



glasstech[®]
WHERE INNOVATION CONTINUES
Aftermarket Services

Reliable Aftermarket Services

Improved productivity and reduction of downtime are top-priority objectives in the glass processing industry.

Glasstech, Inc., the leading worldwide producer of glass bending and tempering systems for the solar, automotive and architectural markets, offers an impressive array of aftermarket services to help ensure that superior productivity and efficiency will be available to Glasstech system users.

Glasstech's aftermarket services include:

- Retrofits
- Tooling
- Shape Modeler® proprietary software
- Replacement parts
- AutoGlassInspector/AGI™
- Technical services (contract services)
 - Audits
 - Troubleshooting
 - Equipment maintenance service

| Retrofits and Upgrades |

Glasstech continuously improves its product offerings to provide greater capability, higher productivity and enhanced glass product yield and quality. These improvements are offered not only on new equipment, but also as retrofits and upgrades to existing systems. The modular construction of Glasstech systems readily facilitates these upgrades or retrofits. In most cases, Glasstech systems can be retrofitted with new technology at a fraction of the cost of purchasing all-new equipment.

This service also can lead to expansion of the capability, flexibility and productivity of existing systems. For example, the installation of Fast Cycle and Quick Change upgrades on a DB 4™ system can increase productivity by 40%. Computer upgrades with modern diagnostics and interface capabilities can be installed. Furnace heaters can be extended on any Glasstech unit to increase productivity and output. Numerous other retrofitting opportunities are available as well.

| Replacement Parts |

Glasstech is the source for all Glasstech system replacement parts.

The company prides itself on being the most reliable supplier for all needed parts.

Glasstech also is the preferred source for the unique ceramic furnace rollers used by its systems. The rollers are designed and manufactured to very exacting specifications.

The advantage of securing parts from Glasstech is the assurance that the new parts will fit perfectly and operate in the system as well as the original parts.



| Tooling |

Automotive original equipment manufacturers (OEMs) become more demanding each year for higher quality, greater accuracy and lower cost for automotive glass parts. Glasstech designs and manufactures the tooling supplied with its automotive bending and tempering systems. The complex tooling required for automotive deep bending systems in particular must be matched precisely to the system and must meet very demanding design specifications for shape and optics in the final glass product.

Before shipment, all tooling provided to customers is pretested in a specially designed tooling prove-out furnace at Glasstech. Therefore, the tooling has not only been manufactured according to specifications, it also has been used to make glass before shipment to the customer. Customers are encouraged to attend these prove-out sessions.

Importantly, Glasstech can provide a tooling installation service which consists of a team of technicians capable of installing the tooling and preparing the customer's system for production.

This is another illustration of Glasstech's capability to ensure that its systems being used around the world continue to match or exceed the productivity and quality for which they were designed.



| AutoGlassInspector/AGI™ |

Complementary to its range of highly capable automotive bending and tempering systems, Glasstech offers AutoGlassInspector/AGI for offline or online measurement of optical quality. Many OEMs require glass suppliers to validate the quality of glass parts with visual display and measurement of distortion in millidiopters (mdpt). It is also more user-friendly than and has several advantages over competitive systems.

AutoGlassInspector is another Glasstech innovation that provides glass processors with the ability to meet customers' quality and productivity requirements.



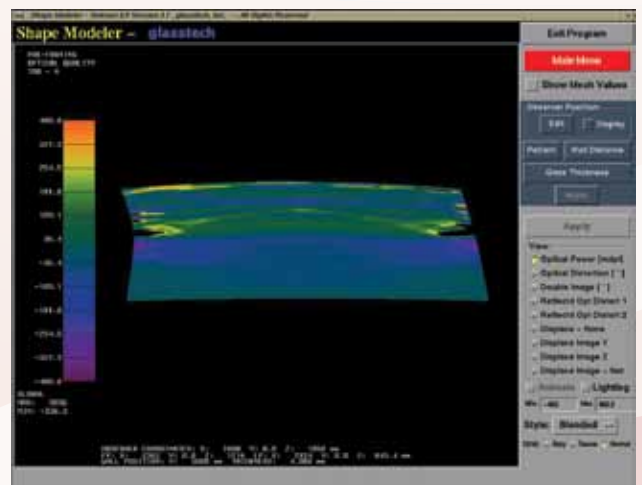
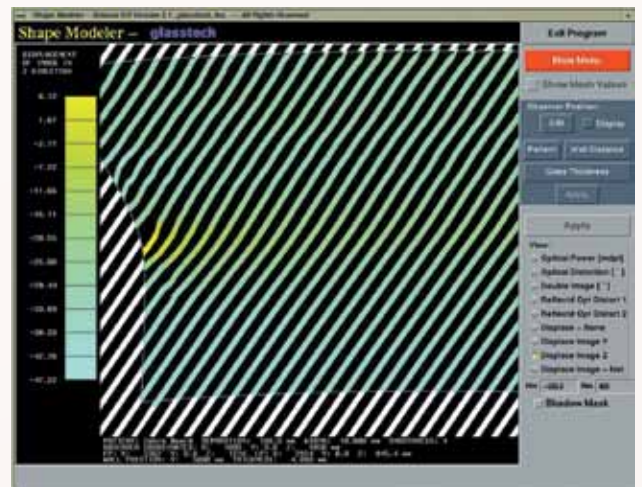
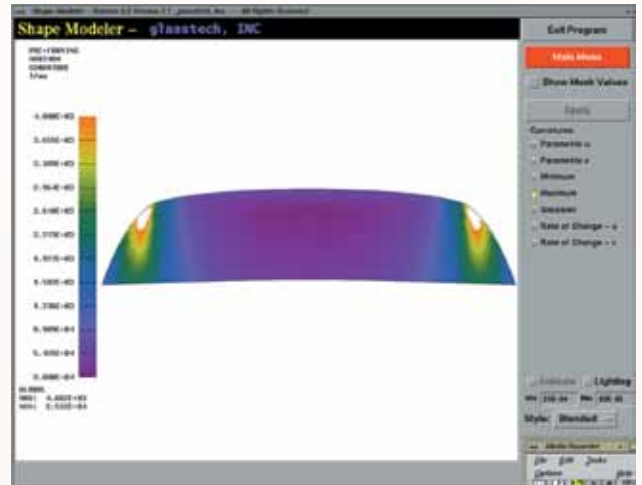
| Shape Modeler® |

Another powerful aftermarket service is Shape Modeler®, a mathematical modeling computer software program primarily designed to assist the automotive industry.

Shape Modeler simulates automotive glass forming processes and glass evaluation methods. Shape Modeler can predict the optical quality, both transmitted and reflected, of a given surface design. If necessary, this software program can calculate a modified surface design to minimize optical distortion.

With Shape Modeler, an automotive designer can evaluate and improve automotive glass designs, and the glass processor can evaluate and determine the best process to produce the resultant glass – without incurring the time and expense of making tooling and producing preliminary samples, as is customarily the case.

Glasstech's commitment to its customers extends well beyond the initial installation of a system. The company's commitment to improve the performance and capability of Glasstech systems, as well as deliver those improvements to customers through its aftermarket services group, positions every user of a Glasstech system with competitive, state-of-the-art equipment.



| Contract Services |

Many glass processors not only seek higher productivity from their bending and tempering systems, but also desire to reduce overhead costs and trim in-house maintenance and technical services to an economical level.

To help meet these needs, Glasstech has initiated a contract services program which permits users of Glasstech systems to custom-design a service/support package to meet their specific needs. This program gives Glasstech system users priority access to Glasstech's technical service/support structure. Within this program, a Glasstech customer receives an agreed upon number of days of on-site service within the contract period.

The service is particularly applicable to:

- Training
- Furnace/equipment audits
- Technical support
- Emergency assistance

Glasstech's contract services plan allows companies to budget a predictable amount of resources for technical support. And it includes Glasstech's commitment that a contract services customer will receive priority attention when it is needed.

Many companies have a need for additional maintenance and process support. Glasstech's technicians, skilled in all aspects of Glasstech systems, can supplement a customer's production and maintenance staff to maintain levels of productivity.

If regular, planned service can avert downtime significantly, the service has paid for itself. If technical assistance from Glasstech can restore production sooner, the service has proven its value. If equipment audits and training can enhance efficiency, the cost of the service has been justified.



Innovation Continues

Glasstech systems are the product of inventive minds, creative thinking and innovative problem solving. Customer experience has proven, beyond a doubt, that Glasstech equipment is the most rugged, dependable and versatile. Since 1971, Glasstech has been the leader in advancing glass bending and tempering technology with developments such as:

- Computer-controlled process and heat control
- Roller hearth transport
- Bending in the heat
- Horizontal processing without tong marks
- Precision, easily changed tooling
- Modular construction
- Diagnostic monitoring
- Advanced quenches, minimizing iridescence and reducing energy
- Forced convection and electric radiant heating
- Shape modeling proprietary software which corrects glass designs, minimizes distortion, maximizes optical quality and increases production efficiency
- Prototype production
- Auto Glass Inspector
- Sample/pilot production run capabilities

Glasstech supports its systems with:

- A one-year warranty
- Retrofits
- Tooling
- Replacement parts
- Ceramic rollers
- Service audits
- Refresher operator training
- Custom service/support packages
- 24-hour phone, fax and E-mail service inquiries

Glasstech, Inc.
Perrysburg, Ohio USA
Tel: +1-419-661-9500
Fax: +1-419-661-9616

Glasstech, Inc.
New York, New York USA
Tel: +1-212-489-8040
Fax: +1-212-307-5781

glasstech[®]
WHERE INNOVATION CONTINUES

www.glasstech.com

Glasstech, Inc.
Shanghai, China
Tel: +86-21-5836-7560
Fax: +86-21-5836-8968

Glasstech, Inc.
Mumbai, India
Tel/Fax: +91-22-2528-7575

