

Performance Test Turbo Charger

System for automatic testing of turbochargers

“Downsizing” for combustion engines increased demands on the turbocharger as an essential element in the automotive industry.

As a result, turbocharger manufacturers face an increased intensity when it comes to quality inspections.

Objective of this project:

Develop a cold gas test stand for exhaust turbochargers integrated into the automatic production line.

Short description:

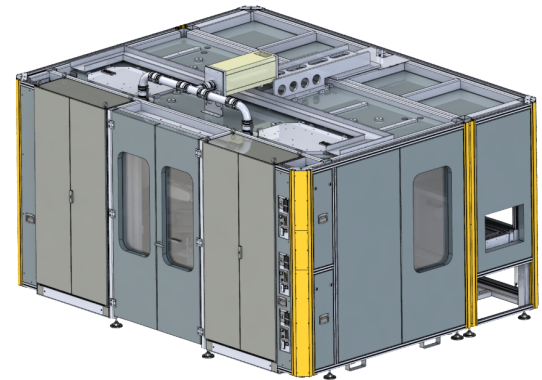
In this cold gas test, the combustion engine is simulated, and the quality of the turbocharger is assessed by critical characteristics.

The test should be fully-automated and integrated in the assembly line.

Conditions:

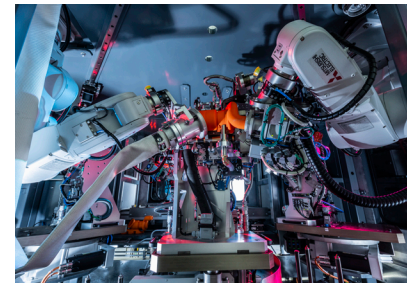
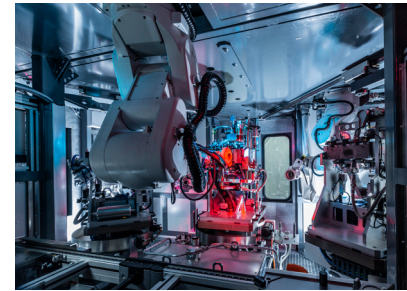
- Flexibility (two article variants)
- Usability under production conditions
- Compact size
- Short cycle time

Cycle time: 30 sec



Tasks:

- Article handling (final mounted turbocharger)
- Simulation of the lubricant circuit
- Simulation of the exhaust gas flow
- Control of the turbocharger
- Leak test
- Oil cleaning (vacuum)
- Performance test and real-time measurement of the relevant values
- Preparation and evaluation of the real-time collected measured values



In cooperation with:

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