

“INTERIOR” STORM WINDOWS

Last week I was in a beautiful Victorian Home and I noticed that the windows had metal framed plastic storm windows mounted on magnetic strips. I asked the owner how effective they were and he said he was pleased other than the magnetic strips loose their strength over time. This type of “storm window” had a brief run of popularity some years ago.

If the cost of replacement windows is beyond your budget or you have an older home and don't want to remove those gorgeous old wood windows, then storm windows of some form are needed in our climate. There are a number of arguments for and against external storm windows vs internal storms. External metal storms are more money than internal storms. They must be sized and installed by a reputable window contractor; it is not a homeowner installation. A window in an older home of approximately 40” wide and 60” high would cost about 150.00 plus installation. These windows are measured in what is called “united inches”. A 40” wide x 60” inch high window is 100” united inches. You can use 1.50 an inch for estimating. The plus side, based upon one CMHC study, is that properly fitted aluminum storms have a payback period of 7-10 years. The older wood storms are not air tight and require some opening for air leakage so that condensation can escape. If you have these older windows, the “V” seal weather-stripping works well, use this on the top and sides only. They will help, but only marginally as the majority of older storms lack a good wood-to-wood seal.

Interior storm windows are certainly an option, especially if you are on a budget. The most popular interior storm window is the “one time” heat shrink film and double sided tape. Installed properly this provides an excellent seal and has reasonable visibility. There are drawbacks however, the lightweight film is easily damaged, they should not be installed close to any heat source, when warmed by sunlight some plastics emit an odor that some occupants may be sensitive to. Once you remove the plastic in the spring the double sided tape is difficult to remove and often takes the paint with it.

The other option is an actual plastic window that is fitted inside the window frame. Tight fitted interior storms have a number of benefits along with a considerable cost savings. One of the window companies I spoke to said a 3' x 5' 3mil plastic window with either a vinyl or metal frame would cost approximately 135.00. They will reduce drafts and raise the interior window temperature. They will help improve the sound resistance, decrease condensation and help lower the effects of the winter sun fading carpets and furniture. Homeowner installation, if you are handy at all is quite possible with these windows. The flip side of these windows is they must have an air tight seal or condensation will become an issue. Excessive condensation may cause long term moisture damage to the existing wood frames. They must be stored flat or they will loose their shape and hence their ability to fit tight into the window opening. Over time they will become

brittle and fade or discolour. The one thing I found in all of the interior storm window systems, there does not seem to be one common method of mounting them to either the window trim or inside the frame of the window. One vinyl frame had a ¼ lip that would allow you to attach the interior storm to the side of the window frame. I spoke to 3 window companies and not one of them offered the magnetic strips that were popular a few years ago. I have also seen on the odd occasion a plastic track that was attached to the window trim and a clear plastic film fitted over this track and another plastic snap in piece holding the film in place, not unlike a screen window.

The other option is to make your own interior storm windows. During my contracting days we had a cabinet shop and we often made up wood frame interior storm windows. If you have a small woodworking shop then this may be an option. In order to attach these to the window frame we made up a wood trim piece we attached to the actual frame. It was slotted in an "L" with a dado blade and the window was fitted into the slot and then we used the same butterfly type catches as are used in the older external wood storms. We generally used oak although pine could be used. We then painted or varnished this trim to match the window. Then we applied good self adhesive foam weather-stripping for the window to bed into. There is one web site called "hammerzone.com" that shows how they made their wood interior storm windows. They explained how they did this in understandable terms.

No matter which method you use, some form of storm windows is necessary unless you have thermopane windows. It is widely known that 25% of your heat loss goes out your windows and without some form of double window you can bet this estimate is considerably higher.