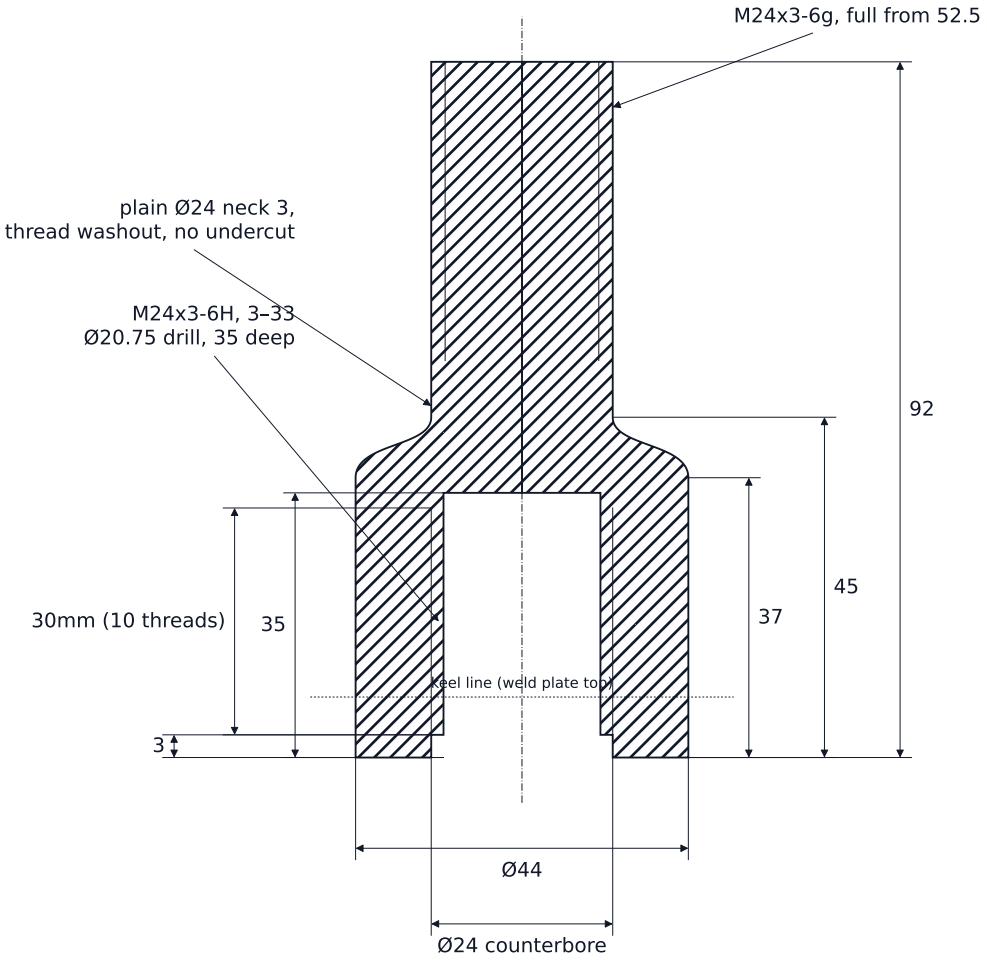


SECTION ON AXIS (scale 1:1)

NOTES

1. Material: XM-19 stainless (UNS S20910) bar to ASTM A479, high-strength condition (sold as Nitronic 50 HS / Aquamet 22HS); certified MTR required showing min. yield (0.2%) 450 MPa / 65 ksi and tensile 700 MPa / 101.5 ksi. Annealed XM-19 or 316 is not acceptable.
2. Stock: Ø2″ (50.8 mm) centreless-ground round bar, or any larger ground or cold-drawn bar; turn the Ø44 body from it. The same bar serves every extension design. Qty 2 parts.
3. Internal thread M24x3-6H from 3 to 33 above the bottom face, 30mm (10 threads); drill Ø20.75 (ISO 965 minor dia) to 35, incl. thread runout.
4. Ø24 counterbore 3 deep clears the existing bolt's unthreaded base.
5. External thread M24x3-6g: plain Ø24 neck 3 long above the shoulder (45), then the thread washes out over 1.5P; full thread from 52.5 to 92. No undercut: it would be narrower than the thread's stress area.
6. Shoulder: smooth S-curve from the body to the stud, as modelled in the STEP file (it is the controlling geometry).
7. General tolerances ISO 2768-m unless stated. Break sharp edges 0.2–0.5. Threads to ISO 965 medium fit.
8. Mates with the existing bolt cut to 33 above the excavation floor. The weld plate is tack welded on at 8 above the bottom face, flush with the keel.
9. Confirm all dimensions before cutting.

KEEL BOLT EXTENSION — M24-6-7 v2 (Nov 12, 2026)

Material: XM-19 HS, ASTM A479 — MTR required

Design m24-6-7 · bolts #6, #7 · qty 2

Units mm · scale 1:1 on A4 · third-angle

Fingerprint d9095ac8a399 · build v10

Valkyrie keel bolts — generated from the keel app design