

The National Glass Complex in Turkmenistan now has a container glass production line that started up in October 2017. In this article we take a look at the process equipment, its installation, supervision and commissioning, focussing mainly on Horn Glass Industries.

HORN GLASS INDUSTRIES

official heat-up of Turkmenistan container glass furnace

A new container glass production line was put into operation as part of the emerging National Glass Complex in October 2017 in Turkmenistan. The delivery of all the process equipment, its installation, supervision and commissioning, were carried out by Horn Glass Industries AG. Over

its long history, the company has gained extensive experience in implementing large-scale projects for turnkey glass manufacturing plants.

EQUIPMENT

Recuperative glass-melting furnace

A recuperative glass-melting furnace with two forehearths



CASE STUDY

Case study





with a capacity of 50 tonnes per day has been erected as per company Horn's design using state-of-the-art engineering solutions. The furnace is equipped with an electrical boosting system, which enables an additional 15 tons of glass per day to be melted. A system for measuring process parameters and controlling them in automatic mode plays a key role in organizing the technological process. This system maintains a stable glass melting process.

Container forming machines

The installations further down the process chain have been engineered and delivered by company Horn's partners. Six-section glass container forming machines, capable of producing glass containers in 15 different shapes and volumes, have been delivered by company Bottero S.p.A. At the line's cold end, behind maintenance-friendly annealing lehrs from company Car-Met S.r.l., products are transported, quality-checked and packed using the equipment from such European manufacturers as Emmeti S.p.A., Heye International GmbH, Sipac S.p.A and Iris Inspections Machines. All the process equipment of the container line is as silent, efficient and safe for operators as possible.

Heating up the furnace to operating temperatures and getting the first glass in the glass forming machines took 14 days. Production started with 0.33ml and 0.5ml bottles. After that the glass-forming machines were adjusted to produce saleable quality products. From the furnace fire-up till the achievement of continuous packing of saleable products on two lines, company Horn's specialists were coordinating the work of their subcontractors while at the same time training local personnel.

At this stage, the optical properties of the produced glass already achieved European quality standards, which will allow the plant's products to sell quickly at the local market.

POST SALES AND START-UP

Due to the fact that until now there has been no local glass container production in Turkmenistan, the newly started plant will allow Turkmenistan to significantly reduce imports of glass containers for the food industry. Horn's work does not end with the successful start-up of the container furnace at the National Glass Complex in Turkmenistan: over a period of one year company Horn's process engineers will assist with the production, so that the local personnel can adopt their experience, thoroughly master the new technology and have the ability to run the production on their own. ■

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