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M6–M36 · English · threaded-rod-weight-chart-en

Threaded Rod & Stud Bolt Weight Chart

kg/m plus per-piece weights for 100–3000 mm lengths, with pitch, root diameter and tensile stress area; kg/m ↔ lb/ft toggle.

M6–M36 · 14 lengths · kg per piece · kg/m · carbon steel 7.85 g/cm³ · rolled thread ×0.97

M6

0.22 kg/m · As 20.1 mm²

Length L (mm)	Weight per piece kg
M6×100	0.022
M6×150	0.032
M6×200	0.043
M6×250	0.054
M6×300	0.065
M6×400	0.086
M6×500	0.11
M6×600	0.13
M6×800	0.17
M6×1000	0.22
M6×1500	0.32
M6×2000	0.43
M6×2500	0.54
M6×3000	0.65

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 π/4·d²·L × 0.97 (thread-rolling allowance, identical formula and parameters as the online weight calculator). The plain full-diameter figure is 0.222 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.

M8

0.38 kg/m · As 36.6 mm²

Length L (mm)	Weight per piece kg
M8×100	0.038
M8×150	0.057
M8×200	0.077
M8×250	0.096
M8×300	0.11
M8×400	0.15
M8×500	0.19
M8×600	0.23
M8×800	0.31
M8×1000	0.38
M8×1500	0.57
M8×2000	0.77
M8×2500	0.96
M8×3000	1.1

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 π/4·d²·L × 0.97 (thread-rolling allowance, identical formula and parameters as the online weight calculator). The plain full-diameter figure is 0.395 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.

M10

0.6 kg/m · As 58 mm²

Length L (mm)	Weight per piece kg
M10×100	0.06
M10×150	0.09
M10×200	0.12
M10×250	0.15
M10×300	0.18
M10×400	0.24
M10×500	0.3
M10×600	0.36
M10×800	0.48
M10×1000	0.6
M10×1500	0.9
M10×2000	1.2
M10×2500	1.5
M10×3000	1.8

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 π/4·d²·L × 0.97 (thread-rolling allowance, identical formula and parameters as the online weight calculator). The plain full-diameter figure is 0.617 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.

M12

0.86 kg/m · As 84.3 mm²

Length L (mm)	Weight per piece kg
M12×100	0.086
M12×150	0.13
M12×200	0.17
M12×250	0.22
M12×300	0.26
M12×400	0.34
M12×500	0.43
M12×600	0.52
M12×800	0.69
M12×1000	0.86
M12×1500	1.3
M12×2000	1.7
M12×2500	2.2
M12×3000	2.6

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 π/4·d²·L × 0.97 (thread-rolling allowance, identical formula and parameters as the online weight calculator). The plain full-diameter figure is 0.888 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.

M14

1.2 kg/m · As 115 mm²

Length L (mm)	Weight per piece kg
M14×100	0.12
M14×150	0.18
M14×200	0.23
M14×250	0.29
M14×300	0.35
M14×400	0.47
M14×500	0.59
M14×600	0.7
M14×800	0.94
M14×1000	1.2
M14×1500	1.8
M14×2000	2.3
M14×2500	2.9
M14×3000	3.5

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 π/4·d²·L × 0.97 (thread-rolling allowance, identical formula and parameters as the online weight calculator). The plain full-diameter figure is 1.208 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.

M16

1.5 kg/m · As 157 mm²

Length L (mm)	Weight per piece kg
M16×100	0.15
M16×150	0.23
M16×200	0.31
M16×250	0.38
M16×300	0.46
M16×400	0.61
M16×500	0.77
M16×600	0.92
M16×800	1.2
M16×1000	1.5
M16×1500	2.3
M16×2000	3.1
M16×2500	3.8
M16×3000	4.6

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 π/4·d²·L × 0.97 (thread-rolling allowance, identical formula and parameters as the online weight calculator). The plain full-diameter figure is 1.578 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.

M18

1.9 kg/m · As 192 mm²

Length L (mm)	Weight per piece kg
M18×100	0.19
M18×150	0.29
M18×200	0.39

Length L (mm)	Weight per piece kg
M18×250	0.48
M18×300	0.58
M18×400	0.78
M18×500	0.97
M18×600	1.2
M18×800	1.6
M18×1000	1.9
M18×1500	2.9
M18×2000	3.9
M18×2500	4.8
M18×3000	5.8

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 π/4·d²·L × 0.97 (thread-rolling allowance, identical formula and parameters as the online weight calculator). The plain full-diameter figure is 1.998 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.

M20

2.4 kg/m · As 245 mm²

Length L (mm)	Weight per piece 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 π/4·d²·L × 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.

M22

2.9 kg/m · As 303 mm²

Length L (mm)	Weight per piece kg
M22×100	0.29
M22×150	0.43
M22×200	0.58
M22×250	0.72
M22×300	0.87
M22×400	1.2

Length L (mm)	Weight per piece kg
M22×500	1.4
M22×600	1.7
M22×800	2.3
M22×1000	2.9
M22×1500	4.3
M22×2000	5.8
M22×2500	7.2
M22×3000	8.7

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 π/4·d²·L × 0.97 (thread-rolling allowance, identical formula and parameters as the online weight calculator). The plain full-diameter figure is 2.984 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.

M24

3.4 kg/m · As 353 mm²

Length L (mm)	Weight per piece kg
M24×100	0.34
M24×150	0.52
M24×200	0.69
M24×250	0.86
M24×300	1
M24×400	1.4
M24×500	1.7
M24×600	2.1
M24×800	2.8
M24×1000	3.4
M24×1500	5.2
M24×2000	6.9
M24×2500	8.6
M24×3000	10.3

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 π/4·d²·L × 0.97 (thread-rolling allowance, identical formula and parameters as the online weight calculator). The plain full-diameter figure is 3.551 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.

M27

4.4 kg/m · As 459 mm²

Length L (mm)	Weight per piece kg
M27×100	0.44
M27×150	0.65
M27×200	0.87
M27×250	1.1
M27×300	1.3
M27×400	1.7
M27×500	2.2
M27×600	2.6
M27×800	3.5

Length L (mm)	Weight per piece kg
M27×1000	4.4
M27×1500	6.5
M27×2000	8.7
M27×2500	10.9
M27×3000	13.1

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 π/4·d²·L × 0.97 (thread-rolling allowance, identical formula and parameters as the online weight calculator). The plain full-diameter figure is 4.495 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.

M30

5.4 kg/m · As 561 mm²

Length L (mm)	Weight per piece kg
M30×100	0.54
M30×150	0.81
M30×200	1.1
M30×250	1.3
M30×300	1.6
M30×400	2.2
M30×500	2.7
M30×600	3.2
M30×800	4.3
M30×1000	5.4
M30×1500	8.1
M30×2000	10.8
M30×2500	13.5
M30×3000	16.1

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 π/4·d²·L × 0.97 (thread-rolling allowance, identical formula and parameters as the online weight calculator). The plain full-diameter figure is 5.549 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.

M33

6.5 kg/m · As 694 mm²

Length L (mm)	Weight per piece kg
M33×100	0.65
M33×150	0.98
M33×200	1.3
M33×250	1.6
M33×300	2
M33×400	2.6
M33×500	3.3
M33×600	3.9
M33×800	5.2
M33×1000	6.5
M33×1500	9.8
M33×2000	13

Length L (mm)	Weight per piece kg
M33×2500	16.3
M33×3000	19.5

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 π/4·d²·L × 0.97 (thread-rolling allowance, identical formula and parameters as the online weight calculator). The plain full-diameter figure is 6.714 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.

M36

7.8 kg/m · As 817 mm²

Length L (mm)	Weight per piece kg
M36×100	0.78
M36×150	1.2
M36×200	1.6
M36×250	1.9
M36×300	2.3
M36×400	3.1
M36×500	3.9
M36×600	4.7
M36×800	6.2
M36×1000	7.8
M36×1500	11.6
M36×2000	15.5
M36×2500	19.4
M36×3000	23.3

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 π/4·d²·L × 0.97 (thread-rolling allowance, identical formula and parameters as the online weight calculator). The plain full-diameter figure is 7.990 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
- 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
- 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 (g/cm³) 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

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