Flexible Fabric Duct Connection Inspection Guide

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Project	Location	Status

Date	Completed by

Identify Connections

No.	Done	Check / Requirement	Result	Notes / Evidence
1	☐	Identify and assign a location reference to each flexible fabric connection at the equipment inlet and outlet.		

Confirm Safe Isolation

No.	Done	Check / Requirement	Result	Notes / Evidence
2	☐	Before hands-on inspection or opening access panels, verify equipment shutdown and energy isolation under the site's energy-control procedure.		

Check Slack

No.	Done	Check / Requirement	Result	Notes / Evidence
3	☐	Verify fabric slack and installed spacing against the connector manufacturer's instructions. Record unavailable instructions or an inability to verify the installation rather than marking it as passing.		

Check Fabric Folds

No.	Done	Check / Requirement	Result	Notes / Evidence
4	☐	Inspect for excess fabric folding into or obstructing the airflow path, using existing safe access while the equipment is isolated.		

Check Duct Support

No.	Done	Check / Requirement	Result	Notes / Evidence
5	☐	Verify the connected duct is independently supported and does not place its weight on the fabric connector.		

Inspect Attachment Fasteners

No.	Done	Check / Requirement	Result	Notes / Evidence
6	☐	Inspect the perimeter of both fabric attachment edges for loose, missing, or displaced fastening components.		

Inspect Seals

No.	Done	Check / Requirement	Result	Notes / Evidence
7	☐	Inspect attachment seams and flange joints for visible gaps, separated joints, or deteriorated sealing materials.		

Inspect Fabric Damage

No.	Done	Check / Requirement	Result	Notes / Evidence
8	☐	Inspect accessible fabric surfaces and seams for tears, punctures, fraying, or separation.		

Inspect Fabric Deterioration

No.	Done	Check / Requirement	Result	Notes / Evidence
9	☐	Inspect accessible fabric for cracking, brittleness, scorching, or delamination.		

Check Metal Separation

No.	Done	Check / Requirement	Result	Notes / Evidence
10	☐	Verify opposing metal edges remain separated without direct contact across the flexible connection.		

Check for Rigid Bridges

No.	Done	Check / Requirement	Result	Notes / Evidence
11	☐	Check for rigid bridges across the connection, including shipping braces, screws, straps, or rigid repairs that prevent relative movement between the equipment and duct.		

Prepare for Operating Checks

No.	Done	Check / Requirement	Result	Notes / Evidence
12	☐	Before operating checks, confirm access panels and guards are restored and equipment is returned to service by authorized personnel under the site's procedure.		

Check Operating Air Leakage

No.	Done	Check / Requirement	Result	Notes / Evidence
13	☐	During authorized normal operation, check accessible attachment joints and fabric seams for leakage using a site-approved method that requires neither touching the connector nor reaching into equipment. Record locations that cannot be safely tested.		

Observe Operating Movement

No.	Done	Check / Requirement	Result	Notes / Evidence
14	☐	From a safe position during authorized normal operation, observe whether pressure or equipment movement pulls the fabric taut, collapses it into the airflow path, or causes rubbing against adjacent surfaces. Do not touch the connector or reach into equipment.		

Record Inspection Limitations

No.	Done	Check / Requirement	Result	Notes / Evidence
15	☐	Record inaccessible surfaces, unverified attachment sections, and omitted operating checks by connector location, including the reason each could not be inspected.		

Record and Report Defects

No.	Done	Check / Requirement	Result	Notes / Evidence
16	☐	Record each defect with its connector location and a photograph or clear description, and submit it through the site's corrective-work process.		

Comments / Follow-up

Checklist guidance

Flexible fabric connections allow relative movement between air-handling equipment and connected ductwork. Their condition depends on more than intact fabric: installation spacing, attachment integrity, independent duct support, and the absence of rigid bridges also matter. The approved checklist provides a structured inspection while distinguishing checks that require isolation from observations made during authorized normal operation.

1. Use the approved checklist as the inspection record, keeping its existing items and sequence unchanged.

2. Associate findings with each connector's location reference and use manufacturer instructions when evaluating slack and spacing.

3. Maintain the checklist's separation between isolated inspection and authorized operating checks, following the site's energy-control and return-to-service procedures.

4. Record unverified conditions and omitted checks as limitations, then route documented defects through the site's corrective-work process.

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