Circular Duct Coupling & Slip-Joint Inspection Guide

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Project	Location	Status

Date	Completed by

Installation requirements

No.	Done	Check / Requirement	Result	Notes / Evidence
1	☐	Confirm the applicable project joint detail and manufacturer’s instructions establish engagement depth, fastening method, and sealing requirements. Resolve missing or conflicting requirements before accepting the joint.		

Component condition

No.	Done	Check / Requirement	Result	Notes / Evidence
2	☐	Inspect the coupling and duct ends for deformation, burrs, or damage that would prevent proper seating or sealing.		

Component compatibility

No.	Done	Check / Requirement	Result	Notes / Evidence
3	☐	Verify the coupling size, duct ends, and joint type are compatible with one another and with the specified sealing system.		

Joint preparation

No.	Done	Check / Requirement	Result	Notes / Evidence
4	☐	Before assembly, verify mating surfaces meet the sealing-system instructions for cleanliness, dryness, and surface preparation. For assembled joints, review inspection evidence identifying the joint.		

Engagement depth

No.	Done	Check / Requirement	Result	Notes / Evidence
5	☐	Verify specified engagement at every joint interface, including both ends of a coupling, using insertion marks, the specified seating stop, or documented measurements taken before concealment.		

Circumferential engagement

No.	Done	Check / Requirement	Result	Notes / Evidence
6	☐	Check seating indicators around the full circumference of each interface for uneven insertion or partial withdrawal. Verify any variation remains within the applicable joint requirements.		

Alignment

No.	Done	Check / Requirement	Result	Notes / Evidence
7	☐	Verify connected duct sections follow the intended alignment without unintended angular offset, forced fit, or joint distortion.		

Duct support

No.	Done	Check / Requirement	Result	Notes / Evidence
8	☐	Verify nearby supports carry the duct without pulling the joint out of alignment or reducing the required engagement.		

Fastener arrangement

No.	Done	Check / Requirement	Result	Notes / Evidence
9	☐	At each interface, compare fastener type, quantity, circumferential spacing, and edge distance with the applicable joint requirements. Verify compliance with any restrictions on penetrating gasketed connections. If no fasteners are specified, verify none have been added contrary to the instructions.		

Fastener seating

No.	Done	Check / Requirement	Result	Notes / Evidence
10	☐	Inspect each required fastener for seating and tightening consistent with the installation instructions, without stripped holes or duct deformation that compromises the connection.		

Gasket condition and seating

No.	Done	Check / Requirement	Result	Notes / Evidence
11	☐	For gasketed joints, verify each specified gasket is continuous, undamaged, and seated in its intended location without twists, displacement, or pinching. Use preassembly and assembly inspection evidence for concealed features.		

Sealant continuity

No.	Done	Check / Requirement	Result	Notes / Evidence
12	☐	For sealant-based joints, verify continuous coverage around every interface at the specified sealing locations, including fastener penetrations where required. Check application dimensions against product instructions and use preassembly inspection evidence for concealed sealant.		

Sealant readiness

No.	Done	Check / Requirement	Result	Notes / Evidence
13	☐	Verify the sealant has met the manufacturer’s applicable drying or curing requirements under the recorded application conditions before leakage testing or operation.		

Leakage verification

No.	Done	Check / Requirement	Result	Notes / Evidence
14	☐	Where project requirements call for leakage testing, verify the joint lies within the documented test boundary and that the test results meet the specified acceptance criteria.		

Defect closeout

No.	Done	Check / Requirement	Result	Notes / Evidence
15	☐	Verify recorded engagement, fastening, sealing, and alignment defects have been corrected and rechecked before insulation or other coverings conceal the joint. Confirm any required retesting is complete.		

Comments / Follow-up

Checklist guidance

A round duct connection can appear complete while concealing shallow insertion, a displaced gasket, or incomplete sealant coverage. This guide supports the approved checklist by explaining how to organize inspection evidence and evaluate each interface against its specified installation requirements.

1. Establish the inspection basis using the applicable project joint detail and manufacturer’s instructions. Resolve gaps or conflicts before accepting affected checks.

2. Identify the joint and gather available preassembly and assembly evidence so concealed conditions can be evaluated against the correct connection.

3. Apply the approved checklist at each interface, using the specified joint system to determine which fastening, gasket, sealant, and testing checks apply.

4. Record findings without treating missing evidence as a pass. Support any not-applicable decision with the specified system requirements.

5. Verify corrections, rechecks, and any required retesting before the joint is concealed.

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