

# Threaded Rod & Stud Bolt Weight Chart — M20

M20 · 14 lengths · kg per piece · kg/m · carbon steel 7.85 g/cm³ · rolled thread ×0.97

M20

2.4 kg/m · As 245 mm²

| Length L (mm) | Weight per piece<br>kg |
|---------------|------------------------|
| M20×100       | 0.24                   |
| M20×150       | 0.36                   |
| M20×200       | 0.48                   |
| M20×250       | 0.6                    |
| M20×300       | 0.72                   |
| M20×400       | 0.96                   |
| M20×500       | 1.2                    |
| M20×600       | 1.4                    |
| M20×800       | 1.9                    |
| M20×1000      | 2.4                    |
| M20×1500      | 3.6                    |
| M20×2000      | 4.8                    |
| M20×2500      | 6                      |
| M20×3000      | 7.2                    |

All values are computed as geometric volume × density (carbon steel 7.85 g/cm³, base metal, coating excluded) — no copyrighted standard tables are reproduced. Fully threaded rolled rod = plain cylinder  $\pi/4 \cdot d^2 \cdot L \times 0.97$  (thread-rolling allowance, identical formula and parameters as the online weight calculator). The plain full-diameter figure is 2.466 kg/m; this chart uses 97% of it.

Pitch and minor diameter are public ISO metric basic-profile geometry; As is the ISO 898-1 tensile stress area used for tensile capacity calculations, not the physical cross-section.

## Basis of Calculation & Disclosed Assumptions

Boundary: theoretical geometric estimates for quotation, freight and lifting budgets. Actual piece weight varies with thread tolerance and coating (hot-dip galvanizing ≈ +4.5%). Use measured values for trade settlement. Double-end studs are cut-to-length products — at the same diameter and length the piece weight matches threaded rod.

## References

- GB/T 15389-1994 — Threaded rods (CN national standard, official full text) — [https://openstd.samr.gov.cn/bzgk/gb/std?std\\_no=GB%2FT%2015389-1994](https://openstd.samr.gov.cn/bzgk/gb/std?std_no=GB%2FT%2015389-1994)
- GB/T 192-2003 — General purpose metric screw threads: basic profile (CN, official full text; ISO 68-1 equivalent) — [https://openstd.samr.gov.cn/bzgk/gb/std?std\\_no=GB%2FT%20192-2003](https://openstd.samr.gov.cn/bzgk/gb/std?std_no=GB%2FT%20192-2003)
- Metric thread basic profile (ISO 68-1)
- Dimensions cross-checked against industry fastener data libraries; densities are common industry values

Disclaimer: This chart is an engineering estimation for selection, quotation and freight estimation only. It does not constitute design or acceptance criteria.

## Material Density Conversion

Values above are carbon steel (7.85 g/cm³); for other materials multiply by the density factor.

| Material             | Density<br>(g/cm³)<br>g/cm³ | Factor |
|----------------------|-----------------------------|--------|
| Carbon / Alloy Steel | 7.85                        | ×1.000 |
| Stainless 304        | 7.93                        | ×1.010 |
| Stainless 316        | 7.98                        | ×1.017 |
| Brass                | 8.5                         | ×1.083 |