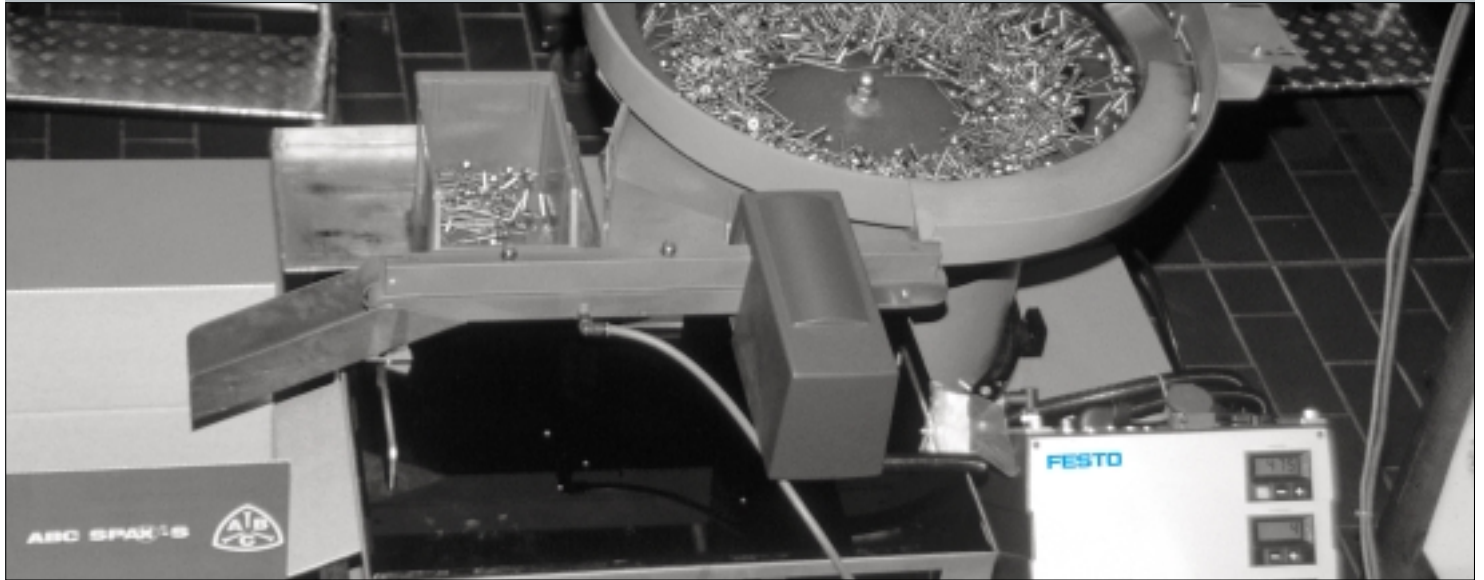


The Festo Checkbox in application: Reliable checking for finished screws

FESTO



Altenloh, Brinck und Co. ABC Verbindungstechnik, Ennepetal, Germany
Final inspection following surface finishing of screws

The task

- To carry out the final inspection of surface finished Spax-S screws and to compile them into specific packaging sizes
- Careful sorting out of defective screws and foreign parts
- Integration into existing plant concept
- Flexible position identification where there is a change in variant within a sub-group up to twice a day

The solution

- Festo Countbox – standard unit:
- Reliable final screw inspection for correct head type, clean screw tip, straight shaft, correct length and perfect thread
 - Transportation of specific quantities by means of pre-selected plan quantities

The benefits

- Outstanding plant productivity owing to ease of handling and fast resetting for new screw types
- Simple commissioning with modular system concept
- Automatic sorting out of defective and foreign parts

Final screw inspection requires brain-work!

The Countbox does the thinking

Continuously optimised manufacturing processes, high levels of productivity, careful quality control and fast compiling form the solid foundations for Altenloh, Brinck and Co. ABC Verbindungstechnik in Ennepetal. ABC's product selection offers a versatile range of quality screws with clear assembly advantages. With its ingenious invention of the Spax universal screw in 1966 and many other product improvements such as the Spax-S with its patented cylindrical grinding, the innovative manufacturer has revolutionised fastening technology.

The march of progress

A firm which in 1823 was the first German company to go into the industrial manufacturing of screws is always a step ahead in other areas of competition. For example, in 1900, ABC developed the excellent screw-in ABC tip and above all, carried out pioneering work in the area of electronic process control. The company is expanding, with sales companies in Europe and the USA.

The requirements

During the final production phase in screw manufacturing – the final inspection following surface finishing – a special check is needed to sort in accordance with the following criteria:

- Crooked shaft
- Deformed head shape
- Defective, inadequate thread or no thread
- Length
- Burr on screw tip
- Foreign parts

and also to segregate accepted parts into specific packaging sizes.

The design for operating the system should also be simple enough to ensure productivity and throughput within the subgroup even if the variant is changed several times a day.

Final inspection with "cleverness"

In order to sort out incorrect screw head sizes, a mechanical roller grader was placed at the end of the previous control systems – to grade the screws as too small, correct size, too large.

Disadvantage: the system did not identify the type of screw-head!

ABC looked for a clever alternative and literally found it in a Festo advertisement. The solution to complex problems can sometimes be so simple: It was found in the Festo Countbox.

The result

Increased productivity

- Reduction in down time to a minimum owing to fast resetting – at the push of a button
- The modular system concept facilitates fast, problem-free commissioning
- Its industrial specific design and the compact, robust construction ensures trouble-free operation and guarantees a long life

Improvement in product quality

- Top-quality delivered parts through integrated quality control
- Automatic sorting out of defective parts and foreign parts

Ease of handling

- Learning new screw types by the Teach-in method – no time-consuming programming required
- The Countbox functionality facilitates both the feeding of predetermined quantities by pre-selecting the desired quantity and continuous counting of accepted parts



the parts ...



the Countbox...



the system ...

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