European window and door segment grows in U.S. to meet performance demands

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In the U.S., the demand for high performance windows and doors is growing rapidly. Energy codes, performance requirements, coastal impact zones, insurance requirements are driving adaptation and innovation among window manufacturers. As domestic window brands are racing to meet these demands, a greater and greater number of imported windows are entering the market with very technologically advanced, high performance windows. As owners are looking towards more efficient building envelopes, these windows are increasingly being specified for the greater performance demands. Green Build, Passive House, Net Zero Energy Homes, and Deep Energy Retrofits are becoming more popular each day, and the windows needed to meet these requirements are often coming from Europe.

Unlike manufacturers in the U.S. window industry, where individual brands innovate their products to gain a market advantage, the European industry model is more collaborative. That is, there are standards of production that are shared within the industry as a whole, and innovations are shared between all manufacturers, so that increases in performance, durability, and security are more readily available to the consumer. This way, as performance standards increase, consumers get better access throughout many window brands. This is why triple glazing, thermally broken sash construction, advanced glazing spacer technology, multiple full perimeter gaskets, and advanced multipoint locking systems have been used in Europe long before they were introduced here.

Having spent over 25 years in the window and door industry, I find that the European model for building very robust windows, allowing for very high testing thresholds, is very attractive to the ever-emerging energy efficient building designs. There are many variations in the window program that allow design flexibility to achieve desired aesthetics, performance levels, and glass configurations. The architect, builder, or client truly have very broad choices from the window program to make their project distinct. Flexibility on the factory floor with advanced CNC machines, programming, and tooling allows manufacturers to switch between window profiles quickly so that production efficiency is maximized, which keeps costs in line, resulting in a better value for the consumer.

How is the European window different from the American market window? In Europe, you see less of double hung and casement type windows, and more of the window type called Tilt-Turn. Tilt-Turn windows provide ventilation by tilting towards the interior from the top of the window. This provides ventilation, keeps rain out, and provides security. The hardware then functions to allow the whole window sash to swing into the room. This allows full ventilation, ease of cleaning as well as egress. Though this style of window has a different appearance, the window can be styled, with or without divided lites, to match many different architectural styles. Combined with the appropriate exterior trim details, a very traditional appearance can be achieved if desired. This type of window can be

used for contemporary, classical, historic, and traditional genres of architecture.

The European door products differ as well. Large door openings can be accommodated using Lift and Slide doors. These doors have roller carriages that drop down, which lift the sliding door panels up. This allows the sliding door panels to slide very effortlessly, even when constructed to extremely large sizes. Likewise, when closing the door, the operating panel drops down, providing an extremely tight seal. These door types are becoming more widely available and represent some of the highest performing doors available. This makes them a very attractive choice for coastal residential projects, where unobstructed views are desirable and high performance weather-ability is a necessity.

Since up to one third of a building's energy loss comes from windows, architects and builders will increasingly turn to these European manufacturers for technologically advanced, highly engineered windows and doors. As window manufacturers in the U.S. are expanding their offerings to accommodate this demand, importers are honing their efforts to bring in even more products from overseas that are already positioned to meet these performance levels. This is great for the consumers who want the most efficient structures!

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