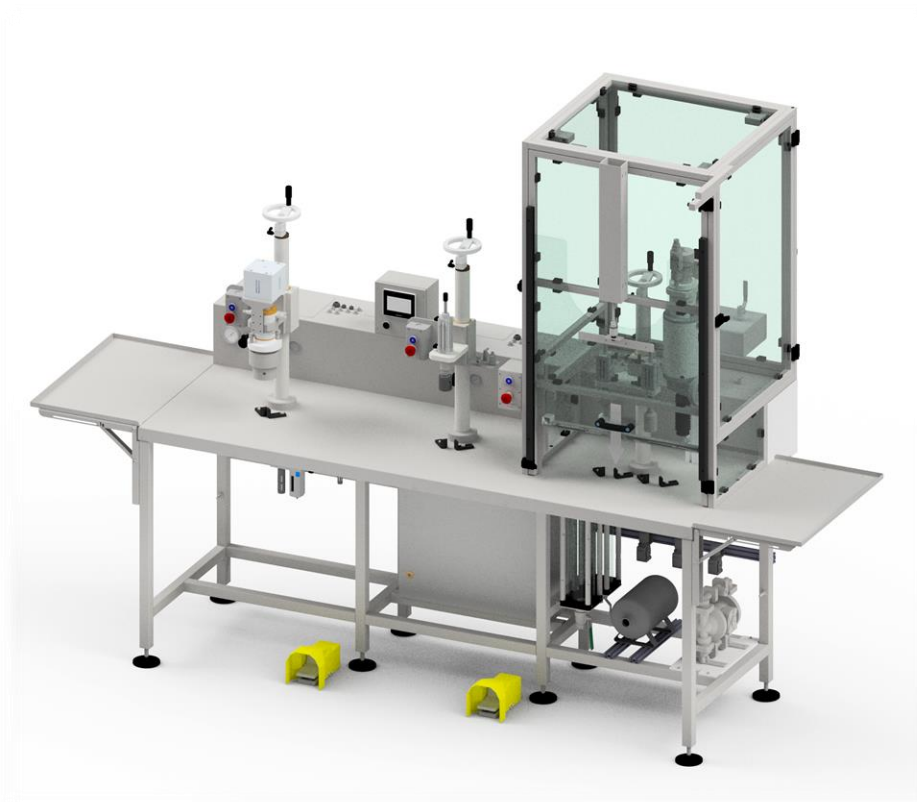


## LABORATORY BOV FILLING SYSTEM

TYPE: Z-2368



### **SYSTEM EQUIPMENT:**

- Stainless steel table with an integrated pneumatic control for all working modules;
- BOV crimping module with pre-gasifying;
- Pre-gassing pressure testing module;
- BOV product filling module;
- Valve cleaning system;
- Additional vacuum reservoir for improved cleaning;
- Product pump;
- Optional: filter for pressure testing medium;
- Connection lead for the product;
- Connection lead for propellant (compressed air or nitrogen);
- Aerosol valve crimp measuring instruments;
- Laboratory BOV probe.



**BOV Crimping Module** is a device used for crimping Bag-On-Valves onto aerosol containers after pre-gassing them (UTC-filling) with compressed air or nitrogen.

**Pressure testing module** is intended to control the pre-gasifying pressure (pressure of propellant outside the bag) – using specially designed pressure checking head which injects specified dose of gas (air, nitrogen) inside the bag, measures output pressure and removes the injected gas from the bag. The system comprises of measuring head and additional cabinet added to the mechanical structure of the machine. The cabinet encloses the rest of components like the dedicated PLC, HMI touch panel, pressure sensor and acoustic indicator. HMI touch panel displays the measured pressure value and, through an intuitive interface, allows to define the lower and the upper limits of acceptable pre-gasifying pressure range. The acoustic indicator (a buzzer) signals the incorrect pressure (outside the set range).

**BOV Filling Module** is a device designed for filling the bag with liquid product through Bag-On-Valves crimped on the aerosol container. The amount of the dosed product is adjusted in the range of 5 - 510 ml (for product cylinder  $\varnothing 50$  mm) with tolerance up to  $\pm 0.5$  ml<sup>1</sup>.

**Valve Cleaning module** – cleans the valve's cup and stem after filling utilizing vacuum system. The additional vacuum reservoir improves the cleaning process with the ability to dispense a rinsing mist into valve's cup and stem before the vacuum system starts. A dedicated tank for supplying the detergent is installed inside safety frame. The capacity of the tank is around 5 liters. All residues collected by vacuum system are transported to the drain tank which has 10 liters of capacity.

#### Operational parameters

Production capacity:	420 ÷ 1200 pcs/h (7 ÷ 20 pcs/min). Effective capacity depends on filling dose, aerosol valves type, production organization and operator's experience. Standard assumption is: Up to 1200 pcs/h (20 pcs/min) for 100 ml dose; Up to 900 pcs/h (15 pcs/min) for 200 ml dose; Up to 420 pcs/h (7 pcs/min) for 500 ml dose;
Range of dosage:	Depending on order (up to 510 ml)
<sup>1</sup> Dosing tolerance:	$\pm 0.5$ ml for 100 ml dose; $\pm 0.7$ ml for 200 ml dose; $\pm 1.0$ ml for 500 ml dose;

#### Dimensions and weight

Width:	Max 3075 mm (2300 mm with tables folded)
Length:	945 mm
Height:	2230 mm (+/- 50 mm of adjustment)
Mass:	610 kg

#### Supply and connections

Supply type:	Pneumatic and electric
Air supply pressure:	0.8 ÷ 1.0 MPa (8 ÷ 10 bar)
Air consumption:	Up to 30 m <sup>3</sup> /h for max product dose
Compressed air quality:	CLASS IV according to ISO 8573-1
Pneumatic connection:	External G $\frac{1}{2}$ " BSPP
Supply voltage:	230V, 50Hz
Power:	60 W
Product connection:	External G $\frac{1}{2}$ " BSPP (with 60° cone)

