



Ambr® 250
High Throughput |
Ambr® 250 High
Throughput Perfusion

Consumables and Accessories

Simplifying Progress

SARTORIUS

Consumables and Accessories for the Ambr[®] 250 High Throughput and Ambr[®] 250 High Throughput Perfusion Systems

Ambr[®] 250 consumables are available to order individually or as part of a supply contract.
Please contact your representative for more details.



Vessels

Ambr® 250 High Throughput Vessels

Bioreactor vessels designed for a range of fed-batch applications are offered. Dual pitch-blade impellers for a range of mammalian cultures, dual Rushton type impellers for microbial cultures. All vessels include feed lines, DO spot and pH probe. For mammalian cultures an unbaffled vessel variant is offered with single “elephant-ear” pitched blade impeller. pCO₂ spots are also available in some mammalian vessel variants, as are microsparger. Vessel variants including liquid filters are optionally available. For microbial cultures a variant with external condensing bottle and larger impeller are also available.

Perfusion vessels include pressure sensors, pump chambers, with tubing calibrated for either Alternating Tangential Flow (ATF) (filterless) or Tangential Flow Filtration (TFF) mode. TFF vessels are available with a choice of perfusion filter pore size, or without perfusion filter. All perfusion vessels contain a microsparger.

Table 1: Ambr® 250 “Easy-Connect” Disposable Bioreactors

Vessel Part Number	Description	Units per Box
001-5G13	Microbial vessel with 20 mm dual Rushton type impeller	6
001-5G11	Microbial vessel with 20 mm dual Rushton type impeller and integrated in-line liquid filters. Non stock item, longer lead time and minimum order quantity applies. Please contact your local sales team for more information.	6
001-5G25	Mammalian vessel with dual pitch-blade impeller	6
001-5G21	Mammalian vessel with dual pitch-blade type impeller and integrated in-line liquid filters	6
001-5G31	Microbial vessel with a 30 mm Rushton type impeller attached to an external condenser bottle. This vessel variant is compatible with systems equipped with cooling bottle positions at rear of vessel array: System option 001-8G09	3
001-5G112	Mammalian vessel with dual pitch-blade impeller, with pCO ₂ sensor	6
001-5G113	Mammalian vessel with dual pitch-blade impeller, with microsparger	6
001-5G114	Mammalian vessel with dual pitch-blade impeller, with microsparger and pCO ₂ sensor	6
001-2G37	Mammalian vessel without baffles, single “elephant ear” (pitched blade) impeller, no in-line liquid filters	6

Note. All bioreactors are irradiated and individually wrapped for aseptic connection.

Table 2: Ambr® 250 High Throughput Perfusion “Easy-Connect” Disposable Bioreactors

Vessel Part Number	Description	Units per Box
001-5G105	Perfusion ATF vessel with 0.2 µm filter	2
001-5G101	Perfusion ATF vessel, with no filter	2
001-5G104	Perfusion TFF vessel, with 0.2 µm filter	2
001-5G100	Perfusion TFF vessel, no filter	2
001-5G106	Perfusion Assembly Unit, TFF no filter	6
001-5G107	Perfusion Assembly Unit, ATF no filter	6
001-5G110	Perfusion Assembly Unit, TFF 0.2 µm	6
001-5G111	Perfusion Assembly Unit, ATF 0.2 µm	6

Note. All perfusion vessels include perfusion dip tubes, perfusion pressure sensors, pump chambers and tubing connections for use the relevant ATF | TFF mode. All bioreactors are irradiated and individually wrapped for aseptic connection.

**Ambr® 250 High Throughput
Perfusion TFF vessel, with 0.2 µm filter**
Part no. 001-5G104



**Ambr® 250 High Throughput
Mammalian vessel with dual
pitch-blade impeller**
Part no. 001-5G25



**Ambr® 250 High Throughput
unbaffled vessel with single
impeller**
Part no. 001-2G37



**Ambr® 250 High Throughput
Microbial vessel with 20 mm
dual Rushton type impeller and
integrated in-line liquid filters**
Part no. 001-5G13



Tube Kits and Bags

Table 3: Ambr® 250 High Throughput Perfusion Tube Kits for Liquid Delivery and Permeate CIP

Part Number	Name	Description
001-2G48	24-vessel tube kit for 24-vessel system	For 24-vessel system. Kit pack contains 12 tube sets, each designed to deliver feed from one source bottle to 24 bioreactors. One pack normally suitable for 3 runs.
001-2G46	12-vessel tube kit for 24-vessel system LHS	For left hand side of 12-vessel system. Kit pack contains 12 tube sets, each designed to deliver feed from one source bottle to 12 bioreactors. One pack normally suitable for 3 runs.
001-2G44	12-vessel tube kit for 12-vessel system 24-vessel system RHS	For right hand side of 24-vessel system. Also for the 12-vessel system. Kit pack contains 12 tube sets, each designed to deliver feed from one source bottle to 12 bioreactors. One pack normally suitable for 3 runs.
001-2G41	4-vessel tube kit	Can be used on 24-vessel or 12-vessel system. This tube set enables the user to connect one feed bottle to up to 4 bioreactors. This enables feed flexibility, especially useful for application in media studies.
001-2G60	Individual kits	Can be used on 24-vessel or 12-vessel system. This tube set enables the user to connect one feed bottle to up to one bioreactors for additional flexibility in liquid delivery.

Note. Each tube set is irradiated and individually packed to assist with aseptic connection.

Table 4: Ambr® 250 High Throughput Perfusion Bags for Permeate Collection, Bleed Collection and Mid-Run Priming

Part Number	Name	Description
001-5G89	Permeate 3 L bag	For permeate collection from 1 bioreactor. Includes single use collection bag, weldable tubing and connection set.
001-5G91	Permeate 1 L bag	
001-5G66	Mid-run priming kit	Single use device to enable delayed priming of one pumped reagent. Kit pack of 12. Requires Ambr® 250 High Throughput software R8 to operate, R9 for auto priming. Compatible with standard Ambr® 250 High Throughput 5G vessel types; check compatibility before ordering.
001-2G77	Waste tube kit for 12-vessel system	
001-2G76	Waste tube kit for 24-vessel system	
001-5G95	12-vessel bleed tube kit	A pack of 12 irradiated tube sets designed for bleed collection of 12 bioreactors to a single bleed collection receptacle. Includes tubing and connection set, excludes collection receptacle. Each tubeset is preassembled and irradiated.
001-5G99	24-vessel bleed tubeset	A pack of 24 irradiated tube sets designed for bleed collection of 24 bioreactors to a single bleed collection receptacle. Includes tubing and connection set, excludes collection receptacle. Each tubeset is preassembled and irradiated.
001-8G73	AutoCIP 4-way	Disposable 4-way tubing manifold for use with autoCIP module and 4-way valve set. This manifold allows a single tubing line from the autoCIP 4-way valve set to be split into four or more tubing lines by connecting one or more manifolds. Irradiated. Pack of 6.
001-8G72	AutoCIP 4-way valve	Disposable automated Clean In Place (CIP) fluid switching valve and tubeset for use with autoCIP module. Includes 4-way valve, weldable tubing and tubing connections for four CIP input fluids and four pump connections. Irradiated. Pack of 6.
001-5G97	Permeate-CIP-tubeset, 4-vessel	For permeate CIP protocol, for 4 perfusion bioreactors. Multiple 4 vessel tubesets can be linked for CIP of 12 or 24 bioreactors. Includes tubing and connection set.

Note. Each tube set is irradiated and individually packed to assist with aseptic connection.

Figure 1: Ambr® 250 High Throughput Tube Set Configurations for the 24-Vessel System

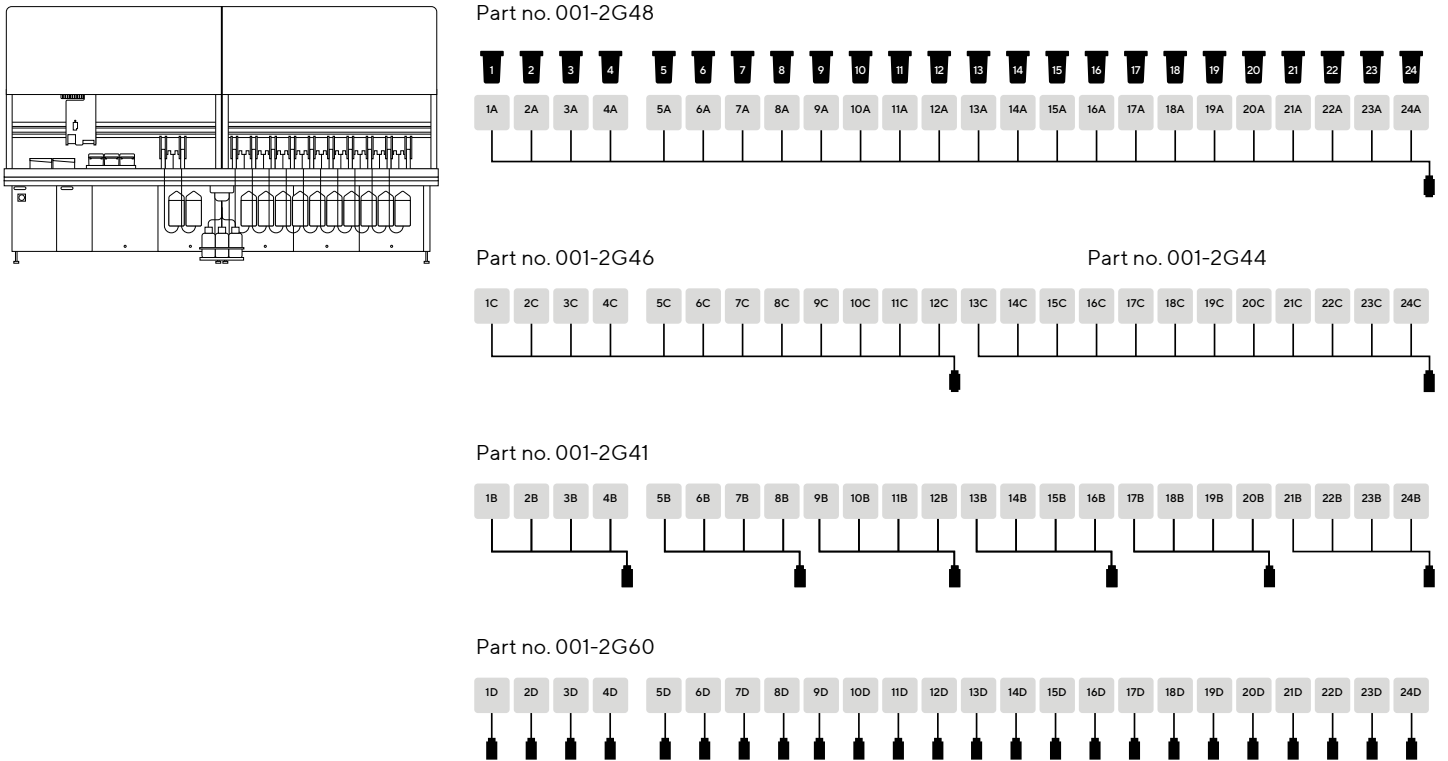
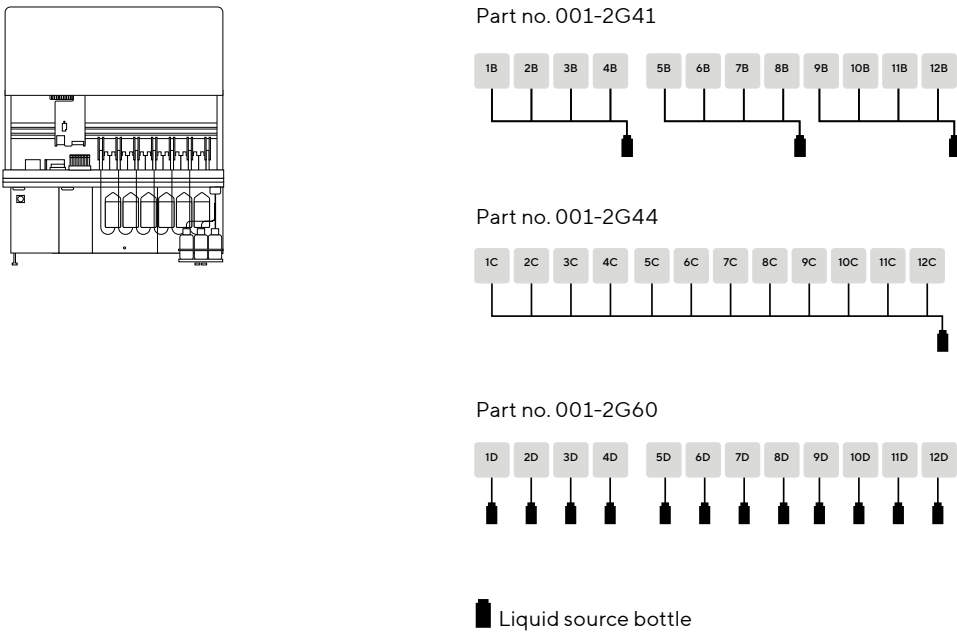


Figure 2: Ambr® 250 High Throughput Tube Set Configurations for the 12-Vessel System



12-vessel bleed tube kit

Part no. 001-5G95

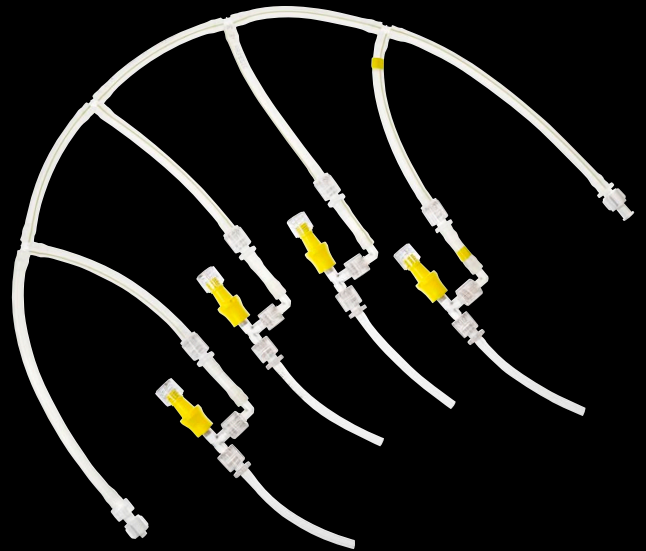
Bleed collection of 12 bioreactors to a single bleed collection receptacle.



Permeate-CIP-tuberset, 4-vessel

001-5G97

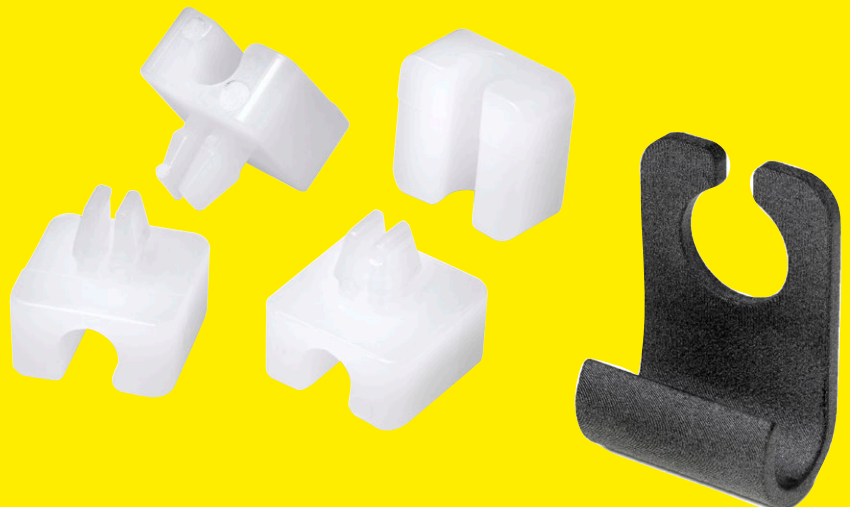
For permeate CIP protocol, for 4 perfusion bioreactors. Multiple 4 vessel tubesets can be linked for CIP of 12 or 24 bioreactors.



Tubing guides for perfusion permeate and bleed collection tubing

Part no. 001-5G56

Includes 24 guide clips for the laminar airflow grille and 12 guide hooks for the fluid collection bag rail.



For more information, please visit www.sartorius.com/en/products/fermentation-bioreactors/ambr-multi-parallel-bioreactors/ambr-250-high-throughput

Permeate sample syringes

001-5G49

Locking 10 mL syringe for permeate sampling
pack contains 100.



Permeate 1 L bag

Part no. 001-5G91

Pack of 24, irradiated.



Bleed collection bag

Part no. 001-5G93

Pack of 24, irradiated.



Pipette Tips

10 mL disposable tips, irradiated

Part no. 001-2G78

10 mL filter pipette tips for use with Ambr® 250 High Throughput systems. Pipette tips and racks are E-beam pre-sterilized.

Pack contains 5 racks of 24 tips.

Please note that these new Sartorius Ambr® automation tips are only compatible with new systems delivered from Q1 2023 and upgraded systems with compatible liquid handler.



10 mL wide bore disposable tip, irradiated

Part no. 001-2G79

Similar to the 10 mL disposable tips however enables the use to aspirate liquids that have particulates ensuring accurate and precise liquid transfer of particulate feeds or culture.

Pack contains 5 racks of 24 tips, individually wrapped.

300 µL disposable tips, sterilized

Part no. 001-2G72

Ambr® 250 300 µL pipette tips ensure accurate and precise lower volume liquid additions. Ambr® 250 is configured to operate using these high precision robotic tips. Max working volume 300 µL.

Pack contains 10 racks of 96 tips, individually wrapped.

Plates

24 well deep well "V" bottom plates, irradiated

Part no. A-0038

Ambr® 250 24 well deep well plates can be used to hold samples harvested from the bioreactors, they can also be used to hold reagents and feeds on the storage deck, before being added into the bioreactors. Working volume 8 mL per well, 24 wells per plate.

Pack contains 25 sterile plates with lids, individually wrapped.

Tubes and Tube Rack Lids

2 mL centrifuge tubes

Part no. 001-2G96

These sample tubes hold up to 2 mL and are mainly used to store samples from the bioreactors. They are packed in such a way that the robotic liquid handler can transfer samples from the bioreactor into them with precision and are designed to fit in the Ambr® 250 high throughput sample rack.

Pack contains 500 tubes.

15 mL conical tubes

Part no. 001-2G97

These sample tubes hold up to 15 mL and are mainly used to store samples from the bioreactors. They are packed in such a way that the robotic liquid handler can aliquot samples from the bioreactor into them with precision and are designed to fit in the Ambr® 250 sample rack.

Pack contains 500 tubes.

Robot-compatible lid for tube racks, irradiated

Part no. 001-2G93

These lids are designed in such a way as to allow the robotic liquid handler to lift them off the tube rack to allow media transfer into the vessels.

Pack contains 48 robot-compatible lid for tube racks, irradiated.



Ambr® 250 High Throughput 50 mL tube adapter

Part no. 001-8G22

Adapter for one 50 mL centrifuge tube, for use in a media bottle deck location. Adapter fits one 50 mL centrifuge tube and includes one automation compatible lid.

Drip Catcher Pads

Ambr® 250 drip catcher pads, irradiated

Part no. 001-2G94

These are liquid absorbent pads that are designed to fit on the robotic liquid handler and ensure that there is no cross contaminations of liquids caused by drips from the pipettes as liquid is being moved from one position to the another.

Pack contains 12 irradiated pads.



Bottles and Lids

Ambr® 250 High Throughput reagent bottle, 1 L

Part no. 001-2G51

The 1 L bottle is ideal for holding stock solution on the deck where it can be transferred from these bottles to other location by the liquid handler. The bottles are typically used to hold media that is required in larger volumes.

Pack contains 12 Irradiated bottles.

Ambr® 250 High Throughput reagent bottle, 175 mL, pack of 12

Part no. 001-2G50

The 175 mL bottle is ideal for holding stock solution on the deck where it can be transferred from these bottles to other location by the liquid handler. The bottles are typically used to hold media that is only required in small volumes.

Pack contains 12 Irradiated bottles.

Ambr® 250 feed reservoir bottle

Part no. 001-2G54

These bottles are designed to hold the liquid feed pump. These bottles include cap with filtered vent and dip tube with Luer connector to join to feed line tubing. These are replacement bottles.

Pack contains 4 feed reservoir bottles.

Foam trap bottle

Part no. 001-8G30

Pack of 12.



Ambr® 250 robot compatible bottle lid, large

Part no. 001-2G83

The system is installed with bottle lids and these can be bought as spares. These lids are designed for the 1 L bottles and built in such a way to enable the liquid handler to easily but steadily lift them from and back on to the bottle. These lids can be sterilized and reused.

Pack contains 1 bottle lid.



Ambr® 250 robot compatible bottle lid, small

Part no. 001-2G82

The system is installed with bottle lids and these can be bought as spares. These lids are designed for the 175 mL bottles and built in such a way to enable the liquid handler to easily but steadily lift them from and back on to the bottle. These lids can be sterilized and reused.

Pack contains 1 bottle lid.



Filters

Ambr® 250 wash circuit filter, pack of 2

Part no. 001-2G87

These are 0.2 µm liquid filters; the filter is connected to the wash circuit that ensures the pump housing remains sterile. The Ambr® 250 High Throughput unit comes with a wash circuit filter installed and these can be used to replace it, if it requires changing.

Pack contains 2 filters.

Ambr® 250 air filter, pack of 12

Part no. 001-2G91

Perfusion filter, 0.2 µm

001-5G57

Spare ambr 250 perfusion filter, 0.2 µm, irradiated.

Pack contains 6.

Stirring Fleas

Large magnetic stirring flea, pack of 5

Part no. 001-2G89

The large magnetic stirrers are designed for the 1 L reagent bottle. These magnetic stirring fleas are designed to ensure that the reagent bottles do not get damaged regardless of the stirrer speed.

Pack contains 5 stirring fleas.

Small magnetic stirring flea, pack of 5

Part no. 001-2G88

The large magnetic stirrers are designed for the 175 mL reagent bottle. These magnetic stirring flea are designed to ensure that the reagent bottles do not get damaged regardless of the stirrer speed. These can be sterilized.

Pack contains 5 stirring fleas.

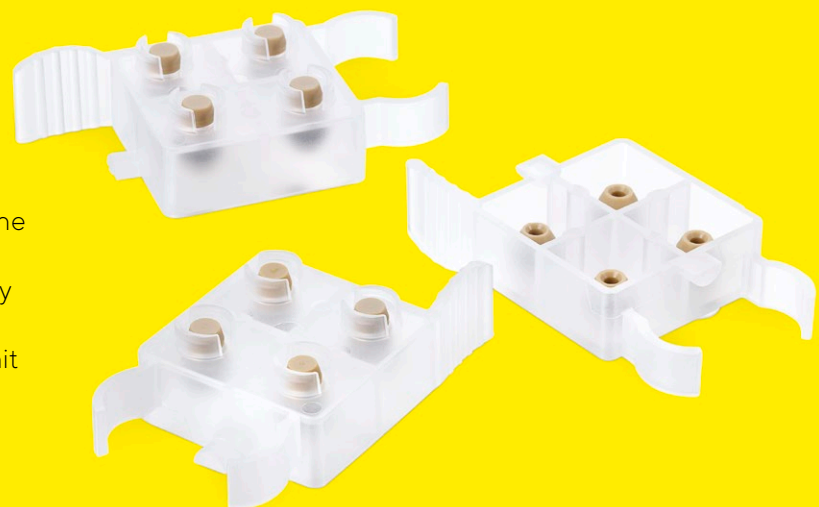
Caps

Ambr® 250 4-vessel system wash caps

Part no. 001-2G81

The wash caps are used to ensure that the nozzles in the liquid manifold are properly covered during and after chemical sterilization and that the nozzles are properly sterilized and kept sterile after the process. These are spare wash caps in case the ones provided with the unit get damaged or lost.

Pack contains 12 wash caps.



Accessories

Ambr® 250 vessel rack

Part no. 001-2G99

This is a poly-carbonate rack that enables the user to easily carry up to 6 Ambr® 250 High Throughput bioreactor vessels in a safe manner. It has been designed for easy clean and decontamination.



2 mL micro-centrifuge tube rack

Part no. 001-2G55

Rack for holding 2 mL centrifuge tubes with the caps removed. This rack enables tubes to be correctly stacked on the work station sample positions. Compatible with robot lid for tube racks.



Cell counter sample cup rack

Part no. 001-2G59

Microplate format rack for loading 24 Vi-CELL | Cedex sample cups onto the Ambr®. Compatible with robot lid for tube racks.



Spare labware holder for 15 mL conical tubes

Part no. 001-2G56

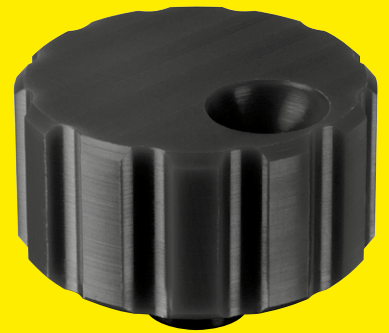
Rack for holding 15 mL screw capped centrifuge tubes with caps removed.



Clamp plate tool

Part no. 001-2G85

Pack of 1.



Foam trap bottle holder

Part no. 001-8G31

Pack of 3 holders, sufficient for holding 12 bottles.



Ambr® 250 High Throughput 50 mL tube rack

Part no. 001-8G21

Rack for six 50 mL centrifuge tubes, for use in a plate deck location; compatible with automated lid handling using a standard microplate lid (not supplied).



Ambr® 250 High Throughput plate adapter, 24 well plate

Part no. 001-2G57

Ambr® 250 deep well adapter is used to hold a deep well "V" bottom plates with its lid in place and ensure that the temperature is maintained at the set point. This is a spare part and only required if using deep well "V" bottom plates on the work station.

Ambr® 250 High Throughput plate adapter, 48 | 96 well plate

Part no. 001-5G67

Ambr® 250 deep well adapter for 48-well and 96-well deep-well plates.



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