

Paperless assembly cell at KABA

More than 20,000 combinations processed quickly and without error

In the Wetzikon production plant of the Kaba Group, one of the world's most successful security corporations, the goal was to reduce through times for assembly tasks and increase throughput of lock cylinders.

To make this a reality, four assembly cells were equipped with a pick-bylight system consisting of 260 shelf displays and six zone displays, thus implementing the one-piece-flow principle.

Assembly directly on the spot

Every assembly worker uses a touch screen to select a production order by priority. The orders are then assigned to individual items. The worker processes each individual item in turn.

The shelf displays guide him to the appropriate kanban container, where he picks the corresponding materials and assembles them directly on the spot.

Optimisation of workflows using a combination of pick-by-light and RCID

Each time the assembly worker passes the starting point, he is

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assigned an item by touching a receiver. This is done using an RCID technology developed by Kaba that the worker carries like a keychain.

This assignment remains in effect until the cylinder is assembled and packaged. After the last work step, the order item is closed by touching the last RCID receiver.

Increasing efficiency

The system consists of a total of six stations that an item passes through in sequence. Each time a worker enters a station or touches an RCID tag, the shelf displays light up for the order item currently assigned to the worker's current order.

Up to four workers can thus perform assembly tasks at the same time, as long as they are always using different stations.

Benefits overview

- Productivity increase: + 50%
- No more tooling cost
- Option of producing different orders or different cylinder types in lot sizes of 1, using up to four workers
- Average lot size of an order: 3 units
- More than 20,000 combinations can be processed quickly and error-free
- Completely paperless production



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