

Project Name/Address:

System Name or Identification/Tag:

System Location or Area Served:

Enforcement Agency:

Permit Number:

Note: Submit one Certificate of Acceptance for each system that must demonstrate compliance.

Enforcement Agency Use: Checked by/Date

Intent:

- *New single zone supply ductwork must be less than 6% leakage rate.*
- *Existing single zone ductwork must be less than 15% leakage or other compliance path.*

1 Material and Installation:

New duct systems shall meet all of the following requirements:

a. Choice of drawbands (check one of the following)	
<input type="checkbox"/>	Stainless steel worm-drive hose clamps
<input type="checkbox"/>	UV-resistant nylon duct ties
<input type="checkbox"/>	b. Flexible ducts are not constricted in any way
<input type="checkbox"/>	c. Duct leakage tests performed before access to ductwork and connections are blocked
<input type="checkbox"/>	d. Joints and seams are not sealed with cloth back rubber adhesive tape unless used in combination with Mastic and drawbands. Cloth backed tape may be used if tape has been approved by the CEC.
<input type="checkbox"/>	e. Duct R-values are verified R-8 in non-conditioned spaces.
<input type="checkbox"/>	f. Ductwork located outdoors has insulation that is protected from damage and suitable for outdoor service
<input type="checkbox"/>	g. A sticker has been affixed to the exterior surface of the air handler access door (example located in Chapter 10 of the Nonresidential Compliance Manual).

2 Visual Inspection:

- **New Buildings** – this test required
- **Existing Buildings** – this test required

Visually inspect to verify that the following locations have been sealed:

<input type="checkbox"/>	a. Connections to plenums and other connections to the forced air unit
<input type="checkbox"/>	b. Refrigerant line and other penetrations into the forced air unit
<input type="checkbox"/>	c. Air handler door panel (do not use permanent sealing material, metal tape is acceptable)
<input type="checkbox"/>	d. Register boots sealed to surrounding material
<input type="checkbox"/>	e. Connections between lengths of duct, as well as connections to takeoffs, wyes, tees, and splitter boxes

Visually inspect to verify that portions of the duct system that are excessively damaged have been replaced. Ducts that are considered to be excessively damaged are:

<input type="checkbox"/>	a. Flex ducts with the vapor barrier split or cracked with a total linear split or crack length greater than 12 inches
<input type="checkbox"/>	b. Crushed ducts where cross-sectional area is reduced by 30 percent or more
<input type="checkbox"/>	c. Metal ducts with rust or corrosion resulting in leaks greater than 2 inches in any dimension
<input type="checkbox"/>	d. Ducts that have been subject to animal infestation resulting in leaks greater than 2 inches in any dimension

Functional Testing

Nominal Rated Fan Flow Calculations

Enter Values

1 Determine Nominal Rated Fan Flow using one of the following two calculation methods:

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	a) Cooling system method: Nominal Cooling Capacity _____ (tons) x 400 (cfm/ton) = _____ (cfm)	
	b) Heating system method (for heating only units): Output Capacity _____ (kBtuh) x 21.7 (cfm/kBtuh) = _____ (cfm)	
2	Enter the rated fan flow value from calculations 1(a) or 1(b) (cfm)	

Completely New or Replacement Duct System:

3	Duct Pressurization Test Results (CFM @ 25 Pa). Enter Tested Leakage Flow in CFM:	
4	Pass if Leakage Percentage <6%: [_____ (Line # 3) / _____ (Line # 2)] x 100%	% <input type="checkbox"/> Pass <input type="checkbox"/> Fail

Pre-existing Duct System with Duct Alteration and/or HVAC Equipment Change-Out:

5	Enter Tested Leakage Flow in CFM: Pre-Test of Existing or Altered Duct System prior to Duct System Alteration and/or Equipment Change-Out.	
6	Enter Tested Leakage Flow in CFM: Final Test of New Duct System or Altered Duct System for Duct System Alteration and/or Equipment Change-Out.	

Use one of the following three tests or verification standards for compliance:

7	Pass if Leakage Percentage <15% [_____ (Line # 6) / _____ (Line # 2)] x 100%	% <input type="checkbox"/> Pass <input type="checkbox"/> Fail
8	Pass if Leakage Reduction is >60% and all Accessible Leaks are sealed as confirmed by Visual Inspection and Verification. Leakage reduction = {1 - [_____ (Line#6) / _____ (Line#5)]} x 100%	% <input type="checkbox"/> Pass <input type="checkbox"/> Fail
9	Pass if all Accessible Leaks are sealed as confirmed by Visual Inspection and Verification by HERS rater (sampling rate 100% by HERS rater)	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
	Pass if One of Lines # 7 through # 9 pass	<input type="checkbox"/> Pass <input type="checkbox"/> Fail

HERS Rater Company Name:

Responsible Rater's Name

Responsible Rater's Signature

Responsible Rater's Certification Number w/ this HERS Provider:

Date Signed: