

Transforming flat glass logistics

Italcarrelli, a leader in the development of solutions for flat glass handling, reports to have revolutionised logistics in float glass factories via the introduction of automatic guided vehicles, as Davide Schiavon explains.

Italy's Italcarrelli srl has always been oriented towards innovation and automation. Thanks to the company's long experience in automated guided vehicles in sectors as diverse as metallurgy and aerospace, this knowhow has also been successfully applied to the flat glass division.

Italcarrelli has developed several navigation systems to transform its machines into AGVs, including inductive and optical guidance systems but in particular, Laser Guided Vehicles (LGVs).

The laser guidance system is an innovative system that can be installed on any inloader or side loader to turn it into a self-driving machine.

Thanks to laser guidance, high accuracy can be achieved, even greater than 5mm in terms of positioning. It is also a flexible navigation system and the routes can be generated easily, modified or extended without particular impact on the facilities.

In the glass field and in particular at float glass plants, LGV machines can be easily interfaced with the stackers at the end of the line, to unload the racks with glass automatically and also with WMS (Warehouse Management System) software for glass handling automation in the warehouse. Italcarrelli LGV machines allow the optimisation of logistics between the production line, warehouse, glass processing lines and shipping areas, thus increasing productivity and safety and consequently reducing production costs.

During last October's glasstec fair, Italcarrelli demonstrated a laser guide, which was a great success. Based on its application to a self-propelled platform for flat glass transport on trestles with a capacity of 33 tonnes, in the simulation the platform reproduced the grip of a tripod from one station to another independently and without the aid of operators.

Thanks to LGV technology, in addition to automatic guidance systems, the company is also developing an innovative localisation system, which will allow the tracking of the position in which a rack or glass package is unloaded. These positions are automatically communicated to the warehouse management software or ERP, so it will be possible to know at any time the exact location of glass and racks. The localisation system can be supplied both for machines with onboard operators and for automated driving. ●

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Further information:

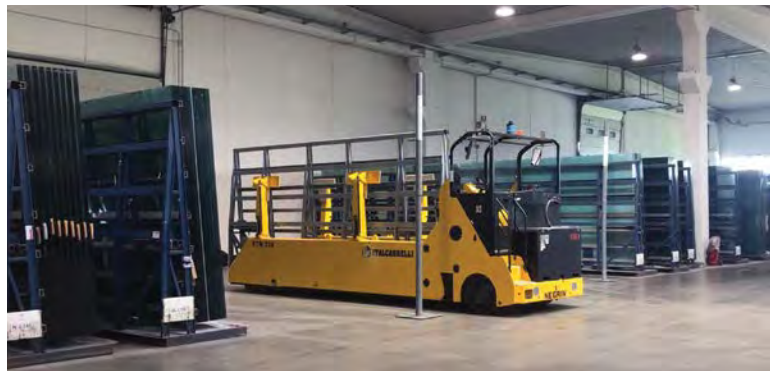
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The Italcarrelli stand at glasstec 2018.



The TPEN 330 LGV demonstration at glasstec 2018.



PTN 330 LGV laser-guided inloader transporters.



AGV in operation.