



## Understanding Condensation and your steel window bucks

Finding a thin layer of moisture on your window bucks during the fall and winter is very common, and can happen anywhere. As colder temperatures arrive, the likelihood of homeowners finding condensation on the steel buck increases dramatically. It is important to understand what causes this and how to resolve the issue.

### Why does water condense on your bucks?

Condensation occurs when the surface of the buck is at or below the dew point. Dew point is the temperature at which moisture begins to change from an invisible vapor to a visible liquid state. It is the same principle as when clouds form or when you get water dripping on your table from a glass of ice water you put down a few minutes earlier. The condensation on the buck is simply where existing humidity in the home collects.

The good news is that once you properly finish your basement, which includes finishing to the vinyl window, the buck is then insulated and the condensation will cease. It does not mask the issue; it stops it. We have included a drawing for reference on the correct way to finish to the vinyl window.

Homeowners often tell us they should not have condensation issues because they do not own or operate a humidifier. While humidifiers are the obvious choice of moisture, they are not the only source of water vapor in a home. Everyday activities contribute to the relative humidity levels in a home. Things such as taking showers, cooking and even breathing will release water vapors into the home.

### What can be done to reduce condensation?

Many simple daily actions can help reduce the amount of moisture in the air inside your home. Running exhaust fans while showering or cooking, for instance, will help a great deal, provided your fans exhaust outside. A good rule of thumb regarding relative humidity in your home is to keep it below 40% at all times. During very cold seasons, that number should drop to 20% or lower. Beyond these activities if you still have a recurring problem it can be a good idea to consult a heating and air conditioning professional to see what can be done to reduce the relative humidity and increase the air movement in your home.



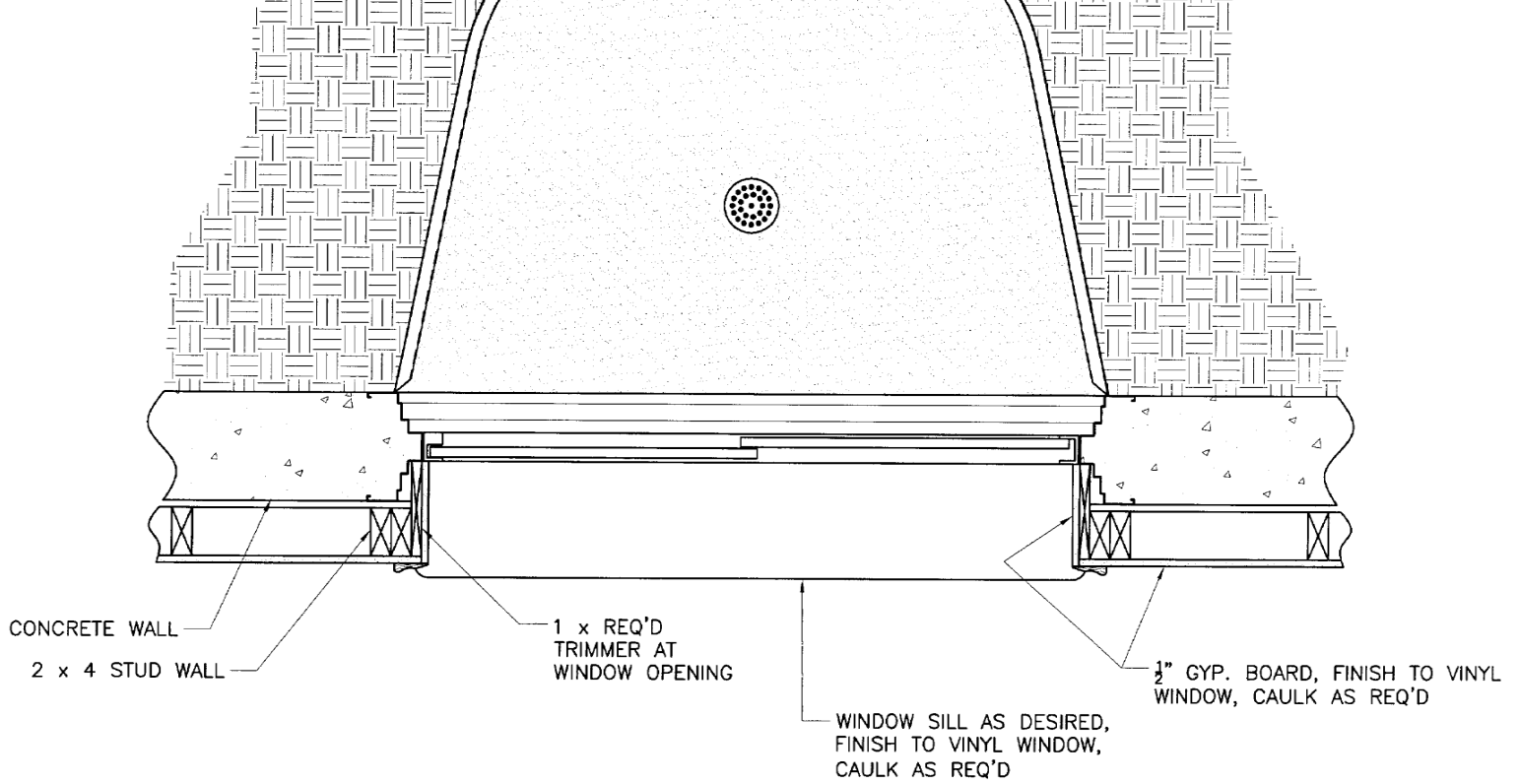
With the increased energy efficiency of today's homes, more moisture is now trapped within the home. Efforts to reduce condensation over the years have helped. However, principle of how and why condensation occurs will never change. Understanding these principles can help develop habits and practices that can further reduce condensation in your home.

A quick checklist of things you can do to reduce the likelihood of condensation on your window bucks:

- Know and understand the sources of humidity in your home
- Adjust the relative humidity levels in your home
- Keep humidity levels below 40% under normal conditions
- During very cold weather, drop the humidity to 20% or lower
- Always run exhaust fans when cooking or showering

#### **Optimum Humidity Relative to Outside Air Temperature**

<b><u>Outside Air Temp</u></b>	<b><u>Indoor Relative Humidity</u></b>
-20°F	Less than 15%
-10°F	Less than 20%
0°F	Less than 25%
10°F	Less than 30%
20°F	Less than 35%
40°F	Less than 40%



SUGGESTED INTERIOR FINISH DETAILS FOR *BOMAN KEMP*  
BASEMENT WINDOW SYSTEMS



Notice the insulating wrap installed over the buck.  
 Finish to vinyl window.