## WHERE INNOVATION CONTINUES

## AUTOMOTIVE SDB-L<sup>TM</sup>

SUPER DEEP BEND FORMING AND ANNEALING SYSTEM FOR WINDSHIELD GLASS

The SDB-L system is Glasstech's world-class forming and annealing system for the production of glass to be processed into laminated safety glass. It is capable of producing the most complex windshield shapes required by the global automotive industry and it does so at the highest production rates available for complex windshield parts. The system incorporates Quick Change tooling capabilities so that productivity is maximized even when short-run just-in-time production is required.

The SDB-L system is available with Glasstech's traditional Electric Radiant Heater (ERH). Furthermore, the system can also be equipped to produce energy-efficient low-emissivity coated glass. This is accomplished by heating using either Glasstech's patented Forced Convection Heating (FCH) technology or by using Glasstech's patented ERH2-C2™ or ERH2-C3™ aspirated convection-assisted ERH technology.

The SDB-L system heats, forms and cools windshield lites with resultant annealing stress levels that significantly improve upon the handling and strength characteristics of conventional windshield glass. This unique stress control is accomplished using patented technology.

The SDB-L system produces laminable single windshield lites at production rates of up to 300 lites or 150 windshields per hour. The system is unrivaled in its capability for forming complex parts at high production rates.

compressed air-assist convection system s available as an option



## COOLER In the cooler section, the glass is cooled to handling temperatures by air from axial fans. UNLOADING STATION The optional unloading Minimum . station is designed for easy access. In this section, the rate of cooling is accurately controlled to produce the stress distribution ideal for thin glass to be BENDER subsequently laminated. This stress distribution Glass is accurately **HEATER OPTIONS** provides for resistance to positioned for precision part breakage during The loading station features The electric radiant press bending in a assembly and in service a computer-controlled heater (pictured) has a temperature controlled loading device for unique semicircular environment, ideal chamber design for accurate bending accurate positioning and timing of parts. that creates a thermally of thin spherical and stable environment and complex parts provides optimal temperature uniformity with minimal sensing requirements. A natural gas fired forced convection heater or

## AUTOMOTIVE SDB-L™ TECHNICAL FEATURES

PRODUCTION RATE CAPABILITY									
Depth o	of Bend	Glass Thickness	Tool Change Time	Cloth Change Time	Cycle Time	Load Rate			
millimeters	millimeters inches		minutes	minutes	sec/load	per hour			
< 380	< 15	1.8 - 2.8	240 (cold tool)		17	212			
< 250	< 10	1.8 - 2.8	120 (hot tool)	20 glass to glass	14	257			
< 125	< 5	1.8 - 2.8	glass to glass	glado to glado	12	300			

PART FORMING CAPABILITY									
Glass Thickness Size		Depth of Bend		Radius of Curvature		Sag		Stresses	
millimeters	millimeters	inches	millimeters	inches	millimeters	inches	millimeters	inches	
1.8 - 2.8	1220 x 1828	48 x 72	380	15	125	5	30	1.25	ANSI Z26, ECE R43 EC > 3000 psi IBT < 850 psi

FURNACE DIMENSIONS											
Width Load Table Length			le Length	Heater Length		Bender Length		Annealer/Unload Length		Cooler Length	
millimeters	inches	meters	feet	meters	feet	meters	feet	meters	feet	meters	feet
1828	72	3.2	10.5	18.3	60	4.3	14	4.3	14	12.2	40

FLOOR SPACE REQUIREMENTS										
Total L	Total Length Total Width		Width	Total Height		Bender Pit		Control Room		
meters	feet	meters	feet	meters	feet	meters	feet	meters	feet	
52	170	5.5	18	7	23	2.5 x 4 x 2.5	8 x 14 x 8	3 x 18 x 2.5	10 x 60 x 8	

	INSTALLED ELECTRIC										
	Heater (kW)	Bender (kW)	Bender Gas (MM Btu/hr)	Motors/Drives (kW)	Cooling Fans (kW)						
(	1906	500	7.5	168	350						

