

Anchor Bolt Weight Chart — M27

M27 · 13 lengths · 4 configurations · kg per piece · carbon steel 7.85 g/cm³

M27

kg per piece

Shank length L (mm)	Straight no add-on	J-Hook hook +162 mm (6d)	L-Bend leg +108 mm (4d)	With Plate plate 108×13.5 mm
100	0.45	1.2	0.93	1.7
150	0.67	1.4	1.2	1.9
200	0.9	1.6	1.4	2.1
250	1.1	1.9	1.6	2.4
300	1.3	2.1	1.8	2.6
400	1.8	2.5	2.3	3
500	2.2	3	2.7	3.5
600	2.7	3.4	3.2	3.9
800	3.6	4.3	4.1	4.8
1000	4.5	5.2	5	5.7
1200	5.4	6.1	5.9	6.6
1500	6.7	7.5	7.2	8
2000	9	9.7	9.5	10.2

All values are computed as geometric volume × density (carbon steel 7.85 g/cm³, base metal, coating excluded) — no copyrighted standard tables are reproduced. Straight = cylinder $\pi/4 \cdot d^2 \cdot L$; J-hook = shank + hook developed length 6d (GB/T 799 hooked-bolt basis, identical to the online calculator); L-bend = shank + leg 4d (explicit assumption — GB/T 799 has no L-type leg table); with-plate = shank + square plate $a \times a \times t$ ($a=4d$, $t=0.5d$, explicit assumption, unwelded-hole-free plate, weld and accessories excluded). The full nominal diameter is used along the shank with no thread reduction.

Cell shows weight per piece (kg/pc, carbon steel 7.85 g/cm³). L = straight shank length (hook/leg/plate excluded); full nominal diameter along the whole shank (no thread reduction).

Basis of Calculation & Disclosed Assumptions

Boundary: theoretical geometric estimates for quotation, freight and lifting budgets. Actual piece weight varies with the as-built configuration (hook/leg/plate per drawing) and coating (hot-dip galvanizing ≈ +4.5%). Use measured values for trade settlement; send drawings for non-standard configurations.

References

- GB/T 799-2020 — Anchor bolts (CN, official full text; common series — anchor bolts are often custom-designed per project drawing) — https://openstd.samr.gov.cn/bzgk/gb/std?std_no=GB%2FT%20799-2020
- 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