



Fully Automatic Machine Loading System

Application



Storage System

Trays are automatically loaded into one of five lanes in the storage system where they wait in a queue. There are 16 trays in each lane giving a storage capacity of 80 trays. The tray size is 260mm x 220mm x 70mm deep. One Flex Chain 'Load/Unload Conveyor' runs the complete length of the system, from the tray storage system past all six automatic machines to an out-feed conveyor.

The 'Load/Unload Conveyor'

This conveyor has five load units and five unload units together with sensors and stop gates. The Load/Unload conveyor system is controlled by a PLC (programmable logic controller) which communicates with the five machines PLCs. Sending and receiving signals concerning the loading and unloading of trays.



Loading Five Machines

When a machine nears completion of its automatic cycle it sends a signal to the store control system, calling for a new tray of a certain type. This is then transferred from the stores to the 'Load/Unload Conveyor'. The tray is then conveyed at high speed to a position just before its final stopping position, slows down to $\frac{1}{4}$ speed and then stops correctly aligned with the machines load position. The tray is then loaded into the machine and the completed tray unloaded onto the conveyor.

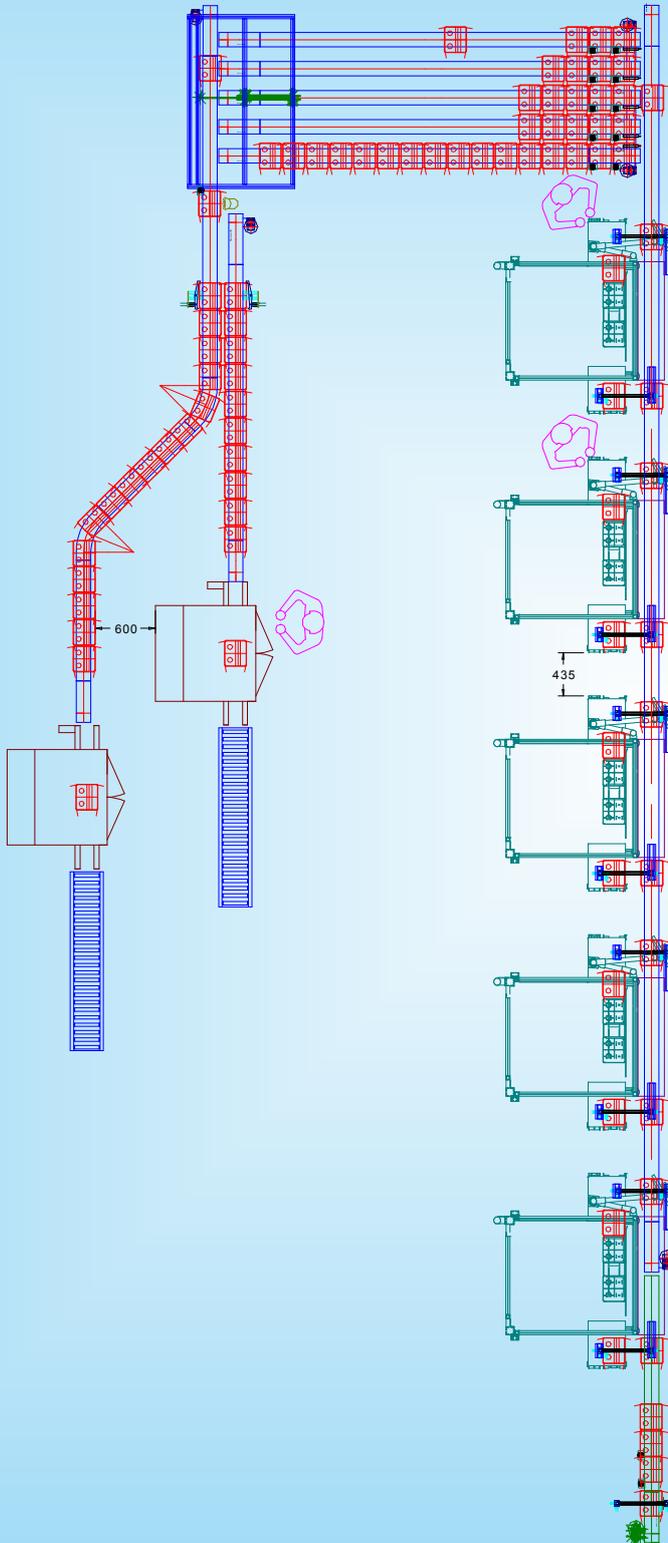
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Automatic stores being built in our factory.



Merge unit at infeed to stores.



Automatic Stores

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