

# DISPENSER



## BOECO GP SERIES BOTTLE-TOP DISPENSER

Drawing quantities of liquids from large supply bottles is a daily routine in the lab. This manual task must be carried out quickly, accurately, reproducibly, simply and safely.

BOECO GP Series bottle-top dispensers are instruments with proven precision that offer many advantages in routine liquid-handling operations. The positive displacement piston in this instrument is equipped with a fluoroplastic (PFA) sealing lip on the cylinder wall. This acts like a windscreen wiper to prevent crystal build-up on the cylinder wall from readily crystallisable media. The glass cylinder is also coated with a plastic material that reduces the risk of splashes should breakage occur. The telescopic filling tube can be adjusted smoothly to the height of the bottle.

Since the materials in contact with the media (Borosilicate glass, Al<sub>2</sub>O<sub>3</sub>-ceramic, ETFE, FEP, PFA, PTFE, platinum-iridium, PP (closure cap) are resistant to most acids, bases, and solvents, BOECO GP Series bottle-top dispensers can be used in practically any operation with salt solutions, acids, bases and many organic solvents.

BOECO GP Series bottle-top Dispensers are completely autoclavable at 121°C (2 bar) according to DIN EN 285

Also available with DAkkS calibration certificate or individual quality certificate.

Manufactured in Germany in accordance with ISO 9001:2008 / ISO 14001:2009 quality and environmental standards.

### Limits and operating exclusions

Use Temperature from +15 °C to +40 °C of instrument and reagent  
Steam pressure: max. 600 mbar; Kinematic Viscosity up to: max. 500 mm<sup>2</sup>/s  
Density: max. 2.2 g/cm<sup>3</sup>

Liquids attacking Al<sub>2</sub>O<sub>3</sub>-ceramic, ETFE, FEP, PFA and PTFE (e.g. dissolved sodium azide)

Liquids attacking borosilicate glass (e.g. hydrofluoric acid)

Nitric acid > 60 %, Tetrahydrofuran, Trifluoroacetic acid.

Explosive liquids (e.g., carbon disulfide)

Suspensions (e.g. of charcoal) as solid particles may clog or damage the instrument. Liquids attacking PP (Closure cap)

**BOECO GP Series Bottle-Top Dispenser, complete with 3 or 5 adapters (PP), telescopic filling tube, mounting tool, instruction manual, quality certificate, without reservoir bottle.**

| Code        | Volume          | Thread at the dispenser | Adapters          | Filling Tube | Increment | Inaccuracy | Imprecision |
|-------------|-----------------|-------------------------|-------------------|--------------|-----------|------------|-------------|
| BOE 9900225 | 0,2 - 2,0 ml    | 45                      | GL25/28/32/38/S40 | 125-240 mm   | 0,05 ml   | ± 0,5 %    | 0,1 %       |
| BOE 9900550 | 0,5 - 5,0 ml    | 45                      | GL25/28/32/38/S40 | 125-240 mm   | 0,10 ml   | ± 0,5 %    | 0,1 %       |
| BOE 9900110 | 1,0 - 10,0 ml   | 45                      | GL25/28/32/38/S40 | 125-240 mm   | 0,20 ml   | ± 0,5 %    | 0,1 %       |
| BOE 9902525 | 2,5 - 25,0 ml   | 45                      | GL32/38/S40       | 170-330 mm   | 0,50 ml   | ± 0,5 %    | 0,1 %       |
| BOE 9905050 | 5,0 - 50,0 ml   | 45                      | GL32/38/S40       | 170-330 mm   | 1,00 ml   | ± 0,5 %    | 0,1 %       |
| BOE 9901100 | 10,0 - 100,0 ml | 45                      | GL32/38/S40       | 170-330 mm   | 1,00 ml   | ± 0,5 %    | 0,1 %       |

### Accessories and Spare Parts for BOECO GP Dispensers

| Code        | Description  |
|-------------|--|
| BOE 1678210 | Telescopic filling tube 70-140 mm for volume 2/5/10 ml                 |
| BOE 1678212 | Telescopic filling tube 125-240 mm for volume 2/5/10 ml                |
| BOE 1678214 | Telescopic filling tube 195-350 mm for volume 2/5/10 ml                |
| BOE 1678216 | Telescopic filling tube 250-480 mm for volume 2/5/10 ml                |
| BOE 1678218 | Telescopic filling tube 170-330 mm for volume 25/50/100 ml             |
| BOE 1678220 | Telescopic filling tube 250-480 mm for volume 25/50/100 ml             |
| BOE 1678132 | Flexible discharge tube, PTFE, 80 cm, for volume 2/5/10 ml             |
| BOE 1678134 | Flexible discharge tube, PTFE, 80 cm, for volume 25/50/100 ml          |
| BOE 1671090 | Drying tube  |
| BOE 1671683 | Sealing ring for valve block (PTFE) for dosing highly volatil media    |
| BOE 1671682 | Ventilation plug for micro filter (PP) with Luer-cone and sealing ring |

### Adapters

| Code        | Bottle neck / Dispenser |
|-------------|-------------------------|
| BOE 1670150 | 25/32                   |
| BOE 1670155 | 28/32                   |
| BOE 1670165 | 38/32                   |
| BOE 1670170 | 40/32                   |
| BOE 1670175 | 45/32                   |
| BOE 1670085 | 32/38                   |
| BOE 1670110 | 38/45                   |
| BOE 1670120 | 40/45                   |

## BOECO SA-SERIES BOTTLE-TOP DISPENSER

designed to handle dispensing of liquid from wide range of bottle and flasks. The BOECO SA Series dispensers are intended for the safe and reproducible liquid distribution.

### Innovative

- ▶ Unique piston mechanism allows cleaning of the piston and cylinder without disturbing the calibration
- ▶ Spring-less valve design leads to smooth functioning and high chemical resistance

### Perfect Handling

- ▶ Discharge tube with 360° rotating makes the bottle label visible all the time
- ▶ Ease of volume setting with locking mechanism
- ▶ Telescoping filling tube compatible with different sizes of reagent bottles
- ▶ Comes with 4 additional adapters for common bottle sizes
- ▶ Easy dispensing and fast priming

### Key features

- ▶ Excellent chemical resistance
- ▶ Permanent fluid path visible
- ▶ Robustness with long lasting performance
- ▶ Hassle free maintenance and cleaning
- ▶ Easy to calibrate and adjust in order to comply with ISO 8655-5 standards
- ▶ Can be autoclaved for sterile application 121°C

### Safety

- ▶ Replaceable filling and discharge valve with safety ball
- ▶ The glass barrel is protected by a transparent plastic sleeve, which prevents the user from cuts and splashes if the glass breaks
- ▶ Drip-free discharge tube holder to restrict tubing movement

### Application

The BOECO SA dispenser supports a very wide range of applications for the dispensing of aggressive reagents - directly from the supply bottle: Such as concentrated bases and acids like H<sub>3</sub>PO<sub>4</sub>, H<sub>2</sub>SO<sub>4</sub> (with certain exceptions such as HCl, HNO<sub>3</sub>, HF, etc.), saline solutions, and a variety of organic solvents.

Specially for use in trace analysis for dispensing high-purity and highly concentrated acids and salt solutions, acids, alkalis and many organic solvents as well as hydrogen peroxide, bromine.

### Material in contact with media

Borosilicate glass, Al<sub>2</sub>O<sub>3</sub>-ceramic PFA, FEP, PTFE, ETFE and PP (Bottle screw cap).

### Limits and operating exclusions

Temperature: +15 °C to +40 °C

Steam pressure: max. 500 mbar

Viscosity: max. 500 mm<sup>2</sup>/s

Density: max. 2.2 g/cm<sup>3</sup>

Liquids attacking ETFE, FEP, PFA and PTFE (e.g. dissolved sodium azide)

Liquids attacking borosilicate glass (e.g. hydrofluoric acid)

Hydrochloric acid > 20 % and nitric acid > 30 %

Tetrahydrofuran, Trifluoroacetic acid

Explosive liquids (e.g. carbon disulfide)

Suspensions (e.g. of charcoal) as solid particles may clog or damage the instrument.

Liquids attacking PP (Bottle screw cap)



**BOECO SA Series Bottle-Top Dispenser, complete with 4 adapters (PP), telescopic filling tube, spanner, instruction manual, quality certificate and calibration report, without reservoir bottle.**

| Code        | Volume        | Thread at the dispenser | Adapters     | Increment | Inaccuracy | Imprecision |
|-------------|---------------|-------------------------|--------------|-----------|------------|-------------|
| BOE 9680002 | 0,25 - 2,5 ml | 32                      | 28//38/40/45 | 0,05 ml   | ± 0,6 %    | ± 0,2 %     |
| BOE 9680005 | 0,50 - 5,0 ml | 32                      | 28//38/40/45 | 0,10 ml   | ± 0,5 %    | ± 0,1 %     |
| BOE 9680010 | 1,0 - 10,0 ml | 32                      | 28//38/40/45 | 0,20 ml   | ± 0,5 %    | ± 0,1 %     |
| BOE 9680025 | 2,5 - 25,0 ml | 32                      | 28//38/40/45 | 0,50 ml   | ± 0,5 %    | ± 0,1 %     |
| BOE 9680050 | 5,0 - 50,0 ml | 32                      | 28//38/40/45 | 1,00 ml   | ± 0,5 %    | ± 0,1 %     |