

High-strength bolting special inspection checklist

A bolted connection is inspected before it disappears behind decking, fireproofing and finishes. The independent inspector's job is to confirm the assembly is what the documents call for and that pretensioning was actually achieved — and to hold the proof that it was.

Who runs it: A third-party or owner's-rep special inspector for structural steel, alongside the erector's bolt-up crew. When: At fastener delivery, before installation begins, and at each connection during and after tightening — before it is covered or coated.

Fastener assemblies and documentation

- ☐ Fastener type, grade and finish match the approved documents
Bolts, nuts and washers are the specified assembly; markings legible and consistent across the lot. 2 photos required
- ☐ Manufacturer certifications on file for the lots delivered
Certified test reports trace to the fastener lots on site, not a generic catalog sheet. 1 photo required
- ☐ Assemblies stored and protected to keep lubrication intact
Kept dry and in original containers; no rusted or dried-out assemblies pulled into the work. 1 photo required

Pre-installation verification

- ☐ Pre-installation testing performed for each combination and lot
Rotational-capacity or tension-calibrator check witnessed for the fastener/hole/method combination in use. 2 photos required
- ☐ Installation method confirmed against the connection type
Snug-tight where specified; a documented pretensioning method where the connection is slip-critical or pretensioned. 1 photo required

Installation and completion

- ☐ Joint brought to snug-tight condition before pretensioning
Plies in firm contact; the sequence photographed on a representative joint. 2 photos required
- ☐ Faying surfaces correct for the connection class
Slip-critical surfaces free of paint, oil and mill scale where the documents require it. 2 photos required
- ☐ Pretensioning achieved and verified by the specified method
Match-marks, twist-off ends or a calibrated indicator photographed after final tightening. 3 photos required