



NorthGlass Online



NorthGlass "WeChat"

NorthGlass (Luoyang)

No.20, Binghe Road, High-tech Development Zone, Luoyang City, Henan
Tel: +86-379-64311317, 64331862
Fax: +86-379-64331819, 64330181
Email: sales@northglass.com

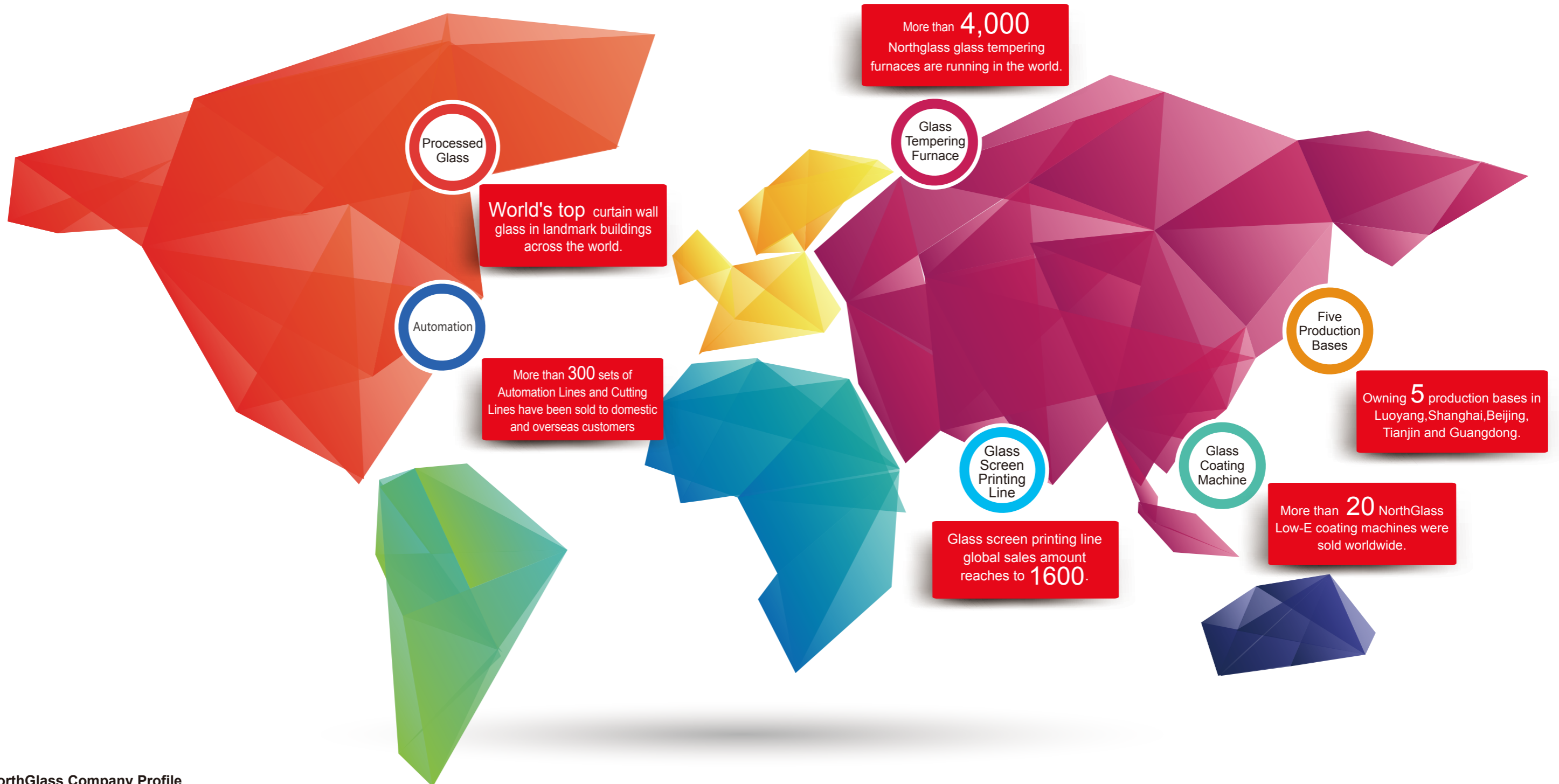
NorthGlass (Shanghai)

No.328, Guanghua Road, Xiaokunshan Town, Songjiang District, Shanghai
Tel: +86-21-57858658, 57858688
Fax: +86-21-57858667, 57858600
E-mail: sales@northglass.com

Official Website: www.northglass.com
Tempering Furnace BU Website: tempering.northglass.global
Multilingual Website: www.north-glass.com
Stock Code: 002613

2017.05 Printed 3rd Edition

Glass Tempering Furnace



NorthGlass Company Profile

Luoyang North Glass Technology Co., Ltd., simply called as "NorthGlass", was established by Mr. Gao Xueming, Chairman of the board, in Luoyang National High & New Technology Development Zone on 18th, May, 1995. It is one of the earliest Chinese enterprises being engaged in the developing, design and manufacturing of glass deep-processing equipments. In 2011, NorthGlass created a precedent in glass deep processing machine industry, going public at Shenzhen Stock Exchange (stock code: 002613). Today, NorthGlass have developed into a high-tech industry group with complete industrial chain and continuous innovation capability, composed by 5 production bases respectively in Luoyang, Shanghai,

Tianjin, Beijing and Guangdong, with the integrated abilities of R&D, manufacture, sales and service in the fields of glass deep-processing equipments and upscale processed glass products. Adhering to the enterprise spirit of "Innovating forever, Striving for success", NorthGlass independently developed the main products of glass tempering furnace, Low-E coating machine and upscale processed glass as the core competitiveness. Furthermore, NorthGlass have also expanded our product series with general and HVLS industrial fans, glass automation system, glass storage system, glass cutting machine, screen printing machine, automotive glass pre-processing line, etc., up to now

more than 300 product models in total. NorthGlass is the strongest & largest developer and manufacturer in the field of glass deep-processing equipments. Our major product, flat/bent glass tempering furnace, is ranking the first of worldwide industry within last 16 years since 2002, according to the production and sales quantity. The cumulative domestic market share is almost 50%, and more than 4000 NorthGlass glass tempering furnaces are running in 83 countries around the world. The Low-E coating line developed and produced by NorthGlass is becoming one of the global leaders in glass coating industry and led to a rapid development of coated glass industry in China. More than 20 coating machines have been put into production within last 10 years.

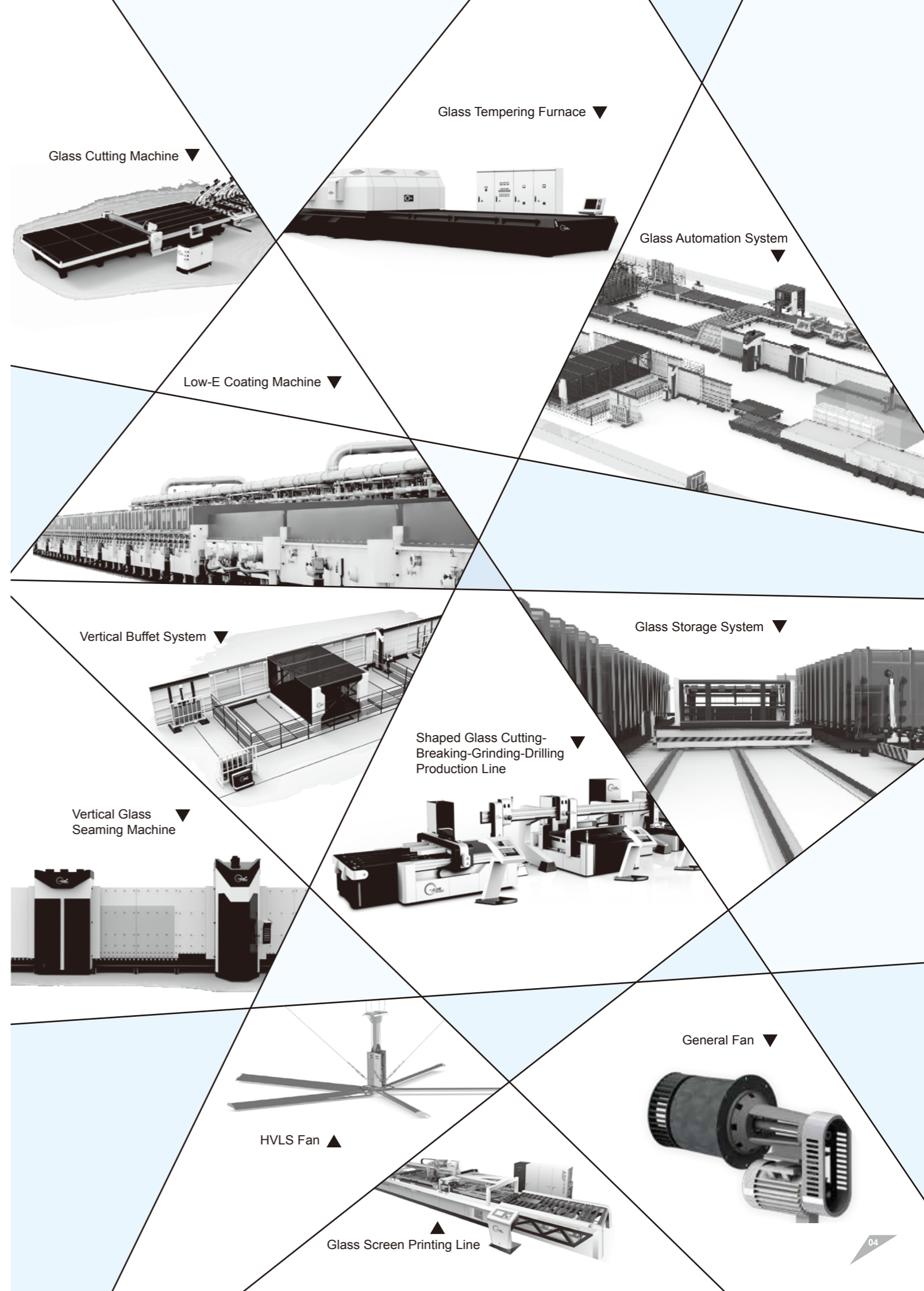
Another key product for NorthGlass is upscale deep-processed glass, which have been widely applied in a lot of famous construction projects all over the world, for example "Sun Valley" & "Shiliupu Pier" of 2010 Shanghai Expo, "Bird Nest" & "Water Cube" of 2008 Beijing Olympics, China National Center for the performance arts, New Beijing South Railway Station, Beijing Capital International Airport, Shanghai Tower, Abu Dhabi International Airport, Singapore Changi Airport, Vietnam APEC Exhibition Center, Leadenhall Building in London, Van Gogh Museum in Amsterdam, etc. Meanwhile, NorthGlass is also one of two qualified architectural glass suppliers for the most famous electronics company in

the world, for its dozens of retail stores in the world as well as new Headquarters Building in Silicon Valley. NorthGlass's products have been sold not only in China, but also exported in more than 80 countries in the world, such as USA, UK, Germany, France, Japan, Russia, Middle East, Southeast Asia, etc., via NorthGlass's complete domestic and international sales and service network. While meeting domestic markets with new products and constantly developing international market, NorthGlass gradually built up a global marketing & service network integrated with "Sales, Service and Technical Support", based in China and expanded to the world, which basically

ensure the realization of the goal "Building NorthGlass as the industry's first brand". NorthGlass has more than 20 sets of advanced production testing equipments and labs, get the certifications of ISO9001, 3C, CE, UL, etc., and own more than 100 patents. NorthGlass is awarded as "the Top Hundred Enterprises of Henan", "the Meritorious Enterprise of Henan" and "the Meritorious Enterprise of Luoyang". The Chairman of NorthGlass board, Mr. Gao Xueming, is awarded as "the Representative of China Building Material Industry during 30 years' Reform and Opening" and "Outstanding Contributor" of Luoyang National High & New Technology Development Zone.

NorthGlass History

- In 1994, NorthGlass produced the first domestic "Horizontal Roller Flat/Bent Glass Tempering Furnace".
- In 1995, Luoyang North Glass Technology Co., Ltd. was established.
- In 1999, Beijing North Glass Safety Glass Co., Ltd. was established.
- In 2004, NorthGlass' s new generation glass tempering furnace with "Super Flat & Spotless" technology was developed, which changed the old history that tempered glass must have inherent defects of serious iridescence and distortion, and bring a new quality standard to the world's industry.
- In 2005, Shanghai North Glass Technology Industrial Co., Ltd. was established.
- In 2008, the first Low-E glass coating machine independently developed by Shanghai NorthGlass Coating Technology Co., Ltd. was put into commercial production, which ended the history of no China domestic Low-E coating equipment.
- In 2009, the world' s most famous electronics company decided to build their Asian Flagship Store in Shanghai, and thence started the cooperation with NorthGlass of supplying architectural glass for totally 58 Stores up to now.
- In 2009, NorthGlass successfully developed the world's first super-large bent glass tempering furnace, which can produce the bent tempered glass with size up to 18 meters height and 3.6 meters bent edge. This furnace pushes the world' s glass tempering technology to a new high level.
- In 2011, NorthGlass went public at Shenzhen Stock Exchange, simply called as "NorthGlass Corp." with stock code 002613.
- In 2012, Tianjin North Glass Industrial Technical Co., Ltd. was established with a total investment of 500 million RMB, and rapidly becomes the world' s leading architectural glass supplier.
- In 2014, as NorthGlass subsidiary, Tianjin North Glass Industrial Technical Co., Ltd. signed the contract with the world' s most famous electronics company and will provide the special architecture structural glass to their new headquarters office building.
- In 2015, NorthGlass invested and established Shanghai North Glass Automation Technology Co., Ltd., who opened a new chapter in glass deep processing industry 4.0.
- In 2015, NorthGlass celebrated her 20th Anniversary and changed the new LOGO.
- In 2015, NorthGlass merged partical business of Shenzhen Juisun Screen Printing Machinery Co., Ltd. and whole business of Dongguan Byronic Machinery and Equipment Co., Ltd., then established a new subsidiary -- Guangdong NorthGlass.
- In 2016, Together with Lianxun Capital, NorthGlass set up an industrial fund-" NorthGlass Fund", and took the first step to march toward eco-friendly architecture industry, starting new business of microcrystalline foaming materail recycled from tailings and establishing a new company called "Beijing NorthGlass SiNest Technology Co., Ltd."
- In 2017, NorthGlass merged the business of Dongguan Henghechang Glass Co., Ltd., setting foot in consumer electronics market.



Five Production Bases

Luoyang NorthGlass,

Full name of "Luoyang North Glass Technology Co., Ltd.", the headquarters and parent company of NorthGlass:

Tempering Furnace Business Unit

As the largest and core BU of NorthGlass, "Tempering Furnace" developed the first domestic "Horizontal Roller Hearth Flat/Bent Glass Tempering Furnace", as well as the world's largest bent glass tempering furnace which has been used to produce super-oversized curved tempered glass for retail flagship stores of the world's most famous consumer electronics company. TG1 series tempering furnace recently developed by TFBU is NorthGlass's latest and top level product which has the significant advantages of intelligence and energy-saving with world's leading quality level.

Luoyang Glass Division

Mainly producing Low-E coated glass, "super flat & spotless" tempered glass, curved tempered glass with large arc length, SGP laminated glass, screen printed glass and insulated glass. NorthGlass pioneered the "super flat & spotless" glass tempering technology, which is the perfect quality state of flat tempered glass. It has the most complete kit factory in Middle West regions with the strongest processing capability of high-end architectural glass. Supplying oversize curtain wall glass for well-known landmark buildings, such as Xi'an Twin Towers, China Railway Center of Xi'an, etc..

Luoyang NorthGlass Taixin Fan Technology Co., Ltd.

Engaged in manufacture of various general & industrial fans, with main products of high-speed train cooling fan, convection hot fan, motor sweeper fan, etc. NorthGlass's high-speed train cooling fan is equipped in the most advanced CRH380 high-speed train as the transformer cooling, contributing to the fast development of Chinese high-speed train industry.



Shanghai NorthGlass, full name of "Shanghai North Glass Technology Industrial Co., Ltd." **Shanghai North Glass Coating Technology Industrial Co., Ltd.**, is a specialized vacuum coating equipment manufacturer with rich experience in large area deposition. We can not only provide customized equipments such as architectural coating machine, automotive coating machine, vertical display coating machine and sputtering devices (end block and magnet bar etc.), but also complete vacuum technology solutions and services.

Shanghai Coated Glass Division, is a company with main products including Float Low-E glass, Tempered Low-E glass and so on.

Shanghai North Glass Automation Technology Co., Ltd., engaged in R&D and manufacture of glass storage, cutting, grinding, cleaning and complete automation solutions for glass processing factory.

Shanghai Glass Division, which is the subsidiary company of NorthGlass, with the strong support of R&D and equipment manufacturing capabilities from its headquarter, puts NorthGlass newest "super flat & spotless" tempering furnace into producing different types of special glass, such as irregular glass, hyperbolic glass, ultra-wide glass, super thick glass, etc. Its main projects includes Shanghai Center Skirt Building, Disney Tomorrowland, etc..

Shanghai Equipment Manufacturing Division, is a large, comprehensive high-tech company, engaging in equipment manufacturing for glass deep processing as well as other machinery products.



Tianjin NorthGlass, full name " Tianjin North Glass Industrial Technical Co., Ltd."

With a total investment RMB 500 million and plant area 100' 000 sqm, plus NorthGlass' s advanced technology and professional R&D team, Tianjin NorthGlass is being developed to the world' s leading supplier of architectural glass, specialized in producing super-oversized tempered, laminated, insulated, digital printed glass with high quality. Up to now, Tianjin NorthGlass have undertaken and completed a number of domestic & international landmark construction projects, for example the new headquarters and 58 Stores of the world's most famous consumer electronics company, National Bank of Kuwait, etc. Tianjin NorthGlass' s main production equipments, such as Low-E coating line (annual productivity 8 million sqm), flat/bent glass tempering furnace, laminating line, insulating line and other auxiliary equipments, are all with super-oversize of maximum glass length 18m.



Beijing NorthGlass, full name " Beijing North Glass Safety Glass Co., Ltd. "

Featured products: Insulated glass, tempered glass, laminated glass, screen printing glass and printing glass, being used in such building projects as "Bird' s Nest", "Water Cube" of 2008 Beijing Olympics and China National Center for the Performance Arts, etc., sparing no effort in fast technology upgrading and automation system renovation.



Guangdong NorthGlass

Guangdong NorthGlass and Juisun Techonolgy Industry Co., Ltd.

A new glass technology company invested by NorthGlass Group, mainly engaging in the R&D and manufacture of glass screen printing machine and automotive glass pre-processing line. By integrating the advantaged resources of NorthGlass and Juisun, Guangdong NorthGlass are aiming to build the first-class automotive glass pre-processing equipments in China.

Guangdong North Glass Electronic Glass Co., Ltd.

Invested by NorthGlass and established at the end of 2016, Guangdong North Glass Electronic Glass Co., Ltd. independently develops and manufactures a variety of core and competitive tablet PC, laptop, all-in-one computer touch screen, educational machine, large-scale display screen, AG/AF/AR glass cover and other products. Being a leading and influential enterprise in the industry of touch screen cover, it has the most extensive business scope and the highest yield rate in its class.



Tempering Furnace Business Unit Introduction

As the first BU, Tempering Furnace Business Unit is always the core sector of NorthGlass with the largest sales value since 20 years ago. From the development and sales of the first glass tempering furnace in 1995, TFD has totally produced and sold 4000 glass tempering furnaces. These furnaces were sold not only in China with cumulative market share of almost 50%, but also exported to more than 80 foreign countries, including USA, Germany, Switzerland, UK, France, Russia, Turkey, Saudi Arabia, UAE, Japan, Australia, South Korea, India, Singapore, Africa, Southeast Asia, etc. We have repeatedly created and broken our own world records, such as 2.85×5 m bent tempering furnace, 4.5×2.85 m bent glass tempering furnace, 3.6×18 m flat/bent glass tempering furnace. NorthGlass's continuous glass tempering furnace is taking an absolute leading position in the market, the cumulative sales is more than 100 sets including more than 50 sets sold in last three years. In whatever capacity, energy consumption, or product quality and equipment stability, NorthGlass continuous tempering furnaces are significantly ahead of the other competitors, becoming the first choice for photovoltaic industry and other industrial glass processors.

Leading glass tempering process technology, advanced equipment R&D capability, strong production bases, complete sales & service network, all these are not only NorthGlass's core competence, but also the powerful guarantee to NorthGlass furnaces' efficient and stable running all over the world.

NorthGlass's domestic reference customers are CSG, XYG, FUYAO, SYP, Taiwan Glass, FGG, etc., and the international reference customers are SGG, AGC, GUARDIAN, GLAS TROESCH, SCHOLLGLASS, SUNGLASS, VALENTINI, VITRO, etc.. Multiple glass deep-processing technologies developed by NorthGlass have been successfully applied in a lot of famous construction projects all over the world. Several classic and representative projects with glass produced by NorthGlass and our furnaces are briefly introduced on Page 22-24.



Tempering Furnace Series

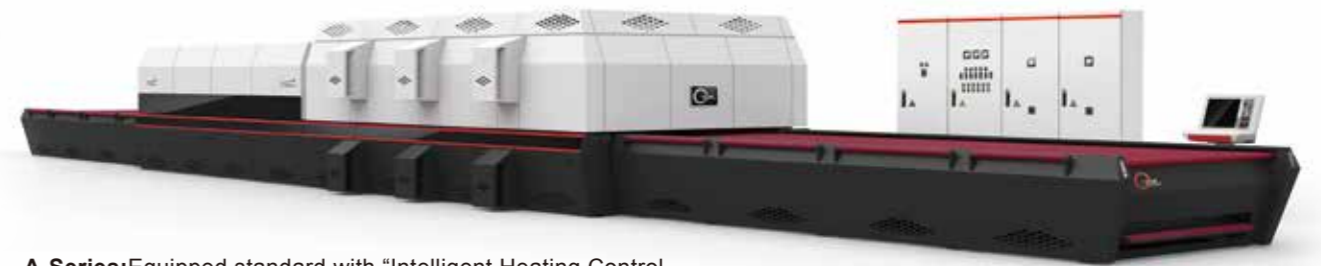


Top series (T-Series)



T-Series: Equipped standard with "Finer Heating Control Partition" and "Intelligent Heating Control System based on glass exit-chamber temperature", suitable to produce highest quality tempered glass at large-scale production with high efficiency and stability. It is the ideal choice of domestic & foreign leading glass processors for industrial upgrading.

Advanced Series (A-Series)



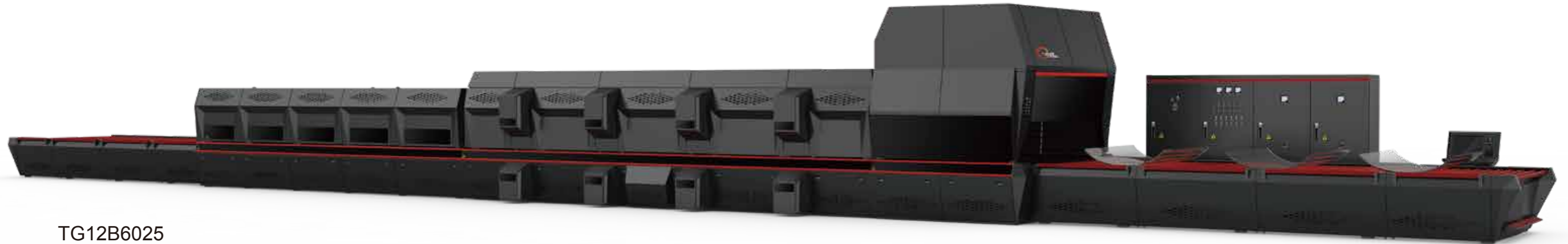
A-Series: Equipped standard with "Intelligent Heating Control Module" and "Super Flat & Spotless technology" and optional with "Gapless Forced Convection technology", A-series tempering furnace can efficiently & stably temper almost all glass with minor optical distortion and slight iridescence. It is the most popular choice of main tempered glass production furnace for all glass processors.

Basic Series (B-Series)



B-Series: After 20 years experience accumulation, B-series is the most mature tempering furnace who can produce domestic first-class quality tempered glass. With advantages of simple operating, easy maintenance and low investment, it is an affordable choice for small & medium-size glass processors.

Top Series (T-Series)



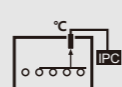
TG12B6025

Gapless Forced Convection technology [®] [Ⓢ]



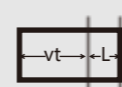
Ideal combined feature of accurate heating control by longitudinal convection pipes and uniform stress distribution by lateral convection arrangement ensure top quality large tempered glass curtain wall with both clear float and Low-E coated glass.

Intelligent Heating Control System [®] based on glass exit-chamber temperature



An innovative design of the heating process control, successfully eliminates the glass temperature deviation caused by thickness tolerance with real-time monitoring and control when the glass exits the heating chamber, resulting in higher glass processing efficiencies and a higher glass quality.

Dual Photoelectric Sensors [®] [Ⓢ] glass length measurement



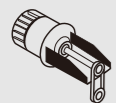
Double measurements, two calculating methods, selection allows for more accuracy of glass length measurement thereby assisting with the continuity and stability of glass production.

Bending & Tempering technology by Rigid Rollers



The cylindrical pathway formed by upper and lower rigid conveyor rollers, curvature along production direction, can produce the curved & tempered glass with fit and performance without bearing excess force during formation.

Convection Fan exclusively [®] manufactured by NorthGlass



Significant advantages of high efficiency, energy saving and stability, guaranteed performance by adaptation of aerospace alloys material, thermal blocking bridge and passive cooling technologies.

Intelligent Heating Control Module [®]



The independent intelligent Heating Control Module, co-developed by NorthGlass and our professional partners, enables a precise & stable heating control with distinct advantages of agility, anti-interference and with a quick response time.

Upward / Downward Bending & Tempering technology by Flexible Rollers



The cylindrical surface formed by flexible conveyor rollers, curvature perpendicular to production direction, can produce the curved & tempered glass with longer straight line exceeding the limitation of furnace width. The upward and/or downward formation methods can meet different processing requests for bent & tempered coated glass.

Nanoscale Thermal Insulation Material



The new nanoscale thermal insulation material, co-developed by NorthGlass and a national scientific research institute, provides better heat retention and energy savings by blocking the internal micro air convection.

Finer Heating Control Partition



Heating control partition and more heaters ensure an accurate and better heating method for tempered glass. Resulting higher quality tempered glass.

Super Flat & Spotless technology [®]



Staggered arrangement of 8-rows blowing nozzles combined with patented quench section lateral swing structure are adopted for even quenching thereby reducing iridescence which allows North Glass to produce the world's top quality glass.

Control System by Sub-stations



Each section of NorthGlass furnace is controlled by a distributed sub-station, easy for assembling and maintenance, stable & reliable glass processing.

SIEMENS Control Cabinets



Electrical control cabinets, co-designed by NorthGlass & SIEMENS, provides greater EMC and heat dissipation performances. The IPC with passive cooling book-type radiator, the electrical control system is stable and reliable.

Note: [®] means patented technology [Ⓢ] refers to selective componen

Advanced Series (A-Series)



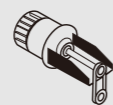
AG1B50

Gapless Forced Convection technology [®] [Ⓢ]



Ideal combined feature of accurate heating control by longitudinal convection pipes and uniform stress distribution by lateral convection arrangement ensure top quality large tempered glass curtain wall with both clear float and Low-E coated glass.

Convection Fan exclusively [®] made by NorthGlass



Significant advantages of high efficiency, energy saving and stability, guaranteed performance by adaptation of aerospace alloys material, thermal blocking bridge and passive cooling technologies.

Radiation Heating Plate [®]



The radiation heating plates made of heat-resistant cast steel can bring more uniform and gentle heating to tempered glass, which ensures an extremely high quality of tempered glass, especially to large and thick glass panels, suitable for applications of household appliance glass, furniture glass and, architectural glass.

Bending & Tempering technology by Rigid Rollers



The cylindrical pathway formed by upper and lower rigid conveyor rollers, curvature along production direction, can produce the curved & tempered glass with fit and performance without bearing excess force during formation.

Intelligent Heating Control Module [®]



The independent intelligent Heating Control Module, co-developed by NorthGlass and our professional partners, enables a precise & stable heating control with distinct advantages of agility, anti-interference and with a quick response time.

Finer Heating Control Partition [®]



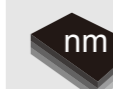
Heating control partition and more heaters ensure an accurate and better heating method for tempered glass. Resulting higher quality tempered glass.

Upward / Downward Bending & Tempering technology by Flexible Rollers



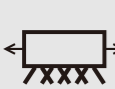
The cylindrical surface formed by flexible conveyor rollers, curvature perpendicular to production direction, can produce the curved & tempered glass with longer straight line exceeding the limitation of furnace width. The upward and/or downward formation methods can meet different processing requests for bent & tempered coated glass.

Nanoscale Thermal Insulation Material



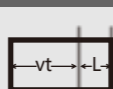
The new nanoscale thermal insulation material, co-developed by NorthGlass and a national scientific research institute, provides better heat retention and energy savings by blocking the internal micro air convection.

Super Flat & Spotless technology [®]



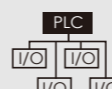
Staggered arrangement of 8-rows blowing nozzles combined with patented quench section lateral swing structure are adopted for even quenching thereby reducing iridescence which allows North Glass to produce the world's top quality glass.

Dual Photoelectric Sensors [®] [Ⓢ] glass length measurement



Double measurements, two calculating methods, selection allows for more accuracy of glass length measurement thereby assisting with the continuity and stability of glass production.

Control System by Sub-stations



Each section of NorthGlass furnace is controlled by a distributed sub-station, easy for assembling and maintenance, stable & reliable glass processing.

Ultra-wide & Super-long Tempered Glass



NorthGlass's long history of innovations in glass tempering technologies has been confirmed on the factory floor by several ultra-wide & super-long glass tempering furnaces being operated daily throughout the world, setting multiple world records with maximum glass size of 3.6x18m for both flat and bent tempered glass and 6.0x4.0m for bent tempered glass.

Note: [®] means patented technology [Ⓢ] refers to selective component

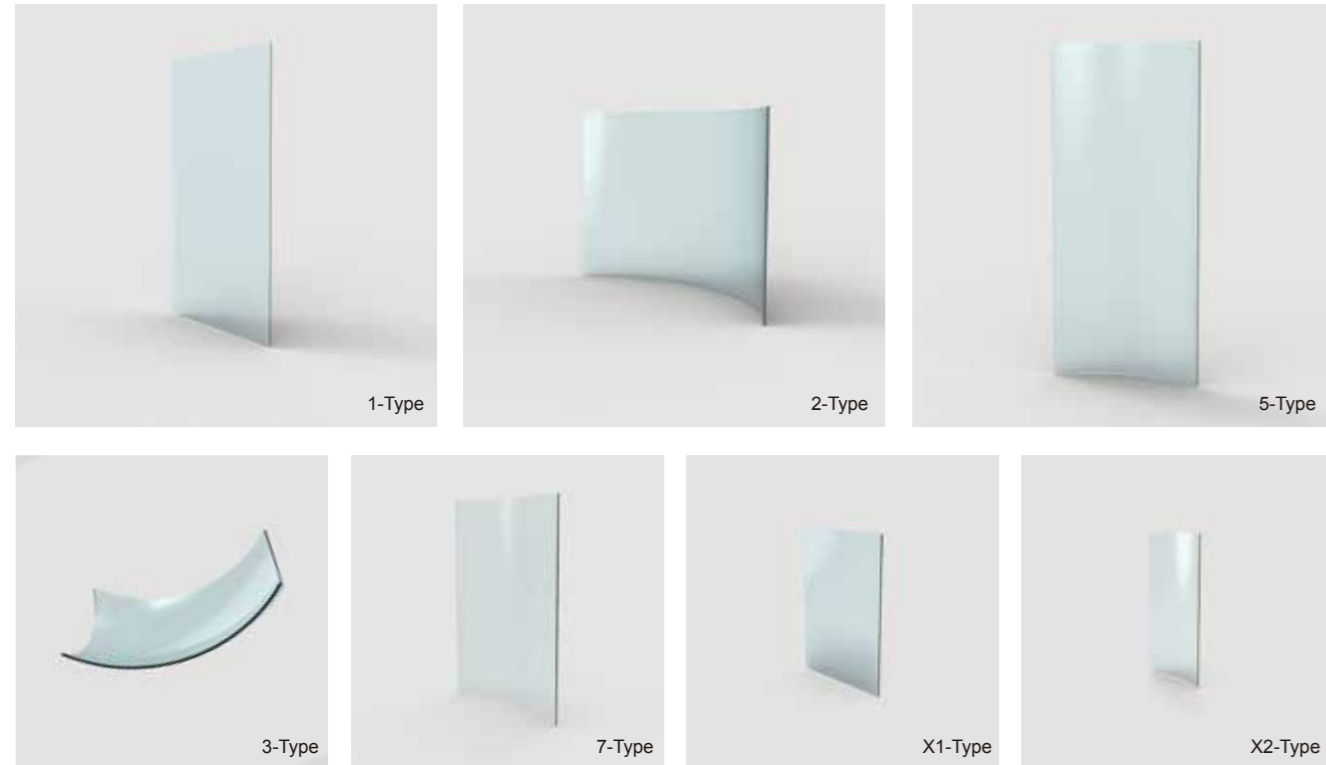
A-Series Furnace Specifications

Typical Furnace Assembly Examples

Glass Type	Clear float glass (5mm)	Single Silver Low-E (5mm)	Double Silver Low-E (5mm)	Triple Silver Low-E (5mm)	Clear float glass (3mm)
Data					
General Bow (‰)	0.5	0.5	0.5	0.5	/
Local Bow (mm/300mm)	0.08	0.1	0.12	0.15	/
Capacity(batch/hour)	22~24	16~18	13~15	11~13	> 880m ² /h
Energy Consumption (kW-h/m ²)	3.6~3.8	3.8~4.0	3.9~4.1	/	2.5~2.8
Remark	Above data is based on a AG-1B50 furnace.				Above data is based on 36m long heating chamber
Max. Loading Size (mm)	3600×18000	3600×18000	8000×4000	1650×800 (continuous bent tempering)	
Emmissivity	≥ 0.01				

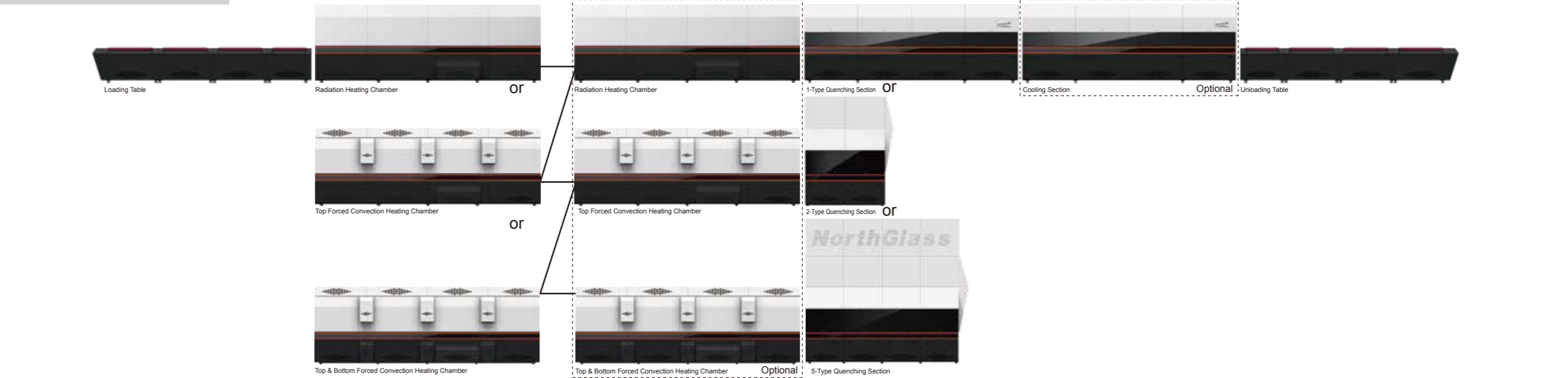
Remark: Data above is only for reference.

Optional Quench Sections

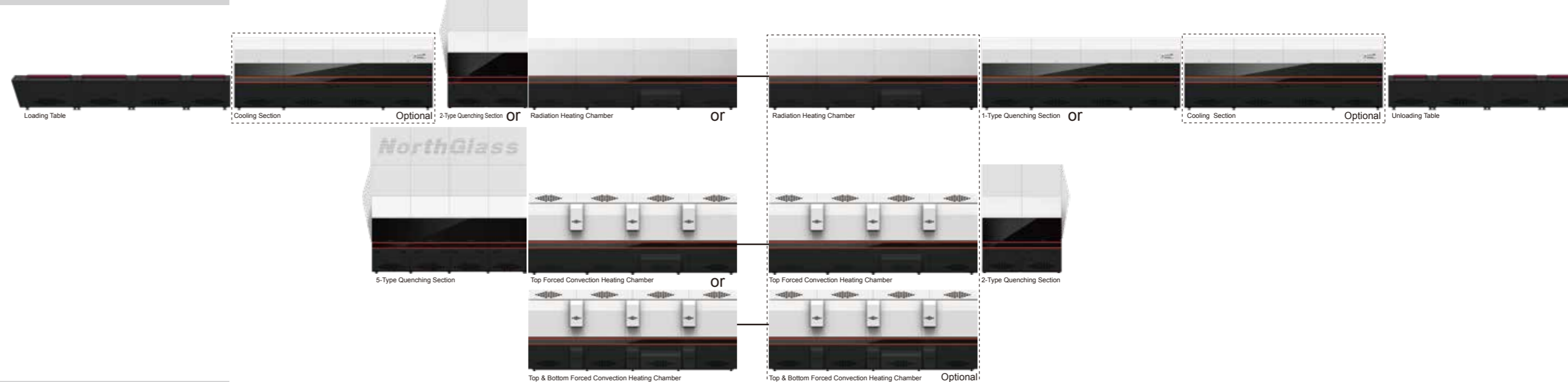


Width Code	A	P	Q	B	E	S
Max. Glass Width (mm)	1250	1700	2100	2440	2850	3300

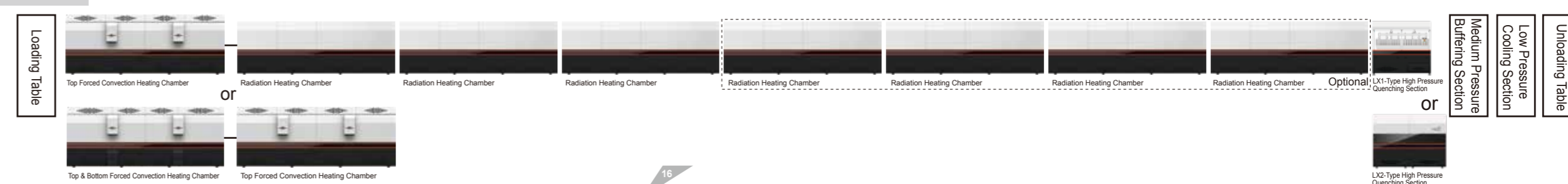
One-Way Furnace



Two-Way Furnace



Continuous Furnace



A-Series Furnace Assembly Examples

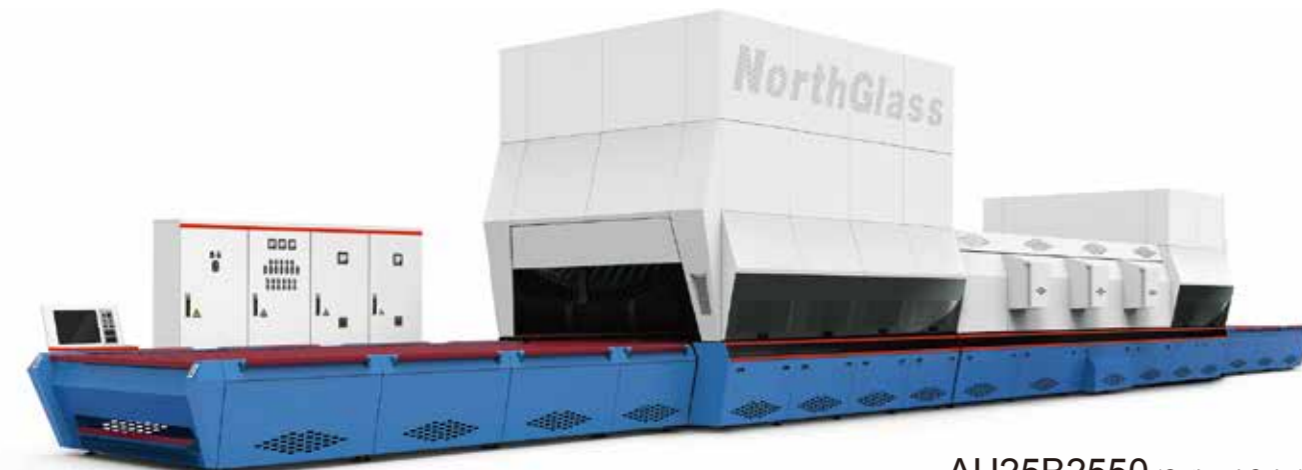
Basic Series (B-Series)



AG1B50GUD (Optional Color)



AG12B5025 (Optional Color)

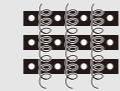


AU25B2550 (Optional Color)



B1B50

Grid-Array Forced Convection technology [®]



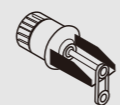
Lengthwise heaters, crosswise convection air pipes, mature and stable design, all these features bring you an economical and practical glass tempering furnace, suitable for tempering clear float and low-E glass with the highest quality level in today's market.

Radiation Heating Plate [®]



The radiation heating plates made of heat-resistant cast steel can bring more uniform and gentle heating to tempered glass, which ensures an extremely high quality of tempered glass, especially to large and thick glass panels, suitable for applications of household appliance glass, furniture glass and architectural glass.

Convection Fan exclusively made by NorthGlass [®]



Significant advantages of high efficiency, energy saving and stability, guaranteed by adoption of aerospace alloys material, thermal blocking bridge and passive cooling technologies.

Bending & Tempering technology by Rigid Rollers



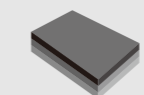
The cylindrical pathway formed by upper and lower rigid conveyor rollers, curvature along production direction, can produce the curved & tempered glass with best goodness of fit without bearing excess force during formation.

Upward / Downward Bending & Tempering [®] technology by Flexible Rollers



The cylindrical surface formed by flexible conveyor rollers, curvature perpendicular to production direction, can produce the curved & tempered glass with longer straight line exceeding the limitation of furnace width. The upward and/or downward formation methods can meet different processing requests to bent & tempered coated glass.

Layered Thermal Insulation Materials



The heating chamber thermal insulation consists of different layers with progressive insulating performances and material strengths for higher heat resistance, lower thermal conductivity and better energy saving performance.

Note: [®] means patented technology [®] refers to selective component

B-Series Furnace Specifications

B-Series Furnace Assembly Examples

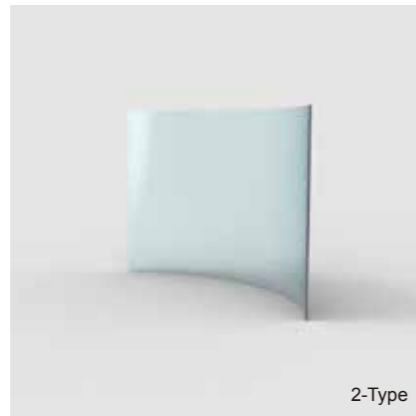


B12B5012

Optional Quench Sections



1-Type



2-Type



5-Type



7-Type



X1-Type



X2-Type



B15B50

Width Code	A	P	Q	B	E	S
Max. Glass Width (mm)	1250	1700	2100	2440	2850	3300

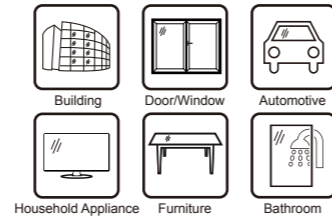
Typical Applications of Different Quenching Sections

Reference Glass Applications & Tempering Furnace Used

1-Type



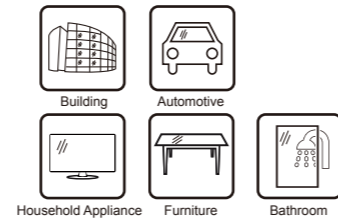
Quenching section for flat tempered glass



2-Type



Bent forming & quenching section by rigid rollers for cylindrical bent tempered glass with straight edge perpendicular to production direction.



3-Type



Bent forming & quenching section by mould for multi-curvature bent tempered glass.



5-Type



Bent forming & quenching section by flexible rollers for cylindrical bent tempered glass with straight edge parallel to production direction.



7-Type



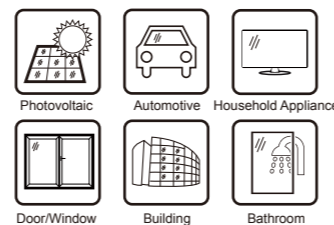
Bent forming & quenching section by flexible rollers for single surface but multi-curvature bent tempered glass.



X1-Type



Quenching section for one-way transmission continuous flat tempering



X2-Type



Bent forming & quenching section by rigid rollers for one-way transmission continuous bent tempering with straight edge perpendicular to production direction.



▲ Shanghai Tower
Glass makeup: 6mm Glazed glass HS +1.52PVB + 6mm Solar control coated glass (4#) +16 AR + 6mm Clear glass + 0.38PVB + 6mm Clear glass
Furnace used: B22S2536 & B15B8050

▼ National Bank of Kuwait
Glass makeup: 8mm Heat-reflective glass+1.52PVB+8mm clear glass HS+16A +6mm double Ag Low-E glass
8mm Heat-reflective glass+1.52PVB+8mm clear glass Tempered+16A+6mm double Ag hLow-E glass+1.52PVB+6mm Tempered glass
Furnace used: AG15B50 (bending upwards & downwards)



Reference Glass Applications & Tempering Furnace Used



▲ Headquarters of the world's most famous consumer electronics company, US
Furnace used: AU15M180, SC15K15050, AG1T165



▼ London Leiden Building, UK
Glass makeup: 6mm glazed glass HS+1.52PVB+6mm SunGuard SN51/28 Low-E glass HS (4#) +16 AR + 6mm clear glass+0.38 PVB + 6mm Clear glass
Furnace used: AD1B80-GUD

▲ Manchester Town Hall, UK
Glass makeup: 3×12mm low iron glass curved tempered HST+2×1.52 SGP
Furnace used: AC15E128

▼ Abu Dhabi Airport, UAE
Glass makeup: 6mm glazed glass HS+1.52 PVB+6mm Low-E coated glass HS+12A+6mm glass HS1.52 PVB+6mm glass HS
Furnace used: AG12S9042





Sales Network

NorthGlass (Shanghai)
Tel: 0086-21-57858658
Fax: 0086-21-57858667
E-mail: sales@northglass.com

NorthGlass (Luoyang)
Tel: 0086-379-64587727
Fax: 0086-379-64330171
E-mail: sales@northglass.com

Spare Parts Supply

NorthGlass (Shanghai)
Tel: 0086-21-57858634
Fax: 0086-21-57858670
Email: service@northglass.com

NorthGlass (Luoyang)
Tel: 0086-379-64311810
Fax: 0086-379-65110512
Email: stephanie@northglass.com

Sales Agent:

Two large, empty dashed-line boxes intended for listing sales agents.