



Run Static Compression Test (ML/QML) – Field Checklist

Run Static Compression Test (ML/QML) with an interactive checklist. Commentable steps, calibrated measurements, and acceptance guidance. Export as PDF/Excel with QR-secured records.

Project:

Date:

Filled by:

Pre-Test Planning

1	Confirm the selected test method is Maintained Load (ML) or Quick Maintained Load (QML) and explicitly exclude CRP.
2	Review approved test plan and project specifications; verify test load (TL) and acceptance criteria are defined and signed off.
3	Verify pile identification, cut-off level, and datum; record GPS coordinates and pile head elevation to ± 5 mm accuracy with photos.
4	Confirm safety controls: exclusion zone, lifting plan, hydraulic hose ratings, and emergency depressurization; document toolbox talk attendance signatures.

Equipment Setup and Calibration

5	Check hydraulic jack capacity $\geq 1.2 \times$ maximum TL and stroke adequate; attach calibration certificate dated within 6 months.
6	Verify load cell or pressure gauge resolution $\leq 1\%$ full scale and calibration traceable; photograph serial numbers and gauges at zero.
7	Install at least three settlement gauges (dial or LVDT) with 0.01 mm resolution on an independent reference beam; zero within ± 0.02 mm.
8	Set reference beam supports outside the influence zone (≥ 3 pile diameters from test pile); measure beam movement ≤ 0.1 mm during seating.

Reaction and Alignment

9	Verify reaction frame/anchors capacity $\geq 1.25 \times$ maximum TL with approved layout; capture proof calculations and as-built photos.
10	Align jack and load cell with pile axis; check eccentricity ≤ 3 mm using straightedge/plumb and shim as needed; photo evidence.

Load Schedule and Instrumentation

11	Prepare load increments (e.g., 0.25 TL steps to target TL) and unloading sequence per approved plan; record exact kN values.
12	Define ML hold criterion (e.g., settlement rate threshold) and QML hold times per approved project specifications; document criteria on sheet.
13	Set reading intervals: at each increment record at 0, 1, 2, 4, 8, 15, 30, 45, 60 min (ML) or per QML intervals; time-sync devices to UTC.
14	Mark pile head gauge targets; establish temperature log (± 1 °C) to support thermal correction if required; photo the setup.

Testing Execution (ML)

15	Apply seating load 5–10% TL; verify gauges stable (≤ 0.1 mm drift over 5 min) before starting first increment; record baseline.
16	Load in planned increments using jack and load cell; maintain each increment until ML hold criterion is met; log kN and mm at intervals.
17	At maximum TL, hold until settlement rate meets criterion; record creep data and photograph gauge faces and data logger display.

Testing Execution (QML)

18	For QML, increase load in increments, holding each for the shorter approved duration or rate criterion; capture readings at defined times.
19	Limit load adjustments to $\le 5\%$ TL per correction; avoid overshoot $> 2\%$ of target step; document any corrective actions in comments.

Data Recording and Acceptance

20	Unload in decrements to zero; measure rebound at 0, 5, 10, 15, 30, 60 min; compute net settlement and elastic recovery.
21	Generate load–settlement curve; apply any specified corrections; compare results to acceptance criteria per approved project specifications and authority requirements.
22	Flag nonconformance if criteria are not met; notify stakeholders; plan retest or mitigation per approved procedures; attach NCR reference.

Post-Test and Demobilization

23	Depressurize hydraulics gradually; remove reaction and reference beam without disturbing gauges; inspect pile head for damage; photo condition.
24	Archive raw data, calibration certs, photos, and signed field sheets; export CSV/PDF; embed QR code for record authentication.

Comments:

Filled by:

Signature:

Introduction	How to use this checklist
<p>Run Static Compression Test (ML/QML) is the definitive field process for verifying pile capacity via maintained load or quick maintained load methods. This checklist helps plan the load schedule, measure settlements, and determine acceptance per approved project specifications and authority requirements. It explicitly excludes constant rate of penetration (CRP), focusing solely on ML and QML procedures. You will configure calibrated instrumentation, establish reading intervals, and document creep, rebound, and total settlement using SI units. By standardizing hold criteria and evidence capture, the checklist reduces interpretation errors, avoids premature unloading, and delivers defensible load-settlement curves. Outcomes include reliable proof of capacity, auditable records, and clear pass/fail decisions. Use this interactive page to tick tasks, add comments for field variances, and export a complete, QR-secured report in PDF or Excel formats.</p>	<p>1. Preparation: Review the approved test plan, method (ML or QML), and acceptance criteria. Assemble calibrated jack, load cell/pressure gauge, reference beam, 0.01 mm gauges, temperature logger, PPE, and barricades. Verify reaction capacity and safety controls. 2. Site Setup: Position reaction system and reference beam outside the influence zone. Align jack with pile axis, check eccentricity, and zero gauges. Time-sync all devices and photograph serial numbers and initial readings. 3. Configure Load Schedule: Define increments, holds, and reading intervals for ML or QML per the approved plan. Record target kN values and overshoot limits before starting. 4. Execute Test: Apply seating load, then run increments per schedule. Maintain holds to the defined rate or time criterion. Record settlements, creep, and rebound with photos of instruments. 5. Using the Interactive Checklist: Start interactive mode, tick each step as completed, add comments for deviations, and attach photos or data files. Export the running log to PDF/Excel for review. 6. Analysis and Acceptance: Build the load-settlement curve, apply specified corrections, and compare results with acceptance criteria. Note pass/fail with rationale and supporting evidence. 7. Sign-Off: Capture digital signatures from responsible parties, distribute the report to stakeholders, archive records, and validate authenticity via the embedded QR code.</p>