


## Fibrous Glass Duct Board Systems



**Presenter: Mike Dexter, ASCS, CVI**  
**Air Quality Control Environmental Inc.**

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**Presenters**



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### Disclaimer

The following presentation offers an overview of this topic. This program is not intended to be a comprehensive program covering all aspects of this topic. All technicians are encouraged to read and follow NADCA Standards. Also it is the responsibility of each individual contractor to follow local building codes and licensing requirements. It is your responsibility to work safely according to the authority having jurisdiction. The information presented does not cover every situation and it is your responsibility to adapt these tips to the individual system you are working on.

The instructor is not responsible in any way for the work you perform after viewing this presentation. You are responsible for your own work.

The views and opinions expressed in the following presentation are the instructor's opinions and are not necessarily the official position of the National Air Duct Cleaners Association.

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## What We'll Learn

-  Basic Assessment
-  Where is the fiberglass?
-  Assessing Fiberglass Insulation
-  Cleaning Fiberglass Insulation

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## ACR, The NADCA Standard

4.21.5  
No cleaning process shall be performed that will damage a properly designed, installed, and structurally sound HVAC system and its components, or negatively affect the performance, operation, or normal life expectancy of the system.



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## Cleaning Fiberglass Insulation

### Air Duct Fiberglass

Many air duct cleaning contractors encounter fiberglass insulation in the air handlers, plenums and ductwork of the HVAC systems they are cleaning.

Engineers originally designed in fiberglass insulation in HVAC systems for **acoustical** reasons (help control sound) or for **thermal** reasons (to help prevent temperature loss).

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# Assessment

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## Think Outside The Duct



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## Thorough Inspection



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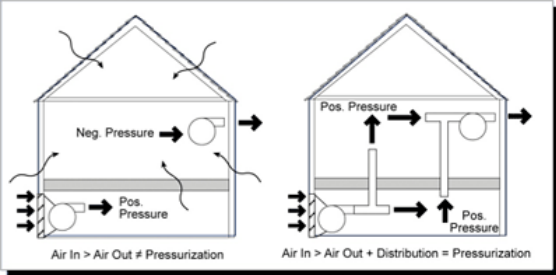
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Air In > Air Out ≠ Pressurization      Air In > Air Out + Distribution = Pressurization

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## Temperature, Humidity & Dew-Point

  
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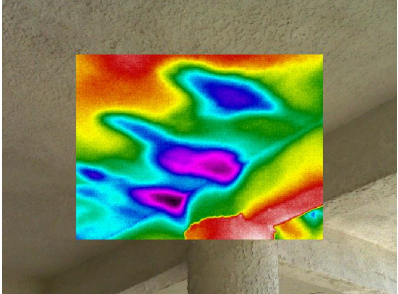
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Moisture Intrusion



The image shows a heatmap overlaid on a wall surface, indicating areas of moisture intrusion. The colors range from blue (low moisture) to red (high moisture), with a prominent red and orange area in the center.



The NADCA logo is located in the top right corner of the slide, featuring a globe icon and the text "NADCA The HVAC Inspection, Cleaning and Restoration Association".

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Roof Leak



The image shows a water stain on a ceiling, indicating a roof leak. The stain is a large, irregular brownish mark.



The NADCA logo is located in the top right corner of the slide, featuring a globe icon and the text "NADCA The HVAC Inspection, Cleaning and Restoration Association".

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Plumbing Leak



The image shows a close-up of a plumbing leak, with water spraying out of a pipe.



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### Sprinkler Hitting Outside Wall



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### Thermostat Setting



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### Oversized Equipment



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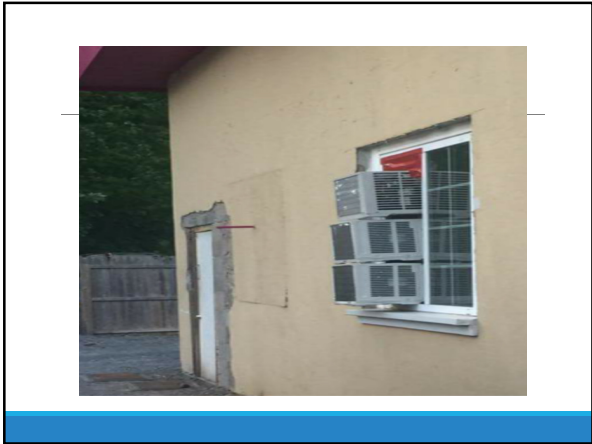
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Be Honest In Your Evaluation

A cartoon illustration of Pinocchio, the wooden puppet character, sitting and giving a thumbs-up gesture. He is wearing his signature yellow hat, blue shirt, and red shoes.

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A photograph showing the interior of a crawlspace or basement. The floor is concrete and appears dirty and cluttered. The walls are dark, and there is a large, dark, rectangular object in the background. The lighting is dim, creating a dark and somewhat ominous atmosphere.

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Where is the fiberglass?



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Where is the fiberglass?

Fiberglass insulation inside HVAC systems is typically found, but not limited to:

- Supply & Return Trunk Lines
- Plenums
- Junction Boxes
- Cans/Boots
- Air Handler Linings
- Etc...



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Where is the fiberglass?



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**Consumer Assumptions**

*I'm pretty sure we have metal ducts?!*





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**Fiberglass Duct**





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**Consumer Assumptions**

Reinforced by Generic Advertising





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# Cleaning

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Dealing with fiberglass insulation can be a real challenge. It can be damaged or degraded by:

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- Air erosion from the fan in the air handler
- Smoke contamination from a fire
- Mold or microbial contamination cause by the combination of excessive moisture and a microbial food source (dirt)
- Age
- Improper Cleaning Methods
- Building Design flaws
- Building Use/Occupancy
- Etc.....

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## What to do?

What do you do? What are your options?

In all cases, the first thing you must do is to inspect the fiberglass to determine the condition it's in.

- ❖ *Can it stand up to the rigors of cleaning or does it fall apart when you touch it?*
- ❖ *Is it wet?*
- ❖ *Structural Integrity?*

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## One size fits all approach



A cartoon illustration showing a snake, a stork, and an elephant standing in front of a store window. The window has a sign that says "ONE-SIZE FITS ALL STORE" and a yellow "SALE" sign. The snake is on the left, the stork is in the middle, and the elephant is on the right. The artist's signature "DICKI 2011" is at the bottom right of the illustration.

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## Access Is Key



A photograph showing a person's legs sticking out from a narrow opening in a wall, illustrating the concept of access. The person is wearing blue jeans and brown shoes. The opening is in a white wall, and the floor is concrete. A red and white striped mat is visible on the floor.

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## CLEANING



A photograph showing a hand holding a long orange rod, which is being used to clean a metal duct. The duct is open, and the rod is inserted into it. The background is dark, and the duct is metallic.

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### Cleaning Ducts



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### Cleaning Duct Board



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### RESTORATION



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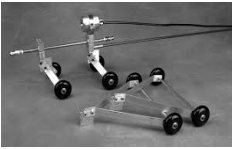



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### Application Methods



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### Conclusion



- ❖ Assessment is critical and should be the 1<sup>st</sup> step
- ❖ The cleaning method depends on the duct material and should be selected on a case-by-case basis
- ❖ There are viable, cost effective alternatives to replacement of ductwork

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### Thank You for Participating



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**Presenter Contact Information**

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- Office 954-345-5821

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