



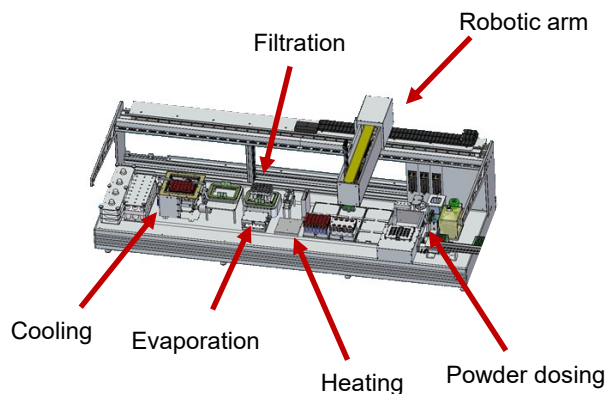
Liquid-Handling-System (LHS)

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General application and usage of LHS

- Automated systems for dosing and handling liquids
- High throughput and repeatability (e.g. 1 to 384 pipetting steps at once)
- Broad range of applications (Sample preparation, Diagnostics, biobanking, genomics, protein sciences, forensic sciences, toxicology, drug testing / development)

On-site LHS



(Manufacturer: Zinsser Analytic)

➔ Custom LHS for synthesis and downstream processing

- Semi-automatic system** (manual lid placement, ...)
- Screening, parametric studies & sample preparation (no production capacities)
- Very **flexible** due to broad range of processes (synthesis, filtration, sampling, etc.)
- Very **complex** (time-consuming process transfer)

Liquid- and solid handling

- REDI needle** (dosing of solids)
- HPLC needle** with 1000 µl syringe
- Standard needle** with 3000 µl syringe
- Slurry needle** with 3000 µl syringe
- 24er Reagent rack** each 40 ml vials (glass)
- 4er Solvent rack** each 300 ml vessel (glass)
- 6 System liquid** each 3 – 5 l canister



Modules and functions

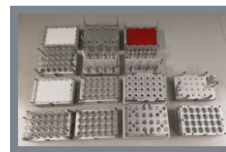
... for synthesis while constant mixing and heating or cooling



Heating
(RT – 150 °C)



Cooling
(-20 – RT)



Reactors
(1 – 20 mL)

... for downstream processing

- Filtration-rack & -station** for filtration by positive pressure or vacuum
- Liquid/liquid **extraction**
- SPE rack** for solid/liquid **extraction**
- Evaporation manifold** for **evaporation**
- Crystallization**



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