

CERTIFICATE OF INSTALLATION		CF2R-MCH-28-H
Return Duct Design and Air Filter Device Sizing According to Tables 150.0-C or D		(Page 1 of 2)
Project Name:	Enforcement Agency:	Permit Number:
Dwelling Address:	City	Zip Code

A. RETURN AIR DUCT AND AIR FILTER GRILLE SIZING VERIFICATION

1.	System Name or Identification/Tag:	System Name or Identification/Tag from the Mechanical Plan
2.	System Location or Area Served:	System Location or Area Served Based on the Mechanical Plan
3.	Cooling Capacity (Tons of Condenser)	

B. SYSTEM INSTALLATION CRITERIA

<ul style="list-style-type: none"> The system is a standard HVAC system that does not use zoning dampers. The return duct length for each return air filter grille does not exceed 30 linear feet. The return duct does not contain more than a total of 180 degrees of bends added up. If the return duct contains more than 90 degrees of bend, one of the bends will be a metal elbow. The maximum allowable clean filter pressure drop does not exceed 0.05 inches of water. 			
<input type="checkbox"/> Yes		By checking the yes box the installer certifies that the requirements in the above box have been met.	
4.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	System Cooling Capacity is 1.5 to 2.5 Tons With a <u>Single</u> Return Air
5.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	System Cooling Capacity is 1.5 to 5 Tons With <u>Multiple</u> Return Air
6.	Required Return Air Grille Size	Based on answer to numbers 4 or 5 above:	In ² In ²
7.	Installed Return Air Grille Size		In ² In ²
8.	If installed gross return filter grille area is equal to or greater than the required area =< passes		✓ <input type="checkbox"/> Pass ✓ <input type="checkbox"/> Fail
9.	Required Return Duct Diameter	Based on answer to numbers 4 or 5 above:	In In
10.	Installed Return Duct Diameter		In In
11.	If installed return duct diameter/s is equal to or greater than the required diameter =< passes		✓ <input type="checkbox"/> Pass ✓ <input type="checkbox"/> Fail

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Installation documentation is accurate and complete.	
Name:	Signature:
Company:	Date:
Address:	CEA or CEPE or HERS Certification # If applicable:
City/State/Zip:	Phone:

RESPONSIBLE PERSON'S DECLARATION STATEMENT

CERTIFICATE OF INSTALLATION

CF2R-MCH-28-H

Return Duct Design and Air Filter Device Sizing According to Tables 150.0-C or D

(Page 2 of 2)

Project Name:	Enforcement Agency:	Permit Number:
Dwelling Address:	City:	Zip Code:

1. I certify under penalty of perjury, under the laws of the State of California, the information provided on this Certificate of Installation is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for construction, or an authorized representative of the person responsible for construction (responsible person).
3. I certify that the installed features, materials, components, or manufactured devices identified on this certificate (the installation) conforms to all applicable codes and regulations, and the installation is consistent with the plans and specifications approved by the enforcement agency.
4. I understand that a HERS rater will check the installation to verify compliance, and that if such checking identifies defects, I am required to take corrective action at my expense. I understand that Energy Commission and HERS provider representatives will also perform quality assurance checking of installations, including those approved as part of a sample group but not checked by a HERS rater, and if those installations fail to meet the requirements of such quality assurance checking, the required corrective action and additional checking/testing of other installations in that HERS sample group will be performed at my expense.
5. I reviewed a copy of the Certificate of Compliance (CF1R) approved by the enforcement agency that identifies the specific requirements for the installation. I certify that the requirements detailed on the CF1R that apply to the installation have been met.
6. **I will ensure that a completed, signed copy of this Certificate of Installation 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. I understand that a signed copy of this Certificate of Installation is required to be included with the documentation the builder provides to the building owner at occupancy.** I will ensure that all Certificates of Installation are registered with a HERS Provider Data Registry for projects that require HERS verification.

Company Name: (Installing Subcontractor or General Contractor or Builder/Owner)

Responsible Person's Name:		Responsible Person's Signature:
CSLB License:	Date Signed:	Position With Company (Title):
Is this installation monitored by a Third Party Quality Control Program (TPQCP)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Name of TPQCP (if applicable):

INSTALLER INSTRUCTIONS – MCH-28

1. Enter System Name or Identification/Tag from the Mechanical Plan
2. Enter System Location or Area Served Based on the Mechanical Plan
3. Determine the size of the outdoor condenser in Tons
4. Check yes or no box depending on installed condenser capacity. Yes answer in to question #4 only allowed for air conditioners sizes less than or equal to 2.5 tons.
5. Check yes or no box depending on installed condenser capacity. For system over 2.5 tons two return air grilles are required. If answer to #4 is no then #5 must be a yes to use this exception. If both #4 and #5 are marked no, then the system does not meet the requirements of Table 150.0-C or Table 150.0-D. This alternative cannot be used and the air flow and fan efficacy must be tested.
6. Required grill size:
 - a. If using Table 150.0-C with One Filter Grille Return the Minimum Gross filter Area is:
 - i. 1.5 Ton = 500 in²
 - ii. 2.0 Ton = 600 in²
 - iii. 2.5 Ton = 800 in²
 - b. If using Table 150.0-D with Two Filter Grille Returns the Minimum Gross filter Area is:
 - i. 1.5 Ton = 500 in²
 - ii. 2.0 Ton = 600 in²
 - iii. 2.5 Ton = 800 in²
 - iv. 3.0 Ton = 900 in²,
 - v. 3.5 Ton = 1000 in²
 - vi. 4.0 Ton = 1200 in²
 - vii. 5.0 Ton = 1500 in²
7. Measure and record the actual installed filter grill area:
 - a. For designs using Table 150.0-C enter one value
 - b. For designs using Table 150.0-D enter two values
8. Test passes if the installed is the equal to or larger than required. If test fails the system does not meet the requirements of Table 150.0-C or Table 150.0-D. This alternative cannot be used and the air flow and fan efficacy must be tested.
9. Required return duct size:
 - a. If using Table 150.0-C with One Filter Grille Return, the Minimum Return Duct Diameter is:
 - i. 1.5 Ton = 16 in
 - ii. 2.0 Ton = 18 in
 - iii. 2.5 Ton = 20 in
 - b. If using Table 150.0-D with Two Filter Grille Returns, the Minimum Return Duct Diameters are:
 - i. 1.5 Ton = 12 in & 10 in
 - ii. 2.0 Ton = 14 in & 12 in
 - iii. 2.5 Ton = 14 in & 14 in
 - iv. 3.0 Ton = 16 in & 14 in
 - v. 3.5 Ton = 16 in & 16 in
 - vi. 4.0 Ton = 18 in & 18 in
 - vii. 5.0 Ton = 20 in & 20 in
10. Inspect and record the actual installed return duct diameter:
 - a. For designs using Table 150.0-C enter one value
 - b. For designs using Table 150.0-D enter two values
11. Test passes if the installed is the equal to or larger than required. If test fails the system does not meet the requirements of Table 150.0-C or Table 150.0-D. This alternative cannot be used and the air flow and fan efficacy must be tested.