



SCHEUGENPFLUG AG
METERING AND DISPENSING TECHNOLOGY

Vacuum Production and Dispensing 04 | 13

VACUUM PRODUCTION AND DISPENSING

Metering and dispensing technology today is facing requirements which include aspects of safety, security and workpiece functionality. Even the slightest impurities caused by non-homogeneously mixed dispensing media, air bubbles or cavities result in rejects.

Complex Workpieces

Often, the geometry of a workpiece is not ideally suited for perfect dispensing. The dispensing material can form gaps around edges or in corners of the workpiece. To achieve the desired quality it is therefore necessary to carry out the entire dispensing process in an evacuated environment and precisely position the work-piece while it is processed.

Ultimate Production Requirements

Excellent dispensing quality, e.g. for ultimate high-voltage resistivity or insulation, requires a consistently stable vacuum. A production process completely free of air bubbles and with effective protection against moisture is today's state of the art.

VACUUM PRODUCTION AND DISPENSING

VDS B
VDS U
VDS P



CONTROL UNITS FOR PREPARATION,
FEEDING, METERING AND DISPENSING
UVIS nano | UVIS neo



BUBBLE-FREE DISPENSING

Ultimate dispensing quality

Fast evacuation

PROCESS RELIABILITY

Perfectly reliable dispensing results

Ultimate repeat accuracy

To meet the ultimate quality requirements for electrical and electronic components

CONTROL UNIT

SCHEUGENPFLUG UVIS neo

VACUUM PRODUCTION AND DISPENSING VDS B



VDS B



VACUUM PRODUCTION AND DISPENSING VDS B

Economic Volume Production in a Vacuum With Perfect Results.

The VDS B is equipped with a Scheugenpflug dispenser for 1C and 2C dispensing media. It is a synonym for efficient volume production at ultimate quality levels. The guaranteed bubble-free, constant filling of workpieces ensures top-quality dispensing results. The increasing miniaturisation of sensitive PCBs and associated requirements for heat dissipation represent the main challenges in future dispensing technology.

Production of:

Low to medium batch sizes.
Medium-sized to large workpieces.

Self-levelling casting resins such as polyurethane, silicone, epoxy resin, oils, etc.
Particularly suited for materials sensitive to moisture.

Usage:

For excellent insulation and high-voltage resistivity; for filling and impregnating of electronic components such as coiled products, sensor arrays, and the like with vacuum bonding.

Equipment:

- Control unit UVIS neo
- Vacuum chamber with inspection glass and automatic lifting door
- Vacuum system
- Loader
- Pallet drawer
- Scheugenpflug piston dispenser

Optional:

- Pallet drawer heating
- Accepts multiple dispensers
- Heating of metering unit and machine parts in contact with dispensing material
- Pallet identification sensor
- A310 used as material preparation unit and feeding system
- Joystick for manual operation
- Upgrade option XZ-axis system
- Axes with stepper motor drive
- Cup holder for pot-life shot

Possible Uses and Configurations:

The VDS works as stand-alone system or can be integrated in production lines.

Technical Data:

- W x D x H 1000 x 2000 x 950 mm
- Power supply: 3~ 400 V, 50/60 Hz, CEE 16 A
- Max. apparent power: 7 kVA
- Max. chamber volume: 155 dm³
- Rotary vane vacuum pump:
 - Evacuation power 110 - 147 m³/h
 - Final vacuum value up to 0.1 mbar

BUBBLE-FREE DISPENSING

Fast evacuation
Ultimate dispensing quality

PROCESS RELIABILITY

Perfectly reliable dispensing results
Ultimate repeat accuracy
To meet the ultimate quality requirements for electrical and electronic components

FLEXIBLE WORKPIECE CARRIER

The workpiece carrier can be moved in three dimensions, which allows to use the vacuum chamber to its full extent
Processing of complex workpiece geometries despite the compact build

CONSISTENT PRECISION

Reliable dispensing results with repeatable accuracy

CONTROL UNIT

SCHEUGENPFLUG UVIS neo

VACUUM PRODUCTION AND DISPENSING VDS U



VDS U



VACUUM PRODUCTION AND DISPENSING VDS U

Compact System for One-Nozzle or Two-Nozzle Volume Dispensing in a Vacuum.

The VDS U is a specially designed system for volume vacuum dispensing of electronic components with one or simultaneously with two nozzles. The workpiece is positioned on a carrier. Then, a 3-axis movement system positions the workpiece correctly for dispensing. The compact design, simple operation and fast evacuation allow efficient volume production with perfect results.

Production of:

Medium to large batch sizes.
Medium-sized to large workpieces.

Self-levelling casting resins such as polyurethane, silicone, epoxy resin, etc.

Particularly suited for materials sensitive to moisture.

Usage:

For filling and impregnating of electronic components such as coiled products, sensor arrays, ignition coils, circuitry and the like.

Equipment:

- Control unit UVIS neo
- Vacuum chamber with inspection glass and automatic lifting door
- Vakuum system
- 3-axis system
- Loader
- Pallet drawer
- Scheugenpflug piston dispenser

Optional:

- Pallet drawer heating
- Accepts multiple dispensers
- Heating of metering unit and machine parts in contact with dispensing material
- Pallet identification sensor
- A310 used as material preparation unit and feeding system
- Joystick for manual operation
- Cup holder for pot-life shot

Possible uses and configurations:

The VDS works as stand-alone system or can be integrated in production lines.

Technical Data:

- W x D x H 1000 x 2000 x 1300 mm
 1000 x 2000 x 1510 mm
- Weight: approx. 750 kg
- Power supply: 3~ 400 V, 50/60 Hz, CEE 32 A
- Max. apparent power: 15 kVA
- Max. chamber volume: 155 or 367 dm³
- Rotary vane vacuum pump:
Evacuation power 110 - 340 m³/h
Final vacuum value up to 0.1 mbar

BUBBLE-FREE DISPENSING

Fast evacuation
Ultimate dispensing quality

PROCESS RELIABILITY

Perfectly reliable dispensing results
Ultimate repeat accuracy
To meet the ultimate quality requirements for electrical and electronic components

PRECISION + SPEED

Remarkably fast cycle times and precise results

PERFECT USE OF AVAILABLE SPACE

Efficient use of the vacuum chamber by the processing of complete pallets and large quantities of workpieces
Remarkably compact-sized to fit in all production environments

CONTROL UNIT SCHEUGENPFLUG UVIS neo

User-friendly programming and comfortable control unit

VACUUM PRODUCTION AND DISPENSING VDS P



VDS P



VACUUM PRODUCTION AND DISPENSING VDS P

Perfect Solution for Volume Production of Workpieces in a Vacuum.

Equipped with a high-performance vacuum pump and a Scheugenpflug multiple dispenser, the VDS P is the perfect solution for the volume production of electronic components in a vacuum.

Production of:

Medium to large batch sizes.
Multi-nozzle dispensing to process small to medium-sized workpieces in very short time.
Self-levelling casting resins such as polyurethane, silicone, epoxy resin, etc.
Particularly suited for materials sensitive to moisture.

Usage:

For filling and impregnating of electronic components such as coiled products, sensor arrays and the like.

Equipment:

- Control unit UVIS neo
- Vacuum chamber with inspection glass and automatic lifting door
- Vacuum system
- 3-axis system
- Loader
- Pallet drawer
- Scheugenpflug piston dispenser

Optional:

- Pallet drawer heating
- Accepts 2- to 8-nozzle dispensers
- Heating of metering unit and machine parts in contact with dispensing material
- A310 used as material preparation unit and feeding system
- Joystick for manual operation
- Cup holder for pot-life shot

Possible Uses and Configurations:

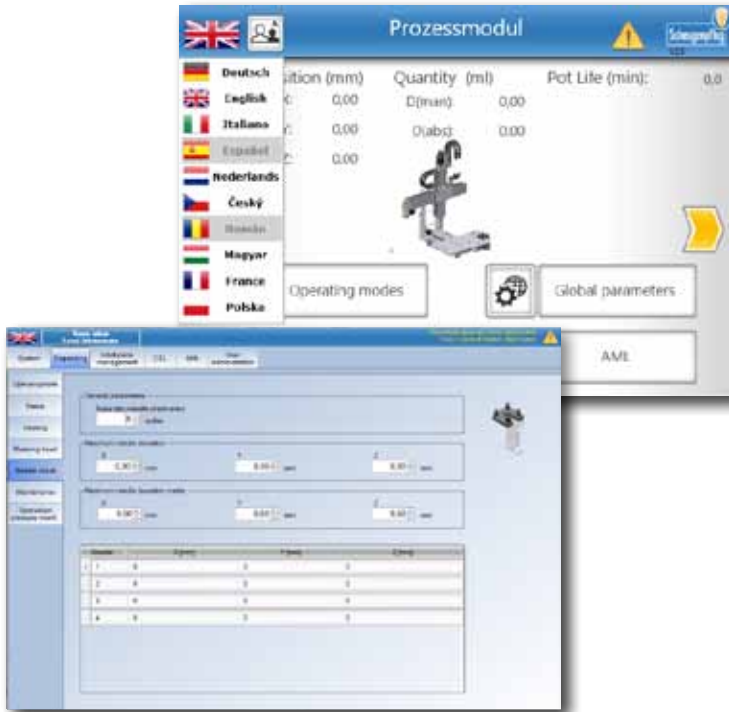
The VDS works as stand-alone system or can be integrated in production lines.

Technical Data:

- W x H x D
1000 x 2000 x 1300 mm
1660 x 2000 x 1300 mm
1980 x 2000 x 1300 mm
- Power supply: 3~ 400 V, 50/60 Hz, CEE 32 A
- Max. apparent power: 15 kVA
- Max. chamber volume: 155, 264 bzw. 317 dm³
- Rotary vane vacuum pump:
Evacuation power 110 - 340 m³/h
Final vacuum value: up to 0,1 mbar

CONTROL UNIT UVIS nano | neo

Controls Cells, Dispensing Modules and Vacuum Metering and Dispensing Systems.



Parametrisation of pre-defined processes, such as e.g.

- Start position
- Joystick-assisted teaching of movements
- Pot-life monitoring and clearing of the mixing tube or metering needle
- XYZ needle measuring and automatic track adjustment
- Weight-based quality monitoring
- Metering needle rinsing
- DIN or CNC Matrix programming to set up the CNC programs

The UVIS automation software specially developed by Scheugenpflug represents a high-performance cutting-edge control unit which is tailor made for the purpose. The controls are perfectly integrated into the system and therefore resistant to mechanical stress, heat or dirt. The Scheugenpflug visualisation makes it easy to fulfil monitoring, maintenance and analysis tasks and thus helps the operator to perform all production processes quickly and flawlessly. Process relevant data are constantly displayed to the operator. If additional modules are added to the system, the necessary interfaces are already included in the control unit.

The Benefits:

- Intuitive operation
- Full-graphics display
- PC based, state-of-the-art technology and ultimate performance levels
- Simple Matrix and free CNC programming
- Process documentation
- USB interface
- Remote control (VPN)
- Long-term availability of support and updates
- UPIC programming module for external computer or laptop
- Customisable user access rights

UVIS nano

- DIN ISO 9241 compliant 6.5" touch screen display
- Online language selection (DE, EN, IT, NL, CS, HU, FR, PL)

UVIS neo

- DIN ISO 9241 15" touch screen display
- Online language selection (DE, EN, HU)

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