Customized Pipette System Supports Reliable Manufacturing of Molecular Diagnostics

Customer Challenge
The customer needed a liquid handling solution for preparing samples for pathogen detection using PCR. They had the following criteria:

- Reduces user-based variance and supports reproducible results, over multiple pipetting steps
- Certified, related consumables to ensure optimal performance
- Global service capability that could be accessed by all end users

Solution Provided
The collaboration involved R&D, Product Development, Product Management and Supply Chain from both parties. Following early discussions around quantities, market expectations, and feasibility, prototypes were designed, produced and evaluated.

Sartorius delivered an electronic pipette solution based on the highly versatile Picus unit with pre-loaded protocols tailored to perfectly meet the applications outlined by the client. These protocols included multi-dispensing, mixing, and electronic tip ejection.

Usability was further enhanced by dedicated charging stands, while optimally fitting DNase-, RNase-, human DNA-free filter tips eliminated contamination risk. The ergonomic design was also an important benefit, which helped to prevent repetitive stress injuries.

Mid- and long-term forecasts were established as a basis for creating supply and quality contracts with alignment from both parties.

The Global Sartorius Service Centers provide continued maintenance, calibration and repair of the pipettes to ensure full URS compliance. Regular follow-ups optimize the collaboration processes and ensure the client always has access to the latest technology.

At a Glance
- Sample preparation workflow in a customized electronic pipette
- No cross-contamination with compliant filter tips
- Global service for maintenance and calibration
- Secured supply with regular follow-ups
- Read Application Note: Top 10 Tips to Avoid Contamination in Pipetting

Outcome
Sartorius continues to provide the client with a steady supply of instruments and consumables as part of a successful 20+ year collaboration. The support of a dedicated Sartorius team has allowed the client to focus on their core business, which is the delivery of specific, sensitive and reliable diagnostics to patients.