Duct Branch Take-Off Connection Inspection Guide

Generated by Quollnet

Chk id: d0d036e1
Revision: 2026-11-11

Project	Location	Status

Date	Completed by

Take-Off Location

No.	Done	Check / Requirement	Result	Notes / Evidence
1	☐	Verify the take-off location against the approved duct layout.		

Branch Connection Size

No.	Done	Check / Requirement	Result	Notes / Evidence
2	☐	Verify the branch connection size against the approved duct schedule or drawings.		

Take-Off Orientation

No.	Done	Check / Requirement	Result	Notes / Evidence
3	☐	Verify the take-off orientation matches the branch routing shown on the approved drawings.		

Fitting Type and Entry Geometry

No.	Done	Check / Requirement	Result	Notes / Evidence
4	☐	Verify the fitting type and entry geometry match the approved connection detail.		

Fitting Condition

No.	Done	Check / Requirement	Result	Notes / Evidence
5	☐	Check the take-off fitting for dents, distortion, or collapsed sections that restrict its opening or prevent proper seating.		

Main-Duct Opening Fit

No.	Done	Check / Requirement	Result	Notes / Evidence
6	☐	Verify the main-duct opening size and shape match the fitting requirements in the approved connection detail or applicable manufacturer instructions.		

Cut Metal and Loose Fragments

No.	Done	Check / Requirement	Result	Notes / Evidence
7	☐	Inspect the main-duct opening for leftover cutouts, hanging metal, or loose fragments.		

Internal Fitting Projections

No.	Done	Check / Requirement	Result	Notes / Evidence
8	☐	Verify internal tabs, collars, or other fitting projections conform to the approved connection detail.		

Flange or Collar Seating

No.	Done	Check / Requirement	Result	Notes / Evidence
9	☐	Verify the take-off flange or collar is seated against the main duct as shown in the applicable connection detail, without unintended gaps.		

Attachment Method and Arrangement

No.	Done	Check / Requirement	Result	Notes / Evidence
10	☐	Verify the attachment method and fastener arrangement match the approved connection detail and applicable fitting manufacturer instructions. Flag conflicting requirements for resolution.		

Fastener Condition

No.	Done	Check / Requirement	Result	Notes / Evidence
11	☐	Inspect installed fasteners for loose, missing, or stripped connections.		

Main-Duct Attachment Surface

No.	Done	Check / Requirement	Result	Notes / Evidence
12	☐	Inspect the main-duct surface around the connection for tearing, buckling, or pull-through at attachment points.		

Secure Take-Off Attachment

No.	Done	Check / Requirement	Result	Notes / Evidence
13	☐	Confirm the installed attachment holds the take-off firmly to the main duct, without looseness at the connection. Do not use a force test that could damage the duct or fitting.		

Sealing Material

No.	Done	Check / Requirement	Result	Notes / Evidence
14	☐	Verify the installed sealing material matches the project specification and is suitable for the duct materials and connection type according to its manufacturer instructions.		

Joint Perimeter Sealing

No.	Done	Check / Requirement	Result	Notes / Evidence
15	☐	Inspect the full take-off-to-main joint perimeter for continuous sealing without visible gaps, cracks, or lifting.		

Fastener Penetration Sealing

No.	Done	Check / Requirement	Result	Notes / Evidence
16	☐	Verify fastener penetrations are sealed where required by the approved sealing detail.		

Comments / Follow-up

Checklist guidance

A branch take-off connects a branch duct to the main duct. Inspection should establish whether the installed connection matches the approved design and whether its fitting, attachment, and sealing are visibly complete. This article explains how to use the approved checklist without substituting general assumptions for project-specific details.

1. Gather the approved duct layout, relevant schedule or drawings, connection detail, sealing specification, and applicable manufacturer instructions.

2. Identify the take-off connection and determine which conditions are accessible for inspection. Note any limitations before assigning results.

3. Work through the approved checklist as issued, using the applicable references rather than assumed installation practices.

4. Record observed discrepancies and conflicting requirements clearly. Mark inaccessible or unverifiable conditions as unresolved, not passed.

5. Summarize the inspection findings without claiming measured air leakage performance from visual sealing checks.

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