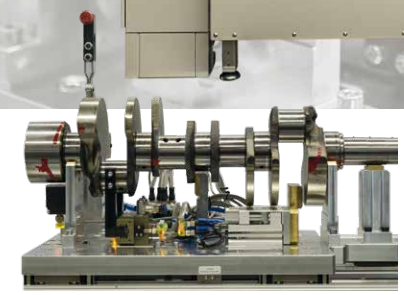
Pin mounting crankshafts

QUALITY MADE IN GERMANY
Special machines for your production

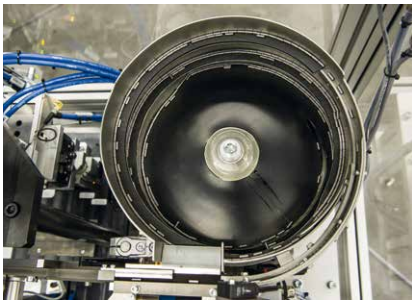
Task:
Inserting three cylinder pins into a crankshaft. The cylinder pins must protrude by a tolerated residual length.

Our solution:
The crankshaft is inserted into a clamping device either by hand or by a loader and oriented to the pin bearings. The locating holes face upwards. The mounting fixture can be moved longitudinally on an NC axis. The pins are added using a vibration feeder in a standing, correct position. The drill hole is scanned for mechanically by a stylus in order to compensate for production tolerances in the shaft, thus ensuring fault-tolerant joining. Checks are carried out that the pins are present before insertion. A pneumatic processor places the pin in the drill hole. The pin is positioned and held while the insertion unit inserts the pin over the fingers. Then the shaft is moved to the next drill hole and the next pin is placed and inserted.



Clamping device

Inserting station



Vibratory bowl

Your benefits:

- **Saving personnel costs** through automation
- **Secure handling**
- **Optimisation of cycle times**

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Technical details:

Workpiece **Length** **Weight** **Diameter of drill hole** **Diameter of pin**	Crankshaft 670 mm 20 kg 3.16 mm 3.18 mm
Dimensions of cell	2,400 x 2,000 mm
Cycle time	2 min. line time
Insertion drive	max. 10 kN
Insertion	pneumatic / hydraulic / optional: force-displacement monitoring
Vibratory spiral conveyor	automatic sortation and feeding device, single track, Monitoring of present
Control	Siemens SPS S7

We provide ready to use robot systems and automation solutions:

Processing:

- Deburring
- Milling
- Grinding
- Stroke filing
- Polishing

Assembly:

- Assembling
- Screwing
- Shrinking
- Pressing
- Glueing

Handling:

- Picking up
- Stacking
- Insertion
- Removal
- Placing

Everything from a single source:
Thanks to our integration into the **Pütz Group** and the resulting **synergy effects**, we are able to offer you not just robot systems and automation solutions, but also the appropriate test technology to test surfaces for dimensional accuracy.

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