



Project Name and Address	Authority Having Jurisdiction
Name: Project Name	Enforcement Agency: Agency
Address: Project Address	Permit Number: Permit Number
City, Zip: City, Zip Code	Permit Application Date: Date

Building: Enter Value	Floor: Enter Value	Room: Enter Value	Control/tag: Value
-----------------------	--------------------	-------------------	--------------------

<input type="checkbox"/> Construction inspection and functional testing comply <input type="checkbox"/> Does not comply	Date Submitted to AHJ: Date
--	-----------------------------

<b>Intent:</b>	<p>Submit one Certificate of Acceptance testing duct leakage rate for each newly installed, repaired, or altered heating, ventilating or air conditioning (HVAC) duct system. Either an NRCC-MCH-E for nonresidential construction that is completed and approved by the authority having jurisdiction or an LMCC-MCH-E for multifamily construction that is registered with a CEC approved <del>HERS-ECC</del> data registry is required prior to beginning this acceptance test. Submit one Certificate of Acceptance for each system that must demonstrate compliance. Reference: §120.4(g), §120.5(a)3, § 141.0(b)2D, §141.0(b)2E, §160.3(c)2Hi, §160.3(b)5K, §160.3(c)2Ciid, §160.3(c)2A-E, §160.3(d)1C, §180.2(b)2Bii, §180.2(b)2Biii, and NA7.5.3.</p> <p>NOTE: Only ATT certified technicians <del>my-can</del> perform this acceptance test. <del>HERS rater verification is permitted at the discretion of the project owner and authority having jurisdiction.</del></p>
----------------	---

### Table A: Construction Inspection

Prior to functional testing, verify and document all of the following:

Step	Entry	Item	Code Reference
1.0	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Confirm access to design drawings, cut-sheets, NRCC-MCH-E <del>or LMCC-MCH-E</del> , approved by the authority having jurisdiction.	§10-103(a)2A
2.0	No Entry	System <del>i</del> nstallation <del>T</del> ype (Select <b>one</b> of Steps 2.1, 2.2 or 2.3).	N/A
2.1, or	<input type="checkbox"/>	Qualifying newly constructed system.	§120.4(g)1, §160.3(c)2Hi
2.2, or	<input type="checkbox"/>	Qualifying altered duct systems.	§141.0(b)2D, §180.2(b)2Bii
2.3	<input type="checkbox"/>	Qualifying altered space-conditioning systems.	§141.0(b)2E, § <del>141</del> 180.20(b)2Biii
3.0	No Entry	System operational capacity.	N/A
3.1, or	Enter Value	Condenser <del>N</del> ominal <del>E</del> cooling <del>E</del> capacity (ton).	NA <del>7.5.3.2.3.12-</del> 1.4.1
3.2	Enter Value	If heating only; <del>H</del> heating <del>E</del> capacity (kBtu/h).	NA <del>7.5.3.2.3.12-</del> 1.4.1



Step	Entry	Item	Code Reference
4.0	No Entry	The apparatus for duct system pressurization and duct system leakage measurements must consist of a duct system pressurization and leakage airflow measurement device meeting the specifications below for <b>all</b> of Steps 4.1-4.4.	<del>N/A</del> <u>NA7.5.3.2.2(a)</u>
4.1	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	The pressure measurement instrumentation <del>is</del> <u>has an accurate accuracy</u> of plus or minus 0.2 Pa and makes use of a static pressure probe.	<del>NA2.1.2.17.5.3.2.1(a)</del>
4.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	All measurements of duct leakage airflow shall have an accuracy of plus or minus 3 percent of measured airflow or better using digital gauges.	<del>NA7.5.3.2.1(b)2.1.2.2</del>
4.3	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	All instrumentation used for duct leakage diagnostics measurements is calibrated according to the manufacturer's calibration procedure.	<del>NA7.5.3.2.1(c)2.1.2.3</del>
4.4	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	The apparatus for determining leakage in and verifying sealing of all accessible leaks in existing duct systems provide means for introducing controllable amounts of non-toxic visual or theatrical smoke into the duct pressurization apparatus for identifying leaks in accessible portions of the duct system. The means for generating smoke shall have sufficient capacity to ensure that any accessible leaks will emit visibly identifiable smoke	<del>NA7.5.3.2.2(b)2.1.3.2</del>
5.0	No Entry	Newly Constructed Systems: Duct connections meet the requirements of Steps 5.1 and 5.2.	<del>NA7.5.3.1(a), §120.4(a)-(f), §160.3(b)5</del>
5.1	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Confirm access to all installed plenums and duct work.	<del>NA7.5.3.1(d) &amp;(f)</del>
5.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Reference <del>NRCC-MCH-E, Table L</del> <u>and LMCC-MCH-E, Table L</u> to verify that the duct design requirement has been complete on the signed and approved form.	<del>NA7.5.3.1(a), §120.4(a)-(f), §160.3(b)5, §160.3(c)2A-E</del>
6.0	No Entry	Newly Constructed Systems, Altered Duct Systems, and Altered Space-Conditioning Systems: Visually inspect and verify for <b>all</b> of Steps 6.1-6.5 <u>have been sealed</u> .	N/A
6.1	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Connections to plenums and other connections to the forced air unit.	NA7.5.3.1(h)
6.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Refrigerant lines and other penetrations into the forced air unit.	NA7.5.3.1(i)
6.3	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Air handler door panel (do not use permanent sealing material, metal tape is acceptable).	NA7.5.3.1(j)



Step	Entry	Item	Code Reference
6.4	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Register boots sealed to surrounding material.	NA7.5.3.1(k)
6.5	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Connections between lengths of duct, as well as connections to takeoffs, wyes, trees, and splitter boxes.	NA7.5.3.1(l)
7.0	No Entry	Inspect all plenums and enough of the installed duct work to be confident that all of the following are reasonably accurate (in descending order of priority) for <b>all</b> of Steps 7.1-7.5.	N/A
7.1	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Joints and seams are not sealed with a cloth-backed rubber adhesive tape unless used in combination with mastic and draw bands.	NA7.5.3.1(f), <a href="#">120.4(b)1D</a> , <a href="#">120.4(b)2D</a> , <a href="#">§160.3(c)2Cid</a> , <a href="#">§160.3(c)2Ciid</a> , <a href="#">§180.2(b)2Bii</a> , <a href="#">§180.2(b)2Biii</a>
7.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Insulation Requirements — reference NRCC-MCH-E, Section L and LMCC-MCH-E, Section L, approved design drawing and cut-sheets (if available) for the system and verify the insulation by location has been installed as indicated and is either R-8 or R-4.2. Flex duct must also be labeled as either R-8 or R-4.2.	NA7.5.3.1(g), <a href="#">§120.4(a)-(d)</a> , <a href="#">§160.3(b)5</a> , <a href="#">§160.3(bc)52A-E</a>
7.3	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Drawbands: Reference the approved design drawing and cut sheets (if available). Verify that all drawbands are specific to be stainless-steel worm-driven hose clamps or UV-resistant nylon duct ties, have a minimum tensile strength rating of 150 pounds, and make note of the manufacturer's recommended tightening. Visually inspect a representative amount of drawband installations.	NA7.5.3.1(b), <a href="#">§120.4(b)2E</a> , <a href="#">§180.2(b)2Bii</a> , <a href="#">§180.2(b)2Biii</a> , <a href="#">§160.3(b)5Cv</a> , <a href="#">§160.3(c)2Ciie</a>
7.4	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Constriction of flexible ducts: Visually verify that the flexible ducts are not compressed against an immovable object, squeezed through an opening, or contorted to extreme configurations. Visually verify that any bends radius (at the centerline) in a flexible duct does not exceed one duct diameter.	NA7.5.3.1(c)



Step	Entry	Item	Code Reference
7.5	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	For outdoor duct work, reference approved design drawing and cut sheets (if available). Verify that the insulation is protected from sunlight, moisture, equipment maintenance, wind, and weather by the appropriate application of aluminum, sheet metal, painted canvas, or plastic cover. Cellular foam insulation may also be protected by direct application of paint with a coating that is water retardant and provides shielding from solar radiation.	NA7.5.3.1(g), §120.4(f), §160.3(b)5I, <u>§160.3(c)2G</u>
8.0	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Check "Pass" if construction inspection <b>complies</b> with all requirements. Check "Fail" if construction inspection <b>does not comply</b> with all requirements.	N/A

**Table B-1: Functional Testing**

## Procedure — Pressurized Duct Leakage Test

Step	Entry	Functional Test	Code Reference
1.0	P, F, or N/A	Temporarily seal all the supply registers and return grilles, except for one large centrally located return grille or the air handler cabinet access door or panel. (Pass, Fail, or N/A)	NA <del>7.5.3.2.3.2.1(c)2-</del> <del>1.4.2.1(e)</del>
2.0	P, F, or N/A	Verify that all outside air dampers and/or economizers are sealed prior to pressurizing the system. (Pass, Fail, or N/A)	NA <del>7.5.3.2.3.2.1(c)2-</del> <del>1.4.2.1(e)</del>
3.0	<del>P, F, or N/A</del> Enter Value	Attach the fan flowmeter device to the duct system at the unsealed return grille or the air handler cabinet access door or panel. (CFM)	NA <del>7.5.3.2.3.2.12-</del> <del>1.4.2.1(d)</del>
4.0	<del>P, F, or N/A</del> Enter Value	Install a static pressure probe at a supply register located close to the air handler, or at the supply plenum. (CFM)	NA <del>7.5.3.2.3.2.12-</del> <del>1.4.2.1(e)</del>
5.0	P, F, or N/A	Adjust the fan flowmeter to produce a positive 25 Pa (0.1 inches water) pressure at the supply register or the supply plenum with respect to the outside or with respect to the building space with the entry door open to the outside. (Pass, Fail, or N/A)	NA <del>7.5.3.2.3.2.12-</del> <del>1.4.2.1(f)</del>
6.0	Enter Value	Record the flow through the flowmeter, this is the duct leakage flow at 25 Pa (0.1 inches water). (CFM)	NA <del>7.5.3.2.3.2.12-</del> <del>1.4.2.1(g)</del>
7.0	Enter Value	Calculate the nominal air handler air flow: <ul style="list-style-type: none"> <li>Air conditioner or heat pump: 400 cfm per rated ton of cooling capacity (Table A-3a.1).</li> <li>Heating-only system furnace: 21.7 cfm per kBtu/hr of rated heating output capacity (Table A-3b.2).</li> </ul> (CFM)	NA <del>7.5.3.2.3.12-1</del> <del>4.1</del>
8.0	Enter Value	Divide the duct leakage flow (STEP 6) by the nominal air handler airflow (STEP 7) and convert to a percentage (multiply by 100). (Percent)	NA <del>7.5.3.2.3.2.12-</del> <del>1.4.2.1(h)</del>
9.0	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Pass or Fail <ul style="list-style-type: none"> <li>New duct system: 6% or less is passing.</li> <li>Existing duct system: 15% or less is passing.</li> </ul>	§120.4(g)1. §141.0(b)2D. §141.0(b)2E. §160.3(c)2Hi. §180.2(b)2Ai. §180.2(b)2Aii. §180.2(b)2Aiii. §180.2(b)2Bii. §180.2(b)2Biii.



Step	Entry	Functional Test	Code Reference
10.0	No Entry	<p>If Fail: Newly constructed systems must be repaired until they pass.</p> <p>Altered duct systems and altered space-conditioning systems may be allowed to pass using the Smoke Test of Accessible Duct Sealing and the Visual Inspection of Accessible Duct Sealing if further repairing is not possible.</p>	<p>NA<del>7.5.3.2.3.2.1</del> <del>4.2</del></p> <p>NA<del>7.5.3.2.3.2.2</del> <del>1.4.2.2</del></p> <p>NA<del>7.5.3.2.3.2.3</del> <del>1.4.2.3</del></p> <p>NA<del>7.5.3.2.3.2.4</del> <del>1.4.2.4</del></p>
11.0	P, F, or N/A	Return system to normal operating condition. (Pass, Fail, or N/A).	N/A
12.0	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Check pass if Functional Test is completed on Steps 1 through 11 and Step 9 passes.	N/A

**Table B-2: Functional Testing**

Procedure — Smoke Test and Visual Inspection of Accessible Duct Sealing

Step	Entry	Functional Test	Code Reference
0.0	No Entry	This functional test may <b>only</b> be performed if Functional Test B-1 (Pressurized duct leakage test) results in a "Fail" on B-1, Step 9 for altered duct systems and altered space-conditioning systems only. This test may <b>NOT</b> be performed on newly constructed systems.	<p>NA<del>7.5.3.2.3.2.3</del> <del>1.4.2.3</del>,</p> <p>NA<del>7.5.3.2.3.2.4</del> <del>1.4.2.4</del></p>
1.0	No Entry	Inject either theatrical or other non-toxic smoke into a fan pressurization device that is maintaining a duct pressure difference of 25 Pa (0.1 inches water) relative to the duct surroundings, with all grilles and registers in the duct system sealed.	NA <del>7.5.3.2.3.2.3</del> <del>2.1.4.2.3</del> (a)
2.0	No Entry	Visually inspect all accessible portions of the duct system during smoke injection.	NA <del>7.5.3.2.3.2.3</del> <del>2.1.4.2.3</del> (b)
3.0	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	<p>The system passes the test if one of the following conditions is met:</p> <p>A. No visible smoke exits the accessible portions of the duct systems; or</p> <p>B. Smoke only emanates from the furnace cabinet which is gasketed and sealed by the manufacturer and no visible smoke exits from the accessible portions of the duct system.</p>	NA <del>7.5.3.2.3.2.3</del> <del>2.1.4.2.3</del> (c)
4.0	No Entry	Visual Inspection of Accessible Duct Sealing — Visually inspect and verify that all of the following locations have been sealed during the smoke test:	N/A
5.0	P, F, or N/A	Connections to plenums and other connections to the <del>forced air unit</del> <u>air-handling unit</u> . (Pass, Fail, or N/A)	NA <del>7.5.3.2.3.2.4</del> <del>2.1.4.2.4</del> (a)



Step	Entry	Functional Test	Code Reference
6.0	P, F, or N/A	Refrigerant lines and other penetrations into the <del>forced-air-unit</del> air-handling unit. (Pass, Fail, or N/A)	NA7.5.3.2.3.2.4 2.1.4.2.4(b)
7.0	P, F, or N/A	Air handler access door or panel (do not use permanent sealing material, metal tape is acceptable). (Pass, Fail, or N/A)	NA7.5.3.2.3.2.4 2.1.4.2.4(c)
8.0	P, F, or N/A	Register boots sealed to surrounding material.	NA7.5.3.2.3.2.4 2.1.4.2.4(d)
9.0	P, F, or N/A	Connections between lengths of duct, as well as connections to takeoff, wyes, tees, and splitter boxes. (Pass, Fail, or N/A)	NA7.5.3.2.3.2.4 2.1.4.2(e)
10.0	P, F, or N/A	Return system to normal operating condition. (Pass, Fail, or N/A)	N/A
11.0	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Check pass if Functional Test passes on Step 3 or if steps 5-10 are either pass or N/A.	N/A





Declaration Statement	Signatory
<b>Document Author</b> I assert that this Certificate of Acceptance documentation is accurate and complete.	Name Company Name Author Signature Date Signed
<b>Acceptance Test Technician</b> I certify the following under penalty of perjury, under the laws of the State of California: The information provided on this Certificate of Acceptance is true and correct. I am the person who performed the acceptance verification reported on this Certificate of Acceptance (Field Technician). The construction or installation identified on this Certificate of Acceptance complies with the applicable acceptance requirements indicated in the plans and specifications approved by the enforcement agency and conforms to the applicable acceptance requirements and procedures specified in Reference Nonresidential Appendix NA7. I have confirmed that the Certificate(s) of Installation for the construction or installation identified on this Certificate of Acceptance has been completed and signed by the responsible builder/installer and has been posted or made available with the building permit(s) issued for the building.	Name Company Name <del>ATT No.:</del> ATT Cert. No.: Title Phone Signature Date Signed
<b>Responsible Person</b> I assert the following under penalty of perjury, under the laws of the State of California: I am the Field Technician, or the Field Technician is acting on my behalf as my employee or my agent and I have reviewed the information provided on this Certificate of Acceptance. I am eligible under Division 3 of the Business and Professions Code in the applicable classification to accept responsibility for the system design, construction or installation of features, materials, components, or manufactured devices for the scope of work identified on this Certificate of Acceptance and attest to the declarations in this statement ( <del>responsible acceptance person</del> ). The information provided on this Certificate of Acceptance substantiates that the construction or installation identified on this Certificate of Acceptance complies with the acceptance requirements indicated in the plans and specifications approved by the enforcement agency and conforms to the applicable acceptance requirements and procedures specified in Reference Nonresidential Appendix NA7. I have confirmed that the Certificate(s) of Installation for the construction or installation identified on this Certificate of Acceptance has been completed and is posted or made available with the building permit(s) issued for the building. I understand that a completed, signed copy of this Certificate of Acceptance shall be posted, or made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections, and I will take the necessary steps to ensure this requirement is accomplished. I understand that a signed copy of this Certificate of Acceptance is required to be included with the documentation the builder provides to the building owner at occupancy, and I will take the necessary steps to ensure this requirement is accomplished.	Name Company Name Lic. No.: License No. Title Phone Signature Date Signed