

# Ambr® 15 Cell Culture Generation 2

Options, Accessories and Consumables Simplifying Progress



# Ambr<sup>®</sup> 15 Cell Culture Generation 2

## System Configuration Options

## System Configurations

Ambr® 15 Cell Culture Generation 2 system is available in the following configurations;

- 24 vessel system standard
- 24 vessel system cooled
- 48 vessel system standard
- 48 vessel system cooled

Cooled systems include extended low temperature 20 - 40°C range and additional chilled plate positions.





#### Integrated at-line analyzers

The following at-line analyzers can be integrated with the Ambr® 15 Cell Culture systems;

- Ambr<sup>®</sup> Analysis Module for pH and spectroscopy
- Nova Biomedical BioProfile® FLEX2 for cell counting, pH and metabolite analysis
- Vi-CELL XR for cell counting
- Roche Cedex HiRes for cell counting

See page 4 for further details.



## Further Options and Accessories

#### **Rapid Vessel Drain Option**

Capability to rapidly remove large volumes of culture or spent media from each Ambr<sup>®</sup> microbioreactor in a single step. See page 5 for further details.

### **Deck Furniture**

Additional deck furniture available for setting up pipette tip boxes, plates, tip box lids and plate lids in the flexible positions on the right hand side of the deck. See pages 6 and 7 for further details.

#### **Centrifuge Adapters**

Centrifuge adapters designed to hold Ambr<sup>®</sup> 15 Cell Culture microbioreactors for centrifugation steps as part of perfusion mimic operations, media exchanges and end-point harvesting. See page 6 for further details.

## Integrated At-Line Analyzers

For further information please see the Integrated Cell Culture Analyzers brochure

### Ambr<sup>®</sup> Analysis Module

Supply and integration of analysis module for at-line pH measurements, or for both pH and spectroscopy analysis.



#### Beckman Coulter Vi-CELL XR cell counter

Integration with customer supplied Vi-CELL XR for cell counting.



## Nova Biomedical BioProfile® Flex2 cell culture analyser

Integration with customer supplied Nova Flex2 and ESM (external sampling module) for cell counting, pH and metabolites analysis.



## Roche Cedex HiRes cell counter

Integration with customer supplied Cedex HiRes for cell counting.



# Further Options and Accessories

### **Rapid Vessel Drain Option**

Rapid Vessel Drain is available as an option (new systems) or as a field upgrade (existing systems) for Ambr® 15 Cell Culture Generation 2. Please note it is not compatible with Ambr® 15 Cell Culture Generation 1 or Fermentation systems.

Includes a dedicated 1 mL vessel drain pipette mandrel, external vessel drain pump, rapid vessel drain software steps, pump tubing set and 2 L vessel drain waste container.

## Pipette Tip Bin

Pipette tip bins connect to the Ambr® 15 Cell Culture Generation 2 deck for collection of discarded pipette tips. The small and large pipette tip bins, made from polypropylene, are easily connected and disconnected via magnetic coupling and can be used interchangeably on the system workstation.

Please note that these pipette tip bins do not fit onto the Ambr® 15 Cell Culture Generation 1 or the Ambr® 15 Fermentation systems. Ambr<sup>®</sup> 15 pipette tip bin, small



Ambr<sup>®</sup> 15 pipette tip bin, large



## **Accessories**

Ambr<sup>®</sup> 15 Cell Culture clamp plate Part no. 001-0B38

Each clamp plate makes direct connections to Ambr® 15 vessels in a culture station for the impeller drive system and gassing.

It is essential for continued operation of the Ambr® 15 Cell Culture system that spare | replacement clamp plates are available; to speed up experiment turnaround and avoid system downtime.

Clamp plates must be cleaned between experiments, and if they show signs of damage they will need to be replaced. It is recommended that clamp plates are not used for longer than 1 year | 20 autoclave cycles, whichever comes sooner.



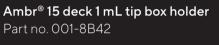
#### **Centrifuge Adapters** Part no. 001-8B49

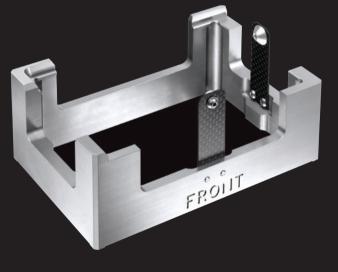
Set of 4 centrifuge adapters, each adapter holds 3 Ambr® 15 Cell Culture microbioreactors. Compatible with YCSB-B8B buckets for Centrisart® G-16 and G-16C centrifuges.



**Ambr® 15 plate lid holder** Part no. 001-8B45







Ambr<sup>®</sup> 15 deck 5 mL tip box holder Part no. 001-8B43



**Ambr® 15 tip box lid holder** Part no. 001-8B44



**Ambr® 15 universal plate holder** Part no. 001-8B46



# Ambr® 15 Microbioreactor Vessels

Ambr<sup>®</sup> 15 vessels, with sparge tube Part no. 001-0880

Ambr<sup>®</sup> 15 single use Microbioreactor with sparge tube, are designed to mimic the characteristics of larger scale bioreactors. The vessels include an integrated pitched blade impeller, sub-surface sparge tube, pH and DO sensor spots.

Pack contains 24 irradiated vessels, individually wrapped.



## Ambr<sup>®</sup> 15 Vessels, Temperature Compensation

Recommended for use with the Ambr® 15 Cell Culture with cooling, these vessels are precalibrated for use over a wider temperature range. Additional calibration data extends the range of accurate pH measurement and control for culture temperatures below 33°C.

Ambr® 15 vessels, temperature compensation, with sparge tube Part no. 001-2880

Ambr® 15 vessels, temperature compensation, no sparge tube Part no. 001-2881

## For more information, please visit

www.sartorius.com/en/products/fermentation-bioreactors/ ambr-multi-parallel-bioreactors/ambr-15-cell-culture



Ambr<sup>®</sup> 15 vessels, no sparge tube Part no. 001-0B81

Ambr<sup>®</sup> 15 single use microbioreactors without a sub-surface sparge tube. Gassing is into the vessel headspace.The vessels include an integrated pitched blade impeller, inlet gassing port into the headspace, pH and DO sensor spots.

Pack contains 24 irradiated vessels, individually wrapped.

## Ambr® 15 Consumables Kits

Essential Ambr<sup>®</sup> 15 consumables are available to order as a consumables kit. This kit is ideal for new users as it includes all the essentials needed for one or two Ambr<sup>®</sup> 15 experiments.

Kit includes 2 packs of Ambr® 15 vessels, 2 packs of 1 mL tips, 1 pack of 5 mL tips, 1 pack of 24 well deep well plates.

**Ambr<sup>®</sup> consumables kit, with sparge tube** Part no. 001-1B86

**Ambr® consumables kit, no sparge tube** Part no. 001-1B87

Ambr<sup>®</sup> consumables kit, temperature compensation, with sparge tube Part no. 001-2B86

Ambr<sup>®</sup> consumables kit, temperature compensation, no sparge tube Part no. 001-2B87

# Plates and Tips

**5 mL disposable pipette tips, sterilized** Part no. A-0039

Ambr<sup>®</sup> 15 5 mL pipette tips are ideal for larger volume liquid handling, primarily media filling. Ambr<sup>®</sup> 15 is configured to operate using these high precision robotic tips. Max working volume 4 mL.

Pack contains 8 racks of 24 tips, individually wrapped.

#### **1 mL disposable pipette tips, sterilized** Prt no. A-0040

Ambr<sup>®</sup> 15 1 mL pipette tips are ideal for sampling and lower volume liquid handling. Ambr<sup>®</sup> 15 is configured to operate using these high precision robotic tips. Max working volume 0.9 mlL.

Pack contains 10 racks of 96 tips, individually wrapped.





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www.sartorius.com/en/products/fermentation-bioreactors/ ambr-multi-parallel-bioreactors/ambr-15-cell-culture

**1 Well plates** Part no. A-0068

Single well plates are ideal for media filling during experiment setup. The large volume reduces the manual pipetting work and is ideal for experiments using a single media type. Pack contains 25 sterile plates with lids, individually wrapped. Working volume 240 mL per well, 1 well per plate.



#### **4 Row plates** Part no. A-0067

4 row plates hold reagents and feeds on the workstation deck, before being added to Ambr<sup>®</sup> vessels. The intermediate volume makes these plates suitable for media screening or large volume reagents such as base. Pack contains 25 sterile plates with lids, individually wrapped. Working volume 60 mL per well, 4 wells per plate.



## Ambr<sup>®</sup> 15 Consumables Contracts

Ambr<sup>®</sup> 15 consumables are also available to order as part of a supply contract. With regular pre-agreed shipments, the consumables contract removes the need for frequent re-ordering of Ambr<sup>®</sup> 15 consumables.

For further details please contact: Royston-orders@Sartorius.com

#### **24 Well deep well plates** Part no. A-0038

24 well deep well plates hold reagents and feeds on the workstation deck, before being added to Ambr® 15 vessels. The plates can also hold samples harvested from Ambr® 15 vessels. Pack contains 25 sterile plates with lids, individually wrapped. Working volume 8 mL per well, 24 wells per plate.



# Sales and Service Contacts

# For further contacts, visit www.sartorius.com

### Germany

## USA

Sartorius Lab Instruments GmbH & Co. KG Otto-Brenner-Strasse 20 37079 Goettingen Phone +49 551 308 0 Sartorius Corporation 5 Orville Drive, Suite 200 Bohemia, NY 11716 Phone +1 631 254 4249 Toll-free +1 800 635 2906