Task

**Sorting and packaging of mustard pickles**

An innovative sorting and packaging plant in China is demonstrating that robot automation makes sense, even in countries with low wage levels. The Fu Ling Zha Cai company has set up a pioneering production line with multiple FAST picker TP80 robots for the handling of mustard pickles, and is scoring top marks in terms of quality and productivity.

Here's something you might not expect to find in the Chinese food industry, namely a highly complex, fully automated sorting and packaging line for pickles. On closer inspection, it turns out to be a superior overall solution with impressive output.

A Chinese local systems integrator has devised a customised production line concept that perfectly meets the customer’s needs. For Fu Ling Zha Cai, the priority was to achieve various improvements in comparison with manual labour – a significant increase in output, measurable reduction in costs, higher quality and maximum plant availability.

**Solution**

**FASTpicker robots complete final packing in record time**

The experienced integrator soon realised the potential of working with these ultra-responsive FAST picker TP80 from Stäubli in this application.

The FAST picker TP80 redefines the term A new dimension of high-speed packaging

### Customer benefits:

- Significantly higher output
- Maximum productivity
- Humanising the world of work
- Almost zero error rate
- High plant availability

FAST picker TP80 pick up the individual packs and put them into cardboard boxes.
The sorting and packing of pickles is performed on a central conveyor belt with multiple Stäubli TP80 robots operating in series.

A high-speed robot. With its high performance and easy integration this innovative robot frees the way for groundbreaking strategies in the automation of time-critical sorting and handling.

The pickles are sorted and packed on a central conveyor belt by a series of multiple Stäubli TP80 robots. The pre-packed pickles arrive at the robot stations via the high-speed belt in random order. An image processing system determines the respective location and position of the sealed pots of pickles on the belt and reports their coordinates to the Stäubli robot control system. The TP80s then pick up the individual pots and put them in cardboard boxes, brought in on conveyor belts alongside the packing system. The process is repeated until the delivery cartons are full and then starts all over again.

**Customer benefits**

**Quality is up – costs are down**

The use of agile FAST picker robots on the packing line has proved to be a big hit. The four-axis machine fulfils the target cycle times of 120 units per minute, even under the challenging conditions of the conveyor, by tracking items that arrive in random order. The robot also scores high marks on this application for its considerable reach, coping with work areas of up to 1.6 meters in diameter. Another plus is the easy integration of the compact FastPicker, which makes no special demands on the steel frame of the conveyor system.

Overall, the sorting and packing plant has satisfied the high expectations of the user in every detail. Even in China with its low-wage economy, this hi-tech solution makes a major contribution to cost-effectiveness and to making the workplace a more employee-friendly environment by relieving the workforce of monotonous tasks and allowing employees to graduate to higher-skilled roles.