



الأندلس للزجاج
AL ANDALUS GLASS

Company Profile



شركة الأندلس القابضة
AL-ANDALUS HOLDING CO.

ONE OF AL ANDALUS HOLDING'S COMPANIES



WE PRODUCE
TRANSPARENCY,
NOT JUST GLASS

نحن ننتج شفافية
وليس مجرد زجاج



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VISION

The Saudi Market is one of the biggest immerging markets in the world with promising potentials and big needs, this fact requires a professional companies with high standards and clear vision. For this, Al Andalus Glass Company is looking forward to be the leader in glass integrated business which includes trading, processing and decorating. Also, Al Andalus Glass Company is contributing positively in the Saudi economy and participate in achieving 2030 vision besides taking responsibility toward Saudi community by involving Saudi youth in the industry.

MISSION

According to our ambitious vision, Al Andalus Glass Company didn't hesitate to heavily invest in glass sector wither in machineries or human capital to Provide all types of architectural glass within world standards using latest technologies and best hands. Also as a trader, maintaining excellent chain for supplying Stock sheets with most competitive prices to keep our partners work flow smooth as possible. We are Opening new channels in the market and expanding the service to cover more segments alongside bringing new innovative products to the glass field.

VALUES

We have partners, no clients and suppliers.
We don't compromise our credibility.
We honor our commitments

ABOUT US

Al Andalus Glass Company is one of 12 other companies belong to Al Andalus Holding Company. Al Andalus Glass Company was founded in 1997 in the 2nd Industrial Area and since that time the journey of Glass started to draw an increasing line in the market. We have opened other glass factory specialized in frameless glass in the 1st Industrial Area in 1999. In 2017, mega renovation has been made in the company from all aspects; management, machinery, buildings, manpower and Glass trading division was added. Thanks to this brilliant vision, Al Andalus Glass Company is one of the leaders in glass processing and trading market now.



MANAGEMENT MENTALITY



Professionalism:

Al Andalus Glass Company as one of the leaders in the business act professionally with partners, suppliers and employees.

Diversity:

Beside achieving high level of Saudization, we have multi culture work- environment alongside female section , all works in harmony.

Experience:

Came from long existance in the market and reinforced with experienced staff.

Education:

we care about educated staff and continuous learning process.

Caring:

we care about employees, partners and suppliers.

Safety:

Safety takes high priority in our culture. we have Safety officers, Safety equipments and clinic inside the factory.

ORGANIZATIONAL CHART

Executive Manager

Executive Secretary

**HR
Manager**

**Sales &
Marketing
Manager**

**Finance
Manager**

Administrative
Affairs SV

**marketing&vip
accounts manager**

sr.accountant
factory1

Transportation
In-charge

sales rep.(factory1)

accountant
factory1

Admin
coordinator

sales rep.(western
province)

accountant
factory2

sales rep.(factory2)

cashier
factory1

Admin Staff

sales rep.(stock sheet)

Admin
Affairs-factory 2

sales rep.(southern
province)

Expidator

estimator
(factory1)

safety & quality
inspector-factory1

estimator (stock sheets
& indoor sales)

E-marketing

safety & quality
inspector-factory2

public relation

Factory1 Manager

Sr. Maintenance Engineer

Factory2 Manager

Warehouse Manager

IT Manager

planning
engineer

**Maintenance
supervisor**

production
supervisor

store keeper
(spareparts)

optimization
in-charge

**Maintenance
engineer**

optimization
in-charge

store keeper
(glass stock)

planner

technicians
factory 1

estimator
factory 2

warehouse
laborer
(factory1)

production
engineer

technicians
factory 2

Operators
factory2

warehouse
laborer
(factory1)

sr.production
supervisor

laborers

laborers
factory2

warehouse
secretary
(ghalla)

production
supervisor


factory 2
drivers
truck drivers

warehouse
worker
(ghalla)

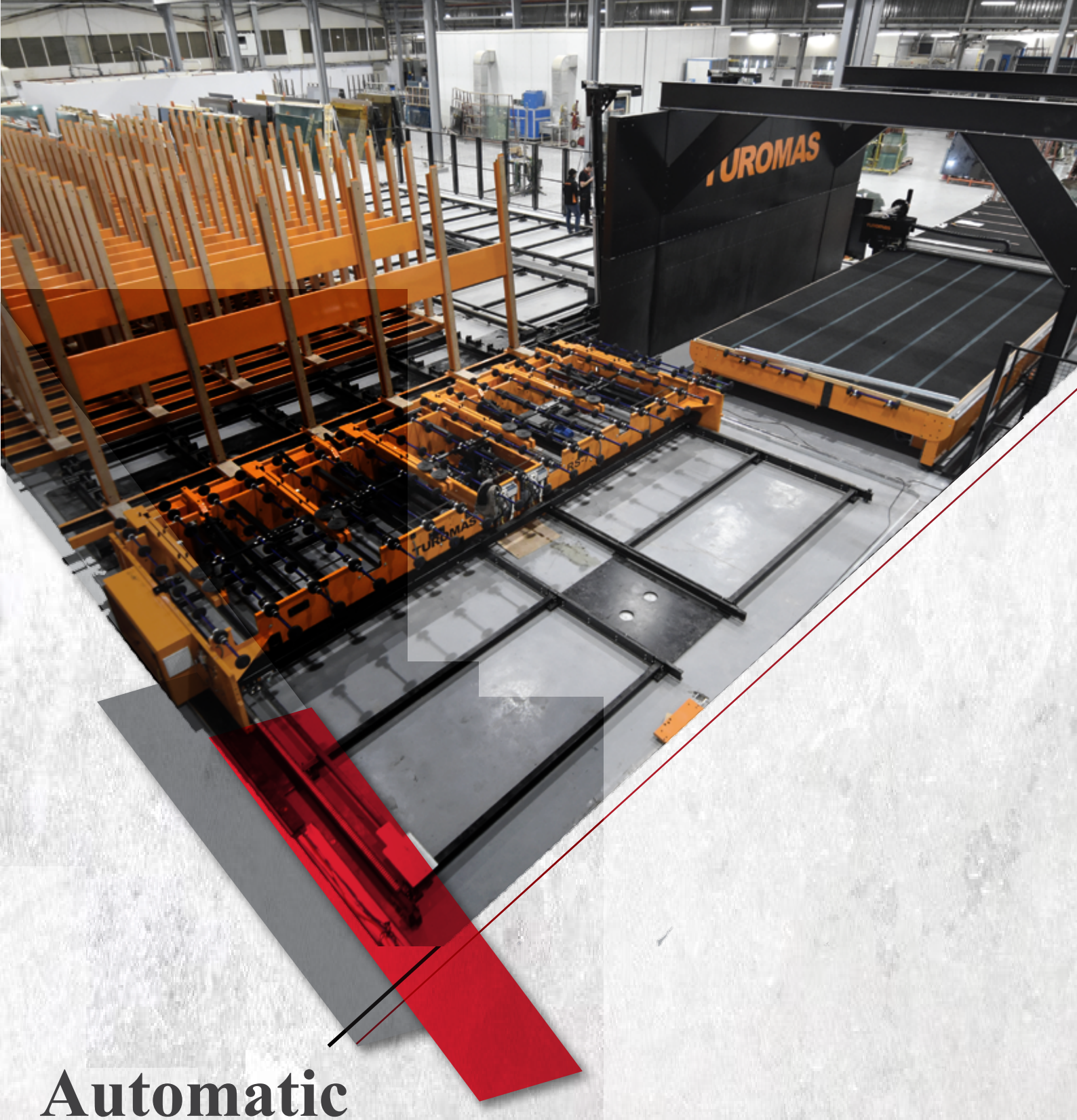
FACTORY

1





Located in Second Industrial Area (Riyadh) over 9000 m² of the factory. combined with Al Andalus Glass head offices. the factory has been renovated in 2017. the factory is equipped with the most sophisticated technologies and european production lines starts from fully automated storage management system, fully automated cutting line, fully automated doubling line, modern tempering line and modern quality control department.



Automatic Cutting Line

	Machine 1	Machine2
No. of production lines / machines	one	one
Monthly capacity (m ³)	36400	13000
Thicknes range (mm)	4mm - 19mm	4mm - 19mm
Machine details - Manufacturer	Turomas - Spain	Lisec - Austria
Machine details - Model / Type	RUBI - 516 C	BTS-3726
max. Size (mm)	3210 X 6000 mm	2440 X 3660 mm
min. Size (mm)	100 X 100 mm	100 X 100 mm



Automatic Storage Management System

Machine 1

No. of production lines / machines

one

capacity (m2)

12000

Machine details - Manufacturer

Tuomas - Spain

Machine details - Model / Type

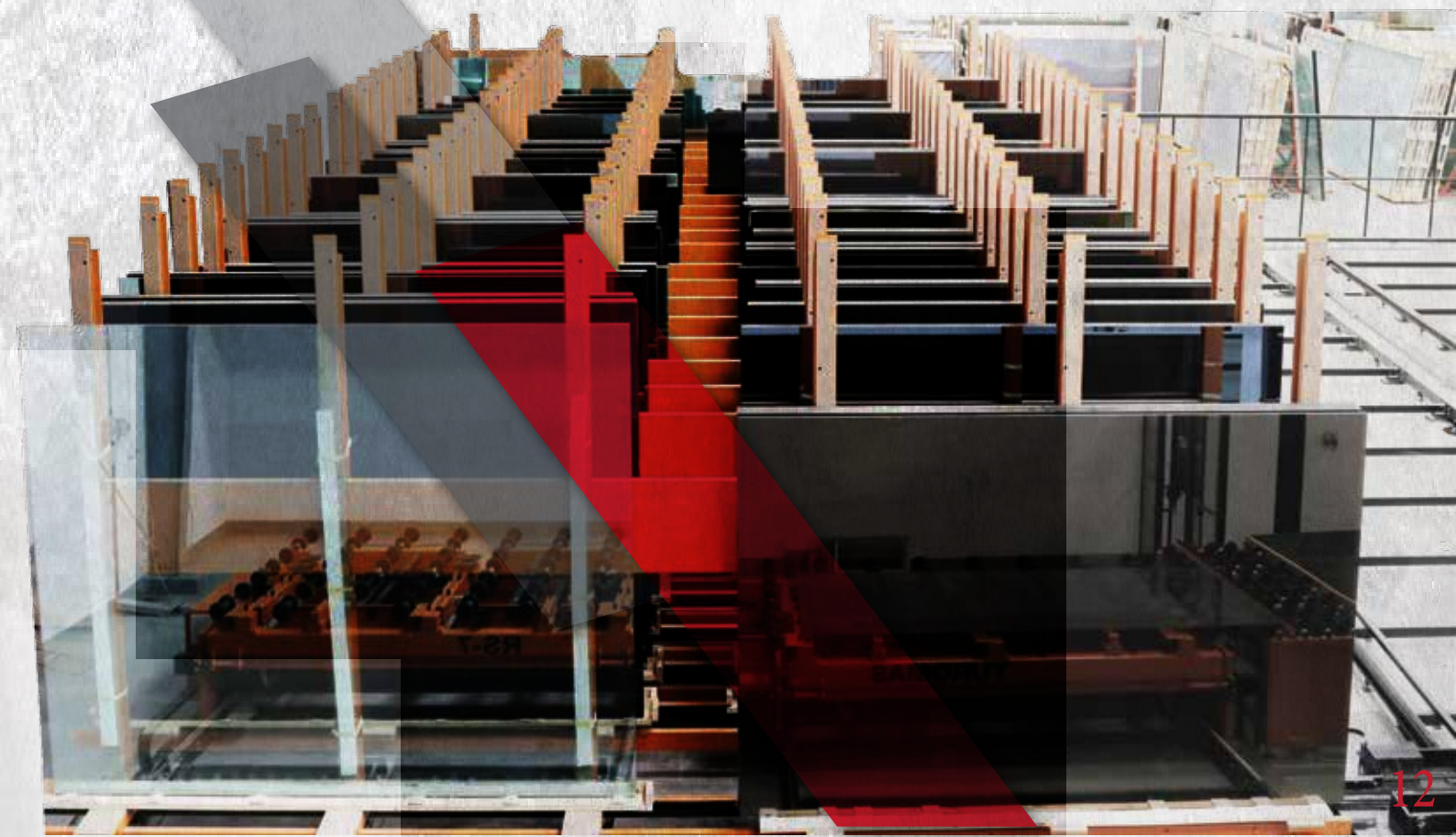
Racks Shuttle - RS7

max. Size (mm)

3210 X 6100

min. Size (mm)

2250 X 3210



AUTOMATIC ARISING MACHINE

Machine 1

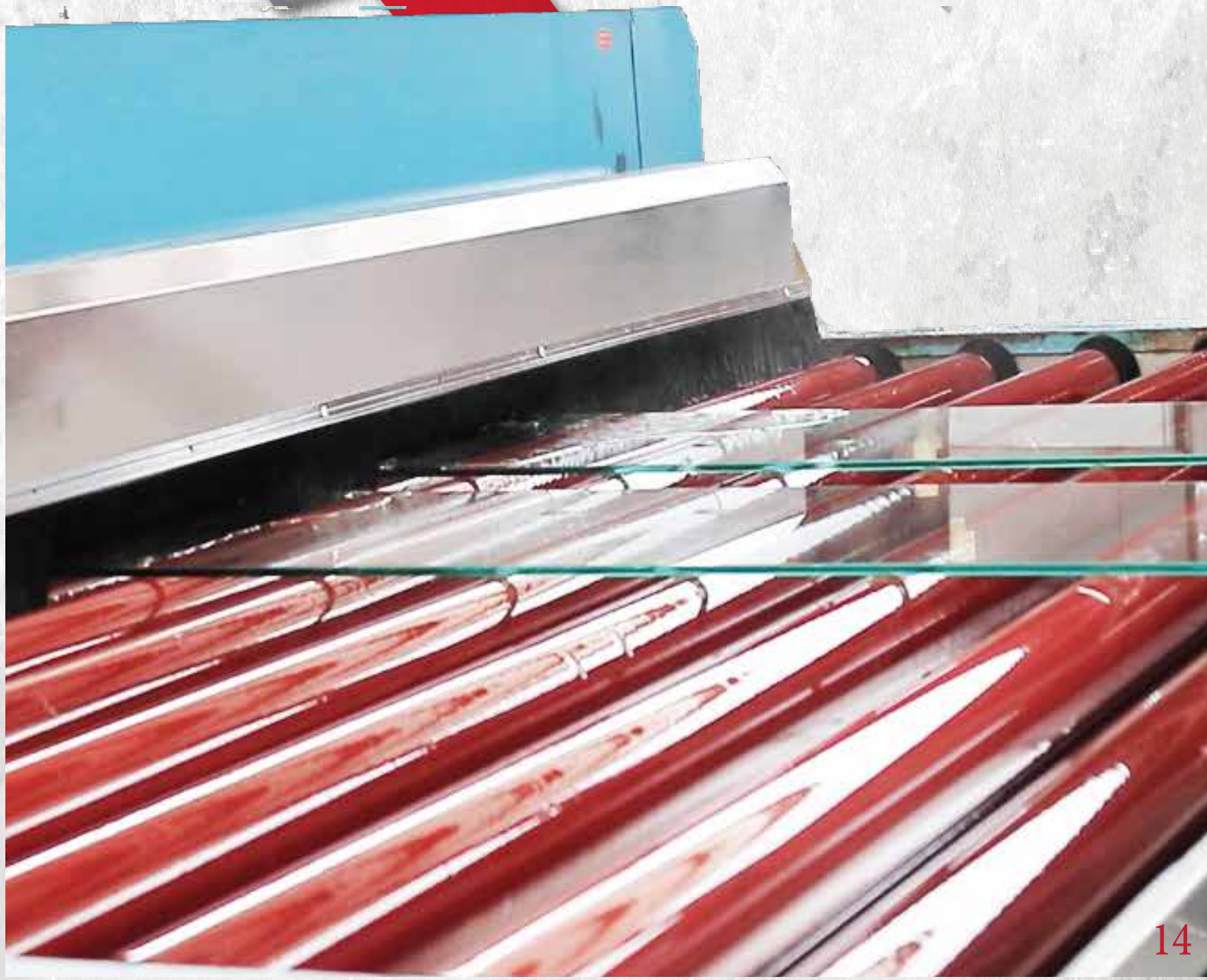
No. of production lines / machines	one
Monthly capacity (m2)	36400
Thicknes range (mm)	4mm - 19mm
Machine details - Manufacturer	BestMakina - Turkey
Machine details - Model / Type	BLA2
max. Size (mm)	2400 X 4800 mm
min. Size (mm)	500 X 500 mm



WASHING MACHINE

Machine 1

No. of production lines / machines	one
Monthly capacity (m2)	41600
Thickness range (mm)	4mm - 19
Machine details - Manufacturer	Triulzi - Italy
Machine details - Model / Type	SY-PLE
max. Size (mm)	2400 X 4800 mm
min. Size (mm)	300 X 300



TEMPERING LINE

Machine 1

No. of production lines / machines

one

Monthly capacity (m2)

36400

Thicknes range (mm)

5.5 - 19

Machine details - Manufacturer

TamGlass - Finland

Machine details - Model / Type

PRO-E 2448

max. Size (mm)

2400 X 4800 mm

min. Size (mm)

300 X 300



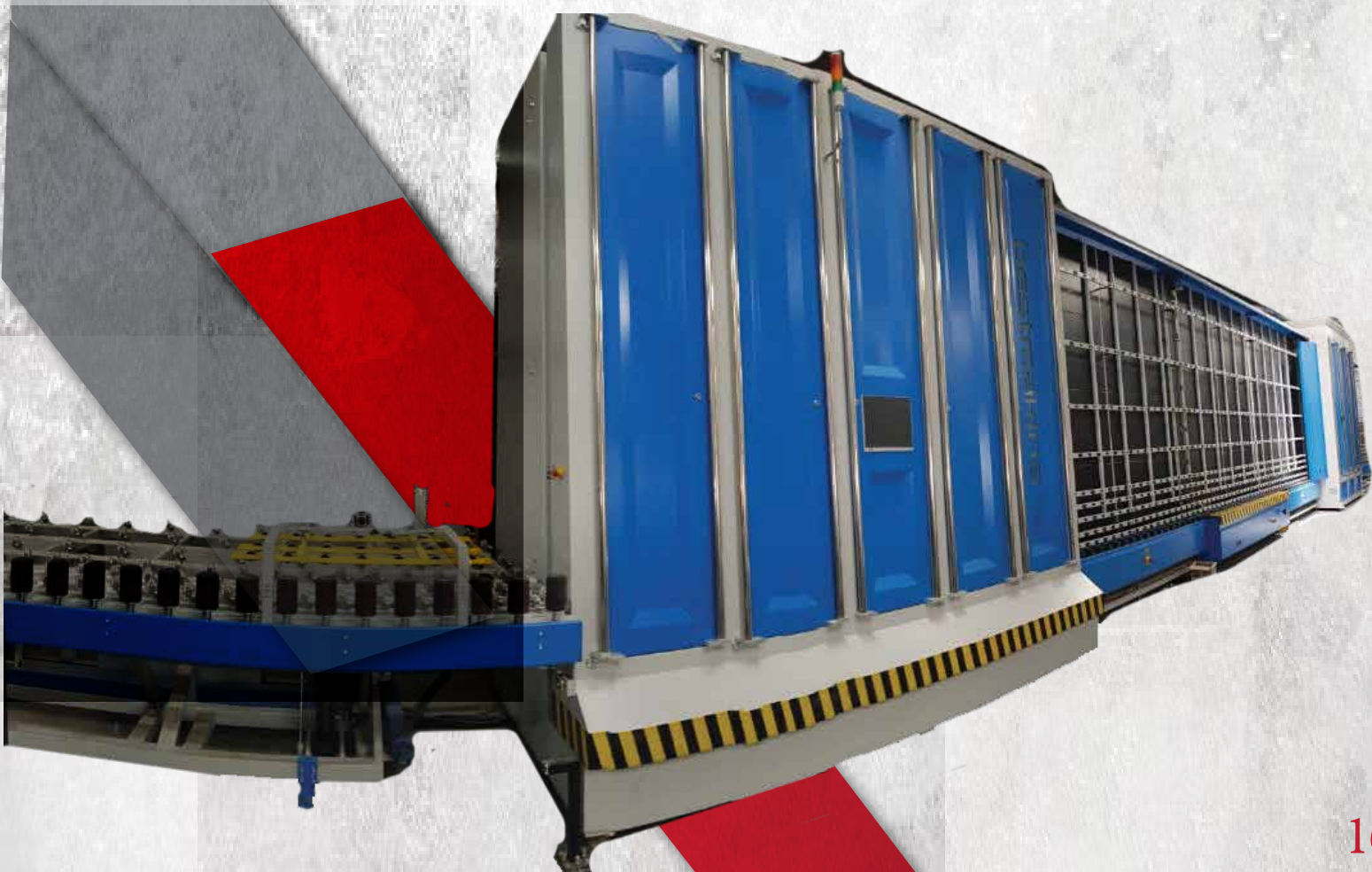
Robotic Sealing Machine (IG Line)



Machine 1

No. of Production lines / machines	one
Monthly capacity (m2)	15600
Thickness range (mm)	80 - 12 mm
Machine details - Manufacturer	BestMakina - Turkey
Machine details - Model / Type.	BWPL
Max. size (mm)	2400 X 1800
Min. Size (mm)	300 X 300

IG line





LAMINATION LINE

Machine 1

No. of Production Lines / machines
Monthly capacity (m2)
Thicknes range (mm)
Machine details - Manufacturer
Machine details - Model / Type
max. Size (mm)
min. Size (mm)

one
5200
10 - 60mm
IVACO- China
HP 2000
2400 X 4800 mm
400 X 400 mm





QC Lab

Our Quality Control Department is equipped with the latest technologies from Ayrox Company.

List of tests that we do:

Type of Test	Equipment's
Glass size	Measuring Tape
Glass Thickness	Vernier Caliper
Glass Face	Tin Side Detector
Roller waves & Edge	Roller wave Gauge
Lift	Gasp
Stress	
Fragment Test	Feeler Gauge
Overall bow	Infrared Thermometer
Laminated Glass Heat	Electronic Scale
Butyl Weight	Thermometer
Desiccant Test	Durometer
Sealant Hardness	Sealant Tests
Butterfly Test	
Snap time Test	
Adhesion Test	
Color Test	
Water PH	Water Tests
Water TDS	

DIGITAL PRINTING MACHINE

No. of production lines / machines

one

Monthly capacity (m2)

1040

Thicknes range (mm)

20 - 1 mm

Machine details - Manufacturer

EASTECH - China

Machine details - Model / Type

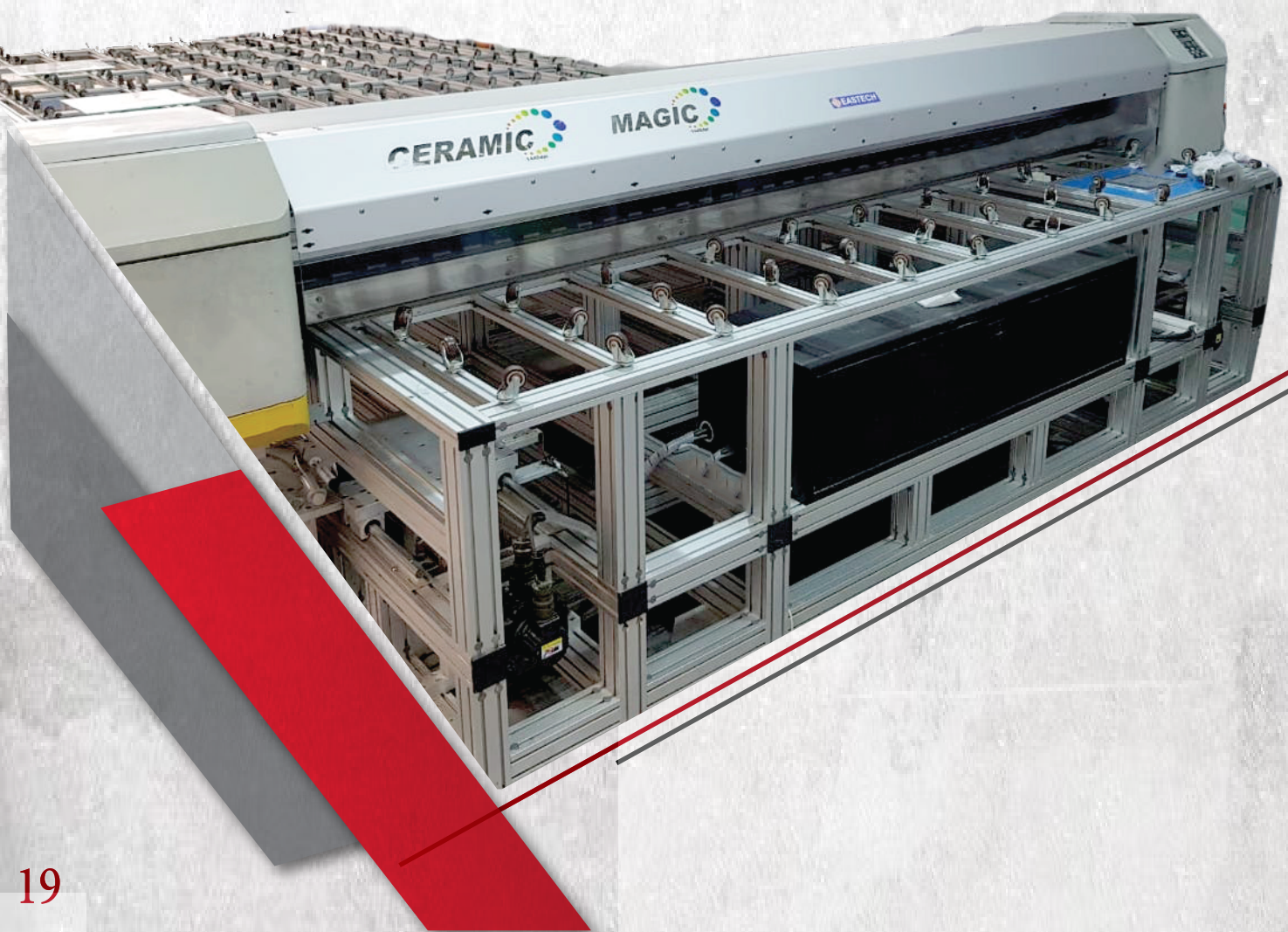
EASTECH

max. Size (mm)

2400 X 4000

min. Size (mm)

300 x 300





Autoclave (lamination Line)

Machine 1

No. of production lines / machines	one
Monthly capacity (m2)	5200
Thicknes range (mm)	10 - 60 mm
Machine details - Manufacturer	IVACO - China
Machine details - Model / Type	SL-2500
max. Size (mm)	2400 X 4800
min. Size (mm)	400 x 400

Jib Cranes

capacity (KG)

500

Machine details - Manufacturer

Bystronic- Germany

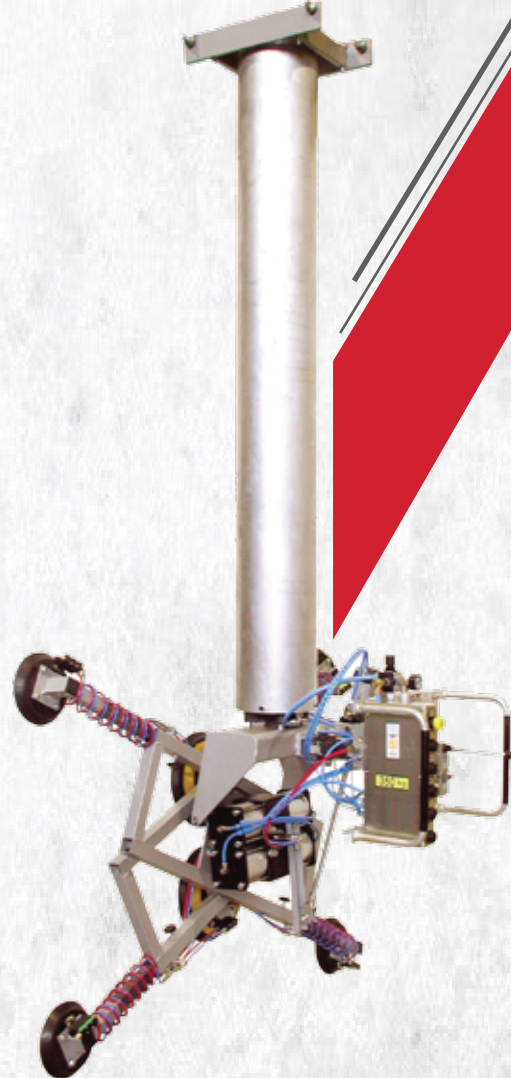
Lightweight Cranes

capacity (KG)

500

Machine details - Manufacturer

Bystronic- Germany



SAND BLASTING MACHINE

No. of production lines / machines	one
Monthly capacity (m2)	1800
Thicknes range (mm)	24 - 4 mm
Machine details - Manufacturer	MHG
Machine details - Model / Type	GlassMaster - Germany
max. Size (mm)	1000 X 2560
min. Size (mm)	400 x 600



FACTORY

2

22A



located in the First Industrial Area (Riyadh) over 2500 M² of the factory area.

The factory is specialized in all single glass processes including Cutting, Tempering, polishing ,drilling, holing and sand blasting .in addition to water jet machine's services. All these processes done by European lines

AUTOMATIC SAND BLASTING MACHINE

No. of production lines / machines	one
Monthly capacity (m2)	2600
Thicknes range (mm)	4mm - 24mm
Machine details - Manufacturer	DYNAMIKI LTD - Greece
Machine details - Model / Type	Glassblaster M 260
max. Size (mm)	2600 x 4500
min. Size (mm)	40 x 60



TEMPERING LINE

No. of production lines / machines	one
Monthly capacity (m2)	10400
Thicknes range (mm)	4mm - 19mm
Machine details - Manufacturer	Tamglass - Finland
Machine details - Model / Type	HTF-2436-CT-10-L
max. Size (mm)	2400 X 3600
min. Size (mm)	30 X 30



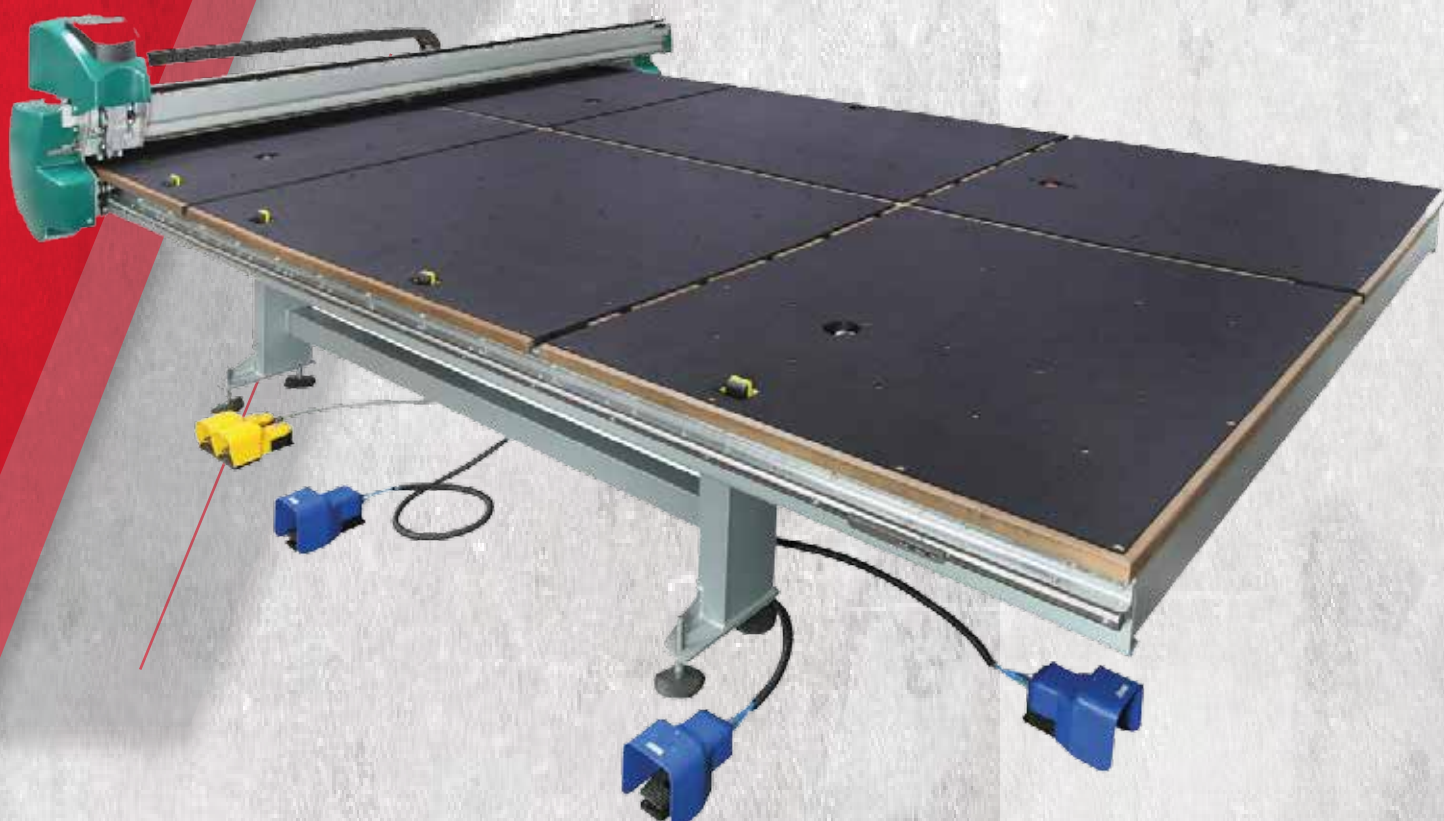
WATER JET MACHINE

No. of production lines / machines	one
Monthly capacity (m2)	2600
Thicknes range (mm)	1 - 120
Machine details - Manufacturer	WaterJet Corp. - Italy
Machine details - Model / Type	FB 51040//K/S
max. Size (mm)	2000 X 3050
min. Size (mm)	300 X 300



CUTTING LINE

No. of production lines / machines	one
Monthly capacity (m2)	18200
Thicknes range (mm)	4mm-19mm
Machine details - Manufacturer	Bottero-italy
Machine details - Model / Type	ESBBSP.40
max. Size (mm)	3500X6000mm
min. Size (mm)	100X100mm



AUTOMATIC POLISHING MACHIN

No. of production lines / machines	one	one
Monthly capacity (m2)	6500	7800
Thicknes range (mm)	4mm - 19mm	
Machine details - Manufacturer	Adelio Lattuada - Italy	
Machine details - Model / Type	TL-10 A	TL 11
max. Size (mm)	2000 X 3600m	2000 x 4500mm
min. Size (mm)	300 x 300mm	



HOLING- DRILLING MACHINE

No. of production lines / machines	one
Monthly capacity (m2)	6500
Thicknes range (mm)	4mm - 19mm
Machine details - Manufacturer	Schiatti Angelo - Italy
Machine details - Model / Type	FPD - 60
max. Size (mm)	60 Ø
min. Size (mm)	6 Ø





TRADING



Al Andalus Glass is one of the biggest and well-known traders with quite reputation. we stock quantities reach 260,000 m². also we have stock from all kinds of glass from almost every manufacturer in the region, usa, europe and asia ; all are served by warehouses in riyadh, jeddah and other warehouse in al ihesa, khamis mushait. beside big fleet of trucks including trailers and trucks equipped with cranes .



OUR FLEET CONSISTS OF :

- ▀ 2 big trailers for deliveries between cities.
- ▀ 3 trailers equipped with cranes for stock sheets.
- ▀ 7 Dyna trucks for deliveries inside cites.





**OUR SERVICES REACH WHOLE
KINGDOM OF SAUDI ARABIA**



RANG OF OUR PRODUCTS





LAMINATED GLASS:

Laminated glass is a type of safety glass that holds together when shattered. In the event of breaking, it is held in place by an interlayer, typically of polyvinyl butyral (PVB) or ethylene-vinyl acetate (EVA), between its two or more layers of glass. The interlayer keeps the layers of glass bonded even when broken, and its high strength prevents the glass from breaking up into large sharp pieces. This process does not significantly affect the strength of the glass but it does improve the safety of the glass as laminated glass typically remains intact and retains some strength even after fracture. For this reason, it is possible that future practice may allow higher stresses for such glass.



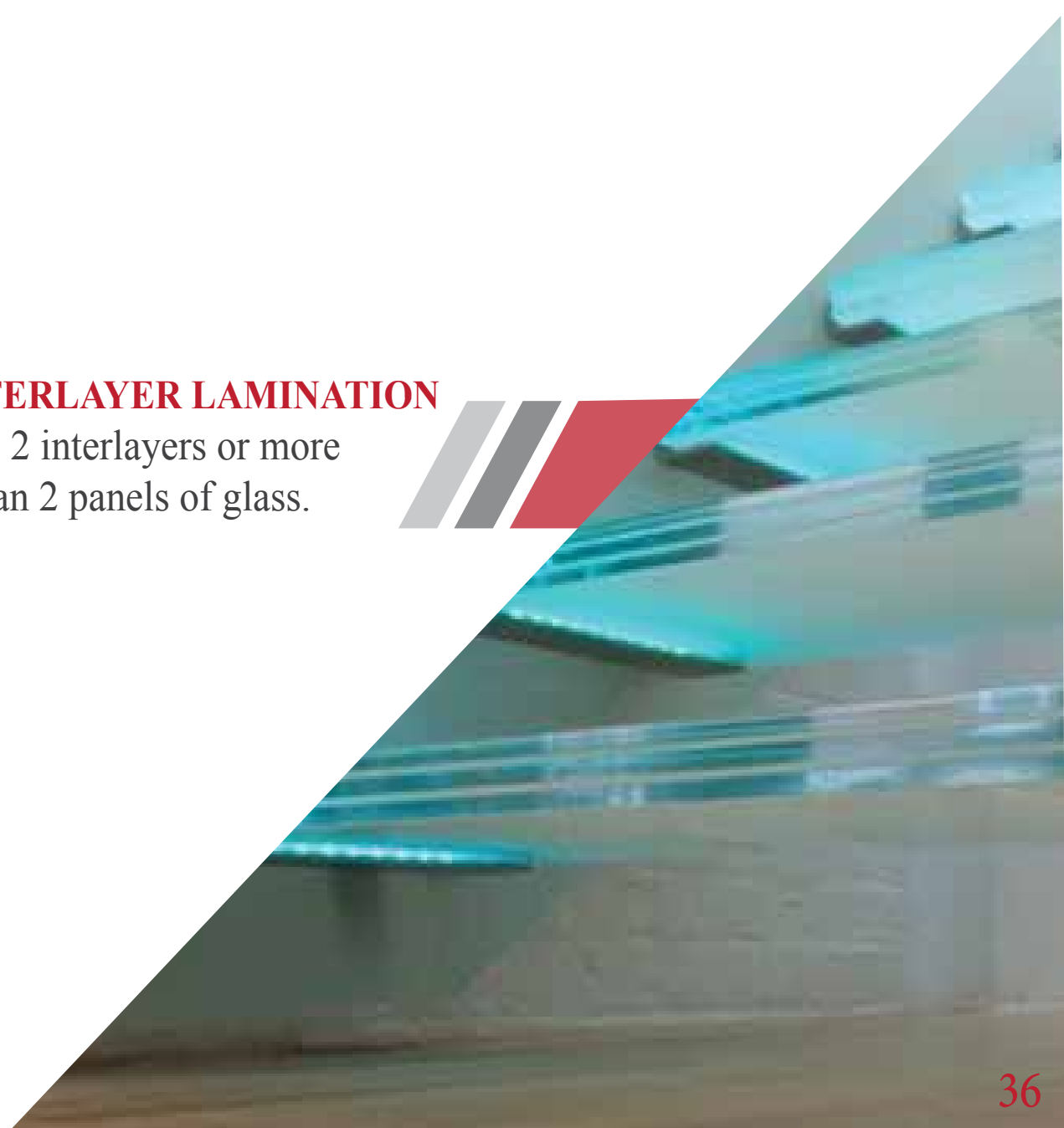
SINGLE INTERLAYER LAMINATION

this type has single interlayer and only 2 panels of glass



MULTI INTERLAYER LAMINATION

this type has 2 interlayers or more and more than 2 panels of glass.





INSULATED GLASS UNIT:

Insulating glass (IG), more commonly known as double glazing (or double-pane, and increasingly triple glazing/pane), consists of two or three glass window panes separated by air space or gas filled space to reduce heat transfer across a part of the building envelope.



DGU: Double Glazed Unit:

it contains only 2 panels of glass with Aluminum spacer in between. The gap may contain 100% air or may contain 90 % Argon gas for higher performance

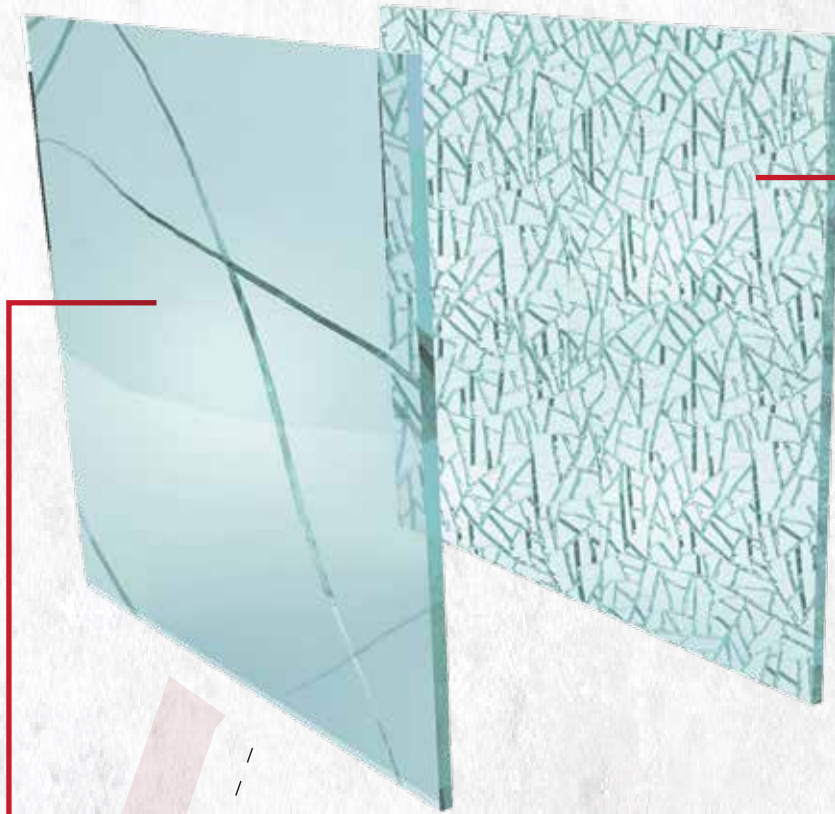
Multi IGU:

it contains 3 panels of glass with 2 aluminum spacer, usually use thus type for higher thermal performance. The gap may contain 100% air or may contain 90% Argon gas for higher performance.



TEMPERED GLASS:

Tempered glass is a type of safety glass processed by controlled thermal or treatments to increase its strength compared with normal annealed glass. Tempering puts the outer surfaces into compression and the interior into tension. Such stresses cause the glass, when broken, to crumble into small fragments instead of splintering into jagged shards as plate glass (a.k.a. annealed glass) does.

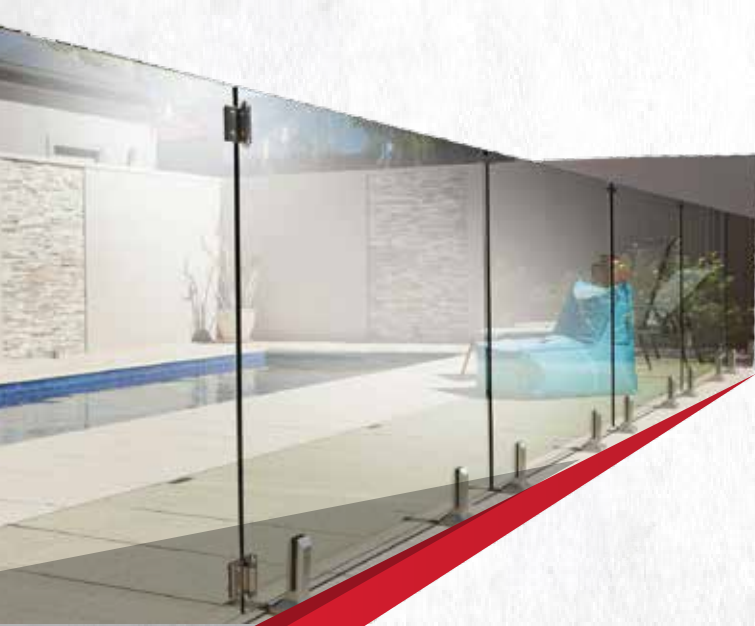


FULLY TEMPERED:

In this type the glass will gain its maximum strength, and when broken the fragments will be very small.

HEAT STRENGTHENED GLASS:

In this type the glass will gain less strength than full tempered glass and will make bigger fragments when broken. both heat strengthened and fully toughened have a surface compression induced by temperature increase and sudden quenching. the existence of the surface compression means that it must be overcome by load before any surface tensile stress is achieved. the magnitude of the surface compression is of the order of 3 to 6 times the typical stress values used in annealed glass design. this leads to a similar strength increase without any effect on the glass stiffness and deflections.



FRAMELESS GLASS:

Frameless glass is single glass units, usually installed internally e.g. Partitions and Fins.

This glass may come in different thickness from 8mm, 10mm, 12mm, 15mm, 19mm.



DECORATIVE GLASS:

Sandblasted Glass:

Glass can be decorated by sandblasting the surface of a piece in order to remove a layer of glass, thereby making a design stand out. Items that are sandblasted are usually thick slabs of glass into which a design has been carved by means of high pressure sandblasting. This technique provides a three-dimensional effect but is not suitable for toughened glass as the process could shatter it.



Digital printed glass.

It is one of the most common decorative glass technologies that uses ink to print any desirable picture or pattern over the glass. This technology can be used in single, double or laminated glass.

Georgian Bar Glass:

It has Aluminum bars attached to the aluminum spacer in between the glass panes.

Glass Properties:

THE GENERAL PHYSICAL CHARACTERISTICS OF SODA/LIME/SILICA GLASS FOR BUILDING PURPOSES ARE:

MASS (KG):

Area x Thickness(mm) x 2.6

DENSITY:

2600 kg/m³

SPECIFIC GRAVITY:

Approximately 2.60. Glass used for building purposes has a specific gravity comparable with that of aluminium which is approximately 2.70.

Coefficient of linear thermal expansion: $88 \times 10^{-7}/^{\circ}\text{C}$. Glass has a much lower coefficient of linear thermal expansion than most metals.

THERMAL CONDUCTIVITY:

(K value) 1.05 W/m²°C. The difference between various types of flat glass is small enough to be negligible.

THERMAL ENDURANCE:

6mm glass heated to a higher temperature and plunged into water at 21°C will rupture at approximately 55°C differential.

SOFTENING POINT:

Approximately 730°C.

MODULUS OF ELASTICITY:

Young's modulus 70 GPa (70 x 10⁹ Pa).
The modulus of elasticity for glass is similar to that of aluminium.

CHEMICAL RESISTANCE:

Glass will resist most acids except hydrofluoric and at high temperature, phosphoric. Alkalis, however will attack the surface of glass. When glazed into concrete framing, alkalis released from the concrete by rain may be leached onto the glass causing staining, or etching of the glass surface.

WEATHERING STEELS CAN DEPOSIT SOLUBLE SULPHATE , WHICH MAY BE DIFFICULT TO REMOVE FROM GLASS. SHOULD THIS OCCUR, ANY DEPOSITS SHOULD BE REMOVED AS SOON AS POSSIBLE

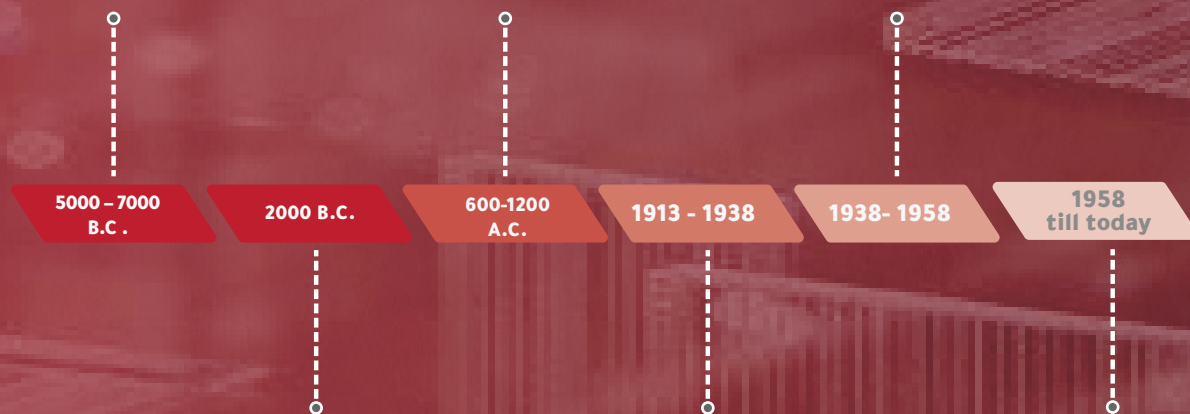


MILE STONES OF GLASS

Glass Was Probably First Discovered By Syrian Copper Founders Between 5000 - 7000 Years Ago. The Dross (Or Waste) Produced By The Ores Could Be Described As Vitreous Pastes With Colouring From Various Metallic Oxides. It Would Of Been Very Similar To Obsidian, Which Is Produced Naturally Through Volcanic Action. The Substance Was Opaque And Did Not Resemble Glass As We Know It Today In Its Many Forms

The 7th And 13th Centuries, The 'Crown' Method Of Spinning A Gob Of Molten Glass On A Hollow Rod Or Punty Was Used. This Resulted In A Bubble Of Glass Being Flattened Into A Disc Approximately One Metre In Diameter, From Which Small Pieces Were Cut From The Outside, Leaving The Worst Quality In The Centre. The Bulls-eye Or Bullion Ironically Is Now The Most Sought After Piece.

the process had been developed to the stage where a continuous ribbon of cast glass was ground and polished on both surfaces simultaneously, first with sand then iron oxide. Apart from being extremely messy, the process line was longer than the ocean liner The Queen Mary, and was correspondingly, very costly.

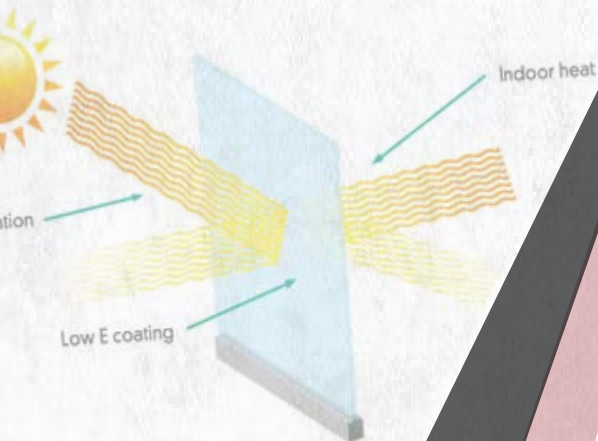


Through Conquest The Art Was Taken To Egypt Where The Oldest Relics Are Dated At 2000 B.C. It Is Also Believed That Alexander The Great Was Buried In A Glass Coffin. From Egypt The Technique Was Taken To Rome, From Where It Spread Throughout Europe And Continued To Develop.

It was in 1913 that continuous processes such as; the Fourcalt process (Belgium); the Colburn - Libbey - Owens process (USA); and the most successful of all, the P.P.G. Pittsburgh process. All involved drawing the glass up vertically out of a tank of molten glass, the edges being held by knurled rollers to retain the ribbon width. The sheet glass produced by these methods gave a good strong fire finish, but the very action of pulling upwards meant the product contained inherent bands of distortion which resulted in poor optical quality and terrible reflections. Where true optical quality was required in mirrors or large shopfront windows, a plate glass was needed. The plate process involved sheet glass being ground and polished to achieve the desired quality.

The quantum leap came in late 1958 when Pilkington launched their Float Glass process, which has since been licensed to glassmakers throughout the world. This innovative process involved molten glass being floated on a shallow bath of molten tin, while being heated on the top surface. The resulting product is optically true and requires no further grinding or polishing. While manufacturing methods have changed dramatically over the last century, the basic ingredients used in glass making are still very much the same.

PERFORMANCE TERMS



Visible Light Transmittance:

- Expressed as the percentage of visible light (380 - 780nm's) that is transmitted through a glass type.

Visible Light Reflectance:

- The percentage of visible light (380 - 780nm's) that is reflected from the glass surface(s).

Solar Energy Transmittance:

- The percentage of ultra-violet, visible and infra-red energy (290 - 2500nm's) that is directly transmitted through a glass type.

Solar Energy Reflectance:

- The percentage of solar energy that is reflected from the glass surface(s).

Solar Heat Gain Coefficient (SHGC) or Total Solar

Energy Transmittance:

- The proportion of directly transmitted and absorbed solar energy that enters into the building's interior. The lower the number is, the better the glass is able to exclude solar radiation.



PROJECTS

Project: Al Essaei Tower **Location:** Jeddah. **Alu. Fabricator:** Cube Metal **Glass:** SYP YBE



Project: Deem Plaza **Location:** Riyadh. **Alu. Fabricator:** Alu. Systems. **Glass:** Guardian HD





Project:
Backyard
Mall

Location:
Riyadh.

Alu. Fabricator:
RATAAL

Glass:
Guardian
Neutral 70

Project:
yassmen
plaza

Location:
Riyadh.

Alu. Fabricator:
TechnoTal

Glass:
Guardian
HD Plus



Project:
Labour
Office

Location:
Dammam.

Alu. Fabricator:
TechnoTal

Glass:
Guardian
Green 20
Neutral 70



Project:
Al Othaim
Mall

Location:
Hafer Al
Baten.

Alu. Fabricator:
RATAAL

Glass:
Guardian
HD Plus



Project:
Khurais
Mall

Location:
Riyadh

Alu. Fabricator:
Cordoba Palaces

Glass:
Guardian
HD



Project:
Rabwah Plaza

Location:
Riyadh.

Alu. Fabricator:
Granada Alu.

Glass:
Guardian



Project:
Piano Mall

Location:
Al Jubail

Alu. Fabricator:
Jazzah Alu.

Glass:
Guardian



OUR PARTNERS



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world of interlayers



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TREMCO
Roofing & Building Maintenance Division



JoTiKa

Waterjet
corporation

AYROX



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