

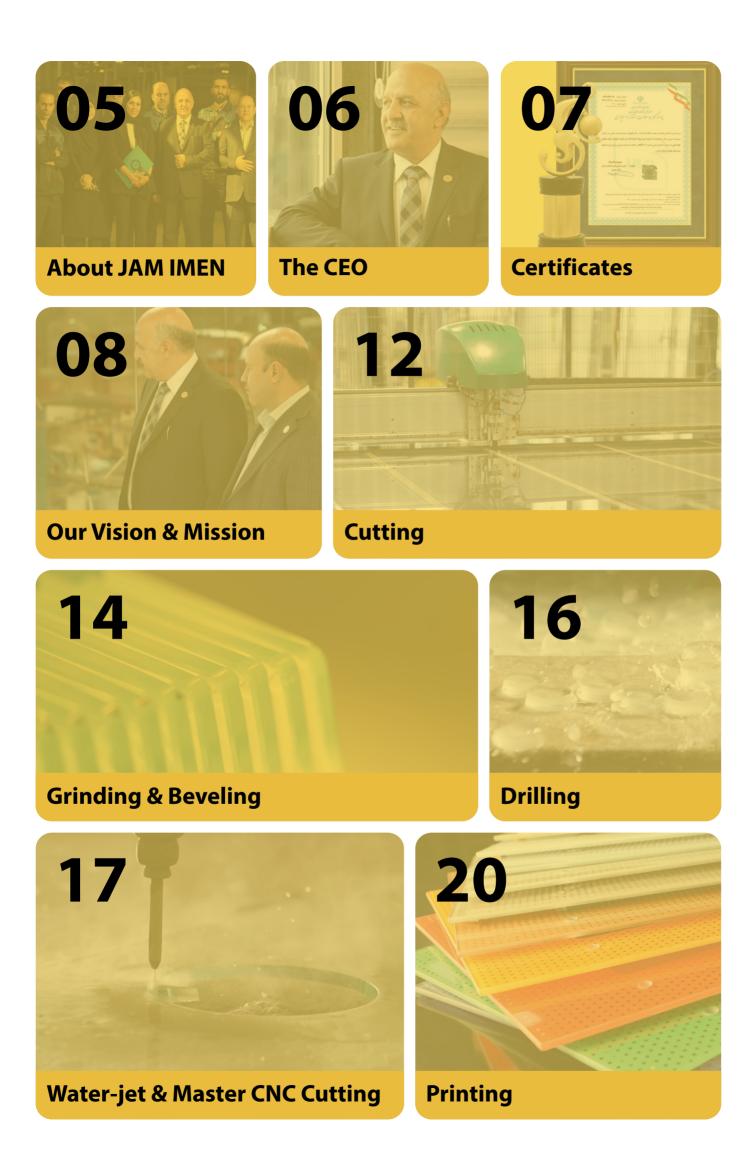


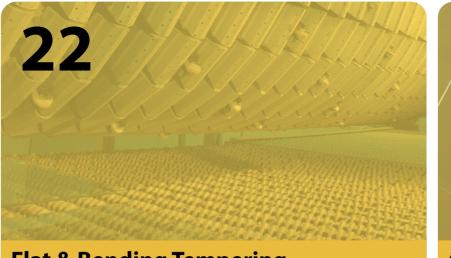


www.jamimen.com

# World class Safety glass









Flat & Bending Tempering

Coating





**The Quality Control Team** 







#### About JAM IMEN

In today's world, the use of glass is continuously on the rise. Glass is a widely used material and a unique product; despite its transparency, it offers numerous features that improve the aesthetics of products.

We in the JAM IMEN production team, located in Tehran, Iran, have been providing glass products with various applications for over 25 years to enhance the quality of life. Our services seek to meet the needs of different industries, credible building, and industrial manufacturers in the Glass Industry. Hence, in addition to providing high-quality products, we are currently known as one of the top business partners in the Home Appliance Industry in the world.

The JAM IMEN production team meets the highest level of demand in the creation of aesthetics and unique products for home appliances. With their positive and constructive experiences, the experts gathered in the JAM IMEN CO. are prepared to offer you valuable products from the Glass Industry. Our skills and expertise provide the opportunity to meet your expectations in this field. We have been able to export a large volume of different glasses to credible companies in Bulgaria, Serbia, Turkey, Iraq, Pakistan, Tajikistan, and Uzbekistan.

We consistently exceed the expectations of our customers and meet their needs by offering professional services and adhering to our commitments. In accordance with the standards, our experts not only strive to satisfy you but also make your products stand out and be competitive on the market.

Our expertise and skills enable us to offer you a high-quality product you can trust.



#### The CEO

Reza Rahmanian, born in 1967, has more than 35 years of experience in glass processing and manufacturing.

He established the JAM IMEN GLASS PRODUCING CO. in 1994 in Tehran with the aim of manufacturing and selling quality glass products in and outside Iran.

Besides his expertise and technical knowledge, Reza Rahmanian has managed to turn JAM IMEN into one of the most prominent firms that manufacture and process various industrial and building glasses with his sufficient understanding of the market, as well as his up-to-date and smart management.

Currently, by gathering the required experts in the industry, JAM IMEN can provide credible Iranian and international brands with the products they need, having high quality that is able to compete in global markets.







# CERTIFICATES





#### Our Vision

Glass adds light and aesthetics to the living environment because of their delicacy and transparency. By manufacturing items that are used in different aspects of our daily lives, we attempt to create a positive change in the living space.

Our primary goal is to enhance lifestyles permanently. Our vision has been clearly and ambitiously designed so that we can always be one step ahead of our competitors and remain superior through innovation.

We believe positive changes have been the greatest factor in our success.

We are manufacturers of safety glass of global quality. To us, this is not a motto but a philosophy.



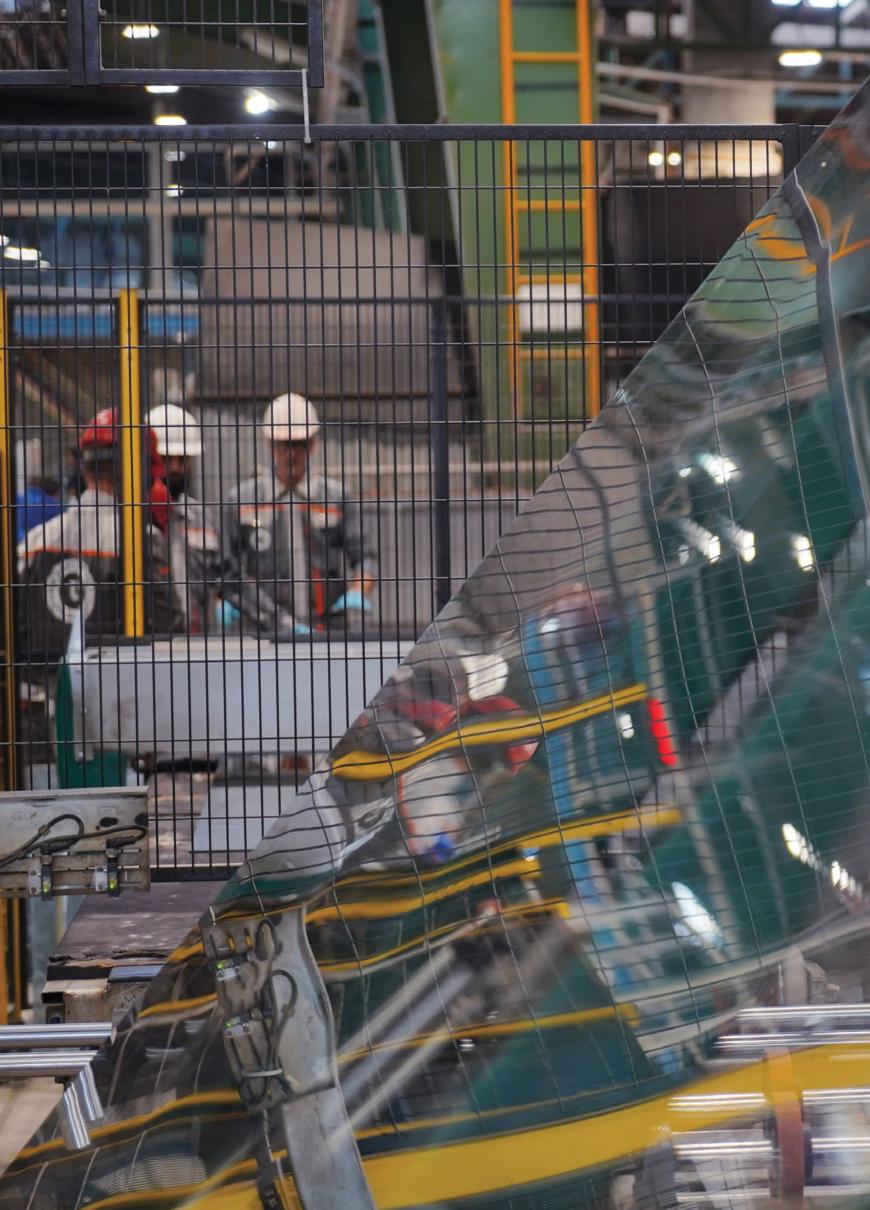
#### **Our Mission**

We have significant responsibility for the environment. We try to create a better environment for future generations through our methods. In the process of manufacturing products, we attempt to help preserve the environment by reducing the carbon remaining from the manufacturing process. At the same time, we maintain the aesthetic value of the products.

By maintaining and improving the quality of products, consumers will have a pleasant experience with the aesthetics and durability of our products. Therefore, we will introduce the values of our products as a reliable brand.

We will achieve our vision, mission, and values through investment and innovation. It must be noted that our customers are often the inspiration for our innovation. Hence, they depend on us to manufacture and develop products that make understanding their ambitious ideas possible.

This is why we have turned cooperation with our customers into our rule. Since the establishment of the company in 1994, we have managed to quickly establish new standards with this mentality. We have become one of the top glass technology groups in the world by offering quality products and approaches for a wide array of functions under our primary values i.e., merit, creativity, and customer-centricity.





### **Glass Fabrication**

- 1. Cutting
- 2. Grinding and Beveling
- 3. Drilling
- 4. Water-jet & Master CNC Cutting
- 5. Printing
- 6. Tempering
- 7. Coating
- 8. Multi-glazed
- 9. QC
- 10. Packing



# Cutting

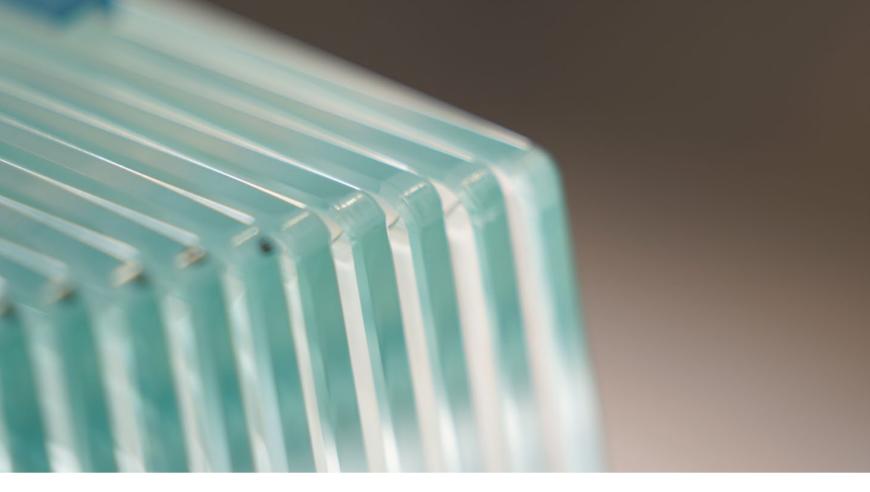
The cutting process is conducted using Italian CNC machines with the ability to move in three X, Y, and Z axes. This is fully automated through the CNC cutting program prepared by the Engineering Technical Unit in 3 mm to 20mm thicknesses.

- The maximum possible dimensions are 4000 × 3210
- With precision and tolerance of ± 0.15 mm
- Able to scan the paradigm and convert it to a CNC file
- Cutting of all types of geometric and complex forms
- Fully automated cutting line, without manual intervention
- Accessible panes, colored ,reflective, transparent, and Iranian satin glass, Iranian super-clear glass, Low-E and European ultra-clear glass.





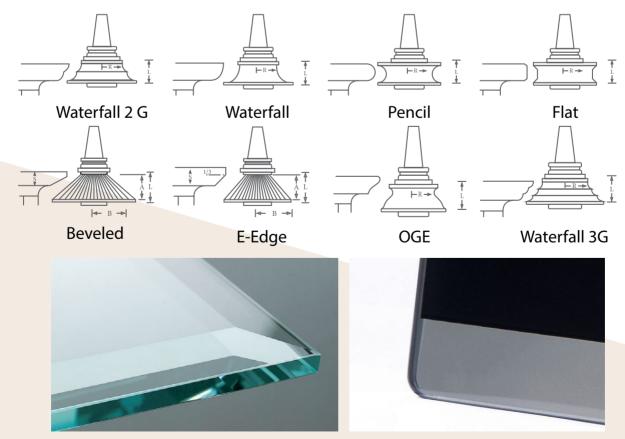




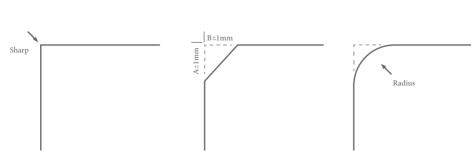
# Grinding & Beveling

The grinding process is conducted in geometric and simple forms, using horizontal and vertical grinding machines and Italian CNC with high quality and precision.

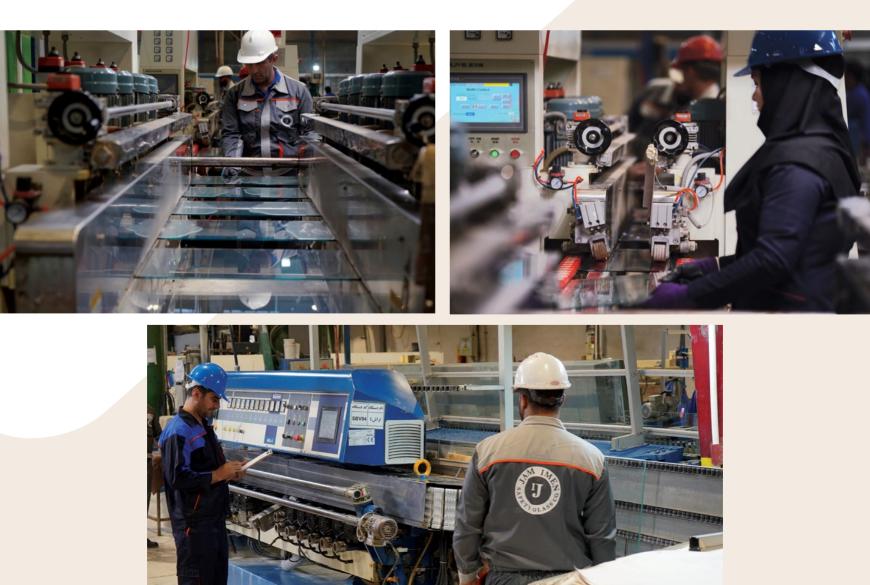
• Types of accessible edges :







- Matte or polished
- 5mm to 50 mm beveling
- Radius, diagonal, and flat edges in different dimensions

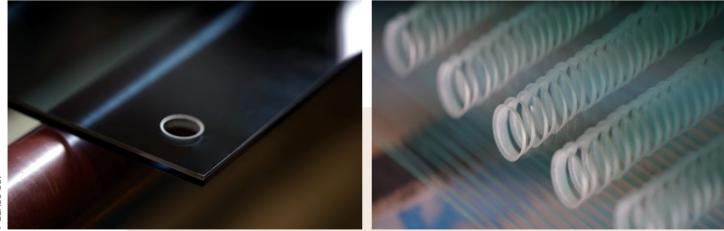




# Drilling

The drilling process is fully automated, using vertical and horizontal CNC machines.

- Possible hole diameter ranges from 6mm to 60mm
- The minimum distance from the edge of the hole to the edge of the glass, and the distance between the edges of the two adjacent holes must be twice the thickness of the glass.



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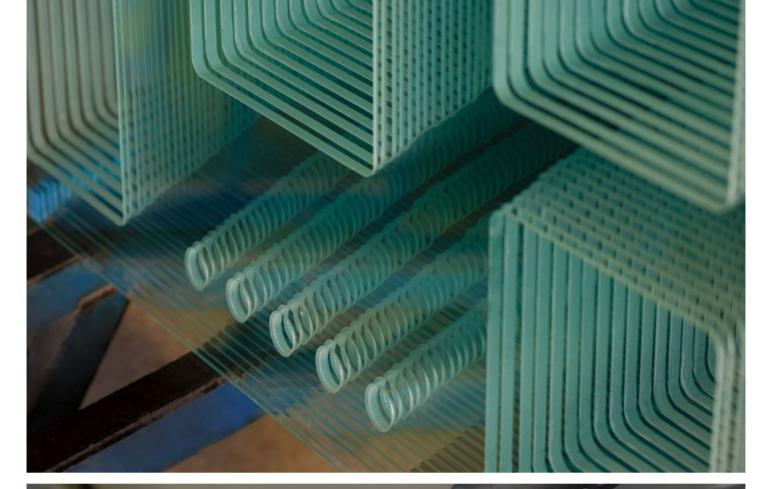


# Water-jet & Master CNC Cutting

The internal cutting of glass or geometric forms can be done using water-jet or master CNC cutting This is done with the shape and size requested by the customer, with high precision, and fully automated with a specific file.

- Unlimited shapes
- High precision and low tolerance
- High quality and delicacy
- Engraving on the glass
- Beveling on shape glass









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### Printing

The printing process is done through the silk method and with fully automated and semi-automated machines, with highest quality.

• Equipped with a lithography machine and a room for developing negative and stencil films with the finest fabrics of SEFAR, SAATI, and MBC brands, and German sensitive emulsion

- A wide range of colors
- Scratch-resistant and organic ceramic colors
- More than 10,000 delicate and precise designs
- A minimum 0.5 mm line thickness and a minimum 0.5 mm point diameter
- Printing on both sides of the glass, printing on the front and printing on the back of one glass







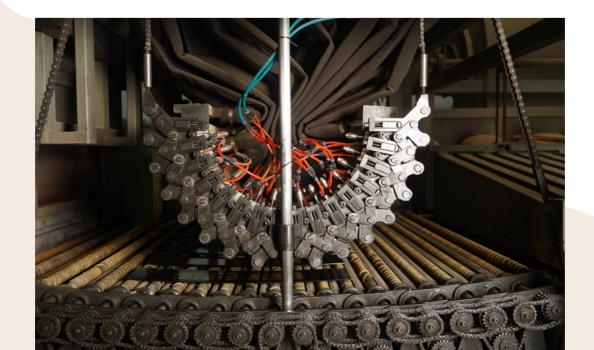




### Flat & Bending Tempering

Heat treatment (Tempering) is carried out using advanced furnaces with the knowledge of experienced personnel in flat and bent states as per international standards.

- Consistent high quality of the glass surface in terms of appearance.
- Fragmentation of up to 200 fragments (higher than the standard), with extremely high safety If requested by the customer.
- High thermal shock
- Impact resistance up to 7 times the ordinary glass (raw)
- Paint curing with the glass and its consolidation on glass













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- Minimum possible bend radius for a minimum width of 600mm and a maximum width of 2400 mm is 1100 mm.
- Minimum possible bend radius for a minimum width of 400mm and a maximum width of 900mm is 500mm.
- Approved in all the relevant standard tests
- 20 to 200N/mm<sup>2</sup> pressure resistance
- Able to bend the glass into A and B states





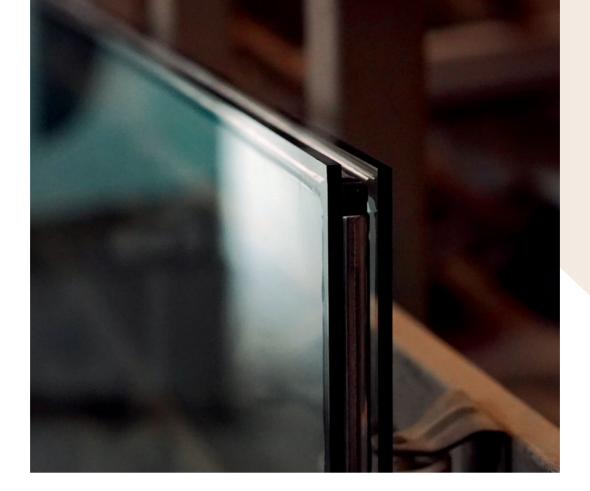


# Coating

The coating process is done after the tempering using fully automated vacuum machines through magnetron sputtering in different thicknesses and designs.

- Uniform coating
- Able to adjust the coating percentage, light direction, or light locking
- Based on the customer-requested design





# Multi-Glazed Glass

After cutting and grinding the glass, the multi-glazed process starts, which includes cutting, injecting desiccants and applying Butyl sealant to the spacer, washing the glass, assembling the spacer and the glass(two or three panes), pressing, injecting, and ultimately secondary sealant.

- Low-E glass can be used (to control the heat transfer)
- Glass and spacer of different thicknesses
- In tempering and raw states
- Maximum dimensions of 3200×2800
- Able to multi-glaze bent and flat glass
- High-quality sealant and spacers
- Double-glazed U-channel glass with special silicone sealant
- Pure Argon and drop in the window's U-factor





### The Quality Control Team

With complete knowledge of the products and by analyzing them day and time during the manufacturing and final product phases based on international standards and the customer's request, the quality control team is always on the scene to make sure of the appearance and technical quality of the glass. The tests are conducted on all the products as per the requirements of international standards.

- Controlling the products in terms of appearance, dimensions, and tolerance
- Conducting functional tests
- The Fragmentation test (up to 200 fragments based on the customer's need)
- The thermal shock tests
- The impact resistance test (Able to pass the IK08 test, Standard: IEC60068-2-75)
- According to Standards EN 12150 and BS 03193



#### **The Fragmentation Test**

The number of particles counted in the tested glass within a  $50 \times 50$  mm square is 60.

#### **The Thermal Shock Test**

The thermal shock test on the manufactured products is conducted based on their applications and on the assumption that the product has been assembled accurately and according to the standard.

#### The Impact Test

The impact resistance of glass depends on its assembly, size and thickness, impact type, impact intensity, and many other parameters.





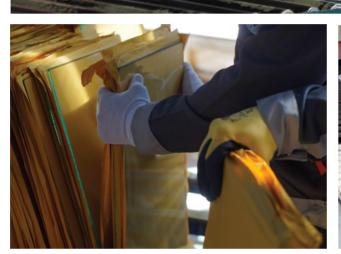
# Packing

We have no limits in packing products. Packing in JAM IMEN is done based on the design desired by the customer.

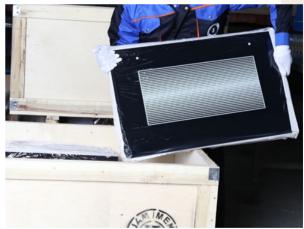
- Wrapping the products in cellophane
- Using high-quality paper dividers and foams between the glasses
- Three-tier pallets by the carpentry unit of JAM IMEN
- Shrink packing of one or more sheets of glass
- Durable and reliable packing



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# **Application Fields**

We are experts in flat and bent temperd glass. You can count on us for designing, consulting, and supporting for a certain and long-term cooperation in the glass market to provide you with the most professional and the widest array of customized and innovative products.

JAM IMEN products are generally divided into three categories:

- Household appliances
- Glass use in construction (Building glass)
- Decorative glass

# Householed Appliances

These types of glass are used in household cooling and heating appliances and the lighting industry.

We see various useful and well-made appliances in the kitchen that are made of glass.

Nowadays, the glasses used in kitchen appliances are heat-resistant, depending on their function.

#### **Home Appliances:**

This group of products is significant in terms of safety and aesthetics.

The glass used in kitchen appliances at home must be resistant to heat, shock, and impact. We manufacture specialized glasses for such products.

Such glass include glass used in the oven, sink, induction stove, hood, freestanding stove, microwave, toaster oven, mini oven, tea makers, fridge, freezer, fireplaces and gas heaters

# Home Appliance

- 1. Hob & Stove
- 2. Sink
- 3. Hood
- 4. Oven
- 5. Microwaves
- 6. Mini oven
- 7. Tea Maker
- 8. Cooling Appliances
- 9. Heating Appliances

#### Hob & Free Stand Stoves

Stoves can be divided into stovetops, built-ins or induction stoves, and freestanding stoves. Glass on stovetops not only makes them look chic, but working with them and cleaning them is also easy. Their surfaces are not damaged and they make cooking a more hygienic experience. As a pioneering manufacturer of stove glass, we are committed to offering high-quality and efficient products.

The glass surfaces manufactured in JAM IMEN have durable performance against thermal shock and impact while maintaining their quality.

Nowadays, various freestanding stoves can be seen in home appliance markets. Based on their taste, income, kitchen capacity, and the stove fitting the interior decoration and cupboards of the kitchen, every family buys one of these kinds of stoves. Freestanding stoves are advantageous in that they take up less kitchen space because the oven is at the bottom.

In addition to being tempered in extreme heat, the glass doors of stoves allow you to see the cooking stages. As we use the stoves every day for cooking food, they are contaminated with various foods, but due to their glass surfaces, they are very easy to clean.

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#### Sink

In addition to high quality, the glass sinks of JAM IMEN are efficient, and keeping them is easy. Unlike the fragile appearance of glass, glass sinks can be easily used and compete with other materials. They are made of durable safe glass with high quality that has a remarkable appearance.





# Hood

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The manufacturing of a kitchen hood with a glass body has become popular since in addition to an aesthetic appearance, it is not affected by the steam and heat coming from the stove. Not only the glass surfaces of the hood will not change color and form after years of being used, but also, they can be cleaned easily to make them good as new.

JAMOMEN

The design of the manufactured glasses in the hood varies depending on the kitchen cupboards.

In JAM IMEN, we manufacture glass for all tastes.











#### Oven

The built-in oven is one of the most modern types of ovens, which can be seen in most professional kitchens. Since the oven is placed inside the cupboards and the wall, no cupboard space is occupied.

The design and production of built-in ovens manufactured in JAM IMEN are extremely beautiful and diverse. It can be easily matched with kitchen decorations in various colors.



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# Microwave, Toaster Oven & Mini Oven

Microwaves heat up or cook food extremely fast. Instead of the electric or gas heat that conventional stoves use, a microwave warms up through electromagnetic radiation. The glasses used in them must be safe against impact and heat.

According to developing companies, an electric mini oven is an excellent replacement for massive stoves and microwaves. Toasters and mini ovens are often used to heat up or dry roast food; however, they can also be used instead of a conventional oven to cook some food.



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#### Tea maker

Not only are glass coffee and tea makers exceptionally aesthetic, but they are also highly safe.



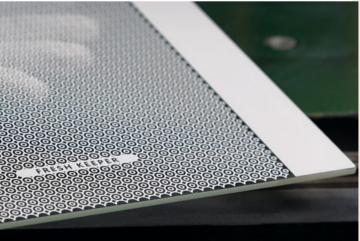


# **Cooling Appliances**

Nowadays, with glass fridge doors being multi-glazed and able to control heat transfer, not only do they play a significant role in electricity consumption, but also they make the fridge look more remarkable in the kitchen.

Further, glass shelves and fruit drawers in the fridge and the freezer are used to separate and sort food. Being cold and pressure resistant while being light is a necessity in such products.







# Heating Appliances

Not only are the tempered glasses in fireplaces and gas heaters manufactured by JAM IMEN safe against the heat, but watching the flames makes the appearance of these products much more aesthetic.





# Lighting Appliances

Today, lighting appliances benefit from modern technology. They produce lighter and have higher efficiency while using minimum energy.

To enhance the beauty of these lighting products as well as their transparency and resistance, these products require quality glasses. Using glass in different touch outlets and indoor and outdoor projectors has become extremely common.

By conducting specialized tests such as the refractive index and impact tests and with our technical knowledge, we at JAM IMEN have managed to manufacture different glasses for lighting uses such as anti-explosion glass projectors.



# Glass use in construction (Building glass)

Building glass is a general term applied to all glasses incorporated in structures such as houses or high-rise buildings.

These glasses may be an inseparable element of a structure that provide protection, beauty, and energy preservation in that structure. Lightness, sound and heat insulation, easy installation, and safety are some of the advantages of using glass in buildings.

Innovative applications in the industry have led to glasses becoming an essential material in today's buildings because of how they can be adapted for use as this material.

Among building glasses, tempered glasses are one of the most standard forms of safety glass. Tempered glass is hardened through a specific heating process followed by rapid cooling, which causes the tempered glass to be six to seven times stronger than ordinary glass.

This type of glass does not cause damage when it breaks. It has many uses in buildings in terms of safety and aesthetics. Architectural glass
1. Building Facades
2. Glass Railing, Staircase,
Balcony & Door
3. Multi-Glazed Glass
4. Interior Decoration Glass
(Partitions, shower cabins, and elevators)
5. Greenhouse





#### **Building Facades**

Glasses on the facade of buildings help with lightness, energy preservation, and appearance.

Using glass in the exterior facade provides more lighting and a pleasant environment for the occupants of the building.

Glass has attracted the attention of architects more than other materials due to its sound and thermal insulation.





# Glass Railing, Staircase, Balcony & Door

Glass doors in any shape have become one of the most common architectural features in buildings and renovations. Besides combining indoors and outdoors, glass doors offer a pleasant view, enhance ventilation inside the building, and surprisingly increase natural light.

In different shops, shop windows have glasses that show off the products or protect expensive items. Therefore, in addition to transparency and aesthetics, they must be equipped with essential safety features in terms of indoor or outdoor application to prevent robbery. Further, they might be presented in different shapes for aesthetic purposes.



Windows are the most practical way for the outdoors and indoors to connect. In addition, they must have all the factors necessary for safety, aesthetics, and peace.

In addition to safety, glass rails can also be used as a fence. Glass rails could be manufactured with or without a frame and of different types of glass, including tempered glasses, patterned glasses, curved glasses, or matte glasses. These glass rails could be used to protect the doors of stair flights and balconies.

Using glass for stair flights could be an exciting choice. The combination of color, light, and glass stairs creates a dreamy atmosphere in the building. Although safety is the first and most significant feature of glass stairs, you could select these glasses from a collection of designs, styles, fabrics, and materials.

Balconies create a different world in your house, especially when this space is enclosed with glass and you can open and close it as you wish. Enjoying the surrounding sights is one of the attractions of this type of glass balcony keeping your privacy and peace with the help of these glasses.







#### Multi-Glazed Glass

Multi-glazed glasses are a form of investment in energy conservation and peace in buildings. Windows are one of the ways through which heat and cold are wasted. Replacing single-pane windows with double-glazed windows is one of the best ways to enhance energy efficiency in the house and the workplace, and reduce noises coming inside. Further, the windows can easily be cleaned and their maintenance and repair are also simple.

The thermal conduction of glass is significantly higher than that of air. A single glass effectively lets the heat in and out. This means that you pay much more to heat up or cool down the indoors to keep the proper temperature inside the building. With a layer of air between the two panes, double-glazed windows immediately prevent this issue and help keep the temperature constant in your house. The cost-efficient use of ventilation systems will also help reduce your energy costs.





#### **Interior Decoration Glass**

Glass in the interior space of a building is a multi-purpose material. Due to being light, safe, and beautiful at the same time, this natural material has numerous useful functions.

Using colored glasses with geometric shapes in home appliances gives them a modern and aesthetically pleasing flair.

You can use safety glasses in the design and color of your choice, including partitions, shower cabins, and elevators







#### Greenhouse

Greenhouse glasses are used for building a greenhouse. Using such glasses allows lighter to permeate compared to polycarbonate or any other plastic.

Unlike plastics, glasses remain transparent throughout their lifetime and the light plants receive from them does not decrease. Therefore, they provide the plants with better light and temperature conditions.









#### Decorative & Furniture glass

There are glass products in all aspects of home appliances or the workplace, from desks and dining tables to furniture, coffee tables, etc.

Therefore, the adaptability of glass has turned it into a standard and useful material in the interior spaces of homes and workplaces.











### Medical Glass

In addition to being antibacterial, light, safe, and sanitary for uses in medical and hospital equipment, glass also has specialized applications.

We can manufacture quality and safety glasses for medical trolleys, monitors, and other hospital necessities.



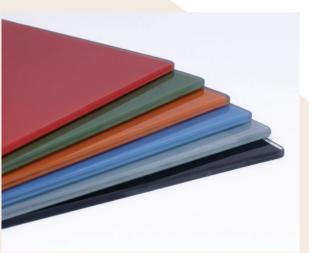


## Other Product

Due to its unique resistance to thermal shock, temperature changes, and mechanical loads such as bending and impact, the glasses of JAM IMEN are considered a suitable choice for many applications.

Having different glass processing and strengthening machines, we can manufacture the products you need, suitable for any device and with various applications. Depending on their application, these glasses provide the necessary safety and resistance.

Examples include library shelves, glass scales, glass chopping boards, whiteboards, various protective glasses for industrial machines such as tractors and excavators, and different colored and decorative glasses.





















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