

System Design

- Completely closed housing with integrated exhaust
- One or two axes for different substrat sizes
Optional rotary table
- System controller with touch screen panel

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Solutions

BOSCH Lab Systems
Innovation for your paint laboratory

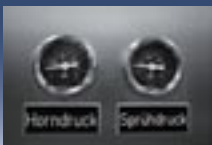
- Control and spray air pressure optionally controlled from the panel
- Spray “recipes” can be stored and reloaded
- Different spray modes:
standard, two types of thickness-gradient, cross-coat
- Spray unit compatible with 20ml and 80ml syringes
- SATA or deVilbiss spray head (other brands available on request)
- Integrated filter drawers and supply air filter
- Easy-to-use, even for untrained staff. Make test panels by a simple “press-button” operation
- Minimum cleaning and maintenance

An interdisciplinary team of hardware and software designers, engineers and chemists is at your hand for automating your workflows.

Utilizing our broad knowledge and lengthy expertise we offer straightforward solutions for commonly known as well as customer-specific problems.

Bosch Lab Systems is your partner for:

- Automation of formulation workflows for your specific requirements
- Staying ahead of your competition through more efficient development of new formulations and materials
- Development of novel tools and solutions, not yet available anywhere else on the market



Innovation for your laboratory



Bosch Lab Systems (BLS) provides technology for lab automation and high throughput experimentation.

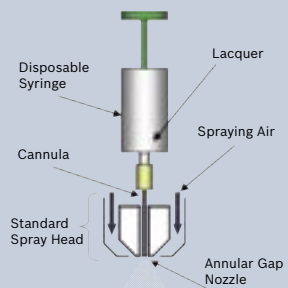
Our semi-automatic spray application allows quick and reproducible high-quality coating of substrates with different materials. The low-maintenance and reduced-cleaning design makes it ideal for use in the lab as well as for quality control. The innovative technology of the spray head makes it possible to build stand-alone and fully automated spray applications for high throughput experimentation.

Bosch Lab Systems' core competence is the transfer of customer specific workflows into highly flexible automation solutions.

Farbe & Lack-Preis 2005



Spray-Head Function



Semi-Automatic Spray Application



The Problem:

When preparing test panels in your laboratory you usually have to prepare much more coating material than really required. Furthermore you spend much more time with cleaning than with the actual coating process. Thus the number of panels you can prepare during your work hours is very limited.

Our Solution:

In the semi-automatic spray application the coating material is only in touch with a disposable cartouche. You don't have to clean when changing the material.

Homogeneous coatings can be produced with as little as 5ml of material.

A large number of test panels can be prepared in a short period of time.

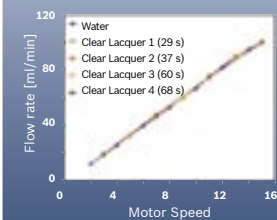


System Capabilities



- Semiautomatic application of:
 - solvent based and water based coatings
 - filled and clear paints
 - one- and two-component systems
 - spray mount
- Change of coating material within seconds without cleaning
- Wide range of materials and viscosities through volumetric dosing
- High-throughput and reliability
- Coating quality independent from operator
- Minimized solvent consumption / reduced amount of waste
- Small quantities of coating materials (from about 5ml) can be processed
- Results directly comparable with conventional spray application
- Easy-to-use
- Compatible with 20ml and 80ml syringes

Influence of Viscosity on Flow and Accuracy



Reproducibility of Layer Thickness

