

# METRIC EXTERNAL THREAD DIMENSIONS — 6g

Metric M · classes 6g

Limits of size of the external thread (bolt)  
min–max, per the cited standard  
80 threads · 2026-10-21

Thread · major Ø min–max · pitch Ø min–max · minor Ø min–max — diameters in mm    Metric

|             |             |             |             |            |               |               |               |
|-------------|-------------|-------------|-------------|------------|---------------|---------------|---------------|
| M1 x 0.2    | 0.927–0.983 | 0.806–0.853 | 0.682–0.766 | M10 x 0.75 | 9.838–9.978   | 9.391–9.491   | 8.929–9.166   |
| M1 x 0.25   | 0.915–0.982 | 0.767–0.820 | 0.613–0.711 | M10 x 1    | 9.794–9.974   | 9.212–9.324   | 8.596–8.891   |
| M1.1 x 0.2  | 1.027–1.083 | 0.906–0.953 | 0.782–0.866 | M10 x 1.25 | 9.760–9.972   | 9.042–9.160   | 8.272–8.619   |
| M1.1 x 0.25 | 1.015–1.082 | 0.867–0.920 | 0.713–0.811 | M10 x 1.5  | 9.732–9.968   | 8.862–8.994   | 7.938–8.344   |
| M1.2 x 0.2  | 1.127–1.183 | 1.006–1.053 | 0.882–0.966 | M11 x 0.75 | 10.838–10.978 | 10.391–10.491 | 9.929–10.166  |
| M1.2 x 0.25 | 1.115–1.182 | 0.967–1.020 | 0.813–0.911 | M11 x 1    | 10.794–10.974 | 10.212–10.324 | 9.596–9.891   |
| M1.4 x 0.2  | 1.327–1.383 | 1.206–1.253 | 1.082–1.166 | M11 x 1.5  | 10.732–10.968 | 9.862–9.994   | 8.938–9.344   |
| M1.4 x 0.3  | 1.307–1.382 | 1.131–1.187 | 0.946–1.057 | M12 x 1    | 11.794–11.974 | 11.206–11.324 | 10.590–10.891 |
| M1.6 x 0.2  | 1.527–1.583 | 1.403–1.453 | 1.280–1.366 | M12 x 1.25 | 11.760–11.972 | 11.028–11.160 | 10.258–10.619 |
| M1.6 x 0.35 | 1.496–1.581 | 1.291–1.354 | 1.075–1.202 | M12 x 1.5  | 11.732–11.968 | 10.854–10.994 | 9.930–10.344  |
| M1.8 x 0.2  | 1.727–1.783 | 1.603–1.653 | 1.480–1.566 | M12 x 1.75 | 11.701–11.966 | 10.679–10.829 | 9.601–10.072  |
| M1.8 x 0.35 | 1.696–1.781 | 1.491–1.554 | 1.275–1.402 | M14 x 1    | 13.794–13.974 | 13.206–13.324 | 12.590–12.891 |
| M2 x 0.25   | 1.915–1.982 | 1.764–1.820 | 1.610–1.711 | M14 x 1.25 | 13.760–13.972 | 13.028–13.160 | 12.258–12.619 |
| M2 x 0.4    | 1.886–1.981 | 1.654–1.721 | 1.408–1.548 | M14 x 1.5  | 13.732–13.968 | 12.854–12.994 | 11.930–12.344 |
| M2.2 x 0.25 | 2.115–2.182 | 1.964–2.020 | 1.810–1.911 | M14 x 2    | 13.682–13.962 | 12.503–12.663 | 11.271–11.797 |
| M2.2 x 0.45 | 2.080–2.180 | 1.817–1.888 | 1.540–1.693 | M15 x 1    | 14.794–14.974 | 14.206–14.324 | 13.590–13.891 |
| M2.5 x 0.35 | 2.396–2.481 | 2.191–2.254 | 1.975–2.102 | M15 x 1.5  | 14.732–14.968 | 13.854–13.994 | 12.930–13.344 |
| M2.5 x 0.45 | 2.380–2.480 | 2.117–2.188 | 1.840–1.993 | M16 x 1    | 15.794–15.974 | 15.206–15.324 | 14.590–14.891 |
| M3 x 0.35   | 2.896–2.981 | 2.687–2.754 | 2.471–2.602 | M16 x 1.5  | 15.732–15.968 | 14.854–14.994 | 13.930–14.344 |
| M3 x 0.5    | 2.874–2.980 | 2.580–2.655 | 2.272–2.439 | M16 x 2    | 15.682–15.962 | 14.503–14.663 | 13.271–13.797 |
| M3.5 x 0.35 | 3.396–3.481 | 3.187–3.254 | 2.971–3.102 | M17 x 1    | 16.794–16.974 | 16.206–16.324 | 15.590–15.891 |
| M3.5 x 0.6  | 3.354–3.479 | 3.004–3.089 | 2.635–2.829 | M17 x 1.5  | 16.732–16.968 | 15.854–15.994 | 14.930–15.344 |
| M4 x 0.5    | 3.874–3.980 | 3.580–3.655 | 3.272–3.439 | M18 x 1    | 17.794–17.974 | 17.206–17.324 | 16.590–16.891 |
| M4 x 0.7    | 3.838–3.978 | 3.433–3.523 | 3.002–3.220 | M18 x 1.5  | 17.732–17.968 | 16.854–16.994 | 15.930–16.344 |
| M4.5 x 0.5  | 4.374–4.480 | 4.080–4.155 | 3.772–3.939 | M18 x 2    | 17.682–17.962 | 16.503–16.663 | 15.271–15.797 |
| M4.5 x 0.75 | 4.338–4.478 | 3.901–3.991 | 3.439–3.666 | M18 x 2.5  | 17.623–17.958 | 16.164–16.334 | 14.624–15.252 |
| M5 x 0.5    | 4.874–4.980 | 4.580–4.655 | 4.272–4.439 | M20 x 1    | 19.794–19.974 | 19.206–19.324 | 18.590–18.891 |
| M5 x 0.8    | 4.826–4.976 | 4.361–4.456 | 3.869–4.110 | M20 x 1.5  | 19.732–19.968 | 18.854–18.994 | 17.930–18.344 |
| M5.5 x 0.5  | 5.374–5.480 | 5.080–5.155 | 4.772–4.939 | M20 x 2    | 19.682–19.962 | 18.503–18.663 | 17.271–17.797 |
| M6 x 0.75   | 5.838–5.978 | 5.391–5.491 | 4.929–5.166 | M20 x 2.5  | 19.623–19.958 | 18.164–18.334 | 16.624–17.252 |
| M6 x 1      | 5.794–5.974 | 5.212–5.324 | 4.596–4.891 | M22 x 1    | 21.794–21.974 | 21.206–21.324 | 20.590–20.891 |
| M7 x 0.75   | 6.838–6.978 | 6.391–6.491 | 5.929–6.166 | M22 x 1.5  | 21.732–21.968 | 20.854–20.994 | 19.930–20.344 |
| M7 x 1      | 6.794–6.974 | 6.212–6.324 | 5.596–5.891 | M22 x 2    | 21.682–21.962 | 20.503–20.663 | 19.271–19.797 |
| M8 x 0.75   | 7.838–7.978 | 7.391–7.491 | 6.929–7.166 | M22 x 2.5  | 21.623–21.958 | 20.164–20.334 | 18.624–19.252 |
| M8 x 1      | 7.794–7.974 | 7.212–7.324 | 6.596–6.891 | M24 x 1    | 23.794–23.974 | 23.199–23.324 | 22.583–22.891 |
| M8 x 1.25   | 7.760–7.972 | 7.042–7.160 | 6.272–6.619 | M24 x 1.5  | 23.732–23.968 | 22.844–22.994 | 21.920–22.344 |
| M9 x 0.75   | 8.838–8.978 | 8.391–8.491 | 7.929–8.166 | M24 x 2    | 23.682–23.962 | 22.493–22.663 | 21.261–21.797 |
| M9 x 1      | 8.794–8.974 | 8.212–8.324 | 7.596–7.891 | M24 x 3    | 23.577–23.952 | 21.803–22.003 | 19.955–20.704 |
| M9 x 1.25   | 8.760–8.972 | 8.042–8.160 | 7.272–7.619 | M25 x 1    | 24.794–24.974 | 24.199–24.324 | 23.583–23.891 |

Limits per ASME B1.1-2024 (UN, UNJ), SAE AS8879B (UNJ), ASME B1.13M-1995 / ISO 965-1 and ISO 261 (M), ASME B1.21M-1978 (MJ). Minor diameters of UN and M threads are for reference; UNJ and MJ minors are specified. Taper pipe threads: diameters at the gauge plane. Reference only; the controlling standard governs. [kaspercalc.com/ExternalThreadTool.html](https://kaspercalc.com/ExternalThreadTool.html)