

SOCKET HEAD SHOULDER SCREWS

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| Nominal Size or Basic Screw Diameter | Shoulder Diameter | | Head Diameter | | Head Height | | Head Side Height | Hexagon Socket Size | Key Engagement | Head Fillet Extension Above D | | Head Fillet Radius |
|--------------------------------------|-------------------|--------|---------------|-------|-------------|-------|------------------|---------------------|----------------|-------------------------------|-------|--------------------|
| | Max | Min | Max | Min | Max | Min | Min | Nom | Min | Max | Min | |
| 1/4 | 0.250 | 0.2480 | 0.2460 | 0.375 | 0.357 | 0.188 | 0.177 | 0.157 | 1/8 | 0.125 | 0.094 | 0.014 |
| 5/16 | 0.312 | 0.3105 | 0.3085 | 0.438 | 0.419 | 0.219 | 0.209 | 0.183 | 5/32 | 0.156 | 0.117 | 0.017 |
| 3/8 | 0.375 | 0.3730 | 0.3710 | 0.562 | 0.543 | 0.250 | 0.240 | 0.209 | 3/16 | 0.188 | 0.141 | 0.020 |
| 1/2 | 0.500 | 0.4980 | 0.4960 | 0.750 | 0.729 | 0.312 | 0.302 | 0.262 | 1/4 | 0.250 | 0.188 | 0.026 |
| 5/8 | 0.625 | 0.6230 | 0.6210 | 0.875 | 0.853 | 0.375 | 0.365 | 0.315 | 5/16 | 0.312 | 0.234 | 0.032 |
| 3/4 | 0.750 | 0.7480 | 0.7460 | 1.000 | 0.977 | 0.500 | 0.490 | 0.421 | 3/8 | 0.375 | 0.281 | 0.039 |
| 1 | 1.000 | 0.9980 | 0.9960 | 1.312 | 1.287 | 0.625 | 0.610 | 0.527 | 1/2 | 0.500 | 0.375 | 0.050 |
| 1 1/4 | 1.250 | 1.2480 | 1.2460 | 1.750 | 1.723 | 0.750 | 0.735 | 0.633 | 5/8 | 0.625 | 0.469 | 0.060 |
| 1 1/2 | 1.500 | 1.4980 | 1.4960 | 2.125 | 2.095 | 1.000 | 0.980 | 0.842 | 7/8 | 0.875 | 0.656 | 0.070 |
| 1 3/4 | 1.750 | 1.7480 | 1.7460 | 2.375 | 2.345 | 1.125 | 1.105 | 0.948 | 1 | 1.000 | 0.750 | 0.080 |
| 2 | 2.000 | 1.9980 | 1.9960 | 2.750 | 2.720 | 1.250 | 1.230 | 1.054 | 1 1/4 | 1.250 | 0.937 | 0.090 |

| Nominal Size or Basic Screw Diameter | K Shoulder Neck Diameter | F Shoulder Neck Width | D ₁ Nominal Thread Size or Basic Thread Diameter | Threads per in. | G Thread Neck Diameter | I Thread Neck Width | N | | E Thread Length |
|--------------------------------------|-----------------------------|--------------------------|--|-----------------|---------------------------|------------------------|-------|-------|--------------------|
| | Shoulder Neck Diameter Min | Shoulder Neck Width Max | Max | Min | Max | Min | Max | Min | Basic |
| 1/4 | 0.250 | 0.227 | 0.093 | 10 | 0.1900 | 24 | 0.142 | 0.133 | 0.083 |
| 5/16 | 0.312 | 0.289 | 0.093 | 1/4 | 0.2500 | 20 | 0.193 | 0.182 | 0.100 |
| 3/8 | 0.375 | 0.352 | 0.093 | 5/16 | 0.3125 | 18 | 0.249 | 0.237 | 0.111 |
| 1/2 | 0.500 | 0.477 | 0.093 | 3/8 | 0.3750 | 16 | 0.304 | 0.291 | 0.125 |
| 5/8 | 0.625 | 0.602 | 0.093 | 1/2 | 0.5000 | 13 | 0.414 | 0.397 | 0.154 |
| 3/4 | 0.750 | 0.727 | 0.093 | 5/8 | 0.6250 | 11 | 0.521 | 0.502 | 0.182 |
| 1 | 1.000 | 0.977 | 0.125 | 3/4 | 0.7500 | 10 | 0.638 | 0.616 | 0.200 |
| 1 1/4 | 1.250 | 1.227 | 0.125 | 7/8 | 0.8750 | 9 | 0.750 | 0.726 | 0.222 |
| 1 1/2 | 1.500 | 1.478 | 0.125 | 1 1/8 | 1.1250 | 7 | 0.964 | 0.934 | 0.286 |
| 1 3/4 | 1.750 | 1.728 | 0.125 | 1 1/4 | 1.2500 | 7 | 1.089 | 1.059 | 0.286 |
| 2 | 2.000 | 1.978 | 0.125 | 1 1/2 | 1.5000 | 6 | 1.307 | 1.277 | 0.333 |