

Fenestration News

GED Integrated Solutions

Win the ratings war with Intercept Warm-Edge sealed unit technology

The Intercept Warm-Edge Spacer System is the market leader in warm edge window technology in North America, where over half of all residential windows manufactured in the US utilise the concept.

Energy-saving legislation in the UK and similar under-pressure manufacturing conditions, where competition is rising and every manufacturer is looking for ways to reduce costs and increase production, indicate that the introduction of Intercept in this country could be as successful as in North America.

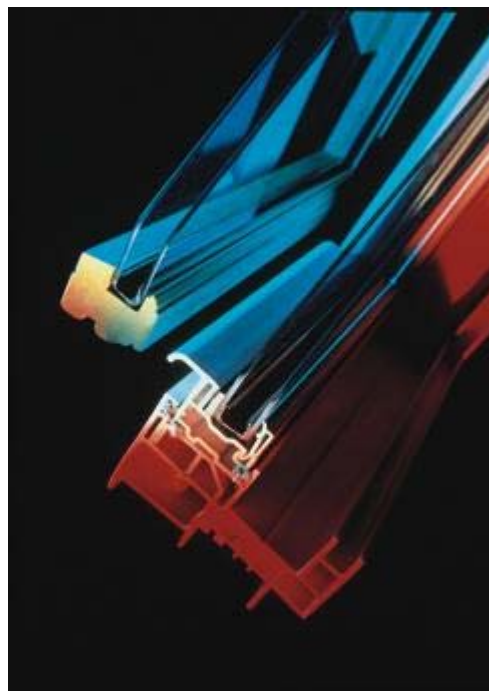
The benefit to manufacturers is that Intercept units can be made more efficiently while the speed, reliability, and repeatability of the system are major attractions to high volume manufacturers. Plus, Intercept offers a better performing double glazed unit than traditional methods.

Unlike the sealant-based alternatives, Intercept is a semi-rigid one-piece plated steel alloy spacer. Its patented U-shaped spacer design offers maximum strength and superior flexibility in an insulating glass unit unlike others available in the market.

The one-piece design also reduces interior condensation and heat loss conducted through the window. These positive factors, together with reduced extremes of flexing of the sealed unit under seasonal temperature variations, contribute to improved life of the unit.

With the introduction of the Window Energy Ratings of the Part L Regulations, which takes effect in April 2006, many window fabricators will look closely at their unit supplier's product in order to ensure at least the minimum replacement window level of compliance (Band E in the A-F ratings).

New build, including extensions, will require a Band D rating and it is acknowledged that in order to comply with or to improve the ratings level, sealed unit technology will be the deciding factor, with Low E glass and argon-filling becoming standard. Intercept units have tested and complied with Band B and sights are set on Band A.



It is clear that Intercept Warm-Edge technology can provide the key difference in window ratings.

In the North American market much of the success of the Intercept concept was due to glass processing equipment manufacturer GED Integrated Solutions, whose machines were not only able to drive up production levels considerably, but also save at least a dollar a unit in costs.

In the UK it is estimated that savings on sealed unit production using GED equipment will amount to £2 – 3 per unit, a significant saving when manufacturing 800 or more units a shift.

Founded in 1977 GED was the first company to offer optimised glass cutting, and the first to integrate manufacturing equipment into a systems approach. The company introduced the first horizontal hot melt IG fabrication equipment and so made possible the high volume lines that we are now used to seeing.

GED also launched the first Break-Out Monitors for sorting cut glass into movable slot sorting racks, thus opening the market for computer-controlled glass cutting by offering increased control over production and reduced wastage through scrap.

Their WinSystem 1 software platform completed the integration of the IG department, ensuring greater output and better organization of production, offering customers huge leaps in productivity.



These days, as an ISO 9001 accredited company, and with a full line product offering for horizontal IG glass fabrication, window fabrication, material handling and software, GED having grown to become a world leader in integrated window manufacturing systems, now counts more than half of the Top 100 window manufacturers in North America as its customers.

In the UK, there are now two full production lines in use with several more on the way in 2006.

The company has followed up its successful track record with their new i3 technology platform to create a seamless, lean manufacturing system for window and door production.

i3 draws upon the company's experience over nearly 30 years as an innovator in glass fabrication technology and delivers practical solutions to window fabrication alongside the possibility of totally integrating every facet of a plant's operation, including frame production, glass, glazing and shipping.

In summing up the concept, Ron Auletta, CEO and President of GED Integrated Solutions, says:

"Today's typical plant is challenged by disjointed communications and orders. Managers try to balance the schedule coming from the front office with the needs of the shipping department out the back. This balance is constantly being challenged by remakes and rush orders coming from all directions. i3 technology coordinates machines, processes, software and people to address these issues and get orders out the door fast."

The i3 concept and its LeanNet Software platform takes full advantage of the benefits of

so-called 'Lean Manufacturing' operations where the 'one-piece flow' system prevails and each component or assembly is produced or processed at one workstation before moving on to the next. Batch assemblies are avoided.

Integrating customer orders, reports, rush orders, frames, glazing, remakes, and deliveries, LeanNET, in the words of Ron Auletta "ties it all together."

In replacement window manufacturing where almost every frame and unit is a bespoke item, this approach offers sublime flexibility and avoids confusion within the production process. Ugly scenes of window frames or IG units 'log jamming' at the back of the shipping office are gone.

With efficiency and performance at the heart of the company's growth in North America, GED is now focusing on the UK market with the appointment of a dedicated UK Sales and Service Department based in the Midlands.

For more information about GED Integrated Solutions and Intercept Spacer Systems please contact Chris Wale, at GED below

Warmer windows with Intercept

Real-life test conditions (as illustrated below) utilising Low E glass and argon gas-filled units show that Intercept does provide a superior performance with a glass edge U-value some 25% lower than a conventional unit at only 0.34 compared to 0.45 with no visible condensation.



Conditions:

Cold side temperature -17.8 Celsius (0 F) with 15 mph wind

Room side temperature 22.2 Celsius (72 F)

Room side relative humidity 25%

Windows: 2.5mm Low E glass, 12.5mm spacers, argon filled units, 610 x 1220mm PVCU frame



Intercept Spacer

Conventional Spacer

The thermograph or heat picture (above, blue is colder)

confirms that Intercept allows for significantly warmer glass temperature at the edges

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