Vertical Duct Riser Support Inspection Guide

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Project	Location	Status

Date	Completed by

Safe inspection access

No.	Done	Check / Requirement	Result	Notes / Evidence
1	☐	Confirm the inspection location is accessible without entering an unprotected opening or disturbing loaded supports. Do not proceed where safe access is unavailable.		

Applicable inspection documents

No.	Done	Check / Requirement	Result	Notes / Evidence
2	☐	Identify the current approved support layout, connection details, anchor installation requirements and alignment criteria for the riser and floor being inspected. Record missing information as an unresolved check.		

Floor support locations

No.	Done	Check / Requirement	Result	Notes / Evidence
3	☐	Verify that support locations at each inspected floor match the approved riser support layout.		

Supporting structure and substrate

No.	Done	Check / Requirement	Result	Notes / Evidence
4	☐	Verify that the structural element and substrate receiving each support match those identified in the approved support and anchor details. Use project records for concealed characteristics.		

Bracket specification

No.	Done	Check / Requirement	Result	Notes / Evidence
5	☐	Compare bracket sizes, materials and configuration with the approved support details, using identification or material records where visual inspection cannot establish the material.		

Bracket condition

No.	Done	Check / Requirement	Result	Notes / Evidence
6	☐	Inspect brackets for visible bending, cracking, corrosion or modifications not shown in the approved details.		

Duct connection and reinforcement

No.	Done	Check / Requirement	Result	Notes / Evidence
7	☐	Verify that bracket-to-duct connections match the approved details, including specified reinforcement.		

Weld configuration and condition

No.	Done	Check / Requirement	Result	Notes / Evidence
8	☐	Compare accessible connection weld locations, lengths and measurable sizes with the approved details; record visible cracks or separation. Do not treat visual checks as proof of concealed weld quality.		

Connection fastener arrangement

No.	Done	Check / Requirement	Result	Notes / Evidence
9	☐	Verify bracket connection bolt sizes, grades, nuts and washers against the approved details using markings or records as needed.		

Connection bolt tightening

No.	Done	Check / Requirement	Result	Notes / Evidence
10	☐	Check records for any specified bracket connection bolt-tightening verification. Do not loosen or retighten loaded connections solely to perform this inspection.		

Anchor specification and arrangement

No.	Done	Check / Requirement	Result	Notes / Evidence
11	☐	Verify anchor type, size, quantity and arrangement against the approved anchor details, using installation records where concealed.		

Anchor spacing and edge distances

No.	Done	Check / Requirement	Result	Notes / Evidence
12	☐	Measure accessible anchor spacing and edge distances against the approved anchor details; use installation records for concealed dimensions.		

Substrate condition around anchors

No.	Done	Check / Requirement	Result	Notes / Evidence
13	☐	Inspect the supporting substrate around anchors for visible cracking, spalling or deterioration.		

Anchor assembly condition

No.	Done	Check / Requirement	Result	Notes / Evidence
14	☐	Inspect anchor assemblies for displacement, missing fastening components or gaps inconsistent with the approved details.		

Anchor installation evidence

No.	Done	Check / Requirement	Result	Notes / Evidence
15	☐	Check installation records for specified embedment and applicable setting, curing and tightening verification against the approved anchor requirements.		

Continuous load path

No.	Done	Check / Requirement	Result	Notes / Evidence
16	☐	Trace the installed load path from the duct through its connections and brackets to the designated structural element, comparing each interface with the approved details.		

Bearing surfaces and packing

No.	Done	Check / Requirement	Result	Notes / Evidence
17	☐	Verify that bearing surfaces, shims and packers match the approved details without unintended gaps.		

Duct condition at supports

No.	Done	Check / Requirement	Result	Notes / Evidence
18	☐	Inspect the duct at support contact points for local buckling, crushing or tearing.		

Unintended bearing

No.	Done	Check / Requirement	Result	Notes / Evidence
19	☐	Check for unintended duct bearing on floor-opening edges, firestopping, adjacent services or finishes.		

Riser plumb and position

No.	Done	Check / Requirement	Result	Notes / Evidence
20	☐	Measure and record riser plumb and position against the approved alignment criteria. Refer missing criteria for clarification rather than applying an assumed tolerance.		

Bracket and bearing alignment

No.	Done	Check / Requirement	Result	Notes / Evidence
21	☐	Verify bracket orientation and bearing alignment against the approved support details.		

Fixed and movement supports

No.	Done	Check / Requirement	Result	Notes / Evidence
22	☐	Verify that specified fixed, guided or sliding support arrangements match the approved details and have no visible obstruction to intended movement. Do not force movement of loaded supports.		

Inspection evidence and limitations

No.	Done	Check / Requirement	Result	Notes / Evidence
23	☐	Record findings by floor and support identifier, including measurements, photographs and document references. Mark inaccessible checks as unverified unless suitable records establish conformity; identify genuinely inapplicable checks separately.		

Discrepancy referral and acceptance

No.	Done	Check / Requirement	Result	Notes / Evidence
24	☐	Record referral of discrepancies, suspected instability, unresolved checks and missing design information to the responsible engineer. Keep affected supports pending acceptance until the required disposition or evidence is documented.		

Comments / Follow-up

Checklist guidance

Floor-level supports transfer duct riser loads through connections, brackets and anchors into the designated structure. This inspection focuses on whether the installed arrangement matches approved project details, while documenting visible condition, alignment and evidence limitations. Safe access and reliable project information are essential; visual appearance alone cannot establish concealed installation details or structural capacity.

1. Establish safe inspection access and gather the current approved documents for the riser and floor. Do not proceed where access requires entering an unprotected opening or disturbing loaded supports.

2. Work through the approved checklist using accessible observations, measurements and suitable project records. Keep the checklist unchanged and assess findings against its referenced project details.

3. Record results by floor and support identifier, with photographs, measurements, document references and clear limitations on what was verified.

4. Refer discrepancies and unresolved information to the responsible engineer. Retain pending acceptance status for affected supports until the required evidence or disposition is documented.

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