

Complete cold end from one source for Turkish glass plant

For the Bastürk Cam glass plant in Malatya, Turkey, MSK has delivered the complete cold end including controls and assembly from one source. Production started at the beginning of January 2018. The cold end includes the connection of the lehr with three bottle conveyor lines, palletisers, shrink wrapping system and pallet conveyors and has already been designed for extension by an additional furnace. Uwe Jonkmanns reports.

It was at glasstec 2016 that Turkish manufacturer Bastürk Cam placed an order with MSK for delivery of the complete cold end for its glass production plant in Malatya. The decades of experience and leading knowhow of the full service cold end provider MSK was one of the decisive factors for the glass production newcomer. The cold end was designed for an existing building structure and started up less than a year later.

The best possible communication was assured with the project owners at Bastürk Cam by a Turkish-speaking project management team at MSK and Turkish-speaking on-site assembly team in Turkey. MSK delivered all equipment for the cold end, starting from the lehr, all the way to pallet packaging from one source and as a turnkey installation. This helped rule out several component interfaces as error sources and networks the entire system with uniform control software.

One source from lehr to packaging

Production at Bastürk Cam started on schedule in January 2018 with start-up of the first furnace. The bottles and jars produced are transported on three conveyor lines through the inspection area to the palletisers.

MSK bottle conveyor systems are made in-house from stainless steel and premium components to ensure long life and like all MSK machines, are controlled uniformly by the same MSK software EMSY.

The three MSK Triotech palletisers installed are equipped with the universal MSK Unitech palletising head. This allows for the flexible production of various glass products in Malatya with the same palletising head, without downtime for job changes. The palletising stations are supplied by a central

dressing line with two pallet formats. After palletising, pallet conveyors and a mobile MSK pallet shuttle car transport the glass pallets fully automatically to the MSK Multitech shrink-wrapping line, where they are film-wrapped and thus protected on all six sides for storage and transportation.

Savings with universal palletiser

The swivel-arm MSK Triotech palletising system, in combination with the MSK Unitech universal head used at Bastürk Cam, provides a great benefit since all products can be processed by one and the same palletising head. Compared to a gripper tube system, the universal solution thus saves a significant amount of time for job changes. In addition, air consumption is significantly reduced and there is no need to buy replacement wear parts for the gripper tubes.

The palletisers at Bastürk Cam process up to three layers per minute and are also equipped with three MSK

traymakers, a central intermediate sheet inserter and cover sheet/tray inserter, as well as a wooden frame inserter. The central dressing line pre-assembles a bottom film sheet for the empty pallets, which in combination with the film hood later forms an all-round sealed packaging.

MSK Triotech palletisers stand out due to their space-saving construction and low wear, since the palletising column stands firmly on the floor and only the arm swings around the column.

Flexible pallet packaging

With the MSK Multitech shrink-wrapping system, the cold end in Malatya has a compact, high performance and flexible solution. The system is equipped with two film formats and makes it possible to package up to 60 pallets every hour. The compact design with lowerable machine head at the working level and maintenance-free time belt technology allows for simple and quick ▶



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The MSK shuttle car has the central task of fully automatically connecting all production, palletising, shrink-wrap and empty pallet lines.



MSK bottle conveyor systems are made from stainless steel and premium components to ensure long life.



The MSK palletising systems are also equipped with three fully automatic traymakers, a central intermediate sheet inserter and cover sheet/tray inserter, as well as a wooden frame inserter.

maintenance and ensures very low energy consumption.

“The MSK Multitech pulls the film hoods over the pallet loads without touching them” explains Uwe Jonkmann, Director Sales and Marketing at MSK. “This is a very safe packaging solution for sensitive glass products and also makes it technically possible to use thinner films, which has a positive effect on packaging unit costs.”

The film is shrunk using an MSK safety shrink frame. The special warm air mixing process heats the film in a targeted and gentle manner, allowing it to retain its tensile strength and durability. MSK shrink frames work with heat recovery, significantly increasing energy efficiency.

Automated materials flow

The MSK shuttle car has the central task of fully automatically connecting all production, palletising, shrink-wrap and empty pallet lines, without using a fork lift. In terms of capacity, it is already designed to cover the addition of a second furnace, which is planned for 2019.

When required, the still unpackaged glass pallets are transported from all palletising lines to the shrink-wrapping line. The shuttle car also covers the central dressing line for the preparation of empty pallets. Overall, the mobile pallet conveyor is designed for an output of up to 60 pallets per hour and thus ensures a quiet, safe and automated flow of materials.

Uniform and networked control

The entire cold end at Bastürk Cam is controlled with MSK EMSY software, specially designed for MSK systems. The intuitive visualisation software, equipped with 3D animations, is easy to operate and shortens the training time.

Any parameters that have been entered once can be transferred to other machines automatically. The software allows users to trace products through the entire logistics system, as well as to control the overall equipment. ●

About the author:

Uwe Jonkmann is Director Sales and Marketing at MSK

Further information:

MSK Verpackungs-Systeme GmbH, Kleve, Germany
 tel: +49 2821 506-0
 email: sales@msk.de
 web: www.mskcovertech.com