

| Screw<br>Size | Major<br>Diameter | TPI | Minor<br>Diameter | Tap Drill                                      |          |  |          | Clearance Drill |          |            |          |
|---------------|-------------------|-----|-------------------|--|----------|--|----------|-----------------|----------|------------|----------|
|               |                   |     |                   | 75% Thread for<br>Aluminum, Brass,<br>Plastics |          | 50% Thread for<br>Stainless, Cast Iron &<br>Iron |          | Close Fit       |          | Free Fit   |          |
|               |                   |     |                   | Drill Size                                     | Dec. Eq. | Drill Size                                       | Dec. Eq. | Drill Size      | Dec. Eq. | Drill Size | Dec. Eq. |
| 0             | .0600             | 80  | .0447             | 3/64   | .0469    | 55   | .0520    | 52              | .0635    | 50         | .0700    |
| 1             | .0730             | 64  | .0538             | 53   | .0595    | 1/16   | .0625    | 48              | .0760    | 46         | .0810    |
|               |                   | 72  | .0560             | 53   | .0595    | 52   | .0635    |                 |          |            |          |
| 2             | .0860             | 56  | .0641             | 50   | .0700    | 49   | .0730    | 43              | .0890    | 41         | .0960    |
|               |                   | 64  | .0668             | 50   | .0700    | 48   | .0760    |                 |          |            |          |
| 3             | .0990             | 48  | .0734             | 47   | .0785    | 44   | .0860    | 37              | .1040    | 35         | .1100    |
|               |                   | 56  | .0771             | 45   | .0820    | 43   | .0890    |                 |          |            |          |
| 4             | .1120             | 40  | .0813             | 43   | .0890    | 41   | .0960    | 32              | .1160    | 30         | .1285    |
|               |                   | 48  | .0864             | 42   | .0935    | 40   | .0980    |                 |          |            |          |
| 5             | .125              | 40  | .0943             | 38   | .1015    | 7/64   | .1094    | 30              | .1285    | 29         | .1360    |
|               |                   | 44  | .0971             | 37   | .1040    | 35   | .1100    |                 |          |            |          |
| 6             | .138              | 32  | .0997             | 36   | .1065    | 32   | .1160    | 27              | .1440    | 25         | .1495    |
|               |                   | 40  | .1073             | 33   | .1130    | 31   | .1200    |                 |          |            |          |
| 8             | .1640             | 32  | .1257             | 29   | .1360    | 27   | .1440    | 18              | .1695    | 16         | .1770    |
|               |                   | 36  | .1299             | 29   | .1360    | 26   | .1470    |                 |          |            |          |
| 10            | .1900             | 24  | .1389             | 25   | .1495    | 20   | .1610    | 9               | .1960    | 7          | .2010    |
|               |                   | 32  | .1517             | 21   | .1590    | 18   | .1695    |                 |          |            |          |
| 12            | .2160             | 24  | .1649             | 16   | .1770    | 12   | .1890    | 2               | .2210    | 1          | .2280    |
|               |                   | 28  | .1722             | 14   | .1820    | 10   | .1935    |                 |          |            |          |
|               |                   | 32  | .1777             | 13   | .1850    | 9  | .1960    |                 |          |            |          |
| 1/4           | .2500             | 20  | .1887             | 7  | .2010    | 7/32   | .2188    | F               | .2570    | H          | .2660    |
|               |                   | 28  | .2062             | 3  | .2130    | 1  | .2280    |                 |          |            |          |
|               |                   | 32  | .2117             | 7/32   | .2188    | 1  | .2280    |                 |          |            |          |

|       |       |    |       |       |       |       |       |        |        |        |        |
|-------|-------|----|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| 5/16  | .3125 | 18 | .2443 | F     | .2570 | J     | .2770 | P      | .3230  | Q      | .3320  |
|       |       | 24 | .2614 | I     | .2720 | 9/32  | .2812 |        |        |        |        |
|       |       | 32 | .2742 | 9/32  | .2812 | L     | .2900 |        |        |        |        |
| 3/8   | .3750 | 16 | .2983 | 5/16  | .3125 | Q     | .3320 | W      | .3860  | X      | .3970  |
|       |       | 24 | .3239 | Q     | .3320 | S     | .3480 |        |        |        |        |
|       |       | 32 | .3367 | 11/32 | .3438 | T     | .3580 |        |        |        |        |
| 7/16  | .4375 | 14 | .3499 | U     | .3680 | 25/64 | .3906 | 29/64  | .4531  | 15/32  | .4688  |
|       |       | 20 | .3762 | 25/64 | .3906 | 13/32 | .4062 |        |        |        |        |
|       |       | 28 | .3937 | Y     | .4040 | Z     | .4130 |        |        |        |        |
| 1/2   | .5000 | 13 | .4056 | 27/64 | .4219 | 29/64 | .4531 | 33/64  | .5156  | 17/32  | .5312  |
|       |       | 20 | .4387 | 29/64 | .4531 | 15/32 | .4688 |        |        |        |        |
|       |       | 28 | .4562 | 15/32 | .4688 | 15/32 | .4688 |        |        |        |        |
| 9/16  | .5625 | 12 | .4603 | 31/64 | .4844 | 33/64 | .5156 | 37/64  | .5781  | 19/32  | .5938  |
|       |       | 18 | .4943 | 33/64 | .5156 | 17/32 | .5312 |        |        |        |        |
|       |       | 24 | .5114 | 33/64 | .5156 | 17/32 | .5312 |        |        |        |        |
| 5/8   | .6250 | 11 | .5135 | 17/32 | .5312 | 9/16  | .5625 | 41/64  | .6406  | 21/32  | .6562  |
|       |       | 18 | .5568 | 37/64 | .5781 | 19/32 | .5938 |        |        |        |        |
|       |       | 24 | .5739 | 37/64 | .5781 | 19/32 | .5938 |        |        |        |        |
| 11/16 | .6875 | 24 | .6364 | 41/64 | .6406 | 21/32 | .6562 | 45/64  | .7031  | 23/32  | .7188  |
| 3/4   | .7500 | 10 | .6273 | 21/32 | .6562 | 11/16 | .6875 | 49/64  | .7656  | 25/32  | .7812  |
|       |       | 16 | .6733 | 11/16 | .6875 | 45/64 | .7031 |        |        |        |        |
|       |       | 20 | .6887 | 45/64 | .7031 | 23/32 | .7188 |        |        |        |        |
| 13/16 | .8125 | 20 | .7512 | 49/64 | .7656 | 25/32 | .7812 | 53/64  | .8281  | 27/32  | .8438  |
| 7/8   | .8750 | 9  | .7387 | 49/64 | .7656 | 51/64 | .7969 | 57/64  | .8906  | 29/32  | .9062  |
|       |       | 14 | .7874 | 13/16 | .8125 | 53/64 | .8281 |        |        |        |        |
|       |       | 20 | .8137 | 53/64 | .8281 | 27/32 | .8438 |        |        |        |        |
| 15/16 | .9375 | 20 | .8762 | 57/64 | .8906 | 29/32 | .9062 | 61/64  | .9531  | 31/32  | .9688  |
| 1     | 1.000 | 8  | .8466 | 7/8   | .8750 | 59/64 | .9219 | 1-1/64 | 1.0156 | 1-1/32 | 1.0313 |
|       |       | 12 | .8978 | 15/16 | .9375 | 61/64 | .9531 |        |        |        |        |
|       |       | 20 | .9387 | 61/64 | .9531 | 31/32 | .9688 |        |        |        |        |

| Socket Head Cap Screws |             |          |       | Flat Head Cap Screws |                   |
|------------------------|-------------|----------|-------|----------------------|-------------------|
| Hex                    | Counterbore |          |       | Hex                  | Countersink Depth |
|                        | Drill Size  | Dec. Eq. | Depth |                      |                   |
| 0.050                  | 1/8         | .125     | .0740 | 0.035                | .0440             |
| 1/16                   | 5/32        | .1562    | .0870 | 1/20                 | .0540             |
| 5/64                   | 3/16        | .1875    | .1020 | 1/20                 | .0640             |
| 5/64                   | 7/32        | .2188    | .1150 | 1/16                 | .0730             |
| 3/32                   | 7/32        | .2188    | .1300 | 1/16                 | .0830             |
| 3/32                   | 1/4         | .2500    | .1450 | 5/64                 | .0900             |
| 7/64                   | 9/32        | .2812    | .1580 | 5/64                 | .0970             |
| 9/64                   | 5/16        | .3125    | .1880 | 3/32                 | .1120             |
| 5/32                   | 3/8         | .3750    | .2180 | 1/8                  | .1270             |
| 5/32                   | 3/8         | .3750    | .2180 | 1/8                  | .1350             |
| 3/16                   | 7/16        | .4375    | .2780 | 5/32                 | .1610             |

|      |        |        |        |      |       |
|------|--------|--------|--------|------|-------|
| 1/4  | 17/32  | .5312  | .3460  | 3/16 | .1980 |
| 5/16 | 5/8    | .6250  | .4150  | 7/32 | .2340 |
| 3/8  | 23/32  | .7188  | .4830  | 1/4  | .2340 |
| 3/8  | 13/16  | .8125  | .5520  | 5/16 | .2510 |
| 1/2  | 29/32  | .9062  | .5940  |      |       |
| 1/2  | 1      | 1.000  | .6890  | 3/8  | .3240 |
|      |        |        |        |      |       |
| 5/8  | 1-3/16 | 1.1875 | .8280  | 1/2  | .3960 |
|      |        |        |        |      |       |
| 3/4  | 1-3/8  | 1.3750 | .9630  | 9/16 | .4680 |
|      |        |        |        |      |       |
| 3/4  | 1-5/8  | 1.6250 | 1.1000 | 5/8  | .5400 |