

# Vacuum Potting Systems

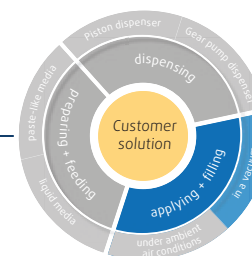
## Different Systems for the Highest Quality Requirements

A vacuum process is worth considering if reliable and safe operation of the workpiece must be guaranteed over its entire service life. This is particularly true for the maximum high-voltage or insulating resistance of workpieces and for highly complex workpiece geometries. When corners and edges create potential gaps, these gaps can collect air bubbles during potting, which could later result in faults or complete failure of the components. The same is true for transformers, batteries, motors and ignition coils, for instance, where very fine air bubbles may remain in their coils.

This can be prevented by potting in a vacuum. In addition to providing a continuous, safe vacuum, the most important factors here are no bubbles and effective protection against moisture. You should expect no more and no less from our four systems, which can be modularly adapted to the particular applications. A dispenser for 1C or 2C potting media is a standard feature of these systems. Bubble-free provision of the material is handled by one of the A310 preparation and feeding units [see page 46].



System solution example:  
VDS P with Dos P-X dispenser, 2 component, 4 nozzles,  
A310 60/20 preparation and feeding unit, 2 component



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LeanVDS U with Dos P016 dispenser, 2 component, 1 nozzle;  
A310 60/20 preparation and feeding unit, 2 component



VDS B with Dos P050 dispenser, 2 component, 1 nozzle;  
A310 60/20 preparation and feeding unit, 2 component



Operation via  
SCP210 Control Unit

**LeanVDS U** This compact entry-level system provides high-quality, efficient potting in a vacuum. With this system, unsafe post-evacuation is a thing of the past. Due to its small footprint, the LeanVDS U is ideal for **laboratory, prototype and small batch production**.



Operation via  
UVISs Control Unit

**VDS B** This model has been optimized for **large to very large workpieces**. Omitting axes allows it to provide **efficient, high quality potting** of large workpieces such as alternator coils, for which traversing the workpiece geometry is not necessary.



Info: Learn more about the LeanVDS



Video: LeanVDS – Vacuum potting for entry-level users



Info: Learn more about the VDS B

Combination options	LeanVDS U	VDS B
Compatible dispensers	Dos P016	Dos P016 Dos P050 Dos P100 Dos P300 (single outlet only)
Compatible preparation and/or feeding units	A310	A310

Product data	LeanVDS U	VDS B
Axis speed max. [mm/s]	160	--
Evacuation time at 10 mbar [s]	90 (standard) 35 (upgrade)	40
Absolute final vacuum pressure [mbar]	5 (standard) 3 (upgrade)	5
Pallet drawer <sup>1</sup> (W x D) [mm]	--	650 x 400
Traversing range max. (X x Y x Z) [mm]	180 x 180 x 100	--
Dimensions (W x H x D) [mm]	790 x 2150 x 732	1000 x 2200 x 1700
Weight <sup>2</sup> [kg]	250	700

<sup>1</sup> without cup

<sup>2</sup> without vacuum pump

Request data sheet



Let's talk about your project:  
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## Vacuum Potting Systems

superior potting quality

wide range of uses  
short cycle times

VDS U with Dos P050 dispenser, 2 component, 1 nozzle;  
A310 60/20 preparation and feeding unit, 2 component



VDS P with Dos P-X dispenser, 2 component, 4 nozzles;  
A310 60/20 preparation and feeding unit, 2 component



Operation via  
UVIS Control Unit

**VDS U** Fast reaction to product changes – a strength of universal systems. The universal vacuum potting system can handle the batch production of **medium to large sized workpieces**. With its three traversing axes, this system is equally suitable for potting multiple parts in a single pass as well as for complicated workpiece geometries or more complex potting programs.



Operation via  
UVIS Control Unit

**VDS P** Processes with short cycle times are no challenge for our VDS P(ower) vacuum potting system. With up to three traversing axes, automatic cup positioning and multi-piston dispenser (2 to 12 nozzles, more upon request) [see page 30], as many workpieces as possible are processed in an even grid at the same time per evacuation process. This makes it possible to achieve **high part throughput per time unit** while maintaining the same high quality potting results. The VDS P offers all the advantages of the VDS U, including higher performance.

[Info](#): Learn more about the VDS U

[Info and Video](#): Learn more about the VDS P



## Bubble-free vacuum potting of large batches

As an integration solution, the VDS P also offers maximum performance: It is integrated into a fully automated line for large-scale production. The system guarantees bubble-free and economical vacuum potting of electronic components which are used in the field of renewable energies.

You can learn more about this integration solution on page 102.

Combination options	VDS U	VDS P
Compatible dispensers	Dos P016 Dos P050 Dos P100 Dos P300 (single outlet only)	Dos P-X (4 to 12 nozzle outlet)
Compatible preparation and/or feeding units	A310	A310

Product data	VDS U			VDS P		
	U1000	U4030-550	U4030-650	P1000	P6030	P8030
Axis speed max. [mm/s]	160			160		
Evacuation time (at 10 mbar) [s]	40 (standard)	40	52	40 (standard)	35	38
Absolute final vacuum pressure [mbar]	5 (standard) 3 (upgrade)	3		5 (standard) 3 (upgrade)	3	
Pallet drawer <sup>1</sup> (W x D) [mm]	300 x 200	400 x 300		400 x 300	600 x 300	800 x 300
Traversing range max. (X x Y x Z) [mm]	405 x 170 x 200	500 x 320 x 200		405 x 85 x 200	720 x 85 x 200	920 x 85 x 200
Dimensions (W x H x D) [mm]	1000 x 2350 x 1700			1000 x 2350 x 1700	1660 x 2350 x 1700	1980 x 2000 x 1700
Weight <sup>2</sup> [kg]	700		800	700	670	900

<sup>1</sup> without cup

<sup>2</sup> without vacuum pump

[Request data sheet](#)



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## Dispensing

## Preparation and Feeding

## Atmospheric Dispensing

## Potting in a Vacuum

## Control and Operation

## Customization

## Services

## Network