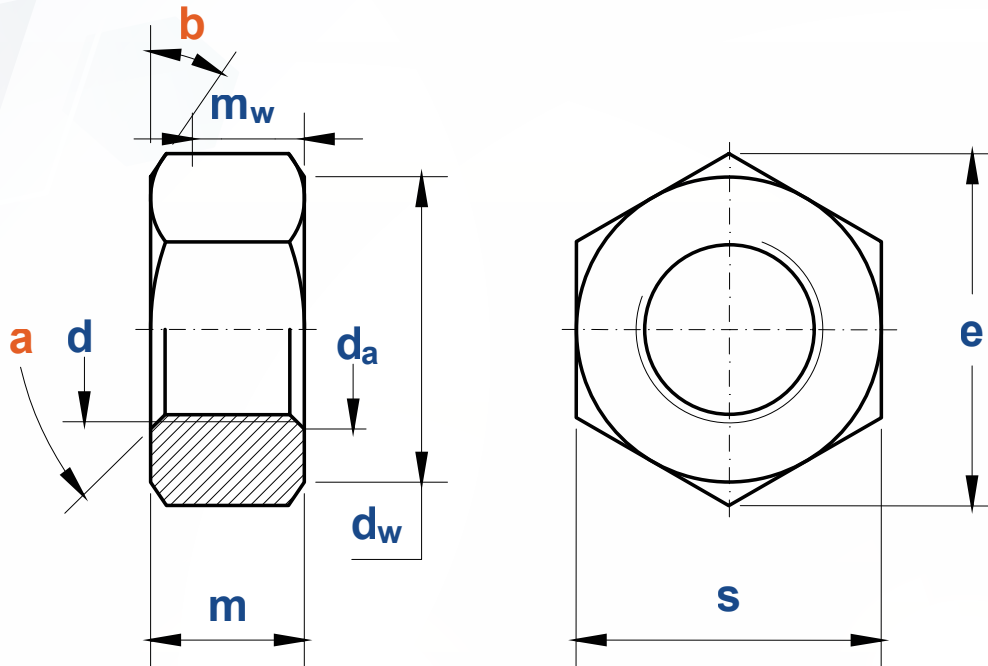




$a: 110^\circ \sim 130^\circ$   
 $b: 15^\circ \sim 30^\circ$

| Thread Size<br>d |                  | M12   | M16   | M20   | M22   | M24   | M27   | M30   | M36   |
|------------------|------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| P                | Pitch            | 1.75  | 2     | 2.5   | 2.5   | 3     | 3     | 3.5   | 4     |
| $d_a$            | max              | 13    | 17.3  | 21.6  | 23.7  | 25.9  | 29.1  | 32.4  | 38.9  |
|                  | min              | 12    | 16    | 20    | 22    | 24    | 27    | 30    | 36    |
| $d_w^{(1)}$      | min              | 20.1  | 24.9  | 29.5  | 33.3  | 38    | 42.8  | 46.6  | 55.9  |
| $e$              | min              | 23.91 | 29.56 | 35.03 | 39.55 | 45.2  | 50.85 | 55.37 | 66.44 |
| $m$              | max=nominal size | 10    | 13    | 16    | 18    | 20    | 22    | 24    | 29    |
|                  | min              | 9.64  | 12.3  | 14.9  | 16.9  | 18.7  | 20.7  | 22.7  | 27.7  |
| $m_w$            | min              | 7.71  | 9.84  | 11.92 | 13.52 | 14.96 | 16.56 | 18.16 | 22.16 |
| $s$              | max              | 22    | 27    | 32    | 36    | 41    | 46    | 50    | 60    |
|                  | min              | 21.16 | 26.16 | 31    | 35    | 40    | 45    | 49    | 58.8  |

①,  $d_w$  (max) =  $s$  (actual.)

②, For hot-dip galvanized nuts, the dimensions apply before galvanizing.