

QC MODULE

A fully automated flexible base unit with thoroughly approved robot technology enables efficient automatic QC of raw needles and strengthens digitalization of QC processes and procedures.



Challenge

The compact base unit can be configured to various QC testing modules enabling various QC testing methods customized to various needs.

Stringent regulatory requirements for product safety in Life Science manufacturing demand increasing sampling inspections.

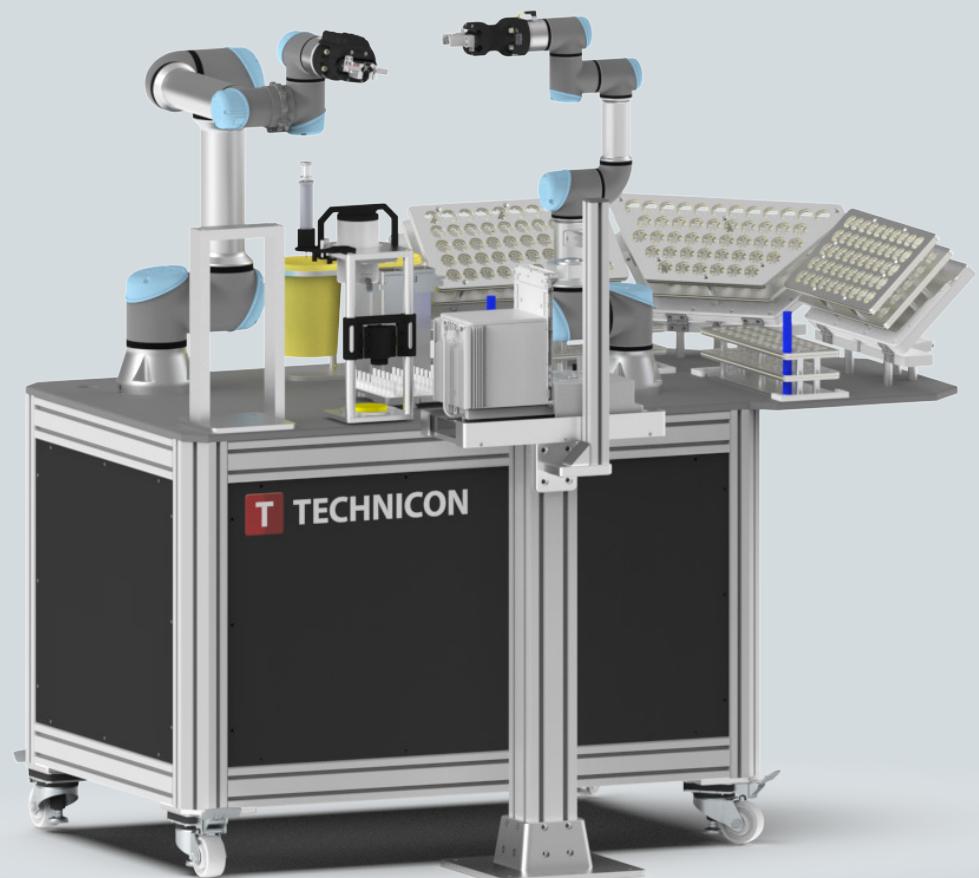
Manual quality control is costly, and the tasks are monotonous and repetitive. These are ineffective measures requiring human resources.

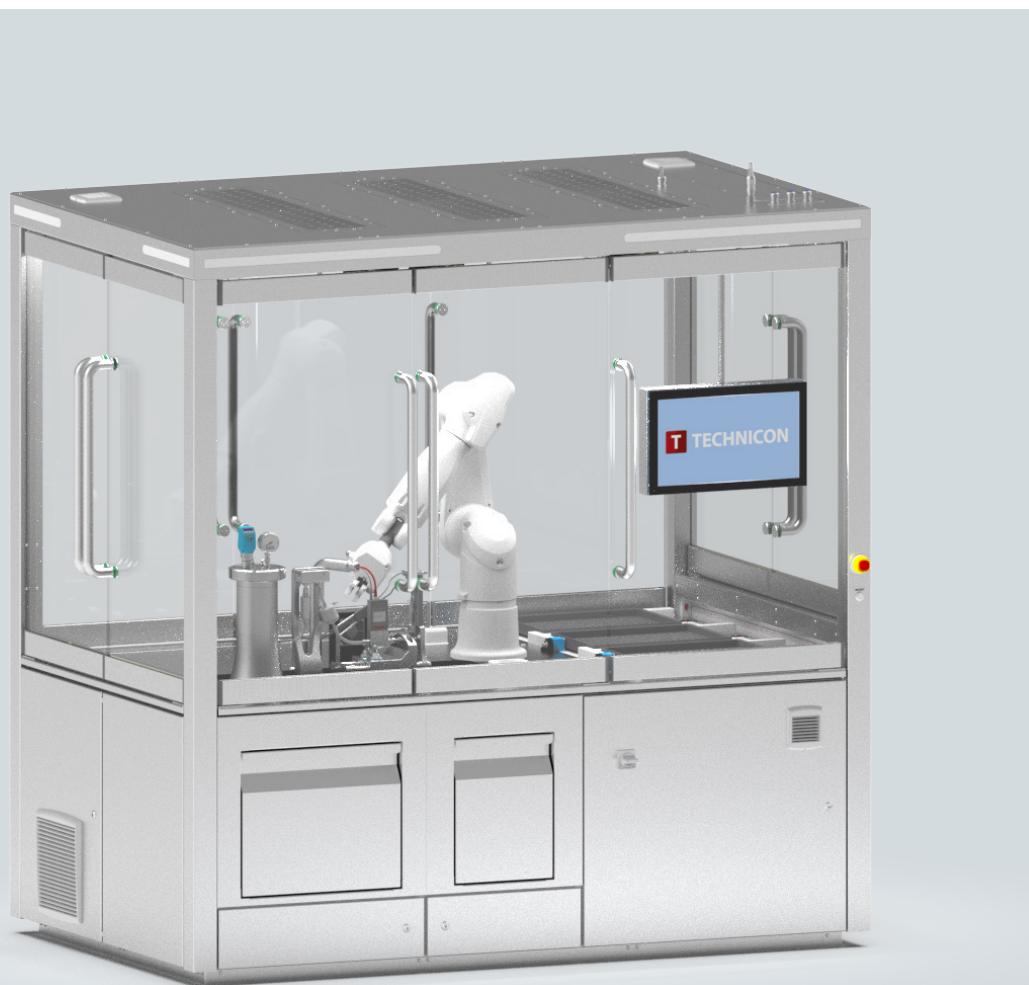
Furthermore, repetitive manual testing increases the risk of human error with the risk affecting production flow.

SOLUTION OVERVIEW

QC Module is an innovative modular robotic base unit designed for fully automated QC inspection of needles.

- It features a stable Stäubli TX260 robot equipped with a custom standard gripper and SCHUNK actuator. The solution also contains a PLC.
- The fully automated solution can be configured enabling various QC testing methods.
- It can e.g. perform systematic Force Torque Test in which tension and twist tests on raw needles are performed to verify secure attachment. An integrated QR scanner is part of the solution ensuring QC setup accuracy.





QC Module can also be configured to QC Flow Test in which an inbuilt pressure tank, automated water system and a flow sensor verify the internal diameter (of the container?) Wastewater is supplied to a mounted container concealed below the tabletop of the QC Module.

Additionally, **QC Module** can be configured to QC Bubble Test where each container is smoothly, gently and hygienically lowered into a transparent water tank in the top of the QC Module.

Two vision cameras systematically and effectively inspect each container for potential chips and cracks.

Built for 24/7 operation, **QC Force Torque** is configurable and adaptable to varying customer needs.

Simultaneously the automated solution optimize digitalizes quality enforcement, reducing paper-based processes related to current QC.

BUILT FOR 24/7 OPERATION

TECHNICON CASE

Solution Benefits



QC module is a modular and flexible fully automated robotics solution enabling systematic QC of raw needles and containers. The solution can be configured to perform various QC Test methods: Force Torque, Flow & Bubble Test.

QC module:

- + Reduces repetitive manual work.
- + Minimizes human errors.
- + Decreases paperwork providing a smoother and more efficient, digitalized QC process.