Duct Support Anchors in Concrete: Inspection Guide

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Project	Location	Status

Date	Completed by

Inspection Location and Traceability

No.	Done	Check / Requirement	Result	Notes / Evidence
1	☐	Record the inspected support and anchor locations so photographs, measurements, installation records, and test reports can be linked to the installation.		

Approved Anchor Requirements

No.	Done	Check / Requirement	Result	Notes / Evidence
2	☐	Confirm the current approved support detail identifies the anchor product, diameter, quantity, embedment, spacing, and concrete edge distances applicable to the inspected location.		

Product Installation Instructions

No.	Done	Check / Requirement	Result	Notes / Evidence
3	☐	Confirm the available manufacturer's installation instructions apply to the installed anchor product and size. Refer conflicts with the approved detail to the responsible design authority before acceptance.		

Installed Anchor Product

No.	Done	Check / Requirement	Result	Notes / Evidence
4	☐	Verify the installed anchor product against the approved support detail using product markings and traceable installation or supply records.		

Anchor Diameter

No.	Done	Check / Requirement	Result	Notes / Evidence
5	☐	Verify installed anchor diameter against the approved support detail using accessible measurements or traceable records.		

Anchor Material and Finish

No.	Done	Check / Requirement	Result	Notes / Evidence
6	☐	Verify anchor material or protective finish matches the approved specification for the installation environment.		

Concrete Application Suitability

No.	Done	Check / Requirement	Result	Notes / Evidence
7	☐	Verify documented concrete strength and the specified cracked or uncracked design condition are compatible with the approved anchor application. Do not classify concrete as uncracked solely from a visual inspection.		

Concrete Member Thickness

No.	Done	Check / Requirement	Result	Notes / Evidence
8	☐	Verify concrete member thickness at the anchor location meets the approved detail and applicable manufacturer requirements using drawings, measurements, or traceable records.		

Visible Concrete Condition

No.	Done	Check / Requirement	Result	Notes / Evidence
9	☐	Inspect concrete around each anchor for spalling, crushing, exposed reinforcement, or cracks. Record defects for disposition against the approved anchor application before acceptance.		

Anchor Quantity

No.	Done	Check / Requirement	Result	Notes / Evidence
10	☐	Verify anchor quantity at each duct support against the approved support detail.		

Anchor Spacing

No.	Done	Check / Requirement	Result	Notes / Evidence
11	☐	Measure anchor center-to-center spacing and compare it with the approved support detail and applicable manufacturer requirements.		

Concrete Edge Distance

No.	Done	Check / Requirement	Result	Notes / Evidence
12	☐	Measure from each anchor centerline to relevant concrete edges, including nearby openings, and compare with the approved support detail and applicable manufacturer requirements.		

Effective Embedment

No.	Done	Check / Requirement	Result	Notes / Evidence
13	☐	Verify effective embedment against the approved requirement using installation measurements or traceable records interpreted for the specific anchor product. Do not infer embedment solely from exposed thread length or drilled hole depth.		

Drilling Method

No.	Done	Check / Requirement	Result	Notes / Evidence
14	☐	For drilled anchors, verify the recorded drilling method is permitted by the manufacturer's instructions for the installed product and concrete condition.		

Hole Diameter and Depth

No.	Done	Check / Requirement	Result	Notes / Evidence
15	☐	For drilled anchors, verify recorded hole diameter and depth against the manufacturer's instructions and approved embedment requirement.		

Hole Cleaning

No.	Done	Check / Requirement	Result	Notes / Evidence
16	☐	For drilled anchors, verify traceable installation evidence shows that hole cleaning followed the manufacturer's procedure for the drilling method used.		

Exposed Hardware Condition

No.	Done	Check / Requirement	Result	Notes / Evidence
17	☐	Inspect exposed anchors, nuts, and washers for damage, corrosion, or unauthorized modification. Record suspect conditions for disposition before acceptance.		

Bracket Seating

No.	Done	Check / Requirement	Result	Notes / Evidence
18	☐	Verify bracket seating against the approved detail, including any specified grout, shims, or stand-off arrangement.		

Washers and Thread Engagement

No.	Done	Check / Requirement	Result	Notes / Evidence
19	☐	Verify washer arrangement and, where applicable, nut thread engagement against the approved detail and manufacturer's instructions.		

Mechanical Anchor Setting

No.	Done	Check / Requirement	Result	Notes / Evidence
20	☐	For mechanical anchors, verify documented setting or tightening meets the product-specific procedure. Do not retorque or otherwise disturb an installed anchor unless the applicable procedure permits it.		

Adhesive Identity and Shelf Life

No.	Done	Check / Requirement	Result	Notes / Evidence
21	☐	For adhesive anchors, verify traceable installation records identify the specified adhesive and show it was within its shelf life when installed.		

Adhesive Orientation and Loading

No.	Done	Check / Requirement	Result	Notes / Evidence
22	☐	For adhesive anchors, verify the approved anchor system permits the installed orientation and applicable sustained loading condition.		

Adhesive Installation Conditions

No.	Done	Check / Requirement	Result	Notes / Evidence
23	☐	For adhesive anchors, verify recorded hole moisture and installation temperatures were within the manufacturer's permitted conditions.		

Adhesive Mixing and Dispensing

No.	Done	Check / Requirement	Result	Notes / Evidence
24	☐	For adhesive anchors, verify installation evidence documents compliance with the manufacturer's mixing and dispensing procedure, including specified equipment and initial adhesive discard where required.		

Adhesive Placement and Anchor Insertion

No.	Done	Check / Requirement	Result	Notes / Evidence
25	☐	For adhesive anchors, verify installation evidence documents adhesive placement and anchor insertion in accordance with the manufacturer's procedure, including working time and insertion depth.		

Adhesive Cure Before Loading

No.	Done	Check / Requirement	Result	Notes / Evidence
26	☐	For adhesive anchors, verify the manufacturer's required cure time for the recorded temperature and hole condition elapsed before tightening or loading.		

Specified Inspection and Testing

No.	Done	Check / Requirement	Result	Notes / Evidence
27	☐	Verify inspections and tests required by the approved project inspection plan are complete, with results accepted by the designated authority and traceable to the inspected anchors. Do not apply an improvised proof load.		

Discrepancy Resolution and Release

No.	Done	Check / Requirement	Result	Notes / Evidence
28	☐	Before release for use, verify missing evidence, damage, conflicting requirements, and deviations have documented disposition by the responsible design or inspection authority within its assigned role. Confirm required corrective work and reinspection are complete; otherwise record the support as not accepted.		

Comments / Follow-up

Checklist guidance

Duct support anchor inspection requires more than checking visible nuts and brackets. Acceptance depends on the approved anchor application, measured installation geometry, concrete conditions, and traceable evidence of installation. This guide explains how to use the approved checklist without substituting visual assumptions for documented verification.

1. Identify the support and anchor locations, then assemble the current approved details, applicable manufacturer instructions, and traceable installation records.

2. Work through the approved checklist as issued, recording location-linked observations, measurements, and supporting evidence.

3. Apply conditional checks according to the installed anchor type and installation method. Mark them not applicable only when those conditions make them irrelevant.

4. Record missing evidence, damage, conflicts, and deviations for disposition by the responsible authority rather than assuming compliance.

5. Close the inspection only after required dispositions, corrective work, reinspection, and accepted test results are documented. Otherwise record the support as not accepted.

Tick the box when complete. Record Not done or N/A in Result and note any follow-up.