

# Wall Insulation Experiments

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Two 22 inch wide cavities,  
¼ inch Lexan, strapped for  
strength. Fiberglass  
stuffed in bottom of  
cavity. Cavities are  
3 ¾ inches deep.

Ready for test blowing.

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## Maine Wall Insulation Experiments



Summer-grade 1 ¼ inch tube inserted in 22 inch wide cavity. Tube is too flexible to reliably travel properly.

The flaccid tube makes it difficult, if not impossible, to achieve an adequate density in the wall.

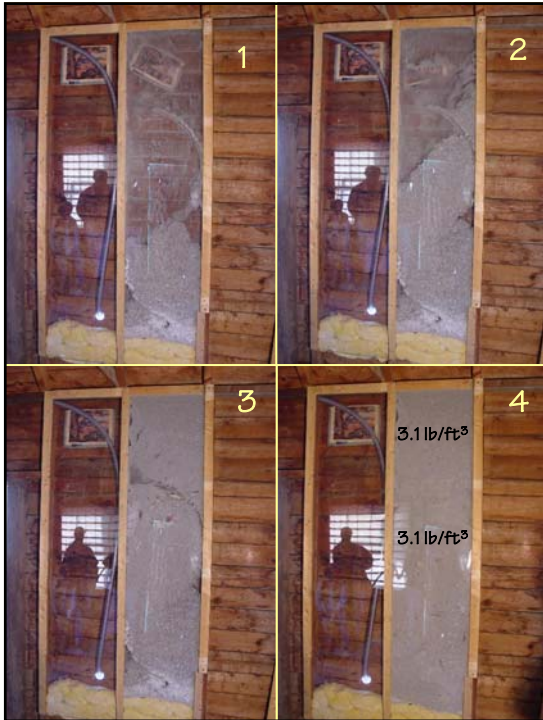
3



A more rigid 1 ¼ inch inside diameter tube is inserted in the left cavity. This turgid tube is much less likely to bend downward than the flaccid tube in the right cavity, ensuring a better insulation density.

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# Maine Wall Insulation Experiments



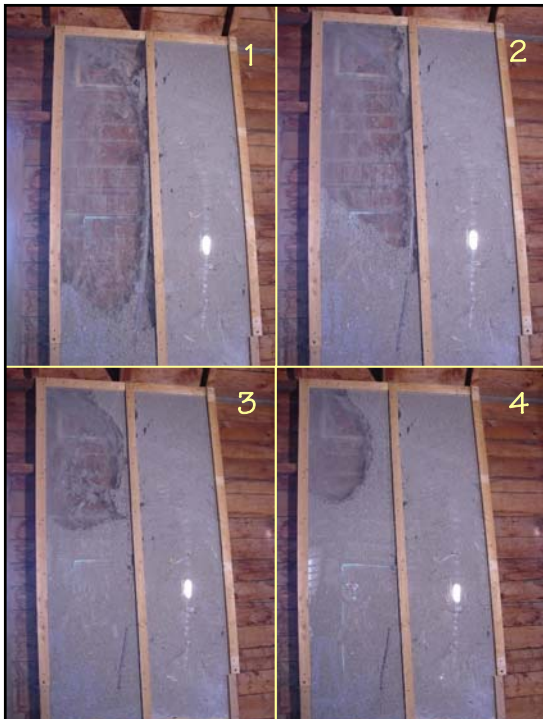
## Flaccid Tube Blow

The four photos show the sequence of blowing through the sub-standard tube from a fill hole near the bottom of the cavity.

The measured cellulose density in  $\text{lb}/\text{ft}^3$  at a particular height in the cavity is shown in photo number 4.

Note: Krendl 2090 machine with air on 7 for both blowers and feed set at 3.

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## Rigid Tube Blow

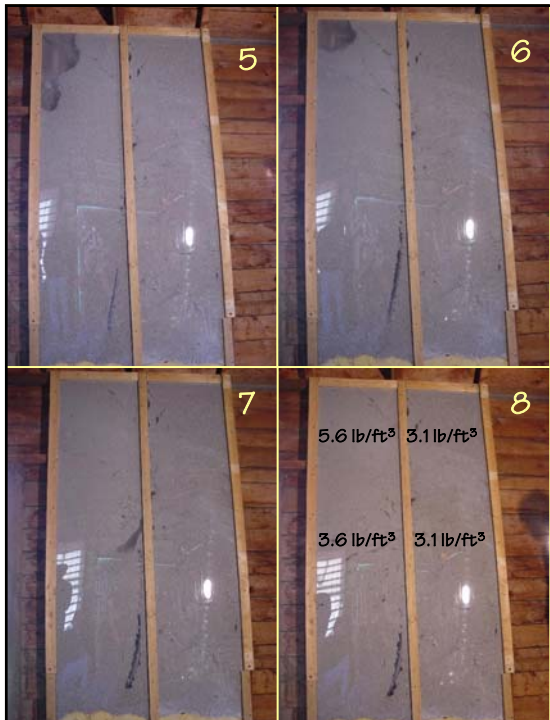
The four photos show the sequence of blowing through the more rigid tube (left cavity) from a fill hole near the bottom of the cavity.

Continued . . .

Note: Krendl 2090 machine with air on 7 for both blowers and feed set at 3.

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# Maine Wall Insulation Experiments



**Rigid Tube Blow**

The four photos show the sequence of blowing through the more rigid tube (left cavity) from a fill hole near the bottom of the cavity.

The measured cellulose density in  $\text{lb}/\text{ft}^3$  at a particular height in the cavity is shown in photo number 8.

Note: Cavity on right was blown with a less rigid tube that curved downward.

Note: Krendl 2090 machine with air on 7 for both blowers and feed set at 3.

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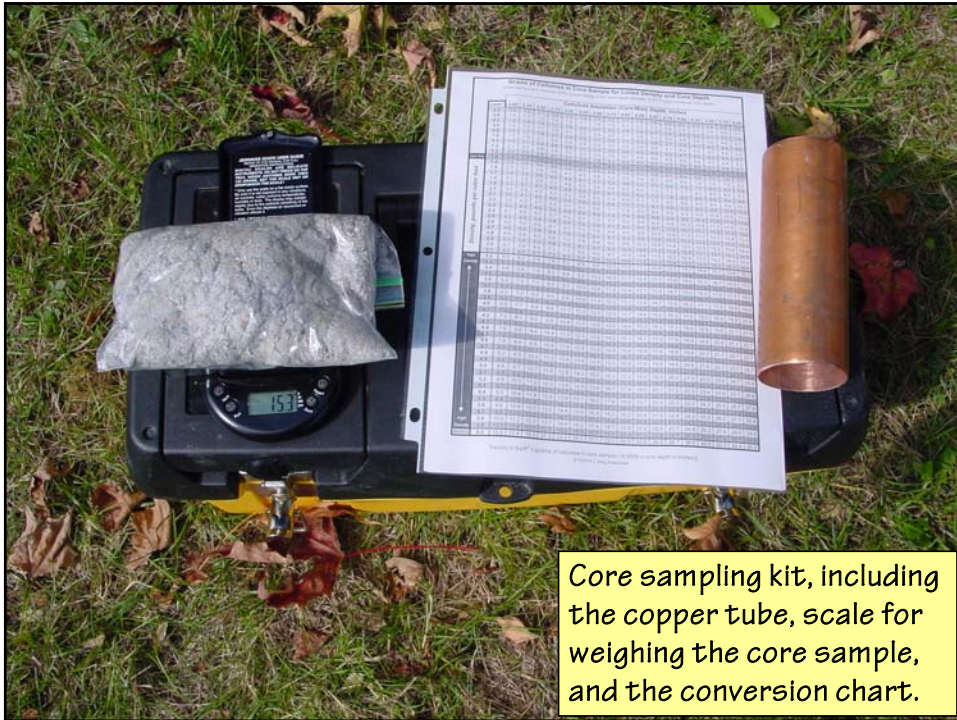


The Lexan is removed from cavities to get ready for the next test.

The holes through the wall sheathing and cellulose – except the bottom hole in each cavity – are the core sampling holes.

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# Maine Wall Insulation Experiments



## Center Fill, Up-Down Blow

The three photos show the sequence of blowing through a rigid tube from a fill hole near the center of the cavity.

The fill hole in the left cavity is at the same height as the fill hole in the right cavity.

Note: Krendl 2090 machine with air on 7 for both blowers and feed set at 3.

# Maine Wall Insulation Experiments

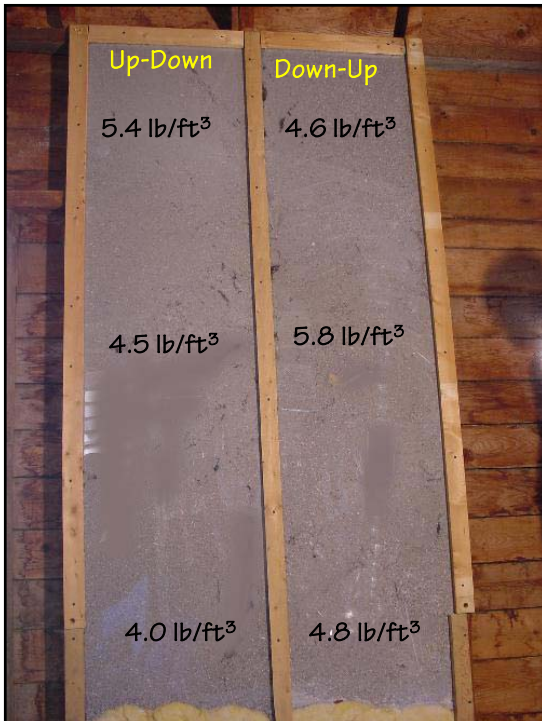


## Center Fill, Down-Up Blow

The four photos show the sequence of blowing through a rigid tube from a fill hole near the center of the cavity.

For this test, when the tube direction was changed to up, the feed was shut down so that only air came out of the tube. This seemed to "drill" a channel, allowing the end of the tube all the way up to the top plate.

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## Center-Cavity Fill Hole

In left cavity, the tube directed up and then down.

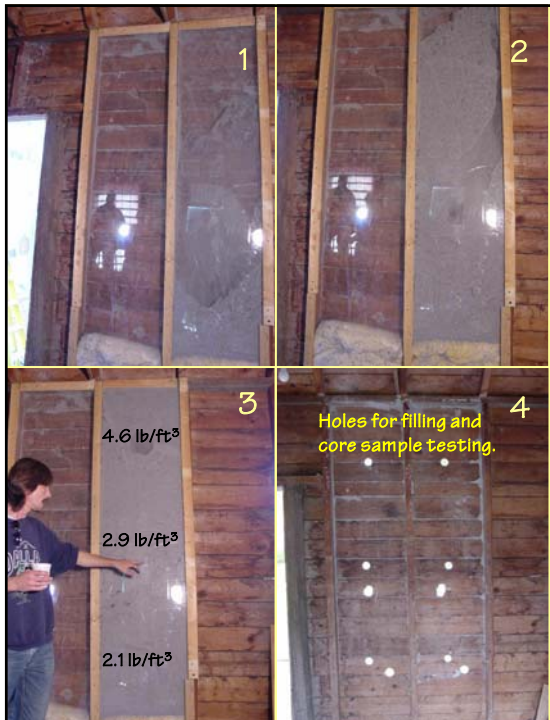
In right cavity, the tube directed down and then up.

The measured cellulose density in lb/ft<sup>3</sup> at a particular height in the cavities is shown in the photograph.

Note: Krendl 2090 machine with air on 7 for both blowers and feed set at 3.

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# Maine Wall Insulation Experiments



**Two-Hole Method**

The first three photos show the sequence of blowing through a nozzle, bottom and then top hole.

The densities measured from core samples are included on photo number 3. The top fill hole and core sample hole are one in the same (see photo number 4).

Note: Krendl 2090 machine with air on 7 for both blowers and feed set at 3.

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**Bottom Tube Fill with Inferior Machine Settings**

The left cavity is filled from the bottom with a sufficiently rigid summer tube, 1 ¼ inch inside diameter.

(The right cavity was done with the two-hole method with good machine settings.)

The inferior core sample densities are listed

Note: Krendl 2090 machine with air on 1 ½ for one blower and feed set at 4.

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# Maine Wall Insulation Experiments

