                    | 9.11                          | 4.290                                 | 1.047                                      | 17.69912 |
|                           |                           |                  |                        | 80S                        | 0.318                      | 3.364                       | 3.6780                       | 8.8880                   | 0.06170         | 6.28000                                    | 12.50                         | 3.840                                 | 1.047                                      | 12.57862 |
| 4                         | 4.500                     | STD<br>XS<br>XXS | 40<br>80<br>120<br>160 | 5S                         | 0.083                      | 4.334                       | 1.1520                       | 14.7500                  | 0.10245         | 2.81000                                    | 3.92                          | 6.390                                 | 1.178                                      | 54.21687 |
|                           |                           |                  |                        | 10S                        | 0.120                      | 4.260                       | 1.6510                       | 14.2500                  | 0.09898         | 3.96300                                    | 5.61                          | 6.180                                 | 1.178                                      | 37.5     |
|                           |                           |                  |                        | 40S                        | 0.237                      | 4.026                       | 3.1740                       | 12.7300                  | 0.08840         | 7.23300                                    | 10.79                         | 5.500                                 | 1.178                                      | 18.98734 |
|                           |                           |                  |                        | 80S                        | 0.337                      | 3.826                       | 4.4070                       | 11.5000                  | 0.07986         | 9.61000                                    | 14.98                         | 4.980                                 | 1.178                                      | 13.35312 |
|                           |                           |                  |                        |                            | 0.438                      | 3.624                       | 5.5950                       | 10.3100                  | 0.07160         | 11.65000                                   | 19.00                         | 4.470                                 | 1.178                                      | 10.27397 |
|                           |                           |                  |                        |                            | 0.531                      | 3.438                       | 6.6210                       | 9.2800                   | 0.06450         | 13.27000                                   | 22.51                         | 4.020                                 | 1.178                                      | 8.474576 |
|                           | 0.674                     | 3.152            | 8.1010                 | 7.8000                     | 0.05420                    | 15.28000                    | 27.54                        | 3.380                    | 1.178           | 6.676558                                   |                               |                                       |  |          |

### PIPE DATA

#### Carbon and Alloy Steel - Stainless Steel

| Nominal Pipe Size, Inches | Outside Diam., (D) Inches | Identification |  |                            | Wall Thickness (t), Inches | Inside Diameter (d), Inches | Area of Metal, Square Inches                                 | Transverse Internal Area |                 | Moment of Inertia (I), Inches <sup>4</sup> | Weight Pipes, Pounds per foot | Weight Water, Pounds per foot of pipe | External Surface, Sq. Ft. per foot of pipe | D / t    |       |        |       |          |
|---------------------------|---------------------------|----------------|--|----------------------------|----------------------------|-----------------------------|--|--------------------------|-----------------|--|-------------------------------|---------------------------------------|--|----------|-------|--------|-------|----------|
|                           |                           | Steel          |  | Stainless Steel Sched. No. |                            |                             |  | (a) Square Inches        | (A) Square Feet |  |                               |                                       |  |          |       |        |       |          |
|                           |                           | Iron Pipe Size | Sched. No.   |                            |                            |                             |  |                          |                 |  |                               |                                       |  |          |       |        |       |          |
| 5                         | 5.563                     | STD<br>X       | 40<br>80<br>120<br>160                                 | 5S                         | 0.109                      | 5.345                       | 1.8680   | 22.4400                  | 0.15580         | 6.94700                                    | 6.36                          | 9.720                                 | 1.456                                      | 51.0367  |       |        |       |          |
|                           |                           |                |  | 10S                        | 0.134                      | 5.295                       | 2.2850   | 22.0200                  | 0.15290         | 8.42500                                    | 7.77                          | 9.540                                 | 1.456                                      | 41.51493 |       |        |       |          |
|                           |                           |                |  | 40S                        | 0.258                      | 5.047                       | 4.3000   | 20.0100                  | 0.13900         | 15.16000                                   | 14.62                         | 8.670                                 | 1.456                                      | 21.56202 |       |        |       |          |
|                           |                           |                |  | 80S                        | 0.375                      | 4.813                       | 6.1120   | 18.1900                  | 0.12630         | 20.67000                                   | 20.78                         | 7.880                                 | 1.456                                      | 14.83467 |       |        |       |          |
|                           |                           |                |  |                            | 0.500                      | 4.563                       | 7.9530   | 16.3500                  | 0.11360         | 25.73000                                   | 27.04                         | 7.090                                 | 1.456                                      | 11.126   |       |        |       |          |
|                           |                           |                |  |                            | 0.625                      | 4.313                       | 9.6960   | 14.6100                  | 0.10150         | 30.03000                                   | 32.96                         | 6.330                                 | 1.456                                      | 8.9008   |       |        |       |          |
|                           |                           |                |  |                            | 0.750                      | 4.063                       | 11.3400  | 12.9700                  | 0.09010         | 33.63000                                   | 38.55                         | 5.610                                 | 1.456                                      | 7.417333 |       |        |       |          |
| 6                         | 6.625                     | STD<br>XS      | 40<br>80<br>120<br>160                                 | 5S                         | 0.109                      | 6.407                       | 2.2310   | 32.2400                  | 0.22390         | 11.85000                                   | 7.60                          | 13.970                                | 1.734                                      | 60.77982 |       |        |       |          |
|                           |                           |                |  | 10S                        | 0.134                      | 6.357                       | 2.7330   | 31.7400                  | 0.22040         | 14.40000                                   | 9.29                          | 13.750                                | 1.734                                      | 49.4403  |       |        |       |          |
|                           |                           |                |  | 40S                        | 0.280                      | 6.065                       | 5.5810   | 28.8900                  | 0.20060         | 28.14000                                   | 18.97                         | 12.510                                | 1.734                                      | 23.66071 |       |        |       |          |
|                           |                           |                |  | 80S                        | 0.432                      | 5.761                       | 8.4050   | 26.0700                  | 0.18100         | 40.49000                                   | 28.57                         | 11.290                                | 1.734                                      | 15.33565 |       |        |       |          |
|                           |                           |                |  |                            | 0.562                      | 5.501                       | 10.7000  | 23.7700                  | 0.16500         | 49.61000                                   | 36.39                         | 10.300                                | 1.734                                      | 11.78826 |       |        |       |          |
|                           |                           |                |  |                            | 0.719                      | 5.187                       | 13.3200  | 21.1500                  | 0.14690         | 58.97000                                   | 45.35                         | 9.160                                 | 1.734                                      | 9.214186 |       |        |       |          |
|                           |                           |                |  |                            | 0.864                      | 4.897                       | 15.6400  | 18.8400                  | 0.13080         | 66.33000                                   | 53.16                         | 8.160                                 | 1.734                                      | 7.667824 |       |        |       |          |
| 8                         | 8.625                     | STD<br>XS      | 20<br>30<br>40<br>60<br>80<br>100<br>120<br>140<br>160 | 5S                         | 0.109                      | 8.407                       | 2.9160   | 55.5100                  | 0.38550         | 26.44000                                   | 9.93                          | 24.060                                | 2.258                                      | 79.12844 |       |        |       |          |
|                           |                           |                |  | 10S                        | 0.148                      | 8.329                       | 3.9410   | 54.4800                  | 0.37840         | 35.41000                                   | 13.40                         | 23.610                                | 2.258                                      | 58.27703 |       |        |       |          |
|                           |                           |                |  |                            | 0.250                      | 8.125                       | 6.5700   | 51.8500                  | 0.36010         | 57.72000                                   | 22.36                         | 22.470                                | 2.258                                      | 34.5     |       |        |       |          |
|                           |                           |                |  |                            | 0.277                      | 8.071                       | 7.2600   | 51.1600                  | 0.35530         | 63.35000                                   | 24.70                         | 22.170                                | 2.258                                      | 31.13718 |       |        |       |          |
|                           |                           |                |  |                            | 0.322                      | 7.981                       | 8.4000   | 50.0300                  | 0.34740         | 72.49000                                   | 28.55                         | 21.700                                | 2.258                                      | 26.78571 |       |        |       |          |
|                           |                           |                |  |                            | 0.406                      | 7.813                       | 10.4800  | 47.9400                  | 0.33290         | 88.73000                                   | 35.64                         | 20.770                                | 2.258                                      | 21.24384 |       |        |       |          |
|                           |                           |                |  |                            | 0.500                      | 7.625                       | 12.7600  | 45.6600                  | 0.31710         | 105.7000                                   | 43.39                         | 19.780                                | 2.258                                      | 17.25    |       |        |       |          |
|                           |                           |                |  |                            | 0.594                      | 7.437                       | 14.9600  | 43.4600                  | 0.30180         | 121.3000                                   | 50.95                         | 18.830                                | 2.258                                      | 14.5202  |       |        |       |          |
|                           |                           |                |  |                            | 0.719                      | 7.187                       | 17.8400  | 40.5900                  | 0.28190         | 140.5000                                   | 60.71                         | 17.590                                | 2.258                                      | 11.99583 |       |        |       |          |
|                           |                           |                |  |                            | 0.812                      | 7.001                       | 19.9300  | 38.5000                  | 0.26730         | 153.7000                                   | 67.76                         | 16.680                                | 2.258                                      | 10.62192 |       |        |       |          |
|                           |                           |                |  |                            | 0.875                      | 6.875                       | 21.3000  | 37.1200                  | 0.25780         | 162.0000                                   | 72.42                         | 16.100                                | 2.258                                      | 9.857143 |       |        |       |          |
|                           |                           |                |  |                            | 0.906                      | 6.813                       | 21.9700  | 36.4600                  | 0.25320         | 165.9000                                   | 74.69                         | 15.800                                | 2.258                                      | 9.519868 |       |        |       |          |
|                           |                           |                |  | 10                         | 10.750                     | STD<br>XS                   | 20<br>30<br>40<br>60<br>80<br>100<br>120<br>140<br>160       | 5S                       | 0.134           | 10.482                                     | 4.3600                        | 86.2900                               | 0.59920                                    | 63.0000  | 15.19 | 37.390 | 2.814 | 80.22388 |
|                           |                           |                |  |                            |                            |                             |  | 10S                      | 0.165           | 10.420                                     | 5.4900                        | 85.2800                               | 0.59220                                    | 76.9000  | 18.65 | 36.950 | 2.814 | 65.15152 |
|                           | 0.250                     | 10.250         | 8.2400   |                            |                            |                             |  | 82.5200                  | 0.57310         | 113.7000                                   | 28.04                         | 35.760                                | 2.814                                      | 43       |       |        |       |          |
|                           | 0.307                     | 10.136         | 10.0700  |                            |                            |                             |  | 80.6900                  | 0.56030         | 137.4000                                   | 34.24                         | 34.960                                | 2.814                                      | 35.01629 |       |        |       |          |
|                           | 0.365                     | 10.020         | 11.9000  |                            |                            |                             |  | 78.8600                  | 0.54750         | 160.7000                                   | 40.48                         | 34.200                                | 2.814                                      | 29.45205 |       |        |       |          |
|                           | 0.500                     | 9.750          | 16.1000  |                            |                            |                             |  | 74.6600                  | 0.51850         | 212.0000                                   | 54.74                         | 32.350                                | 2.814                                      | 21.5     |       |        |       |          |
|                           | 0.594                     | 9.562          | 18.9200  |                            |                            |                             |  | 71.8400                  | 0.49890         | 244.8000                                   | 64.43                         | 31.130                                | 2.814                                      | 18.09764 |       |        |       |          |
|                           | 0.719                     | 9.312          | 22.6300  |                            |                            |                             |  | 68.1300                  | 0.47320         | 286.1000                                   | 77.03                         | 29.530                                | 2.814                                      | 14.95132 |       |        |       |          |
|                           | 0.844                     | 9.062          | 26.2400  |                            |                            |                             |  | 64.5300                  | 0.44810         | 324.2000                                   | 89.29                         | 27.960                                | 2.814                                      | 12.73697 |       |        |       |          |
|                           | 1.000                     | 8.750          | 30.6300  |                            |                            |                             |  | 60.1300                  | 0.41760         | 367.8000                                   | 104.13                        | 26.060                                | 2.814                                      | 10.75    |       |        |       |          |
|                           | 1.125                     | 8.500          | 34.0200  |                            |                            |                             |  | 56.7500                  | 0.39410         | 399.3000                                   | 115.64                        | 24.590                                | 2.814                                      | 9.555556 |       |        |       |          |
| 12                        | 12.750                    | STD<br>XS      | 20<br>30<br>40<br>60<br>80<br>100<br>120<br>140<br>160 |                            |                            |                             |  | 5S                       | 0.156           | 12.438                                     | 6.1700                        | 121.5000                              | 0.84380                                    | 122.4000 | 20.98 | 52.650 | 3.338 | 81.73077 |
|                           |                           |                |  |                            |                            |                             |  | 10S                      | 0.180           | 12.390                                     | 7.1100                        | 120.5700                              | 0.83730                                    | 140.4000 | 24.17 | 52.250 | 3.338 | 70.83333 |
|                           |                           |                |  |                            |                            |                             |  |                          | 0.250           | 12.250                                     | 9.8200                        | 117.8600                              | 0.81850                                    | 191.8000 | 33.38 | 51.070 | 3.338 | 51       |
|                           |                           |                |  |                            | 0.330                      | 12.090                      | 12.8700  | 114.8000                 | 0.79720         | 248.4000                                   | 43.77                         | 49.740                                | 3.338                                      | 38.63636 |       |        |       |          |
|                           |                           |                |  |                            | 0.375                      | 12.000                      | 14.5800  | 113.1000                 | 0.78540         | 279.3000                                   | 49.56                         | 49.000                                | 3.338                                      | 34       |       |        |       |          |
|                           |                           |                |  |                            | 0.406                      | 11.938                      | 15.7700  | 111.9300                 | 0.77730         | 300.3000                                   | 53.52                         | 48.500                                | 3.338                                      | 31.40394 |       |        |       |          |
|                           |                           |                |  |                            | 0.500                      | 11.750                      | 19.2400  | 108.4300                 | 0.75280         | 361.5000                                   | 65.42                         | 46.920                                | 3.338                                      | 25.5     |       |        |       |          |
|                           |                           |                |  |                            | 0.562                      | 11.626                      | 21.5200  | 106.1600                 | 0.73720         | 400.4000                                   | 73.15                         | 46.000                                | 3.338                                      | 22.68683 |       |        |       |          |
|                           |                           |                |  |                            | 0.688                      | 11.374                      | 26.0300  | 101.6400                 | 0.70580         | 475.1000                                   | 88.63                         | 44.040                                | 3.338                                      | 18.53198 |       |        |       |          |
|                           |                           |                |  |                            | 0.844                      | 11.062                      | 31.5300  | 96.1400                  | 0.66770         | 561.6000                                   | 107.32                        | 41.660                                | 3.338                                      | 15.10664 |       |        |       |          |
|                           |                           |                |  |                            | 1.000                      | 10.750                      | 36.9100  | 90.7600                  | 0.63030         | 641.6000                                   | 125.49                        | 39.330                                | 3.338                                      | 12.75    |       |        |       |          |
|                           |                           |                |  |                            | 1.125                      | 10.500                      | 41.0800  | 86.5900                  | 0.60130         | 700.5000                                   | 139.67                        | 37.520                                | 3.338                                      | 11.33333 |       |        |       |          |
|                           |                           |                |  |                            | 1.312                      | 10.126                      | 47.1400  | 80.5300                  | 0.55920         | 781.1000                                   | 160.27                        | 34.890                                | 3.338                                      | 9.717988 |       |        |       |          |
|                           |                           |                |  | 14                         | 14.000                     | STD<br>XS                   | 10<br>20<br>30<br>40<br>60<br>80<br>100<br>120<br>140<br>160 | 5S                       | 0.156           | 13.688                                     | 6.7800                        | 147.1500                              | 1.02190                                    | 162.6000 | 23.07 | 63.770 | 3.665 | 89.74359 |
| 10S                       | 0.188                     | 13.624         | 8.1600   |                            |                            |                             |  | 145.7800                 | 1.01240         | 194.6000                                   | 27.73                         | 63.170                                | 3.665                                      | 74.46809 |       |        |       |          |
|                           | 0.250                     | 13.500         | 10.8000  |                            |                            |                             |  | 143.1400                 | 0.99400         | 255.3000                                   | 36.71                         | 62.030                                | 3.665                                      | 56       |       |        |       |          |
|                           | 0.312                     | 13.376         | 13.4200  |                            |                            |                             |  | 140.5200                 | 0.97580         | 314.4000                                   | 45.61                         | 60.890                                | 3.665                                      | 44.87179 |       |        |       |          |
|                           | 0.375                     | 13.250         | 16.0500  |                            |                            |                             |  | 137.8800                 | 0.95750         | 372.8000                                   | 54.57                         | 59.750                                | 3.665                                      | 37.33333 |       |        |       |          |
|                           | 0.438                     | 13.124         | 18.6600  |                            |                            |                             |  | 135.2800                 | 0.93940         | 429.1000                                   | 63.44                         | 58.640                                | 3.665                                      | 31.96347 |       |        |       |          |
|                           | 0.500                     | 13.000         | 21.2100  |                            |                            |                             |  | 132.7300                 | 0.92170         | 483.8000                                   | 72.09                         | 57.460                                | 3.665                                      | 28       |       |        |       |          |
|                           | 0.594                     | 12.812         | 24.9800  |                            |                            |                             |  | 128.9600                 | 0.89560         | 562.3000                                   | 85.05                         | 55.860                                | 3.665                                      | 23.56902 |       |        |       |          |
|                           | 0.750                     | 12.500         | 31.2200  |                            |                            |                             |  | 122.7200                 | 0.85220         | 678.3000                                   | 106.13                        | 53.180                                | 3.665                                      | 18.66667 |       |        |       |          |
|                           | 0.938                     | 12.124         | 38.4500  |                            |                            |                             |  | 115.4900                 | 0.80200         | 824.4000                                   | 130.85                        | 50.040                                | 3.665                                      | 14.92537 |       |        |       |          |
|                           | 1.094                     | 11.812         | 44.3200  |                            |                            |                             |  | 109.6200                 | 0.76120         | 929.6000                                   | 150.79                        | 47.450                                | 3.665                                      | 12.79707 |       |        |       |          |
|                           | 1.250                     | 11.500         | 50.0700  |                            |                            |                             |  | 103.8700                 | 0.72130         | 1027.0000                                  | 170.28                        | 45.010                                | 3.665                                      | 11.2     |       |        |       |          |
|                           | 1.406                     | 11.188         | 55.6300  |                            |                            |                             |  | 98.3100                  | 0.68270         | 1117.0000                                  | 189.11                        | 42.600                                | 3.665                                      | 9.957326 |       |        |       |          |

### PIPE DATA

#### Carbon and Alloy Steel - Stainless Steel

| Nominal Pipe Size, Inches | Outside Diam., (D) Inches | Identification |            |                            | Wall Thickness (t), Inches | Inside Diameter (d), Inches | Area of Metal, Square Inches | Transverse Internal Area |                 | Moment of Inertia (I), Inches <sup>4</sup> | Weight Pipes, Pounds per foot | Weight Water, Pounds per foot of pipe | External Surface, Sq. Ft. per foot of pipe | D / t    |         |         |          |          |
|---------------------------|---------------------------|----------------|------------|----------------------------|----------------------------|-----------------------------|------------------------------|--------------------------|-----------------|--|-------------------------------|---------------------------------------|--|----------|---------|---------|----------|----------|
|                           |                           | Steel          |            | Stainless Steel Sched. No. |                            |                             |                              | (a) Square Inches        | (A) Square Feet |  |                               |                                       |  |          |         |         |          |          |
|                           |                           | Iron Pipe Size | Sched. No. |                            |                            |                             |                              |                          |                 |  |                               |                                       |  |          |         |         |          |          |
| 16                        | 16.000                    | STD<br>XS      | 10         | 5S                         | 0.165                      | 15.670                      | 8.2100                       | 192.8500                 | 1.33930         | 257.300                                    | 27.90                         | 83.570                                | 4.189                                      | 96.9697  |         |         |          |          |
|                           |                           |                |            | 10S                        | 0.188                      | 15.624                      | 9.3400                       | 191.7200                 | 1.33140         | 291.900                                    | 31.75                         | 83.080                                | 4.189                                      | 85.10638 |         |         |          |          |
|                           |                           |                |            | 0.250                      | 15.500                     | 12.3700                     | 188.6900                     | 1.31030                  | 383.700         | 42.05                                      | 81.740                        | 4.189                                 | 64   |          |         |         |          |          |
|                           |                           |                |            | 0.312                      | 15.376                     | 15.3800                     | 185.6900                     | 1.28950                  | 473.200         | 52.27                                      | 80.500                        | 4.189                                 | 51.28205                                   |          |         |         |          |          |
|                           |                           |                |            | 0.375                      | 15.250                     | 18.4100                     | 182.6500                     | 1.26840                  | 562.100         | 62.58                                      | 79.120                        | 4.189                                 | 42.66667                                   |          |         |         |          |          |
|                           |                           |                |            | 0.500                      | 15.000                     | 24.3500                     | 176.7200                     | 1.22720                  | 731.900         | 82.77                                      | 76.580                        | 4.189                                 | 32   |          |         |         |          |          |
|                           |                           |                |            | 0.656                      | 14.688                     | 31.6200                     | 169.4400                     | 1.17660                  | 932.400         | 107.50                                     | 73.420                        | 4.189                                 | 24.39024                                   |          |         |         |          |          |
|                           |                           |                |            | 0.844                      | 14.312                     | 40.1400                     | 160.9200                     | 1.11750                  | 1155.800        | 136.61                                     | 69.730                        | 4.189                                 | 18.95735                                   |          |         |         |          |          |
|                           |                           |                |            | 1.031                      | 13.938                     | 48.4800                     | 152.5800                     | 1.05960                  | 1364.500        | 164.82                                     | 66.120                        | 4.189                                 | 15.51891                                   |          |         |         |          |          |
|                           |                           |                |            | 1.219                      | 13.562                     | 56.5600                     | 144.5000                     | 1.00350                  | 1555.800        | 192.43                                     | 62.620                        | 4.189                                 | 13.12551                                   |          |         |         |          |          |
|                           |                           |                |            | 1.438                      | 13.124                     | 65.7800                     | 135.2800                     | 0.93940                  | 1760.300        | 223.64                                     | 58.640                        | 4.189                                 | 11.12656                                   |          |         |         |          |          |
|                           |                           |                |            | 1.594                      | 12.812                     | 72.1000                     | 128.9600                     | 0.89560                  | 1893.500        | 245.25                                     | 55.830                        | 4.189                                 | 10.03764                                   |          |         |         |          |          |
|                           |                           |                |            | 18                         | 18.000                     | STD<br>XS                   | 10                           | 5S                       | 0.165           | 17.670                                     | 9.2500                        | 245.2200                              | 1.70290                                    | 367.600  | 31.43   | 106.260 | 4.712    | 109.0909 |
|                           |                           |                |            |                            |                            |                             |                              | 10S                      | 0.188           | 17.624                                     | 10.5200                       | 243.9500                              | 1.69410                                    | 417.300  | 35.76   | 105.710 | 4.712    | 95.74468 |
|                           |                           |                |            |                            |                            |                             |                              | 0.250                    | 17.500          | 13.9400                                    | 240.5300                      | 1.67030                               | 549.100                                    | 47.39    | 104.210 | 4.712   | 72       |          |
|                           |                           |                |            |                            |                            |                             |                              | 0.312                    | 17.376          | 17.3400                                    | 237.1300                      | 1.64670                               | 678.200                                    | 58.94    | 102.770 | 4.712   | 57.69231 |          |
| 0.375                     | 17.250                    | 20.7600        | 233.7100   |                            |                            |                             |                              | 1.62300                  | 806.700         | 70.59                                      | 101.180                       | 4.712                                 | 48   |          |         |         |          |          |
| 0.438                     | 17.124                    | 24.1700        | 230.3000   |                            |                            |                             |                              | 1.59900                  | 930.300         | 82.15                                      | 99.840                        | 4.712                                 | 41.09589                                   |          |         |         |          |          |
| 0.500                     | 17.000                    | 27.4900        | 226.9800   |                            |                            |                             |                              | 1.57630                  | 1053.200        | 93.45                                      | 98.270                        | 4.712                                 | 36   |          |         |         |          |          |
| 0.562                     | 16.876                    | 30.7900        | 223.6800   |                            |                            |                             |                              | 1.55330                  | 1171.500        | 104.67                                     | 96.930                        | 4.712                                 | 32.02847                                   |          |         |         |          |          |
| 0.750                     | 16.500                    | 40.6400        | 213.8300   |                            |                            |                             |                              | 1.48490                  | 1514.700        | 138.17                                     | 92.570                        | 4.712                                 | 24   |          |         |         |          |          |
| 0.938                     | 16.124                    | 50.2300        | 204.2400   |                            |                            |                             |                              | 1.41830                  | 1833.000        | 170.92                                     | 88.500                        | 4.712                                 | 19.18977                                   |          |         |         |          |          |
| 1.156                     | 15.688                    | 61.1700        | 193.3000   |                            |                            |                             |                              | 1.34230                  | 2180.000        | 207.96                                     | 83.760                        | 4.712                                 | 15.57093                                   |          |         |         |          |          |
| 1.375                     | 15.250                    | 71.8100        | 182.6600   |                            |                            |                             |                              | 1.26840                  | 2498.100        | 244.14                                     | 79.070                        | 4.712                                 | 13.09091                                   |          |         |         |          |          |
| 1.562                     | 14.876                    | 80.6600        | 173.8000   |                            |                            |                             |                              | 1.20700                  | 2749.000        | 274.22                                     | 75.320                        | 4.712                                 | 11.52369                                   |          |         |         |          |          |
| 1.781                     | 14.438                    | 90.7500        | 163.7200   |                            |                            |                             |                              | 1.13690                  | 3020.000        | 308.50                                     | 70.880                        | 4.712                                 | 10.10668                                   |          |         |         |          |          |
| 20                        | 20.000                    | STD<br>XS      | 10         |                            |                            |                             |                              | 5S                       | 0.188           | 19.624                                     | 11.7000                       | 302.4600                              | 2.10040                                    | 574.200  | 39.78   | 131.060 | 5.236    | 106.383  |
|                           |                           |                |            |                            |                            |                             |                              | 10S                      | 0.218           | 19.564                                     | 13.5500                       | 300.6100                              | 2.08760                                    | 662.800  | 46.06   | 130.270 | 5.236    | 91.74312 |
|                           |                           |                |            | 0.250                      | 19.500                     | 15.5100                     | 298.6500                     | 2.07400                  | 765.400         | 52.73                                      | 129.420                       | 5.236                                 | 80   |          |         |         |          |          |
|                           |                           |                |            | 0.375                      | 19.250                     | 23.1200                     | 290.0400                     | 2.01420                  | 1113.000        | 78.60                                      | 125.670                       | 5.236                                 | 53.33333                                   |          |         |         |          |          |
|                           |                           |                |            | 0.500                      | 19.000                     | 30.6300                     | 283.5300                     | 1.96900                  | 1457.000        | 104.13                                     | 122.870                       | 5.236                                 | 40   |          |         |         |          |          |
|                           |                           |                |            | 0.594                      | 18.812                     | 36.1500                     | 278.0000                     | 1.93050                  | 1703.000        | 123.11                                     | 120.460                       | 5.236                                 | 33.67003                                   |          |         |         |          |          |
|                           |                           |                |            | 0.812                      | 18.376                     | 48.9500                     | 265.2100                     | 1.84170                  | 2257.000        | 166.40                                     | 114.920                       | 5.236                                 | 24.63054                                   |          |         |         |          |          |
|                           |                           |                |            | 1.031                      | 17.938                     | 61.4400                     | 252.7200                     | 1.75500                  | 2772.000        | 208.87                                     | 109.510                       | 5.236                                 | 19.39864                                   |          |         |         |          |          |
|                           |                           |                |            | 1.281                      | 17.438                     | 75.3300                     | 238.8300                     | 1.65850                  | 3315.200        | 256.10                                     | 103.390                       | 5.236                                 | 15.6128                                    |          |         |         |          |          |
|                           |                           |                |            | 1.500                      | 17.000                     | 87.1800                     | 226.9800                     | 1.57620                  | 3754.000        | 296.37                                     | 98.350                        | 5.236                                 | 13.33333                                   |          |         |         |          |          |
|                           |                           |                |            | 1.750                      | 16.500                     | 100.3300                    | 213.8200                     | 1.48490                  | 4216.000        | 341.09                                     | 92.660                        | 5.236                                 | 11.42857                                   |          |         |         |          |          |
|                           |                           |                |            | 1.969                      | 16.062                     | 111.4900                    | 202.6700                     | 1.40740                  | 4585.500        | 379.17                                     | 87.740                        | 5.236                                 | 10.15744                                   |          |         |         |          |          |
|                           |                           |                |            | 22                         | 22.000                     | STD<br>XS                   | 10                           | 5S                       | 0.188           | 21.624                                     | 12.8800                       | 367.2500                              | 2.55030                                    | 766.200  | 43.80   | 159.140 | 5.760    | 117.0213 |
|                           |                           |                |            |                            |                            |                             |                              | 10S                      | 0.218           | 21.564                                     | 14.9200                       | 365.2100                              | 2.53620                                    | 884.800  | 50.71   | 158.260 | 5.760    | 100.9174 |
|                           |                           |                |            |                            |                            |                             |                              | 0.250                    | 21.500          | 17.0800                                    | 363.0500                      | 2.52120                               | 1010.300                                   | 58.07    | 157.320 | 5.760   | 88       |          |
|                           |                           |                |            |                            |                            |                             |                              | 0.375                    | 21.250          | 25.4800                                    | 354.6600                      | 2.46290                               | 1489.700                                   | 86.61    | 153.680 | 5.760   | 58.66667 |          |
| 0.500                     | 21.000                    | 33.7700        | 346.3600   |                            |                            |                             |                              | 2.40530                  | 1952.500        | 114.81                                     | 150.090                       | 5.760                                 | 44   |          |         |         |          |          |
| 0.875                     | 20.250                    | 58.0700        | 322.0600   |                            |                            |                             |                              | 2.23650                  | 3244.900        | 197.41                                     | 139.560                       | 5.760                                 | 25.14286                                   |          |         |         |          |          |
| 1.125                     | 19.750                    | 73.7800        | 306.3500   |                            |                            |                             |                              | 2.12750                  | 4030.400        | 250.81                                     | 132.760                       | 5.760                                 | 19.55556                                   |          |         |         |          |          |
| 1.375                     | 19.250                    | 89.0900        | 291.0400   |                            |                            |                             |                              | 2.02110                  | 4758.500        | 302.88                                     | 126.120                       | 5.760                                 | 16   |          |         |         |          |          |
| 1.625                     | 18.750                    | 104.0200       | 276.1200   |                            |                            |                             |                              | 1.91750                  | 5432.000        | 353.61                                     | 119.650                       | 5.760                                 | 13.53846                                   |          |         |         |          |          |
| 1.875                     | 18.250                    | 118.5500       | 261.5900   |                            |                            |                             |                              | 1.81660                  | 6053.700        | 403.00                                     | 113.360                       | 5.760                                 | 11.73333                                   |          |         |         |          |          |
| 2.125                     | 17.750                    | 132.6800       | 247.4500   |                            |                            |                             |                              | 1.71840                  | 6626.400        | 451.06                                     | 107.230                       | 5.760                                 | 10.35294                                   |          |         |         |          |          |
| 24                        | 24.000                    | STD<br>XS      | 10         |                            |                            |                             |                              | 5S                       | 0.218           | 23.564                                     | 16.2900                       | 436.1000                              | 3.02850                                    | 1151.600 | 55.37   | 188.980 | 6.283    | 110.0917 |
|                           |                           |                |            |                            |                            |                             |                              | 10S                      | 0.250           | 23.500                                     | 18.6500                       | 433.7400                              | 3.01210                                    | 1315.400 | 63.41   | 187.950 | 6.283    | 96       |
|                           |                           |                |            |                            |                            |                             |                              | 0.375                    | 23.250          | 27.8300                                    | 424.5600                      | 2.94830                               | 1942.000                                   | 94.62    | 183.950 | 6.283   | 64       |          |
|                           |                           |                |            |                            |                            |                             |                              | 0.500                    | 23.000          | 36.9100                                    | 415.4800                      | 2.88530                               | 2549.500                                   | 125.49   | 179.870 | 6.283   | 48       |          |
|                           |                           |                |            |                            |                            |                             |                              | 0.562                    | 22.876          | 41.3900                                    | 411.0000                      | 2.85420                               | 2843.000                                   | 140.68   | 178.090 | 6.283   | 42.70463 |          |
|                           |                           |                |            | 0.688                      | 22.624                     | 50.3100                     | 402.0700                     | 2.79210                  | 3421.300        | 171.29                                     | 174.230                       | 6.283                                 | 34.88372                                   |          |         |         |          |          |
|                           |                           |                |            | 0.969                      | 22.062                     | 70.0400                     | 382.3500                     | 2.65520                  | 4652.800        | 238.35                                     | 165.520                       | 6.283                                 | 24.7678                                    |          |         |         |          |          |
|                           |                           |                |            | 1.219                      | 21.562                     | 87.1700                     | 365.2200                     | 2.53620                  | 5672.000        | 296.58                                     | 158.260                       | 6.283                                 | 19.68827                                   |          |         |         |          |          |
|                           |                           |                |            | 1.531                      | 20.938                     | 108.0700                    | 344.3200                     | 2.39110                  | 6849.900        | 367.39                                     | 149.060                       | 6.283                                 | 15.67603                                   |          |         |         |          |          |
|                           |                           |                |            | 1.812                      | 20.376                     | 126.3100                    | 326.0800                     | 2.26450                  | 7825.000        | 429.39                                     | 141.170                       | 6.283                                 | 13.24503                                   |          |         |         |          |          |
|                           |                           |                |            | 2.062                      | 19.876                     | 142.1100                    | 310.2800                     | 2.15470                  | 8625.000        | 483.12                                     | 134.450                       | 6.283                                 | 11.63919                                   |          |         |         |          |          |
|                           |                           |                |            | 2.344                      | 19.312                     | 159.4100                    | 292.9800                     | 2.03460                  | 9455.900        | 542.13                                     | 126.840                       | 6.283                                 | 10.23891                                   |          |         |         |          |          |

### PIPE DATA

| Carbon and Alloy Steel - Stainless Steel |                           |                |            |                            |                            |                             |                              |                          |                 |  |                               |                                       |  |          |
|--|---------------------------|----------------|------------|----------------------------|----------------------------|-----------------------------|------------------------------|--------------------------|-----------------|--|-------------------------------|---------------------------------------|--|----------|
| Nominal Pipe Size, Inches                | Outside Diam., (D) Inches | Identification |            |                            | Wall Thickness (t), Inches | Inside Diameter (d), Inches | Area of Metal, Square Inches | Transverse Internal Area |                 | Moment of Inertia (I), Inches <sup>4</sup> | Weight Pipes, Pounds per foot | Weight Water, Pounds per foot of pipe | External Surface, Sq. Ft. per foot of pipe | D / t    |
|  |                           | Steel          |            | Stainless Steel Sched. No. |                            |                             |                              | (a) Square Inches        | (A) Square Feet |  |                               |                                       |  |          |
|  |                           | Iron Pipe Size | Sched. No. |                            |                            |                             |                              |                          |                 |  |                               |                                       |  |          |
| 26                                       | 26.000                    | STD<br>XS      | 10         |                            | 0.312                      | 25.376                      | 25.1800                      | 505.7500                 | 3.51220         | 2077.200                                   | 85.60                         | 219.160                               | 6.806                                      | 83.33333 |
|  |                           |                | 20         |                            | 0.375                      | 25.250                      | 30.1900                      | 500.7400                 | 3.47740         | 2478.400                                   | 102.63                        | 216.990                               | 6.806                                      | 69.33333 |
|  |                           |                | 30         |                            | 0.500                      | 25.000                      | 40.0600                      | 490.8700                 | 3.40880         | 3257.000                                   | 136.17                        | 212.710                               | 6.806                                      | 52       |
| 28                                       | 28.000                    | STD<br>XS      | 10         |                            | 0.312                      | 27.376                      | 27.1400                      | 588.6100                 | 4.08760         | 2601.000                                   | 92.26                         | 255.070                               | 7.330                                      | 89.74359 |
|  |                           |                | 20         |                            | 0.375                      | 27.250                      | 32.5400                      | 583.2100                 | 4.05010         | 3105.100                                   | 110.64                        | 252.730                               | 7.330                                      | 74.66667 |
|  |                           |                | 30         |                            | 0.500                      | 27.000                      | 43.2000                      | 572.5600                 | 3.97610         | 4084.800                                   | 146.85                        | 248.110                               | 7.330                                      | 56       |
| 30                                       | 30.000                    | STD<br>XS      | 10         | 5S<br>10S                  | 0.250                      | 29.500                      | 23.3700                      | 683.4900                 | 4.74650         | 2585.200                                   | 79.43                         | 296.180                               | 7.854                                      | 120      |
|  |                           |                | 20         |                            | 0.312                      | 29.376                      | 29.1000                      | 677.7600                 | 4.70670         | 3206.300                                   | 98.93                         | 293.700                               | 7.854                                      | 96.15385 |
|  |                           |                | 30         |                            | 0.375                      | 29.250                      | 34.9000                      | 671.9600                 | 4.66640         | 3829.400                                   | 118.65                        | 291.180                               | 7.854                                      | 80       |
| 32                                       | 32.000                    | STD<br>XS      | 10         |                            | 0.500                      | 29.000                      | 46.3400                      | 660.5200                 | 4.58690         | 5042.200                                   | 157.53                        | 286.220                               | 7.854                                      | 60       |
|  |                           |                | 20         |                            | 0.625                      | 28.750                      | 57.6800                      | 649.1800                 | 4.50820         | 6224.000                                   | 196.08                        | 281.310                               | 7.854                                      | 48       |
|  |                           |                | 30         |                            | 0.312                      | 31.376                      | 31.0600                      | 773.1900                 | 5.36940         | 3898.900                                   | 105.59                        | 335.050                               | 8.378                                      | 102.5641 |
| 34                                       | 34.000                    | STD<br>XS      | 10         |                            | 0.375                      | 31.250                      | 37.2600                      | 766.9900                 | 5.32630         | 4658.500                                   | 126.66                        | 332.360                               | 8.378                                      | 85.33333 |
|  |                           |                | 20         |                            | 0.500                      | 31.000                      | 49.4800                      | 754.7700                 | 5.24140         | 6138.600                                   | 168.21                        | 327.060                               | 8.378                                      | 64       |
|  |                           |                | 30         |                            | 0.625                      | 30.750                      | 61.6000                      | 742.6400                 | 5.15720         | 7583.400                                   | 209.43                        | 321.810                               | 8.378                                      | 51.2     |
| 36                                       | 36.000                    | STD<br>XS      | 10         |                            | 0.688                      | 30.624                      | 67.6800                      | 736.5700                 | 5.11510         | 8298.300                                   | 230.08                        | 319.180                               | 8.378                                      | 46.51163 |
|  |                           |                | 20         |                            | 0.344                      | 33.312                      | 36.3700                      | 871.5500                 | 6.05240         | 5150.500                                   | 123.65                        | 377.670                               | 8.901                                      | 98.83721 |
|  |                           |                | 30         |                            | 0.375                      | 33.250                      | 39.6100                      | 868.3100                 | 6.02990         | 5599.300                                   | 134.67                        | 376.270                               | 8.901                                      | 90.66667 |
| 36                                       | 36.000                    | STD<br>XS      | 10         |                            | 0.500                      | 33.000                      | 52.6200                      | 855.3000                 | 5.93960         | 7383.500                                   | 178.89                        | 370.630                               | 8.901                                      | 68       |
|  |                           |                | 20         |                            | 0.625                      | 32.750                      | 65.5300                      | 842.3900                 | 5.84990         | 9127.600                                   | 222.78                        | 365.030                               | 8.901                                      | 54.4     |
|  |                           |                | 30         |                            | 0.688                      | 32.624                      | 72.0000                      | 835.9200                 | 5.80500         | 9991.600                                   | 244.77                        | 362.230                               | 8.901                                      | 49.4186  |
| 36                                       | 36.000                    | STD<br>XS      | 10         |                            | 0.312                      | 35.376                      | 34.9800                      | 982.9000                 | 6.82570         | 5569.500                                   | 118.92                        | 425.920                               | 9.425                                      | 115.3846 |
|  |                           |                | 20         |                            | 0.375                      | 35.250                      | 41.9700                      | 975.9100                 | 6.77710         | 6658.900                                   | 142.68                        | 422.890                               | 9.425                                      | 96       |
|  |                           |                | 30         |                            | 0.500                      | 35.000                      | 55.7600                      | 962.1100                 | 6.68130         | 8786.200                                   | 189.57                        | 416.910                               | 9.425                                      | 72       |
| 36                                       | 36.000                    | STD<br>XS      | 10         |                            | 0.625                      | 34.750                      | 69.4600                      | 948.4200                 | 6.58620         | 10868.400                                  | 236.13                        | 417.220                               | 9.425                                      | 57.6     |
|  |                           |                | 20         |                            | 0.750                      | 34.500                      | 83.0600                      | 934.8200                 | 6.49180         | 12906.100                                  | 282.35                        | 405.090                               | 9.425                                      | 48       |
|  |                           |                | 30         |                            |                            |                             |                              |                          |                 |  |                               |                                       |  |          |