



22-A

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

**Identify Ventilation Systems in Sample Group (NA7.18.3)**

Tested System	Building	Floor	Dwelling Units	Control/tag
<input type="checkbox"/>	Building	Floor	Dwelling Units	Control System
<input type="checkbox"/>	Building	Floor	Dwelling Units	Control System
<input type="checkbox"/>	Building	Floor	Dwelling Units	Control System

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

<b>Intent:</b>	The objective of this acceptance test is to verify the leakage of a new central ventilation duct system(s) (Section 160.2(b)2Ci) that serve multiple dwelling units and provides continuous airflows or are part of a balanced ventilation system to meet the requirements specified in Sections 160.2(b)2Aiv or 160.2(b)2Av. This test is restricted to multifamily buildings of four habitable stories or more. This compliance document is used to record the results of one system duct leakage test performed. These test procedures are based on ASTM E1554/1554M-13 (2018) Method D – Total duct leakage test. This test <del>may</del> <u>can</u> only be performed by a certified mechanical ATT. <u>Reference §160.2(b)2A, §160.2(b)2C, and NA7.18.3.</u>
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**Table A: Construction Inspection**

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

Step	Entry	Item	Code Reference
1.1	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Access to required document NRCC-MCH-E <u>or</u> <u>NRCC-PRF-E</u> as approved by the authority having jurisdiction.	§10-103(a)2A
1.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Product specifications or tear sheets for the installed equipment.	NA7.18.3.2 (Step 8)
2.1, or	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A	Verify that each system listed in the Sample Group serves more than six dwelling units and that the designer acknowledges that the duct system ducts will be pressurized to 50 Pa (0.2 inches water) with respect to outside. (Pass, Fail, N/A)	NA7.18.3, §160.2(b)2Ci
2.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A	<u>Verify that</u> <del>Each</del> system <u>listed</u> in the Sample Group serves two to six dwelling units and that the designer acknowledges that the duct system ducts will be pressurized to 25 Pa (0.1 inches water) with respect to outside. (Pass, Fail, N/A)	NA7.18.3, §160.2(b)2Ci

Step	Entry	Item	Code Reference
3.1, or	P, F, N/A	Testing at Rough-In. Verify that the spaces between the grille or register boots and the wallboard are sealed, and at least one grille or register is removed to verify proper sealing. (Pass, Fail, N/A)	NA7.18.3.2
3.2	P, F, N/A	Verify that the grilles or registers are installed (Pass, Fail, N/A)	NA7.18.3.2
4	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Confirm all windows and other openings are open to connect the building to the outside.	NA7.18.3.1(a)
5	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Confirm HVAC dampers are in their normal operating positions (NOP).	NA7.18.3.1(b)

**Table B: Functional Testing**

Step	Entry	Functional Test	Code Reference
1.0	No Entry	Measure and record environmental data:	NA7.18.3.2 (Step 1)
1.1	Enter Value	Outside (ambient) Temperature (°F)	NA7.18.3.2 (Step 1)
1.2	Enter Value	Indoor Temperature (°F)	NA7.18.3.2 (Step 1)
1.3	Enter Value	Barometric Pressure (inches Hg)	NA7.18.3.2 (Step 1)
2.0	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Install static pressure probe in main plenum pointing into airstream induced by the test. If the test fan is on the roof, the static pressure probe will need to be connected to the measurement device at the test site with a tube long enough to make the connection.	NA7.18.3.2 (Step 2)
3.1, or	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A	Test fan is mounted inside, with the building open to the outside, <del>use</del> the building as reference pressure. (Pass, Fail, N/A)	NA7.18.3.2 (Step 3)
3.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A	Test fan is located on the roof, <del>use</del> the outside as the reference pressure. (Pass, Fail, N/A)	NA7.18.3.2 (Step 3)
4.0	<input type="checkbox"/> <del>Pass</del> <input type="checkbox"/> <del>Fail</del> <b>No Entry</b>	Attach the test fan to the duct system, check one of the following.	NA7.18.3.2 (Step 4)

Step	Entry	Functional Test	Code Reference
4.1, or	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A	For roof top and wall mounted exhaust systems, remove the fan from the curb or opening and seal the test fan to the curb following test equipment manufacturer's instructions, making sure the dampers are open (NOP). (Pass, Fail, N/A)	NA7.18.3.2 (Step 4a)
4.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A	Alternatively, the test fan may be applied to a grille opening on the inside of the building following test equipment manufacturer's instructions. (Pass, Fail, N/A)	NA7.18.3.2 (Step 4b)
5.0	<input type="checkbox"/> <del>Pass</del> <input type="checkbox"/> <del>Fail</del> No Entry	Temporarily seal the system including:	NA7.18.3.2 (Step 5)
5.1	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	All <del>of the</del> grilles on the system using masking tape and air impermeable sheeting or duct mask made for this application.	NA7.18.3.2 (Step 5a)
5.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Air handler access door or panel (do not use permanent sealing material, metal tape is acceptable).	NA7.18.3.2 (Step 5b)
5.3	P, F, N/A	For systems with an air handler with supply and return plenums, the entire duct system including the air handler must be included in the test. (Pass, Fail, N/A)	NA7.18.3.2 (Step 5c)
6.0	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Adjust the test fan speed to maintain 25 Pa or 50 Pa as appropriate at the static pressure probe location.	NA7.18.3.2 (Step 6)
7.0	No Entry	Record the following:	NA7.18.3.2 (Step 7)
7.1	Enter Value	Air Flow (CFM)	NA7.18.3.2 (Step 7)
7.2	Enter Value	Temperature (°F)	NA7.18.3.2 (Step 7)
8.0	Enter Value	Determine the nominal fan airflow using the product specifications of the installed equipment for the design static pressure. (CFM)	NA7.18.3.2 (Step 8)
9.0	Enter Value	Divide the duct leakage flow (Step 7.1) by the nominal fan flow (Step 8) and convert to a percentage (multiply by 100).	NA7.18.3.2 (Step 9)
<del>10.0</del>	<del>No Entry</del>	<del>Measure and record environmental data:</del>	<del>NA7.18.3.2 (Step 1)</del>
<del>10.1</del>	<del>Enter Value</del>	<del>Outside (ambient) Temperature (°F)</del>	<del>NA7.18.3.2 (Step 1)</del>
<del>10.2</del>	<del>Enter Value</del>	<del>Indoor Temperature (°F)</del>	<del>NA7.18.3.2 (Step 1)</del>



Step	Entry	Functional Test	Code Reference
<del>10.3</del>	<del>Enter Value</del>	<del>Barometric Pressure (inches Hg)</del>	<del>NA7.18.3.2 (Step 1)</del>
<del>10</del> 1.0	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	If the duct leakage flow percentage (Step 9) is equal to or less than the target compliance criterion of 6% leakage the system passes.	NA7.18.3.2 (Step 9), §160.2(b)2Ci

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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>Field 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 ATT No.: 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