

OCMI

MINIMIZING MANUAL GLASS HANDLING WITH ROBOGLASS, AN AUTOMATIC LOADER

OCMI-OTG is a well-known supplier of equipment for the manufacture of tubular glass containers for pharmaceutical use. The company's product range includes not only basic forming machines and after-forming lines, but also a wide series of equipment aimed at reducing manual handling, increasing automation and efficiency.

MANUAL OPERATIONS

Operations where the glass tubes used in the manufacture of pharmaceutical glass containers are more subject to manipulation by operators are loading, quality control and packing.

Manual intervention of operators on glass could increase the risk of cosmetic defects on the finished products and the consequent rejection of a great number of containers.

This is one of the reasons why customers who are more and more oriented to continuous efficiency and quality improvement are particularly sensitive about these developments in reducing glass manual handling.

AUTOMATIC TUBE LOADING

The automatic tube loader Roboglass by OCMI guarantees continuous machine loading by replacing the traditional manual operation carried out with rotating turret loaders. This device is equipped with a special tube supporting structure with grippers made in PVC to avoid marks on glass surfaces.

With Roboglass, the only manual function the operator has to do is the loading of tube packages into the loader deposit. Tube handling is carried out automatically by the loader: from picking, lifting, rotating, placing in the waiting position, right up to loading in the machine station to start the cycle.

The automatic loading concept consists in loading any empty station of the forming machine by keeping one tube in pre-loading position while the previous one is being processed by the machine.

Loading of the glass tube is made possible by means of a photocell installed in the correct position to detect empty machine stations.

CONNECTED TO EACH AND EVERY KIND OF FORMING MACHINE OF THE OCMI RANGE

The Roboglass loader can be connected to each and every kind of forming machine of the OCMI range, from FA36S and MM30 36 and 30 station machines for ampoule forming, to the 16, 20 and 35 stations machines TAM 16, FLA20 and FLA35 for vial production, and to the special 20 stations machines for dropper and dental cartridge manufacturing.

New loaders can be installed without problems after a proper analysis of the available space: floor space occupied by Roboglass is no more than 2.5 square metres and it can be oriented according to the layout of the production lines.

OCMI always considers small details about the situation of the workshop in order to optimize space, from the position of pipes for fluid supply to the presence of cameras for hot-end dimensional inspection.

NO NEED FOR CONTINUOUS OPERATOR PRESENCE

The tube loader Roboglass does not require the continuous presence of an operator but, in any case, the safest conditions of movement of operators around the equipment to perform any type of control or intervention must be guaranteed.

The deposit of this loading equipment allows to store standard DIN tubes of 1,500 mm in length while adaptation of loading stations to different diameters is carried out through easily changeable special adaptors. In some special cases the automatic loader has been adapted for the storing of longer than usual standard tubes.

In the standard version, the Roboglass working cycle is strictly connected with the forming machine cycle but sometimes the two machines must remain

independent from each other. The equipment can therefore be developed with its own user-friendly and compact control panel, just like an independent machine.

Adaptation of Roboglass to existing forming machines, equipped with their own loading device, requires a deep analysis of existing machine cycle made by OCMI electrical engineers.

Finally the automatic loader is equipped with all emergency stop buttons and alarms guaranteeing the maximum safety of the operator.

ADAPTING TO CLIENTS' NEEDS

The adaptation of the equipment according to customers' needs demonstrates once more the great flexibility offered by OCMI in all equipment supplied, particularly in optional devices for loading, packing and quality inspection systems.

This is the case of the important contract recently signed with one of the biggest pharmaceutical glass groups in the world for a supply of Roboglass automatic tube loaders with the main purposes of optimization of manpower costs, reduction of manual handling of borosilicate glass tubes and increase in productivity.

The deliveries and installation works started in June 2015 and will continue until the end of the year.



In this factory, ampoule production is carried out exclusively with equipment supplied by MODERNE MECANIQUE, the French company now controlled by OCMI Group.

The new loaders have been connected with MM30 30-station ampoule forming machines while mechanical and electronic adaptation, installation and start-up are supervised by OCMI engineers. ■



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