Ambr® 15 Cell Culture Generation 2

Options, Accessories and Consumables
Ambr® 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.

For more information, please visit
Integrated at-line analyzers
The following at-line analyzers can be integrated with the Ambr® 15 Cell Culture systems;
- Ambr® 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.

Centrifuge Adapters
Centrifuge adapters designed to hold Ambr® 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.

Further Options and Accessories

Rapid Vessel Drain Option
Capability to rapidly remove large volumes of culture or spent media from each Ambr® 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.
Integrated At-Line Analyzers

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

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.

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

Roche Cedex HiRes cell counter
Integration with customer supplied Cedex HiRes for cell counting.

For further information please see the Integrated Cell Culture Analyzers brochure.
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.
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 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.

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

Accessories
Ambr® 15 deck 1 mL tip box holder
Part no. 001-8B42

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

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

Ambr® 15 tip box lid holder
Part no. 001-8B44
Ambr® 15 Cell Culture Microbioreactors

Ambr® 15 Cell Culture microbioreactors with sparge
Part no. 001-7B01

Ambr® 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® 15 Microbioreactors with Temperature Compensation

Recommended for use with the cooled Ambr® 15 Cell Culture, 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 Cell Culture microbioreactors with sparge, 20-40°C
Part no. 001-7B03

Ambr® 15 Cell Culture microbioreactors, no sparge, 20-40°C
Part no. 001-7B04

For more information, please visit
Ambr® 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.

Production Transfer of Ambr® 15 Cell Culture Microbioreactor Vessels

With the growth in the number of Ambr® 15 Cell Culture systems in use, we have changed our manufacturing processes to enable us to meet current and future demand for the Ambr® 15 Cell Culture microbioreactor vessels. Production of vessels with 7B part numbers has moved to our main consumables manufacturing site in Stonehouse UK.

The Stonehouse site specializes in manufacture of plastics for Sartorius and has excellent capability in terms of consistency and productivity. This brings the entire manufacturing process in-house for full control of the supply chain and better quality control. The change of production site includes new manufacturing equipment, multi-cavity mould tools and additional assembly lines.

The new (part no. 7B) Ambr® 15 Cell Culture microbioreactor vessels include minor design changes that have been implemented to improve reproducibility across batches. Furthermore, the same raw material is now used for Ambr® 15 and Ambr® 250 vessel components.
Plates and Tips

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

Ambr® 15 5 mL pipette tips are ideal for larger volume liquid handling, primarily media filling. Ambr® 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
Part no. A-0040

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

Pack contains 10 racks of 96 tips, individually wrapped.

For more information, please visit
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.

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® 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® 15 Consumables Contracts

Ambr® 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® 15 consumables.

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