



Lenne workshop

Quality assurance at manual workstations using ifm mate



Perfect bagging process

Lenne workshop relies on the ifm mate worker assistance system

Sozialwerk St. Georg e. V., based in Gelsenkirchen, Germany, is a decentralised social service organisation that operates around 100 locations throughout North Rhine-Westphalia. It also includes the Lenne workshop in Schmallenberg where around 320 people with disabilities are employed.

The fields of activity in which the Lenne-Werkstatt offers work to people with disabilities are diverse. They include carpentry, electrical assembly or metalworking. In addition, there are office services, document shredding and packaging activities.

"We work together with many companies from the region that operate in different sectors and also globally," says **Benedikt Hanses**, production manager at the Lenne-Werkstatt.

"Most production orders are quite extensive while the requirements to implement them properly are high because if the manufactured or packaged end products are faulty or incomplete, our customers will have to deal with costly complaints. Of course, we have to and want to avoid that," says Hanses.

Efficient order implementation is becoming increasingly necessary

It is, however, not only the expectation of reliable quality that is continuously increasing: *"The set time frame sometimes requires a high level of efficiency on our part to complete the orders on time.,,"*

For **Benedikt Hanses**, this is the best reason to provide people with disabilities who are employed here with the appropriate tools or even to develop them in-house, especially in the case of permanent or extensive packaging or assembly orders.

"These tools enable our workers to successfully implement the task. This increases motivation and reduces frustration. At the same time, this assures our quality."



” We chose ifm mate especially because of its ease of use and reduced technology.



The display guides the worker through the packaging process. The software processes the position, orientation and height of the hand and can thus ensure correct execution of the individual steps. The colour scheme for the worker's visual orientation can be defined as required.

In this case, the boxes from which individual parts have already been taken will turn red. White indicates containers from which parts are still to be taken. Green confirms correct placement on the collection surface.

Any packaging error could lead to a standstill

100 per cent assured quality is also required as part of an order for an internationally active manufacturer of machinery for underground pipe laying.

"We are contracted by the company to pack sliding bushings and O-rings of various designs in pressure seal bags. They are needed as spare parts for the drilling machines. Accordingly, the aim here is to achieve a failure rate of 0 because every missing part can lead to an expensive machine standstill," says Hanses.

Depending on the machine, such a bag may contain up to 18 different spare parts.

Dramatic reduction of the redundancy of inspection effort

"So far, we have implemented 100 per cent batch security through a threefold control system. First, the client packed the required items and checked the product. Afterwards, both the group leader and I manually checked the batch to make sure it was free of defects."

An immense amount of work that has now been automated and considerably reduced by the ifm mate worker assistance system.

ifm mate - easy-to-handle worker assistance system

The automation specialist ifm originally developed the worker assistance system out of its own needs to support its employees at manual assembly and packaging workstations – both in the daily routine and in the training process for new employees or new work processes. The aim was to keep the system easily manageable without sacrificing performance.

mate is available as a complete solution and its heart is a 2D/3D camera and a box PC with powerful pre-installed software. It detects the exact position, height and orientation of the human hand using artificial intelligence and visually guides the worker at the workstation through the process via a display. Unlike other existing solutions on the market, mate does



If many individual parts that sometimes look identical have to be packed correctly, mistakes can quickly occur. The ifm mate worker assistance system effectively helps to prevent this.



not require any additional accessories such as tracking wristbands and is easy to set up for any manual activity.

"We chose ifm mate especially because of its ease of use and reduced technology," says Hanses.

By tapping the touch screen, for example, the positions of the containers with the individual components can be taught; depending on requirements, it is then possible to specify whether the individual steps are to be processed in a predefined or free sequence. A combination of both options is also possible.

The customer is glad about the quality improvement

"The most important argument for us, however, was that we can achieve 100 per cent order processing with efficient time expenditure. Because the software reliably prevents omitted or faulty packaging steps already in the process, redundant testing has become completely unnecessary," says Hanses, who

can now use the time gained more productively. The increased quality of the deliveries has also already been positively noticed by the commissioning machine manufacturer.

Convinced by the system – and the service

"Certainly, such a worker assistance system stands and falls with the acceptance of those who have to deal with it in everyday life," says Hanses. *"There is a great demand among our employees to work with mate. And our employees who assist the workers at the workplace are also more than convinced of the added value – not least because of the ease of use. ifm itself has also contributed to this. We received fantastic support at all times from the first contact up to the setup and familiarisation phase at our company. Even now, any queries that may arise can be resolved quickly and without complications. System and service have completely convinced us in this case."*



Bottom line

The Lenne workshop convinces its customers with reliable and timely order processing. It is open to effective aids that help to support the various manual activities. With its worker ifm mate assistance system, the automation specialist was able to offer the company such a tool. The result: error and complaint free order processing with significantly reduced monitoring effort.