

1-Bioreactors



Section 1 – Bioreactor Systems & Accessories



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3L Bioreactor Vessel Systems

Stock No.	Description
7802-03115	3L Bioreactor System with Vertical Disk Impeller*
7802-04115	3L Bioreactor System with Pitched Blade Impeller**

System Components		Qty.
1964-88403	3L Round Bottom Vessel	1
1964-88503	3L Headplate	1
1964-88803	O-ring for Headplate, # 254 Red Silicone	1
1964-88900	Vessel Flange Gasket, White Silicone	1
7669-00003	Vessel Stand, SST	1
1964-34003	Thermowell Assembly	1
1964-01014	¼" Port Plug	3
1964-01038	3/8" Port Plug	4
1964-01034	¾" Port Plug	2
1964-02060	¾" pH /DO Probe Holder	2
1964-02010	3/8" Addition Port Assembly	1
1964-02020	3/8" Sample Port Assembly	1
1964-02030	3/8" Harvest Port Assembly	1
1964-02040	3/8" Sparge Port w/SST Frit, 10µ	1
1964-02050	¾" Septum Port w/Cap	1
7764-73100	Motor Drive Stem Assembly	1
7764-70300	Motor, 115V	1
7803-21600	Speed Cable, 115V	1
1964-51003	Heating Blanket, 115V, 180W	1
7803-21300	pH Probe, 12 x 225mm	1
7803-21550	pH Cable, 6'	1
7803-31545	DO Probe, 12 x 220mm	1
7803-31650	DO Cable, 6'	1
7803-11500	RTD Temperature Sensor w/Cable	1
7800-10025	Silicone Tubing, 3/16" ID x 25'	1
1964-83000	Media Addition Bottle, 1L	1

*Includes 2 each 1964-02080 Vertical Disk Impeller

**Includes 2 each 1964-02200 Pitched Blade Impeller



System Accessory Items (purchase separately)

Stock No.	Description
1964-02070 (a)	Cooling Finger Assembly
1964-88630 (b)	Baffle Assembly (3 required)
1964-93003 (c)	Condenser
1964-96000	O-ring Replacement Kit*
1964-97000 (d)	Sparger w/ .040" Holes
7803-Special	Gas Blending Stand (see page B-25)
7805-12125	Weight Platform, 12 x 12 x 5", 25kg (see page B-7)
1964-98000	Cable Ties, pkg/25

* includes 2 ea. headplate o-ring, 10 ea. ¼" o-ring, 5 ea. 5/16" o-ring, 10 ea. 3/8" o-ring, 10 ea. ¾" o-ring and 2 ea. probe holder internal o-ring.

7L Bioreactor Vessel Systems

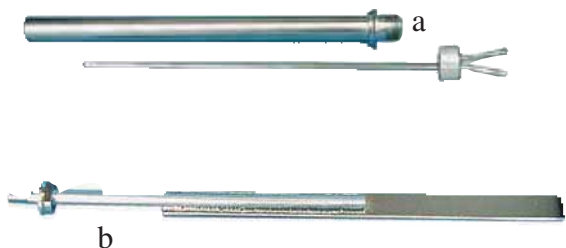


Stock No.	Description
7802-07115	7L Bioreactor System with Vertical Disk Impeller*
7802-77115	7L Bioreactor System with Pitched Blade Impeller**

System Components	Qty.	
1964-88407	7L Round Bottom Vessel	1
1964-88507	7L Headplate	1
1964-88807	O-ring for Headplate, # 266 Red Silicone	1
1964-88970	Vessel Flange Gasket, Silicone	1
7669-00007	Vessel Stand, SST	1
1964-34007	Thermowell Assembly	1
1964-01014	1/4" Port Plug	3
1964-01038	3/8" Port Plug	4
1964-01034	3/4" Port Plug	2
1964-02060	pH /DO Probe Holder	2
1964-02010	3/8" Addition Port Assembly	1
1964-02090	3/8" Sample Port Assembly	1
1964-95070	3/8" Harvest Port Assembly	1
1964-02045	3/8" Sparge Port w/SST Frit, 10µ	1
1964-02050	3/4" Septum Port w/Cap	1
7764-77000	Motor Drive Stem Assembly	1
7764-70300	Motor, 115V	1
7803-21600	Speed Cable, 115V	1
1964-51007	Heating Blanket, 115V, 350W	1
7803-21530	pH Probe, 12 x 325mm	1
7803-21550	pH Cable, 6'	1
7803-31565	DO Probe, 12 x 320mm	1
7803-31650	DO Cable, 6'	1
7803-11500	RTD Temperature Sensor w/Cable	1
7800-10025	Silicone Tubing, 3/16" ID x 25'	1
1964-83000	Media Addition Bottle, 1L	1
1964-12922	Acrodisc Filter pkg/8	1
1964-98000	Cable Ties, pkg/25	1

*Includes 2 each 1964-02300 Vertical Disk Impeller

**Includes 2 each 1964-02310 Pitched Blade Impeller



System Accessory Items (purchase separately)

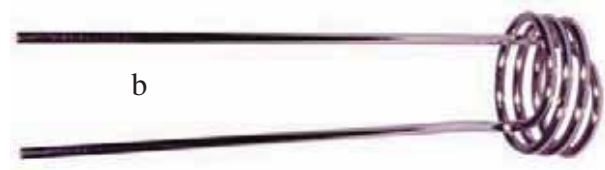
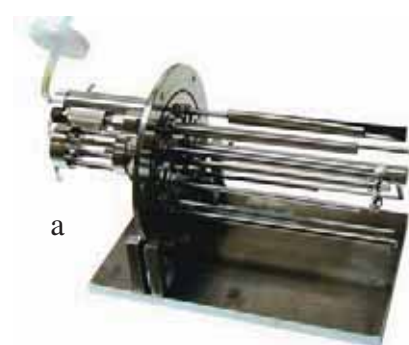
Stock No.	Description
1964-02075 (a)	Cooling Finger Assembly
1964-53600 (b)	Baffle Assembly (3 required)
1964-93010 (c)	Condenser
1964-96070	O-ring Replacement Kit*
1964-97070 (d)	Sparger w/ .040" Holes
7803-Special	Gas Blending Stand (see page B-25)
7803-18185	Weight Platform, 18 x 18 x 5", 75kg (see page B-7)

* includes 2 ea. headplate o-ring, 10 ea. 1/4" o-ring, 5 ea. 5/16" o-ring, 10 ea. 3/8" o-ring, 10 ea. 3/4" o-ring and 2 ea. probe holder internal o-ring.

10L Bioreactor Vessel Systems

Stock No.	Description
7802-10115	10L Bioreactor System with Vertical Disk Impeller*
7802-11115	10L Bioreactor System with Pitched Blade Impeller**

System Components	Qty.	
1964-88410	10L Round Bottom Vessel	1
1964-88550	10L Headplate	1
1964-88810	O-ring for Headplate, #274 Red Silicone	1
1964-88910	Vessel Flange Gasket, Silicone	1
7669-00010	Vessel Stand, SST	1
1964-34010	Thermowell Assembly	1
1964-01038	3/8" Port Plug	6
1964-01012	1/2" Port Plug	2
1964-01034	3/4" Port Plug	2
1964-02060	3/4" pH /DO Probe Holder	2
1964-02010	3/8" Addition Port Assembly	1
1964-89010	3/8" Sample Port Assembly	1
1964-91210	3/8" Harvest Port Assembly	1
1964-89410	3/8" Sparge Port w/SST Frit, 40µ	1
1964-02050	3/4" Septum Port w/Cap	1
7764-77100	Motor Drive Stem Assembly	1
7803-21600	Speed Cable, 115V	1
1964-51080	Heating Blanket, 115V, 375W	1
7803-21530	pH Probe, 12 x 425mm	1
7803-21550	pH Cable, 6'	1
7803-31565	DO Probe, 12 x 420mm	1
7803-31650	DO Cable, 6'	1
7803-11500	RTD Temperature Sensor w/Cable	1
7800-10025	Silicone Tubing, 3/16" ID x 25'	1
1964-83200	Media Addition Bottle, 1L	1
1964-12922	Acrodisc Filter pkg/8	1
1964-98000	Cable Ties, pkg/25	1



*Includes 3 ea. 1964-02100 Vertical Disk Impeller

**Includes 2 ea. 1964-02210 Pitched Blade Impeller

Motors (Purchased Separately)

7764-70400	Low Speed (0 - 300rpm)
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System Accessory Items (purchase separately)

Stock No.	Description
1964-10000 (a)	Headplate Setup Stand
1964-02175 (b)	Cooling Coil, 5/16"
1964-88610 (c)	Baffle Assembly (3 required)
1964-02220	Pitched Blade Impeller, R/H
1964-93010 (d)	Condenser
1964-96010	O-ring Replacement Kit*
1964-97010 (e)	Sparger w/ .040" Holes
7803-Special	Gas Blending Stand (see page B-25)
7803-18185	Weight Platform, 18 x 18 x 5", 75kg (see page B-7)

* includes 2ea. headplate o-ring, 2ea. 1/2" o-ring, 5ea. 5/16" o-ring, 10ea. 3/8" o-ring, 10ea. 3/4" o-ring and 2ea. probe holder internal o-ring.

CellTrol II Single & Dual Control Modules

The CellTrol II Control Module monitors bioreactor process values and performs PLC (Allen-Bradley Programmable Logic Control) based process control. A touch screen operator interface provides access to all PLC based control functions and allows viewing and modification of control parameters. Signal types include Temperature, pH, DO, speed (speed module required), foam/level and weight. Probe calibration is done at operator interface. PLC control drives the Inc/Dec outlets assigned to each channel as well as to pumps mounted on the front of the unit. The pump assignments are user defined from the operator interface. CellSoft & CellSoftLite software packages are also available using standard Ethernet connection. (See page B-8) CellTrol II control modules are compatible with all manufacturers' vessels.



Specifications:

Dimensions:	20.5 H x 13 W x 24" D (51 x 33 x 61cm) SST construction
Power Supply:	Line Power: 115V AC @ 15Amp Frequency: 50/60Hz 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, 120VAC Inc/Dec outlets (2 per channel) Two through six user-assigned pumps depending upon configuration 1RPM, 4RPM, or 10RPM (customer specified)
Alarms:	Operator programmable
Communications:	TCI/IP Protocol Standard *Maximum 600W - Do Not Exceed

CellTrol II Single Control Modules for the 3L, 7L and 10L Bioreactor Systems, 115V

Stock No.	Description
7805-11102	1 pH, 1 DO, 1 Temp, 1 Speed*, 2 Pumps
7805-11103	1 pH, 1 DO, 1 Temp, 1 Speed*, 3 Pumps
7805-11104	1 pH, 1 DO, 1 Temp, 1 Speed*, 4 Pumps
7805-11112	1 pH, 1 DO, 1 Temp, 1 Speed*, 1 Foam, 2 Pumps
7805-11113	1 pH, 1 DO, 1 Temp, 1 Speed*, 1 Foam, 3 Pumps
7805-11114	1 pH, 1 DO, 1 Temp, 1 Speed*, 1 Foam, 4 Pumps

CellTrol II Dual Control Modules for the 3L, 7L and 10L Bioreactor Systems, 115V



Stock No.	Description
7805-20400	2 pH, 2 DO, 2 Temp, 2 Speed*, 4 Pumps
7805-20402	2 pH, 2 DO, 2 Temp, 2 Speed*, 4 Pumps, 2 Redox
7805-20420	2 pH, 2 DO, 2 Temp, 2 Speed*, 4 Pumps, 2 Weight
7805-20422	2 pH, 2 DO, 2 Temp, 2 Speed*, 4 Pumps, 2 Redox, 2 Weight
7805-22402	2 pH, 2 DO, 2 Temp, 2 Speed*, 2 Foam, 4 Pumps, 2 Redox
7805-20602	2 pH, 2 DO, 2 Temp, 2 Speed*, 6 Pumps, 2 Redox
7805-20620	2 pH, 2 DO, 2 Temp, 2 Speed*, 6 Pumps, 2 Weight
7805-20622	2 pH, 2 DO, 2 Temp, 2 Speed*, 6 Pumps, 2 Weight, 2 Redox
7805-22602	2 pH, 2 DO, 2 Temp, 2 Speed, 2 Foam, 6 Pumps, 2 Redox

*requires 7805-01917 speed module (one per vessel)

CellTrol II Control Modules

The CellTrol II Control Module monitors bioreactor process values and performs PLC (Allen-Bradley Programmable Logic Controller) based process control. A touch screen operator interface provides access to all PLC based control functions and allows viewing and modification of control parameters. Signal types include Temperature, pH, DO, speed and foam/level. PLC control drives the Inc/Dec outlets assigned to each channel as well as to pumps mounted on the front of the unit. The pump assignments are user defined from the operator interface. CellSoft software packages are also available. Optional tethered speed drive, optional single support flow station and weight platforms are sold separately.

CellTrol Control Modules for 1964/65 Vessels & Large Flange Bioreactor Systems

Stock No.	Description
7804-11002	1 pH, 1 DO, 1 Temp, 2 Pumps*
7804-11003	1 pH, 1 DO, 1 Temp, 3 Pumps
7804-11004	1 pH, 1 DO, 1 Temp, 4 Pumps
7804-11012	1 pH, 1 DO, 1 Temp, 1 Foam, 2 Pumps
7804-11013	1 pH, 1 DO, 1 Temp, 1 Foam, 3 Pumps
7804-11014	1 pH, 1 DO, 1 Temp, 1 Foam, 4 Pumps

Stock No.	Description
7804-80200	2 pH, 2 DO, 2 Temp, 2 Pumps
7804-82224	2 pH, 2 DO, 2 Temp, 4 Pumps
7804-82200	2 pH, 2 DO, 2 Temp, 2 Foam, 2 Pumps
7804-82400	2 pH, 2 DO, 2 Temp, 2 Foam, 4 Pumps
7804-80402	2 pH, 2 DO, 2 Temp, 4 Pumps, 2 Redox
7804-80420	2 pH, 2 DO, 2 Temp, 4 Pumps, 2 Weight
7804-82402	2 pH, 2 DO, 2 Temp, 2 Foam, 4 Pumps, 2 Redox
7804-80422	2 pH, 2 DO, 2 Temp, 4 Pumps, 2 Weight, 2 Redox



*Pump rpm must be specified with order (1, 4 or 10 rpm)

Optional Tethered Speed Drive, 115V

- SST Construction
- Dimensions 12 x 12 x 6"
- Digital tach input
- 0 - 36 VDC; Power @ 15A
- 6' Cable interface to Celltrol II

Stock No.	Description
7805-01917	Tethered Speed Control Module (1 required per bioreactor vessel)



Optional Single Support Flow Station

- Blends up to 5 gases w/ independent flow control
- 8¾ x 15 x 8¾" (21.5 x 38 x 21.05cm)
- SST Quick Disconnect
- Up to five solenoid valves (customer specified)
- Independent headspace overlay and gas sparge



Stock No.	Description
7805-10000	Optional Single Support Flow Station (Customer supplied flow rates - page B-25)

NEW Weight Platforms

- Monitors/controls weight of vessel during continuous processing
- Maximum load 75kg

Stock No.	Description
7805-12125	3L Bioreactor, 12x12", 50kg
7803-18185	7L & 10L Bioreactors, 18x18", 75kg



CellSoft & CellSoftLite Software Optional Software Interface

CellSoft is a data acquisition, remote setpoint and remote control adjustment package. The software can accommodate up to 128 Celltrol units or 256 vessels

CellSoft-2 is configured for 1 CellTrol unit or 2 vessel systems

CellSoft-8 is configured for 8 CellTrol units or 16 vessels

CellSoftLite is a data acquisition only package. The software is configured for single PC installation only.

CellSoftLite-2 is configured for 1 CellTrol unit or 2 vessel systems

CellSoftLite-8 is configured for 8 CellTrols units or 16 vessels

The optional software interface is a PC based HMI (Human Machine Interface). It has several screens that allow the user to make changes for effective process control and that trend the process data. RS View w/RS Linx uses TCP/IP protocol to communicate with multiple CellTrol units. The software can be configured for 21 CFR Part 11 compliance. Custom modifications are also available by quotation. Includes software, licensing, ethernet hub and ethernet cable.

The requirements for the CellSoft Optional Software are:

P4® 1GHz, 128 MB RAM

Windows® 98, 2000 or XP

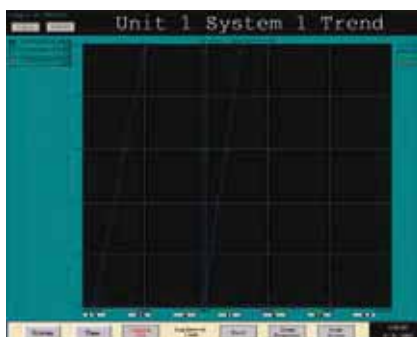
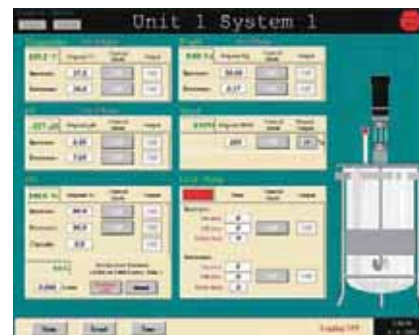
Network Interface Card

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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.



Trend Screen allows user to graphically view process data, change logging intervals, open data to an Excel spreadsheet or print screen.

Large Flange Omni Vessels for use with Stainless Steel Headplate, 5L thru 36L

- Heavy walled construction for cell culture and fermentation applications
- Heavy duty o-ring flange creates positive seal
- For use with stainless steel headplate, o-ring and locking clamp

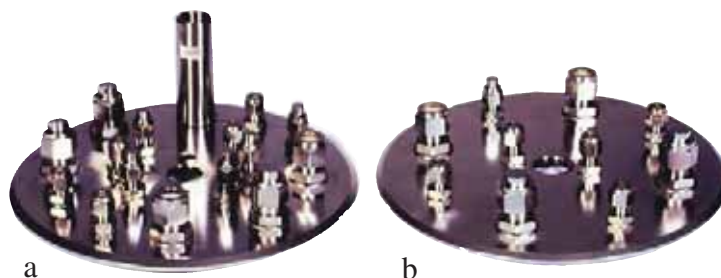
Stock No.	Description	OD x OAH (mm)
1964-88050	5L Flat Bottom	215 x 250
1964-88080	8L Flat Bottom	238 x 400
1964-88150	15L Flat Bottom	292 x 440
1964-88360	36L Flat Bottom	410 x 515
1964-88405	5L Round Bottom	215 x 300
1964-88408	8L Round Bottom	238 x 445
1964-88415	15L Round Bottom	292 x 500
1964-88436	36L Round Bottom	410 x 550



Large Flange Headplate Assemblies

- Universal headplates fit 5L thru 36L vessels
- Corrosion resistant 316L stainless steel
- Includes red silicone o-ring and 200mm T-bolt clamp

Stock No.	Description	Port Configuration
1964-88505 (a)	10 Port Headplate w/fittings	6 @ ¼" OD 4 @ ½" OD 1 Center Drive Port
1964-88510 (b)	18 Port Headplate w/fitting	12 @ ¼" OD 6 @ ½" OD 1 Center Drive Port



Replacement Parts

1964-88700 (c)	Headplate clamp, 200mm
1964-88800 (d)	#317 red silicone o-ring
1964-90115	¼" Compression Fitting
1964-90120	½" Compression Fitting
1964-90125	5/16" Compression Fitting



Vessel Stands for Omni Vessels

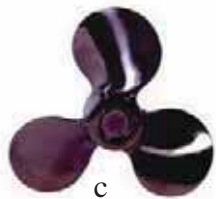
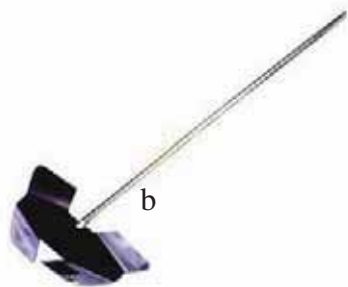
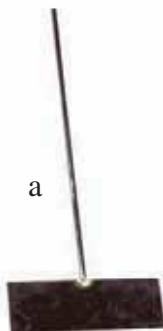
- Heavy duty stainless steel w/locking clamp
- Silicone cushion protects glass vessel
- Four legs provide stability

Stock No.	Vessel	OD x OAH (in)
7669-00005	5L	16.5 x 12
7669-00008	8L	18 x 14
7669-00015	15L	19.5 x 14
7669-00036	36L	24 x 14



Paddles and Impeller Assemblies for Cell Culture

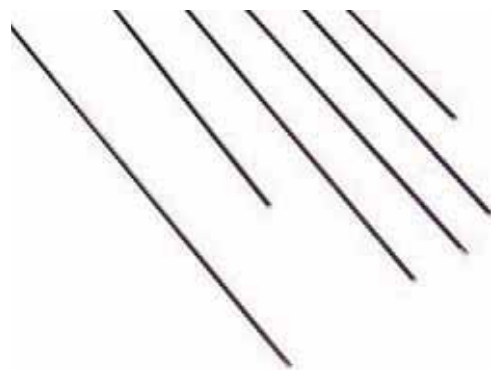
- Constructed of 316L electropolished stainless steel
- Reduces shear in delicate cell culture
- Marine impeller includes 1/2" shaft and impeller blade
- Omni and Z-Z paddles are one piece welded, 1/4" shaft



Stock No.	Description	Blade Dimensions	Shaft OAL
1964-88052 (a)	5L Omni Paddle	5 3/4 x 2"	6 3/4"
1964-88082	8L Omni Paddle	5 3/4 x 2"	12 1/2"
1964-88152	15L Omni Paddle	5 3/4 x 2"	14 1/2"
1964-88362	36L Omni Paddle	5 3/4 x 2"	17"
1964-88058 (b)	5L Z-Z Paddle	5 3/4 x 2 1/2"	6 1/2"
1964-88088	8L Z-Z Paddle	5 3/4 x 2 1/2"	12"
1964-88158	15L Z-Z Paddle	5 3/4 x 2 1/2"	14 1/4"
1964-88368	36L Z-Z Paddle	5 3/4 x 2 1/2"	16 3/4"
1964-73005 (c)	5L Marine Complete	7 1/2"	
1964-73008	8L Marine Complete	12 1/2"	
1964-73015	15L Marine Complete	14 1/2"	
1964-73036	36L Marine Complete	16 1/4"	
1964-73000	Impeller Blade only	4" OD, 1/2" Bore	
A554-2	Dust Shield		
7764-76205 (d)	5L Marine Shaft Only		7 1/2"
7764-76208	8L Marine Shaft Only		12 1/2"
7764-76215	15L Marine Shaft Only		14 1/2"
7764-76236	36L Marine Shaft Only		16 1/4"

Straight Harvesting Tubes for Omni Vessels

Stock No.	OD x OAL
1964-90025	¼ x 4
1964-90030	¼ x 10
1964-90035	¼ x 6
1964-90040	¼ x 11.5
1964-90045	¼ x 7.5
1964-90050	¼ x 14
1964-90085	½ x 10



Harvesting Tubes for Flat Bottom Omni Vessels

Stock No.	Vessel	OD x OAL
1964-90070	5L	¼ x 16"
1964-90072	8L	¼ x 18"
1964-90080	15L	¼ x 20"
1964-90082	36L	¼ x 22"
1964-91105	5L	½ x 16"
1964-91108	8L	½ x 18"
1964-91115	15L	½ x 20"
1964-91136	36L	½ x 22"



Harvesting Tubes for Round Bottom Omni Vessels

Stock No.	Vessel	OD x OAL
1964-95030	5L	¼ x 14 ¼"
1964-95035	8L	¼ x 20"
1964-95040	15L	¼ x 22"
1964-95045	36L	¼ x 24"
1964-91205	5L	½ x 14 ¼"
1964-91208	8L	½ x 20"
1964-91215	15L	½ x 22"
1964-91236	36L	½ x 24"



Thermowell Assemblies for 200mm Large Flange Vessels

These thermowells are designed specifically for the Bellco Control Systems and fit through a 5/16" fitting on the stainless steel headplate. See the BCS section for complete listings.

Stock No.	Description	Flask
7803-11533	Thermowell	5L
7803-11532	Thermowell	8L
7803-11531	Thermowell	15L
7803-11530	Thermowell	36L
7803-11540	1/4" MNPT Thermowell Fitting	



Sparger for Large Flange Vessels

Stock No.	Vessel
1964-88086	8L Flat /Round
1964-88156	15L Flat /Round
1964-88366	36L Flat /Round
T-1610	Glass frit only

Sparging Tubes, SST, Medium Porosity

Stock No.	Vessel	OAW x OAL
1964-89058	5L Flat Bottom	4 1/2 x 12"
1964-89088	8L Flat Bottom	4 1/2 x 19 1/2"
1964-89158	15L Flat Bottom	4 1/2 x 20 1/2"
1964-89368	36L Flat Bottom	4 1/2 x 22 1/2"
1964-89405	5L Flat Bottom	4 1/2 x 14 1/4"
1964-89408	8L Flat Bottom	4 1/2 x 20 1/2"
1964-89415	15L Flat Bottom	4 1/2 x 23 1/2"
1964-89436	36L Flat Bottom	4 1/2 x 24 1/2"
A554-78	SST frit only, 10-15µ porosity	

Stainless Steel Compression Fittings for Large Flange Stainless Steel Headplate

Stock No.	Description
1964-90115	1/4" Tube
1964-90120	1/2" Tube
1964-90125	5/16" Thermowell
1964-90135	1/2" to 1/4" Port Reducer



Probe Adapters for Large Flange Vessels

Stock No.	Description
1964-91005	pG 13.5 thread x 1.7" extension
1964-92005	pG 13.5 thread x 2.5" extension
1964-92010	pG 13.5 thread x 3.25" extension

Heating Blankets, Valley Instrument

- Male IEC connector for use with temperature controllers
- Heating at 5Watts/sq. in.

115V Stock No.	230V Stock No.	Flask	Watts	Dimensions (in)
1964-51005	1964-54005	500mL	50	1 x 10.5
1964-51010	1964-54010	1L	75	1 x 14
1964-51030	1964-54030	3L	150	2 x 17.5
1964-51040†	~~~	3L/6L	190	2 x 26.5
1964-51060	1964-54060	6L	300	3 x 22
1964-51080	1964-54080	8L	375	3 x 26.5
1964-58260*	~~~	15L	325	5 x 33
1964-51150	1964-54150	15L	750	5 x 33
1964-58236*	~~~	36L	375	5 x 48
1964-58365^	~~~	36L	600	5 x 48
1964-51360	1964-54360	36L	1200	5 x 48

*Low Wattage, ^Medium Wattage for CellTrol II, † Low Profile

Heating Blankets, Bellco Biotechnology

- Male IEC connector for use with temperature controllers
- Heating at 5Watts/sq. in.

115V Stock No.	230V Stock No.	Flask	Watts	Dimensions (in)
1964-55005	1964-56005	500mL	50	1 x 10.5
1964-55010	1964-56010	1L	75	1 x 14
1964-55030	1964-56030	3L	150	2 x 17.5
1964-55060	1964-56060	6L	300	3 x 22
1964-55080	1964-56080	8L	375	3 x 26.5
1964-57150*	1964-58150*	15L	325	5 x 33
1964-55150	1964-56150	15L	750	5 x 33
1964-57360*	1964-58360*	36L	375	5 x 48
1964-57365^	1964-58365	36L	600	5 x 48
1964-55360	1964-56360	36L	1200	5 x 48

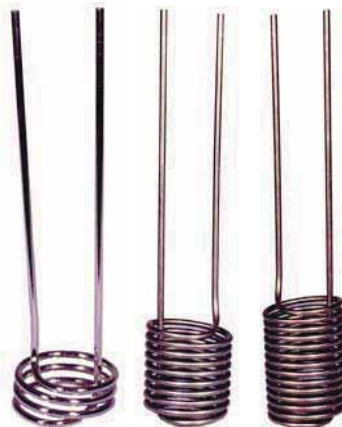
*Low Wattage, ^Medium Wattage for CellTrol II

Heating/Cooling Coils

- 316L electropolished stainless steel
- For cell culture temperature manipulation

Stock No.	Description	OD x OAL	# turns
1964-50005	5L	3 ¼ x 11"	3 ½
1964-50008	8L	3 ¼ x 13 ¼"	3 ½
1964-50015*	15L	3 ¼ x 14 ¼"	3 ½
1964-50115*	15L	3 ¼ x 16 ½"	5½
1964-50215*	15L	5 ¾ x 19 ½"	8 ½
1964-50036	36L	3 ¼ x 18 ½"	3 ½
1964-50136	36L	3 ¼ x 22"	5 ½
1964-50236	36L	5 ¾ x 22 ½"	8 ½

*use with 36L when purchasing Z-Z Paddle



CAUTION: Vessel must be stirred when heating blanket is in operation.



Ring Bubblers for Omni Vessels

Stock No.	Vessel	OD x OAL
1964-53050	5L	5 ½ x 10 ½"
1964-53080	8L	5 ½ x 10 ½"
1964-53150	15L	5 ½ x 20"
1964-53360	36L	5 ½ x 22"

PROBE ADAPTERS & COMPRESSION FITTINGS

Bellco Compression Fittings are designed using our standard 45mm blue polypropylene open top caps and white silicone gaskets. A wide variety of fittings are available to allow pH and DO monitoring via insertion of these probes into the sidearms of vessels.

Bellco Probe Adapters are designed to allow the introduction of threaded probes into vessels through a 200mm stainless steel headplate or a 45mm vertical sidearm.



32mm Cap with Compression Fitting for Bio-Probe Flask

Stock No.	Probe OD
1965-97010	12mm



45mm Caps with Compression Fittings for Vertical Sidearm Vessels

Stock No.	Probe OD
1965-21050	11mm
1965-21060	12mm
1965-21070	1/2"
7803-21580	12mm



45mm Cap with 1.7" Probe Adapter for Vertical Sidearm Vessels

Stock No.	Description
1964-91015	13.5 Thread for pH & DO probes

Stainless Steel Compression Fittings for 100mm Cap Assemblies



Stock No.	Size
1964-90010	12mm
1964-90015	1/4"
1964-90020	1/2"

General Accessories for Omni Vessels

Stock No.	Description
7800-10025	Silicone Tubing 3/16" ID, 25'
7800-10050	Silicone Tubing 1/4" ID, 50'
7800-10100	Silicone Tubing 1/2" ID, 10'
1964-53400	Stainless Steel Baffle (2 required)
1964-88600	Glass Filter Tube Assembly
1964-90115	Compression Fitting, 1/4" SST
1964-90120	Compression Fitting, 1/2" SST
1964-90125	Compression Fitting, 5/16" SST
1964-93006	Stainless Steel Condenser
1964-94000	Acrodisc Filter Tube Assembly w/ hose fitting
1964-12922	Acrodisc Filter, 0.2µ, pkg/8

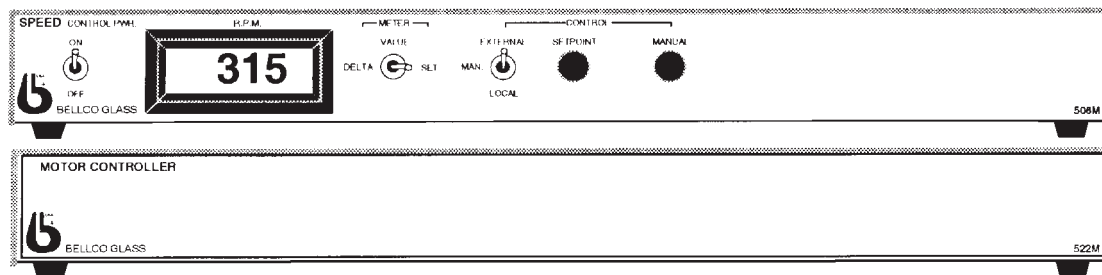


High Speed Motor System for Fermentation

- Speed range 35-1000rpm depending upon vessel components and viscosity
- Use with high speed vertical lift impeller and drive adapter

Stock No.	Description
7764-70110	Motor System, 115V, ¼ hp
7764-70220	Motor System, 230V, ¼ hp
7764-72000	High Speed Motor Adapter, 5/8" OD Shaft

Components	115V	230V
Motor Only	7764-70111	7764-70221
Speed Control Module	7803-70112	7803-70222
Motor Control Module	7803-70113	7803-70223



Vertical Lift Disk Impeller, High Speed

Stock No.	Description	Impeller OD	Bore x OAL
7764-74005	5L Complete		
7764-74008	8L Complete		
7764-74015	15L Complete		
7764-74036	36L Complete		
7764-75008	5L & 8L Disk only	3"	
7764-75015	15L Disk only	3 ¾"	
7764-75036	36L Disk only	5 1/8"	
7764-76005	5L Shaft only		5/8 x 14"
7764-76008	8L Shaft only		5/8 x 18 ¾"
7764-76015	15L Shaft only		5/8 x 20 ¾"
7764-76036	36L Shaft only		5/8 x 23 ¼"



Digital and Process Overhead Drive Motors

- Speed range: 5 – 150rpm
- Brushless motor for low maintenance
- RS485 data port & motion alarm (process control)
- Reverse direction switch
- Easy mounting bracket with ‘peg & grommet’ design
- Dimensions: 4.5 x 5.5 x 8” (11 x 14 x 20cm) includes handle
- Standard models: 19 in-lb torque, 30W
- Hi-Torque models: 31 in/lb, torque, 50W

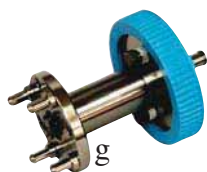


Stock No.	Description
7774-10115 (a)	Digital, 110/115V
7774-10230	Digital, 230V
7774-20115 (b)	Process, 110/115V
7774-20230	Process, 230V
7764-70000	Standard Drive Adapter
7764-71000	Large Flange Drive Adapter
7774-30115 (c)	Hi-Torque, Digital, 110/115V
7774-30230	Hi-Torque, Digital, 230V
7774-40115 (d)	Hi-Torque, Process, 110/115V
7774-40230	Hi-Torque, Process, 230V
7774-50115 (e)	Digital Std OHD/CTII Interface, 110/115V
7774-60115	Digital High Torque OHD/CTII Interface, 110/115V
7803-80000	Speed cable CTII Interface
9700-10115 (f)	Power Supply, 110/115V
9700-10230	Power Supply, 230V

Overhead Drive Adapters

- Adapt overhead drive motors to PTFE or SST folding impellers
- 316L stainless steel with Polyester/SST bearings
- Two ¼” NPT plugged ports for optional accessories (7764-70000 only)

Stock No.	Description
7764-70000 (g)	Std. OHD Cap Assembly for 100mm Vessels
7764-71000 (h)	Heavy Duty Cap Assembly for Large Flange Vessels
7764-74000 (i)	Hi-Torque Drive Adapter



1964-Series 3L- 36L Bioreactor Vessels w/ Vertical Sidearms & 100mm Center Neck

- Suitable for all cell culture and fermentation
- Compatible with Bellco overhead drives & magnetic stirrers
- Supplied with 100mm center cap, 45mm caps and pouring rings

Stock No.	Flask	Baffles	Arms	OD x OAH (mm)
1964-08000	8L	0	4	240 x 430
1964-08060	8L	0	6	240 x 430
1964-08460	8L	4	6	240 x 430
1964-15000	15L	0	4	295 x 460
1964-15060	15L	0	6	295 x 460
1964-15460	15L	4	6	295 x 460
1964-36000	36L	0	6	410 x 535

Baffles are available on all vessels by request.



Low Profile Cell Culture Vessels

- Reduced height vessels maximize incubator space
- Suitable for all cell culture applications - Insect, Plant, Bacterial
- 100mm neck for cap assembly and overhead drive
- 45mm vertical sidearms accept port and thermowell assemblies or probes
- Supplied with 100mm center cap, 45mm caps and pouring rings

Stock No.	Flask	Baffles	Arms	OD x OAH (mm)
1964-03400*	3L Low Profile		4	240 x 250
1964-03600*	3L Low Profile		6	240 x 250
1964-06400*	6L Low Profile		4	240 x 295
1964-06600*	6L Low Profile		6	240 x 295

*Use 8L flask carrier & 1964-51040 Heating Blanket.



L-Shaped Bubbler Tubes for Vertical Sidearm Spinner Flasks



Stock No.	Description	Dimensions
1964-80045	8L Bubbler w/SST 10 μ Frit	18½ x 4½"
1964-15045	15L Bubbler w/SST 10 μ Frit	20 x 5 1/8"
1964-36045	36L Bubbler w/SST 10 μ Frit	21 x 6½"
1964-81045	8L Bubbler w/.040" holes	18½ x 4¾"
1964-15145	15L Bubbler w/ .040" holes	20 x 6"
1964-36145	36L Bubbler w/ .040" holes	21 x 7¼"



Impeller Assemblies for 3L-36L Spinners & OHD Motors

Stock No.	Description	Paddle LxW (in)
1964-30003	3L PTFE	2 x 4
1964-30006	6L PTFE	3 x 7
1964-30008	8L PTFE	3 x 7
1964-30015	15L PTFE	3 x 7
1964-30036	36L PTFE	3 x 9
1964-60003	3L SST, Folding	3 x 5"
1964-60006	6L SST, Folding	3 x 6"
1964-60008	8L SST, Folding	3 x 8"
1964-60015	15L SST, Folding	3 x 9"
1964-60036	36L SST, Folding	3 x 14"
1964-60106	6L Short Width SST, Folding	3 x 5"
1964-60108	8L Short Width SST, Folding	3 x 6"
1964-60115	15L Short Width SST, Folding	3 x 7"
1964-60136	36L Short Width SST, Folding	3 x 12"



Thermowell Assemblies for 1964-Style Vertical Sidearm Vessels

Stock No.	Description	Flask
1964-34008	3-Port	8L
1964-34036	3-Port	15 & 36L

Thermowell Assemblies for 1964-Style Low Profile Vertical Sidearm Vessels

Stock No.	Description	Flask
1964-03405	3-Port	3L
1964-06405	3-Port	6L

Sparger for 1964-Style & 1964-Low Profile Vertical Sidearm Vessels

Stock No.	Vessel
1964-03415	3L - LoPro
1964-06415	6L - LoPro
1964-45008	8 & 15L
1964-45036	36L
T1610	Replacement glass frit, coarse porosity

45mm Caps with Compression Fittings for Vertical Sidearm Vessels

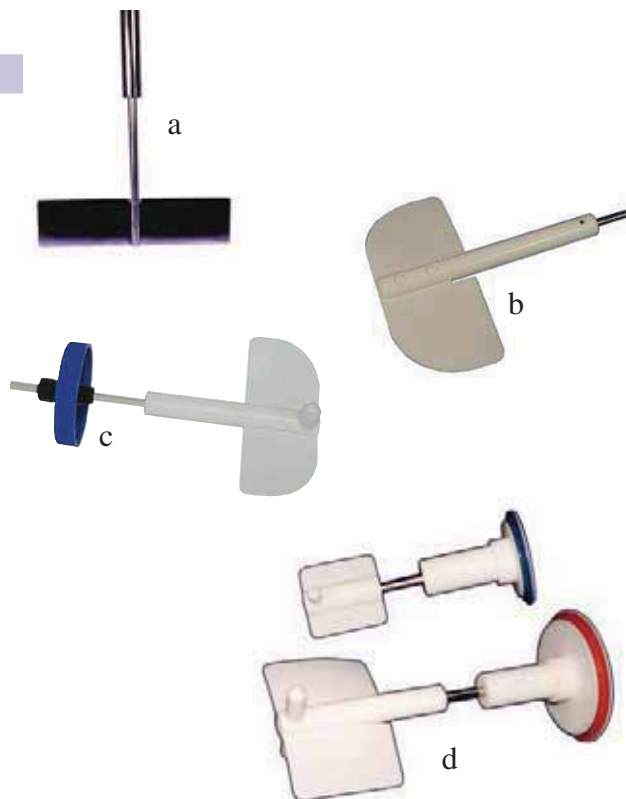
Stock No.	Probe OD
1965-21050	11mm
1965-21060	12mm
1965-21070	1/2"
7803-21580	12mm



Impeller Assemblies for Low Profile Vessels

Stock No.	Flask	Type & Dimensions (in.)
1964-03401* (a)	3L	SST Folding, 2 x 5¼
1964-03404* (b)	3L	PTFE Paddle, 3 x 6¾
1964-03410 (c)	3L	MicroCarrier, 3 x 7
1964-03420 (d)	3L	Internal Overhead Bearing, 3 x 5¼
1964-06401*	6L	SST Folding, 3 x 5¼
1964-06404*	6L	PTFE Paddle, 3 x 6¾
1964-06410	6L	MicroCarrier, 3 x 7
1964-06420	6L	Internal Overhead Bearing, 3 x 5¼

*Requires Overhead Drive and Cap Assembly, see page B-16



Stainless Steel Folding Impeller Assembly for 1964/1965 Style Vessels†

Stock No.	Flask	Paddle Dim. (in.)
1964-60008	8L	3 x 8
1964-60015	15L	3 x 9
1964-60036	36L	3 x 14

Short Width Paddles*

1964-60106	6L	3 x 5¼
1964-60108	8L	3 x 6
1964-60115	15L	3 x 7
1964-60136	36L	3 x 12

*Narrow paddle for use with port assembly

†Requires Overhead Drive & Cap Assembly

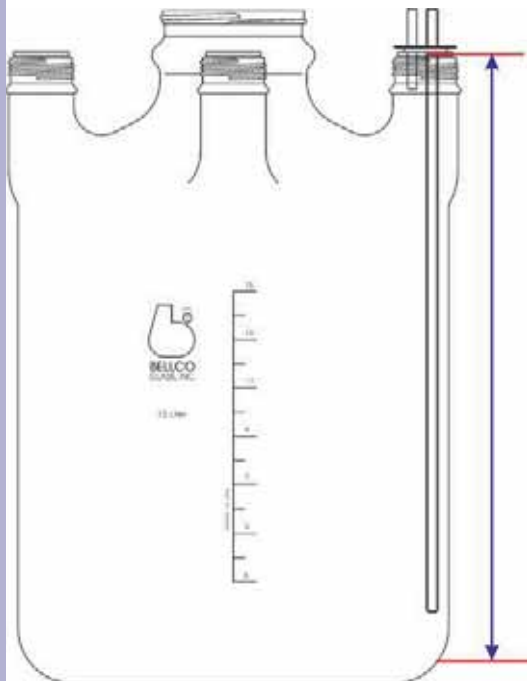


Adjustable PTFE Microcarrier Paddle Blades Only

Stock No.	Flask	Paddle Dim. (in.)
1965-40003	1L/3L	1½ x 4¼
1965-40008	6L/8L	1½ x 6 3/8
1965-40036	15L/36L	1½ x 3 3/8
1965-40136	15L/36L	1½ x 9½
1964-50001	8L thru 36L	1½ x 6¾

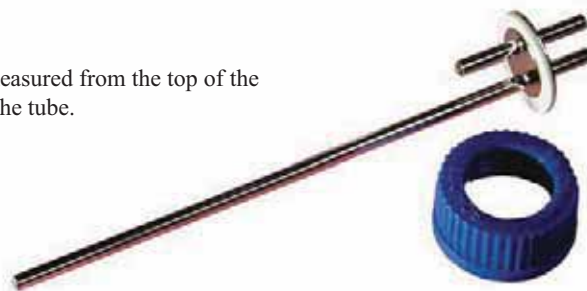


**45mm Port Assemblies for
1964-Style Vertical Sidearm Vessels &
1964-Style Low Profile Vertical Sidearm Vessels**



Stock No.	Description	Longest Tube Length*	Vessel
1964-03402	2-Port	8½"	3L - LoPro
1964-06402	2-Port	10"	6L - LoPro
1964-20815	2-Port	14"	8 & 15L
1964-23600	2-Port	16½"	36L
1964-03403	3-Port	8½"	3L - LoPro
1964-06403	3-Port	10"	6L - LoPro
1964-30815	3-Port	14"	8 & 15L
1964-33600	3-Port	16½"	36L

*Longest tube length is measured from the top of the sidearm to the bottom of the tube.



**45mm Cap with 1.7" Probe Adapter
for Vertical Sidearm Vessels**



Stock No.	Probe
1964-91015	pH with 13.5 Thread

**Stainless Steel Compression Fittings
for 100mm Cap Assemblies**



Stock No.	Size
1964-90010	12mm
1964-90015	¼"
1964-90020	½"

Flask Carriers for Sidearm Vessels

- Stainless steel construction
- Rubber feet for added stability



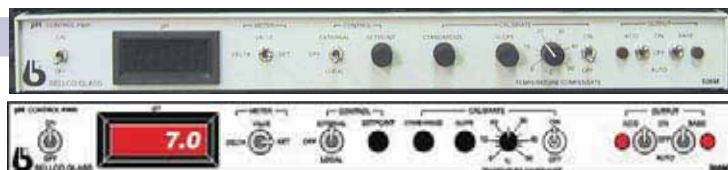
Stock No.	Flask/Carboy	OD x OAD (in)
7669-06000	6L/ 9L	9 x 8
7669-08000*	8L/ 13L	11 x 10
7669-15000	15L/ 19L	12 x 11
7669-36000	36L/ 45L	17 x 13

*use for 3L and 6L Low Profile Vessels

pH Controllers

- Easy control of acidity or alkalinity of cell culture
- Activates pump for acid/base addition or rotometer for CO₂ addition
- Power/patch cords sold separately
- Dimensions: 17 x 10 x 1.75" (LxWxH)

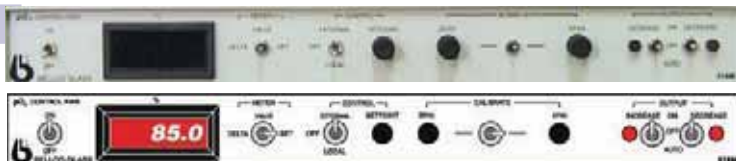
Stock No.	Description
7803-21113	PWM PID Control, Acid/Base, 115V
7803-21233	PWM PID Control, Acid/Base, 230V



Dissolved Oxygen Controllers

- Maintain dissolved oxygen levels to set point values
- Range: 0-100%

Stock No.	Description
7803-31113	PWM PID Inc/Dec, 115V
7803-31233	PWM PID Inc/Dec, 230V



Temperature Controllers & RTD Sensors

- Monitor and regulate temperature (see heating blankets on page B-13)
- Dimensions 17 x 10 x 1.75"
- Temperature range: 0-150°C
- 0.55" LED display panel
- Power/patch cords sold separately

Stock No.	Description
7803-11113	PWM-PID control, Heat/Cool, 115V
7803-11233	PWM-PID control, Heat/Cool, 230V
7803-11500	RTD Sensor 0.187" x 10" with 8' Cable
7803-11505	RTD Sensor 0.187" x 3/4" with 8' Cable
7803-11510	RTD Sensor 0.187" x 5" with 8' Cable
7803-11520	RTD Sensor Extension Cable 6'



RTD Sensor

Foam/Level Controllers

- Detect foam or liquid level within a vessel
- Sensor times intervals 1-10 seconds or 1-10 minutes
- Power/patch cords sold separately
- Conductance sensor triggers pump

Stock No.	Description
7803-41111	PWM, Dual Channel, 115V
7803-41231	PWM, Dual Channel, 230V



Support Module for 500 Series Controllers

- AC drive to solenoid valve or pump motor
- All fittings are stainless steel
- Dimensions: 10 x 17 x 7" (42 x 25 x 18cm)

Stock No.	Description
7803-55112	3 Pump, 5 Rotometer, 3 Valve, 115V*
7803-65112	3 Pump, 5 Rotometer, 3 Valve, 230V*



*Flow rates & solenoid valve placement for rotometers must be supplied at time of order. See page B-25 for flow rates.

Bellco DataLogger

- Data is displayed to an LCD (waveforms, numbers or bar graph)
- Data can be saved to external floppy, zip disk or ATA card
- Compatible with 7803-series controllers
- Includes Ethernet interface (RS232 or 422/482 available)
- Pre-programmed to customer specifications



Specifications:

Dimensions: 7.5" H x 8.75" W x 13" D

Power Supply:

Line Power: 90 to 132 VAC
 Frequency: 50/60 Hz
 Consumption: 53 VA

Display:

Display: 5.5" TFT Color LCD (VGA, 320 x 240 dot)
 Channel Display: Trend/Bar Graph/Digital selectable

Data Storage:

External Storage Medium: Selectable from:
 1) floppy disk
 2) PCMCIA ATA flash memory card
 3) zip disk (200MB)

Inputs:

Number of inputs: DX 106 – 6 channels
 DX112 channels 12 channels
 Input types: Volt (DC), TC (thermocouple), RTD, DI (digital input), DC current (with external shunt resistor)

Standard Communication:

Connection: Ethernet 10BASE(T)
 Protocol: TCP/IP

Stock No.	Description
7803-60060	6 Station DataLogger with Wiring & Program
7803-60070	12 Station DataLogger with Wiring & Program



a



b

Mettler Ingold pH Probes & Accessories

Stock No.	Description
7803-21500 (a)	12 x 120mm pH Probe
7803-21510	12 x 200mm pH Probe
7803-21300	12 x 225mm pH Probe
7803-21520	12 x 325mm pH Probe
7803-21530	12 x 425mm pH Probe
7803-21540	3' pH Cable, BNC to K9
7803-21550	6' pH Cable, BNC to K9
7803-21560	10' pH Cable, BNC to K9
7803-21570 (b)	pH & DO Simulator Kit*
7803-21580	12mm ID Probe Holder for 45mm sidearm
7803-21590	10 Channel pH Switching Box

*Verifies pH & DO probes prior to each bioreactor run.

Mettler Ingold DO Probes & Accessories

Stock No.	Description
7803-31535	12 x 120mm DO Probe, PTFE
7803-31545	12 x 220mm DO Probe, PTFE
7803-31555	12 x 320mm DO Probe, PTFE
7803-31565	12 x 420mm DO Probe, PTFE
7803-31640	3' DO Cable
7803-31650	6' DO Cable
7803-31660	10' DO Cable
7803-21570	pH & DO Simulator Kit
7803-21580	12mm ID Probe Holder for 45mm sidearm
7803-31690 (a)	DO Probe Polarizer
7803-31700 (b)	Polarizer Tester
7803-31720 (c)	DO Probe Polarizer Station, 115V



Foam/Level Probes

Stock No.	Description
7803-41590	Foam/Level Probe, 1/2" x 6"
7803-41600 (d)	Foam/Level Probe, 1/2" x 12"
7803-41610	Foam/Level Probe, 1/2" x 18"
7803-41620	Foam/Level Probe, 1/2" x 24"
7803-41630	1/2" MNPT Foam Probe Fitting
7803-41640	PTFE Ferrule for Foam Probe
7803-41650	Foam/Level Cable, 10', for 500-series Controller
7803-41655	Foam/Level Cable for Celltrol II



General Accessories

Stock No.	Description
7803-60041 (e)	Power Cord 6'
7803-60042 (f)	Patch Cord – Module to Support Package
7803-60043 (g)	Adapter Cord - Module to Accessory Plug



Broadley James pH Probes & Accessories

Stock No.	Description
7803-22500 (a)	12 x 120mm pH Probe
7803-22510	12 x 200mm pH Probe
7803-22300	12 x 225mm pH Probe
7803-22520	12 x 325mm pH Probe
7803-22530	12 x 420mm pH Probe
7803-22540 (b)	3' pH Cable, BNC to HP
7803-22550	6' pH Cable, BNC to HP
7803-22560	10' pH Cable, BNC to HP

Broadley James DO Probes & Accessories

Stock No.	Description
7803-31330 (c)	12 x 120mm DO Probe, PTFE
7803-31340	12 x 220mm DO Probe, PTFE
7803-31350	12 x 320mm DO Probe, PTFE
7803-31360	12 x 420mm DO Probe, PTFE
7803-31440 (d)	3' DO Cable, D4 to 6-Pin DIN
7803-31450	6' DO Cable, D4 to 6-Pin DIN
7803-31460	10' DO Cable, D4 to 6-Pin DIN
7803-31420	12mm Membrane Kit, Pkg/4



a



b



c



d

Gas Blending Stands

Gas Blending Stands offer a low cost method of introducing gas into a bioreactor vessel for pH and DO control. Flow rates (see available list of rates below) and placement of solenoid valves must be specified at time of order.

Specifications

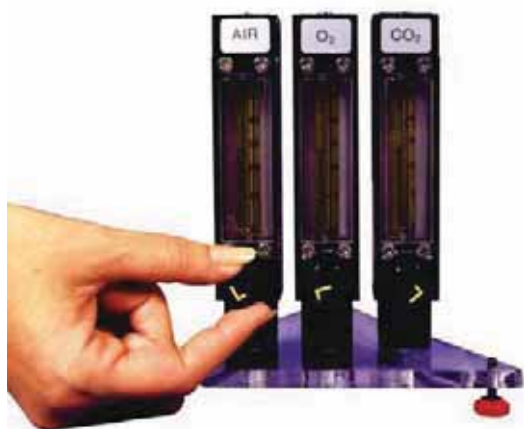
Type:	1-4 flow tubes with 0-4 solenoid valves
Dimensions:	Base measures 7" W x 6" D x 6" H
Connectors:	¼" SST hose barbs
Display:	65mm direct reading flow tubes

Stock No. Description

7803-	1 Flowmeter & 0 Solenoid Valve
7803-	1 Flowmeter & 1 Solenoid Valve
7803-	2 Flowmeters & 0 Solenoid Valve
7803-	2 Flowmeters & 1 Solenoid Valve
7803-	2 Flowmeters & 2 Solenoid Valves
7803-	3 Flowmeters & 0 Solenoid Valve
7803-	3 Flowmeters & 1 Solenoid Valve
7803-	3 Flowmeters & 2 Solenoid Valves
7803-	3 Flowmeters & 3 Solenoid Valves
7803-	4 Flowmeters & 0 Solenoid Valve
7803-	4 Flowmeters & 1 Solenoid Valve
7803-	4 Flowmeters & 2 Solenoid Valves
7803-	4 Flowmeters & 3 Solenoid Valves
7803-	4 Flowmeters & 4 Solenoid Valves



All rotometers with flow rates between 200mL and 10L are standard. Flow rates below or above the standard rates will require additional valves that are sold separately. Custom flow rates are available by quotation. Visit our website at www.bellcoglass.com to enter a quotation request or call Customer Service at 1-800-257-7043.



Available Flow Rates (must be specified at time of quote/order)

Air	Oxygen	Nitrogen	Carbon Dioxide
0.7-7mL/min	3-35mL/min	0.6-6mL/min	2-20mL/min
5-50mL/min	5-50mL/min	5-50mL/min	5.5-55mL/min
7.5-75mL/min	LOW FLOW	6-60mL/min	
10-100mL/min		12-120mL/min	
25-250mL/min	30-300mL/min	20-200mL/min	22-220mL/min
50-500mL/min	50-500mL/min	50-500mL/min	0.1-1L/min
0.1-1L/min	0.1-1L/min	0.1-1L/min	0.6-6L/min
0.115-1.15L/min	0.4-4L/min	0.2-2L/min	1-10L/min
0.2-2L/min	0.8-8L/min	0.5-5L/min	
0.4-4L/min		1-10L/min	
0.5-5L/min	STD FLOW		
1-10L/min			
1.6-16L/min	1.5-15L/min	1.2-12L/min	
4-40L/min	HIGH FLOW		

Bellco Control “Startup” Systems for Cell Culture with 115V Controllers

115V Control Systems for Mammalian Cell Culture are ‘startup’ packaged systems that provide the essential components for applications where low speed cell culture is desired. All components listed in the ‘startup’ packages are available separately. For a complete listing of Bellco Control System products, please refer to the Biotechnology Catalog.

Description	5L	8L	15L	36L
System Complete	7800-05510	7800-08510	7800-15510	7800-36510
Components				
Large Flange Vessel	1964-88050	1964-88080	1964-88150	1964-88360
Vessel Stand	7669-00005	7669-00008	7669-00015	7669-00036
Headplate Assembly, 18 Port	1964-88510	1964-88510	1964-88510	1964-88510
Overhead Drive Motor, 115V	7774-10115	7774-10115	7774-10115	7774-10115
Heavy Duty Drive Adapter	7764-71000	7764-71000	7764-71000	7764-71000
Marine Impeller	1964-73005	1964-73008	1964-73015	1964-73036
Harvesting Tube, ¼”	1964-90070	1964-90072	1964-90080	1964-90082
Harvesting Tube, ½”	1964-91105	1964-91108	1964-91115	1964-91136
Air Stone Sparger	1964-89058	1964-89088	1964-89158	1964-89368
Heating/Cooling Coil	1964-50005	1964-50008	1964-50215	1964-50236
Heating Blanket, 115V	1964-51060	1964-51080	1964-51150	1964-51360
Filter Tube Assembly	1964-94000	1964-94000	1964-94000	1964-94000
Adjustable Baffles (2)	1964-53400	1964-53400	1964-53400	1964-53400
Thermowell	7803-11533	7803-11532	7803-11531	7803-11530
Temperature controller, 115V	7803-11113	7803-11113	7803-11113	7803-11113
RTD Sensor w/8’ Cable	7803-11505	7803-11500	7803-11500	7803-11500
pH Controller, Acid/Base, 115V	7803-21113	7803-21113	7803-21113	7803-21113
pH Probe	7803-21520	7803-21520	7803-21520	7803-21530
pH Cable 3’	7803-21540	7803-21540	7803-21540	7803-21540
DO Controller Inc/Dec, 115V	7803-31113	7803-31113	7803-31113	7803-31113
DO Probe	7803-31555	7803-31555	7803-31555	7803-31565
DO Probe Cable, 3’	7803-31640	7803-31640	7803-31640	7803-31640
Probe Adapter, 1.7”	1964-91005	1964-91005	1964-91005	1964-91005
Probe Adapter, 2.5”	1964-92005	1964-92005	1964-92005	1964-92005
Support Module*	7803-55112	7803-55112	7803-55112	7803-55112
Main Power Cord	7803-60041	7803-60041	7803-60041	7803-60041
Patch Cord (5)	7803-60042	7803-60042	7803-60042	7803-60042

*Support Module/Gas Blending Stand pump rpm’s, flow rates and solenoid valve placement must be specified at time of order.

Bellco Control “Startup” Systems for Cell Culture with 230V Controllers

230V Control Systems for Mammalian Cell Culture are ‘startup’ packaged systems that provide the essential components for applications where low speed cell culture is desired. All components listed in the ‘startup’ packages are available separately. For a complete listing of Bellco Control System products, please refer to the Biotechnology Catalog.

Description	5L	8L	15L	36L
System Complete	7800-05610	7800-08610	7800-15610	7800-36610
Components				
Large Flange Vessel	1964-88050	1964-88080	1964-88150	1964-88360
Vessel Stand	7669-00005	7669-00008	7669-00015	7669-00036
Headplate Assembly, 18 Port	1964-88510	1964-88510	1964-88510	1964-88510
Overhead Drive Motor, 230V	7774-10230	7774-10230	7774-10230	7774-10230
Heavy Duty Drive Adapter	7764-71000	7764-71000	7764-71000	7764-71000
Marine Impeller	1964-73005	1964-73008	1964-73015	1964-73036
Harvesting Tube, ¼”	1964-90070	1964-90072	1964-90080	1964-90082
Harvesting Tube, ½”	1964-91105	1964-91108	1964-91115	1964-91136
Air Stone Sparger	1964-89058	1964-89088	1964-89158	1964-89368
Heating/Cooling Coil	1964-50005	1964-50008	1964-50215	1964-50236
Heating Blanket, 230V	1964-54060	1964-54080	1964-54150	1964-54360
Filter Tube Assembly	1964-94000	1964-94000	1964-94000	1964-94000
Adjustable Baffles (2)	1964-53400	1964-53400	1964-53400	1964-53400
Thermowell	7803-11533	7803-11532	7803-11531	7803-11530
Temperature controller, 230V	7803-11233	7803-11233	7803-11233	7803-11233
RTD Sensor w/8’ Cable	7803-11505	7803-11500	7803-11500	7803-11500
pH Controller, Acid/Base, 230V	7803-21233	7803-21233	7803-21233	7803-21233
pH Probe	7803-21520	7803-21520	7803-21520	7803-21530
pH Cable 3’	7803-21540	7803-21540	7803-21540	7803-21540
DO Controller Inc/Dec, 230V	7803-31112	7803-31112	7803-31112	7803-31112
DO Probe	7803-31550	7803-31550	7803-31550	7803-31560
DO Probe Cable, 3’	7803-31640	7803-31640	7803-31640	7803-31640
Probe Adapter, 1.7”	1964-91005	1964-91005	1964-91005	1964-91005
Probe Adapter, 2.5”	1964-92005	1964-92005	1964-92005	1964-92005
Support Module*	7803-55112	7803-55112	7803-55112	7803-55112

*Support Module/Gas Blending Stand pump rpm’s, flow rates and solenoid valve placement must be specified at time of order.

High Speed Control Startup Systems for Microbial Fermentation, 115V

Description	5L	8L	15L
System Complete	7801-05115	7801-08115	7801-15115
Components			
Round Bottom Vessel	1964-88405	1964-88408	1964-88415
Vessel Stand	7669-00005	7669-00008	7669-00015
18-Port Headplate	1964-88510	1964-88510	1964-88510
High Speed Motor/Controller	7764-70110	7764-70110	7764-70110
High Speed Drive Adapter	7764-72000	7764-72000	7764-72000
Vertical Lift Impeller Assembly	7764-74005	7764-74008	7764-74015
Harvesting Tube, Curved, ¼" OD	1964-95030	1964-95035	1964-95040
Harvesting Tube, Curved, ½" OD	1964-91205	1964-91208	1964-91215
Air Stone Sparging Tube	1964-89405	1964-89408	1964-89415
Heating/Cooling Coil	1964-50005	1964-50008	1964-50215
Heating Blanket	1964-54060	1964-54080	1964-54150
Filter Tube Assembly	1964-94000	1964-94000	1964-94000
Temperature Controller	7803-11113	7803-11113	7803-11113
Thermowell 5/16"	7803-11533	7803-11532	7803-11531
RTD Temperature Sensor	7803-11505	7803-11500	7803-11500
pH Controller Acid/Base	7803-21233	7803-21233	7803-21233
pH Probe	7803-21520	7803-21520	7803-21520
pH Cable, 3'	7803-21540	7803-21540	7803-21540
Probe Adapter, 1.7"	1964-91005	1964-91005	1964-91005
DO Controller	7803-31113	7803-31113	7803-31113
DO Probe, PTFE Membrane	7803-31550	7803-31550	7803-31550
DO Probe Cable, 3'	7803-31640	7803-31640	7803-31640
Probe Adapter, 2.5"	1964-92005	1964-92005	1964-92005
Foam/ Level Controller	7803-41111	7803-41111	7803-41111
Foam/Level Probe	7803-41590	7803-41600	7803-41610
Foam/Level Probe Cable, 10'	7803-41650	7803-41650	7803-41650
Support Module*	7803-55112	7803-55112	7803-55112
Main Power Cord	7803-60041	7803-60041	7803-60041
Patch Cord (5)	7803-60042	7803-60042	7803-60042

*Support Module/Gas Blending Stand pump rpm's, flow rates and solenoid valve placement must be specified at time of order.

High Speed Control Startup Systems for Microbial Fermentation, 230V

Description	5L	8L	15L
System Complete	7801-05230	7801-08230	7801-15230
Components			
Round Bottom Vessel	1964-88405	1964-88408	1964-88415
Vessel Stand	7669-00005	7669-00008	7669-00015
18-Port Headplate	1964-88510	1964-88510	1964-88510
High Speed Motor/Controller	7764-70220	7764-70220	7764-70220
High Speed Drive Adapter	7764-72000	7764-72000	7764-72000
Vertical Lift Impeller Assembly	7764-74005	7764-74008	7764-74015
Harvesting Tube, Curved, ¼" OD	1964-95030	1964-95035	1964-95040
Harvesting Tube, Curved, ½" OD	1964-91205	1964-91208	1964-91215
Air Stone Sparging Tube	1964-89405	1964-89408	1964-89415
Heating/Cooling Coil	1964-50005	1964-50008	1964-50215
Heating Blanket	1964-54060	1964-54080	1964-54150
Filter Tube Assembly	1964-94000	1964-94000	1964-94000
Temperature Controller	7803-11233	7803-11233	7803-11233
Thermowell 5/16"	7803-11533	7803-11532	7803-11531
RTD Temperature Sensor	7803-11505	7803-11500	7803-11500
pH Controller Acid/Base	7803-21233	7803-21233	7803-21233
pH Probe	7803-21520	7803-21520	7803-21520
pH Cable, 3'	7803-21540	7803-21540	7803-21540
Probe Adapter, 1.7"	1964-91005	1964-91005	1964-91005
DO Controller	7803-31232	7803-31232	7803-31232
DO Probe, PTFE Membrane	7803-31550	7803-31550	7803-31550
DO Probe Cable, 3'	7803-31640	7803-31640	7803-31640
Probe Adapter, 2.5"	1964-92005	1964-92005	1964-92005
Foam/ Level Controller	7803-41231	7803-41231	7803-41231
Foam/Level Probe	7803-41590	7803-41600	7803-41610
Foam/Level Probe Cable, 10'	7803-41650	7803-41650	7803-41650
Support Module*	7803-55112	7803-55112	7803-55112

*Support Module/Gas Blending Stand pump rpm's, flow rates and solenoid valve placement must be specified at time of order.

Bellco Biotechnology offers a variety of controllers, vessels, probes, gas blending stands, drive motors, impeller assemblies, overhead drive motors and related accessories for cell culture and fermentation. The following pages list the components of ‘sample’ 15L bioreactor systems with a choice of either 15L Vertical Sidearm Vessels or 15L Large Flange Omni Vessels with headplates. A complete listing of the new CellTrol II Single and Dual Controllers can be found on pages B-6 & B-7. Visit our Website at www.bellcoglass.com to view our complete line of products.

15L Omni Vessel w/ Digital Overhead Drive Motor and Series 500 Controllers

This system is a typical setup for low speed mammalian cell culture that uses an Omni Vessel with stainless steel headplate along with the standard digital overhead drive motor and a marine impeller to agitate vessel contents. Series 500 controllers control pH, DO and temperature. Accessories include a sparger, filter tube, harvesting tubes, pH probe & cable and DO probe & cable. The support module features 5 rotometers (see flow rate chart), 3 solenoid valves and 3 pumps. The rotometers can be used to control the flow of gases to the system and the pumps are typically used to facilitate the addition of media, inoculum or substrate.

Stock No	Qty	Description
1964-88150	1	15L Flat Bottom Omni Vessel
7669-00015	1	Vessel Stand
1964-88510	1	Headplate, 18-port
7774-10115	1	Digital Overhead Drive Motor
7764-71000	1	Large Flange Drive Adapter
1964-73015	1	Marine Impeller Assembly
1964-90080	1	Harvesting Tube ¼”
1964-91115	1	Harvesting Tube ½”
1964-89158	1	Air Stone Sparger
1964-50115	1	Heating/Cooling Coil
1964-51150	1	Heating Blanket, 750W
1964-94000	1	Filter Tube
7803-11531	1	Thermowell
7803-11113	1	Temperature Controller
7803-11500	1	RTD Temperature Sensor w/Cable
7803-21113	1	pH Controller
7803-21520	1	pH Probe, 12 x 325mm
7803-21550	1	pH Probe Cable, 6’
7803-31113	1	DO Controller
7803-31555	1	DO Probe, 12 x 320mm
7803-31650	1	DO Probe Cable, 6’
1964-91005	2	Probe Adapter, 1.7” (2 required)
7803-55112	1	Support Module, 5 Rotometer, 3 Valve/ 3 Pump*
7803-60041	1	Power Cord (monitor to 115V)
7803-60042	2	Patch Cord (Controllers to Support Module)
7803-21570	1	Probe Simulator pH and DO

*Support Module/Gas Blending Stand pump rpm’s, flow rates and solenoid valve placement must be specified at time of order.

15L Omni Vessel w/ CellTrol II & Digital Overhead Drive Motor

This system features either a single or dual CellTrol II control module without speed capability and a standard overhead drive motor along with a 15L Omni Vessel. In this system the CellTrol II replaces the individual series 500 controllers for pH, DO, temperature and includes pumps on the front panel to replace the support module. The standard overhead drive motor continues to control vessel agitation independent of the CellTrol II. A heating blanket with lower wattage is required (maximum 600W) and a gas blending stand is used to control the introduction of gases to the system.

Stock No	Qty	Description
7804-82224	1	CellTrol II Dual Control Module (Single Systems also available)
1964-88150	2	15L Flat Bottom Omni Vessel
7669-00015	2	Vessel Stand
1964-88510	2	Headplate, 18-port
7774-10115	2	Digital Overhead Drive Motor
7764-71000	2	Large Flange Drive Adapter
1964-73015	2	Marine Impeller Assembly
1964-90080	2	Harvesting Tube, ¼"
1964-91115	2	Harvesting Tube, ½"
1964-89158	2	Air Stone Sparger
1964-50115	2	Heating/Cooling Coil
1964-58260	2	Heating Blanket, 325W
1964-94000	2	Filter Tube
7803-11531	2	Thermowell
7803-11500	2	RTD Sensor w/Cable
7803-21520	2	pH Probe, 12 x 325mm
7803-21550	2	pH Probe Cable, 6'
7803-31555	2	DO Probe, 12 x 320mm
7803-31650	2	DO Probe Cable, 6'
1964-91005	4	Probe Adapter, 1.7"
7803-21570	1	Probe Simulator, pH and DO
7803-special	2	Gas Blending Stand*
7805-special	1	CellSoft Software**

* Support Module/Gas Blending Stand pump rpm's, flow rates and solenoid valve placement must be specified at time of order.

** See page B-8

15L Omni w/ CellTrol II & Digital CellTrol II Interface Overhead Drive Motor

This system features a dual CellTrol II controller (single systems also available) configured with speed. The system also features a Standard Overhead Drive motor (Hi-Torque model also available) that is capable of interfacing with the CellTrol II. Speed in rpm from the overhead drive is displayed on the CellTrol II system overview screen and also on the trending screen of the CellSoft software. This interface also allows the user to set alarm parameters to monitor the rpm. The Standard Overhead Drive controls vessel agitation independent of the CellTrol II.

Stock No	Qty	Description
7805-20400	1	CellTrol II Dual Controller w/Speed Capability
7774-50115	2	Digital CellTrol II Interface Overhead Drive Motor
7805-80000	2	Digital CellTrol II Interface Speed Control Cable
7764-71000	2	Large Flange Drive Adapter
1964-88150	2	15L Flat Bottom Vessel
7669-00015	2	Vessel Stand
1964-88510	2	Headplate, 18-port
1964-73015	2	Marine Impeller
1964-90080	2	Harvesting Tube, ¼"
1964-91115	2	Harvesting Tube, ½"
1964-89158	2	Air Stone Sparger
1964-50115	2	Heating/Cooling Coil
1964-58260	2	Heating Blanket, 325W
1964-94000	2	Filter Tube
7803-11531	2	Thermowell
7803-11500	2	RTD Sensor w/Cable
7803-21520	2	pH Probe, 12 x 325mm
7803-21550	2	pH Probe Cable, 6'
7803-31555	2	DO Probe, 12 x 320mm
7803-31650	2	DO Probe Cable, 6'
1964-91005	4	Probe Adapter, 1.7"
7803-21570	1	Probe Simulator, pH and DO
7803-special	2	Gas Blending Stand*
7805-special	1	CellSoft Software**

* Support Module/Gas Blending Stand pump rpm's, flow rates and solenoid valve placement must be specified at time of order.

** See page B-8

15L Vertical Sidearm Vessel w/Digital Overhead Drive and 500 Series Controllers

This system features a 15L vessel with 6 vertical sidearms in place of an Omni Vessel. The 45mm sidearms replace the 18-port headplate and allow the user to insert probes, tubes, thermowells and spargers for monitoring of vessel contents.

Stock No	Qty	Description
1964-15060	1	15L Vessel w/6 Sidearms
7669-15000	1	Flask Carrier
7774-10115	1	Digital Overhead Drive
7764-70000	1	Standard Drive Adapter
1964-60115	1	SST Folding Impeller
1964-30815	1	3-Port Assembly
1964-94000	1	Filter Assembly w/Acrodisc Filter
1964-45008	1	Sparger
1964-34036	1	Thermowell
7803-11500	1	RTD Sensor w/Cable
7803-11113	1	Temperature Controller
1964-51150	1	Heating Blanket, 750W
1964-50115	1	Heating/Cooling Coil
7803-21113	1	pH Controller
7803-21520	1	pH Probe, 12 x 325mm
7803-21550	1	pH Probe Cable, 6'
7803-31113	1	DO Controller
7803-31555	1	DO Probe, 12 x 320mm
7803-31650	1	DO Probe Cable, 6'
1965-21060	2	12mm Probe Adapter
7803-55112	1	Support Module, 5 rotometer, 3 pump, 3 valve*
7803-60041	1	Power Cord
7803-60042	2	Patch Cord (controller to support module)
7803-21570	1	Probe Simulator, pH and DO

* Support Module/Gas Blending Stand pump rpm's, flow rates and solenoid valve placement must be specified at time of order.

15L Vertical Sidearm Vessel w/CellTrol II & Digital Overhead Drive

This system uses a 15L vertical sidearm vessel with a dual CellTrol II controller to monitor pH, DO and temperature. A digital overhead drive plus a stainless steel folding impeller provide the agitation of vessel contents. Thermowell, sparger and probes are inserted through the 45mm sidearms.

Stock No	Qty	Description
7804-82224	1	Celltrol II Dual Controller
7774-10115	2	Digital Overhead Drive
7764-70000	2	Standard Drive Adapter
1964-15060	2	15L Vessel w/6 Sidearms
7669-15000	2	Flask Carrier
1964-60115	2	SST Folding Impeller
1964-30815	2	3-Port Assembly
1964-94000	2	Filter Assembly w/Acrodisc Filter
1964-34036	2	Thermowell
7803-11500	2	RTD Sensor w/Cable
1964-45008	2	Sparger
1964-58260	2	Heating Blanket, 325W
1964-50115	2	Heating/Cooling Coil
7803-21520	2	pH Probe, 12 x 325mm
7803-21550	2	pH Probe Cable, 6'
7803-31555	2	DO Probe, 12 x 320mm
7803-31650	2	DO Probe Cable, 6'
1964-21070	4	12mm Probe Adapter (2 required)
7803-21570	1	Probe Simulator
7803-special	2	Gas Blending Stand*
7805-special	1	CellSoft Software**

* Support Module/Gas Blending Stand pump rpm's, flow rates and solenoid valve placement must be specified at time of order.

** See page B-8

15L Vertical Sidearm Vessel w/CellTrol II & Digital CellTrol II Interface Overhead Drive

This system uses a 15L vertical sidearm vessel with a dual CellTrol controller (single configured with pH, DO, temperature and speed). The Standard Digital Overhead Drive Motor with stainless steel folding impeller agitates vessel contents. Accessories include a sparger, filter tube, harvesting tubes, pH probe & cable and DO probe & cable. The Support Module features 5 rotometers (see flow rate chart), 3 solenoid valves and 3 pumps. The rotometers can be used to control the flow of gases to the system and the pumps are typically used to facilitate the addition of media, inoculum or substrate.

Stock No	Qty	Description
7805-20400	1	Celltrol II Dual Controller w/Speed
7774-50115	2	Digital CellTrol II Interface Overhead Drive
7764-70000	2	Standard Drive Adapter
7805-80000	2	Digital CellTrol II Interface Speed Cable
1964-15060	2	15L Vessel w/6 Sidearms
7669-15000	2	Flask Carrier
1964-60115	2	SST Folding Impeller
1964-30815	2	3-Port Assembly
1964-94000	2	Filter Assembly w/Acrodisc Filter
1964-45008	2	Sparger
1964-34036	2	Thermowell
7803-11500	2	RTD Sensor w/Cable
1964-58260	2	Heating Blanket, 325W
1964-50115	2	Heating/Cooling Coil
7803-21520	2	pH Probe, 12 x 325mm
7803-21550	2	pH Probe Cable, 6'
7803-31555	2	DO Probe, 12 x 320mm
7803-31650	2	DO Probe Cable, 6'
1965-21070	4	12mm Probe Adapter (2 required)
7803-21570	1	Probe Simulator
7803-special	2	Gas Blending Stand*
7805-special	1	CellSoft Software**

* Support Module/Gas Blending Stand pump rpm's, flow rates and solenoid valve placement must be specified at time of order.

** See page B-8

FiberCell® Hollow Fiber Cell Culture Systems are ideal for the following applications:

- ◆ Monoclonal Antibodies
- ◆ Recombinant Proteins
- ◆ Cell Co-Cultivation
- ◆ Virus Production
- ◆ Endothelial Cell Culture
- ◆ 3D Cell Culture
- ◆ Lymphocyte culture and expansion
- ◆ Malaria culture

FiberCell® Solo™

The FiberCell® Solo™ is designed to support one FiberCell® cartridge of any size up to the 1.2m² size (cat# C2018 and C2003). The Solo™ pump features the proprietary micro-processor controlled positive pressure displacement pumping system generating high cell culture medium flow rates without wear on the pump tubing.

- ◆ Fits inside a standard Bellco CO₂ incubator
- ◆ Takes up as much space as a T225 flask
- ◆ 10 separate flow rates from .5mL/min to 75mL/min
- ◆ Controls shear stress for endothelial cell culture
- ◆ Compact and simple to operate
- ◆ Low voltage power supply to minimize heat generation
- ◆ Full one year warranty

FiberCell® Duet™

The FiberCell® Duet™ pump system is designed to support up to two FiberCell® hollow fiber cell culture cartridges of either the medium (2100cm²) or large (1.2m²) size using independent medium reservoirs and flow rate control. The Duet™ pump utilizes the proprietary positive-pressure displacement pumping system that generates flow rates of up to 105mls/minute without wear on the pump tubing. The ergonomic, space saving design provides areas to accommodate up to a 2 liter medium reservoir bottle.

- ◆ Occupies ½ shelf of a standard Bellco CO₂ incubator
- ◆ Separate medium reservoirs to eliminate cross-contamination
- ◆ Low voltage power supply to minimize heat generation
- ◆ Versatile, can support both medium and large cartridges
- ◆ High flow rate for optimum culture of larger cartridges
- ◆ Full one year warranty

Reservoir Cap Systems, 33mm & 38mm

The FiberCell® reservoir cap is a re-usable, autoclavable cap designed to fit onto a standard 250mL cell culture media bottle. The 33mm cap (cat# A1005) will fit onto standard glass medium bottle and the 38mm cap (cat# A1006) will fit onto standard plastic medium bottles.

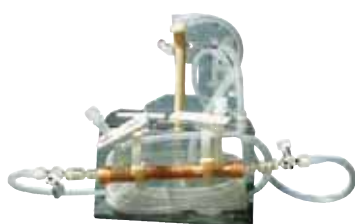
Environmental Chamber

The FiberCell® Environmental Chamber is designed to control the gas composition surrounding the oxygenator coil of the hollow fiber cartridge. One or two Solo pumps or one Duet pump (with accessory base) will fit inside the chamber. Ports are provided for gas sparging and power. The environmental chamber is designed to fit inside a standard CO₂ incubator. This chamber is used for plasmodium culture and any other application that requires modification of the gas composition of the system. Dimensions are:Width 14.4", Height 12", Depth 12"



CARTRIDGE SPECIFICATIONS

Stock No.	Size	Surface Area	Fiber Type	Packing Density	ECS Volume	MCWO 50%	Maximum Cell#
4300-C2025	Small	75cm ²	Activated PS	30%	1.5mL	0.1µm	10 ⁸
4300-C2008	Medium	2100cm ²	low flux PS	50%	15mL	5kd	10 ⁹
4300-C2011	Medium	2100cm ²	high flux PS	50%	15mL	20kd	10 ⁹
4300-C2003	Large	1.2m ²	low flux PS	50%	70mL	5kd	5 x 10 ¹⁰
4300-C2018	Large	1.2m ²	high flux PS	50%	70mL	20kd	5 x 10 ¹⁰
4300-C4005	X-Large	2.5m ²	low flux PS	50%	150mL	5kd	10 ¹¹
4300-C4020	X-Large	2.5m ²	high flux PS	50%	150mL	20kd	10 ¹¹



Suggested Applications For FiberCell® Cartridges

4300-C2025 0.1µm pore size for the highest exchange rates. Activated fiber for attachment of matrix proteins, cytokines and antibodies. Ideal fiber for endothelial cell and hepatocyte culture.

4300-C2008 Low MWCO (5kd @ 50%) hydrophilic fiber for trapping smaller molecules. Suggested for recombinant proteins between 25kd and 100kd. Appropriate for suspension cell lines including CHO, HeLa and 293. Can support up to 10⁹ cells and produce 100µg/mL of recombinant protein in ECS 15mL.

4300-C2011 High MWCO (20kd @ 50%) hydrophilic fiber for trapping larger molecules, hybridoma culture and lymphocyte culture. 20kd MWCO allows TGF beta and TNF alpha to diffuse away while retaining antibody. Can support up to 10⁹ cells and produce 5-50mg of monoclonal antibody every two days. Also used for medium scale adenovirus production at levels of 1-5 x 10¹² pfu (plaque forming units).

4300-C2003 Low MWCO (5kd @ 50%) hydrophilic fiber for trapping smaller molecules. Suggested for recombinant proteins between 20kd - 100kd. Appropriate for suspension cell lines including CHO, HeLa and 293 cells. Can support up to 5 x 10¹⁰ cells and produce 100µg/mL of recombinant protein in 70mL ECS.

4300-C2018 High MWCO (20kd @ 50%) hydrophilic fiber for trapping larger molecules, hybridoma and lymphocyte cultures. 20kd MWCO allows TGF beta and TNF alpha to diffuse away while retaining antibodies. Can support up to 10¹⁰ cells and produce 75-150mg of monoclonal antibody every two days.

4300-C4005 The C4005 cartridge is intended for use in larger hollow fiber cell culture systems from other manufacturers and does not include a flow path stand or oxygenator tubing. Side ports have 3" of tubing capped with luer fittings, end ports are 3/8" hose barbs. High gross filtration rate and polysulfone fiber are superior to cellulose acetate for recombinant protein production.

4300-C4020 The C4020 cartridge is intended for use in larger hollow fiber cell culture systems from other manufacturers and does not include a flow path stand or oxygenator tubing. Side ports have 3" of tubing capped with luer fittings, end ports are 3/8" hose barbs. High gross filtration rate and polysulfone fiber are superior to cellulose acetate for recombinant protein and monoclonal antibody production.

Advantages of Hollow Fiber Cell Culture

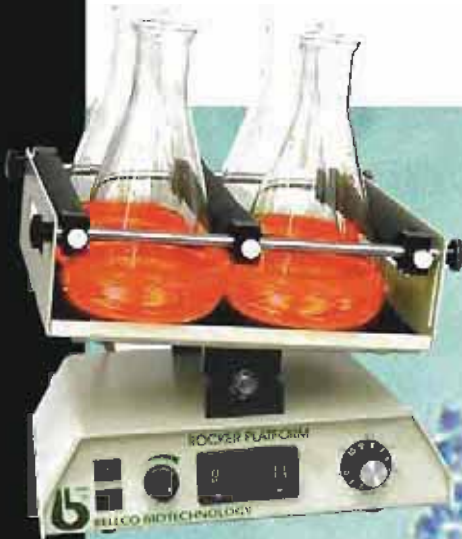
- ◆ Waste and inhibitory factors dialyze away from the cells
- ◆ Conditioning factors are concentrated around the cells reducing serum requirements
- ◆ Large surface area of fibers for cell attachment and nutrient exchange
- ◆ Small harvest volume concentrates antibody and proteins for easy purification
- ◆ High cell density results in rapid and uniform infection kinetics for viruses and other organisms such as plasmodium
- ◆ Endotoxin burden reduced
- ◆ Long term cultures possible (up to 6 months or more)
- ◆ Closed, bio-safe system for potentially hazardous organisms
- ◆ Easily manipulate large numbers of cells in only minutes a day



FiberCell™ Hollow Fiber Bioreactors

Stock No.	Description
4300-C2025	Small Polysulfone Plus Cartridge, 0.1µm
4300-C2008	Med. Polysulfone Cartridge, 5kd MWCO
4300-C2011	Med. Polysulfone Cartridge, 20kd MWCO
4300-C2003	Large Polysulfone Cartridge, 5kd MWCO
4300-C2018	Large Polysulfone Cartridge, 20kd MWCO
4300-C4005	2.5m ² Polysulfone Cartridge, 5kd MWCO
4300-C4020	2.5m ² Polysulfone Cartridge, 20kd MWCO
4300-P3001	FiberCell Solo Pump, 115V
4300-P3201	FiberCell Solo Pump, 230V
4300-P3002	FiberCell Duet Pump, 115V
4300-P3202	FiberCell Duet Pump, 230V
4300-A1001	Environmental Chamber for malaria culture 14.5x12x12" (37x30x30cm)

2-Benchtop & Floor Equipment



Section 2 – Bench Top and Floor Equipment

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100V Japan Only
115V USA & Canada
230V International Use

Standard Roll-In Incubator

- Forced air circulation promotes even temperature distribution in chamber
- Accessory outlets in chamber provide power for supplemental equipment
- Optional over-temperature alarm and temperature recorder modules available
- Left hand opening door (right hand opening door available)
- Special models available with side ports and solid doors
- Accepts all Bellco roller apparatus
- Shelves sold separately

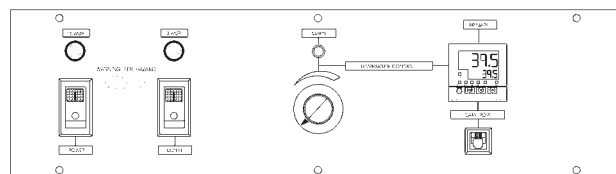


Stock No.	V/Hz/Watts	Description
7728-09100	100/50-60/1500	Door w/ Single Window
7728-09005	115/50-60/1500	Door w/ Single Window
7728-95220	230/50/1500	Door w/ Single Window
7728-59100	100/50-60/1500	Door w/ Double Window
7728-59005	115/50-60/1500	Door w/ Double Window
7728-59522	230/50/1500	Door w/ Double Window

Specifications

Temperature Range	+9°C ambient to 50°C (±2°C)
Temperature Uniformity*	±1.5°C
Exterior Dimensions	41 x 31 x 87" (104 x 78 x 221cm)
Chamber Dimensions	35 x 26 x 76" (89 x 66 x 193cm)
Chamber Capacity	40 cubic feet (1132L)

*tested with fully loaded 10-deck roller apparatus



Mini Roll-In Incubator

- "Flush-to-Floor" design
- Accommodates base + 3 deck roller apparatus
- Optional shelves sold separately
- Left-hand opening door
- 2 Internal outlets



Specifications

Temperature Range	Ambient +9° to 50°C
Temperature Uniformity	±1.5°C
Exterior Dimensions	41 x 31 x 51" (104 x 81 x 130 cm)
Interior Dimensions	35 x 26 x 41" (89 x 66 x 102 cm)
Chamber Capacity	21 cubic ft (595L)
Window	19 x 25" (48 x 63cm)

Stock No.	V/Hz/Watts	Description
7728-06005	100-115/50-60/1500	Mini Roll-In Incubator
7728-65220	230/50/1500	Mini Roll-In Incubator

Optional Accessories

7728-40035 (a)	Stainless Steel Shelf
7728-40050 (b)	UltraVented Heavy Duty Stainless Steel Shelf
7728-80000	Temperature Alarm Module (factory install)
7728-35115	Temperature Chart Recorder, 115V
7728-35230	Temperature Chart Recorder, 230V



Refrigerated Roll-In Incubator

- Ideal for insect cell incubations performed at 27°C
- Microprocessor PID temperature controller
- Accommodates up to 9-deck fixed frame or base + 7 modular Bellco cell production roller apparatus
- Accessory power outlets (4) in chamber provided for supplemental equipment
- Forced air circulation facilitates even temperature distribution
- Control panel w/power switch, convenience outlet, safety thermostat, refrigeration switch, temperature controller
- "Flush to Floor" design allows easy loading of Bellco Roller Apparatus



Specifications

Temperature Range	20°C to 50°C
Temperature Uniformity	± 0.5°C cool and ±1.0°C heat
Exterior Dimensions	41 x 32 x 87" (104 x 81 x 221 cm)
Chamber Dimensions	35 x 26 x 70" (89 x 66 x 178 cm)
Capacity	38 cu. ft. (1075L)
Refrigerant	R134A, non-CFC type

Stock No.	V/Hz/Watts	Description
7728-01100	100/50-60/1500	Single Window Door
7728-51100	100/50-60/1500	Double Window Door
7728-01005	115/50-60/1500	Single Window Door
7728-51005	115/50-60/1500	Double Window Door
7728-01230	230/50/1500	Single Window Door
7728-51230	230/50/1500	Double Window Door

Optional Accessories

7728-40035	Stainless Steel Shelf
7728-40050	UltraVented Heavy Duty Stainless Steel Shelf
7728-80000	Temperature Alarm (factory install)
7728-35115	Temperature Chart Recorder, 115V
7728-35230	Temperature Chart Recorder, 230V

Mini Refrigerated Roll-In Incubator

- Ideal for insect cell incubations performed at 27°C
- Microprocessor PID temperature controller
- 2 internal outlets
- Forced air circulation facilitates even temperature distribution
- Control panel w/power switch, convenience outlet, safety thermostat, refrigeration switch, temperature controller
- Accommodates base and 2 deck modular roller apparatus



Specifications

Temperature Range	20°C to 50°C
Temperature Uniformity	± 0.5°C cool and ±1.0°C heat
Exterior Dimensions	41 x 31 x 51" (104 x 79 x 130cm)
Chamber Dimensions	35 x 26 x 34" (89 x 66 x 87cm)
Capacity	18 cu. ft. (508L)
Window	19 x 25" (48 x 63cm)
Refrigerant	R134A, non-CFC type

Stock No.	V/Hz/Watts	Description
7728-04115	115/50-60/1500	Single Window Door
7728-04230	230/60/1200	Double Window Door

Bench Top Incubator

- Accepts 10 position Bellco Roller Apparatus
- Interior accessory outlet provided
- Optional shelf adjusts on 1/2" centers
- Control panel features safety thermostat, temperature controller, main power



Specifications

Temperature range	Ambient +5° to 50°C
Temperature Uniformity	± 1°C
Exterior Dimensions	36 x 21 x 30" (90 x 54 x 77cm)
Chamber Dimensions	30 x 14 x 20" (75 x 36 x 50cm)
Chamber Capacity	4.9 cubic ft (139L)

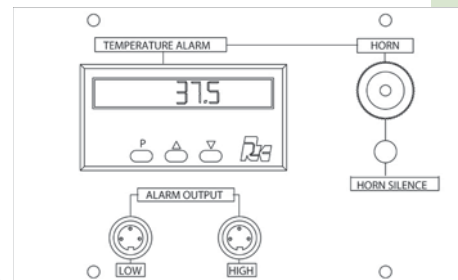


a

Stock No.	V/Hz/Watts	Description
7728-10115 (a)	115/50-60/950	Incubator with Solid Door
7728-10230	230/50/950	Incubator with Solid Door
7728-20115	115/50-60/950	Incubator with Glass Door
7728-20230	230/50/950	Incubator with Glass Door
7728-00047		Optional Shelf Only

Incubator Accessories

Stock No.	Description
7728-80000 (b)	Temperature Alarm Module (factory install)
7728-35115 (c)	Temperature Chart Recorder, 115V
7728-35230	Temperature Chart Recorder, 230V



b



c



See page 26 for Roller Apparatus

Sideports and right hand (R/H) opening doors are available - call for quotation.

1-800-257-7043



Large Capacity CO₂ Roll-In Incubator

- Microprocessor temperature control
- Infrared CO₂ control
- Digital set point and temperature display
- Independent over-temperature protection
- All stainless steel interior and shelves (6 shelves provided)
- 5 1-amp interior electrical outlets (4 back wall, 1 ceiling)
- Accepts all Bellco roller apparatus

Specifications

Temperature Range	Ambient +5° to 70°C
Temperature Sensitivity	+/- 0.1°C
Temperature Uniformity	+/- 0.25° @ 37°C
CO ₂ Range	0-20%
CO ₂ Uniformity	±0.1% @ 5% CO ₂
Chamber Capacity	40 Cubic Feet (1133L)
External Dimensions	41 x 34 x 87" (104 x 86 x 221cm)
Internal Dimensions	35 x 26 x 76.5" (88 x 66 x 194cm)
CO ₂ Recovery Rate	< 5 minutes
Shelf Dimensions	34 x 24" (87 x 61cm)



Stock No

Description (V/Hz/Watts)

7727-00115	115/60/1480
7727-00230	230/50/1700
7727-01000	Replacement Shelf

Accessories

6727-00115	CO ₂ Tank Switch, 115V
6727-00230	CO ₂ Tank Switch, 230V
A512-374	CO ₂ Pressure Regulator

Sideports available as a special order. Contact your Bellco representative for details.
Temperature Alarms/Chart Recorders page E-5

28 cu. Ft. Air Jacketed CO₂ Incubator with IR Sensor

- Accommodates up to 8-deck fixed frame/ base + 6 modular Bellco cell production roller apparatus



Stock No.	V/Hz	Watts
7727-50115	115/60	1100
7727-50230	230/50	1670

Specifications

Uniformity	±0.5°C at 37°C
Temp. Range	ambient + 5°C to 60°C
Capacity	28 cu. ft.
Viewing Window	17x24" (44x61cm)
Interior Dimensions	33x27x64" (84x69x162cm)
Exterior Dimensions	37x36x74" (94x91x188cm)
Interior Outlets	4
Shelves Supplied	6 (max. 14)
CO ₂ Sensor	IR
CO ₂ Range	0 - 20%
CO ₂ Recovery Rate	<3 minutes @ 5%

28 cu. ft. General Purpose Air Jacketed Incubator



Specifications

Uniformity:	± 0.5°C at 37°C
Temperature Range:	Ambient +5°C to 60°C
Capacity:	28 cubic feet/ 793 L
Viewing Window:	24x17" (61x43cm)
Interior Dimensions:	33x27x64" (81x69x162cm)
Exterior Dimensions:	37x36x74" (84x91x188cm)
Interior Outlets:	4
Shelves Supplied:	6 (14 max)

Stock No.	V/Hz/Watts
7727-60115	120/60/1100
7727-60230	230/50/1670

CO2 Benchtop Water Jacketed Incubator

- Triple wall construction
- Safety monitors/alarms
- RS232 serial port/data logger
- LED digital display, temperature, RH, CO₂
- Microprocessor controlled
- 25mm through wall access port
- Thermal conductivity CO₂ sensor
- Large capacity chamber- includes 6 shelves
- Units can be double-stacked (hardware included)



Stock No.	Description
7727-10115	Incubator, 115V
7727-10230	Incubator, 230V
7727-20500	Shelf
7727-20700	Caster Platform

Specifications

Temperature		Dimensions	
Control Range	Ambient +5 to 60°C	Exterior HxDxW	40 x 25 x 26.5" (101 x 64 x 67 cm.)
Stability	+/- 0.1°C @ 37°C	Interior HxDxW	28 x 20 x 20.5" (72 x 51 x 52 cm.)
Microprocessor	YES	Chamber Volume	6.7 cu. Ft. (190 liters)
Setpoint/Setability	Digital /0.1°C	Jacket Volume	18 Gal. (68 Liters)
Alarms- HI/LOW	Audio/Visual	Shelf Dimensions	19.5 x 18.5" (49.5 x 47 cm.)
Uniformity	+/- 0.1°C @ 37°C	Shelves supplied	6
Safety Thermostat	YES	Electrical	
CO ₂ Control		Volts/Hz	115V/60; 230V/50
CO ₂ Sensor	Thermal Conductivity	Watts	700/750
CO ₂ Control range	0-20%	Amps	5.8/3.1
Microprocessor	YES	Fused Inlet	YES
Stability	+/- 0.1%	Relative Humidity	
Setpoint/ Setability	Digital / 0.1%	Display resolution	1.00%
Uniformity	+/- 0.25@ 5%	Display range	Ambient to 99%
Recovery Rate to 5% CO ₂	<5 minutes	Humidification	Evaporation
CO ₂ Alarms- HI/LOW	Audio/Visual	Stainless steel RH Pan	YES

Orbital Shaking Incubator

- Manufactured with cold rolled steel exteriors finished with corrosion resistant powder coat paint
- Adjustable counterweights (6 provided) insure proper orbit stroke control
- Hermetically sealed, double paned window permits non-invasive inspection of samples
- Door interlock switch interrupts shaking when the door is opened
- Independent over-temperature safety
- LED display shows digital temperature and speed (rpm)
- Supplied with shaking platform and 2 stainless steel shelves
- Includes 1 interior outlet



Specifications

Temperature	Standard	Refrigerated
Temperature Range	Ambient +5° to 60°C	5°C to 60°C
Control	PID Microprocessor	PID Microprocessor
Uniformity	±0.5°C @ 37°C	±0.5°C @ 37°C
Accuracy of Controller	0.1°C	0.1°C
Alarms	Visual Safety Light	Visual Safety Light
Motor	Brushless DC	Brushless DC
Refrigerant	-----	R-134, CFC-free
Compressor	-----	1/6hp

Stock No.	Description	#Holders/ Platform
7727-30115	Standard, 115V	
7727-30230	Standard, 230V	
7727-40115	Refrigerated, 115V	
7727-40230	Refrigerated, 230V	
7727-31000	Replacement Shelf	
7727-30025	25mL Flask Holder	64
7727-30050	50mL Flask Holder	48
7727-30125	125mL Flask Holder	24
7727-30250	250mL Flask Holder	18
7727-30500	500mL Flask Holder	9
7727-31100	1000mL Flask Holder	6
7727-32000	2000mL Flask Holder	4
7727-34000	4000mL Flask Holder	4
7727-36000	6000mL Flask Holder	2
7727-32800	2.8L Fernbach Holder	2

Capacity

Volume	164L (5.8 cu. Ft)
Max. Sample Weight	12 kg (25 lb.)

Dimensions

Interior (WxDxH)	48 x 51 x 66cm (19"x 20"x 26")
Exterior (WxDxH)	58 x 69 x 105cm (23" x 27" x 42")
Viewing Window	37.5 x 48.9cm (14.75" x 19.25")
Platform	44 x 44cm (17.25"x 17.25")

Shaking Mechanism

Speed Range	40 to 400 RPM, ± 1 rpm
Speed Control	PID digital
Orbit Motion	(adjustable) 12mm/ 19mm/ 25mm
Maximum sample weight	10kg. (22 lbs.)
Counterbalance	(adjustable) Removable Counterweights (6 supplied)

Electrical

Voltage, Frequency	115V/60; 230V/50
Watts Std. (Refrig.)	700 (1100)
Amps Std. (Refrig.)	3.2 (9.2)

Benchtop Shaking Incubator

- Digital readout and alarms for temperature, rpm and timer functions
- Transparent hood, SST interior
- Supplied with a shaking platform, power cord and leveling feet



Stock No.	Description
7727-32115	Benchtop Shaking Incubator, 115V
7727-32230	Benchtop Shaking Incubator, 230V



Specifications

Temperature Range/Uniformity/Accuracy	Ambient +5° C to 60°C/ ± 0.5°C (at 37°C)/ ± 0.1°C
Shaking Capacity	8kg/18lbs.
Shaking Speed	40-400 rpm ± 1rpm
Alarm Functions	Temperature ± 0.5°C; speed ± 1rpm
Stoke Length	1.9cm (fixed)/ 0.75"

Dimensions

Exterior HxDxW	21x 24 x 27" (54 x 60 x 69cm)
Interior HxDxW	19 x 20 x 17" (48 x 50 x 44cm)
Platform HxDxW	17 x 17" (44 x 44cm)
Chamber Capacity	4.0 cu. Ft. (113L)

Electrical

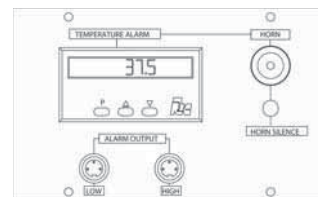
Watts/Amps 120V/ 230V	500/4.2; 500/2.3
Cycle/Phase	50-60 Hz/Single

Flask Size (mL)	25	50	125	250	500	1000	2000	4000	6000
Platform Capacity	64	48	24	18	9	6	4	4	2
See page E-8 for Flask Holders									



Roll-In Incubator Accessories

Stock No.	V/Hz	Description
7728-35115	115/60	Temperature Chart Recorder
7728-35230	230/50	Temperature Chart Recorder
7728-80000		Temperature Alarm Module (factory install)



Air Supply Pump

- Supplies filtered air to CO₂ Incubators @ 4.3 LPM
- Operates on 115 volt/ 60 Hz power supply
- Supplied with tubing
- Pressure rating 3.8PSI



Stock No.	Dimensions
7725-00120	5½ x 4¼"

Fyrite® CO₂ Indicator

- Determines CO₂ concentration from 0-20%
- Readings are unaffected by the presence of most sample background gases
- Furnished with specially designed aspirator assembly and carrying case



Stock No.	Description
7725-05000	Fyrite CO ₂ Indicator
7725-05052	Fyrite CO ₂ Repair Kit*
7725-05057	Fyrite Indicator Replacement Fluid (2 oz.)

* Fyrite CO₂ Repair Kit includes gasket, diaphragm and fluid refill

CO₂ Tank Switch

- Provides automatic switching from main tank to auxiliary tank
- Rear panel hose barbs for gas connection
- Measures 9"x5"x7" and mounts on top of any standard CO₂ incubator
- Alarm will sound when tank pressure (either tank) drops below 5 psi
- Manual switching done via the button labeled TANK SWITCH

Warning: The pressure from the CO₂ tank to the tank switch must not exceed 50 psi.



Stock No.	Description
6727-00115	Tank Switch, 115V/60Hz
6727-00230	Tank Switch, 230V/50Hz

Millennium 2000 Microplate Shaker Incubator

- Easy access to all standard 96 or 384-well plates
- Uniform heating via air circulation
- Open construction for easy integration with robotic systems
- Optimal temperature uniformity across all plates
- Maximum 4 plates
- Can be pre-configured for deepwell microplates

Stock No.	Description
7742-10115	Millennium 2000 Shaking Incubator

Specifications

Operating Voltage/Hz	100-240Vac 50/60Hz
Remote power supply	14V/ 5.4A
Heater power	100W
Temperature Range	Ambient +5°C to 45° in 1°C increments
Temperature Uniformity	±1°C (between plates)
Readout precision	±1°C
Operational conditions	12°C to 30°C
Adjustable timer	1-999 minutes in 1minute increments
Orbit	1.5mm
Speed Range	500-1300 in 10rpm increments
Dimensions WxDxH	8 x 20.5 x 8.5" (20 x 52 x 22cm)



Enviro-Genie®

- 6-in-1 Refrigerator/ Incubator/ Rotator/ Rocker/ Stirrer/ Shaker
- Designed to provide precise temperature control and uniformity
- Programmable up to 96 hours
- Visible/audible alarms for temperature and time
- RS232 port for data acquisition

The **Enviro-Genie** is supplied with the following accessories:

- 1 each two-sided magnetic platform
- 1 clip plate each for 10-13mm, 15-17mm and 28-30mm dia. tubes
- 4 each magnetic stainless steel mounting strips
- 1 each non-skid metal rocker tray 8" x 12"
- 2 each high-speed/ low-speed magnetic stirrers
- 1 each wire rack



Specifications

Chamber Dimensions DxWxH	10 x 14¼ x 10¼" (25.4 x 36.2 x 26cm)
Overall Dimensions DxWxH	19½ x 24½ x 14½" (49.5 x 62.2 x 36.8cm)
Chamber Volume	24L
Platform Capacity	10lb (4.5kg)
Temperature Range/Accuracy	4°C to 75°C/± 0.2°C
Temperature Uniformity	± 0.5°C
Temperature Resolution/Stability	0.1°C
Stirring Speed	1-2000rpm including reverse
Rotating/Rocking Speed	1-35rpm/2-70 cpm
Refrigeration/Heating	Peltier (no compressor)

Stock No.	Description
7726-00115	115V/60Hz/ 5A
7726-00230	230V/50Hz/2.5A

Biological Containment Hoods

- Seamless exterior with chemical resistant finish
- Recessed face shield with large view screen
- Large work volume with coved SST interior liner and UV light
- Easily accessible control panel; duplex internal electrical outlet
- Modular base support stand with integral foot rest



Specifications

Clean Level:	Class II Type A/B3 Biological Safety Hood
ULPA Filter:	Exhaust and supply HEPA filters rated 99.99% efficient at 0.3μ
Control Panel:	Touchpad with dual processor controls, low voltage stabilization circuitry and calibrated linear static pressure display (LEDs). The B3 unit has an additional electronic system which monitors static pressure in the exhaust ductwork.
Noise Level:	<62.5db

Stock No.	Description	Ext. Dims.	Int. Dims.
8700-40000	4' Class II, Type A	52 x 29 x 83"	27 x 48 x 27"
8700-60000	6' Class II, Type A	76 x 29 x 83"	27 x 72 x 27"
8700-40100	4' Class II, Type B3	52 x 29 x 83"	27 x 48 x 27"
8700-60100	6' Class II, Type B3	76 x 29 x 83"	27 x 72 x 27"

Clean-Ceil Laminar Flow Work Stations

- HEPA filter system is 99.99% efficient for 0.3micron particles
- Vertical model includes aluminum frame, clear side panels & white back panel
- Horizontal model includes aluminum frame, clear side and top panels
- Optional Accessories: SST or PP work surfaces; fluorescent light fixture; minihelic gauge; air, gas & vacuum turrets; duplex outlets; painted steel base frame



Stock No.	Description	Ext. Dims	Int. Dims
8500-40001	Vertical Laminar Flow	48 x 24 x 44"	46 x 23 x 29"
8500-40002	Horizontal Laminar Flow	48 x 37 x 30"	46 x 21 x 22"

Specifications

Clean Level	Better than Class 100 (Federal Standard 209); Class 10 with ULPA filter
Air Velocity	90 ± 20ft/min. (27.5 ± 6m/min) measures 6" from filter face
HEPA Filter	99.99% min. efficiency as determined by DOP aerosol challenge
ULPA Filter	Optional filter 99.9995% as measured by laser scan at 0.12 microns*
Pre-filter	Washable type rated 40% efficient (ASHRAE STD 52-68)
Wiring	Standard voltage 115V 60Hz (optional 220V, 50Hz)
Lighting	75 foot candles at work surface
Noise Level	Vertical work stations <62.5db; Horizontal work stations <64.5db (A scale per IES-RP-CC-002-86)
Vibration Level	<100 microinches rms. (per IES-RP-CC-002086)
Certification	All units factory lead checked and certified using photometer/aerosol
Electrical	Certified to CSA, OSHA and City of Los Angeles standards; 115V, 60Hz, 1.9A

*Recommended for Class 10 operation

PIPET-AID® Hood Mate™ 300

- Coiled vacuum/pressure line prevents interference with other items inside the hood
- Delivers precise volumes with exact control
- Supplied with mounting bracket for easy installation.



Stock No.	Description
1225-80300	Hood Mate 300 Pipettor, 115V

Mega Autoblot® Hybridization Oven

- Rotisserie accepts 24 short or 12 long, 35mm I.D. bottles
- Includes 35mm rotisserie and 1 case 7910-02026 large mesh
- Choice of 2 free cases of 35mm bottles
- Microprocessor controlled digital temperature display



Stock No.	V/Hz/Watts
7910-00110	115/50-60/600
7910-00220	230/50/600
7910-11111	Shelf Only, SST, 14 x 15" (35 x 39cm)



Specifications	
Temperature Range	Ambient +5°C to 99°C
Temperature Uniformity	± 0.5°C
Rotation Speed	7.5 RPM
Exterior Dimensions	18 x 27 x 21" (46 x 69 x 53cm)
Interior Dimensions	14 x 16 x 16" (35 x 40 x 40cm)
Interior Capacity	2 cu. ft.

70 mm Rotisserie for Mega Hybridization Oven

Holds eight 70mm I.D. hybridization bottles (sold separately)
 Manufactured from stainless steel
 Shipping Weight: 6 lbs.



Stock No.	Description	Case Qty
7910-70100	70mm Rotisserie	1
7910-70300	70mm Bottles	2



Mini Autoblots® Hybridization Oven

- Programmable temperature controller for optimal performance
- Variable rotisserie speed: 0 to 80 RPM
- 4-Position Rotisserie accepts 8 short or 4 long, 35mm ID bottles
- 6-Position Rotisserie accepts 12 short or 6 long, 35mm ID bottles
- Includes 1 case 7910-02026 large mesh
- Choice of 1 free case of 35mm bottles



Stock No.	V/Hz/Watts	Description
7930-10110	115/50-60/600	Oven with 6-Pos. Rotisserie
7930-10220	230/50/600	Oven with 6-Pos. Rotisserie
7930-11115	115/50-60/600	Oven Only w/o Rotisserie
7930-11230	230/50/600	Oven Only w/o Rotisserie
7930-20100	~~~~	Rotisserie Only, 4 Position
7930-30100	~~~~	Rotisserie Only, 6 Position

Specifications

Exterior Dimensions	14 x 17 x 13" (35 x 42 x 32cm)
Interior Dimensions	7 x 15 x 8" (18 x 37 x 20cm)
Interior Capacity	0.5 cubic ft.
Temperature Range	Ambient +5°C to 99°C
Variation	±0.5°C

Micro Autoblots® Hybridization Oven

- Fixed rotation speed: approx. 7.5 RPM
- 4-Position Rotisserie accepts 8 short or 4 long, 35mm ID bottles
- 6-Position Rotisserie accepts 12 short or 6 long, 35mm ID bottles
- Includes 1 case 7910-02026 large mesh
- Choice of 1 free case of 35mm bottles



Stock No.	V/Hz/Watts	Description
7930-00100	100/50-60/600	Oven with 4-Pos. Rotisserie
7930-00110	115/50-60/600	Oven with 4-Pos. Rotisserie
7930-00220	230/50/600	Oven with 4-Pos. Rotisserie
7930-01115	115/50-60/600	Oven w/o Rotisserie
7930-01230	230/50/600	Oven w/o Rotisserie
7930-20100	~~~~	Rotisserie Only, 4 Position
7930-30100	~~~~	Rotisserie Only, 6 Position

Specifications

Exterior Dimensions	14 x 17 x 13" (35 x 42 x 32cm)
Interior Dimensions	7 x 15 x 8" (18 x 37 x 20cm)
Interior Capacity	0.5 cubic ft.
Temperature Range	Ambient +5°C to 99°C
Variation	±0.5°C

Autoblot® Hybridization Bottles

- Manufactured from medium wall Borosilicate glass Type 1, Class A
- Designed for all blotting procedures for DNA/RNA

Stock No.	ID x OAL (mm)	Graduated Volume (mL)	Case Qty
7910-35300	35 x 300	200	2
7910-35225	35 x 225	120	2
7910-35150	35 x 150	50	2
7910-35010	35 x 100		2
7910-40150	40 x 150*		2
7910-70300	70 x 300**	700	2
5637-90045	Replacement Cap, 45mm, Red PBT		10
A12-418	Replacement Cap, 70mm, Blue PP		
A523-205	Replacement Liner, 70mm		

*Wide neck opening to fit 50ml plastic centrifuge tubes 4502-series.

**For use with 70mm rotisserie in the Mega Hybridization ovens only



Optional Rocker Platform for Hybridization Ovens

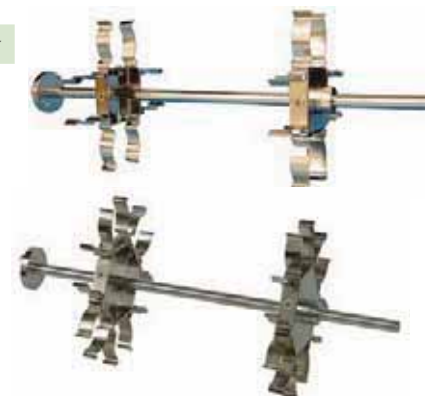
- Stainless steel rocker platform fits Bellco Micro and Mini Ovens
- Platform has three settings at 2.5° to 6° from horizontal
- Adapts to existing rotisserie hardware

Stock No.	Dimensions
7930-50100	29 x 16cm (11.5 x 6.5")



Autoblot® Hybridization Oven Accessories

Stock No.	Description	Size	Case Qty
7930-20100	4 Position Rotisserie (Mini and Micro Only)		1
7930-30100	6 Position Rotisserie (Mini and Micro Only)		1
7910-02026	Large Nylon Mesh	23 x 23cm	5
7910-02024	Large Nylon Mesh	23 x 23cm	20
7910-15005	Small Nylon Mesh	15 x 10cm	5
7910-15010	Small Nylon Mesh	15 x 10cm	20





Digital and Process Overhead Drives

- Speed range: 5 – 150rpm
- 24V Brushless motor for low maintenance
- RS485 data port & motion alarm (process control)
- Reverse direction switch
- Easy mounting bracket with ‘peg & grommet’ design
- Standard models: 19 in/lb torque, 30w
- Hi-torque models: 31 in/lb torque, 50w
- CT II models interface with CellTrol II (page B-6)



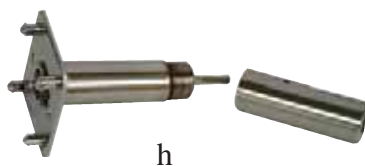
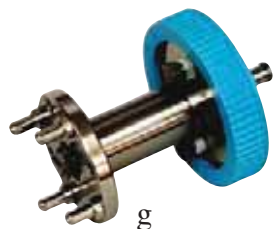
Stock No.	Description (V/Hz/Watts)	Dimensions*
7774-10115 (a)	Digital, 100-115/50-60/15	5x5x8"
7774-10230	Digital, 230/50/15	5x5x8"
7774-20115 (b)	Process, 100-115/50-60/15	5x5x8"
7774-20230	Process, 230/50/15	5x5x8"
7764-70000	Standard Drive Adapter	
7764-71000	Large Flange Drive Adapter	
7774-30115 (c)	Hi-Torque, Digital, 100-115/50-60/15	6x7x10"
7774-30230	Hi-Torque, Digital, 230/50/15	6x7x10"
7774-40115 (d)	Hi-Torque, Process, 100-115/50-60/15	6x7x10"
7774-40230	Hi-Torque, Process, 230/50/15	6x7x10"
7764-74000	Hi-Torque Drive Adapter	
7774-50115 (e)	Digital OHD/CTII Interface, 100-115/50-60/15	5x7x8"
7774-60115	Digital Hi-Torque OHD/CTII Interface, 100-115/50-60/15	5x7x8"
7803-80000	Speed Cable CTII Interface	
9700-10115 (f)	Inline Power Supply, 115V	
9700-10230	Inline Power Supply, 230V	

*dimensions include handle

Overhead Drive Adapters

- Adapt overhead drive motors to PTFE or SST folding impellers
- 316L stainless steel with Polyester/SST bearings
- Two 1/4" NPT plugged ports for optional accessories (7764-70000 only)

Stock No.	Description
7764-70000 (g)	Std. OHD Adapter for 100mm Vessels
7764-71000 (h)	Heavy Duty Drive Adapter for Large Flange Vessels
7764-74000 (i)	Hi-Torque Drive Adapter



pH Meter/Autocalibrators

pHAC I

- Automatically dispenses buffers and rinse water to obtain reproducible pH calibrations
- Significantly reduces the damage to electrodes caused by the manual calibration process
- Includes large storage bottles for buffer and rinse water
- Safety features provide overflow protection, low voltage and auto shutoff



pHAC II

- Built in autocalibration capability
- Measures pH, millivolt potential and temperature
- Meter features automatic buffer recognition and rapid stability
- Communication protocols enable downloading and printing
- Compensates for temperature in °C or °F

Stock No.	Description	Voltage/Hz
7780-10100	pHAC I Autocalibrator	100-240V, 50/60Hz
7780-20100	pHAC II pH Meter/Autocalibrator	100-240V, 50/60Hz
7780-30100	pH Electrode, 5 Pin, Gel-filled, Platinum	

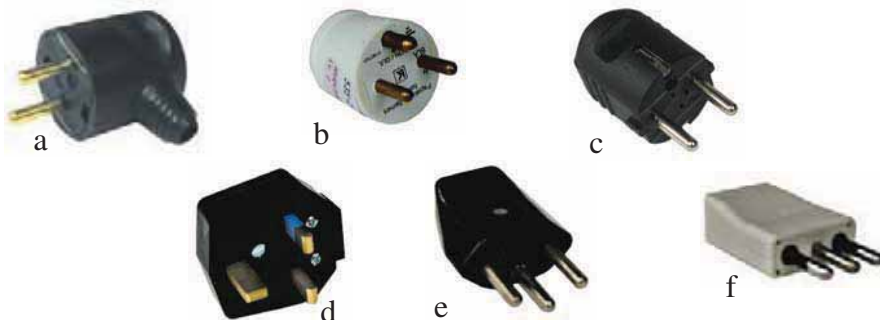
Specifications

Range	pH: -2.000 to 19.999 mV: ±2000 mV Temperature: -10.0 to 110.0°C (-50 to 230°F)
Resolution	pH 0.1; 0.01; 0.001 (selectable) mV: 0.1 Temperature: 0.1°C
Accuracy	pH: ±0.002 mV: ±0.2 or ±0.05% (whichever is greater) Temperature: 1.0°C
Calibration	2 point (4/7 or 7/10) and 3 point (4/7/10)
Outputs	One-way RS-232
Inputs	(1) BNC; (1) 5-pin connector (1) 2mm single reference adapter
Power	Line power from 110 VAC to 220 VAC line power adapter
Impedance Buffer	>10 ¹² Ohms
Dimensions	15" H x 18" D x 8.5" W (38 x 46 x 21cm)



Plugs, International, 230V

The following plugs are now available from Bellco Glass, Inc. for assembly onto our line of International laboratory equipment. Please note that the individual plug(s) for each country must be ordered as separate line items along with the equipment item **and will be assembled prior to shipment unless otherwise specified on the purchase order.**



Part No.	Description
A500-697 (a)	France/Belgium
A500-698 (b)	Denmark
A500-699 (c)	Standard European
A500-700 (d)	United Kingdom
A500-701 (e)	Switzerland
A500-702 (f)	Italy

Preventive Maintenance Kits

The following Preventive Maintenance Kits are available for Bellco equipment items as listed below. Each Kit includes an illustrated list for easy identification of parts.

PREVENTIVE MAINTENANCE KITS



Stock No#	Preventive Maintenance Kit for:	For Serial(s) #:
9005-10000	7740-10000 Rocker Base, 115V	SBRB/LBRB/ UCRB
9005-20000	7740-20000 Rocker Base, 230V	SBRB2/LBRB2/ UCRB2
9005-01000	7744-01000 Orbital Shaker, 115V	SHSJD/ SHLJD/ UCSB
9005-02000	7744-02000 Orbital Shaker, 230V	SHSJD2/ SHLJD2/ UCSB2
9005-08115	7744-08115 Mini Orbital Shaker, 115V	MOSJD/ UCMSB
9005-08230	7744-08230 Mini Orbital Shaker, 230V	UCMSB2
9005-10164	7736-10164 Roller Drum, 115V	3RDBB
9005-10220	7736-10220 Roller Drum, 230V	3RDBB2
9005-22110	7746-22110 Hot Shaker Plus, 115V	HSPW
9005-22220	7746-22220 Hot Shaker Plus, 230V	HSPW2
9005-32110	7746-32110 Dual Pan Hot Shaker, 115V	DPHS
9005-32220	7746-32220 Dual Pan Hot Shaker, 230V	DPHS2
9005-70000	7764-70000 OHD Cap Adapter	
9005-71000	7764-71000 L/F Heavy Duty Drive Adapter	
9005-72000	7764-72000 High Speed Adapter	
9005-73000	7764-73000 Spindle Assembly, Drive Stem, CellTrol	
9005-74000	7764-74000 High Torque Drive Adapter	

9005-10000 Contains:

Part#	Description	Qty.
A432-12	Circuit Board Fuse	5
A500-234	Main Fuse	5
A500-486	Motor Brushes/Springs	6
A502-10	Bearing	8
A502-103	Drive Linkage	1
A500-317	Grommet	8
A500-499A	Fuse Holder	2
A500-44	Fuse Holder	1

9005-20000 Contains:

Part#	Description	Qty.
A432-16	Circuit Board Fuse	5
A432-17	Main Fuse	5
A432-3	Main Fuse	5
A500-486	Motor Brushes/Springs	6
A502-10	Bearing	8
A502-103	Drive Linkage	1
A500-317	Grommet	8
A500-499B	Fuse Holder	4
A500-44	Fuse Holder	1



9005-01000 Contains:

Part#	Description	Qty.
A432-12	Circuit Board Fuse	5
A500-234	Main Fuse	5
A500-486	Motor Brushes/Springs	6
A500-176	Drive Belt	4
A500-317	Grommet	8
A500-499A	Fuse Holder	2
A500-44	Fuse Holder	1

9005-02000 Contains:

Part#	Description	Qty.
A432-16	Circuit Board Fuse	5
A432-17	Main Fuse	5
A432-3	Main Fuse	5
A500-486	Motor Brushes/Springs	6
A500-176	Drive Belt	4
A500-317	Grommet	8
A500-499B	Fuse Holder	4
A500-44	Fuse Holder	1





9005-08115 Contains:

Part#	Description	Qty.
A432-12	Circuit Board Fuse	5
A500-234	Main Fuse	5
A500-486	Motor Brushes/Springs	6
A500-176	Drive Belt	2
A500-448	Timing Belt	2
A500-317	Grommet	8
A500-499A	Fuse Holder	2
A500-44	Fuse Holder	1

9005-08230 Contains:

Part#	Description	Qty.
A432-16	Circuit Board Fuse	5
A432-17	Main Fuse	5
A432-3	Main Fuse	5
A500-486	Motor Brushes/Springs	6
A500-176	Drive Belt	2
A500-448	Timing Belt	2
A500-317	Grommet	8
A500-499B	Fuse Holder	4
A500-44	Fuse Holder	4

9005-10164 Contains:

Part#	Description	Qty.
A432-12	Circuit Board Fuse	5
A500-234	Main Fuse	5
A500-486	Motor Brushes/Springs	6
A507-188	Timing Belt	2
A500-44	Fuse Holder	1

9005-10220 Contains:

Part#	Description	Qty.
A432-16	Circuit Board Fuse	5
A432-17	Main Fuse	5
A432-3	Main Fuse	5
A500-486	Motor Brushes/Springs	6
A507-188	Timing Belt	2
A500-317	Grommet	8
A500-499B	Fuse Holder	4
A500-44	Fuse Holder	1



9005-22110 Contains:

Part#	Description	Qty.
A432-12	Circuit Board Fuse	5
A432-7	Main Fuse	5
A500-486	Motor Brushes/Springs	6
A500-291	Timing Belt	1
A500-317	Grommet	8
A500-499A	Fuse Holder	2
A500-44	Fuse Holder	1

9005-22220 Contains:

Part#	Description	Qty.
A432-16	Circuit Board Fuse	5
A432-19	Main Fuse	5
A432-6	Main Fuse	5
A500-486	Motor Brushes/Springs	6
A500-291	Timing Belt	1
A500-317	Grommet	8
A500-499B	Fuse Holder	4
A500-44	Fuse Holder	1

9005-32110 Contains:

Part#	Description	Qty.
A432-12	Circuit Board Fuse	5
A432-7	Main Fuse	5
A432-6	Main Fuse	7
A500-486	Motor Brushes/Springs	6
A500-291	Timing Belt	1
A500-317	Grommet	8
A500-499A	Fuse Holder	4
A500-44	Fuse Holder	2

9005-32220 Contains:

Part#	Description	Qty.
A432-16	Circuit Board Fuse	5
A432-19	Main Fuse	5
A432-5	Main Fuse	7
A500-486	Motor Brushes/Springs	6
A500-291	Timing Belt	1
A500-317	Grommet	8
A500-499B	Fuse Holder	4
A500-44	Fuse Holder	2



9005-70000 Contains:

Part#	Description	Qty.
A542-60	Stem Seal O-ring	1
A542-362	Shaft Seal	2
A542-356	Polyester Ball Bearing	2
A542-194	Internal Snap Ring	2
5555-25H	Drive Shaft Grip Ring	1
A528-378	Shaft O-ring	2



9005-71000 Contains:

Part#	Description	Qty.
A542-60	Stem Seal O-ring	1
A542-362	Shaft Seal	2
A542-356	Polyester Ball Bearing	2
A542-194	Internal Snap Ring	2
5555-25H	Drive Shaft Grip Ring	1
A542-378	Shaft O-ring	2

9005-72000 Contains:

Part#	Description	Qty.
A542-395	O-ring	1
A542-458	Lip Seal	2
A542-440	Bearing Retaining Ring	2
A542-441	Plastic Ball Bearing	2



9005-73000 Contains:

Part#	Description	Qty.
A542-473	Shaft Seal	2
A542-474	Polyester Ball Bearing	2
A542-536	Snap Ring	2

9005-74000 Contains:

Part#	Description	Qty.
A542-363	Shaft Seal	2
A542-357	Polyester Ball Bearing	2
A542-346	Bearing Gasket	2
A542-60	Stem Seal O-ring	1
A542-447	Bearing Spacer	1
A542-290	Snap Ring	2
A542-315	Shaft O-ring	2



Refrigerators



a



b

Specifications	Standard Model	Stainless Model
0 to 10°C, preset at 4°C	✓	✓
Digital display	✓	✓
Temperature micro-controller with high & low alarms	✓	✓
Surge protection circuitry	✓	✓
Temperature memory with reset	✓	✓
CFC-free refrigerant, insulation and packaging	✓	✓
Automatic defrost with condensate evaporator	✓	✓
Safety shielded interior lights	✓	✓
Coated wire shelves	✓	✓
Energy efficient tempered glass doors	✓	-
300 series stainless steel interior/exterior	-	✓
Self-closing doors	✓	✓
Keyed door locks	-	✓
4" swivel casters	-	✓



c

Model	Cu.Ft.	Shelves	Int. Dims WxDxH	Ext. Dims WxDxH	HP	Amps
49 Std (a)	49	6	50x25x56"	54x30x79"	½	9
22 Std (b)	22	3	22x24x56"	27x30x79"	1/3	8
49 SS (c)	49	8	50x25x56"	54x30x79"	½	10
23 SS (d)	23	4	26x24x56"	29x31x80"	1/3	8



d

Stock No	Description (V/Hz)
7729-10149	49 cu. Ft. Standard Double Glass Door Refrigerator, 115/60
7729-10122	22 cu. Ft. Standard Single Glass Door Refrigerator, 115/60
7729-20149	49 cu. Ft. Stainless Steel Double Door Refrigerator, 115/60
7729-20123	23 cu. Ft. Stainless Steel Single Door Refrigerator, 115/60
Options	
7729-50200	Additional shelf
7729-50002	Casters, set of 4



Tray sold separately, page E-23

Digital Rocker Platform

- 24V brushless low maintenance DC motor and speed controller
- Digital display 0.55" LED readout
- Range of rotation: 0-12°
- Locking speed knob
- Peg & grommet tray attachment accepts all Bellco standard trays
- Adjustable angle of pitch: maximum 15°
- 0-30 oscillations/minute
- Timer (3 - 120 mins.) or continuous rocking action
- Dimensions: 12x15x6" (WxDxH)
- Maximum load: 20lbs (9kg)

Stock No.	Description	V/Hz/Watts
7743-10115	Digital Rocker, Base only	115/50-60/15
7743-10230	Digital Rocker, Base only	230/50/15
7743-12012	12 x 12" Flask Locking Tray, 3 dividers	
7743-12020	12 x 20" Flask Locking Tray, 5 dividers	
7743-20020	20 x 20" Flask Locking Tray, 5 dividers	



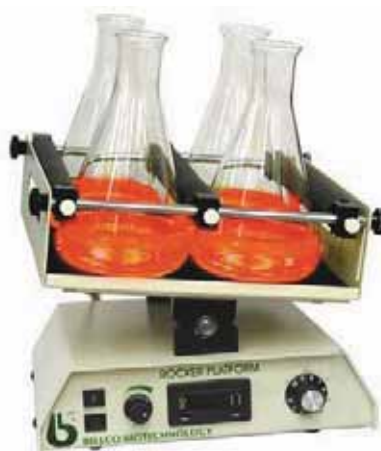
Tray Configurations (for Bellco Fernbach shake flasks)

Flask (mL)	12x12"	12x20"	20x20"
1800	-	2	4
2800	-	2	4



Tray Configurations (Bellco Erlenmeyer shake flasks)

Flask (mL)	12x12"	12x20"	20x20"
125	16	24	36
250	9	15	25
300	9	15	25
500	4	8	16
1000	4	6	9
2000	2	3	9



Standard Rocker Platform

- Perfect for electrophoresis gel staining/de-staining & microplate assay
- Speed range from 0-12 oscillations per minute
- "Peg and Grommet" design permits rapid platform changing
- Maximum load: 20lb (9Kg)
- Platform tilt: 7°



Stock No.	Description	Tray Size cm (in.)	V/Hz/Watts
7740-10100	Base/Tray	25x25 (10x10)	100/50-60/20
7740-10010*	Base/Tray	25x25 (10x10)	115/50-60/20
7740-10220	Base/Tray	25x25 (10x10)	230/50/20
7740-20200	Base/Tray	51x51 (20x20)	100/50-60/20
7740-20020*	Base/Tray	51x51 (20x20)	115/50-60/20
7740-20220	Base/Tray	51x51 (20x20)	230/50/20
7740-01000	Base Only	13x28x28 (5x11x11)	100/50-60/20
7740-10000*	Base Only	13x28x28 (5x11x11)	115/50-60/20
7740-20000	Base Only	13x28x28 (5x11x11)	230/50/20

*CSA certified model



12 Volt Rocker Platform

- Low speed rocking motion provides even mixing
- 0 to 15 oscillations per minute
- Variable speed DC motor with solid state circuitry
- Maximum load: 20 lbs

Stock No.	V/Hz/Watts	W x D x H
7777-20110	12-115/50-60/10	11x10x5.5" (26x26x16cm)
7777-20220	12-230/50/10	11x10x5.5" (26x26x16cm)

Accessory Rocker/Shaker Platform Trays

- Trays fit 7740 and 7743 series Rocker & 7777 series 12V Rocker
- "Peg and Grommet" design permits rapid platform changing



Stock No.	Description
7740-01010	25 x 25cm platform/liner
7740-01014	25 x 35cm platform/liner
7740-01212	30 x 30cm platform/liner
7740-02020	51 x 51cm platform/liner
A502-191	Replacement Liner, 25x25cm
A528-484	Replacement Liner, 25x35cm
A502-193	Replacement Liner, 30x30cm
A502-192	Replacement Liner, 51x51cm

Optional Stackable Platform Trays

- Includes spacers for 2-tiered platform configuration
- Not recommended for Shakers.

Stock No.	Description
7740-00010 (a)	25 x 25 cm platform w/posts (for stacking on 25 x 25cm tray)
7740-00020 (b)	51 x 51 cm platform w/posts (for stacking on 51 x 51 cm tray)
7740-00030 (c)	Three Tier Tray (28 x 18 x 13cm)for 7740 & 7743 series Rockers 2" clearance between trays



Belco Dancer™ Orbital Rocker

- Unique combination of vertical and horizontal orbital motion
- Promotes rapid exchange of solvents in gel techniques
- Durable construction – no belts or pulleys
- Ideal for gel staining and de-staining and Northern, Southern & Western blots
- Permanent magnet DC motor for long life

Stock No.	Power V/Hz
7745-00115	115/60
7745-00230	230/50

Specifications

Speed Range	0-125rpm
Dimensions	Base 15" x 15" (40 x 40 cm) Platform 12" x 12" (30 x 30 cm)
Adjustable Pitch	0-12°
Temperature range	0° to 40°C
Maximum load	20 lbs.



MicroDancer™ Micro Orbital Rocker

- Provides optimal mixing action with 96- 384- or 1536-well microplates
- Permanent magnet AC motor for dependable performance and quiet operation
- Platform holds 2 plates or 2 T-25 flasks
- Gentle agitation for gel and blotting techniques
- 5-minute timer or continuous operation

Specifications

Dimensions	Base: 6x7x7" (15x18x18cm); Platform: 5x7" (13x18cm)
Speed Range	0 - 20 Oscillations per minute
Pitch	9°
Maximum Load	2 lbs.



Stock No.	Voltage/Hz
7740-60115	115V/60
7740-60230	230V/50

Belly Button™ Orbital Rocker

- Designed for use in molecular and cell biology research laboratories
- Ideal for staining and de-staining of gels, incubation and washing of protein and nucleic acid membrane blots
- Retroviral infection, amplification for DNA libraries and mixing of small tubes and blood samples

Stock No	Power V/Hz
7745-20115	115/60
7745-20230	230/50

Specifications

Dimensions	Base: 8x8x4¾" (20x20x12cm) Platform 7x7" (18x18cm)
Speed Range	0-60rpm
Maximum Load	5 lbs.
Pitch	8°
Temperature range	0 - 60°C



Programmable Top Drive Roller Apparatus; 53 and 86 position

- 24V Brushless motor & controller for smooth operation and easy maintenance
- Programmable Omron controller
- Alarm jack and RS485 network port on programmable units (RS232 and 4-20mA also available)
- 6-3/8" center to center deck accommodates up to 120mm OD Bellco glass or plastic roller bottles
- Easy-to-remove roller bar assembly (tool provided)
- Front locking casters and bumpers
- Speed range: 0.08 to 7.0 rpm
- Battery level indicator flashes during battery mode (battery backup models only)
- Optional battery backup gives up to 18 hours battery backup depending on load and rpm
- Rotation switch for CW or CCW operation
- Detachable cord /fused power inlet module
- All Position Drive
- Optional audible/visual motion alarm (factory install only)
- Dimensions: 53 Position: 76H x 32W x 26"D (193 x 81 x 63cm)
86 Position: 76H x 48W x 26"D (193 x 122 x 63cm)



53 position Stock No.	86 position Stock No.	Volts/Hz/Watts	Battery Backup
7400-10115	7420-10115	115/60/20	no
7400-10230	7420-10230	230/50/20	no
7400-20115	7420-20115	115/60/20	yes
7400-20230	7420-20230	230/50/20	yes

7400-11111 Motion alarm (factory install)

Digital Top Drive Roller Apparatus; 53 and 86 position

- 24V Brushless motor & controller for smooth operation and easy maintenance
- Digital LED display panel 0.55"
- 6-3/8" center to center deck for up to 120mm OD Bellco glass or plastic roller bottles
- Easy-to-remove roller bar assembly (tool provided)
- Front locking casters and bumpers
- Speed range: 0.08 to 7.0 rpm
- Locking speed knob & rotational switch
- Battery level indicator flashes in battery mode (battery backup models only)
- Optional battery backup gives up to 18 hours depending upon load and rpm
- Detachable cord /fused power inlet module
- All Position Drive standard
- Optional audible/visual motion alarm (factory install only)
- Dimensions: 53 Position: 76H x 32W x 26"D (190 x 81 x 66cm)
86 Position: 76H x 48W x 26"D (190 x 122 x 66cm)



53 position Stock No.	86 position Stock No.	Volts/Hz/Watts	Battery Backup
7440-10115	7460-10115	115/60/20	no
7440-10230	7460-10230	230/50/20	no
7440-20115	7460-20115	115/60/20	yes
7440-20230	7460-20230	230/50/20	yes

7400-11111 Motion alarm (factory install)



Programmable Bottom Drive Roller Apparatus

- 24V Brushless DC motor and controller
- Programmable Omron controller with RS485 port and motion alarm port
- All position drive standard
- Accepts all Bellco roller bottles up to 120mm OD and 510mm body length
- Battery Backup models give up to 18 hours of battery power during power interruption*
- Battery level indicator
- Rotational switch for CW & CCW rotation
- Optional motion alarm (factory install only)
- Speed range: 0.08 to 7.0 rpm
- Dimensions†:
 - 8-deck 58½H x 32W x 26”D (148.5 x 81 x 61cm)
 - 9-deck 67H x 32W x 26”D (170 x 81 x 66cm)
 - 10-deck 73H x 32W x 26”D (188 x 81 x 66cm)

*Total battery time is dependent upon bottle load and rpm

†Height includes top row of bottles

8 Deck/40 pos. Stock No.	9 Deck/45 pos. Stock No.	10 Deck/50 pos. Stock No.	Volts/Hz/Watts	Battery Backup
7375-08115	7300-09115	7300-10115	115/60/20	no
7375-08230	7300-09230	7300-10230	230/50/20	no
7385-08115	7320-09115	7320-10115	115/60/20	yes
7385-08230	7320-09230	7320-10230	230/50/20	yes

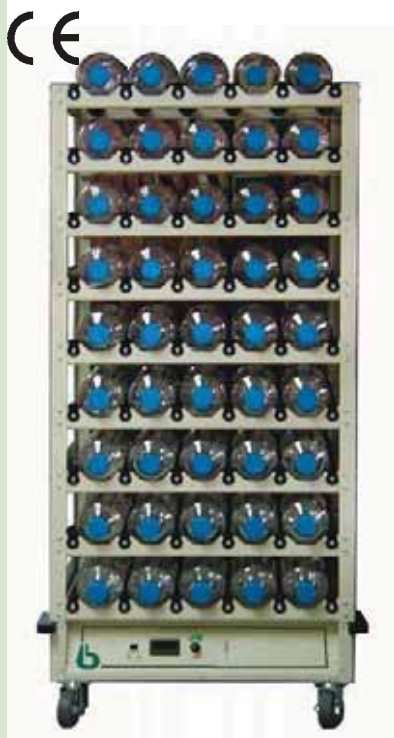
7440-11111 Motion Alarm (Factory Install)

Digital Bottom Drive Roller Apparatus

- Digital Display speed indicator readout
- 24V Brushless DC motor & controller for maintenance-free operation
- Locking speed control knob
- All position drive standard
- Accepts all Bellco roller bottles up to 120mm OD and 510mm body length
- Optional Battery Backup gives up to 18 hours of battery power during power interruption*
- Battery level indicator
- Rotational switch for directional change
- Optional motion alarm (factory install only)
- Speed range: 0.08 to 7.0 rpm
- Dimensions†:
 - 8-deck 58½H x 32W x 26”D (148.5 x 81 x 61cm)
 - 9-deck 67H x 32W x 26”D (170 x 81 x 66cm)
 - 10-deck 73H x 32W x 26”D (180 x 81 x 66cm)

*Total battery time is dependent upon bottle load and rpm.

†Height includes top row of bottles



8 Deck/40 pos. Stock No.	9 Deck/45 pos. Stock No.	10 Deck/50 pos. Stock No.	Volts/Hz/Watts	Battery Backup
7370-08115	7340-09115	7340-10115	115/60/20	no
7370-08230	7340-09230	7340-10230	230/50/20	no
7380-08115	7360-09115	7360-10115	115/60/20	yes
7380-08230	7360-09230	7360-10230	230/50/20	yes

7440-11111 Motion Alarm (Factory Install)

Modular Cell Production Roller Apparatus

- Modular construction— add a deck as requirements change (maximum 10 decks)
- Speed range: 0.1 to 4.0 RPM
- Analog speed indicator and a locking speed control knob
- Front access fuse for easy servicing
- Heavy duty casters for ease of movement
- Accepts all Bellco Roller Bottles and 110mm and 120mm OD, glass and plastic* bottles up to 51 cm body length
- Electrical requirements: 115V/60Hz/35W; 230V/50Hz/35W

Stock No	Description	Bottle Positions	Dimensions W x D x H (cm)	Dimensions W x D x H (in.)
115V Models				
7630-75000	Base Only	5	75 x 63 x 37	24¾ x 30 x 14½
7630-75011	Base and 1 Deck	10	75 x 63 x 55	24¾ x 30 x 22
7630-75012	Base and 2 Decks	15	75 x 63 x 73	24¾ x 30 x 29
7630-75013	Base and 3 Decks	20	75 x 63 x 91	24¾ x 30 x 36
7630-75014	Base and 4 Decks	25	75 x 63 x 109	24¾ x 30 x 43
7630-75015	Base and 5 Decks	30	75 x 63 x 127	24¾ x 30 x 50
7630-75016	Base and 6 Decks	35	75 x 63 x 145	24¾ x 30 x 57
7630-75017	Base and 7 Decks	40	75 x 63 x 163	24¾ x 30 x 64
7630-75018	Base and 8 Decks	45	75 x 63 x 180	24¾ x 30 x 71
230V Models				
7630-75220	Base Only	5	75 x 63 x 37	24¾ x 30 x 14½
7630-75221	Base and 1 Deck	10	75 x 63 x 55	24¾ x 30 x 22
7630-75222	Base and 2 Decks	15	75 x 63 x 73	24¾ x 30 x 29
7630-75223	Base and 3 Decks	20	75 x 63 x 91	24¾ x 30 x 36
7630-75224	Base and 4 Decks	25	75 x 63 x 109	24¾ x 30 x 43
7630-75225	Base and 5 Decks	30	75 x 63 x 127	24¾ x 30 x 50
7630-75226	Base and 6 Decks	35	75 x 63 x 145	24¾ x 30 x 57
7630-75227	Base and 7 Decks	40	75 x 63 x 163	24¾ x 30 x 64
7630-75228	Base and 8 Decks	45	75 x 63 x 180	24¾ x 30 x 71
7630-75010	Deck Only	5	75 x 63 x 18	24¾ x 30 x 7

* 7630-50555 All Position Drive is recommended for use with plastic bottles (1 per deck required)



Base & 2 Decks

Sci/ERA™ Modular Roller Apparatus with Stand-by Drive & Alarm

- Modular construction lets you add a deck at a time
- Stand-By Drive and Alarm
- All Position Drive
- 0.1 to 4.0 RPM standard
- Digital speed indicator
- Locking speed control knob
- Accepts Bellco 110 and 120mm OD x 510mm glass and plastic roller bottles
- Electrical requirements: 115V/60Hz/35W; 230V/50Hz/35W

Sci/ERA Roller Apparatus line is designed to prevent motor failure and loss of product in the event of electrical service outage, circuit disconnection or blown fuse. The Sci/ERA™ Cell Production Roller System virtually eliminates the threat of cell loss by providing auxiliary battery power reserve, dual drive motors, and motion detection circuitry.

Battery backup provides up to 18 hours of continuous operation during power failure. *
Stand-By Drive and Alarm System will disconnect the primary motor and energize the secondary motor upon motion loss, bypassing the mechanical or motor fault.

Audible and visual alarm system complete with remote jack for interfacing with alarm systems or computers, warns of AC power failure or motion loss.

*Total battery time is dependent upon bottle load and rpm.



Stock No	Stock No	Description	Bottle Positions	Dimensions W x D x H (cm)	Dimensions W x D x H (in.)
115V Models		230V Models			
7630-85000	7630-85220	Base Only	5	75 x 63 x 37	24¾ x 30 x 14½
7630-85011	7630-85221	Base and 1 Deck	10	75 x 63 x 55	24¾ x 30 x 22
7630-85012	7630-85222	Base and 2 Decks	15	75 x 63 x 73	24¾ x 30 x 29
7630-85013	7630-85223	Base and 3 Decks	20	75 x 63 x 91	24¾ x 30 x 36
7630-85014	7630-85224	Base and 4 Decks	25	75 x 63 x 109	24¾ x 30 x 43
7630-85015	7630-85225	Base and 5 Decks	30	75 x 63 x 127	24¾ x 30 x 50
7630-85016	7630-85226	Base and 6 Decks	35	75 x 63 x 145	24¾ x 30 x 57
7630-85017	7630-85227	Base and 7 Decks	40	75 x 63 x 163	24¾ x 30 x 64
7630-85018	7630-85228	Base and 8 Decks	45	75 x 63 x 180	24¾ x 30 x 71
7630-85010	7630-85010	Deck Only	5	75 x 63 x 18	24¾ x 30 x 7

Sci/ERA Fixed Frame Cell Production Apparatus

- Stand-By Drive and Alarm
- All Position Drive
- 0.1 to 4.0 RPM standard
- Digital speed indicator
- Locking speed control knob
- Accepts Bellco 110 and 120mm OD x 510mm glass and plastic roller bottles
- Electrical requirements: 115V/60Hz/35W; 230V/50Hz/35W

Stock No	Description	Bottle Positions	Dimensions W x D x H (cm)	Dimensions W x D x H (in.)
115V Models				
7630-80509	9 Decks	45	82 x 65 x 180	32 x 26 x 71
7630-80510†	10 Decks	50	82 x 65 x 198	32 x 26 x 78
230V Models				
7630-82509	9 Decks	45	82 x 65 x 180	32 x 26 x 71
7630-82510†	10 Decks	50	82 x 65 x 198	32 x 26 x 78

† These units do not fit in Bellco Refrigerated Roll-In Incubators.

Benchtop 10 Position Roller Apparatus with All Position Drive

- Fits inside Bellco Benchtop Incubator
- Speed range: 0.1 to 4.0 RPM with digital display readout
- Accepts Bellco glass & plastic roller bottles up to 120mm OD
- Dimensions: 73x32x37cm (29x12.5x14.5")*
- Shipping Weight: Approx 50 lbs.



*Add 3" for bottle height

Stock No.	V/Hz/Watts
7621-20115	115/50-60/35
7621-20230	230/20/35



Economy Roller Apparatus with All Position Drive

- Speed range: 0.1 to 3.0 RPM
- Accepts Bellco glass & plastic roller bottles up to 120mm OD
- Clearance between decks: 13.4cm
- Dimensions: 14x13x7.5"*; second deck, add 7"
- Solid state electronic control; analog meter

*Add 3" for bottle height

Stock No.	V/Hz/Watts	Bottle Position
7622-01020*	115/50-60/35	2
7622-02020*	115/50-60/35	4 (2 deck)
7622-01220	230/50/35	2
7622-02220	230/50/35	4 (2 deck)

*CSA Models

All Position Drive Conversion Kit

- Adapts any rear drive Roller Apparatus unit to operate with plastic bottles

Stock No.	Use With:
7630-50555*	7630-Modular and Fixed Frame series

*requires one unit per deck

Roller Bottle with 45mm Linerless Screw Cap

- Borosilicate glass, Type 1, Class A
- 45 mm Polypropylene screw cap provides secure seal
- Polypropylene pouring ring allows drip free pouring and protects rim
- Replacement cap: 5637-00045; Pouring ring: 5637-10045

Stock No.	Area (cm ²)	OD x OAL (mm)	Case Qty.
7715-45585	1585	110x 570	2



Roller Bottle with 38mm Rubber Lined Screw Cap

- Borosilicate glass, Type 1, Class A
- 38 mm deep-skirt, nontoxic, rubber lined phenolic screw cap
- Replacement cap: 2029-0038A

Stock No.	Area (cm ²)	OD x OAL (mm)	Case Qty.
7730-38285	670	110 x 284	2
7730-38440	1170	110 x 440	2
7730-38490	1330	110 x 490	2
7730-38585	1585	110 x 570	2



Roller Bottle with 51mm Rubber Lined Screw Cap

- Borosilicate glass, Type 1, Class A
- 51 mm short-skirt, nontoxic, rubber lined phenolic screw cap
- Large mouth facilitates cell harvesting
- Replacement cap: 2029-0051A



Stock No.	Area (cm ²)	OD x OAL (mm)	Case Qty.
7730-51270	670	110 x 270	2
7730-51475	1330	110 x 475	2
7730-51585	1585	110 x 570	2

Roller Bottle with 51mm Rubber Lined Cap & Indented Bottom

- Borosilicate glass, Type 1, Class A
- Larger outside diameter for greater growth area per bottle
- Indented bottom for placement of two bottles on a standard roller
- 51 mm short-skirt, nontoxic, rubber lined phenolic screw cap
- Replacement cap: 2029-0051A



Stock No.	Area (cm ²)	OD x OAL (mm)	Case Qty.
7730-51120	835	120 x 285	2

Roller Bottle Brush

- For 110 mm OD roller bottles w/ 51mm opening
- Nylon bristles for easy cleaning of hard-to-reach surfaces



Stock No.	Useable Length	Case Qty.
7731-11111	690mm	2



Roller Bottle Rinser

- Rinses any bottle over 75mm inside height x ID from 10 to 102 mm
- Connects to a standard laboratory water tap (max 80 PSIG)
- Pressurized water reaches every corner with a unique swirling action
- Includes one meter length of 3-ply, high pressure hose

Stock No.	Description
7731-88285	Bottle Rinser
7731-88290	Replacement Cap

Cell Scraper

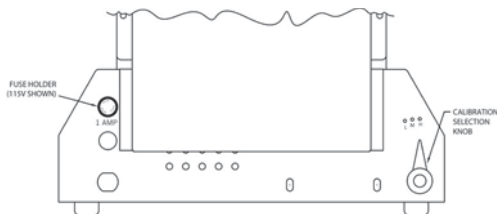
- Stainless steel blade holder mounted on plastic covered stainless steel handle
- Fully autoclavable

Stock No.	Description	Case Qty.
7731-22000	Small, 5/8 x 1/4" blade x 7 3/4" handle	2
7731-22111	Medium, 1 1/4 x 9/16" blade x 13" handle	1
7731-22222	Large, 2 3/4 x 3/4" blade x 24 1/2" handle	1
7731-22005	Replacement blade (small)	10
7731-22115	Replacement blade (medium)	10
7731-22225	Replacement blade (large)	10



Roller Drum with Digital Display

- Digital speed display has 0.55" LCD
- Locking speed knob
- Adjustable foot for 0-7° drum tilt
- Preset speed range is .5 to 50rpm (.3 to 3 and .2 to 12) via selector switch
- Four drums available to hold most tube sizes
- Rear speed range switch insures display accuracy



Stock No.	Description (V/Hz/Watts)
7736-10115	Base only, 115/50-60/20
7736-10230	Base only, 230/50/20

Replacement Drums

Stock No.	Dimensions w/base	# Tubes x OD (mm)
7736-20164	46x28x55cm (18x15x21.5")	164 x 16
7736-20351	46x28x61cm (18x15x24")	351 x 16
7736-20025	46x28x61cm (18x15x24")	156 x 25
7736-20050	46x28x61cm (18x15x24")	128 x 30



Rotamix & Interchangeable Accessories

- Provides 360° rotation for all types of mixing and extraction protocols
- Small compact design and variable speed control with an LCD digital display
- Ideal for Immunoprecipitation extractions and phase separations
- Can be used in the cold room, at room temperature or in an incubator

Specifications

Rotation Speed	0-80 rpm
Material	Chemically resistant coated steel case, stainless steel rods
Voltage	12V power transformer supplied with unit
Motor	Variable speed DC
Dimensions (LxDxH)	41x13x15cm (16x5x6")

Stock No.	Description
7770-00115	Rotamix, 115V
7770-10115	Rotamix, 115V, Digital Display
7770-10230	Rotamix, 230V, Digital Display
7770-00300	Rod for 14 tubes, 28-30mm, 30-50mL
7770-00400	Rod for 26 tubes, 15-17mm, 10-15mL
7770-00500	Rod for 14 tubes, 1.5mL or 12-15mL
7770-00600	Rod for 26 tubes, 9-12mm, 1.5mL
7770-00700	Platform rack for 96 each 1.5mL or 0.5mL tubes
7770-00800	Rod for 6 tubes, 50mL, Clamped Horizontally
7770-00900	Rod for 8 tubes, 15mL, Clamped Horizontally



Blood Tube Rotator

- Fully adjustable mixing angle
- Quick, easy loading and removal of tubes
- Holds up to 20 tubes with diameter 9-19mm
- Constant speed of 33 rpm
- Tubes and tube holder sold separately



Specifications

Number of tubes	20
Tube size (diameter)	9mm to 19mm
Rotation speed:	33rpm
Dimensions (WxDxH)	9 x 9 x 10.5" (23 x 23 x 26cm)

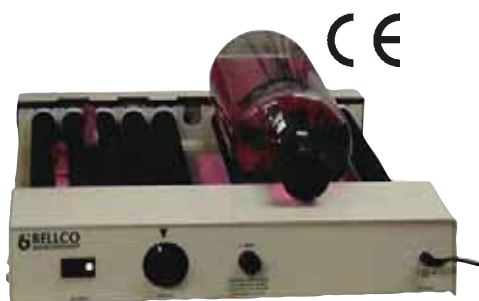
Stock No.	Description
4704-54115	115V/60Hz
4704-55027	230V/50Hz
4704-54142	Tube holder

Mini Tube Roller

- Accommodates various bottle dimensions by removing idler rollers
- Speed range up to 40rpm (depending upon bottle OD)
- Minimum OD 16mm; maximum OD 120mm
- Idler rollers are easily removable
- Lightweight aluminum construction

Specifications

Dimensions (WxDxH)	15 x 17 x 3"
Max bottle length:	10"
Maximum Load:	10lbs
# Idler rollers	5
# Drive rollers	6



Stock No.	Description (V/Hz/Watts)
7622-30115	Tube Roller, 115/60/
7622-30230	Tube Roller, 230/50/
7622-30010	Drive Roller
7622-30020	Idler Roller

Low Profile Single Pan Hot Shaker
Low Profile Dual Pan Hot Shaker

- Ideal for:
 - DNA protocols
 - Incubation of electrophoretic gels
 - Hybridization assays
 - Temperature sensitive assays
 - Hot staining protocols.
- Front mounted control panel keeps hands away from hot pan
- Locking speed control knob
- Automatic heater over-temperature shutoff
- 1-inch orbiting platform
- Removable 12 L pan on Single Pan model
- 2 Removable 5 L pans on Dual Pan model
- 24V Brushless motor & controller for quiet operation and low maintenance
- Convenient detachable power cord
- Stainless steel lid(s) with temperature port(s) included
- Glass dish liner (Single Pan model only)
- Temperature Range: ambient +5°C to 99°C
- Speed Range: 0-75 oscillations per minute



a



b



c



d



e

Stock No.	Description	Chamber	Voltage/Hz/Watts	Overall Dimensions
7746-42115 (a)	Single Pan	18.5x10.5x4" (47x27x10cm)	115/60/500	22 x 20½ x 9½" (56 x 52 x 24cm)
7746-42230	Single Pan	18.5x10.5x4" (47x27x10cm)	230/50/500	22 x 20½ x 9½" (56 x 52 x 24cm)
7746-52115 (b)	Dual Pan	10x8x4" (25x20x10cm)	115/60/500	22 x 20½ x 9½" (56 x 52 x 24cm)
7746-52230	Dual Pan	10x8x4" (25x20x10cm)	230/50/500	22 x 20½ x 9½" (56 x 52 x 24cm)

- 7746-12400 (c) Single Pan Plastic Cover
- 7746-32400 (d) Dual Pan Plastic Cover (2 required)
- A528-208 (e) Single Pan Glass Dish

- 7746-10125 Flask Clamp Tray* 125mL
- 7746-10250 Flask Clamp Tray* 250mL
- 7746-10500 (f) Flask Clamp Tray* 500mL

*Use with Single Pan model only.

Clamps

- 10
- 8
- 6





Digital Orbital Shaker

- 24V Brushless low maintenance DC motor and controller
- Digital display 0.55" LCD readout
- Locking speed knob
- Peg & grommet tray attachment accepts all Bellco standard trays
- Orbit: 1"
- Speed range: 10-350 orbits per minute
- Timer (3-120 minutes) or continuous shaking action
- 3 Trays accommodate up to 2.8L flasks (sold separately)
- Dimensions: 12 x 14 x 4½" (31x36x12cm) (base only)



Stock No.	Description	V/Hz/Watts
7644-10115	Digital Orbital Shaker, Base	115/50-60/15
7644-10230	Digital Orbital Shaker, Base	230/50/15

Trays (purchased separately)

7743-12012	12x12x3.5" (30x30x9cm) Flask Locking Tray, 3 dividers
7743-12020	12x20x3.5" (30x51x9cm) Flask Locking Tray, 5 dividers
7743-20020	20x20x3.5" (51x51x9cm) Flask Locking Tray, 5 dividers



Digital Mini-Orbital Shaker

- 24V Brushless low maintenance DC motor and controller
- Digital display 0.55" LCD readout
- Locking speed knob
- Low profile space-saving chassis with mounting flanges
- Peg & grommet tray attachment
- Orbit: 1/16"
- Speed range: 40-1550 orbits per minute**
- Timer or continuous shaking action
- Dimensions: 12 x 14 x 4½" (base only)

**When operated at speeds in excess of 800rpm, the Mini-Orbital Shaker should be mounted to a fixed surface using the mounting flanges. Failure to do so may cause the unit to 'walk' at high speeds.

Stock No.	Description	V/Hz/Watts
7644-20115	Digital Mini-Orbital Shaker, Base	115/50-60/15
7644-20230	Digital Mini-Orbital Shaker, Base	230/50/15

Accessory Trays (purchased separately)

7743-12012	12x12" (30x30cm) Flask Locking Tray, 3 Dividers
7644-12012	12x12" (30x30cm) HTS Microplate Tray w/cover+ +Holds maximum of 24 microplates.

Mini Orbital Shaker w/ 8 Position Tray

- Tray holds up to eight 96-well microplates
- Speed range: 0 to 1550 rpm
- Timed mixing or continuous operation
- Orbit: 1/16"
- Peg & grommet platform design for easy setup
- Low profile and compact design fits minimum of space
- Maximum Load: 25 lb.

Stock No.	V/Hz/Watts
7744-08196*	Mini Shaker, 100/50-60/20
7744-08096*	Mini Shaker, 115/50-60/20
7744-89622*	Mini Shaker, 230/50/20

*Includes base plus 7744-08800 tray

**When operated at speeds in excess of 800rpm, the Mini-Orbital Shaker should be mounted to a fixed surface using the mounting flanges. Failure to do so may cause the unit to 'walk' at high speeds.

Components	Description	Dimensions
7744-08100	Base Only 100V	13 x 28 x 28cm
7744-08115	Base Only, 115V	13 x 28 x 28cm
7744-08230	Base Only, 230V	13 x 28 x 28cm
7744-08240	Shake Tray 32 Pos.	27 x 41cm (4 layer)**
7744-08800	Shake Tray 8 Pos.	27 x 41cm (1 layer)



Standard Orbital Shaker

- Ideal for hybridization and gel agitation
- Rubber lined tray is 1/2 inch offset providing a circular orbit
- Speed Range: 0-350 rpm; Orbit: 2.5cm (1")
- Peg and grommet platform design for easy setup
- Maximum Load: 25 lb.

Stock No.	V/Hz/Watts	Dimensions (cm)
7744-00100	Base Only, 100	13 x 28 x 28
7744-01000	Base Only, 115	13 x 28 x 28
7744-02000	Base Only, 230	13 x 28 x 28
7744-01100	100/50-60/20	25 x 25 tray
7744-02200	100/50-60/20	51 x 51 tray
7744-01010	115/50-60/20	25 x 25 tray
7744-02020	115/50-60/20	51 x 51 tray
7744-10220	230/50/20	25 x 25 tray
7744-20220	230/50/20	51 x 51 tray



12 Volt Micro Orbital Shaker

- Ideal for reactions using 96- 384- or 1536-Well microplates
- Platform with spring clips holds 2 plates
- 5-Minute timer with continuous position
- Stainless steel cover & aluminum chassis
- Speed Range: 0-1100 rpm
- Orbit: 1/32"
- Maximum load: 3 lbs.

Stock No.	V/Hz/Watts	Dimensions
7745-10115	12 (115)/60/20	8 x 8 x 6" (20 x 20 x 15cm)
7745-10230	12 (230)/50/20	8 x 8 x 6" (20 x 20 x 15cm)



12 Volt btb Orbital Shaker

- 50 to 350 RPM with one inch orbital motion
- Variable speed DC motor has solid state circuitry
- Rubber suction cup feet for firm attachment
- Counterbalanced drive shafts for precise orbital motion
- Includes 25x25cm (10x10") tray

Stock No.	V/Hz/Watts	W x D x H
7777-30110	115/60/20	11 x 11 x 5" (28 x 28 x 14cm)
7777-30220	230/50/20	11 x 11 x 5" (28 x 28 x 14cm)



Erlenmeyer Flask Shaker Trays for 25x25cm (10x10") Platforms

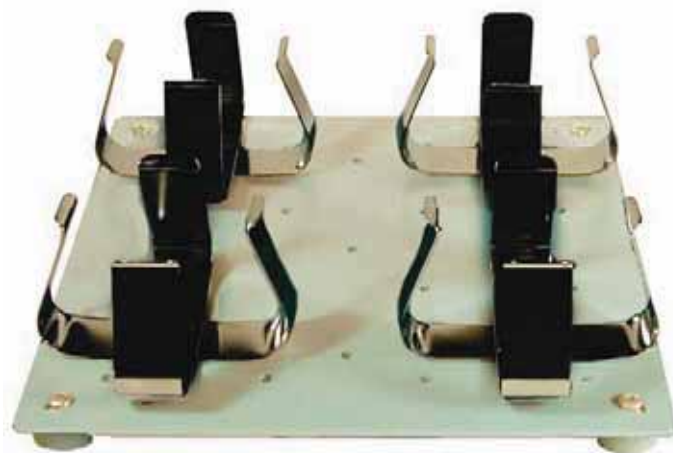
- Pre-mounted stainless steel clamps for Bellco Erlenmeyer flasks
- Flask tray fits on top of standard tray platform
- Includes clamps

Erlenmeyer Flask Shaker Trays for 25 x 25 cm Plaforms

Stock No.	Flask Size (mL)	#Flask Positions
7744-02516	25	16
7744-05016	50	16
7744-12509	125	9
7744-25005	250	5
7744-50004	500	4
7744-10004	1000	4

Erlenmeyer Flask Shaker Trays for 51 x 51 cm Plaforms

Stock No.	Flask Size (mL)	#Flask Positions
7744-02549	25	49
7744-05049	50	49
7744-12525	125	25
7744-25016	250	16
7744-50009	500	9
7744-10009	1000	9



Flask Clamps and Universal Platforms for Shakers

- Purchase individual pieces to build various configurations
- Flask tray fits onto standard platform

Stock No.	Description	25 x 25 cm tray accepts	51 x 51 cm tray accepts
7744-17010	25 x 25 cm Tray only	~~~	~~~
7744-17020	51 x 51 cm Tray only	~~~	~~~
7744-16025	25mL Flask Clamp	16	49
7744-16050	50mL Flask Clamp	16	49
7744-16125	125mL Flask Clamp	9	25
7744-16250	250mL Flask Clamp	5	16
7744-16500	500mL Flask Clamp	4	9
7744-16100	1000mL Flask Clamp	4	9
7744-16200	2000ml Flask Clamp	2	4

Bell-ennium™ Magnetic Stirrers

Features	Digital Display	Process Controlled
Brushless Motor & Motor Controller	✓	✓
In Line Power Supply	✓	✓
Low Profile Aluminum Chassis	✓	✓
On/Off Rocker Switch	✓	✓
Stainless Steel Cover	✓	✓
Non-slip Timing Belts	✓	✓
Heavy Duty Magnetic Drive Plate	✓	✓
Digital RPM Display Panel	✓	✓
Process Controller w/ Digital Readout	~	✓
RS 485 Network Data Port/Motion Alarm Jack	~	✓

Bell-ennium™ One Position Magnetic Stirrers

Stock No.	Description (V/Hz/Watts)
7785-D1108	One Position Digital, 100-115/50-60/25
7785-D1208	One Position Digital, 230/50/25
7785-P1108	One Position Process, 100-115/50-60/25
7785-P1208	One Position Process, 230/50/25
7785-D1136	One Position Digital, 100-115/50-60/25W
7785-D1236	One Position Digital, 230/50/25
7785-11111	Optional Motion Alarm, Digital, Factory Install Only
7785-22222	Optional Motion Alarm, Process, Factory Install Only



Specifications

Speed Range	15-500rpm
Dimensions	8L: 10 x 11 x 3½" (25 x 28 x 8.5cm)* 36L: 18 x 20 x 3½" (45 x 51 x 8.5cm)*
Weight	8L: 8 lbs (4.kg) 36L: 17 lbs (7.5kg)
Maximum Flask Size	1 up to 8L 1 up to 36L

* Allow 1 - 2 inches for rear plug-in accessories





Bell-ennium™ Two Position Magnetic Stirrers

Stock No.	Description (V/Hz/Watts)
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7785-D1502	Two Position Digital, 100-115/50-60/25
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7785-D1512	Two Position Digital, 230/50/25
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7785-P1502	Two Position Process, 100-115/50-60/25
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7785-P1512	Two Position Process, 230/50/25
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7785-11111	Optional Motion Alarm, Digital, Factory Install Only
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7785-22222	Optional Motion Alarm, Process, Factory Install Only
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Specifications

Speed Range	15-500rpm
Dimensions	20 x 11 x 3½" (51 x 28 x 8.5cm)*
Weight	12 lbs (5.5kg)
Maximum Flask Size	2 x 8L

* Allow 1 - 2 inches for rear plug-in accessories



Bell-ennium™ Five Position Magnetic Stirrers

Stock No.	Description (V/Hz/Watts)
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7785-D2005	Five Position Digital, 100-115/50-60/25
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7785-D2015	Five Position Digital, 230/50/25
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7785-P2005	Five Position Process, 100-115/50-60/25
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7785-P2015	Five Position Process, 230/50/25
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7785-11111	Optional Motion Alarm, Digital, Factory Install Only
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7785-22222	Optional Motion Alarm, Process, Factory Install Only
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Specifications

Speed Range	15-500rpm
Dimensions	16½ x 18 x 3½" (42 x 45 x 8.5cm)*
Weight	18 lbs (8.2kg)
Maximum Flask Size	5 x 1L; or 4 x 3L

* Allow 1 - 2 inches for rear plug-in accessories

Bell-ennium™ Compact Five Position Magnetic Stirrers

Stock No.	Description (V/Hz/Watts)
7785-D5005	Five Position Compact Digital, 100-115/50-60/25
7785-D5015	Five Position Compact Digital, 230/50/25
7785-P5005	Five Position Compact Process, 100-115/50-60/25
7785-P5015	Five Position Compact Process, 230/50/25
7785-11111	Optional Motion Alarm, Digital, Factory Install Only
7785-22222	Optional Motion Alarm, Process, Factory Install Only



Specifications

Speed Range	15-500rpm
Dimensions	14½ x 15 x 3½" (37 x 38 x 8.5cm)*
Weight	18 lbs (8.2kg)
Maximum Flask Size	5 x 500mL; or 4 x 1L

* Allow 1 - 2 inches for rear plug-in accessories



Bell-ennium™ Nine Position Magnetic Stirrers

Stock No.	Description (V/Hz/Watts)
7785-D9005	Nine Position Digital, 100-115/50-60/25
7785-D9015	Nine Position Digital, 230/50/25
7785-P9005	Nine Position Process, 100-115/50-60/25
7785-P9015	Nine Position Process, 230/50/25
7785-11111	Optional Motion Alarm, Digital, Factory Install Only
7785-22222	Optional Motion Alarm, Process, Factory Install Only



Specifications

Speed Range	15-500rpm
Dimensions	16½ x 18 x 3½" (42 x 45 x 8.5cm)*
Weight	20 lbs (9kg)
Maximum Flask Size	9 x 500mL (70mm neck)

* Allow 1 - 2 inches for rear plug-in accessories



Bell-ennium™ Magnetic Stirrer Accessories

Stock No.	Description
9700-10115	In-line Power Supply, 100/115V
9700-10230	In-line Power Supply, 230V





Bell-Stir Magnetic Stirrers

- Designed for mammalian and bacterial cultures
- Ideal for tissue cultures grown in spinner flasks
- Low wattage DC motors and solid state circuitry
- Independent power and speed controls
- Polyurethane drive belts resist humidity and temperature

Stock No.	V/Hz/Watts	Max Flask (L)	Dimensions W x D x H	Speed Range RPM
7760-06100	100/50/20	1	16 x 16 x 13cm	30 to 1000
7760-06103	100/50/20	8	26 x 26 x 13cm	30 to 1000
7760-06000†	115/60/20	1	16 x 16 x 13cm	30 to 1000
7760-06005†	115/30/20	4	26 x 26 x 13cm	30 to 1000
7760-06003†	115/60/20	8	26 x 26 x 13cm	30 to 1000
7760-06220*	230/50/20	1	16 x 16 x 13cm	30 to 1000
7760-06223	230/50/20	8	16 x 26 x 13cm	30 to 1000

*Not CE compliant; †CSA Model

SBS30 Shaking Water Bath

- Choice of platform for orbital or linear shaking action (sold separately)
- Variable speed control, digital display and temperature selection
- Integral shaker drive built under the stainless steel tank
- Magnetically couples to shaking platforms in either an orbital or linear motion
- Erlenmeyer flasks: 8 x 250mL, 6 x 500mL, 4 x 1000mL
- Adjustable shaking speed

Stock No.	Description
7748-20115	Shaker Platform Only
7748-21000	Linear Motion Platform
7748-22000	Orbital Motion Platform
7748-31000	Cover w/Handle
7748-32000	Springs, pkg/10

Specifications

Nominal Capacity	24L
Temperature Range	Ambient +5°C to 100°C
Temperature Stability	± 0.25°C
Adjustable cut-off	Yes
Shaking Speed/Orbit	30-150rpm/16mm
Internal Dimensions	12 x 8 x 20" (30 x 20 x 50cm)
Overall Dimensions	13.5 x 13 x 21.5" (33.5 x 32 x 54cm)
Net Weight	18.3kg (40lb)
Electrical	120/60, 1900 W



3-Spinner Flasks



Section 3 – Spinner Flasks & Accessories

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BioProbe™ Spinner Flasks

- Ideal for small working volumes with pH and DO probes
- 32mm low sidearms for probe insertion
- 32mm compression fitting, probes & port assemblies sold separately

Stock No.	Description	Center Cap	OAH x OD
1965-97050	500mL Flask Only, 110 x 175mm	100mm	110 x 175
1965-97100	1L Flask Only, 135 x 240mm	100mm	135 x 240
1965-97300	3L Flask Only, 165 x 290mm	100mm	165 x 290

- 1965-60005 500mL Impeller Only
- 1965-60010 1L Impeller Only
- 1965-60030 3L Impeller Only

- 1965-97005 500mL Flask Complete
- 1965-97001 1L Flask Complete
- 1965-97003 3L Flask Complete

- 1965-97010 32mm Compression Fitting

Controllers page B-21
 Probes page B-23
 Port Assemblies, page F-9



Bell-Flo™ Spinner Flasks

- Bottom indents & three vertical baffles for optimal mixing
- 32mm or 45mm sidearms for port assemblies
- Rugged stainless steel/ PTFE internal bearing assemblies

Stock No.	Description	Center Cap	Sidearm Cap	OAH x OD (mm)
1965-80100	Flask Only, 100mL	70mm	32mm	135 x 65
1965-80250	Flask Only, 250mL	70mm	32mm	140 x 85
1965-80570	Flask Only, 500mL	70mm	32mm	175 x 110
1965-80510	Flask Only, 500mL	100mm	45mm	170 x 110
1965-81000	Flask Only, 1000mL	100mm	45mm	240 x 135
1965-83000	Flask Only, 3000mL	100mm	45mm	290 x 165
1965-80101	Impeller Assy, 100mL	70mm	32mm	130 x 65
1965-80251	Impeller Assy, 250mL	70mm	32mm	130 x 65
1965-80571	Impeller Assy, 500mL	70mm	32mm	165 x 65
1965-80511	Impeller Assy, 500mL	100mm	45mm	165 x 95
1965-81001	Impeller Assy, 1000mL	100mm	45mm	220 x 95
1965-83001	Impeller Assy, 3000mL	100mm	45mm	270 x 95
1965-80105	Complete, 100mL	70mm	32mm	150 x 65
1965-80255	Complete, 250mL	70mm	32mm	150 x 85
1965-80575	Complete, 500mL	70mm	32mm	187 x 110
1965-80515	Complete, 500mL	100mm	45mm	187 x 110
1965-81005	Complete, 1000mL	100mm	45mm	245 x 135
1965-83005	Complete, 3000mL	100mm	45mm	295 x 165



Glass Ball Spinner Flasks

- Specially formed bottom indent prevents accumulation under impeller
- Glass ball houses a magnet for gentle agitation of microcarrier beads



Stock No.	Description	Center Cap (mm)	Sidearm Cap (mm)	OAH x OD (mm)
1965-92001	100mL Complete	70	32	135 x 65
1965-92002	250mL Complete	70	32	140 x 85
1965-92005	500mL Complete	100	45	180 x 110
1965-92010	1L Complete	100	45	250 x 135
1965-92030	3L Complete	100	45	280 x 165
1965-92060	6L Complete	100	45	410 x 204
1965-92080	8L Complete	100	45	430 x 237
1965-94010	100mL Flask Only	70	32	135 x 63
1965-94025	250mL Flask Only	70	32	125 x 85
1965-94050	500mL Flask Only	100	45	170 x 110
1965-94100	1L Flask Only	100	45	240 x 135
1965-94300	3L Flask Only	100	45	270 x 165
1965-94600	6L Flask Only	100	45	420 x 204
1965-94800	8L Flask Only	100	45	430 x 237
1965-95010	100mL Impeller Only			
1965-95025	250mL Impeller Only			
1965-95050	500mL Impeller Only			
1965-95100	1L Impeller Only			
1965-95300	3L Impeller Only			
1965-95600	6L/8L Impeller Only			

4-45™ Bioreactor Flasks

- 4 sidearms positioned 90° for increased capabilities
- Stainless steel capseal with compression fittings for probe/tube insertion
- Accepts all standard fittings & probes



Stirrer & accessories sold separately

Stock No.	Description
1965-01400	Bioreactor Complete, 1L
1965-11400	Flask Only, 1L
1965-60014	SST Capsel, 1L, 5 Port, with IOB
1965-03400	Bioreactor Complete, 3L
1965-13400	Flask Only, 3L
1965-60034	SST Capsel, 3L, 5 Port, with IOB
1965-45200	45mm Plug w/ Compression Fitting & Hose Barb

MicroCarrier Spinner Flasks

- Promotes optimal growth of suspension and microcarrier culture
- Impeller height adjusts through compression fitting
- Indented bottom (up to 1L) prevents accumulation of microcarrier beads under impeller

Stock No.	Description	OD x OAH (mm)*	Cap (mm)	Sidearm (mm)
1965-00100	100mL Complete	65 x 135	70	32
1965-00250	250mL Complete	85 x 140	70	32
1965-00500	500mL Complete	110 x 180	70	45
1965-02500	500mL Complete	110 x 180	100	45
1965-01000	1L Complete	135 x 250	100	45
1965-03000	3L Complete	165 x 280	100	45
1965-06000	6L Complete	204 x 410	100	45
1965-08000	8L Complete	237 x 430	100	45
1965-15000	15L Complete	294 x 460	100	45
1965-36000	36L Complete	410 x 535	100	45

* add 2-3" for glass impeller extending through cap

1965 MicroCarrier Spinner Replacement Parts

For Stock No.	Flask Only*	Impeller Assembly**	Glass Shaft	Cap Assembly#
1965-00100	1965-10100	1965-30100	1969-70250	1965-90070
1965-00250	1965-10250	1965-30100	1969-70250	1965-90070
1965-00500	1965-10500	1965-30500	1969-70500	1965-90070
1965-02500	1965-20500	1965-30500	1969-70500	1965-90100
1965-01000	1965-11000	1965-31000	1969-71000	1965-90100
1965-03000	1965-13000	1965-31000	1969-73000	1965-90100
1965-06000	1965-16000	1965-38000	1965-78000	1965-99100
1965-08000	1965-18000	1965-38000	1965-78000	1965-99100
1965-15000	1965-11500	1965-31500	1965-71500	1965-99100
1965-36000	1965-13600	1965-31500	1965-71500	1965-99100

*Flask, sidearm caps, and (for 500 ml and larger) pouring rings.

**Impeller Assembly consists of impeller magnet, magnet holder, paddle and silicone plug.

#Cap Assembly consists of screw cap, liner and compression fitting.

SST Impeller Assemblies, see page F-8

Accessories

A523-233	Replacement Shaft O-Ring for up to 3L
A523-234	Replacement Shaft O-Ring for 6 - 36L
A523-204	7mm compression fitting for up to 3L
A523-218	9mm compression fitting for 6 - 36L
A523-203	70mm Cap, Blue PP w/hole
A523-205	70mm Liner, Wht Silicone w/hole
A12-418	70mm Solid Cap, Blue PP
A12-419	70mm Solid Liner, Wht Silicone
A523-208	100mm Cap, Blue PP w/hole
A523-209	100mm Liner, Wht Silicone w/hole
A12-146	100mm Solid Cap, Blue PP
A12-412	100mm Solid Liner, Wht Silicone



Spinner Flask with Internal Overhead Bearing Impeller

- Internal impeller decreases risk of contamination
- Adjustable shaft to align paddle
- Large paddle promotes increased oxygenation



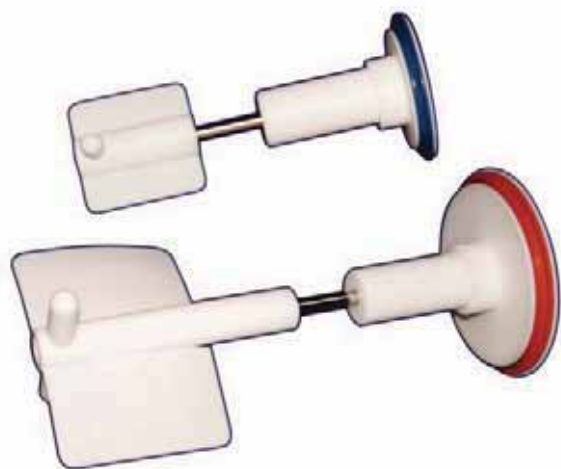
Stock No.	Description	OD x OAH (mm)	Center Cap (mm)	Sidarm Cap (mm)
1965-61001	100mL Complete	65 x 135	70	32
1965-61002	250mL Complete	85 x 140	70	32
1965-61005	500mL Complete	110 x 180	70	45
1965-61015	500mL Complete	110 x 180	100	45
1965-61010	1L Complete	135 x 250	100	45
1965-61030	3L Complete	165 x 280	100	45
1965-61060	6L Complete	204 x 410	100	45
1965-61080	8L Complete	237 x 430	100	45
1965-61150	15L Complete	294 x 460	100	45
1965-61360	36L Complete	410 x 535	100	45

Water Jacketed Spinner Flasks

1965-62001	100mL W/J Flask/IOB		70	18
1965-62002	250mL W/J Flask/IOB		70	24
1965-62005	500mL W/J Flask/IOB		70	38
1965-62010	1L W/J Flask/IOB		100	45
1965-62030	3L W/J Flask/IOB		100	45
1965-62060	6L W/J Flask/IOB		100	45

Internal Overhead Bearing Impeller, with Cap

- Stainless steel shaft design prevents cell damage and minimizes magnetic decoupling
- Sealed internal assembly requires less incubator space
- For use with Bellco 1965-series Standard and Water Jacketed Spinner Flasks



Stock No.	Paddle L x W (in)	Flask (mm)	Cap (mm)
1965-60001	2 x 1.5	100 & 250	70
1965-60015	2 x 2	500	70
1965-60005	2 x 2	500	100
1965-60010	4 x 3	1000	100
1965-60030	4 x 3	3000	100
1965-60060	6.75 x 5	6000	100
1965-60080	6.75 x 5	8000	100
1965-60150	9.5 x 6	15000	100
1965-60360	9.5 x 6	36000	100
A12-418	70mm Cap		
A523-146	100mm Cap		

Water Jacketed Spinner Flasks

- For use with a circulating water bath or chiller and magnetic stir plate
- Hose connection accepts 3/8" ID silicone tubing (Bellco #M7965037)
- Available complete with MicroCarrier impeller assembly or as components

Stock No.	Description	Jacket Volume (mL)	Cap	Sidearm Cap (mm)
1965-50050	50mL Complete	40	51	18
1965-50100	100mL Complete	75	70	18
1965-50250	250mL Complete	175	70	25
1965-50500	500mL Complete	260	70	38
1965-51000	1L Complete	875	100	45
1965-53000	3L Complete	1300	100	45
1965-56000	6L Complete	3700	100	45
1965-50051	Flask Only, 50mL	40	51	18
1965-50101	Flask Only, 100mL	75	70	18
1965-50251	Flask Only, 250mL	175	70	25
1965-50501	Flask Only, 500mL	260	70	38
1965-51100	Flask Only, 1L	875	100	45
1965-53001	Flask Only, 3L	1300	100	45
1965-56001	Flask Only, 6L	3700	100	45

Water Jacket Volumes are approximate. Flasks not graduated.
For Stainless Steel Shafts, see Stock Number 1969; page F-8
Replacement Impeller assembly parts page F-5.



Adjustable Hanging Bar Spinner Flask

- Adjustable spinner height
- Teflon® impeller assembly rides on glass bearing for friction free operation
- 25 & 50mL have black phenolic rubber-lined caps
- 100mL - 3000mL have PP caps, silicone gasket & pouring rings
- Flask has flat bottom (no dimple)



Stock No.	Size (mL)	Center (mm)	Sidearm (mm)	OD x OAH (mm)
1967-00025	25	38	18	38 x 120
1967-00050	50	51	18	55 x 110
1967-00100	100	70	32	69 x 110
1967-00250	250	70	32	85 x 145
1967-00500	500	100	45	110 x 185
1967-01000	1000	100	45	135 x 240
1967-03000	3000	100	45	165 x 290

Adjustable Hanging Bar Style Replacement Parts

Stock No.	Reservoir Only*	Impeller Assembly**	Impeller Shaft^	Cap Assembly#
1967-00025	1967-10025	1967-30025	1969-70100	1967-90038
1967-00050	1967-10050	1967-30050	1969-70100	1967-90051
1967-00100	1967-10100	1969-30050	1969-70250	1965-90070
1967-00250	1967-10250	1969-30050	1969-70250	1965-90070
1967-00500	1967-10500	1969-30050	1969-70500	1965-90100
1967-01000	1967-11000	1969-31000	1969-71000	1965-90100
1967-03000	1965-13000	1969-31000	1969-73000	1965-90100

*Reservoir consists of flask and sidearm caps.

**Impeller Assembly consists of impeller magnet and magnet holder.

^Impeller Shaft consists of glass rod. (Add 2-3" to extend through cap)

#Cap Assembly consists of screw cap, liner and stopper (25 & 50mL) or compression fitting.

IMPELLER ASSEMBLIES



Impeller Assembly for 1965-Style MicroCarrier Spinner Flasks

Stock No.	Flask	Paddle Dim. (in.)
1965-30100	100/250mL	1 x 2
1965-30500	500mL	1 x 3
1965-31000	1L	1¾ x 4¼
1965-38000	6L/8L	3 x 7¾
1965-31500	15L/36L	3 x 10

Impeller Assembly for 1965-Style MicroCarrier Spinner Flasks

Stock No.	Flask
1969-60100	100mL
1969-60250	250mL
1969-60500	500mL
1969-61000	1L
1969-63000	3L
1969-66000	6L/8L
1969-61500	15L/36L



- A523-939 ¼" Compression Fitting for ¼" SST shafts
- A523-407 O-ring #108 Silicone

Glass Shaft Impeller Assembly for 1967-Style Hanging Bar Spinner Flasks

Stock No.	Flask
1967-30025	25mL
1967-30050	50 mL
1969-30050	100mL/250mL
1969-31000	1L/3L



Port Assemblies, Stainless Steel

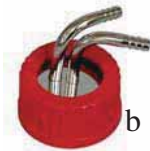
- Seam welded with electropolished finish
- 2-port with siphon and vent tubes
- 3-port with siphon, fill and vent tubes
- Includes 45mm PP cap and silicone gasket



Universal Port Assemblies for Sidearm Vessels

Stock No.	Description
5637-21000 (a)	2-Port, Straight Tubes, 32mm
5637-51000	2-Port 32mm*
5637-52000	2-Port 32mm, Small ID
7803-12000 (b)	2-Port w/Angled Hose Barbs ¼" OD, 45mm

*Use with BioProbe Spinner Flask



Stock No.	Description	Flask Size	Longest Tube Length*
1965-20005*	2 port	500mL	1½"
1965-21005**	2 port	500mL	2½"
1965-20001	2 port	1L	2½"
1965-20003	2 port	3L	5"
1965-20015	2 port	6, 8, 15L	9¾"
1965-20036	2 port	36L	11"
1965-30005*	3 port	500mL	1½"
1965-31005**	3 port	500mL	2½"
1965-30001	3 port	1L	2½"
1965-30003	3 port	3L	5"
1965-30015	3 port	6,8,15L	9¾"
1965-30016	3 port	36L	11"
A523-599	Cap		
A523-600	Gasket		

* 500mL with 100mm cap **500mL with 70mm cap

Thermowell Assemblies for 1965 and 1967-Style Angled Sidearm Flasks, 3-Port

- 5/16" OD thermowell tube, 1/4" siphon and vent tubes
- Includes 45mm PP cap and silicone gasket
- Seam welded and electropolished

Stock No.	Flask	Longest Tube Length
1965-32001	1L	4"
1965-32003	3L	6"
1965-32006	6L	11"
1965-32008	8L	12"
1965-32015	15L	12¾"
1965-32036	36L	12½"
A523-599	Cap	
A523-600	Gasket	



Spargers for 1965-Style Angled Sidearm Flasks, 2-Port

- 12mm OD coarse glass frit (40-60µ)
- Gently introduces bubbles into vessel
- 0.2um Acrodisc filter w/hose fitting
- Includes 45mm PP cap and white silicone gasket

Stock No.	Vessel	Longest Tube Length
1965-45003	3L	8"
1965-45006	6, 8 & 15L	13"
1965-45036	36L	14"
1964-12912	Acrodisc Filter, Pkg/8	
T1610	Glass Frit, Coarse Porosity	



Custom Designs Available
by Quotation
1-800-257-7043

Flask Carriers for Sidearm Vessels

- Stainless steel construction
- Rubber feet for added stability

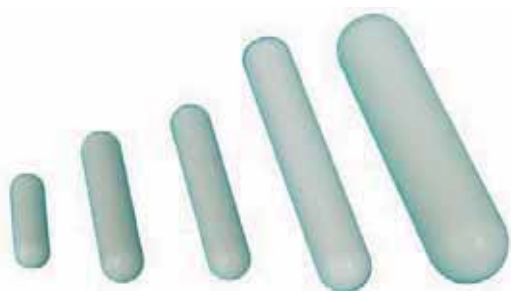


Stock No.	Flask/Carboy	OD x OAD (in)
7669-06000	6L/ 9L	9 x 8
7669-08000*	8L/ 13L	11 x 10
7669-15000	15L/ 19L	12 x 11
7669-36000	36L/ 45L	17 x 13

*use for 3L and 6L Low Profile Vessels

Magnetic Stirring Bars

- Excellent for mixing media and buffer solutions
- Ideal for procedures using all Bellco Magnetic Stirrers
- Molded, seamless Teflon® construction



Stock No.	Length x OD (mm)	Case Qty.
1975-00100	25.4 x 7.6	6
1975-00158	41.3 x 9.5	6
1975-00200	50.8 x 9.5	6
1975-00300	76.2 x 12.1	3
1975-00314	82.6 x 19	2

Replacement Caps & Pouring Rings

Maximum Temperature: 140°C; Red 200°C



Stock No.	Description	Size	Case Qty.
5637-00032	Cap, Blue PP	32	10
5637-00045	Cap, Blue PP	45	10
5637-00047	Cap, Green PP	45	10
5637-00048	Cap, Yellow PP	45	10
5637-00049	Cap, Grey PP	45	10
5637-90032	Cap, Red PBT	32	10
5637-90045	Cap, Red PBT	45	10
5637-10032	Ring, Blue PP	32	10
5637-10045	Ring, Blue PP	45	10
5637-91032	Ring, Red ETFE	32	10
5637-91045	Ring, Red ETFE	45	10



Polypropylene Caps, Open Top and PTFE/Silicone Septa

- 45mm cap has 33mm hole to accommodate 45mm septa or 45mm port assembly
- 32mm cap has 20mm hole to accommodate 32mm septa or 32mm port assembly
- Ideal for addition & withdrawal of contents via syringe

Stock No.	Description	Size	Case Qty.
5637-00035 (a)	Cap, Blue PP	32	10
5637-00038 (b)	Liner, 125 x 1.20"	32	10
5637-00010 (c)	Cap, Blue PP	45	10
5637-00015	Cap, Green PP	45	10
5637-00020	Cap, Yellow PP	45	10
5637-00025	Cap, Grey PP	45	10
5637-00030 (d)	Liner, 125 x 1.70"	45	10
1965-00032 (e)	Vented Cap	32	1
1965-00045 (f)	Vented Cap	45	1



Heating Blankets, Valley Instrument

- Male IEC connector for use with temperature controllers
- Heating at 5Watts/sq. in.

115V Stock No.	230V Stock No.	Flask	Watts	Dimensions (in)
1964-51005	1964-54005	500mL	50	1 x 10.5
1964-51010	1964-54010	1L	75	1 x 14
1964-51030	1964-54030	3L	150	2 x 17.5
1964-51040†	~	3L/6L	190	2 x 26.5
1964-51060	1964-54060	6L	300	3 x 22
1964-51080	1964-54080	8L	375	3 x 26.5
1964-58260*	~	15L	325	5 x 33
1964-51150	1964-54150	15L	750	5 x 33
1964-58236*	~	36L	375	5 x 48
1964-58365^	~	36L	600	5 x 48
1964-51360	1964-54360	36L	1200	5 x 48

*Low Wattage, ^Medium Wattage for CellTrol II, † Low Profile



Heating Blankets, Bellco Biotechnology

- Male IEC connector for use with temperature controllers
- Heating at 5Watts/sq. in.

115V Stock No.	230V Stock No.	Flask	Watts	Dimensions (in)
1964-55005	1964-56005	500mL	50	1 x 10.5
1964-55010	1964-56010	1L	75	1 x 14
1964-55030	1964-56030	3L	150	2 x 17.5
1964-55060	1964-56060	6L	300	3 x 22
1964-55080	1964-56080	8L	375	3 x 26.5
1964-57150*	1964-58150*	15L	325	5 x 33
1964-55150	1964-56150	15L	750	5 x 33
1964-57360*	1964-58360*	36L	375	5 x 48
1964-57365^	1964-58365	36L	600	5 x 48
1964-55360	1964-56360	36L	1200	5 x 48

*Low Wattage, ^Medium Wattage for CellTrol II

CAUTION: Vessel must be stirred when heating blanket is in operation.



Bellco Insect Cell Culture Systems



- 1965-70115 Digital Stirrer/MicroCarrier Spinner, 115V
- 1965-70230 Digital Stirrer/MicroCarrier Spinner 230V†

Stock No.	Description	Qty
7785-D2005	Digital 5-Place Magnetic Stirrer, 115V	1
1965-03000	3L MicroCarrier Spinner Flask Complete	4
1965-20003	2-Port Assembly	4
7803-33000	Gas Blending Stand: 1-in, 4-out, Air	1
7725-00120	Air Pump, 115V**	1
7800-10050	¼" Tubing, 50'	1

† 7785-D2015 replaces 7785-D2005

** Air pump not available for 230V models.

- 1965-76115 Digital Stirrer/IOB Spinner, 115V
- 1965-76230 Digital Stirrer/IOB Spinner, 230V†

Stock No.	Description	Qty
7785-D2005	Digital 5-Place Magnetic Stirrer, 115V	1
1965-61030	3L IOB Spinner Flask Complete	4
1965-20003	2-Port Assembly	4
7803-33000	Gas Blending Stand: 1-in, 4-out, Air	1
7725-00120	Air Pump, 115V**	1
7800-10050	¼" Tubing, 50'	1

† 7785-D2015 replaces 7785-D2005

** Air pump not available for 230V models.

- 1965-80115 Process Stirrer/Microcarrier Spinner, 115V
- 1965-80230 Process Stirrer/Microcarrier Spinner, 230V†

Stock No.	Description	Qty
7785-P2005	Process 5-Place Magnetic Stirrer, 115V	1
1965-03000	3L MicroCarrier Spinner Flask Complete	4
1965-20003	2-Port Assembly	4
7803-33000	Gas Blending Stand: 1-in, 4-out, Air	1
7725-00120	Air Pump, 115V**	1
7800-10050	¼" Tubing, 50'	1

† 7785-P2015 replaces 7785-P2005

** Air pump not available for 230V models.

- 1965-86115 Process Stirrer/IOB Spinner, 115V
- 1965-86230 Process Stirrer/IOB Spinner, 230V†

Stock No.	Description	Qty
7785-P2005	Process 5-Place Magnetic Stirrer, 115V	1
1965-61030	3L IOB Spinner Flask Complete	4
1965-20003	2-Port Assembly	4
7803-33000	Gas Blending Stand: 1-in, 4-out, Air	1
7725-00120	Air Pump, 115V**	1
7800-10050	¼" Tubing, 50'	1

† 7785-P2015 replaces 7785-P2005

** Air pump not available for 230V models.

Accessories:

Stock No.	Description	Qty
1964-12922	Acrodisc Filter, 0.2µ, Pk/8	1

Bell-ennium™ Magnetic Stirrers

Features	Digital Display	Process Controlled
Brushless Motor & Motor Controller	✓	✓
In Line Power Supply	✓	✓
Low Profile Aluminum Chassis	✓	✓
On/Off Rocker Switch	✓	✓
Stainless Steel Cover	✓	✓
Non-slip Timing Belts	✓	✓
Heavy Duty Magnetic Drive Plate	✓	✓
Digital RPM Display Panel	✓	✓
Process Controller w/ Digital Readout	~	✓
RS 485 Network Data Port/Motion Alarm Jack	~	✓

Bell-ennium™ One Position Magnetic Stirrers

Stock No.	Description
7785-D1108	One Position Digital Display, 100/115V
7785-D1208	One Position Digital Display, 230V
7785-P1108	One Position Process Controller, 100/115V
7785-P1208	One Position Process Controller, 230V
7785-D1136	One Position Digital Display, 100/115V
7785-D1236	One Position Digital Display, 230V
7785-11111	Optional Motion Alarm, Digital, Factory Install Only
7785-22222	Optional Motion Alarm, Process, Factory Install Only



Specifications

Speed Range	15-500rpm
Dimensions	8L: 10 x 11 x 3½" (25 x 28 x 8.5cm)* 36L: 18 x 20 x 3½" (45 x 51 x 8.5cm)*
Weight	8L: 8 lbs (4.kg) 36L: 17 lbs (7.5kg)
Maximum Flask Size	1 x 8L 1 x 36L

* Allow 1 - 2 inches for rear plug-in accessories





Bell-ennium™ Two Position Magnetic Stirrers

Stock No.	Description
7785-D1502	Two Position Digital Display, 100/115V
7785-D1512	Two Position Digital Display, 230V
7785-P1502	Two Position Process Controller, 100/115V
7785-P1512	Two Position Process Controller, 230V
7785-11111	Optional Motion Alarm, Digital, Factory Install Only
7785-22222	Optional Motion Alarm, Process, Factory Install Only



Specifications

Speed Range	15-500rpm
Dimensions	20 x 11 x 3½" (51 x 28 x 8.5cm)*
Weight	12 lbs (5.5kg)
Maximum Flask Size	2 x 8L

* Allow 1 - 2 inches for rear plug-in accessories



Bell-ennium™ Five Position Magnetic Stirrers

Stock No.	Description
7785-D2005	Five Position Digital Display, 100/115V
7785-D2015	Five Position Digital Display, 230V
7785-P2005	Five Position Process Controller, 100/115V
7785-P2015	Five Position Process Controller, 230V
7785-11111	Optional Motion Alarm, Digital, Factory Install Only
7785-22222	Optional Motion Alarm, Process, Factory Install Only



Specifications

Speed Range	15-500rpm
Dimensions	16½ x 18 x 3½" (42 x 45 x 8.5cm)*
Weight	18 lbs (8.2kg)
Maximum Flask Size	5 x 1L; or 4 x 3L

* Allow 1 - 2 inches for rear plug-in accessories

Bell-ennium™ Compact Five Position Magnetic Stirrers

Stock No.	Description
7785-D5005	Five Position Compact Digital Display, 100/115V
7785-D5015	Five Position Compact Digital Display, 230V
7785-P5005	Five Position Compact Process Controller, 100/115V
7785-P5015	Five Position Compact Process Controller, 230V
7785-11111	Optional Motion Alarm, Digital, Factory Install Only
7785-22222	Optional Motion Alarm, Process, Factory Install Only



Specifications

Speed Range	15-500rpm
Dimensions	14½ x 15 x 3½" (37 x 38 x 8.5cm)*
Weight	18 lbs (8.2kg)
Maximum Flask Size	5 x 500mL; or 4 x 1L

* Allow 1 - 2 inches for rear plug-in accessories

Bell-ennium™ Nine Position Magnetic Stirrers

Stock No.	Description
7785-D9005	Nine Position Digital Display, 100/115V
7785-D9015	Nine Position Digital Display, 230V
7785-P9005	Nine Position Process Controller, 100/115V
7785-P9015	Nine Position Process Controller, 230V
7785-11111	Optional Motion Alarm, Digital, Factory Install Only
7785-22222	Optional Motion Alarm, Process, Factory Install Only



Specifications

Speed Range	15-500rpm
Dimensions	16½ x 18 x 3½" (42 x 45 x 8.5cm)*
Weight	20 lbs (9kg)
Maximum Flask Size	9 x 500mL

* Allow 1 - 2 inches for rear plug-in accessories



Bell-ennium™ Magnetic Stirrer Accessories

Stock No.	Description
9700-10115	In-line Power Supply, 100/115V
9700-10230	In-line Power Supply, 230V





Digital and Process Overhead Drive

- Speed Range: 5 – 150rpm
- Brushless motor for low maintenance
- RS485 data port (Process Control)
- Reverse direction switch
- Easy mounting bracket with 'peg & grommet' design
- Standard models: 19 in/lb torque, 30w
- Hi-torque models: 31 in/lb torque, 50w



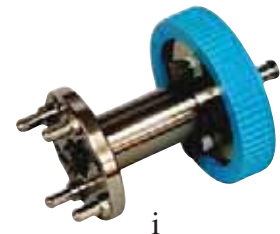
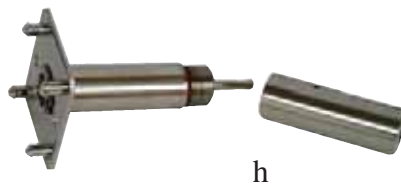
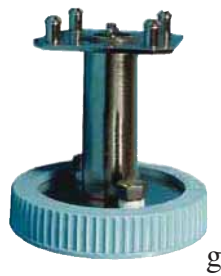
Stock No.	Description	Dimensions*
7774-10115 (a)	Digital OHD, 100/115V	5x5x8"
7774-10230	Digital OHD, 230V	5x5x8"
7774-20115 (b)	Process OHD, 100/115V	5x5x8"
7774-20230	Process OHD, 230V	5x5x8"
7764-70000	Standard Drive Adapter	
7764-71000	Large Flange Drive Adapter	
7774-30115 (c)	Hi-Torque Digital OHD, 100/115V	6x7x10"
7774-30230	Hi-Torque Digital OHD, 230V	6x7x10"
7774-40115 (d)	Hi-Torque Process OHD, 100/115V	6x7x10"
7774-40230	Hi-Torque Process OHD, 230V	6x7x10"
7764-74000	Hi-Torque Drive Adapter	
7774-50115 (e)	Digital OHD/CTII Interface, 100/115V	5x7x8"
7774-60115	Digital Hi-Torque OHD/CTII Interface, 100/115V	5x7x8"
7803-80000	Speed Cable CTII Interface	
9700-10115 (f)	Inline Power Supply, 115V	
9700-10230	Inline Power Supply, 230V	

*includes handle

Overhead Drive Adapters

- Adapt overhead drive motors to PTFE or SST folding impellers
- 316L stainless steel with Polyester/SST bearings
- Two ¼" NPT plugged ports for optional accessories (7764-70000 only)

Stock No.	Description
7764-70000 (g)	Std. OHD Adapter for 100mm Vessels
7764-71000 (h)	Heavy Duty Drive Adapter for Large Flange Vessels
7764-74000 (i)	Hi-Torque Drive Adapter



4-General Glassware



Section 4 – General Laboratory Products

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Freeze Drying Ampoule

- Type 1, Class A Borosilicate glass, flat bottom
- Ideal for freeze drying or cryogenic storage
- Neck has pre-drawn constriction to facilitate sealing

Stock No.	Length (mm)	Capacity (mL)	Case Qty.
4019-00001	80	1	72



Freeze Drying Ampoule

- Type 1, Class A Borosilicate glass, round bottom
- Tubular with firing off constriction on neck
- Rigidly controlled bottom to withstand pressure at low temperature

Stock No.	Length (mm)	Capacity (mL)	Case Qty.
4024-50000	105	0.5	144
4024-00001	145	1	144
4024-00002	145	2	144

Freeze Drying Ampoule

- Type 1, Class A Borosilicate glass
- Tubular
- Round bottom

Stock No.	Length (mm)	Capacity (mL)	Case Qty.
4025-00001	127	1	144
4025-00002	145	2	144
4025-00003	145	3	144
4025-00004	170	4	144



Autoclave Sterilization Bags

- Rugged polypropylene bags withstand 130°C
- OSHA Biohazard Symbol imprinted on bags



Stock No.	Description	Size (Inches)	Qty
2200-12240	Autoclave Bag	12 x 24	100
2200-24300	Autoclave Bag	24 x 30	100
2200-24360	Autoclave Bag	24 x 36	100

Griffin Beaker, Heavy Wall*

- Heavy duty break resistant lip formed by hand tooling
- Graduated for approximate volumes
- Type 1, Class A Borosilicate glass

Stock No.	Capacity (mL)	OD x OAH (mm)	Case Qty.
5620-00005	5	20 x 23	12
5620-00050	50	41 x 56	12
5620-00100	100	51 x 65	12
5620-00250	250	70 x 87	12
5620-00400	400	80 x 106	12
5620-00600	600	95 x 110	12
5620-01000	1000	110 x 145	3
5620-02000	2000	134 x 190	3
5620-04000	4000	160 x 250	2

* Larger Sizes Available, Please Contact Customer Service



Standard Wall Beaker

- Manufactured from Type 1, Class A Borosilicate glass
- Ideal for general laboratory use
- White double scale graduations on 250mL and larger sizes



Stock No.	Capacity (mL)	OD x OAH (mm)	Case Qty.
5621-00050	50	41 x 58	12
5621-00100	100	50 x 69	12
5621-00150	150	58 x 80	12
5621-00250	250	68 x 95	12
5621-00400	400	75 x 111	12
5621-00600	600	88 x 123	6
5621-00800	800	99 x 137	6
5621-01000	1000	106 x 148	6
5621-02000	2000	129 x 190	4

Aseptic Filling Bell

- Attaches to reservoir with rubber tubing
- Receiving vessel is placed under the bell
- Sizes for tubes and bottles
- Type 1, Class A Borosilicate glass

Stock No.	I.D. of Bell (mm)	Height (mm)	Case Qty.
5610-00020*†	22	75	2
5610-00040*†	41	95	2
5610-00050*††	49	100	2
5610-00070**††	70	125	2
5610-00100**††	104	130	2

* For use with tubes; ** For use with bottles

† tubing I.D. 1/4"; †† tubing I.D. 1/2"

Special I.D. sizes and hose connection configurations are available upon special request.



Media Storage Bottle

- Borosilicate glass Type 1, Class B
- Large opening and sloping shoulders facilitate pouring and cleaning
- Heavier walls prevent breakage
- Marking area and approximate graduations
- Supplied with rubber lined 33mm black phenolic screw cap (38mm on 1000mL)

Stock No.	Capacity (mL)	OD x OAH (mm)	Case Qty.
5636-00125	125	55 x 120	12
5636-00250	250	66 x 149	12
5636-00533	500	88 x 187	12
5636-01038	1000	103 x 231	6



Media Storage Bottle, PP Closure

- Borosilicate glass Type 1, Class A
- 45mm linerless polypropylene screw caps (32mm on 50ml bottle)
- Polypropylene pouring ring for drip free pouring

Stock No.	Capacity (mL)	OD x OAH (mm)	Case Qty.
5637-00050	50	46 x 87	10
5637-00100	100	56 x 100	10
5637-00250	250	70 x 138	10
5637-00500	500	85 x 176	10
5637-01000	1000	101 x 225	10
5637-02000	2000	136 x 260	10
5637-05000	5000	182 x 330	1
5637-10000	10000	227 x 410	1

Plastic Coating Available



Media Storage Bottle w/o Cap

- Borosilicate glass Type 1, Class A
- Same as 5637 Media Storage Bottles but without caps or pouring rings.
- See page G-8 for available 32mm and 45mm caps and rings.



Stock No.	Capacity (mL)	Thread (mm)	OD x OAH (mm)	Case Qty.
5637-60050	50	32	46 x 87	10
5637-60100	100	45	56 x 100	10
5637-60250	250	45	70 x 138	10
5637-60500	500	45	86 x 176	10
5637-61000	1000	45	101 x 225	10
5637-62000	2000	45	136 x 260	10
5637-65000	5000	45	182 x 330	1
5637-67000	10000	45	227 x 410	1
5637-68000	15000	45	268 x 445	1
5637-69000	20000	45	288 x 505	1

Media Storage Bottle w/o Cap, Amberized

- Borosilicate glass Type 1, Class A, amber stained
- Same as 5637 Media Storage Bottles but without caps or pouring rings
- Protection up to 500 nm
- See page G-8 for available 32mm and 45mm caps and rings

Stock No.	Capacity (mL)	Thread (mm)	OD x OAH (mm)	Case Qty.
5637-70050	50	32	46 x 87	10
5637-70100	100	45	56 x 100	10
5637-70250	250	45	70 x 138	10
5637-70500	500	45	86 x 176	10
5637-71000	1000	45	101 x 225	10
5637-72000	2000	45	136 x 260	10
5637-75000	5000	45	182 x 330	1
5637-77000	10000	45	227 x 410	1



Square Media Bottles

- Borosilicate glass Type 1, Class A
- 32mm or 45mm blue polypropylene caps and pouring rings (140°C)
- Space saving square design with sloped shoulder for easy cleaning
- Red PBT caps available for high temperature applications (200°C)
- Shoulder groove indicates maximum volume for each size



Stock No.	Capacity (mL)	Thread (mm)	Dimensions (mm)	Case Qty.
5637-40100	100	32	50x50x105	10
5637-40250	250	45	64x64x138	10
5637-40500	500	45	78x78x176	10
5637-41000	1000	45	94x94x218	10

Media Bottle Replacement Cap

Stock No.	Diameter	Case Qty.
2029-00038	38mm	36



Media Bottle Replacement Cap

Stock No.	Diameter	Case Qty.
5636-33430	33mm	72
5636-38430	38mm	72



Stainless Steel Port Assembly for Media Bottles

- Designed for 5637 and 5639 Media Storage Bottles
- Welded, 316L stainless steel construction, ¼ inch OD tubing
- Electropolished finish, continuous seal weld
- Two port model features siphon and vent tubes
- Three port model features siphon, fill and vent tubes
- 45mm polypropylene screw cap and silicone gasket included



Stock No.	Description	Bottle Size (L)
5637-20001	2 Port	1
5637-20002	2 Port	2
5637-20005	2 Port	5
5637-20010	2 Port	10
5637-30001	3 Port	1
5637-30002	3 Port	2
5637-30005	3 Port	5
5637-30010	3 Port	10
A523-599	Cap	~
A523-600	Silicone Gasket	~
A523-608	Cap, red high temp.	~
A523-609	Teflon gasket	~

Roux Culture Bottle

- Working volume is approximately one half total volume
- Offset neck prevents culture from entering neck area
- For large area monolayer cell culture growth
- DeLong® style neck designed for use with 38mm stainless steel closure

Stock No.	Capacity (mL)	Dimensions WxDxH (mm)	Case Qty.
5630-01000	800	124x56x290	6
Closures			
2005-03806	38mm SST Closure		6



Roux Culture Bottle, 38mm

- Working volume is approximately one half total volume
- Offset neck prevents culture from entering neck area
- For large area monolayer cell culture growth
- 38mm deep-skirted, nontoxic, rubber lined black phenolic screw cap included

Stock No.	Capacity (mL)	Dimensions WxDxH (mm)	Case Qty.
5632-01000	800	124x56x290	6
Closures			
2029-00038	38mm cap		36



Linerless PP Cap with Inner Sealing Lip

- Molded from Polypropylene with inner ring that seals into neck of bottle
- Autoclavable to 140°C (steam sterilization)



Stock No.	GL Size	Color	Case Qty.
5637-00032	32	Blue	10
5637-00045	45	Blue	10
5637-00047	45	Green	10
5637-00048	45	Yellow	10
5637-00049	45	Gray	10
Description			
A523-599	45	Cap	
A523-600	45	Silicone Gasket	

High Temperature PBT Cap with Liner

- Red PolyButyleneTerephthalate cap with PTFE faced silicone liner
- Withstands temperature of -45°C to 200°C (steam sterilization)



Stock No.	GL Size	Case Qty.
5637-90032	32	10
5637-90045	45	10
Description		
A523-608	45	Open Top Cap
A523-609	45	Gasket

Pouring Ring, Blue Polypropylene

- Provides drip free pouring
- Protects bottle rim from chipping
- Autoclavable to 140°C (steam sterilization)



Stock No.	GL Size	Case Qty.
5637-10032	32	10
5637-10045	45	10

High Temperature Pouring Ring, Red ETFE

- Red Ethylene-tetrafluoroethylene copolymer
- Provides drip free pouring and protects bottle rim from chipping
- Withstands up to 180°C (steam sterilization)



Stock No.	GL Size	Case Qty.
5637-91032	32	10
5637-91045	45	10

Polypropylene Caps, Open Top and PTFE/Silicone Septa

- 45mm cap has 33mm hole to accommodate 45mm septa or 45mm port assembly
- 32mm cap has 20mm hole to accommodate 32mm septa or 32mm port assembly
- Ideal for addition & withdrawal of contents via syringe



Stock No.	Description	Size	Case Qty.
5637-00035	Cap, Blue PP	32	10
5637-00038	Septa .125 x 1.20"	32	10
5637-00010	Cap, Blue PP	45	10
5637-00015	Cap, Green PP	45	10
5637-00020	Cap, Yellow PP	45	10
5637-00025	Cap, Grey PP	45	10
5637-00030	Septa .125 x 1.70"	45	10

Deep Skirted Screw Caps with Rubber Liners

- Autoclavable, black mineral-filled phenolic resin
- White rubber liners sealed into cap
- Deep skirt reduces risk of contamination



Stock No.	Thread	Case Qty.
2029-00013	13-415	144
2029-00016	15-415	144
2029-00018	18-415	144
2029-00025	24-415	144
2029-00028	28-415	72
2029-00038	38-415	36

Short Skirted Screw Cap with Rubber Liners

- Autoclavable, black mineral-filled phenolic resin with white rubber liner
- Short skirt for use with glass roller bottles



Stock No.	Thread	Case Qty.
7730-00038	38-400	36
2029-00051	51-400	72

Deep Skirted Teflon® Lined Screw Cap

- Autoclavable, black mineral-filled phenolic resin
- Teflon® liner is permanently bonded to cap
- Deep skirt reduces risk of contamination



Stock No.	Thread	Case Qty.
2030-00038	38-415	72

Rubber Lined Screw Cap

- Autoclavable, black, mineral-filled phenolic resin
- White rubber liner



Stock No.	Thread	Case Qty.
5636-33430	33-430	72
5636-38430	38-430	72

Stainless Steel Closures

Stainless steel closures continue to provide excellence in culture tube and flask closures. Manufactured from type 305 stainless steel, they can be used indefinitely without corroding. The fingers grip the outside of the tube firmly and will not lose their resilience through repeated autoclaving or dry heat sterilization.

Stainless Steel Closures with Fingers

Stock No.	For Tube OD (mm)	Case Qty.
2005-00013	13	144
2005-00016	16	144
2005-00018	18	144
2005-01824	18	24
2005-00020	20	144
2005-00025	25	72
2005-02512	25	12
2005-00038	38	36
2005-03812	38	12
2005-03806	38	6
2005-03803	38	3



Stainless Steel Closures without Fingers

Stock No.	For Tube OD (mm)	Case Qty.
2006-00018	18	144

KAP-UTS™ Disposable Closures

- For culture tubes and flasks with DeLong® style necks and access ports
- Manufactured from nontoxic autoclavable polypropylene
- Seven colors promote easy identification
- Six sizes from 13mm to 38mm
- Same evaporation and sterility characteristics as stainless steel closures
- Molded pressure fins for firm grip



Stock No.	Size(mm)	Color	Case Qty.
2007-13001	13	Black	1000
2007-13002	13	Red	1000
2007-13003	13	Yellow	1000
2007-13004	13	Blue	1000
2007-13005	13	White	1000
2007-13006	13	Green	1000
2007-16001	16	Black	1000
2007-16002	16	Red	1000
2007-16003	16	Yellow	1000
2007-16004	16	Blue	1000
2007-16005	16	White	1000
2007-16006	16	Green	1000
2007-18001	18	Black	1000
2007-18002	18	Red	1000
2007-18003	18	Yellow	1000
2007-18004	18	Blue	1000
2007-18005	18	White	1000
2007-18006	18	Green	1000
2007-20001	20	Black	500
2007-20002	20	Red	500
2007-20003	20	Yellow	500
2007-20004	20	Blue	500
2007-20005	20	White	500
2007-20006	20	Green	500
2007-25001	25	Black	500
2007-25002	25	Red	500
2007-25003	25	Yellow	500
2007-25004	25	Blue	500
2007-25005	25	White	500
2007-25006	25	Green	500
2007-25013	25	Natural	500
2007-38005	38	White	250

Silicone Sponge Closures

- Sealed-in silicone sponge filter is ideal for aerobic cultures
- Flanged to fit snugly over outside of neck preventing passage of aerosols
- Withstands dry heat sterilization to 180°C



Stock No.	Size (mm)	For Use With	Case Qty
2004-00002	13-18	13-18 mm Culture Tubes 18 mm screw necks	10
2004-00003	20-25	18-25 mm Culture Tubes 25-50 ml Erlenmeyer Flasks 25-125 ml DeLong® Flasks	10
2004-00004	28	125-300 ml Erlenmeyer Flasks	10
2004-00005	38	38 mm culture tubes 500-1000 ml Erlenmeyer Flasks 250-6000 ml DeLong® Flasks	10

Silicone Sponge Plug Closures

- Tapered silicone sponge with smooth exterior for tight seal
- Extra long for easy insertion and removal
- Fits 25mm culture tubes, 32mm sidearms

Stock No.	Size (mm)	Case Qty.
1924-00032	32	25



Homogenizer, Collector™ Tissue Sieve

- Prepare cell suspensions and gel extraction of proteins
- All stainless steel construction
- Available with 85 mL or 130 mL pans



Stock No.	Description	Size	Case Qty
1985-85000	Collector Complete*	85 mL	1
1985-13000	Collector Complete*	130 mL	1
1985-18500	Collector Pan and Key only	85 mL	1
1985-11300	Collector Pan and Key only	130 mL	1
1985-11516	Glass Pestle Only	16 mm	1
1985-28500	Collector Key Only		1
1985-00010	Replacement Screen Only	10 mesh/1910μ	5
1985-00020	Replacement Screen Only	20 mesh/860μ	5
1985-00030	Replacement Screen Only	30 mesh/520μ	5
1985-00040	Replacement Screen Only	40 mesh/380μ	5
1985-00050	Replacement Screen Only	50 mesh/280μ	5
1985-00060	Replacement Screen Only	60 mesh/230μ	5
1985-00080	Replacement Screen Only	80 mesh/190μ	5
1985-00100	Replacement Screen Only	100 mesh/140μ	5
1985-00150	Replacement Screen Only	150 mesh/94μ	5
1985-00200	Replacement Screen Only	200 mesh/74μ	5
1985-00300	Replacement Screen Only	300 mesh/46μ	5
1985-00400	Replacement Screen Only	400 mesh/38μ	5
1985-00500	Replacement Screen Only	500 mesh/25μ	5

*Collector Complete includes: pan, glass pestle, key and nine screens (one each) 10 to 150 mesh size

Vessel, Flat Bottom, with 2-port Cap Assembly

- Flat bottom borosilicate glass tube with 32mm threaded opening
- Tube measures approximately 32mm OD x 94mm OAL
- Screened with a 10mm white marking spot
- Port assembly is manufactured from 316L stainless steel
- Electropolished for easy cleaning
- Long tube extends approximately 25mm above/below the cap; short tube extends 25mm above the cap
- Supplied with a 32mm open top blue polypropylene cap & white silicone sealing gasket

Stock No.	Description
5637-51000	Cap Assembly Only
5637-28094	Vessel Only
5637-52894	Complete



Autosampler Vials

Screw Thread Vials

- Clear vials manufactured from Type 1 Borosilicate glass
- Amber vials manufactured from Type 1 amber glass
- Designed for use with Varian and other autosamplers



Stock No.	Description	Size (mm)	Case Qty
2070-00010	8mm S/T Clear	12 x 32	1000
2070-00020	8mm S/T Amber	12 x 32	1000
2070-00170	10-425 Clear	12 x 32	1000
2070-00180	10-425 Amber	12 x 32	1000
2070-00190	9-425 Clear RAM*	12 x 32	1000
2070-00200	9-425 Amber RAM*	12 x 32	1000

*Robotic Arm Motion

11mm Aluminum Seal Vials

- Clear vials manufactured from Type 1, Class B Borosilicate glass
- Amber vials manufactured from Type 1 amber glass
- Vials accept 11mm aluminum seals
- Large Opening vials have wider ID for easier sample access
- Designed for use with Hewlett Packard and other autosamplers



Stock No.	Description	Size (mm)	Case Qty
2070-00030	11mm A/S Clear	12 x 32	1000
2070-00040	11mm A/S Amber	12 x 32	1000
2070-00050	11mm A/S Clear, L/O	12 x 32	1000
2070-00060	11mm A/S Amber, L/O	12 x 32	1000
2070-00130	11mm A/S Clear	12 x 32	1000
2070-00140	11mm A/S Amber	12 x 32	1000
2070-00150	11mm A/S w/ Spot	12 x 32	1000
2070-00160	11mm A/S Amb w/Spot	12 x 32	1000

11mm Snap-Seal™ Vials

- Patented Snap-Seal™ design for positive seal
- Manufactured from Type 1, Class A Borosilicate glass
- Vials accept 11mm Snap-Ring Closures
- Developed for use with Hewlett Packard® and other autosamplers

Stock No.	Description	Size (mm)	Case Qty
2070-00070	11mm Clear	12 x 32	1000
2070-00075	11mm PP	12 x 32	1000
2070-00080	11mm Amber	12 x 32	1000



13mm Screw Thread Vials

- For use with Shimadzu AOC-14/1400 and Waters 48 model autosamplers

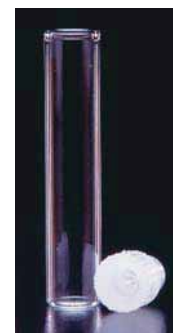
Stock No.	Description	Size (mm)	Case Qty
2070-00090	13mm S/T Clear	15 x 45	1000
2070-00100	13mm S/T Amber	15 x 45	1000



8x40 mm Shell Vials w/Plug Insert

- Designed for the Waters WISP™ 96-position autosampler
- Plug insert sold separately

Stock No.	Description	Size (mm)	Case Qty
2070-00110	8mm Shell Vial Clear	8 x 40	1000
2070-00120	8mm Shell Vial Amber	8 x 40	1000
2070-03700	8mm Plug Insert		1000



Closures & Septa

Polypropylene Closures w/Open Top

- Designed for standard screw thread vials
- Available with or without septa

Stock No.	Description	GPI (mm)	Case Qty
2070-00500	Black	8-425	1000
2070-00525	Red	8-425	1000
2070-00700	Black, w/Septa	8-425	100
2070-00550	Blue	9-425	1000
2070-00900	Blue w/PTFE/RR septa	9-425	1000
2070-00950	Blue w/PTFE/Sil septa	9-425	1000
2070-00975	Black	10-425	1000
2070-00960	Blue w/PTFE/Sil septa	10-425	1000
2070-00995	Blue	10-425	1000
2070-00600	Black	13-425	1000
2070-00800	Black, w/Septa	13-425	100



Liners

- Designed for standard screw thread vials
- Autoclavable

Stock No.	Description	Size (in)	Case Qty
2070-01000	Red TFE/Silicone	8mm x .065	1000
2070-01600	Red PTFE/Silicone	10mm x .010	1000
2070-01200	Red TFE/Silicone	13mm x .060	1000
2070-01100	White PTFE	8mm x .010	1000
2070-01700	White PTFE	10mm x .010	1000
2070-01300	White PTFE	13mm x .010	1000
2070-01400	PTFE/Red Rubber	9mm x .040	1000
2070-01500	PTFE/Silicone	9mm x .040	1000



Aluminum Seals, Snap-Ring Closures & Inserts With Springs

Aluminum Seals w/TFE/Red Rubber Liner

Stock No.	Description	Size	Case Qty
2070-02000	Aluminum Seal, Silver	11mm	1000
2070-05100	Aluminum Seal, Blue	11mm	1000
2070-05200	Aluminum Seal, Yellow	11mm	1000
2070-05300	Aluminum Seal, Green	11mm	1000

Aluminum Seals w/PTFE/Silicone Liner

Stock No.	Description	Size	Case Qty
2070-05000	Aluminum Seal, Silver	11mm	1000
2070-05400	Poly Crimp Seal, Clear	11mm	1000

Snap-Ring Closures, Clear, with Septa

Stock No.	Description	Size	Case Qty
2070-03000	PTFE Red Rubber	11mm	1000
2070-03100	10 Mil PTFE Liner	11mm	1000
2070-03200	PTFE/Silicone	11mm	1000
2070-03500	PTFE/Silicone/PTFE	11mm	1000





Inserts w/Springs & Flat Bottom Inserts

Stock No.	Description	Capacity	Size (mm)	Case Qty
2070-04000	Conical Bottom	100µL	5 x 29	100
2070-04100	Conical Bottom	250µL	6 x 29	100
2070-04200	Conical Bottom	300µL	6 x 38	100
2070-04300	Flat Bottom	250µL	5 x 31	1000
2070-04400	Flat Bottom	350µL	6 x 30	1000
2070-04600	Flat Bottom	500µL	6 x 25	100

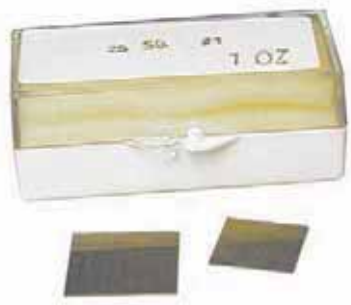


Accessories for Chromatography Vials

Stock No.	Description	Size
2070-06000	Rack, White, 12mm	50 position
2070-06100	Rack, Blue, 12mm	50 position
2070-07000	11mm Crimper, Manually Operated	

Rectangular and Square Cover Slips

- #1 thickness (0.13 to 0.16mm)
- Packed one ounce (28 gm) per case



Stock No.	Size (mm)	Approx. Case Qty.
1916-09009†	9 x 9	765
1916-12222	22 x 22	150
1916-09022†	9 x 22	435
1916-09035†	9 x 35	260
1916-09050†	9 x 50	175
1916-10522†	10.5 x 22	335
1916-10535†	10.5 x 35	215
1916-10550†	10.5 x 50	150
1916-13054†	13 x 54	120
1916-24050	24 x 50	65
1916-25075†	25 x 75	40

†For use with Bellco Leighton Tissue Culture Tubes. page G-38. Please inquire about special sizes

Round Cover Slips

- # 1 Thickness (0.13 to 0.16mm); Packed 28 gm (1oz) per case
- Float glass 1.52 Refractive Index



Stock No.	Diameter (mm)	Approx. Case Qty
1943-00005	5	1100
1943-00012	12	650
1943-00015	15	378
1943-22222	25	160

Round Cover Slips, German Glass

- Ideal for neural tissue cell cultures and hard-to-attach cells
- Specially developed for fluorescence and confocal microscopy
- #1 Thickness (0.13 to 0.16mm); Packed 28 gm (1oz) per case

Stock No.	Diameter (mm)	Approx. Case Qty
1943-10012	12	650
1943-10015	15	378
1943-10025	25	160



Photo-etched Cover Slips

- 520 alphanumeric coded squares (25mm: 200 areas in diamond pattern)
- .17 - .25mm thick; each square measures 0.6mm x 0.6mm
- Facilitates mounting of micro-manipulated cells or chromosome spreads

Stock No.	Size (mm)	Case Qty.
1916-92525	23 x 23	25
1916-91818	18 x 18	25
1916-90025	25mm round	25



U.S. Patent Number 4,415,405

References: Lin, Pin-Fang and Frank H. Riddle 1981. Photoengraving of Cover Slips and Slides to Facilitate Mounting of Micromanipulated Cells or Chromosome Spreads, Exp. Res. 134:485-488

Cloning Cylinders, Borosilicate Glass*

- Isolate single cells or cell groups within a culture dish population
- Flat ring ends ensure tight sealing with surface of culture dish

Stock No.	ODxOAL (mm)	Case Qty.
2090-00608	6 x 8	125
2090-00808	8 x 8	125
2090-01010	10 x 10	125

*Also available in Stainless Steel and other glass sizes. Call for pricing.



Disinfectant Testing Glazed Cylinder, Borosilicate Glass

- For the Disinfectant Testing Procedure as described in the AOAC manual
- Cylinder ends are lightly glazed

Stock No.	ODxOAL (mm)	Case Qty.
2091-00808*	8 x 8	125
2091-08010^	8 x 10	125

*Ref: Rubino Et Al. 1992 Hard Surface Carrier Test for Efficacy Testing of Disinfectants

^Requires 15mm deep Petri Dish



Class A Cylinders, Graduated, To Contain

- Manufactured from Type 1, Class A borosilicate glass
- Hexagonal bumper guard included (except 2000mL size)
- White double scale graduations

Stock No.	Capacity (ml)	OD x OAH (mm)	Case Qty.
5625-00050	50	24 x 218	4
5625-00100	100	30 x 236	4
5625-00250	250	41 x 301	4
5625-00500	500	53 x 362	2
5625-01000	1000	70 x 422	2
5625-02000	2000	90 x 478	1



7-X® and 7-X O-Matic® Detergents

- Liquid concentrate of anionic surfactants and special solvents, 5% solution at pH 7.8
- Non-caustic, non-acidic and chemically mild
- For all laboratory glassware and surgical instruments



Stock No.	Description	Size (gallons)	Case Qty.
4752-10001	7-X ®	1	4
4752-10005	7-X ®	5	1
4752-20001	7-X® O-Matic	1	4

Biometer Flask

- Designed for the measurement of microbial CO₂ production over time
- Ideal for bioremediation studies
- Manufactured from Borosilicate glass Type 1, Class A
- All components are autoclavable

Stock No.	Description	Capacity
2556-00250	Complete	250mL
2556-10250	Flask Only	250mL
2556-20250	Filter Assembly	
2556-30250	Needle Assembly	



DeLong® Culture Flask with Stainless Steel Closure

- Ideal for growing, storing and mixing of aerobic and anaerobic cultures
- Borosilicate glass Type 1, Class A
- Graduated to approximate volumes



Stock No.	Capacity (mL)	Closure (mm)	OD x OAH (mm)	Case Qty.
2510-00025	25	18	40 x 96	24
2510-00050	50	18	50 x 105	24
2510-00125	125	25*	66 x 136	12
2510-00250	250	38	80 x 160	12
2510-00300	300	38	88 x 170	12
2510-00500	500	38	100 x 205	12
2510-01000	1000	38	128 x 235	6
2510-02000	2000	38	158 x 295	3
2510-03000	3000	38	184 x 340	3
2510-04000	4000	38	205 x 370	3
2510-06000	6000	38	235 x 410	3

**Uses Stainless Steel 25mm Closures only.
For KAP-UTS™ Disposable Closures, see page G-10
For Stainless Steel Closures, see page G-9*

DeLong® Culture Flask without Closure

- Borosilicate glass Type 1, Class A
- Graduated to approximate volumes
- Stainless Steel or KAP-UTS™ Disposable Closures purchased separately

Stock No.	Capacity (mL)	Closure (mm)	OD x OAH (mm)	Case Qty.
2511-00025	25	18	40 x 96	24
2511-00050	50	18	50 x 105	24
2511-00125	125	25*	66 x 136	12
2511-00250	250	38	80 x 160	12
2511-00300	300	38	88 x 170	12
2511-00500	500	38	100 x 205	12
2511-01000	1000	38	128 x 235	6
2511-02000	2000	38	158 x 295	3
2511-04000	4000	38	205 x 370	3
2511-06000	6000	38	235 x 410	3

*Uses Stainless Steel 25mm Closures only.

For KAP-UTS™ Disposable Closures, see page G-10

For Stainless Steel Closures, see page G-9



Erlenmeyer Flask, Graduated

- Ideal for general laboratory media mixing, storage and dispensing
- Narrow mouth with break-resistant lip that resists chipping
- Graduated to approximate volumes
- Borosilicate glass Type 1, Class A



Stock No.	Capacity (mL)	Stopper Size	OD x OAH (mm)	Case Qty.
2504-00025	25	0	39 x 66	24
2504-00050	50	1	50 x 80	24
2504-00125	125	5	66 x 115	12
2504-00250	250	6	80 x 140	12
2504-00300	300	6	88 x 148	12
2504-00500	500	7	100 x 183	12
2504-01000	1000	9	128 x 223	6
2504-02000	2000	10	158 x 290	3
2504-03000	3000	10	184 x 305	3
2504-04000	4000	10	205 x 355	3
2504-06000	6000	10	237 x 395	3

Erlenmeyer Flask, Graduated

- Narrow mouth with heavy duty rim to prevent chipping
- Graduated to approximate volumes
- Ideal for general laboratory use
- Borosilicate glass Type 1, Class A

Stock No.	Capacity (mL)	Stopper Size	OD x OAH (mm)	Case Qty.
2505-00125	125	5	65 x 107	12
2505-00250	250	6	79 x 133	12
2505-00500	500	7	100 x 173	6
2505-01000	1000	9	124 x 214	6



Erlenmeyer Flask with Screw Cap

- Ideal for culture of aerobic & anaerobic organisms, media storage & mixing
- Deep-skirted screw caps protect against contamination
- Borosilicate Glass, Type 1, Class A
- Supplied with rubber lined black phenolic caps
- Graduated to approximate volumes



Stock No.	Capacity (mL)	Cap (mm)	OD x OAH (mm)	Case Qty.
2514-00025	25	18-415	41 x 65	24
2514-00050	50	24-415	50 x 85	24
2514-00125	125	24-415	66 x 125	12
2514-00250	250	38-415	80 x 143	12
2514-00300	300	38-415	88 x 150	12
2514-00500	500	38-415	100 x 190	12
2514-01000	1000	38-415	128 x 220	6
2514-02000	2000	38-415	158 x 275	3
2514-03000	3000	38-415	184 x 320	3
2514-04000	4000	38-415	205 x 350	3
2514-06000	6000	38-415	235 x 390	3

For screw caps, see Stock Number 2029 series, page G-9

Erlenmeyer Flask with 45mm Linerless Screw Cap

- Ideal for all cell culture and media storage purposes
- Borosilicate Type 1, Class A with 45mm PP screw caps and pouring rings
- Provides flexible, secure seal without a liner
- Graduated to approximate volumes

Stock No.	Capacity (mL)	OD x OAH (mm)	Case Qty.
2515-00250	250	80 x 117	12
2515-00500	500	100 x 156	12
2515-01000	1000	128 x 200	6
2515-02000	2000	158 x 260	3
2515-04000	4000	205 x 325	1
2515-06000	6000	235 x 370	1

For screw caps and pouring rings, see Stock Number 5637 series, page G-8



Fernbach Flask, 38mm without Baffles

- DeLong® style neck
- Borosilicate glass Type 1, Class A
- For culturing organisms requiring a large surface to volume



Stock No.	Capacity (mL)	OD x OAH (mm)	Case Qty.
2550-01800	1800	200 x 175	3
2550-02800	2800	205 x 250	3

Closures sold separately. For Stainless Steel Closures, see page G-9
For KAP-UTS™ Disposable Closures, see page G-10

Fernbach Flask, Triple Baffled

- Three side baffles and break resistant lip
- For culturing organisms requiring a large surface to volume ratio
- Borosilicate glass Type 1, Class A

Stock No.	Capacity (mL)	Stopper Size	OD x OAH (mm)	Case Qty.
2551-01800	1800	10	200 x 157	3
2551-02800	2800	13	210 x 225	3



Fernbach Flask, Triple Baffled, 38mm

- DeLong® style neck
- Three bottom baffles
- For cultures requiring a large surface area-to-volume ratio
- Borosilicate glass Type 1, Class A

Stock No.	Capacity (mL)	OD x OAH (mm)	Case Qty.
2554-01800	1800	200 x 175	3
2554-02800	2800	210 x 250	3

Closures sold separately. For Stainless Steel Closures, see page G-9
For KAP-UTS™ Disposable Closures, see page G-10



Fernbach Flask, Triple Baffled, with 45mm PP Linerless Closure

- Borosilicate glass Type 1, Class A
- Three side baffles
- 45mm PP screw cap and pouring ring
- For cultures requiring a large surface area-to-volume ratio

Stock No.	Capacity (mL)	OD x OAH (mm)	Case Qty.
2552-01800	1800	200 x 157	1
2552-02800	2800	210 x 225	1

For replacement caps and rings, see page G-8



Media Storage and Dispensing Flask

- Break resistant lip
- Borosilicate glass Type 1, Class A
- Bottom hose connection accepts 1/2" ID tubing
- Graduated to approximate volumes
- Not for vacuum use

Stock No.	Capacity (mL)	OD* x OAH (mm)	Case Qty.
2530-00250	250	80 x 140	6
2530-00500	500	100 x 183	6
2530-01000	1000	128 x 223	6
2530-02000	2000	158 x 290	3
2530-04000	4000	205 x 355	3
2530-06000	6000	250 x 394	2

*Add approximately 1" for hose barb.



Other configurations are available for these as well as all other Bellco Fernbach & Erlenmeyer Flasks.

Nephelo Culture Flask

- Supplied with 25mm Bellco Stainless Steel Closure
- Packed 4 per case

Stock No.	Capacity (mL)	Sidearm OD x OAH (mm)
2571-14130	125	14 x 130
2571-14133	300	14 x 130

For stainless steel closures see stock number 2005-00025



Nephelo Culture Flask

- Threaded neck and threaded sidearm with cleanout port
- Supplied with 38 and 18mm rubber lined black phenolic screw caps
- Packed 4 per case



Stock No.	Capacity (mL)	Sidearm OD x OAH (mm)
2574-12133	300	12 x 130
2574-14133	300	14 x 130
2574-19133	300	19 x 130
2574-12135	500	12 x 130
2574-14135	500	14 x 130
2574-19135	500	19 x 130
2574-12131	1000	12 x 130
2574-14131	1000	14 x 130
2574-19131	1000	19 x 130

Nephelo Culture Flask w/3 Baffles

- Supplied with 25mm Bellco Stainless Steel Closure
- 3 Baffles increase culture oxygenation
- Packed 4 per case

Stock No.	Capacity (mL)	Sidearm OD x OAH (mm)
2578-12133	300	12 x 130
2578-14133	300	14 x 130
2578-19133	300	19 x 130



Nephelo Culture Flask w/3 Baffles

- Threaded neck and threaded sidearm with cleanout port
- 3 Baffles increase culture oxygenation
- Supplied with 38mm and 18mm rubber lined black phenolic cap
- Packed 4 per case



Stock No.	Capacity (mL)	Sidearm OD x OAH (mm)
2581-14133	300	14 x 130
2581-19133	300	19 x 130
2581-14135	500	14 x 130
2581-19135	500	19 x 130

For additional screw caps, see Stock Numbers 2029-00018 and 2029-00038

Shake Flask w/3 Baffles

- Ideal for preliminary fermentation and bacterial growth studies
- DeLong® style neck and three side baffles
- Borosilicate glass Type 1, Class A
- Closures sold separately

Stock No.	Capacity (mL)	Closure (mm)	OD x OAH (mm)	Case Qty.
2540-00050	50	18	50 x 105	12
2540-00125	125	25*	66 x 136	12
2540-00250	250	38	80 x 160	12
2540-00300	300	38	88 x 170	12
2540-00500	500	38	100 x 205	12
2540-01000	1000	38	128 x 235	6
2540-02000	2000	38	160 x 295	3

*Uses 25 mm Stainless Steel Closures Only, see page G-9



Shake Flask w/3 Baffles

- Break resistant lip and three side baffles
- Borosilicate glass, Type 1, Class A
- Designed to fit all Bellco Orbital Shakers

Stock No.	Capacity (mL)	OD x OAH (mm)	Case Qty.
2541-00125	125	66 x 116	12
2541-00250	250	80 x 140	12
2541-01000	1000	128 x 220	6
2541-02000	2000	158 x 290	3

For Bellco Orbital Shakers and Flask Accessory Trays, see page E-35



Shake Flask w/3 Extra Deep Baffles

- Break resistant lip
- Three extra deep side baffles
- Borosilicate glass Type 1, Class A

Stock No.	Capacity (mL)	OD x OAH (mm)	Case Qty.
2542-00250	250	80 x 140	12
2542-00300	300	88 x 150	12
2542-00500	500	100 x 183	12
2542-01000	1000	128 x 220	6
2542-02000	2000	158 x 290	3

For Bellco Orbital Shakers and Accessory Trays, see page E-35



Shake Flask w/3 Extra Deep Baffles

- DeLong® style neck
- Three extra deep side baffles for optimal agitation
- Borosilicate glass Type 1, Class A



Stock No.	Capacity (mL)	Closure (mm)	OD x OAH (mm)	Case Qty.
2543-00050	50	18	50 x 105	12
2543-00125	125	25*	66 x 136	12
2543-00250	250	38	80 x 160	12
2543-00300	300	38	88 x 170	12
2543-00500	500	38	100 x 205	12
2543-01000	1000	38	128 x 235	6
2543-02000	2000	38	158 x 295	3
2543-03000	3000	38	184 x 340	3
2543-04000	4000	38	205 x 370	3

*Uses 25 mm Stainless Steel Closures Only.
For Stainless Steel Closures, see page G-9
For KAP-UTS™ Disposable Closures, see page G-10

Shake Flask w/4 Bottom Baffles & Constriction

- DeLong® style neck
- Four extra deep bottom baffles
- Borosilicate glass, Type 1, Class A

Stock No.	Capacity (mL)	Closure (mm)	OD x OAH (mm)	Case Qty.
2547-00250	250	38	81 x 160	12
2547-00500	500	38	100 x 203	12
2547-01000	1000	38	128 x 235	6

For Stainless Steel Closures, see page G-9
For KAP-UTS™ Disposable Closures, see page G-10
For Belco Orbital Shakers and Flask Accessory Trays, see page E-35



Trypsinizing Flask, Graduated with 16mm Sidearm Cap

- Designed with deep side baffles for optimal agitation
- Promotes enzyme digestion of tissue fragments and homogenates into cell suspensions
- Borosilicate glass, Type 1, Class A
- Includes rubber lined, black phenolic screw caps
- Integral dam contains non-trypsinized tissue during decanting
- Acid etched & filled graduations



Stock No.	Capacity (mL)	Graduations (mL)	OD x OAH (mm)	Case Qty.
1989-00125*	125	10, 25, 50	66 x 135	3
1989-00250†	250	50, 75, 100	80 x 163	3
1989-00500†	500	80, 100, 150	100 x 190	3

*Top Screw Cap Size is 24 mm. †Top Screw Cap Size is 38mm.
Sidearm Screw Cap size is 16mm.

Trypsinizing Flask

- Borosilicate glass, Type 1, Class A
- Designed with deep side baffles for optimum agitation
- Break resistant lip
- Large bottom surface for easy access with Bellco Large Orifice Pipettes

Stock No.	Capacity (mL)	OD x OAH (mm)	Case Qty.
1992-00050	50	50 x 80	3
1992-00125	125	66 x 115	3
1992-00250	250	80 x 140	3
1992-00500	500	100 x 183	3
1992-01000	1000	128 x 223	2
1992-02000	2000	158 x 290	2
1992-04000	4000	205 x 360	2

For Magnetic Stirring Bars, see page F-10

For Large Orifice Pipettes, see Stock Number 1232, page G-27



Volumetric Flask, Clear, To Contain

- Meet ASTM E288 Specifications
- Borosilicate glass, Type 1, Class A
- Permanent graduation line & marking area

Stock No.	Capacity (mL)	Stopper Size	OD x OAH (mm)	Case Qty.
2525-00010	10	9	26 x 96	6
2525-00025	25	9	37 x 123	6
2525-00050	50	13	49 x 152	4
2525-00100	100	13	58 x 181	4
2525-00200	200	16	74 x 220	4
2525-00250	250	16	78 x 239	4
2525-00500	500	19	96 x 279	2
2525-01000	1000	22	122 x 327	2
2525-02000	2000	27	157 x 326	2



Volumetric Flask, Amber, To Contain

- Meet ASTM E288 Specifications
- Borosilicate glass, Type 1, Class A
- For light sensitive materials

Stock No.	Capacity (mL)	Stopper Size	OD x OAH (mm)	Case Qty.
2526-00010	10	9	26 x 96	6
2526-00025	25	9	37 x 123	6
2526-00050	50	13	49 x 152	4
2526-00100	100	13	58 x 181	4
2526-00200	200	16	74 x 220	4



Pre-cleaned Plain Microscope Slides

- Square corners and ground edges



Stock No.	Size (mm)	Thickness (mm)	Case Qty.
5638-11013	25 x 75	0.9 to 1.09	1440
5638-12013	25 x 75	1.10 to 1.30	1440

Pre-cleaned Frosted Microscope Slides

- Available with either one end or both ends frosted
- Thickness (mm) 0.9 to 1.09



Stock No.	Description	Size (mm)	Case Qty.
5638-00103	Frosted 1 end	25 x 75	1440
5638-10300	Frosted both ends	25 x 75	1440

BELCO PRINTED GLASS MICROSCOPE SLIDES feature fired ceramic printing that provides a micro-edge. This increases liquid retention yet resists volatile solvents thus enabling the slides to withstand repeated autoclaving cycles. A variety of test-specific slides are available, and Bellco will customize slides in multiple colors and configurations to comply with your specific requirements. All slides measure 25mm x 75mm.

Reich Counting Slide

- Modification of the Breed Counting Technique
- Spreading a known volume of solution over a known area permits a calculation of bacteria per sample
- Three rings with each interior area measuring 1cm²

Stock No.	Description	Case Qty.
5638-01920	Reich Slide	144



Somatic Cell Count Slide

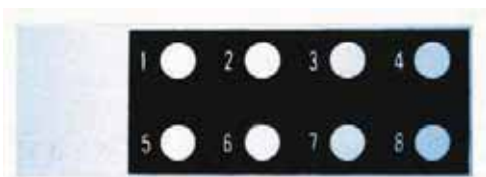
- Useful for direct microscopic counts of somatic cells in cow's milk
- Spread 0.01ml sample onto each circle and then dry and stain
- Count cells under oil immersion microscopy

Stock No.	Description	Case Qty.
5638-01930	Somatic Cell Slide	144



Fluorescent Antibody Slide

- For indirect fluorescent antibody tests including test for toxoplasmosis
- Black ceramic background with eight rings (6mm in diameter)



Stock No.	Description	Case Qty.
5638-01940	Fluorescent Antibody Slide	144

Petri Dish Spreader

- Ideal for spreading inoculum over agar face in petri dish cultures
- Manufactured from 4 mm OD Borosilicate glass rod



Stock No.	Style	Length (mm)	Case Qty.
5654-00090	90° bend	130	50
5654-00120	120° bend	130	50



Cellometer™ Disposable Dual Cell Counting Chamber, Glass/Plastic
Cellometer™ Disposable Dual Cell Counting Chamber, Plastic

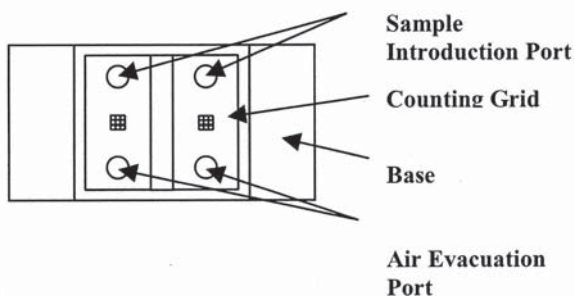
The Cellometer Glass/Plastic Disposable Cell Counting Chamber features an improved Neubauer counting grid on plastic that is mounted onto a standard 25 x 75mm (1x3”) glass slide. The dual counting chamber has a sample introduction port, counting grid and air evacuation port and is ideal for laboratories working with infectious samples. Duplicate samples may be counted, or control/unknown samples may be counted on the same slide. No coverslip is required for the Cellometer thus avoiding counting errors.

The Cellometer All Plastic Disposable Cell Counting Chambers feature the same Neubauer counting grid mounted onto a 20 x 75mm (3/4 x 3”) plastic base. The same procedure applies as for the glass/plastic counting chamber.

Procedure

1. Pipette 20µl of cell suspension through sample port
2. Place Cellometer under optical microscope and adjust for phase contrast onto grid/cells
3. Count cells following standard procedures
4. Calculate cell concentration (cell concentration = Dilution x (Total count /3.4*) x 10⁴
 *liquid layer between grid film and base is approximately 85µm.
5. Dispose of counting chamber.

Cellometer™



Stock No.	Description	Case Qty	List Price
5638-20005	Dual Chamber w/Glass Base	5	25.00
5638-20025	Dual Chamber w/Glass Base	25	80.00
5638-20100	Dual Chamber, Plastic	100	300.00

M Tub

- mTub Washing Tray for Microarray Products, PP
- mBox Slide Handling Tray for Microarray Slides, PP
- mBox Handle, SST



The **mTub** is a disposable PP tray for immersing or washing microarray products. Engineered to hold the mBox, it will accept most glass and stainless steel boats currently on the market. Packed 10/case.

The **mBox** is designed to immerse 20 slides in liquid during blocking, denaturing and post-arraying. The mBox separates from the slide rack and prevents damage during shipping and processing. The slide rack is designed for easy slide removal from the box and fits standard microtiter plate format for centrifugation.

The mBox is manufactured from PP and will withstand a continuous use temperature of 220°F (104°C)

The **mBox Handle** is a removable stainless steel handle that is snaps on and off as needed. Packed 1/case.

Stock No.	Description	Case Qty
5638-30100	mBox	10
5638-30200	mHandle	1
5638-30300	mTub	10



BELCO PIPETTES

Bellco manufactures all precision pipettes from Type 1 Class A Borosilicate glass. All Bellco pipettes feature tempered tips and permanent silk screened graduations to withstand repeated usage and alkali washings. Pipette accessories include the Pipette Plugger, a variety of canisters and single and multiple channel pipettors.

Personalizations

Personalization is free on orders for 5 cases or more (sizes and styles may be assorted) of our standard case quantities of 18 and 12 each. Orders for less than 5 cases will be charged an additional amount per pipette. Over 1000 standard identifications such as Microbiology, Virology, Cell Biology, Bacteriology and Biochemistry are available and are applied with a permanent amber stain. Up to eight (8) characters (including spaces) fit on “shortie” pipettes and twelve (12) characters (including spaces) fit on conventional pipettes. A nominal fee will be charged for new screens, which remain on file for future use. **Bulk-Pak Pipettes** may be personalized for an additional per pipette charge. Contact Customer Service for pricing or additional information. Orders for personalized ware must be placed in writing.

Color Coding

Color coding is free on orders for 5 cases or more (minimum 2 cases per color, sizes and styles may be assorted) of our standard case quantities of 18 and 12 each. Orders for less than 5 cases (minimum 2 per color) will be charged an additional amount per pipette. Please note that the specified color will be added to the already existing color code. **Bulk-Pak Pipettes** may be color coded for an additional cost per pipette. Contact Customer Service for pricing or additional information. Orders for color coded ware must be placed in writing.

All Personalization & Additional Color Coding orders are subject to a 5% over/underrun. Pasteur Pipettes are excluded from personalization or color coding. Please be sure desired personalization and/or color coding is ordered correctly as we cannot accept returns or issue credit on this ware.

Serological Pipette, TD

- Plain top promotes rapid, even flow
- Calibrated to tip
- Tempered tip; to deliver, blow out.

Stock No.	Size (mL)	Tolerance ±(mL)	OAL (mm)	Color Code	Case Qty.
1212-01001	1 x 0.01	0.02	350	Yellow	18
1212-02010	2 x 0.1	0.02	350	Green	18
1212-05010	5 x 0.1	0.04	350	Blue	18
1212-10010	10 x 0.1	0.06	350	Orange	18
1212-25010	25 x 0.1	0.1	400	White	18



Serological Pipette, Bulk-Pak, TD

- Plain top promotes rapid, even flow
- Calibrated to tip
- Tempered tip; to deliver, blow out

Stock No.	Size (mL)	Tolerance ±(mL)	OAL (mm)	Color Code	Case Qty.
1202-00201	0.2 x 0.01	0.008	325	Black	250
1202-01001	1 x 0.01	0.02	350	Yellow	250
1202-02010	2 x 0.1	0.02	350	Green	250
1202-05010	5 x 0.1	0.04	350	Blue	250
1202-10010	10 x 0.1	0.06	350	Orange	250
1202-25010	25 x 0.1	0.1	400	White	250

Serological Pipette with Cotton Plugging Top, TD

- Constricted top for cotton plugging (supplied without cotton)
- Calibrated to tip
- Tempered tip; to deliver, blow out

Stock No.	Size (mL)	Tolerance ±(mL)	OAL (mm)	Color Code	Case Qty.
1210-00201	0.2 x 0.01	0.008	330	Black	18
1210-01010	1 x 0.1	0.02	350	Red	18
1210-01001	1 x 0.01	0.02	350	Yellow	18
1210-02010	2 x 0.1	0.02	350	Green	18
1210-02001	2 x 0.01	0.02	350	White (2)	18
1210-05010	5 x 0.1	0.04	350	Blue	18
1210-10010	10 x 0.1	0.06	350	Orange	18
1210-25010	25 x 0.1	0.1	400	White	18
1210-50020	50 x 0.2	0.4	475	Red	12

Serological Pipette with Cotton Plugging Top, Bulk-Pak, TD

Stock No.	Size (mL)	Tolerance ±(mL)	OAL (mm)	Color Code	Case Qty.
1200-00201	0.2 x 0.01	0.008	330	Black	250
1200-01001	1 x 0.01	0.02	350	Yellow	250
1200-02010	2 x 0.1	0.02	350	Green	250
1200-05010	5 x 0.1	0.04	350	Blue	250
1200-10010	10 x 0.1	0.06	350	Orange	250
1200-25010	25 x 0.1	0.1	400	White	250

Serological Pipette with Cotton Plugging Top, Mixed Bulk-Pak, TD

- Three sizes packed in one case: 75each 1ml, 75each 5ml and 100each 10ml
- Constricted top for cotton plugging (supplied without cotton)
- Calibrated to tip
- Tempered tip; to deliver, blow out

Stock No.	Size (mL)	Tolerance ±(mL)	OAL (mm)	Color Code
1200-01510	1 x 0.01	0.02	350	Yellow
	5 x 0.1	0.04	350	Blue
	10 x 0.1	0.06	350	Orange

Serological Pipette with Cotton Plugging Top and Large Orifice

- 3mm orifice for handling tissue homogenates, cell suspensions
- Constricted top for cotton plugging (supplied without cotton)
- Calibrated to tip
- Tempered tip; to deliver, blow out

Stock No.	Size (mL)	Tolerance ±(mL)	OAL (mm)	Color Code	Case Qty.
1232-25010	25 x 0.1	0.1	400	White	18
1232-50020	50 x 0.2	0.5	470	Red	12



For Pipette Plunger and Cotton Roving, see page G-31

Serological “Shortie” Pipette, TD

- Shorter length facilitates use under biological hoods
- Plain top promotes rapid, even flow (use rubber bulb to fill)
- Calibrated to tip
- Tempered tip; to deliver, blow out



Stock No.	Size (mL)	Tolerance ±(mL)	OAL (mm)	Color Code	Case Qty.
1224-02010	2 x 0.1	0.025	160	Green	18
1224-05010	5 x 0.1	0.08	160	Blue	18
1224-10020	10 x 0.2	0.12	175	Orange	18

Serological “Shortie” Pipette, Bulk-Pak, TD

Stock No.	Size (mL)	Tolerance ±(mL)	OAL (mm)	Color Code	Case Qty.
1204-02010	2 x 0.1	0.025	160	Green	150
1204-05010	5 x 0.1	0.08	160	Blue	150
1204-10020	10 x 0.2	0.12	175	Orange	150

Serological “Shortie” Pipette with Cotton Plugging Top, TD

- Shorter length facilitates use under biological hoods
- Constricted top for cotton plugging (supplied without cotton)
- Calibrated to tip
- Tempered tip; to deliver, blow out



Stock No.	Size (mL)	Tolerance ±(mL)	OAL (mm)	Color Code	Case Qty.
1226-01010	1 x 0.1	0.02	175	Red	18
1226-02010	2 x 0.1	0.025	175	Green	18
1226-05010	5 x 0.1	0.08	175	Blue	18
1226-10020	10 x 0.2	0.12	190	Orange	18
1226-25050	25 x 0.5	0.25	230	White	18

For Pipette Plugger and Cotton Roving, see page G-31

Serological “Shortie” Pipette w/ Cotton Plugging Top, Bulk-Pak, TD

Stock No.	Size (mL)	Tolerance ±(mL)	OAL (mm)	Color Code	Case Qty.
1206-01010	1 x 0.1	0.02	175	Red	150
1206-02010	2 x 0.1	0.025	175	Green	150
1206-05010	5 x 0.1	0.08	175	Blue	150
1206-10020	10 x 0.2	0.12	190	Orange	150

For Pipette Plugger and Cotton Roving, see page G-31

Serological “Shortie” Pipette with Large Orifice, TD

- 3mm orifice for handling tissue homogenates and cell suspensions
- Shorter length than standard pipettes for use under biological hoods
- Plain top promotes rapid, even flow (use rubber bulb to fill)
- Calibrated to tip
- Tempered tip; to deliver, blow out

Stock No.	Size (mL)	Tolerance ±(mL)	OAL (mm)	Color Code	Case Qty.
1227-10020	10 x 0.2	0.22	178	Orange	18



Serological “Shortie” Pipette w/ Cotton Plugging Top & Large Orifice, TD

Stock No.	Size (mL)	Tolerance ±(mL)	OAL (mm)	Color Code	Case Qty.
1228-05010	5 x 0.1	0.14	175	Blue	18
1228-10020	10 x 0.2	0.22	190	Orange	18
1228-25050	25 x 0.5	0.25	225	White	18

For Pipette Plugger and Cotton Roving, see page G-31

Disposable Pasteur Pipette

- For transfer of all infectious materials, culture media and for routine sampling
- Body diameter of 7mm

Stock No.	Glass	OAL (in)	Tip (in)	Body (in)	Inner Pack	Case Qty.
1277-10005	Boro	5.75	2.25	3.5	250	1000
1277-10009	Boro	9.0	5.0	4.0	250	1000
1277-20005	Flint	5.75	2.25	3.5	250	1000
1277-20009	Flint	9.0	5.0	4.0	250	1000



Disposable Pasteur Pipette with Cotton Plugged Top

Stock No.	Glass	OAL (in)	Tip (in)	Body (in)	Inner Pack	Case Qty.
1278-10005	Boro	5.75	2.25	3.5	250	1000
1278-10009	Boro	9.0	5.0	4.0	250	1000
1278-20005	Flint	5.75	2.25	3.5	250	1000
1278-20009	Flint	9.0	5.0	4.0	250	1000



Pasteur Capillary Pipette

- Straight tip with 1.5 to 2 mm orifice
- Borosilicate glass Type 1, Class B

Stock No.	Body O.D. (mm)	Body Length Inches	Tip Length Inches	Case Qty.
1271-40004	8	4	4	288
1271-50003	8	5	3	288
1271-60002	8	6	2	288



Pasteur Capillary Pipette

- Bent tip with 1.5 to 2 mm orifice
- Borosilicate glass Type 1, Class B

Stock No.	Body O.D. (mm)	Body Length Inches	Tip Length Inches	Case Qty.
1273-40004	8	4	4	144
1273-50003	8	5	3	144
1273-60002	8	6	2	144



Flat Bottom Glass Pipette Canister w/Silicone Pad

- Manufactured from borosilicate glass
- All components will withstand repeated dry or steam heat sterilization
- Bottom pad prevents chipping of pipette tips



Stock No.	Description	Size (mm)	Case Qty.
1290-00250	Canister Only	38 x 250†	6
1290-00300	Canister Only	38 x 300	6
1290-00430	Canister Only	38 x 430	6
1290-38250	Canister Complete*	38 x 250†	6
1290-38300	Canister Complete*	38 x 300	6
1290-38430	Canister Complete*	38 x 430	6

*Supplied with Stainless Steel Closure

†Recommended for "Shortie" Pipettes

For additional SST closures, see 2005 series, page G-9

APPROXIMATE GLASS PIPETTE CANISTER CAPACITIES

Pipette Type	Volume	38 x 430mm	38 x 300mm	38 x 250mm
Serological	0.1	20	-	-
Serological	0.2	20	-	-
Serological	1	15	-	-
Serological	2	12	-	-
Serological	5	12	-	-
Serological	10	7	-	-
Serological	25	4	-	-
Pasteur Pipettes to 8"	-	-	-	14
Pasteur Pipettes to 10"	-	-	14	-

Mounting Plate for Pipette Cans

- Stabilizes pipette canisters during use
- Stainless steel construction
- Use with 38mm OD glass pipette canisters



Stock No.	Dimensions	Case Qty.
1288-11111	90 x 90mm	6

Pipette Canister Cushion, PTFE

- Can be repeatedly sterilized using dry or steam heat
- Completely non-toxic, lint free, permanently resilient
- 38mm cushions fit 1287 series round bottom, glass pipette canisters
- 63mm round cushions fit other manufacturers' round, steel canisters

Stock No.	Size (mm)
1286-88815	38
1286-88825	63



Pipette Plugger

- Three speeds: 40, 50 or 60 pipettes per minute
- Operates in continuous or actuated mode
- Uniform plug shape insures proper plug fit
- Supplied with 1 bag of Cotton Roving 7750-22222

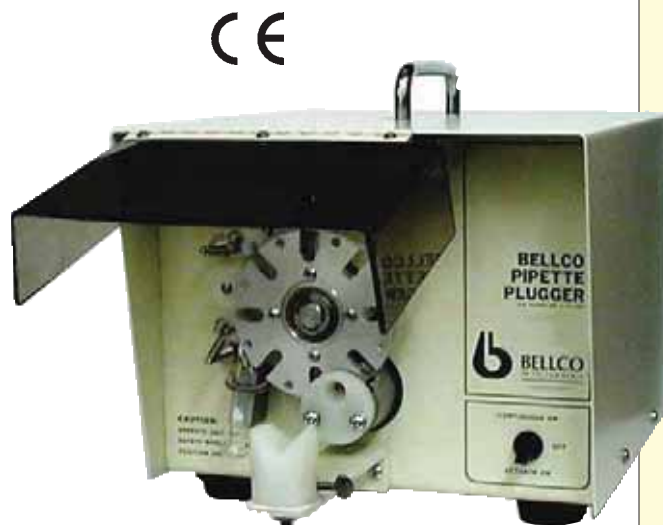
Stock No.	Dimensions WxDxH (cm)	Power V/Hz/Amp
7750-11111*	25 x 28 x 24	115/60/1.0
7750-11220	25 x 28 x 24	230/50/0.5
A515-A18	Scissor Blade Assy Only	

*CSA Model

Cotton Roving for Pipette Plugger

- Absorbent, 12 grain premium long-fiber cotton
- Packed two pounds (0.9kg) coiled in plastic bag
- Plugs approximately 35,000 pipettes

Stock No.	Case Qty.
7750-22222	2 lb.



Safetypette Pipette Filler

The Safetypette is uniquely designed to give superior pipetting control to both left and right handed users. The lightweight Safetypette sits comfortably in the hand enabling smooth variable speed control in both aspirating and dispensing.

- Supplied with integral 0.45µm filter and colored pipette cones for color coding in white, mint, mauve and pink
- Comfortable and simple to use
- Precise pipetting control
- Robust and lightweight
- Compatible with blow-out and TD pipettes; 1mL - 100mL
- Simple thumb button operation
- Autoclavable silicone pipette holder

Stock No.	Description
4704-75102	Safetypette w/three cones
4702-66003	Membranes, Pkg/5
4702-66004	Replacement Silicone Pipette Holder



Rubber Pipette Bulbs

- Bulb opening - 4mm
- For Plain Top, Shortie pipettes

Stock No.	Pipette Volume (mL)
1225-11122	1 to 2
1225-11155	5
1225-22222	10



Round Bottom Glass Pipette Canister

- Manufactured from Type 1, Class A borosilicate glass
- Components will withstand repeated dry or steam heat sterilization
- See Chart Page



Stock No.	Description	Size (mm)	Case Qty.
1287-00250	Canister Only	38 x 300	6
1287-00300	Canister Only	38 x 250†	6
1287-00430	Canister Only	38 x 430	6
1287-38250	Canister Complete*	38 x 250†	6
1287-38300	Canister Complete*	38 x 300	6
1287-38430	Canister Complete*	38 x 430	6

*Supplied with Stainless Steel Closure.
 †Recommended for "Shortie" Pipettes
 For additional closures, see 2005 series, page G-9

Stainless Steel Pipette Cans

- Heavy gauge rectangular construction for easy stacking and storage
- Satin finish surface of entire can for convenient marking or coding
- Can be sterilized by autoclave or dry heat (Do Not Exceed 400°F)
- Silicone pads on inside of top and bottom protect pipette tips



Stainless Steel Pipette Can With Silicone Pads

Stock No.	Size (cm)	Pipettes/Can
1217-00409*	11 x 11 x 24	64ea. 5ml/36ea. 10-12ml shortie
1217-11106+	6 x 6 x 16	49ea. 5 3/4" Pasteur
1217-11109+	6 x 6 x 24	49ea. 0.1-2ml/9ea. 10-12ml shortie 49ea. 9" Pasteur
1217-11116+	6 x 6 x 41	49ea. 0.1-0.5ml regular
1217-22216^	7 x 7 x 41	81ea. 0.1-5ml/35ea. 10ml regular
1217-22218^	7 x 7 x 46	23ea. 25ml regular

- A12-81* Replacement Silicone Pad only
- A12-84+ Replacement Silicone Pad only
- A12-442^ Replacement Silicone Pad only

Stainless Steel Pipette Can Without Silicone Pads

Stock No.	Size (cm)	Pipettes/Can
1217-90109	6 x 6 x 24	49ea. 0.1-2ml/9ea. 10-12ml shortie
1217-90216	7 x 7 x 41	81ea. 0.1-5ml/35ea. 10ml regular
1217-90218	7 x 7 x 46	23ea. 25ml regular



RTV 106 Red Silicone Rubber Adhesive Sealant, High Temperature

- High temperature adhesive sealant for replacing silicone pads in pipette canisters
- Easy to use nozzle
- Fully cured in 24 hours
- Adheres to stainless steel, aluminum, glass, ceramic and rigid plastics
- **Warning: Eye irritant**

Specifications

Curing Time: 24 hours
 Temperature Range: -60°C (75°F) to 260°C (500°F)
 Storage Conditions: below 27°C (80°F)
 For Industrial use only

Stock No.	Description
1217-00028	Red Silicone Sealant, 2.8 oz (82mL)

Bellco Pipet-Aids

Bellco Pipet-Aids are lightweight, compact units that are ideal for use under laminar flow hoods. A patented two-finger volume control provides precise fluid uptake and dispensing.

Basic Pipet-Aid features a 115V or 230V pump with Optional Tissue Culture Nose Piece and/or Air Filter.

Portable Pipet-Aid is a rechargeable self-contained unit that provides 2 hours of pipetting before recharging is necessary. Includes battery charger and tissue culture nose piece.

Portable Pipet-Aid XP is a rechargeable self-contained unit with removable stand.

Three independent speed ranges can be set for both fill and dispense rates and the unit provides 2 hours of continuous pipetting without recharging. Includes battery charger and tissue culture nose piece.

Stock No. 115V	Stock No. 230V	Description
1225-80000	1225-80220	Pipet-Aid Basic
1225-88105	1225-88225	Pipet-Aid w/ Tissue Culture Nose Piece
1225-80100	1225-80122	Pipet-Aid w/ Air Filter
1225-88100	1225-88122	Pipet-Aid w/ TC Nose Piece & Air Filter
1225-85000	1225-85220	Portable Pipet-Aid
1225-86000	1225-86220	Pipet-Aid XP

Parts and Accessories

Stock No.	Volt / Hz	Description	Case Qty.
1225-80001		Pipet-Aid Handle	1
1225-80002	115/60	Pipet-Aid Pump	1
1225-80003	115/60	Pipet-Aid Pump with Filter	1
1225-80056		Pipet Holder Insert	6
1225-80222	230/50	Pipet-Aid Pump	1
1225-80223	230/50	Pipet-Aid Pump with Filter	1
1225-88050		Tissue Culture Nose Piece	1
1225-88051		Tissue Culture Nose Piece Filters	5
1225-88052		Tissue Culture Nose Piece Filters	50



Dounce Tissue Homogenizer, Glass

- Designed for disruption of whole cells leaving cell nuclei undamaged
- Polished tube and pestles
- All glass construction
- Two pestles supplied with each unit
 - Large clearance pestle A for initial processing
 - Small clearance pestle B completes homogenization

Stock No.	Capacity (mL)	Large Pestle A Clearance (in)	Small Pestle B Clearance (in)	Tube OAL (mm)
1984-10002	2	.0030-.0050	.0005-.0025	60
1984-10007	7	.0028-.0047	.0008-.0022	125
1984-10015	15	.0035-.0065	.0010-.0030	157
1984-10040	40	.0030-.0060	.0010-.0030	215
1984-10100	100	.0020-.0100	.0005-.0055	232



Potter-Elvehjem Tissue Homogenizer, Glass

- Clearance between pestle & tube is .004”-.006”
- Suitable for connective tissue processing

Stock No.	Capacity (mL)	Pestle Overall x Shaft OD (mm)	Tube OAL x Reservoir OD (mm)
1983-10019	1	145 x 5	93 x 13
1983-10021	5	205 x 6	140 x 16
1983-10022	8	215 x 8	150 x 18
1983-10023	17	265 x 10	172 x 25
1983-10024	45	315 x 10	220 x 32



Potter-Elvehjem Tissue Homogenizer w/ PTFE Pestle

- PTFE pestle and unground tube
- Sizes 21 to 24 have radial serrations on the lower portion of the pestle
- Clearance between pestles and tubes is .004” - .006”
- Suitable for softer tissues such as brain and liver

Stock No.	Capacity (mL)	Pestle AL x Shaft OD (mm)	Tube OAL x Reservoir OD (mm)
1983-20018	0.5	130 x 3	80 x 12
1983-20019	1	154 x 5	95 x 12
1983-20020	3	154 x 5	115 x 12
1983-20021	5	215 x 6	140 x 15
1983-20022	8	212 x 6	150 x 19
1983-20023	17	266 x 6	175 x 25
1983-20024	45	269 x 6	220 x 32



Conical Tissue Homogenizer, Glass

- Conical shaped pestle
- Large area for most efficient grinding
- Ideal for tissues such as muscle, heart and lung
- Designed for use with homogenizing motors
- Clearance between pestles and tubes is .004” - .006”

Stock No.	Capacity (mL)	Pestle Overall x Shaft OD (mm)	Tube OAL x Reservoir OD (mm)
1976-10020	1	155 x 4.5	80 x 13
1976-10021	3	210 x 6	120 x 16
1976-10022	5	228 x 6	150 x 18
1976-10023	15	268 x 6	175 x 25
1976-10024	30	305 x 10	215 x 32
1976-10025	50	330 x 10	225 x 38



Tenbroeck Tissue Homogenizer, Glass

- Hollow glass pestle allows addition of ice water for chilling samples during homogenization
- Tooled pestle for use with rubber stopper (not supplied)
- Clearance between pestles and tubes is .004” - .006”
- Ground Tube

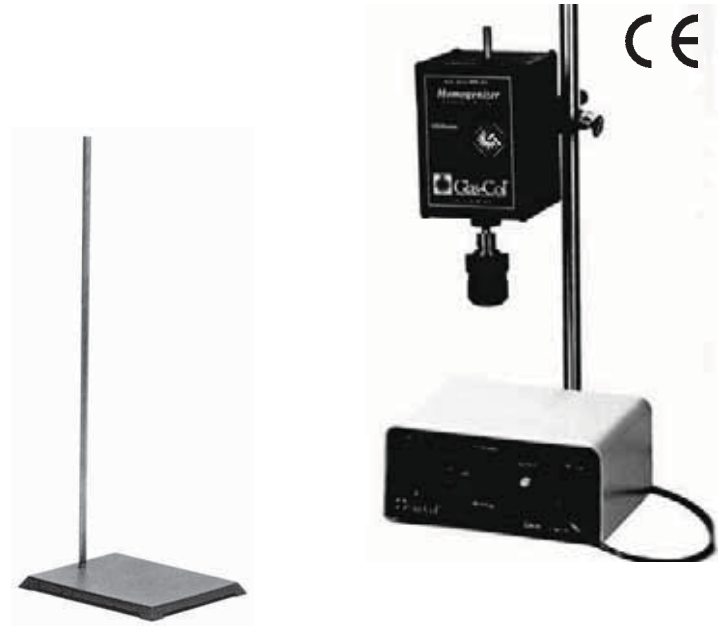
Stock No.	Capacity (mL)	Stopper No	Pestle OAL x Shaft OD (mm)	Tube OAL x Reservoir OD (mm)
1982-10002	2	00	160 x 50	100 x 30
1982-10007	7	00	195 x 50	125 x 30
1982-10015	15	1	250 x 65	157 x 38
1982-10040	40	3	315 x 90	215 x 55



Homogenizer Overhead Drive

- Permanent magnet motor, 5/16" OD shafts
- High speed shaft: 4000rpm (26 in-lb. torque)
- Low speed shaft: 333 rpm (3.6 in-lb. torque)
- Electronic motor controller
- Switch for reversing pestle direction

Stock No.	Description
1981-20115	115V/60Hz/2.5A
1981-20230	230V/50Hz/2.5A
1981-30000	Stand
1981-40000	Glass Pestle Adapter, 10mm
1981-50000	Glass Pestle Adapter, 6mm



Centrifuge Tube

- Type 1, Class A Borosilicate glass
- Fits I.E.C. number 353A centrifuge cup
- Supplied with 38mm black phenolic rubber lined screw cap

Stock No.	Capacity (mL)	O.D. x OAL (mm)	Case Qty.
3045-00600	590	96 x 173	4
3045-00800	780	96 x 173	4

*Design suggested by Dr. Gary H. Cohen and Manuel Ponce de Leon MS
Univ of Penna. Dental School*



Rubber Cushion For Centrifuge Tubes

- Prevents breakage
- Adds stability

Stock No.	Fits Tubes (mL)	Case Qty.
3045-10600	600	4
3045-10800	800	4



COLOR CODE ORDERING INFORMATION FOR CULTURE TUBES

Colors available: white, blue, green, red, black, yellow, orange, and brown. When ordering color coding, use the regular stock number shown and specify color desired. For example, if you need 16 x 150 Screw Cap Culture Tubes that are color coded blue, order 2012-16150-Blue.

Orders for color coding are subject to 5% over or under runs.

Minimum order for color coding - two (2) cases of same (1) color.

A nominal fee will be charged per tube.

Disposable Plain Top Culture Tube, Round Bottom

- Flint Glass - #2 wall weight
- Accepts Bellco Stainless Steel & KAP-UTS™ Closures



Stock No.	OD x OAL (mm)	Closure (mm)	Case Qty.
2010-25100	25 x 100	25	144
2010-25150	25 x 150	25	144
2010-25200	25 x 200	25	144

For Disposable KAP-UTS™ Closures, see page G-10

For Stainless Steel Closures, see page G-9

Plain Top Culture Tube, Round Bottom

- Borosilicate glass
- Accepts Bellco Stainless Steel & KAP-UTS™ Closures

Stock No.	OD x OAL (mm)	Closure (mm)	Case Qty.
2011-13100	13 x 100	13	288
2011-16125	16 x 125	16	144
2011-18150	18 x 150	18	144
2011-25150	25 x 150	25	72
2111-38200	38 x 200	38	36

For Disposable KAP-UTS™ Closures, see page G-10

For Stainless Steel Closures, see page G-9

Screw Cap Culture Tube, Round Bottom

- Manufactured from borosilicate glass
- Includes long skirted black phenolic screw cap with white rubber liner

Stock No.	OD x OAL (mm)	Closure	Case Qty.
2012-13100	13 x 100	13-415	144
2012-16150	16 x 150	15-415	144
2112-38200	38 x 200	38-415	36

For additional caps, see Stock Number 2029, page G-9



Gas Fermentation Tube, Round Bottom

- Tubes are inverted in bottom of larger tube for collection of gases
- Disposable standard flint glass with 1.15mm wall

Stock No.	OD x OAL (mm)	Case Qty.
2040-08029	8 x 29	144

Hungate Type Anaerobic Culture Tube

The Hungate Anaerobic Culture Tube was developed for growing and maintaining anaerobic bacteria and culture conditions. The technique is simple:

1. Exclude oxygen by flushing the tube with the desired gas
2. Add 4.5mL of pre-reduced anaerobic agar medium into tube
3. Seal the tube with the butyl rubber stopper and screw cap and autoclave
4. Inoculate with a syringe
5. Incubate in water bath

Hungate Culture Tube

- Gas tight tube designed for maintaining anaerobic culture conditions
- Method of Hungate et.al, utilizes syringe methods for anaerobiosis
- Anaerobic culture tubes contain three autoclavable parts:
 - a) screw cap with a 9mm opening,
 - b) flange type gas impermeable black butyl rubber stopper
 - c) disposable screw cap culture tube

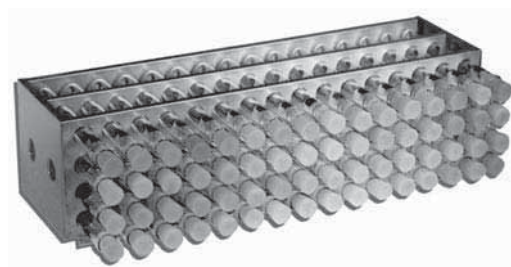
Stock No.	Description	Size (mm)	Case Qty.
2047-16125	Hungate Tube Complete	16 x 125	250
Components			
2047-16000	Screw Cap Only	15	250
2047-11600	Septum Stopper Only	13	250
2047-00125	Hungate Tube Only	16 x 125	250



Roller Culture Tube Rack for Hungate Tubes

- Designed for use with roller culture tubes
- Stainless steel construction
- Spring clip prevents tubes from moving in rack
- Spot-welded to ensure rigidity and durability

Stock No.	Tube Size (mm)
2028-16064	16



Anaerobic Culture Tube with Aluminum Seal

- Gas tight tube designed for maintaining anaerobic conditions
- Useful for studies involving methane-producing bacteria
- Gas impermeable, blue butyl rubber septum type stopper
- Manufactured from borosilicate glass

Stock No.	Description	Size (mm)	Case Qty.
2048-18150	Aluminum Seal Tube Complete	18 x 150	100
Components			
2048-11800	Septum Stopper	20	100
2048-00150	Aluminum Seal Tube	18 x 150	100
Accessories			
2048-11020	Aluminum Seal	20	1000
2048-10020	Seal Crimper	20	1



Racks for use with this tube, see Stock Number 2027, page G-39

LEIGHTON CULTURE TUBES are useful for the study of pathogenic effects of viruses on cells as well as sponge matrix cultures and nutritional studies. Use cover slips for preparing explant tissue cultures with Leighton Culture Tubes.

Short Style Leighton Type Tissue Culture Tube

- Borosilicate glass
- Extra long working area yet short overall length promotes convenient handling
- Short neck allows easy entry and removal of cover slips
- Fits Bellco Self-Locking Racks
- Packed 36 per case



Stock No.	Tube Size (mm)	Window Size (mm)	Coverslip Size (mm)	Stopper Size
1903-19095	19 x 95	14 x 55	13 x 27 , 14 x 55, 13 x 54	14 x 55

Screw Cap Short Style Leighton Type Tissue Culture Tube

- Borosilicate glass
- Includes long skirted screw cap with nontoxic, white rubber liner
- Extra long working area yet short overall length for convenient handling
- Short neck provides easy entry and removal of cover slips
- Fits Bellco Self-Locking Racks



Stock No.	Tube Size (mm)	Window Size (mm)	Coverslip Size (mm)	Screw Cap	Case Qty.
1904-16095	16 x 93	11 x 55	9 x 22, 9 x 35, 9 x 50	15-415	36
1904-19105	19 x 105	14 x 55	10.5 x 22, 10.5 x 35, 10.5 x 50	18-415	36

For coverslips, see Stock Number 1916, page G-14

For screw caps, see Stock Number 2029, page G-9

For stainless steel rack, see Stock Number 1917-00016. Page G-39

Plain Top Leighton Type Tissue Culture Tube

- Borosilicate glass
- White marking area provided
- Fits Bellco Self-Locking Racks
- Packed 36 per case



Stock No.	Tube Size (mm)	Window Size (mm)	Coverslip Size (mm)	Stopper Size
1906-16150	16 x 150	11 x 37	10.5x22 or 10.5x35	0

Screw Cap Leighton Type Tissue Culture Tube

- Borosilicate glass
- White marking area provided
- Includes long skirted screw cap with nontoxic, white rubber liner
- Fit Bellco Self-Locking Racks
- Packed 36 per case



Stock No.	Tube Size (mm)	Window Size (mm)	Coverslip Size (mm)	Screw Cap
1908-16125	16 x 125	11 x 37	9 x 22, 9 x 35	15-415

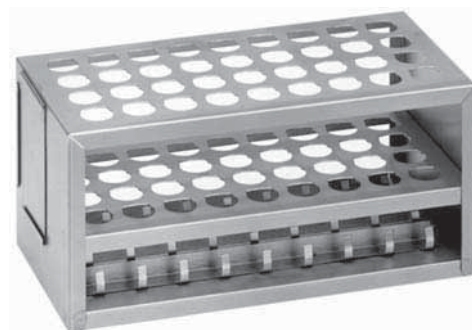
For coverslips, see Stock Number 1916, page G-14

For screw caps, see Stock Number 2029, page G-9

For stainless steel rack, see Stock Number 1917-00016. Page G-39

Leighton Self Locking Tube Rack

- For Leighton type tissue culture tubes
- Hinged front of rack locks tubes into position



Stock No.	For Tube Lengths (mm)	Tubes Per Rack
1917-16000	83 to 93	36
1917-00016	125 to 150	36

Stainless Steel Culture Tube Racks

- Will not rust or deteriorate in water baths or CO₂ atmospheres.
- Available in a variety of configurations for all popular tube sizes.

Stock No.	Tube Size (mm)	Tubes/Rack	Approx. Size (mm) WxDxH
2027-13012	13	12	70 x 60 x 50
2027-13040	13	40	165 x 70 x 55
2027-13072	13	72	200 x 105 x 55
2027-13090	13	90	230 x 125 x 60
2027-16024	16	24	125 x 85 x 80
2027-16040	16	40	200 x 85 x 80
2027-16048	16	48	235 x 85 x 80
2027-16072	16	72	235 x 120 x 80
2027-16090	16	90	295 x 120 x 80
2027-16120	16	120	235 x 195 x 80
2027-16150	16	150	485 x 125 x 80
2027-18024	18	24	140 x 95 x 80
2027-18040	18	40	230 x 95 x 95
2027-18072	18	72	275 x 150 x 80
2027-20012	20 to 22	12	115 x 105 x 85
2027-20040	20 to 22	40	260 x 105 x 80
2027-20048	20 to 22	48	210 x 160 x 90
2027-25012	25	12	125 x 95 x 105
2027-25036	25	36	270 x 125 x 105
2027-25040	25	40	300 x 125 x 105
2027-25072	25	72	340 x 180 x 105
2027-25410	25	40	300 x 125 x 55
2027-38012	38	12	175 x 130 x 130
2027-38024	38	24	255 x 175 x 130
2027-38040	38	40	410 x 175 x 130
2027-38206	38	12	255 x 88 x 130





Roller Drum with Digital Display

- Digital speed display has 0.55" LCD
- Locking speed knob
- Adjustable foot for 0-7° drum tilt
- Preset speed range is .5 to 50rpm (.3 to 3 and .2 to 12) via selector switch
- Four drums available to hold most tube sizes
- Rear speed range switch insures display accuracy

Stock No.	Description
7736-10115	Base only, 115V/50-60Hz/20W
7736-10230	Base only, 230V/50Hz/20W

Replacement Drums

Stock No.	Dimensions w/base	# Tubes x OD (mm)
7736-20164	46x28x55cm (18x15x21.5")	164 x 16
7736-20351	46x28x61cm (18x15x24")	351 x 16
7736-20025	46x28x61cm (18x15x24")	156 x 25
7736-20050	46x28x61cm (18x15x24")	128 x 30

Blood Tube Rotator

- Fully adjustable mixing angle
- Quick, easy loading and removal of tubes
- Holds up to 20 tubes with diameter 9-19mm
- Constant speed of 33 rpm
- Tubes and tube holder sold separately

Specifications

Number of tubes	20
Tube size (diameter)	9mm to 19mm
Rotation speed:	33rpm
Dimensions (WxDxH)	9 x 9 x 10.5" (23 x 23 x 26cm)



Stock No.	Description
4704-54115	115V/60Hz
4704-55027	230V/50Hz
4704-54142	Tube holder

Replacement Drums

Stock No.	Dimensions w/base	# Tubes x OD (mm)
7736-20164	46x28x55cm (18x15x21.5")	164 x 16
7736-20351	46x28x61cm (18x15x24")	351 x 16
7736-20025	46x28x61cm (18x15x24")	156 x 25
7736-20050	46x28x61cm (18x15x24")	128 x 30

Mini Tube Roller

- Accommodates various bottle dimensions by removing idler rollers
- Speed range up to 40rpm (depending upon bottle OD)
- Minimum OD 16mm; maximum OD 120mm
- Idler rollers are easily removable
- Lightweight aluminum construction

Specifications

Dimensions (WxDxH)	15 x 17 x 3"
Weight:	12lbs
Max bottle length:	10"
Maximum Load:	10lbs
# Idler rollers	5
# Drive rollers	6

Stock No.	Description
7622-30115	Tube Roller, 115V*
7622-30230	Tube Roller, 230V*
7622-30010	Drive Roller
7622-30020	Idler Roller

*includes inline power supply



5-Plastics



Section 5 – HTS Plastic Products & Accessories

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CellStar™ Filter Cap Tissue Culture Flasks, Polystyrene, Sterile

- 0.2µm hydrophobic membrane allows gas exchange
- Ideal for infectious materials work
- Maintains accurate pH values
- Canted neck aids in media removal

Stock No.	Growth Area cm ²	Vol. (mL)	Inner Pack	Case Qty.
4506-90175	25	50	10	200
4506-58175	75	250	5	120
4506-60175	182	550	5	50
4506-61175	182	650	4	40



CellStar™ Tissue Culture Flasks, Polystyrene, Sterile

- Optimum cell adhesion and yields
- Canted neck aids in media removal
- Guaranteed leak-proof
- Optically flat growth surface
- Plug cap

Stock No.	Growth Area cm ²	Vol. (mL)	Inner Pack	Case Qty.
4506-90160	25	50	10	200
4506-58170	75	250	5	120
4506-60160 - Lo-Profile	182	550	5	50
4506-61160 - Hi-Profile	182	650	4	40



CellStar™ Suspension Culture Flasks, PS, Sterile, Canted Neck*

Stock No.	Vol. (mL)	Closure	Inner Pack	Case Qty.
4506-90190	50	Plug	10	300
4506-90195	50	Filter	10	200
4506-58190	250	Plug	5	120
4506-58195	250	Filter	5	120
4506-60190	550	Plug	5	50
4506-61190	650	Plug	4	40
4506-61195	650	Filter	4	40

*Not TC Treated



CellStar™ Tissue Culture Dishes, Polystyrene, Sterile

- Distortion free optical surfaces for microscope viewing
- Surface treated for optimum cell growth
- RNase/DNase free
- Vented for controlled gas exchange

Stock No.	Dimensions (mm)	Growth Area cm ²	Inner Pack	Case Qty.
4506-27160	35 x 10	8.7	10	740
4506-27170	35 x 10	.97cm ² /ring	10	500
4506-28160	60 x 15	21	10	600
4506-64160	100 x 20	58	15	360
4506-39160	145 x 20	145	5	120
4506-33171	94 x 16	58	10	480
4506-33160 †	94 x 16	58	10	480

† Hybridoma Dish



Cellcoat™ Collagen Type 1 Protein-Coated TC Ware, Polystyrene, Sterile

- Facilitates adherence, cell growth, differentiation and longevity of many cell types
- “Best Before” date marked on cases and pack labels
- Shelf life of up to 2 years when properly stored



Stock No.	Description	Growth Area CM ²	Case Qty.
4506-28950	Tissue Culture Dish, 60x15mm	21	20
4506-64950	Tissue Culture Dish, 100x20mm	58	10
4506-90950	Tissue Culture Flask, T-25	25	10
4506-58950	Tissue Culture Flask, T-75	75	5
4506-61950	Tissue Culture Flask, T-182	182	5
4506-57950	6-Well Tissue Culture Plate	~	5
4506-62950	24-Well Tissue Culture Plate	~	5
4506-55950	96-Well Tissue Culture Plate	~	5

Cellcoat™ Poly L-Lysine Protein-Coated TC Ware, Polystyrene, Sterile

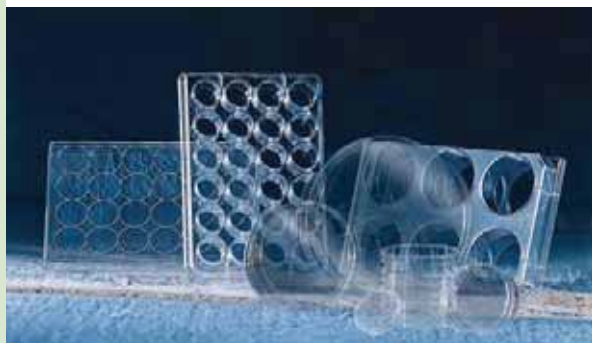
- Facilitates adhesion, cell growth and proliferation for many cell types
- Ideal choice for researchers preferring synthetic coating
- Improves cell growth in serum free or serum-depleted media
- “Best Before” date marked on cases and pack labels
- Shelf life of up to 2 years when properly stored



Stock No.	Description	Growth Area CM ²	Case Qty.
4506-28930	Tissue Culture Dish, 60x15mm	21	20
4506-57930	6-Well Tissue Culture Plate	~	5
4506-62930	24-Well Tissue Culture Plate	~	5
4506-55930	96-Well Tissue Culture Plate	~	5

Cellcoat™ Poly D-Lysine Protein Coated TC Ware, Polystyrene, Sterile

- Facilitates adhesion, cell growth and proliferation for many cell types
- Ideal choice for researchers preferring a synthetic coating
- Improves cell growth in serum free or serum-depleted media
- “Best Before” date marked on cases and pack labels
- Shelf life of up to 2 years when properly stored



Stock No.	Description	Growth Area CM ²	Case Qty.
4506-28940	Tissue Culture Dish, 60x15mm	21	20
4506-64940	Tissue Culture Dish, 100x20mm	58	10
4506-90940	Tissue Culture Flask, T-25	25	10
4506-58940	Tissue Culture Flask, T-75	75	5
4506-61940	Tissue Culture Flask, T-182	182	5
4506-57940	6-Well Tissue Culture Plate	~	5
4506-62940	24-Well Tissue Culture Plate	~	5
4506-55940	96-Well Tissue Culture Plate	~	5
4506-55946	96-Well, Black, TC Plate	~	50
4507-81946	384-Well, Black, TC Plate	~	50

Petri Dishes, Polystyrene, Non-Sterile

- Superior optical clarity polystyrene
- Suitable for general bacteriological requirements
- Triple Vented for controlled gas exchange

Stock No.	Dimensions (mm)	Growth Area cm ²	Inner Pack	Case Qty.
4506-27102	35 x 10	8.5	10	740
4506-28102	60 x 16	21	20	600
4506-33180	94 x 16	57	20	480
4506-33185	94 x 15	57	20	480
4506-63102	100 x 15	66	20	420
4506-64102*	100 x 20	58	15	360
4506-39102	145 x 20	141	15	120

*Multiple vented



Petri Dishes, Polystyrene, Sterile

- Superior optical clarity polystyrene
- Suitable for general bacteriological requirements
- Triple Vented for controlled gas exchange

Stock No.	Dimensions (mm)	Growth Area cm ²	Inner Pack	Case Qty.
4506-27161	35 x 15	8.5	10	740
4506-28161	60 x 15	21	20	600
4506-33161	94 x 16	57	20	480
4506-63161	100 x 15	66	20	420
4506-64161*	100 x 20	58	15	360
4506-39161	145 x 20	141	20	120

*Multiple vented



Accessories

Stock No.	Description	Inner Pack	Case Qty.
4507-30190	Spreader	1	1000
4507-31161	Inoculating Loop 1μL, white, str	1	600
4507-31171	Inoculating Loop 10μL, blue, str	1	600
4507-31175	Inoculating Loop 10μL, blue, str	10	3000
4507-31181	Rigid Needle 20 cm, yellow, str	1	600

Square Petri Dish, Polystyrene, Non-Sterile

- Suitable for antibiotic diffusion zone testing
- Dimensions: 120 x 120 x 15mm

Stock No.	Growth Area cm ²	Inner Pack	Case Qty.
4506-88102	142	10	240



Cellmaster™ Roller Bottles, Polystyrene, Sterile, TC Treated*

- Provides a surface suitable for cell adhesion and growth
- Pyrogen tested by LAL and PCA methods <0.06 EU/mL
- DNase and RNase free
- 850cm² bottles have white ID field, graduations to 2000mL and lot number
- Shorter thread for robotic applications



Stock No.	Description	Dimensions	Inner Pack	Case Qty.
4506-80048	850cm ²	271 x 122mm	48	48
4506-80060	850cm ²	271 x 122mm	2	24
4506-80065	850cm ²	271 x 122mm	24	24
4506-82012	1700cm ²	500 x 122mm	12	12
4506-82024	1700cm ²	500 x 122mm	12	24
4506-82060	1700cm ²	500 x 122mm	1	12



Filter Cap Roller Bottles

4506-80045	850cm ²	270 x 120mm	48	48
4506-80058	850cm ²	270 x 120mm	2	24
4506-80068	850cm ²	270 x 120mm	24	24
4506-82015	1700cm ²	500 x 120mm	12	12
4506-82025	1700cm ²	500 x 120mm	12	24
4506-82065	1700cm ²	500 x 120mm	1	12

Cellmaster™ Roller Bottles, PET, Sterile*

- Ideal for suspension culture - non TC treated
- Manufactured from optically clear PET
- Wide neck for easy access
- Dimensions: 275 x 120mm



Stock No.	Description	Grad.	Inner Pack	Case Qty.
4506-80160	850cm ² , White Label	1000	1	18
4506-80170	850cm ² , White Label	1000	30	30
4506-80180	850cm ² , Black Label	2000	1	18

*Ground Ship Only

Cell Scraper, Sterile, Individually Wrapped

- Designed for easy removal of cell monolayers
- Pivoting polyethylene scraper blade, approx 1" long
- Polystyrene telescoping handle
- Packed 100/case

Stock No.	Handle (cm)
4505-41070	25
4505-41080	40



Multi-Well Tissue Culture Plates, Polystyrene, Sterile, w/Lid

- Treated for optimum cell adhesion
- Condensation rings prevent cross contamination
- Distortion free microscopic viewing
- External dimensions: 85 x 127 x 19mm

Stock No.	Description	Volume †(mL)	Inner Pack	Case Qty.
4506-57160	6 Well F/B	16.1	1	100
4506-57165	6 Well F/B	16.1	5	120
4506-65180	12 Well F/B	6.5	1	100
4506-65165	12 Well F/B	6.5	5	120
4506-62160	24 Well F/B	3.3	1	100
4506-62165	24 Well F/B	3.3	5	120
4506-77180	48 Well F/B	1.7	1	100
4506-77165	48 Well F/B	1.7	5	120
4506-77102*	48 Well F/B	1.7	1	100

*Non-Treated; † Maximum Volume



Cell Star™ 96-Well Microtitration Plates, Polystyrene, Sterile

- Alphanumeric well locations
- Raised wells prevent cross contamination
- Dimensions: 85 x127x 14mm



Stock No.	Description	Well Volume	Inner Pack	Case Qty.
4506-50185*	R/B	300µL	1	60
4506-50161*	R/B	300µL	2	100
4506-50162*	R/B	300µL	25	375
4506-51160	C/B	230µL	1	75
4506-51161	C/B	230µL	2	100
4506-51162	C/B	230µL	25	375
4506-55185*	F/B	370µL	1	60
4506-55161	F/B	370µL	2	100
4506-55162	F/B	370µL	5	100

*with lid

96-Well Microtitration Plates, Polystyrene, Non-Sterile

- Alphanumeric well locations
- Raised wells prevent cross contamination
- Dimensions: 85 x 127 x 14mm

Stock No.	Description	Well Volume	Inner Pack	Case Qty.
4506-50101*	Round Bottom	300µL	5	100
4506-51101	Conical Bottom	230µL	5	100
4506-55101	Flat Bottom	370µL	5	100

*with lid

Cell Star™ 96-Well Tissue Culture Plates, Polystyrene, Sterile

- Raised ‘chimney wells’ prevent cross contamination
- Treated for optimum cell adhesion
- Alphanumeric well locations
- Individually sterilized in ‘quickpeel’ format
- Well area 0.35cm² ; Well volume 300µL
- Dimensions: 85 x127 x 14mm

Stock No.	Description	Inner Pack	Case Qty.
4506-50180	R/B with Lid	1	60
4506-55160	F/B, 370 µL	1	75
4506-55180	F/B with Lid	1	60
4506-51180	C/B with Lid	1	60
4506-56161	Lid only	1	50
4506-56171	Lid w/rings	1	50



96-Well Microplates, Polystyrene, Flat Bottom

- RNase, DNase free, non-pyrogenic
- Luminescence (white) & Fluorescence (black)
- Dimensions: 85 x127 x 14mm



Stock No.	Color	Treatment	Inner Pack	Case Qty.
4506-55073	White		10	40
4506-55074	White	High Bind, Str	5	40
4506-55075	White		10	40
4506-55076	Black		5	40
4506-55077	Black	High Bind	10	40
4506-55079	Black	TC, Str	10	40

96-Well Microtitration Plates, Polypropylene, Non-Sterile

- Alphanumeric well locations
- Raised wells prevent cross contamination
- Dimensions: 85 x127 x 14mm



Stock No.	Description	Well Volume	Inner Pack	Case Qty.
4506-50201	R/B	310µL	10	100
4506-50261*	R/B	310µL	10	100
4506-51201	C/B	340µL	10	100
4506-55201	F/B	390µL	10	100

*Sterile

96-Well Multi Color Plates, Polypropylene

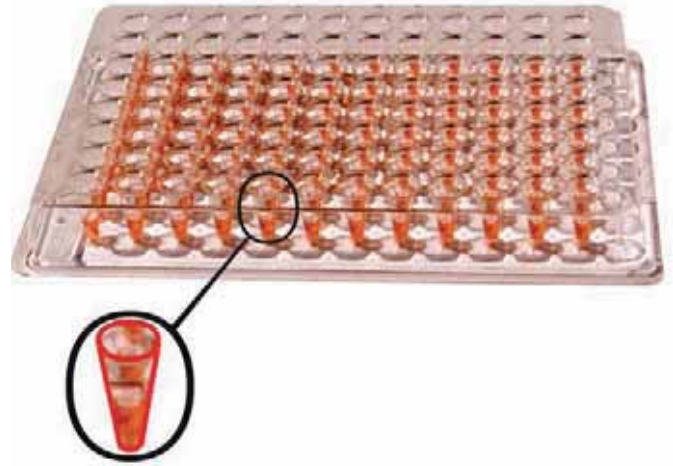
- Extended chemical resistance & excellent temperature stability
- Quick and easy way to differentiate families of plates for:
 - Contents
 - Owner
 - Run Date
 - Concentration/Dilution Factor
- Chimney well design eliminates cross contamination
- Dimensions: 85 x 127x 14mm



Stock No.	Description	Color	Inner Pack	Case Qty.
4506-50203	96 Well "U"	Red	10	100
4506-50204	96 Well "U"	Blue	10	100
4506-50205	96 Well "U"	Green	10	100
4506-50206	96 Well "U"	Yellow	10	100
4506-50209	96 Well "U"	Black	10	100
4506-51203	96 Well "V"	Red	10	100
4506-51204	96 Well "V"	Blue	10	100
4506-51205	96 Well "V"	Green	10	100
4506-51206	96 Well "V"	Yellow	10	100
4506-51209	96 Well "V"	Black	10	100
4506-55203	96 Well Flat	Red	10	100
4506-55204	96 Well Flat	Blue	10	100
4506-55205	96 Well Flat	Green	10	100
4506-55206	96 Well Flat	Yellow	10	100
4506-55209	96 Well Flat	Black	10	100

96-Well ThermoQuick PCR Plates, Polycarbonate

- Fit all major brand thermal cyclers
- Polycarbonate withstands up to 135°C
- DNase and RNase free
- Dimensions: 85 x127 x 14mm
- Inner pack: 1 each



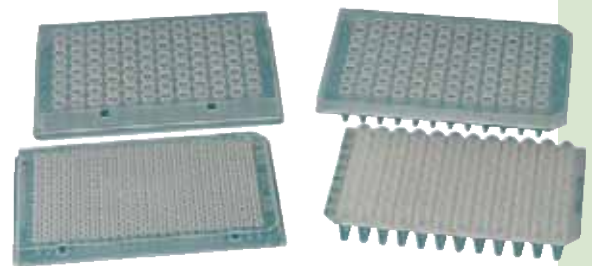
Stock No.	Thermocycler	Skirt	Case Qty.
4506-51501	Biometra/Ericomp	full	25
4506-51550	Hybaid	full	50
4506-51560	MJ Research, Stratagene	full	50
4506-51570	Perkin-Elmer, Thermolyne	none	50
4506-51580	Techne-96	full	50
4506-51585	Techne-25	none	50
4506-51590	Lid only		50
4506-51595	Lid only - Techne		50

Thermo Quick PCR Plates, Polypropylene

- Manufactured from low protein-binding polypropylene
- Compatible with -70°C storage
- Compatible with thermocyclers of most major brands
- DNase and RNase-free, non-pyrogenic
- Alphanumeric coding for easy identification of samples
- Dimensions: 85 x 127 x 14mm

Stock No.	Thermocycler	Skirt	Inner Pack	Case Qty.
4506-52201	96 Well,Biometra/Ericomp	none	10	40
4506-52270	96 Well, Perkin Elmer	full	10	40
4506-52280	96 Well, Techne-96	half	10	40
4506-52290*	96 Well, Clear, H/S, ABI	half	10	40
4507-85201	384 Well, Biometra/Ericomp	full	15	60
4507-85207	384 Well, White, Full Skirt	full	15	60
4507-85209	384 Well, Black, Full Skirt	full	15	60

* RealTime PCR Plate



Microlon® Immunoassay Strips, PS, Non-Sterile

- Manufactured from Microlon 600 resin for high binding capacity
- Flat bottom design
- Removable strips provide 8 through 96 well capacity of 370µL

Stock No.	Description	Inner Pack	Case Qty.
4507-62071	Plate with 12 - 1 x 8 strips	10	100



Microlon® 96-Well ELISA Immunoassay Plates, PS, Non-Sterile

- Excellent surface and optical transmission characteristics
- Dimensions: 85 x127x 14mm



Stock No.	Description	Treatment	Inner Pack	Case Qty.
4506-50001	U Well		5	40
4506-50061	U Well	High	5	40
4506-55001	Flat Bottom		5	40
4506-55080	Flat Bottom		2	80
4506-55061	Flat Bottom	High	2	40
4506-55081	Flat Bottom	High	5	40
4506-55084	Chimney Well		10	100
4506-55085	Chimney Well	High	5	40

96-Well Black & White Strip Plates, Polystyrene

- Ideal for fluorescent and luminescent assay applications
- Plate frames are white with black or white 1 x 8 strips, max of 12 strips/plate
- Available in non-sterile medium binding and sterile high binding
- Dimensions: 85 x 127 x 14mm



Stock No.	Description	Inner Pack	Case Qty.
4507-05071	Clear, High Binding	5	100
4507-05073	Clear, Red Rim, High Binding	5	100
4507-62074	White, High Binding, Blue Rim	5	100
4507-62075	White, Med Binding	10	100
4507-62076	Black, Med Binding	10	100
4507-62077	Black, High Binding	10	100

96-Well Multi-Tier™ Microplate Systems

- Borosilicate glass round bottom inserts in 3 sizes
- Rugged universal polypropylene tray, spacer and lid
- Completely autoclavable
- Ideal for higher temperature procedures
- Complete includes 1 each 4510-02060 liner



Stock No.	Description	Case Qty.
4510-00100	Multi-Tier Complete 0.5mL R/B ABS*	1
4510-00200	Multi-Tier Complete 1.0mL R/B ABS	1
4510-00300	Multi-Tier Complete 1.5mL R/B ABS	1
4510-00400	Multi-Tier Complete 1.5mL F/B ABS	1
4510-01005	0.5mL Glass Insert R/B	100
4510-01010	1.0mL Glass Insert R/B	100
4510-01015	1.5mL Glass Insert R/B	100
4510-01025	1.0mL Glass Insert F/B	100
4510-01030	1.5mL Glass Insert F/B	100
4510-06000	Multi-Tier F/B Vial, 9x50mm w/spot	100
4510-02010	Multi-Tier Spacer	1
4510-02020	Cover for Multi-Tier	5
4510-02030	Base Tray, 96-Position	1
4510-02040	PTFE/Silicone Molded Liner, Scored	5
4510-02050	PTFE/Silicone Molded Liner	5
4510-02060	PTFE/Silicone/PTFE Liner, Pre-Scored	5
4510-02070	Plug, PTFE/Butyl	5
4510-02080	Plug, PTFE/Butyl, Pre-Scored	5
4510-02600	Molded white Silicone liner	5
4510-02700	Molded white Silicone liner, prescored	5

* Acrylonitrile Butadiene Styrene

96-Well Masterblock™ Deep Well Plate, Polypropylene

- Dimensions: 86 x 127 x 27mm

Stock No.	Description	Max Vol. mL	Inner Pack	Case Qty.
4507-86201	Storage Plate, Clear	0.78	8	80
4507-86261	Storage Plate, Clear, Sterile	1.2	8	80

96-Well Masterblock™ Deep Well Plate, Polypropylene, 1.2mL

- Chimney well design prevents cross contamination
- Ideal for sample storage and transport or cell suspension applications
- Alphanumeric coding and raised edges
- Individually wrapped & Bulk packed
- Cap Mats for optimal sealing manufactured from ethylene vinyl acetate
- Low draft side walls facilitate robotic handling
- Dimensions: 85 x 127 x 44mm

Stock No.	Description	Inner Pack	Case Qty.
4507-80201	Clear, R/B	1	50
4507-80203	Red, R/B	1	50
4507-80204	Blue, R/B	1	50
4507-80205	Green, R/B	1	50
4507-80206	Yellow, R/B	1	50
4507-80261	Clear, Sterile, R/B	1	50
4507-80210	Clear, Bulk, R/B	50	50
4507-80215	Clear, Bulk, R/B	5	50
4503-81070	Cap Mat, Natural EVA	10	50



96-Well Masterblock™ Deep Well Plate, Polypropylene, 2.4mL

- Square well design offers maximum storage or transport volume
- Alphanumeric coding with raised edges
- Conical bottom for maximum sample retrieval
- Low draft side walls facilitate robotic handling
- Dimensions: 85 x 127 x 44mm

Stock No.	Description	Inner Pack	Case Qty.
4507-80270	Storage Plate, Clear	1	50
4507-80271	Storage Plate, Sterile	1	50
4507-80273	Storage Plate, Red, Sterile, R/B	1	50
4507-80274	Storage Plate, Blue, Sterile	1	50
4507-80276	Storage Plate, Yellow, Sterile	1	50
4507-80280	Storage Plate, Bulk Pack	50	50
4507-80285	Storage Plate, Bulk Pack	5	50
4503-81080	CapMat, Natural EVA	10	50
4503-81081	CapMat, Natural EVA, Sterile	1	50



CrystalQuick™ Protein Crystallization Plates, Polystyrene

- Unique design with 3 small sample holding wells adjacent to main well
- Automated screening of recombinant proteins
- Dimensions: 85 x 127 x 14mm



Stock No.	Description	Inner Pack	Case Qty.
4506-09101	96/288Well, Sitting Drop, F/B	10	40
4506-09120	96/288Well, R/B	10	40

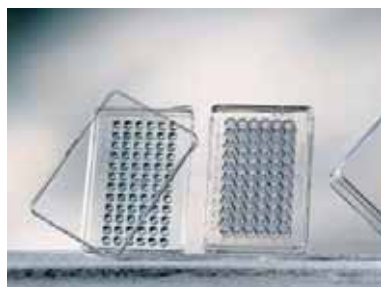
SensoPlate™ Glass Bottom Black Polystyrene Microplates - Sterile

- High quality optical glass bottom bonded to low autofluorescence black polystyrene
- Superior planarity with a flatness of <100µm
- Superior performance, low autofluorescence and optical clarity
- Dimensions: 85 x 127 x 14mm



Stock No.	Description	Case Qty.
4506-62892	24-Well, w/lid	12
4506-55892	96-Well, w/lid	16
4506-55896*	96-Well	16
4507-81892*	384-Well	16
4507-81896*	384-Well	16
4507-82892	1536-Well, hi-base,w/lid	16
4507-83896	1536-Well, lo-base,w/lid	16
4507-83892	1536-Well, lo-base,w/lid	16

*non-sterile



HLA/Terasaki Plates, Polystyrene, Sterile, TC Treated, w/Lid

Stock No.	Volume	Inner Pack	Case Qty.
4506-53180	60 well/ 10µL	10	270
4506-54180	72 well/ 10µL	10	270

Streptavidin Coated Plate, PS

- Ideal for biotin-labeled proteins
- High biotin binding/low SA leading

Stock No.	Volume	Inner Pack	Case Qty.
4507-81990	384-well, 120µL	5	40

96- and 384-Well UV Star® Transparent Microplates

- Unique superior quality resin replaces costly quartz plates
- Recommended for DNA and protein measurements at 260nm or 280nm
- UV range down to 200nm
- Dimensions: 85 x 127 x 14mm

Stock No.	Description	Inner Pack	Case Qty.
4506-55801	96W Flat Bottom	10	40
4507-81801	384W Flat Bottom	10	40



96-Well μ Clear™ Microplates, Polystyrene

- Micro-thin, optically clear polystyrene bottoms increase assay sensitivity
- Lower wavelength reading range improves subject viewing
- Ideal for luminescence, fluorescence and cell monitoring
- Low background and cross talk
- For use with top & bottom illumination and detection systems
- Dimensions: 85 x 127 x14mm

Stock No.	Description	Inner Pack	Case Qty.
4506-55087	Black, sterile, TC treated	10	40
4506-55090	Black, sterile, TC treated w/lid	8	32
4506-55096	Black	10	40
4506-55097	Black, high binding	10	40
4506-55088	White, sterile, TC treated	10	40
4506-55098	White, sterile, TC treated w/lid	8	32
4506-55095	White	10	40
4506-55094	White, high binding	10	40

384-Well μ Clear™ Microplates, Polystyrene

- Micro-thin, optically clear polystyrene bottoms increase assay sensitivity
- Lower wavelength reading range improves subject viewing
- Ideal for luminescence, fluorescence and cell monitoring
- Low background and cross talk
- Dimensions: 85 x 127 x14mm

Stock No.	Description	Inner Pack	Case Qty.
4507-81092	Black, sterile, TC treated	10	40
4507-81091	Black, sterile, TC treated w/lid	8	32
4507-81096	Black	10	40
4507-81097	Black, high binding	10	40
4507-81093	White, sterile, TC treated	10	40
4507-81098	White, sterile, TC treated w/lid	8	32
4507-81095	White	10	40
4507-81094	White, high binding	10	40



CUSTOM BARCODING AVAILABLE

Various label backgrounds available
 Automated application insures consistent printing and placement
 Solvent, temperature and smudge resistant
 Available for 96- 384- and 1536-well microplates
 Standard bar code symbologies available
 Placement available on one to four sides

Call 1-800-257-7043..... for pricing and delivery.



384-Well Standard Microplates, Polypropylene

- Beneficial in applications requiring chemical resistance or higher heat stability
- Well-to-well spacing of 4.5mm and working volume of 25 - 100 μ L
- Dimensions: 85 x 127 x 14mm



Stock No.	Description	Inner Pack	Case Qty.
4507-81201	Clear, F/B	10	100
4507-81209	Black, F/B	10	100
4507-81280	Clear, V/B	10	100

384-Well Small Volume (SV) Microplates, HiBase Polystyrene

- Reduced volumes mean savings for reagents used in HTS applications
- Raised rims minimize cross contamination
- Alphanumeric well coding; well volume of 30 μ L
- Well-to-well spacing of 4.5mm
- Dimensions: 85 x 127 x 14mm

Stock No.	Description	Inner Pack	Case Qty.
4507-84075	White, F/B	10	40
4507-84074	White, High Binding	10	40
4507-84076	Black, F/B	10	40
4507-84077	Black, High Binding	10	40
4507-84101	Clear, F/B	10	40
4507-84080	White, TC Treated, Sterile w/Lid	8	32
4507-84086	Black, TC Treated, Sterile w/Lid	8	32



384-Well Small Volume (SV) Microplates, LoBase, Polystyrene

- Reduced volumes mean savings for reagents used in HTS applications
- Raised rims minimize cross contamination
- Alphanumeric well coding; chimney style, well volume of 30 μ L
- Dimensions: 85 x 127 x 14mm

Stock No.	Description	Inner Pack	Case Qty.
4507-88092	Cellstar™, TC Treated, Sterile, Black/ μ Clear	10	80
4507-88093	Cellstar™, TC Treated, Sterile, White/ μ Clear	10	80
4507-88095	White/ μ Clear	10	80
4507-88096	Black/ μ Clear	10	80

384- and 1536-Well Masterblock™ Deepwell Plates, Polypropylene

- Raised wells for thermal or adhesive sealing
- Low draft sidewalls for robotic handling
- Excellent chemical resistance and temperature stability
- Conical bottom for complete sample recovery
- Dimensions: 85 x 127 x 44mm

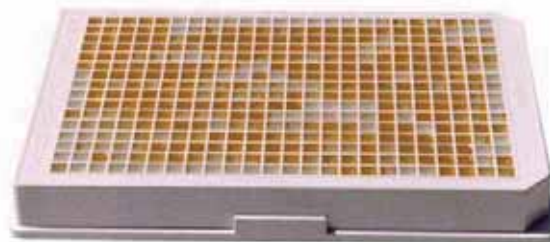


Stock No.	Description	Max Vol μ L	Inner Pack	Case Qty.
4507-81270	384-Well	240	6	60
4507-81271	384-Well, Sterile	240	6	60
4507-82270	1536-Well Masterblock, C/B	20	15	60
4517-82270	1536-Well Masterblock, C/B	20	-	15
4503-84070	Cap Mat, Nat, Silicone	-	10	50

Microlon® 384-Well LIA/FIA Plates, Polystyrene

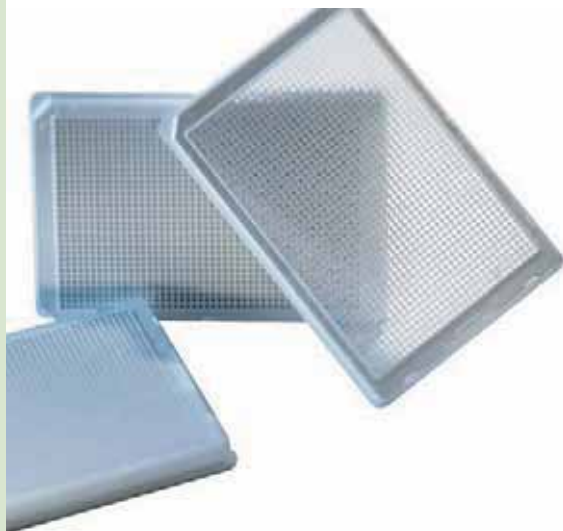
- Recommended for DNA libraries and HTS
- Suitable for automated dispensing systems
- White plates for luminescence; Black plates for fluorescence
- Well Volume: 120 μ L
- Dimensions: 85 x 127 x 14mm

Stock No.	Description	Inner Pack	Case Qty.
4507-81073	White, Sterile, TC treated w/o Lid	10	40
4507-81075	White, w/o Lid	10	40
4507-81074	White, High Bind w/o Lid	10	40
4507-81080	White, Sterile, TC treated w/Lid	8	32
4507-81079	Black, Sterile, TC treated w/o Lid	10	40
4507-81076	Black, w/o Lid	10	40
4507-81077	Black, High Bind w/o Lid	10	40
4507-81086	Black, Sterile, TC treated w/Lid	8	32
4507-81101	Clear, w/o Lid	10	100
4507-81061	Clear, High Bind w/o Lid	10	40
4507-81182	Clear, Sterile, TC treated, w/Lid	8	32
4507-81162	Clear, Sterile, w/o Lid	10	100
4507-81185	Clear, Sterile, w/Lid	1	40
4507-81186	Clear, Sterile, w/Lid	8	32



1536-Well μ Clear™ Microplates, Polystyrene

- Micro-thin, optically clear polystyrene bottoms increase assay sensitivity
- Lower wavelength reading range improves subject viewing
- Maximum volume = 12 μ L
- Ideal for luminescence, fluorescence and cell monitoring
- Low background and cross talk
- Dimensions: 85 x 127 x 10mm



Stock No.	Description	Inner Pack	Case Qty.
4507-82092	HI-base black, sterile, TC treated	15	60
4507-82096	HI-base black	15	60
4507-82097	HI-base black, high binding	15	60
4507-83092	LO-base black, sterile, TC treated	15	60
4507-83096	LO-base black	15	60
4507-83097	LO-base black, high binding	15	60
4507-82093	HI-base white, sterile, TC treated	15	60
4507-82095	HI-base white	15	60
4507-82094	HI-base white, high binding	15	60
4507-83093	LO-base white, sterile, TC treated	15	60
4507-83095	LO-base white	15	60
4507-83094	LO-base white, high binding	15	60

Available in Inner Packs of 15 each

4517-83092	LO-base black, sterile, TC treated	-	15
4517-83096	LO-base black	-	15
4517-83097	LO-base black, high binding	-	15
4517-83093	LO-base white, sterile, TC treated	-	15
4517-83095	LO-base white	-	15
4517-83094	LO-base white, high binding	-	15

1536-Well Microplates, Lo-Base, Polystyrene

- Well to well spacing of 2.25mm
- Well volume: 12 μ L
- Bottom flatness variation end to end is less than 200 μ m
- Dimensions: 85 x 127 x 10mm



Stock No.	Description	Inner Pack	Case Qty.
4507-83075	White	15	60
4507-83076	Black	15	60
4507-83101	Clear	15	60
4517-83075	White	-	15
4517-83076	Black	-	15
4517-83101	Clear	-	15

1536-Well Microplates, Hi-Base, Polystyrene

- Well to well spacing of 2.25mm
- Well volume: 12µL
- Dimensions: 85 x 127 x 10mm

Stock No.	Description	Inner Pack	Case Qty.
4507-82073	White, Sterile, TC treated	15	60
4507-82074	White, High Binding	15	60
4507-82075	White	15	60
4507-82080	White, Sterile, TC treated, w/lid	10	40
4507-82076	Black, Non-Sterile	15	60
4507-82077	Black, High Binding	15	60
4507-82078	Black, Sterile, TC treated	15	60
4507-82086	Black, Sterile, TC treated, w/lid	10	40
4507-82061	Clear, High Binding	15	60
4507-82101	Clear, Non-Sterile	15	60



Silicone Closures for 96-Well Microplates

- Temperature stability from -85°F to +400°F
- Easy puncturing for sample extraction
- Resealable up to 200 punctures
- PTFE coated to resist effects of chemicals and organic solvents
- Autoclavable for sterilization
- Extreme resistance to tearing



Stock No.	Description	Case Qty.
4511-10096	96-Well Square Style Closure	10
4511-20096	96-Well Round Style Closure	10

Cap Mats & Microplate Lids for Multiwell Plates

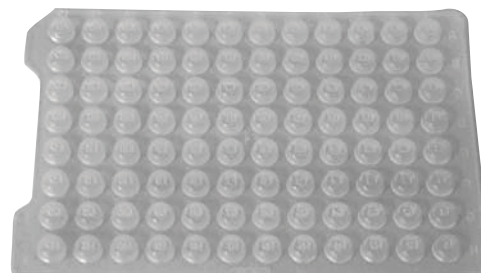
Stock No.	Description	Inner Pack	Case Qty.
4503-81070	96-W 1.2mL Masterblock, EVA	10	50
4503-81080	96-W 2.4mL Masterblock, EVA	10	50
4503-81081†	96-W 2.4mL Masterblock, EVA	10	50
4503-84070	384-W Masterblock, Silicone	10	50
4511-00384	Resealable Silicone Cover, 384 Well		10
Microplate Lids, Standard, Polystyrene			
4506-56101	Standard	1	50
4506-56161	Standard, Sterile	1	50
4506-56170*	Standard, Condensation Rings	1	50
4506-56171*	Standard, Condensation Rings, Sterile	1	50
4506-56176*	Standard, Condensation Rings, Sterile	10	150

* Use with 96-Well Plates only

Microplate Lids, Low Profile, Polystyrene

4506-56190	Low Profile	20	200
4506-56191	Low Profile, Sterile	20	200
4506-56199	Low Profile, Black	1	50

† Sterile



Molded PTFE/Silicone liners

- Designed to fit many standard 96 well microplates
- Tight seal prevents sample cross contamination
- Liner reseals after multiple injections
- Reduced chance of solvent evaporation
- USP Class VI PTFE faced medical grade silicone
- Green liners are manufactured from medical grade silicone
- Dark Blue Liners are manufactured from medical grade silicone for temperatures to -80°C
- White Silicone liner is designed for Greiner 384 well microplates



Stock No.	Description	Type	Case Qty.
4510-02100	Gray silicone liner, 96W	Square	5
4510-02200	Gray PTFE/Silicone liner, 96W	Square	5
4510-02300	Gray pre-scored silicone liner, 96W	Square	5
4510-02400	Gray PTFE/Silicone liner, 96W	Round	5
4510-02500	Gray pre-scored PTFE/Silicone liner, 96W	Round	5
4510-02800	Green Silicone Liner, 96W	Round	5
4510-02900	Green Silicone Liner, 96W, P/S*	Round	5
4510-03000	Green Silicone Liner, 96W	Square	5
4510-03100	Green Silicone Liner, 96W, P/S*	Square	5
4510-03200	Blue Silicone Liner, 96W	Round	5
4510-03300	Blue Silicone Liner, 96W, P/S*	Round	5
4510-03400	Blue Silicone Liner, 96W	Square	5
4510-03500	Blue Silicone Liner, 96W, P/S*	Square	5
4510-03600	White Silicone Liner, 384W, Greiner	Square	5

*Pre-scored



Adhesive Sealers

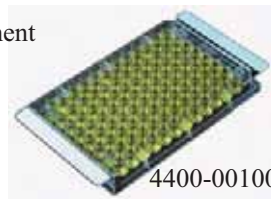
- Unique new sealers offering minimal evaporation and cross contamination
- Designed specifically for the bio-analytical market
- Advanced adhesive with low extractables and low autofluorescence
- Compatible with aqueous solutions and organic solvents



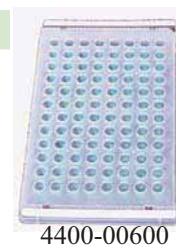
Stock No.	Description	Case Qty.
4506-76001	EASYseal™, adhesive sealer, clear	100
4506-76070	VIEWseal™ clear, advanced adhesive sealer	100
4506-76080	POWERseal™ clear, advanced adhesive, pierceable	100
4506-76090	SILVERseal™ opaque foil w/adhesive, pierceable	100
4510-04000	PTFE sealing tape, 5 mil	100
4510-04100	PTFE sealing tape, 2 mil	100

Sealing Films for Microplates

- Prevent evaporation and protect samples during processing, storage & shipment
- Superior quality film and uniform adhesive
- Two end tabs for accurate positioning
- Removable end-tab backing for sealing around ends of plate
- Perforated end-tabs for removal if necessary
- Packaged in zippered bags



Stock No.	Description	Material	Case Qty.
4400-00100	Seal Plate	2mil polyester	100
4400-00200	Seal Plate Sterile	2mil polyester	100
4400-00300	Seal Plate Mini	2mil polyester	200
4400-00400	Seal Plate Mini, Sterile	2mil polyester	200
4400-00500	Thermal Seal	2mil polypropylene	100
4400-00600	Thermal Seal, Sterile	2mil polypropylene	100
4510-04700	Aluma Seal	1mil aluminum	100
4400-00700	Aluma Seal II	1.5mil aluminum	100
4400-00800	Aluma Seal II, Sterile	1.5mil aluminum	50
4400-00900	Aera Seal	4.5mil hydrophobic	100
4400-01000	Aera Seal, Sterile	4.5mil hydrophobic	50
4400-01100	Tuff Seal	2mil metal polyester	100
4400-01200	Tuff Seal, Sterile	2mil metal polyester	50
4400-01300	Thermal Seal RT 2mil	2mil polyester	100
4400-01400	Thermal Seal RT 5mil	5mil polyester	100
4510-04600	Thin Seal, Sterile	1mil PP	100
4510-04700	Thin Seal	1Smil PP	100
4400-01500	Rubber Roller, 4"		1

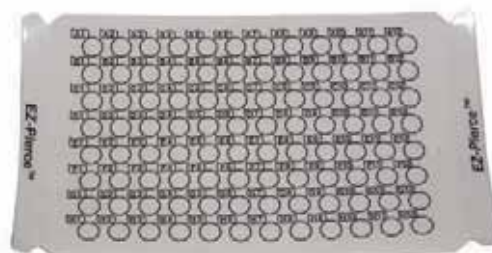


Stock No.	L x W (mm)	Temp Range	Thickness	Use	CO ₂ exchange	Pierceable	DN/RNase free
Seal Plate	80 x 146	-40°C to 120°C	2mil polyester	ELISA	No	No	No
Seal Plate Mini	19 x 103	-40°C to 120°C	2 mil polyester	8-row strip sealer	No	No	No
ThinSeal	80 x 146	-40°C to 120°C	1 mil polyester	ELISA	No	Semi	No
Thermal Seal	80 x 135	-40° C to 125°C	2 mil polypro	PCR	No	No	Yes
AlumaSeal	83 x 143	-80° C to 120°C	1 mil alum foil	Cold Storage	No	Yes	No
Aluma Seal II	83 x 143	-80°C to 120°C	1.5mil alum foil	Thermal cycling	No	Yes	Yes
Aera Seal	83 x 143	-20°C to 80°C	4.5mil film	Tissue culture	Yes	Yes	No
Tuff Seal	83 x 143	-40°C to 120°C	2mil metal PE	Storage/transport	No	No	No
Thermal Seal RT	80 x 143	-40°C to 120°C	2mil/5mil PE	Real time PCR	No	Yes	yes

EZ-Pierce

Stock No.	Description	Inner Pack	Case Qty
4510-04200	EZ-Pierce Flagged Template	--	100
4510-04300	EZ-Pierce Flagged Template, Str	25	50
4510-04400	EZ-Pierce Flagged Template**	--	100
4510-04500	EZ-Pierce Pattern Film^	--	50

- *Pre-scored
- **Film-free wells
- ^ Adhesive-free wells





Millenium 500 Microplate Filler for 96- and 384-Well Plates

- Accurate dispensing using a precision peristaltic pump
- Optional aerosol cover; optional liquid level sensor with audible/visual alarm
- Unique open construction for easy integration with robotic systems
- Up to 25 user programmable protocols
- 8 & 16 individual channel head configuration
- Easy to clean; autoclavable head and liquid path
- Reagent recovery feature eliminates waste
- Easy to read illuminated alphanumeric display
- Operates on 12V DC with external switch
- Deep well plate configuration available



Specifications:

Operating Voltage/Hz:	100-240Vac, 50/60Hz
Maximum current:	52VA
Precision:	CV \leq - 3% @300mL
Dispensing Volume:	5-400mL in 2mL increments
Speed:	18 seconds maximum
Dimensions/Weight:	32 x52 x28cm / 6kg

Stock No.	Description
-----------	-------------

4507-00184	8-channel filler for 96-well microplate
4507-00197	16-channel filler for 96/384-well microplate
4507-00226	16-channel filler for 384-well microplate
4507-00191	Optional Aerosol Cover

Millennium 1000 Microplate Washer

- Accurate dispensing precision and low residual volumes
- Optional aerosol cover
- Open construction for easy integration with robotic systems
- Plate sweep for the lowest residual volumes
- Up to 25 user programmable wash protocols
- Liquid level sensing in wash/waste reservoirs with audible alarm
- Easy exchange of wash heads
- Easy to read back illuminated full alphanumeric display
- Operates on 12VDC via external switch power supply
- Separate dispense and aspirate channels reduce the possibility of cross contamination
- Compact design



Specifications:

Operating Voltage/Hz:	100-240Vac, 50/60Hz
Maximum current:	52VA
Dispense reservoir:	up to 3x2L
Waste reservoir:	2L
Residual volume:	3mL /well typical action; 1mL /well with sweep
Precision:	CV \leq - 3% @300mL
Dispensing Volume:	25-1000mL in 25mL increments
Speed:	2.5 minutes*
Dimensions/Weight:	35 x 65 x 35cm/ 9.2kg

*to complete a 3 wash cycle using a 12 channel washer, double head, 350mL/well, 96 wells

Stock No.	Description
-----------	-------------

4507-00188	16-channel washer for 96 well plates
4507-00190	48-channel washer for 384 well plates
4507-00191	Optional aerosol cover





Millennium 2000 Microplate Shaker Incubator

- Easy access to all standard 96 or 384-well plates
- Uniform heating via air circulation
- Open construction for easy integration with robotic systems
- Optimal temperature uniformity across all plates
- Maximum 4 plates
- Can be pre-configured for deepwell microplates

Stock No.	Description
7742-10115	Millennium 2000 Shaking Incubator

Specifications:

Operating Voltage/Hz	100-240Vac 50/60Hz
Remote power supply	14V/ 5.4A
Heater power	100W
Temperature Range	Ambient +5°C to 45° in 1°C increments
Temperature Uniformity	±1°C (between plates)
Readout precision	±1°C
Operational conditions	12°C to 30°C
Adjustable timer	1-999 minutes in 1minute increments
Orbit	1.5mm
Speed Range	500-1300 in 10rpm increments
Weight	4.2kg
Dimensions WxDxH	8 x 20.5 x 8.5" (20 x 52 x 22cm)



Orbis Personal Microplate Shakers

- Variable Speed Control
- Brushless DC motor
- Timer unit includes styrene lid
- 15V DC remote power supply

Stock No.	Description
4707-00235	Orbis Shaker
4707-00237	Orbis Shaker w/Timer & Lid
4707-00236	Optional Lid

Specifications:

Shaking orbit	1.0mm radius
Shaking speed	950-1300 rpm
Dimensions WxDxH	3¾ x 5¼ x 2½" (93mm x 133mm x 66mm)
Weight	20 oz.(715g)
Operating voltage	110V/50Hz 230V/50/60Hz
Power consumption	65mA
Power supply	15V 100mA DC
Operating Temperature	10°C – 40°C
Fuse rating	1mA
Case material	ABS



Inca Personal Microplate Incubator

- Variable temperature control
- Temperature /elapsed time display
- Minimum evaporative loss with uncovered plates
- Low voltage for added safety
- Ideal for field applications



Stock No.	Description
4705-83154	Inca Microplate Incubator

Specifications	
Temperature Range:	Ambient + 5°C to 40°C
Accuracy:	> ±0.5°C of set temperature
Dimensions:	120 x 180 x 100mm (4-3/4 x 7 x 4")
Power:	100-230V, 50/60Hz, 15W, 1.25A
Operating Temperature:	10°C to 40°C
Display:	3 digit LCD
Case Material:	ABS

FREEZ-RAX™ Inventory Storage Racks for 96- 384- and 1536-Well HTS Plates

- Designed for long term sample storage in standard and deep well microplates
- Rugged racks with handles feature locking rods to hold plates securely
- Manufactured from corrosion resistant stainless steel
- Custom designs are available



Upright Freez-Rax for Multiwell Plates

Plate size: 5 x 3-3/8 x 9/16" (125 x 85 x 14mm)

Stock No.	Dimensions LxWxH	Plate Capacity
2028-70080	18 1/2 x 5 1/2 x 9 3/16	70 w/lids or 80 w/o lids
2028-80100	18 1/2 x 5 1/2 x 11	80 w/lids or 100 w/o lids
2028-84096	22 x 5 1/2 x 9 3/16	84 w/lids or 96 w/o lids
2028-96120	22 x 5 1/2 x 11	96 w/lids or 120 w/o lids



Chest Freez-Rax for Multiwell Plates

Plate size: 5 x 3-3/8 x 9/16" (125 x 85 x 14mm)

Stock No.	Dimensions LxWxH	Plate Capacity
2028-25030	3 5/8 x 5 1/2 x 19 7/8	25 w/lids or 30 w/o lids
2028-30036	3 5/8 x 5 1/2 x 19 7/8	30 w/lids or 36 w/o lids
2028-35042	3 5/8 x 5 1/2 x 23 1/4	35 w/lids or 42 w/o lids
2028-40048	3 5/8 x 5 1/2 x 26 1/4	40 w/lids or 48 w/o lids
2028-45054	3 5/8 x 5 1/2 x 29 5/8	45 w/lids or 54 w/o lids

Dilux Dilution Reservoir, 12 Channel

- Designed for the preparation of serial dilutions
- Individual chambers hold up to 5mL of sample
- Rounded chambers facilitate complete sample withdrawal
- Numeric code for accurate sample reference
- Fitted lid minimizes evaporation and contamination
- Wide base for stability and spill reduction
- Individually wrapped



Stock No.	Description
4507-01002	Dilux Dilution Reservoir, w/Lid, Sterile, Pk/10
4507-01005	Dilux Dilution Reservoir, w/Lid, Non- Sterile, Pk/10

8-Channel Trough, PS

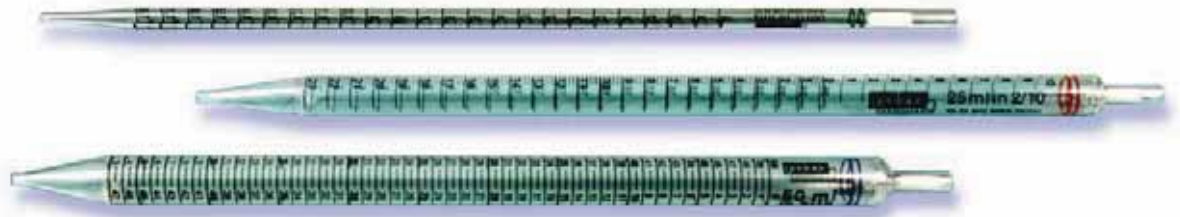
- Packed 5 to a case
- 82 x 127mm

Stock No.	Description
4510-05000	8 Channel Trough, white



Pipettes, Serological, Polystyrene, Sterile

- Accuracy of Graduations is +/- 2%
- Designed to fit standard pipettors
- Cotton plugged, disposable
- RNase, DNase & Pyrogen free

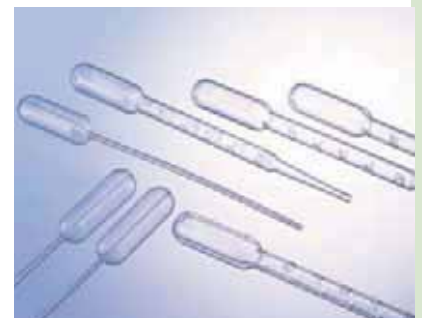


Stock No.	Description	Size (mL)	Graduations	Color Code	Inner Pack	Case Qty.
4506-04107	Bulk Pack	1	1/100	Yellow	25	1000
4506-04181	Single	1	1/100	Yellow	1	1000
4507-10107	Bulk Pack	2	1/100	Green	25	1000
4507-10180	Single	2	1/100	Green	1	1000
4506-06107	Bulk Pack	5	1/50	Blue	25	500
4506-06180	Single	5	1/10	Blue	1	200
4506-07107	Bulk Pack	10	1/10	Orange	25	500
4506-07180	Single	10	1/10	Orange	1	200
4507-60180	Single	25	1/5	Red	1	200
4507-68180	Single	50	1/2	Purple	1	100

Transfer Pipettes, Polypropylene, 3mL

Stock No.	Description	Inner Pack	Case Qty.
4507-00361*	153mm	25	1000
4507-00370	153mm	500	500
4506-12301†	170mm	1500	1500

*sterile; †graduated



Sealpette Single Channel Pipettors with Fixed Volume

- Ideally suited to educational, medical, research and industrial laboratories
- Robust lightweight design with smooth plunger action
- Slimline tip ejector allows pipetting into narrow tubes



Stock No.	Volume (µL)	Inaccuracy %	Imprecision %
4704-80005	5	1.30	1.20
4704-80006	10	0.80	0.80
4704-80007	20	0.60	0.50
4704-80008	25	0.50	0.30
4704-80009	50	0.50	0.30
4704-80010	100	0.50	0.30
4704-80011	200	0.40	0.20
4704-80012	250	0.40	0.20
4704-80013	500	0.30	0.20
4704-80014	1000	0.30	0.20
4704-80015	2000	0.30	0.15
4704-80016	5000	0.30	0.15

Sealpette Single Channel Pipettor with Variable Volume

- Robust lightweight design
- Slimline tip ejector allows pipetting into narrow tubes
- High degree of accuracy and precision



Stock No.	Range (µL)	Increments(µL)	Inaccuracy %	Imprecision %
4704-80000	0.5-10*	0.1	1.00	1.00
4704-80080	2-20	0.5	0.90	0.40
4704-80001	5-50	0.5	0.60	0.30
4704-80081	10-100	1.0	0.80	0.15
4704-80082	20-200	1.0	0.60	0.15
4704-80002	50-200	1.0	0.60	0.15
4704-80083	100-1000	5.0	0.60	0.20
4704-80003	200-1000	5.0	0.60	0.20
4704-80004	1-5 ml	50.0	0.50	0.15

*uses ultra micro volume tip

Sealpette Multi-Channel Pipettors with Variable Volume

- 0.5µl-10µl, 8-channel unit accepts ultra-micro-volume tips
- Calibrated according to DIN12 650 specifications
- Certificate of calibration supplied with serial number
- Dispensing head rotates 360° for working comfort
- Unique staggered tip-eject bar ensures easy tip ejection

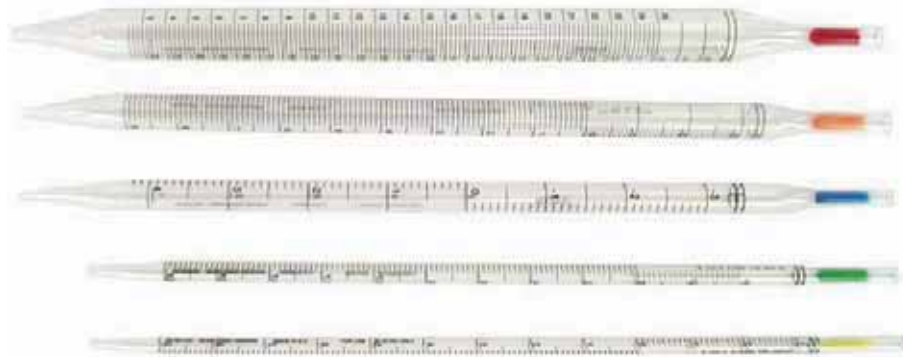


Stock No.	Channels	Range (µL)	Increments(µL)	Inaccuracy %	Imprecision %
4704-80017	4	5-50	0.5	1.00	0.50
4704-80018	4	50-250	5.0	0.70	0.25
4704-80042	8	0.5-10	0.1	1.50	1.50
4704-80019	8	5-50	0.5	1.00	0.50
4704-80020	8	50-250	5.0	0.70	0.25
4704-80021	12	5-50	0.5	1.00	0.50
4704-80022	12	50-250	5.0	0.70	0.25

Serological Pipets, Individually Wrapped and Bulk Packed, Polystyrene

- Polystyrene single-piece construction eliminates plastic welds
- Sterile, non-pyrogenic, disposable
- Paper/plastic pull apart packaging eliminates static
- Graduation accuracy greater than or equal to 1.5%
- Color coded cotton plug replaces color banding around mouthpiece
- Standard tip opening
- Bulk packaged in bags of 25 for high volume use or individually wrapped for reduced contamination
- Designed to fit automatic and manual pipettors

Stock No.	Vol x Grad	Tip ID (mm)	Case	Packaging	Color
4401-10001	1mLx 1/100	1.3-1.8	500	Individual	Yellow
4402-20001	2mL x 1/50	1.8-2.2	500	Individual	Green
4405-50001	5mL x 1/10	1.4-2.0	250	Individual	Blue
4410-10001	10mL x 1/10	1.8-2.4	200	Individual	Orange
4425-25001	25mL x 2/10	2.3-3.5	200	Individual	Red
4450-50001	50mL x 2/10	3.1-3.3	100	Individual	Purple
4401-10025	1mLx 1/100	1.3-1.8	1000	25/Bulk	Yellow
4402-20025	2mL x 1/50	1.8-2.2	1000	25/Bulk	Green
4405-50025	5mL x 1/10	1.4-2.2	375	25/Bulk	Blue
4410-10025	10mL x 1/10	1.8-2.4	250	25/Bulk	Orange
4425-25025	25mL x 2/10	2.3-3.5	100	25/Bulk	Red



Safetypette Pipette Filler

The Safetypette is uniquely designed to give superior pipetting control to both left and right handed users. The lightweight Safetypette sits comfortably in the hand enabling smooth variable speed control in both aspirating and dispensing.

- Supplied with integral 0.45µm filter and colored pipette cones for color coding in white, mint, mauve and pink
- Comfortable and simple to use
- Precise pipetting control
- Robust and lightweight
- Compatible with blow-out and TD pipettes; 1mL - 100mL
- Simple thumb button operation



Stock No.	Description
4704-75102	Safetypette w/three cones
4702-66003	Membranes, Pkg/5
4702-66004	Replacement Silicone Pipette Holder

Centrifuge Tubes w/Screw Caps, Graduated, Sterile, PP

- Temperature range from -196°C to +125°C
- White label for easy identification



Stock No.	OD x OAH (mm)	Vol. (mL)	Inner Pack	Case Qty.
4501-88261	17 x 120	15	50/rack	500
4501-88271	17 x 120	15	100	1000
4502-10261*	30 x 115	50	25	450
4502-10270*	30 x 115	50	25/rack	300
4502-27261**	30 x 115	50	20	500
4502-27270**	30 x 115	50	25/rack	300
4501-64161**	16 x 100	12	25	1000
4502-27285†	30 x 115	50	20	500

*Stand alone; ** Supported Rotor; † White Cap

Microcentrifuge Tubes, Hinged Cap, PP

Stock No.	Vol.	Color	Inner Pack	Case Qty.
4506-67201	0.5	Clear	1000	1,000
4506-16201*	1.5	Clear	500	4,000
4506-16273*	1.5	Red	500	4,000
4506-16274*	1.5	Blue	500	4,000
4506-16275*	1.5	Green	500	4,000
4506-16276*	1.5	Yellow	500	4,000
4506-23201	2.2	Clear	500	4,000

*Graduated



Microtubes, Conical Bottom, w/external thread, PP, Skirted

Stock No.	Vol.	Inner Pack	Case Qty.
4507-17201 (no cap)	1.5	500	5000
4507-22201 (no cap)	2.0	500	5000

Microtube Screw Caps, Polyethylene

Stock No.	Color	Inner Pack	Case Qty.
4503-66380	Clear	500	5000
4503-66383	Red	500	5000
4503-66384	Blue	500	5000
4503-66385	Green	500	5000
4503-66386	Yellow	500	5000

Culture Tubes, Round Bottom, PS & PP, w/Snap Cap, Sterile

Stock No.	OD x OAH (mm)	Vol. (mL)	Inner Pack	Case Qty.
Polystyrene				
4501-20161	12 x 75	4.5	1	1000
4501-63160*	16 x 100	14	5	1000
4501-91161	18 x 95	14	1	750
4501-91180	18 x 95	14	25	1000
Polypropylene				
4501-15261	12 x 75	5	1	1000
4501-15262	12 x 75	5	25	2000
4501-87261	17 x 100	14	1	800
4501-87262	17 x 100	14	25	1000

* TC Treated, Red Screw Cap



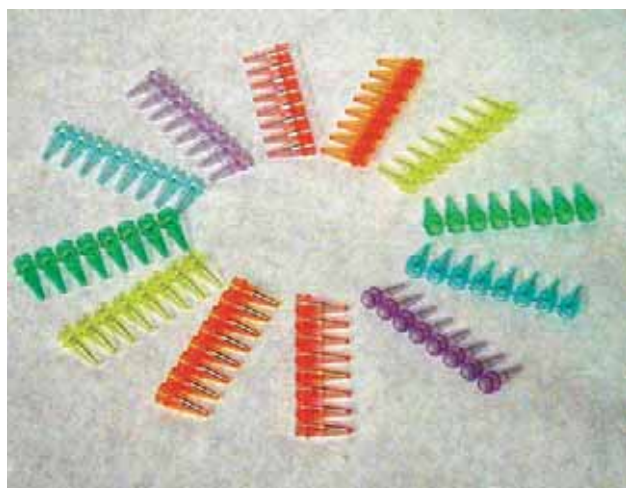
Test Tubes, Round Bottom, PS & PP

Stock No.	OD x OAH (mm)	Vol. (mL)	Inner Pack	Case Qty.
Polystyrene				
4501-12101	12 x 55	4	240	3600
4501-15101	12 x 75	5	250	2000
4501-25101	13 x 100	7	1400	1400
4501-36101	14 x 100	10	1400	1400
4501-69101	16 x 152	20	1500	1500
Polypropylene				
4501-12201	12 x 55	4	240	3600
4501-15201	12 x 75	5	250	2000
4501-87201	17 x 100	14	1500	1500



PCR Tubes and Caps, 0.2mL, 1 x 8 Strips, PP

- Thin walled for optimal heat transfer
- DNase & RNase free
- Non-pyrogenic



Stock No.	Description	Inner Pack	Case Qty.
4506-73210	Clear PCR Strip Tube	125	125
4506-73272	Orange PCR Strip Tube	125	125
4506-73273	Red PCR Strip Tube	125	125
4506-73274	Blue PCR Strip Tube	125	125
4506-73275	Green PCR Strip Tube	125	125
4506-73276	Yellow PCR Strip Tube	125	125
4506-73277	Violet PCR Strip Tube	125	125
4506-73271	Assorted PCR Strip Tube*	125	125
4503-73270	Clear Strip Caps, Domed	125	125
4503-73272	Orange Strip Caps, Domed	125	125
4503-73273	Red Strip Caps, Domed	125	125
4503-73274	Blue Strip Caps, Domed	125	125
4503-73275	Green Strip Caps, Domed	125	125
4503-73276	Yellow Strip Caps, Domed	125	125
4503-73277	Violet Strip Caps, Domed	125	125
4503-73281	Assorted Strip Caps, Domed*	125	125
4506-83201	Thin walled, Flat Lid, Clear	1000	1000

*25 each, Red, Blue, Green, Yellow & Orange

PCR Tubes and Caps, 0.5mL, w/Domed Lid, PP

- Thin walled for optimal heat transfer
- DNase & RNase free
- Non-pyrogenic

Stock No.	Description	Inner Pack	Case Qty.
4506-72201	Clear tube	1000	1000
4506-72272	Orange	1000	1000
4506-72273	Red	1000	1000
4506-72274	Blue	1000	1000
4506-72275	Green	1000	1000
4506-72276	Yellow	1000	1000
4506-72277	Violet	1000	1000
4506-72281	Assorted*	1000	1000

*200 each: R, B, G, Y, O

Cryo.s Vials w/Internal Thread, Support Rim, Conical Bottom, PP, 1mL, Sterile

- Ideal for short term and long term low temperature storage from -196°C to +145°C
- Support Rim for free standing use
- Silicone sealing gasket for sample preservation
- 150 Cap inserts included provide additional identification area
- DNase and RNase free—Certificate of sterilization provided
- Dimensions: 12.5 x 33mm



Stock No.	Description	Inner Pack	Case Qty.
4501-23261	Vial w/Clear cap	100	500
4501-23263	Vial w/Clear cap and ID field	100	500
4501-23277	Vial w/Green cap and ID field	100	500
4501-23278	Vial w/Yellow cap and ID field	100	500
4501-23279	Vial w/Blue cap and ID field	100	500
4501-23280	Vial w/Red cap and ID field	100	500

Cryo.s Vials w/ Internal Thread, Round Bottom, Polypropylene 2mL, Sterile

- Ideal for short term and long term low temperature storage from -196°C to +145°C
- 150 Cap inserts included provide additional identification area
- Silicone sealing gasket insures sample preservation
- DNase and RNase free—Certificate of sterilization provided
- Dimensions: 12.5 x 38mm



Stock No.	Description	Inner Pack	Case Qty.
4501-21261	Vial w/Clear cap	100	500
4501-21263	Vial w/Clear cap and ID field	100	500
4501-21277	Vial w/Green cap and ID field	100	500
4501-21278	Vial w/Yellow cap and ID field	100	500
4501-21279	Vial w/Blue cap and ID field	100	500
4501-21280	Vial w/Red cap and ID field	100	500

Cryo.s Vials w/Internal Thread, Support Rim, Round Bottom, PP, 2mL, Sterile

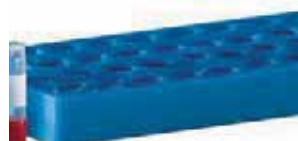
- Ideal for short term and long term low temperature storage from -196°C to +145°C
- Support Rim for free standing use
- Silicone sealing gasket insures sample preservation
- 150 Cap inserts included provide additional identification area
- DNase and RNase free—Certificate of sterilization provided
- Dimensions: 12.5 x 38mm



Stock No.	Description	Inner Pack	Case Qty.
4501-22261	Vial w/Clear cap	100	500
4501-22263	Vial w/Clear cap and ID field	100	500
4501-22277	Vial w/Green cap and ID field	100	500
4501-22278	Vial w/Yellow cap and ID field	100	500
4501-22279	Vial w/Blue cap and ID field	100	500
4501-22280	Vial w/Red cap and ID field	100	500

Cryo.s Support Rack, PP, 40 Position

- Star foot design locks vials into the rack for one-hand opening and closing
- Ideal for all sizes of vials both freestanding and round bottom (not for conical vials)



Stock No.	Description
4508-02501	Rack, blue PP

Cryo.s Vials w/External Thread, Support Rim, Round Bottom, PP, 2mL, Sterile

- Ideal for short term and long term low temperature storage from -196°C to +145°C
- Support Rim for free standing use
- Silicone sealing gasket for sample preservation
- 150 Cap inserts included provide additional identification area
- DNase and RNase free—Certificate of sterilization provided
- Dimensions: 12.5 x 46mm



Stock No.	Description	Inner Pack	Case Qty.
4501-26261	Vial w/Clear cap	100	500
4501-26263	Vial w/Clear cap and ID field	100	500
4501-26277	Vial w/Green cap and ID field	100	500
4501-26278	Vial w/Yellow cap and ID field	100	500
4501-26279	Vial w/Blue cap and ID field	100	500
4501-26280	Vial w/Red cap and ID field	100	500

Cryo.s Vials w/External Thread, Support Rim, Round Bottom, PP, 3.5mL, Sterile

- Ideal for short term and long term low temperature storage from -196°C to +145°C
- Support Rim for free standing use
- Silicone sealing gasket for sample preservation
- 100 Cap inserts included provide additional identification area
- DNase and RNase free—Certificate of sterilization provided
- Dimensions: 12.5 x 84mm



Stock No.	Description	Inner Pack	Case Qty.
4501-27261	Vial w/Clear cap	50	300
4501-27263	Vial w/Clear cap and ID field	50	300
4501-27277	Vial w/Green cap and ID field	50	300
4501-27278	Vial w/Yellow cap and ID field	50	300
4501-27279	Vial w/Blue cap and ID field	50	300
4501-27280	Vial w/Red cap and ID field	50	300

Cryo.s Vials w/Internal Thread, Round Bottom, PP, 5mL, Sterile

- Ideal for short term and long term low temperature storage from -196°C to +145°C
- Silicone sealing gasket for sample preservation
- 100 Cap inserts included provide additional identification area
- DNase and RNase free— Certificate of sterilization provided
- Dimensions: 12.5 x 78mm



Stock No.	Description	Inner Pack	Case Qty.
4501-24261	Vial w/Clear cap	50	300
4501-24263	Vial w/Clear cap and ID field	50	300
4501-24275	Vial w/Green cap and ID field	50	300
4501-24276	Vial w/Yellow cap and ID field	50	300
4501-24274	Vial w/Blue cap and ID field	50	300
4501-24273	Vial w/Red cap and ID field	50	300

Cryo.s Cap Inserts

- White insert fits into top of cap providing additional identification area
- Packed 50/case

Stock No.	Description
4503-04171	Insert, White



Acrylic Tube Racks

Stock No.	Dimensions	Configuration	Size
4501-11050	170 x 90mm	2 x 4	50mL
4501-11051	250 x 90mm	2 x 6	50mL
4501-11052	250 x 130mm	3 x 6	50mL
4501-11031	265 x 100mm	4 x 12	0.5mL
4501-11037	265 x 100mm	4 x 12	1.5mL
4501-11041	265 x 100mm	2 x 12	2.2mL

Homogenization Pestles

- Used to homogenize cells or to resuspend precipitates such as protein or DNA pellets.
- Rated at 17,000G.
- RNase, DNase, and pyrogen free
- Autoclavable

Pestles and Microtubes, Individually Wrapped

Stock No.	Description	Case Qty.
1980-61005	Pestle w/Tube, 0.5mL	100
1980-71005	Pestle w/Tube, 1.5mL	100
1980-31005	Pestle Only, Green, 0.5mL	100
1980-11005	Tube Only, Natural, 0.5mL	100
1980-41015	Pestle Only, Red, 1.5mL	100
1980-21015	Tube Only, Natural, 1.5mL	100

Pestles and Microtubes, Bulk Packed

Stock No.	Description	Case Qty.
1980-65005	Pestle w/Tube, 0.5mL	100
1980-75005	Pestle w/Tube, 1.5mL	100
1980-35005	Pestle Only, Green, 0.5mL	100
1980-15005	Tube Only, Natural, 0.5mL	100
1980-45015	Pestle Only, Red, 1.5mL	100
1980-25015	Tube Only, Natural, 1.5mL	100

BioVortexer Motor

- Battery powered
- Cell pellets, precipitates and other solids are completely dispersed in seconds
- Shipped complete with two 'AA' size batteries.

Stock No.	Description
1980-50000	BioVortexer Motor

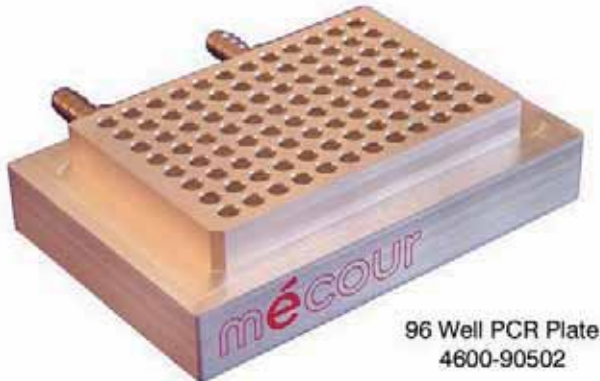


Thermal Blocks for Microplates and Tubes

- Eliminate the need for ice buckets, jacketed coolers, glycol baths & hot plates
- Liquid circulating baths provide stable, long-term temperature uniformly
- Constructed of solid aluminum for regulated manufacturing environments
- FDA-approved powder coatings available
- Temperature range: -75°C to 105°C ±0.1°C
- Sealed unit eliminates hazards and contamination
- Heating/cooling with the same device
- SST 3/8" ID hose barbs standard
- Quick Disconnect Fittings available separately

Stock No.	Description	Dimensions
4600-00096	96 Well, 1mL Tube*	5 x 4 x 2.25"
4600-00676	676 Well, 0.2mL PCR Tube	16 x 16 x 2"
4600-90501	96 Well for PCR Plate	6 x 4 x 2"
4600-90502	96 Well for PCR Plate*	6 x 4 x 2"
4600-90503	384 Well for PCR Plate	6 x 4 x 2"

*Fits Zymark automated deck



**Custom Designs Available by Quotation
1-800-257-7043**

Beakers, Polypropylene, Graduated

- DIN 12331/ ISO 7056
- Blue imprinted graduations to aid measurements



Stock No.	Volume x Grad.	OD x OAH	Case Qty.
5623-00010	10mL x 2mL	25 x 35mm	12
5623-00025	25mL x 5mL	31 x 47mm	12
5623-00050	50mL x 10mL	40 x 60mm	12
5623-00100	100mL x 20mL	50 x 70mm	12
5623-00150	150mL x 20mL	56 x 80mm	12
5623-00250	250mL x 50mL	68 x 94mm	6
5623-00400	400mL x 50mL	77 x 109mm	6
5623-00500	500mL x 50mL	88 x 122mm	6
5623-00600	600mL x 100mL	91 x 125mm	6
5623-00800	800mL x 100mL	98 x 136mm	6
5623-01000	1000mL x 100mL	102 x 150mm	6
5623-02000	2000mL x 200mL	133 x 183mm	6
5623-03000	3000mL x 500mL	174 x 214mm	4
5623-05000	5000mL x 500mL	185 x 248mm	4

Graduated Cylinders, Polypropylene, w/Hex Base

- Class B - DIN 12681/ ISO 6706
- Ring molded graduations for increased durability



Stock No.	Volume x Grad.	OD x OAH	Case Qty.
5626-10010	10mL x 0.2mL	16 x 140mm	12
5626-10025	25mL x 0.5mL	21 x 169mm	12
5626-10050	50mL x 1mL	28 x 199mm	12
5626-10100	100mL x 10mL	34 x 260mm	12
5626-10250	250mL x 2mL	47 x 315mm	6
5626-10500	500mL x 5mL	61 x 350mm	6
5626-11000	1000mLx10mL	76 x 415mm	6
5626-12000	2000mLx20mL	97 x 482mm	3

Erlenmeyer Flasks, Polypropylene, with Screw Cap and Graduations

- Wide mouth for easy filling
- Translucent with printed graduations



Stock No.	Volume x Grad.	Thread	Case Qty.
2500-00050	50mL x 10mm	40	6
2500-00100	100mL x 20mm	40	6
2500-00250	250mL x 50mm	52	6
2500-00500	500mL x 100mm	52	6
2500-01000	1000mLx200mm	52	4

Erlenmeyer Flasks, Polycarbonate with Screw Cap and Graduations

- Designed for tissue and sterile culture applications
- Vent tube can be closed with tissue or filter material



Stock No.	Volume x Grad.	Type	Thread	Case Qty.
2501-00250	250mL x 50mm	Closed	52	6
2501-10250	250mL x 50mm	Vented	52	6
2501-00500	250mL x 100mm	Closed	52	6
2501-10500	250mL x 100mm	Vented	52	6

Volumetric Flasks, Polypropylene with Screw Cap

- Class B - DIN 12664 (glass) standards
- Translucent with individual ring mark

Stock No.	Volume	Height	Thread	Case Qty.
5622-00025	25mL	115mm	18 GL	6
5622-00050	50mL	150mm	18 GL	6
5622-00100	100mL	180mm	18 GL	6
5622-00250	250mL	235mm	25 GL	5
5622-00500	500mL	270mm	25 GL	4
5622-01000	1000mL	310mm	32 GL	3



Volumetric Flasks, Polypropylene with PP Stopper

- Class B - DIN 12664 (glass) standards
- Translucent with individual ring mark

Stock No.	Volume	Height	Stopper	Case Qty.
5622-10025	25mL	115mm	10/19	6
5622-10050	50mL	150mm	10/19	6
5622-10100	100mL	180mm	14/23	6
5622-10250	250mL	235mm	19/26	5
5622-10500	500mL	270mm	19/26	4
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