



Atlanta, Georgia

Phone 800-521-7326

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Flat Head Machine Screw 80°



| Peco Catalog#                    | Size and Threads Per Inch | Series Designation | Allowance | Major Diameter |       | Pitch Diameter  |       |               | Tensile Strength, lb. Min** | Stress Area Inches <sup>2</sup> | A             |             | H          |            | J                   |      | T    |                                  | M R N  |       |       | F    |      | Gaging Diameter | Phillips Bit Size |     |     |
|----------------------------------|---------------------------|--------------------|-----------|----------------|-------|-----------------|-------|---------------|-----------------------------|---------------------------------|---------------|-------------|------------|------------|---------------------|------|------|----------------------------------|--------|-------|-------|------|------|-----------------|-------------------|-----|-----|
|                                  |                           |                    |           | Min            | Max   | Min             | Max   | Tolerance     |                             |                                 | Head Diameter | Head Height | Slot Width | Slot Depth | Dimension of Recess |      |      | Protrusion Above Gaging Diameter |        |       |       |      |      |                 |                   |     |     |
|                                  |                           |                    |           |                |       |                 |       |               |                             |                                 | Min           | Max         | Min        | Max        | Min                 | Max  | Min  | Max                              | Diamet | Depth | Width | Min  | Max  |                 |                   | Min | Max |
|                                  | 4-40                      | 0.112              | UNC       | .0008          | .1061 | .1112           | .0925 | .0950         | .0025                       | 360                             | 0.00604       | .191        | .212       | .055       | .067                | .031 | .039 | .020                             | .030   | .105  | .072  | .019 | .019 | .032            | .172              | 1   |     |
|                                  | 5-40                      | 0.125              | UNC       | .0008          | .1191 | .1242           | .1054 | .1080         | .0026                       | 470                             | 0.00796       | .215        | .237       | .062       | .075                | .035 | .043 | .022                             | .034   | .141  | .074  | .027 | .020 | .034            | .196              | 2   |     |
|                                  | 6-32                      | 0.138              | UNC       | .0008          | .1312 | .1372           | .1141 | .1169         | .0028                       | 550                             | 0.00909       | .238        | .262       | .069       | .083                | .039 | .048 | .024                             | .038   | .149  | .084  | .027 | .021 | .036            | .220              | 2   |     |
|                                  | 8-32                      | 0.164              | UNC       | .0009          | .1571 | .1631           | .1399 | .1428         | .0029                       | 850                             | 0.0140        | .285        | .312       | .084       | .100                | .045 | .054 | .029                             | .045   | .165  | .101  | .030 | .023 | .039            | .267              | 2   |     |
| See Section Three of Our Catalog | 10-24                     | 0.190              | UNC       | .0010          | .1818 | .1890           | .1586 | .1619         | .0033                       | 1050                            | 0.0175        | .333        | .362       | .098       | .116                | .050 | .060 | .034                             | .053   | .182  | .119  | .031 | .025 | .042            | .313              | 2   |     |
|                                  | 10-32                     | 0.190              | UNF       | .0009          | .1831 | .1891           | .1658 | .1688         | .0030                       | 1200                            | 0.0200        | .333        | .362       | .098       | .116                | .050 | .060 | .034                             | .053   | .182  | .119  | .031 | .025 | .042            | .313              | 2   |     |
|                                  | 12-24                     | 0.216              | UNC       | .0010          | .2078 | .2150           | .1845 | .1879         | .0034                       | 1450                            | 0.0242        | .380        | .412       | .112       | .132                | .056 | .067 | .039                             | .060   | .236  | .125  | .032 | .027 | .045            | .362              | 3   |     |
|                                  | 1/4-20                    | 0.250              | UNC       | .0011          | .2408 | .2489           | .2127 | .2164         | .0037                       | 1900                            | 0.0318        | .442        | .477       | .131       | .153                | .064 | .075 | .046                             | .070   | .255  | .147  | .034 | .029 | .050            | .424              | 3   |     |
|                                  | 1/4-28                    | 0.250              | UNF       | .0010          | .2425 | .2490           | .2225 | .2258         | .0033                       | 2200                            | 0.0364        | .442        | .477       | .131       | .153                | .064 | .075 | .046                             | .070   | .255  | .147  | .034 | .029 | .050            | .424              | 3   |     |
|                                  | 5/16-18                   | 0.312              | UNC       | .0012          | .3026 | .3113           | .2712 | .2752         | .0040                       | 3150                            | 0.0524        | .556        | .597       | .165       | .191                | .072 | .084 | .058                             | .088   | .295  | .187  | .040 | .034 | .057            | .539              | 4   |     |
|                                  | 3/8-16                    | 0.375              | UNC       | .0013          | .3643 | .3737           | .3287 | .3331         | .0044                       | 4650                            | 0.0775        | .670        | .717       | .200       | .230                | .081 | .094 | .070                             | .106   | .374  | .228  | .064 | .039 | .065            | .653              | 4   |     |
|                                  | 1/2-13                    | 0.500              | UNC       | .0015          | .4876 | .4985           | .4435 | .4485         | .0050                       | 8500                            | 0.1419        | .765        | .815       | .186       | .223                | .091 | .106 | .065                             | .103   | .403  | .256  | .068 | .049 | .081            | .739              | 4   |     |
| Tolerance on Length L            |                           | Screw Size         |           | Screw Length   |       |                 |       |               |                             |                                 |               |             |            |            |                     |      |      |                                  |        |       |       |      |      |                 |                   |     |     |
|                                  |                           |                    |           | Up To 1/2"     |       | Over 1/2" to 1" |       | Over 1" to 2" |                             | Over 2"                         |               |             |            |            |                     |      |      |                                  |        |       |       |      |      |                 |                   |     |     |
|                                  |                           | 4 - 12             |           | -0.02          |       | -0.03           |       | -0.06         |                             | -0.09                           |               |             |            |            |                     |      |      |                                  |        |       |       |      |      |                 |                   |     |     |
|                                  |                           | 1/4 - 3/4          |           | -0.03          |       | -0.03           |       | -0.06         |                             |                                 |               |             |            |            |                     |      |      |                                  |        |       |       |      |      |                 |                   |     |     |

\*\*Tensile strength is based off of 60,000 psi. and only apply to carbon steel screws. Hex and Hex Washer Head machine screws of adequate length may be wedge tensile tested. Other head styles can be axial tensile tested.

ANSI B18.6.3

|                  |  |
|------------------|--|
| Material         | AISI 1006 - 1022 or equivalent Steel or Stainless SAE 18-8 Stainless Steel Passivated  |
| Hardness         | Steel: Rockwell B70 - B100 - Stainless: Rockwell B85 - B95   |
| Tensile Strength | Size 4 and 5 diameter and lengths shorter than 1/2" are not subject to tensile testing. Steel: 60,000 psi. minimum - Stainless: 80,000 psi minimum |

Peco Fasteners specification sheets are a reference guide to help in the selection of fasteners. Peco has made every effort to ensure the accuracy of the information. However, Peco Fasteners is not responsible for any errors that may be contained within these sheets. Peco Fasteners makes no claim of warranty in the accuracy of this information. Users of this information are solely responsible for protecting themselves against liability. It is solely the responsibility of the purchasers and users of these fasteners to consult with Engineers that are experts in an applicable field. Peco Fasteners is not responsible for any loss, claim, or damage due to these specification sheets.



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|----------------------------------|---------------------------|--------------------|-----------|----------------|-------|-----------------|-------|---------------|-----------------------------|---------------------------------|---------------|-------------|------------|------------|---------------------|------|------|----------------------------------|--------|-------|-------|------|------|------|------|------|------|-----------------|-------------------|
|                                  |                           |                    |           | Min            | Max   | Min             | Max   | Tolerance     |                             |                                 | Head Diameter | Head Height | Slot Width | Slot Depth | Dimension of Recess |      |      | Protrusion Above Gaging Diameter |        |       |       |      |      |      |      |      |      |                 |                   |
|                                  |                           |                    |           |                |       |                 |       |               |                             |                                 | Min           | Max         | Min        | Max        | Min                 | Max  | Min  | Max                              | Diamet | Depth | Width | Min  | Max  | Min  | Max  |      |      |                 |                   |
|                                  | 4-40                      | 0.112              | UNC       | .0008          | .1061 | .1112           | .0925 | .0950         | .0025                       | 360                             | 0.00604       | .191        | .212       | .055       | .067                | .031 | .039 | .020                             | .030   | .105  | .072  | .019 | .019 | .019 | .019 | .032 | .172 | 1               |                   |
|                                  | 5-40                      | 0.125              | UNC       | .0008          | .1191 | .1242           | .1054 | .1080         | .0026                       | 470                             | 0.00796       | .215        | .237       | .062       | .075                | .035 | .043 | .022                             | .034   | .141  | .074  | .027 | .020 | .034 | .196 | .220 | 2    |                 |                   |
|                                  | 6-32                      | 0.138              | UNC       | .0008          | .1312 | .1372           | .1141 | .1169         | .0028                       | 550                             | 0.00909       | .238        | .262       | .069       | .083                | .039 | .048 | .024                             | .038   | .149  | .084  | .027 | .021 | .036 | .220 | .220 | 2    |                 |                   |
|                                  | 8-32                      | 0.164              | UNC       | .0009          | .1571 | .1631           | .1399 | .1428         | .0029                       | 850                             | 0.0140        | .285        | .312       | .084       | .100                | .045 | .054 | .029                             | .045   | .165  | .101  | .030 | .023 | .039 | .267 | .267 | 2    |                 |                   |
| See Section Three of Our Catalog | 10-24                     | 0.190              | UNC       | .0010          | .1818 | .1890           | .1586 | .1619         | .0033                       | 1050                            | 0.0175        | .333        | .362       | .098       | .116                | .050 | .060 | .034                             | .053   | .182  | .119  | .031 | .025 | .042 | .313 | .313 | 2    |                 |                   |
|                                  | 10-32                     | 0.190              | UNF       | .0009          | .1831 | .1891           | .1658 | .1688         | .0030                       | 1200                            | 0.0200        | .333        | .362       | .098       | .116                | .050 | .060 | .034                             | .053   | .182  | .119  | .031 | .025 | .042 | .313 | .313 | 2    |                 |                   |
|                                  | 12-24                     | 0.216              | UNC       | .0010          | .2078 | .2150           | .1845 | .1879         | .0034                       | 1450                            | 0.0242        | .380        | .412       | .112       | .132                | .056 | .067 | .039                             | .060   | .236  | .125  | .032 | .027 | .045 | .362 | .362 | 3    |                 |                   |
|                                  | 1/4-20                    | 0.250              | UNC       | .0011          | .2408 | .2489           | .2127 | .2164         | .0037                       | 1900                            | 0.0318        | .442        | .477       | .131       | .153                | .064 | .075 | .046                             | .070   | .255  | .147  | .034 | .029 | .050 | .424 | .424 | 3    |                 |                   |
|                                  | 1/4-28                    | 0.250              | UNF       | .0010          | .2425 | .2490           | .2225 | .2258         | .0033                       | 2200                            | 0.0364        | .442        | .477       | .131       | .153                | .064 | .075 | .046                             | .070   | .255  | .147  | .034 | .029 | .050 | .424 | .424 | 3    |                 |                   |
|                                  | 5/16-18                   | 0.312              | UNC       | .0012          | .3026 | .3113           | .2712 | .2752         | .0040                       | 3150                            | 0.0524        | .556        | .597       | .165       | .191                | .072 | .084 | .058                             | .088   | .295  | .187  | .040 | .034 | .057 | .539 | .539 | 4    |                 |                   |
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|                                  | 1/2-13                    | 0.500              | UNC       | .0015          | .4876 | .4985           | .4435 | .4485         | .0050                       | 8500                            | 0.1419        | .765        | .815       | .186       | .223                | .091 | .106 | .065                             | .103   | .403  | .256  | .068 | .049 | .081 | .739 | .739 | 4    |                 |                   |
| Tolerance on Length L            |                           | Screw Size         |           | Screw Length   |       |                 |       |               |                             |                                 |               |             |            |            |                     |      |      |                                  |        |       |       |      |      |      |      |      |      |                 |                   |
|                                  |                           |                    |           | Up To 1/2"     |       | Over 1/2" to 1" |       | Over 1" to 2" |                             | Over 2"                         |               |             |            |            |                     |      |      |                                  |        |       |       |      |      |      |      |      |      |                 |                   |
|                                  |                           | 4 - 12             |           | -0.02          |       | -0.03           |       | -0.06         |                             | -0.09                           |               |             |            |            |                     |      |      |                                  |        |       |       |      |      |      |      |      |      |                 |                   |
| 1/4 - 3/4                        |                           | -0.03              |           | -0.03          |       | -0.06           |       | -0.09         |                             |                                 |               |             |            |            |                     |      |      |                                  |        |       |       |      |      |      |      |      |      |                 |                   |

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