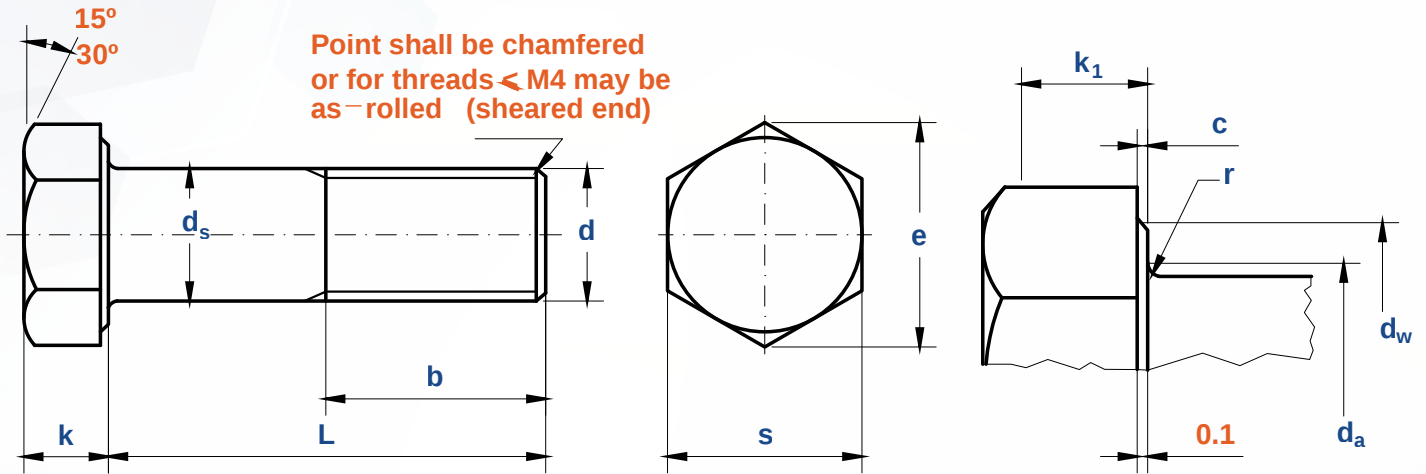




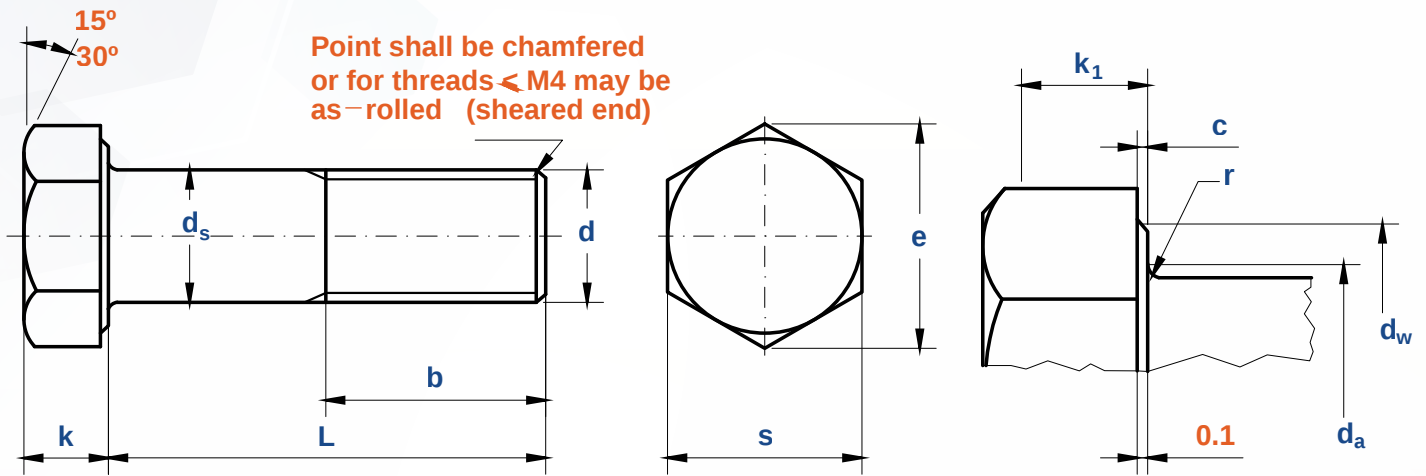
| Thread Size<br>d |                  |           | M1.6 | M2   | M2.5 | M3   | (M3.5) | M4   | M5   | M6    | (M7)  | M8    | M10   | M12   |
|------------------|------------------|-----------|------|------|------|------|--------|------|------|-------|-------|-------|-------|-------|
| P                | Thread Pitch     |           | 0.35 | 0.4  | 0.45 | 0.5  | 0.6    | 0.7  | 0.8  | 1     | 1     | 1.25  | 1.5   | 1.75  |
| b                | Ref.             | L≤125     | 9    | 10   | 11   | 12   | 13     | 14   | 16   | 18    | 20    | 22    | 26    | 30    |
|                  |                  | 125<L≤200 | -    | -    | -    | -    | -      | -    | 22   | 24    | 26    | 28    | 32    | 36    |
|                  |                  | L> 200    | -    | -    | -    | -    | -      | -    | -    | -     | -     | -     | 45    | 49    |
| c                | min              |           | 0.1  | 0.1  | 0.1  | 0.15 | 0.15   | 0.15 | 0.15 | 0.15  | 0.15  | 0.15  | 0.15  | 0.15  |
|                  | max              |           | 0.25 | 0.25 | 0.25 | 0.4  | 0.4    | 0.4  | 0.5  | 0.5   | 0.5   | 0.6   | 0.6   | 0.6   |
| d <sub>a</sub>   | max              |           | 2    | 2.6  | 3.1  | 3.6  | 4.1    | 4.7  | 5.7  | 6.8   | 7.8   | 9.2   | 11.2  | 13.7  |
| d <sub>s</sub>   | max=nominal size |           | 1.6  | 2    | 2.5  | 3    | 3.5    | 4    | 5    | 6     | 7     | 8     | 10    | 12    |
|                  | min              | Grade A   | 1.46 | 1.86 | 2.36 | 2.86 | 3.32   | 3.82 | 4.82 | 5.82  | 6.78  | 7.78  | 9.78  | 11.73 |
|                  |                  | Grade B   | -    | -    | -    | -    | -      | -    | -    | -     | -     | -     | -     | -     |
| d <sub>w</sub>   | min              | Grade A   | 2.4  | 3.2  | 4.1  | 4.6  | 5.1    | 5.9  | 6.9  | 8.9   | 9.8   | 11.6  | 15.6  | 17.4  |
|                  |                  | Grade B   | -    | -    | -    | -    | -      | -    | -    | -     | -     | -     | -     | -     |
| e                | min              | Grade A   | 3.41 | 4.32 | 5.45 | 6.01 | 6.58   | 7.66 | 8.79 | 11.05 | 12.12 | 14.38 | 18.9  | 21.1  |
|                  |                  | Grade B   | -    | -    | -    | -    | -      | -    | -    | -     | -     | -     | -     | -     |
| k                | Nominal Size     |           | 1.1  | 1.4  | 1.7  | 2    | 2.4    | 2.8  | 3.5  | 4     | 4.8   | 5.3   | 6.4   | 7.5   |
|                  | Grade A          | min       | 0.98 | 1.28 | 1.58 | 1.88 | 2.28   | 2.68 | 3.35 | 3.85  | 4.65  | 5.15  | 6.22  | 7.32  |
|                  |                  | max       | 1.22 | 1.52 | 1.82 | 2.12 | 2.52   | 2.92 | 3.65 | 4.15  | 4.95  | 5.45  | 6.58  | 7.68  |
|                  | Grade B          | min       | -    | -    | -    | -    | -      | -    | -    | -     | -     | -     | -     | -     |
|                  |                  | max       | -    | -    | -    | -    | -      | -    | -    | -     | -     | -     | -     | -     |
| k <sub>1</sub>   | min              |           | 0.7  | 0.9  | 1.1  | 1.3  | 1.6    | 1.9  | 2.28 | 2.63  | 3.19  | 3.54  | 4.28  | 5.05  |
| r                | min              |           | 0.1  | 0.1  | 0.1  | 0.1  | 0.1    | 0.2  | 0.2  | 0.25  | 0.25  | 0.4   | 0.4   | 0.6   |
| s                | max=nominal size |           | 3.2  | 4    | 5    | 5.5  | 6      | 7    | 8    | 10    | 11    | 13    | 17    | 19    |
|                  | min              | Grade A   | 3.02 | 3.82 | 4.82 | 5.32 | 5.82   | 6.78 | 7.78 | 9.78  | 10.73 | 12.73 | 16.73 | 18.67 |
|                  |                  | Grade B   | -    | -    | -    | -    | -      | -    | -    | -     | -     | -     | -     | -     |

① Material:

a) Steel, Property class: 5.6, 8.8, 10.9 according to DIN ISO 898-1

b) Stainless steel, Property class:  $\leq M20$ : A2-70, A4-70 ;  $> M20$ : A2-50, A4-50 ; C3, C4 according to DIN 267-11

c) Non-ferrous metal according to DIN 267-18



| Thread Size<br>d     |                  |                    | (M14) | M16   | (M18) | M20   | (M22) | M24   | (M27) | M30   | (M33) | M36   | (M39) |
|----------------------|------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>P</b>             | Thread Pitch     |                    | 2     | 2     | 2.5   | 2.5   | 2.5   | 3     | 3     | 3.5   | 3.5   | 4     | 4     |
| <b>b</b>             | Ref.             | $L \leq 125$       | 34    | 38    | 42    | 46    | 50    | 54    | 60    | 66    | 72    | 78    | 84    |
|                      |                  | $125 < L \leq 200$ | 40    | 44    | 48    | 52    | 56    | 60    | 66    | 72    | 78    | 84    | 90    |
|                      |                  | $L > 200$          | 53    | 57    | 61    | 65    | 69    | 73    | 79    | 85    | 91    | 97    | 103   |
| <b>c</b>             | min              |                    | 0.15  | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.3   |
|                      | max              |                    | 0.6   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 1     |
| <b>d<sub>a</sub></b> | max              |                    | 15.7  | 17.7  | 20.2  | 22.4  | 24.4  | 26.4  | 30.4  | 33.4  | 36.4  | 39.4  | 42.4  |
| <b>d<sub>s</sub></b> | max=nominal size |                    | 14    | 16    | 18    | 20    | 22    | 24    | 27    | 30    | 33    | 36    | 39    |
|                      | min              | Grade A            | 13.73 | 15.73 | 17.73 | 19.67 | 21.67 | 23.67 | -     | -     | -     | -     | -     |
|                      |                  | Grade B            | -     | 15.57 | 17.57 | 19.48 | 21.48 | 23.48 | 26.48 | 29.48 | 32.38 | 35.38 | 38.38 |
| <b>d<sub>w</sub></b> | min              | Grade A            | 20.5  | 22.5  | 25.3  | 28.2  | 30    | 33.6  | -     | -     | -     | -     | -     |
|                      |                  | Grade B            | -     | 22    | 24.8  | 27.7  | 29.5  | 33.2  | 38    | 42.7  | 46.6  | 51.1  | 55.9  |
| <b>e</b>             | min              | Grade A            | 24.49 | 26.75 | 30.14 | 33.53 | 35.72 | 39.98 | -     | -     | -     | -     | -     |
|                      |                  | Grade B            | -     | 26.17 | 29.56 | 32.95 | 35.03 | 39.55 | 45.2  | 50.85 | 55.37 | 60.79 | 66.44 |
| <b>k</b>             | Nominal Size     |                    | 8.8   | 10    | 11.5  | 12.5  | 14    | 15    | 17    | 18.7  | 21    | 22.5  | 25    |
|                      | Grade A          | min                | 8.62  | 9.82  | 11.28 | 12.28 | 13.78 | 14.78 | -     | -     | -     | -     | -     |
|                      |                  | max                | 8.98  | 10.18 | 11.72 | 12.72 | 14.22 | 15.22 | -     | -     | -     | -     | -     |
|                      | Grade B          | min                | -     | 9.71  | 11.15 | 12.15 | 13.65 | 14.65 | 16.65 | 18.28 | 20.58 | 22.08 | 24.58 |
|                      |                  | max                | -     | 10.29 | 11.85 | 12.85 | 14.35 | 15.35 | 17.35 | 19.12 | 21.42 | 22.92 | 25.42 |
| <b>k<sub>1</sub></b> | min              |                    | 5.96  | 6.8   | 7.8   | 8.5   | 9.6   | 10.3  | 11.7  | 12.8  | 14.4  | 15.5  | 17.2  |
| <b>r</b>             | min              |                    | 0.6   | 0.6   | 0.6   | 0.8   | 0.8   | 0.8   | 1     | 1     | 1     | 1     | 1     |
| <b>s</b>             | max=nominal size |                    | 22    | 24    | 27    | 30    | 32    | 36    | 41    | 46    | 50    | 55    | 60    |
|                      | min              | Grade A            | 21.67 | 23.67 | 26.67 | 29.67 | 31.61 | 35.38 | -     | -     | -     | -     | -     |
|                      |                  | Grade B            | -     | 23.16 | 26.16 | 29.16 | 31    | 35    | 40    | 45    | 49    | 53.8  | 58.8  |

①. Material:

a) Steel, Property class: 5, 6, 8, 8, 10, 9 according to DIN ISO 898-1

b) Stainless steel, Property class:  $\leq M20$ : A2-70, A4-70 ;  $> M20$ : A2-50, A4-50 ; C3, C4 according to DIN 267-11

c) Non-ferrous metal according to DIN 267-18