

DB 4™

AUTOMOTIVE DB 4™

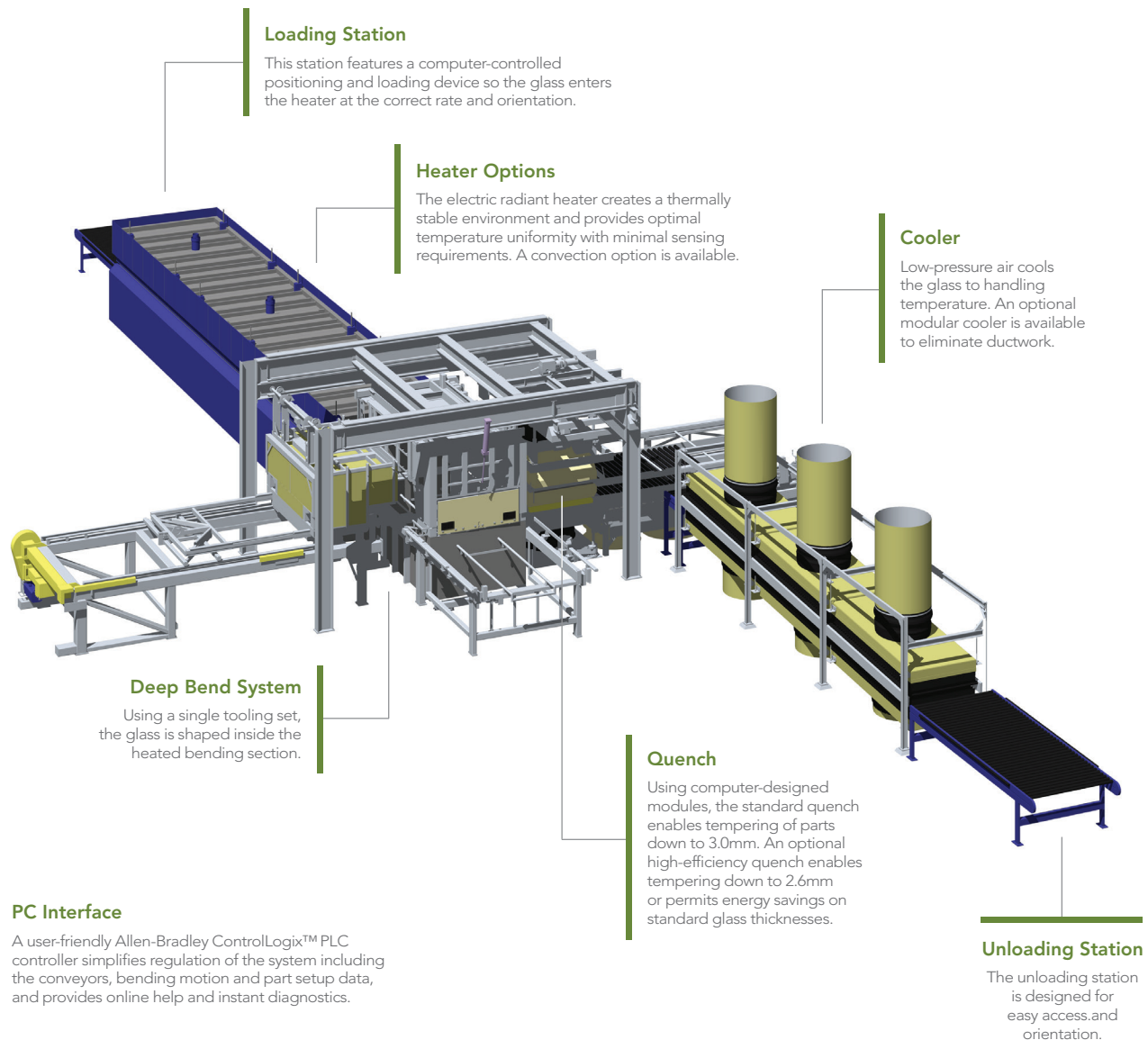
Deep Bend Advanced Bending and Tempering System

Glasstech's Advanced Bending and Tempering System for Deep Bend Automotive Glass – available with electric radiant or gas fired forced convection heaters – produces high optical quality glass to precise tolerances and in complex shapes which enable designers to develop exciting new concepts.

Based on the Quick Sag™ system, the DB 4 uses the same tooling for simple parts and adds additional tooling for complex parts. A Quick Change system is available to minimize tooling changeover time. Glass produced on this system has exceptional optical quality and uniformity of shape. Coated and tinted glass can be processed without difficulty. This production-proven system is unsurpassed in creating complex backlites, sidelites and quarterlites to U.S. and ECE international fracture standards.

General Specifications for DB 4

- Maximum depth of bend: 254mm (10")
- Minimum radius of curvature for 3mm (.118") glass: 75mm (3")



AUTOMOTIVE DB 4™ TECHNICAL FEATURES

Glass thickness: Min. 3.0mm; Max. 6.0mm

Loading area: DB 4: 1070mm x 1728mm (42" x 68") all thicknesses

Quick Sag: 1220mm x 1828mm (48" x 72") all thicknesses

Glass size and production rate based on typical size loads.

254mm (10") Depth of Bend

Equipment Components

DB 4

- Curved vacuum chamber and air jet press system
- Curved quench heads
- Curved ring frames
- Computer-controlled lift jet system
- Back side shuttle with press ring and heater
- Automated quench closing system
- Glass positioner

Production Capability

Glass Thickness (mm)	DB 4 Loads/Hour	Gravity Sag – Loads/Hour Simple Bends		Maximum Area in Any Single Piece	
		4848* DB 4 – 10"	4872* DB 4 – 10"	(sq m)	(sq ft)
3.0 – 3.2	Production rates are part-dependent. Rates vary from 19 seconds to 49 seconds per cycle.	120	240	1.3	13.9
3.8 – 4.2		96	210	1.5	16.1
4.8 – 5.2		72	170	1.5	16.1
5.8 – 6.0		60	140	1.5	16.1

*4848 – 11m (36') heater plus 3.66m (12') bender

**4872 18.3m (60') heater plus 3.66m (12') bender

Maximum Depth and Radius of Bend

Minimum glass size in direction of travel: 380mm (15")

Deep Bend 4

- 75mm (3") Min. radius of curvature for 3mm (.118") glass
- 254mm (10") Max. depth of bend
- Minimum radii and maximum depths of conical and spherical shaped parts are shape-dependent

Gravity Sag

- 100mm (4") Max. depth with curved quenches
- 1000mm (40") Min. radius of curvature
- 2540mm (100") Max. radius of curvature

Floor Space Requirements

Heater System	Total Length		Total Width		Total Height		Blower Room	
	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)
Low Capacity – DB 4848	30	100	17	55.8	7	23	20 x 11	65.6 x 36
High Capacity – DB 4872	38	124.7	17	55.8	7	23	20 x 11	65.6 x 36

Installed Electric Power

Heater Length	Heating (kW)	Quenching††† (kW)		Electrical		Drives (kW)	Total (kW)
		Fan Power	Aftercooler	3-Phase (v)	4-Wire (Hz)		
DB4 4848†	1600	1200	112.5	380-600	50-60	22	2950
DB4 4872††	2020	1200	112.5	380-600	50-60	22	3350

†11m (36') heater plus 3.66m (12') bender section, 254mm (10") max. depth of bend

††18.3m (60') heater plus 3.66m (12') bender section, 254mm (10") max. depth of bend

†††Quench power based on ECE capability for 2.8mm thickness. Blow-off is powered by lower quench fan.

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

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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