



This helpful information is provided to you free of charge as a service of...

Around Your House

Improvements – Repairs – Remodeling – Handy Services

Phone (414) 546-0814 Fax (414) 546-3240

www.aroundyourhouse.net

Window Advances in the Past Decade

by James R. Ziglinski, C.R.



When thinking of advancements in the construction and remodeling industry, the one component that comes to mind first is windows. In the last ten to fifteen years, the window industry has made greater advances in its product than any other item that goes into your home.

Looking at the history of windows, although they allow you to look out in the past, they also allowed your energy dollars to seep out like air from a leaking balloon. Today, windows can be compared to see-through piggy banks, with their tight construction and advanced glazing packages.

In the past, window replacements meant complete take-outs of existing units; frames, casings, and so on. Today, you still have this option. However, you also have the option of "replacement" style windows. A replacement window is a custom-fabricated window specially manufactured to fit within the current frames presently in your home. Thus, updating can be achieved without great expense or disturbing the rest of your structure.

Although exterior cladding has been around for some time, today's options are almost endless in regard to type of material or color desired. Cladding today can be achieved through a vinyl covering, roll-formed or extruded aluminum, and polymer materials.

Finish materials include fiberglass, aluminum, paint, and/or a combination of any of the above. Basic colors still remain commonplace. Yet most manufacturers of both new construction windows and replacement style units offer custom colors for those who desire to add their own personal touch to the project.

Today you can have clear glass, tinted glass, etched glass, beveled, leaded, or stained glass in your home. "It's not just for churches anymore!" Grids are common place and can be acquired in secured or removable modes from the glazing panels, in between, on one side, or on both sides of the glass. You can even design your own grid pattern with some manufacturers.

With all of these advances and strides in windows as a package, I'd have to say that the greatest advances have come in the glazing panels themselves. However, this was not without much trial and error.

Years ago, the thermal window was the ultimate achievement in glass. Soon, though, it was realized to be only a small stepping stone toward what was to come. It was felt in cooler climates that if two panes of glass were good, three were better. Thus came the advent of triple glazed thermal units. It proved to be more efficient than double glazed thermals, but not without serious drawbacks. Once the units

reached the market, they proved to be too heavy and caused premature wear and failure to the units' hardware.

Knowing this, something had to be done to either strengthen the hardware or lighten up the glazing panels. Some manufacturers opted to stay with the triple glazed units. However, they replaced the center glass panel with a film of sorts to lighten the weight of the unit. Other manufacturers opted to eliminate triple glazing in operating units only. Today, some ornate options such as leaded designs are placed as the center panel for both protection and ease of maintenance.

Otherwise, double glazed windows have returned as the prime glazing option. These double glazed panels are improved by the introduction of low-E glass coatings and filling the space between the glass panels with argon gas. This increased insulating R-values dramatically. The only problem that still seemed to remain is transference of temperature between panels, due to the standard aluminum spacer bar.

Conventional spacer bars are aluminum, with a desiccant filler to absorb moisture. They are sealed in place with a butyl or marine sealer. Advanced spacer bars, or "warm edge technology," led to stainless steel spacer channels. The shape ranges from the traditional square to c-channels or a squiggle type of ribbon. These cut the conductivity down, thus reducing the condensation problems at the frame.

Today's windows are but another stepping stone toward what is expected to come in the future. More secure and stronger hardware, built-in alarm contacts, and more efficient sound retardance are just a few of the areas being worked on for tomorrow.

Window buying today should involve lots of questions, careful research, and a comfortable rapport with the contractor you select. After all, he or she must stand behind the selection you make just as much as the manufacturer of the unit, for he or she realizes that their name is on the line, just as though they'd made the window themselves.

We hope this information has been helpful to you! If you have any further questions, please visit our website at www.aroundyourhouse.net, or contact Jim at Around Your House.

Phone (414) 546-0814

Fax (414) 546-3240

Email: jim@aroundyourhouse.net

Copyright 2003 Around Your House
All Rights Reserved