



## New conveyor plant from Q-System is the logistic key in Montana's new spraying department

The furniture factory of Montana is one of the Danish enterprises which has succeeded in branding its products internationally. Through a combination of aesthetic design and untraditional advertising in selected media its products are now considered in rank with the Danish architect-designed furniture of the 50ties.

**Montana sells exclusivity, individuality, freedom and creativity** which clearly shows from Montana's

very inventive and different advertisements in almost all Danish lifestyle magazines.

Q-System sells high quality, individuality and creativity in its handling solutions – and the possibility of adding to the conveyor systems. This is probably why Montana chose Q-System to supply the handling system

required to streamline Montana's spraying department and, not least, improve the working environment.

The Q conveyor system supplied comprises a number of driven roller conveyors placed side by side and two automatic transfer carts. On the basis of signals from the control system one of these transfer carts takes stacks to be spray painted to specific approach conveyors, where they are fed in.

**Montana's logistic requirements were met by means of a cutting edge control**

The mechanics, i.e. the roller conveyor system, is designed from Q-System's standard conveyors for handling heavy items, but the forefront control of picking and feeding the right stacks is specifically designed to meet Montana's demand for rational logistics in feeding its new water-based spray plant.

**The objective of the investment was to achieve a rational painting process**

to the effect that all orders for a specific colour are painted successively. Then plates to be sprayed with a different colour are painted and so on.

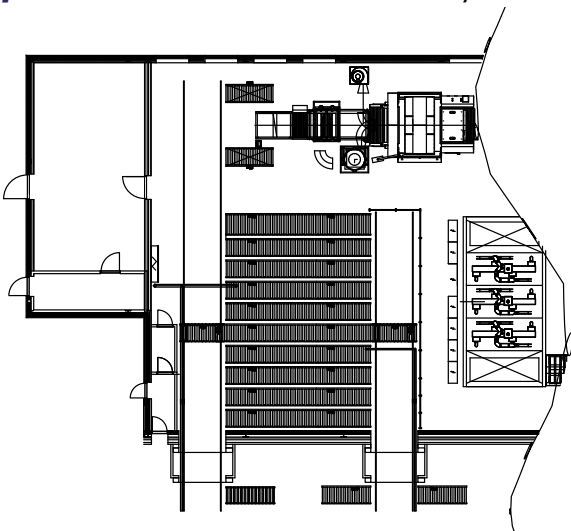
To meet this logistic criterion a control system is required that will automatically keep track of the location of each single stack on the approach conveyors and by means of signals to the transfer cart ensure that the stack is collected for painting at the right moment.

The two Q transfer carts operating in the dust-free room drive through a lock to avoid dust getting into the room. That the roller doors of the locks are opened and closed on time is controlled by Q-System's electrical control system means that the whole process is fully automated.

**Visual surveillance of the plant** ensures that the worker who controls the feeding into the dust-free room will always know from his monitor where each single colour-defined stack is placed in the intermediate store.



***"The number of handlings has been reduced and we have a much bigger quantity of items than before running through the spray plant," Morten Langhoff from Montana explains.***





Additionally, the control is provided with a modem enabling Q-System to correct, when hooked up, control errors and in this way reduce the halt to a minimum.

**Montana is happy with Q-System's handling solution**

which was implemented on time, with minimum disruption to production and operated perfectly from day one.

"The number of handlings has been reduced and we have a much bigger quantity of items than before running through the spray plant," Morten Langhoff, who is production engineer at Montana, explains. And the electronic control of the stacks has meant an end to "Oops, this stack should also have been painted white", just after switching to painting yellow, he continues.



The transfer cart which brings stacks for painting to the operator at the spray plant runs in an unfenced area as the scanner on the cart will bring the cart to halt if it detects an obstacle.



The two lifting tables at the in-feed end of the spray plant serve a dual purpose: to ensure the operator works at the correct ergonomical height, and that there will always be items ready for feeding the spray plant.



The transfer cart is on its way through the lock to pick up another stack of plates for spray painting.