



Glasstech's DBX-T Bending and Tempering System

## DBX TECHNOLOGY ADVANCEMENTS

As another example of Glasstech technology to meet weight-reduction goals, DBX technology can fully temper 2.8mm-thick backlites. DBX technology, launched in 2016, has demonstrated productivity gains of 50 to 75 percent, while reducing energy consumption by 15 percent. Parts produced on DBX typically reduce transmitted optical distortion by 30 to 50 percent.

DBX improves process yield, particularly on difficult shapes by way of improved glass positioning accuracy on the tool set, which provides improved off-form capability. DBX drives higher productivity with the same staffing requirements, lower energy consumption and higher yield, resulting in a lower-cost backlite.

The evolution of DBX technology now includes new bending technology that combines DB4 and DBX technologies in the same system. This new system,

called DBX 4, can operate in DBX mode for spherical-shaped parts or DB4 mode for certain DB4 parts. Existing quick-change DB4 tools can be utilized on this system with a minor bolt-on/bolt-off adaptor system.

The DBX 4 bender technology can be retrofitted to an existing DB4 system or installed as a new system. Likewise, the DBX 4 system can be configured to achieve a 50 percent productivity gain.

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## ADVANCED CONVECTION HEATING OF ARCHITECTURAL GLASS

In 2016, forced convection heater technology (FCH) was scaled up to produce parts as large as 2.8m wide by 8m long. That system incorporated many enhancements that allowed very large sheets to be tempered to a higher quality level (less roll wave, greater flatness) at a lower per-part cost.

The enhancements implemented into the wider system have now been

incorporated into the 2140mm- and 2440mm-wide FCH systems.

The new FCH system has comprehensive system diagnostic capabilities to keep uptime to a maximum. It can be configured to temper glass from 2.85mm up to 25mm thick, and heat strengthen glass up to 12mm thick. Triple silver Low-E coatings are handled without issue. To continue driving down operating costs, new quench

technology can be incorporated that lowers the tempering power between 5 percent and 30 percent, depending on glass thickness. (The 30 percent power reduction is for 2.85mm glass).

Most of these enhancements can be retrofitted to existing FCH systems. For more information, please contact your Glasstech sales representative.

## TECHNOLOGY UPGRADES

As technology continues to advance, some legacy components have become obsolete. Older Glasstech systems were supplied with a Motorola 6809-based control or an Allen-Bradley PLC 5. Servo drives were Allen-Bradley 1391, 1394 drives, and Kinetix 6000 drives. All are now or soon to be obsolete. Glasstech tries to support older control systems as long as possible, but that can be difficult when technology changes so quickly. Eventually we reach the point when it is no longer possible.

To support our customers when this happens, Glasstech offers a series of retrofits featuring Rockwell Automation technology. New ControlLogix systems with ethernet-based drives are available which allow easier integration with the control system and enhanced diagnostic capabilities through the front end. Features include:

- Enhanced diagnostics
- Plug-and-play components
- Ethernet-based communications
- User-friendly Windows 10 interface with alphanumeric or character-based language translations available
- Integrated machine safety with improved diagnostics and less downtime
- Production data easily accessible for enterprise data acquisition and planning
- Remote diagnostics via internet connection

**“Glasstech offers a series of retrofits featuring Rockwell Automation technology.”**

Many Glasstech customers have already discovered the advantages and value of a control system and drives upgrade.

Please contact your Glasstech representative today for a quotation to upgrade your control and drives systems.



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## REDEFINING GLAZINGS FOR THE AUTOMOTIVE INDUSTRY

The automobile industry is aggressively advancing autonomous vehicle technology and electrical propulsion. The industry is forecasting the growth of autonomous vehicles from 40,000 units in 2020 up to 10 million units in 2030. Concurrently, motor vehicles are moving toward electrical propulsion to address climate change at a faster rate than autonomous vehicles. The glazing requirements for these vehicles include solar heat control and weight reduction. In addition, the glazings have to integrate cameras and sensors to monitor nearby objects and interact with the vehicle's occupants via large HUD areas.



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Glasstech is working hard to ensure there are glass-forming technologies suitable for these glazing requirements. For example, EPB-L technology, which press-bends single glass sheets on a single tool set, continues to evolve to meet these challenges. It incorporates advanced tooling designs tailored to produce larger HUD area glass shapes. The EPB forming tools are specifically designed for more precise surface control of the windshield. To address solar heat control,

windshields are being specified with high performance Low-E coatings. The EPB-L system has a patented convection option that alters the convective heating rate for each lite to ensure the Low-E coated and non-coated lites are heated to the proper forming temperature.

Larger laminated sunroofs are becoming more popular in vehicles. These sunroofs require heat strengthening and outstanding reflective optics.

To meet this need, the EPB technology has been configured to allow production of laminated annealed windshields, laminated heat strengthened sidelites and sunroofs or fully tempered monolithic glass on one system. The technology is interchangeable between annealed or heat strengthened/tempering capabilities with minimal changeover time. This very flexible EPB system can support production needs for all parts for a car set.

## GLASSTECH SPARE PARTS SUPPORT

Who better than Glasstech to provide your spare parts requirements? When you need to replace a part on your Glasstech system, Glasstech is your source for OE quality parts. With dedicated and knowledgeable staff standing by, Glasstech's Spare Parts Department is ready to quote or process your order.

If you need assistance finding the original part numbers, Glasstech can help by providing a copy of your bill of material. Glasstech can also make available maintenance drawings for a nominal charge.

If a part you need is no longer available due to obsolescence, Glasstech can support you with an alternative solution. Glasstech looks forward to helping you with your spare part needs.

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