

# VACUA.ZERO

## Dispensing system

### CNC in vacuum



Industry 4.0 Vacuum Potting Dispensing Cell



**CNC vacuum dosing system** for high-performance operations with attention to detail and advanced features:

- **AISI 304 stainless steel chamber:** resilient and durable.
- Piston volumetric metering head (DOP): precise dispensing, including multi-nozzle capabilities.
- Vacuum monitoring: vacuum level down to 1 mbar absolute, with precise pneumatic solenoid valves.
- Motion and dispensing interpolation for a simplified and repeatable process.
- Remote control via SCADA and/or PLC.
- Quick production changeovers thanks to sophisticated software, compatible with all browser-equipped devices.
- Integration with factory computer systems and other machines.
- Teach programming with joystick (JOG).
- Integrated weight control (BIL).
- 3D G-code programming tool *G-Sketcher*.
- Temperature management (RIT).
- Management of external feeding systems (vacuum tanks).

#### Key features

The 4.0 solution, featuring a welded AISI 304 stainless steel chamber, handles self-leveling resins, including those with fillers, polyurethanes, epoxies, and silicones. It integrates piston heads (DOP), with multi-nozzle options, to optimize production.

#### Main applications

The system enables encapsulation of a wide range of components, including transformers, windings, sensors, capacitors, PCBs, and mechanical components with silicone oil, such as linear and rotary dampers.

#### Industrial fields

Our system has been successfully adopted by major international industrial leaders in a wide range of sectors, including electrical, electronic, automotive, aerospace, chemical, and medical.



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Description	Value
Power supply	3 ~ 400V, 50/60 Hz CEE 16 A
Evacuation time	< 60 sec (20 mbar)
Residual vacuum val.	up to 1 mbar
Working area XYZ (mm)	up to 800 x 350 x 150
Max load on axis table (kg)	100
Maximum Piece/Pallet Dimensions with XYZ Axis (mm)	(200/400) x 330 x 150
Compatible metering head	Piston metering head DOP, 1-4 folds

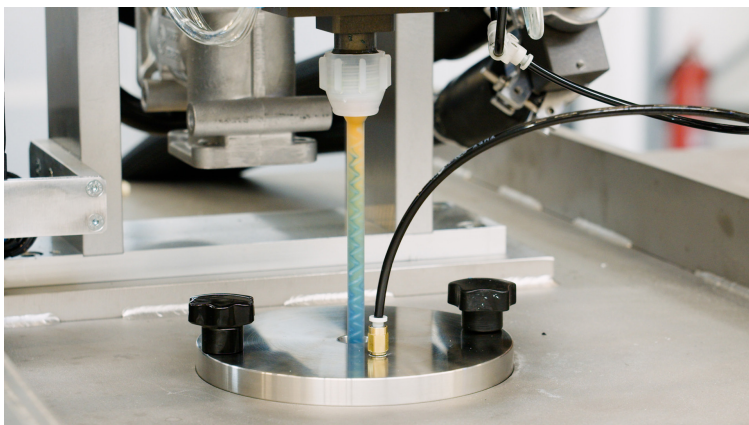
Safety Safety PLC (SIL-3)

## Features

- Welded AISI 304 stainless steel chamber with tempered glass top view.
- Pneumatic front door with tempered glass.
- Internal LED lighting.
- Multi-axis interpolated CNC system for handling and dispensing.
- ISO G-Code programming with dedicated commands for vacuum level and dispensing.
- Display of time/pressure cycle charts for detailed operation monitoring.
- Presence and pallet positioning sensors.
- Safety PLC, position sensors (SIL-3).
- Remote control via dry-contacts and TCP/IP.
- Industry 4.0 certifiable.
- Integration with factory computer systems (ERP/MES).
- *G-Sketcher* software for 3D programming.

## Optionals

- Single or multiple nozzle (DOP) for maximizing productivity.
- Integrated material preparation management.
- Use of joystick for teach programming mode (JOG).
- In-line solution with double automatic door and automatic loader to optimize workflow.
- Integrated weight control (BIL).
- Pre-heat temperature control.
- I/O for vision system and quality control (barcode).



Seal Flange for Static Mixer



Antidrip valve for vacuum