Rectangular Duct Transition Inspection Checklist

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Project	Location	Status

Date	Completed by

Identify the Transition

No.	Done	Check / Requirement	Result	Notes / Evidence
1	☐	Confirm the transition location and connected equipment identifier against equipment tags or installation drawings.		

Confirm Inspection References

No.	Done	Check / Requirement	Result	Notes / Evidence
2	☐	Obtain the applicable approved drawings, equipment connection requirements, and documented dimensional acceptance criteria. Record missing or conflicting information as unresolved rather than assigning an acceptance tolerance.		

Confirm Equipment Isolation

No.	Done	Check / Requirement	Result	Notes / Evidence
3	☐	Before opening access or reaching into the duct, confirm that required equipment isolation has been completed under site procedures. Do not proceed with internal access if isolation cannot be confirmed.		

Equipment-End Dimensions

No.	Done	Check / Requirement	Result	Notes / Evidence
4	☐	Measure and record the equipment-end opening width and height. Compare them with the specified connection dimensions using the same measurement basis as the reference detail.		

Duct-End Dimensions

No.	Done	Check / Requirement	Result	Notes / Evidence
5	☐	Measure and record the duct-end opening width and height. Compare them with the approved drawing using the same measurement basis as the reference detail.		

Transition Length

No.	Done	Check / Requirement	Result	Notes / Evidence
6	☐	Measure and record the transition's end-to-end length between the reference planes shown on the approved drawing, and compare it with the specified length.		

Horizontal Offset

No.	Done	Check / Requirement	Result	Notes / Evidence
7	☐	Measure and record the horizontal offset between the two end-opening centerlines, and compare it with the approved drawing.		

Vertical Offset

No.	Done	Check / Requirement	Result	Notes / Evidence
8	☐	Measure and record the vertical offset between the two end-opening centerlines, and compare it with the approved drawing.		

Installed Orientation

No.	Done	Check / Requirement	Result	Notes / Evidence
9	☐	Verify that the installed transition orientation matches the specified offset direction and equipment arrangement.		

Transition Profile

No.	Done	Check / Requirement	Result	Notes / Evidence
10	☐	Check the transition profile for unintended steps, buckling, or wall deformation that departs from the approved geometry.		

Fabricated Seams and Corners

No.	Done	Check / Requirement	Result	Notes / Evidence
11	☐	Inspect fabricated seams and corners for visible openings, splits, or incomplete closure.		

End-Connection Joint Types

No.	Done	Check / Requirement	Result	Notes / Evidence
12	☐	Verify that each end connection uses the joint type specified in its approved connection detail.		

Connection Hardware

No.	Done	Check / Requirement	Result	Notes / Evidence
13	☐	Check connection fasteners or cleats for missing, loose, or improperly seated components against the approved connection detail.		

Joint Seals

No.	Done	Check / Requirement	Result	Notes / Evidence
14	☐	Inspect seals required by the connection details for visible gaps, displaced gaskets, or discontinuous sealant.		

Equipment Connection Alignment

No.	Done	Check / Requirement	Result	Notes / Evidence
15	☐	Check the equipment connection for visible evidence of forced alignment, flange distortion, or strain.		

Transition Supports

No.	Done	Check / Requirement	Result	Notes / Evidence
16	☐	Verify that installed transition supports match the approved support arrangement.		

Interior Foreign Objects

No.	Done	Check / Requirement	Result	Notes / Evidence
17	☐	Using available inspection access after required isolation is confirmed, inspect the transition interior for debris, packaging, tools, or other foreign objects.		

Interior Obstructions

No.	Done	Check / Requirement	Result	Notes / Evidence
18	☐	Inspect the interior for loose liner, projecting joint material, or unintended component intrusions that reduce the specified clear airflow passage.		

Inspection Coverage

No.	Done	Check / Requirement	Result	Notes / Evidence
19	☐	Record any surfaces, joints, or interior areas that could not be inspected. Mark the affected checks as unverified rather than passed.		

Specified Leakage Testing

No.	Done	Check / Requirement	Result	Notes / Evidence
20	☐	Check whether the project documents require leakage testing applicable to this transition. If required, record the test report reference or mark testing as outstanding; do not substitute visual inspection for the test.		

Restore Inspection Access

No.	Done	Check / Requirement	Result	Notes / Evidence
21	☐	For each access cover opened during inspection, verify that its seal is correctly seated and the cover is secured according to its installation requirements.		

Record Results and Outstanding Work

No.	Done	Check / Requirement	Result	Notes / Evidence
22	☐	Record measurements, comparison results, visible defects, and unresolved checks against the transition identifier. Identify required corrections or clarification before marking affected checks complete.		

Comments / Follow-up

Checklist guidance

Rectangular duct transitions connect equipment openings to ductwork that may differ in size or alignment. This checklist supports a documented inspection of the installed transition without assuming that a visually sound connection is dimensionally correct or airtight.

1. Establish the transition identifier and applicable approved references. Resolve missing or conflicting requirements rather than assuming acceptance criteria.

2. Use the approved checklist to guide dimensional, geometry, connection, support, and accessible interior checks. Confirm required isolation before opening access or reaching inside.

3. Record actual measurements and comparison results, keeping visible defects separate from checks that could not be verified.

4. Document applicable leakage-testing status, verify restoration of opened access covers, and identify corrections or clarification needed before affected checks are completed.

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