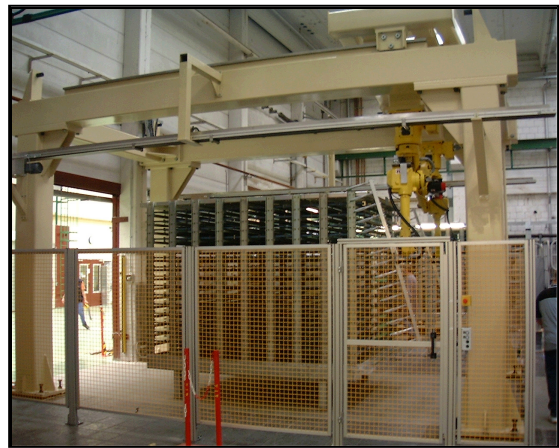


Product Info

Automatic removal of holding clamps on casting line 3

The task comprised the creation of a system for the automatic removal of holding brackets from a rack with Plexiglas plates and their transport to a sorting plant on a conveyor belt. The scope of delivery included the development and construction of the plant, the required software, and the commissioning of the plant at the customer's site.



Process description:

During the production of cast Plexiglas, the solution is poured into molds. The molds consist of two glass plates, a sealing profile in the border area between the two glass plates, and metal clamps with which the molds are secured.

The metal clamps are automatically placed onto the molds on the casting line. They are then filled with solution and conveyed through the polymerization process on racks using a driverless transport system (DTS).

One rack holds 15 molds, requiring a total of 510 holding clamps.

Following the polymerization process, the racks are transported to the declamping station by means of the DTS.

Two Fanuc M16iL industrial robots that are secured to a sliding axis in a hanging position use a grabber system to remove the clamps from the glass plates and lay them onto a conveyor belt. From here, the clamps are transported to the sorting room on a 70m long conveyor and are placed into containers.

Once all the clamps have been removed from the glass plates, the rack is transported to the next processing station by the DTS. A new rack is immediately fed to the declamping cell and the process begins anew.