Automated Formulation Systems

- High throughput
- Integrate existing methods and equipment
- Liquids, solids and viscous liquids handling
- LIMS integration

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Automated Formulation Systems

Labman’s expert liquids, solids, and viscous liquids handling can now be integrated into automated high throughput formulation and measurement systems, specifically designed for your workflow.

Formulation Systems

Labman has manufactured formulation systems for a wide variety of industries including coatings, food, pharmaceutical, adhesives and household care products. The systems typically include a variety of liquid handling technologies and often a number of different solids handling techniques. Most systems also include heating, chilling, dilution, capping, barcode tracking and some method of mixing. Systems can also include sub-sampling and analysis of the completed formulation. Normally all dispensing is performed gravimetrically using 4 or 5 place analytical balances.

Every system we make is uniquely fitted to the customer’s specifications. As a rule we shape the robot around your workflow and not the other way around. Custom systems require a little more time commitment up front but the reward is a system which meets your needs exactly.

Case Study

Labman supplied an automated formulation and measurement system to a customer in the coatings industry in 2008. The system has accelerated a number of product launches by as much as 9 months.

Features:
- Powder handling
- Liquid additions via syringe
- Liquid additions via pump
- Integration of DAC mixer
- Capacity of 120 samples per day
- Throughput of 100 samples per day based on 15 additions
- Application of sample onto substrate
- Image analysis of coating
- Profilometry of coating
- 30,000 samples created in 2 years
- 500,000 measurements in 2 years

Advantages

Cost saving
Automating formulation allows products to be created more quickly and more efficiently

Throughput
Automated formulation systems can operate for 24 hours a day, vastly increasing throughput.

Sample size
Accurate dispensing means smaller sample size and less waste

Data and modelling
LIMS integration allows iterative design of experiments and effective data mining

Repeatability
Automated systems allow total traceability and excellent repeatability. Every single addition is logged and confirmed within tolerance

“Our Labman system takes two months off a new product development cycle and we have saved over $200,000 refining just one core product”