



**WINDSOR**  
WINDOWS & DOORS  
A Woodgrain Millwork Company

**WINDSOR WINDOWS & DOORS**  
BRINGS YOU  
THE BEST  
IN GLAZING  
SYSTEMS

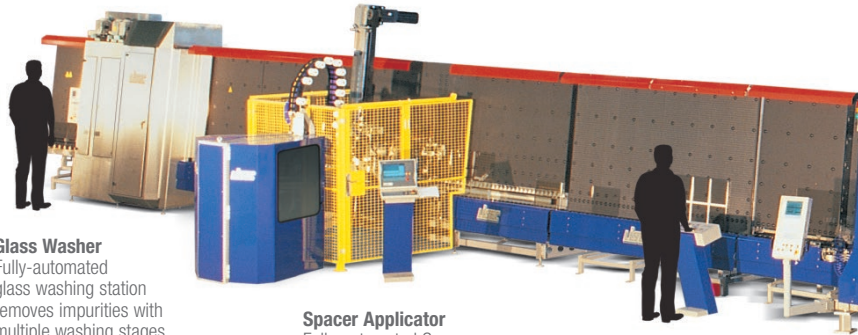
## Better performance, better value.

Windsor Windows & Doors is committed to meeting all of or your construction needs when it comes to windows and doors. Every product we manufacture carries our pledge to deliver quality design and craftsmanship. That's why our distributors, architects, builders and homeowners have trusted the Windsor name for over 50 years. Because we believe you shouldn't have to pay a premium to get the highest quality windows and doors, Windsor proudly uses state-of-the-art glazing systems in our Iowa and North Carolina plants to provide outstanding performance throughout our lineup of industry-leading products.

Windsor's glazing system offers builders a well-engineered window with superior energy efficiency at a competitive price. The highly automated glass line is continuously monitored through the entire process to ensure rigorous quality control standards are met. The innovative glass line represents another advantage for builders and distributors by provided the quality and value they have come to expect from Windsor.

To achieve a superior level of performance in our window glazing, Windsor uses three sophisticated technologies in our facilities: a highly automated fabrication equipment process from Lisec; high-performance glass from Cardinal and an advanced Super Spacer all-foam edge application from Edgetech.

# The Windsor Gla



**Glass Washer**  
Fully-automated glass washing station removes impurities with multiple washing stages and final drying zone

**Spacer Applicator**  
Fully-automated Super Spacer applicator ensures accurate positioning and constant depth of seal on all four sides of the window

**Grille Station**  
Fully-automated Inner-Grid Machine forms coil stock into profile and sequentially cuts each segment with appropriate end work and punches. Attendant places the assembled grid on glass before sheets are insulated

## QUALITY COMPONENTS

### Quality Cardinal® LoE 366 Glass

Windsor's glass fabrication line uses high-performance coated glazing from Cardinal Glass Industries. The insulated glass units produced on this line will be our standard glazing option, featuring 3/4" dual pane LoE 366 insulated glass with argon gas. This IG will deliver improved U-value performance over most other insulated glass. In addition, Windsor will also produce clear, Dual Low-E and tempered insulated glass. The Dual Low-E glazing option combines Cardinal LoE 366 soft coat with Cardinal i89 Low-E to create a super performance insulated glazing solution.

Building on our core values of superior quality, product selection, service and value, Windsor is proud to offer LoE 366 glass in all of our products. We believe the many superior and innovative features of Cardinal LoE 366 glass will bring measurable benefits to homeowners in all regions – and weather conditions – across the country.

### State-of-the-Art Lisec® Glass Fabrication Equipment

Windsor has installed an automated manufacturing system from Lisec in our facilities to provide you with the highest quality insulated glass (IG) available on the market today. Our highly-automated glass line requires no manual manipulation, which dramatically reduces seal failures caused by human contact with the glass. The robotic equipment provides an incredible level of accuracy for a fast and efficient material flow. Along with these features, we place our trust in Lisec, a company that has been in business for over 40 years and is the world's largest manufacturer of IG machinery.

# izing System

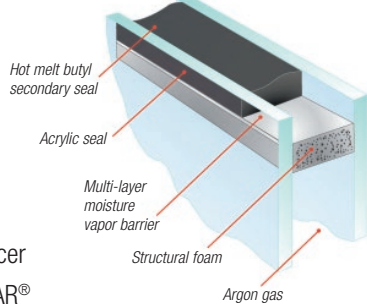


**Fill Chamber & IG Press**  
Fully-automated assembling/matching press with integrated argon gas flood chamber ensures consistent gas fill rates

**Secondary Sealing Robot**  
Sealing robot for precise application of hot melt butyl secondary seal

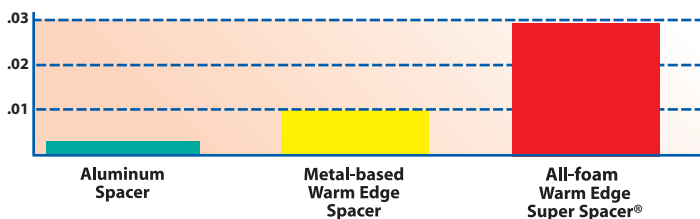
## Super Spacer® Technology

The Lisec production line features Super Spacer dual-seal moisture barrier technology that is designed to be one of the most thermally-efficient spacers in the marketplace. Super Spacer meets or exceeds ENERGY STAR® guidelines in all zones. The all-foam Super Spacers will reduce heat and cold conduction resulting in more comfortable living for the homeowner and fewer callbacks for the builder.



The 100% polymer foam formula is designed to reduce condensation and have superior Sound Transmission Coefficient levels. The all-foam, warm edge technology of Super Spacer improves thermal performance by over 200% with the best overall U-value improvements compared to a traditional metal-edged spacer. Super Spacer lasts up to five times longer in durability tests than conventional single seal units.

### Best overall U-value improvement

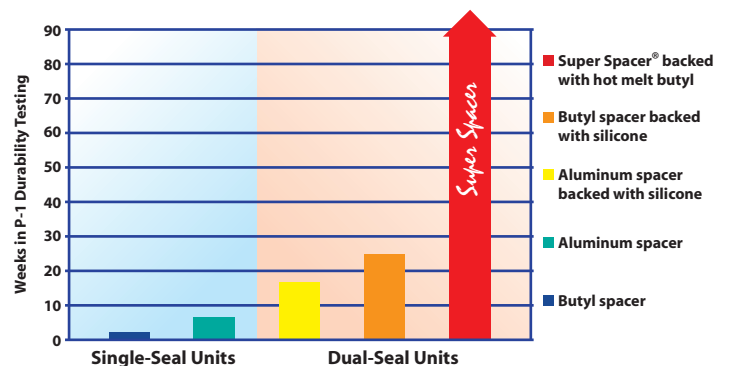


## The Windsor Promise

Since 1950, Windsor's strong Midwestern work ethic and pride in workmanship has been our guide in building our business. Woodgrain Millwork, Inc., one of the largest millwork companies in the world, owns Windsor. This relationship gives Windsor Windows access to a tremendous source of raw materials and backing, enabling Windsor to deliver quality products and better service to our builders.

Windsor provides a complete array of high-quality, energy-efficient products. We fully back all of our products with a promise for superior service. We pledge the best possible support services for timing and delivery in the industry. You can count on our quick and responsive team for all of your specialized needs. We are well known for being easy to do business with and providing a level of expertise that you can trust. Compare us feature-to-feature with the competition, and you will see why people who know windows choose Windsor.

### Five times more durable than conventional single seal units





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*Windsor Windows & Doors is an ENERGY STAR® partner and an NFRC, USGBC and WDMA member. Windsor products are certified and labeled according to the guidelines established by the National Fenestration Rating Council (NFRC).*

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