

# Metric Thread Gages

## Standard Pitch Diameter Chart

| NOMINAL<br>SIZE & PITCH | FOR EXTERNAL THREAD                            |           |                                                    |           | FOR INTERNAL THREAD                            |           |                                                    |           |
|-------------------------|------------------------------------------------|-----------|----------------------------------------------------|-----------|------------------------------------------------|-----------|----------------------------------------------------|-----------|
|                         | PITCH DIAMETER<br>GO RING GAGE<br>6g TOLERANCE |           | PITCH DIAMETER<br>NOT GO RING GAGE<br>6g TOLERANCE |           | PITCH DIAMETER<br>GO PLUG GAGE<br>6H TOLERANCE |           | PITCH DIAMETER<br>NOT GO PLUG GAGE<br>6H TOLERANCE |           |
|                         | MM                                             | IN. (REF) | MM                                                 | IN. (REF) | MM                                             | IN. (REF) | MM                                                 | IN. (REF) |
| M 1.6 X 0.35            | 1.354                                          | .05331    | 1.291                                              | .05083    | 1.373                                          | .05406    | 1.458                                              | .05740    |
| M 2 X 0.4               | 1.721                                          | .06776    | 1.654                                              | .06512    | 1.740                                          | .06850    | 1.830                                              | .07205    |
| M 2.5 X 0.45            | 2.188                                          | .08614    | 2.117                                              | .08335    | 2.208                                          | .08693    | 2.303                                              | .09067    |
| M 3 X 0.5               | 2.655                                          | .10453    | 2.580                                              | .10157    | 2.675                                          | .10531    | 2.775                                              | .10925    |
| M 3.5 X 0.6             | 3.089                                          | .12161    | 3.004                                              | .11827    | 3.110                                          | .12244    | 3.222                                              | .12685    |
| M 4 X 0.7               | 3.523                                          | .13870    | 3.433                                              | .13516    | 3.545                                          | .13957    | 3.663                                              | .14421    |
| M 5 X 0.8               | 4.456                                          | .17543    | 4.361                                              | .17169    | 4.480                                          | .17638    | 4.605                                              | .18130    |
| M 6 X 1.0               | 5.324                                          | .20961    | 5.212                                              | .20520    | 5.350                                          | .21063    | 5.500                                              | .21654    |
| M 8 X 1.25              | 7.160                                          | .28189    | 7.042                                              | .27724    | 7.188                                          | .28299    | 7.348                                              | .28929    |
| M 8 X 1.0               | 7.324                                          | .28835    | 7.212                                              | .28394    | 7.350                                          | .28937    | 7.500                                              | .29528    |
| M 10 X 1.5              | 8.994                                          | .35409    | 8.862                                              | .34890    | 9.026                                          | .35535    | 9.206                                              | .36244    |
| M 10 X 1.25             | 9.160                                          | .36063    | 9.042                                              | .35598    | 9.188                                          | .36173    | 9.348                                              | .36803    |
| M 10 X 1.0              | 9.324                                          | .36709    | 9.212                                              | .36268    | 9.350                                          | .36811    | 9.500                                              | .37402    |
| M 10 X 0.75             | 9.491                                          | .37366    | 9.391                                              | .36972    | 9.513                                          | .37453    | 9.645                                              | .37972    |
| M 12 X 1.75             | 10.829                                         | .42634    | 10.679                                             | .42043    | 10.863                                         | .42768    | 11.063                                             | .43555    |
| M 12 X 1.5              | 10.994                                         | .43283    | 10.854                                             | .42732    | 11.026                                         | .43409    | 11.216                                             | .44157    |
| M 12 X 1.25             | 11.160                                         | .43937    | 11.028                                             | .43417    | 11.188                                         | .44047    | 11.368                                             | .44756    |
| M 12 X 1.0              | 11.324                                         | .44583    | 11.206                                             | .44118    | 11.350                                         | .44685    | 11.510                                             | .45315    |
| M 14 X 2.0              | 12.663                                         | .49854    | 12.503                                             | .49224    | 12.701                                         | .50004    | 12.913                                             | .50839    |
| M 14 X 1.5              | 12.994                                         | .51157    | 12.854                                             | .50606    | 13.026                                         | .51283    | 13.216                                             | .52031    |
| M 15 X 1.0              | 14.324                                         | .56394    | 14.206                                             | .55929    | 14.350                                         | .56496    | 14.510                                             | .57126    |
| M 16 X 2.0              | 14.663                                         | .57728    | 14.503                                             | .57098    | 14.701                                         | .57878    | 14.913                                             | .58713    |
| M 16 X 1.5              | 14.994                                         | .59031    | 14.854                                             | .58480    | 15.026                                         | .59157    | 15.216                                             | .59906    |
| M 17 X 1.0              | 16.324                                         | .64268    | 16.206                                             | .63803    | 16.350                                         | .64370    | 16.510                                             | .65000    |
| M 18 X 1.5              | 16.994                                         | .66906    | 16.854                                             | .66354    | 17.026                                         | .67031    | 17.216                                             | .67780    |
| M 20 X 2.5              | 18.334                                         | .72181    | 18.164                                             | .71512    | 18.376                                         | .72346    | 18.600                                             | .73228    |
| M 20 X 1.5              | 18.994                                         | .74780    | 18.854                                             | .74228    | 19.026                                         | .74906    | 19.216                                             | .75654    |
| M 20 X 1.0              | 19.324                                         | .76079    | 19.206                                             | .75614    | 19.350                                         | .76181    | 19.510                                             | .76811    |
| M 22 X 2.5              | 20.334                                         | .80055    | 20.164                                             | .79386    | 20.376                                         | .80220    | 20.600                                             | .81102    |
| M 22 X 1.5              | 20.994                                         | .82654    | 20.854                                             | .82102    | 21.026                                         | .82780    | 21.216                                             | .83528    |
| M 24 X 3.0              | 22.003                                         | .86626    | 21.803                                             | .85839    | 22.051                                         | .86815    | 22.316                                             | .87858    |
| M 24 X 2.0              | 22.663                                         | .89224    | 22.493                                             | .88555    | 22.701                                         | .89374    | 22.925                                             | .90256    |
| M 25 X 1.5              | 23.994                                         | .94465    | 23.844                                             | .93874    | 24.026                                         | .94591    | 24.226                                             | .95378    |
| M 27 X 3.0              | 25.003                                         | .98437    | 24.803                                             | .97650    | 25.051                                         | .98626    | 25.316                                             | .99669    |
| M 27 X 2.0              | 25.663                                         | 1.01035   | 25.493                                             | 1.00366   | 25.701                                         | 1.01185   | 25.925                                             | 1.02067   |
| M 30 X 3.5              | 27.674                                         | 1.08953   | 27.642                                             | 1.08118   | 27.727                                         | 1.09161   | 28.007                                             | 1.10264   |
| M 30 X 2.0              | 28.663                                         | 1.12846   | 28.493                                             | 1.12177   | 28.701                                         | 1.12996   | 28.925                                             | 1.13878   |
| M 30 X 1.5              | 28.994                                         | 1.14150   | 28.844                                             | 1.13559   | 29.026                                         | 1.14276   | 29.226                                             | 1.15063   |
| M 33 X 2.0              | 31.663                                         | 1.24657   | 31.493                                             | 1.23988   | 31.701                                         | 1.24807   | 31.925                                             | 1.25689   |
| M 35 X 1.5              | 33.994                                         | 1.33835   | 33.844                                             | 1.33244   | 34.026                                         | 1.33961   | 34.226                                             | 1.34748   |
| M 36 X 4.0              | 33.342                                         | 1.31268   | 33.118                                             | 1.30386   | 33.402                                         | 1.31504   | 33.702                                             | 1.32685   |
| M 36 X 2.0              | 34.663                                         | 1.36469   | 34.493                                             | 1.35799   | 34.701                                         | 1.36618   | 34.925                                             | 1.37500   |
| M 39 X 2.0              | 37.663                                         | 1.48280   | 37.493                                             | 1.47610   | 37.701                                         | 1.48429   | 37.925                                             | 1.49311   |

ANSI / ASME B1.13M, METRIC SCREW THREADS—M PROFILE

# Standard Pitch Diameter Chart

## Plug Thread Gages

| NOMINAL SIZE | GO BASIC ALL CLASSES ALL SERIES | UNIFIED PITCH DIAMETERS |          |                       |             |                     |
|--------------|---------------------------------|-------------------------|----------|-----------------------|-------------|---------------------|
|              |                                 | NOT GO                  |          | X TOL. GO =+ NO GO =- | X LEAD TOL. | X ± HALF ANGLE TOL. |
|              |                                 | CL.ASS 2B               | CLASS 3B |                       |             |                     |
| #0-80 UNF    | .0519                           | .0542                   | .0536    | .0002                 | .0002       | 0°30'               |
| #1-64 UNC    | .0629                           | .0655                   | .0648    | .0002                 | .0002       | 0°30'               |
| #1-72 UNF    | .0640                           | .0665                   | .0659    | .0002                 | .0002       | 0°30'               |
| #2-56 UNC    | .0744                           | .0772                   | .0765    | .0002                 | .0002       | 0°30'               |
| #2-64 UNF    | .0759                           | .0786                   | .0779    | .0002                 | .0002       | 0°30'               |
| #3-48 UNC    | .0855                           | .0885                   | .0877    | .0002                 | .0002       | 0°30'               |
| #3-56 UNF    | .0874                           | .0902                   | .0895    | .0002                 | .0002       | 0°30'               |
| #4-40 UNC    | .0958                           | .0991                   | .0982    | .0002                 | .0002       | 0°20'               |
| #4-48 UNF    | .0985                           | .1016                   | .1008    | .0002                 | .0002       | 0°30'               |
| #5-40 UNC    | .1088                           | .1121                   | .1113    | .0002                 | .0002       | 0°20'               |
| #5-44 UNF    | .1102                           | .1134                   | .1126    | .0002                 | .0002       | 0°20'               |
| #6-32 UNC    | .1177                           | .1214                   | .1204    | .0003                 | .0003       | 0°15'               |
| #6-40 UNF    | .1218                           | .1252                   | .1243    | .0002                 | .0002       | 0°20'               |
| #8-32 UNC    | .1437                           | .1475                   | .1465    | .0003                 | .0003       | 0°15'               |
| #8-36 UNF    | .1460                           | .1496                   | .1487    | .0002                 | .0002       | 0°20'               |
| #10-24 UNC   | .1629                           | .1672                   | .1661    | .0003                 | .0003       | 0°15'               |
| #10-32 UNF   | .1697                           | .1736                   | .1726    | .0003                 | .0003       | 0°15'               |
| #12-24 UNC   | .1889                           | .1933                   | .1922    | .0003                 | .0003       | 0°15'               |
| #12-28 UNF   | .1928                           | .1970                   | .1959    | .0003                 | .0003       | 0°15'               |
| #12-32 UNEF  | .1957                           | .1998                   | .1988    | .0003                 | .0003       | 0°15'               |
| 1/4-20 UNC   | .2175                           | .2224                   | .2211    | .0003                 | .0003       | 0°15'               |
| 1/4-28 UNF   | .2268                           | .2311                   | .2300    | .0003                 | .0003       | 0°15'               |
| 1/4-32 UNEF  | .2297                           | .2339                   | .2328    | .0003                 | .0003       | 0°15'               |
| 5/16-18 UNC  | .2764                           | .2817                   | .2803    | .0003                 | .0003       | 0°10'               |
| 5/16-24 UNF  | .2854                           | .2902                   | .2890    | .0003                 | .0003       | 0°15'               |
| 5/16-32 UNEF | .2922                           | .2964                   | .2953    | .0003                 | .0003       | 0°15'               |
| 3/8-16 UNC   | .3344                           | .3401                   | .3387    | .0003                 | .0003       | 0°10'               |
| 3/8-24 UNF   | .3479                           | .3528                   | .3516    | .0003                 | .0003       | 0°15'               |
| 3/8-32 UNEF  | .3547                           | .3591                   | .3580    | .0003                 | .0003       | 0°15'               |
| 7/16-14 UNC  | .3911                           | .3972                   | .3957    | .0003                 | .0003       | 0°10'               |
| 7/16-20 UNF  | .4050                           | .4104                   | .4091    | .0003                 | .0003       | 0°15'               |
| 7/16-28 UNEF | .4143                           | .4189                   | .4178    | .0003                 | .0003       | 0°15'               |
| 1/2-13 UNC   | .4500                           | .4565                   | .4548    | .0003                 | .0003       | 0°10'               |
| 1/2-20 UNF   | .4675                           | .4731                   | .4717    | .0003                 | .0003       | 0°15'               |
| 1/2-28 UNEF  | .4768                           | .4816                   | .4804    | .0003                 | .0003       | 0°15'               |
| 9/16-12 UNC  | .5084                           | .5152                   | .5135    | .0003                 | .0003       | 0°10'               |
| 9/16-18 UNF  | .5264                           | .5323                   | .5308    | .0003                 | .0003       | 0°10'               |

| NOMINAL SIZE   | GO BASIC ALL CLASSES ALL SERIES | UNIFIED PITCH DIAMETERS |          |                       |             |                     |
|----------------|---------------------------------|-------------------------|----------|-----------------------|-------------|---------------------|
|                |                                 | NOT GO                  |          | X TOL. GO =+ NO GO =- | X LEAD TOL. | X ± HALF ANGLE TOL. |
|                |                                 | CLASS 2B                | CLASS 3B |                       |             |                     |
| 9/16-24 UNEF   | .5354                           | .5405                   | .5392    | .0003                 | .0003       | 0°15'               |
| 5/8-11 UNC     | .5660                           | .5732                   | .5714    | .0003                 | .0003       | 0°10'               |
| 5/8-18 UNF     | .5889                           | .5949                   | .5934    | .0003                 | .0003       | 0°10'               |
| 5/8-24 UNEF    | .5979                           | .6031                   | .6018    | .0003                 | .0003       | 0°15'               |
| 11/16-24 UNEF  | .6604                           | .6656                   | .6643    | .0003                 | .0003       | 0°15'               |
| 3/4-10 UNC     | .6850                           | .6927                   | .6907    | .0003                 | .0003       | 0°10'               |
| 3/4-16 UNF     | .7094                           | .7159                   | .7143    | .0003                 | .0003       | 0°10'               |
| 3/4-20 UNEF    | .7175                           | .7232                   | .7218    | .0003                 | .0003       | 0°15'               |
| 13/16-20 UNEF  | .7800                           | .7857                   | .7843    | .0003                 | .0003       | 0°15'               |
| 7/8-9 UNC      | .8028                           | .8110                   | .8089    | .0003                 | .0003       | 0°10'               |
| 7/8-14 UNF     | .8286                           | .8356                   | .8339    | .0003                 | .0003       | 0°10'               |
| 7/8-20 UNEF    | .8425                           | .8482                   | .8468    | .0003                 | .0003       | 0°15'               |
| 15/16-20 UNEF  | .9050                           | .9109                   | .9094    | .0003                 | .0003       | 0°15'               |
| 1"-8 UNC       | .9188                           | .9276                   | .9254    | .0004                 | .0004       | 0°05'               |
| 1"-12 UNF      | .9459                           | .9535                   | .9516    | .0003                 | .0003       | 0°10'               |
| 1"-14 UNS      | .9536                           | .9609                   | .9590    | .0003                 | .0003       | 0°10'               |
| 1"-20 UNEF     | .9675                           | .9734                   | .9719    | .0003                 | .0003       | 0°15'               |
| 1 1/16-12 UN   | 1.0084                          | 1.0158                  | 1.0139   | .0003                 | .0003       | 0°10'               |
| 1 1/16-18 UNEF | 1.0264                          | 1.0326                  | 1.0310   | .0003                 | .0003       | 0°10'               |
| 1 1/8-7 UNC    | 1.0322                          | 1.0416                  | 1.0393   | .0004                 | .0004       | 0°05'               |
| 1 1/8-12 UNF   | 1.0709                          | 1.0787                  | 1.0768   | .0003                 | .0003       | 0°10'               |
| 1 1/8-18 UNEF  | 1.0889                          | 1.0951                  | 1.0935   | .0003                 | .0003       | 0°10'               |
| 1 3/16-12 UN   | 1.1334                          | 1.1409                  | 1.1390   | .0003                 | .0003       | 0°10'               |
| 1 3/16-18 UNEF | 1.1514                          | 1.1577                  | 1.1561   | .0003                 | .0003       | 0°10'               |
| 1 1/4-7 UNC    | 1.1572                          | 1.1668                  | 1.1644   | .0004                 | .0004       | 0°05'               |
| 1 1/4-12 UNF   | 1.1959                          | 1.2039                  | 1.2019   | .0003                 | .0003       | 0°10'               |
| 1 1/4-18 UNEF  | 1.2139                          | 1.2202                  | 1.2186   | .0003                 | .0003       | 0°10'               |
| 1 5/16-12 UN   | 1.2584                          | 1.2659                  | 1.2640   | .0003                 | .0003       | 0°10'               |
| 1 5/16-18 UNEF | 1.2764                          | 1.2827                  | 1.2811   | .0003                 | .0003       | 0°10'               |
| 1 3/8-6 UNC    | 1.2667                          | 1.2771                  | 1.2745   | .0004                 | .0004       | 0°05'               |
| 1 3/8-12 UNF   | 1.3209                          | 1.3291                  | 1.3270   | .0003                 | .0003       | 0°10'               |
| 1 3/8-18 UNEF  | 1.3389                          | 1.3452                  | 1.3436   | .0003                 | .0003       | 0°10'               |
| 1 7/16-12 UN   | 1.3834                          | 1.3910                  | 1.3891   | .0003                 | .0003       | 0°10'               |
| 1 7/16-18 UNEF | 1.4014                          | 1.4079                  | 1.4062   | .0003                 | .0003       | 0°10'               |
| 1 1/2-6 UNC    | 1.3917                          | 1.4022                  | 1.3996   | .0004                 | .0004       | 0°05'               |
| 1 1/2-12 UNF   | 1.4459                          | 1.4542                  | 1.4522   | .0003                 | .0003       | 0°10'               |
| 1 1/2-18 UNEF  | 1.4639                          | 1.4704                  | 1.4687   | .0003                 | .0003       | 0°10'               |

# Standard Pitch Diameter Chart

## Ring Thread Gages and Setting Plugs

| NOMINAL SIZE | UNIFIED PITCH DIAMETERS |        |          |        |                              |
|--------------|-------------------------|--------|----------|--------|------------------------------|
|              | CLASS 2A                |        | CLASS 3A |        | X TOL.<br>GO ==<br>NO GO ==+ |
|              | GO                      | NOT GO | GO       | NOT GO |                              |
| #0-80 UNF    | .0514                   | .0496  | .0519    | .0506  | .0002                        |
| #1-64 UNC    | .0623                   | .0603  | .0629    | .0614  | .0002                        |
| #1-72 UNF    | .0634                   | .0615  | .0640    | .0626  | .0002                        |
| #2-56 UNC    | .0738                   | .0717  | .0744    | .0728  | .0002                        |
| #2-64 UNF    | .0753                   | .0733  | .0759    | .0744  | .0002                        |
| #3-48 UNC    | .0848                   | .0825  | .0855    | .0838  | .0002                        |
| #3-56 UNF    | .0867                   | .0845  | .0874    | .0858  | .0002                        |
| #4-40 UNC    | .0950                   | .0925  | .0958    | .0939  | .0002                        |
| #4-48 UNF    | .0978                   | .0954  | .0985    | .0967  | .0002                        |
| #5-40 UNC    | .1080                   | .1054  | .1088    | .1069  | .0002                        |
| #5-44 UNF    | .1095                   | .1070  | .1102    | .1083  | .0002                        |
| #6-32 UNC    | .1169                   | .1141  | .1177    | .1156  | .0003                        |
| #6-40 UNF    | .1210                   | .1184  | .1218    | .1198  | .0002                        |
| #8-32 UNC    | .1428                   | .1399  | .1437    | .1415  | .0003                        |
| #8-36 UNF    | .1452                   | .1424  | .1460    | .1439  | .0002                        |
| #10-24 UNC   | .1619                   | .1586  | .1629    | .1604  | .0003                        |
| #10-32 UNF   | .1688                   | .1658  | .1697    | .1674  | .0003                        |
| #12-24 UNC   | .1879                   | .1845  | .1889    | .1863  | .0003                        |
| #12-28 UNF   | .1918                   | .1886  | .1928    | .1904  | .0003                        |
| #12-32 UNEF  | .1948                   | .1917  | .1957    | .1933  | .0003                        |
| 1/4-20 UNC   | .2164                   | .2127  | .2175    | .2147  | .0003                        |
| 1/4-28 UNF   | .2258                   | .2225  | .2268    | .2243  | .0003                        |
| 1/4-32 UNEF  | .2287                   | .2255  | .2297    | .2273  | .0003                        |
| 5/16-18 UNC  | .2752                   | .2712  | .2764    | .2734  | .0003                        |
| 5/16-24 UNF  | .2843                   | .2806  | .2854    | .2827  | .0003                        |
| 5/16-32 UNEF | .2912                   | .2880  | .2922    | .2898  | .0003                        |
| 3/8-16 UNC   | .3331                   | .3287  | .3344    | .3311  | .0003                        |
| 3/8-24 UNF   | .3468                   | .3430  | .3479    | .3450  | .0003                        |
| 3/8-32 UNEF  | .3537                   | .3503  | .3547    | .3522  | .0003                        |
| 7/16-14 UNC  | .3897                   | .3850  | .3911    | .3876  | .0003                        |
| 7/16-20 UNF  | .4037                   | .3995  | .4050    | .4019  | .0003                        |
| 7/16-28 UNEF | .4132                   | .4096  | .4143    | .4116  | .0003                        |
| 1/2-13 UNC   | .4485                   | .4435  | .4500    | .4463  | .0003                        |
| 1/2-20 UNF   | .4662                   | .4619  | .4675    | .4643  | .0003                        |
| 1/2-28 UNEF  | .4757                   | .4720  | .4768    | .4740  | .0003                        |
| 9/16-12 UNC  | .5068                   | .5016  | .5084    | .5045  | .0003                        |
| 9/16-18 UNF  | .5250                   | .5205  | .5264    | .5230  | .0003                        |

| NOMINAL SIZE   | UNIFIED PITCH DIAMETERS |        |          |        |                              |
|----------------|-------------------------|--------|----------|--------|------------------------------|
|                | CLASS 2A                |        | CLASS 3A |        | X TOL.<br>GO ==<br>NO GO ==+ |
|                | GO                      | NOT GO | GO       | NOT GO |                              |
| 9/16-24 UNEF   | .5342                   | .5303  | .5354    | .5325  | .0003                        |
| 5/8-11 UNC     | .5644                   | .5589  | .5660    | .5619  | .0003                        |
| 5/8-18 UNF     | .5875                   | .5828  | .5889    | .5854  | .0003                        |
| 5/8-24 UNEF    | .5967                   | .5927  | .5979    | .5949  | .0003                        |
| 11/16-24 UNEF  | .6592                   | .6552  | .6604    | .6574  | .0003                        |
| 3/4-10 UNC     | .6832                   | .6773  | .6850    | .6806  | .0003                        |
| 3/4-16 UNF     | .7079                   | .7029  | .7094    | .7056  | .0003                        |
| 3/4-20 UNEF    | .7162                   | .7118  | .7175    | .7142  | .0003                        |
| 13/16-20 UNEF  | .7787                   | .7743  | .7800    | .7767  | .0003                        |
| 7/8-9 UNC      | .8009                   | .7946  | .8028    | .7981  | .0003                        |
| 7/8-14 UNF     | .8270                   | .8216  | .8286    | .8245  | .0003                        |
| 7/8-20 UNEF    | .8412                   | .8368  | .8425    | .8392  | .0003                        |
| 15/16-20 UNEF  | .9036                   | .8991  | .9050    | .9016  | .0003                        |
| 1"-8 UNC       | .9168                   | .9100  | .9188    | .9137  | .0004                        |
| 1"-12 UNF      | .9441                   | .9382  | .9459    | .9415  | .0003                        |
| 1"-14 UNS      | .9519                   | .9463  | .9536    | .9494  | .0003                        |
| 1"-20 UNEF     | .9661                   | .9616  | .9675    | .9641  | .0003                        |
| 1 1/16-12 UN   | 1.0067                  | 1.0010 | 1.0084   | 1.0042 | .0003                        |
| 1 1/16-18 UNEF | 1.0250                  | 1.0203 | 1.0264   | 1.0228 | .0003                        |
| 1 1/8-7 UNC    | 1.0300                  | 1.0228 | 1.0322   | 1.0268 | .0004                        |
| 1 1/8-12 UNF   | 1.0691                  | 1.0631 | 1.0709   | 1.0664 | .0003                        |
| 1 1/8-18 UNEF  | 1.0875                  | 1.0828 | 1.0889   | 1.0853 | .0003                        |
| 1 3/16-12 UN   | 1.1317                  | 1.1259 | 1.1334   | 1.1291 | .0003                        |
| 1 3/16-18 UNEF | 1.1499                  | 1.1450 | 1.1514   | 1.1478 | .0003                        |
| 1 1/4-7 UNC    | 1.1550                  | 1.1476 | 1.1572   | 1.1517 | .0004                        |
| 1 1/4-12 UNF   | 1.1941                  | 1.1879 | 1.1959   | 1.1913 | .0003                        |
| 1 1/4-18 UNEF  | 1.2124                  | 1.2075 | 1.2139   | 1.2103 | .0003                        |
| 1 5/16-12 UN   | 1.2567                  | 1.2509 | 1.2584   | 1.2541 | .0003                        |
| 1 5/16-18 UNEF | 1.2749                  | 1.2700 | 1.2764   | 1.2728 | .0003                        |
| 1 3/8-6 UNC    | 1.2643                  | 1.2563 | 1.2667   | 1.2607 | .0004                        |
| 1 3/8-12 UNF   | 1.3190                  | 1.3127 | 1.3209   | 1.3162 | .0003                        |
| 1 3/8-18 UNEF  | 1.3374                  | 1.3325 | 1.3389   | 1.3353 | .0003                        |
| 1 7/16-12 UN   | 1.3816                  | 1.3757 | 1.3834   | 1.3790 | .0003                        |
| 1 7/16-18 UNEF | 1.3999                  | 1.3949 | 1.4014   | 1.3977 | .0003                        |
| 1 1/2-6 UNC    | 1.3893                  | 1.3812 | 1.3917   | 1.3856 | .0004                        |
| 1 1/2-12 UNF   | 1.4440                  | 1.4376 | 1.4459   | 1.4411 | .0003                        |
| 1 1/2-18 UNEF  | 1.4624                  | 1.4574 | 1.4639   | 1.4602 | .0003                        |

# Standard Pitch Diameter Chart

## Helical Coil Plug Gages

| NOMINAL SIZE      | PITCH DIAMETERS |           |           |                               |
|-------------------|-----------------|-----------|-----------|-------------------------------|
|                   | GO              | 2B NOT GO | 3B NOT GO | X TOL.<br>GO = +<br>NO GO = - |
| (.086) #2-56 UNC  | .0976           | .0996     | .0989     | .0002                         |
| (.086) #2-64 UNF  | .0962           | .0981     | .0974     | .0002                         |
| (.099) #3-48 UNC  | .1126           | .1148     | .1140     | .0002                         |
| (.099) #3-56 UNF  | .1106           | .1126     | .1119     | .0002                         |
| (.112) #4-40 UNC  | .1283           | .1308     | .1299     | .0002                         |
| (.112) #4-48 UNF  | .1256           | .1279     | .1271     | .0002                         |
| (.125) #5-40 UNC  | .1413           | .1438     | .1430     | .0002                         |
| (.138) #6-32 UNC  | .1583           | .1611     | .1601     | .0003                         |
| (.138) #6-40 UNF  | .1543           | .1569     | .1560     | .0002                         |
| (.164) #8-32 UNC  | .1843           | .1872     | .1862     | .0003                         |
| (.164) #8-36 UNF  | .1821           | .1849     | .1840     | .0002                         |
| (.190) #10-24 UNC | .2170           | .2203     | .2192     | .0003                         |
| (.190) #10-32 UNF | .2103           | .2133     | .2123     | .0003                         |
| (.216) #12-24 UNC | .2430           | .2464     | .2453     | .0003                         |
| 1/4-20 UNC        | .2825           | .2864     | .2851     | .0003                         |
| 1/4-28 UNF        | .2732           | .2765     | .2754     | .0003                         |
| 5/16-18 UNC       | .3486           | .3529     | .3515     | .0003                         |
| 5/16-24 UNF       | .3395           | .3433     | .3421     | .0003                         |
| 3/8-16 UNC        | .4156           | .4203     | .4189     | .0003                         |
| 3/8-24 UNF        | .4020           | .4059     | .4047     | .0003                         |
| 7/16-14 UNC       | .4839           | .4890     | .4875     | .0003                         |
| 7/16-20 UNF       | .4700           | .4744     | .4731     | .0003                         |
| 1/2-13 UNC        | .5499           | .5554     | .5537     | .0003                         |
| 1/2-20 UNF        | .5325           | .5371     | .5357     | .0003                         |
| 9/16-12 UNC       | .6167           | .6225     | .6208     | .0003                         |
| 9/16-18 UNF       | .5986           | .6035     | .6020     | .0003                         |
| 5/8-11 UNC        | .6841           | .6903     | .6885     | .0003                         |
| 5/8-18 UNF        | .6611           | .6661     | .6646     | .0003                         |
| 3/4-10 UNC        | .8149           | .8216     | .8196     | .0003                         |
| 3/4-16 UNF        | .7906           | .7961     | .7945     | .0003                         |

# Standard Pitch Diameter Chart

## Straight Pipe Pitch Diameter Chart

| NOMINAL SIZE   | NPSM        |        |             |        | NPSC     |        | NPSL     |        |          |        |
|----------------|-------------|--------|-------------|--------|----------|--------|----------|--------|----------|--------|
|                | INTERNAL 2B |        | EXTERNAL 2A |        | INTERNAL |        | INTERNAL |        | EXTERNAL |        |
|                | GO          | NOT GO | GO          | NOT GO | GO       | NOT GO | GO       | NOT GO | GO       | NOT GO |
| 1/8 — 27       | .3736       | .3783  | .3725       | .3689  | .3701    | .3771  | .3863    | .3898  | .3840    | .3805  |
| 1/4 — 18       | .4916       | .4974  | .4903       | .4859  | .4864    | .4968  | .5073    | .5125  | .5038    | .4986  |
| 3/8 — 18       | .6270       | .6329  | .6256       | .6211  | .6218    | .6322  | .6444    | .6496  | .6409    | .6357  |
| 1/2 — 14       | .7784       | .7851  | .7769       | .7718  | .7717    | .7851  | .8008    | .8075  | .7963    | .7896  |
| 3/4 — 14       | .9889       | .9958  | .9873       | .9820  | .9822    | .9956  | 1.0112   | 1.0179 | 1.0067   | 1.0000 |
| 1 — 11-1/2     | 1.2386      | 1.2462 | 1.2369      | 1.2311 | 1.2305   | 1.2468 | 1.2658   | 1.2739 | 1.2604   | 1.2523 |
| 1-1/4 — 11-1/2 | 1.5834      | 1.5912 | 1.5816      | 1.5756 | 1.5752   | 1.5915 | 1.6106   | 1.6187 | 1.6051   | 1.5970 |
| 1-1/2 — 11-1/2 | 1.8223      | 1.8302 | 1.8205      | 1.8144 | 1.8142   | 1.8305 | 1.8495   | 1.8576 | 1.8441   | 1.8360 |
| 2 — 11-1/2     | 2.2963      | 2.3044 | 2.2944      | 2.2882 | 2.2881   | 2.3044 | 2.3234   | 2.3315 | 2.3180   | 2.3099 |
| 2-1/2 — 8      | 2.7622      | 2.7720 | 2.7600      | 2.7526 | 2.7504   | 2.7739 | 2.8012   | 2.8129 | 2.7934   | 2.7817 |
| 3 — 8          | 3.3885      | 3.3984 | 3.3862      | 3.3786 | 3.3768   | 3.4002 | 3.4276   | 3.4393 | 3.4198   | 3.4081 |