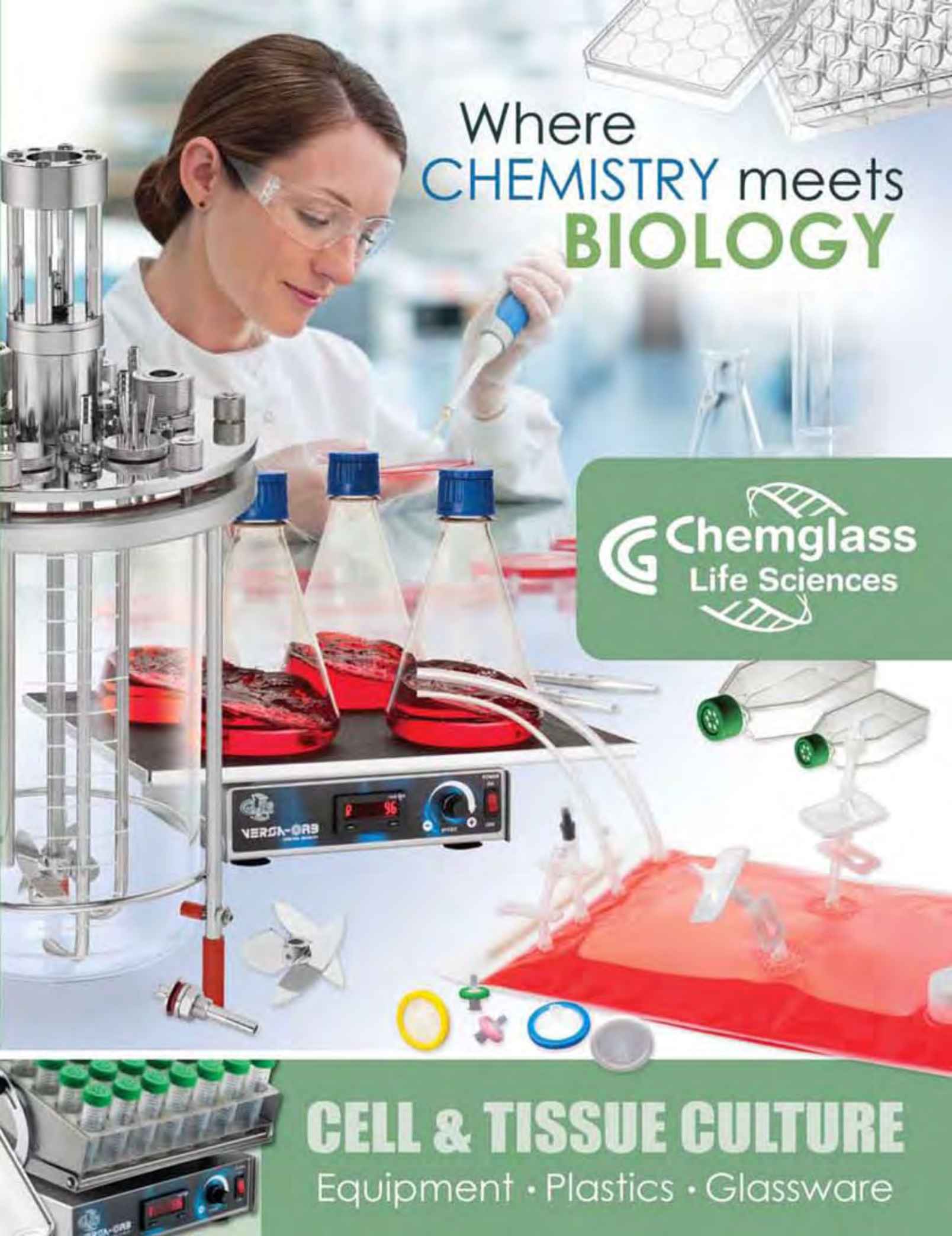
Where
CHEMISTRY meets
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Life Sciences
CELL & TISSUE CULTURE
Equipment • Plastics • Glassware

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Since 1946, *Chemglass has been designing and manufacturing innovative products that have enabled ground-breaking achievements in laboratories throughout the world.*

With three production facilities and more than 200 dedicated employees, we strive to build enduring customer partnerships by delivering the highest quality products as quickly as possible.

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COMMITTED to our work . . .
just like YOU.

The Chemglass story *began more than 65 years ago with the establishment of our company as a leader in the production of specialty scientific laboratory glassware. As a converter of glass tubing and rod, Chemglass Life Sciences utilizes purchased materials to fabricate standard catalog items as well as custom and OEM glass components.*

Our tradition of manufacturing excellence *allowed us to grow to include a host of equipment and supplies, including glassware and plastics, for the life science as well as chemistry markets.*

Our equipment offering *consists of quality components designed and built by our own enginneering team as well as those supplied by our strategic partners. The end goal is to provide the equipment you need, when you need it, at a price you can afford.*

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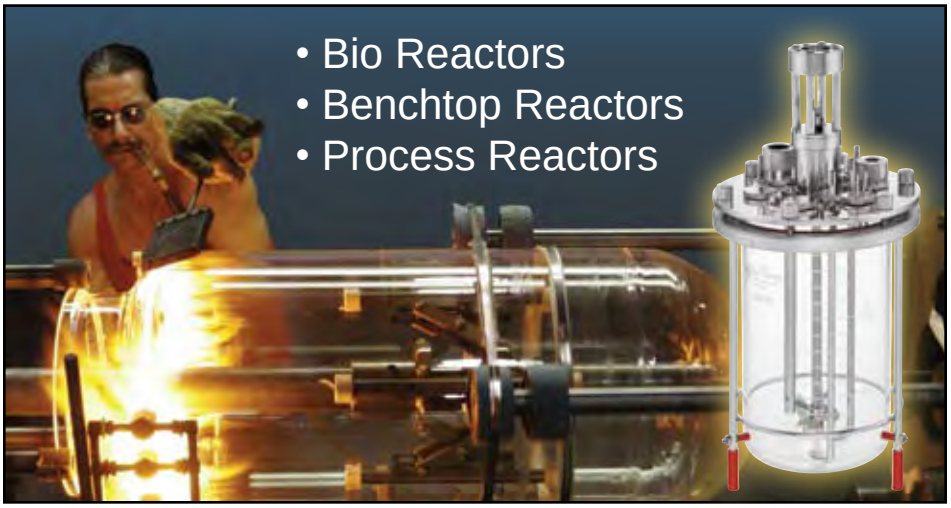

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Chemglass Life Sciences

Discounts, Prices and Terms

Prices in this catalog are list prices and they are current at the time of posting. Please call for your discount.

NOTE: All prices are subject to change without notice.

Shipments

Most of the items listed in this catalog are in stock and available for immediate shipment. In the event that your order cannot be filled completely, a partial shipment will be made with the backordered items shipped shortly. Unless otherwise instructed we will ship UPS or FedEx.

NOTE: If you desire your order sent in one shipment, please specify this when placing your order.

Returns

Please do not return any material without our consent. If any material is to be returned, please contact us at 1-800-843-1794 to receive authorization. Chemglass Life Sciences cannot be responsible for material returned without our permission.

Shortages

In the event that the quantity and/or material received does not agree with the items ordered, notify us immediately.

NOTE: Claims or shortages must be made within 10 working days of receipt of shipment.

Specifications

Photographs and illustrations in this catalog represent the products as described in the text and as specified by the dimensions provided. Chemglass Life Sciences reserves the right to modify or change these specifications if warranted.

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CG-8048-P BEAKER, LOW FORM, GRIFFIN, PYREX®, EACH PACK

Sold as each.

Manufactured with uniform wall thickness these beakers offer the optimum balance between thermal shock resistance and mechanical strength. The 250 through 2000mL have a double graduated scale to indicate approximate volume. All sizes have an extra large marking spot. Designed from ASTM Specification E960, Type I requirements.

Note: Beakers are packaged as EACH. Please call for details on packs or cases.

CG-8048

Part Number	Capacity (mL)	Graduation Interval (mL)	Subdivision (mL)	Approx. OD x Height (mm)
CG-8048-P100	100	20 to 80	10	50 x 72
CG-8048-P150	150	20 to 140	20	57 x 86
CG-8048-P250	250	25 to 200	25	68 x 90
CG-8048-P400	400	25 to 325	25	77 x 110
CG-8048-P600	600	50 to 500	50	90 x 124
CG-8048-P800	800	50 to 750	50	98 x 135
CG-8048-P1L	1000	100 to 1000	50	108 x 158
CG-8048-P1XL	1500	200 to 1400	200	121 x 166
CG-8048-P2L	2000	200 to 2000	100	131 x 193

Assortment Packs are great for new lab start-ups!

CG-8048-PACK

CG-8048-PACK BEAKER, STARTER PACK, PYREX®

An assortment of popular, low form Griffin beakers. **The pack consists of five beakers (one each) of the 50, 100, 250, 600 and 1000mL capacities.** Ideal for start-up requirements and customers who need a variety of beaker sizes but have limited lab space or glassware needs.

Part Number
CG-8048-PACK

CG-1103 BEAKER, JACKETED REACTION, CONICAL BOTTOM

CG-1103

- Conical interior helps eliminate stir bar “spinout”

Designed for use in temperature controlled chemical and biological reactions. Bottom interior surface is conical in shape to help eliminate spinout when used with CG-2005 egg shaped stir bars. Hose connections have an OD of 10mm at the largest serration.

CONICAL interior

Part Number	Capacity (mL)	Inside Dimensions ID x Height (mm)	Outside Dimensions OD x Height (mm)
CG-1103-01	50	37 x 67	60 x 77
CG-1103-02	100	47 x 59	75 x 73
CG-1103-03	250	65 x 100	90 x 115
CG-1103-04	500	80 x 130	110 x 145
CG-1103-05	1000	105 x 142	140 x 155
CG-1103-06	2000	124 x 190	180 x 220

CG-1107 BEAKER / BATH, JACKETED, LOW FORM, FLAT BOTTOM

LOW form

CG-1107

Similar to CG-1103, but with a larger opening at the top of the jacket and a shorter overall height. Width to height ratio on all sizes is 2:1. Beakers also have a FLAT bottom on both the inner and outer vessel. Hose connections have an OD of 10mm at the largest serration.

Part Number	Capacity (mL)	Inside Dimensions ID x Height (mm)	Outside Dimensions OD x Height (mm)
CG-1107-10	200	50 x 100	135 x 70
CG-1107-11	650	75 x 150	190 x 95
CG-1107-12	1500	100 x 200	250 x 120

Find Stir Bars listed later in this section.

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CG-1108 BEAKER, GRIFFIN, POLYPROPYLENE, GRADUATED

Low form polypropylene beakers are chemically resistant with printed graduations that show approximate volume. Steam autoclavable at 121°C. Sold in the package quantities as listed.

Part Number	Capacity (mL)	Pkg. Qty.
CG-1108-10	50	12
CG-1108-11	100	12
CG-1108-13	250	6
CG-1108-15	600	4
CG-1108-16	1000	3
CG-1108-17	2000	1
CG-1108-L-01	5000	1
CG-1108-L-02	10000	1

CG-1108

CG-1108H BEAKERS, POLYPROPYLENE, WITH HANDLES, GRADUATED

Low form polypropylene beakers are chemically resistant with printed graduations that show approximate volume. Steam autoclavable at 121°C.

Part Number	Capacity (mL)	Pkg. Qty.
CG-1108H-11	100	4
CG-1108H-13	250	4
CG-1108H-15	600	4
CG-1108H-16	1000	1
CG-1108H-17	2000	1
CG-1108H-19	5000	1

CG-1108H

CLS-1187 FILLING BELL, ASEPTIC

For aseptic filling of vessels. Tubing is attached to the serrated hose connection while the receiving vessel is placed inside the bell. Made of Type I, Class A borosilicate glass.

Part Number	ID of Bell (mm)	Overall Height (mm)
CLS-1187-50	22	75
CLS-1187-51	41	95
CLS-1187-52	49	100
CLS-1187-53	70	125
CLS-1187-54	104	130

CLS-1187

CG-875

CG-875 Bottle, Centrifuge, Polypropylene, Autoclavable with Closure

Rigid body for low to moderate speed centrifugation of biological and chemical samples. Offers excellent chemical resistance. Bottle must be filled to 75% of total capacity to obtain maximum results.

Part Number	Capacity (mL)	Pkg. Qty.
CG-875-250	250	2
CG-875-500	500	2

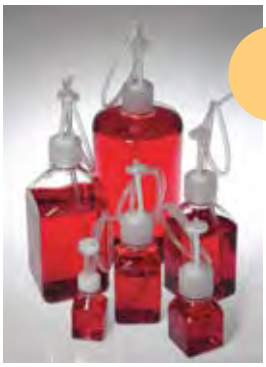
CG-1156

CLS-1156 BOTTLE, CENTRIFUGE, WIDE MOUTH, POLYCARBONATE

- Wide mouth for easy access
- Useful for centrifugation, analytical testing, sampling and cell culture
- Autoclavable and reusable

Wide-mouth, polycarbonate bottles are engineered for applications including ultracentrifugation or culture of microbes, plants, algae and organisms requiring large, surface area to volume ratios. As ultracentrifuge flasks, the bottles withstand maximum speeds without leakage and are ideal for all GS3 rotors. These centrifuge bottles are used where relatively small amounts of solids are involved. The tight fitting, polypropylene screw caps reduce the possibility of aerosol escape. Bottles and caps are reusable and resterilizable by autoclaving. The bottles are provided non sterile with caps attached as standard. The 180mL size is not graduated.

Part Number	Cap. (mL)	OD x Height (mm)	Height with Cap (mm)	Graduation Increment (mL)	Graduation Range (mL)	Closure Size (mm)	Pkg. Qty.
CLS-1156-0180	180	51 x 104	107.2	NA	NA	54	12
CLS-1156-0400	400	68.6 x 169.5	175.8	50	100-400	63	12
CLS-1156-0500	500	80.6 x 169.5	175.8	50	100-500	63	12
CLS-1156-1000	1000	91.5 x 203.5	209.8	100	100-900	63	12



See CLS-1170 Bottle Assemblies in the Bioprocess section.

PYREX® Media Bottles

- Borosilicate glass for thermal shock resistance
- Enhanced graduations and marking spots are permanent white enamel
- GL screw threads
- Liner-less, autoclavable (140°C max.), polypropylene orange caps included.
- Drip-free polypropylene pour rings included

Low Actinic PYREX® Media Bottles

- Protect light sensitive contents
- Borosilicate glass for thermal shock resistance
- Enhanced graduations and marking spots are permanent white enamel
- GL screw threads
- Liner-less, autoclavable (140°C max.), polypropylene orange caps included.
- Drip-free polypropylene pour rings included

PYREX® Brand
Media / Storage Bottles

Protection for light-sensitive contents

CG-8088

BOTTLE, MEDIA, GL SCREW THREAD, CLEAR, BOROSILICATE, PYREX®

Media bottles have enhanced graduations and marking spots that are permanent white enamel. This general use bottle is provided with a GL screw thread (as noted) and supplied with liner-less autoclavable (140°C max.) polypropylene orange cap. Bottle design includes a clear (natural) drip free polypropylene pour ring, which is replaceable.

CG-8090

BOTTLE, MEDIA, GL SCREW THREAD, LOW ACTINIC, BOROSILICATE, PYREX®

Low actinic bottles provide a shield to protect light sensitive products. Low actinic treatment permits less than 1% transmission below 400nm and reduced (5%) from 400-600nm as compared to untreated clear borosilicate glass. Bottles are provided with enhanced graduation scale, orange polypropylene cap and drip-free pour ring included.

PYREX® Media Bottles		Clear Bottles with Orange Caps		Low Actinic Bottles with Orange Caps	
Capacity (mL)	GL Thread Size	Part Number	Pkg. Qty.	Part Number	Pkg. Qty.
25	25	CG-8088-25	10	CG-8090-25	4
50	32	CG-8088-50	10	CG-8090-50	4
100	45	CG-8088-100	10	CG-8090-100	4
250	45	CG-8088-250	10	CG-8090-250	4
500	45	CG-8088-500	10	CG-8090-500	4
1000	45	CG-8088-1L	10	CG-8090-1L	4
2000	45	CG-8088-2L	10	CG-8090-2L	4
5000	45	CG-8088-5L	1	CG-8090-5L	1
10,000	45	CG-8088-10L	1	CG-8090-10L	1

Assembled, the media bottle with siphon assembly allows the user to create precisely the desired dip tube angle to retrieve virtually all of the contents of fluid from the bottle.

For additional Caps, see pages 145-147.

Hose barb outlet at the bottom allows for easy gravity transfer of solutions.

CLS-1420 MEDIA BOTTLE WITH SIPHON ASSEMBLY

Standard media bottle with siphon assembly consisting of stainless steel siphon pipe and silicone tubing cut to length. All stainless parts are manufactured from 316L stainless steel electropolished to a 20Ra or better finish. The silicone tubing is peroxide cured and meets 21 CFR 177.2600 material specifications.

Complete Assembly

Part Number	Media Bottle Size (mL)
CLS-1420-250	250
CLS-1420-500	500
CLS-1420-1L	1000
CLS-1420-2L	2000
CLS-1420-5L	5000
CLS-1420-10L	10,000

Siphon Assembly ONLY

Part Number	Fits Media Bottle Size (mL)
CLS-1421-250	250
CLS-1421-500	500
CLS-1421-1L	1000
CLS-1421-2L	2000
CLS-1421-5L	5000
CLS-1421-10L	10,000

Accessories

Part Number	Description	
CLS-1481-22	Cap Only, Open Top, GL-45, Green	6
CLS-1428-11	Gasket Only, GL-45, for Port Assembly	1
CLS-1421-010	Sil. Tubing for Port Assembly, 6" Long	1

CLS-1423 TRANSFER MEDIA BOTTLE, CLEAR, WITH HOSE BARB AND GL-45 VENTED CAP

For easy gravity transfer of solutions. Schott bottle with drip-free pouring ring and liner-less, one piece, autoclavable, reusable, vented cap. The hose barb accepts the ID tubing listed. Other size hose barbs available, please contact us for details.

Part Number	Cap. (mL)	Tubing Size for Hose Barb
CLS-1423-100	100	1/4"
CLS-1423-250	250	1/4"
CLS-1423-500	500	1/4"
CLS-1423-1L	1000	1/4"
CLS-1423-2L	2000	1/4"
CLS-1423-5L	5000	1/4"
CLS-1423-10L	10,000	1/2"

Replacement Components

Part Number	Description	Pkg. Qty.
CLS-1484-12	Vented Cap Only, GL-45, Blue, PP	5
CLS-1482-13	Pouring Ring Only, GL-45, Blue, PP	10

CLS-1437-B ADDITION AND SAMPLING VESSEL WITH 2-PORT TUBE ASSEMBLY WITH HOSE BARBS

Our addition and sampling vessel with hose barbed 2-port drip tube assemblies are designed for addition or sampling of media, acid or base. Assembly is ideal for use with bio reactors where addition or sampling is required. The drip tube assemblies are constructed of 316L electropolished stainless steel and include a blue polypropylene GL32 open top cap with a white silicone gasket. Drip tubes have a finish of 20Ra or better. The vessel measures 32mm Diameter x 94mm OAL.

Part Number	Description
CLS-1437-B01	Flat Bottom Vessel Complete with 2-Port Drip Tube Assembly
CLS-1437-B02	Flat Bottom Vessel Only
CLS-1429-02	2-Port Drip Tube Assembly with Gasket
CLS-1428-14	White Silicone Gasket Only for CLS-1429-02

CLS-1437

CLS-1437 PORT ASSEMBLY, 2-PORT, SS, WITH HOSE BARBS FOR MEDIA BOTTLES

Our 2-port dip tube assemblies are designed for addition or sampling of media from standard Schott or Corning® media bottles. They are constructed of 316L electropolished stainless steel and include a blue polypropylene GL45 open top cap with a white silicone gasket. Dip tube assemblies have a finish of 20Ra or better.

Part Number	Description
CLS-1437-19	2-Port Assembly for 1L Media Bottles Only
CLS-1437-20	2-Port Assembly for 2L Media Bottles
CLS-1437-21	2-Port Assembly for 5L Media Bottles
CLS-1437-22	2-Port Assembly for 10L Media Bottles

CLS-1437
2-Port Assembly

CLS-1437 PORT ASSEMBLY, 3-PORT, SS, WITH HOSE BARBS FOR MEDIA BOTTLES

Our 3-port assemblies are designed for addition or sampling of media from standard Schott or Corning® media bottles. They are constructed of 316L electropolished stainless steel and include a blue polypropylene GL45 open top cap with a white silicone gasket. Dip tube assemblies have a finish of 20Ra or better.

Part Number	Description
CLS-1437-29	3-Port Assembly for 1L Media Bottles Only
CLS-1437-30	3-Port Assembly for 2L Media Bottles
CLS-1437-31	3-Port Assembly for 5L Media Bottles
CLS-1437-32	3-Port Assembly for 10L Media Bottles

CLS-1437
3-Port Assembly

Media Bottle not included.

CG-8092 BOTTLE, MEDIA, STORAGE, SQUARE, GRADUATED, GL SCREW THREAD, PYREX®

Square Bottles Save Space!

Square bottles are easier to handle, require less space (13-20%) on the shelf or in the autoclave and are ideal for mixing, sampling and storage. Features include: white enamel graduations, large marking spot and a glass ridge molded into the bottle to indicate full capacity. Made from Pyrex® borosilicate glass for chemical and thermal resistance and includes a liner less one-piece autoclavable orange polypropylene plug seal cap with drip-free pouring ring.

CAUTION: DO NOT have caps tightened immediately after autoclaving as the vacuum resulting from cooling can cause breakage. Not applicable for vacuum use.

Part Number	Capacity (mL)	Thread Size	Case Qty.
CG-8092-100	100	GL-32	10
CG-8092-250	250	GL-45	10
CG-8092-500	500	GL-45	10
CG-8092-1L	1000	GL-45	10

CG-812 BOTTLES, GL-80 THREAD, WIDE NECK, GRADUATED, DURAN®

The Duran® GL-80 wide neck bottles offer a versatile solution for laboratory and industrial applications. These sturdy bottles have large base areas making them easy to stack and reduces the risk of toppling. Their flexibility and unique design enhance safety and efficiency whether filling or pouring in the laboratory, in the field or in production, whether for sampling, preparation, storage or product packaging. They may be used with a large range of contents at reduced, ambient, or high temperatures. All bottles are supplied with a unique quick release closure with integral sealing cone that provides a high quality seal and protects the contents from contamination. The closure is made of Polypropylene and is suitable for autoclaving up to 140°C. User-friendly screw is specially designed so that it can be rapidly opened and closed with less than two turns. A clicking sound gives positive confirmation that the bottle is firmly closed.

Part Number	Capacity (mL)	Case Qty.
CG-812-01	500	10
CG-812-02	1000	10
CG-812-03	2000	10
CG-812-04	5000	1
CG-812-05	10,000	1
CG-812-06	20,000	1

Replacement Components

Part Number	Description	Pkg. Qty.
CG-812-10	Closure, PP, GLS 80, Blue	10

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

- Pyrogen, DNase, RNase and Particle-Free
- Transparent and Optically Clear
- Leak-Proof
- Freezable at -20° C
- Disposable / Recyclable
- Gamma Irradiated
- Sterility Assurance Level (SAL) 10^{-6}
- 20% Overhead Space
- Inside Neck Diameter: 34.5mm
- Optional Vented Cap Available

CLS-1150 SQUARE BOTTLE, MEDIA, STERILE, PETG, GRADUATED

Break-resistant and durable Media bottles are manufactured from polyethylene terephthalate copolyester (PETG) and graduated to contain. The bottles are square/octagonal with rounded edges to insure an “Easy-Grip” for pouring. Cap is manufactured with polyethylene (HDPE) and comes with a security ring which provides a tamper-evident seal. The cap is liner-free and comes with a leak-proof guarantee. Bottles are inexpensive alternatives to glass media bottles. Bottles provide reduced permeability to both CO_2 and O_2. Bottles are radiation sterilized and non-pyrogenic.

Bottle Design: Patent US D535566S
Tamper-evident Cap Design: Patent US D561587S

PLEASE NOTE: BOTTLES ARE NOT AUTOCLAVABLE.

Part Number	Cap. (mL)	GPI Thread Size	OD x Height Without Cap (mm)	Pkg. Qty.
CLS-1150-0030	30	20-415	38 x 60	24
CLS-1150-0060	60	20-415	40 x 80	24
CLS-1150-0125	125	38-430	55 x 104	24
CLS-1150-0250	250	38-430	59 x 139	24
CLS-1150-0500	500	38-430	73 x 172	12
CLS-1150-1000	1000	38-430	92 x 213	12
CLS-1150-2000	2000	53B	115 x 260	6

Accessory Vented Caps

Part Number	Description	Pkg. Qty.
CLS-2090-0038	DuoCap®, Sterile, 38-430	12
CLS-2090-0053	DuoCap®, Sterile, 53-B	6

DuoCap: Patent US D574239

CLS-2090 DuoCap®, STERILE

The DuoCap® is designed for both aerobic and anaerobic applications. For aerobic applications the cap utilizes a 0.22µm pore size PTFE membrane for sterile air exchange. For anaerobic applications the cap can easily be converted to a solid top design. Solid top caps are also ideal for applications requiring mixing, shaking and storage of biological fluids. New EZ-Tear packaging allows for easy access.

See page 165 for details and ordering information.

SCHOTT® BRAND MEDIA STORAGE BOTTLES

Choose amber bottles for light-sensitive contents.

- Heavy-duty bottles for storage, mixing and sampling
- Permanent white graduations and large marking spots
- Caps available separately in a variety of colors and applications

SCHOTT® Bottles			CLS-1172 Series Clear Bottles with Blue PP Caps	CLS-1174 Series Clear Bottles without Caps	CLS-1175 Series Amber Bottles without Caps
Cap. (mL)	GL Thread Size	Pkg. Qty.	Part Number	Part Number	Part Number
25	25	10	CLS-1172-25	CLS-1174-25	CLS-1175-25
50	32	10	CLS-1172-50	CLS-1174-50	CLS-1175-50
100	45	10	CLS-1172-100	CLS-1174-100	CLS-1175-100
250	45	10	CLS-1172-250	CLS-1174-250	CLS-1175-250
500	45	10	CLS-1172-500	CLS-1174-500	CLS-1175-500
1000	45	10	CLS-1172-1L	CLS-1174-1L	CLS-1175-1L
2000	45	10	CLS-1172-2L	CLS-1174-2L	CLS-1175-2L
5000	45	1	CLS-1172-5L	CLS-1174-5L	CLS-1175-5L
10,000	45	1	CLS-1172-10L	CLS-1174-10L	CLS-1175-10L
15,000	45	1	N/A	CLS-1174-15L	CLS-1175-15L
20,000	45	1	CLS-1172-20L	CLS-1174-20L	CLS-1175-20L

Caps, Liners and Pour Rings listed on pages 145-147.

Media Storage Bottles Available in the Styles You Want!

Heavy-duty bottles manufactured in clear and amber glass are used for storage, mixing and sampling. Clear bottles are available with or without liner-less, one-piece closures. Closures are autoclavable, polypropylene, plug seal caps and include drip-free pouring rings. Optional red PBT caps and red ETFE pouring rings are used where dry heat sterilization (180°C) is required. Solid, color-coded polypropylene caps come in a choice of orange, green, purple, red and light gray. Open-top caps and PTFE / silicone septa are also available. The glass bead marks the full capacity line on 100mL through 2L sizes. Bottles have permanent white enamel graduations and marking spots.

CG-852 BOTTLE, NARROW MOUTH, HIGH DENSITY POLYETHYLENE (HDPE)

HDPE narrow mouth laboratory bottles having liner-less polypropylene caps.

Part Number	Capacity (mL)	Dimensions OD x Height (mm)	Thread Size (mm)	Pkg. Qty.
CG-852-20	4	16 x 41	13	12
CG-852-21	8	25 x 45	20	12
CG-852-22	15	25 x 58	20	12
CG-852-01	30	34 x 60	20	12
CG-852-03	125	51 x 98	24	12
CG-852-04	250	61 x 131	24	12
CG-852-05	500	73 x 168	28	12
CG-852-06	1000	91 x 213	38	6

CG-852

All bottles on this page are available in bulk packs. Please contact us for details.

CG-854 BOTTLE, HIGH DENSITY POLYETHYLENE, (HDPE), WIDE MOUTH

Similar to CG-852 but with a wider opening. Bottles have liner-less polypropylene caps.

Part Number	Capacity (mL)	Dimensions OD x Height (mm)	Thread Size (mm)	Pkg. Qty.
CG-854-01	30	34 x 60	28	12
CG-854-02	60	39 x 83	28	12
CG-854-03	125	51 x 96	38	12
CG-854-04	250	61 x 127	43	12
CG-854-05	500	73 x 164	53	6
CG-854-06	1000	91 x 199	63	6
CG-854-08	2000	119 x 244	100	1

CG-854

CG-852-A BOTTLE, WIDE MOUTH, AMBER, HIGH DENSITY POLYETHYLENE (HDPE)

Amber HDPE wide mouth laboratory bottles having liner-less polypropylene caps.

Part Number	Capacity (mL)	Dimensions OD x Height (mm)	Thread Size (mm)	Pkg. Qty.
CG-852-A-01	30	34 x 60	28	12
CG-852-A-02	60	39 x 83	28	12
CG-852-A-03	125	51 x 98	38	12
CG-852-A-04	250	61 x 131	43	12
CG-852-A-05	500	73 x 168	53	12
CG-852-A-06	1000	91 x 213	63	6

CG-852-A

CLS-1152

CLS-1152 BOTTLE, SOLUTION, STERILE, POLYSTYRENE

CELLTREAT® Solution Bottles are ideal for storage of media, buffers, and other aqueous solutions. The bottles are manufactured from polystyrene, are sterile (gamma irradiated) and available in 150, 250, 500mL and 1000 mL volumes and are packaged in individual easy to open plastic bags. The Solution Bottles feature heavy wall construction, engraved graduations, a concave shape and knurled cap for easy handling.

Part Number	Description	Case Qty.
CLS-1152-0150	150mL Sterile Solution Bottle	24
CLS-1152-0250	250mL Sterile Solution Bottle	24
CLS-1152-0500	500mL Sterile Solution Bottle	24
CLS-1152-1000	1000mL Sterile Solution Bottle	24

CG-860 Bottles

CG-860 BOTTLE, VACUUM, HEAVY DUTY, POLYPROPYLENE

Bottle is made of translucent medical grade resin conforming to USP Class VI. Extra thick walls and closures are designed for rugged performance. Can be used as a waste aspirator bottle or as an autoclavable vessel for scale up activity in cell culture applications. Supplied with TPE gasket providing a leak proof seal. Withstands applications of full vacuum for 24 hours at 20ºC.

Part Number	Description	Case Qty.
CG-860-02	Bottle, Vacuum, Heavy Duty, with Cap, 53mm, 2L	1
CG-860-04	Bottle, Vacuum, Heavy Duty, with Cap, 83mm, 4L	1

CG-860 Bottle Assemblies

CG-860 BOTTLE ASSEMBLIES

Autoclavable closures for aseptic liquid transfer of media, biological reagents and chemicals to and from heavy duty vacuum bottles.

Part Number	Description	Case Qty.
CG-860-12	Filling/Venting Closure 53mm	1
CG-860-14	Filling/Venting Closure 83mm	1

CG-871 CARBOY, POLYPROPYLENE, WITH HANDLES, AUTOCLAVABLE, 83MM CLOSURE

Carboy is made of white autoclavable medical grade polypropylene resin conforming to USP Class VI. Can be used for storing and transporting large amounts of culture media, distilled water and other solutions. Wide handles for ease of carrying and pouring. Comes with molded-in graduations. Complete with white 83mm leak-proof polypropylene closure. Sold 1 per case.

Part Number	Description
CG-871-10	10L Polypropylene Carboy
CG-871-20	20L Polypropylene Carboy
CG-871-50	50L Polypropylene Carboy

CG-871

CG-870 CARBOY, POLYPROPYLENE, WITH SPIGOT, AUTOCLAVABLE, 83MM CLOSURE

Carboy is made of white autoclavable medical grade polypropylene resin conforming to USP Class VI. Can be used for storing and dispensing media or solutions. Comes with molded-in graduations. Complete with white 83mm leak-proof polypropylene closure. Sold 1 per case.

Part Number	Description
CG-870-10	10L Polypropylene Carboy with Spigot
CG-870-20	20L Polypropylene Carboy with Spigot
CG-870-50	50L Polypropylene Carboy with Spigot

CG-870

CG-1187 COLUMN, CHROMATOGRAPHY, PTFE STOPCOCK, WITH FRITTED DISC

General purpose gravity eluted column having a PTFE stopcock and reinforced beaded top. Column has a sealed in Coarse 40-60 micron glass fritted disc. The CG-1187 style column is available in sizes other than those listed. NOTE: If you require a size that is not listed, please contact us.

Part Number	Column ID (in / mm)	Effective Length (in / mm)	Stopcock Bore (mm)
CG-1187-01	0.50 / 13	8 / 20.3	2
CG-1187-02	0.50 / 13	10 / 25.4	2
CG-1187-03	0.50 / 13	12 / 30.5	2
CG-1187-06	0.75 / 19	10 / 25.4	2
CG-1187-07	0.75 / 19	12 / 30.5	2
CG-1187-10	1.0 / 25	10 / 25.4	2
CG-1187-11	1.0 / 25	12 / 30.5	2
CG-1187-15	1.5 / 38	12 / 30.5	2
CG-1187-19	2.0 / 50	12 / 30.5	2
CG-1187-20	2.0 / 50	18 / 45.7	2

Replacement Plugs

Part Number	Description
CG-424-77	2mm PTFE Plug Only

CG-1187

See the web for our extensive line of laboratory glassware.

CG-8242

CG-8242 CYLINDER, TO DELIVER, SINGLE SCALE, PYREX®, EACH PACK

Pyrex® cylinder calibrated to deliver. Polyethylene bumper guards are supplied with sizes 25 through 2000mL. The 5 and 10mL have an enlarged funnel-shaped top for ease of filling. The 10 and 25mL sizes are comparatively short to provide increased stability. The 100mL size may be used for some ASTM distillation tests. Scale is durable white ceramic enamel. Designed from ASTM Specification E1272, Style 1, Class B requirements.

Note: Cylinders are packaged EACH. Please call for details on case quantities.

Part Number	Cap. (mL)	Grad. Interval (mL)	Tolerance (± mL)	Approx. OD x Height (mm)
CG-8242-5	5	0.1	0.1	12 x 117
CG-8242-10	10	0.1	0.2	13 x 177
CG-8242-25	25	0.2	0.3	18 x 192
CG-8242-50	50	1.0	0.5	24 x 225
CG-8242-100	100	1.0	1.0	29 x 254
CG-8242-250	250	2.0	2.0	39 x 340
CG-8242-500	500	5.0	4.0	50 x 390
CG-8242-1L	1000	10.0	6.0	64 X 465
CG-8242-2L	2000	20.0	12.0	83 X 520
CG-8242-4L	4000	50.0	29.0	110 X 585

CG-8242-PACK

CG-8242 CYLINDER STARTER PACK, PYREX®

An assortment of our most popular CG-8242 cylinders. **Pack consists of 1 each of 10mL, 25mL, 50mL, 100mL and 250mL.** Ideal for start-up requirements or customers who need a variety of cylinder sizes, but have limited lab space or glassware needs.

Part Number
CG-8242-PACK

CG-1776

CLS-1776 CYLINDER, GRADUATED, CLASS B, POLYPROPYLENE, BLUE SCALE, EACH PACK

Cylinders are manufactured from polypropylene. They meet Class B specifications per DIN 12681. Cylinders have ring molded graduations and have blue screening to simplify the measurements. **Sold 1 each.**

Part Number	Cap. (mL)	Accuracy (± mL)	Subdiv. (mL)	Dia. x Height (mm)
CLS-1776-010	10	0.20	0.20	16 x 140
CLS-1776-025	25	0.50	0.50	21 x 169
CLS-1776-050	50	1.0	1.0	28 x 199
CLS-1776-100	100	1.0	1.0	34 x 260
CLS-1776-250	250	2.0	2.0	47 x 315
CLS-1776-500	500	5.0	5.0	61 x 350
CLS-1776-01L	1,000	10.0	10.0	76 x 415
CLS-1776-02L	2,000	20.0	20.0	97 x 482

CG-8276-P DISH, CRYSTALLIZING, PYREX®, EACH PACK

- Tops are reinforced and fire polished to reduce chipping.
- Will withstand repeated sterilization.

Note: Dishes are packaged EACH.
Please call for details on packs or cases.

Part Number	Diameter x Height (mm)	Capacity (mL)
CG-8276-P70	70 x 50	180
CG-8276-P80	80 x 40	180
CG-8276-P90	90 x 50	270
CG-8276-P100	100 x 50	325
CG-8276-P125	125 x 65	740
CG-8276-P150	150 x 75	1200
CG-8276-P170	170 x 90	1770
CG-8276-P190	190 x 100	2500

CG-8276-P

CG-2999 TRAYS, STERILIZING, PAN STYLE, AUTOCLAVABLE, POLYPROPYLENE

Polypropylene trays designed for sterilizing and drying various pieces of labware. The trays are tapered for easy stacking and incorporate handy, rolled edges for stiffness. Will withstand repeated autoclaving.

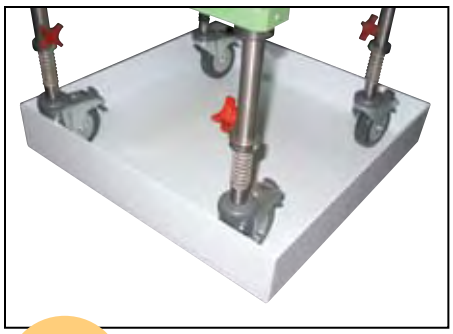
Part Number	Dimensions L x W x H (mm)
CG-2999-01	320 x 260 x 70
CG-2999-02	320 x 260 x 100
CG-2999-03	360 x 310 x 100
CG-2999-04	540 x 435 x 130

CG-2999

CG-1988 SPILL TRAY, POLYPROPYLENE

Constructed of chemical-resistant polypropylene. Tray is designed to contain any accidental spills. PLEASE NOTE: CHEMGLASS CAN CUSTOM FABRICATE SPILL TRAYS TO FIT YOUR NEEDS. CONTACT US FOR MORE DETAILS.

Part Number	Dimensions Reactor Frame	Capacity L x W x H (in)
CG-1988-01	17 x 22 x 1	6
CG-1988-02	27 x 28-1/2 x 3	37
CG-1988-03	23-5/8 x 23-5/8 x 4	37



Custom Spill Trays Available
Please contact us for details.

CLS-1815 DISHES, ANTISTATIC, WEIGHING, POLYSTYRENE

The polystyrene weighing dishes will resist diluted acids, aqueous solutions, alcohols and bases. They are ideal for weighing, dispensing or storing both liquid and powdered samples. They afford accurate pour-outs with minimal sample loss and can also be used as quick freeze trays for sample material. Dishes will withstand temperatures up to 80°C.

Part Number	Volume (mL)	L x W x H (mm)	Pkg. Qty.
CLS-1815-001	20	41 x 41 x 8	500
CLS-1815-002	100	89 x 89 x 25	500
CLS-1815-003	330	140 x 140 x 25	500

CLS-1815 DISHES, ANTISTATIC, POUR BOAT, POLYSTYRENE

These three sizes of weighing dishes have a pour spout that facilitates dispensing of powdered and liquid materials. Smooth, uniform and economical, the molded material is 20 to 30% thicker than conventional weigh dishes. Dishes can withstand temperatures up to 80°C. They can be used safely to weigh static-affected materials.

Part Number	Volume (mL)	L x W x H (mm)	Pkg. Qty.
CLS-1815-004	20	60 x 41 x 8	250
CLS-1815-005	140	133 x 76 x 25	250
CLS-1815-006	270	197 x 121 x 25	250

CLS-1815 DISHES, ANTISTATIC, HEXAGONAL, POLYSTYRENE

These dishes are excellent for handling solids or liquids during weighing. Dishes are easily bent into pouring spouts that enable non-spill transfer. The molded hexagonal design provides greater balance protection and safety. Not reactive with most substances. Dishes are suitable for weighing of static affected samples. They are stackable for easy storage and accessibility. Dishes will withstand temperatures up to 80°C.

Part Number	Volume (mL)	Top ID (mm)	Base ID (mm)	Pkg. Qty.
CLS-1815-007	20	38	25	500
CLS-1815-008	50	64	51	500
CLS-1815-009	200	102	76	500
CLS-1815-010	350	127	89	500

CG-8496-P FLASK, ERLENMEYER, GRADUATED, PYREX®, EACH PACK

Tops are reinforced and tooled with a rounded finish, body is thick walled with a long tapered outside contour to minimize chipping when struck or rubbed together. All flasks have durable white ceramic enamel scales to indicate approximate volumes. Designed from ASTM Specification E1404, Type I, Class 1 requirements.

Erlenmeyer Flasks are packaged EACH. Please call for details on packs or cases.

Part Number	Cap. (mL)	Range (mL)	Subdiv. (mL)	Stopper Size	Dia. (mm)	Height (mm)
CG-8496-P25	25	10-25	5	0	41	65
CG-8496-P50	50	20-50	10	1	51	75
CG-8496-P125	125	50-125	25	5	67	114
CG-8496-P250	250	50-200	25	6	82	132
CG-8496-P300	300	100-300	25	6	89	144
CG-8496-P500	500	100-500	50	7	101	176
CG-8496-P1L	1000	250-1000	50	9	129	216

CG-8496-P

CG-8496 FLASK, ERLENMEYER, GRADUATED, PYREX®, STARTER PACK

An assortment of our popular size Erlenmeyer flasks from our CG-8496 series. The pack consists of five flasks (one each) in sizes of 50, 125, 250, 500 and 1000 mL. Specifications are the same as the standard CG-8496 Erlenmeyer Flasks.

CG-8496-PACK

Part Number	Description
CG-8496-PACK	Erlenmeyer Assortment Pack

CG-1544 FLASK, ERLENMEYER, SCREW THREAD

Flask has a GL-threaded top and is supplied complete with polypropylene linerless closure and pouring ring.

Part Number	Capacity (mL)	Thread Finish	Approx. OAH (mm)
CG-1544-19	125	GL-32	120
CG-1544-20	250	GL-45	130
CG-1544-21	500	GL-45	170
CG-1544-22	1000	GL-45	220
CG-1544-23	2000	GL-45	275
CG-1544-24	4000	GL-45	340

CG-1544

Solid Caps

Vented Caps

Caps, Liners and Pour Rings listed on pages 145-147.

CLS-2090 FLASK, ERLENMEYER, STERILE, POLYCARBONATE

CLS-2090
CLS-2092

Erlenmeyer flasks are sterile, non-pyrogenic and manufactured with polycarbonate resin. Flasks are supplied with exclusive DuoCap® designed for both aerobic and anaerobic applications. For aerobic applications the cap utilizes a 0.22µm pore size PTFE membrane for sterile air exchange. For anaerobic applications the cap can easily be converted to a solid top design. Solid top caps are also ideal for applications requiring mixing, shaking and storage of biological fluids. Graduations are molded for accuracy. New EZ-Tear packaging allows for easy access.

Part Number	Capacity (mL)	GPI Thread Size	Pkg. Qty.
CLS-2090-0125	125	38-430	6
CLS-2090-0250	250	38-430	4
CLS-2090-0500	500	38-430	4
CLS-2090-1000	1000	53B	2
CLS-2090-2000	2000	53B	2

Larger Pack Quantities

CLS-2092-0125	125	38-430	24
CLS-2092-0250	250	38-430	12
CLS-2092-0500	500	38-430	12
CLS-2092-1000	1000	53B	6
CLS-2092-2000	2000	53B	6

See Flask Assemblies in the Bioprocess section.

CLS-2090 DuoCap®, ONLY, STERILE

The DuoCap is designed for both aerobic and anaerobic applications. For aerobic applications the cap utilizes a 0.22µm pore size PTFE membrane for sterile air exchange. For anaerobic applications the cap can easily be converted to a solid top design. Solid top caps are also ideal for applications requiring mixing, shaking and storage of biological fluids. Graduations are molded for accuracy. New EZ-Tear packaging allows for easy access. US Patent D574239.

Part Number	GPI Thread Size	Pkg. Qty.
CLS-2090-0038	38-430	12
CLS-2090-0053	53-B	6

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-2091 FLASK, ERLENMEYER, BAFFLED, STERILE, POLYCARBONATE

Quadruple baffled Erlenmeyer flasks are sterile, non-pyrogenic and manufactured with polycarbonate resin. Flasks are supplied with exclusive DuoCap® designed for both aerobic and anaerobic applications. For aerobic applications the cap utilizes a 0.22µm pore size PTFE membrane for sterile air exchange. For anaerobic applications the cap can easily be converted to a solid cap design. Solid top caps are also ideal for applications requiring mixing, shaking and storage of biological fluids. Graduations are molded for accuracy. New EZ-Tear packaging allows for easy access.

Part Number	Capacity (mL)	GPI Thread Size	Pkg. Qty.
CLS-2091-0125	125	38-430	6
CLS-2091-0250	250	38-430	4
CLS-2091-0500	500	38-430	4
CLS-2091-1000	1000	53B	2
CLS-2091-2000	2000	53B	2
Larger Pack Quantities			
CLS-2093-0125	125	38-430	24
CLS-2093-0250	250	38-430	12
CLS-2093-0500	500	38-430	12
CLS-2093-1000	1000	53B	6
CLS-2093-2000	2000	53B	6

CLS-2091
CLS-2093

Quadruple Baffle

DuoCap®

Designed for both aerobic and anaerobic applications.

1. Add culture media & inoculum

2. Add DuoCap for anaerobic culture

3. Remove dust guard cover for aerobic culture

4. Move to shaker incubator

CLS-2170 and CLS-2171

FLASK, ERLENMEYER AND FERNBACH, POLYCARBONATE, 70MM VENTED CAP, (PLAIN OR BAFFLED BOTTOM)

CELLTREAT® Erlenmeyer and Fernbach culture flasks are designed for shaker and cell culture applications. All flasks feature a 70mm neck size that provides easy access for filling and dispensing. The unique shape of the Fernbach flask provides an increased surface area to volume ratio for improved gas exchange. The flasks are available in 2L Erlenmeyer, 2L and 3L Fernbach sizes, with plain bottoms. The polypropylene caps are knurled for secure grip and are configured in 70mm large vent or non-vented styles. The flasks are constructed from an optically clear polycarbonate material that can be autoclaved. All flasks include a vented cap and are individually packed in bags and gamma irradiation sterilized. Additional caps are available separately.

Plain Bottom

Part Number	Description	Case Qty.
CLS-2170-EP2L	Flask, Erlenmeyer, 2L, Plain Bottom, Vented Cap	6
CLS-2170-FP2L	Flask, Fernbach, 2L, Plain Bottom, Vented Cap	6
CLS-2170-FP3L	Flask, Fernbach, 3L, Plain Bottom, Vented Cap	4

Baffled Bottom

Part Number	Description	Case Qty.
CLS-2171-EB2L	Flask, Erlenmeyer, 2L, Baffled Bottom, Vented Cap	6
CLS-2171-FB2L	Flask, Fernbach, 2L, Baffled Bottom, Vented Cap	6
CLS-2171-FB3L	Flask, Fernbach, 3L, Baffled Bottom, Vented Cap	4

Accessories

Part Number	Description	Case Qty.
CLS-2172-V070	Cap, 70mm, Vented	24
CLS-2072-S070	Cap, 70mm, Solid	24

See additional assemblies listed on page 109.

CLS-3462 TRANSFER ASSEMBLY WITH MALE LUER LOCK AND WELDABLE C-FLEX® TUBING, STERILE

Transfer cap assemblies for 2L Erlenmeyer flasks and 2L and 3L Fernbach flasks are sterile (10^{-6} SAL), individually double bagged and fit our new 2L and 3L CellTreat® polycarbonate flasks.

The venting port ends in a 50mm diameter vent filter with a 0.2µm pore PTFE (hydrophobic) membrane and a barbed fitting.

On the external side you will find 1/8" ID x 1/4" OD weldable C-Flex® tubing ending in a male luer lock (MLL) closed with a threaded PP cap. The liquid transfer port has an internal end with rigid polypropylene dip tube with a notched end to reach the bottom of the flask. Individually double bagged and gamma irradiated sterile.

Part Number	Description
CLS-3462-10	Transfer Assembly for 2L Fernbach Flasks
CLS-3462-40	Transfer Assembly for 2L Erlenmeyer and 3L Fernbach Flasks

Heavy Duty, Wide Mouth, Flat Bottom, Class "A" Volumetric Flasks in Clear and Low Actinic

CG-1615 CLEAR GLASS FLASKS
CG-1616 LOW ACTINIC FLASKS

Wide mouth design facilitates mixing, pipet access, sampling and filling. Unique, flat bottom, interior permits the use of a standard stir bar. Large, permanent, white numbers make the capacity clearly visible. Flasks are calibrated 'To Contain' at Class A tolerances, per ASTM E288 specifications. Supplied complete with a glass, pennyhead stopper.

Low actinic, red stained glass provides protection to light sensitive solutions; allowing less than 1% transmission below 400nm and 5% from 400-600nm.

Volumetric flasks are available with either PTFE or plastic stoppers. Please call for details.

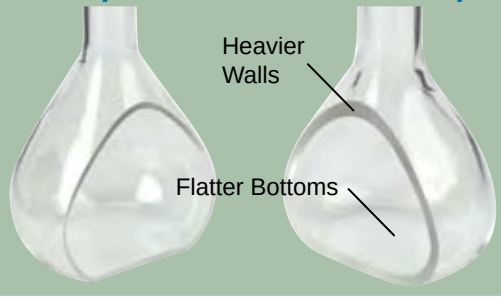
PLEASE NOTE: VOLUMETRIC FLASK CAPACITIES MARKED WITH A (•) ARE NOT INCLUDED IN THE ASTM E288 SPECIFICATIONS. FLASKS ARE CALIBRATED TO CLASS A TOLERANCES.

			Clear, CG-1615	Low Actinic, CG-1616
Capacity & Tolerance (mL)	**Stopper Size**	**Approx. Height With Stopper (mm)**	**Part Number**	**Part Number**
5 ± 0.08	13	96	CG-1615-05	CG-1616-05
10 ± 0.08	13	101	CG-1615-10	CG-1616-10
20 ± 0.08	13	128	CG-1615-20 •	CG-1616-20 •
25 ± 0.08	13	131	CG-1615-25	CG-1616-25
50 ± 0.08	13	148	CG-1615-50	CG-1616-50
100 ± 0.10	16	180	CG-1615-100	CG-1616-100
200 ± 0.12	19	175	CG-1615-200	CG-1616-200
250 ± 0.20	19	250	CG-1615-250	CG-1616-250
500± 0.20	19	275	CG-1615-500•	CG-1616-500 •
1000± 0.30	22	350	CG-1615-1L •	CG-1616-1L •
2000± 0.50	27	380	CG-1615-2L •	CG-1616-2L •

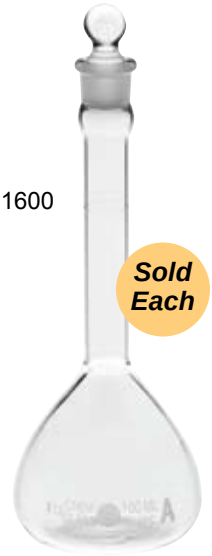
Please see the web for our complete line of volumetric flasks.

The Heavy Duty Difference

See for yourself in this cut-away.



CG-1600



Sold Each

CG-1600 FLASK, VOLUMETRIC, CLASS "A", GLASS STOPPER

Manufactured to conform to Federal Specifications NNN-F-289 for Type 1, Class "A" unserialized flasks and ASTM E-288. Supplied with one solid glass pennyhead stopper.

Part Number	Cap. (mL)	Tol. (± mL)	Stopper Size
CG-1600-01	5	± 0.02	9
CG-1600-02	10	± 0.02	9
CG-1600-03	25	± 0.03	9
CG-1600-04	50	± 0.05	9
CG-1600-05	100	± 0.08	13
CG-1600-06	200	± 0.10	16
CG-1600-07	250	± 0.12	16
CG-1600-08	500	± 0.20	19
CG-1600-09	1000	± 0.30	22
CG-1600-10	2000	± 0.50	27

CG-1612

CG-1612 FLASK, VOLUMETRIC, CLASS "A", PMP

Polymethylpentene (PMP) volumetric flasks are manufactured to conform to Class "A" standards per DIN EN ISO 1042. The flasks are packed with a printed lot number and batch certificate. The polymethylpentene flask offers a unique combination of transparency, heat and chemical resistance. Flasks have a scored graduation line, with coloring added for visibility. Supplied complete with matching polypropylene standard taper joint stoppers. Flask can be autoclaved at 121°C.

Part Number	Cap. (mL)	Tol. (± mL)	Stopper Size	Case Qty.
CG-1612-02	10	0.04	10/19	6
CG-1612-03	25	0.04	10/19	6
CG-1612-04	50	0.06	12/21	6
CG-1612-05	100	0.10	14/23	6
CG-1612-07	250	0.15	19/26	5
CG-1612-08	500	0.25	19/26	4
CG-1612-09	1000	0.40	24/29	3

CG-1613

CG-1613 FLASK, VOLUMETRIC, CLASS "B", PP

Polypropylene(PP) volumetric flasks are manufactured to conform to Class "B" standards per DIN EN ISO 1042. The transparent polypropylene flasks are an excellent break-resistant alternative to glass. Flasks have a scored graduation line, with coloring added for visibility. Supplied complete with matching polypropylene screw cap.

Part Number	Cap. (mL)	Tol. (± mL)	Thread Size	Case Qty.
CG-1613-02	10	0.08	GL-18	6
CG-1613-03	25	0.08	GL-18	6
CG-1613-04	50	0.12	GL-18	6
CG-1613-05	100	0.20	GL-18	6
CG-1613-07	250	0.30	GL-25	5
CG-1613-08	500	0.50	GL-25	4
CG-1613-09	1000	0.80	GL-32	3

CLS-2080-100 FUNNEL, PAPER, DISPOSABLE

- Use with virtually any liquid or powder
- Helps reduce cross contamination
- Good alternative to disposable plastic funnels
- Customizable spout – trim to desired opening
- Environmentally friendly – naturally biodegradable

The innovative “backrest” of these sturdy, paper funnels allows hands-free use when pouring viscous liquids. With a ¼” opening, they fit a variety of vessels but are easily cut to any desired opening size or shape. Funnels stay in position with the application of a minimum amount of pressure. Use with virtually any liquid or powder but not recommended for hot liquids. Supplied flat for cleanliness and to facilitate storage.

Specifications

Funnel Capacity	186 mL (6.29 oz)
Top Dimensions	6 cm^2 (2.4 in^2)
Stem Dimensions	0.64 cm^2 (0.25in^2)

Part Number	Description	Pkg. Qty.
CLS-2080-100	Disposable Paper Lab Funnel	25

CG-1760 FUNNEL, POWDER, WEIGHING

- Available in anti-static PP, PP and borosilicate glass
- With flat bottoms and designed to fit narrow neck vessels

Anti-Static Polypropylene Weighing Funnel

Part Number	Solid Cap. (mL)	Liquid Cap. (mL)	Fits Volumetric Flask Volume (mL)	Pkg. Qty.
CG-1760-02	2	1	96 Well Mini Tubes & Deep Well Plates	96
CG-1760-04	2	2	5, 10, 25, 50	50
CG-1760-06	10	7	100, 200, 250	50
CG-1760-08	20	10	500, 1000	20
CG-1760-10	6	25	1000, 2000	10

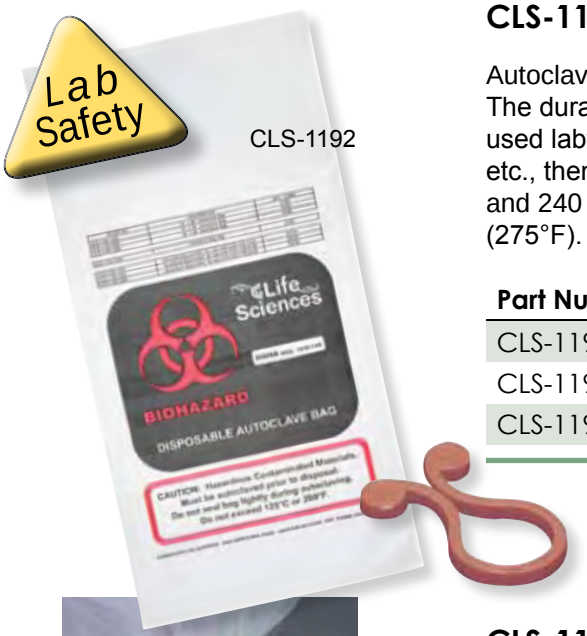
Disposable Polypropylene Weighing Funnel

CG-1760-12	2	1	96 Well Mini Tubes & Deep Well Plates	96
CG-1760-14	2	2	5, 10, 25, 50	50
CG-1760-16	10	7	100, 200, 250	50
CG-1760-18	20	10	500, 1000	20
CG-1760-20	6	25	1000, 2000	10

Reusable Borosilicate Glass Weighing Funnel

CG-1760-22	2	1	96 Well Mini Tubes & Deep Well Plates	6
CG-1760-24	2	2	5, 10, 25, 50	6
CG-1760-26	10	7	100, 200, 250	6
CG-1760-28	20	10	500, 1000	6
CG-1760-30	6	25	1000, 2000	6

Funnel in use.



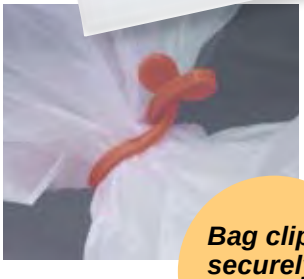
CLS-1192

CLS-1192-C

CLS-1192 AUTOCLAVE BAGS

Autoclave bags offer maximum protection and performance for autoclavability. The durable 0.002in thick transparent polypropylene bag can be filled with used labware such as Petri dishes, membrane filters, culture plates, pipettes, etc., then autoclaved and discarded. These three large size bags hold 65, 200 and 240 standard size Petri dishes respectively. Steam autoclavable at 135°C (275°F). Sold 100 per case.

Part Number	Dimensions (Inches)	Case Qty.
CLS-1192-1224	12 x 24	100
CLS-1192-2430	24 x 30	100
CLS-1192-2436	24 x 36	100



Bag clips securely close bags.

CLS-1192-C AUTOCLAVE BAG CLIP

Open and close the clip with one hand. After autoclaving, clip holds the processed bag closed for finial disposal. The closed internal dimension of the clip is 7/16", suitable for CLS-1192 Autoclave Bags from 12 x 24" to 24 x 36". Holds filled autoclaved bags closed during cycle. Clip permits bag to safely vent internal pressure during autoclaving. Sold 100 per case.

Part Number	Description	Case Qty.
CLS-1192-C001	Autoclave Bag Clip	100

CLS-1193

CLS-1193 AUTOCLAVE BAG HOLDER

These epoxy-coated, wire-framed bag holders keep biohazard bags open and ready for use. Just place a biohazard bag into the sturdy wire holder and stretch the bag over the top ring to secure it in place. A separate hooked ring rests over the top to keep the bag in place. Circular shape keeps the bag wide open for easy access. Made from bright, biohazard orange colored epoxy-coated wire. Sold 1 per case.

Part Number	For Use with Bag Dimensions (Inches)
CLS-1193-1224	12 x 24
CLS-1193-2430	24 x 30
CLS-1193-2436	24 x 36

BIO-BIN® Features

- Space efficient, light weight fold-flat design
- Built-in lid and handles
- Temporary & permanent seals
- Stackable post use. UN 3291 Approved
- Printed user instructions & user ID/date information on lid
- Waterproof construction
- Built-in super absorbent Bio-matt to soak up any excess liquid in Bio-bin
- Autoclavable - Use with #206 Autoclave Sterility Tape
- Supplied with 2 x 2 inch Biohazard Waste Labels

CLS-5200-100

CLS-5200 WASTE DISPOSAL CONTAINER, 2.5L

Benchtop BIO-BIN® is ideal for the disposal of non-sharp, biomedical and laboratory waste **up to 9" (228mm) in length**. This includes items such as microbiological inoculating loops, disposable single-use instruments, pipettes, test tubes, vials and swabs. The longer base allows waste to lie flat on the bottom, reducing waste. A built-in, bio-matt absorbs approximately 1/2 liter of liquid.

Part Number	Description	Case Qty.
CLS-5200-100	BioBin, 2.5L	50

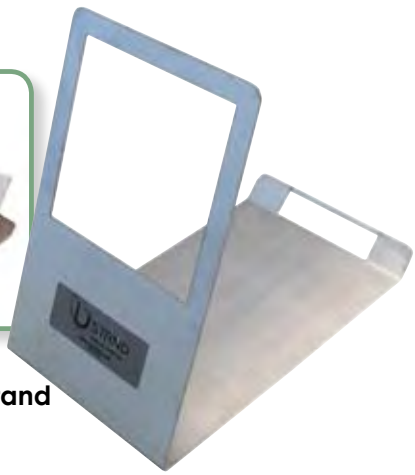
CLS-5201 WASTE DISPOSAL CONTAINER, 6L

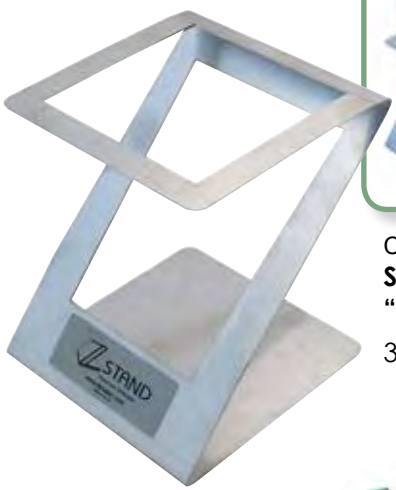
The 6 liter BIO-BIN® is specially designed for the collection and disposal of contaminated laboratory serological pipettes and other long, non-sharp items **up to 15" (380mm) in length**. Accessories for 6 liter Bio-bins include two styles of stainless steel stands; the U-Stand for bench or work station and the Z-Stand for floor use. The U-Stand conveniently holds the Bio-bin in place at an angle and is ideal for use in biological safety cabinets.

Part Number	Description	Case Qty.
CLS-5201-120	BioBin, 6L	40

CLS-5201-120

CLS-5201-200
Stainless Steel "U" Stand
30.25





CLS-5201-250
Stainless Steel "Z" Stand
30.25

CLS-4752

CLS-4752 7X AND 7X-O-MATIC® CLEANING SOLUTIONS

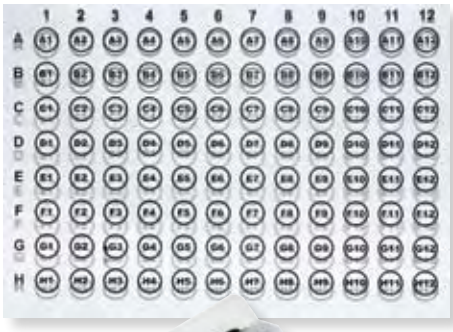
- No Clumping: All 7X Detergents Come in Liquid Form for Easy Pouring and Dispensing
- Rinses Clean with Water: Prevents Harmful Buildup of Residue
- Near-Neutral pH: No Neutralizing Rinse Required and Gentle on Hands
- Aqueous Detergent: Can Be Disposed of Down the Drain
- Cleans Glass and/or Plastic Lab Ware

The Original 7X Concentrate - designed to clean plastic and glassware simply by soaking 2-3 hours with little or no scrubbing. 7X is typically diluted to a final working solution (v/v) of 1-2%. A gallon of concentrate can make 50-100 gallons of cleaning solution. A final rinse in distilled water is recommended. Multipurpose detergent with phosphates and polyphosphates; anionic; foaming; high wetting and emulsifying power; mildly alkaline.

The 7X-O-Matic® is low-foaming and formulated to clean under pressure, heat and agitation. Intended for use in automatic washers. Low foaming detergent with phosphates and polyphosphates; anionic; mildly alkaline.

Part Number	Description
CLS-4752-07X	7X Detergent, 4 x 1 Gallons
CLS-4752-M7X	7X-O-Matic® Detergent, 4 x 1 Gallons

CLS-3477



CLS-3477 WELL LOCATOR, PLASTIC, REUSABLE

- Reusable Template with Each Well Address Printed in Bold Letters
- Fits Under Multi-well Plate
- Makes Identifying Individual Wells Effortless
- Stress Free Sample Retrieval
- Choose White Well Locator for Clear Plates and Clear for Black Plates
- Best Used with Well Locator Stand (CLS-3478)

Place this 96 well alpha-numeric printed locator under your 96 well plate for quick and simple well orientation. Ideal for ELISA or cell culture work.

Part Number	Description
CLS-3477-W01	Well Locator, White, Plastic, Package of 2
CLS-3477-C02	Well Locator, Clear, Plastic, Package of 2

CLS-3478

Stand features a 30° angle for easy sample viewing.

CLS-3478 WELL LOCATOR STAND, 30° ANGLE

- Convenient Stand to be Used with CLS-3477 Well Locators
- Tilted at a 30° Angle for Easy Sample Viewing
- Neoprene Pad and Rubber Mounting to Prevent Slippage

Works perfectly with printed well-orienters. Place your 96 well plate on this 30° angled platform for easier visibility.

Part Number	Description
CLS-3478-01	Well Locator Stand, Each

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-1436-T TUBING, SILICONE, PEROXIDE-CURED VERSILIC™

CLS-1436-T

Peroxide-cured Versilic™ Silicone Tubing is designed for use in applications where flexibility, resiliency and durability are required. Its inner smooth surface reduces the risk of particulate entrapment and microscopic buildup during fluid transfer.

Tubing complies fully with the requirements of the USP Class VI Criteria and is entirely non-toxic, non-hemolytic and non-pyrogenic. It also meets 3-A Sanitary Standards, FDA 21 CFR Part 177.2600 Criteria and NSF 51 Standard. Withstands temperature extremes from -75°F to 350°F.

Sold in standard lengths of 50ft.

Part Number	OD	ID	Wall Thickness
CLS-1436-T20	1/4"	1/8"	1/16"
CLS-1436-T21	5/16"	3/16"	1/16"
CLS-1436-T22	3/8"	3/16"	3/32"
CLS-1436-T23	3/8"	1/4"	1/16"
CLS-1436-T24	7/16"	1/4"	3/32"
CLS-1436-T25	1/2"	1/4"	1/8"

CLS-1436-C01 FLOW CONTROL TUBE CLAMP, 1/2" OD

CLS-1436-C01

Acetal clamp is autoclavable; won't rust, corrode or distort. Twelve position ratchet control adjusts from full flow to complete closure. Accepts tubing up to 1/2" OD. Packed 1 per case.

Part Number	Description
CLS-1436-C01	Flow Control Tube Clamp, 1/2" OD

CLS-1436 PRESSURE RELIEF/CHECK VALVE, DISPOSABLE

CLS-1436

Safety is paramount when working with glass vessels that see pressure. Hydrophobic vent filters can become blocked due to moisture from the vessel contents. This results in a higher than normal back pressure and an increased chance for the vessel or other system components to fail.

Valve is a one-way or non-return device to let gas flow in one direction above a fixed pressure level. It is attached by silicone or comparable tubing to one of the vessels head plate ports. If the pressure inside the vessel reaches 3 psig, the valve will open and then close when the pressure falls below 3 psig. The valve is made from FDA/USDA materials and is ultrasonically welded for leak-free service. The housing cannot be opened nor can the pressure setting be adjusted. The valve is fully autoclavable and can be reused or disposed of depending on the user requirements. The device can also be used as a check valve in applications to prevent gases or liquids from back flowing.

Part Number	Description	Pkg. Qty.
CLS-1436-00	Pressure Relief/Check Valve	6

Cracking Pressure	3 psig
Connections	1/4" to 1/4" OD Hose Barb
Dimensions	1.8" OAL, .75" Body Diameter
Temperature Range	0 to 250°F
Materials of Construction	Polypropylene, 316 SS and Dura-Grip®
Pressure Limits	Full Vacuum to 100 psig

CLS-4315 ACRYLIC CUBES FOR 15mL & 50mL CENTRIFUGE TUBES

Space saving icebox tube holders for 15ml and tubes replace the need for big bulky ice buckets. Ideal to place inside a laminar flow hood and work areas with limited space. Hinged lid design allows you to scoop ice to keep sample tubes cold for prolonged time. The 15mL size holds 8 tubes while the 50mL holds 4 tubes. Both cubes are 4" x 4" x 4".

Part Number	Description
CLS-4315-15	15mL Tube Acrylic Box, Holds 8 Tubes
CLS-4315-50	50mL Tube Acrylic Box, Holds 4 Tubes

CLS-4284-004

CLS-4284-096

CLS-4284-024

CLS-4284 CELL SEPARATOR STAND, MAGNETIC

Magnetic Stand for DNA and RNA extraction or cell purification. This magnetic stand is designed to be used with 96-well multiwell plates for magnetic bead based cell purification or DNA and RNA extraction. Cells or nucleic acid tagged with paramagnetic beads will be held down on the bottom of the plate by powerful magnetic force for easy removal of media or reagents for cell purification or nucleic acid extraction procedure. Made of clear acrylic.

Part Number	Description	Dims. (in.)
CLS-4284-096	Magnetic Stand, 1 ea. 96-well plate	3.5 x 5"
CLS-4284-024	Magnetic Stand, 24ea. 1.5 or 2mL Tubes	8.5 x 3"
CLS-4284-004	Magnetic Stand, 4 ea. 15 or 50mL Tubes	6.5 x 3.5"

CLS-3476

CLS-3476 PIPETTE STORAGE RACK, MAGNETIZED

This magnetized pipette storage rack has strong magnets on both sides and mounts securely on fume hoods, file cabinets, refrigerators, etc. Constructed of durable ABS plastic, this rack not only looks better, but will also hold up better than acrylic. Includes two handy attachments for holding pipette bulbs, pipette fillers and pipette pumps. Measures 291 x 88 x 401mm.

Part Number	Description
CLS-3476-01	Pipette Storage Rack, Magnetized, White

CLS-1710 PIPET CANISTERS, S.S.

These Pipet Canisters are made from 304 Stainless Steel and offer a high resistance to corrosion. They can withstand repeated steam and dry heat sterilization. The square cans are available in three lengths, each one 5.1cm (2 inches) square. The round canisters are 6.4cm (2-1/2") in diameter. All Canisters come with Silicone pads on the inside of top and bottom to protect the pipets.

Part Number	Description
CLS-1710-001	15.2 cm SS Pipet Canister, Square
CLS-1710-003	22.9 cm SS Pipet Canister, Square
CLS-1710-005	41.9 cm SS Pipet Canister, Square
CLS-1710-007	41.9 cm SS Pipet Canister, Round

CLS-1710

CLS-1710 PIPET CANISTERS, ULTEM®, POLYETHERMIDE

These Pipet Canisters are fabricated from polyetherimide resin and are transparent for easy visibility. They can withstand repeated steam and dry heat sterilization and are virtually indestructible. They are especially useful for sterilizing and storing Pipets used in procedures sensitive to metallic ion contamination. They have a flat edge on the base to prevent rolling. Three lengths available, 5.1cm (2-1/2") in diameter.

Part Number	Description
CLS-1710-009	15.2 cm ULTEM® Pipet Canister, Round
CLS-1710-011	22.9 cm ULTEM® Pipet Canister, Round
CLS-1710-013	41.9 cm ULTEM® Pipet Canister, Round

CLS-1710-011

CLS-3489 PIPETTER STAND, ACRYLIC

Acrylic stand for Pipetters. Ergonomic, stylish and colorful pipette stand for bench top pipette storage. Also can hold pipette tip box for easy carrying. The 2 unit stand is 10" x 6" x 6.5" and comes in orange acrylic. The 4 unit stand is 8" x 6" x 10" and comes in blue acrylic.

Part Number	Description
CLS-3489-02	Pipetter Stand, Holds 2 Pipetters
CLS-3489-04	Pipetter Stand, Holds 4 Pipetters

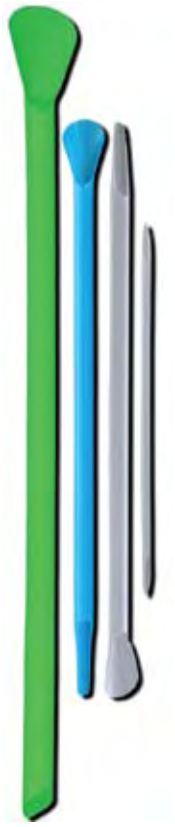
CLS-3489

CG-1997-R-10 SPOOL RACK, MOBILE

Rack is on casters making it easy to move from lab to lab. It will hold up to 6 each 13" spools. With the rack being only 17" wide it can fit into tight spaces between lab benches and hoods. Constructed of powder coated aluminum making the unit light and resistant to most lab environments. Rack is 35" Long x 17" Wide x 52" tall.

Part Number
CG-1997-R-10

CG-1997-R-10



CLS-1985-P

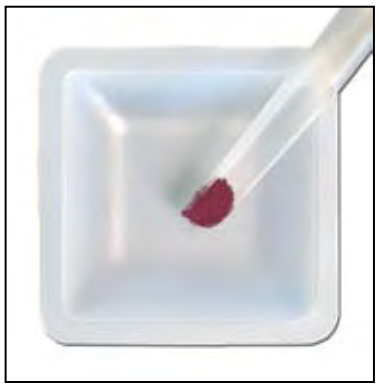
CG-1985-P SmartSpatulas®, DISPOSABLE

- Inexpensive spatulas that scoop, scrape and stir
- Autoclavable for sterile applications
- Antistatic Micro for small volumes
- Unique hollow cores minimize thermal transfer
- Excellent for use as stir rod or policeman
- Resistant to dilute acids and bases
- Comply with FDA regulations for food-contact applications;
- Made of virgin PP
- Shatter resistant for liquid nitrogen frozen samples

Used for sample handling and manipulation in labs across the country. These versatile spatulas can be used to scoop, scrape or stir. Made of virgin polypropylene, SmartSpatulas® are an economic alternative to reusable spatulas. Available in 3 convenient sizes: Macro-Green 310 mm, Standard-Blue and Standard-Opaque 210 mm, and Antistatic-Micro 140 mm.

SmartSpatulas® are autoclavable for sterile applications. Single-use SmartSpatulas® help to reduce cross contamination, are resistant to dilute acids and bases, and the unique hollow core minimizes thermal transfer. SmartSpatulas® comply with FDA regulations for food-contact applications, are shatter resistant for liquid nitrogen frozen samples and can also be used as a stir rod or policeman.

Part Number	Description	Pkg. Qty.
CG-1985-P-01	Standard Blue, 210mm	300
CG-1985-P-02	Standard Blue, 210mm	7500
CG-1985-P-03	Standard Opaque, 210mm	300
CG-1985-P-04	Standard Opaque, 210mm	7500
CG-1985-P-05	Antistatic, Micro, 140mm	300
CG-1985-P-06	Antistatic, Micro, 140mm	7500
CG-1985-P-07	Macro, Green, 310mm	150
CG-1985-P-08	Macro, Green, 310mm	3600
CG-1985-P-10	Sterile, Opaque, 210mm	100
CG-1985-P-12	Sterile, Opaque, 210mm	500



* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CG-2001 STIR BAR, MAGNETIC, PTFE

Octagon cross-section having a moulded-in pivot ring. The PTFE coated Alnico magnet permits magnetic agitation without contamination.

CG-2001

Part Number	Length x Diameter (mm)	Length x Diameter (in)
CG-2001-01	13 x 3	1/2 x 1/8
CG-2001-02	13 x 8	1/2 x 5/16
CG-2001-03	13 x 10	1/2 x 3/8
CG-2001-04	15 x 8	5/8 x 5/16
CG-2001-05	15 x 10	5/8 x 3/8
CG-2001-06	22 x 8	7/8 x 5/16
CG-2001-07	22 x 10	7/8 x 3/8
CG-2001-08	25 x 8	1 x 5/16
CG-2001-09	25 x 10	1 x 3/8
CG-2001-10	28 x 8	1-1/8 x 5/16
CG-2001-11	35 x 10	1-3/8 x 3/8
CG-2001-12	38 x 8	1-1/2 x 5/16
CG-2001-13	38 x 10	1-1/2 x 3/8
CG-2001-14	38 x 13	1-1/2 x 1/2
CG-2001-15	41 x 8	1-5/8 x 5/16
CG-2001-16	48 x 10	1-7/8 x 3/8
CG-2001-17	51 x 10	2 x 3/8
CG-2001-18	64 x 8	2-1/2 x 3/8
CG-2001-19	64 x 10	2-1/2 x 5/16
CG-2001-20	75 x 13	3 x 1/2

Stir Bar Kits are available with an assortment of other styles and sizes. Please call for pricing.

CG-2001-50 STIR BAR, MAGNETIC, PTFE, KIT

Clear plastic case contains an assortment of our most popular sizes of CG-2001 magnetic octagon shaped stir bars. Case has movable plastic dividers providing room for additional stirring bars.

CG-2001-50

Kit Contents

Part Number	Length x Diameter (mm)	Qty.
CG-2001-01	13 x 3	6
CG-2001-02	13 x 8	6
CG-2001-04	15 x 8	2
CG-2001-09	25 x 10	3
CG-2001-08	25 x 8	1
CG-2001-13	38 x 10	1
CG-2001-17	51 x 10	1

Part Number
CG-2001-50

CG-2003

CG-2003 STIR BAR, MAGNETIC, MICRO, PTFE

Micro PTFE stirring magnet for the very smallest containers.

Part Number	Length x Diameter (mm)
CG-2003-10	2 x 2
CG-2003-11	3 x 3
CG-2003-12	5 x 2
CG-2003-13	6 x 3
CG-2003-14	7 x 2
CG-2003-15	8 x 1.5
CG-2003-16	10 x 3
CG-2003-17	13 x 3
CG-2003-18	15 x 1.5

CG-2003-50

CG-2003-50 STIR BAR, MAGNETIC, MICRO, PTFE, KIT

Clear plastic case contains an assortment of our most popular sizes of CG-2003 micro shaped stirring magnets. Case has movable plastic dividers providing room for additional stirring bars.

Kit Contents

Part Number	Length x Diameter (mm)	Qty.
CG-2003-12	5 x 2	6
CG-2003-14	7 x 2	6
CG-2003-16	10 x 3	6
CG-2003-10	2 x 2	3
CG-2003-13	6 x 3	3
CG-2003-17	13 x 3	3

Part Number
CG-2003-50

CG-2005 STIR BAR, MAGNETIC, EGG-SHAPED

Egg-shaped magnetic stir bar provides its own pivot point without separate ring or abrupt change in contour. Designed for use in round bottom vessels, it is shaped to spin freely, unrestricted by the vessel contour.

Part Number	Length x Dia. (mm)	Length x Dia. (in)
CG-2005-30	10 x 5	3/8 x 3/16
CG-2005-10	20 x 10	3/4 x 3/8
CG-2005-11	25 x 12	1 x 1/2
CG-2005-12	30 x 16	1-1/4 x 5/8
CG-2005-13	35 x 16	1-1/2 x 5/8
CG-2005-14	40 x 20	1-5/8 x 3/4
CG-2005-15	50 x 20	2 x 3/4
CG-2005-16	64 x 20	2-1/2 x 3/4
CG-2005-17	70 x 20	2-3/4 x 3/4

CG-2005

Stir Bar Kits are available with an assortment of other styles and sizes. Please call for pricing.

CG-2005-20 STIR BAR, MAGNETIC, EGG-SHAPED, KIT

Clear plastic case contains an assortment of our most popular sizes of CG-2005 oval shaped stirring magnets. Case has movable plastic dividers providing room for additional stirring bars.

Kit Contents

Part Number	Length x Dia. (mm)	Qty.
CG-2005-10	20 x 10	6
CG-2005-12	30 x 16	6
CG-2005-14	40 x 20	3
CG-2005-15	50 x 20	2
CG-2005-16	64 x 20	1

Part Number
CG-2005-20

CG-2005-20

CG-2015 STIR BAR RETRIEVER, POLYETHYLENE

A 3/8” diameter pick up rod with a powerful magnet in one end and a hang up grip on the other. Available in either 12 or 18” lengths.

Part Number	Length (in)
CG-2015-01	12
CG-2015-02	18

CG-2015

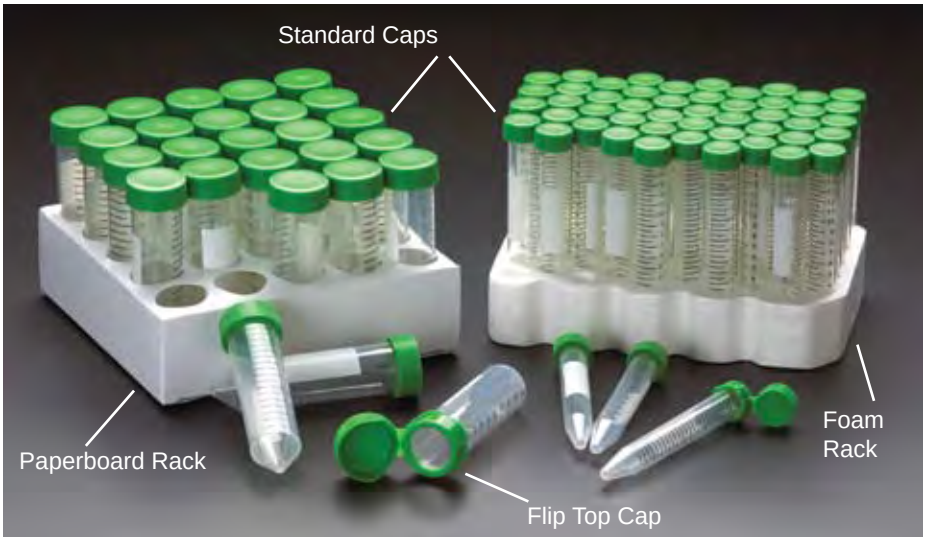
CLS-3744 GLASS STIR RODS

Manufactured from Type 1 borosilicate glass with rounded ends.

Part Number	Dia.(in)	Length (in)	Pkg. Qty.
CLS-3744-01	1/8	6	10
CLS-3744-02	1/4	10	10

CLS-3744

CELLTREAT® 15 & 50mL Polypropylene Centrifuge Tubes with Standard or Flip Top Caps



Pack configurations are foam racks, recyclable paperboard racks, or bulk packed in sterile, resealable bags. Inner bags contain lot number information.

CELLTREAT® centrifuge tubes are manufactured in a class 100,000 clean room and made of high-clarity polypropylene. All tubes are printed with bold, easy-to-read black graduations that are accurate to ±2%. A high contrast, white marking strip provides generous space for convenient sample identification. Flat top, screw thread caps provide an integral seal with tubes and are made from green polyethylene.

Temperature range is -80°C to120°C. Tubes are gamma irradiation sterilized, RNase-free, DNase-free, DNA-free and non-pyrogenic.

Celltreat Centrifuge Tubes with Standard Caps

Part Number	Description	Packaging	Max. Force (RCF) g	Pkg. Qty.	Case Qty.
Centrifuge Tubes in Foam Racks, Sterile					
CLS-4301-015	15mL Centrifuge Tube, Sterile	Foam Rack	12,000	50	300
CLS-4301-050	50mL Centrifuge Tube, Sterile	Foam Rack	16,000	25	300
Centrifuge Tubes in Recyclable Paperboard Racks, Sterile and Non-Sterile					
CLS-4302-015	15mL Centrifuge Tube, Sterile	Paperboard Rack	12,000	25	500
CLS-4302-050	50mL Centrifuge Tube, Sterile	Paperboard Rack	16,000	25	500
CLS-4302-N50	50mL, Cent. Tube, Non-Sterile	Paperboard Rack	16,000	25	25
Centrifuge Tubes in Resealable (zip closure) Bags, Sterile					
CLS-4303-015	15mL Centrifuge Tube, Sterile	Bag	12,000	25	500
CLS-4303-050	50mL Centrifuge Tube, Sterile	Bag	16,000	25	500
CLS-4304-050	50mL Cent. Tube, Self-Standing, Sterile	Bag	12,000	25	500
Centrifuge Tube Components, Non-Sterile					
CLS-4306-001	Tube Only, 15mL, Non-Sterile	Bag	12,000	—	500
CLS-4306-007	Tube Only, 50mL, Non-Sterile	Bag	16,000	—	500
CLS-4306-003	Cap Only, 15mL, Non-Sterile	Bag	—	—	500
CLS-4306-005	Cap Only, 50mL, Non-Sterile	Bag	—	—	500
CLS-4302-B15	Tube & Cap(packed separately), 15mL, Non-Sterile, Bulk	Bag	12,000	—	500
CLS-4302-B50	Tube & Cap(packed separately), 50mL, Non-Sterile, Bulk	Bag	16,000	—	500
Tube Marker, Fast Drying, Permanent Black Ink, Extra-Fine Tip					
CLS-4305-H01	Black Marker	Bag	—	—	5

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

Flip Top Caps are leak-free and allow easy, one-hand operation!

Centrifuge Tubes with Flip Top Caps

- Ergonomic, leak-free cap design allows easy, one-hand opening
- Flip top caps are hinged - preventing loss of a separate cap
- Maximum RCF is 9,400(g)
- Available in paperboard recyclable racks or bulk packed

CELLTREAT® flip top centrifuge tubes are manufactured under the same clean room conditions and of the same materials as standard CELLTREAT tubes.

Celltreat Centrifuge Tubes with Flip Top Caps

Part Number	Description	Packaging	Max. Force (RCF) g	Pkg. Qty.	Case Qty.
CLS-4308-015	15mL Centrifuge Tube with Flip Top Cap, Sterile	Paperboard Rack	9,400	25	500
CLS-4308-050	50mL Centrifuge Tube with Flip Top Cap, Sterile	Paperboard Rack	12,000	25	500
CLS-4309-015	15mL Centrifuge Tube with Flip Top Cap, Sterile	Bulk Bag	9,400	25	500
CLS-4309-050	50mL Centrifuge Tube with Flip Top Cap, Sterile	Bulk Bag	9,400	25	500
CLS-4309-C50	Flip Top Cap Only for 50mL Centrifuge Tube, Sterile	Bulk Bag	—	25	C1000

CLS-4303-B TUBES, CENTRIFUGE, WITH CAP, BLACK

CELLTREAT® opaque black centrifuge tubes are a great choice when one needs to protect light sensitive compounds. Tubes have a large white marking area which provides excellent contrast for identification. Manufactured from high quality polypropylene. Caps are polyethylene (HDPE) and have a smooth, flat top surface.

Temperature range of -80° to 120°C. Max force RCF is 12,000g for 15mL tubes, and 16,000g for 50mL tubes. Packaged 25 in zip lock bags.

Part Number	Description	Case Qty.
CLS-4303-B14	15mL Centrifuge Tube, Black	100
CLS-4303-B15	15mL Centrifuge Tube, Black	500
CLS-4303-B49	50mL Centrifuge Tube, Black	100
CLS-4303-B50	50mL Centrifuge Tube, Black	500

CLS-4303

CLS-4303-225 TUBES, CENTRIFUGE, CONICAL, 225ML

CELLTREAT® 225mL centrifuge tube has a conical bottom with a molded graduation and a maximum RCF of 7,500g. Tubes are sterilized by gamma irradiation and are packaged 6 per resealable, plastic bag with 48 pieces per case.

Part Number	Description	Bag Qty.	Case Qty.
CLS-4303-225	Tube, Centrifuge, Conical, 225mL, Sterile	6	48

CLS-4315

CLS-4315 ACRYLIC CUBES FOR 15mL & 50mL CENTRIFUGE TUBES

Space saving icebox tube holders for 15ml and tubes replace the need for big bulky ice buckets. Ideal to place inside a laminar flow hood and work areas with limited space. Hinged lid design allows you to scoop ice to keep sample tubes cold for prolonged time. The 15mL size holds 8 tubes while the 50mL holds 4 tubes. Both cubes are 4" x 4" x 4".

Part Number	Description
CLS-4315-15	15mL Tube Acrylic Box, Holds 8 Tubes
CLS-4315-50	50mL Tube Acrylic Box, Holds 4 Tubes

CLS-4305

CLS-4305 FAST DRYING PERMANENT MARKERS

Fast drying, smudge-resistant, extra-fine point markers, ideal for permanently marking all plastic labware especially centrifuge tubes. Packaged 5 per resealable bag.

Part Number	Marker Color	Case Qty.
CLS-4305-001	Green	5
CLS-4305-B01	Blue	5
CLS-4305-H01	Black	5
CLS-4305-R01	Red	5

CLS-4289 CENTRIFUGE TUBE, OAK RIDGE STYLE, POLYPROPYLENE, WITH SCREW CAP

Oak Ridge style high speed polypropylene tubes are round bottom and autoclavable. Tubes are economical, leak-proof for refrigerated or standard centrifugation. Uniform wall thickness. Polypropylene screw caps. 80% of total capacity must be filled for proper performance. Withstands up to 50,000xg. Conforms to US FDA 21 CFR.

Part Number	Description	Case Qty.
CLS-4289-010	10mL Oak Ridge Style Centrifuge Tube	12
CLS-4289-030	30mL Oak Ridge Style Centrifuge Tube	12
CLS-4289-050	50mL Oak Ridge Style Centrifuge Tube	12

CLS-4289

CLS-4300 MICRO CENTRIFUGE TUBES, ECONOTUBE™, 1.5ML

These 1.5mL graduated rugged tubes are made of laboratory grade polypropylene suitable to withstand the stress of high speed centrifugation up to 20,000g. The one-piece construction incorporates a snug fitting and reliable attached cap (not for boiling). Maximum clarity for visual sample inspection. A frosted writing surface on closure and side of tube allows for easy and convenient sample identification.

Part Number	Description	Volume (mL)	Case Qty.
CLS-4300-001	Microcentrifuge Tube, Graduated, EconoTube™, Natural	1.5	500

CLS-4300

CLS-4310 TUBE, MICRO CENTRIFUGE, STERILE

Micro Centrifuge tubes are available in three sizes; 0.5mL, 1.5mL and 2.0mL. CELLTREAT® Micro Centrifuge tubes have an attached flat top cap, engraved graduations and are manufactured from high quality polypropylene. The tubes have a temperature range of -80°C to 120°C. CELLTREAT® Micro Centrifuge tubes have a maximum (RCF) of 16,000g and are packaged in easy opening plastic bags.

Part Number	Description	Pack Qty.	Case Qty.
CLS-4310-005	0.5mL Micro Centrifuge Tube	500	5000
CLS-4310-105	1.5mL Micro Centrifuge Tube	500	1000
CLS-4310-015	1.5mL Micro Centrifuge Tube	500	5000
CLS-4310-020	2.0mL Micro Centrifuge Tube	500	5000
CLS-4310-520	2.0mL Micro Centrifuge Tube, Self-Standing	500	5000

CLS-4310

CLS-3000

CLS-3000 MICREWTUBE® WITHOUT CLOSURE

Micrewtubes have a multitude of applications around the lab. They are ideal for freezer storage, boiling applications, centrifugation, etc. and will fit most standard centrifuge rotors. There are many styles of closures to choose from and three sizes of conical bottom or self-standing tubes (0.5, 1.5 and 1.8mL). Tubes as well as the closures are made of heavy wall construction and are built to last. Non skirted tubes withstand high speed centrifugation up to 17,000g. Can be used at extreme temperatures of -196°C to +121°C. **Sold in packages of 1,000.**

Plain

Part Number	Description	Volume (mL)
CLS-3000-001	Self-Standing	0.5
CLS-3000-002	Self-Standing	1.5
CLS-3000-003	W/O Skirt	1.5
CLS-3000-004	Self-Standing	1.8
CLS-3000-005	W/O Skirt	1.8

Graduated

Part Number	Description	Volume (mL)
CLS-3000-G01	Self-Standing	0.5
CLS-3000-G02	Self-Standing	1.5
CLS-3000-G03	W/O Skirt	1.5
CLS-3000-G04	Self-Standing	1.8
CLS-3000-G05	W/O Skirt	1.8

Dark Brown (for light-sensitive material)

Part Number	Description	Volume (mL)
CLS-3000-B01	Self-Standing	0.5
CLS-3000-B02	Self-Standing	1.5
CLS-3000-B03	W/O Skirt	1.5
CLS-3000-B04	Self-Standing	1.8
CLS-3000-B05	W/O Skirt	1.8

With Low Adhesion Surface

Part Number	Description	Volume (mL)
CLS-3000-L01	Self-Standing	0.5
CLS-3000-L02	Self-Standing	1.5
CLS-3000-L03	W/O Skirt	1.5
CLS-3000-L04	Self-Standing	1.8
CLS-3000-L05	W/O Skirt	1.8

CLS-3004 MICROTUBE CLOSURES WITHOUT LOOPS

Closures are molded with a deep internal lip that fits snugly against the interior wall of the tube. This prevents the contents from coming in contact with the seal or threads and thereby reducing the chances of sample contamination. The cap's high profile facilitates manipulation especially in aseptic procedures. Caps can remain attached to tubes in order to eliminate mix-ups and contamination. Manufactured in a clean environment.

Closures in natural color can be COLOR CODED by the use of Colored Capinsert™ inserted on the top of the closure. This is accomplished without removing the cap. Colored caps are also available in all models as listed below.

Certified RNase-, DNase-, pyrogen- and DNA-free. **Sold in packages of 1,000.**

Closures with Lip Seal, without Loop

Part Number	Color
CLS-3004-010	Natural
CLS-3004-011	Blue
CLS-3004-012	Green
CLS-3004-013	Lilac
CLS-3004-014	Orange
CLS-3004-015	Red
CLS-3004-016	Yellow
CLS-3004-017	White
CLS-3004-018	Brown

Closures with Ring, without Loop

Part Number	Color
CLS-3004-001	Natural
CLS-3004-002	Blue
CLS-3004-003	Green
CLS-3004-004	Lilac
CLS-3004-005	Orange
CLS-3004-006	Red
CLS-3004-007	Yellow
CLS-3004-008	White
CLS-3004-009	Brown

Closures have FLAT TOPS to accommodate capping machines in packaging industries.

CLS-3005 MICROTUBE FLAT TOP CLOSURES WITHOUT LOOPS

Closures are molded with a deep internal lip that fits snugly against the interior wall of the tube. This prevents the contents from coming in contact with the seal or threads and thereby reducing the chances of sample contamination. The cap's high profile facilitates manipulation especially in aseptic procedures. Caps can remain attached to tubes in order to eliminate mix-ups and contamination. Manufactured in a clean environment. Certified RNase-, DNase-, pyrogen- and DNA-free. **Sold in packages of 1,000.**

Flat Top Closures With Lip Seal, Without Loop

Part Number	Color
CLS-3005-010	Natural
CLS-3005-011	Blue
CLS-3005-012	Green
CLS-3005-013	Lilac
CLS-3005-014	Orange
CLS-3005-015	Red
CLS-3005-016	Yellow
CLS-3005-017	White
CLS-3005-018	Brown

Flat Top Closures Without Ring, Without Loop

Part Number	Color
CLS-3005-001	Natural
CLS-3005-002	Blue
CLS-3005-003	Green
CLS-3005-004	Lilac
CLS-3005-005	Orange
CLS-3005-006	Red
CLS-3005-007	Yellow
CLS-3005-008	White
CLS-3005-009	Brown

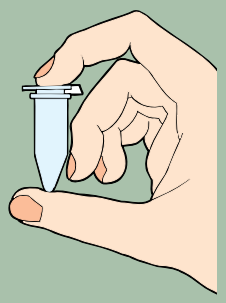
CLS-4300 SERIES MICROCENTRIFUGE TUBES

Microcentrifuge tubes offer a CLIKLOK™ seal especially designed to reduce popping where freezing, boiling, storing or shipping is required.

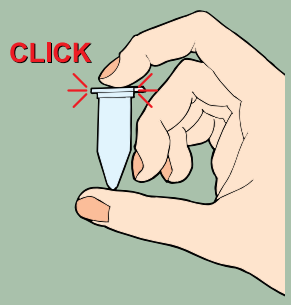
This superior quality CLIKLOK™ system works in two stages.

CLIKLOK™ SYSTEM

The sealing system designed to reduce popping.



1. If only spinning is to be done, a slight push of the cap over the tube is all that is required.



2. For a complete seal, press further on cap until a "CLICK" is heard.

CLS-4300 0.6mL Tubes

CLS-4300 1.5mL Tubes

CLS-4300 MICRO CENTRIFUGE TUBES, 0.6 AND 1.5ML

These 0.6 and 1.5mL graduated, rugged tubes are made of laboratory grade polypropylene suitable to withstand the stress of high speed centrifugation up to 20,000g. The one-piece construction incorporates a snug fitting and reliable attached cap even with prolonged boiling. For maximum sample recovery, the tube interior is highly polished to ensure low liquid retention. The bottom is reinforced for added protection against leakage. Maximum clarity for visual sample inspection. A frosted writing surface on closure and side of tube allows for easy and convenient sample identification. All micro centrifuge tubes offer a Cliklok™ seal especially designed to reduce popping where freezing, boiling, storing or shipping is required. Available in four colors. Packaged in tamper-proof, resealable, safety-lock bags.

Part Number	Description	Volume (mL)	Case Qty.
CLS-4300-06N	Grad. Tube w/ Flat Cap, Natural	0.6	500
CLS-4300-06B	Grad. Tube w/ Flat Cap, Blue	0.6	500
CLS-4300-06G	Grad. Tube w/ Flat Cap, Green	0.6	500
CLS-4300-06Y	Grad. Tube w/ Flat Cap, Yellow	0.6	500
CLS-4300-15N	Grad. Tube w/ Flat Cap, Natural	1.5	500
CLS-4300-15B	Grad. Tube w/ Flat Cap, Blue	1.5	500
CLS-4300-15G	Grad. Tube w/ Flat Cap, Green	1.5	500
CLS-4300-15Y	Grad. Tube w/ Flat Cap, Yellow	1.5	500

CLS-4300 MICRO CENTRIFUGE TUBES, 2.0ML

CLS-4300 2.0mL Tubes

These 2.0mL graduated, rugged tubes are made of laboratory grade polypropylene suitable to withstand the stress of high speed centrifugation up to 20,000g. They offer a special locking clasp to produce a more secure closure. They are graduated at 0.5, 1.0 and 1.5mL. They are autoclavable up to 121°C. They have also been designed with a pierceable lid. The tubes incorporate an etched surface on the side for sample identification. The tubes offer a Clicklok™ seal especially designed to reduce popping where freezing, boiling or shipping is required. Available in four colors. Packaged in tamper-proof, resealable safety-lock bags.

Part Number	Description	Volume (mL)	Case Qty.
CLS-4300-02N	Grad. Tube, Conical, Natural	2.0	500
CLS-4300-02B	Grad. Tube, Conical, Blue	2.0	500
CLS-4300-02G	Grad. Tube, Conical, Green	2.0	500
CLS-4300-02Y	Grad. Tube, Conical, Yellow	2.0	500
CLS-4300-12N	Grad. Tube, Self-Standing, Natural	2.0	500
CLS-4300-12B	Grad. Tube, Self-Standing, Blue	2.0	500
CLS-4300-12G	Grad. Tube, Self-Standing, Green	2.0	500
CLS-4300-12Y	Grad. Tube, Self-Standing, Yellow	2.0	500

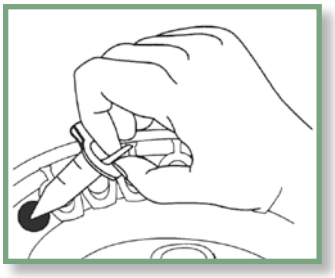
CLS-4300 MICRO CENTRIFUGE TUBES, LOW SURFACE TENSION (LST)

CLS-4300
Low Surface Tension Tubes

These graduated, rugged tubes are made of a special type of polypropylene to provide a low adhesion surface tension and optimum sample yield. No lubricant, such as silicone, is necessary, thereby eliminating the danger of sample contamination. Tubes are designed to withstand the stress of high speed centrifugation up to 20,000g. The one-piece construction incorporates a snug fitting and reliable attached cap, even with prolonged boiling. Tubes are autoclavable up to 121°C. Al tubes offer a Clicklok™ seal especially designed to reduce popping where freezing, boiling, storing or shipping is required. Packaged in tamper-proof, resealable safety-lock bags.

Part Number	Description	Volume (mL)	Case Qty.
CLS-4300-L06	Grad. Tube w/ Flat Cap, LST, Natural	0.6	500
CLS-4300-L15	Grad. Tube w/ Flat Cap, LST, Natural	1.5	500
CLS-4300-L02	Grad. Tube, Conical, LST, Natural	2.0	500

CLS-4300 Tubes with Pick-Up Tabs



Pick-up tabs for easier handling

CLS-4300 MICRO CENTRIFUGE TUBES WITH PICK-UP TAB, 1.5ML

These graduated, rugged tubes are made of laboratory grade polypropylene suitable to withstand the stress of high speed centrifugation up to 20,000g. The one-piece construction incorporates a snug fitting and reliable attached cap that includes a pick-up tab for easier handling without actually touching the tube. The bottom is reinforced for added protection against leakage. Maximum clarity for visual sample inspection. A frosted writing surface on the side of tube allows for easy and convenient sample identification. All micro centrifuge tubes offer a Clicklok™ seal especially designed to reduce popping where freezing, boiling, storing or shipping is required. The CLS-4300-L0N is manufactured from a polypropylene which provides low surface tension. Available in four colors. Packaged in tamper-proof, resealable safety-lock bags.

Part Number	Description	Volume (mL)	Case Qty.
CLS-4300-T0N	Grad. Tube w/ Pick-Up Tab, Natural	1.5	500
CLS-4300-T0B	Grad. Tube w/ Pick-Up Tab, Blue	1.5	500
CLS-4300-T0G	Grad. Tube w/ Pick-Up Tab, Green	1.5	500
CLS-4300-T0Y	Grad. Tube w/ Pick-Up Tab, Yellow	1.5	500
CLS-4300-L0N	Grad. Tube w/ Pick-Up Tab, LST, Natural	1.5	500

CLS-4300 Tubes with Locking Caps

CLS-4300 MICRO CENTRIFUGE TUBES WITH LOCKING CAP, 1.5ML

These graduated tubes offer a special locking system which can be bent upward to lock on the cap, ensuring extra protection during critical steps such as boiling, freezing, centrifugation and shipping. The bottom is reinforced for added protection against leakage. Maximum clarity for visual sample inspection. An etched writing surface on the side allows for easy and convenient sample identification. Tubes can be used in extreme temperatures from -175°C to +121°C. Maximum centrifugation RCF: 20,000g. Available in four colors. Packaged in tamper-proof, resealable safety-lock bags.

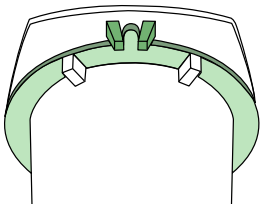
Part Number	Description	Volume (mL)	Case Qty.
CLS-4300-LCN	Grad. Tube w/ Locking Cap, Natural	1.5	500
CLS-4300-LCB	Grad. Tube w/ Locking Cap, Blue	1.5	500
CLS-4300-LCG	Grad. Tube w/ Locking Cap, Green	1.5	500
CLS-4300-LCY	Grad. Tube w/ Locking Cap, Yellow	1.5	500

Micro Centrifuge Tubes Featuring SECURE-LOCK™ Caps

CLS-4300 MICRO CENTRIFUGE TUBES WITH SECURE-LOCK™ CAP, 1.5ML

These Secure-Lock micro centrifuge tubes offer a special locking clasp to produce a more secure closing. This will help to prevent tubes from opening during centrifugation, boiling, storing, freezing or shipping. Tubes are graduated at 0.5, 1.0 and 1.5mL. Etched surface on side of tube for sample identification. Autoclavable at 121°C. Available in four colors. Packaged in tamper-proof, resealable safety-lock bags.

Part Number	Description	Volume (mL)	Case Qty.
CLS-4300-SLN	Grad Tube w/ Secure-Lock™ Cap, Natural	1.5	500
CLS-4300-SLB	Grad Tube w/ Secure-Lock™ Cap, Blue	1.5	500
CLS-4300-SLG	Grad Tube w/ Secure-Lock™ Cap, Green	1.5	500
CLS-4300-SLY	Grad Tube w/ Secure-Lock™ Cap, Yellow	1.5	500



Secure-lock™ design prevents tubes from opening.

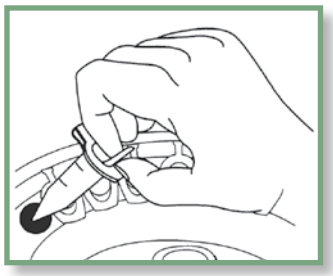
CLS-4300 Tubes with Secure-Lock Caps

CLS-4300 MICRO CENTRIFUGE TUBES WITH PICK UP TABS AND SECURE-LOCK™

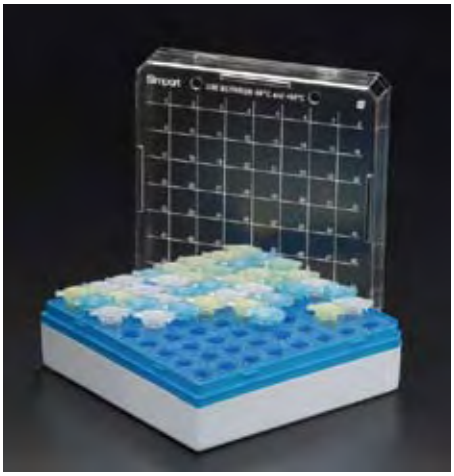
This tube is a combination of Secure-Lock and Pick-Up Tab tubes giving you the best of both. A Pick-Up Tab for easier handling without touching the tube and a Secure-Lock™ to help prevent the tubes from opening during critical steps such as boiling, freezing, centrifugation and shipping. Tubes are graduated at 0.5, 1.0 and 1.5mL. The bottom is reinforced for added protection against leakage. Maximum clarity for visual sample inspection. An etched writing surface on the side of tube allows for easy and convenient sample identification. Tubes are autoclavable at 121°C. Available in four colors: natural, blue, green and yellow. Packaged in tamper-proof, resealable safety-lock bags.

Part Number	Description	Volume (mL)	Case Qty.
CLS-4300-PSN	Tube w/ Secure-Lock & Tab, Natural	1.5	500
CLS-4300-PSB	Tube w/ Secure-Lock & Tab, Blue	1.5	500
CLS-4300-PSG	Tube w/ Secure-Lock & Tab, Green	1.5	500
CLS-4300-PSY	Tube w/ Secure-Lock & Tab, Yellow	1.5	500

CLS-4300 Tubes with Secure-Lock Caps and Pick-Up Tabs



Secure-Lock™ design plus pick-up tabs for easier handling.



CLS-4300

CLS-4300-064 STORAGE BOX, 64-PLACE, MICRO CENTRIFUGE TUBE

This micro centrifuge tube storage box with a polyurethane foam insert is ideal for holding up to 64 tubes from 0.5 to 2.0mL. A transparent cover allows you to see the contents of the box and is keyed to the base in order to prevent misalignment. To improve your inventory control, you can write with a pen or marker on the cover surface, which is printed with a series of squares, numbered from 1 to 64. You can also save space by stacking these boxes in freezers, refrigerators and lab counters.

Part Number	Description	Case Qty.
CLS-4300-064	Storage Box, 64-Place, Micro Centrifuge Tube	4

CLS-4284-004

CLS-4284 CELL SEPARATOR STAND, MAGNETIC

Magnetic Stand for DNA and RNA extraction or cell purification. This magnetic stand is designed to be used with 96 well multi well plates for magnetic bead based cell purification or DNA and RNA extraction. Cells or nucleic acid tagged with paramagnetic beads will be held down on the bottom of the plate by powerful magnetic force for easy removal of media or reagents for cell purification or nucleic acid extraction procedure. Made of clear acrylic.

Part Number	Description	Dims. (in.)
CLS-4284-096	Magnetic Stand, 1 ea. 96 well plate	3.5 x 5”
CLS-4284-024	Magnetic Stand, 24ea. 1.5 or 2mL Tubes	8.5 x 3”
CLS-4284-004	Magnetic Stand, 4 ea. 15 or 50mL Tubes	6.5 x 3.5”

CLS-4284-096

CLS-4284-024

CLS-3200 COOLCUBE™ MICROTUBE AND MICROPLATE COOLER

The CoolCube™ is designed to store samples safely on the lab bench without sample degradation due to temperature increase or fluctuation. Constructed of DuraStar (a high strength polymer) and a patented gel refrigerant, the CoolCube™ maintains temperature at approximately 0°C for up to four hours. Simply place the CoolCube™ in a freezer overnight and it's ready for use, keeping samples cool and safe at the bench, without messy ice buckets or wet tubes. One side of the CoolCube™ can be used as a convenient PCR workstation with wells for 12 standard 1.5 / 2.0mL microtubes and one 96 well PCR plate or 0.2mL tubes/strips. The other side can be used to hold 36 standard 1.5/2.0mL microtubes. Dimensions are 5.6" x 5.6" x 2.5". Weighs 2lbs.

CoolCube Cooler will hold up to:

36 – 1.5mL Tubes or
96 – 0.2mL Tubes or
12 – 0.2mL Strips or
1 – 96-Well PCR Plate

Part Number	Description
CLS-3200-001	CoolCube™ Microtube and Microplate Cooler

CLS-4312 MICRO CENTRIFUGE COOL BLOCK, 90-WELL

- Made of Aluminum
- Designed for Snug Tube Fit
- Can be Placed on ice or in CLS-2991 Lab Armor
- Can be Placed on a Hot Plate for Sample Heating

CLS-4312

Large 90-well metal chamber for 1.5-2 ml centrifuge tubes. This chamber is made of solid aluminum and the wells are made for snug fit for the tubes. Place on ice to chill large number of tubes. The metal chamber provides a very stable platform in an ice bucket or can be put on hot plate to heat large number of sample tubes.

Part Number	Description
CLS-4312-01	90-Well Cool Block for Micro Centrifuge Tubes

CLS-4311 MICRO CENTRIFUGE COOL BLOCK, COMBINATION

- Holds 0.2mL, 0.5mL, 1.5mL, and 2.0mL Centrifuge Tubes
- Dimensions 6" x 3.2" x1.5"
- Ideal for Cooling or Heating Multiple Tubes Sizes
- Temperature Remains Uniform Across the Block
- Can be Used with Dry Ice or CLS-2991 Lab Armor
- Rack can be Placed on Hot Plate for Heating

CLS-4311

Solid aluminum metal chamber for micro centrifuge tubes. Ideal way to keep micro centrifuge tubes cold by placing in an ice bucket. Or heat samples by placing on hot plate.

Part Number	Description
CLS-4311-01	Combination Cool Block for 0.5mL, 1.5mL, 2.0mL tubes

CLS-900

- Reliable VACUUBRAND® vacuum pump used and proven in chemistry applications
- “G” Models have a Glass Bottle for use with in-bottle bleach decontamination
- Suitable for two users with optional extension and hand controller
- 0.2 Micron Bio-filter helps protect pump and lab atmosphere
- Professional Model have a contact-free level sensor

CLS- 900 FLUID ASPIRATOR SYSTEMS

Chemglass Life Sciences is pleased to introduce a new line of BVC fluid aspirator systems for cell culture. They provide the flexibility to accommodate your decontamination protocol whether you autoclave or disinfect in the bottle.

Basic Model

The **Basic** model is an unpowered version of the BVC aspirator systems, suitable for use with in-house vacuum systems. A mechanical regulator provides suitable vacuum in the bottle for aspiration, and disconnects it from the supply when that level is reached - no power required. This reduces demand on the vacuum supply, increasing efficiency while reducing noise and impact on other applications. Shipped ready for use and supplied with a stable , easy-to-clean, powder coated metal stand, 0.2um biofilter, and hand controller. Available with a 4 liter PP bottle or 2 liter glass collection bottle.

Control Model

The **BVC Control** unit features a powerful, whisper-quiet Vacuubrand chemistry designed vacuum pump, thereby eliminating the need for central vacuum supply. The pump is turned on and off automatically on demand when using the hand controller. An easy to clean touch panel adjusts and indicates the vacuum level switch point, providing the exact power you need, when you need it. Available with a 4 liter polypropylene or 2 liter glass collection bottle.

Professional Model

The **BVC Professional** adds a liquid level sensor outside the bottle without contacting bottle contents. This lets you concentrate fully on your work without worrying about overflow. A special disinfection program allows the aspiration of disinfectant after the system is shut down to decontaminate the hand control. The 4 liter polypro bottle version is supplied with quick connectors as standard; the 2 liter glass bottle version is supplied with barbed connections.

Part Number	Model	Size (L)	Bottle Type
CLS-900-100	Basic	4	Polypropylene
CLS-900-105	Basic	2	Glass
CLS-900-200	Control	4	Polypropylene
CLS-900-205	Control	2	Glass
CLS-900-300	Professional	4	Polypropylene
CLS-900-305	Professional	2	Glass

Accessories

Part Number	Description
CLS-900-500	4 Liter Polypropylene Bottle, Complete with Aspirator Cap
CLS-900-510	2 Liter Glass Bottle, with Aspirator Cap
CLS-900-550	Vacuum Hand Control with 2 meters of Tubing
CLS-900-580	Adapter to Permit Second Vacuum Hand Control to be Added to Aspirator Bottle Cap
CLS-900-600	Replacement Aerosol Filter, 0.2um
CLS-900-610	8 Channel Manifold for use in Multi-well Plates

CLS-910 ECONOMY FLUID ASPIRATOR SYSTEM

- Built-in pump quickly aspirates fluids while maintaining a low noise level
- (76db at 1 meter) and minimal vibration
- Ideal for fluid collection from tissue and/or cell culture, Petri dishes, plates, flasks and tubes
- Chemical and corrosion resistant polypropylene collection bottle holds 3800mL
- (1 gallon) fluid wastes and has a safety release vent to prevent vacuum implosion
- A replaceable hydrophobic filter seals itself if it becomes wet protecting the pump motor from fluid contamination
- Compact design will not crowd workspace whether working in a hood or at the bench

CLS-910

Perform vacuum aspiration of a variety of liquids, including tissue culture media, supernatants, and chemical wastes. To use, simply insert a pipet tip, Pasteur pipet, or serological pipet into the collection tube and plug in to a 110/120V outlet. Self-contained system with bottle, tubing and vacuum pump is lightweight, compact and easy to use.

Part Number	Description
CLS-910-100	Economy Fluid Aspirator System

CLS-3484 ASPIRATING PIPETS

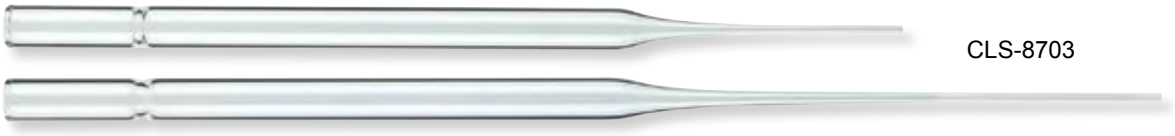
CELLTREAT® offers disposable Aspirating Pipets in 1mL, 2mL and 5mL sizes. Aspirating pipets are supplied without graduations or plugs and are available individually wrapped or bulk-packed. Individually wrapped pipets are in a sterile, easy to open paper/plastic packaging. Individual wrapped pipettes are available in economical bags and convenient color coded shelf packs that facilitate dispensing through a perforated panel. Each pipets wrapper includes the lot number.

CLS-3484

Part Number	Description	Color Coded	Case Qty.
CLS-3484-001	Pipet, Aspirating, 1mL, No Plug, Bulk Pack, 50/Bag	Yellow	400
CLS-3484-002	Pipet, Aspirating, 2mL, No Plug, Bulk Pack, 50/Bag	Green	400
CLS-3484-005	Pipet, Aspirating, 5mL, No Plug, Bulk Pack, 25/Bag	Orange	200
CLS-3484-101	Pipet, Aspirating, 1mL, Individually Wrapped, 100/Bag	Yellow	400
CLS-3484-102	Pipet, Aspirating, 2mL, Individually Wrapped, 100/Bag	Green	400
CLS-3484-105	Pipet, Aspirating, 5mL,Individually Wrapped, 50/Bag	Orange	200

CG-8703 PIPETS, GLASS, PASTEUR, DISPOSABLE, BULK PACK, NON-STERILE, NON-PLUGGED

Glass Pasteur Pipets



CLS-8703

Disposable glass Pasteur pipets are available in convenient packages. One-time use eliminates the danger of cross-contamination of valuable specimens or laboratory reagents. These pipets feature a constriction one inch below the top to facilitate plugging. They are ideal for rapid non-volumetric transfer work in bacteriology, immunology, hematology and serology studies, as well as blood bank and clinical chemistry procedures.

Part Number	Length (Inches)	Pkg. Qty.
CG-8703-5X	5-3/4	200
CG-8703-9	9	200

CLS-3488

Plastic Pasteur Pipets

CLS-3488 PIPETS, PLASTIC, PASTEUR, PLASTEUR™

CLS-3488-P PIPETS, PLASTIC, PASTEUR, PLASTEUR™ Cotton-Plugged

CELLTREAT® Plasteur™ plastic Pasteur pipet offers the aspirating precision of a glass pipet and the convenience of a plastic, ready-to-use product. The virgin polystyrene material has safety benefits compared to glass and is the same material used for plastic serological pipets. The Plasteur™ pipet is an economical alternative to glass and offers the benefit of being sterilized in the package so pre-use autoclaving is not necessary.

The Plasteur™ plastic Pasteur pipet is manufactured in a Class 100,000 clean room from USP class VI virgin polystyrene. CELLTREAT® Plasteur™ pipets are gamma irradiation sterilized, RNase-free, DNase-free and non-pyrogenic. The pipets are available in an individually wrapped, sterile, easy-to-open, paper/plastic packaging or bulk packed with 25 in a resealable bag.

Part Number	Description	Length (in.)	Qty./ Bag	Qty./ Case
CLS-3488-001	Pasteur Pipet, Ind. Wrapped	5.75	50	200
CLS-3488-025	Pasteur Pipet, Bulk Packed	5.75	25	500
CLS-3488-003	Pasteur Pipet, Ind. Wrapped	9	50	200
CLS-3488-027	Pasteur Pipet, Bulk Packed	9	25	500
CLS-3488-P25	Cotton-Plugged Pasteur Pipet	5.75	25	500
CLS-3488-P27	Cotton-Plugged Pasteur Pipet	9	25	500
CLS-3488-00B	Rubber Bulb	--	--	12

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-3480 SEROLOGICAL PIPETS

CELLTREAT® disposable serological pipets are manufactured from optically clear polystyrene in a class 100,000 clean room. Available sizes are 1, 2, 5, 10, 25 and 50mL. The 1, 2 and 5mL pipets are one-piece construction and the 10, 25 and 50mL are made with durable, ultrasonically welded, three-piece construction. Bold, clear, bidirectional graduations are calibrated for accurate dispensing to within ±2%. The pipets include color-coded stripes for quick volume identification. Compatible with most pipet aids, they include an end plug to help prevent pipet aid contamination. The plugs are a premium material, performing better than standard cotton plugs.

Individually wrapped pipets are in a sterile, easy-to-open, paper/plastic wrap. They are available in economical bags and convenient, color-coded, shelf packs that facilitate dispensing through a perforated end panel. Each pipet wrapper includes a lot number. Bulk pipets are available in all sizes. All serological pipets are gamma irradiated and **supplied sterile, RNase-, DNase- and DNA-free as well as non-pyrogenic**.

Part Number	Description	Color Code	Case Qty.
CLS-3480-001	Pipet, Individually Wrapped, 1mL, Shelf Pack Box	Yellow	800
CLS-3480-002	Pipet, Individually Wrapped, 2mL, Shelf Pack Box	Green	600
CLS-3480-005	Pipet, Individually Wrapped, 5mL, Shelf Pack Box	Blue	200
CLS-3480-010	Pipet, Individually Wrapped, 10mL, Shelf Pack Box	Orange	200
CLS-3480-025	Pipet, Individually Wrapped, 25mL, Shelf Pack Box	Red	200
CLS-3480-050	Pipet, Individually Wrapped, 50mL, Shelf Pack Box	Purple	90
CLS-3482-001	Pipet, 1mL, Bulk Pack, 50/Bag	Yellow	1000
CLS-3482-002	Pipet, 2mL, Bulk Pack, 50/Bag	Green	800
CLS-3482-005	Pipet, 5mL, Bulk Pack, 25/Bag	Blue	500
CLS-3482-010	Pipet, 10mL, Bulk Pack, 25/Bag	Orange	500
CLS-3482-025	Pipet, 25mL, Bulk Pack, 25/Bag	Red	200
CLS-3482-050	Pipet, 50mL, Bulk Pack, 25/Bag	Purple	200
CLS-3481-001	Pipet, Individually Wrapped, 1mL, 100/Bag	Yellow	800
CLS-3481-002	Pipet, Individually Wrapped, 2mL, 100/Bag	Green	600
CLS-3481-005	Pipet, Individually Wrapped, 5mL, 50/Bag	Blue	200
CLS-3481-010	Pipet, Individually Wrapped, 10mL, 50/Bag	Orange	200
CLS-3481-025	Pipet, Individually Wrapped, 25mL, 50/Bag	Red	200
CLS-3481-050	Pipet, Individually Wrapped, 50mL, 30/Bag	Purple	90
CLS-3481-100	Pipet, Individually Wrapped, 100mL, 30/Bag	Pink	50
CLS-3483-005	Pipet, 5mL, Short, Individually Wrapped, Sterile	Blue	200
CLS-3483-010	Pipet, 10mL, Short, Individually Wrapped, Sterile	Orange	200
CLS-3483-025	Pipet, 25mL, Short, Individually Wrapped, Sterile	Red	100
CLS-3486-010	Pipet, 10mL, Wide Tip, Individually Wrapped, Sterile	Orange	200

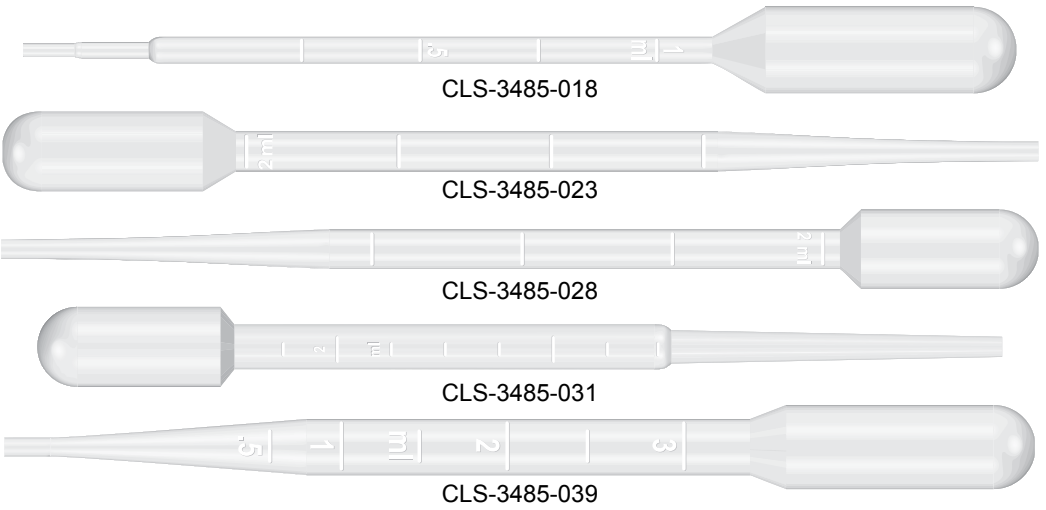
CLS-3485 PIPETS, DISPOSABLE, TRANSFER

Unbreakable, all-in-one pipets eliminate the hazard of broken glass and exposure to infectious materials. Put an end to matching rubber bulbs and glass pipets. Pipets are molded from transparent, low density polyethylene and are inert to biological fluids and most acids. The low-affinity surface reduces the loss of cells and valuable proteins due to binding. Can be sealed and refrigerated. Temperature resistant from -196° to +90°C. Can be used in liquid nitrogen.

CLS-3485-034

CLS-3485-010

CLS-3485-004



CLS-3485-018

CLS-3485-023

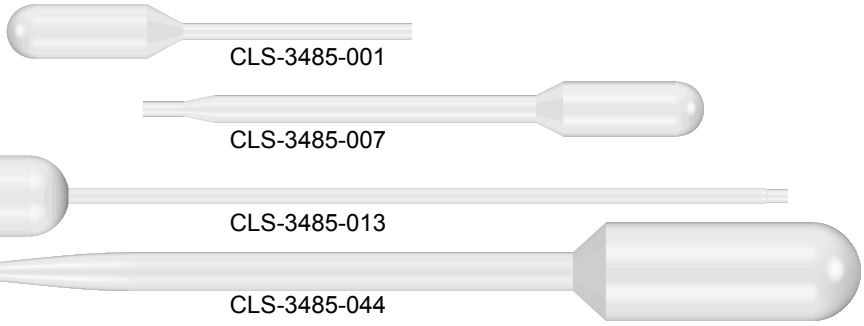
CLS-3485-028

CLS-3485-031

CLS-3485-039

GRADUATED, NON-STERILE, BULK PACKED 500/CASE

Part Number	Cap. (mL)	Bulb Draw (mL)	Drops Per mL	Length (cm)	Case Qty.
CLS-3485-004	1.5	0.8	23	11.4	500
CLS-3485-010	3.0	2.1	25	13.8	500
CLS-3485-018	5.0	3.1	25	15.0	500
CLS-3485-023	5.0	1.9	25	15.5	500
CLS-3485-028	5.0	1.8	25	15.6	500
CLS-3485-031	5.0	1.8	25	14.5	500
CLS-3485-039	7.0	3.2	22	15.5	500



CLS-3485-001

CLS-3485-007

CLS-3485-013

CLS-3485-044

NON-GRADUATED, NON-STERILE, BULK PACKED 500/CASE

Part Number	Cap. (mL)	Bulb Draw (mL)	Drops Per mL	Length (cm)	Case Qty.
CLS-3485-001	1.2	0.9	25	6.3	500
CLS-3485-007	1.7	0.9	25	8.7	500
CLS-3485-013	4.0	3.1	25	15.5	500
CLS-3485-034	6.0	2.3	25	22.5	500
CLS-3485-044	8.0	4.6	22	15.0	500

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-3490 PIPETTE, CAPP®, VARIABLE VOLUME

- The Only Pipette with Fixed and Variable Exchangeable Counter Mechanism
- Compatible with All Major Pipette Tip Brands
- Large Pad for Easy Tip Ejection
- Double O-Ring for Optimal Tip Seal
- Robust Design Includes Metal Tip Base
- Lockable Volume Controller Requiring 50% Fewer Turns
- Display is Fully Visible During Hand Operation
- Reduced Force Requirement for Aspiration and Blow-Out
- Fully Autoclavable, No Disassembly Required

Part Number	Variable Volume Range (µL)	Inaccuracy % (1)	Imprecision %(1)	Color Code
CLS-3490-01	0.2-2.0	12.0 / 2.0	6.0 / 1.0	Violet
CLS-3490-02	0.5-10.0	2.5 / 1.0	1.8 / 0.5	White
CLS-3490-03	2.0-20.0	5.0 / 1.0	1.5 / 0.3	Grey
CLS-3490-04	5.0- 50.0	2.0 / 1.0	1.2 / 0.3	Red
CLS-3490-05	10-100	2.0 / 0.7	0.8 / 0.2	Orange
CLS-3490-06	20-200	1.5 / 0.6	0.5 / 0.15	Yellow
CLS-3490-07	100-1000	1.5 / 0.8	0.4 / 0.15	Blue
CLS-3490-08	1000-5000	1.2 / 0.6	0.3 / 0.15	Green

(1) Where a range is given, the first value applies to the smallest dispensed volume and the second value applies to the highest dispensed value.

Display is Fully Visible During Hand Operation

Fixed and Variable Exchangeable Counter Mechanism

Fully Autoclavable, No Disassembly Required

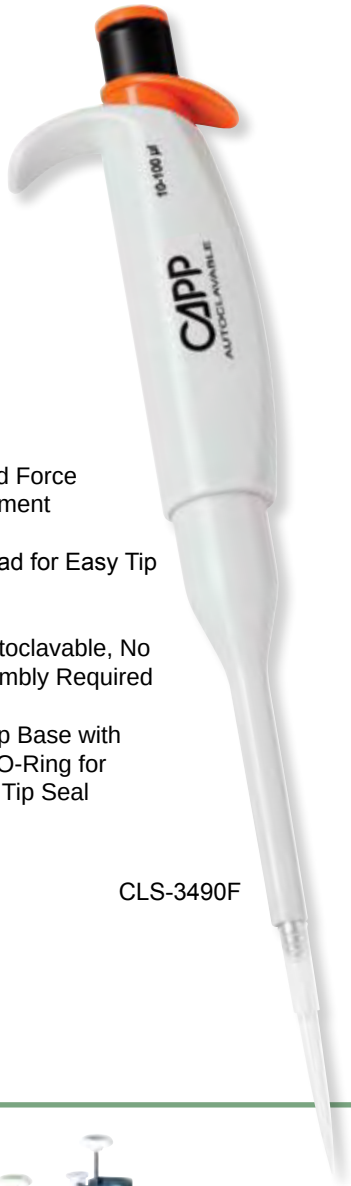
CLS-3490

Versatility PLUS

Metal Tip Base with Double O-Ring for Optimal Tip Seal

Easy VOLUME KNOB exchange

See page 55 for Adjustable and Fixed-Volume Knobs.



Reduced Force Requirement

Large Pad for Easy Tip Ejection

Fully Autoclavable, No Disassembly Required

Metal Tip Base with Double O-Ring for Optimal Tip Seal

CLS-3490F

CLS-3490F PIPETTE, FIXED VOLUME, CAPP®

- Compatible with All Major Pipette Tip Brands
- Large Pad for Easy Tip Ejection
- Double O-Ring for Optimal Tip Seal
- Robust Design Includes Metal Tip Base
- Fully Autoclavable, No Disassembly Required
- Display is Fully Visible During Hand Operation
- Reduced Force Requirement for Aspiration and Blow-Out

Part Number	Volume (µL)	Inaccuracy % (1)	Imprecision %(1)	Color Code
CLS-3490F-01	1	3.10	1.60	Violet
CLS-3490F-02	5	1.20	0.64	White
CLS-3490F-03	10	1.00	0.50	White
CLS-3490F-04	20	1.00	0.45	Red
CLS-3490F-05	25	0.80	0.35	Red
CLS-3490F-06	30	1.16	0.40	Orange
CLS-3490F-07	50	0.90	0.30	Orange
CLS-3490F-08	100	0.80	0.20	Yellow
CLS-3490F-09	200	0.60	0.15	Yellow
CLS-3490F-10	500	0.80	0.15	Blue
CLS-3490F-11	1000	0.80	0.15	Blue
CLS-3490F-12	5000	0.60	0.15	Green

(1) Where a range is given, the first value applies to the smallest dispensed volume and the second value applies to the highest dispensed value.

CLS-3489

CLS-3489 PIPETTER STAND, ACRYLIC

Acrylic stand for Pipetters. Ergonomic, stylish and colorful pipette stand for bench top pipette storage. Also can hold pipette tip box for easy carrying. The 2 unit stand is 10” x 6” x 6.5” and comes in orange acrylic. The 4 unit stand is 8” x 6” x 10” and comes in blue acrylic.

Part Number	Description
CLS-3489-02	Pipetter Stand, Holds 2 Pipetters
CLS-3489-04	Pipetter Stand, Holds 4 Pipetters

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-3491 MULTICHANNEL PIPETTERS, CAPP®, 8-CHANNEL

Offer the easiest tip mounting and ejection force in the market today. The unique design of the pipettes reduces the thumb workload by up to 70%.

- Only Pipette with Fixed and Variable Exchangeable Counter Mechanism
- Ejection is Simple - Apply Pressure to the Levered Ejection Arm
- Single-Channel Accuracy in a Multichannel Package
- Double O-Ring for Optimal Tip Seal and Easy Tip Attachment
- One of the Lightest Pipettes on the Market
- Compatible with All Major Pipette Tip Brands
- Use of Anodized Aluminum Nose Cones Reduce Breakage of Pipette
- Stainless Steel Pistons Ensure Robust Performance, Built to Last
- Lockable Volume Controller Requiring 50% Fewer Turns
- Fully Autoclavable, No Disassembly Required

CLS-3491

Part Number	Variable Volume Range (µL)	Inaccuracy % (1)	Imprecision%(1)	Color Code
CLS-3491-01	0.5-10.0	5.0 / 2.0	3.6 / 1.0	White
CLS-3491-02	2-20	5.0 / 2.0	3.6 / 1.0	Grey
CLS-3491-03	5-50	3.2 / 1.4	1.6 / 0.6	Red
CLS-3491-04	10-100	2.5 / 1.3	1.2 / 0.5	Orange
CLS-3491-05	20-200	1.8 / 1.2	0.8 / 0.4	Yellow
CLS-3491-06	30-300	1.6 / 1.4	0.6 / 0.3	Black

(1) Where a range is given, the first value applies to the smallest dispensed volume and the second value applies to the highest dispensed value.

CLS-3490T PIPETTE, CAPP®, TRI-VOLUME, DETACHABLE COUNTER

The only pipette available on the market today that offers a detachable volume counter. This pipette is ideal for routine work and is fully autoclavable.

Fully Autoclavable

CLS-3490T

Part Number	Volume Counters Included (µL)	Inaccuracy % (1)	Imprecision % (1)
CG-3490T-01	1, 5, 10	2.5 / 1.0	1.8 / 0.5
CG-3490T-02	20, 50, 100	2.0 / 0.7	0.8 / 0.2
CG-3490T-03	200, 500, 1000	1.5 / 0.8	0.4 / 0.15

(1) Where a range is given, the first value applies to the smallest dispensed volume and the second value applies to the highest dispensed value.

CLS-3499

CLS-3499B

CLS-3499 PIPETTE TIPS, STERILE, WITH HYDROPHOBIC BARRIER

Tips are ideal for molecular biology and PCR applications. Feature a unique polyethylene barrier to prevent cross-contamination and without trapping the sample in the tip. Also features low-binding polymer technology to reduce liquid retention along with the binding of DNA, enzymes and proteins. Reduced barrier cross section allows unrestrained airflow for outstanding accuracy. Tips are certified to be RNase, DNase free. Will NOT work with Ranin Pipettors.

Standard Tips

STANDARD PACKS are packed in racks of 96, 10 racks per dispenser carton, EXCEPT CLS-3499-1XL which is packed 96 tips per rack, 8 racks per dispenser carton.

Same as our CLS-3499, but packaged 50 racks of 96 each along with 3 FREE Racks, EXCEPT CLS-3499B-1XL, which is packaged 32 racks of 96 each along with 3 FREE Racks.

Tip Vol. (µL)	Length (cm / in)	STANDARD PACKS Part Number	STANDARD PACKS Case Qty.	BULK PACKS Part Number	BULK PACKS Case Qty.
10	5 / 2.0	CLS-3499-018	960	CLS-3499B-018	4800
20	5/ 2.0	CLS-3499-020	960	CLS-3499B-020	4800
100	5 / 2.0	CLS-3499-100	960	CLS-3499B-100	4800
200	5.84 / 2.30	CLS-3499-200	960	CLS-3499B-200	4800

Long Reach Tips

Tip Vol. (µL)	Length (cm / in)	STANDARD PACKS Part Number	STANDARD PACKS Case Qty.	BULK PACKS Part Number	BULK PACKS Case Qty.
10	4.5 / 1.8	CLS-3499-010	960	CLS-3499B-010	4800
1000	10.2 / 4.01	CLS-3499-1XL	768	CLS-3499B-1XL	3072

CLS-3490K VOLUME KNOBS FOR CAPP® PIPETTES

Pre-calibrated, interchangeable, adjustable and fixed volume knobs for Capp® pipettes. Allow for the conversion of pipettes from fixed to adjustable volume and vice versa.

Fixed Volume Control Knobs

Part Number	Fixed Volume (µL)	Fits Pipettes with an Adjustable Volume (µL)	Color Code
CLS-3490K-01	1	0.2-2.0	violet
CLS-3490K-02	2	0.2-2.0	violet
CLS-3490K-03	5	0.5-10.0	white
CLS-3490K-04	10	0.5-10.0	white
CLS-3490K-05	10	2.0-20.0	grey
CLS-3490K-06	20	2.0-20.0	grey
CLS-3490K-07	20	5.0-50.0	red
CLS-3490K-08	25	5.0-50.0	red
CLS-3490K-09	50	5.0-50.0	red
CLS-3490K-10	30	10-100	orange
CLS-3490K-11	50	10-100	orange
CLS-3490K-12	100	10-100	orange
CLS-3490K-13	100	20-200	yellow
CLS-3490K-14	200	20-200	yellow
CLS-3490K-15	500	100-1000	blue
CLS-3490K-16	1000	100-1000	blue

Variable Control Knobs for Single Channel Pipettes

Part Number	Adjustable Volume (µL)	Color Code
CLS-3490K-20	0.2-2.0	violet
CLS-3490K-21	0.5-10.0	white
CLS-3490K-22	2.0-20.0	grey
CLS-3490K-23	5.0-50.0	red
CLS-3490K-24	10-100	orange
CLS-3490K-25	20-200	yellow
CLS-3490K-26	100-1000	blue
CLS-3490K-27	1000-5000	green

Variable Control Knob for 8-Channel Pipettes

Part Number	Adjustable Volume (µL)	Fits Capacity Pipette (µL)	Color Code
CLS-3490K-30	30-200	30-300	black
CLS-3490K-31	125-300	30-300	black

CLS-3490K

Convert pipettes from fixed to adjustable volume and vice versa.

CLS-3470

CLS-3470-10 PIPETTE CONTROLLER

- Comfortable and Simple to Use
- Precise Pipetting Control
- Robust and Lightweight
- Fits the Entire Range of Both Glass and Plastic Volumetric and Graduated Pipettes from 0.1 to 100mL
- Uses Replaceable 3.0µm Filter
- Easy to Maintain and Clean
- Filling and Delivery are Easily Controlled with a Small Sensitive Lever
- Complies with ISO9001, 13485 and GLP Guidelines

Comfortable and easy to use, the Pipette Controller measures 8 inches long x 2 inches wide. Precise pipetting can be accomplished using glass or plastic volumetric and graduated pipettes from 0.1 to 100mL.

The Pipette Controller also has a blowout feature, uses protective/replaceable syringe filter, and is easy to take apart for cleaning. The filling and delivery area are easily controlled with a small, sensitive lever.

Part Number	Description
CLS-3470-10	Pipette Controller, Manual, Green

CLS-3472

CLS-3472-10 MOTORIZED PIPETTE FILLER

The motorized Pipette Filler features a full volume range of 0.1 to 100mL with easy one-handed operation. It's lightweight, ergonomic design allows longer, fatigue-free pipetting with separate aspirate and dispense speed controls. A large LCD display provides visual confirmation of remaining battery charge and speed settings. The lithium-ion battery offers long runtime per charge without battery memory problems. The fully autoclavable nose cone housing simplifies disinfecting and decontamination.

Specifications

Aspirate Speeds	8
Dispense Speeds	8 + Gravity Dispense
Battery	Rechargeable Lithium-Ion
Battery Service Life	More than 15 Hours of Continuous Use
Charging Time	Approx. 2 Hours
Pipette Types	Glass or Plastic Pipettes (0.1-100mL), Pasture Pipettes
Filter	Hydrophobic

Part Number	Description
CLS-3472-10	Motorized Pipette Filler
CLS-3472-12	0.45µm Hydrophobic Filter
CLS-3472-14	0.20µm Sterile Hydrophobic Filter
CLS-3472-16	Replacement Battery
CLS-3472-18	Standard Nose
CLS-3472-20	Silicone Adapter

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

Use this Tempo pipette controller at maximum speed without compromising accuracy.

EBS - Electronic Break System
Maximizes speed and precision. Pipette at maximum speed and press the EBS to slow down at the last second. Press EBS a second time to return to maximum speed.

Digital Display
Shows battery status and aspiration / dispensing speed. Flashes when battery is low and turns off after 20 seconds of non-use.

Nose cones available in four different colors.

Powerful Motor - zero to 25mLs in under 12 seconds. Six different speed settings.

CLS-3473

Aspiration and Dispensing
Separate speeds for each mode.

CLS-3473 CAPP® TEMPO PIPETTE CONTROLLER

The CAPP Tempo Pipette Controller has revolutionary features that separate it from other controllers. Problems of over pipetting and having limited features with your old pipette controllers are gone. The CAPP Tempo's proprietary Electronic Break System (EBS) allows users to pipette at maximum speed without compromising accuracy. The CAPP Tempo allows you to fill 25ml in less than 12 seconds and provides six different speed settings for both aspiration and dispense modes. Additionally, CAPP Tempo comes with an LED Display so you always know the aspiration and dispense speed, and battery life. The charging stand and wall holder are included in the box. Pipette controller available in four colors: blue, green red and yellow.

Part Number		Description
CLS-3473-BLU	●	CAPP Tempo Pipette Controller, Blue
CLS-3473-GRE	●	CAPP Tempo Pipette Controller, Green
CLS-3473-RED	●	CAPP Tempo Pipette Controller, Red
CLS-3473-YEL	●	CAPP Tempo Pipette Controller, Violet

Battery can be charged while pipette is being used.

Charging Station Included

CLS-1710

CLS-1710 PIPET CANISTERS, Stainless Steel

- Highly resistant to corrosion
- Will withstand repeated steam and dry heat sterilization cycles
- Choose from round and square footprints
- Silicone pads on the inside top and bottom protect pipets

These pipet canisters are made from 304 stainless steel and offer a high resistance to corrosion. The square cans are available in three lengths, each one 5.1cm (2 inches) square. The round canisters are 6.4cm (2-1/2") in diameter. All canisters come with silicone pads on the inside of top and bottom to protect the pipets.

Part Number	Description
CLS-1710-001	15.2 cm SS Pipet Canister, Square
CLS-1710-003	22.9 cm SS Pipet Canister, Square
CLS-1710-005	41.9 cm SS Pipet Canister, Square
CLS-1710-007	41.9 cm SS Pipet Canister, Round

CLS-1710

Flat edge prevents rolling when used horizontally.

CLS-1710 PIPET CANISTERS, ULTEM®, POLYETHERMIDE

- Transparent for easy visibility
- Will withstand repeated steam and dry heat sterilization cycles
- Eliminates metallic ion contamination
- Flat edge on base prevents rolling

These pipet canisters are fabricated from polyetherimide resin and are transparent for easy visibility. They can withstand repeated steam and dry heat sterilization and are virtually indestructible. They are especially useful for sterilizing and storing pipets used in procedures sensitive to metallic ion contamination. They have a flat edge on the base to prevent rolling. Three lengths available, 5.1cm (2-1/2") in diameter.

Part Number	Description
CLS-1710-009	15.2 cm ULTEM® Pipet Canister, Round
CLS-1710-011	22.9 cm ULTEM® Pipet Canister, Round
CLS-1710-013	41.9 cm ULTEM® Pipet Canister, Round

CLS-3489 PIPETTER STAND, ACRYLIC

- Sturdy, durable and lightweight
- Holds pipetters in the upright position
- Attach a disposal bag to the top to collect ejected tips

Acrylic stand for pipetters. Ergonomic, stylish and colorful pipette stand for benchtop pipette storage. Also can hold pipette tip box for easy carrying. The 2 unit stand is 10” x 6” x 6.5” and comes in orange acrylic. The 4 unit stand is 8” x 6” x 10” and comes in blue acrylic.

Part Number	Description
CLS-3489-02	Pipetter Stand, Holds 2 Pipetters, Orange Acrylic
CLS-3489-04	Pipetter Stand, Holds 4 Pipetters, Blue Acrylic

Versatile, Ergonomic & COLORFUL

CLS-3489

CLS-3476 PIPET STORAGE RACK, MAGNETIZED

This magnetized pipet storage rack has strong magnets on both sides and mounts securely on fume hoods, file cabinets, refrigerators, etc. Constructed of durable ABS plastic, this rack not only looks better, but will also hold up better than acrylic. Includes two handy attachments for holding pipet bulbs, pipet fillers and pipet pumps. Measures 291 x 88 x 401mm.

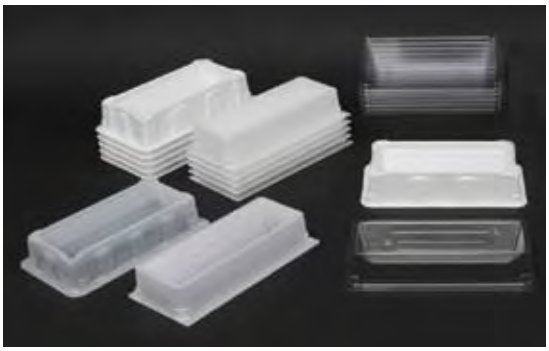
Part Number	Description
CLS-3476-01	Pipet Storage Rack, Magnetized, White

CLS-3476

CLS-3796 RESERVOIR, DILUX™ DILUTION

Designed for making serial dilutions of biological samples and chemical reagents using multichannel pipettors, the 12-chamber reservoir holds up to 5mL of sample. The rounded sides and bottom of the chambers permit complete sample withdrawal. A numerical code inscribed for each chamber ensures accurate sample reference. The fitted lid minimizes sample evaporation and contamination during incubation or storage, while the broad base of the container ensures bench stability. Available both sterile and non-sterile. *Dilux™ is a trademark of Dilux™ Corp.*

Part Number	Description	Pkg. Qty.
CLS-3796-001	Reservoir, Dilux™ Dilution, Sterile	20
CLS-3796-003	Reservoir, Dilux™ Dilution, Non-Sterile, w/Lid	50



CLS-3798 RESERVOIRS, DISPOSABLE PIPETTING

Reservoirs are designed for use in multichannel pipetting applications. Our disposable reservoirs accommodate all types of pipettors up to 12-channel width. They feature a trough design, graduation marks on interior walls, and pour-off spouts on each corner. All sterile reservoirs are lot-certified, non-pyrogenic, and DNase- and RNase-free.

The 25mL reservoirs are also available in a unique divided format that features either two or three distinct mini reservoir chambers. The two channel reservoir has 5mL and 10ml capacities. The three channel one has 5mL capacity each. All sizes are manufactured from virgin modified polystyrene. Available non-sterile or electron beam sterilized.

Sterile Reservoirs: 1/Pk., 100/Case

Part Number	Description
CLS-3798-001	Reservoir, White, Sterile, 25mL
CLS-3798-003	Reservoir, White, Sterile, 50mL
CLS-3798-005	Reservoir, White, Sterile, 100mL
CLS-3798-013	Reservoir, White, Single Channel, Sterile, 25mL‡
CLS-3798-017	Reservoir, White, 3 Channel, Divided,Sterile, 25mL»

Non-Sterile Reservoirs: Bulk Pk., 100/Case

Part Number	Description
CLS-3798-007	Reservoir, White, Non-Sterile, 25mL
CLS-3798-009	Reservoir, White, Non-Sterile, 50mL
CLS-3798-011	Reservoir, White, Non-Sterile, 100mL
CLS-3798-015	Reservoir, White, Single Channel, Non-Sterile, 25mL‡
CLS-3798-019	Reservoir, White, 3 Channel, Divided, Non-Sterile, 25mL»

‡ 2 Channels - 5mL / 10mL » 3 Channels – 5mL / Channel

CLS-3797 RESERVOIR, REAGENT, WHITE, 50ML

Disposable reagent reservoirs hold 50mL of solution and feature a V-shaped design to minimize waste. Reservoirs are packaged individually or nested 5 pieces per pack. CELLTREAT® reservoirs are manufactured in a Class 100,000 clean room from USP class VI virgin polystyrene, gamma irradiation sterilized, RNase-, DNase-, and DNA-Free and non-pyrogenic.

Part Number	Description	Case Qty.
CLS-3797-001	Reservoir, Reagent, 50mL, Individually Wrapped	80
CLS-3797-005	Reservoir, Reagent, 50mL, 5/Bag	200

CLS-3797

Eight-Channel Pipetter
Single-Channel ACCURACY

See page 53 for the details on CAPP® Multichannel Pipetters.

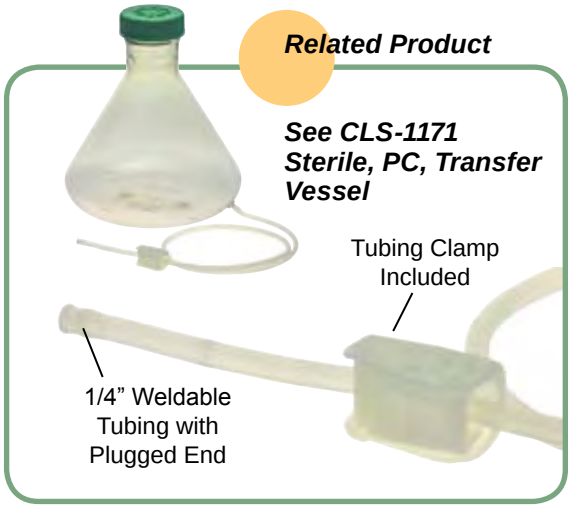
CLS-1202

CLS-1202 BAGS, CELL CULTURE, PREMIUM, 8-PORT, TO FIT GE WAVE™ ROCKING PLATFORMS

Our 8-port premium cell culture bags are constructed using our flex-crack resistant films. The inner solution contact layers of these films are specially formulated to be non-leaching and chemically inert for the highest biocompatibility requirements of cell culture applications. A layer of EVOH insures excellent gas barrier properties. Our premium bags have undergone extensive cycle testing and biocompatibility testing. All bags are gamma sterilized (25kGy-50kGy) and 100% leak tested. All films and components used in the production of these bags are certified to be ADCF (Animal Derived Component Free). All our bags incorporate standard ports as well as a fill port and oxygen sensor sleeve. The solution contact layer is available in either EVA or PE. Packed 1 per case.

Part Number	Capacity (L)*	Material
CLS-1202-E10	10	EVA
CLS-1202-E20	20	EVA
CLS-1202-E22	22	EVA
CLS-1202-E50	50	EVA
CLS-1202-P10	10	PE
CLS-1202-P20	20	PE
CLS-1202-P22	22	PE
CLS-1202-P50	50	PE

***NOTE: Working volume is 50% of the stated bag size.**



CLS-1207 BAG, CELL CULTURE, ULTRA CLEAR, 6-PORT, TO FIT GE WAVE™ ROCKING PLATFORMS

CLS-1207

Cell culture bags are manufactured from ultra clear Flex 600 robust film and gamma irradiated. The film meets USP Class VI specifications and is contamination free. The inner product contact material is low density polyethylene. All bags and components content materials are USP Class VI tested. Excellent choice for mammalian and plant culture cell lines with extended mixing times. Packed 1 per case.

Part Number	Capacity (L)*	Dimensions (L x W)
CLS-1207-10	10	13 x 22"
CLS-1207-20	20	26 x 22"
CLS-1207-22	22	15 x 28"
CLS-1207-50	50	28.5 x 28"

***NOTE: Working volume is 50% of the stated bag size.**

Custom Cell Culture Bags are available. Contact us for more information.

Cell Mass • Cell Membrane Protein • Monoclonal Antibodies • Recombinant Protein • Virus Production

BelloCell® CELL CULTURE SYSTEM

Disposable, High-Yield, Cell Culture System

- Available for batch / semi-batch or continuous culture applications where process components are easily traceable.
- Virtually no learning curve.

Each BelloStage® console accommodates up to four disposable bottles making it an ideal screening device to test various medium formulations or cell lines.

No steam or water lines, autoclave or utilities required, just a power outlet and CO_2 incubator.

SIMPLE to OPERATE

0.22µm ventilation filter is provided in the cap.

Cells remain entrapped in the BioNOC™ II matrix bed simplifying media replacement and product harvesting.

Sampling Port enables aseptic removal of BioNOC™ II carriers for cell counting.

Retaining ring locks bottles into place in the BelloStage® console.

Collapsible bellows.

Controller- adjusts nutrient and gas exchange of the bottle. Magnetic back enables convenient attachment to the outside of the incubator.

Bright screen and large text make this display easy to read.

EXTREMELY COMPACT

BelloFeeder enables 3 independent pump operations with individual programming. Autoclavable pump heads support consistent feeding.

Tubing set with peristaltic pump head enable recirculation and continuous feeding of nutrient.

Selection Guide for Batch / Semi-Batch Culture Bottles

- **BelloCell-500** Designed for adherent cells with general cell culture purpose.
- **BelloCell-500E** Designed for re-use or self-pack customized carriers.
- **BelloCell-500H** Half-packed carriers reducing medium exchange frequency.

Specifications

Dimensions	Height 243 mm x Diameter 100 mm
Vent Filter Type	0.22µm PTFE membrane with PP support
Working Volume	500mL
Bottle Material	PETG, LDPE/EVA and PP

Part Number	Application / Bottles	Secreted Protein, Viruses (Adherent Cells)	Cell Harvest (Non-Secreted Protein, Virus or Cells)	Carrier Harvest (Protein Extraction or Re-Use Carriers)	Suspend Cells
CLS-1300-10	BelloCell-500	●	●	●	●
CLS-1308-14	BelloCell-500E	●	●	●	●

● Best Application ● Applicable But Not Optimal ● Not Applicable

Selection Guide for Continuous Culture Bottles

- **BelloCell-500P** Designed for adherent cells with general cell culture purpose.
- **BelloCell-500AP** Designed for harvesting cells or extracting protein virus from the carriers.
- **BelloCell-500DP** Designed for non-secreted protein, virus or cell harvest with dissolvable carriers.
- **BelloCell-500EP** Designed for re-use or self-pack customized carriers.

Specifications

Dimensions	Height 243 mm x Diameter 100 mm
Vent Filter Type	0.22µm PTFE membrane with PP support
Working Volume	500mL
Bottle Material	PETG, LDPE/EVA and PP
Inlet Port	Inward-flowing: 10 cm silicon tubing with PP female luer
Outlet Port	Outward-flowing: 10 cm silicon tubing with PP male luer

Part Number	Application / Bottles	Secreted Protein, Viruses (Adherent Cells)	Cell Harvest (Non-Secreted Protein, Virus or Cells)	Carrier Harvest (Protein Extraction or Re-Use Carriers)	Suspend Cells
CLS-1302-11	BelloCell-500P	●	●	●	●
CLS-1306-13	BelloCell-500AP	●	●	●	●
CLS-1310-15	BelloCell-500EP	●	●	●	●
CLS-1312-16	BelloCell-500DP	●	●	●	●

● Best Application ● Applicable But Not Optimal ● Not Applicable

CLS-1300-10 BelloCell-500 Cell Culture Bottles

- The original BelloCell bottle that introduced the concept of tidal flow to high-density cell culture
- BioNOC™ II PET macroporous carriers
- Carrier volume of 865 pieces (± 5%)
- Cell density of 3~5 x10^9 cells per bottle

Part Number	Description	Cell Density Up to	Case Qty.
CLS-1300-10	BelloCell-500	3~5 x10^9 cells / bottle	4

BelloCell-500
CLS-1300-10

CLS-1308-14 BelloCell-500E Cell Culture Bottles

- Empty bottle for loading your choice of carriers, scaffolds, plant tissues or BioNOC™ II macroporous carriers
- BioNOC™ II carriers can be autoclaved and then loaded into these bottles under sterile conditions
- Bottles can be reused after discarding carriers and rinsing with DI water if operating under sterile conditions

Part Number	Description	Case Qty.
CLS-1308-14	BelloCell-500E	4

BelloCell-500E
CLS-1308-14

BioNOC™ II Macroporous Carriers

Part Number	Description	Pkg.
CLS-1344-01	BioNOC™ II Cell Culture Carriers	50 g/bt
CLS-1346-01	BioNOC™ II Cell Culture Carriers	250 g/bt

Please visit our website for additional BelloCell products and information.
www.cglifesciences.com

- BelloFeeder®-1300 Pump Module
- Head Plate, Pump Head and Tubing Set
- Crystal Violet Dye Nucleus Count Kit
- And more . . .

BelloCell® bottles cover 90% of applications in cell culture.

- Batch / semi-batch or continuous culture
- Disposable or reuseable with the same cell line
- Cesco carriers or your own carriers
- Harvest cells with or without trypsin

BelloCell-500P
CLS-1302-11

CLS-1302-11 BelloCell-500P Cell Culture Bottles

- Automatic recirculation of medium, eliminating manual medium exchange
- Reduced chances of contamination
- Maximizes stability by ensuring a sufficient supply of culture medium
- BioNOC™ II PET macroporous carriers
- Carrier volume of 865 pieces (± 5%)
- Cell density up to 5 x10^9 cells per bottle
- Inlet / outlet ports for use with BelloFeeder® Pump (Please see the our web.)

Part Number	Description	Cell Density Up to	Case Qty.
CLS-1302-11	BelloCell-500P	5 x10^9 cells / bottle	4

BelloCell-500AP
CLS-1306-13

CLS-1306-13 BelloCell-500AP Cell Culture Bottles

BelloCell®-500AP is designed to:

Increase cell adherence efficiency for certain cell lines that are sensitive to trypsinization by inverting the bottles, especially HEK293.

Enhance virus infection/transfection/transduction efficiency with high virus or plasmid concentration by inverting the bottles.

Save trypsin solution and increase cell harvest efficiency under sterile condition.

BelloCell-500AP is designed to remove the lid on the matrix basket allowing for easier collection of the carriers. Inverting the bottle, carriers fall into the cap and provide special functions such as cell seeding, virus infection, transfection, transduction, and cell harvest. (Solid screw cap is provided for this purpose) This is particularly ideal for extracting cellular protein or viruses directly from the carriers.

- Automatic recirculation of medium, eliminating manual medium exchange
- Reduced chances of contamination
- Maximizes stability by ensuring a sufficient supply of culture medium
- BioNOC™ II PET macroporous carriers (no lid on matrix basket)
- Carrier volume of 865 pieces (± 5%)
- Cell density up to 5 x10^9 cells per bottle
- Inlet / outlet ports for use with BelloFeeder® Pump (Please see the our web.)
- Includes additional, solid top cap

Carriers drop down to the solid top cap when inverting the bottle, this enables several advanced applications for cell culture.

Part Number	Description	Cell Density Up to	Case Qty.
CLS-1306-13	BelloCell-500AP	3~5 x10^9 cells / bottle	4

CLS-1310-15 BelloCell-500EP Cell Culture Bottles

- Empty bottle for loading your choice of carriers, scaffolds, plant tissues or BioNOC™ II macroporous carriers
- Carrier volume of 865 pieces (± 5%)
- Inlet / outlet ports for use with BelloFeeder® Pump (Please see the our web.)
- Automatic recirculation of medium, eliminating manual medium exchange
- Reduced chances of contamination
- Maximizes stability by ensuring a sufficient supply of culture medium
- BioNOC™ II carriers can be autoclaved and then loaded into these bottles under sterile conditions
- Bottles can be reused after discarding carriers and rinsing with DI water if operating under sterile conditions

BelloCell-500EP
CLS-1310-15

Part Number	Description	Case Qty.
CLS-1310-15	BelloCell-500EP	4

BioNOC™ II Macroporous Carriers

Part Number	Description	Pkg.
CLS-1344-01	BioNOC™ II Cell Culture Carriers	50 g/bt
CLS-1346-01	BioNOC™ II Cell Culture Carriers	250 g/bt

CLS-1312-16 BelloCell-500DP Cell Culture Bottles

This bottle is particularly suited for applications requiring the harvest of cell mass without the use of enzymatic treatment.

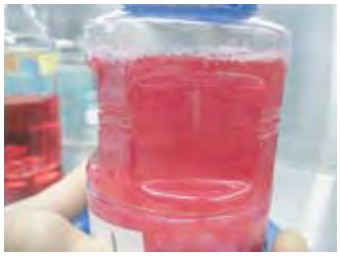
Examples are membrane protein, or virus/vaccine production that are sensitive to trypsin or other extraction reagents.

- Contains BioNOC™ D, dissolvable matrix, which enables cell harvesting without requiring enzymatic treatment
- Applicable for serum-containing, culture media only
- Cell density up to 3 x10^9 cells per bottle
- Carrier volume of 689 pieces (± 5%)
- Inlet / outlet ports for use with BelloFeeder® Pump (Please see the our web.)
- Automatic recirculation of medium, eliminating manual medium exchange
- Reduced chances of contamination
- Maximizes stability by ensuring a sufficient supply of culture medium
- Bottles can be reused after discarding carriers and rinsing with DI water if operating under sterile conditions

BelloCell-500DP
CLS-1312-16

Part Number	Description	Cell Density Up to	Case Qty.
CLS-1312-16	BelloCell-500DP	3 x10^9 cells / bottle	4

3x10^9 BHK cells were harvested from one BelloCell-500DP bottle.



Matrix dissolved and cell mass dislodged from the matrix for harvest after cell culture.

CLS-1314

Extremely COMPACT

Fits in most CO_2 incubators.

CLS-1314-02 BelloCell® High Density Cell Culture System Complete

- Includes a BelloStage® compressor, and necessary accessories
- Extremely compact system fits in most standard CO_2 incubators
- Controller with large bright display and large touch panel
- Easy to read and operate
- Suitable for batch or semi-batch operation
- Suitable for most protein and monoclonal antibodies production applications

The BelloCell® Cell Culture System Complete contains all the necessary elements for users to start cell culture.

It is designed to support four BelloCell® -500 bottles with a 8.6" x 11.7" foot-print and fits inside a standard CO_2 incubator.

It contains a BelloStage® console with a magnetized controller, which can be conveniently mounted and accessed from the outside of the incubator.

One-year warranty on equipment.

BelloCell® System Complete

Part Number	Component Description	Sys. Qty.
CLS-1314-02	BelloStage®-3000 Machine	1
	GlucCell® Glucose Meter	1
	Glucose Test Strips, 50 ea.	50
	CD / Manual	1

BelloCell® BelloStage®-3000 Machine Only

Part Number	Component Description	Qty.
CLS-1313-01	BelloStage®-3000 Machine	1
	Main Console	1
	Control Box	1
	Power Adapter, 100~240V	1
	Signal Cable	1
	CD / Manual	1

Incubators are listed in the Equipment section starting on page 253.

CLS-1317-01 BelloCell® High Density Cell Culture Continuous System Complete

- Each package contains a BelloStage®-3000 compressor. BelloFeeder® pump module, two complete tubing sets and accessories.
- Each bottle connects with an independent media reservoir to eliminate cross-contamination.
- Programmable and ON/OFF pumping control simplifies the setting of recirculation rate for each bottle.
- One BelloFeeder® pump module operates up to 3 pump heads with individual micro-processor control.
- Suitable for cell mass production, cell component production, virus production, or protein expression.

The BelloCell® Continuous Cell Culture System Complete provides the similar features as BelloCell Cell Culture System Complete but with additional BelloFeeder® pump and tubing sets to provide continuous media exchange in the BelloCell®-500P bottles.

Each BelloCell®-500P bottle has additional inlet and outlet line for media recirculation.

Each bottle can link to an extra glass media vessel (not included) and provide continuous exchange of nutrient, eliminating the need for media exchange and avoiding possible shock to the cells during culture.

One-year warranty on equipment.

CLS-1317

Provides continuous media exchange in BelloCell®-500P bottles.

BelloCell® Continuous System Complete

Part Number	Component Description	Sys. Qty.
CLS-1317-01	BelloStage®-3000 Machine	1
	BelloFeeder®-1300 Pump	1
	Tubing Set Complete	2
	GlucCell® Glucose Meter	1
	Glucose Test Strips	50
	CD / Manual	1

GlucCell® Monitoring System includes a palm size meter and disposable test strips, enabling instant and accurate reading for glucose monitor during cell culture.

Disposable test strips, 3µl sample, and palm size meter enable operation in a biosafety cabinet, eliminating the risk of contamination by biohazardous samples.

CLS-1322 GlucCell® Glucose Monitoring System

- Suitable for both serum and serum-free culture medium in mammalian and insect cell culture
- Portable, pre-calibrated, ready-to-use, plug & play, and disposable
- 99.5% correlated with NOVA and YSI biochemical analyzer
- Precision: >95%, Accuracy >90%, Linearity = 0,9997
- Programmable
- One-year warranty on meter

GlucCell® Glucose Monitoring System speeds and simplifies your glucose measurement during cell culture. GlucCell® Glucose Monitoring System is specially designed for measuring the glucose metabolites during animal cell culture, unlike general diabetes glucose meters on the market that are not applicable for animal cell culture.

This package contains a portable, palm size glucose meter and pre-calibrated, disposable test strips, designed for measuring the glucose concentration during mammalian cell and insect cell culture.

GlucCell® Glucose Monitoring System is intended for use by laboratory researchers or bio reator professionals to obtain a quantitative measurement of glucose in cell culture media. It is made to meet your needs with calibration-free, maintenance-free, high accuracy, instant, disposable and portable.

One-year warranty on equipment.

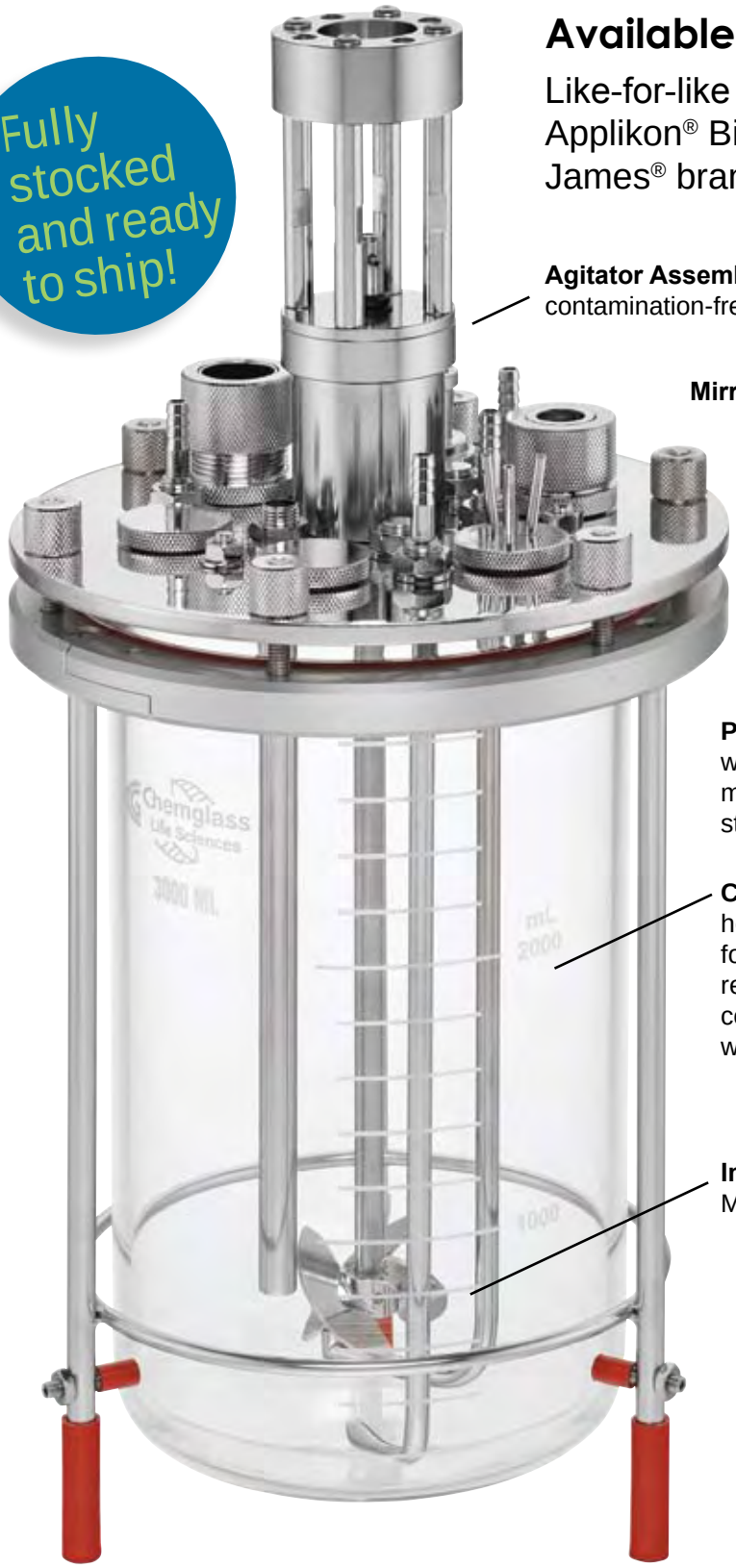
Dimension	96 mm x 60 mm x 18.5 m/m
Weight	70 g including battery
Power source	CR2032 3V Lithium coin battery X 1
Battery Life	Approximately 1,000 tests
Display	Large LCD
Memory	Store 180 test results with date and time
	Auto electrode inserting detection
Automation	Auto sample loading detection
	Auto reaction time count-down/Auto tum-off
Environment	10 - 40 ~ C (50-104 ~ F) , 20-80 RH
Strip size	45 mm x 6 mm x O.6 mm
Require sample	3-10µl
Measure range	30-550 mg/dl (1 .6-30.6 mmol/L)
Test result time	15 seconds

Part Number	Description	Package
CLS-1322-02	GlucCell® Glucose Monitoring System	1 ea. GlucCell® Glucose Meter
		2 ea. bottles, each contains 25 strips
CLS-1324-01	GlucCell® Glucose Test Strips	2 ea. bottles, each contains 25 strips

Fully stocked and ready to ship!

Bio Reactor Components Available in 3, 5, 7 and 15L Sizes

Like-for-like replacement parts for Applikon® Biotechnology and Broadley-James® brands of bio reactors.



Agitator Assembly design ensures a contamination-free seal around the shaft.

Mirror-Polished Finish - Stainless steel components manufactured from 316L with an electropolished surface finish of 20Ra or better.

Head Plate is weld-free and machined from a single piece of stainless steel.

Clear Glass Vessel is made from heavy wall, borosilicate glass for superior visibility as well as resistance to thermal shock and corrosion. Marked with permanent, white graduations.

Impeller Blades - Ruston and Marine style available.

Applikon® is a registered trademark of Applikon Biotechnology, Inc. Broadley-James® and Broadley-James Corporation® are registered trademarks of Broadley-James Corporation.

Chemglass Life Sciences is pleased to announce the availability of like-for-like, replacement components for the popular 3, 5, 7 and 15 liter sizes of Applikon® and Broadley-James® bio reactors. All stainless steel components are manufactured from 316L stainless with an electropolished surface finish of 20Ra or better. Borosilicate glass vessels include jacketed and unjacketed versions.

Please contact us directly if you require any parts not shown here.

CLS-1380-01

UNJACKETED GLASS BIO REACTOR VESSEL

Vessels are constructed of heavy wall tubing and are graduated in 200mL subdivisions with numbers every 1000mL.

Part Number	Vessel Cap. (L)	Vessel Min. Working Volume (L)	Vessel I.D. (mm)	Overall Height (mm)
CLS-1380-01	3	0.5	130	260
CLS-1382-01	5	1.0	160	260
CLS-1383-01	7	2	160	360
CLS-1385-01	15	2.5	222	456

CLS-1380-STD3
CLS-1382-STD5
CLS-1383-STD7

TRIPOD STAND FOR UNJACKETED VESSEL

Stand to hold unjacketed bio reaction vessels. Top, two-piece ring is made of anodized aluminum while the lower ring and legs are electropolished stainless steel. Stands come complete with silicone o-ring and six, knurled nuts to attach the headplate to the stand.

Part Number	Vessel Cap. (L)	Replacement Silicone O-Ring
CLS-1380-STD3	3	CLS-1705-150X4
CLS-1382-STD5	5	CLS-1705-177X4
CLS-1383-STD7	7	CLS-1705-177X4
CLS-1385-STD15	15	CLS-1705-274

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

JACKETED GLASS BIO REACTOR VESSEL

Jacketed vessels are constructed of heavy wall tubing and are graduated in 200mL subdivisions with numbers every 1000mL. Connections to circulator are GL-18 glass threads and are supplied complete with caps and plastic hose connections.

NOTE: 15 Liter Jacketed Vessels are available as special items. Please contact us for details.

Part Number	Vessel Cap. (L)	Vessel Min. Working Volume (L)	Vessel I.D. (mm)	Overall Height (mm)
CLS-1381-01	3	0.5	130	275
CLS-1382-30	5	1.0	130	275
CLS-1384-01	7	2	160	375

CLS-1381-01
CLS-1382-30
CLS-1384-01

TRIPOD STAND FOR JACKETED VESSEL

Stand to hold jacketed bio reaction vessels. Top, two-piece ring is made of anodized aluminum while the lower ring and legs are electropolished stainless steel. Stands come complete with silicone o-ring and six, knurled nuts to attach the headplate to the stand.

NOTE: Stands for 15 Liter Jacketed Vessels are available as special items. Please contact us for details.

Part Number	Vessel Cap. (L)	Replacement Silicone O-Ring
CLS-1381-STD3	3	CLS-1705-150X4
CLS-1386-STD5	5	CLS-1705-177X4
CLS-1384-STD7	7	CLS-1705-177X4

CLS-1381-STD3
CLS-1384-STD7

AGITATOR ASSEMBLY

CLS-1380-05
CLS-1383-04

Agitator assembly is constructed of 316L stainless steel and screws into the M30 thread in the center of the headplate. The design of the stirrer ensures contamination-free sealing around the shaft.

Part Number	Vessel Cap. (L)	Replacement Silicone O-ring	Length of Shaft Through Headplate (mm)	Shaft Dia. (mm)
CLS-1380-05	3-5	CLS-1705-124	222	8
CLS-1383-04	7	CLS-1705-124	430	8
CLS-1385-05	15	CLS-1705-131	392	15

HEADPLATE

Headplate is constructed of 316L stainless steel and electropolished to a mirror finish. Supplied complete with a silicone o-ring that mates to the glass vessel. Number and size of ports as listed.

CLS-1382-03
Top Side

CLS-1382-03
Bottom Side

Part Number	Vessel Cap. (L)	Number and Size of Ports	Replacement Silicone O-Ring
CLS-1380-03	3	18 Total Ports:	CLS-1705-135X4
		M30 Center	
		1 each G-3/4	
		5 each M18	
		2 each M12	
		6 each M10	
		3 each M6	
CLS-1382-03	5 and 7	19 Total Ports:	CLS-1705-260
		M30 Center	
		1 each G-3/4	
		5 each M18	
		2 each M12	
		10 each M10	
CLS-1385-03	15 Liter	19 Total Ports:	CLS-1705-373
		Center Port for Agitator	
		6 each M27	
		2 each M12	
		10 each M10	

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

MARINE STYLE IMPELLER BLADES

Marine style impeller blades are available in two styles, Vortexing and Scoping. The 3 through 7 liter sizes fit the 8mm shaft of the agitator assembly, while the 15 liter size fits the 15mm Shaft size. These blades are used primarily for mammalian cell culture work.

Part Number	Impeller Type	Fits Reactor (L)	Impeller Diameter (mm)
CLS-1380-06	Vortex (Down)	3	43
CLS-1380-07	Scoping (Up)	3	43
CLS-1382-05	Vortex (Down)	5 and 7	59
CLS-1382-06	Scoping (Up)	5 and 7	59
CLS-1385-06	Vortex (Down)	15	76mm
CLS-1385-07	Scoping (Up)	15	76mm

CLS-1382-06

CLS-1382-05

RUSTON STYLE IMPELLER BLADES

The 3 through 7 Liter sizes fit the 8mm Shaft, while the 15 liter fits the 15mm shaft. These blades are used primarily for bacterial cell culture work.

Part Number	Fits Reactor (L)	Impeller Diameter (mm)
CLS-1380-08	3	48
CLS-1382-07	5 and 7	60
CLS-1385-20	15	76mm

CLS-1382-07

TRIPLE PORT ADAPTER, M18

The triple inlet adapter fits into an 18mm headplate port and incorporates three separate pipes in one assembly for efficient use of space. The adapter has three, 1/8" (3.2mm) tubing ports for connection to flexible tubing and can be used individually for reagent addition. Inside the reactor, the 1/8" tubes are ¾", 1" and 1 1/8" long.

Part Number	Thread Size	Replacement Silicone O-Ring
CLS-1380-09	M18	CLS-1705-20X2
CLS-1385-08	M27	CLS-1705-121

CLS-1380-09

THERMOWELL, M10

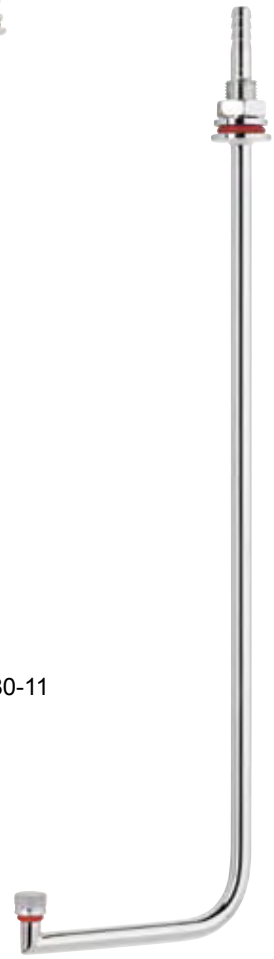
M10 threaded thermowell having an I.D. of 0.310" that will accept ¼" thermocouple probes. To enhance temperature measurement, the thermowell should be partially filled with a heat conducting silicone or mineral oil.

CLS-1380-11

Part Number	Fits Reactor (L)	Immersion Length (mm)	Replacement Silicone O-Ring
CLS-1380-11	3-5	200	CLS-1705-85X25
CLS-1383-05	7	300	CLS-1705-85X25
CLS-1385-10	15 Liter	370mm	CLS-1705-85X25

AERATION TUBE WITH POROUS SPARGER, M10

The 15µm, sintered metal tip produces tiny air bubbles for optimum gas distribution. The "A" dimension listed allows for placement in different ports of the headplate. **NOTE:** Replacement o-ring listed is for M10 connection.



CLS-1382-08

Part Number	Fits Reactor (L)	Immersion	Dim. "A" (mm)	Replacement Silicone O-Ring
CLS-1380-12	3	238	50	CLS-1705-85X25
CLS-1382-08	5	238	73	CLS-1705-85X25
CLS-1383-06	7	330	73	CLS-1705-85X25
CLS-1385-11	15	420	93	

Replacement Sparger Tips

Part Number	Porosity (µm)	Replacement Silicone O-Ring
CLS-1380-14	10	CLS-1705-008
CLS-1380-15	15	CLS-1705-008

AIR INLET / OUTLET ADAPTER, M10

This air inlet / outlet adapter fits into a 10mm headplate opening. Can be used as a gas outlet pipe in lieu of a condenser in applications where the aeration rate or temperature is low or for short term batch application. More often, this pipe is used to provide overlay aeration.

CLS-1380-20

Part Number	Fits Reactor (L)	Replacement Silicone O-Ring
CLS-1380-20	3-7	CLS-1705-85X25

SAMPLING TUBE, ADJUSTABLE, M10

This sampling tube is adjustable to permit the culture fluid to be sampled at any desired level. Tubing is ¼" OD.

Part Number	Fits Reactor (L)	Maximum Immersion Length (mm)	Replacement Silicone O-Ring
CLS-1380-21	3-5	232	CLS-1705-85X25
CLS-1383-08	7	325	CLS-1705-85X25
CLS-1385-13	15	390	CLS-1705-85X25

BLIND STOPPERS

Stoppers can be used to close off any of the unused openings in the headplate. The M6, M10 and M12 sizes are fitted into the headplate from the inside, leaving a flat surface, while the M18 and G-3/4 are threaded into the ports from the outside.

Part Number	Size	Replacement Silicone O-Ring
CLS-1380-22	M6	CLS-1705-010
CLS-1380-23	M10	CLS-1705-85X25
CLS-1380-24	M12	CLS-1705-111
CLS-1380-25	M18	CLS-1705-20X2
CLS-1385-14	M27	CLS-1405-121
CLS-1380-26	G-3/4	CLS-1705-023

SAMPLING TUBE, FIXED, M10

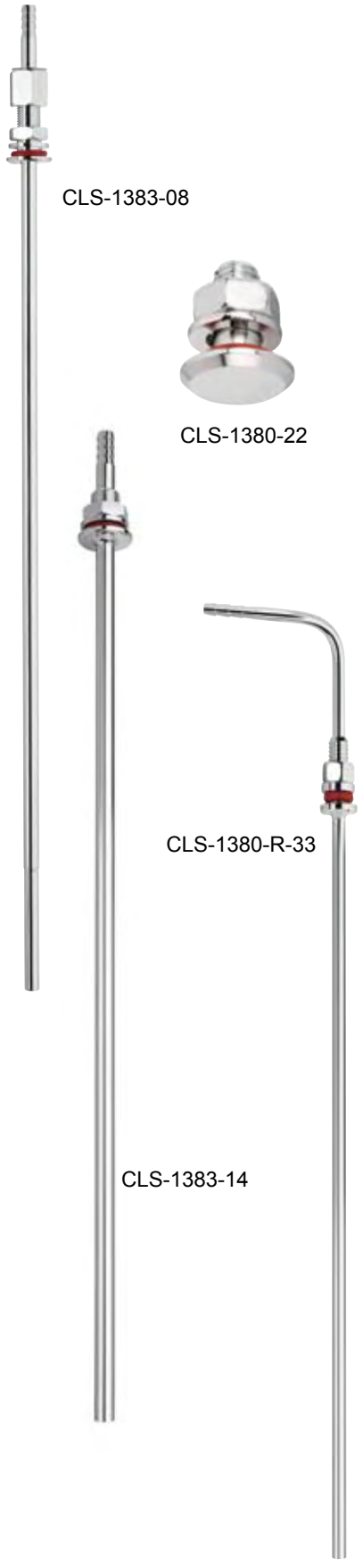
Fixed height sampling tubes for bioreactors. Tubing is ¼" OD.

Part Number	Fits Reactor (L)	Maximum Immersion Length (mm)	Replacement Silicone O-Ring
CLS-1380-33	3-5	212	CLS-1705-85X25
CLS-1383-14	7	315	CLS-1705-85X25
CLS-1385-26	15	400	CLS-1705-85X25

SAMPLING TUBE, REDUCED DIAMETER FIXED, M6

Sampling tube with a reduced diameter which requires a smaller amount of sample to be drawn from the reactor. Tubing is 1/8" OD.

Part Number	Fits Reactor (L)	Maximum Immersion Length (mm)	Replacement Silicone O-Ring
CLS-1380-R-33	3-5	210mm	CLS-1705-010



♥ Subject to Bio Reactor Discount. ◘ Subject to Spinner Flasks and Accessories Discount.
◊ Subject to Life Sciences Consumables Discount.

CLS-1382-11
CLS-1383-12

CLS-1380-28

HEAT EXCHANGERS

Heat exchangers are available in a choice of two different styles. The cold finger style is for use with 3 and 5 liter reactors and fits into the headplate via an M18 threaded port. The second style is a loop type exchanger and is available for 5 - 15 liter reactors. It fits into two, M10 ports of the headplate.

Part Number	Fits Reactor (L)	Exchanger Style	Replacement Silicone O-Ring
CLS-1380-28	3-5	Cold Finger	CLS-1705-20X2
CLS-1382-11	5	Loop	CLS-1705-85X25
CLS-1383-12	7	Loop	CLS-1705-85X25
CLS-1385-16	15	Loop	CLS-1705-85x25

ADDITION PIPE, M10

This adapter can be used to add fluids or gases to the bio reactor.

Part Number	Fits Reactor (L)	Replacement Silicone O-Ring
CLS-1380-31	3-7	CLS-1705-85X25

CLS-1380-31

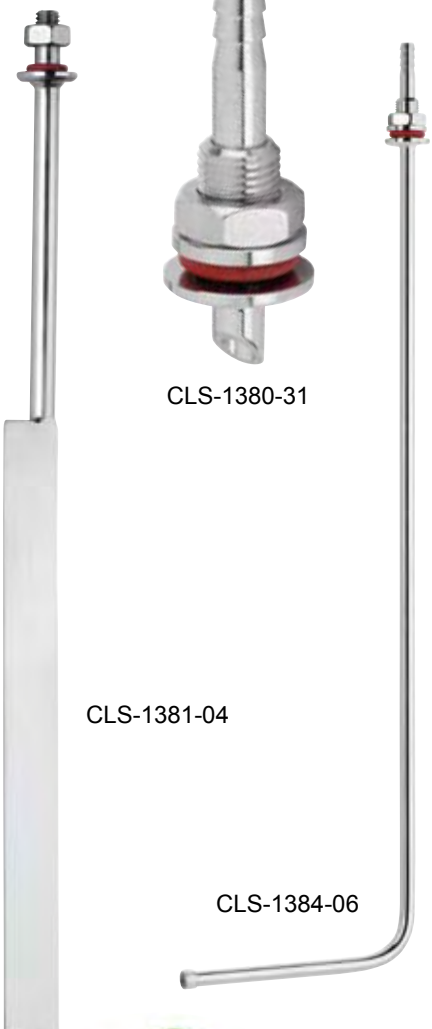
BAFFLE ASSEMBLY

Baffles are used to increase the mixing efficiency inside the bio reactor and are mounted near the reactor wall for optimum mixing performance.

Part Number	Fits Reactor (L)	Thread Size	Replacement Silicone O-Ring
CLS-1381-04	3	M6	CLS-1705-010
CLS-1382-10	5	M10	CLS-1705-85X25
CLS-1383-11	7	M10	CLS-1705-85X25
CLS-1385-17	15	M10	CLS-1705-85X25

AIR AERATION TUBE, M10

This tube is to be used when high gas flow rates are required. The sparger pipe extends to the bottom of the vessel and terminates just below the impellers on the stirrer shaft. This allows bubbles coming out of the sparger to rise up into the impellers where they are broken up for improved oxygen transfer.



CLS-1381-04

CLS-1384-06

Part Number	Fits Reactor (L)	Length of Tube Below the Headplate (mm)	Replacement Silicone O-Ring
CLS-1381-05	3-5	236	CLS-1705-85X25
CLS-1384-06	7	330	CLS-1705-85X25
CLS-1385-18	15	420	CLS-1705-85X25

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

PROBE HOLDER, 12MM, FIXED HEIGHT

Probe holder for 12mm probes. These are non-height adjustable.

		Replacement Silicone O-Ring	
Part Number	**Thread Size**	**Interior**	**Exterior**
CLS-1381-08	M18	CLS-1705-111	CLS-1705-20X2
CLS-1381-09	G-3/4	CLS-1705-111	CLS-1705-023
CLS-1385-21	M27	CLS-1705-111	CLS-1705-121

CLS-1381-08

PROBE HOLDER, 12MM, ADJUSTABLE HEIGHT

Probe holder for 12mm probes. Height adjustable with compression fitting.

Part Number	Thread Size	Replacement Silicone O-Ring
CLS-1381-06	M18	CLS-1705-20X2
CLS-1381-07	G-3/4	CLS-1705-023
CLS-1385-19	M27	CLS-1705-121

Replacement FKM Compression Ring for 12mm Probe

Part Number		Pkg. Qty.
1380-027	FKM Compression Ring	1

CLS-1381-06
CLS-1381-10

PROBE HOLDER, 19MM, ADJUSTABLE HEIGHT

Probe holder for 19mm probes. Height adjustable with compression fitting.

Part Number	Thread Size	Replacement Silicone O-Ring
CLS-1381-10	G-3/4	CLS-1705-023
CLS-1385-22	M27	CLS-1705-121

Replacement FKM Compression Ring for 19mm Probe

Part Number		Pkg. Qty.
1381-009	FKM Compression Ring	1

SEPTUM HOLDER, M18

The septum holder is supplied with a silicone rubber septum and can be used as a universal addition port for fluid or gas. Replacement septa are available.

Part Number	Thread Size	Replacement Silicone O-Ring
CLS-1380-10	M18	CLS-1702-20X2
CLS-1385-09	M27	CLS-1705-141

Replacement Septa

Part Number		
CLS-1380-014	Silicone Rubber Septum	10

CLS-1380-10

CLS-1380-32

HARVEST TUBE, M10

Harvest tube mounts into the outer M10 thread on the standard headplate. The tapered tip of the tube extends to within 2mm of the bottom of the bio reaction vessel to allow complete harvesting of all cells. The 15 Liter size is made with 1/2” tubing for quicker harvest.

Part Number	Vessel Capacity (L)	Replacement Silicone O-Ring
CLS-1380-32	3	CLS-1705-85X25
CLS-1382-12	5	CLS-1705-85X25
CLS-1383-13	7	CLS-1705-85X25
CLS-1385-23	15	CLS-1705-85X25

HEATING BLANKETS, 110V

Heating blankets are manufactured to fit snugly around unjacketed vessels to supply uniform heat. Made of silicone rubber, blankets are 110VAC and have a two prong plug which requires a temperature controller to operate.

Part Number	Fits Reactor	Wattage
CLS-1380-19	3 Liter	180
CLS-1382-09	5 Liter	300
CLS-1383-07	7 Liter	300
CLS-1385-12	15 Liter	385

CLS-1380-09

CLS-1380-GC1

CONDENSER, GLASS

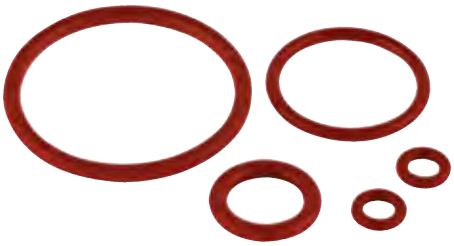
Glass condenser for use with microbial culture style vessels. Condenser is connected to the bio reactor by a 12mm, adjustable height, probe adapter (CLS-1381-06, CLS-1381-07 or 1385-19 sold separately).

Part Number	Fits Reactor	Overall Length (mm)
CLS-1380-GC1	3 & 5 Liter	150
CLS-1380-GC2	7 Liter	250
CLS-1385-GC3	15 Liter	250

REPLACEMENT SILICONE O-RINGS FOR BIO REACTOR PARTS

Orange silicone o-rings conform to FDA 21CRF Part 177.2600.

Part Number	ID x Cross Section (mm)	Package Quantity
CLS-1705-008	4.47 x 1.78	20
CLS-1705-010	6.07 x 1.78	20
CLS-1705-85X25	8.50 x 2.50	20
CLS-1705-111	10.70 x 2.6	20
CLS-1705-18X3	18.0 x 3.0	20
CLS-1705-20X2	20.0 x 2.00	20
CLS-1705-023	26.7 x 1.78	10
CLS-1705-121	26.6 x 2.62	10
CLS-1705-124	31.4 x 3.30	10
CLS-1705-131	42.5 x 2.62	10
CLS-1705-135X4	135 x 4.00	1
CLS-1705-150X4	150 x 4.00	1
CLS-1705-260	166 x 3.00	1
CLS-1705-177X4	177 x 4.00	1
CLS-1705-373	228 x 5.33	1
CLS-1705-274	253 x 3.53	1



CLS-1705-series

Please contact us for custom accessory kits and large volume discounts.

CLS-1390 SINGLE-USE BIO REACTOR ACCESSORY KITS

This pre fabricated, single-use bio reactor kit consists of the 8 components listed. They are packed in an ISO Class 7 clean room, double bagged and ready for use. Kits are fabricated with full traceability and accompanying validation documentation, which meets USP Class VI requirements. These pre-assembled kits can be customized to any validated components currently specified on your bio reactor design.

Part Number	Description
CLS-1390-01	Complete Bio Reactor Accessory Kit

Kit Includes 1 Each of the Following

Part Number	Description	Pkg. Qty.
CLS-1390-10	Media Inlet Line Assembly	1
CLS-1390-11	Sparger Line Assembly	1
CLS-1390-12	Condenser Vent Line Assembly	1
CLS-1390-13	Sample Line Assembly	1
CLS-1390-14	Overlay Gas Assembly	1
CLS-1390-15	Tri Port Assembly	3

Single-Use
- Minimize Labor Costs
- Eliminates Cleaning Validation
- Reduces Set up Time and Costs

Pre-Fabricated Assemblies
- Minimize Injuries associated with cutting in-house
- Improved consistency

Offers Closed System
- Gives the ability to assemble in Open Lab type Environment
- Provides aseptic solution to close off an unused line

CLS-1438 CELLTROL III, DUAL BIO REACTOR CONTROL SYSTEM WITH MASS FLOW

CLS-1438 CELLTROL III
(Bio reactors not included.)

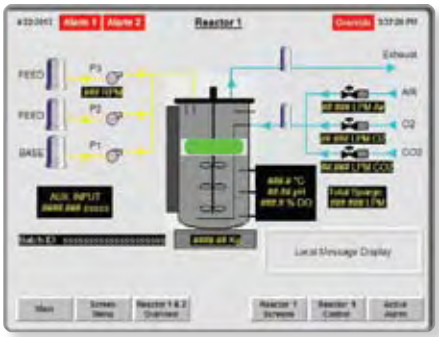
See Bio Reactor replacement parts on pages 71-81.

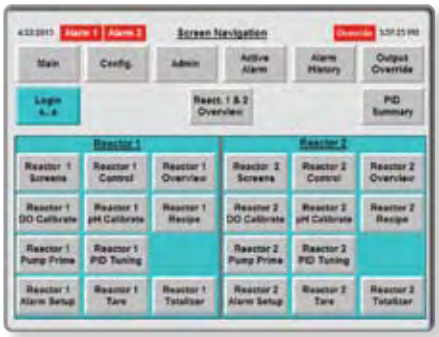
New parts are always being added to our website: www.cglifesciences.com

CLS-1438 CELLTROL III
(Back View)

The CellTrol III controller is equal to the CellTrol II but with the addition of **8 mass flow controllers with up to 3 LPM flow rates.**

- Allen-Bradley PLC Processor provides a reliable platform for system operation and the high resolution touch screen with stylist maximizes controller interface viewing and navigation.
- System can be configured to operate with any manufacturers' vessels.
- Integrated gas regulators and gauges on process utilities enables reliable operation when multiple systems are run simultaneously.
- Simple power and communications connections to the CellTrol base unit.
- Controls 22 bio reactor control loops in a dual system architecture including pH, DO, temperature, level, weight, agitation speed, nutrient feed, airflow O^2 flow, CO_2 flow and N_2 flow.
- NIST Traceable capability on all systems components ensures overall confidence in system performance.
- Dual architecture and compact size minimizes bench top real estate and enables increased space for larger vessels and additional support equipment.





Software Features and Benefits

- User, supervisor and administrator level password protection.
- DO and pH probe calibration at operator interface with slope values for user reference.
- Additional system calibrations can be performed from the HMI minimizing downtime and system access.
- Component totalizers record batch amounts. PID loop tuning enables customization for various reactor sizes and control mechanism configurations.
- Operator configurable alarms based on process value or deviation from setpoint enable remote monitoring of the system.
- Active alarms and alarm history can be viewed from the HMI.
- DO cascade control provides a variety of control options depending on the process application.
- Manual output overrides allow system manipulation for immediate process changes or troubleshooting flexibility.
- Five-user configurable recipes enable multiple phases or cell lines to be run with minimal user manipulation.
- User configurable analog input (4-20mA) allows third party transmitters to be integrated without additional support and trended in the data historian.

Specifications

Dimensions	
Overall	28” High x 20” Deep x 12” Wide
Main Enclosure	20” High x 20” Deep x 12” Wide
Mass Flow Controller	8” High x 18” Deep x 12” Wide
Power Requirements	115VAC, 15 AMP
User Interface	8” Touch Screen
Mass Flow Control	Up to 8 each with 30 LPM Flow Rates
Pumps	Up to 4 at a fixed rate (1, 4, 10 or 20RPM) and 2 Variable Speed (1-100 RPM)
Heater Blanket Outlets	2 each @500 Watts Max.
Additional Control Outlets	2 each at 1 amp

Part Number	Description
CLS-1438-800	CellTrol III, Dual Bio Reactor Control with Mass Flow

CLS-1438 CELLTROL II CONTROL MODULES for Controlling Up to 12 Bio Reactor Loops

- PLC-based controller with open architecture for ease of customization
- Password protection for user-configurable outputs
- Optional software packages available

The Celltrol II controls up to 12 bio reactor control loops including pH, DO, temperature, level/foam, weight, and agitation speed. The Allen Bradley PLC based controller provides open architecture for ease of customizing. A touch screen operator interface provides access to all PLC based control functions and allows viewing and modification of the control parameters. Multiple outputs can be assigned to control any loop. Pump assignments are user defined from the touch screen. Tethered speed drives, gassing stands and weight platforms are sold separately.

Specifications

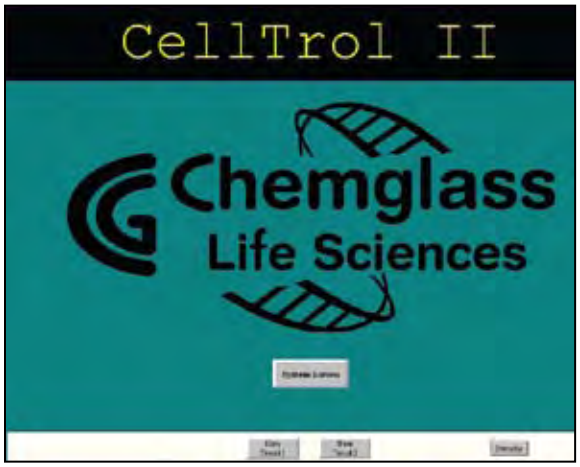
Dimensions	20.5" H x 13" W x 24" D (51 x 33 x 61cm) SS Construction
Power Supply	Line Power 115V AC @ 15 Amp Frequency 50/60 Hz Consumption up to 12 amps depending upon configuration
Operator Interface	6" Color Touch Screen
Input Types	RTD, pH Probe, DO Probe, Foam/Level (Digital Input)
Heater Blanket	2 @ 600W
Control Inputs	8 Outlets, 120 VAC
Alarms	Operator Programmable
Communications	TCI/IP Protocol Standard
Pumps	Up to 6 User Assigned Pumps (1, 4 or 10rpm Available)

Part Number	Description
CLS-1438-108	2 pH, 2 DO, 2 Temp, 2 Pumps
CLS-1438-109	2 pH, 2 DO, 2 Temp, 2 Weight, 2 Pumps
CLS-1438-114	2 pH, 2 DO, 2 Temp, 2 Level, 2 Pumps
CLS-1438-115	2 pH, 2 DO, 2 Temp, 2 Level, 2 Weight, 2 Pumps
CLS-1438-121	2 pH, 2 DO, 2 Temp, 2 Weight, 2 Speed, 2 Pumps
CLS-1438-126	2 pH, 2 DO, 2 Temp, 2 Speed, 2 Level, 2 Pumps
CLS-1438-127	2 pH, 2 DO, 2 Temp, 2 Level, 2 Weight, 2 Speed, 2 Pumps

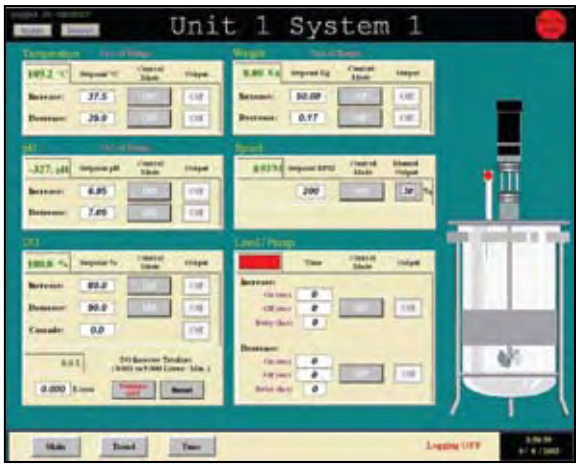
Celltrol II controller configurations listed above are available in either 2 or 4 pump configurations.

NOTE: Pump rpm (1, 4 or 10rpm) must be specified with order.

Please contact your sales representative for pricing and configuration options.



Main Screen displayed when software is started. The main screen allows the user to navigate to “Fermentor” and “User Log” screens.



System Process Overview Screen allows the user to set control parameters, adjust control functions and display process values / output states.

CLS-1438-500 CELLSOFT SOFTWARE

CellSoft Software is a data acquisition, remote set-point and remote control adjustment package. The software can accommodate up to 8 dual Celltrols or 16 vessels. Software includes licensing, ethernet hub and ethernet cable.

Part Number	Description
CLS-1438-500	CellSoft-1, for 1 Dual Celltrol Controller
CLS-1438-510	CellSoft-8, for up to 8 Dual Celltrol Controllers

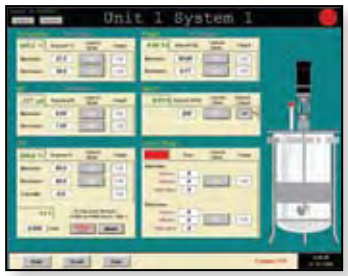
CLS-1438-500 CELLSOFT LITE SOFTWARE

CellSoftLite is a data acquisition only package. The software is configured for single PC installation only. CellSoftLite-2 is configured for 1 dual Celltrol or 2 vessel systems while the CellSoftLite-8 is configured for up to 8 dual Celltrols or up to 16 vessel systems.

Part Number	Description
CLS-1438-530	CellSoftLite-1, for 1 Dual Celltrol Controller
CLS-1438-540	CellSoftLite-8, for up to 8 Dual Celltrol Controllers

Optional Software is Available. Contact us for details. Requirements for the CellSoft optional software are:

P4 1GHZ, 128MB RAM
Win 7 Pro 32 bit, Win 7 Pro 32 bit SP1, Win XP Pro 32 bit SP3
Network Interface Card
Licensed copy of Microsoft® Excel®.



CLS-1438-001 TEMPERATURE CONTROLLER

Chemglass Life Sciences temperature controllers are used with heating blankets and RTD sensors to monitor and regulate temperatures according to set point values in bio reactor vessels. Temperature range is 0-150°C with 0.55" LED display panel. Dimensions are 17 x 10 x 1.75". Input: Platinum RTD 100ohms at 0°C. Power and patch cords sold separately.

Part Number	Description
CLS-1438-001	Temperature Controller PWM-PID control, Heat & Cool, 115V

CLS-1438
Temperature Sensor Cable

RTD Temperature Sensors

RTD temperature sensors fit into a thermowell to register the temperature of the media inside vessels. They connect to temperature controllers with solenoid valves to activate heating blankets or cooling coils.

Part Number	Description
CLS-1438-34A	RTD Temp. Sensor, 0.187" x 10", 8' Cable
CLS-1438-35A	RTD Temp. Sensor, 0.187" x 3/4", 8' Cable
CLS-1438-36A	RTD Temp. Sensor, 0.187" x 5", 8' Cable
CLS-1438-37A	Temp. Sensor Extension Cable, 6'

Cooling Solenoid Valve Assembly

Cooling solenoid valve assembly is used to control flow from a cooling bath to a vessel. Supplied with hose barb ends and interface cable.

Part Number	Description
CLS-1438-42A	Cooling Solenoid Valve Assy., 1/4T, 6' Cable

Power Cord

Part Number	Description
CLS-1438-17A	Power Cord, 6', IEC 60320-1 to NEMA 5-15

CLS-1438-002 pH CONTROLLER

The Chemglass Life Sciences pH controller is used with a pH probe to control the acidity or alkalinity in bio reactor cell culture according to the set point values. The controller can be used to activate a pump on the support module for acid or base addition or to activate a rotometer for CO_2 introduction into the culture. The controller has a pH range of 1-14 with 0.55" LED digital display. Dimensions are 17 x 10 x 1.75". Input: pH probe with output of 55mV/ pH unit; BNC connector. Power and patch cords are sold separately.

Part Number	Description
CLS-1438-002	Ph Controller PWM PID CTR.-ACID & BASE (2) 120V AC OUT

pH Probe Cables

Standard BNC connector to AK9 provides interface connection between pH probe and controller.

Part Number	Description
CLS-1435-100	pH Probe Cable, 3'
CLS-1435-103	pH Probe Cable, 6'
CLS-1435-105	pH Probe Cable, 10'

CLS-1435
pH Probe Cable

Power and Adapter Cords

The Chemglass Life Science power cord is 6': IEC 60320-1 to NEMA 5-15. The adapter cord is 14" and adapts from a male IEC to a female u-ground plug.

Part Number	Description
CLS-1438-17A	Power Cord, 6'
CLS-1438-19A	Adapter Cord, 14", from Module to Standard Plug

CLS-1438-003 CONTROLLER, DISSOLVED OXYGEN

The Chemglass Life Sciences dissolved oxygen controller is used with a DO probe to maintain dissolved oxygen levels to set point values. The controller will activate a rotometer on the support module and introduce oxygen (sparging) or nitrogen (overlay) as needed. Range: 0 to 100% with 0.55" LED digital display. Input: polarographic probe; 5 pin DIN female connector. Power and patch cords sold separately.

Part Number	Description
CLS-1438-003	DO controller PWM PID CTR.- INCR&DECREASE (2) 120V AC OUT

CLS-1435
DO Probe Cable

Dissolved Oxygen Probe Cables

Standard 4 pin to 5 pin Circular DIN connectors.

Part Number	Description
CLS-1435-107	DO Probe Cable, 3'
CLS-1435-109	DO Probe Cable, 6'
CLS-1435-111	DO Probe Cable, 10'

Power and Adapter Cord

The Chemglass Life Science power cord is 6': IEC 60320-1 to NEMA 5-15. The adapter cord is 14" and adapts from a male IEC to a female u-ground plug.

Part Number	Description
CLS-1438-17A	Power Cord, 6'
CLS-1438-19A	Adapter Cord, 14", from Module to Standard Plug

CLS-1438-45A
CLS-1438-46A

CLS-1438-45A WEIGHT PLATFORMS

The weight platforms are supplied with a stainless steel top for easy cleaning and cabling to connect to the Celltrol II for accurate monitoring or controlling of weight of a vessel. Maximum load of standard weight platforms is 75KG.

Part Number	Description
CLS-1438-45A	12" x 12" Scale Base, 50KG
CLS-1438-46A	18" x 18" Scale Base, 75KG

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-1439-350 GAS BLENDING STANDS

Our gas blending stands are affordable gas mixing stations for bioprocess controls. Provides gas mixing of up to 4 independent gases, flow is easily adjusted by the knob on the front of the rotometers. Gasses can be plumbed to either headspace or sparge vessel inlets by operator. Gas inlet and outlet connections are made via 1/4" hose barb fittings, optional control solenoid valves can be added to interface with our modular controllers or the Celltrol control system. Gas supplied must be dried, filtered and regulated to less than 15PSI. Solenoids supplied with cord and IEC connector.

CLS-1439

Available Flow Rates			
Low Flow = Blue; Standard Flow = White; High Flow = Yellow			
Air	**Oxygen**	**Nitrogen**	**Carbon Dioxide**
0.7 to 7mL/Min	5 to 50mL/Min	0.6 to 6mL/Min	2 to 20mL/Min
5 to 50mL/Min	30 to 300mL/Min	5 to 50mL/Min	5.5 to 55mL/Min
7.5 to 75mL/Min	50 to 500mL/Min	6 to 60mL/Min	22 to 220mL/Min
10 to 100mL/Min	0.1 to 1L/Min	12 to 120mL/Min	0.1 to 1L/Min
25 to 250mL/Min	0.4 to 4L/Min	20 to 200mL/Min	0.6 to 6L/Min
50 to 500mL/Min	0.8 to 8L/Min	50 to 500mL/Min	1 to 10L/Min
0.1 to 1L/Min	1.5 to 15L/Min	0.1 to 1L/Min	
0.1 to 1.15L/Min		0.2 to 2L/Min	
0.2 to 2L/Min		0.5 to 5L/Min	
0.4 to 4L/Min		1 to 10L/Min	
0.5 to 5L/Min		1.2 to 12L/Min	
1 to 10L/Min			
1.6 to 16L/Min			
4 to 40L/Min			

Part Number	No. of Rotometers	No. of Solenoid Valves
CLS-1439-350	1	0
CLS-1439-301	1	1
CLS-1439-302	2	0
CLS-1439-303	2	1
CLS-1439-304	2	2
CLS-1439-305	3	0
CLS-1439-306	3	1
CLS-1439-307	3	2
CLS-1439-308	3	3
CLS-1439-309	4	0
CLS-1439-310	4	1
CLS-1439-311	4	2
CLS-1439-312	4	3
CLS-1439-313	4	4

All rotometers with flow rates between 200mL and 10L are standard. Rates below or above require additional valves, sold separately.

Please contact your sales representative for additional configurations and pricing. Flow rates must be supplied at time of order.

CLS-1404

CLS-1404 VESSEL, VERTICAL SIDE ARM (VSA), BIO REACTOR, 4-NECK

Vessel has four, vertical, GL-45 threaded, side necks, and a 100mm threaded center neck. Supplied complete with four solid GL-45 caps and four pouring rings. The 3 and 6 liter vessels are low profile to maximize incubator space.

Part Number	Capacity (liters)	Dimensions OD x OAH (mm)
CLS-1404-03	3	240 x 250
CLS-1404-06	6	240 x 295
CLS-1404-08	8	240 x 425
CLS-1404-15	15	295 x 460

CLS-1406

CLS-1406 VESSEL, VERTICAL SIDE ARM (VSA), BIO REACTOR, 6-NECK

Vessel has six, vertical, GL-45 threaded, side necks, and a 100mm threaded center neck. Supplied complete with six solid GL-45 caps and six pouring rings. The 3 and 6 liter vessels are low profile to maximize incubator space.

Part Number	Capacity (liters)	Dimensions OD x OAH (mm)
CLS-1406-03	3	240 x 250
CLS-1406-06	6	240 x 295
CLS-1406-08	8	240 x 425
CLS-1406-15	15	295 x 460
CLS-1406-36	36	410 x 535

CLS-1406-C

CLS-1406-C CARRIERS, BIO REACTOR VESSEL

Manufactured from 304 Stainless Steel and electropolished. Vessel carriers are very stable and allow for easy transport of bio reactor vessels, spinner flasks or large carboys.

Part Number	Fits Vessel Size	Carboy Size	Dimensions H x OAD (in)
CLS-1406-C06	6L	9L	9 x 8
CLS-1406-C08‡	8L	13L	11 x 10
CLS-1406-C15	15L	19L	12 x 11
CLS-1406-C36	36L	45L	17 x 13

‡To be used with 3L and 6L Low Profile Vessels

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-1440

DURA-DRIVE™ OVERHEAD MOTOR, STANDARD

- Easy mounting bracket with 'peg & grommet' design
- Twist-lock, power cord plug safely prevents disconnection from power source

Dura-Drive overhead motors are designed for use with SS or PTFE impellers to stir media or other liquids in bio reactor vessels and spinner flasks. A CLS-1440 overhead drive adapter is required with this motor. Includes power supply.

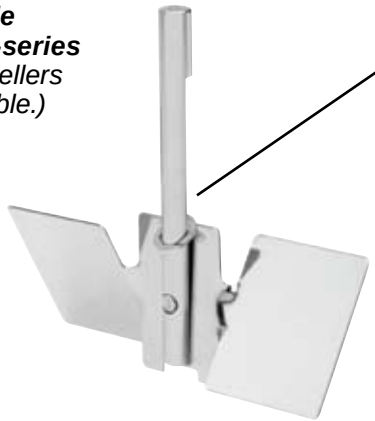
Specifications

Speed Range	5-150RPM, Forward and Reverse
Dimensions	4.5 x 5.5 x 8" (11 x 15 x 20cm) including handle
Torque	19in. lbs, 30W

Part Number	Description
CLS-1440-100	Dura-Drive™ Overhead Motor, 120V

Standard Overhead Drive Adapter CLS-1440-10

Stainless Steel Pitch Blade CLS-1440-series *(PTFE Impellers also available.)*



We also offer 4-20 mA communication options. Please call for details.

CLS-1440

CLS-1440 OVERHEAD DRIVE ADAPTER, STANDARD

The standard overhead drive adapter is used to attach a standard overhead drive motor to a SS or PTFE impeller for use with bio reactor vessels or spinner flasks. The adapter is manufactured from 316L electropolished SS with polyester / SS bearings.

Part Number	Description
CLS-1440-10	Overhead Drive Adapter, Standard

CLS-1440
PTFE

CLS-1440 IMPELLER ASSEMBLIES FOR OVERHEAD DRIVES, PTFE

Our PTFE impeller assemblies are designed to provide agitation for our vertical side arm (VSA) vessels and spinners when used with our cap adapter and Dura-Drive overhead motor.

Part Number	Description	OAW x OAH (mm)
CLS-1440-26	PTFE Impeller Assy., 3L Spinner	108 x 222
CLS-1440-27	PTFE Impeller Assy., 6L Spinner	171 x 355
CLS-1440-28	PTFE Impeller Assy., 8L VSA	171 x 337
CLS-1440-29	PTFE Impeller Assy., 15L VSA	171 x 368
CLS-1440-30	PTFE Impeller Assy., 36L VSA	241 x 442
CLS-1440-44	PTFE Impeller Assy., Low Profile, 3L VSA	171 x 162
CLS-1440-54	PTFE Impeller Assy., Low Profile, 6L VSA	171 x 207

PLEASE NOTE: STAINLESS STEEL IMPELLER ASSEMBLIES ARE AVAILABLE AS SPECIAL ORDER. PLEASE CONTACT US FOR DETAILS.

CLS-1440
Stainless Steel

CLS-1440-P PITCH BLADE IMPELLER ASSEMBLIES FOR OVERHEAD VERTICAL SIDE ARM VESSELS

Our SS pitch blade folding impeller assemblies are designed to provide optimum agitation for our vertical side arm (VSA) vessels. These impellers will improve uplift mixing and increase mass transfer rates while minimizing shear to cultures. They can be used with our cap adapter and Dura-Drive Overhead Motor. The impellers are made from 316 SS with an electropolished finish of 20Ra or better and supplied with a dust shield as well as a locking ring to secure the paddle in a horizontal position once inserted into the flask.

Part Number	Description
CLS-1440-P43	SS Pitch Blade, Low Profile 3L VSA
CLS-1440-P53	SS Pitch Blade, Low Profile 6L VSA
CLS-1440-P48	SS Pitch Blade, 8L VSA
CLS-1440-P49	SS Pitch Blade, 15L VSA
CLS-1440-P50	SS Pitch Blade, 36L VSA

CLS-1437-F SPARGER ASSEMBLY, 3-PORT, SS, WITH HOSE BARBS AND FRIT

Our 3-port sparger assemblies are designed for gentle aeration using a 10 micron frit in our vertical side arm (VSA) vessels. The frit is removable for easy cleaning. These assemblies are constructed of 316L stainless steel, electropolished to a 20Ra finish or better and include a blue polypropylene GL-45 open top cap and white silicone gasket.

Part Number	Description
CLS-1437-F50	3-Port Sparger Assy. with Frit for 3L VSA Vessels
CLS-1437-F51	3-Port Sparger Assy. with Frit for 6L VSA Vessels
CLS-1437-F52	3-Port Sparger Assy. with Frit for 8L VSA Vessels
CLS-1437-F53	3-Port Sparger Assy. with Frit for 15L VSA Vessels
CLS-1437-F54	3-Port Sparger Assy. with Frit for 36L VSA Vessels

Replacement Components

Part Number	Description
CLS-1437-F75	Frit Only, Sparger, 316 S.S. 1" Long, 10 Micron Porosity

316L stainless steel electropolished to a 20Ra finish or better.

CLS-1437-H SPARGER ASSEMBLY, 3-PORT, SS, WITH HOSE BARBS AND HOLES

Our 3-port sparger assemblies with **drilled holes**, 0.040" spaced 1/2" apart, and hose barbs are designed for vigorous aeration in our vertical side arm (VSA) vessels. These assemblies are constructed of 316L stainless steel, electropolished to a 20Ra finish or better and include a blue polypropylene GL-45 open top cap and white silicone gasket.

Part Number	Description
CLS-1437-H40	3-Port Sparger Assy. with Holes for 3L VSA Vessels
CLS-1437-H41	3-Port Sparger Assy. with Holes for 6L VSA Vessels
CLS-1437-H42	3-Port Sparger Assy. with Holes for 8L VSA Vessels
CLS-1437-H43	3-Port Sparger Assy. with Holes for 15L VSA Vessels
CLS-1437-H44	3-Port Sparger Assy. with Holes for 36L VSA Vessels

CLS-1437-A10

CLS-1437-A ADDITION TUBE ASSEMBLY, 3-PORT, SS, WITH HOSE BARBS

Our hose barbed 3-port tube assemblies are designed for addition or sampling of media from vertical side arm (VSA) bio reactor vessels. These tube assemblies are ideal for liquid addition of acid, base, antifoam or media. They are constructed of 316L stainless steel, electropolished to a 20Ra or better finish and include a blue, polypropylene GL45 open top cap and white silicone gasket. Tube lengths are 3-3/32" long.

Part Number	Description
CLS-1437-A10	3-Port Addition Tube Assembly for VSA Vessels

CLS-1437

CLS-1437 PORT ASSEMBLY, 2-PORT, SS, WITH HOSE BARBS FOR VSA VESSELS

Our 2-port assemblies are designed for addition or sampling of media from vertical side arm (VSA) bio reactor vessels and/or standard Schott or Corning® media bottles. They are constructed of 316L electropolished stainless steel and include a blue polypropylene GL45 open top cap with a white silicone gasket. Assemblies have a finish of 20Ra or better.

Part Number	Description
CLS-1437-20	2-Port Assembly for 3L VSA Vessels and 2L Media Bottles
CLS-1437-21	2-Port Assembly for 6L VSA Vessels and 5L Media Bottles
CLS-1437-22	2-Port Assembly for 8L VSA Vessels and 10L Media Bottles
CLS-1437-23	2-Port Assembly for 15 & 36L VSA Vessels Only

CLS-1437

CLS-1437 PORT ASSEMBLY, 3-PORT, SS, WITH HOSE BARBS FOR VSA VESSELS

Our 3-port assemblies are designed for addition or sampling of media from vertical side arm (VSA) bio reactor vessels and/or standard Schott or Corning® media bottles. They are constructed of 316L electropolished stainless steel and include a blue polypropylene GL45 open top cap with a white silicone gasket. Assemblies have a finish of 20Ra or better.

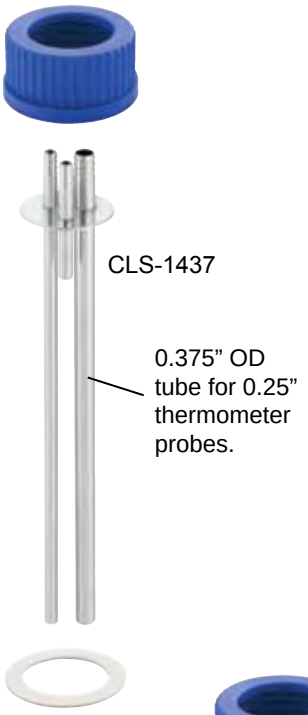
Part Number	Description
CLS-1437-30	3-Port Assembly for 3L VSA Vessels and 2L Media Bottles
CLS-1437-31	3-Port Assembly for 6L VSA Vessels and 5L Media Bottles
CLS-1437-32	3-Port Assembly for 8L VSA Vessels and 10L Media Bottles
CLS-1437-33	3-Port Assembly for 15 & 36L VSA Vessels Only

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-1437 THERMOWELL ASSEMBLY, 3-PORT, SS, WITH HOSE BARBS FOR VSA VESSELS

Our 3-port large diameter thermowell assemblies are designed to accommodate a wide variety of RTDs and dial thermometers of different diameters for measuring the process temperature in our vertical sidearm bio reactor vessels. All 316L stainless steel tubes have an electropolished finish of 20Ra or better, inside and out. These assemblies feature a thermowell tube with 0.375" OD and 0.305"ID that will accept all 1/4" thermometer probes. Includes a blue, open top, GL45, polypropylene cap with a white silicone gasket.

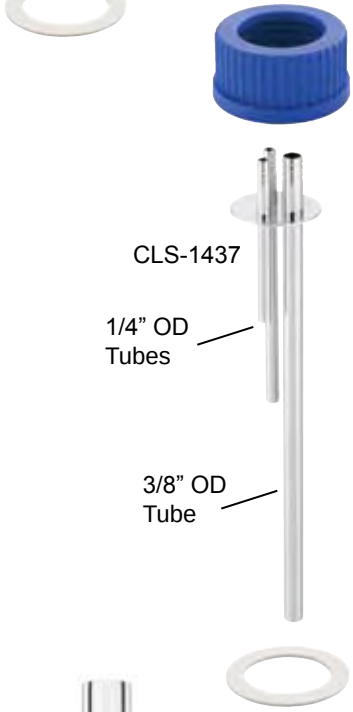
Part Number	Description
CLS-1437-60	3-Port Thermowell Assembly for 3L VSA Vessels
CLS-1437-61	3-Port Thermowell Assembly for 6L VSA Vessels
CLS-1437-62	3-Port Thermowell Assembly for 8L VSA Vessels
CLS-1437-63	3-Port Thermowell Assembly for 15 & 36L VSA Vessels



CLS-1437 HARVEST TUBE ASSEMBLY, 3-PORT, SS, WITH HOSE BARBS FOR VSA VESSELS

Our 3-port harvest assemblies are designed for insertion into our vertical sidearm bio reactor vessels. They are manufactured with 1/4" and 3/8" 316L stainless steel tubing and facilitate rapid removal of liquid from bio reactor vessels. Harvest tube assemblies have an electropolished finish of 20Ra or better, inside and out. Includes a blue, open top, GL45, polypropylene cap with a white silicone gasket.

Part Number	Description
CLS-1437-70	3-Port Harvest Tube Assembly for 3L VSA Vessels
CLS-1437-71	3-Port Harvest Tube Assembly for 6L VSA Vessels
CLS-1437-72	3-Port Harvest Tube Assembly for 8L VSA Vessels
CLS-1437-73	3-Port Harvest Tube Assembly for 15 & 36L VSA Vessels



CLS-1437-G1 GLASS FRIT

Made of glass and easily attaches to one of our dip tube assemblies with silicone tubing (not provided) to help increase aeration. Porosity is 40-60 microns. Can be autoclaved. Overall length is 50mm. Stem OD is 8mm.

Part Number	Description
CLS-1437-G1	Glass Frit, 40-60 microns

CLS-1435 DO PROBES AND CABLES, METTLER-TOLEDO

Cathode	Platinum
Anode	Silver
Polarization	~675mV
Output	40 to 70nA in air at 25°C
Temperature	0 to 60°C; Sterilization to 130°C
Stability	2% or Readout per week at constant pressure/temp 30°C
Linearity	Better than ±0.3% of readout
Pressure	60PSI maximum
Material	Wetted parts 316L SS
O-Ring	FKM

DO Probe with 4 Pin Bendix Connector

Part Number	Description
CLS-1435-50	DO Probe, PTFE, 12 x 120mm
CLS-1435-53	DO Probe, PTFE, 12 x 220mm
CLS-1435-57	DO Probe, PTFE, 12 x 320mm
CLS-1435-59	DO Probe, PTFE, 12 x 420mm

DO Probe with VP Connector

Part Number	Description
CLS-1435-120	DO Probe VP Adapter
CLS-1435-123	DO Probe, w/VP, 12 x 120mm
CLS-1435-125	DO Probe, w/VP, 12 x 225mm
CLS-1435-127	DO Probe, w/VP, 12 x 325mm
CLS-1435-129	DO Probe, w/VP, 12 x 425mm

AK9 Cables and Accessories

Part Number	Description
CLS-1435-107	DO Probe Cable, 3'
CLS-1435-109	DO Probe Cable, 6'
CLS-1435-111	DO Probe Cable, 10'
CLS-1435-901	T-96 DO Membrane Kit, 12mm
CLS-1435-903	DO Membrane Kit, A Type, 19-25mm

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-1435-D DO PROBES, HAMILTON

The OxyFerm® FDA is an electrochemical oxygen sensor suited for applications with high demands for hygiene, e.g. in pharmaceutical industry, in biotechnology and in foods and beverages production. When using Oxylyte™ USD electrolyte, even upside-down insertion is possible. The sensor is equipped with a FDA approved membrane for usage in hygienic processes.

Electrode System	Silver Platinum Combination
Polarization	670mV ± 50mV
Output	40 to 80nA in Air at 25°C
Temperature	0-130°C, Sterilization to 130°C
Drift at Room Temp under Constant Conditions	<1% per Week
Stabilization Time	<2 Hours
Pressure	0-4 Bar
Wetted Materials	Stainless Steel 1.4435, EPDM and Silicone with FDA Approval
Mounting	PG 13.5 Thread
Electrical Connector	Standard 4 Pole T 82/D4

CLS-1435-D70 CLS-1435-D80

DO Probe Standard 4 Pole T82/D4 Connector

Part Number	Description
CLS-1435-D70	OxyFerm FDA, 12 x 120mm
CLS-1435-D72	OxyFerm FDA, 12 x 220mm
CLS-1435-D73	OxyFerm FDA, 12 x 320mm
CLS-1435-D74	OxyFerm FDA, 12 x 420mm

DO Probe with VP Connector

Part Number	Description
CLS-1435-D80	OxyFerm FDA, VP, 12 x 120mm
CLS-1435-D82	OxyFerm FDA, VP, 12 x 225mm
CLS-1435-D83	OxyFerm FDA, VP, 12 x 325mm
CLS-1435-D84	OxyFerm FDA, VP, 12 x 425mm
CLS-1435-D88	OxyFerm Membrane Kit

Accessories

Part Number	Description
CLS-1435-D90	Cathode Assembly for OxyFerm DO Sensors
CLS-1435-D91	Electrolyte for OxyFerm FDA Sensors, 50mL
CLS-1435-D92	Protective Cap for T82 DO Sensor Autoclaving

CLS-1435-D92

CLS-1435 pH PROBES AND CABLES, METTLER-TOLEDO

K8 Connector

Electrodes are filled with gel reference electrolyte under a pressure of 2.5 bar. Fully autoclavable or in situ sterilizable.

pH Range	0-12
Pressure Range	From vacuum up to a process of maximum 36PSI (2.5 bar)
Temperature Range	Steam sterilization/autoclavable to 266°F (0 to 130°C)
In-situ sterilization	Up to 100 cycles under standard conditions

pH Probe with K8 Connector

Part Number	Description
CLS-1435-70	pH Probe, 12 x 120mm
CLS-1435-73	pH Probe, 12 x 200mm
CLS-1435-75	pH Probe, 12 x 225mm
CLS-1435-77	pH Probe, 12 x 325mm
CLS-1435-79	pH Probe, 12 x 425mm

VP Connector

pH Probe with VP Connector

Part Number	Description
CLS-1435-30	pH Probe, w/VP, 12 x 120mm
CLS-1435-33	pH Probe, w/VP, 12 x 225mm
CLS-1435-35	pH Probe, w/VP, 12 x 325mm
CLS-1435-37	pH Probe, w/VP, 12 x 425mm

Cables with K8 Probe Connection and BNC Controller Connection

Part Number	Description
CLS-1435-100	pH Probe Cable, 3'
CLS-1435-103	pH Probe Cable, 6'
CLS-1435-105	pH Probe Cable, 10'

CLS-1437 PROBE HOLDERS

Our probe holders are designed to secure pH and DO probes into 45mm vertical sidearm vessels. Includes thermoplastic, polyester cap and silicone gasket. This assembly is designed to hold an Ingold pH or DO electrode securely in place in your cell culture vessel via the 45mm sidearm. It consists of: red high temperature 45mm screw cap, 316L SS probe holder with a Pg 13.5 thread, and a white silicone rubber liner. Comes fully assembled for fast and easy set-up.

CLS-1437

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-1435-P pH PROBES, HAMILTON

The Easyferm Plus K8 sensors are designed to withstand demanding applications in pharmaceutical and chemical industries. The EVEREF-F reference cartridge ensures that the Phermlyte reference electrolyte remains free of silver and precipitation. The Easyferm Plus K8 is supplied with a pre-sterilized electrolyte which prevents the diffusion of sample into the sensors. It withstands steam sterilization, autoclaving, CIP, organic solvents and strong acids. Fully autoclavable or in situ sterilizable.

pH Range	0-14
Electrolyte	Pressurized PHERMLYTE
Pressure Range	0-6 Bar
Electrical Connector	Type K8 - Standard pH Connector Head or VP
Reference System	HAMILTON EVEREF-F, Silver ion barrier included
Temperature Range	Steam Sterilizable/Autoclavable to 266°F (0 to 135°C)
In Situ Sterilization	Up to 100 Cycles under Standard Conditions

K8 Connector

VP Connector

CLS-1435-P70 CLS-1435-P76

pH Probe Standard K8 Connector

Part Number	Description
CLS-1435-P70	Easyferm Plus K8, 12 x 120mm
CLS-1435-P71	Easyferm Plus K8, 12 x 200mm
CLS-1435-P72	Easyferm Plus K8, 12 x 225mm
CLS-1435-P73	Easyferm Plus K8, 12 x 325mm
CLS-1435-P74	Easyferm Plus K8, 12 x 425mm

pH Probe with VP Connector

Part Number	Description
CLS-1435-P76	Easyferm Plus, VP, 12 x 120mm
CLS-1435-P77	Easyferm Plus, VP, 12 x 225mm
CLS-1435-P78	Easyferm Plus, VP, 12 x 325mm
CLS-1435-P79	Easyferm Plus, VP, 12 x 425mm

Part Number	Description
CLS-1437-01	12mm GL-45 Probe Holder, PG 13.5 Screw Thread Style
CLS-1437-02	12mm GL-45 Probe Holder, Compression Style
CLS-1437-03	1/2" GL-45 Probe Holder, Compression Style

Replacement Components

Part Number	Description
CG-195-05	GL-45 Cap with Aperture, PBTE
CLS-1428-11	GL-45 Open Gasket, White, FDA Approved Silicone

CLS-1408 Heating Blanket

Heating Blanket in place on bio reactor.

Glass Vessels and Overhead Drive listed on page 91.

CLS-1408 HEATING BLANKETS

Our heating blankets are available in a variety of sizes for use with our spinner flask and bio reactor vessel lines. A male IEC connector is provided for easy connection to either modular temperature controller or our Celltrol II control system. Vessel must be stirred when heating blankets are in use, heating at 5 watts per square inch.

Part Number	Description
CLS-1408-010	500mL Heating Blanket, 50 Watts, 1" x 10.5"
CLS-1408-020	1L Heating Blanket, 75 Watts, 1" x 14"
CLS-1408-040	3L Heating Blanket, 150 Watts, 2" x 17.5"
CLS-1408-060	3L/P, 6L/P, 8L Heating Blanket, 375 Watts, 3" x 26.5"
CLS-1408-170	7L Heating Blanket, 300 Watts, 17.5" x 4"
CLS-1408-070	15L Low Wattage Heating Blanket, 325 Watts, 5" x 33"
CLS-1408-080**	15L High Wattage Heating Blanket, 750 Watts, 5" x 33"
CLS-1408-090	36L Low Wattage Heating Blanket, 375 Watts, 5" x 48"
CLS-1408-100	36L Medium Wattage Heating Blanket, 500 Watts, 5" x 48"
CLS-1408-110**	36L High Wattage Heating Blanket, 1200 Watts, 5" x 48"

CLS-1436

CLS-1436 PRESSURE RELIEF/CHECK VALVE, DISPOSABLE

Safety is paramount when working with glass vessels that see pressure. Hydrophobic vent filters can become blocked due to moisture from the vessel contents. This results in a higher than normal back pressure and an increased chance for the vessel or other system components to fail.

Valve is a one-way or non-return device to let gas flow in one direction above a fixed pressure level. It is attached by silicone or comparable tubing to one of the vessels head plate ports. If the pressure inside the vessel reaches 3 psig, the valve will open and then close when the pressure falls below 3 psig. The valve is made from FDA/USDA materials and is ultrasonically welded for leak-free service. The housing cannot be opened nor can the pressure setting be adjusted. The valve is fully autoclavable and can be reused or disposed of depending on the user requirements. The device can also be used as a check valve in applications to prevent gases or liquids from back flowing.

Part Number	Description	Pkg. Qty.
CLS-1436-00	Pressure Relief/Check Valve	6

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-1436-T TUBING, SILICONE, PEROXIDE-CURED VERSILIC™

CLS-1436-T

Peroxide-cured Versilic™ Silicone Tubing is designed for use in applications where flexibility, resiliency and durability are required. Its inner smooth surface reduces the risk of particulate entrapment and microscopic buildup during fluid transfer.

Tubing complies fully with the requirements of the USP Class VI Criteria and is entirely non-toxic, non-hemolytic and non-pyrogenic. It also meets 3-A Sanitary Standards, FDA 21 CFR Part 177.2600 Criteria and NSF 51 Standard. Withstands temperature extremes from -75°F to 350°F.

Sold in standard lengths of 50ft.

Part Number	OD	ID	Wall Thickness
CLS-1436-T20	1/4"	1/8"	1/16"
CLS-1436-T21	5/16"	3/16"	1/16"
CLS-1436-T22	3/8"	3/16"	3/32"
CLS-1436-T23	3/8"	1/4"	1/16"
CLS-1436-T24	7/16"	1/4"	3/32"
CLS-1436-T25	1/2"	1/4"	1/8"

CLS-1436-C01 FLOW CONTROL TUBE CLAMP, 1/2" OD

CLS-1436-C01

Acetal clamp is autoclavable; won't rust, corrode or distort. Twelve position ratchet control adjusts from full flow to complete closure. Accepts tubing up to 1/2" OD. Packed 1 per case.

Part Number	Description
CLS-1436-C01	Flow Control Tube Clamp, 1/2" OD

CLS-1436

Safety is paramount when working with glass vessels that see pressure.

Cracking Pressure	3 psig
Connections	1/4" to 1/4" OD Hose Barb
Dimensions	1.8" OAL, .75" Body Diameter
Temperature Range	0 to 250°F
Materials of Construction	Polypropylene, 316 SS and DuraGrip®
Pressure Limits	Full Vacuum to 100 psig

Available in a variety of configurations. Can also be customized!

CLS-1407-T OMNITOP SAMPLE TUBES™, PRE-STERILIZED, SINGLE-USE, 50ML CENTRIFUGE TUBES

- Transfer of Biopharmaceutical Products and Reagents in a Closed System
- Gas Exchange Transfer
- Sampling of Biopharmaceutical Products and Reagents in a Closed System
- Storage of Biopharmaceutical Products and Reagents
- Use with Bench Top, Pilot Plant, and Production Bio Reactors
- Use with Sterile Connecting Devices and Thermal or RF Tubing Sealers

OmniTop Sample Tubes are convenient devices that can be used to obtain fluid samples. Each OmniTop tube comes with a pre-attached 0.2µm vent filter and 18" of C-Flex® tubing. They are available with or without internal dip-tubes to facilitate removal of the fluid inside. OmniTop Sample Tubes are available in a wide variety of standard configurations or they can be customized to suit your specific applications.

OmniTop Samples Tubes can be aseptically connected to your bio reactor or other device using standard tubing welders. Sample Tubes can also be aseptically sealed and removed (wet or dry) using tubing sealers such as the CLS-1407-12 or handheld battery powered CLS-1407-10.

CLS-1407-T-10

CLS-1407-T-12

CLS-1407-T-20

CLS-1407-T-22

Part Number	OmniTop 50mL Conical Tube with:	Pkg. Qty.
CLS-1407-T-10	18" C-Flex Inlet, Silicone Dip Tube, Seal Tube	10
CLS-1407-T-12	18" C-Flex Inlet, Silicone Dip Tube	10
CLS-1407-T-20	18" C-Flex Inlet, Seal Tube	10
CLS-1407-T-22	18" C-Flex Inlet	10

CLS-1399 SAMPLER, BIO REACTOR, ASEPTIC, LACH[1]

- Eliminates “dead volume” which normally needs to be flushed out of the sampler.
- All Luer-style connections, eliminates needle sampling
- Check valve positioning makes it impossible to re-inject the sample.
- Use with any type of cell culture sampling such as spinner flasks or bags.

The new Lach sampler permits sampling of bio reactors without the chance of contamination. Sampler is set up with check valves that eliminate the chances of contamination along with a connection for the sampling syringe which the user disinfects prior to use.

NOTE: The sampler is supplied assembled, but not sterilized. It must be autoclaved prior to use. The syringes are supplied sterile.

Samplers are available in two sizes, small with a 10mL syringe and large with a 20mL syringe. The small sampler works with any bio reactor up to and including 7 liters. The large is for 10 liters and above. (This is based on the volume in a normal stainless steel sampling tube.)

CLS-1399

Economical sampling without contamination.

Part Number	Description
CLS-1399-01	Sampler, Aseptic, Lach, Small
CLS-1399-02	Sampler, Aseptic, Lach, Large

[1] Design suggested by William Lach, Chemglass Life Sciences

CLS-1407 GENESIS TUBE SEALERS, BENCH-TOP & PORTABLE, BATTERY OPERATED

Genesis tubing sealers provide rapid and highly integral tubing seals using lightweight and portable equipment. When the trigger lever is pulled, the Genesis device initiates strong high-frequency energy which melts the thermoplastic Tygon® tubing. The sealing cycle is only about 2 seconds long and can be performed on dry as well as fluid filled tubing.

The seal is designed for easy separation. After the sealing cycle has completed, the tubing can be aseptically parted by pulling on tube itself. No other tools are required and sterility of each side is completely maintained.

Depending on your requirements, you can select an AC powered or a battery powered system. The AC powered model (CLS-1407-12) is equipped with two sealing heads. One is a fixed head mounted on the base, while the other is a tethered hand-held unit. The battery powered model (CLS-1407-10) comes with a tethered head only; it does not have a fixed head.

CLS-1407
Battery
Powered

- Highly integral seals
- Easy to disconnect
- Seals dry or liquid filled tubing
- Widely used in blood bank applications
- Battery powered unit provides portability in areas without AC power

CLS-1407
AC Powered

Part Number	Description
CLS-1407-10	Genesis Tube Sealer, Portable, Battery Powered
CLS-1407-12	Genesis Tube Sealer, Bench Top, AC Powered

CLS-1437
2-Port Assembly

CLS-1437
3-Port Assembly

CLS-1429-20

CLS-1429-21

CLS-1437 PORT ASSEMBLY, 2-PORT, SS, WITH HOSE BARBS FOR MEDIA BOTTLES

Our 2-port dip tube assemblies are designed for addition or sampling of media from standard Schott or Corning® media bottles. They are constructed of 316L electropolished stainless steel and include a blue polypropylene GL-45 open top cap with a white silicone gasket. Dip tube assemblies have a finish of 20Ra or better.

Part Number	Description
CLS-1437-19	2-Port Assembly for 1L Media Bottles Only
CLS-1437-20	2-Port Assembly for 2L Media Bottles
CLS-1437-21	2-Port Assembly for 5L Media Bottles
CLS-1437-22	2-Port Assembly for 10L Media Bottles

CLS-1437 PORT ASSEMBLY, 3-PORT, SS, WITH HOSE BARBS FOR MEDIA BOTTLES

Our 3-port assemblies are designed for addition or sampling of media from standard Schott or Corning® media bottles. They are constructed of 316L electropolished stainless steel and include a blue polypropylene GL-45 open top cap with a white silicone gasket. Dip tube assemblies have a finish of 20Ra or better.

Part Number	Description
CLS-1437-29	3-Port Assembly for 1L Media Bottles Only
CLS-1437-30	3-Port Assembly for 2L Media Bottles
CLS-1437-31	3-Port Assembly for 5L Media Bottles
CLS-1437-32	3-Port Assembly for 10 Media Bottles

CLS-1429 PORT ASSEMBLIES, 2-PORT, SS, WITH HOSE BARBS FOR MEDIA BOTTLES

Vent port assemblies are constructed of 316L stainless steel electropolished to a finish of 20Ra or better. These port assemblies fit GL-45 media bottles. Each assembly is supplied complete with a GL-45 open top cap and silicone gasket.

Part Number	Description	Flask Size (mL)	Sidearm Size
CLS-1429-20	Two Port	500-36000	GL-45
CLS-1429-21	Two Port Angled	500-36000	GL-45

Replacement Open Top Caps and Gaskets

Part Number	Description
CLS-1428-11	GL-45 Silicone Gasket Only, White, Pkg. / 1
CLS-1481-21	GL-45 Cap Only, Open Top, Blue, Pkg./6
CLS-1481-22	GL-45 Cap Only, Open Top, Green, Pkg./6
CLS-1481-23	GL-45 Cap Only, Open Top, Yellow, Pkg./6

Save money on your bottle purchases when using these port assemblies! Choose CLS-1174, Schott Media Bottles without Caps. See page 138.

CG-8088 BOTTLE, MEDIA/STORAGE, GL SCREW THREAD, CLEAR, BOROSILICATE, PYREX®

Media bottles have enhanced graduations and marking spots that are permanent white enamel. This general use bottle is provided with a GL screw thread (as noted) and supplied with liner-less autoclavable (140°C max.) polypropylene orange cap. Bottle design includes a clear (natural) drip free polypropylene pour ring, which is replaceable.

Part Number	Capacity (mL)	GL Thread Size	Pkg. Qty.
CG-8088-25	25	25	10
CG-8088-50	50	32	10
CG-8088-100	100	45	10
CG-8088-250	250	45	10
CG-8088-500	500	45	10
CG-8088-1L	1000	45	10
CG-8088-2L	2000	45	10
CG-8088-5L	5000	45	1
CG-8088-10L	10,000	45	1

CLS-8088

See our complete line of Media / Storage Bottles in the General Labware section.

CLS-1172 BOTTLE, MEDIA/STORAGE, GL SCREW THREAD, CLEAR, SCHOTT DURAN®

Heavy duty bottle with cap which can be used for storage as well as mixing and sampling. Blue closure is a liner-less, one-piece, autoclavable polypropylene plug seal cap with drip-free pour ring. Glass bead indicates full capacity line on 100mL through 2L size. Bottles have permanent white enamel graduations and marking spots. See CLS-1174 series for bottles without caps.

CAUTION: Bottles larger than 2L should NOT be used with bottle top filter units, or in other applications involving vacuum pressure, as breakage may occur. DO NOT have caps tightened immediately after autoclaving as the vacuum resulting from cooling can cause breakage. A pouring ring is not included on 25mL size. A vented cap is NOT recommended for use on the 5L and 10L bottle.

Part Number	Capacity (mL)	GL Thread Size	Pkg. Qty.
CLS-1172-25	25	25	10
CLS-1172-50	50	32	10
CLS-1172-100	100	45	10
CLS-1172-250	250	45	10
CLS-1172-500	500	45	10
CLS-1172-1L	1000	45	10
CLS-1172-2L	2000	45	10
CLS-1172-5L	5000	45	1
CLS-1172-10L	10,000	45	1
CLS-1172-20L	20,000	45	1

CLS-1172

CLS-1420

The media bottle with siphon assembly allows the user to create precisely the desired dip tube angle to retrieve virtually all of the contents of fluid from the bottle.

CLS-1420 MEDIA BOTTLE WITH SIPHON ASSEMBLY

The media bottle with siphon assembly consists of your choice of a standard media bottle, stainless steel vent port assembly, stainless steel siphon pipe and silicone tubing cut to length. All stainless parts are manufactured from 316L stainless steel electropolished to a 20Ra or better finish. The silicone tubing is peroxide cured and meets 21 CFR 177.2600 material specifications.

Complete Assembly

Part Number	Media Bottle Size (mL)
CLS-1420-250	250
CLS-1420-500	500
CLS-1420-1L	1000
CLS-1420-2L	2000
CLS-1420-5L	5000
CLS-1420-10L	10,000

Siphon Assembly ONLY

Part Number	Fits Media Bottle Size (mL)
CLS-1421-250	250
CLS-1421-500	500
CLS-1421-1L	1000
CLS-1421-2L	2000
CLS-1421-5L	5000
CLS-1421-10L	10,000

Accessories

Part Number	Description
CLS-1481-22	Cap Only, Open Top, GL-45 for Port Assembly, Green, Pack / 6
CLS-1428-11	Silicone Gasket Only, White, GL-45, for Port Assembly, Each
CLS-1421-010	Silicone Tubing for Port Assembly, 6" Length

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-1423 TRANSFER MEDIA BOTTLE, CLEAR, WITH HOSE BARB AND GL-45 VENTED CAP

CLS-1423

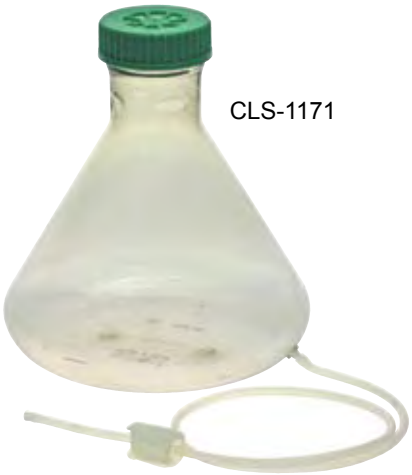
Our Schott media bottle with hose barb outlet at the bottom allows for easy gravity transfer of solutions. Supplied with drip-free pouring ring and liner-less, one piece, autoclavable, reusable, vented cap. The hose barb accepts the ID tubing listed. Other size hose barbs are available, please contact us for details.

Part Number	Cap. (mL)	Tubing Size for Hose Barb
CLS-1423-100	100	1/4”
CLS-1423-250	250	1/4”
CLS-1423-500	500	1/4”
CLS-1423-1L	1000	1/4”
CLS-1423-2L	2000	1/4”
CLS-1423-5L	5000	1/4”
CLS-1423-10L	10,000	1/2"

Replacement Components

Part Number	Description	Pkg. Qty.
CLS-1484-12	Vented Cap Only, GL-45, Blue, Polypropylene	5
CLS-1482-13	Pouring Ring Only, GL-45, Blue, Polypropylene	10

CLS-1171 3L MEDIA TRANSFER VESSEL WITH A BARBED FITTING, WELDABLE C-FLEX® TUBING, PLUGGED, STERILE


CLS-1171

Media transfer vessel is ideal for use when doing a gravity feed from a sterile 3L vessel. The 3L CELLTREAT® polycarbonate flasks with filter cap, packed separately, have a 3/16” barbed fitting that accepts 1/4” OD (1/8” ID) weldable C-Flex® tubing ending in a plug. Supplied complete with a tubing clamp. Gamma irradiated sterile.

Part Number	Description
CLS-1171-3L	Media Transfer Vessel, 3L, Sterile

CLS-1170

CLS-1170 BOTTLE ASSEMBLIES, BIO-SIMPLEX™, STERILE

Bio-Simplex™ sterile bottle assembly systems are available in a range of standard sizes, from 60mL to 1L. Each system includes a PETG bottle and a 2-port EZ Top® Closure Assembly consisting of a 0.2 µm vent filter, an 18 inch length of tubing with a plug end, a notched dip tube that extends to the bottom of the bottle and a polyethylene cap. The EZ Top® assembly is made from C-Flex® pharmaceutical grade thermoplastic elastomer (TPE) resin. The entire system is designed to ensure an unobstructed fluid path and extremely low levels of extractables. Sold 1 each.

Part Number	Description
CLS-1170-060	60mL Bottle Assembly, 2 Port, Sterile
CLS-1170-125	125mL Bottle Assembly, 2 Port, Sterile
CLS-1170-250	250mL Bottle Assembly, 2 Port, Sterile
CLS-1170-500	500mL Bottle Assembly, 2 Port, Sterile
CLS-1170-01L	1000mL Bottle Assembly, 2 Port, Sterile
CLS-1170-02L	2000mL Bottle Assembly, 2 Port, Sterile

CLS-2098

CLS-2098 FLASK ASSEMBLIES, BIO-SIMPLEX™, STERILE

Bio-Simplex™ Erlenmeyer and Fernbach flask systems feature a standard polycarbonate flask, cap and EZ Top® Closure Assembly. These assemblies are made from C-Flex® pharmaceutical grade thermoplastic elastomer (TPE) resin and consist of tubing with choice of either Luer connections or CPC® quick disconnect end fittings, a Bio-Simplex™ Flex Joint™, a 0.2 µM vent filter (for sterile gas exchange), and a polypropylene cap. They are designed to ensure an unobstructed fluid path, extremely low levels of extractables, and a secure elastomeric seal against plastic.

Part Number	Description
CLS-2098-01L	1L Flask Assembly, 2 Port, Sterile
CLS-2098-02L	2L Flask Assembly, 2 Port, Sterile
CLS-2098-03L	3L Flask Assembly, 2 Port, Sterile

See pages 132-133 for TC-treated and Non-treated Roller Bottles.

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-3462 TRANSFER ASSEMBLY WITH MALE LUER LOCK AND WELDABLE C-FLEX® TUBING, STERILE

Transfer cap assemblies for 2L Erlenmeyer flasks and 2L and 3L Fernbach flasks are sterile (10^{-6} SAL), individually double bagged and fit our new 2L and 3L CellTreat® polycarbonate flasks.

The venting port ends in a 50mm diameter vent filter with a 0.2µm pore PTFE (hydrophobic) membrane and a barbed fitting.

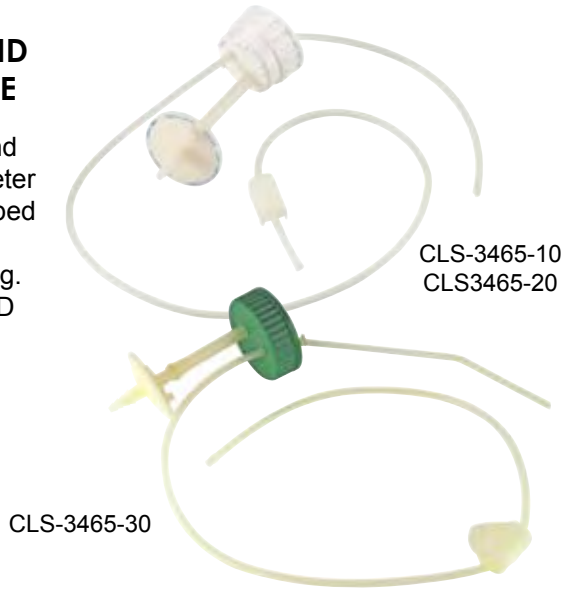
On the external side you will find 1/8" ID x 1/4" OD weldable C-Flex® tubing ending in a male luer lock (MLL) closed with a threaded PP cap. The liquid transfer port has an internal end with rigid polypropylene dip tube with a notched end to reach the bottom of the flask. Individually double bagged and gamma irradiated sterile.

CLS-3462

Part Number	Description		Fits Flasks Part Nos.
CLS-3462-10	Transfer Assembly for 2L Fernbach Flasks		CLS-2170-FP2L CLS-2171-FB2L
CLS-3462-40	Transfer Assembly for 2L Erlenmeyer and 3L Fernbach Flasks		CLS-2170-EP2L CLS-2171-EB2L CLS-2171-FB3L

CLS-3465 TRANSFER ASSEMBLY WITH PLUGGED END AND WELDABLE C-FLEX® TUBING, STERILE

Transfer cap assemblies for 1L and 2L TriForest® Erlenmeyer flasks and 3L CellTreat® Fernbach flasks. The venting port ends in a 50mm diameter vent filter with a 0.20µm pore PTFE (hydrophobic) membrane and barbed fitting. On the external side you will find 1/8" ID x 1/4" OD weldable C-Flex® tubing with a tubing clamp and ending with a 1/8" end tube plug. The liquid transfer port has an internal end with a rigid 1/8" ID x 1/4" OD C-Flex® dip tube with a notched end to reach the bottom of the flask. Individually double bagged and gamma irradiated sterile.



CLS-3465-10
CLS3465-20

CLS-3465-30

Number	Description		Fits Flasks Part Nos.
CLS-3465-10	Transfer Assembly for 1L TriForest® Erlenmeyer Flasks		CLS-2090-1000 CLS-2091-1000
CLS-3465-20	Transfer Assembly for 2L TriForest® Erlenmeyer Flasks		CLS-2090-2000 CLS-2091-2000
CLS-3465-30	Transfer Assembly for 3L CellTreat® Fernbach Flasks		CLS-2171-FB3L

CLS-2090 FLASK, ERLENMEYER, STERILE, POLYCARBONATE

CLS-2090

Erlenmeyer flask, are sterile, non-pyrogenic and manufactured with polycarbonate resin. Flasks are supplied with exclusive DuoCap® designed for both aerobic and anaerobic applications. For aerobic applications the cap utilizes a 0.22µm pore size PTFE membrane for sterile air exchange. For anaerobic applications the cap can easily be converted to a solid top design. Solid top caps are also ideal for applications requiring mixing, shaking and storage of biological fluids. Graduations are molded for accuracy. New EZ-Tear packaging allows for easy access.

Part Number	Capacity (mL)	GPI Thread Size	Pkg. Qty.
CLS-2090-0125	125	38-430	6
CLS-2090-0250	250	38-430	4
CLS-2090-0500	500	38-430	4
CLS-2090-1000	1000	53B	2
CLS-2090-2000	2000	53B	2

Larger Pack Quantities

CLS-2092-0125	125	38-430	24
CLS-2092-0250	250	38-430	12
CLS-2092-0500	500	38-430	12
CLS-2092-1000	1000	53B	6
CLS-2092-2000	2000	53B	6

See Bottle and Flask Assemblies on page 109.

CLS-2090 DuoCap®, ONLY, STERILE

The DuoCap® is designed for both aerobic and anaerobic applications. For aerobic applications the cap utilizes a 0.22µm pore size PTFE membrane for sterile air exchange. For anaerobic applications the cap can easily be converted to a solid top design. Solid top caps are also ideal for applications requiring mixing, shaking and storage of biological fluids. Graduations are molded for accuracy. New EZ-Tear packaging allows for easy access. US Patent No. D574239.

Part Number	GPI Thread Size	Pkg. Qty.
CLS-2090-0038	38-430	12
CLS-2090-0053	53-B	6

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-2091 FLASK, ERLENMEYER, BAFFLED, STERILE, POLYCARBONATE

Quadruple baffled Erlenmeyer flasks are sterile, non-pyrogenic and manufactured with polycarbonate resin. Flasks are supplied with exclusive DuoCap® designed for both aerobic and anaerobic applications. For aerobic applications the cap utilizes a 0.22µm pore size PTFE membrane for sterile air exchange. For anaerobic applications the cap can easily be converted to a solid cap design. Solid top caps are also ideal for applications requiring mixing, shaking and storage of biological fluids. Graduations are molded for accuracy. New EZ-Tear packaging allows for easy access.

CLS-2091

Quadruple Baffle

Part Number	Capacity (mL)	GPI Thread Size	Pkg. Qty.
CLS-2091-0125	125	38-430	6
CLS-2091-0250	250	38-430	4
CLS-2091-0500	500	38-430	4
CLS-2091-1000	1000	53B	2
CLS-2091-2000	2000	53B	2
Larger Pack Quantities			
CLS-2093-0125	125	38-430	24
CLS-2093-0250	250	38-430	12
CLS-2093-0500	500	38-430	12
CLS-2093-1000	1000	53B	6
CLS-2093-2000	2000	53B	6

See Reusable Glass Baffle, Erlenmeyer and Fernbach Flasks in the Cell Culture section, pages 158-164.

DuoCap®

Designed for both aerobic and anaerobic applications.

1. Add culture media & inoculum

2. Add DuoCap® for anaerobic culture

3. Remove dust guard cover for aerobic culture

4. Move to shaker incubator

CLS-2170 and CLS-2171

FLASK, ERLENMEYER AND FERNBACH, POLYCARBONATE, 70MM VENTED CAP, (PLAIN OR BAFFLED BOTTOM)

CELLTREAT® Erlenmeyer and Fernbach culture flasks are designed for shaker and cell culture applications. All flasks feature a 70mm neck size that provides easy access for filling and dispensing. The unique shape of the Fernbach flask provides an increased surface area to volume ratio for improved gas exchange. The flasks are available in 2L Erlenmeyer, 2L and 3L Fernbach sizes, with plain bottoms. The polypropylene caps are knurled for secure grip and are configured in 70mm large vent or non-vented styles. The flasks are constructed from an optically clear polycarbonate material that can be autoclaved. All flasks include a vented cap and are individually packed in bags and gamma irradiation sterilized. Additional caps are available separately.

Plain Bottom

Part Number	Description	Case Qty.
CLS-2170-EP2L	Flask, Erlenmeyer, 2L, Plain Bottom, Vented Cap	6
CLS-2170-FP2L	Flask, Fernbach, 2L, Plain Bottom, Vented Cap	6
CLS-2170-FP3L	Flask, Fernbach, 3L, Plain Bottom, Vented Cap	4

Baffled Bottom

Part Number	Description	Case Qty.
CLS-2171-EB2L	Flask, Erlenmeyer, 2L, Baffled Bottom, Vented Cap	6
CLS-2171-FB2L	Flask, Fernbach, 2L, Baffled Bottom, Vented Cap	6
CLS-2171-FB3L	Flask, Fernbach, 3L, Baffled Bottom, Vented Cap	4

Accessories

Part Number	Description	Case Qty.
CLS-2172-V070	Cap, 70mm, Vented	24
CLS-2072-S070	Cap, 70mm, Solid	24

CLS-3462 TRANSFER ASSEMBLY WITH MALE LUER LOCK AND WELDABLE C-FLEX® TUBING, STERILE

Transfer cap assemblies for 2L Erlenmeyer flasks and 2L and 3L Fernbach flasks are sterile (10^{-6} SAL), individually double bagged and fit our new 2L and 3L CellTreat® polycarbonate flasks.

The venting port ends in a 50mm diameter vent filter with a 0.2µm pore PTFE (hydrophobic) membrane and a barbed fitting.

On the external side you will find 1/8" ID x 1/4" OD weldable C-Flex® tubing ending in a male luer lock (MLL) closed with a threaded PP cap. The liquid transfer port has an internal end with rigid polypropylene dip tube with a notched end to reach the bottom of the flask. Individually double bagged and gamma irradiated sterile.

Part Number	Description
CLS-3462-10	Transfer Assembly for 2L Fernbach Flasks
CLS-3462-40	Transfer Assembly for 2L Erlenmeyer and 3L Fernbach Flasks

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CG-1544 FLASK, ERLENMEYER, SCREW THREAD

Flask has a GL-threaded top and is supplied complete with polypropylene linerless closure and pouring ring. See pages 145-147 for caps and pouring rings.

Part Number	Capacity (mL)	Thread Finish	Approx. OAH (mm)
CG-1544-19	125	GL-32	120
CG-1544-20	250	GL-45	130
CG-1544-21	500	GL-45	170
CG-1544-22	1000	GL-45	220
CG-1544-23	2000	GL-45	275
CG-1544-24	4000	GL-45	340

Caps, Liners and Pour Rings listed on pages 145-147.

CG-1544

CLS-2058 FLASK, TRYPSINIZING

Manufactured from Type 1 Class A borosilicate glass with three deep side baffles for optimum agitation during trypsinization. Flasks come with beaded, break-resistant lips and 50mm OD necks. Sold 1 per case.

Part Number	Flask Capacity (mL)	Dia. x OAH (mm)
CLS-2058-02	2000	158 x 290
CLS-2058-04	4000	205 x 360

See Reusable Glass Baffle, Erlenmeyer and Fernbach Flasks in the Cell Culture section, pages 158-164.

CLS-2058

See Bottle and Flask Assemblies on page 109.

Bioprocess

CLS-1430-F

CLS-1430-F SPINNER FLASK, FLAT BOTTOM, BIOPROCESS, COMPLETE

Flat bottom spinner flasks promote optimal growth of suspension cultures. The complete system includes a flask with two angled sidearms and a PTFE paddle with glass shaft that adjusts through the compression fitting in the cap.

Part Number	Capacity (mL)	Center Neck Size	Sidearm Size	OD x OAH (mm)
CLS-1430-F100	100	70	GL-32	70 x 175
CLS-1430-F250	250	70	GL-32	85 x 210
CLS-1430-F500	500	70	GL-45	110 x 250
CLS-1430-F1L	1000	100	GL-45	135 x 305
CLS-1430-F3L	3000	100	GL-45	165 x 355

CLS-1430

CLS-1430 SPINNER FLASK, DIMPLED BOTTOM, BIOPROCESS, COMPLETE

Microcarrier spinner flasks promote optimal growth of suspension and microcarrier cultures. Dimpled bottoms, 100mL thru 1000mL, prevent accumulation of microcarrier beads under the impeller paddle. Please note, the 3000mL version does not have a dimpled bottom. The complete system includes a flask with two angled sidearms and a PTFE paddle with glass shaft that adjusts through the compression fitting in the cap.

Part Number	Capacity (mL)	Center Neck Size	Sidearm Size	OD x OAH (mm)
CLS-1430-100	100	70	GL-32	70 x 175
CLS-1430-250	250	70	GL-32	85 x 210
CLS-1430-500	500	70	GL-45	110 x 250
CLS-1430-1L	1000	100	GL-45	135 x 305
CLS-1430-3L	3000	100	GL-45	165 x 355

Dura-Mag™ Digital Magnetic Stirrers are available in 2, 5 and 9-Position Models.

- Quiet operation
- Brushless, maintenance-free motors
- Optional, factory installed motion alarm available
- CLS-4100 series

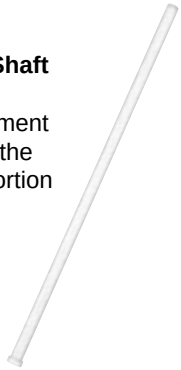
See the Equipment Section for more details.

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

REPLACEMENT COMPONENTS for FLAT AND DIMPLED BOTTOM SPINNER FLASKS, CLS-1430 and CLS-1430-F SERIES'

Impeller Assembly
The impeller assembly consists of the lower magnetic stir bar, impeller blade and blade holder.

Glass Shaft
The replacement shaft is the glass portion only.



Cap Assembly
The cap assembly consists of the corresponding screw cap, liner and compression fitting.

Jacketed Flask Size		Impeller Assembly	Replacement Glass Shaft	Cap Assembly
Capacity (mL)	Shaft OD (mm)	Part Number	Part Number	Part Number
100	7	CLS-1431-03	CLS-1425-21	CLS-1432-42
250	7	CLS-1431-03	CLS-1425-21	CLS-1432-42
500	7	CLS-1431-05	CLS-1425-22	CLS-1432-42
1000	7	CLS-1431-06	CLS-1425-23	CLS-1432-43
3000	7	CLS-1431-06	CLS-1425-24	CLS-1432-43

SPINNER FLASK, REPLACEMENT GLASS FLASK with SIDEARM CAPS ONLY

Replacement vessel is supplied with black phenolic rubber lined caps for the 18mm side arms; polypropylene caps and pouring rings for the GL-32 and GL-45 side arms. Flasks are shipped with a protective dust cover on center neck threads. Manufactured from Type 1, Class A , borosilicate glass.

CLS-1400

CLS-1401

Spinner Flask Size - Glass Only				Flat Bottom	Dimpled Bottom
Capacity (mL)	Center Neck Size	Sidearm Size	Flask OD x OAH (mm)	Part Number	Part Number
25	38	18	38 x 120	CLS-1400-25	—
50	51	18	55 x 110	CLS-1400-50	—
100	70	GL-32	70 x 110	CLS-1400-100	CLS-1401-100
250	70	GL-32	85 x 145	CLS-1400-250	CLS-1401-250
500	70	GL-45	110 x 185	CLS-1400-500	CLS-1401-500
1000	100	GL-45	135 x 240	CLS-1400-1L	CLS-1401-1L
3000	100	GL-45	165 x 290	CLS-1400-3L	CLS-1401-3L
6000	100	GL-45	204 x 410	CLS-1400-6L	CLS-1401-6L
8000	100	GL-45	240 x 430	CLS-1400-8L	CLS-1401-8L
15000	100	GL-45	295 x 460	CLS-1400-15L	—

CLS-1430-J

CLS-1430-J SPINNER FLASK, WATER JACKETED, BIOPROCESS, COMPLETE

Water jacketed, flat bottomed spinner flasks consist of a water jacketed spinner flask, manufactured from Type 1 Class A borosilicate glass, and a microcarrier style impeller with glass shaft that extends through the cap and PTFE paddle. Flasks are typically used with a circulating water bath. Jacket volumes are approximate and flasks are not graduated.

Part Number	Cap. (mL)	Center Neck Size (mm)	Sidearm Size	Jacket Volume (mL)	Flask OD x OAH (mm)
CLS-1430-J100	100	70	GL-32	75	75 x 160
CLS-1430-J250	250	70	GL-32	175	85 x 200
CLS-1430-J500	500	70	GL-45	260	110 x 200
CLS-1430-J1L	1000	100	GL-45	875	150 x 255
CLS-1430-J3L	3000	100	GL-45	1,300	200 x 330
CLS-1430-J6L	6000	100	GL-45	3,700	200 x 445

CLS-1430-J SPINNER FLASK ONLY, WATER JACKETED, BIOPROCESS

Water jacketed, flat bottomed spinner flasks consist of a water jacketed spinner flask only, manufactured from Type 1 Class A borosilicate glass. Flasks are typically used with a circulating water bath. Jacket volumes are approximate and flasks are not graduated.

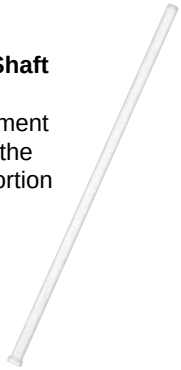
Jacketed Flask Size - Glass Only				Jacketed Flask
Capacity (mL)	Center Neck Size	Sidearm Size	Flask OD x OAH (mm)	Part Number
100	70	GL-32	75 x 160	CLS-1430-J101
250	70	GL-32	85 x 200	CLS-1430-J251
500	70	GL-45	110 x 200	CLS-1430-J501
1000	100	GL-45	150 x 255	CLS-1430-J1L1
3000	100	GL-45	200 x 330	CLS-1430-J3L1
6000	100	GL-45	200 x 445	CLS-1430-J6L1

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

REPLACEMENT COMPONENTS for JACKETED SPINNER FLASKS, CLS-1430-J SERIES

Impeller Assembly
The impeller assembly consists of the lower magnetic stir bar, impeller blade and blade holder.

Glass Shaft
The replacement shaft is the glass portion only.



Cap Assembly
The cap assembly consists of the corresponding screw cap, liner and compression fitting.

Jacketed Flask Size		Impeller Assembly	Replacement Glass Shaft	Cap Assembly
Capacity (mL)	Shaft OD (mm)	Part Number	Part Number	Part Number
100	7	CLS-1431-03	CLS-1425-21	CLS-1432-42
250	7	CLS-1431-03	CLS-1425-21	CLS-1432-42
500	7	CLS-1431-05	CLS-1425-22	CLS-1432-42
1000	7	CLS-1431-06	CLS-1425-23	CLS-1432-43
3000	7	CLS-1431-06	CLS-1425-24	CLS-1432-43
6000	9	CLS-1431-07	CLS-1425-25	CLS-1432-44

Replacement Parts

Part Number	Description	Pkg. Qty.
CLS-1705-010	Silicone O-Ring for 7mm Compression Fitting	20
CLS-1705-110	Silicone O-Ring for 9mm Compression Fitting	10
CLS-1425-91	50-500mL Stir Bar Magnet	1
CLS-1425-92	1L-3L Stir Bar Magnet	1
CLS-1425-93	6L-36L Stir Bar Magnet	1
CLS-1430-001	7mm Black Compression Fitting	1
CLS-1430-003	9mm Black Compression Fitting	1
CLS-1430-002	7mm Silicone Plug	10
CLS-1430-004	9mm Silicone Plug	10
CLS-1425-82	Silicone Top Gasket, 70mm Cap	1
CLS-1425-83	Silicone Top Gasket, 100mm Cap (7mm)	1
CLS-1425-84	Silicone Top Gasket, 100mm Cap (9mm)	1

CLS-1450 INTERNAL IMPELLER SPINNER FLASK, DIMPLED BOTTOM, BIOPROCESS, COMPLETE

Microcarrier spinner flasks promote optimal growth of suspension and microcarrier cultures. Dimpled bottom (100mL thru 1000mL) prevents accumulation of microcarrier beads under the impeller paddle. The 3L version does not have a dimple. The complete system includes a flask with two angled sidearms and a PTFE paddle assembly that attaches underneath the cap decreasing the risk of contamination.

Part Number	Capacity (mL)	Center Neck Size	Sidearm Size	Flask OD x OAH (mm)
CLS-1450-100	100	70	GL-32	70 x 175
CLS-1450-250	250	70	GL-32	85 x 210
CLS-1450-500	500	70	GL-45	110 x 250
CLS-1450-1L	1000	100	GL-45	135 x 305
CLS-1450-3L	3000	100	GL-45	165 x 355

Replacement Components for Internal Impeller Spinner Flasks, CLS-1450 series

For Spinner Flasks only, please see CLS-1400 and CLS-1401 Series'

Impeller Assembly
The complete stirring assembly consists of top cap, silicone gasket, glass shaft, compression fitting, magnet holder, paddle and magnetic stir bar.

Glass Shaft
The replacement glass shaft is the glass portion only.

Spinner Flask Size		Impeller Assembly	Glass Shaft
Capacity (mL)	Center Neck Size (mm)	Part Number	Part Number
100	70	CLS-1451-01	CLS-1451-40
250	70	CLS-1451-03	CLS-1451-41
500	70	CLS-1451-05	CLS-1451-42
1000	100	CLS-1451-06	CLS-1451-43
3000	100	CLS-1451-07	CLS-1451-44

Replacement Parts

Part Number	Description	Pkg. Qty.
CLS-1705-106	#106 Orange Silicone O-Ring for Compression Fitting	50
CLS-1425-92	1L-3L Stir Bar Magnet	1
CLS-1425-91	50-500mL Stir Bar Magnet	1
CLS-1430-002	Silicone Plug	10
CLS-1425-82	Spinner Cap Gasket, Silicone, 70mm Cap	1
CLS-1425-83	Spinner Cap Gasket, Silicone, 100mm Cap	1

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-1445 SPINNER FLASK, ADJUSTABLE HANGING BAR

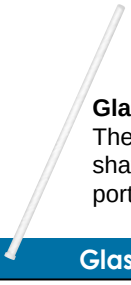
Adjustable hanging bar spinner flasks are designed for growth of suspension cultures. The system includes a flat bottom flask with two angled sidearms and a stir bar with glass shaft that adjusts through the compression fitting in the cap.

Part Number	Capacity (mL)	Center Neck Size	Sidearm Size	Flask OD x OAH (mm)
CLS-1445-100	100	70	GL-32	70 x 175
CLS-1445-250	250	70	GL-32	85 x 210
CLS-1445-500	500	70	GL-45	110 x 250
CLS-1445-1L	1000	100	GL-45	135 x 305
CLS-1445-3L	3000	100	GL-45	165 x 355

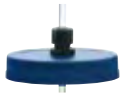
REPLACEMENT COMPONENTS for ADJUSTABLE HANGING BAR SPINNER FLASKS, CLS-1455 SERIES

For Spinner Flasks only, please see CLS-1400 and CLS-1401 Series'

Impeller Assembly
The impeller assembly consists of the lower magnetic stir bar and holder.



Glass Shaft
The replacement shaft is the glass portion only.



Cap Assembly
The cap assembly consists of the corresponding screw cap, liner and compression fitting.

Spinner Flask Size		Impeller Assembly	Glass Shaft	Cap Assembly
Capacity (mL)	Center Neck Size (mm)	Part Number	Part Number	Part Number
25	38	CLS-1425-01	CLS-1425-21	CLS-1425-40
50	51	CLS-1425-02	CLS-1425-21	—
100	70	CLS-1446-03	CLS-1425-21	CLS-1425-42
250	70	CLS-1446-03	CLS-1425-21	CLS-1425-42
500	70	CLS-1446-03	CLS-1425-22	CLS-1425-42
1000	100	CLS-1446-06	CLS-1425-23H	CLS-1425-43
3000	100	CLS-1446-06	CLS-1425-24H	CLS-1425-43

Replacement Parts

Part Number	Description	Pkg. Qty.
CLS-1705-010	O-Ring for 7mmCompression Fitting	20
CLS-1425-90	25mL Stir Bar Magnet	1
CLS-1425-91	50-500mL Stir Bar Magnet	1
CLS-1425-92	1L-3L Stir Bar Magnet	1
CLS-1430-001	7mm Black Compression Fitting	1
CLS-1430-002	7mm Silicone Plug	10
CLS-1425-80	Spinner Cap Gasket, Silicone, 38mm Cap	1
CLS-1425-81	Spinner Cap Gasket, Silicone, 51mm Cap	1
CLS-1425-82	Spinner Cap Gasket, Silicone, 70mm Cap	1
CLS-1425-83	Spinner Cap Gasket, 7mm, Silicone, 100mm Cap	1

Ideal for suspension cultures.

CLS-1410

Flat Bottom, CLS-1410

Dimpled Bottom, CLS-1411

CLS-1410 SPINNER FLASK, STANDARD, COMPLETE

Flask is ideal for suspension cultures. Entire unit can be autoclaved at 121°C. Made from 33 expansion glass that conforms to ASTM Type 1, Class A requirements, and also conforms to USP Type 1 requirements. Design allows for the vertical adjustment of the impeller assembly while the assembly rides on a frictionless glass to PTFE interface. Overall height is approximate, assembled complete.

Available in two styles:

- Flat Bottom Flasks
- Dimpled Bottom Flasks - To improve circulation while preventing cell accumulation in the center of the flask.

Flat Bottom, CLS-1410 Series

Part Number	Capacity (mL)	Center Neck Size	Sidearm Size	Flask OD x OAH (mm)
CLS-1410-25	25	38	18	38 x 185
CLS-1410-50	50	51	18	55 x 175
CLS-1410-100	100	70	GL-32	70 x 175
CLS-1410-250	250	70	GL-32	85 x 210
CLS-1410-500	500	70	GL-45	110 x 250
CLS-1410-1L	1000	100	GL-45	135 x 305
CLS-1410-3L	3000	100	GL-45	165 x 355
CLS-1410-6L	6000	100	GL-45	204 x 475
CLS-1410-8L	8000	100	GL-45	240 x 495
CLS-1410-15L	15000	100	GL-45	295 x 525

Dimpled Bottom, CLS-1411 Series

Part Number	Capacity (mL)	Center Neck Size	Sidearm Size	Flask OD x OAH (mm)
CLS-1411-100	100	70	GL-32	70 x 175
CLS-1411-250	250	70	GL-32	85 x 210
CLS-1411-500	500	70	GL-45	110 x 250
CLS-1411-1L	1000	100	GL-45	135 x 305
CLS-1411-3L	3000	100	GL-45	165 x 355
CLS-1411-6L	6000	100	GL-45	204 x 475

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-1414 SPINNER FLASK, INTERNAL STIRRING, ASSEMBLY, COMPLETE

Stirring assembly is totally contained within the flask thereby decreasing the risk of contamination. Flask is ideal for suspension cultures. Entire unit can be autoclaved at 121°C. Made from 33 expansion glass that conforms to ASTM Type 1, Class A requirements. Overall height is approximate.

Available in two styles:

- Flat Bottom Flasks
- Dimpled Bottom Flasks - To improve aeration while preventing cell accumulation in the center of the flask.

Stirring assembly is completely contained within the vessel.

CLS-1415

Flat Bottom, CLS-1414 Series

Part Number	Capacity (mL)	Center Neck Size	Sidearm Size	Flask OD x OAH (mm)
CLS-1414-100	100	70	GL-32	70 x 110
CLS-1414-250	250	70	GL-32	85 x 145
CLS-1414-500	500	70	GL-45	110 x 185
CLS-1414-1L	1000	100	GL-45	135 x 240
CLS-1414-3L	3000	100	GL-45	165 x 290

Flat Bottom, CLS-1414

Dimpled Bottom, CLS-1415 Series

Part Number	Capacity (mL)	Center Neck Size	Sidearm Size	Flask OD x OAH (mm)
CLS-1415-100	100	70	GL-32	70 x 110
CLS-1415-250	250	70	GL-32	85 x 145
CLS-1415-500	500	70	GL-45	110 x 185
CLS-1415-1L	1000	100	GL-45	135 x 240
CLS-1415-3L	3000	100	GL-45	165 x 290

Dimpled Bottom, CLS-1415

Dura-Mag™ Digital Magnetic Stirrers are available in 2, 5 and 9-Position Models.

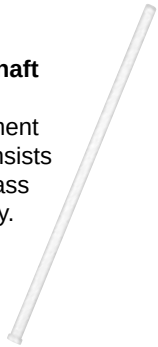
- Quiet operation
- Brushless, maintenance-free motors
- Optional, factory installed motion alarm available
- CLS-4100 series

See the Equipment Section for more details.

REPLACEMENT COMPONENTS for STANDARD SPINNER FLASKS, CLS-1410 and CLS-1411 SERIES

Impeller Assembly
The impeller assembly consists of the lower magnetic stir bar, paddle, retaining collar and magnet holder.

Glass Shaft
The replacement shaft consists of the glass shaft only.



Cap Assembly
Cap assembly consists of the corresponding screw cap, gasket and compression fitting.

Spinner Flask Size		Impeller Assembly	Replacement Glass Shaft	Cap Assembly
Capacity (mL)	Shaft Size (mm)	Part Number	Part Number	Part Number
25	7	CLS-1425-01	CLS-1425-21	CLS-1425-40
50	7	CLS-1425-02	CLS-1425-21	—
100	7	CLS-1425-03	CLS-1425-21	CLS-1425-42
250	7	CLS-1425-03	CLS-1425-21	CLS-1425-42
500	7	CLS-1425-05	CLS-1425-22	CLS-1425-42
1000	7	CLS-1425-06	CLS-1425-23	CLS-1425-43
3000	7	CLS-1425-07	CLS-1425-24	CLS-1425-43
6000	9	CLS-1425-08	CLS-1425-25	CLS-1425-44
8000	9	CLS-1425-09	CLS-1425-25	CLS-1425-44
15000	9	CLS-1425-10	CLS-1425-25	CLS-1425-44

REPLACEMENT COMPONENTS for INTERNAL STIRRING ASSEMBLY STYLE SPINNER FLASKS, CLS-1414 and CLS-1415

For Spinner Flasks only, please see CLS-1400 and CLS-1401 Series'

Stirring Assembly
The stirring assembly consists of the top cap, silicone gasket, glass rod, compression fitting magnet holder, paddle and magnetic stir bar.

Glass Shaft
The replacement shaft consists of the glass shaft only.

Spinner Flask Size		Stirring Assembly	Glass Shaft Only
Capacity (mL)	Center Neck Size	Part Number	Part Number
100-250	70	CLS-1426-10	CLS-1426-20
500	70	CLS-1426-11	CLS-1426-21
1000	100	CLS-1426-12	CLS-1426-22
3000	100	CLS-1426-13	CLS-1426-23
6000	100	—	CLS-1426-24
8000	100	—	CLS-1426-24
15000	100	CLS-1426-16	CLS-1426-24

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

SPINNER FLASK, REPLACEMENT GLASS FLASK with SIDEARM CAPS ONLY

Replacement vessel is supplied with black phenolic rubber lined caps for the 18mm side arms; polypropylene caps and pouring rings for the GL-32 and GL-45 side arms. Flasks are shipped with a protective dust cover on center neck threads.

CLS-1400

CLS-1401

Spinner Flask Size - Glass Only				Flat Bottom	Dimpled Bottom
Capacity (mL)	**Center Neck Size**	**Sidearm Size**	**Flask OD x OAH (mm)**	**Part Number**	**Part Number**
25	38	18	38 x 120	CLS-1400-25	—
50	51	18	55 x 110	CLS-1400-50	—
100	70	GL-32	70 x 110	CLS-1400-100	CLS-1401-100
250	70	GL-32	85 x 145	CLS-1400-250	CLS-1401-250
500	70	GL-45	110 x 185	CLS-1400-500	CLS-1401-500
1000	100	GL-45	135 x 240	CLS-1400-1L	CLS-1401-1L
3000	100	GL-45	165 x 290	CLS-1400-3L	CLS-1401-3L
6000	100	GL-45	204 x 410	CLS-1400-6L	CLS-1401-6L
8000	100	GL-45	240 x 430	CLS-1400-8L	CLS-1401-8L
15000	100	GL-45	295 x 460	CLS-1400-15L	—

CLS-1449 ADJUSTABLE PTFE PADDLE, SPINNER

Adjustable paddle allows for increased mixing for 1 and 3L bioprocess spinner flasks.

CLS-1449

Part Number	Flask Size	Paddle Dim (in.)
CLS-1449-01	1L / 3L	1-1/2 x 3-3/8

CLS-1425

CLS-1425 REPLACEMENT COMPONENTS FOR BOTH STANDARD AND INTERNAL STYLE SPINNER FLASKS

Part Number	Description	Pkg. Qty.
CLS-1705-010	Silicone O-ring for Compression Fitting, 7mm Shaft	20
CLS-1425-61	Compression Fitting for Glass Shaft, 7mm Shaft	1
CLS-1705-110	Silicone O-ring for Compression Fitting, 9mm Shaft	10
CLS-1425-71	Compression Fitting for Glass Shaft, 9mm Shaft	1
CLS-1425-80	Silicone Top Gasket, 38mm Cap	1
CLS-1425-81	Silicone Top Gasket, 51mm Cap	1
CLS-1425-82	Silicone Top Gasket, 70mm Cap	1
CLS-1425-83	Silicone Top Gasket, 100mm Cap, 7mm Shaft	1
CLS-1425-84	Silicone Top Gasket, 100mm Cap, 9mm Shaft	1
CLS-1425-90	Replacement Stir Bar Magnet for 25mL Vessel	1
CLS-1425-91	Replacement Stir Bar Magnet for 50-500mL Vessels	1
CLS-1425-92	Replacement Stir Bar Magnet for 1-3L Vessels	1
CLS-1425-93	Replacement Stir Bar Magnet for 6-36L Vessels	1

CLS-1427

CLS-1427 2-PORT ASSEMBLIES, SPINNER FLASK

Port assemblies are constructed of 316L electropolished stainless steel with a finish of 20Ra or better. These port assemblies fit all types of spinner flasks. The assemblies consist of a siphon and a vent tube. Supplied complete with a GL-45 open top cap and silicone gasket.

Part Number	Flask Capacity (mL)	Longest Tube Length mm (in)
CLS-1427-01	500	64 (2.5)
CLS-1427-02	1000	100 (4)
CLS-1427-03	3000	140 (5.5)
CLS-1427-04	6000	254 (10)
CLS-1427-05	8000	280 (11)
CLS-1427-06	15000	292 (11.5)

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-1427 PORT ASSEMBLY, 3-PORT, SS, WITH HOSE BARBS

Our hose barbed, 3-port assemblies are designed for addition or sampling of media from angled side arm spinner flasks. The assemblies are constructed of 316L stainless steel, electropolished to a finish of 20Ra or better and include a blue PP GL-45 open top cap with white silicone gasket.

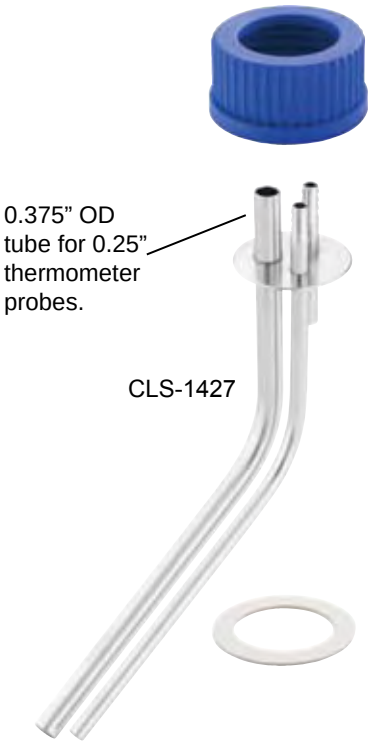
Part Number	Description
CLS-1427-80	3-Port Assy. for 500mL Spinner Flasks
CLS-1427-81	3-Port Assy. for 1L Spinner Flasks
CLS-1427-82	3-Port Assy. for 3L Spinner Flasks
CLS-1427-83	3-Port Assy. for 6L Spinner Flasks
CLS-1427-84	3-Port Assy. for 8L Spinner Flasks
CLS-1427-85	3-Port Assy. for 15L Spinner Flasks

CLS-1427

CLS-1427 THERMOWELL ASSEMBLY, 3-PORT, SS, WITH HOSE BARBS

Our hose barbed, 3-port, large diameter, thermowell assemblies are designed to accommodate a wide variety of RTDs and dial thermometers of different diameters for measuring the process temperature in our angled side arm spinner flasks. All 316L stainless steel tubes are electropolished to a 20Ra finish or better. These assemblies feature a thermowell tube with 0.375" OD and a 0.305" ID that will accept all 1/4" thermometer probes. The assemblies include a blue PP open top GL-45 cap with white silicone gasket.

Part Number	Description
CLS-1427-90	3-Port Thermowell Assy. for 1L Spinner Flasks
CLS-1427-91	3-Port Thermowell Assy. for 3L Spinner Flasks
CLS-1427-92	3-Port Thermowell Assy. for 6L Spinner Flasks
CLS-1427-93	3-Port Thermowell Assy. for 8L Spinner Flasks
CLS-1427-94	3-Port Thermowell Assy. for 15L Spinner Flasks



CLS-1427

Replacement Open Top Caps and Gaskets to Fit CLS-1427 Port Assemblies

Hole in GL-45 caps is 1-15/16" diameter.

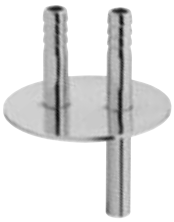
Part Number	Description
CLS-1428-11	GL-45 Silicone Gasket Only, White, Pkg. / 1
CLS-1481-21	GL-45 Cap Only, Open Top, Blue, Pkg. / 6
CLS-1481-22	GL-45 Cap Only, Open Top, Green, Pkg. / 6
CLS-1481-23	GL-45 Cap Only, Open Top, Yellow, Pkg. / 6

CLS-1428-11, CLS-1481-22

CLS-1429 VENT PORT ASSEMBLIES, SPINNER FLASK

CLS-1429-01

CLS-1429-10


CLS-1429-20

CLS-1429-21

Gasket and Cap Included with Each Port Assembly

Vent port assemblies are constructed of 316L stainless steel and electropolished to a 20Ra or better finish. These port assemblies fit all types of spinner flasks. Configurations consist of a single vent tube, vent and short fill tubes, or angled vent and fill tubes. Supplied complete with a GL-32 or 45 open top cap and silicone gasket.

Part Number	Description	Side Flask Size (mL)	Side Arm Length
CLS-1429-01	Two Port	100-250	32mm
CLS-1429-10	Single Port	500-36000	45mm
CLS-1429-20	Two Port	500-36000	45mm
CLS-1429-21	Two Port Angled	500-36000	45mm

Replacement Open Top Caps and Gaskets to Fit CLS-1427 and CLS-1429 Port Assemblies

Part Number	Description	Pkg. Qty.
CLS-1428-13	Open GL-32 Silicone Gasket Only for Port Assembly	1
CLS-1428-11	Open GL-45 Silicone Gasket Only for Port Assembly	1
CLS-1481-20	Open GL-32 Blue Cap Only for Port Assembly	6
CLS-1481-21	Open GL-45 Blue Cap Only for Port Assembly	6
CLS-1481-22	Open GL-45 Green Cap Only for Port Assembly	6
CLS-1481-23	Open GL-45 Yellow Cap Only for Port Assembly	6

Consider our machine shop to be YOUR machine shop.

The **Chemglass Life Sciences Machine Shop**, is currently manufacturing more than 2,000 unique parts and products.

We've been providing quality CNC machining services as well as bending, welding and electropolishing to our pharmaceutical, chemical, biological and petroleum industries' customers for decades.

Our engineering team has the expertise to manage your project from conception to production. Drop us a line and one of our experienced technical service representatives will be glad to discuss putting our resources to work for you.

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-3460 PORT ASSEMBLIES, DISPOSABLE, BIO-SIMPLEX™

- Fill Line: 1/4" ID x 3/8" OD C-Flex® ADCF TPE Tubing
- Dip Tubes: Bio-Simplex™ FlexJoint™ with 0.15" ID x 1.4" OD
- Vent Line: 1/4" ID x 3/8" OD x 2" Long C-Flex® ADCF TPE Tubing

Bio-Simplex™ Spinner Flask Port Assemblies allow you to maintain your current investment in glassware, but with the convenience of a single-use, disposable accessory. Molded, one-piece construction creates a seamless fluid path, eliminating contamination and product loss due to loose connections. The Flex-Joint uses a patent-pending design which eliminates tube kinking and shape loss after autoclaving.

The Bio-Simplex FlexJoint allows you to create precisely the desired dip tube angle when used inside hand blown spinner flasks, achieving clearance of impellers, sensors and probes. Assemblies include the two or three port EZ Top® closure and tubing of C-Flex® pharmaceutical grade, animal-derived component-free (ADCF) thermoplastic elastomer (TPE),a Bio-Simplex™ FlexJoint™ and polypropylene cap. Interchangeable with all Chemglass spinner flasks. Sold 1 each in a poly bag.

		Two-Port Assemblies	Three-Port Assemblies
Description	**Size (L)**	**Part Number**	**Part Number**
BIO-SIMPLEX® Spinner Flask Assembly, Disposable	1	CLS-3460-01	CLS-3460-06
BIO-SIMPLEX® Spinner Flask Assembly, Disposable	3	CLS-3460-02	CLS-3460-07
BIO-SIMPLEX® Spinner Flask Assembly, Disposable	8	CLS-3460-03	CLS-3460-08
BIO-SIMPLEX® Spinner Flask Assembly, Disposable	15	CLS-3460-04	CLS-3460-09
BIO-SIMPLEX® Spinner Flask Assembly, Disposable	36	CLS-3460-05	—

CLS-4033-100 VERSA-ROCK™, DIGITAL ROCKER

CLS-4033-100

Versa-Rock™ is a digital slow-speed rocker for general laboratory cell culture work. Low profile design incorporates a rocking platform that accepts a variety of optional trays. The Peg and Grommet style trays make changing convenient and interchangeable with other similar trays. Trays with liners sold separately. Use Sticky Pad (CLS-4010 series) with Stackable Trays to secure products.

Specifications

Range of Motion	5 to 14 ° (Adjustable), 5-30 Rocks / Minute
Base Overall Dimensions	11.875" W x 12.5" D x 5.625" H
Base Weight	11.6lbs (5.3kg)
Maximum Load	20lbs (9kg)
Electrical	120V

Part Number	Description
CLS-4033-100	Rocker, Base Only, Digital, 120V

Sticky Pad recommended. See page 134.

Accessories

Part Number	Description
CLS-4021-1212	Aluminum Tray with Liners, 12" x 12"
CLS-4021-1515	Aluminum Tray with Liners, 15" x 15"
CLS-4021-2020	Aluminum Tray with Liners, 20" x 20"
CLS-4021-0001	Stackable Tray Kit for CLS-4021-1212
CLS-4021-0003	Stackable Tray Kit for CLS-4021-1515
CLS-4021-0005	Stackable Tray Kit for CLS-4021-2020

CLS-4021
Stackable Tray

CLS-3869-100 VERSA-ROLL™ ROLLER DRUM, DIGITAL

- Great for growing mini preps as well as tissue and bacterial cultures
- Three drum configurations available

Versa-Roll™ Roller Drum is ideal for growing mini preps as well as tissue and bacterial cultures by the roller tube method. It incorporates three removable 12 inch accessory drums accommodating 16mm, 18mm or 25mm test tubes and 50mL centrifuge tubes. Roller drums are quiet in operation to provide many years of continuous service, even under incubated temperatures. Drums are interchangeable, easily removed and can be used as carrying trays or storage racks. Adjustment of an elevating screw at the front of the unit positions the drum at the desired tilt-angle. Powerful ball-bearing drive imparts uniform rotary motion to all tubes, maintaining constant speed.

Drums include carrying handles.

CLS-3869-100

Specifications

Speed Range	0.5 – 30RPM
Base Overall Dimensions	12" x 12.2" x 17"
Base Weight	24.6
Electrical	120V

Part Number	Description
CLS-3869-100	Versa-Roll Roller Drum, Digital, Base Only

Accessories

Part Number	Description
CLS-3869-0001	Drum Only, 13-18mm Tubes, 106-Position
CLS-3869-0003	Drum Only, 20-25mm Tubes, 60-Position
CLS-3869-0005	Drum Only, 30mm Cent Tubes, 50-Position

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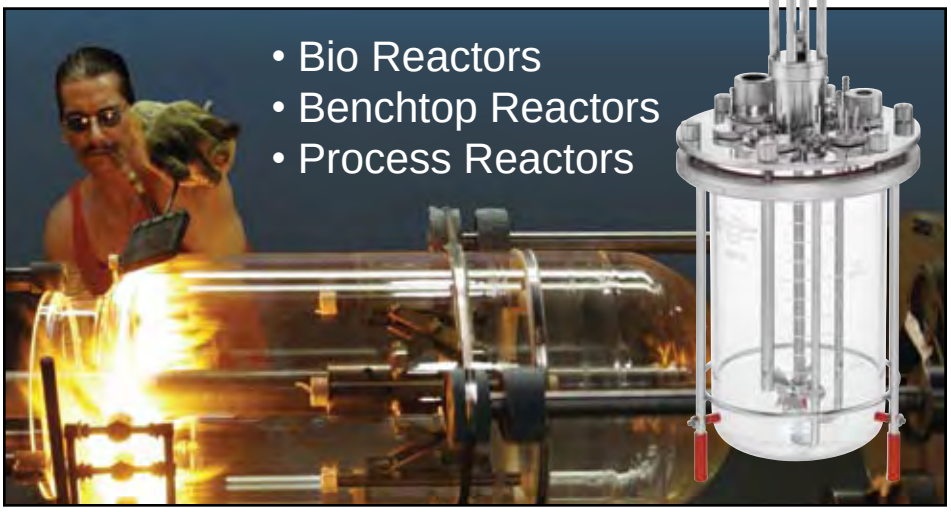

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* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-3855 ROLLER APPARATUS, VERSA-ROLL, 120V

- Available with or without factory-installed rotation alarm
- Accommodates Standard Roller Bottles (110-120mm diameter)
- Steel Reinforced Polyurethane Timing Belts Maintain Precise Rotation Speeds (0.2-6.0RPM)
- Knob Locking Device Guards Against Accidental Changes to Speed Setting

The **VERSA-ROLL Cell Production Roller Apparatus** is designed for use in the production of various attachment cells. The units are available in 10 bottle positions up to 50 bottle positions. Our production units, which come in 45 and 50 bottle positions, provide over 80,000 cm² of surface area. Units have been engineered for maximum reliability. Our rollers are formulated from a chemical-resistant, non-slip EDPM. All units feature a solid state control with heavy-duty maintenance-free DC brushless motors. All models also feature rubber bumpers and rear guards. The frame is powder-coated aluminum for durability and cleanliness. All units are equipped with **All Position Drive** to prevent slipping of lightweight bottles. 120VAC.

- EDPM rollers
- Powder-coated, aluminum frames
- Solid state controls
- Maintenance-free, brushless, DC motors
- All Position Drive prevents bottle slippage

Available Optional Equipment

- Battery Backup System
- Slow Speed Kit

Part Number	No. of Decks	No. of Bottle Positions	Rotation Alarm
CLS-3855-002	Base and 1	10	No
CLS-3855-A02	Base and 1	10	Yes
CLS-3855-003	Base and 2	15	No
CLS-3855-A03	Base and 2	15	Yes
CLS-3855-004	Base and 3	20	No
CLS-3855-A04	Base and 3	20	Yes
CLS-3855-005	Base and 4	25	No
CLS-3855-A05	Base and 4	25	Yes
CLS-3855-006	Base and 5	30	No
CLS-3855-A06	Base and 5	30	Yes
CLS-3855-007	Base and 6	35	No
CLS-3855-A07	Base and 6	35	Yes
CLS-3855-008	Base and 7	40	No
CLS-3855-A08	Base and 7	40	Yes
CLS-3855-009	Base and 8	45	No
CLS-3855-A09	Base and 8	45	Yes
CLS-3855-010	Base and 9	50	No
CLS-3855-A10	Base and 9	50	Yes

Optional Equipment

Part Number	Description
CLS-3854-001	Battery Backup
CLS-3854-SPK	Slow Speed Kit

CLS-3857 ROLLER APPARATUS, MODULAR, VERSA-ROLL

Modular design allows decks to be added to expand the system.

Base includes one deck.

CLS-3857

CLS-3857-001
5-Position Deck Kit
(Assembly Required)

- Available with or without factory-installed rotation alarm
- Close (6-3/8") Deck to Deck Spacing will Allow you to Grow More Cells in Less Space
- Accommodates Standard Roller Bottles (110-120mm Dia.)
- Steel Reinforced Polyurethane Timing Belts Maintain Precise Rotation Speeds (0.2-6.0RPM)
- Knob Locking Device Guards Against Accidental Changes to Speed Setting

The **VERSA-ROLL Cell Production Roller Apparatus** is designed for use in the production of various attachment cells. The units are available in 5 bottle positions up to 45 bottle positions. Our rollers are formulated from a chemical-resistant, non-slip EDPM. All units feature a solid state control with heavy-duty maintenance-free DC brushless motors. All models also feature rubber bumpers, swivel castors and rear guards. The frame is powder-coated aluminum for durability and cleanliness. All units are equipped with **All Position Drive** to prevent slipping of lightweight bottles. 120VAC.

Available Options

- 5-Position, Deck Assembly Kit
- Battery Backup System
- Slow Speed Kit

Part Number	No. of Decks	No. of Bottle Positions	Rotation Alarm
CLS-3857-002	Base and 1	10	No
CLS-3857-A02	Base and 1	10	Yes
CLS-3857-003	Base and 2	15	No
CLS-3857-A03	Base and 2	15	Yes
CLS-3857-004	Base and 3	20	No
CLS-3857-A04	Base and 3	20	Yes
CLS-3857-005	Base and 4	25	No
CLS-3857-A05	Base and 4	25	Yes
CLS-3857-006	Base and 5	30	No
CLS-3857-A06	Base and 5	30	Yes
CLS-3857-007	Base and 6	35	No
CLS-3857-A07	Base and 6	35	Yes
CLS-3857-008	Base and 7	40	No
CLS-3857-A08	Base and 7	40	Yes
CLS-3857-009	Base and 8	45	No
CLS-3857-A09	Base and 8	45	Yes

Optional Equipment

Part Number	Description
CLS-3857-001	Deck Assembly Kit, 5-Position
CLS-3854-001	Battery Backup
CLS-3854-SPK	Slow Speed Kit

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-3859 ROLLER APPARATUS, VERSA-ROLL, TOP DRIVE

- Select from factory-installed alarm and battery backup models
- Accommodates standard roller bottles, 110 to 120mm diameter
- Steel-reinforced polyurethane timing belts maintain precise rotation speeds from 0.1-3.5 RPM

Volume pricing available.

CLS-3859

VERSA-ROLL Top Drive Cell Production Roller Apparatus are designed for use in the production of various attachment cells. Rolling up to 53 full-size or 106 half-size bottles, they can host up to 90,100 cm² of total surface area. Engineered for maximum reliability, they include rollers formulated from chemical-resistant, non-slip EDPM. All units feature solid state controls with heavy-duty maintenance-free DC brushless motors. Angled rubber bumpers, and rear guards are included. Frames are powder-coated aluminum for durability and cleanliness. All units are equipped with **All Position Drive** to prevent slipping of lightweight bottles. 120VAC.

Contact us for communications options.

Part Number	No. of Decks	No. of Bottle Positions	Factory-Installed Rotation Alarm	Factory-Installed Backup Battery
CLS-3859-011	11	53	No	No
CLS-3859-A11	11	53	Yes	No
CLS-3859-B11	11	53	No	Yes
CLS-3859-AB11	11	53	Yes	Yes

See Roller Bottles listed on pages 132-133.

Left to right: bottle with solid cap, bottle with vented cap, expanded surface area bottle with vented cap

CLS-1188, CLS-1189

BOTTLES, ROLLER, GRADUATED, TC-TREATED or NON-TREATED

CELLTREAT® roller bottles are made from virgin polystyrene and are vacuum gas plasma tissue culture treated. The bottles have a uniform, hydrophilic surface for cell attachment. The bottles have black, easy-to-read, printed graduations. Each sterile roller bottle is individually bagged and are available with either solid or vented caps.

NEW! Expanded Surface Area Roller Bottles (ESRB)

- Ribbed interior increases surface area from 850cm² to 1900cm²
- Grow more cells without the added cost of additional bottles or roller apparatus

TC-Treated Roller Bottles

Part Number	Description	Case Qty.
CLS-1188-S01	Roller Bottle, TC-Treated, Graduated, 850cm², Solid Cap	12
CLS-1188-V01	Roller Bottle, TC-Treated, Graduated, 850cm², Vented Cap	12
CLS-1189-S01	Roller Bottle, TC-Treated, Graduated, 490cm², Solid Cap	24
CLS-1189-V01	Roller Bottle, TC-Treated, Graduated, 490cm², Vented Cap	24
CLS-1188-ES1	Roller Bottle, ESRB, TC-Treated, Graduated, 1900cm², Solid Cap	12
CLS-1188-EV1	Roller Bottle, ESRB, TC-Treated, Graduated, 1900cm², Vented Cap	12

Non-Treated Roller Bottles

Part Number	Description	Case Qty.
CLS-1188-N01	Roller Bottle, Non-Treated, Graduated, 1,000mL, Non-Vented Cap	24
CLS-1188-N02	Roller Bottle, Non-Treated, Graduated, 2,000mL, Non-Vented Cap	12

Non-Vented Caps

Part Number	Description	Pkg. Qty.
CLS-1188-CAP	Roller Bottle Non-Vented Cap Only	24

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-1190 ROLLER BOTTLES, GLASS

Roller bottles made from low expansion, borosilicate glass conforming to ASTM E438, Type 1, Class A specifications. Available with a choice of three thread styles: GL-45, GPI 38-415mm and GPI 51-400mm.The GL-45 bottles come with a choice of solid or vented caps. The vented caps can be attached to the bottle during autoclaving and are ideal for gas exchange when the bottles are used in a CO_2 environment.

Bottles with GL-45 Solid Cap

Part Number	Thread Size		Surface Area (cm²)
CLS-1190-03	GL-45	110 x 240	550
CLS-1190-04	GL-45	110 x 285	700
CLS-1190-01	GL-45	110 x 570	1585

Bottles with GL-45 Vented Cap

Part Number	Thread Size	OD x OAL (mm)	Surface Area (cm²)
CLS-1190-06	GL-45	110 x 240	550
CLS-1190-07	GL-45	110 x 285	700
CLS-1190-08	GL-45	110 x 570	1585

Bottles with 38mm Rubber Lined Phenolic Cap

Part Number	Thread Size (mm)	OD x OAL (mm)	Surface Area (cm²)
CLS-1190-10	38	110 x 285	670
CLS-1190-12	38	110 x 440	1170
CLS-1190-14	38	110 x 490	1330
CLS-1190-16	38	110 x 570	1585

Bottles with 51mm Rubber Lined Phenolic Cap

Part Number	Thread Size (mm)	OD x OAL (mm)	Surface Area (cm²)
CLS-1190-20	51	110 x 270	670
CLS-1190-22	51	110 x 475	1330
CLS-1190-24	51	110 x 570	1585

Replacement Caps

Part Number	Description	Pkg. Qty.
CG-191-20	38-415 Phenolic Cap, Rubber Lined	25
CG-191-13	51-400 Phenolic Cap, Rubber Lined	25

Caps, Liners and Pour Rings listed on pages 145-147.

CLS-4021-100 VERSA-ORB DIGITAL ORBITAL SHAKER 1" ORBIT

CLS-4021-100

This orbital shaker is a heavy-duty, variable-speed shaker. Ideal for the agitation of gels, staining, de-staining and assay development. Adjustable from 10 to 350RPM. The design incorporates an orbital platform that accepts a variety of optional trays. The peg and grommet style trays make changing convenient and interchangeable with similar trays on the market. Trays with liners sold separately.

- Detachable 24Vdc Power Supply
- Digital Speed Display
- Locking Speed Control Knob
- 2-Year Warranty

Specifications

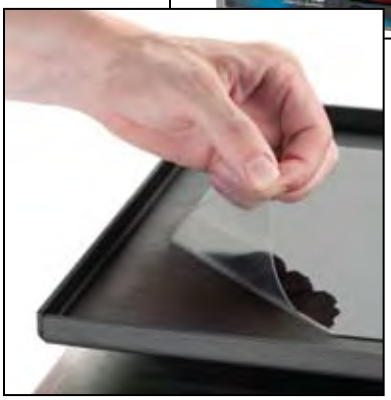
Speed Range	10 to 350 RPM
Circular Orbit	1 Inch
Max. Load	25lbs (10kg)
Base Overall Dimensions	11.875" W x 12" D x 4.5" H
Base Weight	12.75lbs
Electrical	120V

Part Number	Description
CLS-4021-100	Orbital Shaker, Base Only, Digital, 120V

Accessories

Part Number	Description
CLS-4021-1212	Aluminum Tray with Liners, 12" x 12"
CLS-4021-1515	Aluminum Tray with Liners, 15" x 15"
CLS-4021-2020	Aluminum Tray with Liners, 20" x 20"
CLS-4021-2030	Aluminum Tray with Liners, 20" x 30"

CLS-4010



CLS-4010 STICKY PAD

Sticky pad is an ideal alternative to flask clamps for securing vessels to a shaker platform. Designed for use with containers with flat wide bases. Ideal bottles and dishes that cannot be held with traditional flask clamps. With shake flasks, the pad can be used at speeds up 200 or 300 rpm (see chart below). Pad is available in 3 sizes listed below. It can be regenerated for reuse by simply washing it with mild detergent and water.

Please Note: Sticky pad cannot be used in water baths. Special sizes under 18 X 18" are available. Please contact us for assistance.

Part Number	Description
CLS-4010-06	6 x 6", (150 x 150mm)
CLS-4010-08	8 x 8", (200 x 200mm)
CLS-4010-18	18 x 18", (460 x 460mm)

Shaking Speed Information

Flask Size	Fill Volume	Max. RPM
25-500mL	25%	200
1-2 Liter	25%	250
3 Liter	25%	300
4-6 Liter	25%	250

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-4023-100 VERSA-ORB MINI DIGITAL ORBITAL SHAKER, 1/16" ORBIT

CLS-4023-100

Features

- 24V Brushless Low Maintenance DC Motor and Controller
- Digital Display
- Locking Speed Control Knob
- Peg and Grommet Design for Tray Attachment
- Low Profile Space Saving Chassis
- 2-Year Warranty

This Digital Mini Orbital Shaker is a high speed shaker for general laboratory cell culture use. Design incorporates an orbital platform that accepts a variety of optional trays. The peg and grommet design offers a simple method to install or change trays; four versions of trays are available. Brushless DC motor designed for minimal maintenance. Trays with liners sold separately.

Specifications

Speed Range	40 to 1,550 RPM
Circular Orbit	1/16 Inch
Base Overall Dimensions	11.875" W x 12" D x 4.5" H
Base Weight	12.75lbs
Electrical	120V

Part Number	Description
CLS-4023-100	Orbital Shaker, Mini, Base Only, Digital, 120V

Accessories

Part Number	Description
CLS-4021-1212	Aluminum Tray with Liners, 12" x 12"
CLS-4021-1515	Aluminum Tray with Liners, 15" x 15"
CLS-4021-2020	Aluminum Tray with Liners, 20" x 20"
CLS-4021-0008	Tray, 8-Position Microtiter Plate

CLS-4008-T03 DOUBLE-SIDED ADHESIVE TAPE, SINGLE-USE, 60" ROLL

Double-sided tape for use with rockers and shakers.

Part Number	Description
CLS-4008-T03	Double-Sided Tape, Single-Use, 60" Roll

CLS-4008-T03

CLS-4285-R1 SHAKER RACK FOR 50mL BIO-REACTION TUBES

CLS-4285-R1

- Stainless Steel Construction
- Angle Adjustment of up to 30°
- Silicone Gasket Holds Tube Securely
- Can be used with Skirted or Standard tubes
- Fits All Shakers with a top plate of at least 14” x 14”

Our unique 49 position shaker rack for the 50mL Bio-Reaction tubes is an ideal platform for high throughput experiments for screening and process optimization. The rack allows the tubes to be placed at an optimum angle (up to 30°) for both oxygenation and finding the correct fluid motion, eliminating the need for excess agitation. The silicone insert secures the tubes in the rack and prevents damage to the tubes and rotational slippage.

The rack is supplied with four attached pegs which fit directly into the top of our CLS-4021-100 Orbital shaker. Rack can also be used with other orbital shakers by using our CLS-4008-T03 double-sided tape.

Part Number	Description
CLS-4285-R1	49 Position Tilting Rack for 50mL Bio-Reaction Tubes

CLS-4285-LS1 LABEL, CO_2 CONTROL FOR BIO REACTION TUBES

Labels are used to block from 1 to 5 openings on the stopper of the 50mL bio reaction tubes to control the amount of CO_2 exchange and evaporation in the tube. Sheets have 8 each of white Mylar labels from numbers 1 to 5, and are 10 sets of labels per package.

Part Number	Description
CLS-4285-LS1	Labels, Bio Reaction Tube, 10 sheets / Pkg.

See Shaker details on page 298.

Tilting Rack shown on VERSA-ORB Digital Shaker, CLS-4021-100.

Complete details on this versatile, heavy-duty shaker can be found on page 298.

Part Number	CLS-4021-100
Speed Range	10 to 350 RPM
Circular Orbit	1 Inch
Max Load	25lbs (10kg)
Base Overall Dims.	11.875” W x 12” D x 4.5” H
Base Weight	12.75lbs
Electrical	120V

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-4285 TUBES, BIO-REACTION, CENTRIFUGE, STERILE

Bio-reaction tubes offer a convenient and economical option for suspension cell culture. Bio-reaction tubes consist of centrifuge tubes with a 0.22µm hydrophobic membrane in the vent cap. These tubes provide an environment perfect for small scale suspension culture or biological reaction experiments that require aseptic conditions with free gas exchange.

Bio-reaction centrifuge tubes are available in 15 and 50mL conical bottom and 50mL self-standing sizes. The tubes feature easy-to-read, black graduations and a large, white marking area. Each tube has a vent cap with a 0.22µm hydrophobic membrane ultrasonically welded into the cap to allow gas exchange. Bio-reaction tubes are sterile and available packed in bulk bags or foam racks.

Part Number	Description	Case Qty.
CLS-4285-015	Tube, Bio-Reaction, 15mL, Conical, 10/Bag	100
CLS-4286-015	Tube, Bio-Reaction, 15mL, Conical, 50/Foam Rack	300
CLS-4285-050	Tube, Bio-Reaction, 50mL, Conical, 10/Bag	100
CLS-4286-050	Tube, Bio-Reaction, 50mL, Conical, 25/Foam Rack	300
CLS-4287-050	Tube, Bio-Reaction, 50mL, Self-Standing, 10/Bag	100
CLS-4285-C15	Cap Only, Vented, for 15mL Tubes, 25/Bag	100
CLS-4285-C50	Cap Only, Vented, for 50mL Tubes, 25/Bag	100

CLS-4287-050 CLS-4285-050

Tubes in Bags

Tubes in Foam Racks

CLS-4285-C50
Vented Cap

CLS-4305 FAST DRYING PERMANENT MARKERS

Fast drying, smudge-resistant, extra-fine point markers, ideal for permanently marking all plastic labware especially centrifuge tubes. Packaged 5 per resealable bag.

Part Number	Marker Color	Case Qty.
CLS-4305-001	Green	5
CLS-4305-B01	Blue	5
CLS-4305-H01	Black	5
CLS-4305-R01	Red	5

SCHOTT® BRAND Media Bottles

- Heavy-duty bottles for storage, mixing and sampling
- Permanent white, enamel graduations and large marking spots
- Glass bead indicates full capacity line on 100mL through 2L size.
- Caps available separately in a variety of colors and applications
- Optional, red PBT caps and red ETFE pouring rings are available for dry heat sterilization (180°C).

Caps, Liners and Pour Rings listed on pages 145-147.

Choose amber bottles for light-sensitive contents.

Heavy-duty, clear bottle for storing, mixing and sampling. Linerless, one-piece, autoclavable, blue polypropylene plug seal cap with drip free pouring ring is included.

Heavy-duty, clear bottle for storing, mixing and sampling. A variety of caps and pouring rings are available separately.

If you already have a drawer full of caps, **SAVE MONEY** when you buy bottles without caps!

Heavy-duty, amber bottle for storing, mixing and sampling. A variety of caps and pouring rings are available separately.

SCHOTT® Media Bottles			CLS-1172 Series Clear Bottles with Blue PP Caps	CLS-1174 Series Clear Bottles without Caps	CLS-1175 Series Amber Bottles without Caps
Cap. (mL)	GL Thread Size	Pkg. Qty.	Part Number	Part Number	Part Number
25	25	10	CLS-1172-25	CLS-1174-25	CLS-1175-25
50	32	10	CLS-1172-50	CLS-1174-50	CLS-1175-50
100	45	10	CLS-1172-100	CLS-1174-100	CLS-1175-100
250	45	10	CLS-1172-250	CLS-1174-250	CLS-1175-250
500	45	10	CLS-1172-500	CLS-1174-500	CLS-1175-500
1000	45	10	CLS-1172-1L	CLS-1174-1L	CLS-1175-1L
2000	45	10	CLS-1172-2L	CLS-1174-2L	CLS-1175-2L
5000	45	1	CLS-1172-5L	CLS-1174-5L	CLS-1175-5L
10,000	45	1	CLS-1172-10L	CLS-1174-10L	CLS-1175-10L
15,000	45	1	N/A	CLS-1174-15L	CLS-1175-15L
20,000	45	1	CLS-1172-20L	CLS-1174-20L	CLS-1175-20L

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

PYREX® Brand Media Bottles

- Borosilicate glass for thermal shock resistance
- Enhanced graduations and marking spots are permanent white enamel
- GL screw threads
- Liner-less, autoclavable (140°C max.), polypropylene orange caps included.
- Drip-free polypropylene pour rings included

Low Actinic PYREX® Media Bottles

- Protect light sensitive contents
- Borosilicate glass for thermal shock resistance
- Enhanced graduations and marking spots are permanent white enamel
- GL screw threads
- Liner-less, autoclavable (140°C max.), polypropylene orange caps included.
- Drip-free polypropylene pour rings included

Protection for light-sensitive contents.

Media bottles have enhanced graduations and marking spots that are permanent white enamel. This general use bottle is provided with a GL screw thread (as noted) and supplied with liner-less autoclavable (140°C max.) polypropylene orange cap. Bottle design includes a clear (natural) drip free polypropylene pour ring, which is replaceable.

Low actinic bottles provide a shield to protect light sensitive products. Low actinic treatment permits less than 1% transmission below 400nm and reduced (5%) from 400-600nm as compared to untreated clear borosilicate glass. Bottles are provided with enhanced graduation scale, orange polypropylene cap and drip-free pour ring included.

PYREX® Media Bottles		CG-8088 Series Clear Bottles with Orange Caps		CG-8090 Series Low Actinic Bottles with Orange Caps	
Capacity (mL)	GL Thread Size	Part Number	Pkg. Qty.	Part Number	Pkg. Qty.
25	25	CG-8088-25	10	CG-8090-25	4
50	32	CG-8088-50	10	CG-8090-50	4
100	45	CG-8088-100	10	CG-8090-100	4
250	45	CG-8088-250	10	CG-8090-250	4
500	45	CG-8088-500	10	CG-8090-500	4
1000	45	CG-8088-1L	10	CG-8090-1L	4
2000	45	CG-8088-2L	10	CG-8090-2L	4
5000	45	CG-8088-5L	1	CG-8090-5L	1
10,000	45	CG-8088-10L	1	CG-8090-10L	1

CG-8092 BOTTLE, MEDIA, STORAGE, SQUARE, GRADUATED,GL SCREW THREAD, PYREX®

Square Bottles Save Space!

Square bottles are easier to handle, require less space (13-20%) on the shelf or in the autoclave and are ideal for mixing, sampling and storage. Features include: white enamel graduations, large marking spot and a glass ridge molded into the bottle to indicate full capacity. Made from Pyrex® borosilicate glass for chemical and thermal resistance and includes a liner less one-piece autoclavable orange polypropylene plug seal cap with drip-free pouring ring.

CAUTION: Do NOT have caps tightened immediately after autoclaving as the vacuum resulting from cooling can cause breakage. Not applicable for vacuum use.

Part Number	Capacity (mL)	Thread Size	Case Qty.
CG-8092-100	100	GL-32	10
CG-8092-250	250	GL-45	10
CG-8092-500	500	GL-45	10
CG-8092-1L	1000	GL-45	10

CG-812 BOTTLES, GL-80 THREAD, WIDE NECK, GRADUATED, DURAN®

The Duran® GL-80 wide neck bottles offers a versatile solution for laboratory and industrial applications. These sturdy bottles have large base areas making them easy to stack and reduces the risk of toppling. Their flexibility and unique design enhance safety and efficiency whether filling or pouring in the laboratory, in the field or in production, whether for sampling, preparation, storage or product packaging. They may be used with a large range of contents at reduced, ambient, or high temperatures. All bottles are supplied with a unique quick release closure with integral sealing cone that provides a high quality seal and protects the contents from contamination. The closure is made of Polypropylene and is suitable for autoclaving up to 140°C. User-friendly screw is specially designed so that it can be rapidly opened and closed with less than two turns. A clicking sound gives positive confirmation that the bottle is firmly closed.

Part Number	Capacity (mL)	Case Qty.
CG-812-01	500	10
CG-812-02	1000	10
CG-812-03	2000	10
CG-812-04	5000	1
CG-812-05	10,000	1
CG-812-06	20,000	1

Replacement Components

Part Number	Description	Pkg. Qty.
CG-812-10	Closure, PP, GLS 80, Blue	10

- Pyrogen, DNase, RNase and Particle-Free
- Transparent and Optically Clear
- Leak-Proof
- Freezable at -20° C
- Disposable / Recyclable
- Gamma Irradiated
- Sterility Assurance Level (SAL) 10^{-6}
- 20% Overhead Space
- Inside Neck Diameter: 34.5mm
- Optional Vented Cap Available

CLS-1150 SQUARE BOTTLE, MEDIA, STERILE, PETG, GRADUATED

Break-resistant and durable Media bottles are manufactured from polyethylene terephthalate copolyester (PETG) and graduated to contain. The bottles are square/octagonal with rounded edges to insure an “Easy-Grip” for pouring. Cap is manufactured with polyethylene (HDPE) and comes with a security ring which provides a tamper-evident seal. The cap is liner-free and comes with a leak-proof guarantee. Bottles are inexpensive alternatives to glass media bottles. Bottles provide reduced permeability to both CO_2 and O_2. Bottles are radiation sterilized and non-pyrogenic.

Bottle Design: Patent US D535566S
Tamper-evident Cap Design: Patent US D561587S

PLEASE NOTE: BOTTLES ARE NOT AUTOCLAVABLE.

Part Number	Cap. (mL)	GPI Thread Size	OD x Height Without Cap (mm)	Pkg. Qty.
CLS-1150-0030	30	20-415	38 x 60	24
CLS-1150-0060	60	20-415	40 x 80	24
CLS-1150-0125	125	38-430	55 x 104	24
CLS-1150-0250	250	38-430	59 x 139	24
CLS-1150-0500	500	38-430	73 x 172	12
CLS-1150-1000	1000	38-430	92 x 213	12
CLS-1150-2000	2000	53B	115 x 260	6

Accessory Vented Caps

Part Number	Description	Pkg. Qty.
CLS-2090-0038	DuoCap®, Sterile, 38-430	12
CLS-2090-0053	DuoCap®, Sterile, 53-B	6

DuoCap: Patent US D574239

CLS-2090 DuoCap®, STERILE

The DuoCap® is designed for both aerobic and anaerobic applications. For aerobic applications the cap utilizes a 0.22µm pore size PTFE membrane for sterile air exchange. For anaerobic applications the cap can easily be converted to a solid top design. Solid top caps are also ideal for applications requiring mixing, shaking and storage of biological fluids. New EZ-Tear packaging allows for easy access.

See page 165 for details and ordering information.

Assembled, the media bottle with siphon assembly allows the user to create precisely the desired dip tube angle to retrieve virtually all of the contents of fluid from the bottle.

CLS-1420 MEDIA BOTTLE WITH SIPHON ASSEMBLY

The media bottle with siphon assembly consists of your choice of a standard media bottle, stainless steel vent port assembly, stainless steel siphon pipe and silicone tubing cut to length. All stainless parts are manufactured from 316L stainless steel electropolished to a finish of 20Ra or better. The silicone tubing is peroxide cured and meets 21 CFR 177.2600 material specifications.

Complete Assembly

Part Number	Media Bottle Size (mL)
CLS-1420-250	250
CLS-1420-500	500
CLS-1420-1L	1000
CLS-1420-2L	2000
CLS-1420-5L	5000
CLS-1420-10L	10,000

Siphon Assembly ONLY

Part Number	Fits Media Bottle Size (mL)
CLS-1421-250	250
CLS-1421-500	500
CLS-1421-1L	1000
CLS-1421-2L	2000
CLS-1421-5L	5000
CLS-1421-10L	10,000

Accessories

Part Number	Description
CLS-1481-22	Cap Only, Open Top, GL-45 for Port Assembly, Green, Pk. / 6
CLS-1428-11	Silicone Gasket Only, White, GL-45, for Port Assembly, Each
CLS-1421-010	Silicone Tubing for Port Assembly, 6" Length

CLS-1437

CLS-1437-B ADDITION AND SAMPLING VESSEL WITH 2-PORT TUBE ASSEMBLY WITH HOSE BARBS

Our addition and sampling vessel with hose barbed 2-port drip tube assemblies are designed for addition or sampling of media, acid or base. Assembly is ideal for use with bio reactors where addition or sampling is required. The drip tube assemblies are constructed of 316L electropolished stainless steel and include a blue polypropylene GL32 open top cap with a white silicone gasket. Dip tube assemblies have a finish of 20Ra or better. The vessel measures 32mm Diameter x 94mm OAL.

Part Number	Description
CLS-1437-B01	Flat Bottom Vessel Complete with 2-Port Drip Tube Assembly
CLS-1437-B02	Flat Bottom Vessel Only
CLS-1429-02	2-Port Drip Tube Assembly with Gasket
CLS-1428-14	White Silicone Gasket Only for CLS-1429-02

CLS-1423 TRANSFER MEDIA BOTTLE, CLEAR, WITH HOSE BARB AND GL-45 VENTED CAP

Schott media bottle with hose barb outlet at the bottom allows for easy gravity transfer of solutions. Supplied with drip-free pouring ring and liner-less, one piece, autoclavable, reusable, vented cap. The hose barb accepts the ID tubing listed. Other size hose barbs are available, please contact us for details.

Part Number	Cap. (mL)	Tubing Size for Hose Barb
CLS-1423-100	100	1/4”
CLS-1423-250	250	1/4”
CLS-1423-500	500	1/4”
CLS-1423-1L	1000	1/4”
CLS-1423-2L	2000	1/4”
CLS-1423-5L	5000	1/4”
CLS-1423-10L	10,000	1/2"

CLS-1423

Replacement GL-45 Vented Caps and Pouring Rings

Part Number	Description	Pkg. Qty.
CLS-1484-12	Vented Cap Only, Blue, PP	5
CLS-1482-13	Pouring Ring Only, Blue, PP	10

CLS-1437 PORT ASSEMBLY, 2-PORT, SS, WITH HOSE BARBS FOR MEDIA BOTTLES

Assemblies designed for addition or sampling of media from standard Schott or Corning® media bottles. They are constructed of 316L electropolished stainless steel and include a blue polypropylene GL45 open top cap with a white silicone gasket. Dip tube assemblies have a finish of 20Ra or better.

Part Number	Description
CLS-1437-19	2-Port Assembly for 1L Media Bottles Only
CLS-1437-20	2-Port Assembly for 2L Media Bottles
CLS-1437-21	2-Port Assembly for 5L Media Bottles
CLS-1437-22	2-Port Assembly for 10L Media Bottles

CLS-1437
2-Port Assembly

CLS-1437 PORT ASSEMBLY, 3-PORT, SS, WITH HOSE BARBS FOR MEDIA BOTTLES

Assemblies designed for addition or sampling of media from standard Schott or Corning® media bottles. They are constructed of 316L electropolished stainless steel and include a blue polypropylene GL45 open top cap with a white silicone gasket. Dip tube assemblies have a finish of 20Ra or better.

Part Number	Description
CLS-1437-29	3-Port Assembly for 1L Media Bottles Only
CLS-1437-30	3-Port Assembly for 2L Media Bottles
CLS-1437-31	3-Port Assembly for 5L Media Bottles
CLS-1437-32	3-Port Assembly for 10 Media Bottles

CLS-1437
3-Port Assembly

Media Bottle not included.

Left to right: bottle with solid cap, bottle with vented cap, expanded surface area bottle with vented cap

CLS-1188, CLS-1189

BOTTLES, ROLLER, GRADUATED, TC-TREATED or NON-TREATED

CELLTREAT® roller bottles are made from virgin polystyrene and are vacuum gas plasma tissue culture treated. The bottles have a uniform, hydrophilic surface for cell attachment. The bottles have black, easy-to-read, printed graduations. Each sterile roller bottle is individually bagged and are available with either solid or vented caps.

NEW! Expanded Surface Area Roller Bottles (ESRB)

- Ribbed interior increases surface area from 850cm² to 1900cm²
- Grow more cells without the added cost of additional bottles or roller apparatus

TC-Treated Roller Bottles

Part Number	Description	Case Qty.
CLS-1188-S01	Roller Bottle, TC-Treated, Graduated, 850cm², Solid Cap	12
CLS-1188-V01	Roller Bottle, TC-Treated, Graduated, 850cm², Vented Cap	12
CLS-1189-S01	Roller Bottle, TC-Treated, Graduated, 490cm², Solid Cap	24
CLS-1189-V01	Roller Bottle, TC-Treated, Graduated, 490cm², Vented Cap	24
CLS-1188-ES1	Roller Bottle, ESRB, TC-Treated, Graduated, 1900cm², Solid Cap	12
CLS-1188-EV1	Roller Bottle, ESRB, TC-Treated, Graduated, 1900cm², Vented Cap	12

Non-Treated Roller Bottles

Part Number	Description	Case Qty.
CLS-1188-N01	Roller Bottle, Non-Treated, Graduated, 1,000mL, Non-Vented Cap	24
CLS-1188-N02	Roller Bottle, Non-Treated, Graduated, 2,000mL, Non-Vented Cap	12

Non-Vented Caps

Part Number	Description	Pkg. Qty.
CLS-1188-CAP	Roller Bottle Non-Vented Cap Only	24

Additional Roller Bottles and Roller Apparatus are listed in the Bioprocess Section, pages 132-133.

CLS-1195

Offset neck prevents cultures from entering the neck area.

CLS-1195-1200 BOTTLE, ROUX, 1200ML

The 1,200mL Roux bottle is designed so that when laid down flat, it will hold approximately one-half of the total volume. The bottle is manufactured from Type 1, Class A borosilicate glass. The bottle is useful for growing mass cultures and the offset neck prevents cultures from entering the neck area. Supplied complete with a 38-415 rubber lined closure. Sold 1 per case.

Part Number	Description
CLS-1195-1200	Roux Bottle, 1,200mL

CLS-1152 BOTTLE, SOLUTION, STERILE, POLYSTYRENE

CELLTREAT® Solution Bottles are ideal for storage of media, buffers, and other aqueous solutions. The bottles are manufactured from polystyrene, are sterile (gamma irradiated) and available in 150, 250, 500mL and 1000 mL volumes and are packaged in individual easy to open plastic bags. The Solution Bottles feature heavy wall construction, engraved graduations, a concave shape and knurled cap for easy handling.

Part Number	Description	Case Qty.
CLS-1152-0150	150mL Sterile Solution Bottle	24
CLS-1152-0250	250mL Sterile Solution Bottle	24
CLS-1152-0500	500mL Sterile Solution Bottle	24
CLS-1152-1000	1000mL Sterile Solution Bottle	24

CLS-1152

CLS-2090 FILTER ADAPTER, 45MM TO 38-430 GPI

Filter adapters are especially designed to fit **CELLTREAT®** bottle top filters. Our adapters provide the freedom to attach to bottles and flasks of various fill capacities and provide utility to existing 38-430mm closure. The adapters are autoclavable, reusable, and cost-effective. They eliminate the need to transfer product to Erlenmeyer flasks.

For Flasks, see pages 154-155.

Part Number	Description	Pkg. Qty.
CLS-2090-4538	Filter Adapter, 45mm to 38-430 GPI	3

CLS-2090

CLS-1480 CAPS, GL THREAD, POLYPROPYLENE, SOLID

Solid polypropylene caps with a molded in lip seal. All color caps can be autoclaved in steam to 140°C.

The Premium Clear Caps are made from TpCh260 (similar to PFA) with PTFE coated silicone seal. Premium Cap Compound is formulated without color dye to avoid risk of leaching. Premium caps can be used in temperatures from -196° to 260°C.

Part Number	Thread Size	Color	Pkg. Qty.
CLS-1480-10	GL-25	Blue	10
CLS-1480-11	GL-32	Blue	10
CLS-1480-12	GL-32	Orange	10
CLS-1480-13SC	GL-45	Schott® Blue	10
CLS-1480-14	GL-45	Gray	10
CLS-1480-15	GL-45	Green	10
CLS-1480-16	GL-45	Orange	10
CLS-1480-17	GL-45	Purple	10
CLS-1480-18	GL-45	Yellow	10
CLS-1480-19	GL-45	Clear	5

CLS-1480

CLS-1487

CLS-1487 CAP, BLUE, NON-STERILE

Blue polypropylene cap is fully autoclavable at 121°C. For a tight seal, cap must be used with our silicone liner (listed below).

Part Number	Description
CLS-1487-70	Cap, 70mm, Blue, Polypropylene, Non-Sterile
CLS-1487-72	Silicone Liner Only for 70mm Cap
CLS-1487-100	Cap, 100mm, Blue, Polypropylene, Non-Sterile
CLS-1487-102	Silicone Liner Only for 100mm Cap

CLS-1481

CLS-1481 CAPS, GL THREAD, POLYPROPYLENE, OPEN TOP, COLORS

Open top polypropylene caps for use with port assemblies. Caps can be autoclaved in steam to 140°C.

Part Number	Thread Size	Hole Dia. (in)	Color	Pkg. Qty.
CLS-1481-20	GL-32	13/16	Blue	6
CLS-1481-21	GL-45	1-15/16	Blue	6
CLS-1481-22	GL-45	1-15/16	Green	6
CLS-1481-23	GL-45	1-15/16	Yellow	6

Septa For Above

Part Number	Description
CG-196-13	PTFE Septa for GL-32
CG-196-14	PTFE Septa for GL-45

CG-196

CLS-1482 POURING RING, COLORS

Steam autoclavable to 140°C. All pouring rings are polypropylene except for the CLS-1482-30 which is made of high temperature ETFE (Ethylene Tetrafluoroethylene); max temp is 180°C.

CLS-1482

Part Number	Thread Size	Color	Pkg. Qty.
CLS-1482-11	GL-32	Blue	10
CLS-1482-12	GL-32	Clear	10
CLS-1482-13	GL-45	Blue	10
CLS-1482-14	GL-45	Green	10
CLS-1482-15	GL-45	Gray	10
CLS-1482-16	GL-45	Yellow	10
CLS-1482-17	GL-45	Clear	10
CLS-1482-30	GL-45	Red	10

CLS-1484 GL THREAD VENTED CAP, NON-STERILE

Polypropylene vented cap has a 0.22µm PTFE hydrophobic membrane to allow gas exchange while preventing contamination. Liner-less plug seal design for efficient sealing. Autoclavable at 121°C.

Part Number	Description	Pkg. Qty.
CLS-1484-32	GL-32 Vented, Cap, Blue, Non-Sterile	5
CLS-1484-10	GL-45 Vented, Cap, Gray, Non-Sterile	Each
CLS-1484-12	GL-45 Vented, Cap, Blue, Non-Sterile	5

CLS-1484

CLS-1485 GL-45 VENTED CAP, ORANGE, STERILE, SINGLE USE

Orange high density polyethylene vented cap has a 0.20µm PVDF hydrophobic membrane to allow gas exchange while preventing contamination. They have a liner-less plug seal design for efficient sealing. Autoclaving is not recommended. **NOTE: CAP IS FOR USE ON PLASTIC VESSELS ONLY.**

Part Number	Description
CLS-1485-20	GL-45 Vented, Cap, Orange, Sterile

CLS-1485

CLS-1484-A 70MM VENTED CAP, BLUE, NON-STERILE

Blue polypropylene vented cap has a 0.22µm PTFE hydrophobic membrane to allow gas exchange while preventing contamination. They are autoclavable at 121°C. Must be used with our 70mm silicone gasket (listed below).

Part Number	Description
CLS-1484-A-70	Cap, Vented, 70mm, Blue, Polypropylene, Non-Sterile
CLS-1484-A-72	Silicone Gasket Only for 70mm Vented Cap

CLS-1484-A

CLS-1486 HIGH TEMPERATURE CAP, SOLID, PBT

High temperature PBT cap will withstand temperature from -45 to 200ºC. Complete with PTFE seal.

Part Number	GL Size
CLS-1486-01	32
CLS-1486-02	45

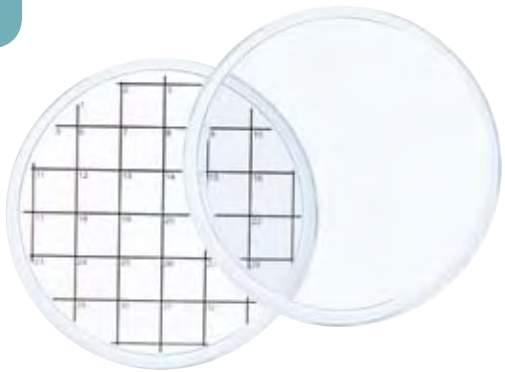
CLS-1486

CLS-1777

CLS-1777 CLONING CYLINDER, GLASS

Clone a group or single cell by surrounding them with these glass cylinders. Cylinders are sealed to the plate with sterile silicone high vacuum grease, such as Dow Corning® 976v thereby forming an isolation well. Cylinders are autoclavable or can be dry heat sterilized. Supplied in packages of 125 pieces.

Part Number	Dimensions OD x Height (mm)
CLS-1777-01	6 x 8
CLS-1777-02	8 x 8
CLS-1777-03	10 x 10



CLS-1806

CLS-1806 CULTURE DISH WITH GRID BOTTOM, STERILE

- Enables Samples to be Recorded and Located
- Can be used with Tissue Samples
- Ideal for Cells Such as Stem Cells or Hematopoietic Cell Colonies
- Numbered Grid Allows for Easy Orientation of Cell Colonies
- Gamma Irradiated, Tissue Culture Treated

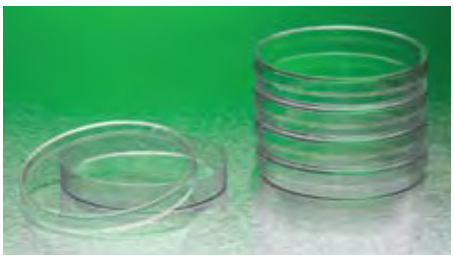
The 10x10mm square numbered grids allow for easy identification and counting number of cell colonies or cells. Gamma irradiated, tissue culture treated for optimum cell adhesion. Available in 70 or 100mm Sizes. Patent Pending.

Part Number	Description	Pkg. Qty.
CLS-1806-01	70mm Grid Bottom Culture Dish	10
CLS-1806-02	100mm Grid Bottom Culture Dish	10

See Glass Bottom Culture Dishes and Plates on pages 202-203.

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-1802 PETRI DISH, NON-TREATED, STERILE



Dishes are manufactured from virgin polystyrene. The surface is not tissue culture treated but is hydrophobic and does not facilitate cell attachment. The rim of the top mates with the dish bottom edge for easy and secure stacking. Lids contain molded spacers for gas exchange (except CLS-1802-155 which has a non-vented lid). Sterilized by gamma irradiation. Certified non-pyrogenic. Packaged in durable, zip, resealable, self-standing plastic bags that allow the dishes to remain upright and reduce contamination.

Part Number	Description	Growth Area	Working Vol. (mL)	Bag Qty.	Case Qty.
CLS-1802-035	Petri Dish, Non-Treated, 35x10mm	8.5cm²	5	10	960
CLS-1802-060	Petri Dish, Non-Treated, 60x15mm	21cm²	7-8	10	500
CLS-1802-001	Petri Dish, Non-Treated, 100x15mm	55cm²	15-16	10	500
CLS-1802-003	Petri Dish, Non-Treated, 100x20mm	55cm²	15-16	10	300
CLS-1802-150	Petri Dish, Non-Treated, 150x20mm	143cm²	25-28	5	100
CLS-1802-155	Petri Dish, Non-Treated, Non-Vented Lid,150x20mm	143cm²	25-28	5	100

CLS-1805 TISSUE CULTURE DISHES

CELLTREAT® tissue culture dishes and plates are manufactured under the most stringent conditions in order to ensure the integrity of your tissue and cell culture work. The class 100,000 clean room, USP class VI virgin polystyrene, and ISO 9001:2000 quality management systems all contribute to the consistent tissue and cell culture performance of our products.

The tissue culture surface treatment used for CELLTREAT® products produces a negatively charged, hydrophilic surface for consistent cell attachment. Growth surfaces are flat and free from striation to maximize usable growth area and transparency.

Dishes are available in four sizes; 35mm, 70mm, 90mm and 150mm. Uniformly molded plastic bottoms provide a distortion free surface for consistent cell attachment. All dishes are supplied with lids. Lids contain molded spacers to provide consistent gas exchange and stacking rings that add stability for handling tall stacks of dishes.

CELLTREAT® 150mm tissue culture dishes may now be purchased in a multipack, containing five dishes per pack. The individual pack option is still available.

The 35mm, 70mm and 90mm dishes are packaged in easy opening, sterile, resealable (zip-closure) bags. The 150mm dishes are individually packaged in easy opening, sterile bags. Lot numbers are printed on all bags.

Part Number	Description	Case Qty.
CLS-1805-035	Dish, Tissue Culture Treated, 35mm	500
CLS-1805-070	Dish, Tissue Culture Treated, 70mm	500
CLS-1805-090	Dish, Tissue Culture Treated, 90mm (100mm)	500
CLS-1805-150	Dish, Tissue Culture Treated, 150mm	60
CLS-1805-154	Dish, Tissue Culture Treated, 150mm,5/Bag	100

Gripping Ring for easy handling.

CLS-1805 TISSUE CULTURE DISH WITH GRIPPING RING

The CELLTREAT® tissue culture dish with gripping ring has a gripping ring around the dish base. The serrated ring extends slightly beyond the lid and significantly improves handling over traditional designs. The gripping ring allows the dish to be handled by the dish base preventing accidental drops and simplifying the separation of the lid from the base. The dish also includes numerical clock locators (3, 6, 9, and 12) molded into the base for easy division of the dish into quadrants, molded spacers for consistent gas exchange and stacking rings for stability when handling tall stacks of dishes. It is manufactured using the same quality materials and manufacturing processes used in CELLTREAT® traditional style tissue culture dishes. 10 dishes per resealable pack.

Part Number	Description	Case Qty.
CLS-1805-152	Dish, Tissue Culture Treated, 100mm, with Gripping Ring	300
CLS-1805-060	Dish, Tissue Culture Treated, 60mm, with Gripping Ring	500

CLS-1803 PETRI DISH TOWER, ACRYLIC

Uniquely designed storage and carrying tower for Petri dishes up to 100mm in diameter. Easy access to any dish. Excellent for carrying into work areas, and storage in incubators and refrigerators. The 6 position is 5” x 8.5” while the 12 position is 5” x 15”.

Part Number	Description
CLS-1803-06	6 Position Red Petri Dish Tower
CLS-1803-07	12 Position Green Petri Dish Tower

CLS-1803-06

CLS-1803-07

CLS-3504 PLATE STORAGE TOWER

Multi-well plate tower, ideal for storage and transportation of either 6 or 12 multiwell plates. Plates are easy to identify and access. Can be stored in incubator or in refrigerator. 6 position is made from orange acrylic and is 8” x 4.6” x 6”. The 12 position is made from clear acrylic and is 14” x 4.6” x 6”.

Part Number	Description
CLS-3504-06	6 Position Plate Storage Tower
CLS-3504-12	12 Position Plate Storage Tower

CLS-3504-06

CLS-1370 ELECTROPORATION CUVETTES

Bridge Electroporation Cuvettes efficiently transfer DNA and siRNA into a wide variety of cell types. While the color and shape of the caps may vary from brand to brand, all electroporation cuvettes must meet strict quality assurance specifications to ensure consistent pulse delivery and reproducible results. Bridge cuvettes meet and exceed every measurable qualification and parameter.

CLS-1370

Universal Fit

Manufactured in the USA to tight tolerances for optimum performance, Bridge Electroporation Cuvettes fit in most manufacturer's systems including those from: Bio-Rad®, BTX®, Invitrogen®, Eppendorf and Kodak®/IBI®.

For a Variety of Applications

It is well documented that nucleic acid delivery via electroporation can achieve remarkable rates of transfer efficiency and maintain good cell viability, even for a variety of finicky human cell lines. In order to achieve the proper electrical field strength to the cells, Bridge Electroporation Cuvettes are carefully constructed with burr-free, specially processed electrodes and virgin polycarbonate. This results in cuvettes which provide superior results in the most discriminating applications. Available in three gap widths, 1, 2, and 4 mm, it's as simple as choosing the correct cuvette size for your application.

Specifications / Applications

	CLS-1370-01	CLS-1370-02	CLS-1370-04
Gap Size	1mm	2mm	4mm
Application	E. Coli	Bacteria, Fungi, Plants	Animal Cell Lines
Individually Wrapped	Yes	Yes	Yes
Color Coding	Orange	Green	Black
Sterile	Yes	Yes	Yes
Package Quantity	50	50	50

Part Number	Description
CLS-1370-01	1mm Electroporation Cuvettes
CLS-1370-02	2mm Electroporation Cuvettes
CLS-1370-03	4mm Electroporation Cuvettes

CLS-2005 SYRINGE FILTERS

These high quality filters are packaged in sterile blister packs and offered at very competitive prices. The standard range of filters is available in PVDF (polyvinylidene fluoride), PES (polyethersulfone), MCE (mixed cellulose ester), nylon and PTFE (polytetrafluoroethylene).

All filters are designed with female luer-Lock inlets and male luer-lock outlets. Gamma sterilized, non-pyrogenic and RNA- and DNA-free. PTFE filters have polypropylene housings, all others have ABS housings.

Part Number	Color	Membrane Material	Membrane Size (µm)	Filter Dia. (mm)	Case Qty.
CLS-2005-001	Blue	PVDF	0.10	13	75
CLS-2005-003	Blue	PVDF	0.10	30	30
CLS-2005-005	Blue	PVDF	0.22	13	75
CLS-2005-007	Blue	PVDF	0.22	30	30
CLS-2005-009	Blue	PVDF	0.45	13	75
CLS-2005-011	Blue	PVDF	0.45	30	30
CLS-2005-013	Green	PES	0.22	13	75
CLS-2005-015	Green	PES	0.22	30	30
CLS-2005-017	Green	PES	0.45	13	75
CLS-2005-019	Green	PES	0.45	30	30
CLS-2005-021	Yellow	MCE	0.22	13	75
CLS-2005-023	Yellow	MCE	0.22	30	30
CLS-2005-025	Yellow	MCE	0.45	13	75
CLS-2005-027	Yellow	MCE	0.45	30	30
CLS-2005-029	Pink	Nylon	0.45	13	75
CLS-2005-031	Pink	Nylon	0.45	30	30
CLS-2005-033	White	PTFE	0.22	13	75
CLS-2005-035	White	PTFE	0.22	25	30
CLS-2005-037	White	PTFE	0.45	13	75
CLS-2005-039	White	PTFE	0.45	25	30
Non-Sterile, Bulk Packed Syringe Filters					
CLS-2006-011	Blue	PVDF	0.45	30	100
CLS-2006-019	Green	PES	0.45	30	100

PVDF Extremely low protein-binding; for filtration of non-aggressive aqueous and mild organic solutions, or where maximizing protein recovery is important.

- Gas Filtration
- Vapor Filtration
- High Temp. Filtration

PES Low affinity for proteins and extractable with substantially faster flow rates than PVDF; suitable for pre-filtration and filtration of buffers and culture media.

- Sterile Filtering Protein Solution
- Tissue Culture Media Filtration
- Tissue Culture Additive Filtration

MCE Filtration of aqueous solutions; effectively binds trace proteins.

- Oil particulate and bacteria filtration and then inspect them
- Alcohol particulate and bacteria filtration and then inspect them
- Other solvent particulate and bacteria filtration and then inspect them

Nylon Universal application for analytical procedures.

- Chemical Filtration
- Beverage Filtration

PTFE Designed to bring the highest levels of performance and purity to your research.

- Organic Solvent with Strong Chemical Causticity Filtration
- Strong Acid Solvent Filtration
- Alkali Solvent Filtration

CLS-2009 VACUUM FILTER SYSTEMS, BOTTLE TOP

- Angled hose barb adapter fits 3 size hose diameters and increases unit stability
- Polyethersulfone (PES) membrane for high flow and low binding
- Two membrane pore sizes: 0.22 or 0.45µm
- Bottle top filters fit on CELLTREAT solution bottles or other standard 45mm threaded solution storage bottles
- Filter systems include bottle top filter and solution bottle with cap

Vacuum filter systems can be used for large volume separation and purification. CELLTREAT® bottle top filtration systems are manufactured in a Class 100,000 clean room from USP class VI virgin polystyrene. They utilize a polyethersulfone (PES) membrane material in 0.22µm or 0.45µm pore sizes for rapid flow rate and low protein bonding. The filter units are available in 150, 250 and 500mL sizes and are individually packaged in easy-to-open plastic bags with individually wrapped caps. Gamma irradiation sterilized and non-pyrogenic.

Replacement Bottles are CLS-1152, listed on page 145.

Working Volume (mL)	Hold-Up Volume (mL)	Filter Pore Size (µm)	Filter OD (mm)	Filter Funnels, Bottles & Caps		Filter Funnels Only	
				Part Number	Case Qty.	Part Number	Case Qty.
150	3	0.45	50	CLS-2009-009	12	CLS-2010-001	24
250	3	0.45	50	CLS-2009-001	12	CLS-2010-003	24
500	3	0.45	70	CLS-2009-003	12	CLS-2010-005	24
1000	3	0.45	90	CLS-2009-013	12	CLS-2010-013	24
150	3	0.22	50	CLS-2009-011	12	CLS-2010-007	24
250	3	0.22	50	CLS-2009-005	12	CLS-2010-009	24
500	3	0.22	70	CLS-2009-007	12	CLS-2010-011	24
1000	3	0.22	90	CLS-2009-015	12	CLS-2010-015	24

CLS-2090 FILTER ADAPTER, 45MM TO 38-430 GPI

Filter adapters are especially designed to fit **CELLTREAT®** bottle top filters. Our adapters provide the freedom to attach to bottles and flasks of various fill capacities and provide utility to existing 38-430mm closure. The adapters are autoclavable, reusable, and cost-effective. They eliminate the need to transfer product to Erlenmeyer flasks.

Part Number	Description	Pkg. Qty.
CLS-2090-4538	Filter Adapter, 45mm to 38-430 GPI	3

CLS-2090

CLS-2090 FLASK, ERLENMEYER, STERILE, POLYCARBONATE

Erlenmeyer flask, are sterile, non-pyrogenic and manufactured with polycarbonate resin. Flasks are supplied with exclusive DuoCap® designed for both aerobic and anaerobic applications. For aerobic applications the cap utilizes a 0.22µm pore size PTFE membrane for sterile air exchange. For anaerobic applications the cap can easily be converted to a solid top design. Solid top caps are also ideal for applications requiring mixing, shaking and storage of biological fluids. Graduations are molded for accuracy. New EZ-Tear packaging allows for easy access.

CLS-2090

Part Number	Capacity (mL)	GPI Thread Size	Pkg. Qty.
CLS-2090-0125	125	38-430	6
CLS-2090-0250	250	38-430	4
CLS-2090-0500	500	38-430	4
CLS-2090-1000	1000	53B	2
CLS-2090-2000	2000	53B	2

Larger Pack Quantities

CLS-2092-0125	125	38-430	24
CLS-2092-0250	250	38-430	12
CLS-2092-0500	500	38-430	12
CLS-2092-1000	1000	53B	6
CLS-2092-2000	2000	53B	6

See Flask Assemblies in the Bioprocess section.

CLS-2090 DuoCap®, ONLY, STERILE

The DuoCap® is designed for both aerobic and anaerobic applications. For aerobic applications the cap utilizes a 0.22µm pore size PTFE membrane for sterile air exchange. For anaerobic applications the cap can easily be converted to a solid top design. Solid top caps are also ideal for applications requiring mixing, shaking and storage of biological fluids. Graduations are molded for accuracy. New EZ-Tear packaging allows for easy access. US Patent No. D574239.

Part Number	GPI Thread Size	Pkg. Qty.
CLS-2090-0038	38-430	12
CLS-2090-0053	53-B	6

CLS-2091 FLASK, ERLENMEYER, BAFFLED, STERILE, POLYCARBONATE

Quadruple baffled Erlenmeyer flasks are sterile, non-pyrogenic and manufactured with polycarbonate resin. Flasks are supplied with exclusive DuoCap® designed for both aerobic and anaerobic applications. For aerobic applications the cap utilizes a 0.22µm pore size PTFE membrane for sterile air exchange. For anaerobic applications the cap can easily be converted to a solid cap design. Solid top caps are also ideal for applications requiring mixing, shaking and storage of biological fluids. Graduations are molded for accuracy. New EZ-Tear packaging allows for easy access.

Part Number	Capacity (mL)	GPI Thread Size	Pkg. Qty.
CLS-2091-0125	125	38-430	6
CLS-2091-0250	250	38-430	4
CLS-2091-0500	500	38-430	4
CLS-2091-1000	1000	53B	2
CLS-2091-2000	2000	53B	2

Larger Pack Quantities

CLS-2093-0125	125	38-430	24
CLS-2093-0250	250	38-430	12
CLS-2093-0500	500	38-430	12
CLS-2093-1000	1000	53B	6
CLS-2093-2000	2000	53B	6

CLS-2091

Quadruple Baffle

DuoCap®

Designed for both aerobic and anaerobic applications.

1. Add culture media & inoculum

2. Add DuoCap® for anaerobic culture

3. Remove dust guard cover for aerobic culture

4. Move to shaker incubator

CLS-1544

CG-1544 FLASK, ERLENMEYER, SCREW THREAD

Flask has a GL-threaded top and is supplied complete with polypropylene linerless closure and pouring ring. See page 145-147 for caps and pouring rings.

Part Number	Capacity (mL)	Thread Finish	Approx. OAH (mm)
CG-1544-19	125	GL-32	120
CG-1544-20	250	GL-45	130
CG-1544-21	500	GL-45	170
CG-1544-22	1000	GL-45	220
CG-1544-23	2000	GL-45	275
CG-1544-24	4000	GL-45	340

Solid Caps

Vented Caps

Caps, Liners and Pour Rings listed on pages 145-147.

CLS-2058

CLS-2058 FLASK, TRYPSINIZING

Manufactured from Type 1 Class A borosilicate glass with three deep side baffles for optimum agitation during trypsinization. Flasks come with beaded, break-resistant lips and 50mm OD necks. Sold 1 per case.

Part Number	Flask Capacity (mL)	Dia. x OAH (mm)
CLS-2058-02	2000	158 x 290
CLS-2058-04	4000	205 x 360

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CLS-2170 and CLS-2171

FLASK, ERLENMEYER AND FERNBACH, POLYCARBONATE, 70MM VENTED CAP, (PLAIN OR BAFFLED BOTTOM)

CELLTREAT® Erlenmeyer and Fernbach culture flasks are designed for shaker and cell culture applications. All flasks feature a 70mm neck size that provides easy access for filling and dispensing. The unique shape of the Fernbach flask provides an increased surface area to volume ratio for improved gas exchange. The flasks are available in 2L Erlenmeyer, 2L and 3L Fernbach sizes, with plain bottoms. The polypropylene caps are knurled for secure grip and are configured in 70mm large vent or non-vented styles. The flasks are constructed from an optically clear polycarbonate material that can be autoclaved. All flasks include a vented cap and are individually packed in bags and gamma irradiation sterilized. Additional caps are available separately.

Plain Bottom

Part Number	Description	Case Qty.
CLS-2170-EP2L	Flask, Erlenmeyer, 2L, Plain Bottom, Vented Cap	6
CLS-2170-FP2L	Flask, Fernbach, 2L, Plain Bottom, Vented Cap	6
CLS-2170-FP3L	Flask, Fernbach, 3L, Plain Bottom, Vented Cap	4

Baffled Bottom

Part Number	Description	Case Qty.
CLS-2171-EB2L	Flask, Erlenmeyer, 2L, Baffled Bottom, Vented Cap	6
CLS-2171-FB2L	Flask, Fernbach, 2L, Baffled Bottom, Vented Cap	6
CLS-2171-FB3L	Flask, Fernbach, 3L, Baffled Bottom, Vented Cap	4

Accessories

Part Number	Description	Case Qty.
CLS-2172-V070	Cap, 70mm, Vented	24
CLS-2072-S070	Cap, 70mm, Solid	24

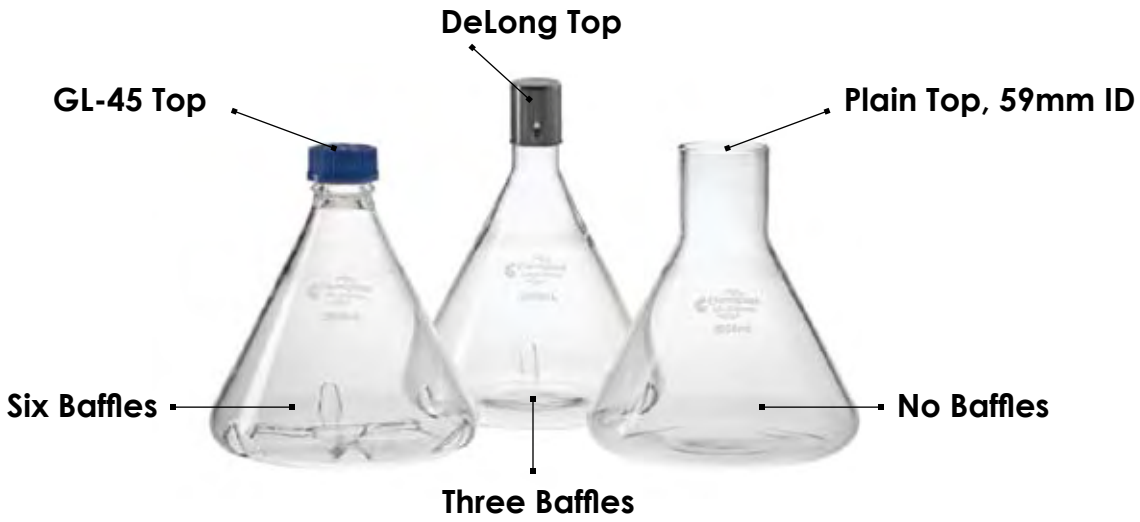
CLS-3462 TRANSFER ASSEMBLY WITH MALE LUER LOCK AND WELDABLE C-FLEX® TUBING, STERILE

Transfer cap assemblies for 2L Erlenmeyer flasks and 2L and 3L Fernbach flasks are sterile (10^{-6} SAL), individually double bagged and fit our new 2L and 3L CellTreat® polycarbonate flasks.

The venting port ends in a 50mm diameter vent filter with a 0.2µm pore PTFE (hydrophobic) membrane and a barbed fitting.

On the external side you will find 1/8" ID x 1/4" OD weldable C-Flex® tubing ending in a male luer lock (MLL) closed with a threaded PP cap. The liquid transfer port has an internal end with rigid polypropylene dip tube with a notched end to reach the bottom of the flask. Individually double bagged and gamma irradiated sterile.

Part Number	Description
CLS-3462-10	Transfer Assembly for 2L Fernbach Flasks
CLS-3462-40	Transfer Assembly for 2L Erlenmeyer and 3L Fernbach Flasks



CLS-2020

CLS-2020 FLASK, FERNBACH, 2800mL, WITHOUT BAFFLES

Flasks are designed for culturing organisms that require a large surface area to volume ratio. Available with a plain 59mm ID neck, 38mm OD DeLong style neck, or a GL-45 screw neck with a vented cap.

Part Number	Description
CLS-2020-10	Plain 59mm ID Top, Without Baffles
CLS-2020-11	38mm DeLong Top, Without Baffles
CLS-2020-30	GL-45 Screw Thread, Vented Cap, Without Baffles

CLS-2021

CLS-2021 FLASK, FERNBACH, 2800mL, WITHOUT BAFFLES

2800mL Flasks are designed for culturing organisms that require a large surface area to volume ratio. Available with 70mm screw neck with a solid or vented cap.

Part Number	Description
CLS-2021-70	70mm Screw Thread, Solid Cap, Without Baffles
CLS-2021-72	70mm Screw Thread, Vented Cap, Without Baffles

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-2022 FLASK, FERNBACH, 2800mL, WITH 3-SIDE BAFFLES

Similar to CG-2020, with 3 baffles on the lower outside edge of the flask to help oxygen transfer to the culture medium.

Part Number	Description
CLS-2022-14	Plain 59mm ID Top, With 3 Side Baffles
CLS-2022-16	38mm DeLong Top, With 3 Side Baffles
CLS-2022-18	GL-45 Screw Thread, Solid Cap, With 3 Side Baffles
CLS-2022-31	GL-45 Screw Thread, Vented Cap, With 3 Side Baffles

See pages 145-147 for caps / pouring rings and pages 164-165 for 38mm closures.

CLS-2022

CLS-2023 FLASK, FERNBACH, 2800mL, WITH 3-SIDE BAFFLES

2800mL flask with 3 baffles on the lower outside edge of the flask to help oxygen transfer to the culture medium.

Part Number	Description
CLS-2023-72	70mm Screw Thread, Vented Cap, With 3 Baffles

CLS-2023

CLS-2024 FLASK, FERNBACH, 2800mL, WITH 3-BOTTOM BAFFLES

Similar to CG-2020, with 3 baffles on the bottom surface of the flask to help oxygen transfer to the culture medium.

Part Number	Description
CLS-2024-15	Plain 59mm ID Top, With 3 Bottom Baffles
CLS-2024-17	38mm DeLong Top, With 3 Bottom Baffles
CLS-2024-19	GL-45 Screw Thread, Solid Cap, With 3 Bottom Baffles
CLS-2024-32	GL-45 Screw Thread, Vented Cap, With 3 Bottom Baffles

CLS-2024

CLS-2025 FLASK, FERNBACH, 2800mL, WITH 3-BOTTOM BAFFLES

2800mL flask with 3 baffles on the bottom surface of the flask to help oxygen transfer to the culture medium.

Part Number	Description
CLS-2025-70	70mm Screw Thread, Solid Cap, With 3 Baffles
CLS-2025-72	70mm Screw Thread, Vented Cap, With 3 Baffles

CLS-2025

CLS-2026

CLS-2026 FLASK, FERNBACH, 2800mL, WITH 6-BAFFLES

Similar to CG-2022, but with 3 baffles on the lower outside edge of the flask and 3 baffles on the bottom surface of the flask to help oxygen transfer to the culture medium.

Part Number	Description
CLS-2026-20	Plain 59mm ID Top, With 6 Baffles
CLS-2026-22	38mm DeLong Top, With 6 Baffles
CLS-2026-33	GL-45 Screw Thread, Vented Cap, With 6 Baffles

See pages 145-147 for caps / pouring rings and pages 164-165 for 38mm closures.

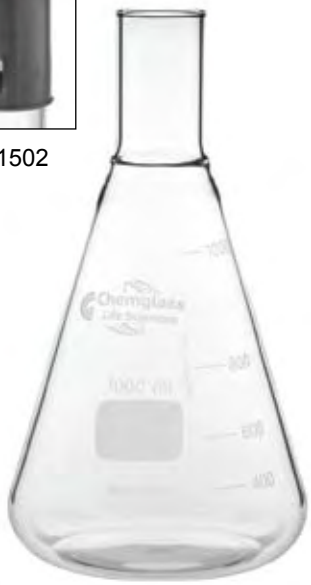
CLS-2027

CLS-2027 FLASK, FERNBACH, 2800mL, WITH 6-BAFFLES

2800mL flask with 3 baffles on the lower outside edge of the flask and 3 baffles on the bottom surface of the flask to help oxygen transfer to the culture medium.

Part Number	Description
CLS-2027-72	70mm Screw Thread, Vented Cap, With 6 Baffles

CLS-1502



CLS-2036

CLS-2036 FLASK ONLY, SHAKE, NO BAFFLES, DELONG NECK

Non-baffled flasks are ideal for growing, mixing and storing both aerobic and anaerobic cultures. Graduated to approximate volumes. DeLong style neck is made to fit stainless steel or plastic closures, while reducing the amount of splashing that would reach the closure. See accessory CLS-1502, stainless steel closure for DeLong style necks.

Part Number	Capacity (mL)	Neck Size (mm)	Approx. OD x Height (mm)
CLS-2036-01	25	18	40 x 96
CLS-2036-02	50	18	50 x 105
CLS-2036-03	125	25	70 x 140
CLS-2036-04	250	38	85 x 160
CLS-2036-06	500	38	100 x 200
CLS-2036-07	1000	38	130 x 230
CLS-2036-08	2000	38	160 x 300
CLS-2036-10	4000	38	205 x 350
CLS-2036-11	6000	38	235 x 410

Accessory Stainless Steel Closures

CLS-1502-018	Closure, 18mm, Stainless Steel	10
CLS-1502-025	Closure, 25mm, Stainless Steel	10
CLS-1502-038	Closure, 38mm, Stainless Steel	10

CLS-2038 FLASK, SHAKE, NO BAFFLES, DELONG NECK, WITH STAINLESS STEEL CLOSURE

Non-baffled flasks are ideal for growing, mixing and storing both aerobic and anaerobic cultures. Graduated to approximate volumes. DeLong style neck is made to fit stainless steel or plastic closures, while reducing the amount of splashing that would reach the closure. Supplied with a stainless steel closure.

Part Number	Capacity (mL)	Approx. OD x Height (mm)
CLS-2038-01	25	40 x 96
CLS-2038-02	50	50 x 105
CLS-2038-03	125	70 x 140
CLS-2038-04	250	85 x 160
CLS-2038-06	500	100 x 200
CLS-2038-07	1000	130 x 230
CLS-2038-08	2000	160 x 300
CLS-2038-10	4000	205 x 350
CLS-2038-11	6000	235 x 410

CLS-2038

CLS-2040 SHAKE FLASK, 3 STANDARD BAFFLES, REINFORCED TOP

Baffle indents on the lower outside edge of the flask to help oxygen transfer to the culture medium when used on an orbital shaker.

Part Number	Capacity (mL)	Approx. OD x Height (mm)
CLS-2040-01	125	70 x 116
CLS-2040-02	250	85 x 140
CLS-2040-05	1000	130 x 215
CLS-2040-07	2000	160 x 270

CLS-2040

CLS-2042 SHAKE FLASK, 3 DEEP BAFFLES, REINFORCED TOP

Extra deep baffle indents on the lower outside edge of the flask to maximize oxygen transfer to the culture medium when used on an orbital shaker.

Part Number	Capacity (mL)	Approx. OD x Height (mm)
CLS-2042-02	250	85 x 140
CLS-2042-04	500	100 x 180
CLS-2042-05	1000	130 x 215
CLS-2042-07	2000	160 x 270

CLS-2042

CLS-2044

CLS-2044 SHAKE FLASK, 3 STANDARD BAFFLES, DELONG NECK

Baffle indents on the lower outside edge of the flask to help oxygen transfer to the culture medium when used on an orbital shaker. DeLong style neck is made to fit stainless steel or plastic closures, while the longer neck reduces the amount of splashing that would reach the closure. See pages 164-165 for closures.

Part Number	Capacity (mL)	Approx. OD x Height (mm)
CLS-2044-01	50	50 x 105
CLS-2044-02	125	70 x 140
CLS-2044-03	250	85 x 160
CLS-2044-05	500	100 x 200
CLS-2044-06	1000	130 x 230
CLS-2044-08	2000	160 x 300

CLS-2046

CLS-2046 SHAKE FLASK, 3 DEEP BAFFLES, DELONG NECK

Extra deep baffle indents on the lower outside edge of the flask to maximize oxygen transfer to the culture medium when used on an orbital shaker. DeLong style neck is made to fit stainless steel or plastic closures, while the longer neck reduces the amount of splashing that would reach the closure. See pages 164-165 for closures.

Part Number	Capacity (mL)	Approx. OD x Height (mm)
CLS-2046-01	50	50 x 105
CLS-2046-02	125	70 x 140
CLS-2046-03	250	85 x 160
CLS-2046-05	500	100 x 200
CLS-2046-06	1000	130 x 230
CLS-2046-08	2000	160 x 300
CLS-2046-09	3000	185 x340
CLS-2046-10	4000	205 x 350

CLS-2048

CLS- 2048 SHAKE FLASK, 6 BAFFLES, DELONG NECK

Flask has 6 baffles, 3 baffles on the lower outside edge of the flask and 3 baffles on the bottom surface of the flask to maximize oxygen transfer to the culture medium when used on an orbital shaker. DeLong style neck is made to fit stainless steel or plastic closures, while the longer neck reduces the amount of splashing that would reach the closure. See pages 164-165 for closures.

Part Number	Capacity (mL)	Approx. OD x Height (mm)
CLS-2048-04	250	85 x 160
CLS-2048-05	500	100 x 200
CLS-2048-06	1000	130 x 230
CLS-2048-08	2000	160 x 300
CLS-2048-09	3000	185 x340
CLS-2048-10	4000	205 x 350

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-2050 SHAKE FLASK, 4 BOTTOM BAFFLES, CONSTRICTION, DELONG NECK

Flask has 4 bottom baffles and a constriction just below the neck to prevent splashing from reaching the closure. See pages 164-165 for closures.

Part Number	Capacity (mL)	Approx. OD x Height (mm)
CLS-2050-02	250	85 x 153
CLS-2050-04	500	100 x 200
CLS-2050-06	1000	130 x 230

CLS-2050

CLS-2051 SHAKE FLASK, 3 BAFFLES, GL-45 SCREW THREAD

Flask has 3 baffles on the lower outside edge of the flask to maximize oxygen transfer to the culture medium when used on an orbital shaker. The polypropylene vented caps have a 0.22µm (PTFE) hydrophobic membrane to allow sterile gas exchange while preventing contamination. Since these caps are vented, the flasks can be autoclaved with the cap attached. See pages 145-147 for caps and pouring rings.

Part Number	Capacity (mL)	GL Thread Finish	Approx. OD x Height (mm)
CLS-2051-02	125	32	65 x 120
CLS-2051-04	250	45	85 x 125
CLS-2051-06	500	45	100 x165
CLS-2051-08	1000	45	130 x215
CLS-2051-10	2000	45	160 x275

CLS-2051

See Shakers listed in the Equipment Section!

CLS-2052 SHAKE FLASK, 6 BAFFLES, GL-45 SCREW CAP

CLS-2052

Flask has 6 baffles, 3 baffles on the lower outside edge of the flask and 3 baffles on the bottom surface of the flask to maximize oxygen transfer to the culture medium when used on an orbital shaker. Gray polypropylene vented cap has a 0.22µm (PTFE) hydrophobic membrane to allow gas exchange while preventing contamination. They have a liner-less plug seal design for efficient sealing. They are autoclavable at 121°C. Since these caps are vented, the flasks can be autoclaved with the cap attached. Caps supplied attached to flasks.

See pages 145-147 for replacement caps and pouring rings.

Part Number	Capacity (mL)	Approx. OD. x Height (mm)
CLS-2052-04	250	85 x 125
CLS-2052-06	500	100 x165
CLS-2052-08	1000	130 x215
CLS-2052-10	2000	160 x275

CLS-2054 FLASK, SHAKE, 2L, 6 BOTTOM BAFFLES, 70MM

CLS-2054

Flask has 6 bottom baffles to maximize oxygen transfer for bacterial, yeast and other cultures that require large amounts of oxygen for optimal growth. The 70mm vented cap has a 0.20µm PVDF hydrophobic membrane to allow for sterile gas exchange while preventing contamination. A silicone liner ensures a tight seal between the cap and flask. A solid cap is available for anaerobic cultures. The flasks, caps and liners are all fully autoclavable. Caps supplied attached to flasks.

Part Number	Description
CLS-2054-04	Shake Flask, 2L, 6 Bottom Baffles, 70mm Vented Cap
CLS-2054-06	Shake Flask, 2L, 6 Bottom Baffles, 70mm Solid Cap

Accessories

Part Number	Description
CLS-1484-A-70	Cap, Vented, 70mm, Blue, Polypropylene
CLS-1487-70	Cap, Solid, 70mm, Blue, Polypropylene
CLS-1484-A-72	Silicone Gasket Only for 70mm Vented Cap
CLS-1487-72	Silicone Liner Only for 70mm Solid Cap

CLS-1502

CLS-1502 CLOSURE, STAINLESS STEEL

These closures are made from 305 Stainless Steel. They are ideal for use with culture tubes and flasks utilizing DeLong Necks. The closure is designed with finger grips to allow it to fit firmly on any DeLong Neck. It will withstand both dry heat sterilization and repeated autoclaving.

Part Number	Description	Pkg. Qty.
CLS-1502-018	Closure, 18mm, Stainless Steel	10
CLS-1502-025	Closure, 25mm, Stainless Steel	10
CLS-1502-038	Closure, 38mm, Stainless Steel	10

CLS-1503 CLOSURE, POLYPROPYLENE

DeLong style closure made of polypropylene. Closure offers two positions, open for gas exchange or closed for humidified environment. Internal drip ring minimizes contamination. Autoclavable to 121°C.

Part Number	Description	Pkg. Qty.
CLS-1503-09	25mm Closure	10
CLS-1503-10	38mm Closure	10

CLS-1503

CLS-1490 CLOSURE, SILICONE SPONGE

The silicone sponge closure is manufactured with a silicone sponge sealed in a silicone rubber ring. Flange fits snugly over the necks of vessels, permitting the exchange of gases, while reducing evaporation and preventing the passing of aerosols. Ideal for use with Aerobic cultures. Reusable, autoclavable and will withstand dry heat sterilization up to 180°. Closure will withstand both dry heat sterilization and repeated autoclaving.

Part Number	For use with:	Pkg. Qty.
CLS-1490-013	13-18mm Culture Tube 18mm Screw Necks	10
CLS-1490-020	18-25mm Culture Tubes 25-50mL Erlenmeyer Flasks 25-125mL DeLong Flasks	10
CLS-1490-028	125 and 250mL Erlenmeyer Flasks	10
CLS-1490-038	38mm DeLong Style Flask or Tube Necks 38mm Culture Tubes 500 and 1000mL Standard Erlenmeyer Flasks GL-45 Screw Threads	10

CLS-1490

CLS-2090 DuoCap® ONLY, STERILE, US Patent D574239

The DuoCap® is designed for both aerobic and anaerobic applications. For aerobic applications the cap utilizes a 0.22µm pore size PTFE membrane for sterile air exchange. For anaerobic applications the cap can easily be converted to a solid top design. Solid top caps are also ideal for applications requiring mixing, shaking and storage of biological fluids. New EZ-Tear packaging allows for easy access.

Part Number	GPI Thread Size	Pkg. Qty.
CLS-2090-0038	38-430	12
CLS-2090-0053	53-B	6

1. Add culture media & inoculum

2. Add DuoCap for anaerobic culture

3. Remove dust guard cover for aerobic culture

4. Move to shaker incubator

CLS-2406, CLS-2405

CLS-2405 & 2406 TISSUE CULTURE FLASKS

The tissue culture surface treatment used for CELLTREAT® products creates a negatively charged hydrophilic surface ideal for consistent cell attachment. Growth surfaces are flat and free from striation to maximize usable growth area and transparency.

Flasks are available in four sizes: 12.5cm², 25cm², 75cm² and 182cm² with two cap styles. Plug seal caps can provide a closed system or allow gas exchange with a one quarter turn of the cap. Vent caps contain a 0.22µm hydrophobic membrane filter to allow gas exchange and minimize the risk of contamination.

All tissue culture flasks listed are tissue culture surface treated and sterile (gamma irradiated).

Part Number	Description / Growth Area	Flask Cap Styles	Flask Volume	Pack Qty.	Case Qty.
CLS-2406-125	Tissue Culture Flask 12.5cm²	Vent	25mL	10	200
CLS-2406-250	Tissue Culture Flask 25cm²	Vent	50mL	10	200
CLS-2406-750	Tissue Culture Flask 75cm²	Vent	250mL	5	100
CLS-2406-182	Tissue Culture Flask 182cm²	Vent	600mL	5	40
CLS-2406-300	Tissue Culture Flask 300cm²	Vent	1250mL	3	18
CLS-2405-125	Tissue Culture Flask 12.5cm²	Plug Seal	25mL	10	200
CLS-2405-250	Tissue Culture Flask 25cm²	Plug Seal	50mL	10	200
CLS-2405-750	Tissue Culture Flask 75cm²	Plug Seal	250mL	5	100
CLS-2405-182	Tissue Culture Flask 182cm²	Plug Seal	600mL	5	40

CLS-2408 SUSPENSION CULTURE FLASKS

CELLTREAT® suspension and tissue culture flasks are manufactured in accordance with ISO 9001:2000 quality management systems, with USP class VI materials, in a class 100,000 clean room. This attention to quality and detail ensures the performance and consistency you demand for your cell and tissue culture work.

Flask surfaces are flat and free from striations to provide improved transparency. An innovative angled neck design offers excellent pipet and cell scraper access. Flasks include engraved graduations on two sides and ridges for easy stacking.

Suspension culture flasks are not tissue culture treated. The surface is hydrophobic and does not facilitate cell attachment. Flasks are available in four sizes: 25mL (12.5cm²), 50mL (25cm²), 250mL (75cm²) and 600mL (182cm²). Vent caps contain 0.22 µm hydrophobic membrane filters to allow gas exchange and minimize the risk of contamination. All suspension culture flasks are supplied sterile (gamma irradiated).

Part Number	Description/Volume	Flask Cap Styles	Pack Qty.	Case Qty.
CLS-2408-125	Suspension Culture Flask 25mL	Vent	10	200
CLS-2408-250	Suspension Culture Flask 50mL	Vent	10	200
CLS-2408-750	Suspension Culture Flask 250mL	Vent	5	100
CLS-2408-182	Suspension Culture Flask 600mL	Vent	5	40

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-4207 C-CHIP™ DISPOSABLE HEMOCYTOMETER

- Better than conventional glass hemocytometers
- Integrated cover eliminates need for cover slips
- Use with general, mammal, erythrocyte, and leukocyte cell counting

CLS-4207

Disposable plastic hemocytometer that improves upon the conventional glass variety. The C-Chip™ eliminates tedious washing and reduces exposure to infectious samples and contamination. In a conventional glass hemocytometer, improper fitting of the chamber and cover slip changes the volume of the sample introduced into the chamber. The C-Chip™ all-in-one "chamber with an integrated cover" solves the problem. The C-Chip™ contains two precision engineered 100µm height counting chambers that do not need cover slips. Just pipette 10µl of sample into each chamber, place on the microscope and you are ready to count. Then dispose once finished. It's that simple.

Packaged 50 slides (2 tests per slide) per box, individually sealed with a lot certificate in every box.

Specifications

Dimensions	25 x 75 x 1.6mm
Chamber depth	100µm
Chambers per chip	2
Tests per box	100
Grid	Neubauer Improved

Part Number	Description
CLS-4207-01	C-Chip™ Disposable Hemocytometer

CLS-1812 GLASS BOTTOM CELL CULTURE PLATES

- Use to take high-resolution microscopic images of cultures
- Non-cytotoxic, non-pyrogenic, sterile
- Borosilicate glass adhered to disposable plastic well plates

Our glass bottom culture plates allow researchers to produce high-resolution microscopic images of cultures growing in standard size 6 and 24-well disposable plastic cell culture plates. Our products are non-cytotoxic, non-pyrogenic and sterile. We manufacture glass bottom culture plates using high volume, automated procedures to ensure both lot-to-lot reproducibility and cost effective pricing. The first step in this process is to precisely cut an opening in the center of the wells in the culture plates. Next, a clinically non-toxic adhesive is used to attach the high quality technical grade glass cover slip of standard thickness (0.13-0.16mm) to the bottom of each well, covering the opening. These cover slips are high quality borosilicate glass of the highest hydrolytic consistency and are well adapted for a broad variety of high resolution microscopy applications. Sold 1 per case.

Part Number	Description
CLS-1812-006	Glass Bottom Culture Plate, 6-Well, 24mm Diameter
CLS-1812-024	Glass Bottom Culture Plate, 24-Well, 10mm Diameter

CLS-1812-006

CLS-1812-024

Plates are available in 6, 12, 24, 48 and 96-well configurations.

Each well is labeled with large alpha-numeric markings for easy identification.

CLS-3500 PLATES, TC-TREATED, FLAT BOTTOM, STERILE

CELLTREAT® tissue culture plates are available in 6, 12, 24, 48 and 96-well configurations. Each well is labeled with large alpha-numeric markings for easy identification. Each well has a raised rim which nests into the rings on the single direction lid to reduce evaporation and limit the risk of cross contamination. The lid also features an exterior stacking ring for added stability when handling tall stacks of plates. All plates are packaged in paper/plastic peel pouches that are designed to keep the plates in pristine condition during transit. The lot number is printed on each pouch. All tissue culture plates are supplied sterile (gamma irradiated) and include lids. The shapes of the wells are cylindrical with a flat bottom.

Part Number	Description	Cell Growth Area / Well	Pack Qty.	Case Qty.
CLS-3500-006	Tissue Culture Plate 6-Well	9.60cm²	1	100
CLS-3500-012	Tissue Culture Plate 12-Well	3.85cm²	1	100
CLS-3500-024	Tissue Culture Plate 24-Well	1.93cm²	1	100
CLS-3500-048	Tissue Culture Plate 48-Well	0.84cm²	1	100
CLS-3500-096	Tissue Culture Plate 96-Well	0.33cm²	1	100
CLS-3500-596	Tissue Culture Plate 96-Well	0.33cm²	5	100

CLS-3501 PLATES, NON-TREATED, FLAT BOTTOM, INDIVIDUALLY PACKED, STERILE

CELLTREAT® non-treated plates are available in 6, 12, 24, 48 and 96-well configurations. Each well is labeled with large alpha-numeric markings for easy identification. Each well has a raised rim which nests into the rings on the single direction lid to reduce evaporation and limit the risk of cross contamination. The lid also features an exterior stacking ring for added stability when handling tall stacks of plates. All plates are packaged in paper/plastic peel pouches that are designed to keep the plates in pristine condition during transit. The lot number is printed on each pouch. All plates are supplied sterile (gamma irradiated) and include lids. The shapes of the wells are cylindrical with a flat bottom.

Part Number	Description	Working Volume	Pack Qty.	Case Qty.
CLS-3501-006	Non-Treated Plate 6-Well	2 – 8mL	1	100
CLS-3501-012	Non-Treated Plate 12-Well	2 – 4mL	1	100
CLS-3501-024	Non-Treated Plate 24-Well	0.5 – 1.5mL	1	100
CLS-3501-048	Non-Treated Plate 48-Well	0.3 – 1.0mL	1	100
CLS-3501-096	Non-Treated Plate 96-Well	50-300µL	1	100

CLS-3500-R PLATES, TC-TREATED, ROUND BOTTOM, STERILE

CELLTREAT® TC-Treated plates are available in 96-well configurations. Each well is labeled with large alpha-numeric markings for easy identification. Each well has a raised rim which nests into the rings on the single direction lid to reduce evaporation and limit the risk of cross contamination. The lid also features an exterior stacking ring for added stability when handling tall stacks of plates. All plates are packaged in paper/plastic peel pouches that are designed to keep the plates in pristine condition during transit. The lot number is printed on each pouch. All tissue culture plates are supplied sterile (gamma irradiated) and include lids. The shapes of the wells are cylindrical with a round bottom. Plates are individually wrapped and placed in 2 boxes of 50 each per case.

Part Number	Description	Cell Growth Area/Well	Pack Qty.	Case Qty.
CLS-3500-R96	Plate, TC-Treated, 96-Well, RB	9.60cm²	1	100

CLS-3501-R PLATES, NON-TREATED, ROUND BOTTOM, STERILE

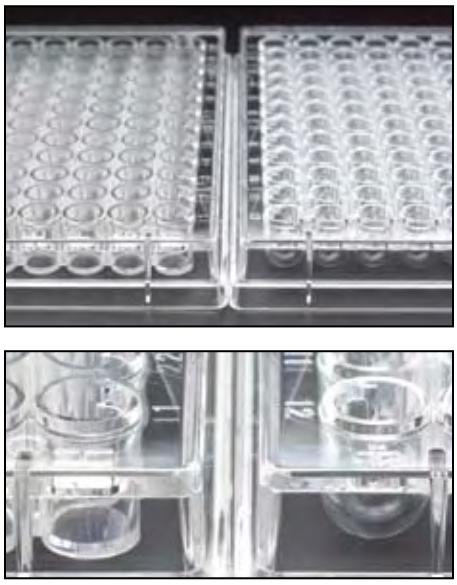
CELLTREAT® non-treated plates are available in 96-well configurations. Each well is labeled with large alpha-numeric markings for easy identification. Each well has a raised rim which nests into the rings on the single direction lid to reduce evaporation and limit the risk of cross contamination. The lid also features an exterior stacking ring for added stability when handling tall stacks of plates. All plates are packaged in paper/plastic peel pouches that are designed to keep the plates in pristine condition during transit. The lot number is printed on each pouch. All plates are supplied sterile (gamma irradiated) and include lids. The shapes of the wells are cylindrical with a round bottom. Plates are individually wrapped and placed in 2 boxes of 50 each per case.

Part Number	Description	Total Volume (mL)	Pack Qty.	Case Qty.
CLS-3501-R96	Plate, Non-Treated, 96-Well, RB	0.37	1	100

CLS-3503 PLATES, NON-TREATED, STERILE, WITHOUT LID

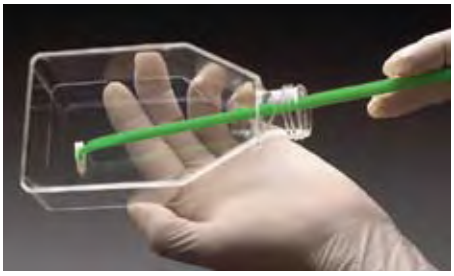
CELLTREAT® non-treated plates without lids are available in 96-well configurations. These plates are ideal when using sealing films. Each well is labeled with large alpha-numeric markings for easy identification. Each well has a raised rim which nests into the rings on the single direction lid to reduce evaporation and limit the risk of cross contamination. All plates are packaged in paper/plastic peel pouches that are designed to keep the plates in pristine condition during transit. The lot number is printed on each pouch. All plates are supplied sterile (gamma irradiated). The shapes of the wells are cylindrical with either a round or flat bottom.

Part Number	Description	Pack Qty.	Case Qty.
CLS-3503-R96	Plate, Non-Treated, 96-Well, Round Bottom	1	100
CLS-3503-F96	Plate, Non-Treated, 96-Well, Flat Bottom	1	100



Close-up view of flat bottom (left) and round bottom (right).

Left to right:
CLS-2403-023, CLS-2403-021,
CLS-2403-022, CLS-2403-020



CLS-2403-022 Perpendicular Blade

CLS-2403-020 Parallel Blade

CLS-2403 CELL LIFTERS AND SCRAPERS

CELLTREAT® cell lifters have a double ended design with a flat blade on one end and a J-hook or narrow blade on the other. Cell lifters are ideal for harvesting cells from multiple well plates and dishes.

Cell scrapers are designed for harvesting cells from tissue culture flasks, dishes or bottles. The handle is 25 or 39cm long and the flexible blade is 20 or 30mm wide. The scraper is available with the blade positioned parallel to the handle (CLS-2403-020; CLS-2403-021) for windshield wiper like scraping or perpendicular to the handle (CLS-2403-022; CLS-2403-023) for use with a lifting motion.

All cell scrapers and lifters are non-pyrogenic and packaged sterile (gamma irradiated) in individual paper/poly wrappers with 100 pieces per case.

Part Number	Description	Case Qty.
CLS-2403-017	Cell Lifter, Flat Blade & Narrow Blade	100
CLS-2403-018	Cell Lifter, Flat Blade & J-Hook	100
CLS-2403-020	Cell Scraper, 25cm Handle, 20mm Scraper Blade	100
CLS-2403-021	Cell Scraper, 39cm Handle, 30mm Scraper Blade	100
CLS-2403-022	Cell Scraper, 25cm Handle, 20mm Lifter Blade	100
CLS-2403-023	Cell Scraper, 39cm Handle, 30mm Lifter Blade	100

Left to right:
CLS-2403-017, CLS-2403-018

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-4285 TUBES, BIO-REACTION, CENTRIFUGE, STERILE

Bio-reaction tubes offer a convenient and economical option for suspension cell culture. Bio-reaction tubes consist of centrifuge tubes with a 0.22µm hydrophobic membrane in the vent cap. These tubes provide an environment perfect for small scale suspension culture or biological reaction experiments that require aseptic conditions with free gas exchange.

Bio-reaction centrifuge tubes are available in 15 and 50mL conical bottom and 50mL self-standing sizes. The tubes feature easy-to-read, black graduations and a large, white marking area. Each tube has a vent cap with a 0.22µm hydrophobic membrane ultrasonically welded into the cap to allow gas exchange. Bio-reaction tubes are sterile and available packed in bulk bags or foam racks.

Part Number	Description	Case Qty.
CLS-4285-015	Tube, Bio-Reaction, 15mL, Conical, 10/Bag	100
CLS-4286-015	Tube, Bio-Reaction, 15mL, Conical, 50/Foam Rack	300
CLS-4285-050	Tube, Bio-Reaction, 50mL, Conical, 10/Bag	100
CLS-4286-050	Tube, Bio-Reaction, 50mL, Conical, 25/Foam Rack	300
CLS-4287-050	Tube, Bio-Reaction, 50mL, Self-Standing, 10/Bag	100
CLS-4285-C15	Cap Only, Vented, for 15mL Tubes, 25/Bag	100
CLS-4285-C50	Cap Only, Vented, for 50mL Tubes, 25/Bag	100

See Hungate Anaerobic Culture Tubes in the Micro and Molecular Biology Section, pages 206-207.

CLS-4287-050 CLS-4285-050

Tubes in Bags

Tubes in Foam Racks

CLS-4290 TUBES, PLASTIC, CULTURE, DISPOSABLE, STERILE

These disposable sterile tubes can be used for most routine laboratory procedures. They are biologically inert and exempt from mold release agents. Precision molding with virgin thermoplastics ensures that our tubes will be uniform in size and shape. High resistance to breakage reduces danger in handling infectious or other potentially harmful cultures.

Transparent polystyrene tubes will withstand moderate centrifugation speeds (1400g) and temperatures to 70ºC. Translucent polypropylene tubes can be centrifuged at higher speeds (3000g) and resist temperatures from -190ºC to120ºC.

Tubes are supplied with either a 2-position ribbed polyethylene cap (which can be left loose for aerobic work or sealed for anaerobic cultures) or without caps for general purpose work. Available in sizes 12 x 75mm or 17 x 100mm. The 12 x 75mm tube has a 4ml capacity with cap on (4.5ml without cap) while the 17 x 100mm size contains 12ml with cap on (14ml without cap).

12 x 75mm tubes with marking area are graduated from 1 to 4ml in 0.1ml increments. 17 x 100mm tubes with marking area are graduated from 1 to 12ml in 0.25ml increments. Tubes packaged in economical self-standing resealable zip lock bags.

Polystyrene Tubes

Part Number	Size (mm)	Supplied with Cap	Bag Qty.	Case Qty.
CLS-4290-001	12 x 75	Yes	25	125
CLS-4290-003	12 x 75	Yes	125	125
CLS-4290-005	12 x 75	No	125	125
CLS-4290-007	17 x 100	Yes	25	125
CLS-4290-009	17 x 100	Yes	125	125
CLS-4290-011	17 x 100	No	125	125

Polypropylene Tubes

Part Number	Size (mm)	Supplied with Cap	Bag Qty.	Case Qty.
CLS-4290-013	12 x 75	Yes	25	125
CLS-4290-015	12 x 75	No	125	125
CLS-4290-017	17 x 100	Yes	25	125
CLS-4290-019	17 x 100	No	125	125

CLS-EPA25100

CLS-EPA25100 CULTURE TUBES, 25 x 100MM

The 25 x 100mm culture tube is the preferred culture tube to be used for the AOAC Use-Dilution Method 964.02 and 955.15. The tubes are generally used to hold the disinfectant being tested.

Part Number	Description	Pkg. Qty.
CLS-EPA25100	Tube, Culture, 25 x 100mm	144

CLS-4289 CENTRIFUGE TUBE, OAK RIDGE STYLE, POLYPROPYLENE, WITH SCREW CAP

Oak Ridge style high speed polypropylene tubes are round bottom and autoclavable. Tubes are economical, leak-proof for refrigerated or standard centrifugation. Uniform wall thickness. Polypropylene screw caps. 80% of total capacity must be filled for proper performance. Withstands up to 50,000xg. Conforms to US FDA 21 CFR.

Part Number	Description	Case Qty.
CLS-4289-010	10mL Oak Ridge Style Centrifuge Tube	12
CLS-4289-030	30mL Oak Ridge Style Centrifuge Tube	12
CLS-4289-050	50mL Oak Ridge Style Centrifuge Tube	12

CLS-4778 RACK, TEST TUBE, NYLON

- Autoclavable nylon rack that will not float in a water bath
- Excellent thermal and chemical resistance
- Marking spot for labeling

Racks have a molded, one-piece, three-tier grid design. They are molded from a reinforced, autoclavable nylon that will not float in a water bath. Racks have excellent thermal and chemical resistance. Each rack has a flat plate area on the end for labeling. Sold as each.

Specifications

Part Number	CLS-4778-01B	CLS-4778-02R	CLS-4778-03G	CLS-4778-04Y
Dimensions L x W x H	7.87" x 4" x 2"	9.73" x 5" x 2.75"	9.84" x 4" x 3.26"	11.81" x 4.76" x 3.62"
Array	6 x 12	6 x 12	4 x 10	4 x 10
Positions	72	72	40	40

Part Number	Description
CLS-4778-01B	13mm Tube Rack, Blue,
CLS-4778-02R	16mm Tube Rack, Red
CLS-4778-03G	20mm Tube Rack, Green
CLS-4778-04Y	25mm Tube Rack, Yellow

SCHOTT® BRAND Media Bottles

- Heavy-duty bottles for storage, mixing and sampling
- Permanent white, enamel graduations and large marking spots
- Glass bead indicates full capacity line on 100mL through 2L size.
- Caps available separately in a variety of colors and applications
- Optional, red PBT caps and red ETFE pouring rings are available for dry heat sterilization (180°C).

Caps, Liners and Pour Rings listed on pages 145-147.

Choose amber bottles for light-sensitive contents.

Heavy-duty, clear bottle for storing, mixing and sampling. Linerless, one-piece, autoclavable, blue polypropylene plug seal cap with drip free pouring ring is included.

Heavy-duty, clear bottle for storing, mixing and sampling. A variety of caps and pouring rings are available separately.

If you already have a drawer full of caps, **SAVE MONEY** when you buy bottles without caps!

Heavy-duty, amber bottle for storing, mixing and sampling. A variety of caps and pouring rings are available separately.

SCHOTT® Media Bottles			CLS-1172 Series Clear Bottles with Blue PP Caps	CLS-1174 Series Clear Bottles without Caps	CLS-1175 Series Amber Bottles without Caps
Cap. (mL)	GL Thread Size	Pkg. Qty.	Part Number	Part Number	Part Number
25	25	10	CLS-1172-25	CLS-1174-25	CLS-1175-25
50	32	10	CLS-1172-50	CLS-1174-50	CLS-1175-50
100	45	10	CLS-1172-100	CLS-1174-100	CLS-1175-100
250	45	10	CLS-1172-250	CLS-1174-250	CLS-1175-250
500	45	10	CLS-1172-500	CLS-1174-500	CLS-1175-500
1000	45	10	CLS-1172-1L	CLS-1174-1L	CLS-1175-1L
2000	45	10	CLS-1172-2L	CLS-1174-2L	CLS-1175-2L
5000	45	1	CLS-1172-5L	CLS-1174-5L	CLS-1175-5L
10,000	45	1	CLS-1172-10L	CLS-1174-10L	CLS-1175-10L
15,000	45	1	N/A	CLS-1174-15L	CLS-1175-15L
20,000	45	1	CLS-1172-20L	CLS-1174-20L	CLS-1175-20L

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CG-8088 BOTTLE, MEDIA/STORAGE, GL SCREW THREAD, CLEAR, BOROSILICATE, PYREX®

Media bottles have enhanced graduations and marking spots that are permanent white enamel. This general use bottle is provided with a GL screw thread (as noted) and supplied with liner-less autoclavable (140° C MAX) polypropylene orange cap. Bottle includes a clear (natural), drip-free, polypropylene pour ring, which is replaceable.

Part Number	Capacity (mL)	GL Thread Size	Pkg. Qty.
CG-8088-25	25	25	10
CG-8088-50	50	32	10
CG-8088-100	100	45	10
CG-8088-250	250	45	10
CG-8088-500	500	45	10
CG-8088-1L	1000	45	10
CG-8088-2L	2000	45	10
CG-8088-5L	5000	45	1
CG-8088-10L	10,000	45	1

CG-8088

CLS-1152 BOTTLE, SOLUTION, STERILE, POLYSTYRENE

CELLTREAT® Solution Bottles are ideal for storage of media, buffers, and other aqueous solutions. The bottles are manufactured from polystyrene, are sterile (gamma irradiated) and available in 150, 250, 500mL and 1000 mL volumes and are packaged in individual easy to open plastic bags. The Solution Bottles feature heavy wall construction, engraved graduations, a concave shape and knurled cap for easy handling.

Part Number	Description	Case Qty.
CLS-1152-0150	150mL Sterile Solution Bottle	24
CLS-1152-0250	250mL Sterile Solution Bottle	24
CLS-1152-0500	500mL Sterile Solution Bottle	24
CLS-1152-1000	1000mL Sterile Solution Bottle	24

CLS-1152

CLS-2058 FLASK, TRYPSINIZING

Manufactured from Type 1 Class A borosilicate glass with three deep side baffles for optimum agitation during trypsinization. Flasks come with beaded, break-resistant lips and 50mm OD necks. Sold 1 per case.

Part Number	Flask Capacity (mL)	Dia. x OAH (mm)
CLS-2058-02	2000	158 x 290
CLS-2058-04	4000	205 x 360

CLS-2058

Cryovials® for the Storage of Human or Animal Cells in temperatures as low as -196°C

These cryovials are for the storage of human or animal cells in temperatures as low as -196°C but should only be used in the gas phase of liquid nitrogen. Cap threads are super fast and will seal vials with only a 1-1/4 turn.

Vials and closures are made from the same polypropylene and therefore have the same coefficient of expansion and integrity of seal, regardless of temperature. Convenient, white marking spots offer ample space for identification and caps are easily color-coded with inexpensive, optional inserts. These vials are compatible with most storage systems.

Gamma radiation sterilized and certified DNase-, RNase-, Pyrogen- and DNA-free. Autoclavable and packed in unique, tamper-proof, resealable safety-lock bags.

PLEASE NOTE: Only round bottom vials can be centrifuged (up to 17,000g).

Internal Thread
Extra Long Lip Seal with Silicone Washer

CLS-4758

CLS-4758 CRYOVIALS, EXTRA LONG LIP SEAL, INTERNAL THREAD WITH SILICONE WASHER

- Lip seal design with silicone washer seal
- External thread design will not contribute to possible contamination
- Long skirt for easy, one-hand, aseptic operation

Part Number	Capacity (mL)	Self-Standing	Round Bottom	Pack Qty.
CLS-4758-001	1.2	X		100
CLS-4758-002	2.0		X	100
CLS-4758-02A	2.0	X		100
CLS-4758-003	3.0	X		100
CLS-4758-004	4.0	X		100
CLS-4758-005	5.0	X		100

External Thread
Lip Seal

CLS-4760

CLS-4760 CRYOVIALS, EXTERNAL THREAD WITH LIP SEAL DESIGN

- Specially designed lip inside cap ensures a leakproof seal
- External thread design will not contribute to possible contamination
- Long skirt for easy, one-hand, aseptic operation

Part Number	Capacity (mL)	Self-Standing	Round Bottom	Pack Qty.
CLS-4760-012	1.2	X		100
CLS-4760-020	2.0		X	100
CLS-4760-02A	2.0	X		100
CLS-4760-003	3.0	X		100
CLS-4760-004	4.0	X		100
CLS-4760-005	5.0	X		100

To color-code your Cryovials®, See CAPINSERTS™ on page 196.

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-4762 CRYOVIALS, EXTERNAL THREAD WITH SILICONE WASHER SEAL

- Exclusive silicone seal inside cap ensures positive seal at even the lowest of cryogenic temperatures
- Internal thread design will not contribute to possible contamination
- Long skirt for easy, one-hand, aseptic methods
- 10mL has a polyethylene screw cap / no CAPINSERT™ available

Part Number	Capacity (mL)	Self-Standing	Round Bottom	Pack Qty.
CLS-4762-01A	1.2	X		100
CLS-4762-020	2.0		X	100
CLS-4762-02A	2.0	X		100
CLS-4762-03A	3.0	X		100
CLS-4762-04A	4.0	X		100
CLS-4762-05A	5.0	X		100
CLS-4762-10A	10.0	X		50

External Thread
Silicone Washer Seal

CLS-4762

CLS-4764 CRYOVIALS, INTERNAL THREAD WITH SILICONE WASHER SEAL

- Internal Thread
- Silicone washer between cap and vial ensures a positive leakproof seal at all temperatures

Part Number	Capacity (mL)	Self-Standing	Round Bottom	Pack Qty.
CLS-4764-001	1.2	X		100
CLS-4764-002	2.0	X		100
CLS-4764-02A	2.0		X	100
CLS-4764-004	4.0		X	100
CLS-4764-04A	4.0	X		100
CLS-4764-005	5.0		X	100

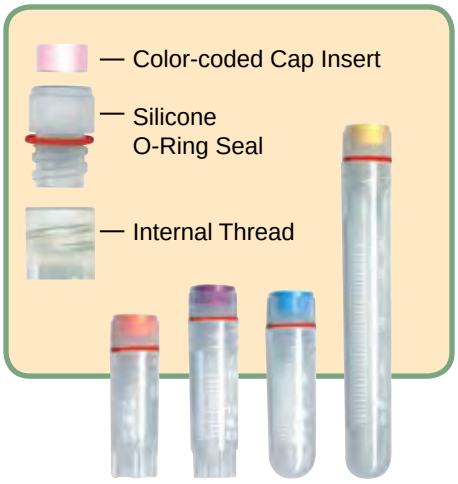
Internal Thread
Silicone Washer Seal

CLS-4762

CLS-4766 CRYOVIALS, INTERNAL THREAD WITH SILICONE O-RING SEAL

- Internal thread
- Specially formulated silicone o-ring ensures a positive leakproof seal at all temperatures

Part Number	Capacity (mL)	Self-Standing	Round Bottom	Pack Qty.
CLS-4766-001	1.2	X		100
CLS-4766-002	2.0	X		100
CLS-4766-02A	2.0		X	100
CLS-4766-005	5.0		X	100



CLS-4766

♥ Subject to Bio Reactor Discount. ◘ Subject to Spinner Flasks and Accessories Discount.
◊ Subject to Life Sciences Consumables Discount.

CLS-4767

Assortment Pack includes white, blue, red, green and yellow.

CLS-4767 CAPINSERT™ FOR CRYOVIALS®

Color-coded polypropylene inserts fit precisely into the caps of the Cryovials. All are packaged 500 pieces per bag.

Part Number	Color	Part Number	Color
CLS-4767-W01	White	CLS-4767-T01	Tan
CLS-4767-B01	Blue	CLS-4767-L01	Lilac
CLS-4767-R01	Red	CLS-4767-N01	Orange
CLS-4767-G01	Green	CLS-4767-V01	Violet
CLS-4767-Y01	Yellow	CLS-4767-P01	Pink
CLS-4767-A01	Assorted		

CLS-4771

CLS-4771 METAL STAND

Metal stand allows storage boxes to be kept at an angle for easier access to tubes. Removal of vials facilitated by an innovative vial picker supplied with each storage box.

Part Number	Description	Case Qty.
CLS-4771-001	Metal Stand	1

CLS-4773

CLS-4772 CRYOVIAL® WORK STATION

This handy autoclavable rack can hold up to 50 cryogenic vials. Now with one hand you can easily unscrew a Cryovial® closure. Thanks to an innovative universal locking system, the vials will securely lock in each well and will not turn. Each position is identified with an alphanumeric index. Strong handles make it easy and safe to carry. It is supported by five anti-skid rubber feet. The rack is compact and stackable. Available in three attractive colors.

Part Number	Color	Case Qty.
CLS-4772-L01	Lilac	1
CLS-4772-B01	Blue	1
CLS-4772-R01	Red	1

CLS-4773

CLS-4773 CANE FOR CRYOVIAL® TUBES

For storage of up to five 1.2 or 2.0mL Cryovial tubes in liquid nitrogen vapor phase freezers, such as Dewar flasks.

Part Number	Case Qty.
CLS-4773-001	12

CLS-3791 FREEZER, DIGITAL CONTROLLED, UPRIGHT, -40°C TO -85°C

- Digital temperature control with dual temperature display
- Battery operated alarm
- 24-month warranty

Our freezer has a digital control with two temperature displays. One display shows the set temperature, while the other shows the actual temperature in the freezer. The freezer has a battery operated alarm system which will emit an audible and visual signal when there is a mechanical or electrical failure. The alarm has an over and under temperature setting, alarm silencing switch and battery test switch. Also supplied with a relay for remote alarm hook-up. The refrigeration system is cascade type with two hermetic compressors supplied with CFC- and HCFC-free refrigerants. The chamber is 14-gauge, zinc-coated, galvanized steel while the exterior is 16-gauge, steel powder coated with a cool grey finish. ETL Electrical Approved.

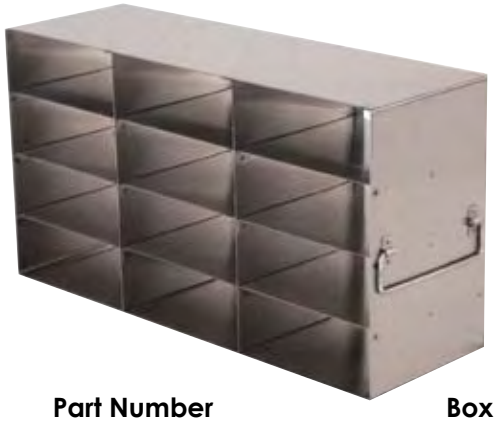
CLS-3791

Factory Installed Options - Please call for quotation.

- Recorder, 7 Day with 6" Chart
- Recording Paper, 6", 50 Charts per Pack
- Phone Alarm System for up to 4 Pieces of Equipment
- Access Openings, 1-2" ID
- CO_2 Automatic Backup System
- Liquid Nitrogen Automatic Backup System

Specifications

		Part Numbers				
TEMPERATURE	0°C to -40°C	CLS-3791-413	CLS-3791-418	CLS-3791-422	CLS-3791-425	CLS-3791-430
	-40°C to -85°C	CLS-3791-813	CLS-3791-818	CLS-3791-822	CLS-3791-825	CLS-3791-830
DIMENSIONS	Chamber Volume (L / cu ft)	370 / 13	505 / 18	626 / 22	710 / 25	843 / 30
	Exterior Dimensions W x D x H, (in)	36 x 33.5 x 79.5	36.5 x 36.5 x 79.5	42 x 36.5 x 79.5	49.5 x 36.5 x 79.5	59.5 x 36.5 x 79.5
	Interior Dimensions W x D x H, (in)	20 x 22 x 51	23 x 26 x 51.25	28.5 x 26 x 51.25	34 x 25 x 51.25	42 x 25 x 51.25



CLS-3792 RACKS, UPRIGHT STYLE FREEZER, FOR 2" BOXES

- Corrosion-resistant stainless steel
- Great for organizing and storing samples in 2" boxes

Upright freezer drawer racks are for standard 2" cardboard, plastic (polycarbonate) or metal (stainless steel or aluminum) boxes. High quality upright freezer drawer racks are constructed of corrosion-resistant stainless steel, including handles and identification card holders. Racks offer a more organized system for storage and retrieval of samples. They facilitate both access to and storage of samples without having to remove the whole rack from the freezer.

Part Number	Box Capacity	Dimensions (L x W x H)
CLS-3792-001	3L x 3H / 9 Boxes	16-15/16" x 5-1/2" x 6-5/8"
CLS-3792-003	3L x 4H / 12 Boxes	16-15/16" x 5-1/2" x 8-7/8"
CLS-3792-005	4L x 3H / 12 Boxes	21-5/8" x 5-1/2" x 6-5/8"
CLS-3792-007	3L x 5H / 15 Boxes	16-15/16" x 5-1/2" x 11"
CLS-3792-009	4L x 4H / 16 Boxes	21-5/8" x 5-1/2" x 8-7/8"
CLS-3792-011	5L x 5H / 25 Boxes	21-5/8" x 5-1/2" x 11"
CLS-3792-013	4L x 5H / 20 Boxes	21-5/8" x 5-1/2" x 12-5/8"
CLS-3792-015	5L x 4H / 20 Boxes	26-3/4" x 5-1/2" x 8-7/8"

CLS-3792 RACKS, UPRIGHT STYLE FREEZER, FOR 3" BOXES

Upright Freezer Drawer Racks are for standard 3" cardboard, plastic (polycarbonate) or metal (stainless steel or aluminum) boxes. High quality upright freezer drawer racks are constructed of corrosion-resistant stainless steel, including handles and identification card holders. Racks offer a more organized system for storage and retrieval of samples. They facilitate both access to and storage of samples without having to remove the whole rack from the freezer.

Part Number	Box Capacity	Dimensions (L x W x H)
CLS-3792-301	4L x 4H / 16 Boxes	21-5/8" x 5-1/2" x 9-3/8"

CLS-3793 RACKS, VERTICAL STYLE FREEZER, FOR 2" BOXES

High quality vertical racks for chest freezers or liquid nitrogen tanks are made from corrosion-resistant stainless steel. Secure lock devices are available - please contact us for more information. All racks include stainless steel locking rods.

Part Number	Box Capacity	Dimensions (L x W x H)
CLS-3793-001	10	5-5/8" x 5-1/2" x 22-1/16"
CLS-3793-002	11	5-5/8" x 5-1/2" x 24-1/4"
CLS-3793-003	12	5-5/8" x 5-1/2" x 26-3/8"
CLS-3793-004	13	5-5/8" x 5-1/2" x 28-1/4"

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-3794 RACKS, UPRIGHT STYLE FREEZER, FOR 96- AND 384-WELL MICROTITER PLATES

High quality racks for 96-well and 384-well microtiter plates, including handles, constructed of corrosion-resistant stainless steel and offer convenient storage of samples in an organized format. Secure lock devices are available - please contact us for more information. Racks come with locking rods to hold microtiter plates in place.

Part Number	Plate Capacity With Lid / Without Lid	Dimensions (L x W x H)
CLS-3794-001	70 / 80	18-3/8" x 9-3/16" x 5-1/2"
CLS-3794-003	84 / 96	22" x 9-7/16" x 5-1/2"
CLS-3794-005	96 / 120	22" x 11" x 5-1/2"

CLS-3795 RACKS, UPRIGHT STYLE FREEZER, WITH EASY ACCESS DRAWERS

Drawers make these racks easy and convenient to use. No need to remove the entire rack from the freezer to gain access, just slide the drawer out.

Centrifuge tube racks are specifically designed to provide an alternative for storing large quantities of samples in 15mL and 50mL centrifuge tubes. Racks for two-inch boxes hold between nine and twenty-four boxes.

High quality racks are constructed of corrosion-resistant stainless steel and include handles and identification card holders. Secure lock devices are available - please contact us for more information.

Centrifuge Tube Rack

Two-Drawer Racks for Centrifuge Tubes

Part Number	Capacity	Dimensions (L x W x H)
CLS-3795-101	160 (15mL) Tubes	22" x 5-1/2" x 9-15/16"
CLS-3795-103	78 (50mL) Tubes	22" x 5-1/2" x 9-15/16"
CLS-3795-105	120 (15mL) Tubes	16-1/2" x 5-1/2" x 9-15/16"

Two-Inch Box Rack

Multi-Drawer Racks for Two-Inch Boxes

Part Number	Box Capacity	Dimensions (L x W x H)
CLS-3795-001	3L x 3H / 9 Boxes	16-1/2" x 5-1/2" x 7-1/8"
CLS-3795-003	3L x 4H / 12 Boxes	16-1/2" x 5-1/2" x 9-7/16"
CLS-3795-005	4L x 4H / 16 Boxes	22" x 5-1/2" x 9-7/16"
CLS-3795-007	4L x 5H / 20 Boxes	22" x 5-1/2" x 11-13/16"
CLS-3795-009	4L x 6H / 24 Boxes	22" x 5-1/2" x 12-5/8"
CLS-3795-011	4L x 3H / 12 Boxes	22" x 5-1/2" x 7-1/8"
CLS-3795-013	5L x 3H / 15 Boxes	26-3/4" x 5-1/2" x 7-1/8"

Didn't find the rack you need? Please contact us for additional sizes.

CLS-4768

CLS-4768 CRYOSTORE™ STORAGE BOXES,100-POSITION

- Durable construction
- Use with temperatures between -196°C and +121°C
- Surface accepts writing with markers
- Vial picker included

CRYOSTORE™ 100-position storage boxes for 1 to 2mL CRYOVIAL® tubes. Made of extra-strong polycarbonate, this durable cryogenic storage box is designed to be used at temperatures between -196°C and +121°C and are autoclavable at 120°C, 15PSI (1 bar) for 20 minutes. A transparent cover allows the user to see the contents of the box and is keyed to the base to prevent misalignment. Printed with a series of squares, numbered from 1 to 100, the surface accepts writing with markers. A color coding base system is used to facilitate inventory control. Removal of vials facilitated by an innovative vial picker supplied with each storage box.

Choices of four popular colors are available. Packed 4 per case. Storage box dimensions are 133 x 133 x 52mm H (5-1/4" x 5-1/4" x 2-1/16" H).

Part Number	For Tubes	Color	Pkg. Qty.
CLS-4768-B01	1-2mL	Blue	4
CLS-4768-G01	1-2mL	Green	4
CLS-4768-R01	1-2mL	Red	4
CLS-4768-Y01	1-2mL	Yellow	4

CLS-4769

CLS-4769 CRYOSTORE™ STORAGE BOX

Made of extra strong polycarbonate, these durable cryogenic storage boxes are designed to be used at temperatures between -196°C and +121°C and are autoclavable at 120°C, 15psig (1 bar) for 20 minutes. A transparent cover allows the user to see the contents of the box and is keyed to the base to prevent misalignment. Printed with a series of squares numbered from 1 to 42, the surface accepts writing with markers, facilitating inventory control. A unique color coding system uses colored plastic grids to separate the cover from the base on the box. A choice of four popular colors is available.

Dimensions: 5-1/4"D x 5-1/4"W x 3-3/4" H

Part Number	For Tubes	Grid Color	Pkg. Qty.
CLS-4769-B01	10mL	Blue	5
CLS-4769-G01	10mL	Green	5
CLS-4769-R01	10mL	Red	5
CLS-4769-Y01	10mL	Yellow	5

Visual Inventory Control
All the boxes on these pages are available in blue, green, red and yellow.

CLS-4770 CRYOSTORE™ STORAGE BOXES

Color your world with a wide variety of CRYOSTORE™ Storage Boxes to accommodate 25 or 81 CRYOVIAL® tubes from 1 to 5mL.

Made of extra strong polycarbonate, this durable cryogenic storage boxes are designed to be used at temperatures between -196°C and +121°C and are autoclavable at 120°C, 15PSI (1 bar) for 20 minutes. A transparent cover allows the user to see the contents of the box and is keyed to the base to prevent misalignment. Printed with a series of squares, numbered from 1 to 25 or 81, the surface accepts writing with markers, facilitating inventory control.

A unique color coding system uses colored plastic grids to separate the cover from the base. Removal of the vials facilitated by an innovative vial picker supplied with each storage box.

A choice of four popular colors is available.

CLS-4770

25 Position, for 1 to 2mL Tubes (76 x 76 x 52mm H)

Part Number	Color	Case Qty.
CLS-4770-B01	Blue	8
CLS-4770-G01	Green	8
CLS-4770-R01	Red	8
CLS-4770-Y01	Yellow	8

81 Position, for 1 to 2mL Tubes (133 x 133 x 52mm H)

Part Number	Color	Case Qty.
CLS-4770-B12	Blue	4
CLS-4770-G12	Green	4
CLS-4770-R12	Red	4
CLS-4770-Y12	Yellow	4

81 Position, for 3 to 4mL Tubes (133 x 133 x 81mm H)

Part Number	Color	Case Qty.
CLS-4770-B34	Blue	6
CLS-4770-G34	Green	6
CLS-4770-R34	Red	6
CLS-4770-Y34	Yellow	6

81 Position, for 5mL Tubes (133 x 133 x 95mm H)

Part Number	Color	Case Qty.
CLS-4770-B05	Blue	5
CLS-4770-G05	Green	5
CLS-4770-R05	Red	5
CLS-4770-Y05	Yellow	5

CLS-1198-W FREEZER BOXES, CARDBOARD

The cardboard storage boxes and dividers are made of durable, white or yellow cardboard which has been treated with a moisture-repellant, which will protect from the effect of liquid nitrogen or the condensation from freezer equipment. Small drain holes are in the bottom corners to allow drainage of excess moisture. They are designed to be compatible with most standard upright rack systems and can withstand temperatures as low as -196°C. Available in a variety of configurations to best match your needs.

Standard Storage Boxes Complete with Dividers

Part Number	Cell Number	Dims., L x D x H (in.)	Color	Case Qty.
CLS-1198-W81	81	5-1/4 x 5-1/4 x 2	White	1
CLS-1198-W82	81	5-1/4 x 5-1/4 x 2	Yellow	1
CLS-1198-W100	100	5-1/4 x 5-1/4 x 2	White	1

Standard Storage Boxes Only

Part Number	Dims., L x D x H (in.)	Color	Case Qty.
CLS-1198-W10	5-1/4 x 5-1/4 x 2	White	1
CLS-1198-W11	5-1/4 x 5-1/4 x 2	Yellow	1
CLS-1198-W12	5-1/4 x 5-1/4 x 2-15/16	White	1
CLS-1198-W13	5-3/4 x 5-3/4 x 4-3/4	White	1

Cell Dividers Only, for Standard Storage Boxes

Number	Cell Dividers	Dims., L x D x H (in.)	Cell Opening (in.)	Case Qty.
CLS-1198-W20	100	4-7/8 x 4-7/8 x 1-5/16	0.45	10
CLS-1198-W21	81	4-7/8 x 4-7/8 x 1-5/16	0.50	10
CLS-1198-W22	64	4-7/8 x 4-7/8 x 1-5/16	0.57	10
CLS-1198-W23	49	4-7/8 x 4-7/8 x 1-5/16	0.66	10
CLS-1198-W24	36	4-7/8 x 4-7/8 x 1-5/16	0.57	10
CLS-1198-W25	25	4-7/8 x 4-7/8 x 1-5/16	0.96	10
CLS-1198-W26	16	4-7/8 x 4-7/8 x 1-2/5	1.19	10
CLS-1198-W27	36	5-3/8 x 5-3/8 x 2-3/4	0.87	10

Mini Storage Boxes Only

Part Number	Dims., L x D x H (in.)	Color	Case Qty.
CLS-1198-W14	3 x 3 x 2	White	1
CLS-1198-W15	3 x 3 x 3	White	1

Cell Dividers Only, for Mini Storage Boxes

Number	Cell Dividers	Dims., L x D x H (in.)	Cell Opening (in.)	Case Qty.
CLS-1198-W28	25	2-2/3 x 2-2/3 x 2/3	0.50	10

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-1196 STORAGE BOXES, POLYPROPYLENE

- Hinged lid prevents accidental opening
- Stackable
- Withstand temperatures from -90° to 121°C

Storage boxes with hinged lids are suitable for use with 0.5, 1.5, and 2.0mL microtubes, as well as most brands of cryogenic vials. Boxes are designed for storage and can withstand temperatures from -90° to 121°C (-130 to 250°F). Unlike cardboard boxes, they will not degrade after repeated thaws. The lid has an alphanumeric grid reference to aid with sample identification. Matte surfaces on the box sides are suitable for labeling. All box bases have a natural color to allow visual inspection. Packed 5 per case.

CLS-1196

Part Number	Cell Number	Dimensions (L x W x H)	Color	Cell Opening	Pkg. Qty.
CLS-1196-81N	81	5.25" x 5.25" x 2"	Natural	0.50"	5
CLS-1196-81B	81	5.25" x 5.25" x 2"	Blue	0.50"	5
CLS-1196-81G	81	5.25" x 5.25" x 2"	Green	0.50"	5
CLS-1196-81H	81	5.25" x 5.25" x 2"	Orange	0.50"	5
CLS-1196-81A	81	5.25" x 5.25" x 2"	Assorted‡	0.50"	5
CLS-1196-10N	100	5.5" x 5.5" x 2"	Natural	0.50"	5
CLS-1196-10B	100	5.5" x 5.5" x 2"	Blue	0.50"	5
CLS-1196-10G	100	5.5" x 5.5" x 2"	Green	0.50"	5
CLS-1196-10H	100	5.5" x 5.5" x 2"	Orange	0.50"	5
CLS-1196-10A	100	5.5" x 5.5" x 2"	Assorted‡	0.50"	5

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The **Chemglass Life Sciences Machine Shop**, is currently manufacturing more than 2,000 unique parts and products.

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Our engineering team has the expertise to manage your project from conception to production. Drop us a line and one of our experienced technical service representatives will be glad to discuss putting our resources to work for you.

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♥ Subject to Bio Reactor Discount. ◘ Subject to Spinner Flasks and Accessories Discount.
◊ Subject to Life Sciences Consumables Discount.

CLS-5030-15 Shown with Accessory Probe

CLS-5030-30 (Homogenizer not included.)

CLS-5030 HOMOGENIZER, BIO-GEN™

- Capable of homogenizing within various tubes to small beakers
- Quick release connection makes changing generator probes quick and easy
- Small and powerful 144 watt, 1/5 HP high performance drive motor unit
- Ability to use Stainless Steel standard generator probes of 5mm, 7mm, 10mm, and 20mm as well as Stainless Steel Multi-Gen generator probes

Homogenizers are ideal for plant and animal homogenization, PCR applications, soil and wastewater extractions, and Karl Fischer titration. These high-speed rotor/stator homogenizers feature infinitely variable speed control and can be used to rapidly crush, tear, disintegrate, emulsify, or suspend particles in a liquid medium. The systems impart shear energy into a liquid emulsion or suspension far greater than that of a conventional mixer and its able to homogenize samples with volumes as small as 0.03mL or as large as 1L*. The accessory dispersing elements provide a wide range of volumes and applications. *Higher volumes dependent on viscosity.

Specifications

Dimensions (WxHxD)	2.15" x 7.88" x 2.0"
Weight (lbs)	1.4
Power	1/5HP, 144 Watts
Speed Range (RPM)	5,000 to 35,000
Sample Volume	0.03 to 1 Liter
Speed Control	Analog, Variable Speed, Separate On-Off Switch

Part Number	Description
CLS-5030-15	Homogenizer, Bio-Gen™, 110V

Accessory Stand Assembly

Part Number	Description
CLS-5030-30	Stand Assembly, 6" x 6" Base

CLS-5031 GENERATOR PROBE PACKS, MULTI-GEN® 7 and 7XL

CLS-5031-10

CLS-5031-20

Multi-Gen probes are the better alternative to disposable plastic probes. These unique probes are a reusable 7mm diameter probe manufactured from superior 316 stainless steel and PTFE which are available in packs of 12 or 24, provide homogenizing of samples without cross contamination and without the need to stop and clean a probe between samples. The required Multi-Gen adapter attaches to the CLS-5030 Homogenizer to provide hands free ejection of the probe minimizing the chance of accidental contamination.

Advantages Over Disposable Generator Probes

- Multi-Gen probes can process more difficult samples, including tough tissues.
- Multi-Gen probes can be sterilized by any method, including flaming & autoclaving.
- Multi-Gen probes are cost effective because of their ability to be reused again and again allowing to control budget costs, while disposable generator probes force an end-user to continually purchase and maximum use is 1-8 times per probe.

Part Number	Description
CLS-5031-10	Multi-Gen Adapter (required)
CLS-5031-12	Multi-Gen 7 Probes, 12 per Package
CLS-5031-13	Multi-Gen 7 Probes, 24 per Package
CLS-5031-20	Multi-Gen 7XL Probes, 12 per Package
CLS-5031-30	Multi-Gen Ejector Clamp Assembly for Use with our CLS-5030-30 Stand Assembly

Multi-Gen 7

Ideal for liquid and soft samples and homogenizing within micro-tubes to 5ml tubes.

Multi-Gen 7XL

Ideal for soft-to-tough samples and homogenizing within 1.5ml-50ml tubes.

CLS-5032 STANDARD GENERATOR PROBES, PRO-GEN®

Made from 316 stainless steel, these probes can be completely sterilized by any method, including hot air and autoclaving, either as an assembly or disassembled into components. Every generator probe features a quick connect design to remove or lock a probe in place with an easy quarter turn. Their unique tight clearance design of the rotor-stator enables faster and more complete processing of all samples, including cryogenically mill soil and sediment samples. All of the listed probes fit either the CLS-5030-15 or -20 Homogenizer.

Part Number	Dia. x Length (mm)	Style	Recommended Container Size
CLS-5032-10	5 x 75	Flat Bottom	0.5, 1.5, 2.0mL
CLS-5032-11	7 x 75	Saw tooth	1.5, 2.0, 5.0mL
CLS-5032-12	7 x 95	Saw tooth	1.5, 2.0, 5.0, 10mL
CLS-5032-14	10 x 115	Saw tooth	10, 15, 50mL
CLS-5032-16	20 x 115	Saw tooth	50mL & Small Beakers

Tight clearance design of the rotor-stator enables faster and more complete processing of all samples.

CLS-5034 MICRO-HOMOGENIZING PACKAGES

These micro-homogenizing packages offer the capability of processing all types of samples within micro-tubes. Whether gently mixing, extracting RNA/DNA or destroying the cell wall, these packages can provide fast and complete effective results. Sample volumes as small as 0.03mL can be easily processed in a matter of seconds and cleanup is just as easy. Please contact us for 220 volt homogenizing packages.

Convenient Package Deals Designed to Meet Your Homogenizing Needs!

Package Component	Component Part No.	Standard Micro Package CLS-5034-10	Deluxe Micro Package CLS-5034-14	Premium Micro Package CLS-5034-16
Homogenizer	CLS-5030-15	•	•	•
5 x 75mm Generator	CLS-5032-10	•	•	•
7 x 75mm Generator	CLS-5032-11	—	•	•
Stand Assembly	CLS-5030-30	—	—	•

CLS-5035 MULTI-GEN 7XL MULTI-SAMPLE HOMOGENIZING PACKAGE

These packages were created for the end-user homogenizing multi-samples per day. These unique reusable 7mm stainless steel probes allow homogenizing of many samples quickly without the concern of cross contamination and no need to stop and clean a probe between sample processes. These packages can process all types of samples, sterilized by any method, and are cost effective and environmentally friendly over other disposable generator probes.

Package Component	Component Part No.	7XL Multi-Sample Package CLS-5035-10
Homogenizer	CLS-5030-15	•
5 x 75mm Multi-Gen Adapter	CLS-5031-10	•
Multi-Gen 7XL Probes, 12-Pack	CLS-5031-20	•

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* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-5036 MULTI-GEN 7 HOMOGENIZER PACKAGES

These packages were created for the end-user homogenizing multi-samples per day. These unique reusable 7mm stainless steel probes allow homogenizing of many samples quickly without the concern of cross contamination and no need to stop and clean a probe between sample processes. These packages can process all types of samples, sterilized by any method, and are cost effective and environmentally friendly over other disposable generator probes.

CLS-5036-20

CLS-5036-25
CLS-5036-28

Package Component	Component Part No.	Standard Package CLS-5036-20	Deluxe Package CLS-5036-25	Premium Package CLS-5036-28
Homogenizer	CLS-5030-15	•	•	•
Stand Assembly	CLS-5030-30	—	•	•
Multi-Gen Adapter	CLS-5031-10	—	•	•
Multi-Gen 7 Probes, 12-Pack	CLS-5031-12	•	•	—
Multi-Gen 7 Probes, 24-Pack	CLS-5031-13	—	—	•
Multi-Gen Ejector Clamp	CLS-5031-30	—	•	•

Re-suspend Cells and DNA Pellets with Disposable Polypropylene Pestles & Tubes

- DNase, RNase and Pyrogen-free
- Matched pestles & tubes
- Individually wrapped
- Autoclavable

Pestles have a specially designed fit with micro tubes to optimize efficiency of pellet resuspension. Pestle shafts are strong enough for use with a motorized mixer but can also be operated manually for more shear-sensitive samples.

Micro tubes are available in 0.5mL and 1.5mL sizes and feature a positive seal, “snap cap” design to allow for multiple opening and closing cycles. Tubes have molded graduations and frosted, sidewall marking spots as well as flat, frosted caps for additional labeling. Caps are also pierceable via syringe needle.

Micro tubes and pestles are individually bagged and then over-bagged in quantities of 100 each. Lot control numbers with material traceability on outer carton are included.

Individually Packed Pestles and Tubes

Part Number	Description	Pkg. Qty.
CLS-5002-021	Pestle, PP for 0.5mL Tubes	100
CLS-5002-023	Tube Only, 0.5mL	100
CLS-5002-025	Pestle with Tube, PP, 0.5mL	100
CLS-5002-031	Pestle, PP for 1.5mL Tubes	100
CLS-5002-033	Tube Only, 1.5mL	100
CLS-5002-035	Pestle with Tube, PP, 1.5mL	100

Bulk Packed Pestles and Tubes

Part Number	Description	Pkg. Qty.
CLS-5002-B21	Pestle, PP for 0.5mL Tubes	100
CLS-5002-B23	Tube Only, 0.5mL	100
CLS-5002-B25	Pestle with Tube, PP, 0.5mL	100
CLS-5002-B31	Pestle, PP for 1.5mL Tubes	100
CLS-5002-B33	Tube Only, 1.5mL	100
CLS-5002-B35	Pestle with Tube, PP, 1.5mL	100

BioVortexer Mixer, Batteries Included

Part Number	Description	Pkg. Qty.
CLS-5001-001	BioVortexer Mixer Only	1
CLS-5001-002	Replacement Cup Only for Motor	1
CLS-5001-003	AA Battery	Pkg. 2

CLS-5001-001 BIOVORTEXER MIXER ONLY

Lightweight, battery-powered unit designed to be used with microcentrifuge tubes. Centrifugal pellets, precipitates and other solids are completely dispersed in seconds by a combination of mechanical and vortex action. A new polypropylene pestle is used with each sample.

A practical alternative to a conventional vortex mixer for mixing and dispersing samples, the BioVortexer is faster, less tedious, and safer. Take the BioVortexer to the sample instead of the sample to the mixer. Two AA batteries required and included.

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

Closed System Tissue Grinders are Engineered for Safety and Ease of Use

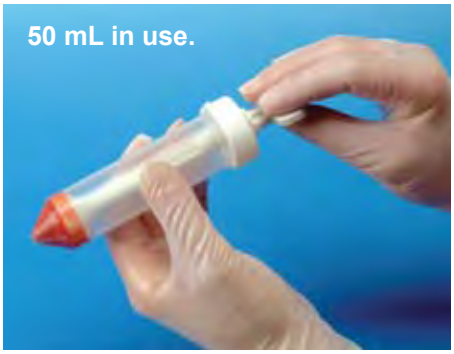
CLS-5015

CLS-5035

CLS-5050

DISPOSABLE TISSUE GRINDERS

These tissue grinders are engineered for safety and ease of use. The patented closed system design provides the ability to grind the specimen in a sealed container helping to prevent any risk of contact with the sample. The narrow pestle eliminates the problem of sample overflow common with other tissue grinders. The molded-in abrasive surface does not leave any sediment to obstruct the sample during examination. Tissue grinders come fully assembled and gamma sterilized in an easy- to-open package. An extra cap and patient identification label are provided for storage, transport and traceability.



Part Number	Description	Weight	Case Qty.
CLS-5015	15mL, Conical	3 lbs.	10
CLS-5035	35mL, Free Standing	4 lbs.	10
CLS-5050	50mL, Conical	4 lbs.	10

DISPOSABLE ULTRA TISSUE GRINDERS

The pestle tips of the new Ultra Tissue Grinders have been vitrified using a proprietary silica casting process. The result is a glass-like abrasive surface which provides a more aggressive grinding action to enable efficient processing of difficult and fibrous samples. Ultra Tissue Grinders incorporate the same patented closed system as the standard grinders. Available in 15mL and 50mL sizes, they are supplied gamma sterilized in an easy-to-open package with an extra cap for storage and transport plus a patient identification label for traceability.

Part Number	Description	Weight	Case Qty.
CLS-5115	15mL, Conical	3 lbs.	10
CLS-5150	50mL, Conical	4 lbs.	10

Tissue Grinders

CLS-5003

While there are many methods to breakdown tissue and cell samples glass mortar and pestles are used because of their gentle grinding action. This gentle action helps preserve cells, viruses and large molecules. The sample is progressively ground or sheared into smaller pieces at the rounded end of the pestle as it is lowered into the tube. This grinding action occurs again as the pestle is withdrawn. Five to thirty repetitions of this low shear method homogenizes the tissue. Rotation of the pestle at about 500-1000 rpm with an electric motor while the test-tube is manually raised and lowered speeds up the process. Mortar and pestle tissue grinders are used for opening cells to isolate DNR, RNA, proteins along with antibodies. Since mortar and pestle are gentler than other grinding methods, there is greater recovery of intact molecules, organelles and viruses.

CLS-5003 TISSUE GRINDER, DOUNCE

The Dounce tissue grinder is used by moving the pestle up and down and is designed for studies where the nucleus has to remain intact. Supplied with two pestles that are used in the same tube, the large clearance pestle is for the initial sample reduction while the small clearance pestle is used to form the final homogenate.

Part Number	Working Cap. (mL)	Pestle Dia. (mm)	Chamber Length (mm)
CLS-5003-01	1	11	48
CLS-5003-02	7	13	82
CLS-5003-03	15	22	94
CLS-5003-04	40	32	140

CLS-5004

CLS-5004 TISSUE GRINDER, POTTER-ELVEHJEM, ALL GLASS

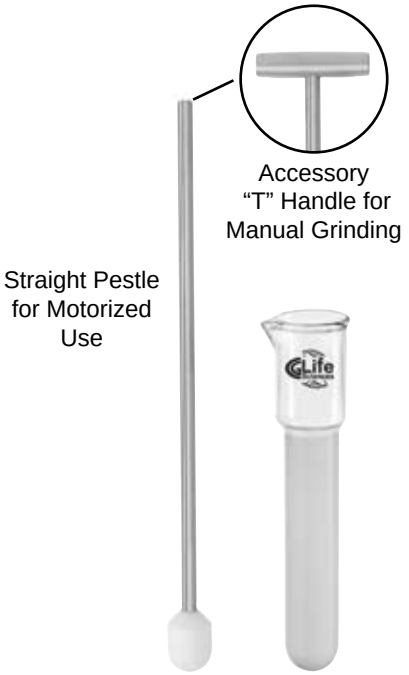
The rounded shape on the lower portion of the pestle progressively grinds the sample and the homogenate is produced as the sample is forced through the cylindrical section. Generally used with soft tissue such as brain and liver samples.

Part Number	Working Cap. (mL)	Pestle Dia. (mm)	Chamber Length (mm)
CLS-5004-01	0.1	3.65	31
CLS-5004-02	1	5.0	55
CLS-5004-03	3	9.0	60
CLS-5004-04	5	10	65
CLS-5004-05	10	13	75
CLS-5004-06	15	15	80
CLS-5004-07	30	19	105
CLS-5004-08	55	25	125

CLS-5005 TISSUE GRINDER, POTTER-ELVEHJEM, PTFE PESTLE

Potter-Elvehjem style tissue grinder with a stainless steel / PTFE pestle and an un-ground mortar. The pestle's stainless steel rod is for use with an overhead stirrer but the accessory "T" handle can be easily attached to assist with manual grinding. Radial serrations in the lower portion of the pestle facilitate the delivery of homogenate into the cylindrical portion of the mortar.

Part Number	Working Cap. (mL)	Pestle Dia. (mm)	Chamber Length (mm)
CLS-5005-01	5	10	65
CLS-5005-02	10	13	75
CLS-5005-03	15	15	80
CLS-5005-04	30	19	105
CLS-5005-05	55	25	125
CLS-5005-20	Accessory Stainless Steel "T" Handle		



CLS-5005

CLS-5006 TISSUE GRINDER, TENBROECK

Are of the same design as the Potter-Elvehjem style, but the pestle is hollow allowing the addition of ice water to keep samples chilled during the grinding process.

Part Number	Working Cap. (mL)	Pestle Dia. (mm)	Chamber Length (mm)	Rubber Stopper Size
CLS-5006-01	5	10	65	000
CLS-5006-02	10	13	75	00
CLS-5006-03	15	15	80	0
CLS-5006-04	30	19	105	2
CLS-5006-05	55	25	125	4

CLS-5006

CLS-5007-01

CLS-5007 TISSUE GRINDER, TAPERED, ALL GLASS

The conical shape of this tissue grinder has a large surface for grinding, making it the most efficient style of tissue grinder. Samples are progressively ground to a smaller size as the pestle is turned and lowered into the tube. It is used for tougher tissue such as heart, lung or muscle. Available in two styles, “A” with a reservoir and a glass “T” handle and “B” without a reservoir and rod style handle for use with an overhead stirrer.

Part Number	Style	Working Capacity (mL)
CLS-5007-01	“A”	15
CLS-5007-02	“B”	15

CLS-5007-02

CLS-5008 TISSUE GRINDER, GRIFFITHS, ALL GLASS

Available in two types: The 5mL size is for grinding emulsions and tissues. The ground half round sphere ensure perfect grinding. The 15ml size has projections at the end of the pestle for coarse grinding, while the entire length of the chamber is precision ground.

Number	Cap. (mL)	Pestle Dia. (mm)	Length (mm)	Overall Length (mm)
CLS-5008-01	5	12	80	150
CLS-5008-02	15	15	95	305

CLS-5008-01

CLS-5008-02

CG-2039 MICRO OVERHEAD STIRRER, TISSUE GRINDER

This lightweight micro stirrer is ideal for use with tissue grinders having stainless steel pestles. Supplied complete with a stirrer/controller, tripod with a vertical support rod, clamp holder and a coupling to fit the 6.35mm diameter of the stainless steel pestle rod.

Part Number	Description
CG-2039-A-500	Micro Overhead Stirrer for Tissue Grinder

Replacement Components

CG-3058-205	Tripod Support with Vertical Rod
CG-9250-01	Clamp Holder
CG-2039-A-050	6.35mm Chuck

CG-2039-A-500

CLS-1835 DISRUPTOR GENIE®

The patented Disruptor Genie provides multi-directional action, which simultaneously agitates and vortexes at high speed, dramatically increasing cell disruption or sample re-suspension efficiency. Maintains operating speed for up to 15 minutes, or continuous operation, even in cold rooms.

An affordable alternative to expensive ultrasonic disruptors, it can hold up to twelve 1.5mL or twelve 2.0mL micro tubes. In addition, a supplied pop-off cup (Part No. CLS-4891-011) easily attaches for use as a standard single-tube vortex mixer. Ideal for glass bead procedures using Disruptor Beads. Disruptor beads sold separately 0.1mm for bacteria and 0.5mm for yeast.

Specifications

Base Dimensions (D x W x H)	6.5" x 4.8" x 7.5"
Weight	9.5 lbs
Warranty	2-Year Manufacturer Warranty

Part Number	Description
CLS-1835-D25	Digital Disruptor Genie, Universal, 120V

CLS-1835-D25

Accessories

Part Number	Description
CLS-4891-011	Pop-Off Cup
CLS-4891-015	1.5mL Screw Cap Micro Tube Holder
CLS-4891-016	2.0mL Screw Cap Micro Tube Holder
CLS-4891-U16	Universal Micro Tube Holder
CLS-1835-BG1	Disruptor Beads, 0.1mm, 8oz. Bottle
CLS-1835-BG5	Disruptor Beads, 0.5mm, 8oz. Bottle

Glass Disruptor Beads

CLS-5020

CLS-5020 TISSUE GRINDER, SS, CELL DISSOCIATION SIEVES

Stainless Steel Tissue Grinder Cell Dissociation Sieves designed to make single cell suspensions from tissue pieces. The process is similar to using a mortar & pestle to reduce a solid sample to a powder. The sieve cup comes in two sizes, 85mL and 130mL. Both sizes have also been used to fragment polyacrylamide gels to recover antibodies. The screens are held in place by a retaining ring that is tightened using the screen replacement key. The screens are stainless steel with different mesh sizes and have a diameter of 37mm.

The complete item includes pan, glass pestle, key and nine screens (one each of 10 through 150 mesh sizes). Additional screens can be purchased separately.

Part Number	Description
CLS-5020-085	Tissue Grinder SS, 85mm, Complete
CLS-5020-130	Tissue Grinder SS, 130mm, Complete

Replacement Components / Accessories

Part Number	Description	
CLS-5023-010	Cell/Screen SS, 10 mesh	5
CLS-5023-020	Cell/Screen SS, 20 mesh	5
CLS-5023-030	Cell/Screen SS, 30 mesh	5
CLS-5023-040	Cell/Screen SS, 40 mesh	5
CLS-5023-050	Cell/Screen SS, 50 mesh	5
CLS-5023-060	Cell/Screen SS, 60 mesh	5
CLS-5023-080	Cell/Screen SS, 80 mesh	5
CLS-5023-100	Cell/Screen SS, 100 mesh	5
CLS-5023-150	Cell/Screen SS, 150 mesh	5
CLS-5023-200	Cell/Screen SS, 200 Mesh	5
CLS-5023-300	Cell/Screen SS, 300 mesh	5
CLS-5023-400	Cell/Screen SS, 400 mesh	5
CLS-5023-500	Cell/Screen SS, 500 mesh	5
CLS-5022-016	Glass Pestle Only 16mm	1
CLS-5021-085	Cell Pan & Key Only, 85mm	1
CLS-5021-130	Cell Pan & Key Only, 130mm	1

CLS-4775 UNIRACK® FOR VIALS AND TUBES

- Minimum counter space with maximum flexibility
- Autoclavable polypropylene for chemical resistance
- Holds a variety of tubes and vials

The UniRack™ offers the laboratory a support far more versatile and easy to use than any other rack available today. It is designed to use minimum counter space while offering maximum flexibility. Made of autoclavable polypropylene, it allows great resistance to various chemicals used in laboratories.

On one side it can hold up to 80 polystyrene or polypropylene 10mm and 12mm tubes, such as 10 x 75mm or 12 x 75mm sizes. The rack is also perfect for 1 to 5mL cryogenic vials, self-standing or not, made by the largest manufacturers in the market. It will accommodate all 1.5 and 2.0mL micro centrifuge tubes as well as all types of screw cap micro tubes from 0.5 to 2.0mL. Flip the UniRack™ over and you can store up to 60 PCR or micro centrifuge tubes from 0.2 to 0.5mL.

Units can be firmly anchored laterally to one another, thanks to special anchor pins supplied with each rack. This innovative concept will allow the user to store 80, 160, 240 and even 320 tubes of different shapes, sizes and volumes, since the units can be attached to each other on the 80 or 60 position side facing upward, thus ensuring maximum versatility.

It is supplied with two removable handles allowing for better safety characteristics. The handles of the lower rack make a perfect fit with those of the upper one, ensuring a stable unit which can easily and safely be moved around. An additional protection level is possible by using a very resistant and quite affordable transparent lid allowing a clear view of the contents. More units can be added on top of each other with the lid in place thanks to small pins located on the cover. It is easy to write on with a felt-tip pen.

There is a frosted area on both sides for bar coding, labeling or writing, enabling the user to identify the contents. These areas are well labeled with arrows to clearly identify which side of the rack the information belongs to. Offered in a wide array of colors allowing the user to classify tubes by their content, date, work shift, destination, or simply by laboratory.

Dimensions: 223 x 67 x 27mm H (9-3/16” x 2-5/8” x 1-1/16” H)

CLS-4775

Part Number	Color / Description	Case Qty.
CLS-4775-B01	Blue	10
CLS-4775-G01	Green	10
CLS-4775-N01	Orange	10
CLS-4775-P01	Pink	10
CLS-4775-Y01	Yellow	10
CLS-4775-A01	Assortment‡	10
CLS-4775-R01	Red	10
CLS-4775-L02	Lid Only, Transparent, Polypropylene	10

‡Assortment includes these colors: blue, green, orange, pink and yellow.

CLS-4776

CLS-4776 UNIRACK™ JR.

This smaller model of the UniRack™ can hold up to 25 polystyrene or polypropylene 10 and 12mm tubes, such as 10 x 75mm or 12 x 75mm sizes. This rack will accommodate all types of screw cap microtubes from 0.5 to 2.0mL made by major manufacturers as well as 1 to 5mL cryogenic vials. Flip the UniRack™ over and you can store up to 16 PCR or microcentrifuge tubes from 0.2 to 0.5mL. Supplied without handles or anchor pins.

Part Number	Color	Case Qty.
CLS-4776-B01	Blue	10
CLS-4776-R01	Red	10
CLS-4776-Y01	Yellow	10

CLS-4212

CLS-4212 RACK, CULTURE TUBE, WATER BATH

Racks are designed with four retainer fingers in the two plates to hold tubes firmly in place. Molded with a special polymer blend of autoclavable polypro that is heavier than water for submerging into water baths.

Part Number	Description
CLS-4212-10	90 Position Rack for 10-13mm Tubes
CLS-4212-11	60 Position Rack for 15-16mm Tubes
CLS-4212-12	40 Position Rack for 18-20mm Tubes

CLS-4213

CLS-4213 RACK, CULTURE TUBE, SLANTED

Rack has one side slanted 5°producing a large surface area on the tubes, useful for aerobic cultures. The other side of the rack is slanted 20° for a smaller surface area ideal for anaerobic cultures. Rack is submersible for incubating in a water bath.

Part Number	Description
CLS-4213-10	40 Position Rack for 13-16mm Tubes
CLS-4213-12	40 Position Rack for 18-20mm Tubes

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* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-4778 RACK, TEST TUBE, NYLON

- Autoclavable nylon rack that will not float in a water bath
- Excellent thermal and chemical resistance
- Marking spot for labeling

Racks have a molded, one-piece, three-tier grid design. They are molded from a reinforced, autoclavable nylon that will not float in a water bath. Racks have excellent thermal and chemical resistance. Each rack has a flat plate area on the end for labeling. Sold as each.

Specifications

Part Number	CLS-4778-01B	CLS-4778-02R	CLS-4778-03G	CLS-4778-04Y
Dimensions (L x W x H)	7.87" x 4" x 2"	9.73" x 5" x 2.75"	9.84" x 4" x 3.26"	11.81" x 4.76" x 3.62"
Array	6 x 12	6 x 12	4 x 10	4 x 10
Positions	72	72	40	40

Part Number	Description
CLS-4778-01B	13mm Tube Rack, Blue,
CLS-4778-02R	16mm Tube Rack, Red
CLS-4778-03G	20mm Tube Rack, Green
CLS-4778-04Y	25mm Tube Rack, Yellow

CLS-4289 CENTRIFUGE TUBE, OAK RIDGE STYLE, POLYPROPYLENE, WITH SCREW CAP

Oak Ridge style high speed polypropylene tubes are round bottom and autoclavable. Tubes are economical, leak-proof for refrigerated or standard centrifugation. Uniform wall thickness. Polypropylene screw caps. 80% of total capacity must be filled for proper performance. Withstands up to 50,000xg. Conforms to US FDA 21 CFR.

Part Number	Description	Case Qty.
CLS-4289-010	10mL Oak Ridge Style Centrifuge Tube	12
CLS-4289-030	30mL Oak Ridge Style Centrifuge Tube	12
CLS-4289-050	50mL Oak Ridge Style Centrifuge Tube	12

CLS-EPA25100 CULTURE TUBES, 25 x 100MM

The 25 x 100mm culture tube is the preferred culture tube to be used for the AOAC Use-Dilution Method 964.02 and 955.15. The tubes are generally used to hold the disinfectant being tested.

Part Number	Description	Pkg. Qty.
CLS-EPA25100	Tube, Culture, 25 x 100mm	144

CLS-1760 COVER SLIP, ROUND, GERMAN GLASS, #1 THICKNESS

Cover slips are manufactured from the highest quality borosilicate hydrolytic class 1 German glass. They have excellent resistance to chemicals and are ideal for neural tissue culture and hard-to-attach cells. These cover slips are exceptional for florescence and confocal microscopy. **Sold in packages of 1oz.**

Part Number	Description	Dia. (mm)	Approx. No. of Slips / 1 oz. Pkg.
CLS-1760-005	Cover Slip, German Glass	5	1100
CLS-1760-012	Cover Slip, German Glass	12	650
CLS-1760-015	Cover Slip, German Glass	15	378
CLS-1760-025	Cover Slip, German Glass	25	160

CLS-1762 COVER SLIPS, RECTANGULAR AND SQUARE, CORNING® 0211 GLASS

Cover slips are manufactured from Corning® 0211 Float Glass, #1 thickness (0.13 to 0.16mm). **Sold in packages of 1oz.**

Part Number	Description	Size (mm)	Approx. No. of Slips / 1 oz. Pkg.
CLS-1762-0909	Cover Slip, Square	9 x 9	765
CLS-1762-0922	Cover Slip, Rectangular	9 x 22	435
CLS-1762-0935	Cover Slip, Rectangular	9 x 35	260
CLS-1762-0950	Cover Slip, Rectangular	9 x 50	175
CLS-1762-1022	Cover Slip, Rectangular	10.5 x 22	335
CLS-1762-1035	Cover Slip, Rectangular	10.5 x 35	215
CLS-1762-1050	Cover Slip, Rectangular	10.5 x 50	150
CLS-1762-1354	Cover Slip, Rectangular	13 x 54	120
CLS-1762-1818	Cover Slip, Square	18 X 18	242
CLS-1762-2222	Cover Slip, Square	22 x 22	150
CLS-1762-2230	Cover Slip, Rectangular	22 X 30	119
CLS-1762-2240	Cover Slip, Rectangular	22 X 40	89
CLS-1762-2250	Cover Slip, Rectangular	22 X 50	71
CLS-1762-2430	Cover Slip, Rectangular	24 X 30	109
CLS-1762-2440	Cover Slip, Rectangular	24 X 40	82
CLS-1762-2450	Cover Slip, Rectangular	24 x 50	65
CLS-1762-2460	Cover Slip, Rectangular	24 X 60	54
CLS-1762-2525	Cover Slip, Square	25 X 25	125
CLS-1762-2575	Cover Slip, Rectangular	25 x 75	40

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-1763 COVER SLIPS, ROUND, #1 CORNING® 0211 FLOAT GLASS

Cover slips are manufactured from Corning® 0211 Float Glass, #1 thickness (0.13 to 0.16mm). **Sold in packages of 1oz.**

Part Number	Description	Dia. (mm)	Approx. No. of Slips / 1 oz. Pkg.
CLS-1763-005	Cover Slip, Round	5	1,100
CLS-1763-012	Cover Slip, Round	12	650
CLS-1763-015	Cover Slip, Round	15	378
CLS-1763-018	Cover Slip, Round	18	170
CLS-1763-025	Cover Slip, Round	25	160

CLS-1764 COVER SLIPS, RECTANGULAR AND SQUARE, #1.5 CORNING® 0211 FLOAT GLASS

Cover slips are manufactured from Corning® 0211 Float Glass, #1.5 thickness (0.16 to 0.19mm). **Sold in packages of 1oz.**

Part Number	Description	Size (mm)	Approx. No. of Slips / Oz.
CLS-1764-1818	Cover Slip, Square	18 x 18	209
CLS-1764-2222	Cover Slip, Square	22 x 22	140
CLS-1764-2525	Cover Slip, Square	25 x 25	108
CLS-1764-2230	Cover Slip, Rectangular	22 x 30	103
CLS-1764-2240	Cover Slip, Rectangular	22 x 40	77
CLS-1764-2250	Cover Slip, Rectangular	22 x 50	62
CLS-1764-2430	Cover Slip, Rectangular	24 x 30	94
CLS-1764-2440	Cover Slip, Rectangular	24 x 40	71
CLS-1764-2450	Cover Slip, Rectangular	24 x 50	56
CLS-1764-2460	Cover Slip, Rectangular	24 x 60	47

CLS-1765 COVER SLIPS, SQUARE, #2 CORNING® 0211 FLOAT GLASS

Cover slips are manufactured from Corning® 0211 Float Glass, #2 thickness (0.17 to 0.25mm). **Sold in packages of 1oz.**

Part Number	Description	Size (mm)	Approx. No. of Slips / Oz.
CLS-1765-1818	Cover Slip, Square	18 x 18	179
CLS-1765-2222	Cover Slip, Square	22 x 22	120
CLS-1765-2525	Cover Slip, Square	25 x 25	93

CLS-1810 Clear Sided Dishes

CLS-1810 Black Sided Dishes

CLS-1810 GLASS BOTTOM CULTURE DISH, WILLCO WELL®

Glass bottom dish used in confocal, fluorescence and polarized light imaging techniques of in vitro cell cultures. Also ideal for live cell microscopy and imaging. The glass bottom WILLCO WELL® dish uses a special formulated adhesive with a low toxicity that is durable and optically clear. Glass thickness is within 0.17 ±0.01mm and permits use of immersion objectives with water, glycerin or oil. The glass bottom is flush with the microscope stage or heating stage to ensure high stability and optimum heat exchange. The optical quality of glass bottoms provides a higher effective numerical aperture producing brighter, high resolution images in microscopy applications.

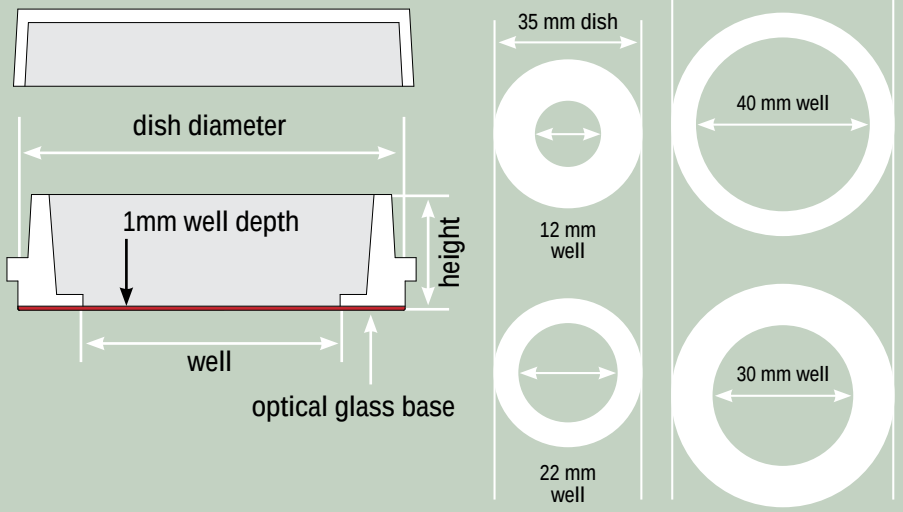
Methods

- Differential Interference Contrast Microscopy (DIC)
- Confocal Microscopy
- Florescence Imaging
- Live Cell Microscopy
- Fluorescence Lifetime Imaging Microscopy (FLIM)
- Immunofluoresence Microscopy
- Multi-Photon Laser Scanning Microscopy (MPLSM)
- Phase Contrast Microscopy
- Confocal Laser Scanning Microscopy (CLSM)
- High Level Laser Fluorescence
- Epifluorescence Microscopy

Available in Two Diameters: 35 and 50mm

The 35mm has outside dimensions equal to that of a Corning® 35mm dish and is compatible with most 35mm heaters and perfusion adapters. The 50mm size is perfect for microinjection work due to their larger diameter and lower side walls that allow for easier access to the cells. All dishes are gamma irradiation sterilized.

Available with clear or black walls. The black sided dish is ideal for use in fluorescence imaging which requires lower scattering of light. Individually blister packed, 20 per case.



Discipline / Application Chart

Fertility & Stability	ICSI, Spermatid Identification, Assisted Hatching, Embryo Biopsy, Genetics
Cell Physiology	Patch Clamping, Ion-Imaging
Pathology	Studies on Morphology of Particles and Cells
Neurology	Axon Growth, Efflux Studies of Electrolytes
Cell Biology	Cell-Cell Communication Studies, Tissue Culture
Molecular Biology	Studies on Genetics (DNA), Enzymatic Activity
Pharmacology	Cell Research In and Outside the Cell on All Levels
Plant Physiology	Root Hair Growth, Micro Parasites on Roots

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

Clear Sided Dishes: Individually Sterile Blister Packed, 20 per Case

Part Number	Dish Dia. (mm)	Height (mm)	Glass Well Dia. (mm)	Pack Qty.
CLS-1810-001	35	10	12	20
CLS-1810-002	35	10	22	20
CLS-1810-004	50	7	30	20
CLS-1810-005	50	7	40	20

Black Sided Dishes: Individually Sterile Blister Packed, 20 per Case

Part Number	Dish Dia. (mm)	Height (mm)	Glass Well Dia. (mm)	Pack Qty.
CLS-1810-010	35	10	12	20
CLS-1810-012	35	10	22	20
CLS-1810-013	50	7	30	20
CLS-1810-014	50	7	40	20

TECHNICAL INFO

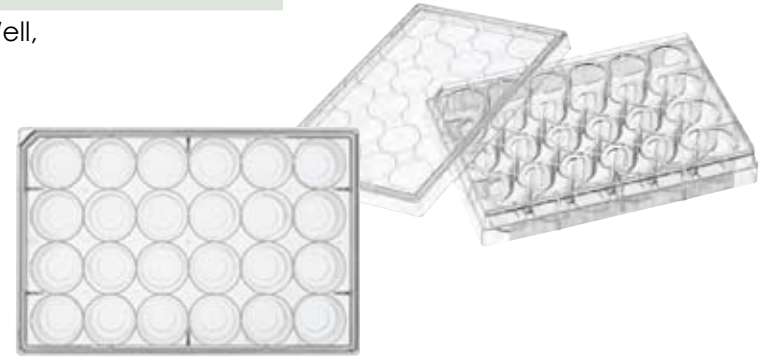
Positioning Embryos / Life Cells

Our glass bottom dishes are non-cytotoxic and non-pyrogenic. Although manufacturers of adhesives have certificates confirming that that their products are “non-cytotoxic”, there is always a risk of positioning embryos/life cells on or even close to the edge, where the adhesive ring is in direct contact with the media inside the dish. Therefore, it is our advice to use a position for cells that is close to the center of the glass.

CLS-1812 GLASS BOTTOM CELL CULTURE PLATES

Our glass bottom culture plates allow researchers to produce high-resolution microscopic images of cultures growing in standard size 6 and 24-well disposable plastic cell culture plates. Our products are non-cytotoxic, non-pyrogenic and sterile. We manufacture glass bottom culture plates using high volume, automated procedures to ensure both lot-to-lot reproducibility and cost effective pricing to all users. The first step in this process is to precisely cut an opening in the center of the wells in the culture plates. Next, a clinically non-toxic adhesive is used to attach the high quality technical grade glass cover slip of standard thickness (0.13-0.16mm) to the bottom of each well, covering the opening. These cover slips are high quality borosilicate glass of the highest hydrolytic consistency and are well adapted for a broad variety of high resolution microscopy applications. **Sold 1 per case.**

Part Number	Description
CLS-1812-006	Glass Bottom Culture Plate, 6-Well, 24mm Diameter
CLS-1812-024	Glass Bottom Culture Plate, 24-Well, 10mm Diameter



CG-8225 MICROSCOPE SLIDES, PLAIN

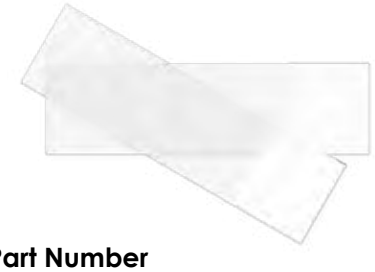
Slides for use in non-sterile pathology and cytology applications. Made from water-white glass to maximize clarity and are not frosted. Thickness of the slides is 0.90mm to 1.10mm. Packaged vertically for easy lift out. **Slides are packaged in 1/2 gross boxes (approx. 72 slides each).**

Part Number	Approx. Size	Pkg. Qty.
CG-8225-75X25	75mm x 25mm	144

CG-8982 MICROSCOPE SLIDES, FROSTED ONE SIDE, ONE END

Slides are for use in non-sterile pathology and cytology applications. Made from water-white glass to maximize clarity and are frosted on one side and one end only. Thickness of the slides is 0.90mm to 1.10mm. **Slides are packaged in 1/2 gross boxes (approx. 72 slides each).**

Part Number	Approx. Size	Pkg. Qty.
CG-8982-02	75mm x 25mm	144



CG-8984 MICROSCOPE SLIDES, FROSTED TWO SIDES, ONE END, CORNING®

These slides are for use in non-sterile pathology and cytology applications. Made from water-white glass to maximize clarity and are frosted on two sides at one end. Slide thickness is 0.90mm to 1.10mm. Packaged vertically for easy life out. **Supplied in packages of 1 gross (approx. 144 slides each).**

Part Number	Approx. Size	Pkg. Qty.
CG-8984-01	75mm x 25mm	144

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-1910 AGAROSE LE, ORGANIC SOLVENT-FREE

- Multi-Purpose, High Purity
- Enhanced Resolution and Clarity
- Reduced Background
- Low EEO / Increased Electrophoretic Mobility
- RNase-, DNase- and Protease-Free
- High Hysteresis / Improved Thermal Stability

CLS-1910

Agarose LE is a highly purified agarose, suitable for a variety of molecular biology applications. It is refined using an advanced process that excludes the use of organic solvents, yielding a cleaner end-product with a significantly reduced environmental impact. Agarose LE can be used for analyses of proteins and nucleic acids of various sizes (150bp to 6kbp).

Its low EEO (≤ 0.13-m_r) promotes increased electrophoretic mobility, yielding improved resolution and shorter run times. This also allows macromolecules and larger particles (subcellular fragments, viruses, etc.) to migrate more freely through the gel matrix. The consistently low EEO also provides a reduction in band distortion (caused by counter flow) that can result from the presence of excessive sulfate-rich negative ions.

Agarose LE is widely used for nucleic acid electrophoresis (analytical and preparative), protein electrophoresis (including radial immunodiffusion) and various blotting protocols. It is easily soluble, free of nucleases, and easy to use. It is highly transparent (forms a clear, colorless solution at 1g: 100mL H_2O), and exhibits exceptionally low absorption of chemical staining agents. Pore size can be adjusted by simple modifications to the concentration ratio.

Formulated for high gel strength and integrity, Agarose LE exhibits exceptional thermal stability and mechanical resistance, ensuring safe, easy handling, regardless of whether a denaturing agent has been added.

Specifications

Moisture	≤7%
EEO (Electroendosmosis)	≤0.13-m_r
Sulfate	≤0.20%
Gelling Temp. (at 1.5%)	36° ± 1.5°C
Melting Temp. (at 1.5%)	88° ± 1.5°C
Gel Strength (at 1.0%)	1,200g/cm^2
Gel Strength (at 1.5%)	2,500g/cm^2
DNase, RNase	None Detected
Endonuclease	None Detected
Protease	None Detected
Store At	Room Temperature

Part Number	Description
CLS-1910-025	Agarose LE, Organic Solvent Free, 25g
CLS-1910-100	Agarose LE, Organic Solvent Free, 100g
CLS-1910-500	Agarose LE, Organic Solvent Free, 500g

CLS-4217

CLS-4217 BOTTLES, ANAEROBIC, MEDIA, CLEAR

Anaerobic media bottles are designed for maintaining anaerobic conditions, useful for studies involving methane-producing bacteria, cell culture, drug discovery, and research and development. The bottle is manufactured from Duran® Schott borosilicate glass. Bottles are autoclavable. Each bottle has a graduation scale indicating the approximate volumes and has a writing area for identification. Bottle is supplied with a rubber stopper and aluminum seal. *Note: Plastic Coated bottles are available. Please contact us for pricing.*

Part Number	Cap. (mL)	OD x OAH (mm)
CLS-4217-01	50	46 x 88
CLS-4217-02	100	56 x 100
CLS-4217-03	250	70 x 138
CLS-4217-04	500	85 x 176
CLS-4217-05	1000	100 x 215

Replacement Components

Part Number	Description	Pkg. Qty.
CLS-4209-14	Stopper Only, Blue Butyl Rubber, 20mm	100
CLS-4209-12	Aluminum Seal Only, 20mm	100

CLS-4215-01

CLS-4215-05

CLS-4215 BOTTLE, ANAEROBIC

Bottle is convenient for growing cultures in the same manner as the CLS-4209-01 anaerobic culture tubes.

Part Number	Cap. (mL)	Neck Configuration
CLS-4215-03	500mL	Single Neck
CLS-4215-05	1000mL	Single Neck
CLS-4215-01	2000mL	2-Neck

HUNGATE ANAEROBIC CULTURE TUBES

The Hungate culture tube was developed for the cultivation of anaerobic microorganisms. These tubes and accessories simplify the anaerobic methods in several areas of microbiology. The technique is quite simple: Approx. 4.5mL of media is prepared under non-sterile conditions and gassed with oxygen free gas, then added to the gassed tubes. The rubber stoppers are inserted as the gassing needles are withdrawn and then capped. Once the tubes are autoclaved, they are inoculated with a syringe and incubated in a water bath.

CLS-4208 HUNGATE CULTURE TUBE, SCREW THREAD

16 x 125mm screw thread style tube designed to maintain anaerobic culture conditions. Flange style stoppers are made from butyl rubber. Complete item consists of a disposable glass tube, butyl stopper and screw cap having a 9mm opening.

CLS-4208-01

Part Number	Description	
CLS-4208-01	16 x 25mm Hungate Tubes, Complete	100

Replacement Components

Part Number	Description	
CLS-4208-10	16 x 125mm Glass Tube Only	100
CLS-4208-11	Open Top Screw Caps Only	100
CLS-4208-12	Butyl Rubber Stoppers Only	100

CLS-4209 ANAEROBIC CULTURE TUBE, ALUMINUM SEAL

Modified, 18 x 150mm, Hungate tube having an aluminum seal finish. Stopper is made of blue butyl rubber. Complete item consists of a disposable glass tube, blue butyl stopper and aluminum seal.

CLS-4209-01

Part Number	Description	
CLS-4209-01	18x150mm Anaerobic Tubes, Complete	100

Replacement Components

Part Number	Description	
CLS-4209-10	Glass Tube Only, 18 x 150mm	100
CLS-4209-14	Stopper Only, Blue Butyl Rubber	100
CLS-4209-12	Aluminum Seal Only	100
CG-4930-20	Aluminum Seal Crimper, Manual	1
CV-5706-0020	Decapper, Hand Operated	1

CG-4930-20

▲ Subject to Vials and Container Discount.

CLS-3956

CLS-3956 MYBLOCK™ MINI DIGITAL DRY BATH

MyBlock™ Mini fits almost anywhere and can even be used “on-the-go” in cars, boats or wherever a 12 volt power source is available.

Its simple touch pad control with digital display is designed for “set and walk away” temperature selection and unrivaled accuracy. At less than 5 inches wide, MyBlock™ Mini is truly the first personal block incubator.

Specifications

Temperature Range	Ambient +5 to 100°C
Temperature Accuracy	±5°C
Temperature Increments	0.1°C
Temperature Uniformity	±2°C
Dimensions (W x D x H)	4 x 6 x 4.5 in / 10.5 x 15 x 11.5 cm
Block Dimensions (W x D x H)	1.85 x 2.8 x 1.25 in / 4.7 x 7.1 x 3.2 cm
Weight	2lbs / 0.9kg
Warranty	2 Years

Part Number	Description
CLS-3956-01	MyBlock™ Mini Digital Dry Bath, 120V
CLS-3956-02	Block, 40 x 0.2mL or 5 x PCR Strips
CLS-3956-05	Block, 24 x 0.5mL Centrifuge Tubes
CLS-3956-15	Block, 15 x 1.5mL Centrifuge Tubes
CLS-3956-17	Block, 15 x 1.5 or 2.0mL Centrifuge Tubes
CLS-3956-19	Block, 4 x 15mL Centrifuge Tubes
CLS-3956-21	Block, 2 x 50mL Centrifuge Tubes
CLS-3956-30	12V Vehicle Power Adapter

CLS-3959 DIGITAL DRY BATHS

Digital Dry Baths provide accurate “set and walk away” digital temperature selection, eliminating the need for external thermometers and repetitive “fine tuning” of a temperature control knob. Simply enter the desired temperature on the digital touchpad and the Dry Bath provides accurate temperature with real time monitoring that continuously maintains the selected temperature within ±0.2°C. In addition, a digital timer is built into the touchpad display. Although it is not designed to shut off the heater, it can be used to alert the user that a chosen time interval has timed out.

The cavities of the high grade aluminum blocks are precision machined to match the conical size and shape of 0.5, 1.5, 2.0, 15 and 50mL tube sizes, providing unsurpassed temperature transfer. Assorted blocks are available for compatibility with nearly all common laboratory tubes and plates. Custom blocks are also available upon request.

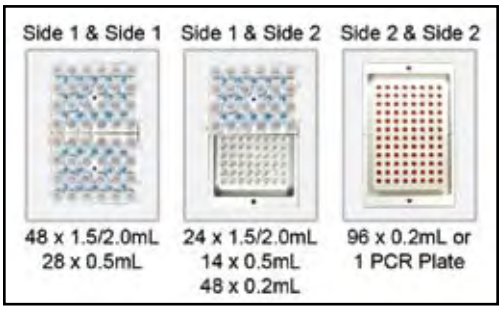
All dry baths offer a built-in user recalibration function, to guarantee long term temperature accuracy. Each dry bath includes an easy to use block lifter with a temperature insulated handle for quick, convenient exchange of blocks, even when they’re still hot.

Part Number	Description
CLS-3959-01	Bath, Digital Dry, Single Position, 120V
CLS-3959-02	Bath, Digital Dry, Double Position, 120V
CLS-3959-04	Bath, Digital Dry, Four Position, 120V
CLS-3959-06	Block, 24 x 1.5mL
CLS-3959-08	Block, 24 x 1.5 or 2.0mL
CLS-3959-10	Block, 24 x 0.5mL
CLS-3959-12	Block, 12 x 1.5mL (Block Height: 3.25")
CLS-3959-14	Block, 5 x 50mL (Block Height: 3.25")
CLS-3959-16	Block, 20 x 10mm or 20 x 2.0mL
CLS-3959-18	Block, 20 x 13mm or 20 x 5-7mL
CLS-3959-20	Block, 12 x 15-16mm or 12 x 10mL
CLS-3959-22	Block, 48 x 0.2mL Tubes or 6 PCR Tube Strips
CLS-3959-24	Block, 1 x 96-Well PCR Plate (For 2 or 4 Block Models)
CLS-3959-26	Block, 1 x 96-Well PCR Plate (For 1 Block Model)
CLS-3959-28	Block, 1 x Micro Titer Plate (For 2 or 4 Block Models)
CLS-3959-30	Block, Solid, for Slides or Custom Machining
CLS-3959-32	Quick-Flip Universal Micro-Block

CLS-3959

Specifications

Temperature Range	Ambient +5 to 150°C
Temperature Accuracy	±0.2°C
Temperature Increments	0.1°C
Temperature Uniformity	±0.2°C
Timer	1 - 999 Minutes
Dimensions (W x D x H)	
Single Position	7.8 x 9 x 3.2 in 20 x 23 x 8 cm
Double Position	8.7 x 10.3 x 3.2 in 22 x 26 x 8 cm
Four Position	8.7 x 14 x 3.2 in 22 x 35.6 x 8 cm
Block Dimensions	3 x 3.75 x 2 in 7.6 x 9.5 x 5 cm
Warranty	2 Years



CLS-3959-32
Quick-Flip Universal Micro-Block

CG-1140-05

CG-1140-16

CG-1140 BOTTLE, HYBRIDIZATION

Heavy wall bottle used in hybridization incubators or ovens with rotators. An alternative to plastic bags or boxes, the membrane is rolled and placed into the bottle which is secured in a rotisserie. The membrane is saturated and drained during each revolution resulting in even exposure of the blots to probe or wash solutions. Bottle fits most hybridization equipment and has straight interior walls for easy membrane placement and removal, as well as decanting of hybridization solutions. The red plastic cap has a PTFE-faced liner and a working temperature of 180° C. The blue cap has a silicone sealing ring and a working temperature of 140° C. Dual chamber bottle has a capped opening at each end with a solid glass wall in the center to divide the bottle into two equal compartments.

PLASTIC COATING IS AVAILABLE FOR ALL THE BOTTLES LISTED. Bottle sizes other than those listed are also available, please call for pricing.

Hybridization Bottle with Red Cap and PTFE Liner:

Part Number	Bottle ID x Length (mm)	GL Cap Size
CG-1140-01	35 x 75	45
CG-1140-02	35 x 100	45
CG-1140-03	35 x 150	45
CG-1140-04	35 x 250	45
CG-1140-05	35 x 300	45

Dual Chamber Bottle with Red Caps and PTFE Liners:

Part Number	Bottle ID x Length (mm)	GL Cap Size
CG-1140-07	35 x 150	45
CG-1140-08	35 x 300	45

Hybridization Bottle with Blue Cap and Silicone Sealing Ring:

Part Number	Bottle ID x Length (mm)	GL Cap Size	
CG-1140-10	35 x 75	45	50.00
CG-1140-11	35 x 100	45	60.50
CG-1140-12	35 x 150	45	68.00
CG-1140-13	35 x 250	45	68.50
CG-1140-14	35 x 300	45	69.00

Dual Chamber Bottle with Blue Caps and Silicone Sealing Rings:

Part Number	Bottle ID x Length (mm)	GL Cap Size
CG-1140-16	35 x 150	45
CG-1140-17	35 x 300	45

See Anaerobic Culture Bottles listed at the beginning of this section.

Please see our complete line of Media Bottles and accessories in the Cell Culture Section, pages 138-143.

CLS-1195-1200 BOTTLE, ROUX, 1200ML

The 1,200mL Roux bottle is designed so that when laid down flat, it will hold approximately one-half of the total volume. The bottle is manufactured from Type 1, Class A borosilicate glass. The bottle is useful for growing mass cultures and the offset neck prevents cultures from entering the neck area. Supplied complete with a 38-415 rubber lined closure. Sold 1 per case.

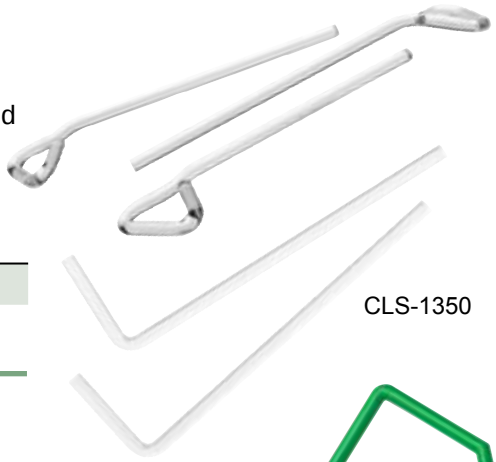
CLS-1195

Part Number	Description
CLS-1195-1200	Roux Bottle, 1,200mL

Offset neck prevents cultures from entering the neck area.

CLS-1350 GLASS CELL SPREADER

Made of 5mm borosilicate glass, spreader is ideal for spreading inoculums over the agar face in Petri dish cultures. Available in two styles, 90° bend and 120° bend. **Sold in packages of 10 each.**

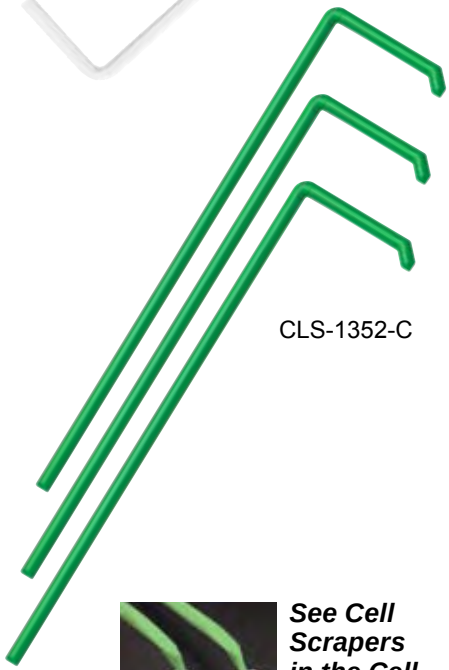


CLS-1350

Part Number	Style	Spreader Width (mm)	Overall Length (mm)
CLS-1350-01	120°	37	140
CLS-1350-02	90°	37	125

CLS-1352-C L-SHAPED CELL SPREADERS

- Unlike glass spreaders, durable polypropylene L-Shaped Cell Spreaders are non-breakable and pose no safety hazard
- L-Shaped for convenient spreading; just turn the Petri dish for smooth, even sample distribution
- Smooth spreading surface and a slight upward turn reduce the chance that the spreader will dig into agar
- Packaged sterile (gamma irradiated) in individual or bulk, easy-to-open, paper/plastic wrappers
- Pre-sterilization eliminates flaming or autoclaving and reduces risk of contamination



CLS-1352-C

L-Shaped Cell Spreaders are disposable, microbiological spreaders that provide an economical alternative to bending glass rods or pipettes for spreading samples on agar surfaces and filters in Petri dishes.

Part Number	Description	Case Qty.
CLS-1352-C01	L-Shaped Cell Spreader, Individually Wrapped	100
CLS-1352-C02	L-Shaped Cell Spreader, Bulk Packed; 10/Pk.	500

See Cell Scrapers in the Cell Culture section.

CLS-1606

CLS-1606 MYFUGE™ MINI, MINI CENTRIFUGE

The new MyFuge™ Mini centrifuge is a personal centrifuge that virtually fits in the palm of your hand. Ideal for quick spin downs of microtubes and PCR tubes, the MyFuge™ Mini is extremely easy to use. Simply close the lid and the rotor instantly reaches 6,000rpm. Open the lid, and the rotor quickly decelerates to a stop for removing samples.

An increased capacity, eight-position microtube rotor is included and comes installed. A second rotor for 0.2mL PCR tubes and strips is also included and stored with the rotor removal key in a convenient compartment on the bottom of the centrifuge. When the rotor is not in use, storage in this compartment prevents loss or misplacement of the rotor.

Specifications

Speed	6,000rpm / 2,000xg
Capacity	8 x 1.5/2.0mL Tubes
	16 x 0.2mL PCR Tubes
	2 x PCR Strips
Dimensions (W x D x H)	4.5 x 5.9 x 4.5 in / 11.4 x 15 x 11.4 cm
Weight	2.2lbs / 1kg
Warranty	1 Year

Part Number	Description
CLS-1606-01	MyFuge™ Mini Centrifuge, 120V

Runs individual microtubes and PCR strips simultaneously.

CLS-1603

At just 5.5 inches wide and less than 4.5 inches tall, the **MyFuge™ 12** truly is a personal centrifuge with unmatched capacity and flexibility.

CLS-1603 MYFUGE™ 12, MINI CENTRIFUGE

The new MyFuge™ 12 eliminates the need to change rotors when switching between microtubes and PCR strips. The included, unique COMBI-Rotor™ is all that is required for running 12 microtubes and 4 PCR strips simultaneously.

With a fixed speed that produces 2,000 xg, this centrifuge is perfect for quick spin downs. Simply close the lid and the unit quickly ramps up to 5,500 rpm. Open the lid and the rotor quickly decelerates for removal of samples.

Specifications

Speed	5,500rpm / 2,000xg
Capacity	12 x 1.5/2.0mL Tubes
	32 x 0.2mL PCR Tubes
	4 x PCR Strips
Dimensions (W x D x H)	5.5 x 7.9 x 4.4 in / 14 x 20 x 11.2 cm
Weight	2.2lbs / 1kg
Warranty	1 Year

Part Number	Description
CLS-1603-01	MyFuge™12 Mini Centrifuge, 120V
CLS-1603-02	Adapters for 0.2mL Tubes, Pack of 6
CLS-1603-05	Adapters for 0.5mL Tubes, Pack of 6

CLS-1601 MINI CENTRIFUGE

- Quiet, vibration-free operation
- Include two, easy-to-change rotors
- One-year warranty

These mini centrifuges are popular for quick spins, microfiltration of samples, and cell separations. The clear covers are made of high strength plastic and provide easy viewing of samples. These centrifuges quickly accelerate to their maximum speed and stop within seconds. Manufactured to precise specifications, resulting in smooth runs that are quiet and vibration-free. Included is a round rotor with capacity for six standard microtubes (1.5 to 2.0mL) as well as a strip tube rotor for 2x8 PCR strips or sixteen individual 0.2mL tubes. The rotors can be easily interchanged by the user within a matter of seconds.

CLS-1601

Specifications

	CLS-1601-002	CLS-1601-001	CLS-1601-003
RPM	4,000	6,000	10,000
RCF	900 xg	2,000 xg	5,000 xg
Capacity			
Microtube Rotor	6 x 1.5/2.0mL	6 x 1.5/2.0mL	6 x 1.5/2.0mL
PCR Strip Rotor	2 x 8 Strips or 16 x 0.2mL Tubes	2 x 8 Strips or 16 x 0.2mL Tubes	2 x 8 Strips or 16 x 0.2mL Tubes
Dimensions (WxDxH)	5.5 x 6.1 x 4.5 in.	5.5 x 6.1 x 4.5 in.	5.5 x 6.1 x 4.5 in.
Operating Temp	+4°C to 50°C	+4°C to 50°C	+4°C to 50°C
Warranty	1 Year	1 Year	1 Year
Electrical	110V, 50/60Hz, 0.1A	110V, 50/60Hz, 0.1A	110V, 50/60Hz, 0.1A

Part Number	Description
CLS-1601-002	Mini Centrifuge, 4,000rpm, Pink
CLS-1601-001	Mini Centrifuge, 6,000rpm, Beige
CLS-1601-003	Mini Centrifuge, 10,000rpm, Blue

CLS-1777 CLONING CYLINDER, GLASS

Clone a group or single cell by surrounding them with these glass cylinders. Cylinders are sealed to the plate with sterile silicone high vacuum grease, such as Dow Corning® 976v thereby forming an isolation well. Cylinders are autoclavable or can be dry heat sterilized. Supplied in packages of 125 pieces.

CLS-1777

Part Number	Dimensions OD x Height (mm)
CLS-1777-01	6 x 8
CLS-1777-02	8 x 8
CLS-1777-03	10 x 10

CLS-1997

CLS-1997 GLASS DISH AND PLATE, BLOTTING

This system offers a contained unit for Northern and Southern blotting. Buffer tray for capillary gel blotting comes with glass plate for setting up transfer. Plate will support the wicking paper and weight. The buffer tray is made from glass. Two sizes of trays and plates are available.

Specifications

Small Dish and Plate	
Dimensions	175mm Wide x 280mm Long x 50mm Deep
Capacity	1.9 Liters (1900mL)
Large Dish and Plate	
Dimensions	225mm Wide x 330mm Long x 50mm Deep
Capacity	2.8 Liters (2800mL)

Part Number	Description
CLS-1997-019	1.9 Liter Glass Dish and Plate
CLS-1997-028	2.8 Liter Glass Dish and Plate

See page 205 for more details .

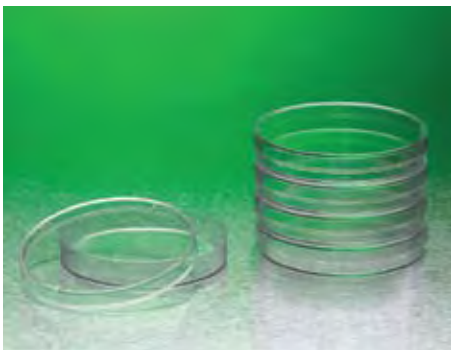
ORGANIC, SOLVENT-FREE AGAROSE LE

- Multi-Purpose, High Purity
- Enhanced Resolution and Clarity
- Reduced Background
- Low EEO / Increased Electrophoretic Mobility
- RNase-, DNase- and Protease-Free
- High Hysteresis / Improved Thermal Stability

Part Number	Description
CLS-1910-025	Agarose LE, Organic Solvent Free, 25g
CLS-1910-100	Agarose LE, Organic Solvent Free, 100g
CLS-1910-500	Agarose LE, Organic Solvent Free, 500g

CLS-1802 PETRI DISH, NON-TREATED, STERILE

Dishes are manufactured from virgin polystyrene. The surface is not tissue Dishes are manufactured from virgin polystyrene. The surface is not tissue culture treated. The rim of the top mates with the dish bottom edge for easy and secure stacking. Sterilized by gamma irradiation. Certified non-pyrogenic. Packaged in durable, zip, resealable, self-standing plastic bags that allow the dishes to remain upright and reduce contamination.



CLS-1802

Part Number	Description	Growth Area	Bag Qty.	Case Qty.
CLS-1802-001	Petri Dish, Non-Treated, 90mm	55cm²	10	500
CLS-1802-035	Petri Dish, Non-Treated, 35mm	8.5cm²	10	960

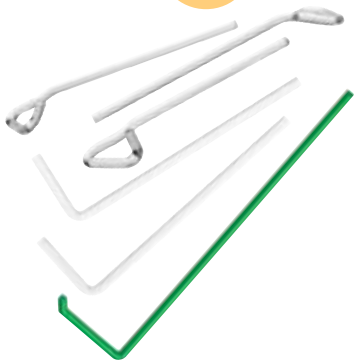
CLS-1803 PETRI DISH TOWER, ACRYLIC

Uniquely designed storage and carrying tower for Petri dishes up to 100mm in diameter. Easy access to any dish. Excellent for carrying into work areas, and storage in incubators and refrigerators. The 6 position is 5" x 8.5" while the 12 position is 5" x 15".

Part Number	Description
CLS-1803-06	Petri Dish Tower, 6-Position, Red
CLS-1803-07	Petri Dish Tower, 12-Position, Green

CLS-1803-06

Cell Spreaders are listed on page 211.



CLS-1803-07

CLS-1905 MINI-RUN GEL ELECTROPHORESIS SYSTEM

CLS-1905

The Mini-Run horizontal gel apparatus can be used for almost any agarose gel electrophoresis application. The chamber has a built-in DC power supply so you can just plug it in and be ready to run your gel. The cover and gel chamber are both made from an advanced etch-resistant plastic and the electrodes are platinum coated for clean operation and durability.

Power	AC100V-110V, 50-60Hz
Output Voltage	DC50V/DC100V
Bath Volume	250ml (Each Chamber)
Comb Sizes (Width x Thickness x No. of Teeth)	4mm x 1mm x 8, 4mm x 1mm x 17, 6mm x 1mm x 6, 6mm x 1mm x 12
Gel Migration Area	60 x 55 mm or 110 x 55 mm
Overall Dimensions	192x130x60mm (L x W x H)
Warranty	1 year

Part Number	Description
CLS-1905-01	Mini-Run Gel Electrophoresis System

CLS-1907 ELECTROPHORESIS SYSTEM, BLUE LIGHT

CLS-19007
Detachable Gel Tank and Base Unit

Includes Gel Tanks Sizes:
15 x 7cm, 15 x 10cm and 15 x 15cm

- Compatible with gel trays 15 x 15cm or smaller
- Entire ME15 gel tank can be fitted perfectly on top of viewing platform
- Gel tank or UV tray can be placed directly on platform for gel observation
- Suitable for SYBR Green I/II, SYBR gold, Safe View and Midori Green dyes
- Save time with immediate visualization of DNA/RNA band migration
- Blue light LEDs do not require UV safety equipment
- Polycarbonate housing, aluminum base plate for illuminator, acrylic tank
- Durable and leakproof

Electrophoresis system equipped with blue light LEDs to allow for immediate visualization of DNA/RNA bands while running agarose gels. The unit comes complete with three gel trays, combs, and gel casting dams. The power supply is built in. This safe system is safe, unique, and powerful. Gel box can be easily removed from base illuminator. The box can only be placed one way onto the base to avoid running the power incorrectly.

CLS-19007
Base Unit

Output Voltage	10-150V/1V
Output Current	10-300mA/ 1mA
Max. Power	30 watts
Timer	1-999 minutes with alarm, continuous
Safety Device	no load detection
Blue Light Wavelength	470nm
LED Life	9000 hours
Dimensions	293 W x 200 L x 80 H (mm)

Part Number	Description
CLS-1907-01	Electrophoresis System, Complete

CLS-1906 AUTORADIOGRAPHY FILM

- Ideal for chemiluminescence
- Suitable for use with 14C, 32P, 33P, 125I, 35S
- Compatible with automatic processors
- Packaged in lined, light-safe, dispenser boxes of 100 sheets per box
- High contrast / reduced background / publication quality / double emulsion

BluBlot™ HS is a high quality, blue sensitive film that is ideal for a wide range of electrophoretic and autoradiography applications. It can be used with calcium tungstate or blue-emitting rare-earth screens. BluBlot™ HS exhibits excellent sensitivity and contrast characteristics and is coated on both sides for improved consistency and overall performance. It reliably produces sharp, bright images that are easily visualized and suitable for publication.

Part Number	Description
CLS-1906-01	Autoradiography film, 5.5" x 7"
CLS-1906-02	Autoradiography film, 8.5" x 10.5"

CLS-1906

CLS-1909 RedSafe™ Nucleic Acid Staining Solution

- Non-toxic, non-mutagenic, non-carcinogenic
- Excitation: 309 nm and 419 nm (fluorescence) 541nm (visible)
- Emission: 537nm (fluorescence)
- Stable at room temperature

RedSafe™ Nucleic Acid Staining Solution is a new and safe alternative to the traditional ethidium bromide (EtBr) stain for detecting DNA and RNA in agarose gels. RedSafe is just as sensitive as EtBr and the staining protocol is also very similar, however, compared to EtBr, which is known as a strong mutagen, RedSafe causes much fewer mutations in the Ames test. Most importantly, it is not considered hazardous waste, can be disposed of according to standard laboratories procedures, and is stable for years.

Part Number	Description
CLS-1909-01	RedSafe™ Nucleic Acid Staining Solution, 1ml

CLS-1909

- Non-toxic, non-mutagenic, non-carcinogenic
- Excitation: 309 nm and 419 nm (fluorescence) 541nm (visible)
- Emission: 537nm (fluorescence)
- Stable at room temperature

CLS-1625 UV LAMPS, HANDHELD, CORDLESS, WITH SAFETY SWITCHES, CHARGER & BATTERIES

Safe and easy to operate, these cordless lamps automatically turn off when inverted to protect the user from harmful UV radiation exposure. Models are available in wavelengths of 254nm, 365nm and a combo unit featuring both wavelengths.

See the Equipment section for additional details.

Part Number	Description
CLS-1625-100	UV Lamp, 254nm, Handheld, Cordless
CLS-1625-102	UV Lamp, 365nm, Handheld, Cordless
CLS-1625-104	UV Lamp, 254 / 365nm, Handheld, Cordless

Cordless, UV Lamps with Safety Switches to Protect Users from Accidental Exposure

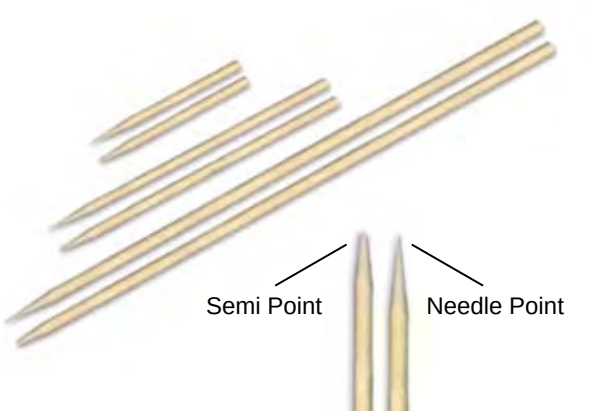
- Reliable, high intensity UV
- Portable, lightweight and ergonomic
- Single or dual wavelength units
- Charger and batteries included

CLS-2458 INOCULATING LOOPS AND NEEDLES, STERILE

Loops and needles are made from high quality polypropylene and are available in 3 styles: needle, 1µl loop and 10µl loop. The stems are flexible and can be bent to access small volume tubes and dishes. Color coded for easy identification. The surface of the loops and needles are vacuum-gas plasma treated. Packaged in peel-to-open paper/plastic wrappers. Product is sterile (gamma irradiated).

Part Number	Description	Bag Qty.	Case Qty.
CLS-2458-001	1µl Inoculating Loop, White	20	2,000
CLS-2458-010	10µl Inoculating Loop, Blue	20	2,000
CLS-2458-015	Inoculating Needle, Yellow	20	2,000
CLS-2458-002	1µl Inoculating Loop, White, Individually Wrapped	1	600
CLS-2458-012	10µl Inoculating Loop, Blue, Individually Wrapped	1	600

CLS-3670 INOCULATION PICKS, smartPicks™



- Go from autoclave to microtube
- Available in three lengths and with semi or needle points
- Non-sterile, meet FDA requirements for food
- 100% USA grown White Birch
- Environmentally friendly – naturally biodegradable

Made in a USA, ISO and FDA registered facility, wooden inoculation picks provide a faster way to inoculate. It's simple, after autoclaving, just "pick" the colony, drop the wooden pick into your media and close the lid. No need to remove the pick. Available in three convenient sizes to accommodate various transfer, inoculation and streaking needs.

Part Number	Description	OD x Length (cm)	Pkg. Qty.
CLS-3670-100	Mini, Semi Point, Fits 1.5mL Tubes	0.254 x 3.25	2000
CLS-3670-102	Mini, Needle Point, Fits 1.5mL Tubes	0.254 x 3.25	2000
CLS-3670-104	Standard, Semi Point	0.254 x 6.35	1600
CLS-3670-106	Standard, Needle Point	0.254 x 6.35	1600
CLS-3670-108	Large, Semi Point	0.3175 x 15.24	500
CLS-3670-110	Large, Needle Point	0.3175 x 15.24	500

Plates are available in 6, 12, 24, 48 and 96 well configurations.

Each well is labeled with large alpha-numeric markings for easy identification.

CLS-3501 PLATES, NON-TREATED, FLAT BOTTOM, STERILE

CELLTREAT® non-treated plates are available in 6, 12, 24, 48 and 96-well configurations. Each well is labeled with large alpha-numeric markings for easy identification. Each well has a raised rim which nests into the rings on the single direction lid to reduce evaporation and limit the risk of cross contamination. The lid also features an exterior stacking ring for added stability when handling tall stacks of plates. All plates are packaged in paper/plastic peel pouches that are designed to keep the plates in pristine condition during transit. The lot number is printed on each pouch. All plates are supplied sterile (gamma irradiated) and include lids. The shapes of the wells are round with a flat bottom.

Part Number	Description	Total Volume (mL)	Pack Qty.	Case Qty.
CLS-3501-006	Non-Treated Plate 6-Well	15.5	1	100
CLS-3501-012	Non-Treated Plate 12-Well	6.0	1	100
CLS-3501-024	Non-Treated Plate 24-Well	3.5	1	100
CLS-3501-048	Non-Treated Plate 48-Well	1.0	1	100
CLS-3501-096	Non-Treated Plate 96-Well	0.37	1	100

CLS-3503 PLATES, NON-TREATED, STERILE, WITHOUT LID

CELLTREAT® non-treated plates without lids are available in 96-well configurations. These plates are ideal when using sealing films. Each well is labeled with large alpha-numeric markings for easy identification. Each well has a raised rim which nests into the rings on the single direction lid to reduce evaporation and limit the risk of cross contamination. All plates are packaged in paper/plastic peel pouches that are designed to keep the plates in pristine condition during transit. The lot number is printed on each pouch. All plates are supplied sterile (gamma irradiated). The shapes of the wells are round with either a round or flat bottom.

Part Number	Description	Pack Qty.	Case Qty.
CLS-3503-R96	Plate, Non-Treated, 96-Well, Round Bottom	1	100
CLS-3503-F96	Plate, Non-Treated, 96-Well, Flat Bottom	1	100

CLS-4054

CLS-4054 THERMAL CYCLER, WITH COLOR TOUCH-SCREEN

- Large, Full Color Touch-Screen
- Program Wizard
- Fully Adjustable Heated Lid
- Available in Multi-Block and 384-Well Plate Formats

Provides consistent, reliable results for laboratories with medium to high throughput. From its large, touch-screen user interface to its unique, multi-format block, this cycler is loaded with features. The program wizard and 10 preinstalled programs make it easier than ever to get up and running.

Specifications

Capacity	
Multi-Format Block	96 x 0.2mL Tubes/Strips or 39 x 0.5mL Tubes or 1 x PCR Plate
384-Well Block	1 x 384-Well Plate
In-Situ Adapter	4 Slides (for use with Multi-Format Block)
Temp. Control Range	0 to 100°C
Temp. Control	Simulated Sample or Block
Accuracy/Uniformity	±0.2°C / ±0.2°C
Ramp Rate	4°C/Sec (Maximum)
Lid Temp	30 to 112°C, User Adjustable
Program Memory	Unlimited with Flash Drive
Increments/Decrements	Yes, Both Time and Temperature
Multi-User Login	Yes, with Password Protection
Power Failure Restart	Yes
Power Supply	Universal, 75 to 275V, 50 to 60Hz
Communication	USB, LAN and RS232
Dimensions	10.2 x 14.2 x 9.9in / 26 x 36 x 25cm
Weight	16lbs / 7.3kg
Warranty	2 Years

Part Number	Description
CLS-4054-200	Thermal Cycler with Multi-Format Block
CLS-4054-210	Thermal Cycler with 384-Well Block
CLS-4054-225	In-Situ Adapter for CLS-4054-200

CLS-4052 THERMAL CYCLER, 24-WELL

- Mini-sized thermal cycler
- Large display
- Fully adjustable heated lid

A superior mini-sized thermal cycler. This compact thermal cycler has the footprint of a lab notebook and can be tucked into even the smallest nooks on a lab bench. Offering the perfect blend of super-speed protocol times, large display, do-it-yourself programming, and integrated heated lid, there is little that this PCR machine cannot do.

Specifications

Interchangeable Blocks	No
Capacity	24 x 0.2mL Tubes or
	3 x 8-Tube Strips (Standard or Low Profile)
Temp. Range	4-99°C
Thermal Gradient	No
Heating Rate	≥5°C/Sec
Cooling Rate	≥4°C/Sec
Thermal Uniformity	±0.2°C (at 90°C)
Thermal Accuracy	±0.2°C (at 90°C)
Heated Lid	Yes, Fully Adjustable
Temp. Control Mode	Block or Sample
Communication Ports	RS232
Display	320 x 240 LCD
Graphical Programming	Yes
Programs	≥100 Individual Programs
Power Supply	VAC 100-240, 50-60 Hz, 200W
Size (L x W x H) cm	29.7 x 21.2 x 20.0
Weight	3.2kg
Warranty	2 Years

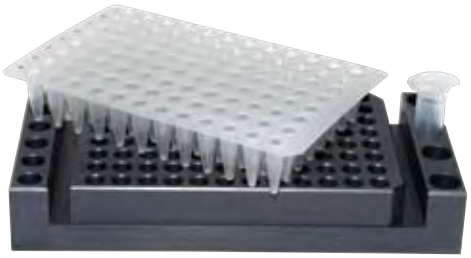
Part Number	Description
CLS-4052-100	Thermal Cycler, 24-Well

CLS-3508

CLS-3508 COOL BLOCK, 96-WELL FLAT BOTTOM PLATE

Similar to our CLS-3620, but designed to fit a flat bottom 96-well plate. Additional holes on the sides hold 10 each 1.5 or 2mL tubes and 12 each 0.5mL tubes. Dimensions are 7.5” x 3” x 1”.

Part Number	Description
CLS-3508-01	Cool Block for 96-Well Flat Bottom Plate



CLS-3620

CLS-3620 COOL BLOCK, FITS 96 WELL PCR PLATE/TUBES

- Provides Stable Platform for PCR Plate or Tubes Making it Easy to Add Samples to the Wells
- Can be Stored in the Refrigerator or Freezer

Solid aluminum metal chamber for 96 well PCR plate or tubes. Ideal way to keep PCR tubes and plates uniformly cold during sample preparation. Place the metal chamber in a dry ice bucket or on Lab Armor Beads (CLS-2991). Dimensions are 6.” x 3.2” x 1”.

Part Number	Description
CLS-3620-01	Cool Block for 96-Well PCR Plate/Tubes

CLS-3621

CLS-3621 COOL BLOCK, DOUBLE 96 WELL

Similar to CLS-3620, but made to hold 2 each 96 well PCR plates and PCR tubes. Because of its two tray design, transferring from one PCR plate to the other or process two different plates at once. Dimensions are 6.2” x 6.7” x 1”.

Part Number	Description
CLS-3621-01	Cool Block for 2 PCR Plates

CoolCube Cooler will hold up to:

36 – 1.5mL Tubes or

96 – 0.2mL Tubes or

12 – 0.2mL Strips or

1 – 96-Well PCR Plate

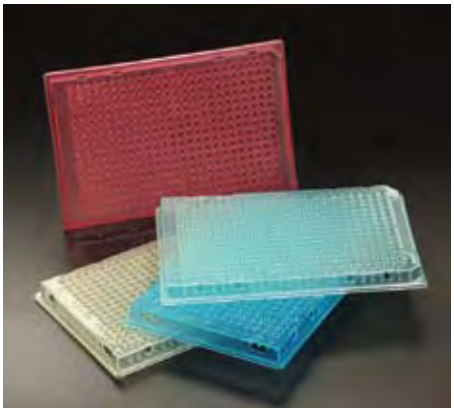
CLS-3200 COOLCUBE™ MICROTUBE AND MICROPLATE COOLER

The CoolCube™ is designed to store samples safely on the lab bench without sample degradation due to temperature increase or fluctuation. Constructed of DuraStar (a high strength polymer) and a patented gel refrigerant, the CoolCube™ maintains temperature at approximately 0°C for up to four hours. Simply place the CoolCube™ in a freezer overnight and it’s ready for use, keeping samples cool and safe at the bench, without messy ice buckets or wet tubes. One side of the CoolCube™ can be used as a convenient PCR workstation with wells for 12 standard 1.5 / 2.0mL microtubes and one 96 well PCR plate or 0.2mL tubes/strips. The other side can be used to hold 36 standard 1.5/2.0mL microtubes. Dimensions are 5.6” x 5.6” x 2.5”. Weighs 2lbs.

Part Number	Description
CLS-3200-001	CoolCube™ Microtube and Microplate Cooler

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-3614 PCR REACTION PLATES, THIN WALL, SKIRTED, AMPLATE™, 384-WELL



This plate has been developed for high volume laboratory work. It is precision molded to ensure well-to-well and plate-to-plate uniformity. The design of the AMPLATE™ 384 is such that each well having 40uL capacity can be used with reaction volumes from 2 to 30uL. All wells on the plate are thin-walled to ensure that an efficient and fast heat transfer is occurring.

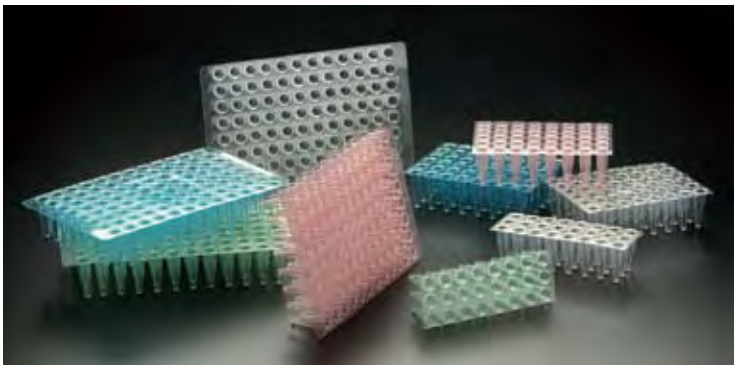
Although it has 384 wells, it can be filled using automated fluid handling systems or standard multi-channel pipettors. In order to offer more surface contact between the plate and the sealing medium, such as thermal foil and adhesive sealing films, there are no cylindrical walls extending above the plate.

The AMPLATE™ 384 is skirted to allow bar coding on sides for identification and also to make it compatible with automated fluid handling systems. Holes on sides allow for precise and accurate plate positioning and removal. An alphanumeric grid helps in locating the sample. Two corners of the plate are cut away to facilitate orientation.

More economical than using single tubes, strips and even 96-well plates. Available in four popular colors or colorless. Autoclavable. Packed in cases of 100 with tamper-proof, resealable bags of 10 plates each.

Part Number	Description	Case Qty.
CLS-3614-01B	Plate, PCR Skirted, Thin Wall, 384-Well, Blue	100
CLS-3614-01G	Plate, PCR Skirted, Thin Wall, 384-Well, Green	100
CLS-3614-01N	Plate, PCR Skirted, Thin Wall, 384-Well, Natural	100
CLS-3614-01R	Plate, PCR Skirted, Thin Wall, 384-Well, Red	100
CLS-3614-01Y	Plate, PCR Skirted, Thin Wall, 384-Well, Yellow	100

CLS-3615 PCR REACTION PLATES, THIN WALL, AMPLATE™, 96-WELL



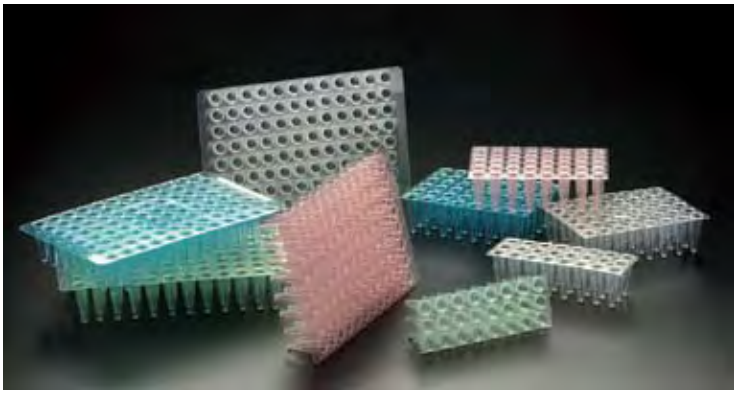
These 96-well PCR plates are thin-walled and designed for rapid thermal transfer. Each well has a capacity of 0.2mL. They are precision molded to ensure well-to-well and plate-to-plate uniformity. The insides of the tubes are smooth and have an inert surface which enzymes and nucleic acids do not bind.

The plate will accommodate differences in expansion coefficients between the metal thermal cycler block and polypropylene tubes. An alphanumeric grid helps with sample identification. To facilitate orientation, the bottom right corner is cut away.

The AMPLATE™ 384 is easy to seal since no cylindrical walls extend above the plate. More economical than using single tubes, it is available in four popular colors or colorless. Autoclavable. Packed in cases of 100 with tamper-proof, resealable bags of 10 plates each.

Part Number	Description	Case Qty.
CLS-3615-01B	Plate, PCR Reaction, Thin Wall, 96-Well, Blue	100
CLS-3615-01G	Plate, PCR Reaction, Thin Wall, 96-Well, Green	100
CLS-3615-01N	Plate, PCR Reaction, Thin Wall, 96-Well, Natural	100
CLS-3615-01R	Plate, PCR Reaction, Thin Wall, 96-Well, Red	100
CLS-3615-01Y	Plate, PCR Reaction, Thin Wall, 96-Well, Yellow	100

CLS-3613 PCR PLATES, RAISED RIM, THIN WALL AMPLATE™



- 96-well, 8 x 12 format
- Raised rim
- Optimal rigidity for automation
- Uniform wall thickness for even heat transfer
- Low-adhesion polypropylene

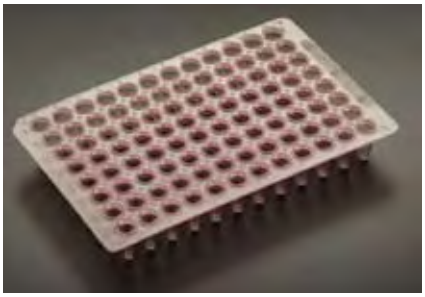
Amplate™ raised rim, thin wall plates are the latest addition to the wide range of Simport PCR products. Offering just the right rigidity for automation, these 96-well plates, made in a standard 8x12 configuration, are perfectly suited for high performance thermal cycling. Each well makes intimate contact with the heating block while quick and consistent heat transfer is ensured by uniform wall thickness. Using a special polypropylene, samples are easily recovered thanks to a low adhesion surface. Plates on all models can be cut into strips of 16-wells (2x8).

These plates offer the right alternative to existing Robbins, Corning and Perkin Elmer models. CLS-3613-02 series has a 3mm raised rim around each tube well. The latter is supplied with a wide skirt extending over and under the plate on which a bar code can be affixed for identification. The CLS-3613-03 series also offers the same skirt but the rim above each tube is only 1mm high.

All sealing methods can be used for oil-free operation; domed and flat cap strips and CLS-4001 series sealing films are available. To facilitate orientation, one corner of the plate is cut away. An alphanumeric grid helps sample identification. Available in four pastel colors or colorless. Autoclavable. Packed in cases of 100 with tamper-proof, resealable bags of 10 plates each.

Part Number	Description	Case Qty.
CLS-3613-02B	Plate, PCR Skirted, 3mm Rim, 250uL, Blue	100
CLS-3613-02G	Plate, PCR Skirted, 3mm Rim, 250uL, Green	100
CLS-3613-02N	Plate, PCR Skirted, 3mm Rim, 250uL, Natural	100
CLS-3613-02R	Plate, PCR Skirted, 3mm Rim, 250uL, Red	100
CLS-3613-02Y	Plate, PCR Skirted, 3mm Rim, 250uL, Yellow	100
CLS-3613-03B	Plate, PCR Skirted, 1mm Rim, 200uL, Blue	100
CLS-3613-03G	Plate, PCR Skirted, 1mm Rim, 200uL, Green	100
CLS-3613-03N	Plate, PCR Skirted, 1mm Rim, 200uL, Natural	100
CLS-3613-03R	Plate, PCR Skirted, 1mm Rim, 200uL, Red	100
CLS-3613-03Y	Plate, PCR Skirted, 1mm Rim, 200uL, Yellow	100

CLS-3616-01 PCR REACTION PLATES, LOW PROFILE, AMPLATE™, 96-WELL



These low profile 96-well PCR reaction plates are similar to the regular CLS-3615 series, however, each of the tubes only has a volume of 100µL, thereby reducing the dead space between sample and cover.

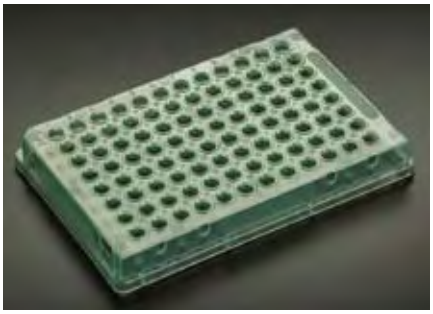
Thin-walled and designed for rapid thermal transfer. Precision molded to ensure well-to-well and plate-to-plate uniformity. All sealing methods can be used for oil-free operation: domed and flat cap strips and CLS-4001 series sealing films and foils are available. Suitable to be used with all 96-well shaped cyclers such as: Ericomp Twinblock, Perkin Elmer 9600 and MJ Research 100/200 96V.

The flexible design accommodates differences in expansion coefficients between the metal thermal cycler block and the polypropylene tubes.

An alphanumeric grid helps in sample identification. To facilitate orientation, the two left corners of the plate are cut away. The AMPLATE™ is easy to seal since no cylindrical wall extend above the plate. More economical than using single tubes, it is available in four popular colors or colorless. Autoclavable. Packed in cases of 100 with tamper-proof, resealable bags of 10 plates each.

Part Number	Description	Case Qty.
CLS-3616-01B	Plate, PCR Low Profile, 96-Well, Blue	100
CLS-3616-01G	Plate, PCR Low Profile, 96-Well, Green	100
CLS-3616-01N	Plate, PCR Low Profile, 96-Well, Natural	100
CLS-3616-01R	Plate, PCR Low Profile, 96-Well, Red	100
CLS-3616-01Y	Plate, PCR Low Profile, 96-Well, Yellow	100

CLS-3616-02 PCR REACTION PLATES, SKIRTED, AMPLATE™, 96-WELL



Similar to the CLS-3616 series these skirted 96-well PCR plates are thin-walled and designed for rapid thermal transfer. The skirt around the plate provides a bar coding and labeling area, unavailable on other types of plates. They are precision molded to ensure well-to-well and plate-to-plate uniformity. Quite superior to polycarbonate plates, they are impermeable to water vapor.

All sealing methods can be used for oil-free operation: domed and flat cap strips and CLS-4001 series sealing films and foils are available. Suitable to be used with all 96-well shaped cyclers such as: Ericomp Twinblock, Perkin Elmer 9600 and MJ Research 100/200 96V.

An alphanumeric grid helps in sample identification. To facilitate orientation, the top left corner of the plate is cut away. The AMPLATE™ is easy to seal since no cylindrical wall extend above the plate. More economical than using single tubes, it is available in four popular colors or colorless. Finally, the AMPLATE™ can be handled by robotic handling equipment and is ideal with automated pipetting systems. Autoclavable. Packed in cases of 100 with tamper-proof, resealable bags of 10 plates each.

Part Number	Description	Case Qty.
CLS-3616-02B	Plate, PCR Skirted, 96-Well, Blue	100
CLS-3616-02G	Plate, PCR Skirted, 96-Well, Green	100
CLS-3616-02N	Plate, PCR Skirted, 96-Well, Natural	100
CLS-3616-02R	Plate, PCR Skirted, 96-Well, Red	100
CLS-3616-02Y	Plate, PCR Skirted, 96-Well, Yellow	100

CLS-3617 PCR REACTION TUBE, AMPLITUBE™, 0.2ML, WITH CAP

Designed for oil-free operation, these tubes are made of transparent, superior quality polypropylene for better viewing of contents. Ultra thin wall ensures rapid thermal transfer and significant reduction in cycle and PCR reaction time. Ideal tube for centrifugation.

Hinged caps are either domed or flat-topped and can be used with heated lids in thermal cyclers. Caps provide positive sealing during thermal cycling and will prevent evaporation while being easily opened and closed with one hand. Include a frosted writing surface for sample identification. Choose from four non-cytotoxic, non-metallic colors or colorless. Packaged in tamper-proof, resealable, safety-lock bags. Autoclavable.

Part Number	Description	Case Qty.
CLS-3617-01B	Dome Top Reaction Tube, 0.2mL, Blue	1000
CLS-3617-01G	Dome Top Reaction Tube, 0.2mL, Green	1000
CLS-3617-01N	Dome Top Reaction Tube, 0.2mL, Natural	1000
CLS-3617-01R	Dome Top Reaction Tube, 0.2mL, Red	1000
CLS-3617-01Y	Dome Top Reaction Tube, 0.2mL, Yellow	1000
CLS-3617-02B	Flat Top Reaction Tube, 0.2mL, Blue	1000
CLS-3617-02G	Flat Top Reaction Tube, 0.2mL, Green	1000
CLS-3617-02N	Flat Top Reaction Tube, 0.2mL, Natural	1000
CLS-3617-02R	Flat Top Reaction Tube, 0.2mL, Red	1000
CLS-3617-02Y	Flat Top Reaction Tube, 0.2mL, Yellow	1000

CLS-3618 PCR REACTION TUBE, AMPLITUBE™, 0.5ML, WITH SNAP CAP

Designed for oil-free operation, the inside of these tubes have a polished surface, a conical shape and a round bottom for maximum sample recovery. They offer optimum contact with thermal cycler blocks. Their ultra thin wall design will ensure rapid thermal transfer and a significant reduction in cycle and PCR reaction time. Graduated in 0.1mL increments.

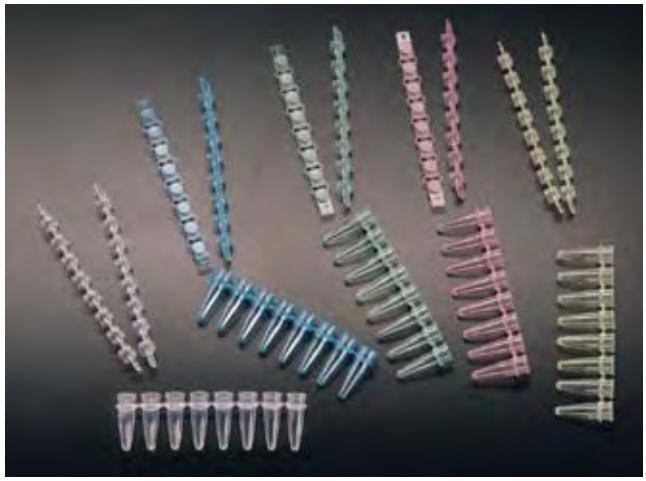
Attached hinged caps are either dome or flat-topped and provide positive sealing during thermal cycling stages. They will prevent evaporation while being easily opened and closed with one hand. Tubes come in a choice of colorless or four non-cytotoxic, non-metallic colors for visual coding of samples. Packaged in tamper-proof, resealable bags. Autoclavable.

Part Number	Description	Case Qty.
CLS-3618-01B	Dome Top Reaction Tube, 0.5mL, Blue	1000
CLS-3618-01G	Dome Top Reaction Tube, 0.5mL, Green	1000
CLS-3618-01N	Dome Top Reaction Tube, 0.5mL, Natural	1000
CLS-3618-01R	Dome Top Reaction Tube, 0.5mL, Red	1000
CLS-3618-01Y	Dome Top Reaction Tube, 0.5mL, Yellow	1000
CLS-3618-02B	Flat Top Reaction Tube, 0.5mL, Blue	1000
CLS-3618-02G	Flat Top Reaction Tube, 0.5mL, Green	1000
CLS-3618-02N	Flat Top Reaction Tube, 0.5mL, Natural	1000
CLS-3618-02R	Flat Top Reaction Tube, 0.5mL, Red	1000
CLS-3618-02Y	Flat Top Reaction Tube, 0.5mL, Yellow	1000

CLS-3610 PCR REACTION STRIPS, AMPLITUBE™, 0.2ML, AND CAP STRIPS

Reaction strips include (8) 0.2mL tubes with ultra thin sidewalls and bottoms for more uniform and efficient temperature transfer, therefore reducing PCR reaction time in most 96-well "V" bottomed thermal cyclers such as MJ Research, Perkin Elmer Hybaid and others. They are more easily handled than single tubes. They will precisely fit standard well spacing and can also be used with 8-channel hand-held pipetters.

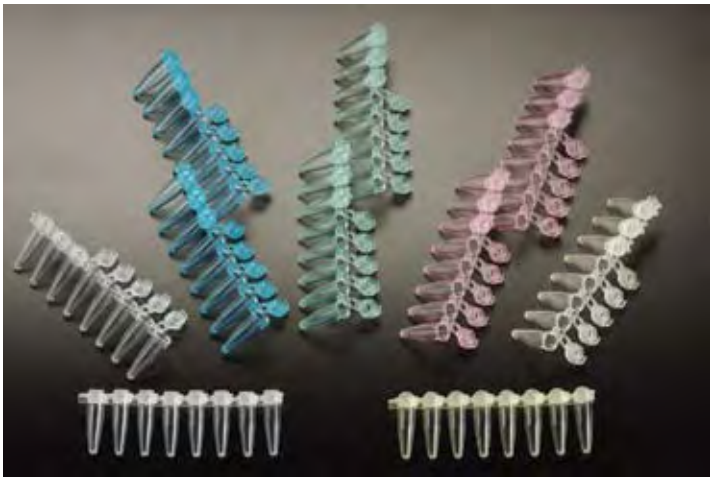
All strips are molded of polypropylene under the most stringent conditions and are offered in four different colors or colorless. Non-attached cap strips are available in dome or flat top designs and ensure a perfect closure during the whole thermal cycle. Cap strips are not included and have to be ordered separately, see listing below. Strips and cap strips are autoclavable.



Part Number	Description	Case Qty.
CLS-3610-01B	Reaction Strip of 8, 0.2mL, Blue	125
CLS-3610-01G	Reaction Strip of 8, 0.2mL, Green	125
CLS-3610-01N	Reaction Strip of 8, 0.2mL, Natural	125
CLS-3610-01R	Reaction Strip of 8, 0.2mL, Red	125
CLS-3610-01Y	Reaction Strip of 8, 0.2mL, Yellow	125
CLS-3610-02B	Domed Cap, Strip of 8, Blue	125
CLS-3610-02G	Domed Cap, Strip of 8, Green	125
CLS-3610-02N	Domed Cap, Strip of 8, Natural	125
CLS-3610-02R	Domed Cap, Strip of 8, Red	125
CLS-3610-02Y	Domed Cap, Strip of 8, Yellow	125
CLS-3610-03B	Flat Cap, Strip of 8, Blue	125
CLS-3610-03G	Flat Cap, Strip of 8, Green	125
CLS-3610-03N	Flat Cap, Strip of 8, Natural	125
CLS-3610-03R	Flat Cap, Strip of 8, Red	125
CLS-3610-03Y	Flat Cap, Strip of 8, Yellow	125

Find Thermal Cyclers listed on pages 220-221.

CLS-3611 PCR REACTION STRIPS, AMPLITUBE™, 0.2ML WITH ATTACHED CAP



This more convenient 0.2mL tube strip incorporates individually attached caps. No need to carry two separate components in inventory. The strip includes (8) integral 0.2mL tubes with ultra thin sidewalls and bottoms for more uniform and efficient temperature transfer.

This PCR reaction strip is available with either flat, needle pierceable or dome-topped, individually attached, hinged caps. While easily opened and closed with one hand, their positive sealing will fully protect contents from evaporating during the whole thermal cycle. The cap has an integral seal, preventing contamination with surface of lid.

While more easily handled than single tubes, the strip will precisely fit standard well spacing and can also be used with 8-channel hand-held pipetters. Manufactured under the most stringent conditions to attain the highest quality standards in the industry. Offered in four non-cytotoxic, metallic colors or colorless. Autoclavable. Packed in tamper-proof, resealable bags.

Part Number	Description	Case Qty.
CLS-3611-01B	Reaction Strip of 8, 0.2mL, Blue, Dome Top Snap Cap	125
CLS-3611-01G	Reaction Strip of 8, 0.2mL, Green, Dome Top Snap Cap	125
CLS-3611-01N	Reaction Strip of 8, 0.2mL, Natural, Dome Top Snap Cap	125
CLS-3611-01R	Reaction Strip of 8, 0.2mL, Red, Dome Top Snap Cap	125
CLS-3611-01Y	Reaction Strip of 8, 0.2mL, Yellow, Dome Top Snap Cap	125
CLS-3611-02B	Reaction Strip of 8, 0.2mL, Blue, Flat Top Snap Cap	125
CLS-3611-02G	Reaction Strip of 8, 0.2mL, Green, Flat Top Snap Cap	125
CLS-3611-02N	Reaction Strip of 8, 0.2mL, Natural, Flat Top Snap Cap	125
CLS-3611-02R	Reaction Strip of 8, 0.2mL, Red, Flat Top Snap Cap	125
CLS-3611-02Y	Reaction Strip of 8, 0.2mL, Yellow, Flat Top Snap Cap	125

CLS-4000 SEALMATE™ SEALING SYSTEM - Easy to Load, Easy to Use

- Three Times Faster than Sheet Films
- Inexpensive Applicator
- Smooth Lower Surface for Pressing Film to the Plate
- Available Sterile or Non-Sterile

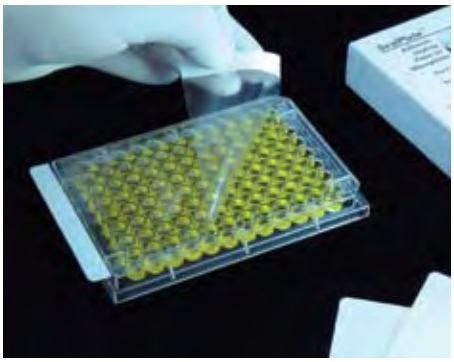
The SealMate™ System consists of a molded polypropylene dispenser with a unique hinged clamshell design combined with adhesive sealing films manufactured in a novel sheeted-roll configuration.

The SealMate Dispenser serves a dual purpose! It facilitates sheet dispensement and the subsequent application of the sealing film to the plate. It also provides a protective enclosure for the film roll prior to dispensing. It is reusable and can be re-sterilized or decontaminated by autoclaving. The flexible hinge allows the dispenser to completely open for easy film reloading.

Part Number	Description
CLS-4000-001	SealMate™ SealPlate® Starter Kit: Dispenser + 2 Rolls SealPlate® Film, Non-Sterile
CLS-4000-002	SealMate™ SealPlate® Starter Kit: Dispenser + 2 Rolls SealPlate® Film, Sterile
CLS-4000-003	SealMate™ AeraSeal™ Starter Kit: Dispenser + 2 Rolls AeraSeal™ Film, Non-Sterile
CLS-4000-004	SealMate™ AeraSeal™ Starter Kit: Dispenser + 2 Rolls AeraSeal™ Film, Sterile
CLS-4000-005	SealPlate® Film Only, Non-Sterile, 2 Rolls, 100 / Roll
CLS-4000-006	SealPlate® Film Only, Sterile, 2 Rolls, 100 / Roll
CLS-4000-007	AeraSeal™ Film Only, Non-Sterile, 2 Rolls, 50 / Roll
CLS-4000-008	AeraSeal™ Film Only, Sterile, 2 Rolls, 50 / Roll
CLS-4000-009	Seal Mate™ Dispenser Only, Non-Sterile
CLS-4000-010	Seal Mate™ Dispenser Only, Sterile

CLS-4001 SEALPLATE® SEALING FILM

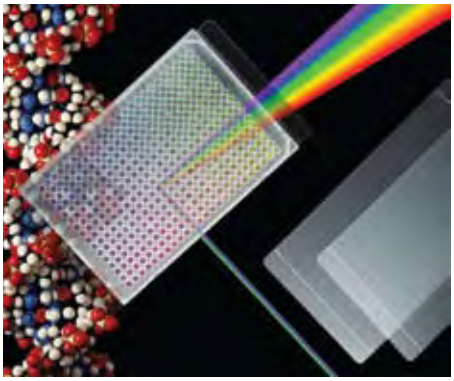
- 50µm polyester sealing film with a functional temperature range of -40° to +120°C
- Available sterile or non-sterile



SealPlate® 50µm thickness polyester sealing films minimize evaporation, prevent spillage and contamination between wells, and provide a secure seal, not just a cover. Secure sealing of all wells eliminates “edge effects” in sensitive ELISA assays. SealPlate® sealing films can be used with tissue culture plates for short-term storage, incubation, and containment of biohazards. SealPlate® sealing films are non-pierceable. Each SealPlate® sealing film measures 79.4 x 146.1mm and is packed in boxes of 100.

Part Number	Description
CLS-4001-001	Sealing Film, SealPlate®, Non-Sterile, 100/Box
CLS-4001-003	Sealing Film, SealPlate®, Sterile, 100/Box
CLS-4001-00R	Plate Roller*

*Completing application of sealing films by pressing with the accessory plate roller assures a secure and uniform seal around all wells.



CLS-4001-005

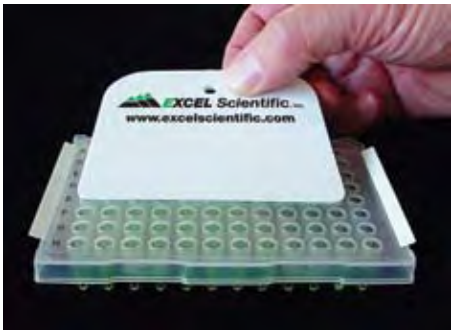
CLS-4001 THERMALSEAL RT™ SEALING FILM FOR REAL TIME PCR

- "Brilliant" Ultra-High Optical Clarity
- Heat Resistant; Recommended for Temperatures from -40° to +120°C
- Certified DNase-, RNase-, and Nucleic-Acid-Free

ThermalSeal RT™ 50µm thick sealing films combine optically transparent polyester sealing film with a strong, ultra-smooth, non-absorbing, non-fluorescing, medical-grade adhesive for superior performance in real-time PCR applications. In place of the customary paper backing, ThermalSeal RT™ sealing films have a plastic liner which is easily removed before use and contributes smoothness and extreme optical clarity to the adhesive. Dimensions are 79.4 x 142.9mm for sealing PCR plates. Length between the perforations with end tabs removed is 121.9mm. **Packed in boxes of 100.**

Part Number	Description	Pkg. Qty.
CLS-4001-005	Sealing Film, 50µm Thick	100
CLS-4001-00R	Plate Roller*	1

*Completing application of sealing films by pressing with the accessory plate roller assures a secure, uniform seal around all wells.



CLS-4001-006

CLS-4001 THERMALSEAL A™ SEALING FILM FOR CLASSIC PCR

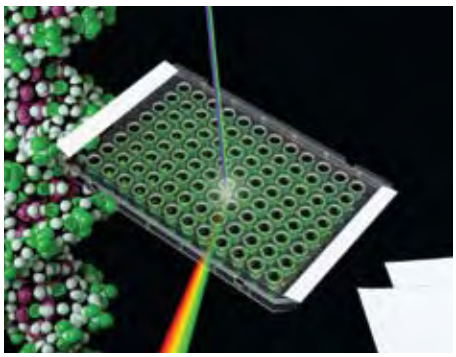
- Stronger and Thicker 50µm Adhesive Layer for a Secure Seal
- Heat Resistant; Recommended Temperatures from -40°C to +125°C
- Can be used with Raised-Rim PCR Plates and Standard Plates
- Two End Tabs which are Perforated for Easy Removal
- Certified DNase-, RNase-, and Nucleic-Acid-Free

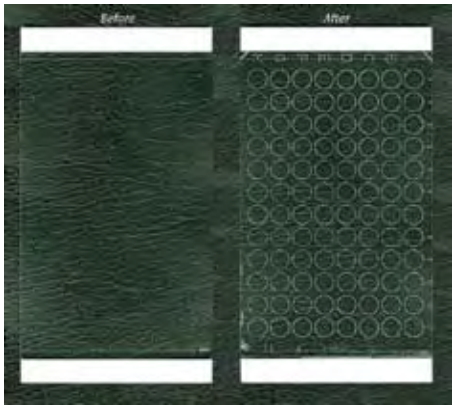
ThermalSeal A™ sealing films are an advanced version of Excel Scientifics' classic ThermalSeal® sealing films for PCR. ThermalSeal A™ films consist of 50µm thick clear polypropylene with a thicker 50µm layer of a stronger adhesive formulated for improved protection against evaporation and leakage during thermal cycling. Intended for Non-Real-Time PCR applications. Dimensionally cut for a universal fit yields a secure seal for both raised-rim and flat top PCR plates. Two end tabs allow for easy positioning of the film on the plate but are perforated for easy removal if necessary. Film dimensions with end tabs are 135.5 x 77.8mm, without end tabs length is 118.1mm with 45° corners. Each package of ThermalSeal A™ films includes one sealing paddle for ensuring a firm seal, also compatible with raised-rim plates. **Packed in boxes of 100.**

Part Number	Description	Pkg. Qty.
CLS-4001-006	Sealing Film, Non-Sterile	100
CLS-4001-00P	Film-Sealing Paddle*	5

*Completing application of sealing films by pressing with accessory film-sealing paddle assures a secure, uniform seal around all the wells. The paddle fits within the edge of raised-rim plates.

CLS-4001 THERMALSEAL RTS™ SEALING FILM FOR qPCR, STORAGE AND CRYSTALLIZATION





CLS-4001-007

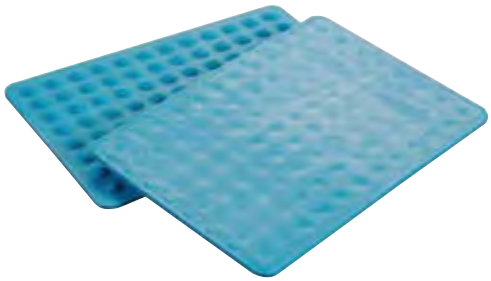
- High Optical Clarity
- Minimal to No Auto-Fluorescence
- Chemically Inert; No Extractables Except at Extreme pH
- DMSO Resistant for HTS
- Heat Resistant; Recommended for Temperatures from -70° to +100°C
- Certified Dnase-, RNase-, and Nucleic-Acid-Free
- Fit within Raised Plate Rim to Prevent Loss of Seal due to Film Lifting
- Silicone Adhesive Forms the Strongest Available Seal for Evaporation Prevention
- Non-Tacky Adhesive Layer Simplifies Handling of Film Prior to Sealing

ThermalSeal RTS™ sealing films are based on 50µm polyolefin films with 50µm inert encapsulated silicone adhesive. They are optically clear with low auto-fluorescence and are especially suited for real-time qPCR, storage and protein crystallization applications. The encapsulated silicone adhesive is non-tacky until pressed against the sealing surface, at which time adhesive is released only in sealing areas to form the strongest available heat-resistant seal around each well on the plate. Adhesive on non-sealing areas of the film, such as directly over sample wells, remains encapsulated and inert. ThermalSeal RTS™ films are sized to fit within the edges of raised-rim 96-well plates. Their consistent high optical clarity makes possible reproducible, reliable, and consistent DNA amplification measurements and crystal detection. Two end tabs assist in positioning the film on the plate and the non-tacky adhesive surface simplifies handling. Easy removal of the end tabs at perforated boundaries prevents lifting and higher evaporation rates that can occur with films that overlap the plate rim. Dimensions: 76.2 x 133.4mm, with end tabs removed, length is 113.0mm. **Packed in boxes of 100.**

Part Number	Description	Pkg. Qty.
CLS-4001-007	Sealing Film, Non-Sterile	100
CLS-4001-00P	Film-Sealing Paddle*	5

*Completing application of sealing films by pressing with accessory film-sealing paddle assures a secure, uniform seal around all the wells. The paddle fits within the edge of raised-rim plates.

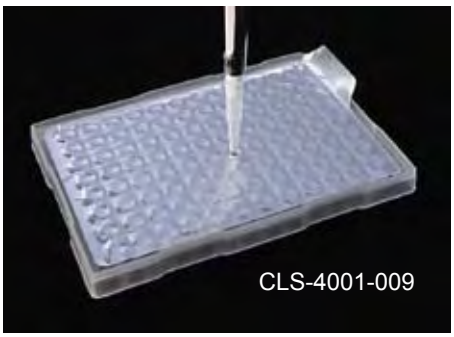
CLS-3609 MAT FOR 96-WELL PCR PLATES, SANTOPRENE®

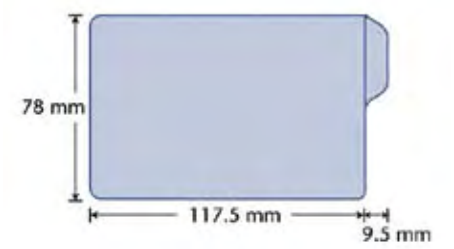


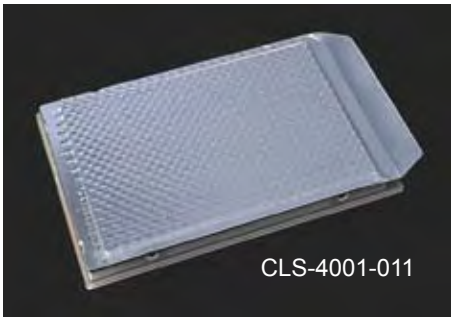
CLS-3609

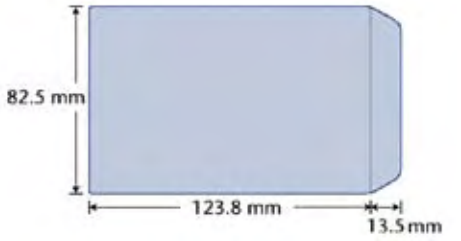
This flexible sealing cover is used on 96-well plates along with clip down and screw top thermal cyclers and has been proven to be a secure and effective way of sealing. Since it is reusable, it is a nice way to make this step of the procedure cost effective. Dimples on one side of the mat ensure it is well placed over the tubes. Autoclavable.

Part Number	Description	Pkg. Qty.
CLS-3609-01	Mat for 96-Well PCR Plates	5









CLS-4001 ALUMASEAL™ SEALING FILM

- Available for 96- and 384-Well Plates
- Fits Inside Rim of Raised-Rim Plates
- Heat and Cold Resistant: Recommended for Temperatures from -40° to +150°C
- Certified DNase-, RNase-, and Nucleic-Acid-Free
- Replaces Corning® / Costar® # 6570 and # 6569

A 38µm thick aluminum foil sealing film for use with well plates. Fits inside the rim of raised-rim plates. AlumaSeal™ sealing films have one partial-width end tab with no perforations. Pierceable. Packed 100 per box.

	AlumaSeal 96™ CLS-4009-001	AlumaSeal 384™ CLS-4001-011
Well Plate Size	96	384
Film Dimensions, Including single end tab. (mm)	127 x 78	137.3 x 82.5
End Tab Length (mm)	9.5	13.5
Thickness (mm)	38µm	38µm

Part Number	Description	Pkg. Qty.
CLS-4001-009	96-Well Sealing Film, Non-Sterile	100
CLS-4001-011	384-Well Sealing Film, Non-Sterile	100
CLS-4001-00P	96-Well Film-Sealing Paddle*	1
CLS-4001-00R	384-Well Film-Sealing Paddle*	1

*Completing application of AlumaSeal™ sealing films by pressing with accessory film-sealing paddles to assure a secure, uniform seal around all the wells. The paddles fit within the rims of a raised-well plates.

CLS-4001 AERASEAL™ SEALING FILM FOR CELL AND TISSUE CULTURE

- Non-Cyrotoxic, Highly Gas Permeable
- Easily Pierceable with Pipet Tips for Sample Recovery
- Recommended for Temperatures from -20° to +80°C

A 114µm thick hydrophobic porous sealing film with medical-grade adhesive for tissue culture plates, bio-blocks, and 96-well plates where gas exchange is necessary for cell or bacterial growth. AeraSeal™ sealing films minimize cross-contamination, spillage and evaporation. They allow uniform air and CO_2 exchange for all wells, unlike plate lids which favor exchange for the wells near the plate edges.

Dimensions: 82.6 x 142.9mm for standard-size tissue culture plates.

Part Number	Description	Pkg. Qty.
CLS-4001-013	Sealing Film, AeraSeal™, Non-Sterile, 100/Box	100
CLS-4001-015	Sealing Film, AeraSeal™, Sterile, 25/ Bag, 50/Box	50
CLS-4001-00R	Plate Roller*	1

*Completing application of sealing films by pressing with the accessory plate roller assures a secure, uniform seal around all wells.

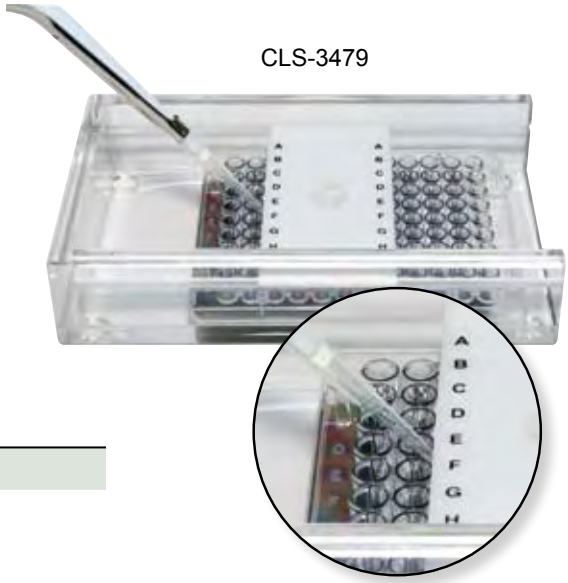
CLS-3479 PIPETTING GUIDE

- Features a Plastic Sliding Guide Above the Micro-plate to Help Alignment
- Sliding Guide is Clearly Marked for Fast and Easy Orientation
- Guide is Compatible With or Without Well Locator Stand (CLS-3478)
- Helps to reduce eye strain

Place well locator and micro-plate in this guide to help align pipettor with the micro-plate wells.

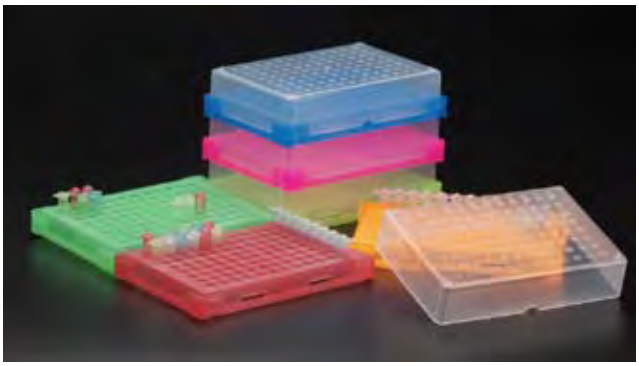
Part Number	Description
CLS-3479-01	Pipetting Guide, Acrylic, Each

CLS-3479



Guide helps align pipetter with wells.

CLS-3619 RACK, PCRack™ FOR PCR REACTION TUBES



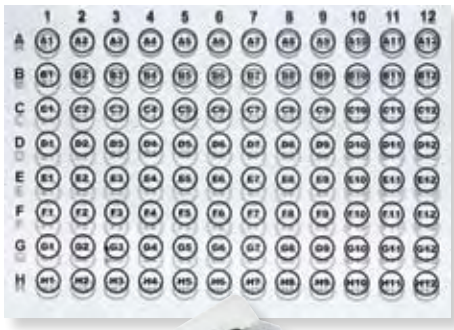
Convenient, space-saving rack designed for storing and working with PCR samples. The PCRack™ accepts all 0.2mL tubes, along with strips of 8 or 12 tubes. 96-well PCR plates can also be accommodated.

PCRacks™ can be horizontally attached to each other to form any configuration desired. With covers on, they easily stack on top of each other, allowing you to carry a multitude of tubes and/or strips at the same time. Autoclavable.

Please Note: The Assorted Case Consists of Blue, Green, Orange, Pink and Yellow.

Part Number	Description	Case Qty.
CLS-3619-01B	PCRack™ with Clear Lid, Blue	20
CLS-3619-01G	PCRack™ with Clear Lid, Green	20
CLS-3619-01L	PCRack™ with Clear Lid, Orange	20
CLS-3619-01P	PCRack™ with Clear Lid, Pink	20
CLS-3619-01Y	PCRack™ with Clear Lid, Yellow	20
CLS-3619-01R	PCRack™ with Clear Lid, Red	20
CLS-3619-010	PCRack™ with Clear Lid, Assorted	20

CLS-3477



CLS-3477 WELL LOCATOR, PLASTIC, REUSABLE

- Reusable Template with Each Well Address Printed in Bold Letters
- Fits Under Multi-well Plate
- Makes Identifying Individual Wells Effortless
- Stress Free Sample Retrieval
- Choose White Well Locator for Clear Plates and Clear for Black Plates
- Best Used with Well Locator Stand (CLS-3478)

Place this 96 well alpha-numeric printed locator under your 96 well plate for quick and simple well orientation. Ideal for ELISA or cell culture work.

Part Number	Description
CLS-3477-W01	Well Locator, White, Plastic, Package of 2
CLS-3477-C02	Well locator, Clear, Plastic, Package of 2

CLS-3478

Stand features a 30° angle for easy sample viewing.

CLS-3478 WELL LOCATOR STAND, 30° ANGLE

- Convenient Stand to be Used with CLS-3477 Well Locators
- Tilted at a 30° Angle for Easy Sample Viewing
- Neoprene Pad and Rubber Mounting to Prevent Slippage

Works perfectly with printed well-orienters. Place your 96 well plate on this 30° angled platform for easier visibility.

Part Number	Description
CLS-3478-01	Well Locator Stand, Each

CLS-4030 MULTI-THERM™ TEMPERATURE CONTROLLED SHAKER

The Multi-Therm™ Shaker is a temperature controlled vortexer, useful for a variety of molecular biology applications.

- Denaturation of DNA, RNA and proteins
- Gentle thawing of biological materials
- Yeast and bacteria cultivation
- Restriction digests
- Reverse transcription
- Lipid extractions
- DNA / plasmid isolation

Two Models Available!
Heating Only
Heating and Cooling

CLS-4030

Despite its modest 8x11 inch footprint, all popular tubes and plates are compatible, including as many as six 50mL tubes. Speed, time and temperature settings are continuously visible on the LCD, simultaneously showing both actual and selected values. Integral over-temperature control ensures long life, safety and sample integrity.

Specifications

Temperature Range	
Heating and Cooling Model	Ambient -20° to 100°C
Heating Model	Ambient +5° to 100°C
Heating Ramp Rate	5°C / min
Cooling Ramp Rate	2.5°C / min (HC Only)
Temperature Accuracy	±1.0°C
Speed Range	200 to 1,500rpm or "OFF"
Motion/Orbit	Horizontally Circular / 2mm
Capacity	Per Selected Block
Dimensions (WxDxH)	8.25 x 11.5 x 8.25in
Weight	18lbs
Electrical	120V, 60Hz

Close-up of 35 x 1.5mL Block
(CLS-4030-011)

Part Number	Description
CLS-4030-001	Multi-Therm™ Heating & Cooling Shaker, 120V
CLS-4030-003	Multi-Therm™ Heating Shaker, 120V
CLS-4030-005	Multi-Therm™ Block, 96 x 0.2mL or (1) PCR Plate
CLS-4030-007	Multi-Therm™ Block, 54 x 0.5mL
CLS-4030-009	Multi-Therm™ Block, Combo 15 x 0.5 & 20 x 1.5mL
CLS-4030-011	Multi-Therm™ Block, 35 x 1.5mL
CLS-4030-013	Multi-Therm™ Block, 35 x 2.0mL
CLS-4030-015	Multi-Therm™ Block, 24 x 12mm, (200 to 1,200rpm/Ambient -10° to 100°C)
CLS-4030-017	Multi-Therm™ Block, 12 x 15mL, (200 to 750rpm/Ambient -10° to 100°C)
CLS-4030-019	Multi-Therm™ Block, 6 x 50mL, (200 to 750rpm/Ambient -10° to 100°C)
CLS-4030-021	MultiTherm™ Block, 24 x 2mL HPLC Auto Sampler Vials (12 x 32mm)
CLS-4030-023	MultiTherm™ Block, 48 x 250µL Inserts (6 x 30mm)
CLS-4030-025	MultiTherm™ Block, 1 x Microplate

CLS-4044 SpecMate Vis Spectrophotometer with Manual Wavelength Setting

- Large LCD Screen
- Auto Zero and Blank
- Pre-Aligned Design for Easy Lamp Change
- Optional Test Tube Holder, 8-22mm O.D.
- Sample Compartment Holds Four, 10mm Square Cuvettes
- Software Included allows for Kinetics, Protein Work and Wavelength Scan

Precise design spectrophotometer with manual wavelength setting and a large LCD display. This high quality instrument ensures excellent performance and is widely used in educational and analysis laboratories. Wavelength can be read directly from the screen.

Unit is supplied with four, glass, 10mm square cuvettes and basic software that is used for quantitative analysis, kinetics, and wave length scans. Includes USB and parallel printer ports.

Part Number	Description
CLS-4044-01	SpecMate Vis Spectrophotometer

Optional Items	
CLS-4044-05	Replacement Bulb, 6V10W Halogen
CLS-4044-20	Test Tube Holder, 8-22mm Tubes
CLS-4044-30	Thermal Printer

Specifications

Wavelength Range	325-1000nm
Spectral Bandwidth	4nm
Wavelength Accuracy	± 2nm
Wavelength Repeatability	1nm
Optical System	Single Beam, Grating 1200 Lines/nm
Wavelength Setting	Manual
Photometric Accuracy	<±0.5% or ±0.003@1A
Photometric Range	0-200T, -.03A, 0-1999 Conc.
Stray Light	0.3%T
Stability	± 0.004A/h @500nm
Detector Type	Silicone Photodiode
Standard Cell Holder	4-Position 10mm Cell Changer
Light Source	Tungsten Lamp
Dimensions	480 x 360 x 160mm
Weight	22 Lbs.

CLS-4048 SpecMate UV-Vis Spectrophotometer with Automatic Wavelength Setting

- Large LCD Screen
- Auto Setting Wavelength
- Display Total of 50 Groups of Data
- Display Standard Curves and Curve Equations
- Save up to 200 Groups of Data, 100 Standard Curves
- Pre-Aligned Design for Easy Lamp Change
- Optional Test Tube Holder
- Sample Compartment for 4-10mm Cuvette

Software Included allows for Kinetics, DNA Protein Work, Wavelength Scan

The SpecMate UV spectrophotometer is an ideal instrument for the education, research, or QC laboratory. This unit has a large LCD display and is versatile for Quantitative analysis, Kinetics, Wavelength Scan, Multi Wavelength, and DNA/Protein work.

Unit is supplied with 4 glass 10mm square cuvettes, 2 quartz glass 10mm square cuvettes, and basic software that is used for quantitative analysis, kinetics, and wave length scans. Includes USB and parallel printer ports.

Specifications

Wavelength Range	200-1000nm
Spectral Bandwidth	4nm
Wavelength Accuracy	± 2nm
Wavelength Repeat-ability	1nm
Optical System	Single Beam, Grating 1200 Lines/nm
Wavelength Setting	Automatic
Photometric Accuracy	<±0.5% or ±0.003@1A
Photometric Range	0-200%T, -0.3 - .03A, 0-9999 Conc.
Stray Light	0.3%T
Stability	± 0.002A/h @500nm
Detector Type	Silicone Photodiode
Standard Cell Holder	4-Position 10mm Cell Changer
Light Source	Tungsten & Deuterium Lamp
Dimensions	470 x 370 x 180mm
Weight	31 Lbs.

Part Number	Description
CLS-4048-01	SpecMate UV-Vis Spectrophotometer

Optional Items

CLS-4048-05	Replacement Bulb, Deuterium
CLS-4044-30	Thermal Printer

CLS-1375

CLS-1375 SPECTROPHOTOMETER CUVETTES, ACRYLIC AND POLYSTYRENE

- Excellent for applications in the visible range
- Available in macro and semi-micro sizes
- Compatible with most spectrophotometers and photometers

These cuvettes are an excellent choice for most spectrophotometry applications in the visible range. Manufactured from polystyrene (PS) or polymethyl methacrylate (PMMA or 'Acrylic'), they provide accurate, reliable results, even at wavelengths as low as 300nm and are grouped by manufacturing mold cavity number to ensure the lowest variation in extinction coefficient. These disposable cuvettes are available in macro and semi-micro sizes to accommodate most sample volumes. Semi-micro cuvettes require only 1.5mL of sample volume. Cuvettes include an arrow mark to indicate direction of transmission and reduce variation. Compatible with most spectrophotometers and photometers.

Specifications

	Semi-Micro	Macro
Filling Volume		
Minimum	1.5mL	2.5mL
Maximum	3.0mL	4.5mL
Window Dimension	4.5 x 23mm	10 x 35mm
Light Path	10mm	10mm

Polystyrene Cuvettes

Part Number	Description	Pack Qty.
CLS-1375-001	Cuvette, PS, Macro	100
CLS-1375-003	Cuvette, PS, Macro	500
CLS-1375-005	Cuvette, PS, Semi-Micro	100
CLS-1375-007	Cuvette, PS, Semi-Micro	500

Acrylic (PMMA) Cuvettes

Part Number	Description	Pack Qty.
CLS-1375-101	Cuvette, PMMA, Macro	100
CLS-1375-103	Cuvette, PMMA, Macro	500
CLS-1375-105	Cuvette, PMMA, Semi-Micro	100
CLS-1375-107	Cuvette, PMMA, Semi-Micro	500

Accessories

Part Number	Description	Pack Qty.
CLS-1375-RCK	Cuvette Rack, PP, 20 Numbered Wells	1

CLS-1377 SPECTROPHOTOMETER CUVETTES, UV-TRANSPARENT

UV-Cuvettes eliminate the tedious and time-wasting cuvette washing and the risk of sample carry-over associated with reusable quartz cuvettes. Process QC applications avoid the need for qualified SOP's for cuvette cleaning.

The proprietary plastic material offers chemical compatibility superior to that of conventional plastic cuvettes of acrylic or polystyrene, and may be used with most polar organic solvents.

Cuvettes have recessed windows to help protect against scratching and fit most commercial spectrophotometers and photometers. They are grouped by mold cavity number to maximize consistency between cuvettes and reduce variation in extinction coefficient.

Use the semi-micro size UV-Cuvettes for sample volumes between 1.5 and 3.0mL and the macro UV-Cuvettes for samples larger than 2.5 up to 4.5mL. Ultra-micro sized UV-Cuvettes may be used with sample volumes as small as 70µL. Ultra-micro UV-Cuvettes are available with 15mm window heights to match the two standard beam heights of most spectrophotometers.

Ultra-micro UV-Cuvettes are now available individually wrapped, DNA-, DNase- and RNase-Free, for use with critical samples. Choose macro cuvettes for large volume samples or for applications where chemical resistance is primary. Color-coded ultra-micro cuvette caps are also available.

CLS-1377

Available in macro, semi-micro and ultra-micro sizes, UV-Transparent Cuvettes are a popular disposable alternative to quartz cuvettes in DNA, RNA and protein analysis as well as many other applications between 220nm and 900nm.

Specifications

	Ultra-Micro	Semi-Micro	Macro
Filling Volume			
Minimum	70µL	1.5mL	2.5mL
Maximum	550µL	3.0mL	4.5mL
Window Dimension	2.0 x 3.5mm	4.5 x 23mm	10 x 35mm
Light Path	10mm	10mm	10mm

UV-Transparent Disposable Cuvettes and Accessories

Part Number	Description	Pack Qty.
CLS-1377-001	UV-Cuvette, Macro	100
CLS-1377-003	UV-Cuvette, Semi-Micro	100
CLS-1377-005	UV-Cuvette, Semi-Micro	500
CLS-1377-101	UV-Cuvette, Ultra-Micro	100
CLS-1377-103	UV-Cuvette, Ultra-Micro	500
CLS-1377-105	UV-Cuvette, Ultra-Micro, Individually Wrapped	100
CLS-1375-RCK	Cuvette Rack, PP, 20 Numbered Wells	1

Round Caps for Ultra-Micro Cuvettes

Part Number	Description	Pack Qty.
CLS-1377-B01	Blue	100
CLS-1377-Y01	Yellow	100
CLS-1377-G01	Green	100
CLS-1377-H01	Orange	100

Chemglass Life Sciences EQUIPMENT CENTER

- Autoclaves
- Centrifuges
- Custom Carts
- Dry Baths
- Water Baths
- Refrigerators and Freezers
- Free-Standing and Benchtop Incubators
- Ovens
- Rockers
- Rollers and Roller Apparatus
- Rotators
- Shakers
- Spectrophotometers
- Stirrers
- Vortexers

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* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-1191 AUTOCLAVE, BENCHTOP, BIOCLAVE™

Steam sterilization is convenient and affordable with the new BioClave™ digital research autoclaves. With a width of less than 18 inches, less than 14" for the BioClave™ Mini, both models will fit comfortably on even the most crowded bench tops.

Despite the space-saving exterior dimensions, the sterilization chambers are surprisingly large, accommodating a variety of liquids, media, instruments, glassware, plastic ware and other common laboratory items. Both models include a mechanical and electrical safety interlock that prevents the door from being opened until the pressure has reached zero PSI. Three trays are supplied with each unit, 2 with each BioClave™ Mini, along with a convenient tray removal tool.

With large digital displays and fully automatic operation, all segments of the sterilization cycle (fill, sterilize, exhaust and dry) commence and run to completion by simply pressing the start button.

The 16 liter BioClave™ offers three cycle options (standard programs), which are preset for the sterilization of liquids, wrapped instruments or unwrapped instruments/ plastic ware. A fourth option, "Dry Only", is also available for additional drying time to be added to the end of a cycle. For special applications requiring variations in cycle parameters, all settings on the 16 liter BioClave™ are fully adjustable.

The 8 liter BioClave™ Mini is preprogrammed to meet basic sterilization needs. Although the temperature can be set at either 121°C or 134°C, the sterilization time is fixed. The economical BioClave™ Mini is the ideal choice wherever bench top sterilization is required and space is limited.

Part Number	CLS-1191-008	CLS-1191-016
Chamber Capacity	8L	16L
Chamber Dimsensions	6.7 x 12.5 inches	9 x 13.75 inches
Tray Dimensions	4.75 x 9.75 inches	6.5 x 10.75 inches
Exterior Dimensions (W x D x H)	20 x 13.5 x 12.9 inches	22 x 17.5 x 15.7 inches
Weight	74lbs	89lbs
Electrical	120V, 950W	120V, 1600W

Part Number	Description
CLS-1191-008	Autoclave, Benchtop, BioClave™ Mini, 8L
CLS-1191-016	Autoclave, Benchtop, BioClave™, 16L
CLS-1191-001	Printer for CLS-1191-016 ONLY
CLS-1191-003	Paper for CLS-1191-001

Autoclave bags and accessories are listed in the General Labware section under Lab Maintenance and Safety.

CLS-1191-008

CLS-1191-016

CLS-4598 BEAD BATH

Bead bath gets up and running faster and you never need to turn it off. There is nothing to evaporate. It's just like a trusty, always-on incubator. Unlike a standard bead-filled, water bath, Bead Bath allows you to achieve a new set temperature quickly, without long warm up delays, so you can make quick adjustments on the fly.

With Bead Bath designed specifically for beads, temperatures are consistent and uniform everywhere in the bath. Thermal uniformity is an amazing ±0.5°C at 37°C and ±1.0 at 65°C.

Part Number	Description
CLS-4598-005	Bead Bath, 6L, 120V, with 4L of Bath Beads
CLS-4598-007	Bead Bath Only, 6L, 120V
CLS-4598-001	Bead Bath, 14L, 120V, with 12L of Bath Beads
CLS-4598-003	Bead Bath Only, 14L, 120V
CLS-4598-009	Bead Bath, 20L, 120V, with 16L of Bath Beads
CLS-4598-011	Bead Bath Only, 20L, 120V

12 volt power for use "on-the-go"

CLS-3956

CLS-3956 MYBLOCK™ MINI DIGITAL DRY BATH

The new MyBlock™ Mini fits almost anywhere and can even be used "on-the-go" in cars, boats or wherever a 12 volt power source is available.

Its simple touch pad control with digital display is designed for "set and walk away" temperature selection and unrivaled accuracy. At less than 5 inches wide, MyBlock™ Mini is truly the first personal block incubator.

Specifications

Temperature Range	Ambient +5 to 100°C
Temperature Accuracy	±5°C
Temperature Increments	0.1°C
Temperature Uniformity	±2°C
Dimensions (W x D x H)	4 x 6 x 4.5 in / 10.5 x 15 x 11.5 cm
Block Dimensions (W x D x H)	1.85 x 2.8 x 1.25 in / 4.7 x 7.1 x 3.2 cm
Weight	2lbs / 0.9kg
Warranty	2 Years

Part Number	Description
CLS-3956-01	MyBlock™ Mini Digital Dry Bath, 120V
CLS-3956-02	Block, 40 x 0.2mL or 5 x PCR Strips
CLS-3956-05	Block, 24 x 0.5mL Centrifuge Tubes
CLS-3956-15	Block, 15 x 1.5mL Centrifuge Tubes
CLS-3956-17	Block, 15 x 1.5 or 2.0mL Centrifuge Tubes
CLS-3956-19	Block, 4 x 15mL Centrifuge Tubes
CLS-3956-21	Block, 2 x 50mL Centrifuge Tubes
CLS-3956-30	12V Vehicle Power Adapter

CLS-3959 DIGITAL DRY BATHS

- Maintains set temperature within ±0.2°C
- Precision machined blocks for maximum heat transfer
- Custom blocks available - request a quote

CLS-3959

Digital Dry Baths provide accurate “set and walk away” digital temperature selection, eliminating the need for external thermometers and repetitive “fine tuning” of a temperature control knob. Simply enter the desired temperature on the digital touchpad and the Dry Bath provides accurate temperature with real time monitoring that continuously maintains the selected temperature within ±0.2°C. In addition, a digital timer is built into the touchpad display. Although it is not designed to shut off the heater, it can be used to alert the user that a chosen time interval has timed out.

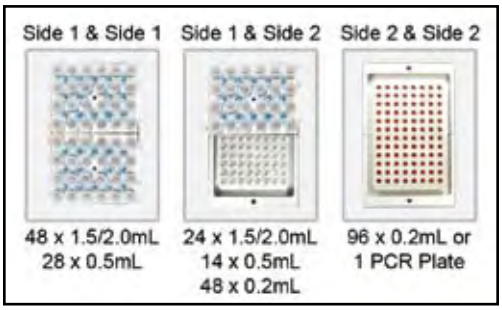
The cavities of the high grade aluminum blocks are precision machined to match the conical size and shape of 0.5, 1.5, 2.0, 15 and 50mL tube sizes, providing unsurpassed temperature transfer. Assorted blocks are available for compatibility with nearly all common laboratory tubes and plates. Custom blocks are also available upon request.

All dry baths offer a built-in user recalibration function, to guarantee long term temperature accuracy. Each dry bath includes an easy to use block lifter with a temperature insulated handle for quick, convenient exchange of blocks, even when they’re still hot.

Part Number	Description
CLS-3959-01	Bath, Digital Dry, Single Position, 120V
CLS-3959-02	Bath, Digital Dry, Double Position, 120V
CLS-3959-04	Bath, Digital Dry, Four Position, 120V
CLS-3959-06	Block, 24 x 1.5mL
CLS-3959-08	Block, 24 x 1.5 or 2.0mL
CLS-3959-10	Block, 24 x 0.5mL
CLS-3959-12	Block, 12 x 1.5mL (Block Height: 3.25")
CLS-3959-14	Block, 5 x 50mL (Block Height: 3.25")
CLS-3959-16	Block, 20 x 10mm or 20 x 2.0mL
CLS-3959-18	Block, 20 x 13mm or 20 x 5-7mL
CLS-3959-20	Block, 12 x 15-16mm or 12 x 10mL
CLS-3959-22	Block, 48 x 0.2mL Tubes or 6 PCR Tube Strips
CLS-3959-24	Block, 1 x 96-Well PCR Plate (For 2 or 4 Block Models)
CLS-3959-26	Block, 1 x 96-Well PCR Plate (For 1 Block Model)
CLS-3959-28	Block, 1 x Micro Titer Plate (For 2 or 4 Block Models)
CLS-3959-30	Block, Solid, for Slides or Custom Machining
CLS-3959-32	Quick-Flip Universal Micro-Block

Specifications

Temperature Range	Ambient +5 to 150°C
Temperature Accuracy	±0.2°C
Temperature Increments	0.1°C
Temperature Uniformity	±0.2°C
Timer	1 - 999 Minutes
Dimensions (W x D x H)	
Single Position	7.8 x 9 x 3.2 in 20 x 23 x 8 cm
Double Position	8.7 x 10.3 x 3.2 in 22 x 26 x 8 cm
Four Position	8.7 x 14 x 3.2 in 22 x 35.6 x 8 cm
Block Dimensions	3 x 3.75 x 2 in 7.6 x 9.5 x 5 cm
Warranty	2 Years



CLS-3959-32
Quick-Flip Universal Micro-Block

CHOOSE
Lab Armor® Beads

for a dry environment and to minimize unwanted microbial growth.

Keeps Protecting
A dry environment replaces the moist environment ideal for microbial growth.

Saves Money
Ensures a more productive lab, more successful experiments, and less laboratory downtime.

Saves Time
Eliminates the messy task of emptying, cleaning, and refilling water baths.

CLS-2991 Lab Armor® Beads - Superior to Water, Oil and Sand Baths

These dry metallic beads replace water in water baths, aluminum blocks in dry baths, ice in ice buckets, and give old equipment a cool, shiny, state-of-the-art look while maintaining temperatures of -20°C to 8°C for 4 or more hours. Open sources of water in the lab can put the lab at risk if incubating and spreading biological or chemical contamination between samples, equipment and people. Unknown biological and chemical contamination in water can readily enter your incubating samples resulting in distorted data and non-reproducible results. Lab Armor™ bead technology will save you countless hours of reworking ruined experiments and eliminate cleaning. Lab Armor™ Beads extend the life of your bath by eliminating corrosion and reducing burn-out risk.

	Beads	Water	Oil	Sand
High Efficiency Thermal Transfer	•	•	•	
Microbial/Biofilm Resistant	•		•	•
Cross-contamination Resistant	•			•
Minimal Cleaning Requirements	•			•
No Refilling Requirements	•			•
Rack & Accessory-FREE	•			•
Angled Incubation Possible	•			•
Constant Volume	•		•	•
Non-Corrosive	•			•
Broad Temp. Range (30-400ºC)	•		•	•
Non-watertight Vessel Compatible	•			•
Instrument Burn-out Protection	•			•
Always On – No Warm Up	•			•
Mobile or Field Use Compatible	•			
Messy		•	•	•

Part Number	Description
CLS-2991-075	0.75L Lab Armor-Heat Block Upgrade (Replaces 2 Blocks)
CLS-2991-002	2L Lab Armor™ Beads
CLS-2991-004	4L Lab Armor™ Beads
CLS-2991-008	8L Lab Armor™ Beads (2 x 4L Containers)
CLS-2991-012	12L Lab Armor™ Beads (3 x 4L Containers)
CLS-2991-016	16L Lab Armor™ Beads (4 x 4L Containers)
CLS-2991-020	20L Lab Armor™ Beads (5 x 4L Containers)

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-2993 LAB ARMOR™ WALKABOUT SCOOP TRAY

The new Walkabout Scoop Tray is a quarter of the size of a traditional lab bucket making it easier to use under the hood or in tight bench top spaces. With its superior insulative properties, it keeps your samples and reagents at temperature after removing from the bead bath, Chill Bucket™, or the refrigerator. It lets you feel good about taking your time under the hood. Compatible from -196°C to 93°C.

Part Number	Description
CLS-2993-001	Walkabout Insulative Scoop Tray w/ .5L Lab Armor™ Beads
CLS-2993-003	Walkabout Scoop Tray WITHOUT Beads

CLS-2995 LAB ARMOR™ STAY TEMP™ EQUIPMENT TRAYS

The new stainless Stay Temp™ Equipment Trays allows you to place your vessels into warm or cold beads and always find them at the perfect temperature. The beads resist changes in air temperature, so it's easy to trust the integrity of your samples; no matter how many times your co-workers opened the refrigerator door. Beads can help reduce temperature fluctuations in all of your air-filled lab equipment: in your refrigerator, in your incubator and in your oven. Trays do not include lids.

Part Number	Description
CLS-2995-001	1L Stay Temp™ Tray with Beads
CLS-2995-002	2L Stay Temp™ Tray with Beads
CLS-2995-004	4L Stay Temp™ Tray with Beads

CLS-2997 LAB ARMOR™ COOL BEANS™ CHILL BUCKET

The Chill Bucket™ is a revolutionary laboratory ice bucket that works without ice. It chills while keeping everything dry and in place so you no longer have to worry about water-borne contamination or losing track of your samples. Maintains temperatures of -20°C to 8°C for up to 8 hours.

Part Number	Description
CLS-2997-001	Chill Bucket™ with Beads, Bead Bag and (2) Chill Packs
CLS-2997-003	Chill Bucket™ WITHOUT Beads, with Bead Bag and (2) Chill Packs
CLS-2997-005	Chill Packs (4)

CLS-4950 WATER BATH, SHALLOW, GENERAL PURPOSE, DIGITAL

- Dual Microprocessor Controls
- Easy to Clean Stainless Steel Tanks
- Pocket Handles for Easy Lifting
- Recessed Heating Elements Prevent “Burnout”
- Air Jacketed Design Eliminates Hot Spots
- 24-Month Warranty

The CLS-4950 Series high-performance water baths are accurate, easy to use, safe and durable. The digital set / digital read P.ID temperature controller maximizes rapid heat-up without temperature overshoot. A microprocessor achieves precise temperature control regardless of how the unit is loaded. Calibration is performed directly from the front panel.

It has a unique lid design that allows condensation to drain back into the tank without spilling onto the work area. We have also incorporated a gasket around the water bath tank to prevent water from dripping onto the controls. A warm air jacketed design radiates heat to the sides and bottom of the tank, eliminating hot spots. The unit has a non-contact, recessed heating element that will prevent burnouts if the water level is too low.

The water bath tanks are constructed of stainless steel and do not have seams that could leak. The radius corners of the tank make cleaning easy. The unit’s housings have a high quality textured powder coat finish. This electrostatically applied finish not only eliminates rust and chipping but is resistant to nicks, scratches and corrosives.

Specifications

Model Number	CLS-4950-002	CLS-4950-006	CLS-4950-014	CLS-4950-020
Tank Capacity	2 L	6 L	14 L	20 L
Temperature Range	Ambient +5° to 85°C	Ambient +5° to 85°C	Ambient +5° to 85°C	Ambient +5° to 85°C
Temperature Uniformity	±0.2°C at 37°C	±0.2°C at 37°C	±0.2°C at 37°C	±0.2°C at 37°C
Temperature Accuracy	±0.1°C	±0.1°C	±0.1°C	±0.1°C
Exterior Dimensions (w x d x h)	14.75 x 12.25 x 8.5 in.	14.75 x 12.25 x 12 in.	14.75 x 19 x 12 in.	14.75 x 25 x 12 in.
Interior Dimensions (w x d x h)	11.6 x 2.5 x 5.7 in.	11.6 x 5.9 x 5.7 in.	12 x 13 x 6 in.	11.5 x 19.5 x 6 in.

Part Number	Description
CLS-4950-002	Water Bath, 2L, Shallow, General Purpose, Digital
CLS-4950-006	Water Bath, 6L, Shallow, General Purpose, Digital
CLS-4950-014	Water Bath, 14L, Shallow, General Purpose, Digital
CLS-4950-020	Water Bath, 20L, Shallow, General Purpose, Digital

CLS-4951 WATER BATH, SHALLOW, DUAL PAN, GENERAL PURPOSE, DIGITAL

- Dual Microprocessor Controls
- Easy to Clean Stainless Steel Tanks
- Pocket Handles for Easy Lifting
- Recessed Heating Element Prevents “Burnout”
- Drip Free Cover Holster
- Air Jacket Design Eliminates Hot Spots
- 24-Month Warranty

DESIGNED for RAPID HEAT-UP and ACCURACY

The CLS-4951 series high-performance water bath is accurate, easy to use, safe and durable. The digital set / digital read P.ID temperature controller maximizes rapid heat-up without temperature overshoot. A microprocessor achieves precise temperature control regardless of how the unit is loaded. Calibration is performed directly from the front panel.

It has a unique lid design that allows condensation to drain back into the tank without spilling onto the work area.

We have also incorporated a gasket around the water bath tank to prevent water from dripping onto the controls. A warm air jacketed design radiates heat to the sides and bottom of the tank, eliminating hot spots. The unit has a non-contact, recessed heating element that will prevent burnouts if the water level is too low.

The water bath tank is constructed of stainless steel and does not have seams that could leak. The radius corners of the tank make cleaning easy. The unit’s housings have a high quality textured powder coat finish. This electrostatically applied finish not only eliminates rust and chipping but is resistant to nicks, scratches and corrosives.

Specifications

Model Number	**CLS-4951-614**
Tank Capacity	6L/14L
Temperature Range	Ambient +5° to 85°C
Temperature Uniformity	±0.2°C at 37°C
Temperature Accuracy	±0.1°C
Exterior Dimensions (w x d x h)	14.75 x 25 x 8.5 in.
Interior Dimensions (w x d x h):	
14L Tank	11.9 x 12.9 x 5.5 in.
6L Tank	11.9 x 5.9 x 5.5 in.

Part Number	Description
CLS-4951-614	Water Bath, Dual Pan, Shallow, General Purpose, Digital

CLS-4952 WATER BATH, SHAKING, RECIPROCATING

- Microprocessor Control
- Independent Oscillation and Temperature Controls
- Recessed Heating Element Prevents “Burnout”
- Adjustable Stroke Length

24 Month Warranty The CLS-4952 Series Reciprocating Water Baths deliver precise temperature control and a smooth reciprocal shaking motion. Temperature and oscillation controls feature an easy to read P.ID microprocessor temperature controller and an independent safety thermostat.

The bath may be used with or without oscillation. Shaking speed is variable from 20 to 200 oscillations per minute, and the stroke length can be adjusted to three separate settings: 0.5, 1.0, or 1.5 inches to minimize the chance of accidental spillage. Also, the unique basket support system is designed to eliminate tank wear, yet still provide full support and free action for a heavily loaded basket.

A durable finish on the housing prevents corrosion and chipping. In addition to a stainless steel tank, the bath platform tray is designed for optimum temperature uniformity. Maximum temperature is achieved using the stainless steel gable cover, which is designed to prevent condensation from dripping onto samples and assures uniform temperature conditions.

Specifications

Model Number	CLS-4952-017	CLS-4952-027
Temperature Range	Ambient +5 to 80°C	Ambient +5 to 80°C
Temperature Uniformity	±0.2°C at 37°C	±0.2°C at 37°C
Temperature Accuracy	±0.1°C	±0.1°C
Oscillation Rate	20-200 rpm	20-200 rpm
Stroke Length	0.5” / 1.0” / 1.5”	0.5” / 1.0” / 1.5”
Exterior Dimensions (w x d x h)	14.3 x 24.7 x 12.5 in.	14.3 x 36.9 x 12.5 in.
Interior Dimensions (w x d x h)	12 x 14.7 x 7.5 in.	12 x 27.2 x 7.5 in.

Part Number	Description
CLS-4952-017	17L Water Bath, Shaking, Reciprocating
CLS-4952-027	27L Water Bath, Shaking, Reciprocating

CLS-4953 WATER BATH, CIRCULATING, DIGITAL

- Microprocessor Control
- Easy to Clean Polymer-Coated Tanks
- Air Jacket Heating Eliminates Hot Spots
- Recessed Heating Element Prevents “Burnout”

These circulating water baths are accurate, easy-to-use, safe and durable. The digital set / digital read PID temperature controller maximizes rapid heat-up without temperature overshoot. A microprocessor achieves precise temperature control regardless of how the unit is loaded. Calibration is performed directly from the front panel.

Stainless Steel Gable Covers for 23L Unit

The stainless steel cover is included with the purchase of the CLS-4953. The use of covers is suggested since they allow maximum temperature range and help maintain better temperature uniformity.

The CLS-4956 Deep chamber water bath is designed to accommodate large volumetric samples.

Accurate, Easy-to-Use, Safe and Durable

Water Bath Applications

- Sample Thawing
- Bacteriological Examinations
- Warming Reagents
- Coliform Determinations
- Microbiological Assays
- Food Processing / QC Procedures

Model Number	CLS-4953-022	CLS-4956-030
Tank Capacity	22L	30L
Tank Type	Circulating	Deep Chamber
Temperature Range	Ambient +5 to 80°C	Ambient +5 to 80°C
Temperature Uniformity	±0.2°C at 37°C	±0.2°C at 37°C
Exterior Dimensions (w x d x h)	15 x 25.5 x 9 in.	16 x 19.3 x 15.3 in.
Interior Dimensions (w x d x h)	11.5 x 19.5 x 6.2 in.	12 x 14 x 12 in.
Warranty	24-Month Limited‡	24-Month Limited‡

‡ Tank not included.

Part Number	Description
CLS-4953-022	22L Water Bath, Circulating, Digital
CLS-4956-030	30L Water Bath, Deep Chamber, Digital
CLS-4953-C22	Replacement SS Cover for CLS-4953-022

CLS-1606

CLS-1606 MYFUGE™ MINI, MINI CENTRIFUGE

The new MyFuge™ Mini centrifuge is a personal centrifuge that virtually fits in the palm of your hand. Ideal for quick spin downs of microtubes and PCR tubes, the MyFuge™ Mini is extremely easy to use. Simply close the lid and the rotor instantly reaches 6,000rpm. Open the lid, and the rotor quickly decelerates to a stop for removing samples.

An increased capacity, eight-position microtube rotor is included and comes installed. A second rotor for 0.2mL PCR tubes and strips is also included and stored with the rotor removal key in a convenient compartment on the bottom of the centrifuge. When the rotor is not in use, storage in this compartment prevents loss or misplacement of the rotor.

Specifications

Speed	6,000rpm / 2,000xg
Capacity	8 x 1.5/2.0mL Tubes
	16 x 0.2mL PCR Tubes
	2 x PCR Strips
Dimensions (W x D x H)	4.5 x 5.9 x 4.5 in / 11.4 x 15 x 11.4 cm
Weight	2.2lbs / 1kg
Warranty	1 Year

Part Number	Description
CLS-1606-01	MyFuge™ Mini Centrifuge, 120V

Runs individual microtubes and PCR strips simultaneously.

CLS-1603

At just 5.5 inches wide and less than 4.5 inches tall, the **MyFuge™ 12** truly is a personal centrifuge with unmatched capacity and flexibility.

CLS-1603 MYFUGE™ 12, MINI CENTRIFUGE

The new MyFuge™ 12 eliminates the need to change rotors when switching between microtubes and PCR strips. The included, unique COMBI-Rotor™ is all that is required for running 12 microtubes and 4 PCR strips simultaneously.

With a fixed speed that produces 2,000 xg, this centrifuge is perfect for quick spin downs. Simply close the lid and the unit quickly ramps up to 5,500 rpm. Open the lid and the rotor quickly decelerates for removal of samples.

Specifications

Speed	5,500rpm / 2,000xg
Capacity	12 x 1.5/2.0mL Tubes
	32 x 0.2mL PCR Tubes
	4 x PCR Strips
Dimensions (W x D x H)	5.5 x 7.9 x 4.4 in / 14 x 20 x 11.2 cm
Weight	2.2lbs / 1kg
Warranty	1 Year

Part Number	Description
CLS-1603-01	MyFuge™12 Mini Centrifuge, 120V
CLS-1603-02	Adapters for 0.2mL Tubes, Pack of 6
CLS-1603-05	Adapters for 0.5mL Tubes, Pack of 6

CLS-1601 MINI CENTRIFUGE

- Quiet, vibration-free operation
- Include two, easy-to-change rotors
- One-year warranty

These mini centrifuges are popular for quick spins, microfiltration of samples, and cell separations. The clear covers are made of high strength plastic and provide easy viewing of samples. These centrifuges quickly accelerate to their maximum speed and stop within seconds. Manufactured to precise specifications, resulting in smooth runs that are quiet and vibration-free. Included is a round rotor with capacity for six standard microtubes (1.5 to 2.0mL) as well as a strip tube rotor for 2x8 PCR strips or sixteen individual 0.2mL tubes. The rotors can be easily interchanged by the user within a matter of seconds.

CLS-1601

Specifications

	CLS-1601-002	CLS-1601-001	CLS-1601-003
RPM	4,000	6,000	10,000
RCF	900 xg	2,000 xg	5,000 xg
Capacity			
Microtube Rotor	6 x 1.5/2.0mL	6 x 1.5/2.0mL	6 x 1.5/2.0mL
PCR Strip Rotor	2 x 8 Strips or 16 x 0.2mL Tubes	2 x 8 Strips or 16 x 0.2mL Tubes	2 x 8 Strips or 16 x 0.2mL Tubes
Dimensions (WxDxH)	5.5 x 6.1 x 4.5 in.	5.5 x 6.1 x 4.5 in.	5.5 x 6.1 x 4.5 in.
Operating Temp	+4°C to 50°C	+4°C to 50°C	+4°C to 50°C
Warranty	1 Year	1 Year	1 Year
Electrical	110V, 50/60Hz, 0.1A	110V, 50/60Hz, 0.1A	110V, 50/60Hz, 0.1A

Part Number	Description
CLS-1601-002	Mini Centrifuge, 4,000rpm, Pink
CLS-1601-001	Mini Centrifuge, 6,000rpm, Beige
CLS-1601-003	Mini Centrifuge, 10,000rpm, Blue

CLS-4090

CLS-4090 TEMPERATURE DATA LOGGER, USB

The **MICRO-THERM USB** is a small, rugged, waterproof and dustproof data logger with LCD Display and built-in USB 2.0 connector for monitoring and recording temperature. Manufactured to stringent IP66 standards, the MICRO-THERM logger is only 4.3" long and 1" thick. The data logger features a three digit LCD display, direct USB connection, wide temperature range, high accuracy and large 8K sampling memory. Features include analysis functionality such as Statistics maximum, minimum and average, enabling a quick glance summary of the environment and historical analysis. Data can be displayed on the small numeric LCD screen or downloaded to PC via the USB 2.0 connector. To further ensure easy global usage, the battery is easily replaceable since it is a standard model used worldwide.

Specifications

Temperature Sensor	Internal, -40 to 80°C Thermal Conductor
Sampling Resolution	A/D Resolution, 16 bit, 0.1°C
Data Storage Capacity	8,000 or 16,000 Samples
Sampling Rate	1 per second to 1 per 2 Hours
Accuracy	0.3°C
Display	LCD with Decimal Point
Alerts	Visual- Alarm Icon When Crossing Pre-defined Thresholds
Battery	Replaceable 3V Lithium Battery – CR2032
Battery Life	2 Years at 1 Second Sampling Rate
Low Battery	Indicator
Dimensions	4.3" x 1.5" x 1.0"
Weight	1.6 oz
Software	Micro-Lab or Windows (included)

NOTE: When exposed to temperatures below 5°F, Liquid Crystal Displays lose contrast and their refresh rate slows. This may result in illegible readings shown on the display. The decline of the LCD function does not affect the sensor recording temperature and the correct values are captured.

Part Number	Description
CLS-4090-01	Micro-Therm USB Temperature Logger

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-2456 INCUBATOR, CO_2, GENERAL PURPOSE

This shaking incubator is recommended for use in the cultivation of microbes, cells, and special tissues under different conditions within the same incubator. Temperature uniformity is precisely maintained by natural convection. Inner glass door allows view of cultures without opening the door. User can adjust RPMs and time as required. The Peltier-cooled, refrigerated version (CLS-2456-01) is highly recommended for use with insect cultures. One-year warranty.

Part Number	Description
CLS-2456-01	Incubator, General Purpose, 1.48Cu Ft
CLS-2456-06	Incubator, General Purpose, 6.3Cu Ft

Peltier-Cooled Model	
CLS-2456-R1	Incubator, General Purpose, Refrigerated, 1.48Cu Ft

CLS-2456

Specifications

Model Number	CLS-2456-01	CLS-2456-06	Peltier-Cooled Model CLS-2456-R1
Temperature Range	Ambient +5 to 60°C	Ambient +5 to 60°C	Ambient -5 to 60°C
Temperature Uniformity	±0.2°C at 37°C	±0.3°C at 37°C	±0.2°C at 37°C
Temperature Display Increment	0.1°C	0.1°C	0.1°C
Chamber Volume	42L / 1.48Cu Ft	179L / 6.3Cu Ft	42L / 1.48Cu Ft
Air Flow	Forced Air Convection	Forced Air Convection	Forced Air Convection
Display	5 Digit LED	5 Digit LED	5 Digit LED
Exterior Dimensions (W x D x H)	16 x 19 x 21.6in 41 x 48 x 55cm	22 x 26 x 37in 56 x 67 x 94cm	16 x 19 x 21.6in 41 x 48 x 55cm
Interior Dimensions (W x D x H)	12.6 x 13.8 x 14.6in 32 x 35 x 37cm	18.6 x 20.7 x 27.9in 47 x 53 x 71cm	12.6 x 13.8 x 14.6in 32 x 35 x 37cm
Number of Shelves	2	3	2

CLS-2451 INCUBATOR, CO_2, HUMIDIFIED, GENERAL PURPOSE

Two each of the 1.48 and 6.3 cu. ft. models can be stacked.

- Six-sided heating and fan combine to provide efficient air and moisture circulation
- Perforated, stainless steel shelves for airflow and rust-resistance
- Inner chamber is all-stainless with rounded corners for easy cleaning
- CO_2 and temperature alarms included
- Over heating limit provides additional protection
- No condensation

These CO_2 incubators are recommended for use in biology, proteomics, genomics, cell biology and drug discovery.

A host of features combine to provide stability and uniformity in the enclosed environment. Fast heat-up and temperature recovery are assured by six-sided heating.

Dual beam, IR CO_2 sensors quickly detect CO_2 in the chamber, precisely maintaining CO_2 levels. Humidity is added via placement of a water tray on the floor of the chamber. One-year warranty.

Specifications

Model Number	CLS-2451-15	CLS-2451-63	CLS-2451-30
Temperature Range	Ambient +5 to 60°C	Ambient +5 to 60°C	Ambient +5 to 60°C
Temperature Uniformity	±0.1°C at 37°C	±0.1°C at 37°C	±0.1°C at 37°C
Temperature Display Increment	0.1°C	0.1°C	0.1°C
Chamber Volume	42L / 1.48Cu Ft	179L / 6.3Cu Ft	850L / 30Cu Ft
CO_2 Sensor	Infrared	Infrared	Infrared
CO_2 Range	0-20%	0-20%	0-20%
Exterior Dimensions (W x D x H)	16 x 19 x 21.6in 41 x 48 x 55cm	22 x 26 x 37in 56 x 67 x 94cm	32.3 x 37.4 x 63.7in 82 x 95 x 162cm
Interior Dimensions (W x D x H)	12.6 x 13.8 x 14.6in 32 x 35 x 37cm	18.6 x 20.7 x 27.9in 47 x 53 x 71cm	27.5 x 20.7 x 27.9in 47 x 31.4 x 60.2cm
Number of Shelves	2 (max. 4)	3 (max. 8)	3 (max. 15)

Part Number	Description
CLS-2451-15	Incubator, CO_2, General Purpose, Humidified, 1.48Cu Ft
CLS-2451-63	Incubator, CO_2, General Purpose, Humidified, 6.3Cu Ft
CLS-2451-30	Incubator, CO_2, General Purpose, Humidified, 30Cu Ft

Accessories

Part Number	Description
CLS-2451-01	Shelf, Incubator, for 1.48Cu Ft Incubator
CLS-2451-03	Shelf, Incubator, for 6.3Cu Ft Incubators

CLS-2447-156 INCUBATOR, CO_2, HIGH HEAT, DECONTAMINATION

- 5 Year Limited Warranty
- No Handling of the IR Sensor
- Dry Heat Contamination at 180° for 120 minutes

The CLS-2447-156 is the newest addition CO_2 incubators. Featuring a dry heat decontamination cycle, this model has the ability to maintain 180°C for 120 minutes. This time/temperature relationship satisfies all global standards for decontamination.

Another important and unique feature is that it is not necessary to remove the IR CO_2 sensor prior to activating the decontamination process. This is a more user-friendly approach and eliminates potential damage to the sensitive IR sensor. This is decontamination at its easiest and most effective.

Other features include a USB interface for software communication and a pre-heated copper CO_2 gas inlet. This exclusive feature prevents condensation and reduces potential sites for contamination to form. Precise temperature control is achieved via an advanced microprocessor. An independent over-temperature safety controller is also integral to the design.

CLS-2447-156

Specifications

Part Number	CLS-2447-156
Temperature Range	Ambient +8 to 50°C
Temperature Uniformity	±0.25°C at 37°C
Relative Humidity at 37°C	95%
Chamber Volume	159L / 5.6Cu.Ft.
CO_2 Alarm	Yes
CO_2 Range	0-20%
CO_2 Recovery	<5 Minutes
Exterior Dimensions (W x D x H)	27 x 28 x 38in.
Interior Dimensions (W x D x H)	21 x 20 x 24in.
Alarm Conditions	
Temperature	±1°C
CO_2	±1%

Part Number	Capacity (cu ft)	No. of Shelves
CLS-2447-156	5.6	3

Accessories

Part Number	Description
CLS-2447-C56	Castor Platform
CLS-2447-S56	Stacking Platform

CLS-2449

CLS-2449 INCUBATOR, CO_2, LARGE CAPACITY

- Microprocessor Temperature Control
- All Stainless Steel Interior
- LED Display of Set point and Chamber Temperature
- Infrared CO_2 Sensor
- Interior Electrical Outlets
- 24-Month Limited Warranty

The 2449 series incubator is well-suited for roller bottle apparatus and high-volume tissue culture applications and is ideal for cell harvesting. All models are designed for roller bottle apparatus. These large capacity incubators maximize laboratory space in a convenient floor model design.

The incubators are supplied with (4) one amp interior electrical outlets and gentle mechanical air convection that ensures excellent temperature uniformity and eliminates cold spots. An infrared system accurately controls CO_2 levels, provides fast CO_2 recovery after door openings and is not affected by temperature or humidity. Units are supplied with six, stainless steel reinforced shelves which are adjustable in 1/2-inch increments.

Specifications

Model Number	CLS-2449-028	CLS-2449-040	CLS-2449-060
Temperature Range	Ambient +8 to 60°C	Ambient +8 to 60°C	Ambient +8 to 60°C
Temperature Uniformity	±0.5°C at 37°C	±0.5°C at 37°C	±0.5°C at 37°C
Chamber Volume	793L / 28 cu ft	1,133 L / 40 cu ft	1,700 L / 60 CU. Ft.
CO_2 Range	0-20%	0-20%	0-20%
CO_2 Recovery Rate	<5 Minutes	<5 Minutes	<5 Minutes
Exterior Dimensions (w x d x h)	37 x 36 x 74 in.	41 x 34 x 87 in.	49 x 41 x 79 in.
Interior Dimensions (w x d x h)	33 x 27 x 62 in.	35 x 26 x 77 in.	43 x 35 x 68 in.
Alarm Conditions			
Overtemp	±1°C	±1°C	±1°C
CO_2 Sensor Accuracy	±0.1%	±0.1%	±0.1%

Part Number	Capacity (cu ft)	No. of Shelves
CLS-2449-028	28	6
CLS-2449-040	40	6
CLS-2449-060	60	6

Accessories

Part Number	Description
CLS-2449-001	CO_2 Tank Switcher

CLS-2449H INCUBATOR, CO_2, LARGE CAPACITY, HUMIDIFIED

- Active humidity control up to 95% for less evaporation of culture media
- Heated, triple-pane glass door
- Antimicrobial copper drain
- Microprocessor temperature control
- All stainless steel interior
- LED display of set point and chamber temperature
- Infrared CO_2 sensor
- 24-Month Limited Warranty

CLS-2449H

This 26.1 cubic foot incubator features active humidity control up to 95% and is well-suited for high-volume tissue culture applications and cell harvesting. The convenient floor model design maximizes laboratory space while a unique combination of features produces a stable environment within the culture chamber.

Exceptional CO_2 and temperature uniformity combined with active humidity control makes this model more accurate and responsive to door openings than incubators that utilize traditional water pan humidity systems. A gentle, horizontal airflow heating system eliminates cold spots and provides consistent heating and quick temperature recovery. CO_2 is accurately controlled by an IR sensor, providing overall CO_2 stability.

Potential contamination is minimized by the heated glass door, antimicrobial copper drain and the active humidity control.

Supplied with six, stainless steel reinforced shelves which are adjustable in 1/2-inch increments.

Specifications

Model Number	**CLS-2449H-028**
Temperature Range	Ambient +5 to 50°C
Temperature Uniformity	±0.5°C at 37°C
Chamber Volume	740 L / 26.1cu ft
CO_2 Range	0-20%
CO_2 Recovery Rate	<5 Minutes
Exterior Dimensions (w x d x h)	39.3 x 37 x 78.5 in.
Interior Dimensions (w x d x h)	30.7 x 26 x 56.5 in.
Alarm Conditions	
Overtemp	±1°C
CO_2 Sensor Accuracy	±0.1%

Part Number	Capacity (cu ft)	No. of Shelves
CLS-2449H-028	26.1	6

Accessories

Part Number	Description
CLS-2449-001	CO_2 Tank Switcher

CLS-2447

CLS-2447 INCUBATOR, CO_2, WATER JACKETED

- Anti-Corrosion Anode
- Patented Copper-Housed HEPA Filter for Superior Contamination Prevention
- Factory Pre-Set, Door Thermostat
- Pre-Heated CO_2 Gas Inlet for Increased Temperature Uniformity
- Front-Mounted Connections for Convenience
- Over Temperature and CO_2 Alarms
- Inner Glass Viewing Door
- Stainless Steel Chamber and Autoclavable Door Gasket Make Cleaning Easy
- 5-Year Limited Warranty

The CLS-2447 series of CO_2 incubators offers dependable infrared (IR), CO_2 sensor control and is ideal for QA / QC applications. The incubators include an anti-corrosion anode which allows the use of distilled or tap water in the compact water jacket. De-ionized water should not be used. Anti-contamination features make cleaning a breeze and the CO_2 sample port is located on the front control panel for quick and easy access. Incubators have microprocessor controllers. The humidity level inside the chamber is maintained at approximately 95%.

Part Number	Capacity (cu ft)	No. of Shelves
CLS-2447-180	1.5	3
CLS-2447-612	5	3
CLS-2447-122	10 (5 Each Chamber)	6 (3 Each Chamber)

Stackable Units Save Space and Increase Productivity.

Specifications

Model Number	CLS-2447-180	CLS-2447-612	CLS-2447-122
Chamber Style	Single	Single	Dual / Stacked
Chamber Volume	42L / 1.5 cu ft	143L / 5 cu ft	286L / 10 cu ft (143 / 5 Each Chamber)
Temp. Range	Ambient + 8° to 60°C	Ambient + 8° to 60°C	Ambient + 8° to 60°C
Temp. Uniformity	+/- 0.2°C at 37°C	+/- 0.2°C at 37°C	+/- 0.2°C at 37°C
Exterior Dimensions (w x d x h)	21 x 22.5 x 27in 53.4 x 57.2 x 68.6cm	26 x 25.5 x 40.3 in 66.1 x 64.8 x 102.3cm	26 x 25.5 x 80.6 in 66.1 x 64.8 x 204.6cm
Interior Dimensions (w x d x h)	15.7 x 15.7 x 10.2in 40 x 40 x 26cm	19.2 x 19.7 x 23.0in 48.9 x 50.1 x 58.4cm	19.2 x 19.7 x 23.0in 48.9 x 50.1 x 58.4cm (Each Chamber)

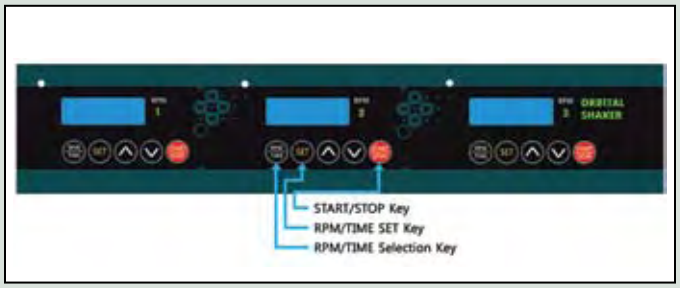
CLS-2455 INCUBATOR, CO_2, SHAKING, HUMIDIFIED, LARGE CAPACITY

These CO_2 shaking incubators are recommended for use in biology, proteomics, genomics, cell biology and drug discovery. They are primarily used to culture suspension cells. Six-side direct heating keeps the temperature in the chamber consistent. Dual beam IR CO_2 sensor detects CO_2 in the chamber which maintains the concentration precisely. Humidity is applied as necessary to minimize the drying speed of the medium. These shakers allow you to individually control three shakers separately. 2 year warranty.

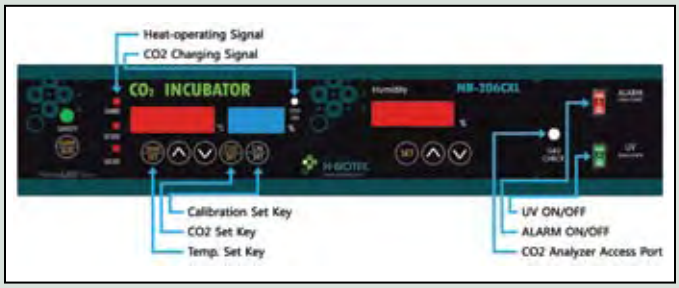
Part Number	Description
CLS-2455-23	Incubator, Orbital Shaking, CO_2, Humidified, 23Cu Ft
CLS-2455-27	Incubator, Orbital Shaking, CO_2, Humidified, 27Cu Ft

Separate Shaker and Incubator Display Panels provide the ultimate in control.

CLS-2455



Three shakers can be controlled independently.



Incubator panel controls CO_2, heat, humidity and alarms.

Specifications

Model Number	CLS-2455-23	CLS-2455-27
Temperature Range	Ambient +5 to 60°C	Ambient +5 to 60°C
Temperature Uniformity	±0.1°C at 37°C	±0.1°C at 37°C
Humidity	70% at 37°C	70% at 37°C
Chamber Volume	650L / 23Cu Ft	765L / 27Cu Ft
CO_2 Sensor	Infrared	Infrared
CO_2 Range	0-20%	0-20%
Speed Range	30 to 150 RPM	30 to 250 RPM
Stroke	25mm	25mm
Exterior Dimensions (W x D x H)	33.5 x 30.7 x 59in 820 x 780 x 174cm	32.7 x 36.6 x 72.5in 83 x 93 x 184cm
Interior Dimensions (W x D x H)	27.6 x 25.6 x 59in 70 x 65 x 150cm	26 x 31.5 x 57in 66 x 80 x 145cm
Number of Shelves	3	3

High Load Capacity

125mL Flask	Max. 156ea
250mL Flask	Max. 90ea
500mL Flask	Max. 60ea
1L Flask	Max. 48ea
2L Flask	Max. 27ea

CLS-2452

CLS-2452 INCUBATOR, SHAKING, CO_2, HUMIDIFIED

- Six-sided, direct heating system for fast heat-up and recovery
- Dual beam IR CO_2 sensor for precise detection regardless of temperature and humidity
- Natural humidification using water tray
- Heated door area prevents condensation on inner glass door
- Dual Function - simultaneous shaking and general incubation
- Microprocessor PID Control - controls time, temperature and motion
- Cable allows shaker control from the outside
- Shaker uses a brushless motor for stability as well as minimal vibration and noise
- 1-year warranty

This CO_2 shaking incubator is recommended for use in the fields of biology, proteomics, genomics, cell biology, and drug discovery. Six-sided, direct heating keeps the temperature in the chamber consistent. Stainless steel interior with rounded corners allows for easy cleaning and maintenance.

Specifications

Model Number	CLS-2452-63
Temperature Range	Ambient +5 to 60°C
Temperature Uniformity	±0.1°C at 37°C
Chamber Volume	179L / 6.3cu ft
CO_2 Sensor	Infrared
CO_2 Range	0-20%
Shaking Speed	30 - 300RPM (without load)
Exterior Dimensions (W x D x H)	22 x 26 x 37in 56 x 67 x 94cm
Interior Dimensions (W x D x H)	18.6 x 20.7 x 27.9in 47 x 53 x 71cm
Number of Shelves	1 Shaker + 2 Shelves

Part Number	Description
CLS-2452-63	Incubator, CO_2, Shaking, Humidified, 6.3Cu Ft

Accessories

Part Number	Description
CLS-2451-03	Shelf, Incubator, for 6.3Cu Ft Incubators

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-2457 MYTEMP™ MINI DIGITAL INCUBATORS

- Mini Incubators available with heating only or heating and cooling
- Digital temperature control
- Small footprint but room enough on the inside for bottles up to 2 liters
- Includes two removable shelves

With digital temperature control, the MyTemp™ incubators provide convenient “Set and walk away” operation, eliminating the need for external thermometers and repetitive “fine tuning” of an analog control knob. Simply choose the desired temperature and the incubator immediately begins to heat up (or cool down, -HC model only) while accurately monitoring the chamber temperature and conveniently displaying the temperature in real time on the large LED control panel.

Despite a modest footprint of 14.5” x 13”, the MyTemp™ incubators feature large internal chambers, capable of storing flasks and bottles up to 2 liters. In addition, the incubators include two adjustable/removable shelves for increased capacity.

CLS-2457

Plenty of room on the inside!

Specifications

Temperature Range (H)	Ambient +1 to 60°C
Temperature Range (HC)	Ambient -15 to 60°C
Temperature Accuracy	±0.5°C (at 37°C)
Temperature Increments	1°C
Temperature Uniformity	±1°C (at 37°C)
Exterior Dimensions (W x D x H)	13.2 x 14.5 x 18.7in 33.5 x 37 x 47.5cm
Interior Dimensions (W x D x H)	1.3 x 9.3 x 12.8in 26 x 23.5 x 32.5cm
Capacity	20L
Weight	15lbs / 6.5kg
Warranty	2 Years

Part Number	Description
CLS-2457-01	MyTemp™ Mini Incubator w/Heating, 120V
CLS-2457-02	MyTemp™ Mini Incubator w/Heating/ Cooling, 120V

Accessories

Part Number	Description
CLS-2457-03	Shelf Only, for MyTemp™ Mini Incubators
CLS-2457-05	Mini Nutating Rocker, 8” x 6” Platform, 115V

Incu-Shake™ Mini

Only 11" wide.

CLS-2543-001

CLS-2543 INCU-SHAKE™ INCUBATORS

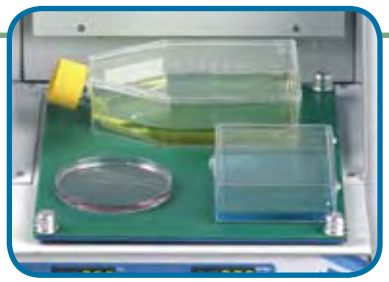
The Incu-Shaker™ series of shaking incubators provide digitally regulated temperature with precisely controlled circular (orbital) mixing, optimized for the culture of a wide variety of cell types.

The Incu-Shaker™ Mini is the most compact shaking incubator in its class. Despite the remarkably small footprint, a large 11.5 x 9.5in workspace accepts several platforms for use with a variety of flasks, tubes and other common vessels.

With similar features to the Incu-Shaker™ Mini, the 10L Incu-Shaker™ is equipped with a large 18 x 18 inch platform for high capacity applications.

The standard platform (included with both models) features a non-slip, rubber coated surface, ideal for tissue culture flasks, Petri dishes and staining trays.

Part Number	Description
CLS-2543-001	Incubator, Mini, Incu-Shake™, w/Non-Slip Rubber Mat, 120V
CLS-2543-003	MAGic Clamp™ Universal Platform



Rubber Mat Platform

Patented Magnetic Attachment System

CLS-2543-007
5 x 500 Platform

CLS-2543-009
8 x 250 Platform

CLS-2543-011
12x125 Platform

CLS-2543-013
Microplate Rack

CLS-2543-015, CLS-2543-021
Spring Rack

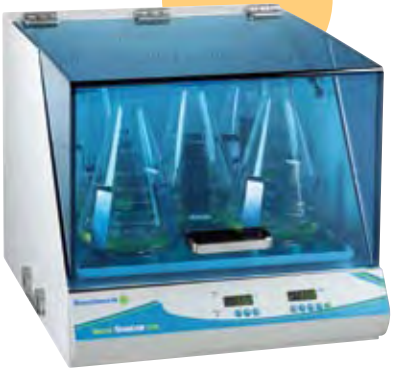
Optional Platforms and Shelves

Part Number	Description	Max. # of Items Mini	Max. # of Items 10L
CLS-2543-007	Platform, Dedicated, 500mL Flask Clamps	5	NA
CLS-2543-009	Platform, Dedicated, 250mL Flask Clamps	8	NA
CLS-2543-011	Platform, Dedicated, 125mL Flask Clamps	12	NA
CLS-2543-013	Platform, Dedicated, 4 Microplates	4	NA
CLS-2543-020	Platform, Dedicated, 6 Microplates	NA	6
CLS-2543-015	Platform, Spring Rack for Uncommon Vessels	•	NA
CLS-2543-021	Platform, Spring Rack for Uncommon Vessels	NA	•
CLS-2543-022	Shelf, 14 x 5.5" (for Petri Dishes, Plates, Trays, etc.)	NA	3

Incu-Shake™ 10L

Convenient MAGic Clamp™ platforms, flask clamps and tube racks are also available for use with Erlenmeyer flasks and test tubes. This unique, magnetic attachment method is the easiest way to instantly change between flask clamps of different sizes. Each clamp utilizes a powerful (patent pending) magnetic base to securely attach the clamp to the shaking platform without the use of screws, bolts or tools.

Temperature, shaking speed and run time are displayed on the large LED control panel located on the front of the unit. The integral microprocessor includes a constant monitoring system that verifies and maintains accuracy through the duration of the program. Sophisticated over-temperature and over-speed controls ensure long life, safety and sample integrity.



CLS-2543-002

Refrigerated Model Also Available *- See CLS-2543-0R2, below.*

Part Number	Description
CLS-2543-002	Incubator, 10L, Shaking, with Non-Slip Rubber Mat, 120V
CLS-2543-0R2	Incubator, 10L, Incu-Shake, Refrigerated, with Non-Slip Rubber Mat, 120V
CLS-2543-004	MAGic Clamp™ Universal Platform (for 10L)

Flask and Rack Accessories for MAGic Clamp Platforms

Part Number	Description	Max. # of Items Mini	Max. # of Items 10L
CLS-2543-050	Erlenmeyer Clamps for MAGic Platform, 50mL	20	49
CLS-2543-125	Erlenmeyer Clamps for MAGic Platform, 125mL	12	36
CLS-2543-250	Erlenmeyer Clamps for MAGic Platform, 250mL	8	25
CLS-2543-500	Erlenmeyer Clamps for MAGic Platform, 500mL	5	16
CLS-2543-1L	Erlenmeyer Clamps for MAGic Platform, 1000mL	NA	9
CLS-2543-2L	Erlenmeyer Clamps for MAGic Platform, 2000mL	NA	5
CLS-2543-3L	Erlenmeyer Clamps for MAGic Platform, 3000mL	NA	4
CLS-2543-016	Microplate Clamps for MAGic Platform	4	6
CLS-2543-005	Conical Tube Rack, 12 x 50mL and 21 x 15mL	1	4
CLS-2543-017	Conical Tube Rack, 32 x 15mL	2	8
CLS-2543-018	Conical Tube Rack, 15 x 50mL	2	8
CLS-2543-019	Conical Bottle Rack, 4 x 500mL or 600mL	1	2

Specifications

Model	Mini (CLS-2543-001)	10L (CLS-2543-002)	Refrigerated Model 10L (CLS-2543-OR2)
Temp. Range	Ambient +5° to 60°C (0.1°C)	Ambient +5° to 60°C (0.1°C)	Ambient -15° to 60°C (0.1°C)
Temp. Uniformity	± 0.25%	± 0.25%	± 0.25%
Temp. Accuracy	± 0.1%	± 0.1%	± 0.1%
Shaking Speed	30 to 300 rpm	30 to 300 rpm	30 to 300 rpm
Horizontal Orbit	19mm	19mm	19mm
Platform Dims.	11.5" x 9.5" (L x W)	17.8" x 17.8" (L x W)	17.8" x 17.8" (L x W)
Exterior Dims.	15.7" x 11" x 10.5" (L x W x D)	20" x 26" x 19" (L x W x D)	20" x 31" x 22" (L x W x D)
Weight	25lbs	120lbs	170lbs
Electrical	120V, 50-60Hz, 200W	120V, 50-60Hz	120V, 50-60Hz

CLS-2541 INCUBATOR GENIE®, 120V

- Incubate, rotate, rock and shake
- 2-year warranty

Incubator Genie allows you to incubate, rotate, rock, and shake all in one compact unit. The magnetic stainless steel platform may be easily set to rock or rotate almost any container. Precise temperature control and uniformity - range from 28ºC to 75ºC which makes it ideal for hybridization. Chamber air is gently and continuously re-circulated ensuring temperature consistency and uniformity. The shatterproof window allows for inspection of samples without disturbing chamber environment. Supplied with 1 clip plate each for 10-13 mm, 15-17mm, 28-30mm tubes, 4 bag mounting strips, non-skid tray and shelf.

The ENVIRO-GENIE adds Peltier refrigeration and stirring.

CLS-1398 ENVIRO-GENIE®, 120V

- Refrigerate, incubate, rotate, rock, stir and shake
- Peltier refrigeration / heating for precise temperature control
- 2-year warranty

Enviro-Genie allows you to refrigerate, incubate, rotate, rock, stir and shake all in one compact unit. The magnetic stainless steel platform may be easily set to rock or rotate almost any container. Precise temperature control and uniformity - range from 4ºC to 75ºC. Peltier controlled refrigeration and heating provides re-circulated air ensuring temperature consistency and uniformity. The shatterproof viewing window allows for inspection of samples without disturbing chamber environment. Supplied with magnetic platform, 1 clip plate each for 10-13 mm, 15-17mm, 28-30mm tubes, 4 bag mounting strips, non-skid tray and stackable wire rack.

Increase Performance and Application Versatility with these Accessories for INCUBATOR GENIE and ENVIRO-GENIE.

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

Specifications

Temperature	28°C - 75°C (82-167°F)
Accuracy	± 0.2°C
Uniformity	± 0.5°C
Resolution	0.1°C
Stability	± 0.1°C
Rotating	1-35 RPM
Rocking	2-70 Cycles Per Minute
Platform Capacity	10 lbs
Chamber Volume	24L
Weight	43lbs
Dims. (D x W x H)	400 x 560 x 370mm

Part Number	Description
CLS-2541-001	Incubator Genie, 120V

CLS-2541 Shown with Optional Accessories

Specifications

Temperature	4°C - 75°C (39-167°F)
Accuracy	± 0.2°C
Uniformity	± 0.5°C
Resolution	0.1°C
Stability	± 0.1°C
Rotating	1-35 RPM
Rocking	2-70 Cycles per Minute
Stirring	1-2000 RPM Including Stirring Reverse
Time	Programmable to 99 hours
Platform Capacity	10 lbs.
Chamber Volume	24L
Weight	80 lbs.
Dims. (D x W x H)	495 x 622 x 368mm

Part Number	Description
CLS-1398-001	Enviro-Genie, 120V

CLS-1398-01 Shown with Optional Accessories

Accessories

Part Number	Figure #	Description
CLS-3960-005	1	6 Clip Plates for 12 each, 10-13mm Tubes
CLS-3960-006	2	6 Clip Plates for 6 each, 15-17mm Tubes
CLS-3960-007	3	6 Clip Plates for 3 each, 28-30mm Tubes
CLS-3960-002	4	1 Clip Plate for 12 each, 10-13mm Tubes
CLS-3960-003	5	1 Clip Plate for 6 each, 15-17mm Tubes
CLS-3960-004	6	1 Clip Plate for 3 each, 28-30mm Tubes
CLS-3960-008	7	Magnetic Bag Mounting Strips, Pkg. / 16
CLS-3960-009	8	Expansion Kit
CLS-3960-010	9	2 Clip plates for Hybridization Tubes
CLS-3960-011	10	Stackable Wire Rack
CLS-3960-013	11	2 Universal Clip Plate
CLS-3960-014	12	1 Magnetic Covered 100 Microtube Box
CLS-3960-015	13	1 Clip Plate for 100mL Volumetric Flask
CLS-3960-017	14	Non-Skid Tray
CLS-3960-016	15	3-D Orbital Shaker Attachment
CLS-3960-012	Not Shown	Serial Cable for ENVIRO-GENIE Only

CLS-2453

CLS-2453 INCUBATOR, GENERAL PURPOSE, SHAKING

- Dual Function - Simultaneous shaking and general incubation
- Microprocessor PID Control - controls time, temperature and motion
- Brushless motor for stability as well as minimal vibration and noise
- Auto-stop - motion stops when door is opened
- Window on outer door - User can observe samples or working status of shaker in chamber through the door window
- One-Year Warranty

This shaking incubator is recommended for use in the cultivation of microbes, cells, and special tissues under different conditions within the same incubator. Temperature uniformity is precisely maintained by natural convection. Inner glass door allows view of cultures without opening the door. User can adjust RPMs and time as required. Up to (12) 250mL flasks can be equipped on a plate. One-year warranty.

Specifications

Model Number	CLS-2453-05
Temperature Range	Ambient +5 to 60°C
Temperature Uniformity	±0.1°C at 37°C
Temperature Display Increment	0.1°C
Chamber Volume	142L / 5Cu Ft
Shaking Speed	30 - 300RPM (with no load)
Shaking Accuracy	±0.1%
Shaking Increment	1 Minute
Exterior Dimensions (W x D x H)	21 x 21 x 34.3in 55 x 55 x 87cm
Interior Dimensions (W x D x H)	18.9 x 17 x 27in 48 x 48 x 69cm
Number of Shelves	1 Shaker + 2 Shelves

Part Number	Description
CLS-2453-05	Incubator, Shaking, General Purpose, 5Cu Ft

Plate Accommodates Flasks	
16	100mL
12	250mL
9	500mL

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-2440 INCUBATOR, GENERAL PURPOSE

- Microprocessor Control / Digital LED
- No Rivets; Seam Welded Panels and Doors
- Heated Tempered Safety Glass Door with Radius Corners
- Unique Warm Air-Jacket Design
- One Interior Outlet
- Access Port
- 24-Month Warranty

CLS-2440-005

The CLS-2440 series of general purpose incubators delivers a superior degree of temperature uniformity. This design requires no blowers or fans within the incubator chamber. Five strategically placed heating elements, including a heated outer door, ensure uniform heating while the unique air jacket design eliminates hot spots when the incubator chamber is fully loaded.

The microprocessor controller achieves exceptional temperature control with no overshoot. Set point and actual chamber temperature are digitally displayed. Temperature calibration is easily performed by touch pad control. A totally independent secondary temperature controller offers the added safety of oven temperature protection.

Part Number	Cap. (cu ft)	No. of Shelves
CLS-2440-001	1.95	2
CLS-2440-002	6.0	3
CLS-2440-003	6.7	2
CLS-2440-004	11.3	6
CLS-2440-005	12.0	6

Specifications

Model Number	CLS-2440-001	CLS-2440-002	CLS-2440-003	CLS-2440-004	CLS-2440-005
Temperature Range	Ambient +8 to 70°C	Ambient +8 to 70°C	Ambient +8 to 70°C	Ambient +8 to 70°C	Ambient +8 to 70°C
Temperature Uniformity	±0.35°C at 37°C	±0.35°C at 37°C	±0.35°C at 37°C	±0.35°C at 37°C	±0.35°C at 37°C
Chamber Style	Single	Single	Single	Single, Two-Door	Dual, Over/Under
Chamber Volume	55L / 1.95 cu ft	164L / 5.8 cu ft	189L / 6.7 cu ft	318L / 11.25 cu ft	340L / 12.0 cu ft
Exterior Dims. (w x d x h)	21 x 21 x 25 in.	25 x 27 x 37 in.	30 x 30 x 32 in.	42 x 27 x 37 in.	25 x 27 x 74 in.
Interior Dimensions	15 x 15 x 15 in.	19 x 20 x 26 in.	24 x 24 x 37 in.	36 x 20 x 27 in.	19 x 20 x 26 in.

CLS-2440-004

CLS-2440-002

CLS-2440-003

CLS-2441

CLS-2441 INCUBATOR, LARGE CAPACITY, GENERAL PURPOSE, REACH-IN

- Horizontal Air Flow
- Four Interior Electrical Outlets
- Pre-wired Panel for Chart Recorder
- Tempered Glass Viewing Window
- 24-Month Warranty

The CLS-2441 series of incubators provides extra large chamber capacities while minimizing the amount of floor space used. Both models incorporate a microprocessor controller to achieve precise temperature uniformity. A totally independent secondary temperature controller offers the added security of over temperature protection. The chamber floors are ruggedly reinforced to support roller apparatus or shakers. Both models are supplied with (6) reinforced, sturdy shelves to support extra heavy loads. Integral channels, flush to floor, facilitate the loading and unloading of roller racks. No ramps, no lifting required. Channel covers included. Access ports are available by special order.

Specifications

Model Number	CLS-2441-028	CLS-2441-040
Controls / Display	Microprocessor / Digital LED	Microprocessor / Digital LED
Temperature Range	Ambient +8 to 70°C	Ambient +8 to 70°C
Temperature Uniformity	±0.8°C at 37°C	±0.8°C at 37°C
Chamber Style	Single	Single
Chamber Volume	872 L / 30.8 cu ft	1092 L / 38.6 cu ft
Number of Shelves	6 (16 max.)	6 (20 max.)
Exterior Dimensions (w x d x h)	38.5 x 34 x 75.3 in.	41.5 x 34.8 x 87.5 in.
Interior Dimensions (w x d x h)	32.2 x 26 x 63.5 in.	35 x 26 x 73.2 in.
Interior Outlet	4	4
Tempered Safety Glass Door	Yes	Yes
Access Port	1	1
Thermostat	Independent Over Temperature	Independent Over Temperature
Alarm	Over Temperature	Over Temperature

Part Number	Description
CLS-2441-028	30.8 cu ft Large Capacity Incubator
CLS-2441-040	38.6 cu ft Large Capacity Incubator

Applications

- Hematological Studies
- Microbiological Determinations
- Pharmaceutical Stability Assays
- General Purpose Incubator Applications
- Large Scale Roller Apparatus Applications
- Bacterial Culturing and Research
- Food Processing Quality Control
- Biochemical Studies

CLS-2444 INCUBATOR, GENERAL PURPOSE, SHAKING, ORBITAL

- Microprocessor Control
- Load Flexibility
- Shaking Platform Included
- Independent Controls for Each Function
- Full Line of Shaking Accessories
- Stackable with Stacking Stand
- 24-Month Warranty

CLS-2444

The CLS-2444 series of orbital shaking incubators feature a unique counter balance weighting system that is adjustable to accommodate off-center loads, varying capacities and stroke lengths which allows for smoother operation. An adjustable orbit allows the user to change the rotational stroke from 0.5 inches (vigorous shaking) to 1 inch (gentle shaking) to accommodate different types of cells and to provide maximum oxygen transfer. These units have small footprints and include a shelf for static incubation during shaking. The -R06 and -RH6 models refrigerate via a 1/6 horsepower motorized compressor (produced without CFCs/HCFCs).

All major functions: temperature, RPM and time, have alarms that alert the user to deviations from set parameters. Over temperature protection is provided by a safety thermostat. Fluorescent light in the unit provides clear visibility of the large chamber interior. Access port included for recording and monitoring accessories.

Specifications	Standard	Refrigerated	Refrigerated & High Speed
Model Number	**CLS-2444-006**	**CLS-2444-R06**	**CLS-2444-RH6**
Chamber Capacity	144 L/ 5cu ft	144L / 5cu ft	144L / 5cu ft
Temperature Range	8°C + Ambient to 65°	10°C to 60°	10°C to 60°
Temperature Uniformity	±0.8° at 37°C	±0.8° at 37°C	±0.8° at 37°C
Temperature Accuracy	±0.1°	±0.1°	±0.1°
Shaking Capacity	10 kg / 22lbs	10 kg / 22lbs	10 kg / 22lbs
Shaking Speed	30-400rpm, ±1 rpm	30-400rpm, ±1 rpm	30-850rpm, ±1 rpm
Stroke Length	0.5" / 0.75" / 1.0"	0.5" / 0.75" / 1.0"	0.14"
Timer	1-999 minutes	1-999 minutes	1-999 minutes
Exterior Dimensions (w x d x h)	21.5 x 24 x 28 in.	21.5 x 24 x 28 in.	21.5 x 24 x 28 in.
Interior Dimensions	19.25 x 19.25 x 17 in.	19.25 x 19.25 x 17 in.	19.25 x 19.25 x 17 in.
Platform Dimensions	17.25 x 17.25 x 0.75 in.	17.25 x 17.25 x 0.75 in.	17.25 x 17.25 x 0.75 in.

Part Number	Description
CLS-2444-006	Incubator, Standard Shaking, Orbital
CLS-2444-R06	Incubator, Refrigerated, Shaking, Orbital
CLS-2444-RH6	Incubator, Refrigerated, High Speed, Shaking, Orbital
CLS-2444-SR1	Stacking Rack for Incubator

CLS-2442-001

CLS-2442-002

CLS-2442-003

CLS-2442 INCUBATOR, REFRIGERATED B.O.D.

- Microprocessor Control
- Fan Assisted / Forced Air Circulation
- LED Display of Set Point and Chamber Temperature
- High and Low Limit Thermostats
- Interior Electrical Outlet
- 24-Month Limited Warranty

The CLS-2442 series of low temperature incubators is ideal for testing B.O.D. (Biochemical Oxygen Demand) of sewage and water / wastewater as well as other low temperature and room temperature applications. The units are equipped with a hermetically-sealed compressor, a circuit breaker to protect from electrical overload and an easy-to-clean, fully insulated chamber that is corrosion-resistant. Gentle, continuous, forced air circulation ensures temperature uniformity and reproducible test conditions.

Specifications

Model Number	CLS-2442-001	CLS-2442-002	CLS-2442-003
Capacity	3.2cu ft	15.2cu ft	20cu ft
Temperature Range	0°C to 45°C at 20°C Ambient	0°C to 45°C at 20°C Ambient	0°C to 45°C at 20°C Ambient
Temperature Uniformity	±0.5°C at 20°C	±0.5°C at 20°C	±0.5°C at 20°C
Exterior Dims. (w x d x h)	24 x 22 x 33 in.	34 x 30 x 77 in.	34 x 30 x 77 in.
Interior Dims.	16 x 14 x 25 in.	27 x 18 x 55 in.	27 x 33 x 56 in.
Capacity of B.O.D Bottles	62	317	345

Part Number	Capacity (cu ft)	No. of Shelves
CLS-2442-001	3.2	2
CLS-2442-002	15.2	6
CLS-2442-003	20.0	5

See page 261-265 for Compact Benchtop Incubators that are Peltier-Cooled.

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-2442-G INCUBATOR, PELTIER-COOLED, B.O.D.

- Thermoelectric saves money
- Strong shelves hold up to 75lbs
- Interior outlet
- 24-month limited warranty

Our new B.O.D. Thermoelectric Cooled Incubators use innovative cooling technology that eliminates the need for a refrigeration compressor. This means these units use 78% less power than alternative models and reduce room air conditioning loads by 75%. They also include 75-pound capacity shelves, which eliminate sagging. These incubators meet APHA specifications for Biochemical Oxygen Demand (B.O.D.) and include a mechanical convection system to ensure even air distribution. Digital temperature set controller, over temperature limit control, and a digital temperature display are also included.

A one amp interior outlet allows use of shakers, stirrers, roller bottles or other apparatus. Units are supplied with adjustable leveling feet.

Use 78% Less Power!

Shelves have a generous 75lb. carrying capacity.

Low temperature incubators are ideal for testing of sewage and wastewater, as well as other low and room temperature applications. 24-month limited warranty.

Specifications

Model Number	CLS-2442-G01	CLS-2442-G03
Chamber Capacity	185L / 6.5 cu ft	546L / 19.3 cu ft
Temperature Range	15° to 40°C (at 20° Ambient)	15° to 40°C (at 20° Ambient)
Temperature Uniformity	+/-0.5°C at 20°C	+/-0.5°C at 20°C
Temperature Control	0.1° Display Increments	0.1° Display Increments
Exterior Dimensions (w x d x h)	30 x 31.5 x 33.5 in. 76.2 x 80.1 x 85.1 cm	30 x 31.5 x 69.5 in. 76.2 x 80.1 x 176.6 cm
Interior Dimensions (w x d x h)	25.5 x 24 x 18.5 in. 64.7 x 60.9 x 46.9 cm	25.5 x 24 x 54.5 in. 64.7 x 60.9 x 138.4 cm
Bottle Capacity	120	300

See page 287 for Refrigerated Incubators with a temperature range of -9.9°C to 50°C.

Part Number	Description
CLS-2442-G01	Incubator, Peltier-Cooled, 6.5cu ft, 120V
CLS-2442-G03	Incubator, Peltier-Cooled, 19.3cu ft, 120V

Shaker plus two stationary shelves!

CLS-2454

CLS-2454 INCUBATOR, REFRIGERATED, SHAKING, GENERAL PURPOSE

- Dual Function - simultaneously culture suspension cells on the built-in shaker and adherent cells on the stationary shelves
- Microprocessor PID control - controls time, temperature and shaker
- Exterior Control Panel - no need to open the door
- Brushless motor for stability as well as minimal vibration and noise
- Auto-stop - motion stops when door is opened
- Full Inner Glass Door - tempered observation door minimizes temperature variation when viewing
- Low Temperature Range
- Easy positioning of vessel rack - no bolts required
- 12-Month Warranty

This shaking incubator is recommended for use in the cultivation of microbes, cells, and special tissues under different conditions within the same incubator. Temperature uniformity is precisely maintained by natural convection. Inner glass door allows view of cultures without opening the door. User can adjust RPMs and time as required. One-year warranty.

Part Number	Description
CLS-2454-05	Incubator, Shaking, Refrigerated, 6.3cu ft
CLS-2454-84	Incubator, Shaking, Refrigerated, 8.4cu ft

Specifications

Model Number	CLS-2454-05	CLS-2454-84
Temperature Range	5 to 60°C	5 to 60°C
Temperature Uniformity	±0.1°C at 37°C	±0.1°C at 37°C
Temperature Display Resolution	±0.1°C	±0.1°C
Chamber Volume	179L / 6.3cu ft	238L / 8.4cu ft
Shaking Speed	30 - 300RPM	30 - 300RPM
Shaking Accuracy	0.1 RPM	0.1 RPM
Shaking Increment	1 Minute	1 Minute
Cooling	Compressor 1/8 HP	Compressor 1/4 HP
Exterior Dimensions (W x D x H)	21.65 x 26 x 49.2in 56 x 66 x 125cm	23 x 29 x 53in 58.5 x 74 x 13.4cm
Interior Dimensions (W x D x H)	18.6 x 15.74 x 27.95in 47.3 x 40 x 71cm	20.5 x 20.5 x 33.5in 52 x 52 x 85cm
Number of Shelves	1 Platform + 2 Shelves	1 Platform + 2 Shelves

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

Please Contact Us

For accessories to N-BIOTEK incubators.

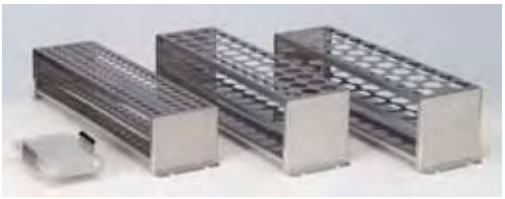
- Shelves
- Spring Racks
- Holder Platforms
- Microplate Racks
- Holders
- Tube Rack and Holder Platforms
- Customized Solutions

CLS-2446 CLAMP, STAINLESS STEEL, FLASK HOLDER, FOR SHAKING INCUBATORS AND SHAKING WATER BATHS

Stainless steel flask clamps are equipped with stainless steel springs to securely hold flasks. Clamps are sold 1 per case.

Quantity of Clamps Required to Fill Equipment (by Part Number)

Part Number	Flask Size (mL)	CLS-2444	CLS-2449	CLS-4952-017	CLS-4952-027
CLS-2446-025	25	50	107	24	48
CLS-2446-050	50	50	107	24	48
CLS-2446-125	125	25	53	24	48
CLS-2446-250	250	25	35	12	24
CLS-2446-500	500	10	23	6	12
CLS-2446-1L	1000	6	19	4	8
CLS-2446-2L	2000	4	12	2	4
CLS-2446-28L	2800	2	3	1	3
CLS-2446-4L	4000	4	10	1	2
CLS-2446-6L	6000	2	3	1	2



CLS-2446 TUBE RACKS and TITER PLATE HOLDER, FOR SHAKING INCUBATORS

Stainless steel **test tube racks** designed for use with shaking incubators. Stainless steel **micro titer plate holder** designed for use with shaking incubators and can hold 12 micro titer plates. Both sold 1 per case.

Part Number	Tube Size (mm)	Max. No.	Max. Racks to Fill CLS-2444
CLS-2446-013	10-13	100	3
CLS-2446-016	14-16	80	3
CLS-2446-020	18-20	60	3
CLS-2446-022	22-25	36	3
CLS-2446-029	50	29	3

Part Number	Description	Max. No.	Max. Racks to Fill CLS-2444
CLS-2446-MPH	Micro Titer Plate Holder	12	2

CLS-2446-MPH

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-3440-001 3.9 CU. FT. OVEN, CLEAN ROOM, HIGH PERFORMANCE, HORIZONTAL AIR FLOW

- Meet the requirements of Class 100 clean rooms
- HEPA filter included
- Stainless steel exterior
- Gas inlet for nitrogen purging
- Adjustable hinges ensure proper door seal
- 24-month warranty

CLS-3440
(Shown with optional stand)

The clean room oven features a high performance horizontal airflow. This model is built to meet the needs of the Class 100 clean room. The unit comes standard with a high efficiency particulate air (HEPA) filter to screen out 95% of the airborne particles as small as 0.3 microns. The filters are easily removed and replaced. To further minimize surface particulates, the clean room oven has a stainless steel exterior.

A gas inlet is supplied which is used for nitrogen purging applications. It provides the ability to create a dry, oxygen-free atmosphere which reduces product oxidation. The pressurizing action of the nitrogen also inhibits the entry of contaminates.

The chamber door gasket eliminates heated air leakage. In addition, the door hinges are user adjustable to maintain a positive seal over the life of the oven. Features include three adjustable air intakes and exhaust ducts, door latch and perforated 304 stainless steel shelves which are user adjustable to 1/2” increments for maximum end user customization. The unique shelf design is adjustable in seconds. Simply lift the solid, one piece shelf standard from the side wall and reposition. This non-tip, sliding shelf design is a first of its kind and has been engineered to position the shelving slots efficiently to ensure that the shelf standard will not hinder airflow within the chamber.

Applications include temperature processing in a Class 100 environment. Ideal for use with epoxy curing, electronic devices, circuit board drying and de-pyrogenation of glassware. Caster stand is optional, please contact us for additional information.

Specifications

Model Number	CLS-3440-001
Capacity	3.9 cu ft / 110 L
Interior Dimensions (w x d x h)	17 x 20 x 20.1 in.
Exterior Dimensions (w x d x h)	35 x 29 x 38 in.
Temperature Range	Ambient +15 to 200°C
Temperature Uniformity	±1°C at 110°C
Temperature Recovery Time	4 minutes to reach 110°C
Heat Up Time	10 min to 110°C / 35 min to 180°C
Shelving	2 Supplied / 8 Maximum

Part Number	Description
CLS-3440-001	3.9 cu ft Oven, Clean Room, 220V

CLS-3446

CLS-3446 OVENS, BENCH TOP, MULTI-PURPOSE

These multi-purpose ovens are available in both Forced Air (F) and Gravity Convection (G) configurations. Two sizes-3 and 5 cubic feet are available. They feature microprocessor controls and digital temperature display providing optimal stability and allows for accurate control. The controllers have easy-to-use keypad, touch pads and a calibration feature. The set-points have memory capabilities in the event of power outages.

The digital, electronic timer provides the user with the ability to automatically turn off the oven at the end of an application cycle. The timer has a range of one minute to 99 hours/59 minutes and is activated by an independent power switch.

The models have a safety controller is an independent, over-temperature protection (OTP) that operates independently from the main controller. The dual-control, failsafe function means a second system will ensure that temperature set-point is never exceeded. By operating independently, it will take over and control the heating function if the main temperature controller malfunctions.

The bottom of the chamber is solid, thus separated from the heating elements. This important design eliminates danger to the user and prevents damage to the oven from spills. Heating elements are non-contact and low watt density. Applications include: glassware drying, sterilizing, aging testing, stability testing and electronic burn-in. Ovens come with a 24-month warranty.

Specifications

Model Number, 120V	CLS-3446-03G	CLS-3446-05G	CLS-3446-03F	CLS-3446-05F
Model Number, 220V	**CLS-3446-23G**	**CLS-3446-25G**	**CLS-3446-23F**	**CLS-3446-25F**
Convection Type	Gravity	Gravity	Forced Air	Forced Air
Capacity	3.4 cu ft/96 L	5.4 cu ft/153 L	3 cu ft/85 L	5 cu ft/142 L
Dimensions (w x d x h)				
Interior	16.5 x 19.5 x 16.5 in.	21 x 19.5 x 21 in.	16.5 x 19.5 x 16.5 in.	21 x 19.5 x 21 in.
Exterior	25 x 26.8 x 33.5 in.	30 x 26.8 x 38 in.	25 x 26.8 x 33.5 in.	30 x 26.8 x 38 in.
Temp. Range	Ambient +15 to 240°C	Ambient +15 to 240°C	Ambient +15 to 240°C	Ambient +15 to 240°C
Temp. Uniformity	± 2°C at 110°C	± 2°C at 110°C	± 1.5°C at 110°C	± 1.5°C at 110°C
High Limit Control	Yes	Yes	Yes	Yes
Shelving	2 Supplied/ 8 Maximum	2 Supplied/ 8 Maximum	2 Supplied/ 8 Maximum	2 Supplied/ 8 Maximum

Part Number	Description
CLS-3446-03G	3.4 cu ft Oven, Gravity, 120V
CLS-3446-05G	5.4 cu ft Oven, Gravity, 120V
CLS-3446-23G	3.4 cu ft Oven, Gravity, 220V
CLS-3446-25G	5.4 cu ft Oven, Gravity, 220V
CLS-3446-03F	3 cu ft Oven, Forced Air, 120V
CLS-3446-05F	5 cu ft Oven, Forced Air, 120V
CLS-3446-23F	3 cu ft Oven, Forced Air, 220V
CLS-3446-25F	5 cu ft Oven, Forced Air, 220V

CLS-3450 OVENS, VACUUM

- Double plenum design exceeds CE safety requirements
- Doors have positive latch handles with spring-loaded glass for good sealing
- Unique cross-flow ventilation
- 24-month warranty

The vacuum ovens are durably constructed with seamless welds and strong bracing. All of the vacuum ovens are built with a stainless steel chamber for exceptional durability. Ovens incorporate solid brass vacuum valves with PTFE seats to prevent leaks. The double plenum design exceeds CE safety requirements resulting in a cool outer surface.

The doors on these units have positive latch handles with spring-loaded glass to facilitate a good vacuum seal without hinge binds that shorten the gasket life. A selection of gaskets (for specific applications) and a small footprint increase the versatility of these ovens.

The unique cross-flow ventilation forces inert gas to fill the entire chamber. Users can choose from 3/8 inch orifices or a KF25 fitting to withstand heavy use, minimize draw-down time and achieve low vacuum levels. We offer a full line of gaskets to suit applications involving high temperatures, acids, or solvents. Ovens have a 24-month warranty.

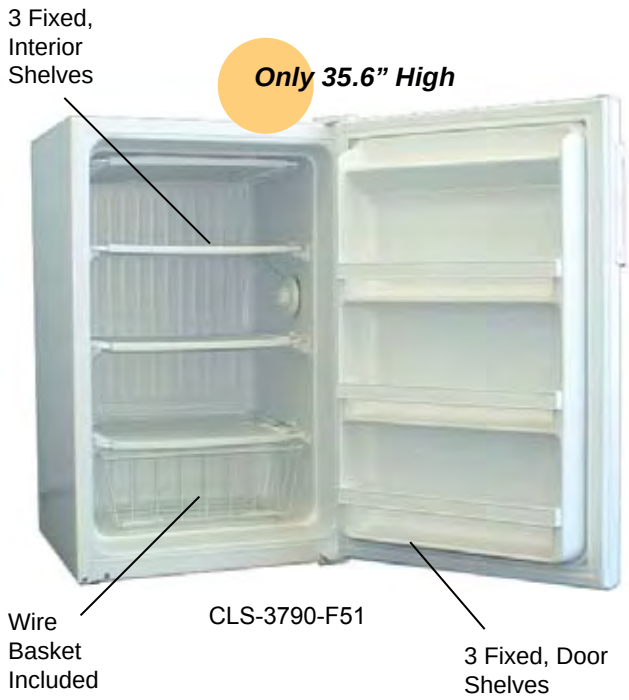
CLS-3450

Specifications

Part Number, 120V Model	CLS-3450-006	CLS-3450-017	CLS-3450-045
Part Number, 220V Model	CLS-3450-206	CLS-3450-217	CLS-3450-245
System Type	Vacuum Oven	Vacuum Oven	Vacuum Oven
Capacity	0.6 cu ft /16 L	1.7 cu ft /47 L	4.5 cu ft /127.5 L
Dimensions (w x d x h)			
Interior	9 x 12 x 9 in.	12 x 20 x 12 in.	18 x 24 x18 in.
Exterior	23 x 19 x 17 in.	26 x 27 x 20 in.	32 x 31 x 26 in.
Temperature Range	Ambient +15 to 240°C	Ambient +15 to 240°C	Ambient +15 to 240°C
Temperature Uniformity	± 3.5°C at Set-Point	± 3.5°C at Set-Point	± 3.5°C at Set-Point
High Limit Control	Yes	Yes	Yes
Shelving	3 Supplied/3 Maximum	3 Supplied/3 Maximum	3 Supplied/3 Maximum

Part Number	Description
CLS-3450-006	0.6 cu ft Oven, Vacuum, 120V
CLS-3450-017	1.7 cu ft Oven, Vacuum, 120V
CLS-3450-045	4.5 cu ft Oven, Vacuum, 120V
CLS-3450-206	0.6 cu ft Oven, Vacuum, 220V
CLS-3450-217	1.7 cu ft Oven, Vacuum, 220V
CLS-3450-245	4.5 cu ft Oven, Vacuum, 220V

CLS-3790-F51 5.1 CU. FT. FREEZER, UNDER-COUNTER, MANUAL DEFROST -30°C



Exterior, built-in, independent LCD digital temperature display included on door.

- Compact enough to fit under counters
- Commercial grade, made for laboratory use
- Energy Star® Rated

This space-saving high capacity freezer model is ideal for placement as freestanding beside the work bench or under-counter (minimum height is 35.6"), with the features and convenience of full-size models.

This model carries a commercial rating for general laboratory use and comes standard with a manual defrost system that allows you to select the appropriate time for the system to be engaged, unlike auto-defrost models that work on a timer sequence. For performance assurance, each unit is completely tested and shipped with its unique pull down performance graph.

The exterior is constructed of heavy gauge steel with a baked-on white epoxy coating for long lasting durability. The interior is white molded ABS with no seams for easy cleaning and decontamination.

The interior environment is protected by CFC-free, high-density foamed-in-place urethane insulation. Additional standard features include: (3) fixed refrigerated shelves, a removable wire retainer panel at the floor level for large item storage, (3) shelves on the door, built-in floor drain and adjustable leveling legs. Exterior, built-in, independent LCD temperature display included on door.

Specifications

Model Number	**CLS-3790-F51**
Temperature Range	-30° to -15° C
Temperature Control	Hydraulic
Chamber Volume	125.5 L / 5.1 Cu ft
Exterior Dimensions (w x d x h)	22 x 26.5 x 35.6 in.
Interior Dimensions (w x d x h)	17.3 x 22.3 x 23 in.
Interior Shelves	3 Fixed
Door Shelves	3 Fixed
Commercial Grade UL Listing	Yes
Energy Star®	Yes

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-3790-F21 20.7 CU. FT. FREEZER, UP-RIGHT, MANUAL DEFROST, -20°C
CLS-3790-F28 20.7 CU. FT. FREEZER, UP-RIGHT, MANUAL DEFROST, -28°C

- Uniform temperature, ±2°C, measured in air
- Space-saving design
- Made for commercial use
- Durable, scratch-resistant finish
- Energy Star® Rated

Minimal Footprint
Only 6.4 Sq. Ft. of Floor Space Needed

This space-saving upright freezer model is ideal for placement beside the work bench, requiring only 6.4 sq. ft. of floor space. This model carries a commercial rating for general laboratory use and comes standard with a manual defrost system that allows you to select the appropriate time for the system to be engaged, unlike auto-defrost models that work on a timer sequence.

This product utilizes proven technology used in the household appliance industry, but is manufactured to endure the rigors of commercial laboratory use and carries a warranty for this application. For performance assurance, each unit is completely tested and shipped with its unique pull down performance graph. The exterior is constructed of heavy gauge steel with a baked-on white epoxy coating for long lasting durability and scratch resistance.

The interior is white molded ABS with no seams for easy cleaning and decontamination. The interior environment is protected by CFC-free, high-density foamed-in place urethane insulation. Additional standard features include four fixed refrigerated shelves, a removable wire basket at the floor level for large item storage and six shelves on the door, an interior light, adjustable temperature control, built-in door lock, internal floor drain and adjustable leveling legs.

CLS-3790-F21
CLS-3790-F28

Exterior, built-in, independent LCD digital temperature display included on door.

Specifications

Model Number	CLS-3790-F21	CLS-3790-F28
Temperature Range	-20° to -12° C	-28° to -15° C
Temperature Control	Hydraulic	Hydraulic
Chamber Volume	492.1 L / 20.7 cu ft	492.1 L / 20.7 cu ft
Exterior Dimensions (w x d x h)	33 x 28.5 x 66 in.	33 x 28.5 x 66 in.
Interior Dimensions (w x d x h)	27.6 x 22.8 x 56.8 in.	27.6 x 22.8 x 56.8 in.
Interior Shelves	4 Fixed	4 Fixed
Door Shelves	6 Fixed	6 Fixed
Commercial Grade UL Listing	Yes	Yes
Energy Star®	Yes	Yes

CLS-3791 FREEZER, DIGITAL CONTROLLED, UPRIGHT, -40°C TO -85°C

- Digital temperature control with dual temperature display
- Battery operated alarm
- 24-month warranty

Our freezer has a digital control with two temperature displays. One display shows the set temperature, while the other shows the actual temperature in the freezer. The freezer has a battery operated alarm system which will emit an audible and visual signal when there is a mechanical or electrical failure. The alarm has an over and under temperature setting, alarm silencing switch and battery test switch. Also supplied with a relay for remote alarm hook-up. The refrigeration system is cascade type with two hermetic compressors supplied with CFC- and HCFC-free refrigerants. The chamber is 14-gauge, zinc-coated, galvanized steel while the exterior is 16-gauge, steel powder coated with a cool grey finish. ETL Electrical Approved.

Factory Installed Options - Please call for quotation.

- Recorder, 7 Day with 6" Chart
- Recording Paper, 6", 50 Charts per Pack
- Phone Alarm System for up to 4 Pieces of Equipment
- Access Openings, 1-2" ID
- CO2 Automatic Backup System
- Liquid Nitrogen Automatic Backup System

Specifications

		Part Numbers				
TEMPERATURE	0°C to -40°C	CLS-3791-413	CLS-3791-418	CLS-3791-422	CLS-3791-425	CLS-3791-430
	-40°C to -85°C	CLS-3791-813	CLS-3791-818	CLS-3791-822	CLS-3791-825	CLS-3791-830
DIMENSIONS	Chamber Volume (L / cu ft)	370 / 13	505 / 18	626 / 22	710 / 25	843 / 30
	Exterior Dimensions W x D x H, (in)	36 x 33.5 x 79.5	36.5 x 36.5 x 79.5	42 x 36.5 x 79.5	49.5 x 36.5 x 79.5	59.5 x 36.5 x 79.5
	Interior Dimensions W x D x H, (in)	20 x 22 x 51	23 x 26 x 51.25	28.5 x 26 x 51.25	34 x 25 x 51.25	42 x 25 x 51.25

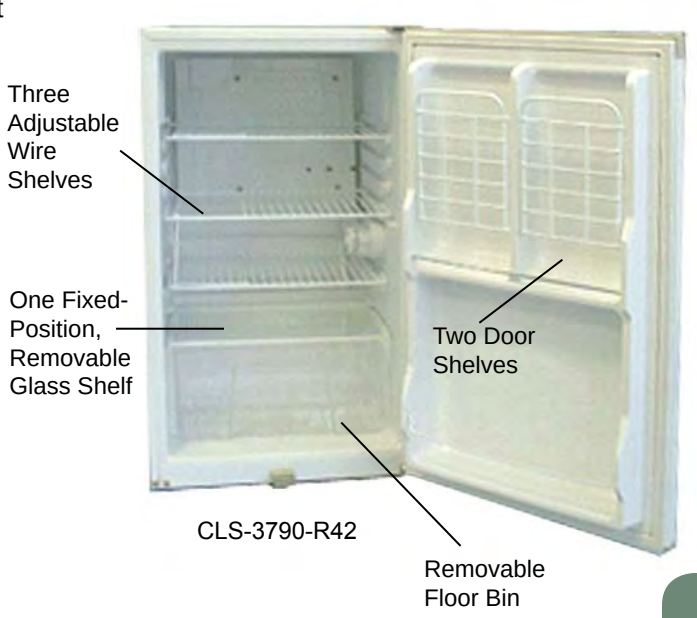
CLS-3790-R42 4.2 CU. FT. REFRIGERATOR, UNDER-COUNTER, GENERAL PURPOSE

- Exterior features durable, scratch-resistant, epoxy coating that is baked-on
- Molded ABS interior for easy cleaning
- 24-month warranty

This space-saving refrigerator model is ideal for placement as freestanding beside the work bench or under-counter, with the features and convenience of our full-size models. It carries a commercial rating for general laboratory use. It also utilizes proven technology used in the household appliance industry, but is manufactured to endure the rigors of commercial laboratory use and carries a warranty for this application. For performance assurance, each unit is completely tested and shipped with its unique pull down performance graph.

The exterior is constructed of heavy gauge steel with a baked-on white epoxy coating for long lasting durability. The interior is white molded ABS with no seams for easy cleaning and decontamination. The interior environment is protected by CFC-free, high-density foamed-in-place urethane insulation.

This model series has a built-in security lock provided. The internal inventory environment includes three adjustable wire shelves with gated openings for taller containers. One fixed-position, removable glass shelf, one removable floor bin and two door shelves for additional storage capacity. Additional features include a reversible outer door, an internal light and adjustable leveling legs.



CLS-3790-R42

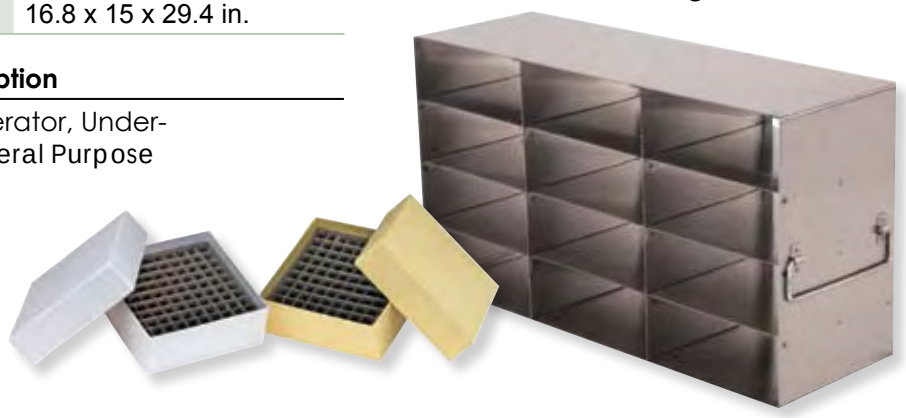
Exterior, built-in, independent LCD digital temperature display included on door.

Specifications

Model Number	**CLS-3790-R42**
Temperature Range	0° to 9° C
Chamber Volume	103.3 L / 4.2 cu ft
Exterior Dimensions (w x d x h)	19.5 x 19.7 x 33.8 in.
Interior Dimensions (w x d x h)	16.8 x 15 x 29.4 in.

Part Number	Description
CLS-3790-R42	4.2 cu ft Refrigerator, Under-Counter, General Purpose

Cryogenic Freezer Storage Boxes and Racks are listed in the Cell Prep & Storage Section.



Equipment

CLS-3790-R17 17 CU. FT. REFRIGERATOR, GENERAL PURPOSE

- Exterior has durable, scratch-resistant, epoxy coating baked-on
- Molded ABS interior for easy cleaning
- Four adjustable shelves, two bins plus door storage
- 24-month warranty

Only 5.7 square feet of floor space needed.

Exterior, built-in, independent LCD digital temperature display included on door.

This space-saving upright refrigerator model is ideal for placement beside the work bench, requiring only 5.7 sq. ft. of floor space and carries a commercial rating for general laboratory use. This product utilizes proven technology used in the household appliance industry, but is manufactured to endure the rigors of commercial laboratory use and carries a warranty for this application.

For performance assurance, each unit is completely tested and shipped with its unique pull down performance graph.

The exterior is constructed of heavy gauge steel with a baked-on white epoxy coating for long lasting durability and scratch resistance.

The interior is white molded ABS with no seams for easy cleaning and decontamination. The interior environment is protected by CFC-free, high-density foamed-in-place urethane insulation. Additional standard features include four adjustable epoxy coated shelves, two removable bins for large item storage and four shelves on the door, an interior light, adjustable temperature control, reversible door and adjustable leveling legs.

Specifications

Model Number	**CLS-3790-R17**
Temperature Range	-5° to 10° C
Temperature Uniformity	±1.0°C in product @ 4°C
Chamber Volume	418 L / 17 cu ft
Exterior Dimensions (w x d x h)	30 x 30.5 x 66 in.
Interior Dimensions (w x d x h)	25 x 22.8 x 55.7 in.

Part Number	Description
CLS-3790-R17	17 cu ft Refrigerator, General Purpose

CLS-3790-R21 20.7 CU. FT. REFRIGERATOR, GENERAL PURPOSE

- Automatic defrost system
- Exterior features durable, scratch-resistant, epoxy coating that is baked-on
- Molded ABS interior for easy cleaning
- Four fixed shelves, two wire baskets plus door storage
- 24-month warranty

CLS-3790R21

This space-saving upright refrigerator model is ideal for placement beside the work bench, requiring only 6.4 sq. ft. of floor space. This model carries a commercial rating for general laboratory use and comes standard with an automatic defrost system that defrosts the cabinet every twelve hours when the unit is operating at temperatures at or below 0°C.

This product utilizes proven technology used in the household appliance industry, but is manufactured to endure the rigors of commercial laboratory use and carries a warranty for this application. For performance assurance, each unit is completely tested and shipped with its unique pull down performance graph.

The exterior is constructed of heavy gauge steel with a baked-on white epoxy coating for long lasting durability and scratch resistance. The interior is white molded ABS with no seams for easy cleaning and decontamination. The interior environment is protected by CFC-free, high-density foamed-in-place urethane insulation. Additional standard features include four fixed epoxy coated shelves, two removable wire baskets for large item storage and six shelves on the door, an interior light, adjustable temperature control, built-in door lock, internal floor drain and adjustable leveling legs.

Only 6.4 square feet of floor space needed.

Exterior, built-in, independent LCD digital temperature display included on door.

Specifications

Model Number	**CLS-3790-R21**
Temperature Range	-6° to 8° C
Temperature Uniformity	±0.75°C in product @ 4°C
Chamber Volume	492 L / 20.7 cu ft
Exterior Dimensions (w x d x h)	33 x 28.5 x 66 in.
Interior Dimensions (w x d x h)	27.6 x 22.8 x 56.9 in.

Part Number	Description
CLS-3790-R21	20.7 cu ft Refrigerator, General Purpose

CLS-3790-RF5 0.6 CU. FT. FREEZER / 5.5 CU. FT. REFRIGERATOR, LOW PROFILE

Exterior, built-in, independent LCD digital temperature display included on door.

- Space-saving design
- Rated for commercial use
- Manual defrost system

This space-saving under-counter refrigerator model is ideal for placement as freestanding beside the work bench or fits easily into a 34.5" high under-counter space, with the features and convenience of our full-size models. This model carries a commercial rating for general laboratory use and comes standard with a manual defrost system that allows you to select the appropriate time for the system to be engaged, unlike auto-defrost models that work on a timer sequence.

This product utilizes proven technology used in the household appliance industry, but is manufactured to endure the rigors of commercial laboratory use and carries a warranty for this application. For performance assurance, each unit is completely tested and shipped with its unique pull down performance graph.

The exterior is constructed of heavy gauge steel with a baked-on white epoxy coating for long lasting durability. The interior is white molded ABS with no seams for easy cleaning and decontamination. The interior environment is protected by CFC-free, high-density foamed-in-place urethane insulation. Additional standard features include a small freezer compartment, three shelves, two are adjustable, a removable storage bin at the floor level for large item storage, two shelves on the door, adjustable leveling legs and a reversible outer door. The interior shelves are epoxy coated for long-lasting durability and chemical resistance. Exterior, built-in, independent LCD temperature display included on door.

Specifications

Part Number	CLS-3790-RF5
Temperature Range	
Refrigerator	-3° to 7° C
Chamber Volume	
Refrigerator	135.3 L / 5.5 cu ft
Freezer	14.8 L / 0.6 cu ft
Exterior Dimensions (w x d x h)	21.7 x 23.8 x 33.5 in.
Interior Dimensions (w x d x h)	18.6 x 18.5 x 27.6 in. (Includes 4" High Freezer Area)
Interior Shelves	
Refrigerator	3 (2 Adjustable)
Door Shelves	
Refrigerator	2
Commercial Grade UL Listing	Yes
Energy Star®	No

CLS-3790-FR2 2.3 CU. FT. FREEZER / 9.5 CU. FT. REFRIGERATOR, 2-DOOR, MANUAL DEFROST

This space-saving floor model two door freezer/refrigerator is ideal for placement as freestanding beside the work bench and only requires 4.7 sq. ft. of floor space. This model carries a commercial rating for general laboratory use. It comes standard with a manual defrost system that allows you to select the appropriate time for the system to be engaged, unlike auto-defrost models that work on a timer sequence. This product utilizes proven technology used in the household appliance industry, but is manufactured to endure the rigors of commercial laboratory use and carries a warranty for this application. For performance assurance, each unit is completely tested and shipped with its unique pull down performance graph.

The exterior is constructed of heavy gauge steel with a baked-on white epoxy coating for long lasting durability and scratch resistance. The interior is white, corrosion-resistant, molded ABS without seams for easy cleaning and decontamination. The interior environment is protected by CFC-free, high-density, foamed-in-place, urethane insulation. This model has an isolated freezing compartment with separate access door. The freezer section includes one wire shelf plus its floor for product storage and two, door shelves. The refrigerator section includes two, main compartment, adjustable, wire shelves and one solid, fixed-position, glass shelf. There are also two lower compartment bins and three shelves on the door for additional storage. Other features include reversible outer doors for location flexibility, an internal light in the refrigerator compartment and adjustable leveling legs.

Specifications

Part Number	**CLS-3790-FR2**
Temperature Range	
Refrigerator	-2° to 7° C
Freezer	-25° to -15°C
Chamber Volume	
Refrigerator	269.01 L / 9.5 cu ft
Freezer	65.13 L / 2.3 cu ft
Defrost	Manual
Exterior Dimensions (w x d x h)	33.1 x 33 x 66.9 in.
Interior Dimensions (w x d x h)	28.6 x 22.1 x 56.4 in.
Interior Shelves	
Refrigerator	3 (2 Adjustable)
Freezer	1
Door Shelves	
Refrigerator	3
Freezer	2
Commercial Grade UL Listing	Yes
Energy Star®	No

CLS-3790-FR2

- Space-saving design
- Rated for commercial use
- Durable, scratch-resistant finish

Exterior, built-in, independent LCD digital temperature display included on door.

Equipment

CLS-3790-C13 5.2 CU. FT. FREEZER / 15.5 CU. FT. REFRIGERATOR, 2-DOOR, AUTOMATIC DEFROST

CLS-3790-C13

Exterior, built-in, independent LCD digital temperature display included on door.

- Space-saving design
- Rated for commercial use
- Durable, scratch-resistant finish

These space-saving floor models require 4.7 sq. ft. of floor space and carry a commercial rating for general laboratory use. They utilize proven technology used in the household appliance industry but are manufactured to endure the rigors of commercial laboratory use and carry a warranty for this application. For performance assurance, each unit is completely tested and shipped with its unique pull down performance graph.

The exterior is constructed of heavy gauge steel with a baked-on white epoxy coating for long lasting durability and scratch resistance. The interior is white, corrosion-resistant, molded ABS without seams for easy cleaning and decontamination. The interior environment is protected by CFC-free, high-density, foamed-in-place, urethane insulation. This model has an isolated freezing compartment with separate access door. The freezer section includes one wire shelf plus its floor for product storage and two, door shelves. The refrigerator section includes two, main compartment, adjustable, wire shelves and one solid, fixed-position, glass shelf. There are also two lower compartment bins and three shelves on the door for additional storage. Other features include reversible outer doors for location flexibility, an internal light in the refrigerator compartment and adjustable leveling legs.

Specifications

Part Number	**CLS-3790-C13**
Temperature Range	
Refrigerator	-2° to 7° C
Freezer	-25° to -15°C
Chamber Volume	
Refrigerator	438.91 L / 15.5 cu ft
Freezer	147.25 L / 5.2 cu ft
Defrost	Automatic
Exterior Dimensions (w x d x h)	31.3 x 33 x 66.9 in
Interior Dimensions (w x d x h)	27.6 x 22.8 x 56.8 in.
Interior Shelves	
Refrigerator	3 (2 Adjustable)
Freezer	1
Door Shelves	
Refrigerator	3
Freezer	2
Commercial Grade UL Listing	Yes
Energy Star®	No

CLS-3790 REFRIGERATOR, INCUBATOR, B.OD

- Manual defrost system
- Digital temperature display
- Built-in alarm system

These unique refrigerated incubators are ideal for shelf life and life cycle testing, general incubation or refrigerated storage. The heating and refrigeration systems offer a microprocessor based control system with a digital temperature display (resolution to 0.1C above 0° C operation) and high-quality cabinet construction.

The internal forced air circulation system provides maximum temperature uniformity. Both models come standard with a built-in alarm system that alerts the operator to temperature deviation by monitoring user adjustable high and low temperature limits and has both an audible and visual warning system which includes remote dry contacts for remote alarm condition monitoring. Both models are equipped with an internal chamber safety thermostat for added over-temperature protection.

The model B21 provides more than 20 square feet of internal shelf space plus two removable utility baskets (approx. 400 B.O.D bottle capacity), the B05 model provides more than five square feet of shelf space (approx. 90 B.O.D bottle capacity). Both the shelves and baskets in these products are epoxy coated for long-lasting durability and ease of cleaning. Both models come with built-in door shelves for added product storage and access convenience.

Both models feature a manual defrost system that allows you to select the appropriate time for the system to be engaged. For performance assurance, each unit is completely tested and shipped with its unique pull down performance graph. The exterior is constructed of heavy gauge steel with a baked-on white epoxy coating for long lasting durability and scratch resistance. The interior is white molded ABS with no seams on the side walls and floor for easy cleaning and decontamination. The interior environment is protected by CFC-free, high-density foamed-in-place urethane insulation. The model B21 includes an interior light and a built-in door lock for security. Both models feature adjustable leveling legs.

See page 271 for Refrigerated B.O.D. Incubators that are Peltier-Cooled.

Room for approximately 90 BOD bottles.

CLS-3790-B05

Room for approximately 400 BOD bottles.

CLS-3790-B21

Exterior, built-in, independent LCD digital temperature display included on door.

Specifications

Model Number	CLS-3790-B05	CLS-3790-B21
Temperature Range	-9.9° to 50° C	-9.9° to 50° C
Temperature Uniformity	1.0°C in product @ +4 to 38°C	0.5°C in product @ +4 to 38°C
Chamber Volume	135L / 5.1 cu ft	492L / 20 cu ft
Exterior Dimensions (w x d x h)	21.7 x 24.7 x 33.5 in.	33 x 30.5 x 66 in.
Interior Dimensions (w x d x h)	18.6 x 18.5 x 27.6 in.	27.6 x 22.8 x 56.8 in.

Part Number	Description
CLS-3790-B05	5.1 cu ft Refrigerator, Incubator, BOD
CLS-3790-B21	20 cu ft Refrigerator, Incubator, BOD

CLS-4033-100

- Space Saving Chassis
- 24V Brushless Low Maintenance DC Motor and Speed Controller
- Digital Speed Display
- Locking Speed Control Knob
- 2-Year Warranty

CLS-4021
Stackable Tray

CLS-4010

Shaking Speed Information

Flask Size	Fill Volume	Max. RPM
25-500mL	25%	200
1-2 Liter	25%	250
3 Liter	25%	300
4-6 Liter	25%	250

CLS-4033-100 VERSA-ROCK™, DIGITAL ROCKER

The Versa-Rock™ is a digital slow-speed rocker for general laboratory cell culture work. The low profile design incorporates a rocking platform that accepts a variety of optional trays. The Peg and Grommet style trays make changing convenient and interchangeable with other similar trays. Trays with liners sold separately. Sticky Pad (CLS-4010 series) is recommended for use with Stackable Trays to secure products to tray.

Specifications

Range of Motion	5 to 14 Degrees (Adjustable), 5-30 Rocks / Minute
Base Overall Dimensions	11.875" W x 12.5" D x 5.625" H
Base Weight	11.6lbs (5.3kg)
Maximum Load	20lbs (9kg)
Electrical	120V

Part Number	Description
CLS-4033-100	Rocker, Base Only, Digital, 120V

Accessories

Part Number	Description
CLS-4021-1212	Aluminum Tray with Liners, 12" x 12"
CLS-4021-1515	Aluminum Tray with Liners, 15" x 15"
CLS-4021-2020	Aluminum Tray with Liners, 20" x 20"
CLS-4021-0001	Stackable Tray Kit for CLS-4021-1212
CLS-4021-0003	Stackable Tray Kit for CLS-4021-1515
CLS-4021-0005	Stackable Tray Kit for CLS-4021-2020

CLS-4010 STICKY PAD

Sticky pad is an ideal alternative to flask clamps for securing vessels to a shaker platform. Designed for use with containers with flat wide bases. Ideal bottles and dishes that cannot be held with traditional flask clamps. With shake flasks, the pad can be used at speeds up 200 or 300 rpm (see chart below). Pad is available in 3 sizes listed below. It can be regenerated for reuse by simply washing it with mild detergent and water.

Please Note: Sticky pad cannot be used in water baths. Special sizes under 18 X 18" are available. Please contact us for assistance.

Part Number	Description
CLS-4010-06	6 x 6", (150 x 150mm)
CLS-4010-08	8 x 8", (200 x 200mm)
CLS-4010-18	18 x 18", (460 x 460mm)

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-3864 MINI ROLLER, DIGITAL, ADJUSTABLE SPEED

- LED roller speed display
- Wide range of speed adjustment for a variety of applications
- Anti-corrosive construction for use in humid and CO_2 environments
- Easy to add or remove rollers to fit different sized tubes or bottles
- Stackable mechanism allows two units to be stacked for space saving
- Optional remote control box for operation in an incubator (sold separately)

Mini roller is used for liquid mixing, cell culture, hybridization, and more. It can operate on a bench-top or in dry or humid incubators. Rollers can be added for a total of up to 11, and the distance between them adjusted by adding or removing rollers to accommodate different sized tubes, bottles, and other containers.

CLS-3864-01

CLS-3864-01
Shown Assembled with
CLS-3864-03

See tubes listed in the General Labware section.

Specifications

Speed	0.5 – 80RPM
Motion	Rolling
Number of Rollers per Unit	6 Standard, 11 Maximum
Roller Dimensions (D x L)	28 x 259mm
Capacity Per Deck	
Tubes	20 - 15mL or 15 - 50mL
Roller Bottles	3
Operating Temperature	4 – 60°C
Dimensions	378 x 360 x 72mm (14.8 x 14.1 x 2.83in)
Maximum Bottle Diameter	120mm
Maximum Workload	6.5kg
Electrical	115V
Warranty	2 Years

Part Number	Description
CLS-3864-01	Mini Digital Roller
CLS-3864-03	Mini Digital Roller with Stackable Kit

Accessories

Part Number	Description
CLS-3864-05	Roller Only
CLS-3864-07	O-Ring for 50mL Tubes (20/Pkg.)
CLS-3864-09	O-Ring for 15mL Tubes (20/Pkg.)
CLS-3864-11	Stackable Kit (Bars for Stacking, 4/Pkg.)
CLS-3864-13	Control Box

Combines rocking & rolling motions!

CLS-3863-01

CLS-3863 TUBE ROLLER, ANALOG, ADJUSTABLE SPEED

Mini roller provides a gentle but highly efficient rocking and rolling motion, ideal for mixing blood samples, viscous substances and liquid-solid suspensions. Used in a variety of applications, preventing of blood coagulation and immune precipitation, etc. The unit can roll 15 x 50mL centrifuge tubes or 10 x 15mL centrifuge tubes.

Specifications

Speed	0 – 70RPM
Motion	Rocking and Rolling
Roller Length	13.5"
Operating Temperature	4 – 40°C
Dimensions	12 x 11 x 5"
Maximum Tube Diameter	3"
Electrical	115V
Warranty	2 Years

Part Number	Description
CLS-3863-01	Tube Roller, Analog

Drums include carrying handles.

CLS-3869-100

CLS-3869-100 VERSA-ROLL™ ROLLER DRUM, DIGITAL

- Great for growing mini preps as well as tissue and bacterial cultures
- Three drum configurations available

Versa-Roll™ Roller Drum is ideal for growing mini preps as well as tissue and bacterial cultures by the roller tube method. It incorporates three removable 12 inch accessory drums accommodating 16mm, 18mm or 25mm test tubes and 50mL centrifuge tubes. Roller drums are quiet in operation to provide many years of continuous service, even under incubated temperatures. Drums are interchangeable, easily removed and can be used as carrying trays or storage racks. Adjustment of an elevating screw at the front of the unit positions the drum at the desired tilt-angle. Powerful ball-bearing drive imparts uniform rotary motion to all tubes, maintaining constant speed.

Specifications

Speed Range	0.5 – 30RPM
Base Overall Dimensions	12" x 12.2" x 17"
Base Weight	24.6
Electrical	120V

Part Number	Description
CLS-3869-100	Versa-Roll Roller Drum, Digital, Base Only

Accessories

Part Number	Description
CLS-3869-0001	Drum Only, 13-18mm Tubes, 106-Position
CLS-3869-0003	Drum Only, 20-25mm Tubes, 60-Position
CLS-3869-0005	Drum Only, 30mm Cent Tubes, 50-Position

CLS-3855 ROLLER APPARATUS, VERSA-ROLL, 120V

- Available with or without factory-installed rotation alarm
- Accommodates Standard Roller Bottles (110-120mm Dia.)
- Steel Reinforced Polyurethane Timing Belts Maintain Precise Rotation Speeds (0.2-6.0RPM)
- Knob Locking Device Guards Against Accidental Changes to Speed Setting

The **VERSA-ROLL Cell Production Roller Apparatus** is designed for use in the production of various attachment cells. The units are available in 10 bottle positions up to 50 bottle positions. Our production units, which come in 45 and 50 bottle positions, provide over 80,000 cm² of surface area. Units have been engineered for maximum reliability. Our rollers are formulated from a chemical-resistant, non-slip EDPM. All units feature a solid state control with heavy-duty maintenance-free DC brushless motors. All models also feature rubber bumpers and rear guards. The frame is powder-coated aluminum for durability and cleanliness. All units are equipped with **All Position Drive** to prevent slipping of lightweight bottles. 120VAC.

Available Optional Equipment

- Battery Backup System
- Slow Speed Kit

Part Number	No. of Decks	No. of Bottle Positions	Rotation Alarm
CLS-3855-002	Base and 1	10	No
CLS-3855-A02	Base and 1	10	Yes
CLS-3855-003	Base and 2	15	No
CLS-3855-A03	Base and 2	15	Yes
CLS-3855-004	Base and 3	20	No
CLS-3855-A04	Base and 3	20	Yes
CLS-3855-005	Base and 4	25	No
CLS-3855-A05	Base and 4	25	Yes
CLS-3855-006	Base and 5	30	No
CLS-3855-A06	Base and 5	30	Yes
CLS-3855-007	Base and 6	35	No
CLS-3855-A07	Base and 6	35	Yes
CLS-3855-008	Base and 7	40	No
CLS-3855-A08	Base and 7	40	Yes
CLS-3855-009	Base and 8	45	No
CLS-3855-A09	Base and 8	45	Yes
CLS-3855-010	Base and 9	50	No
CLS-3855-A10	Base and 9	50	Yes

Optional Equipment

Part Number	Description
CLS-3854-001	Battery Backup
CLS-3854-SPK	Slow Speed Kit

CLS-3855

- EDPM rollers
- Powder-coated, aluminum frames
- Solid state controls
- Maintenance-free, brushless, DC motors
- All Position Drive prevents bottle slippage

Modular design allows decks to be added to expand the system.

Base includes one deck.

CLS-3857

CLS-3857-001
5-Position Deck Kit
(Assembly Required)

CLS-3857 ROLLER APPARATUS, MODULAR, VERSA-ROLL

- Available with or without factory-installed rotation alarm
- Close (6-3/8") Deck to Deck Spacing will Allow you to Grow More Cells in Less Space
- Accommodates Standard Roller Bottles (110-120mm Dia.)
- Steel Reinforced Polyurethane Timing Belts Maintain Precise Rotation Speeds (0.2-6.0RPM)
- Knob Locking Device Guards Against Accidental Changes to Speed Setting

The **VERSA-ROLL Cell Production Roller Apparatus** is designed for use in the production of various attachment cells. The units are available in 5 bottle positions up to 45 bottle positions. Our rollers are formulated from a chemical-resistant, non-slip EDPM. All units feature a solid state control with heavy-duty maintenance-free DC brushless motors. All models also feature rubber bumpers, swivel castors and rear guards. The frame is powder-coated aluminum for durability and cleanliness. All units are equipped with **All Position Drive** to prevent slipping of lightweight bottles. 120VAC.

Available Options

- 5-Position, Deck Assembly Kit
- Battery Backup System
- Slow Speed Kit

Part Number	No. of Decks	No. of Bottle Positions	Rotation Alarm
CLS-3857-002	Base and 1	10	No
CLS-3857-A02	Base and 1	10	Yes
CLS-3857-003	Base and 2	15	No
CLS-3857-A03	Base and 2	15	Yes
CLS-3857-004	Base and 3	20	No
CLS-3857-A04	Base and 3	20	Yes
CLS-3857-005	Base and 4	25	No
CLS-3857-A05	Base and 4	25	Yes
CLS-3857-006	Base and 5	30	No
CLS-3857-A06	Base and 5	30	Yes
CLS-3857-007	Base and 6	35	No
CLS-3857-A07	Base and 6	35	Yes
CLS-3857-008	Base and 7	40	No
CLS-3857-A08	Base and 7	40	Yes
CLS-3857-009	Base and 8	45	No
CLS-3857-A09	Base and 8	45	Yes

Optional Equipment

Part Number	Description
CLS-3857-001	Deck Assembly Kit, 5-Position
CLS-3854-001	Battery Backup
CLS-3854-SPK	Slow Speed Kit

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-3859 ROLLER APPARATUS, VERSA-ROLL, TOP DRIVE

- Select from factory-installed alarm and battery backup models
- Accommodates standard roller bottles, 110 to 120mm diameter
- Steel-reinforced polyurethane timing belts maintain precise rotation speeds from 0.1-3.5 RPM

Volume pricing available.

CLS-3859

VERSA-ROLL Top Drive Cell Production Roller Apparatus are designed for use in the production of various attachment cells. Rolling up to 53 full-size or 106 half-size bottles, they can host up to 90,100 cm² of total surface area. Engineered for maximum reliability, they include rollers formulated from chemical-resistant, non-slip EDPM. All units feature solid state controls with heavy-duty maintenance-free DC brushless motors. Angled rubber bumpers, and rear guards are included. Frames are powder-coated aluminum for durability and cleanliness. All units are equipped with **All Position Drive** to prevent slipping of lightweight bottles. 120VAC.

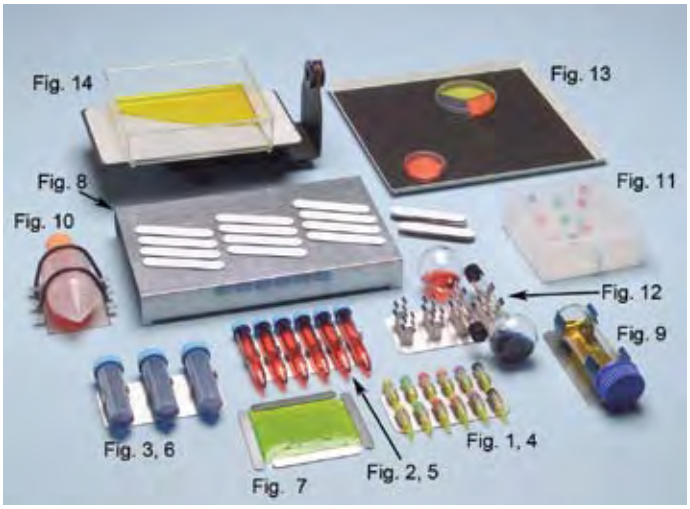
Contact us for communications options.

			Factory-Installed	
Part Number	No. of Decks	No. of Bottle Positions	Rotation Alarm	Backup Battery
CLS-3859-011	11	53	No	No
CLS-3859-A11	11	53	Yes	No
CLS-3859-B11	11	53	No	Yes
CLS-3859-AB11	11	53	Yes	Yes

See Roller Bottles listed on pages 132-133.

Combines rocking and rotating in one compact, versatile unit.

CLS-3960-001



CLS-3960 ROTO-SHAKE GENIE®, 120V

Combines rocking and rotating in one compact and versatile unit. Easily converts from rocking to rotating (or vice versa) in just 5 seconds. Magnetic stainless steel platform and clip plate system holds almost any container at any angle and an expansion kit is available for increased capacity and different containers. Magnetic Strips holds bags for complete and even soaking of membrane-based blot assays/washings. Ideal for Cold Rooms and Incubators and maintains set speed between 0-38°C. Optional 3-D orbital shaker attachment. Supplied with 1 clip plate each for 10-13 mm, 15-17mm, 28-30mm tubes, 4 bags of mounting strips and a non-skid tray.

Specifications

Rotating	5-35 RPM
Rocking	10-70 Cycles per Minute
Rocking Angle	+/-10° from horizontal
Platform Capacity	10 lbs
Weight	26 lbs
Dimensions (D x W x H)	9.9" x 20" x 10.5"
Depth (with Rocker Tray)	12"
Environmental	Installation Category 2, 0° - 38° C, 95% Max. Relative Humidity

Part Number	Description
CLS-3960-001	Roto-Shake Genie, 120V

Accessories

Part Number	Description
CLS-3960-002	1 Clip Plate for 12 Each 10-13mm Tubes (Fig.4)
CLS-3960-003	1 Clip Plate for 6 Each 15-17mm Tubes (Fig. 5)
CLS-3960-004	1 Clip Plate for 3 Each 28-30mm Tubes (Fig. 6)
CLS-3960-005	6 Clip Plates for 12 Each 10-13mm Tubes (Fig. 1)
CLS-3960-006	6 Clip Plates for 6 Each 15-17mm Tubes (Fig. 2)
CLS-3960-007	6 Clip Plates for 3 Each 28-30mm Tubes (Fig. 3)
CLS-3960-008	Magnetic Bag Mounting Strips, 16/Pk (Fig. 7)
CLS-3960-009	Expansion Kit (Fig. 8)
CLS-3960-010	2 Clip Plates for Hybridization Tubes (Fig. 9)
CLS-3960-013	2 Universal Clip Plates (Fig. 10)
CLS-3960-014	1 Magnetic Covered 100 Micro Tube Box (Fig. 11)
CLS-3960-015	1 Clip Plate for 100mL Volumetric Flask (Fig. 12)
CLS-3960-017	Non-Skid Tray (Fig. 13)
CLS-3960-016	3-D Orbital Shaker Attachment (Fig.14)

CLS-3962 ROTATOR GENIE™

The Rotator Genie™ holds a wide variety of tubes, flasks, microplates, bags and odd-shaped vessels at any angle. Available in two interchangeable platform configurations. Standard platform is designed to turn 90°, allowing different mixing options. The magnetic platform features unique spring clip plate system. Designed for cold room and incubator use and will easily fit in most incubators. Uniquely designed for a wide selection of motions which can be adjusted from gentle rolling to forceful, end over end mixing. Continuous-duty quality motor provides smooth, quiet operation at 5 to 35RPM.

Part Number	Description
CLS-3962-001	Rotator Genie™, Standard Platform, 120V
CLS-3962-003	Rotator Genie™, Magnetic Platform, 120V
CLS-3962-004	Standard Platform ONLY, with Bands (Fig. 1)
CLS-3962-005	Magnetic Platform ONLY (Fig. 2)

CLS-3962-003
Magnetic Platform

Accessories

Part Number	Description
CLS-3960-002	Clip Plate for 10-13mm Tubes, Holds 6 Tubes, 1/Each (Fig. 4)
CLS-3960-003	Clip Plate for 15-17mm Tubes, Holds 6 Tubes, 1/Each (Fig. 5)
CLS-3960-004	Clip Plate for 28-30mm Tubes, Holds 3 Tubes, 1/Each (Fig. 6)
CLS-3960-005	Clip Plates for 10-13mm Tubes, Holds 6 Tubes, 6/Pkg. (Fig. 1)
CLS-3960-006	Clip Plates for 15-17mm Tubes, Holds 6 Tubes, 6/Pkg. (Fig. 2)
CLS-3960-007	Clip Plates for 28-30mm Tubes, Holds 3 Tubes, 6/Pkg. (Fig. 3)
CLS-3960-008	Mounting Strips, Magnetic Bag, 16/Pkg. (Fig. 7)
CLS-3960-010	Clip Plates for Hybridization Tubes, 2/Pk (Fig. 10)
CLS-3960-013	Universal Clip Plates, 2/Pk (Fig. 10)
CLS-3960-014	Magnetic Covered 100 Microtube Box (Fig. 11)
CLS-3960-015	Clip Plate for 100mL Vol. Flasks (Fig. 12)

CLS-3962-001
Standard Platform

Quiet operation and accessories for multiple applications.

CLS-3965 TUBE ROTATORS, SINGLE/FIXED AND VARIABLE SPEED

- Small footprint
- “Plug & Play” operation with 360º rotation
- Accommodates a variety of tube sizes from 0.5 to 50mL
- Easy exchange of paddles, no tools needed
- A slight “touch” is all that’s needed to change the direction of rotation
- Adjustable paddle angle from 0-90º
- Quiet, high-quality, maintenance-free motor

Tube rotators are used in a variety of fields including molecular biology, biochemistry, histochemistry as well as in clinical applications. Interchangeable paddles accommodate different size tubes and can be assembled on a single rotisserie for simultaneous rotation of a variety of tubes. Individual paddle direction can be independently adjusted from 0-90º. To change the direction of rotation, just touch a paddle and the rotator will automatically reverse direction. Small enough to use on a crowded bench or in a hood.

The variable speed tube rotator adds an easy-to-read, digital display and push button control of rotation speed. It can also be programmed to operate in “oscillation mode” to simulate hand mixing. The combination of rotating and oscillating movements yields a very effective, liquid mixture.

Each tube rotator includes a base unit, rotisserie and selection of paddles. Please see the chart below for size and quantity.

One-Touch Rotation Reversal

CLS-3965-100
Single Speed

One-Touch Rotation Reversal

CLS-3965-105
Variable Speed
Digital Display

Specifications

Rotator Description	Fixed Speed	Variable Speed, Digital Display
Rotation Speed (rpm)	18	10-40
Tube Quantity / Size (mL)	84 / 0.5, 0.8	84 / 0.5, 0.8
	60 / 1.5, 2	60 / 1.5, 2
	28 / 5, 7	28 / 5, 7
	28 / 10	28 / 10
	6 / 50	6 / 50
Environmental Temperature	4ºC ~ 60ºC	4ºC ~ 60ºC
Outside Dimensions (mm)	225 x 154 x 195	225 x 154 x 195
Max. Power (watts)	4	6
Weight (kg)	0.8	1.2

Each Tube Rotator includes the following paddles:

Fits Tube Size (mL)	Qty.
10 / 15	2
5 / 7	2
1.5 / 2	2
0.5 / 0.8	2
50	1

Part Number	Description
CLS-3965-100	Tube Rotator, Single/Fixed Speed
CLS-3965-105	Tube Rotator, Variable Speed, Digital Display

CLS-2018 INCU-MIXER, MICROPLATE SHAKER

NEW Incu-Mixer MP series is designed to provide an optimal method for vortexing and incubating microplates. Simultaneous heating from the bottom surface and the lid provides temperature uniformity throughout the sample. Additionally, the heated lid minimizes evaporation and prevents condensation.

A compact, 2mm orbit ensures thorough mixing in microplates without splashing. Speed, time and temperature are all displayed in real time on the large LCD screen while an internal validation system constantly monitors all parameters for accuracy.

Designed for application flexibility, Incu-Mixers are available in two and four-plate capacities, both capable of accepting all standard plates up to 40mm high. Independent time, temperature and speed controls allow the mixer to function as three machines in one; a multi-plate incubator, a vortexer, or a combination of the two. Ideal for a wide variety of molecular biology applications including immunochemical reactions, enzyme, protein and microarray analyses.

Specifications

Temp. Range	Ambient +5° to 70°C
Temp. Uniformity	±0.5°C
Temp. Accuracy	±0.2°C (37°C)
Shaking Speed	
2 Plate	100 to 1200rpm
4 Plate	100 to 1500rpm
Motion/Orbit	Horizontally Circular / 2mm
Dimensions	(W x D x H, inches)
2 Plate	11 x 10.6 x 5.5
4 Plate	12.6 x 13.8 x 7.3
Weight	18lbs
Electrical	120V, 50-60Hz
Warranty	2 Years

Part Number	Description
CLS-2018-02	Incu-Mixer, 2 Plate, 120V
CLS-2018-04	Incu-Mixer, 4 Plate, 120V
CLS-2018-06	Microplate Adapter, 0.5 & 1.5 / 2.0mL Tubes

Heated lid minimizes evaporation and prevents condensation.

CLS-2018

- Optimized for incubated mixing in microplates
- Heated lid prevents condensation
- Accepts plates up to 40mm high
- Independently control time, temperature and speed
- Available in two-plate and four-plate format

CLS-4021-100

- Detachable 24Vdc Power Supply
- Digital Speed Display
- Locking Speed Control Knob
- 2-Year Warranty

CLS-4010

Shaking Speed Information

Flask Size	Fill Volume	Max. RPM
25-500mL	25%	200
1-2 Liter	25%	250
3 Liter	25%	300
4-6 Liter	25%	250

CLS-4021-100 VERSA-ORB DIGITAL ORBITAL SHAKER 1" ORBIT

This orbital shaker is a heavy-duty, variable-speed shaker. Ideal for the agitation of gels, staining, de-staining and assay development. Adjustable from 10 to 350RPM. The design incorporates an orbital platform that accepts a variety of optional trays. The peg and grommet style trays make changing convenient and interchangeable with similar trays on the market. Trays with liners sold separately.

Specifications

Speed Range	10 to 350 RPM
Circular Orbit	1 Inch
Max. Load	25lbs (10kg)
Base Overall Dimensions	11.875" W x 12" D x 4.5" H
Base Weight	12.75lbs
Electrical	120V

Part Number	Description
CLS-4021-100	Orbital Shaker, Base Only, Digital, 120V

Accessories

Part Number	Description
CLS-4021-1212	Aluminum Tray with Liners, 12" x 12"
CLS-4021-1515	Aluminum Tray with Liners, 15" x 15"
CLS-4021-2020	Aluminum Tray with Liners, 20" x 20"
CLS-4021-2030	Aluminum Tray with Liners, 20" x 30"

CLS-4010 STICKY PAD

Sticky pad is an ideal alternative to flask clamps for securing vessels to a shaker platform. Designed for use with containers with flat wide bases. Ideal for containers such as bottles and dishes that cannot be held with traditional flask clamps. With shake flasks, the pad can be used at speeds up to 200 or 300 rpm (see chart below). Pad is available in three sizes listed below. It can be regenerated for reuse by simply washing it with mild detergent and water.

Please Note: Sticky pad cannot be used in water baths. Special sizes under 18 X 18" are available. Please contact us for assistance.

Part Number	Description
CLS-4010-06	6 x 6" (150 x 150mm)
CLS-4010-08	8 x 8" (200 x 200mm)
CLS-4010-18	18 x 18" (460 x 460mm)

CLS-4009-100 VERSA-SHAKE, RECIPROCATING SHAKER, DIGITAL, 1" STROKE

Versa-Shake Reciprocating Digital Shaker is a laboratory shaker with a reciprocating stroke of 1 inch. It is designed to shake clear plastic culture bags with working volumes between 5 and 50 liters, as well as function as a general purpose laboratory reciprocating shaker. The unit incorporates a digital speed control and a maintenance-free brushless DC motor. Speed is controlled with a rotary knob with a locking ring located on the front of the unit and ranges from approximately 20 to 240 oscillations/minute. Units are powered by standard 24Vdc in-line power supply. Trays with liners sold separately.

Specifications

Speed Range	20-240 Oscillations/Minute
Max Load	35lbs (16kg), Evenly Distributed
Dimensions	11.875" W x 12" D x 4.65" H
Weight	30lbs
Electrical	120V

Part Number	Description
CLS-4009-100	Reciprocating Shaker, Base Only, Digital, 120V

Accessories

Part Number	Description
CLS-4021-1212	Aluminum Tray with Liners, 12" x 12"
CLS-4021-1515	Aluminum Tray with Liners, 15" x 15"
CLS-4021-2020	Aluminum Tray with Liners, 20" x 20"
CLS-4021-2030	Aluminum Tray with Liners, 20" x 30"

CLS-4029-100 3D SHAKER, NUTATING MIXER

Economical, 3D, nutating shaker gently mixes liquid samples with a smooth motion that combines the actions of an orbital shaker and a rocker.

CLS-4029

- Small footprint
- 3D motion provides thorough, gentle mixing
- Dimpled mat holds tubes firmly in place

Specifications

Speed (rpm)	20
Tilt Angle	20°
Max. Load (kg)	0.8
Ambient	5°C~45°C
Relative Humidity	≤ 80%
Platform Dimensions (mm)	260 x 260
Outside Dimensions (mm)	260 x 260 x 190
Rated Power (watts)	20
Power Supply	AC 115V / 50Hz – 60Hz
Weight (kg)	1.8

Part Number	Description
CLS-4029-100	3D Nutating Mixer / Shaker

Two Models Available!
- Heating Only
- Heating and Cooling

CLS-4030

Close-up of 35 x 1.5mL Block (CLS-4030-011)

CLS-4030 MULTI-THERM™ TEMPERATURE CONTROLLED SHAKER

The Multi-Therm™ Shaker is a temperature controlled vortexer, useful for a variety of molecular biology applications.

- Denaturation of DNA, RNA and proteins
- Gentle thawing of biological materials
- Yeast and bacteria cultivation
- Restriction digests
- Reverse transcription
- Lipid extractions
- DNA / plasmid isolation

Despite its modest 8x11 inch footprint, all popular tubes and plates are compatible, including as many as six 50mL tubes. Speed, time and temperature settings are continuously visible on the LCD, simultaneously showing both actual and selected values. Integral over-temperature control ensures long life, safety and sample integrity.

Specifications

Temperature Range	
Heating and Cooling Model	Ambient -20° to 100°C
Heating Model	Ambient +5° to 100°C
Heating Ramp Rate	5°C / min
Cooling Ramp Rate	2.5°C / min (HC Only)
Temperature Accuracy	±1.0°C
Speed Range	200 to 1,500rpm or "OFF"
Motion/Orbit	Horizontally Circular / 2mm
Capacity	Per Selected Block
Dimensions (WxDxH)	8.25 x 11.5 x 8.25in
Weight	18lbs
Electrical	120V, 60Hz

Part Number	Description
CLS-4030-001	Multi-Therm™ Heating & Cooling Shaker, 120V
CLS-4030-003	Multi-Therm™ Heating Shaker, 120V
CLS-4030-005	Multi-Therm™ Block, 96 x 0.2mL or (1) PCR Plate
CLS-4030-007	Multi-Therm™ Block, 54 x 0.5mL
CLS-4030-009	Multi-Therm™ Block, Combo 15 x 0.5 & 20 x 1.5mL
CLS-4030-011	Multi-Therm™ Block, 35 x 1.5mL
CLS-4030-013	Multi-Therm™ Block, 35 x 2.0mL
CLS-4030-015	Multi-Therm™ Block, 24 x 12mm, (200 to 1,200rpm/Ambient -10° to 100°C)
CLS-4030-017	Multi-Therm™ Block, 12 x 15mL, (200 to 750rpm/Ambient -10° to 100°C)
CLS-4030-019	Multi-Therm™ Block, 6 x 50mL, (200 to 750rpm/Ambient -10° to 100°C)
CLS-4030-021	MultiTherm™ Block, 24 x 2mL HPLC Auto Sampler Vials (12 x 32mm)
CLS-4030-023	MultiTherm™ Block, 48 x 250µL Inserts (6 x 30mm)
CLS-4030-025	MultiTherm™ Block, 1 x Microplate

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-4100-02 TWO-POSITION MAGNETIC STIRRER

- Quiet operation
- Brushless, maintenance-free motors
- Optional, factory installed motion alarm available

Available with or without alarm.

Dura-Mag™ digital, front-end, magnetic stirrers are designed for both cell culture in spinner flasks as well as general laboratory procedures requiring the use of magnetic stirring equipment. Dura-Mag™ stirrers feature brushless, maintenance-free DC motors with drive assemblies designed for quiet operation. **Stainless steel covers are stamped to show the vessel positions for accurate placement and optimum performance.** Dura-Mag™ 2-position, low profile chassis measure 11 x 20 x 3-3/8" and are designed to fit side-by-side in most incubators. Maximum flask size is (2) 8L vessels. Optional factory installed motion alarm available. Speed range 5-400 RPM.

Part Number	Description
CLS-4100-02	Stirrer, Magnetic, Two Position, Dura-Mag™, 120V
CLS-4100-A2	Stirrer, Magnetic, Two Position, Dura-Mag™, 120V with Factory Installed Alarm

CLS-4100 FIVE-POSITION MAGNETIC STIRRER

- Quiet operation
- Brushless, maintenance-free motors
- Optional, factory installed motion alarm available

Dura-Mag™

- Maintenance-free, brushless motors
- Quiet operation
- Vessel positions stamped into the stainless steel top

Dura-Mag™ digital, front-end, magnetic stirrers are designed for both cell culture in spinner flasks as well as general laboratory procedures requiring the use of magnetic stirring equipment. Dura-Mag™ stirrers feature brushless, maintenance-free DC motors with drive assemblies designed for quiet operation. **Stainless steel covers are stamped to show the vessel positions for accurate placement and optimum performance.** Dura-Mag™ 5-position, low profile chassis are designed to fit side-by-side in most incubators. Optional factory installed motion alarm available. Five Position: Maximum capacity (5) 1L or (4) 3L vessels. Compact Five Position: Maximum capacity (5) 100 mL or (4) 1L vessels. Speed range 5-400 RPM.

STANDARD FIVE-POSITION: 16.5"W x 18"D x 3"H

Part Number	Description
CLS-4100-06	Stirrer, Magnetic, Five-Position, Dura-Mag™, 120V
CLS-4100-A6	Stirrer, Magnetic, Five-Position, Dura-Mag™, 120V with Factory Installed Alarm

COMPACT FIVE-POSITION: 14.5"W x 14.5"D x 3"H

Part Number	Description
CLS-4100-04	Stirrer, Magnetic, Five-Position, Compact, Dura-Mag™, 120V
CLS-4100-A4	Stirrer, Magnetic, Five-Position, Compact, Dura-Mag™, 120V with Factory Installed Alarm

CLS-4100-09 DURA-MAG™ NINE-POSITION MAGNETIC STIRRER

- Trouble-free brushless motor
- Integrated power supply
- Heavy duty magnets and drive system
- Trouble-free, non-slip, toothed Kevlar® belt for easy replacement
- Stainless steel stirrer plate cover
- Speed range from 5 to 400RPM with clockwise control
- Analog output for remote sensing
- Dimensions (W x D x H): 16.5 x 18 x 3”

Available with or without alarm.

Chemglass Life Sciences Nine-Position magnetic stirrer is a rugged design for 24/7 laboratory or production applications. The small footprint is ideal for CO_2 incubators with maximum capacity of (9) 500mL spinner vessels. Optional factory installed motion alarm available.

Part Number	Description
CLS-4100-09	Stirrer, Magnetic, Nine Position, Dura-Mag™, 120V
CLS-4100-A9	Stirrer, Magnetic, Nine Position, Dura-Mag™, 120V, with Factory Installed Alarm

CLS-4102-01

CLS-4102-02

Ideal for cell culture.

CLS-4102 STIRRER, MAGNETIC, SINGLE-POSITION

- Use for cell culture or general lab procedures
- Doesn’t generate heat
- Epoxy-coated cover is stamped for easy vessel placement

Magnetic stirrers are designed for both cell culture and general laboratory procedures requiring the use of magnetic stirring equipment. Stirrers are ideal for cell culture since they do not generate heat while in use. Stirrers feature brushless, maintenance-free motors with drive assemblies designed for long continuous operation. Epoxy covers are stamped to show the vessel position for accurate placement and optimum performance.

Specifications

Part Number	CLS-4102-01	CLS-4102-02
H_2O Stirring Capacity	Up to 8L	Up to 25L
Stirring Speed (RPM)	Up to 1200	Up to 1200
Maximum Weight Capacity (lbs)	22	59
Dimensions W x H x D (mm)	171 x 75 x 190	250 x 120 x 285
Weight (lbs)	4	8.1
Warranty	2 Years	2 Years

Part Number	Description
CLS-4102-01	Stirrer, Magnetic, Up to 8L, 115V
CLS-4102-02	Stirrer, Magnetic, Up to 25L, 115V

CLS-4054 THERMAL CYCLER, WITH COLOR TOUCH-SCREEN

- Large, Full Color Touch-Screen
- Program Wizard
- Fully Adjustable Heated Lid
- Available in Multi-Block and 384-Well Plate Formats

Provides consistent, reliable results for laboratories with medium to high throughput. From its large, touch-screen user interface to its unique, multi-format block, this cycler is loaded with features. The program wizard and 10 preinstalled programs make it easier than ever to get up and running.

CLS-4054

Specifications

Capacity	
Multi-Format Block	96 x 0.2mL Tubes/Strips or 39 x 0.5mL Tubes or 1 x PCR Plate
384-Well Block	1 x 384-Well Plate
In-Situ Adapter	4 Slides (for use with Multi-Format Block)
Temp. Control Range	0 to 100°C
Temp. Control	Simulated Sample or Block
Accuracy/Uniformity	±0.2°C / ±0.2°C
Ramp Rate	4°C/Sec (Maximum)
Lid Temp	30 to 112°C, User Adjustable
Program Memory	Unlimited with Flash Drive
Increments/Decrements	Yes, Both Time and Temperature
Multi-User Login	Yes, with Password Protection
Power Failure Restart	Yes
Power Supply	Universal, 75 to 275V, 50 to 60Hz
Communication	USB, LAN and RS232
Dimensions	10.2 x 14.2 x 9.9in / 26 x 36 x 25cm
Weight	16lbs / 7.3kg
Warranty	2 Years

Part Number	Description
CLS-4054-200	Thermal Cycler with Multi-Format Block
CLS-4054-210	Thermal Cycler with 384-Well Block
CLS-4054-225	In-Situ Adapter for CLS-4054-200

2-Year Warranty

CLS-4052

CLS-4052 THERMAL CYCLER, 24-WELL

A superior mini-sized thermal cycler. This compact thermal cycler has the footprint of a lab notebook and can be tucked into even the smallest nooks on a lab bench. Offering the perfect bland of super-speed protocol times, large display, do-it-yourself programming, and integrated heated lid, there is little that this PCR machine cannot do.

Specifications

Interchangeable Blocks	No
Capacity	24 x 0.2mL Tubes or
	3 x 8-Tube Strips (Standard or Low Profile)
Temp. Range	4-99°C
Thermal Gradient	No
Heating Rate	≥5°C/Sec
Cooling Rate	≥4°C/Sec
Thermal Uniformity	±0.2°C (at 90°C)
Thermal Accuracy	±0.2°C (at 90°C)
Heated Lid	Yes, Fully Adjustable
Temp. Control Mode	Block or Sample
Communication Ports	RS232
Display	320 x 240 LCD
Graphical Programming	Yes
Programs	≥100 Individual Programs
Power Supply	VAC 100-240, 50-60 Hz, 200W
Size (L x W x H) cm	29.7 x 21.2 x 20.0
Weight	3.2kg
Warranty	2 Years

Part Number	Description
CLS-4052-100	Thermal Cycler, 24-Well

CLS-1625 UV LAMPS, HANDHELD, CORDLESS

Safe and easy to operate, these cordless lamps automatically turn off when inverted to protect the user from harmful UV radiation exposure. Available in wavelengths of 254nm, 365nm and a combo unit featuring both wavelengths.

UV Transilluminator / UV Lamps can be used for observing and imaging of DNA and RNA gels. It is an essential device for medical hygiene, bio-engineering, molecular biology, genetic studies and biological production, anti-counterfeit inspection, pharmaceutical production, criminal and forensic examination and verification.

When fully charged, the battery can sustain three hours of continuous use or approximately 500 intermittent uses. Charger (100~240VAC, 50 / 60Hz) and 12V rechargeable, lithium batteries included.

Specifications

Part Number	CLS-1625-100	CLS-1625-102	CLS-1625-104
UV Wavelength	254	365	254 / 365
Number of UV Tubes	2	2	2 (1+1)
UV Window Size (mm)	150 x 50	150 x 50	150 x 50
Dimensions, WxDxH (mm)	88 x 415 x 60	88 x 415 x 60	88 x 415 x 60

Part Number	Description
CLS-1625-100	UV Lamp, 254nm, Handheld, Cordless
CLS-1625-102	UV Lamp, 365nm, Handheld, Cordless
CLS-1625-104	UV Lamp, 254 / 365nm, Handheld, Cordless

Built-In Safety Switches

CLS-1625
Safety Switches Protect Users from Accidental Exposure

- Reliable, high intensity UV
- Safety switch turns unit off when turned upside down
- Portable, lightweight and ergonomic
- Single or dual wavelength units available
- Charger and rechargeable batteries included

CLS-4880 VACUUM FILTRATION PUMP, OIL-FREE

Compact vacuum filtration designed for sample preparation in chemistry, microbiology, waste water control and other analytical processes. The new diaphragm pumps offer a compact, high performance and easy-to-use solution which is perfect for both single and multiple filtrations. The functional, space saving and innovative design with readily accessible top mounted power switch ensures convenient and quick operation.

Corrosion Resistant Design - Both models feature robust PTFE diaphragms and valves for excellent corrosion resistance in routine biology and chemistry lab applications. The CLS-4880-01 has an aluminum head and is well suited for aqueous and some organic solvents. The -03 incorporates a PTFE head to provide a full fluoropolymer flow path for maximum chemical resistance to the most challenging applications.

Specifications

Ultimate Vacuum	75 Torr (100mbar)
Free Air Capacity	14 lpm (0.5cfm)

Part Number	Description
CLS-4880-01	Vacuum Filtration Pump, Aluminum Head
CLS-4880-03	Vacuum Filtration Pump, PTFE head

CLS-4880

Quiet & Reliable

- Whisper-quiet operation
- Low vibration
- Maintenance-free drive system
- Long service life

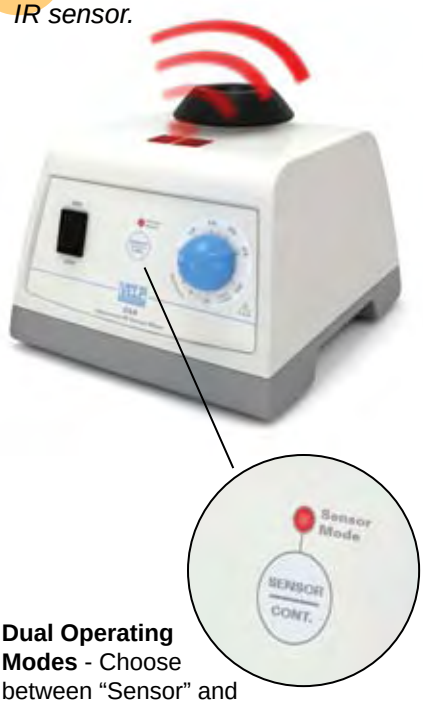
Equipment

CLS-4889-01 VORTEX MIXER, INFRARED SENSOR

- Two operating modes: Sensor or Continuous
- Up to 3000rpm
- Heavy base for stability on the bench

Advanced infrared sensor vortex mixer with an adjustable mixing speed and two operation modes: Sensor or Continuous. The revolutionary IR sensor mode, an infrared system (IR) detects the presence of the test tube and the vortex mixer automatically starts vibrating! No press, No stress! No pressure is required to maintain vibration. The technopolymer structure ensures optimum chemical resistance. The ergonomic and highly innovative design along with the zinc base assure excellent stability on the bench.

No press, No stress! *Innovative design includes IR sensor.*



Dual Operating Modes - Choose between "Sensor" and "Continuous"

Specifications

Electronic Speed Regulation	up to 3000 rpm
Operating Modes	IR sensor, continuous
Base Dimensions (D x W x H)	6.5 x 5.9 x 5.1 in
Weight	5.9 lbs
Warranty	2-Year Manufacturer Warranty

Part Number	Description
CLS-4889-01	Vortex Mixer IR Kit, 115V, Complete

Kit Includes One Each of the Following Components:

CG-4889-11	Rubber Cup
CG-4889-03	50mm Rubber Platform
CG-4889-05	90mm Foam Platform
CG-4889-09	Microtube Foam Platform

Accessories

Part Number	Description
CLS-4889-03	50mm Rubber Platform
CLS-4889-05	90mm Foam Platform
CLS-4889-09	Microtube Foam Platform, 19 position, 1.5ml Microtube
CLS-4889-11	Pop-off Rubber Cup

CLS-4889-03

CLS-4889-05

CLS-4889-09

CLS-4889-11

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

MORTEXER™, VORTEX MIXER is MORE than just your standard vortex mixer.

Dual Purpose Multi-Head™

Integrates a standard center cup with eight microcentrifuge tube cups.

CLS-4895

CLS-4895 MORTEXER™, VORTEX MIXER

The Mortexer™ is MORE than your standard vortex mixer. The unique design of the Multi-Head™ (included) features a traditional cup head for general purpose mixing, plus holds up to (8) microcentrifuge tubes.

The drive system is balanced with Q-Drive™ technology, providing a smooth vortexing action, while minimizing noise and excessive vibration. This results in quieter, more efficient and longer lasting operation. Increased speed, up to 3,400rpm produces an instant vortex of even the largest sample sizes, including full 50mL tubes.

Other features include: “No-Walk” suction feet, cold room/incubator compatibility, and spill-proof electronic controls.

Specifications

Speed	200 to 3,400rpm
Operating Mode	Touch or Continuous
Orbit	3mm
Operating Temperature Range	+4 to +65°C
Dimensions (W x D x H)	5 x 6.3 x 6.7in / 13 x 16 x 17cm
Weight	8.4lbs/3.8kg
Warranty	2 Years

Part Number	Description
CLS-4895-001	Mortexer, Vortex Mixer, 120V
CLS-4895-003	Optional Flat Head
CLS-4895-005	Optional Combo Head

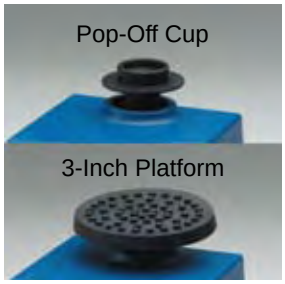
Accessories

Part Number	Description
CLS-4895-007	Horizontal Head for 12 x 1.5mL Tubes
CLS-4895-009	Horizontal Head for 4 x 15mL Tubes
CLS-4895-011	Horizontal Head for 2 x 60mL Tubes

Multi-Task Genie™ Family of Vortexers

- May be used in cold rooms and incubators
- Metal casting / stainless steel construction - made to last
- Designed not to “walk” when in use
- Wide variety of accessories to fit most common tubes, plates and other containers

Vortex-Genie® Easy Selection Guide

	High Speed Mixer	Original	Integrated Timer	Digital Controls
Model	**Vortex-Genie 1**	**Vortex-Genie 2**	**Vortex-Genie 2T**	**Digital Vortex-Genie 2**
	• Violent single high-speed vortexing • Easy-to-use Touch On operation • Large, 6mm orbit for aggressive vortexing of difficult samples	• Very popular model • Variable speed for precise mixing from gentle to vigorous • Hands-Free or Touch On control	• Same features as the Vortex-Genie 2 with an integrated timer • Unit automatically stops at the end of user-programmed time	• Same features as the Vortex-Genie 2 with digital control and display of speed and time • Digital display provides accuracy, reproducibility and repeatability
Supplied with	Pop-off Cup	3-inch Platform, Pop-off Cup	3-inch Platform, Pop-off Cup	3-inch Platform, Pop-off Cup
Speed (RPM)	3200	600-3200	600-3200	500-3000
Timer				
Touch On	N/A	N/A	1-60 seconds	1-99 seconds,
Hands-Free	N/A	N/A	1-60 minutes or continuous	1-99 minutes or continuous
Weight	4 Kg (8.8 lb)	4 Kg (8.8 lb)	4 Kg (8.8 lb)	4 Kg (8.8 lb)
Base Dimensions (D x W x H)	165 x 122 x 165mm 6.5 x 4.8 x 6.5in	165 x 122 x 165mm 6.5 x 4.8 x 6.5in	165 x 122 x 165mm 6.5 x 4.8 x 6.5in	165 x 122 x 165mm 6.5 x 4.8 x 6.5in
Markings / Warranty	ETL, CE / 2 years ETL	CE / 2 years	ETL, CE / 2 years	CE / 2 years
Part Number	**CLS-4890-001**	**CLS-4890-002**	**CLS-4890-0T2**	**CLS-4890-0D2**

* Not Subject to Discount. † Subject to Reusable Glass Discount.
♣ Subject to Celltreat / Consumable LM Products Discount.

CLS-4890-001 VORTEX-GENIE® 1

- Extreme vortexing action
- Touch and go control eliminates operator variability
- Reduces vortexing time

The Vortex-Genie 1 has the most violent vortexing action on the market. It is simple to use with touch and go control that eliminates operator variability. The Vortex Genie 1 attacks problem applications like no other vortexer, reducing vortexing time. Features a solid metal casting and stainless steel construction. Designed not to "walk" like other vortexers. Supplied with pop-off cup. See the accessory 3-inch platform for mixing beakers, flask or multiple tubes.

CLS-4890-001

Specifications

Supplied with	Pop-Off Cup
Base Dimensions (D x W x H)	6.5" x 4.8" x 6.5"
Weight	8.8 lbs
Warranty	2-Year Manufacturer Warranty

Part Number	Description
CLS-4890-001	Vortex-Genie 1, 120V

Accessories

Part Number	Description
CLS-4891-012	3" Platform with Rubber Cover

CLS-4890-002 VORTEX-GENIE® 2

- Variable speed control
- 3-position power switch
- "Hands-Free" continuous action or "Touch-On" control

The Vortex-Genie 2 has a variable speed control which allows slow speed shaking action up to high speed vortexing. Equipped with a 3-position power switch, the Vortex-Genie 2 allows continuous action or "Touch On" control. With true "Hands-Free" operation of continuous action, operators can greatly increase lab efficiency. Designed not to "walk" across lab bench. Supplied with 3-inch platform (shown) and pop-off cup.

Variable Speed Control

CLS-4890-002

Specifications

Supplied with	3-inch Platform and Pop-Off Cup
Base Dimensions (D x W x H)	6.5" x 4.8" x 6.5"
Weight	8.8 lbs
Warranty	2-Year Manufacturer Warranty

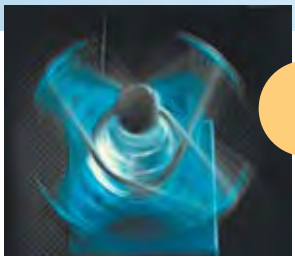
Part Number	Description
CLS-4890-002	Vortex-Genie 2, 120V

ACCESSORIES

Maximize your Genie's power.

See pages 312-313.

LCS-4890-0D2



Digital unit in operation.

CLS-4890-0D2 VORTEX-GENIE® 2, DIGITAL

- Digital speed control
- Digital display
- Provides accuracy, reproducibility and repeatability

The Vortex-Genie 2 Digital has a variable speed control which allows slow speed shaking action up to high speed vortexing. The unit has a digital speed control and display which provide accuracy, reproducibility and repeatability. The timer function is “Touch-On” for 1-99 seconds and “Hands-Free” for 1-99 minutes or continuous. Tough metal housing combined with just enough weight, provides a stable platform for all types of mixing.

Specifications

Supplied with	3-inch Platform and Pop-Off Cup
Base Dimensions (D x W x H)	6.5” x 4.8” x 6.5”
Weight	8.8lbs
Warranty	2-Year Manufacturer Warranty

Part Number	Description
CLS-4890-0D2	Vortex-Genie 2, Digital, 120V

CLS-4890-0T2

CLS-4890-0T2 VORTEX-GENIE® 2T

- Timer function
- Variable speed control
- 3-position power switch

The Vortex Genie-2T has a timer function which allows both “Touch-On” and “Hands-Free” mode and automatically turns the unit off after set time. The touch Mode is 1-60 seconds and the hands-free (switch activated start/stop) mode is 1-60 minutes or can be set at a continuous, untimed. With Genie-2T there is no need to watch the clock as the unit automatically stops at set time with the accuracy of +/- 5%. The vortexing time is constant, no matter the day or operator. The variable speed control allows slow speed shaking action up to high speed vortexing. A 3-position power switch operates with continuous action or “Touch-On” control. Tough metal housing combined with just enough weight provides a stable platform for all types of mixing.

Specifications

Supplied with	3-inch Platform and Pop-Off Cup
Base Dimensions (D x W x H)	6.5” x 4.8” x 6.5”
Weight	8.8 lbs
Warranty	2-Year Manufacturer Warranty

Part Number	Description
CLS-4890-0T2	Vortex-Genie 2T, 120V

CLS-1835 DISRUPTOR GENIE®

The patented Disruptor Genie provides multi-directional action, which simultaneously agitates and vortexes at high speed, dramatically increasing cell disruption or sample re-suspension efficiency. Maintains operating speed for up to 15 minutes, or continuous operation, even in cold rooms.

An affordable alternative to expensive ultrasonic disruptors, it can hold up to twelve 1.5mL or twelve 2.0mL micro tubes. In addition, a supplied pop-off cup (Part No. CLS-4891-011) easily attaches for use as a standard single-tube vortex mixer. Ideal for glass bead procedures using Disruptor Beads. Disruptor beads sold separately 0.1mm for bacteria and 0.5mm for yeast.

CLS-1835-D

Specifications

Base Dimensions (D x W x H)	6.5" x 4.8" x 7.5"
Weight	9.5 lbs
Warranty	2-Year Manufacturer Warranty

Part Number	Description
CLS-1835-D25	Digital Disruptor-Genie, Universal, 120V

Accessories

Part Number	Description
CLS-4891-011	Pop-Off Cup
CLS-4891-U16	Universal Micro Tube Holder
CLS-1835-BG1	Disruptor Beads, 0.1mm, 8oz. Bottle
CLS-1835-BG5	Disruptor Beads, 0.5mm, 8oz. Bottle

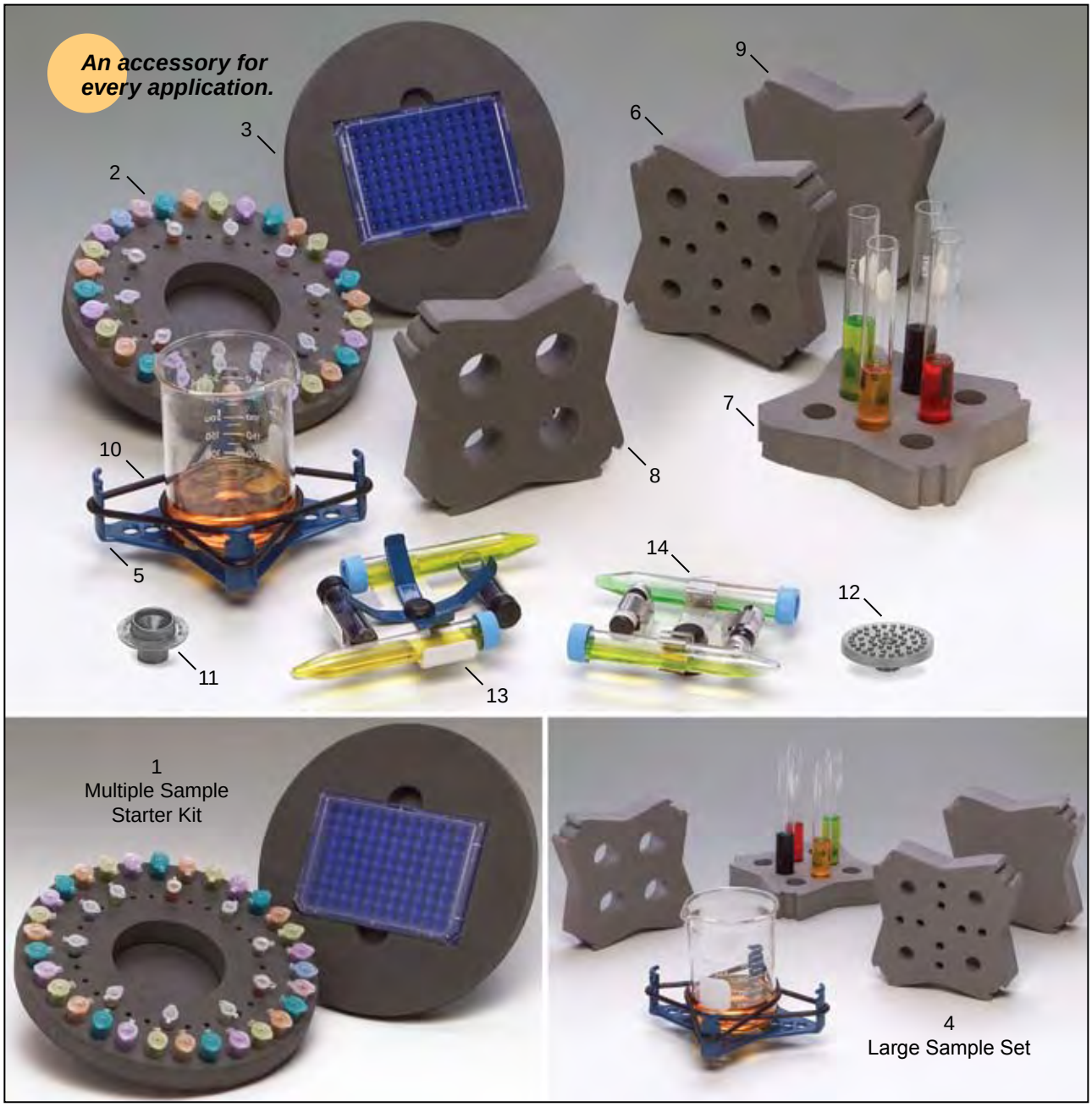
Glass Disruptor Beads

ACCESSORIES

Maximize your Genie's power.

See pages 312-313.

CLS-4891 MULTI-TASK GENIE™ FAMILY ACCESSORIES



MULTI-TASK GENIE™ FAMILY ACCESSORIES are designed to produce different mixing actions, allowing users to choose the correct action for each application. A broad range of attachments of various shapes, sizes and materials allows for mixing of almost all common tubes or containers for hands-free or touch operation.

Part Number	Description	
CLS-4891-001	Multiple Sample Starter Set	
CLS-4891-002	Micro Tube Foam Insert, Set of 2, (6" Platform Req'd.)	
CLS-4891-003	Micro Plate Foam Insert, Set of 2,(6" Platform Req'd.)	
CLS-4891-004	Large Sample Set	
CLS-4891-005	Recessed Platform	
CLS-4891-006	9-16mm Tube Foam Insert, Set of 2	••
CLS-4891-007	14-29mm Tube Foam Insert, Set of 2	••
CLS-4891-008	29-37mm Tube Foam Insert, Set of 2	••
CLS-4891-009	Blank Foam Inserts, Set of 2	••
CLS-4891-010	Elastic Bands for Recessed Platform, Set of 2	••
CLS-4891-011	Pop-Off Cup	
CLS-4891-012	3" Platform with Rubber Cover	
CLS-4891-017	Large Ampoule/Tube Attachment	
CLS-4891-018	Small Ampoule/Tube Attachment	
CLS-4891-019	6" Platform	
CLS-4891-020	Two-Tier Micro Plate Foam Insert	
CLS-4891-021	Assorted Foam Inserts, Set of 4	••
CLS-4891-022	3" Platform without Cover	
CLS-4891-023	Rubber Cover for 3" Platform	
CLS-4891-024	Microplate Adapter for ABI	
CLS-4891-025	Replacement Elastic Bands for CLS-4891-024, Set of 2	
CLS-4891-026	Horizontal 50mL Tube Holder (6 Tubes)	
CLS-4891-027	Horizontal 15mL Tube Holder (12 Tubes)	
CLS-4891-028	Horizontal Micro Tube Holder (24 Tubes)	
CLS-4891-029	Vertical 50mL Tube Holder (6 Tubes)	
CLS-4891-030	Vertical 15mL Tube Holder (12 Tubes)	
CLS-4891-031	Vertical Micro Tube Holder (24 Tubes)	
CLS-4891-033	Vertical Holder for (6) 50mL, (6) 15mL, (12) Microtubes	

•• Recessed Platform Required

NOTE: Vortex-Genie® 1 May Only Be Used With Pop-Off Cup and 3" Platform.

Registered Trademark	Owner
7X-O-Matic®	MP Biomedicals, LLC
Alumaseal®	Excel Scientific, Inc.
AmpliTube®	Simport Scientific
Applikon®	Applikon Biotechnology, Inc.
BelloCell®	CESCO Bioengineering Co., Ltd.
BelloFeeder®	CESCO Bioengineering Co., Ltd.
BelloStage®	CESCO Bioengineering Co., Ltd.
Bio-bin®	Nicholas Berndt Wood
BioNOC®	CESCO Bioengineering Co., Ltd.
Bio-Simplex®	Saint-Gobain Performance Plastics
Bio-Rad®	Bio-Rad Laboratories, Inc.
Broadley-James Corporation®	Broadley-James Corporation
Broadley-James®	Broadley-James Corporation
BTX®	Harvard Apparatus, Inc.
CAPP®	Capp ApS
CELLTREAT®	CELLTREAT Scientific Products
C-Flex®	Saint-Gobain Performance Plastics
Corning®	Corning Glassworks
Corning Costar®	Corning Glassworks
CPC®	Colder Products Company
Cryovial®	Simport Scientific
Dilux®	Dilux, LLC
Disruptor Genie®	Scientific Industries, Inc.
DuoCap®	Steve Lin, Individual
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Enviro-Genie®	Scientific Industries, Inc.
Eppendorf®	Eppendorf AG
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GlucCell®	CESCO Bioengineering Co., Ltd.
Invitrogen®	Life Technologies Incorporated
Kevlar®	E. I. du Pont de Nemours and Company
Kodak®	Eastman Kodak Company
Lab Armor®	Lab Armor, LLC
Matrimix®	Brooks Automation, Inc.
Micrewtube®	Simport Scientific
Microsoft®	Microsoft Corporation
Oxyferm®	Hamilton Company
Pro-Gen®	PRO Scientific Inc.
Pyrex®	Corning Glassworks
Roto-Shake Genie®	Scientific Industries, Inc.
Santoprene®	Exxon Mobil Corporation
Schott®	Schott
SealPlate®	Excel Scientific, Inc.
SmartSpatulas®	Investigen, inc.
ThermalSeal®	Excel Scientific, Inc.
Tygon®	Saint-Gobain Performance Plastics
Ultem®	Boekel Industries
VACUUBRAND®	Vacuubrand, Inc.
Versilic®	Saint-Gobain Performance Plastics
Vortex-Genie®	Scientific Industries, Inc.
Willco Well®	Willco Wells B.V.

Trademark	Owner
AeraSeal™	Excel Scientific, Inc.
Alumaseal 384™	Excel Scientific, Inc.
Alumaseal 96™	Excel Scientific, Inc.
AmPlate™	Simport Scientific
Bioclave™	Benchmark Scientific
BioTube™	Simport Scientific
CapInsert™	Simport Scientific
CellTrol™	Valley Instrument Co., Inc.
CellSoft™	Valley Instrument Co., Inc.
CellSoftLite™	Valley Instrument Co., Inc.
ClikLock™	Simport Scientific
CoolCube™	Benchmark Scientific
CryoStore™	Simport Scientific
EconoTube™	Simport Scientific
Flex-Joint™	Saint-Gobain Performance Plastics
Incubator-Genie™	Scientific Industries, Inc.
Incu-Shake™	Benchmark Scientific
Incu-Shaker™	Benchmark Scientific
MAGic Clamp™	Benchmark Scientific
Mortexer™	Benchmark Scientific
Multi-Head™	Benchmark Scientific
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Omnitop Sample Tubes™	PAW Bioscience Products, INC.
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PCRack™	Simport Scientific
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Wave™	GE Healthcare

Chemglass Life Sciences Trademarks
Dura-Mag™
Versa-Roll™
Versa-Rock™
Versa-Orb™
Versa-Shake™

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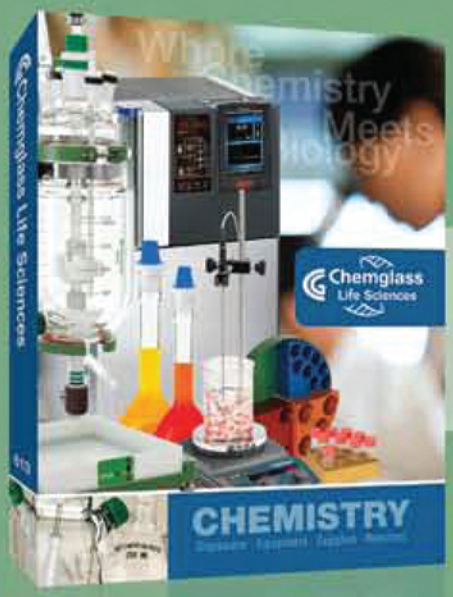

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