Integrated Solutions
9280 Dutton Drive Twinsburg, Ohio 44087-1967

NEWS RELEASE

Contact: Kate Donahue
Marketing Specialist
330.487.5051
www.gedusa.com

FOR IMMEDIATE RELEASE

GED Integrated Solutions (GED) Celebrates Twenty Five Years of Intercept® Spacers

Twinsburg, OH. – GED Integrated Solutions, Inc. (GED) today announced it is celebrating two milestones in 2017. Not only does this year mark GED's 40th Anniversary as a worldwide supplier of fully integrated insulating glass and vinyl window and door fabrication systems, including robotic solutions, it also marks the 25th Anniversary of its introduction of the renowned Intercept Warm Edge Spacer Technology System.

Disruptive innovation is defined as any new technology or process which disrupts an existing market and displaces established market leaders. The Intercept Warm Edge Spacer Technology System for insulating glass units is one of those innovations. Within a short period of time after its introduction 25 years ago, over 60% of the residential insulating glass units made in North America were manufactured with the Intercept spacer system. This all began when two companies crossed paths at the InterGlassmetal trade show in New Orleans in 1989. Neither knew at the time that this meeting would lead to a technology that would totally disrupt the construction of insulating glass units.

GED worked in its trade show booth demonstrating its patented folding locking corner key for metal rectangular spacer bar used to produce insulating glass. This plastic folding corner key would allow an extruded application of sealant to the spacer in a continuous linear method. The spacer could then be folded, ready for assembly. Prior to development of this technology, the four spacer segments for an insulating glass spacer frame were assembled prior to the application of sealant. The sealant was then applied one segment at a time as the frame was "cart wheeled" through the sealant extruder. This new linear process greatly improved throughput and reduced spacer handling. PPG, the second company, at the same time was searching the tradeshow for an equipment manufacturer with the ability to design equipment for a new spacer concept with improved thermal performance.

Subsequently, early in 1990 GED and PPG reviewed the possibilities of a new concept and the beginning of a long partnership was solidified. PPG Industries was looking for a method to form a stainless metal strip into a "U" shape. This "U" shape design would reduce one of the thermal paths of the spacer and greatly enhance the thermal performance of insulting glass and windows.

(more)

The first trial spacers were truly "U" shaped as they exited the die. The spacer material was .010" thick creating a sharp edge at the top of the spacer. The new spacer system was no longer closed at the top. The HB Fuller Company developed Insul-Dri® hot melt matrix which combined hot melt adhesive and desiccant technology. This new desiccated product could be applied linearly to the spacer, eliminating the time consuming task of filling spacers with beaded desiccant.

In 1991, less than two years after the New Orleans meeting, the beta Intercept system was completed and trialed. This paved the way for the shipment of the first production system which shipped to the WENCO window plant in Mount Vernon, Ohio in 1992. The first Intercept frame machines, often referred to as GEN I, operated with Windows based software and contained hundreds of copper wires over its forty five feet length. Over 130 GEN I Intercepts were produced.

As part of continued research and development, the next Intercept, Generation II was designed and shipped in 1997. This new Generation included improvements in data handling, the latest technology in motion control, faster communications, less hard copper wiring and fewer moving parts. With improved data communications the flying cutoff was replaced with a fixed cut off and swaging system without a decrease in system output. The feeder press was redesigned for quicker and consistent die maintenance. The reduction in moving parts improved preventive maintenance, troubleshooting and reduced down time.

The GEN I & GEN II Intercept Warm Edge Spacer Systems had the capacity for two different coil widths to allow for different width airspaces in the completed insulating glass unit. The un-coiler would rotate allowing the next size spacer to be threaded through the machine. Manufacturers began to sort their production orders by air space size to minimize coil change interruptions. Producing units by airspace resulted in the need to resort to finished insulating glass units prior to delivery to the appropriate glazing line.

In 2004, continued research combined with advances in control technology eliminated the finished unit sorting problem with the shipment of the first Intercept i-3 Frame Machines.

The Intercept i-3's uncoiling system stored ten different coils which were automatically treaded through the system. Advances in the WinIG software allowed insulating glass units to be in the order that matched the manufacturer's window production requirements. Spacer width changes became automatic, the amount of material used in the treading process was reduced and the need to resort the units at the end of the insulating glass line was eliminated. These design improvements resulted in the Intercept i-3 receiving the *Window and Door* Magazine's Crystal Achievement Award for the "Most Innovative Machine" in 2005.

In 2016, the Intercept spacer system again captured the Crystal Achievement Award for the "Most Innovative Machine" with the design and introduction of the Intercept 2.5. Again, continued research and development combined with new control technology gave way to a better Intercept. This new system includes the advanced Corner+ which greatly enhanced the performance of the fourth corner. Also included are automatic die changes to allow different spacer materials and colors. Spacer material movement and processing is enhanced with Feeder Press Roller Strip Guidance, pneumatic cylinder Energy Control and a corner crimper upgrade.

(more)

Today, as a result of a chance meeting at a New Orleans trade show, combined with twenty five years of research and innovation, the Intercept Spacer System can still be truly labeled a disruptive innovation. It disrupted an existing market and displaced the established market leaders. This durable spacer system with its warm edge performance, argon retention and long moisture vapor transmission path continues to be the market leader with over 15 billion feet of Intercept Spacer performing every day in more than 900 million windows throughout North America and Europe.

The Intercept 2.5, GED's next generation of the proven Intercept technology compliment to the i-3 Intercept System replaces GED's GEN I and GEN II Systems. With 2.5, one machine allows the use of multiple metal and sealant options, including DSE, or produce single-seal or dual-seal units. The automatic application of desiccated matrix material ensures maximum performance. Daily demonstrations of the Intercept 2.5 will be held throughout GlassBuild America 2017 in GED's Exhibit #3437.

For further information, call 330.963.5401 or visit www.gedusa.com.

About GED Integrated Solutions

GED Integrated Solutions is a worldwide supplier of fully integrated glass and vinyl door fabrication systems and the pioneer of the revolutionary Intercept i-3 Warm Edge spacer frame production system. The company's i-3 platform works with its LeanNET® communications software to integrate every facet of a plant's operation, increasing IG quality and production volumes and profits while decreasing operating costs and material wastage. GED's commitment to innovation that addresses its customers' needs is evidenced by the fact that 18 of the top 20 window and door manufacturers utilize GED's equipment and software solutions.

###