

# GLASSTECH WORLD

SEPTEMBER · 2005

## GLASSTECH SALES, SERVICE AND SUPPORT SPANS THE GLOBE

Glass processors worldwide can rest assured that wherever they are located and whatever their needs, Glasstech, Inc., is there for them.

As the innovator and builder of the world's leading architectural and automotive glass processing systems, Glasstech offers dozens of systems ideal for any glass processing situation. Glasstech has installed 473 of its glass bending and tempering systems in 52 countries on six continents.

Glasstech has expanded in recent years to ensure sales, service and support options are strategically located for its customers.

All systems are designed and assembled at the Glasstech corporate complex in Perrysburg, Ohio, U.S.A., and shipped around the world. From its Glasstech Limited office in Worcester, United Kingdom, the company provides service to customers throughout Europe, Africa and the Near and Middle East.

Recently, Glasstech opened its Shanghai representative office to better serve its growing Pacific Rim customer base. The company will also open an office in India before year end.

Glasstech's commitment to customers extends beyond the initial system purchase. Glasstech established a comprehensive aftermarket program that helps to ensure customers receive continued performance and technology advances. The aftermarket program helps customers achieve increased efficiency and lower operating costs.

As Glasstech develops new technology innovations, it incorporates these advances into retrofits that are available for installed systems. Glasstech offers a contract service program that enables system users to design a service and support package matched to their needs and gives them priority access to Glasstech technical service capabilities.

Support for Glasstech systems starts with a one-year warranty on newly installed systems and progresses to include retrofits, tooling development, replacement parts, service audits and refresher training for operators.

Please contact your Glasstech representative to learn about the latest product retrofits or customer service and support options.



LOW-E GLASS is the worldwide standard in commercial and industrial glazing, and the worldwide standard for tempering Low-E glass is Glasstech's FCH2™, Forced Convection Heater Flat Glass Tempering System. This Glasstech innovation tempers soft-coat Low-E glass at a typical cycle time of 33 seconds per millimeter of thickness, about half the time of traditional electric radiation heating systems.

## In Memoriam: Norman Klatt

We regret to announce that Norman Klatt, Vice President of Sales for Glasstech, passed away on Sunday, September 25, 2005.

Norm was hired by the Company's three-founding fathers on December 1, 1980. He was the Company's first marketing and sales professional. In the early days, he sold equipment worldwide and signed contracts with customers in the North and South Americas and in Europe.

During the past 12 years, Norm concentrated on the expanding Asia-Pacific market. We estimate that Norm has been responsible for approximately one third of the Company's sales worldwide. In June 2005, Norm was presented with Glasstech's first President's Award for opening and developing the Chinese market and for outstanding accomplishments in the field of marketing and sales.

Norm was a graduate of the University of Toledo where he was a member of the Alpha Sigma Phi Fraternity.

Surviving him are his wife Barbara, two sons Andrew (Cindy), William (Carla), three step-daughters, Suzanne (Abe) Evon, Karen (Bob) Balduf and Diane Evon, plus his 10 grandchildren and beloved cat, Bruce.

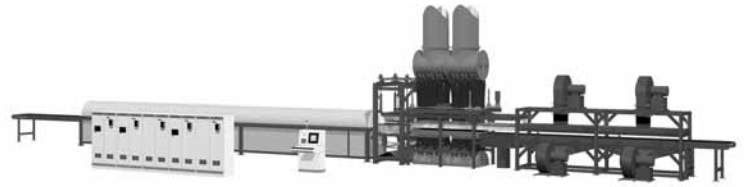
Norm will be remembered for his excellent customer relationships, for his knowledge of the industry and for his strong commitment to close the deal.

He remains an example and an inspiration to all who worked with him. Norm will be missed but not forgotten.



Norman Klatt meeting with the management team of Changzhou Industrial Glass.

## GLASSTECH INTRODUCES WIDER EPB™ WITH DUAL-STREAM CAPABILITIES



Glass processors constantly look for ways to improve productivity and reduce operating cost. The most recent Glasstech system upgrade demonstrates the company is in tune with the needs of its customers.

The Glasstech External Press Bending (EPB)-DS is a 72-inch (1829mm)-wide system capable of accommodating either a single or dual stream of automotive glass parts. This versatile system can run 95 percent of the current automotive sidelites including front and rear doors, quarter windows, van sliders and van quarters along with sun roofs and a large percentage of the backlites currently on the market.

“The Glasstech EPB-DS is ideal for a processor with limited space and the need to run a large variety of glass part shapes and sizes,” said Jay Molter, Director of Marketing & Sales, Glasstech. “This system is a reflection of how Glasstech constantly strives to exceed customer requirements.”

The EPB family of systems produces parts with very accurate peripheral and body shape and with optical quality that exceeds VW/Audi standards. EPB systems are versatile, efficient, high-throughput systems that bend and temper or heat-strengthen. They form cylindrical, compound and complex-shaped parts as well as symmetrical or asymmetrical parts.

The EPB-DS with its wide bed can accommodate a dual stream of sidelites and smaller parts ranging from 14 inches (356 mm) long by 16 inches (406 mm) wide up to 48 inches (1220 mm) long by 34 inches (864 mm) wide.

For larger parts, such as backlites, the system processes components in a single stream as large as 40 inches (1016mm) by 68 inches (1728 mm).

“Previously, EPB systems could be configured to process parts in seven seconds,” Molter said. “Now, the EPB-DS in dual-stream mode can process two parts every seven seconds for a marked increase in efficiency.”

Quick-change pressing stations enable the EPB-DS to switch from a single stream to a dual-stream configuration in a minimum amount of time. Tooling used is made from iron alloys that are less expensive than the stainless steel alloys used in many other systems.

The EPB-DS is equipped with an adjustable quench that uses inexpensive and easily changed templates to set the shape. The quench design and template shaping help to reduce tooling cost and part changeover time.

The EPB family of systems can be equipped with Glasstech’s patented FanRoll System to pre-form glass inside the furnace, reducing the final press motion and decreasing cycle time. These systems also incorporate the patented Glasstech positive roll-drive system, with every roll driven independently and positively.

According to Molter: “The EPB-DS combines the production-proven heritage of the EPB with the flexibility and productivity of a dual product stream, the economy of lower-cost tooling and a universal quench, and cycle times as low as seven seconds for two parts. The EPB-DS is a new-generation system designed to boost glass processors’ production capabilities with enhanced quality and productivity at lower operating cost.”

## CONTINUING INNOVATION DRIVES GLASSTECH SUCCESS

*Where Innovation Continues* is Glasstech’s founding principle and the ongoing commitment that drives the company to continually produce world-standard glass bending and tempering systems for the architectural and automotive markets.

Glasstech has made a number of improvements to existing systems recently that help to illustrate this ongoing commitment to innovation.

The **DB™ 4** Advanced Bending and Tempering System has become the worldwide standard for the production of complex, high quality press-bent sidelites, quarterlites and backlites. Recent enhancements have improved optical quality, shape accuracy and increased glass yield.

The DB 4 Quick-Change tooling and Fast Cycle developments respectively reduce tooling changeover time to 90 minutes from 8 hours and increase output by 20 percent or more. The DB 4 Quick Change and the DB 4 Fast Cycle options can be ordered separately or combined on new DB 4 systems or retrofitted to existing models.

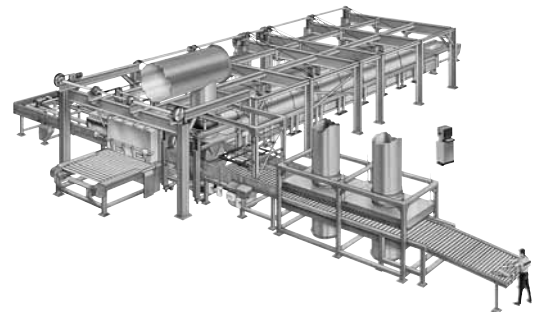
**CRB-A™**. Glasstech has expanded the range of its popular CRB Cylindrical Radius Bending and Tempering System to include a 1,500mm (59 inches)-wide CRB-A™ model.

The wider-model processes both symmetrical and asymmetrical glass sidelites used in buses and railroad passenger cars. The system also can produce shapes with two radii, J-bends or V-bends.

All CRB systems produce accurate, high quality cylindrical shapes to exacting tolerances with excellent optical quality and do not require part-dedicated tooling. They can accomplish part shape changeovers in as little as a few minutes.

**TRCB.** Recently, Glasstech has introduced a 1500mm system to expand the existing 1220mm-wide Glasstech Tight Radius Cylindrical Bending and Tempering System™. The new system can produce retail displays, showcases with minimal framing, advanced shower enclosures, new furniture shapes and one-piece kiosk or booth panels.

The TRCB produces bent, tempered glass featuring cylindrical curves, tight-radius “V” shapes, combination bends of up to three flat sections and two tight-radius bends, and a wide variety of symmetrical and asymmetrical shapes. The TRCB forms these complex shapes to exacting tolerances with the highest level of uniformity and excellent optical quality.



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WHERE INNOVATION CONTINUES

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