

# 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 Partes 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 %