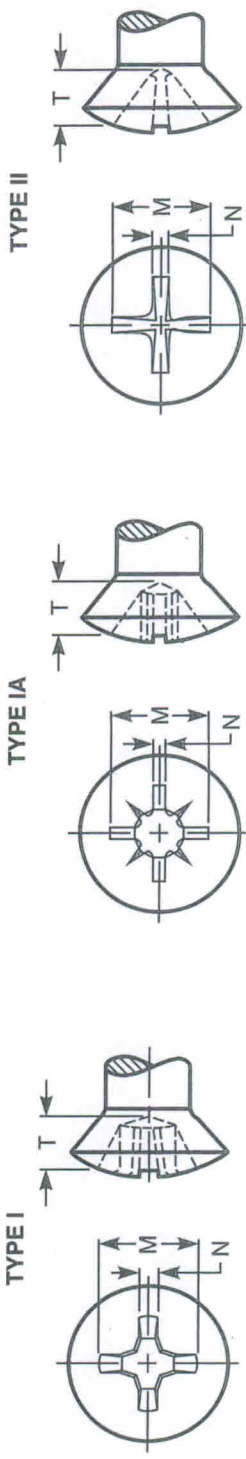


# CROSS RECESSED OVAL COUNTERSUNK HEAD TAPPING SCREWS



This type of recess has a large center opening, tapered wings, and blunt bottom, with all edges relieved or rounded.

This type of recess has a large center opening, wide straight wings, and blunt bottom, with all edges relieved or rounded.

This type of recess consists of two intersecting slots with parallel sides converging to a slightly truncated apex at bottom of recess.

Table 17 Dimensions of Cross Recessed Oval Countersunk Head Tapping Screws

| Nominal Size or Basic Screw Diameter | Applicable to Screw Types | Type I |       |       |     |       |       |            |       |              |     | Type IA     |       |            |       |              |     |     |     |     |     | Type II    |     |              |     |             |     |            |     |              |     |                                 |  |  |  |  |
|--------------------------------------|---------------------------|--------|-------|-------|-----|-------|-------|------------|-------|--------------|-----|-------------|-------|------------|-------|--------------|-----|-----|-----|-----|-----|------------|-----|--------------|-----|-------------|-----|------------|-----|--------------|-----|---------------------------------|--|--|--|--|
|                                      |                           | M      |       | T     |     | N     |       | Recess Dia |       | Recess Depth |     | Driver Size |       | Recess Dia |       | Recess Depth |     | N   |     | T   |     | Recess Dia |     | Recess Depth |     | Driver Size |     | Recess Dia |     | Recess Depth |     | Recess Penetration Gaging Depth |  |  |  |  |
|                                      |                           | Ref    | Min   | Ref   | Min | Ref   | Min   | Ref        | Min   | Ref          | Min | Ref         | Min   | Ref        | Min   | Ref          | Min | Ref | Min | Ref | Min | Ref        | Min | Ref          | Min | Ref         | Min | Ref        | Min | Ref          | Min | Ref                             |  |  |  |  |
| 0                                    | ◆◆                        | 0.068  | 0.036 | 0.014 | 0   | 0.038 | 0.020 | 0.068      | 0.040 | 0.018        | 0   | 0.042       | 0.024 | 0.078      | 0.036 | 0.021        | (6) | (6) |     |     |     |            |     |              |     |             |     |            |     |              |     |                                 |  |  |  |  |
| 1                                    | ◆◆                        | 0.0730 | 0.039 | 0.015 | 0   | 0.041 | 0.023 | 0.070      | 0.043 | 0.018        | 0   | 0.043       | 0.027 | 0.092      | 0.048 | 0.024        | (6) | (6) |     |     |     |            |     |              |     |             |     |            |     |              |     |                                 |  |  |  |  |
| 2                                    | ◆◆                        | 0.0860 | 0.060 | 0.018 | 1   | 0.062 | 0.045 | 0.106      | 0.065 | 0.029        | 1   | 0.062       | 0.046 | 0.114      | 0.060 | 0.027        |     |     |     |     |     |            |     |              |     |             |     |            |     |              |     |                                 |  |  |  |  |
| 3                                    | ◆◆                        | 0.0990 | 0.072 | 0.019 | 1   | 0.074 | 0.057 | 0.118      | 0.077 | 0.030        | 1   | 0.074       | 0.058 | 0.133      | 0.072 | 0.030        |     |     |     |     |     |            |     |              |     |             |     |            |     |              |     |                                 |  |  |  |  |
| 4                                    | ◆◆                        | 0.1120 | 0.086 | 0.019 | 1   | 0.087 | 0.070 | 0.130      | 0.089 | 0.030        | 1   | 0.086       | 0.070 | 0.151      | 0.082 | 0.032        |     |     |     |     |     |            |     |              |     |             |     |            |     |              |     |                                 |  |  |  |  |
| 5                                    | ◆◆                        | 0.1250 | 0.152 | 0.028 | 2   | 0.074 | 0.050 | 0.152      | 0.080 | 0.041        | 2   | 0.074       | 0.056 | 0.169      | 0.094 | 0.035        |     |     |     |     |     |            |     |              |     |             |     |            |     |              |     |                                 |  |  |  |  |
| 6                                    | ◆◆                        | 0.1380 | 0.172 | 0.030 | 2   | 0.094 | 0.069 | 0.172      | 0.100 | 0.041        | 2   | 0.093       | 0.075 | 0.188      | 0.106 | 0.038        |     |     |     |     |     |            |     |              |     |             |     |            |     |              |     |                                 |  |  |  |  |
| 7                                    | ◆◆                        | 0.1510 | 0.176 | 0.031 | 2   | 0.100 | 0.075 | 0.176      | 0.105 | 0.041        | 2   | 0.099       | 0.081 | 0.206      | 0.118 | 0.040        |     |     |     |     |     |            |     |              |     |             |     |            |     |              |     |                                 |  |  |  |  |
| 8                                    | ◆◆                        | 0.1640 | 0.107 | 0.030 | 2   | 0.108 | 0.084 | 0.186      | 0.115 | 0.041        | 2   | 0.108       | 0.090 | 0.224      | 0.124 | 0.043        |     |     |     |     |     |            |     |              |     |             |     |            |     |              |     |                                 |  |  |  |  |
| 10                                   | ◆◆                        | 0.1900 | 0.125 | 0.033 | 2   | 0.126 | 0.102 | 0.202      | 0.132 | 0.041        | 2   | 0.125       | 0.107 | 0.260      | 0.148 | 0.048        |     |     |     |     |     |            |     |              |     |             |     |            |     |              |     |                                 |  |  |  |  |
| 12                                   | ◆◆                        | 0.2160 | 0.140 | 0.038 | 3   | 0.135 | 0.111 | 0.264      | 0.148 | 0.056        | 3   | 0.135       | 0.117 | 0.297      | 0.172 | 0.054        |     |     |     |     |     |            |     |              |     |             |     |            |     |              |     |                                 |  |  |  |  |
| 14                                   | ◆◆                        | 0.2420 | 0.152 | 0.039 | 3   | 0.156 | 0.131 | 0.282      | 0.166 | 0.057        | 3   | 0.153       | 0.135 | 0.334      | 0.188 | 0.059        |     |     |     |     |     |            |     |              |     |             |     |            |     |              |     |                                 |  |  |  |  |
| 1/4                                  | ◆◆                        | 0.2500 | 0.284 | 0.040 | 3   | 0.156 | 0.131 | 0.282      | 0.166 | 0.057        | 3   | 0.155       | 0.137 | 0.344      | 0.195 | 0.061        |     |     |     |     |     |            |     |              |     |             |     |            |     |              |     |                                 |  |  |  |  |
| 16                                   | ◆◆                        | 0.2680 | 0.326 | 0.046 | 3   | 0.197 | 0.172 | 0.326      | 0.210 | 0.057        | 3   | 0.197       | 0.179 | 0.370      | 0.211 | 0.064        |     |     |     |     |     |            |     |              |     |             |     |            |     |              |     |                                 |  |  |  |  |
| 18                                   | ◆◆                        | 0.2940 | 0.374 | 0.064 | 4   | 0.206 | 0.182 | 0.374      | 0.223 | 0.085        | 4   | 0.205       | 0.187 | 0.406      | 0.235 | 0.070        |     |     |     |     |     |            |     |              |     |             |     |            |     |              |     |                                 |  |  |  |  |
| 5/16                                 | ◆◆                        | 0.3125 | 0.384 | 0.065 | 4   | 0.218 | 0.194 | 0.384      | 0.232 | 0.086        | 4   | 0.215       | 0.197 | 0.432      | 0.252 | 0.074        |     |     |     |     |     |            |     |              |     |             |     |            |     |              |     |                                 |  |  |  |  |
| 20                                   | ◆◆                        | 0.3200 | 0.394 | 0.066 | 4   | 0.225 | 0.201 | 0.394      | 0.242 | 0.086        | 4   | 0.225       | 0.207 | 0.442      | 0.258 | 0.075        |     |     |     |     |     |            |     |              |     |             |     |            |     |              |     |                                 |  |  |  |  |
| 24                                   | ◆◆                        | 0.3720 | 0.430 | 0.072 | 4   | 0.262 | 0.238 | 0.430      | 0.279 | 0.087        | 4   | 0.261       | 0.243 | 0.515      | 0.306 | 0.086        |     |     |     |     |     |            |     |              |     |             |     |            |     |              |     |                                 |  |  |  |  |
| 3/8                                  | ◆◆                        | 0.3750 | 0.404 | 0.068 | 4   | 0.237 | 0.213 | 0.404      | 0.253 | 0.086        | 4   | 0.235       | 0.217 | 0.509      | 0.302 | 0.086        |     |     |     |     |     |            |     |              |     |             |     |            |     |              |     |                                 |  |  |  |  |
| 7/16                                 | ◆◆                        | 0.4375 | 0.416 | 0.070 | 4   | 0.249 | 0.225 | 0.416      | 0.265 | 0.086        | 4   | 0.247       | 0.229 | 0.554      | 0.332 | 0.092        |     |     |     |     |     |            |     |              |     |             |     |            |     |              |     |                                 |  |  |  |  |
| 1/2                                  | ◆◆                        | 0.5000 | 0.430 | 0.071 | 4   | 0.263 | 0.239 | 0.430      | 0.280 | 0.086        | 4   | 0.262       | 0.244 | 0.593      | 0.358 | 0.098        |     |     |     |     |     |            |     |              |     |             |     |            |     |              |     |                                 |  |  |  |  |
| See Notes                            | 3                         |        |       |       |     |       |       |            |       |              |     |             |       |            |       |              |     |     |     |     |     |            |     |              |     |             |     |            |     |              |     |                                 |  |  |  |  |

**NOTES:**

- Applicable to screw types as indicated by code symbols below. See referenced tables for thread and point dimensions.
  - Type AB thread forming, see Table 6, page H-26.
  - Type A thread forming, except for short lengths, see Appendix E, page H-64.
  - Types B and BP thread forming, see Table 7; and Types BF and BT thread cutting, see Table 8, pages H-27 and H-28.
  - Type C thread forming, see Appendix V; and Types D, F, G, and T thread cutting, see Table 9, page H-29.
- Head dimensions not shown are the same as those of slotted heads, Table 16, page H-36.
- Where specifying nominal size in decimals, zeros preceding decimal and in the fourth decimal place shall be omitted.
- For penetration gaging, see Appendix III, page H-52.
- For wobble gaging, see Appendix IV, page H-55.
- Screw sizes No. 0 and No. 1 are impractical to gage.
- For additional requirements, refer to Para. 2, page H-18.