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SamplePrep

Automated sample preparation for chromatography









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1. Precision

Reduced error rates through automation

Less human input is needed and therefore less errors are caused by human inaccuracy.

Automated documentation

Every stage of sample preparation is documented electronically, including gravimetric confirmation of all volumetric sample dispensing and pipetting steps.

2. Performance

Reduced sample preparation time

Sample preparation is usually the bottleneck within the analytical process. accroma has therefore developed an automated system for samplepreparation that sets a new benchmark in precision and throughput of chromatographic sample preparation.

Laboratory costs can be significantly reduced

Especially labour costs for lead time, sample preparation and clean-up can be significantly reduced (approx.40-70%; payback period ~1 year) by using the SamplePrep.

24-hour operations

SamplePrep allows operational separation of responsibilities. E.g. laboratory technicians can set up the SamplePrepTM while operating personnel can operate the machines independently.





3. Comfort

System integration

SamplePrep can either be used as a standalone device or directly connected to a chromatographic system.

Variety

A wide range of different instruments from leading supplier scan be integrated on or connected to SamplePrep, which makes SamplePrep aversatile tool with in definite options for customised sample preparation and work flow automation.

Automatisation

When connected to a chromatographic system, it directly transfers the prepared sample to the vial holder of the autosampler and starts the analysis.

Available devices

Balance, liquid handling, grinding/extraction, shaker, ultrasonic treatment, filtration, centrifugaton, stirring, solid phase extraction, etc.

Modules in development

Solvent evaporation, heating & cooling.





4. Software Compatibility

Software integration

The software of different modules can be connected without need for further modification. This straight forward approach avoids any effect on the performance of the chromatographic system and thus avoids the need for time-consuming and costly requalification/revalidation after connection to SamplePrep.

Network of individual (small) software programs

The SamplePrep control and operation software is based on a network concept. This leads to superior adaptability to different workflows and devices.

Broader applications

The network solution enables automation of "many-to-many" situations (simultaneous work off of many workflows & many samples).

5. Applications

- Pharmaceutical
- Chemistry
- Environment
- Food





6. Technical Specifications

Dimensions (length x width x height

Weight

Sample capacity

Available devices

Liquid handling:

Sample homogenization and

solvent extraction:

Solid/liquid separation:

Addional modules:

Addional option:

Applicability:

Applied analytes:

800 x 750 x 110 cm

140 kg (depending on modules integrated

106 samples

Max. 4 channels with dispensing range from 10 µl to

500 ml;pipetting rangefrom 20 µl to 50 ml

Ball mil, ultrasonic bath, or magnetic stirrer

Filtration or centrifugation

Solid phase extraction; Analytical balance, heating &

cooling, analog I/O switches, CAN interface

Interface to chromatographic instruments or other

analytical devices

Automated sample preparation for i.e. UPLC, HPLC,

ICP/MS-, UV/VIS spectroscopy, etc.

Drug (content uniformity, assay & by-product), food

(pesticide residues, biological testing), soil (pollution control), minerals (trace metal composition), environ-

mental, forensic and clinical analysis

All steps of automated sample preparation compliant

to CFR21 part 11

