

Single-Use bags for OrbShake Bioreactor SB10-X

Kuhner EquipNote

by Kuhner shaker



Overview Kuhner single-use bags

	Basic bag	Standard bag	Perfusion bag
Optical sensors for pH and DO and tubes		x	x
Suitable for *ATF perfusion	x	x	x
Two exhaust filters			x
Additional tubes and ports for **TFF perfusion			x
	Recommended Application x = possible x = recommended		
Batch	x	x	x
Fed Batch	x	x	x
Continuous batch	x	x	x
**TFF perfusion			x
*ATF perfusion	x	x	x
Microcarrier cultivation	x	x	x

* Alternating Tangential Flow Filtration

** Tangential Flow Filtration

Kuhner single-use bags deliver:

- Bags are proven for a broad range of different cell lines
- All bags are made using the same plastic material and components
- Components fulfill USP Class VI
- TSE/BSE declaration (animal free)
- Standard designs are available from stock
- Leachable data available on request
- Custom-made bags and tube connections are possible



Benefits:

- Fast and simple set up
- No additional mixing device
- No contamination

Description

Kuhner offers three different types of single-use bag to meet our users needs. These gamma-irradiated bags are sold in packs of three and require no installation of an impeller or invasive mixer, enable quick set up times and eliminate elaborate cleaning and sterilization procedures.

Volume

Each bag has a working volume from 4 liters up to 12 liters. Various ports are incorporated to allow feeding, inoculation, harvesting and sampling, as well as adding acid and base.

Specifications

The standard bag (SMX760001) and perfusion bag (SMX760003) feature built in pre-calibrated optical chemosensors allowing non-invasive online measurement and control of pH and DO. The standard bag is also suitable for ATF perfusion. The basic bag (SMX760002) features the same design as the standard bag but without the optical pH/DO sensors.

The perfusion bag (SMX760003) has two exhaust filters and is equipped with additional tubes and ports for TFF perfusion. ATF perfusion is possible as well. All bags use 3 layers of film. The contact layer is low density Polyethylen (LDPE).

Order information

- SMX760001** Standard disposable bag SB10-X (H)
- SMX760002** Basic disposable bag SB10-X (H)
- SMX760003** Perfusion disposable bag SB10-X (H)

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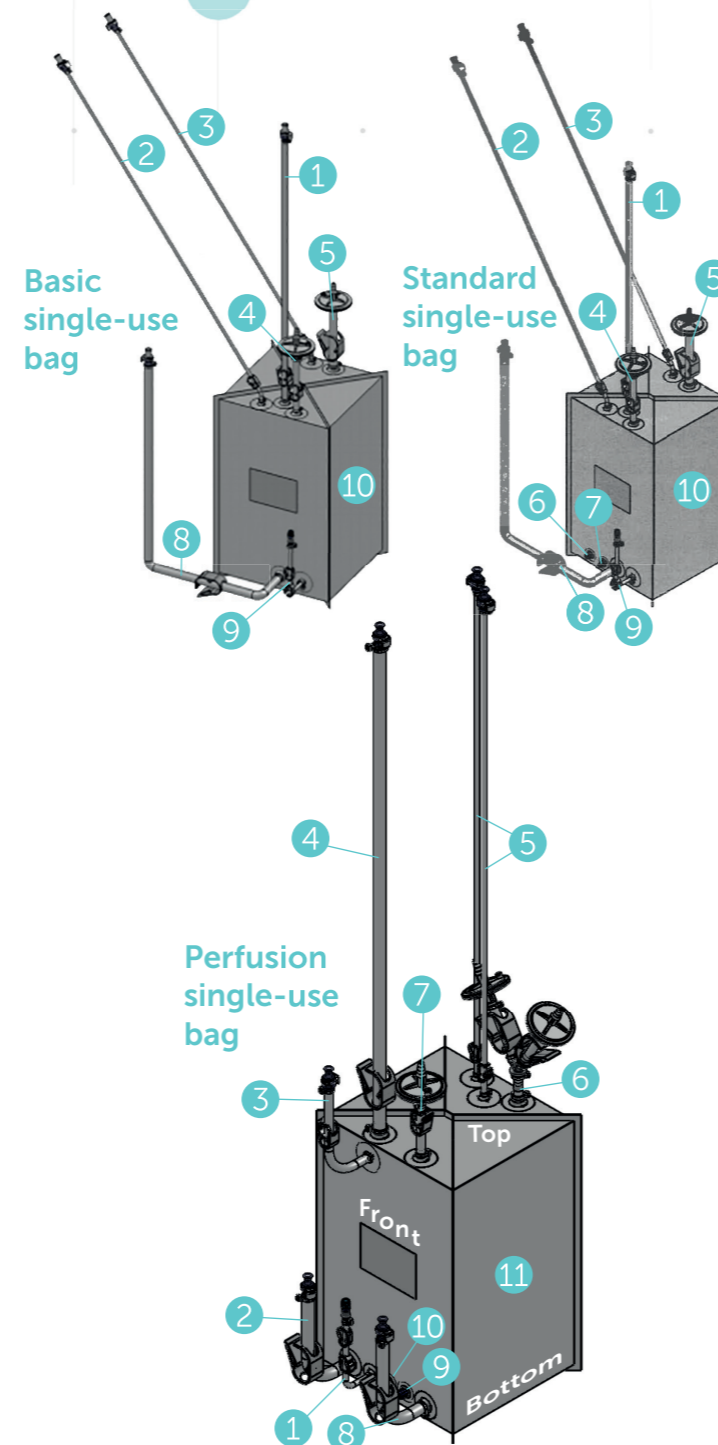
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Standard and basic single-use bags specifications

Pos.	Function	Description
1	infilling	1/4" ► thermoplastic tube ID 1/4"x OD 7/16"x length 600mm ► MPC coupling 1/4" with cap
2	feeding / fresh medium	1/8" ► thermoplastic tube ID 1/8"x OD 1/4"x length 800mm ► MPC coupling 1/8" with cap
3	addition acid / base	1/8" ► thermoplastic tube ID 1/8"x OD 1/4"x length 800mm ► MPC coupling 1/8" with cap
4	gas flow in	1/4" ► thermoplastic tube ID 1/4"x OD 7/16"x length 120mm ► bidirectional filter 0.2 µm (PALL ACRO® 50 EMFLON® II)
5	exhaust gas	3/8" ► thermoplastic tube ID 3/8"x OD 5/8"x length 140mm ► bidirectional filter 0.2 µm (PALL ACRO® 50 EMFLON® II)
6*	pH measurement	optical chemosensor pH (PreSens) range pH 5.5 - pH 8.5
7*	DO measurement	optical chemosensor DO (PreSens) range 0 % - 100 % DO
8	harvest	3/8" ► thermoplastic tube ID 3/8"x OD 5/8"x length 1000mm ► MPC coupling 3/8" with cap
9	sampling	1/8" ► thermoplastic tube ID 1/8"x OD 1/4"x length 180mm ► luer lock female ► injection port with cap
10	bag material	outer layer: PE gas barrier: EVOH fluid contact layer: LDPE
Delivery		bag is delivered fully assembled and gamma irradiated
Compliance data		technical data and leachable study available



Perfusion single-use bags specifications

Pos.	Function	Description
1	sampling	port 1/8" ► thermoplastic tube 1/8" x 1/4" x 180 mm ► luer lock female ► injection port ► protection cap
2	TFF out / ATF / fresh medium / draining	port 3/8" ► thermoplastic tube 3/8" x 5/8" x 120 mm ► MPC coupling 3/8" with cap
3	TFF in / fresh medium / feeding	thermoplastic dip tube 1/4" x 7/16" x 330 mm ► port 1/4" ► thermoplastic tube 1/4" x 7/16" x 120 mm ► MPC coupling 3/8" with cap
4	infilling	port 3/8" ► thermoplastic tube 3/8" x 5/4" x 800 mm ► MPC coupling 3/8" with cap
5	acid / base	port 1/8" ► thermoplastic tube 1/8" x 1/4" x 800 mm ► MPC coupling 1/8" with cap
6	exhaust gas	port 3/8" ► thermoplastic tube 3/8" x 5/8" x 40 mm ► Y-part 3/8" ► 2 x thermoplastic tube 3/8" x 5/8" x 80 mm ► filter 0.2 µm
7	gas flow in	port 1/4" ► thermoplastic tube 1/4" x 7/16" x 100 mm ► filter 0.2 µm
8	harvest / 2 nd ATF	port 3/8" ► thermoplastic tube 3/8" x 5/8" x 120 mm ► MPC coupling 3/8" with cap
9	pH measurement	optical chemosensor pH (PreSens)
10	DO measurement	optical chemosensor DO (PreSens)
11	bag material	outer layer: PE gas barrier: EVOH fluid contact layer: LDPE
Delivery		delivered fully assembled and gamma irradiated
Compliance data		material specifications and leachable data available on request

ID Inner Diameter x OD Outer Diameter

* basic bag has no pH/DO

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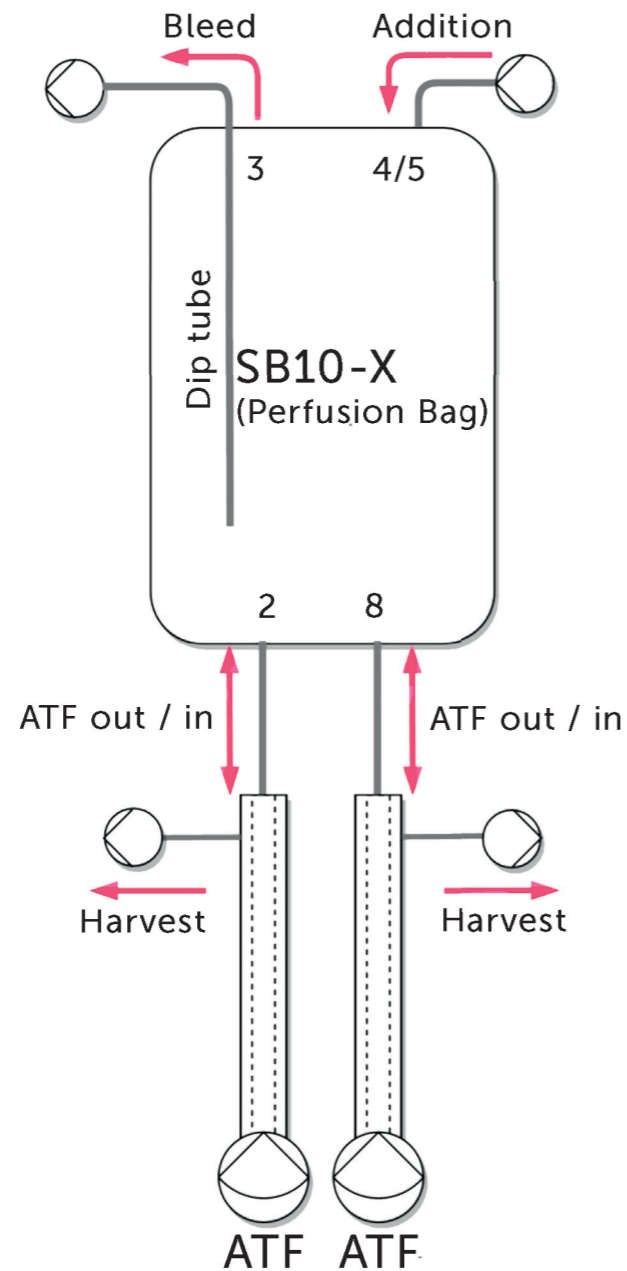
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SB10-X: Perfusion Bag - Process schematic ATF / TTF

Alternating tangential flow filtration (ATF)



Tangential flow filtration (TFF)

