

The new music hall in Moscow with Guardian performance glass



■ Guardian, Russia

Local Connections

Guardian Industries, one of the world's largest manufacturers of float glass and fabricated glass products, looks to Siemens' local expertise when building a plant in Russia.

Founded in 1932, Guardian began as a small windshield fabricator in Detroit, Michigan. From these humble beginnings, Guardian has grown and diversified to achieve a global presence, now with over 19,000 employees in 21 countries on five continents. Guardian credits its growth to an efficient management approach and its focus on innovation.

Guardian saw great potential for more growth in the city of Ryazan. Located in the western quarter of Russia, and relatively close to Moscow and Russia's western and southern borders, Ryazan has access to plentiful natural resources and inexpensive power, yet geographically can serve markets in Europe and Asia as well as in Russia.

Ryazan's urban and geographic features make it an attractive manufacturing site. But the Russian market has special requirements that must be carefully considered. Russian regulations demand that the building and running of any such factory employ mainly Russian labor, and there are also GOST standards for utilities and other factors that must be met, not to mention the language barrier. It's also very important that maintenance services and technical support for the intended plant be available locally, since naturally the plant will be in use for quite a long time.

Siemens paves the way

With over 150 years of experience doing business in Russia, Siemens has the expertise and Russian manpower needed to bridge any international divide presented there. And with such a long track record in Russia, it's a certainty that Siemens support will still be available and close by many years from now.

Siemens is a proven solution provider, having an excellent reputation not only in Russia but around the world. Guardian was well acquainted with Siemens quality, having used a Siemens solution with great success at its facility in Ras Al Khaimah.

Because of Siemens' local presence in Russia, allowing local support in years to come, as well as Siemens' quality, know-how, and price competitiveness, Guardian naturally turned to Siemens to provide a solution when building a new greenfield float-glass manufacturing plant in Ryazan.

The Siemens solution

Guardian requested that Siemens provide electronics and controller packages mainly for the hot-end part

of the float glass process. To ensure low installation cost and reduce installation commissioning time, as well as provide flexibility, Siemens used the following systems: Drive cabinets with Sinamics S120 drive technology were used for the top rollers, lehr drive, fans, and batch charger. The Sinamics S120 is a modular system for high-performance application, and includes individual AC/AC drives as well as

Key points

- ▶ Guardian wanted to expand its global presence in Ryazan, Russia.
- ▶ Siemens' established presence and expertise in Russia, combined with its know-how and quality, led Guardian to choose Siemens as its solution provider.
- ▶ Guardian's trust was well placed, as the Siemens solution was commissioned quickly and has performed flawlessly ever since.

coordinated DC/AC drives for multi-axis applications. For the bath and lehr heating, a complete set of Siemens cabinets was used, together with the power controllers of a partner supplier.

An S7-400, Siemens' most powerful PLC, was the basis for the control system for the furnace and bath/lehr. This was combined with Simatic ET 200M and Simatic ET 200S distributed I/O systems. The ET 200M is used in control cabinets with high-density-channel applications and the ET 200S has a bit-modular design to enable multifunctional use of the station. Through a system integrator (NATUS), Siemens also delivered low-voltage switchboards to cover the power supply needs for the new factory.

Solution implementation

Guardian's trust in Siemens was well placed. Siemens commissioned its part of the plant quickly and the controls have performed flawlessly since. The Siemens solution and local support will allow Guardian to operate its plant reliably and economically in the growing glass market in Russia, Europe, and Asia. ■

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