

SWAB-TESTING by micro-Robotics



During pharmaceutical manufacturing extended cleaning measures are taken to make sure that production equipment is not a source of cross contamination between different drug batches. All residues of active pharmaceutical ingredients have to be removed to ensure that the quality of the manufactured product is not compromised by waste from previous manufacturing activities. Post production cleaning will in turn prevent issues with the following drug products. Verification of the effectiveness of the cleaning processes is of the essence.



Therefore, Good Manufacturing Processes (GMP) do not only include strict cleaning procedures, but involve extended sampling and chemical analyses to prove acceptancy criteria are met. As part of the GMP regulations in force, this cleaning validation is performed by taking a swab sample of the production equipment, followed by extraction of the swab in product-specific solvents. The subsequent chromatographic analysis and data processing are already highly automated, but sample extraction is still performed manually.



In order to eliminate this bottleneck SampleQ was contacted to replace this labor intensive step by an automated extraction solution.

In addition to increased workflow and more reproducible results, the risk of human errors and harmful solvent exposure during the liquid extraction process is greatly reduced.