



VarioLoc - the new modular skid conveyor system for conveyor buffer zones

Today, roller conveyors, transfer cars and chain conveyor systems which are used for linking individual production processes in automotive skid conveyor systems are equipped with a large number of drives, actuators and sensors. Particularly in buffer and storage zones, it is necessary to maintain availability of many system components, even though these zones are only used at specific times, for example interruptions in production or the end of a shift etc.

The new skid conveyor system VarioLoc drastically reduces the maintenance effort required for zones that are infrequently used, thus making a significant contribution to the enhanced efficiency of the plant. Thanks to the flexibility of the system, it is also possible to adapt buffer and storage solutions to varying production throughput requirements.

Simple and intelligent

Combining several tried and tested systems, such as inverted monorail systems or eccentric lifting tables, has resulted in EISENMANN designing a new innovative and reliable conveyor system. The VarioLoc shuttle has the ability to raise, lower and transport skids and bodies. The shuttle moves along a rail that is installed at floor level. At each side of the rail, fixtures are provided for supporting the skids and bodies. Only the VarioLoc shuttle unit features a travel drive and lifting element.

The travel and lift sequences are monitored by a tried and tested EISENMANN vehicle controller. Barcodes on the rail and a reader on the shuttle unit, ensure reliable position detection.



EISENMANN's VarioLoc: the new intelligent skid conveyor system for conveyor buffer zones



Communication with the supervisory system controller is performed via CAN-bus.

A transfer roller conveyor with an integrated rail is used to transfer the skids to the shuttle unit. This roller conveyor may be installed on a transfer car. However, other conveyor solutions, such as lifting stations etc., could also be installed at this point.

During a transfer, the shuttle unit moves beneath a skid and lifts it. It then moves the skid to the buffer section of the conveyor and positions it at a predetermined empty storage location. The storage locations are managed by a stationary programmable logic controller (PLC).

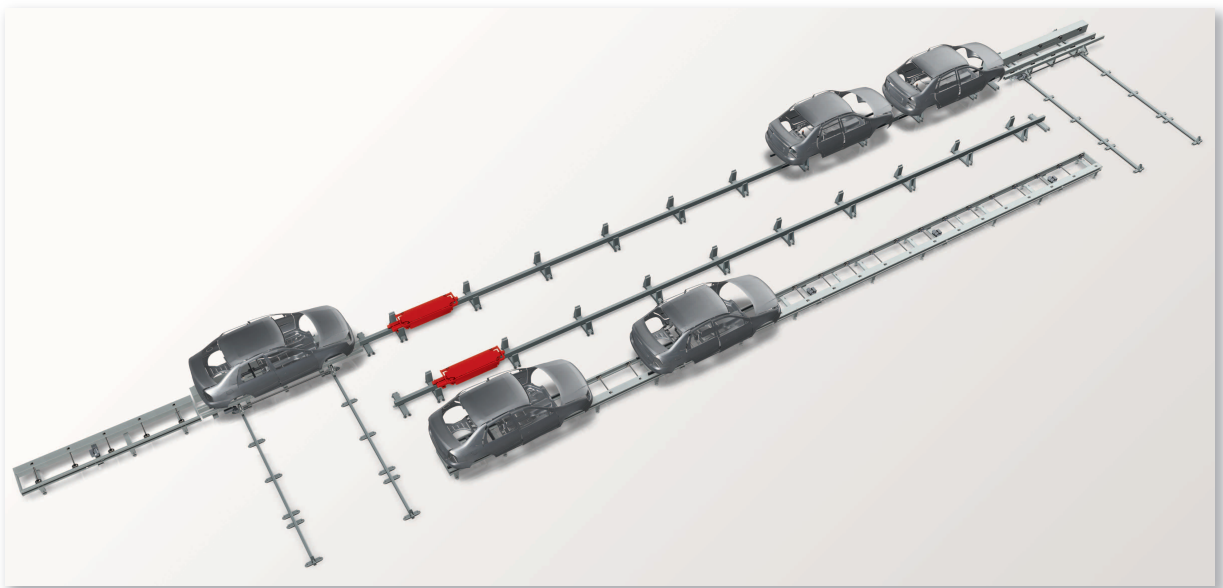
The new modular skid conveyor system VarioLoc is highly flexible. Depending on production, a single shuttle unit can be used in several con-

veyor sections. At high throughputs, more than one shuttle unit may be used at one conveyor section.

Flexible, reliable and geared to the future

EISENMANN's VarioLoc is low-cost and easy to maintain, thanks to carefully considered use of mechanical and control components. Due to its flexible design, the VarioLoc can easily respond to varying plant production throughputs.

The system is reliable and fail-safe, since it is based on tried and tested components. It can also easily and efficiently be converted to skidless transport of vehicle bodies. Skidless operation of a paint shop minimizes logistic efforts and allows for a considerable reduction in energy demand.



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