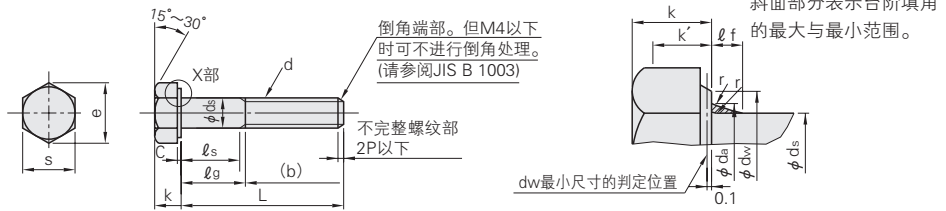


【技術参数】 六角螺栓 节选自JIS B 1180(1999)

1. 六角螺栓 (零件等级A) 的形状・尺寸



单位: mm

| 螺纹的公称尺寸 d | 粗牙螺纹第 I 栏 | M2 | M3 | M4 | M5 | M6 | M8 | M10 | M12 | — | M16 | M20 | M24 | | | | | | | | | | | | | | | | | |
|----------------|-----------------|-------|---------------------------------|-------|----------------|-------|----------------|----------|----------------|---------|----------------|---------|----------------|-------|----------------|----|----------------|----|----------------|-----|----------------|------|----------------|----|----------------|----|----------------|----|----------------|----|
| | 第 II 栏 | — | — | — | — | — | — | — | M14 | — | — | — | — | | | | | | | | | | | | | | | | | |
| b(参考) | 粗牙螺纹 P | 0.4 | 0.5 | 0.7 | 0.8 | 1 | 1.25 | 1.5 | 1.75 | 2 | 2 | 2.5 | 3 | | | | | | | | | | | | | | | | | |
| | 细牙螺纹第 I 栏 | — | — | — | — | — | — | M8×1 | M10×1 | M12×1.5 | — | M16×1.5 | M20×1.5 | M24×2 | | | | | | | | | | | | | | | | |
| c | 第 II 栏 | — | — | — | — | — | — | M10×1.25 | M12×1.25 | M14×1.5 | — | M20×2 | — | | | | | | | | | | | | | | | | | |
| | L ≤ 125mm | 10 | 12 | 14 | 16 | 18 | 22 | 26 | 30 | 34 | 38 | 46 | 54 | | | | | | | | | | | | | | | | | |
| d _a | 125 < L ≤ 150mm | — | — | — | — | — | — | — | — | 40 | 44 | 52 | 60 | | | | | | | | | | | | | | | | | |
| | 最小 | 0.1 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.2 | 0.2 | 0.2 | | | | | | | | | | | | | | | | | |
| d _s | 最大 | 0.25 | 0.4 | 0.4 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 | 0.8 | | | | | | | | | | | | | | | | | |
| | 基准尺寸 = 最大 | 2 | 3 | 4 | 5 | 6 | 8 | 10 | 12 | 14 | 16 | 20 | 24 | | | | | | | | | | | | | | | | | |
| d _w | 最小 | 1.86 | 2.86 | 3.82 | 4.82 | 5.82 | 7.78 | 9.78 | 11.73 | 13.73 | 15.73 | 19.67 | 23.67 | | | | | | | | | | | | | | | | | |
| | 最大 | 3.07 | 4.57 | 5.88 | 6.88 | 8.88 | 11.63 | 14.63 | 16.63 | *19.64 | 22.49 | 28.19 | 33.61 | | | | | | | | | | | | | | | | | |
| e | 最小 | 4.32 | 6.01 | 7.66 | 8.79 | 11.05 | 14.38 | 17.77 | 20.03 | 23.36 | 26.75 | 33.53 | 39.98 | | | | | | | | | | | | | | | | | |
| | 最大 | 0.8 | 1 | 1.2 | 1.2 | 1.4 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | | | | | | | | | | | | | | | | | |
| k | 基准尺寸 = 最大 | 1.4 | 2 | 2.8 | 3.5 | 4 | 5.3 | 6.4 | 7.5 | 8.8 | 10 | 12.5 | 15 | | | | | | | | | | | | | | | | | |
| | 最小 | 1.275 | 1.875 | 2.675 | 3.35 | 3.85 | 5.15 | 6.22 | 7.32 | 8.62 | 9.82 | 12.285 | 14.785 | | | | | | | | | | | | | | | | | |
| k' | 最大 | 1.525 | 2.125 | 2.925 | 3.65 | 4.15 | 5.45 | 6.58 | 7.68 | 8.98 | 10.18 | 12.715 | 15.215 | | | | | | | | | | | | | | | | | |
| | 最小 | 0.89 | 1.31 | 1.87 | 2.35 | 2.7 | 3.61 | 4.35 | 5.12 | 6.03 | 6.87 | 8.6 | 10.35 | | | | | | | | | | | | | | | | | |
| r | 最小 | 0.1 | 0.1 | 0.2 | 0.2 | 0.25 | 0.4 | 0.4 | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 | | | | | | | | | | | | | | | | | |
| | 基准尺寸 = 最大 | 4 | 5.5 | 7 | 8 | 10 | 13 | 16 | 18 | 21 | 24 | 30 | 36 | | | | | | | | | | | | | | | | | |
| s | 最小 | 3.82 | 5.32 | 6.78 | 7.78 | 9.78 | 12.73 | 15.73 | 17.73 | 20.67 | 23.67 | 29.67 | 35.38 | | | | | | | | | | | | | | | | | |
| | 螺栓长度 L | | l _s 及 l _g | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 公称长度 (基准尺寸) | 最小 | 最大 | l _s | | l _g | | l _s | | l _g | | l _s | | l _g | | l _s | | l _g | | l _s | | l _g | | l _s | | l _g | | l _s | | l _g | |
| | | | 最小 | 最大 | 最小 | 最大 | 最小 | 最大 | 最小 | 最大 | 最小 | 最大 | 最小 | 最大 | 最小 | 最大 | 最小 | 最大 | 最小 | 最大 | 最小 | 最大 | 最小 | 最大 | 最小 | 最大 | 最小 | 最大 | 最小 | 最大 |
| 16 | 15.65 | 16.35 | 4 | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | 19.58 | 20.42 | 8 | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | 24.58 | 25.42 | | | 10.5 | 13 | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | 29.58 | 30.42 | | | 15.5 | 18 | | | | | | | | | | | | | | | | | | | | | | | | |
| 35 | 34.5 | 35.5 | | | | | 17.5 | 21 | 15 | 19 | 12 | 17 | | | | | | | | | | | | | | | | | | |
| 40 | 39.5 | 40.5 | | | | | 22.5 | 26 | 20 | 24 | 17 | 22 | 11.75 | 18 | | | | | | | | | | | | | | | | |
| 45 | 44.5 | 45.5 | | | | | | | 25 | 29 | 22 | 27 | 16.75 | 23 | 11.5 | 19 | | | | | | | | | | | | | | |
| 50 | 49.5 | 50.5 | | | | | | | 30 | 34 | 27 | 32 | 21.75 | 28 | 16.5 | 24 | 11.25 | 20 | | | | | | | | | | | | |
| 55 | 54.4 | 55.6 | | | | | | | | | 32 | 37 | 26.75 | 33 | 21.5 | 29 | 16.25 | 25 | | | | | | | | | | | | |
| 60 | 59.4 | 60.6 | | | | | | | | | 37 | 42 | 31.75 | 38 | 26.5 | 34 | 21.25 | 30 | 16 | 26 | | | | | | | | | | |
| 65 | 64.4 | 65.6 | | | | | | | | | | | 36.75 | 43 | 31.5 | 39 | 26.25 | 35 | 21 | 31 | 17 | 27 | | | | | | | | |
| 70 | 69.4 | 70.6 | | | | | | | | | | | 41.75 | 48 | 36.5 | 44 | 31.25 | 40 | 26 | 36 | 22 | 32 | | | | | | | | |
| 80 | 79.4 | 80.6 | | | | | | | | | | | 51.75 | 58 | 46.5 | 54 | 41.25 | 50 | 36 | 46 | 32 | 42 | 21.5 | 34 | | | | | | |
| 90 | 89.3 | 90.7 | | | | | | | | | | | | | 56.5 | 64 | 51.25 | 60 | 46 | 56 | 42 | 52 | 31.5 | 44 | 21 | 36 | | | | |
| 100 | 99.3 | 100.7 | | | | | | | | | | | | | 66.5 | 74 | 61.25 | 70 | 56 | 66 | 52 | 62 | 41.5 | 54 | 31 | 46 | | | | |
| 110 | 109.3 | 110.7 | | | | | | | | | | | | | | | 71.25 | 80 | 66 | 76 | 62 | 72 | 51.5 | 64 | 41 | 56 | | | | |
| 120 | 119.3 | 120.7 | | | | | | | | | | | | | | | 81.25 | 90 | 76 | 86 | 72 | 82 | 61.5 | 74 | 51 | 66 | | | | |
| 130 | 129.2 | 130.8 | | | | | | | | | | | | | | | | 80 | 90 | 76 | 86 | 65.5 | 78 | 55 | 70 | | | | | |
| 140 | 139.2 | 140.8 | | | | | | | | | | | | | | | | 90 | 100 | 86 | 96 | 75.5 | 88 | 65 | 80 | | | | | |
| 150 | 149.2 | 150.8 | | | | | | | | | | | | | | | | | 96 | 106 | 85.5 | 98 | 75 | 90 | | | | | | |

备注 1. 螺纹的公称尺寸以第 I 栏为优先。另外，螺纹公称尺寸的表示方法依据 JIS B 0123。

- 相对于螺纹公称尺寸，推荐的公称长度(L)位于粗线框内。
- 比粗线框内的最大公称长度更长的螺栓螺纹部(b)的公差依据交接当事人之间的协定，但也可依据 JIS B 1021。
- l_g最大与 l_s最小依据下述说明。l_g最大 = 公称长度(L) - b；l_s最小 = l_g最大 - 5P(P = 粗牙螺距)
- 本表规定的 d_a与 r 值依据 JIS B 1005。
- 螺纹端部形状中的“倒角端部”与“粗加工部”依据 JIS B 1003。
- 表中带 * 符号的数值为相应国际标准错误值的修正值。

※现在流通的六角螺栓、六角螺帽 M10、M12 的对边 S 也有依据旧 JIS 标准的规格。