



SUCCESS STORY LIFE SCIENCE

High-end solution for mass production

Challenge

Testing inhalers to destruction

Boehringer Ingelheim produces millions of pocket-sized inhalers under the product name “Respimat® Soft Inhaler”. As is the norm in medical technology, the most stringent safety and quality standards apply. This requires extensive testing during production, including process-integrated testing as well as strain, compression and high-pressure testing under cleanroom conditions. These tests are conducted in parallel with ongoing production to provide information about the product quality.

Solution

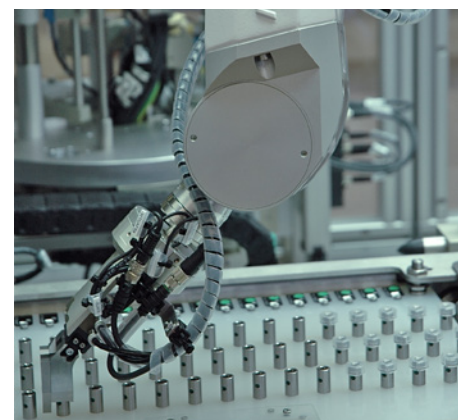
Cleanroom robot tests throughout uninterrupted production

To test the inhaler dosing sprays, Boehringer Ingelheim ordered an innovative test cell with a Staubli six-axis robot from Hoyer Montagetechnik. Important criteria for the design of the system were compliance with the cleanroom classification and a space-saving layout.

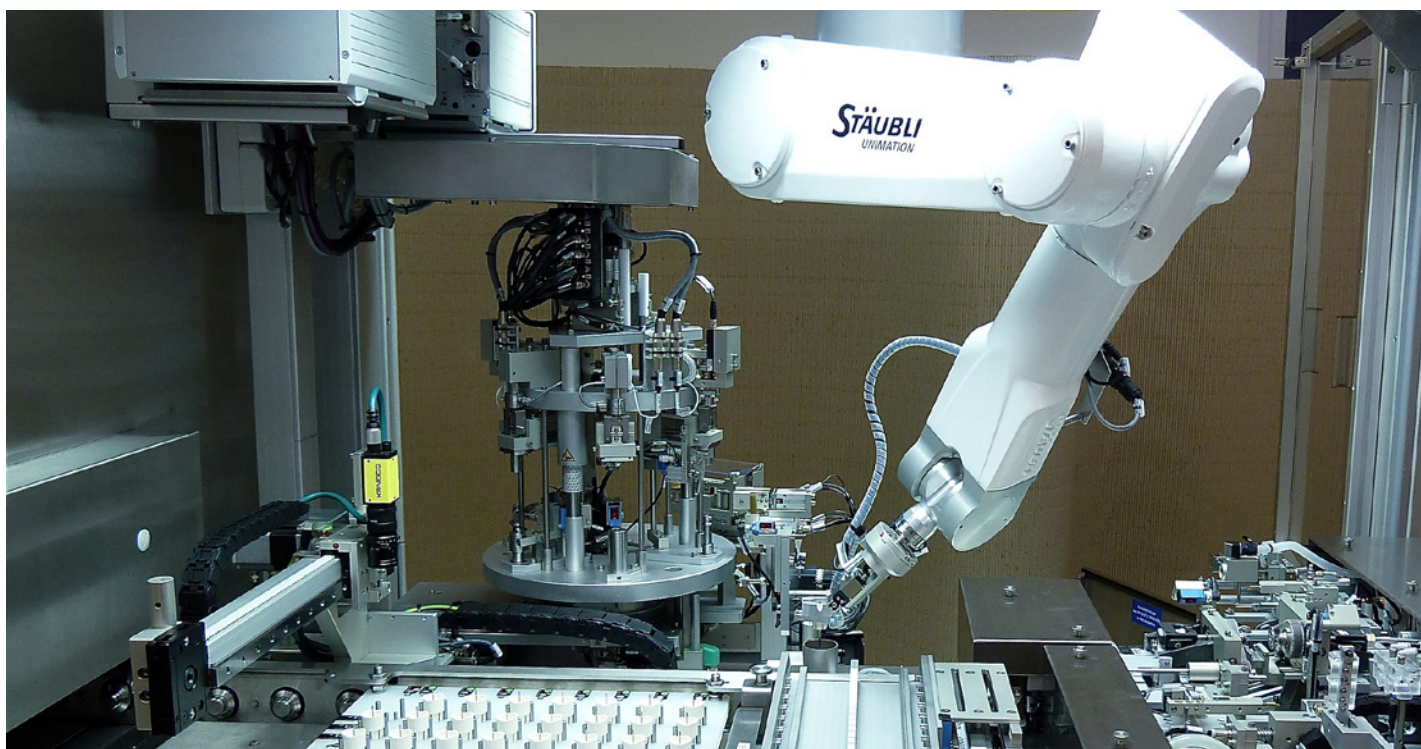
Testing of the functional elements of the inhaler spray is carried out on the system seven days a week in shift operation. A centrally placed cleanroom version of the six-axis TX60L robot from Staubli handles the components to be tested. The system tests the parts to destruction. In order to simulate the functional forces of the intended use, the maximum load applied in practice is used for the test. This is then increased to the point at which the part is destroyed. This is the only

Customer benefits:

- Significant increase in productivity
- Very small space requirement of just 3.5 m²
- Extremely short cycle times
- Compliance with the highest quality standards
- Very easy to service and maintain
- Low energy consumption



The compact six-axis robot carries out every handling task reliably, accurately and at speed.



way to check the stipulated safety factor and guarantee consumers 100% functionality and safety.

The design of the pilot system, which is to be followed by more, took special account of the robot, according to Eberhard Walther, Head of Design at Hoyer: “With their fully encap-

sulated design making them eminently suitable for cleanroom operations, Stäubli robots are the first choice for medical technology systems of this kind. We chose the Stäubli TX60L, a compact six-axis machine which guarantees almost 100% availability, long reach, outstanding accuracy and very long maintenance intervals.”