

Solutions for glass stacking

Bottero, a manufacturer of flat and hollow glass machinery and technologies, provides stacking solutions for unloading glass lites from heavy duty stackers: Glass up to 15m length and more than two tonne weight, down to small sizes for automotive or solar applications.

The smaller the glass dimensions, the faster the unloading time and the higher the number of stacker machines required to unload the full production of a float line. The glass also has to be unloaded without touching its air side (top surface).

Stacker

These are the main reasons that drove Bottero to develop the Fast Tin-side Stock-sizes Stacker (FTSS).

The FTSS is a fast tin side (bottom side) stacker with unloading cycle times down to two seconds for small plates. The technology is not only restricted to the Fast application, but it can also be used for other purposes. These include a quasi

'stand alone' solution with feeding conveyor and indexing rack platform, to be installed in existing lines to replace manual unloading stations.

The plate in tin side stackers usually has to wait in front of the take off position until the suction cup frame of the stacker has finished its cycle and is completely accommodated below the working level of the take off conveyor. The suction cup frame then has to wait again until the plate has been positioned for taking off.

The Bottero FTSS provides an advantage, as a plate does not have to wait until a cycle has finished. The cantilevered and motorised suction cup frame 'dives' underneath the next plate while this one is running in or is already positioned for being taken off. Therefore, the suction cup frame also does not wait for the next plate to finalise its positioning.

Features

The key feature of this machine is the precision of the trajectory at high-speed

during the unloading of the glass. It is of utmost importance to control the stacking cycle, in order to not scratch the glass during the unloading.

The control system guarantees a precise movement with a high degree of repeatability. At high speed, the synchronisation of all the axes involved in the movement is a feature to unload the glass precisely on the rack, and does not create any scratches between the glass.

The company's solutions are not limited to stacker machines, they include robotic applications as well. Using a robot to handle the glass is becoming increasingly common in the glass industry. Advantages are flexibility, the possibility of handling multiple loading/unloading positions with the same robot, the modularity of the solution and the reduced footprint and maintenance cost. ■

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