

Anchor Bolt Weight Chart — M20

M20 · 13 lengths · 4 configurations · kg per piece · carbon steel 7.85 g/cm³

M20

kg per piece

Shank length L (mm)	Straight no add-on	J-Hook hook +120 mm (6d)	L-Bend leg +80 mm (4d)	With Plate plate 80×10 mm
100	0.25	0.54	0.44	0.75
150	0.37	0.67	0.57	0.87
200	0.49	0.79	0.69	1
250	0.62	0.91	0.81	1.1
300	0.74	1	0.94	1.2
400	0.99	1.3	1.2	1.5
500	1.2	1.5	1.4	1.7
600	1.5	1.8	1.7	2
800	2	2.3	2.2	2.5
1000	2.5	2.8	2.7	3
1200	3	3.3	3.2	3.5
1500	3.7	4	3.9	4.2
2000	4.9	5.2	5.1	5.4

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