



GLASSTECH
INDUSTRIES B.S.C. (C)
ARCHITECTURAL GLASS SPECIALIST

Engineered Transparency



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OVERVIEW

The Company

Glasstech Industries B.S.C is the largest glass processing facility in Bahrain and one of the largest and most prominent players in the Middle East region with up to 1 million square meter of glass processing capacity per year.

A Certified Glass Processor from World Renowned Architectural Glass Manufacturers, Glasstech Industries specializes in providing its customers with a complete array of world-class glass processing solutions - all under One Roof.

As an IGCC, SGCC, CE and ISO 9001:2015, 14001:2015 and 45001:2018 Certified Company, we adopt the highest international glass processing standards and use a wide range of high end machinery that were chosen with the latest technology available from world renowned manufacturers of glass processing equipments available today.

In fact, we pride ourselves in joining efforts with High end global machinery manufacturers such as Glaston, Lisee, Lovatti, Schiatti, HS Printing and other world renowned manufacturers and thus ensuring the best quality of products and services available in the market today.

In addition to the state of the art setup, a team of experienced professionals with combined experience of more than 20 years work around the clock to deliver high quality products and outstanding services to the local, regional and international markets.

With a state of the art in-house Laboratory Facility, our Quality Control team is equipped with the latest testing equipments to monitor, test and control the glass processing quality in every division respectively guided by a stringent quality check list making sure that all products are produced and packed as per the required standards and ready to be shipped to our customers with a Unique QC tagging system, thus, ensuring consistent quality is delivered with every piece of glass, at all times.

Glasstech Industries is located in the Kingdom of Bahrain and strategically situated in Bahrain International Investment Park at Hidd adjacent to "Sheikh Khalifa Bin Salman Port" and Bahrain International Airport, thus ensuring excellent port and transportation facilities, and barriers-free trade. Glasstech Industries B.S.C. facility has been built on a total area of 23,000 square meters and according to the highest levels of International standards and practices.

Vision Statement

We strive to become the "One Stop Shop" glass processing "Supplier of Choice" for the construction market, and to lead the market with innovative products, diversified solutions and outstanding services.

Mission Statement

We aim for excellence in providing the best in class quality products and services with dedicated technical support for the local, regional and international markets in a timely and professional manner.

THE TEAM & SOCIAL EFFORTS

The Team

A highly specialized group of professionals that have worked with world renowned glass manufacturing and processing companies. Our team is aspired to deliver a truly international service with a strong local and regional presence.

The team was involved in the design, technical consultancy and execution of several prestigious projects throughout the region and excelled in providing the best in class technical assistance and services.

"We will strive to grow and nurture a professional and solid business partnership with our customers, and we are determined to become a source of trust as the supplier of choice.

Social Efforts

Social Efforts GLASSTECH Social and Public Awareness Message

In a world striving for efficiency in Eco-Friendly For Life, GlassTech Industries have adopted the global system of actions protecting the environment ISO 14001. Our Factory operates based on environmental management system ISO 14001.

By Implementing the ISO 14001 system, we contribute to activities supporting environmental protection:

- We segregate waste; enable the plan set for waste collection and disposal.
- We reduce consumption of natural resources by re-use and recycling such wood, paper, sand, iron, glass paper, tube lights/bulbs, chemical waste etc. is kept in the containers with a separate location storing hazardous waste.
- We prevent any penetration of hazardous liquids to soil and water.

Green Buildings and Energy Efficiency Conservation

Since our beginning, responsibility has been set with continuous improvement to prevent exceptions and conflicting decisions between the various environmental concerns. Through specialized set of knowledge, with a heavy emphasis on protecting the ecosystem we are hands on in building orientation and evaluate site to ascertain how each can enhance the proposed glass panels and vice versa.

Public relation campaigns and seminars will be conducted to shade a light on the latest developments in glass coating technology and glazing systems that are highly contributing in reducing energy consumption. We are looking to be a part of the Green society and strive for a cleaner and safer community.

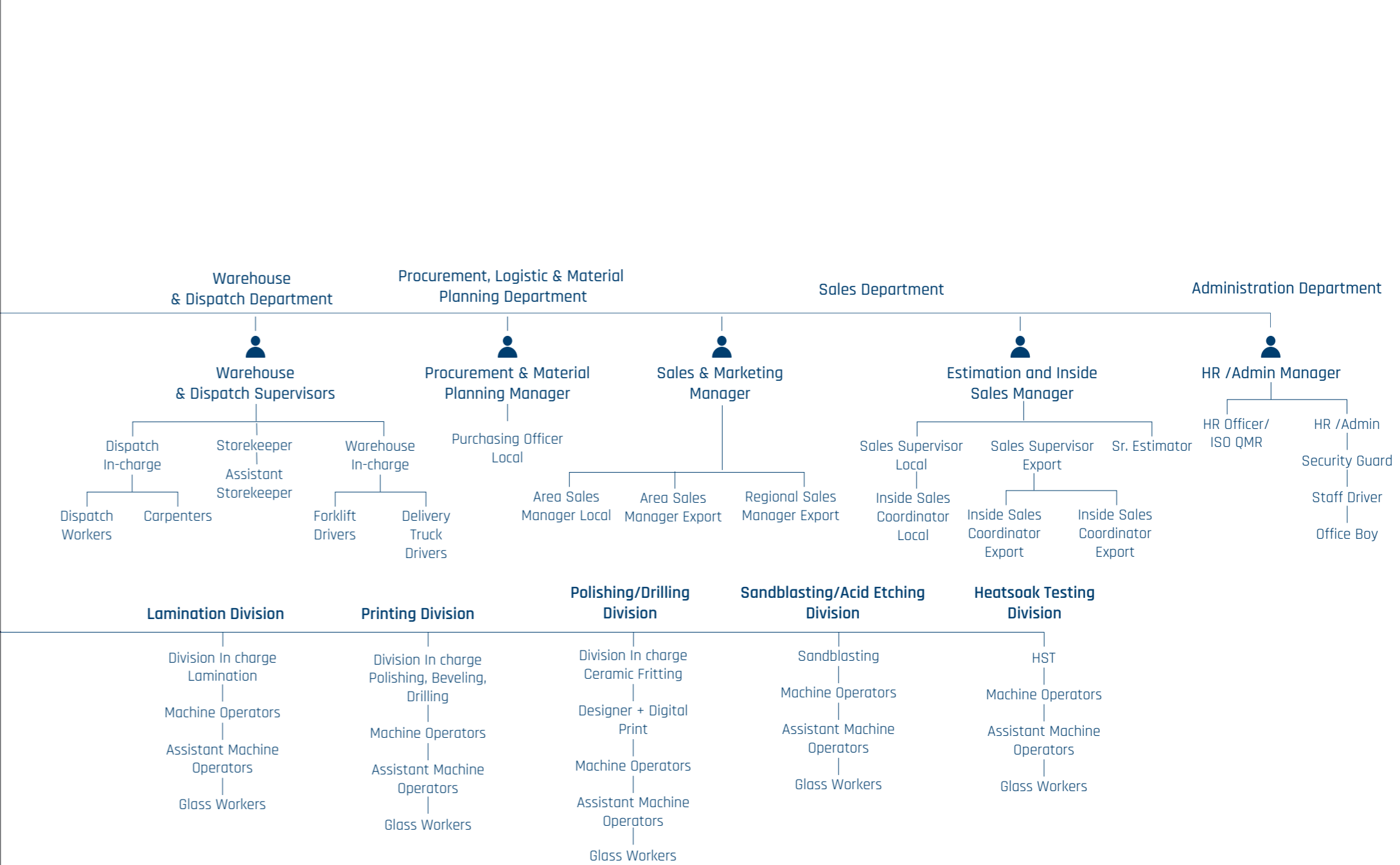
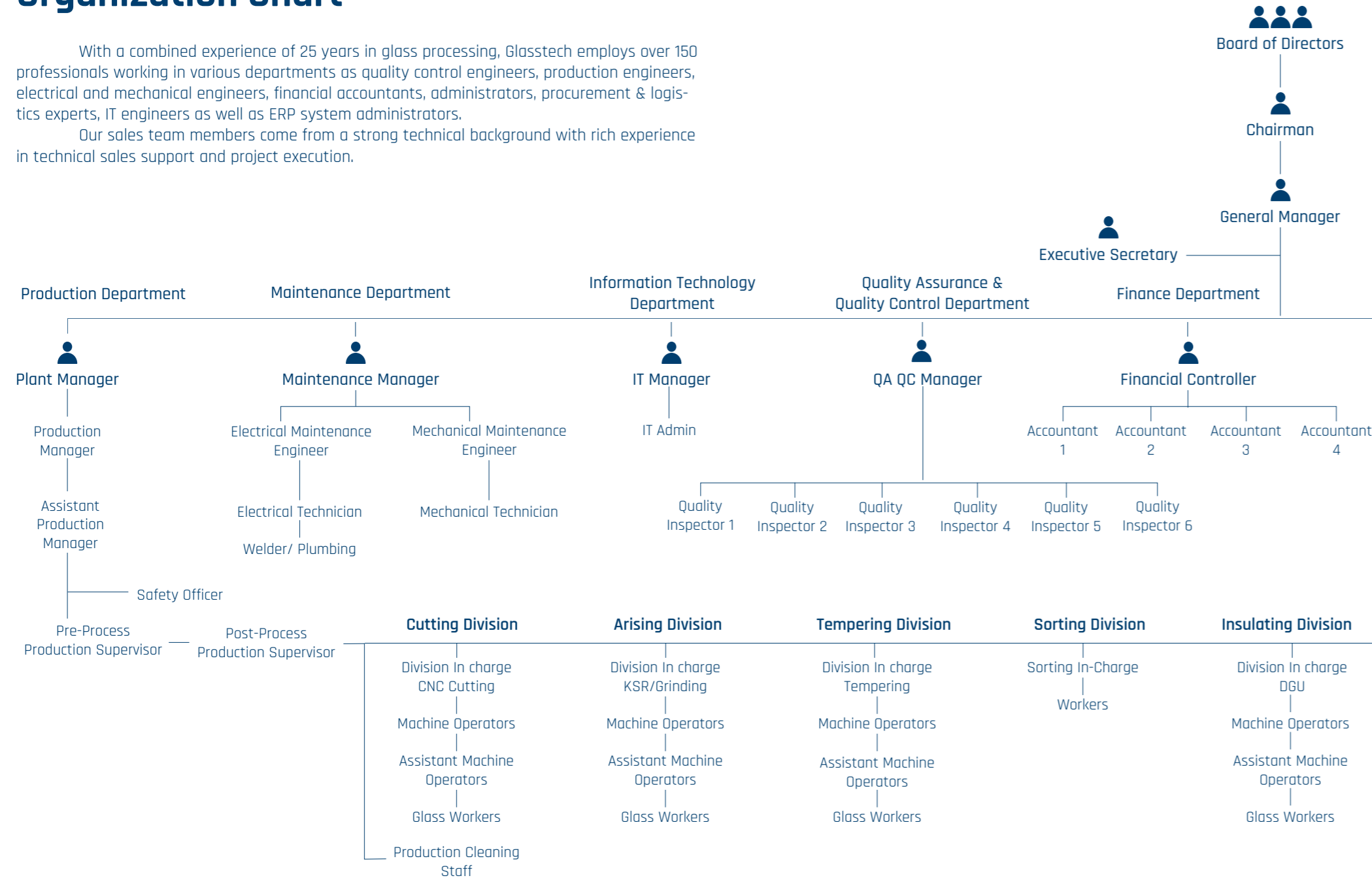
In fact, the team at GlassTech Industries was involved in the most complex and demanding mega projects in the region where energy conservation was the main focus.



Organization Chart

With a combined experience of 25 years in glass processing, Glasstech employs over 150 professionals working in various departments as quality control engineers, production engineers, electrical and mechanical engineers, financial accountants, administrators, procurement & logistics experts, IT engineers as well as ERP system administrators.

Our sales team members come from a strong technical background with rich experience in technical sales support and project execution.



GLASS PROCESSING SOLUTIONS

We pride ourselves to produce quality products for the commercial and residential markets with the latest glass processing technologies available that would fit today's markets requirements:

High Performance Glass Processing
Jumbo Size Capabilities
CNC Single Glass and Laminated Glass Cutting
Heat Strengthening / Tempering
Glass Bending
Flat and Bent Insulated Glass Units
Dedicated Structural Frame Bonding Division
Heat Soak Testing
Lamination
Bullet Proof Glass

Fire Rated Glass
Self Cleaning Glass / Nano Technology
Silk Screening / Ceramic Fritting / Digital Printing
Frame Making & Stretching for Silk Screening
Sand Blasting / Acid Etching
Glass Edging / Drilling
Stained Glass
Interior Decorative Glass
Silver and Colored Mirror
Custom Made Design

Tempered Glass

Tempered or toughened glass is a safety glass regularly used in applications in which standard glass could pose a potential danger. Tempered glass is four to five times stronger than standard glass and does not break into sharp shards when it fails. Tempered glass is manufactured through a process of extreme heating and rapid cooling, making it harder than normal glass. The brittle nature of tempered glass causes it to shatter into small oval-shaped pebbles when broken. This eliminates the danger of sharp edges. Due to this property, along with its strength, tempered glass is often referred to as safety glass.

Heat Strengthen Glass

Heat-strengthened glass is glass that has been heat treated to induce surface compression, but not to the extent of causing it to "dice" on breaking in the manner of tempered glass. On breaking, heat-strengthened glass breaks into sharp pieces that are typically somewhat smaller than those found on breaking annealed glass, and is intermediate in strength between annealed and toughened glasses.

All Under One Roof

Curved Glass

Bent & Curved Glass uses toughening technique of tempering furnace while bending the glass to specific shapes. Glasstech operates the only curved toughening furnace in Bahrain with tight radius capabilities, and provides a wide range of applications in architectural, commercial and residential installations. The capabilities range from cylindrical single curves to double glazed curved and laminated bent glass.

Insulated Glazing

Insulated Glass Units (IGUs) are manufactured with glass in range of thickness from 3 mm to 10 mm or more in special applications. Laminated or tempered glass may also be used as part of the construction.

- Acoustical Insulated Glass
- Solar Control Glass
- High Selective Glass
- Reflective Glass
- Tinted Glass
- Frameless Glass
- Shop Front Glass



PRODUCTION CAPABILITY & CAPACITY

Glasstech Industries Production Capability and Capacity

Cutting	Tempering	Double Glazing	Heat Soak Test	Lamination
2 Lines	2 Lines	2 Lines	1 Unit	1 Line
2400 Square Meter Per Shift	2400 Square Meter Per Shift	1250 Square Meter Per Shift	800 Square Meter Per Shift	500 Square Meter Per Shift

* Table of calculations are based on 70% capacity utilization.

As a part of our commitment to ensure a smooth and efficient operation at each phase of the production process, our glass processing facility is equipped with a fully automated production line and an integrated advanced ERP with Barcode tracking System. At Glasstech Industries, we will be welcoming our customers at any time to visit our facility and witness the latest technology available in all production divisions and under one roof.

High-efficiency and Precise Control Leading to a Maximum Output

To achieve a high utilization rate and efficiency, Glasstech has a technological Advantage; optimization is connected to bar-coding system, all departments are integrated to ERP and have 27*7 Real-time online monitoring which effectively avoids manual errors and ensure all the production processes from raw material inspection to packing are all monitored online and saved for later use. At the same time, the production department collects data from various key monitoring points in the production process to achieve further improvement in equipment, manufacturing process and yield.

Higher equipment effectiveness, our maintenance department is careful in monitoring and defining the directions of development. During glass processing equipment effectiveness and control has an impact on the actual quality and reliability of the finished glass. Aside from participating in world's leading exhibitions for the glass industry, we participate in testing implementing new equipment and technologies. Through such equipment innovations, we constantly expand and modernize our machinery. This is we gain and maintain technological advantage for maximum output.



LIST OF EQUIPMENTS & MACHINERIES

Glasstech Industries processing facility employs state-of-the-art glass processing equipments and machineries that ensure optimum quality finish with minimum wastage. This section will give you an overview of our technical abilities and product quality.



Left: CNC Cutting Line 1, Middle: CNC Cutting Line 2, Right: Automatic Vertical Diamond Disc Multi-Layer Cutting Saw

Cutting Line

Sl no.	Division	Quantity	Make	Description	Production Capacity
1	CNC Cutting Line 1	2	Lisec, Austria	CNC Cutting Lines with PKL Auto Gantry - Online coating edge deletion	Glass Size Min : 100 x 100 mm Glass Size Max : 3250 x 6000 mm Glass Thickness : 3 to 19 mm
2	CNC Cutting Line 2		Lisec, Austria	CNC Cutting Lines with PKL Auto Gantry - Laminated Glass cutting capability	Glass Size Min : 100 x 100 mm Glass Size Max : 3250 x 6000 mm Glass Thickness : 3 to 19 mm Laminated Glass : Glass Size Min : 200 x 150 mm Glass Size Max : 2500 x 3400 mm Glass Thickness : 6.28 to 18.28 mm
3	Automatic Vertical Diamond Disc Multi-Layer Cutting Saw	1	Putsch Meniconi, Italy	Multi-layered intumescent fired-rated glass and multi layered bullet resistant glass cutting	Glass Size Min : 500 x 500 mm Glass Size Max : 2720 x 5100 mm Glass Thickness : 11 to 70 mm



Left: Glass Washing and Grinding (KSR), Middle: Drilling Unit, Right: Single Edger Machine

Edge Treatment - (Arising, Diamond Polishing, Drilling, Notching, Beveling, chamfering, etc.)

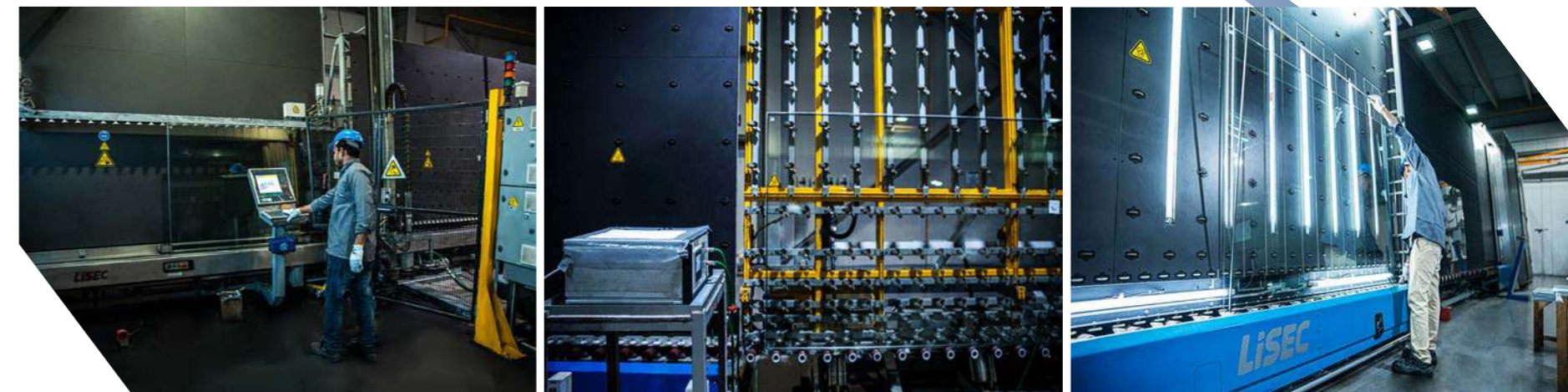
Sl no.	Division	Quantity	Make	Description	Production Capacity
4	Glass Washing and Grinding (KSR)	2	Lisec, Austria	Automatic Vertical Glass Grinding and Washing Machine	Glass Size Min : 180 x 350 mm Glass Size Max : 3300 x 6000 mm Glass Thickness : 3 to 19 mm (Grinding) Glass Thickness : 3 to 30 mm (Washing)
5	Glass Washing and Grinding (vertical)		Hangjiang China		
6	Cross Belt arising Machine	1	Vitorodoli Beltex, Italy	Its Cross belt enables simultaneous execution of symmetrical arises on two edges of glass which reduces breakage	Glass Size Min : 150 x 150 mm Glass Size Max : 2800 x 6000 mm Glass Thickness : 4 to 19 mm
7	CNC 5 Axis Work Center	1	Lovati Fratelli, Italy	The machine can process Drilling - Counter Sink, Side Writing, 3D Processing, Routing, Grinding, Polishing, Grooving, Beveling, Flat Edge Grinding and Polishing with Cup Wheel in a single arrangement	Glass Size Min : 350 x 350 mm Glass Size Max : 2400 x 4200 mm Glass Beveling : 5 to 40 mm Glass Thickness : 3 to 50 mm
8	Straight Edging Machine	1	Schiatti Angelo, Italy	10 Spindles Diamond wheeled machine.	Glass Size Min : 80 x 80 mm Glass Size Max : 3250 x 6250 mm Glass Thickness : 3 to 25 mm
9	Drilling Unit	1	Schiatti Angelo, Italy	Automatic Laser Guided Glass Drilling Unit	Glass Size Max : 2800 x 6000 mm Glass Drilling : 3 to 100 mm Diameter Glass Thickness : 2 to 28 mm



Left: Tempering Line 1, Middle: Tempering Line 2, Right: Clemenceau Medical Center (CMC) Project at Amman Hashemite Kingdom of Jordan

Tempering Lines

Sl no.	Division	Quantity	Make	Description	Production Capacity
10	Tempering Line 1 - flat glass horizontal tempering flat glass	1	Glasston, Finland	Pro E Magnum - Forced Convection Tempering Machine	Glass Size Min : 250 x 250 mm Glass Size Max : 2800 x 6000 mm (FT) Glass Thickness : 4 to 19 mm (HS) Glass Thickness : 3 to 10 mm
11	Tempering Line 2 - flat and curved glass horizontal tempering	1	Southtech, PRC	Forced Convection Tempering Machine with Gravity Bending.	Bent Glass Glass Size Min : 800 x 800 mm Glass Size Max : 2400 x 3600 mm Glass Thickness : 6 to 8 mm (≥1000mm Radius) Glass Thickness : 10 to 12 mm (≥2500mm Radius) Flat Glass Glass Size : 2400 x 5000 mm Glass Thickness : 5 to 19 mm



Left: Robotic Sealing Machine, Middle: Argon Gas Filling Machine, Right: Fully Automatic Double Glazing Line unit

Glass Insulating Line

Sl no.	Division	Quantity	Make	Description	Production Capacity
12	Double Glazing Line 1	1	Lisec, Austria	Insulating Glass line with automation capabilities (Washing - Drying - Frame fixing operation with back lighting inspection - automatic Pressing - Online Argon Gas Filling - automatic tilting Table operation - Robotic Sealing - Manual sealing station with freezing capability - Fully automated spacer bending operation - Butyl dispensing line - Desiccant filling)	Glass Size Min : 300 x 180 mm Glass Size Max : 2500 x 3500 mm Glass Thickness : 10 to 55 mm
13	Double Glazing Line 2	1	Hangjiang - PRC	Insulating glass line with high automation level, World-leading sensing system of Low-E glass and Coated Glass, Washing and with excellent three - Layer insulating glass performance (Washing - Drying - Frame fixing operation with back lighting inspection - automatic Pressing - Online Argon Gas Filling - automatic tilting Table operation - Robotic Sealing)	Glass Size Min : 200 x 450 mm Glass Size Max : 2500 x 3500 mm Glass Thickness : 3 to 48 mm
14	Argon Gas Filling Machine	1	Inagas, United Kingdom	This machine automatically read the double glass unit cavity and filled Argon Gas as per the setting percentage(90% or 100%).	4Bar Pressure 12mm Spacer, 2.4min Per M2 , Volume in liter= 12L Glass Size Min : 300 x 180 mm Glass Size Max : 2750 x 5500 mm



Left: Desiccant Filling Machine, Middle: Heat Soak Testing Unit, Right: Reverse Osmosis Demineralization

Heat Soak Testing Line

Sl no.	Division	Quantity	Make	Description	Production Capacity
15	Heat Soak Testing Unit	1	Blokkiln, Netherland	An Advance Heating Process to 290C for 4 HRs and 4 HRs Cooling Process to eliminate the spontaneous breakage. The machine can do EVA Lamination.	Glass Size Min : 600 x 600 mm Glass Size Max : 3000 x 6200 mm Glass Thickness : 3 to 19 mm

Water Treatment Plant

Sl no.	Division	Quantity	Make	Description	Production Capacity
16	Reverse Osmosis Demineralization	1	Crane & Aqua Shell	Water Treatment Machine that can remove a large majority of contaminants from water	Manimum Capacities : 500 GPD Maximum Capacities : 1000 GPD

Carpentry & Packing Line

Sl no.	Division	Quantity	Make	Description	Production Capacity
17	Carpentry for glass packing	1	Makita, Japan	Wood cutting Saw and carpentry machinery specialized in glass box making and packing	Box Size Min : 300 x 300 mm Box Size Max : 3000 x 6000 mm



Left: Autoclave Operation, Middle: Lamination Line, Right: Bus Terminal Stations (BRT) at Riyadh Kingdom of Saudi Arabia

Glass Lamination Line

Sl no.	Division	Quantity	Make	Description	Production Capacity
18	Glass Lamination Line	1	North Glass, PRC	Automated Lamination Line with fully equipped clean combination room with overhead 6 rolls capacity dispenser and fully semi automatically controlling relative humidity and temperature lite 18°C to 20°C and 25% to 30% RH in the lay-up room.	Glass Size Min : 350 x 420 mm Glass Size Max : 2440 x 4000 mm Glass Thickness : 6 to 80 mm
19	Autoclave Operation	1	North Glass, PRC	Autoclave Line with special railing conveying system with overhead lifting - PLC by Siemens Germany - Vacuum Pump by Leybold Germany - Main Electrical Components by Schneider France. Autoclave process is fully automatic and program oriented. Totally this process heating and air pressure (12 Bar) and using for permanent bonding and transparency	Glass Size Min : 300 x 300 mm Glass Size Max : 6000 x 2600 mm Glass Thickness : 6 to 75 mm



Left: Digital Printing Machine - Interior, Middle: Digital Printing Machine - Exterior, Right: Aenean Kanoo School at Al Diyar Kingdom of Bahrain

Glass Printing & Design

Sl no.	Division	Quantity	Make	Description	Production Capacity
20	Silk Screen printing operation with a combined Heating line	1	HS Glass Printing - Italy	Fully automatic screen printing with custom designs	Glass Size Min : 300 x 600 mm Glass Size Max : 2200 x 3800 mm Glass Thickness : 4 to 20 mm
21	Ceramic full back roller printing operation with a combined heating line	1	HS Glass Printing - Italy	Fully automatic roller coating line with full back painting	Glass Size Min : 300 x 600 mm Glass Size Max : 2200 x 3800 mm Glass Thickness : 4 to 20 mm
22	"Dip-tech Decojet GPi Digital Printing"	1	DecoJet, Finland	Top Quality results of Photorealistic images with exceptionally high throughput printing Resolution Up to 1410 DPI. The Machine can process all popular graphic formats, including PDF,PS,EPS,Tiff,BMP and JPEG.	Glass Size Min : 300 x 300 mm Glass Size Max : 2400 x 6000 mm Glass Thickness : 2 to 19 mm
23	Screen Stretching	1	Uravo, India	An auxiliary device for making screen stencil. Its working principle is to put the assembled screen frame on the machine first, and then spread the mesh, using the tension of the mesh to pull it to desired size. Then brush the mesh glue where the mesh is in contact with the frame and wait for it to dry, so that a preliminary screen is formed.	Frame Size Min : 400 x 600 mm Frame Size Max : 3000 x 6000 mm Frame Thickness : 30 to 100 mm



Left: Ceramic Fritting Silk Screen Printing Machine, Middle: Sandblasting Machine, Right: Resin Machine

Glass Printing & Design

Sl no.	Division	Quantity	Make	Description	Production Capacity
24	Resin Decorative Line	1	Creative Resins, England	Fully computerized multi tool option twin head Technology	Glass Size Min : 300 x 600 mm Glass Size Max : 1500 x 2700 mm Glass Thickness : 4 to 19 mm
25	Sandblasting Unit	1	Dynamiki, Athens, Greece	With Super SERVOMETER system which is extra 60-65% efficient from a normal machine	Glass Size Min : 400 x 400 mm Glass Size Max : 2600 x 6000 mm Glass Thickness : 2 to 50 mm
26	Acid Etching	1	Local Made Bassin	Acid etching system with various design capabilities	Glass Size Min : 300 x 300 mm Glass Size Max : 2200 x 4000 mm Glass Thickness : 2 to 50 mm



TRANSPARENCY
IN GLASS PROCESSING FOR
SOPHISTICATION AT SUSTAINABLE
ARCHITECTURAL BUILDINGS

LOADING & HANDLING FACILITIES

For an effective and efficient loading of all Glasstech products the lifting system was auto positioning of loaded glass sheet is enabled to ensure the next machine roll pressing accuracy. The loading stations for our double glazing line set on two sides. These decreases the time and effort glaziers spend to lift those enormous panels.



Left: Auto Loading Gantry PKL, Middle: Polishing Line Jib Cranes Lifting System, Right: Double Glazing Line Over Head Clamp Lifting System

Sl no.	Division	Quantity	Make	Description	Production Capacity
1	Auto Loading Gantry PKL	1	Lisee, Austria	Fully Computerized glass picking and loading system for CNC Cutting Lines.	Max Load : 1.0 Ton
2	Naked Glass Box Lifter	2	Lisee, Austria	Medium Size Glass Box Loading system.	Max Load : 3.0 Ton
3	Naked Glass Sheet Vacuum Lifter	1	Elephant, Italy	Glass Sheet Loading System	Max Load : 0.8 Ton
4	Over Head Crane	1	Hadef, Germany	Remote Controlled Overhead Crane to Transport materials within the plant	Max Load : 5.0 Ton
5	Jib Cranes	4	Elephant, Italy	360o/180 o Degree rotation computerized Jib Cranes for providing unloading support for the CNC Machines.	Max Load : 0.5 Ton

The factory are equipped on handling and transport glass sheets at any size and from 0.5 to 8.0 tons from each line to its designated warehouse, as well as to perform normal handling inside the premises of Glasstech to fastening the glass on the racks and trucks.



Left: Glass Loading Unit, Middle: Forklift, Right: Lamination Line Over Head Clamp Lifting System

Sl no.	Division	Quantity	Make	Description	Production Capacity
6	Dock Leveler	1	Xunte, PRC	Hydraulic cargo dock leveler to ease the loading and unloading materials.	Max Load : 8.0 Ton
7	Glass Loading Unit	2	Bale, PRC	Mobile Glass Loading System	Max Load : 0.5 Ton
8	Cargo Lift	1	Xunte, PRC	Computerized stationed lifting unit support the Store Department to handle materials	Max Load : 1.0 Ton
9	Boom Bar Unit	1	MMF, Bahrain	Unit to be attached to the over head crane to load/unload Jumbo/Super Jumbo Sized glasses.	Max Load : 3.0 Ton
10	Paltes Lifter	2	Xunte, PRC	Manual Lifting equipment to handle glass racks around the facility.	Max Load : 2.5 Ton Max Load : 3.0 Ton



Left: Export Packing, Middle: Cat 30 Forklift, Right: Dispatch Area North Gate

Sl no.	Division	Quantity	Make	Description	Production Capacity
11	Harp Rack	6	Lisec, Austria	Height adjustable rack which supports storing of screen printed glass in different shelves.	Max Load : 1.0 Ton
12	CAT 30 Forklift	1	Caterpillar USA	Loading and Shifting Glass and other raw material	Max Load : 3.0 Ton
13	Forklift	1	Hyundai, Korea	Loading and Shifting Glass and other raw material	Max Load : 3.0 Ton
14	Glass Transporter (Glass Boy)	1	Bole, PRC	Mobile Glass lifter can able to lift a range of materials and has four-circuit vacuum systems.	Max Load : 0.5 Ton
15	Lamination Line Overhead Clamp Lifting System	1	Demag, Germany	Single Girder Electrical Overhead Travelling Crane with profile beam, Manual Cross and Long Travel	Max Load : 0.8 Ton

Strategic and Modern Logistics

GlassTech operate one of the largest and highest warehousing facilities in the region with 1,200 m² of warehouse space for local and export.

Its export shipment having an efficiency to move Jumbo size glass panels from origin to destination with our logistics capability, A dedicated team from carpentry, packing and dispatch execution team handles and ensure that glass panels are in perfect condition for transit time. Equipment availability for large fleet of loading and unloading containers are accessible all year round as well as our trusted partner we're equipped with the right tools and solutions to handle any contingencies and provide priority assistance.

Local shipment has fast and quick delivering services as GlassTech factory located in the heart of commercial area at BIIP. We deliver personalized solutions and service requirements for each customer.

Our transport is an integral part of the logistics service we provide to our customers. Our fleet is completely flexible so that our customers who need full or part loads are facilitated. Our drivers are professional, competent, diligent and friendly.



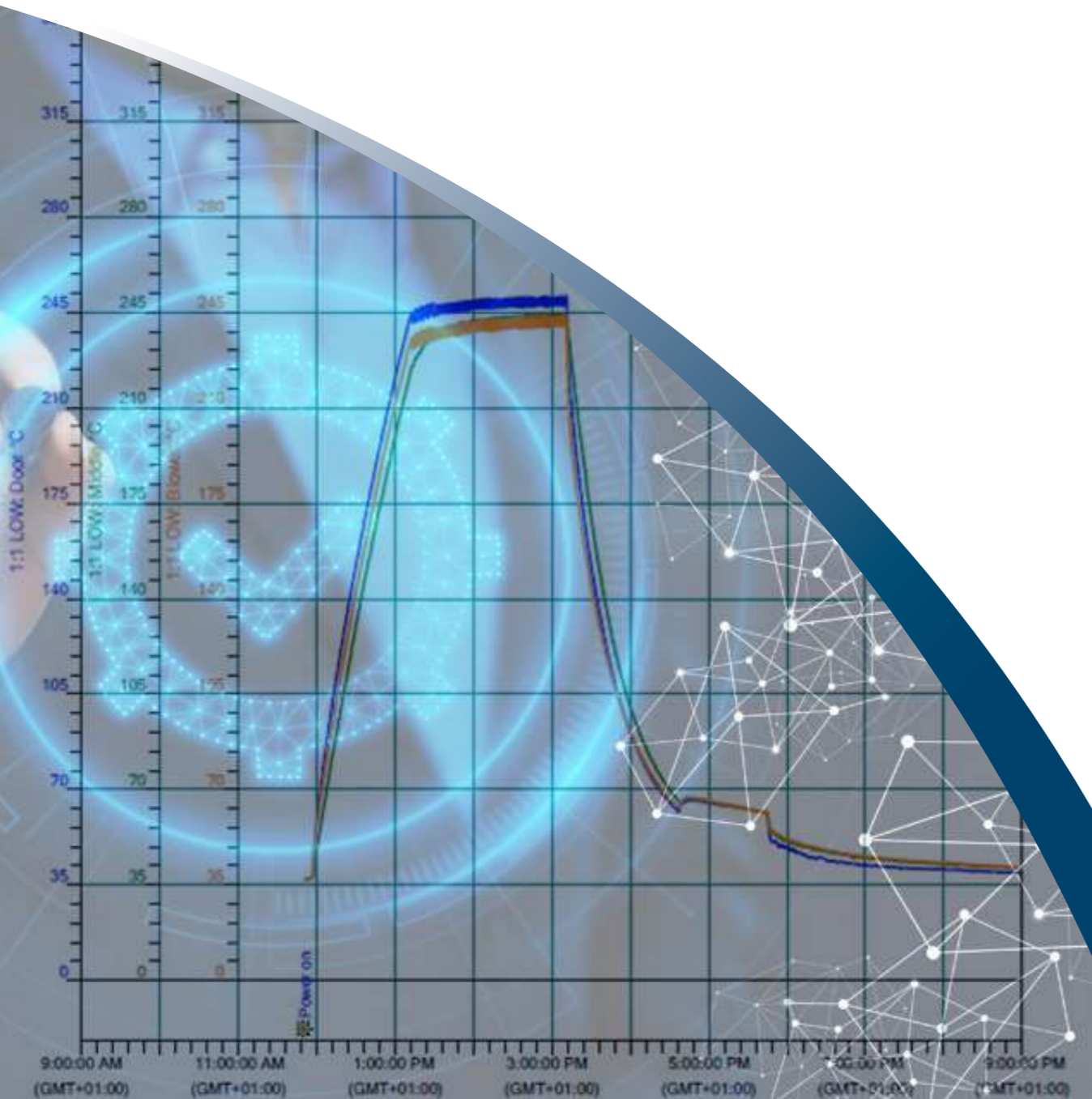
QUALITY CONTROL

Quality Policy

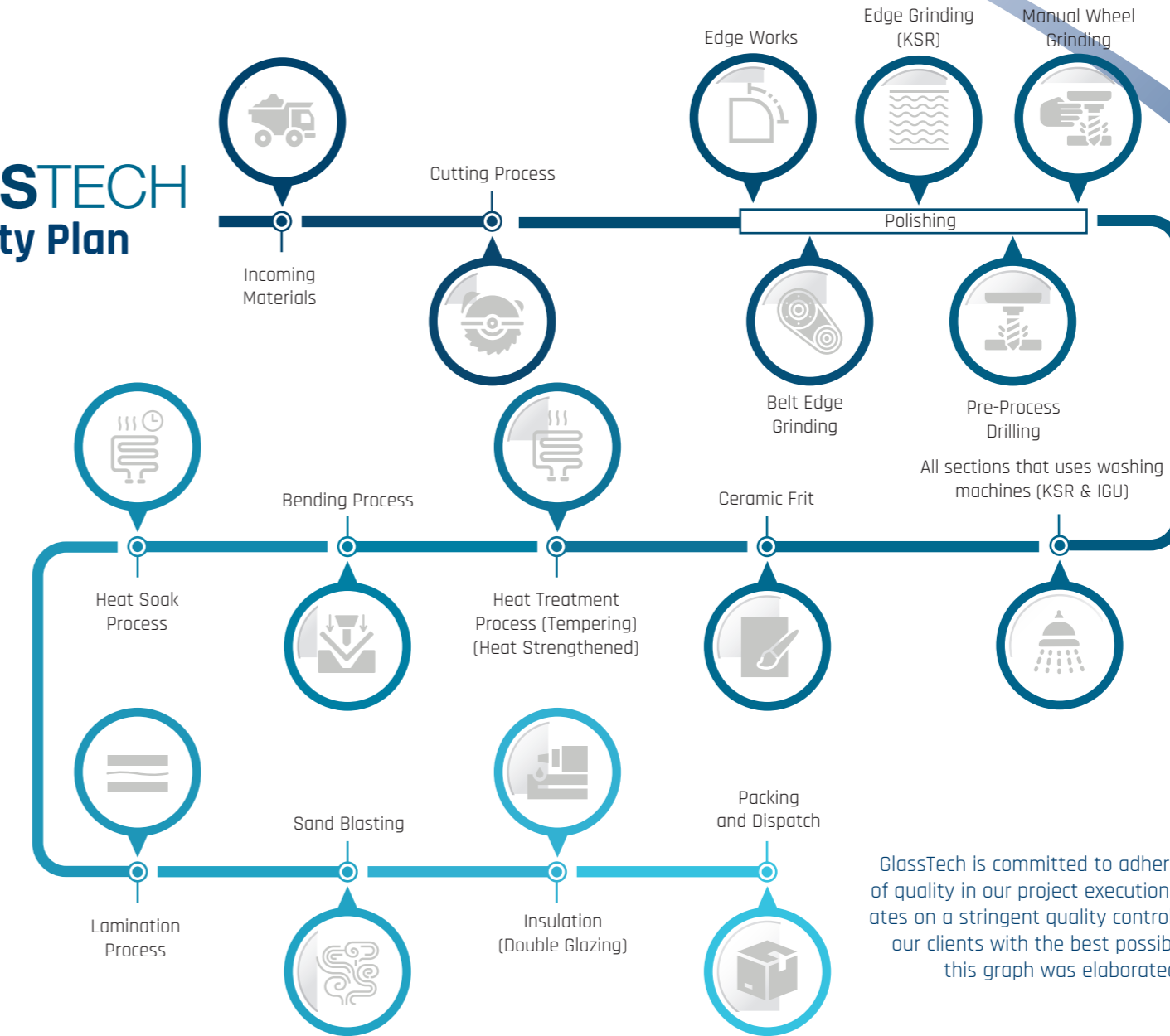
Our Manufacturing systems at Glasstech Industries use modern technology to meet the requirements of our customers. As an ISO Certified Company, we maintain a Quality Management System with procedures and policies in compliance with the highest standards. We undertake continuous improvement and training.

Safety Policy

We are committed to the safety and health of our employees, the protection of the environment and the quality of life in the community in which we operate.



GLASSTECH Quality Plan



Glasstech is committed to adhering to the highest standards of quality in our project execution. Our laboratory facility operates on a stringent quality control program in order to provide our clients with the best possible products. Each process on this graph was elaborated in Pre-qualification section.



Quality Management System

To achieve and maintain the highest technological and quality level of our products, all process, procurement, handling and testing activities are carried out in accordance with a rigorous Quality Management System (QMS) based on the most widely accepted international code, ISO 9001:2015. A local and international Certified Calibration Center is used to calibrate all measuring and testing instruments in the company's factory.



Additional Accreditations were acquired from International world renowned certification bodies and Industry Federations.



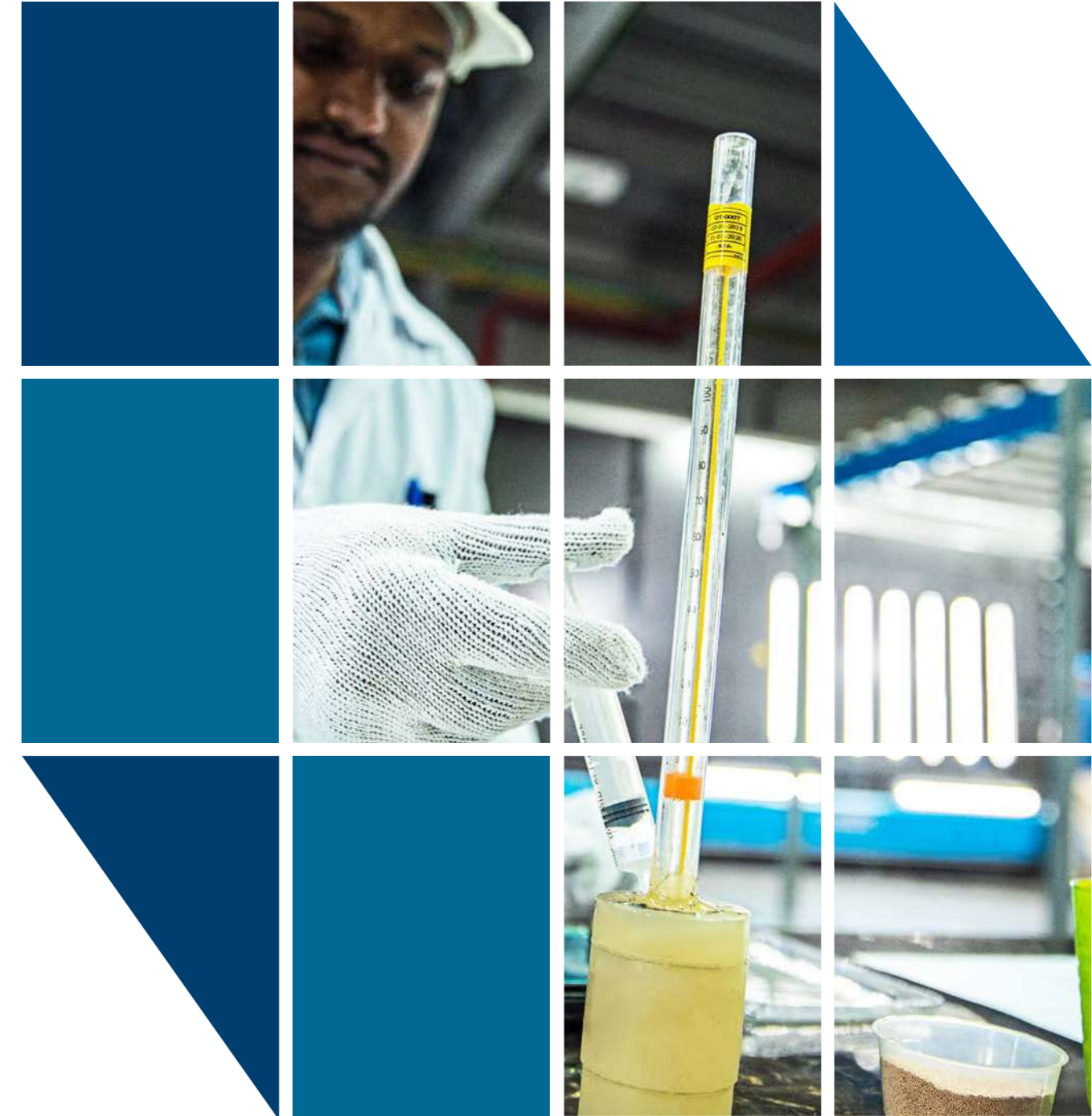
Suppliers Certifications

Glasstech industries have undergone extensive training and testing on material used in the production process from High performance glass to sealants, spacers and other important components that constitute our final products.



Labs & In-Process Quality Testing

A proven leader in its field, Glasstech industries is committed to providing quality products that meet the requirements of renowned international Standards and customer's requirements. Through an ongoing Training and Quality Awareness Program all employees are constantly reminded of the Quality Standard each in their respective divisions.



QUALITY TESTING EQUIPMENTS

As Glasstech is always attentive to the quality needs of its customers and is keen to conforming to the international quality standards, our facility have been equipped with following advanced quality testing devices:



Left: Measuring Edge Stress, Middle: Measuring Surface Stress (GASP), Right: Coating Test

SI no.	Section	Make	Range	Accuracy/Least Count	Location
1	Heat Soak Test	Blokiln, Netherland	0 to 300 °C	0.1 °C	Production Department
2	Edge Stress Measurement Setup	Strainoptics	0 to 180 Mpa (0-25000 psi)	2 Mpa	Quality Lab
3	Surface Stress Measurement Setup Auto GASP with PC connection & Analyzing software & calibration Certificate	Strainoptics	"24486 psi 168.83 Mpa 1724 kgf/cm ² "	+/-1	Quality Lab
4	Optical Measurement Setup(Roller Wave guage RWG-D) with PC Connection	Mitutoyo	0 to 12.7 mm	0.01 mm	Tempering Furnance
5	Coating Surface Vision & Measurement With PC Connection & Software(Spectro Photo Meter CM-2500d)	Konica Minolta	360 nm to 740 nm	10 nm	Quality Lab
6	Pendulum Impact Test Set up (With All Accessories & Calibration Certificate)	Qinhuangdao Yuanchen Tech. Co. Ltd, China	"Impact Test Range 0-1200 mm Shot Bag Weight 45.2 Kg"	"Impact Test Range1.0 mm Shot Bag Weight +/-0.2 Kg"	Quality Lab
7	Gas Filling Analyer TestOxy 2 INA GAS (Sr. no 246704)	INA Gas	0 to 100%	1.00%	Quality Lab
8	Moisture Penetration Testing Set Up	Water Dip Test Tank Inhouse	500 ltr		Quality Lab
9	Sealant Aging Test meter Set Up	Water Dip Test Tank Inhouse	500 ltr		Quality Lab



Left: Fragmentation Test, Middle: Impact Test, Right: Butterfly Test

SI no.	Section	Make	Range	Accuracy/Least Count	Location
10	Portable Strain Viewer (Size 160MMx160MM)	Sharpless	Visual Inspection	Visual Inspection	Quality Lab
11	Tin Surface measurement	Aoptek	Visual Inspection	Visual Inspection	Production Process
12	Toughened & H.S Glass Detector	EDTM	Visual Inspection	Visual Inspection	Quality Lab
13	Fragmentation Test Stencil (50mm x50mm) (2" x 2")	Local (Mannai Metal)	50 mm x 50 mm	+/- 1mm	Tempring Quality
14	Delta T Instruments For Testing Of Desiccants	Delta T Apparatus	0 to 110 °C	1 °C	IGU Quality
15	Shore-A hardness Tester (0-100 shore A) Least Count 1 SHORE'A'	Durometer New	0 to 100 shore A	1 Sore A	Quality Lab
16	Air Gap Measuring Instrument (Merlin Laser)	Bohle	Air Gap 0 to 38 mm	1 mm	Quality Lab
17	Due Point Testing Instrument	Shenliang	0-10 mm	0.01 mm	Quality Lab
18	PH/Conductivity/TDS/TEMP Measuring Instrument	HANNA instruments and EZDO	0 to 14 pH	0.1 pH	Quality Lab
19	Digital vernier caliper (0-150mm) No of Digits 0.01 MM Accuracy ±0.01 MM least Count 0.01 MM	INSIZE	0 to 150 mm	0.01 mm	Quality Lab
20	Digital Micro Meter (0-25mm) Least Count 0.01 MM	INSIZE (ANALOG)	0 to 25 mm	0.01 mm	Quality Lab



Left: , Middle: Low e Glass Emissivity Measurement, Right: Ball Drop Impact Resistance Test of Laminated Architectural Flat Glass

Sl no.	Section	Make	Range	Accuracy/Least Count	Location
21	Filler gauge(0-10mm)	BETA 1708/20	0.05mm to 1.0mm	0.05 mm	Quality Lab
22	Low e Glass Emissivity Measurement	Konica Minolta (SPECTROPHOTOMETER)	360 nm to 740 nm	10 nm	Quality Lab
23	Low e Coating Detector	ETEKT+	Visual	Visual	Tempering Process
24	Digital Clamp Meter (Maintenance)	Masstech	"DC V - 0 to 1000 V AC V - 0 to 750 V ACA - 0 to 1000 A Resistance - 0 to 2000 Ω"	0.01	Maintenance Deartment
25	Digital Tacho Meter	EXTECH	0 to 99999 rpm	0.1 rpm	Maintenance Deartment
26	Ball Drop Impact Test Equipment	DONGGUAN ZME-1704	0.3 to 9 meter	1.0 mm	Quality Lab
27	Bake Test Equipment (For Wheatherig Testing of laminated Glass)	FOSTER	50 to 250 °C	0.1 °C	Quality Lab
28	Boil Test Equipment (For Wheatherig Testing of laminated Glass)	Local	0 tp 120 °C	2 °C	Quality Lab
29	Digital Condesspot Pro temp and Humity tester (-40 °C -600 °C and 20%-90% RH)	LASERLINER	"Temp Range -40 °C to 600 °C Humidity Range 20% to 90% RH"	"Temp 0.1 °C Humidity 1%"	Quality Lab
30	Ford Cup for Viscosity Measurement (For Ceramic Ink viscosity measurement)	Ferro	0-120 ml	1 ml	Printing Department



Left: Pummel Test, Middle: Acid Resistance of Ceramic Decoration on Architectural Glass, Right: Digital Condesspot Pro temp and Humity Tester

Sl no.	Section	Make	Range	Accuracy/Least Count	Location
31	Wet film thickness gauge (25-3000 Micron/0.025mm- 3mm) Comb Type)	China	25 to 3000 Micron/0.025mm-3mm	25 micron	Printing Department
32	Moisture Meter GM610	BENETECH	2-40%/50%/60%/70%	0.50%	Laminating Department
33	PH, TDS, Temperature, Salt AND CONDUCTIVITY TESTER	Gain Express Holdings Ltd. CHINA Serial No. 004548	"PH -2-16 TEMP 0-90 °C Conductivity 0-2000 μS TDS 0-1300 ppm"	"PH ±+1 digit/0.01pH TEMP ±2°C+ 1 Digit/0.1 °C Conductivity ± 2% FS/μS TDS ± 2% FS/1 ppm"	Quality Lab
34	Wet film thickness gauge Ring Type (25-3000 Micron/0.025mm-3mm)	RELIHONS INSTRUMENT CO.LTD CHINA	0-100 Micron 0.10 mm	Least Count 5 micron/0.005mm	Printing Department and Quality Lab
35	Glass Tin Surface Detector	Shenzhen weixinhai Technology LTD.	UV light and Torch Light	Visual	Quality Lab
36	Digital Radius Gauge	Gain Express Holdings Ltd. CHINA Serial No. 004548	"PH -2-16 TEMP 0-90 °C Conductivity 0-2000 μS TDS 0-1300 ppm"	"PH ±+1 digit/0.01pH TEMP ±2°C+ 1 Digit/0.1 °C Conductivity ± 2% FS/μS TDS ± 2% FS/1 ppm"	Quality Lab
37	LED SCALE LOUPE 10 X (High Definition high Magnification type Magnifying Glass with 10 x Zoom)	China	10 X Zoom	Visual	Quality Lab



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SOME OF OUR BUSINESS PARTNERS

Managing projects can be fraught with difficulties, higher fuel prices and escalating costs of raw materials mean companies are under even more pressure to do more. Against a background of rising costs and volatile markets, our procurement and logistics department are under pressure to reduce total supply chain costs, and provide highly resilient and improved service levels for our customers, to make the exercise easier, Glasstech is working more closely with its business partners to meet the most demanding requirements.





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