

# Roller Apparatus and large Roll-In Incubator

## Product Information

Bellco's Cell Production Roller Apparatus are ideally suited to perform pilot scale experiments or gear up for high volume production. The product line ranges from the two-position economy model to an 88 position high-production unit. The process-controlled Roller Apparatus can interface with computers. The Sci/ERA™ units have special alarm and safety systems. All models feature ramped bottle stops for easy bottle removal, keyed roller shafts to prevent slippage, and removable rollers for simple maintenance. Rollers are manufactured of a non-transferring, chemical resistant rubber (EDPM) compound and are mounted on ball-bearing shafts. The Bellco Roller Apparatus units can be used at environmental conditions of 4 °C to 50 °C and a non-condensing, relative humidity of 0 to 90 %.

### Modular Roller Apparatus, with or without Alarm System (Sci/ERA™)

- Modular construction of a base and up to 8 separate decks (5 positions per deck)
- Speed range: 0.1 to 4.0 rpm (optional Slow Speed Kits available on request)
- Accepts glass or plastic roller bottles with 11 to 12 cm outer diameter and up to 57 cm total length (roller length 51 cm)
- Clearance between decks: 13.4 cm

#### Standard units:

- Analog speed indicator and a locking speed control knob

#### Sci/ERA™ units:

- Digital speed indicator and a locking speed control knob
- All position drive
- Audible and visual alarm system with remote jack for interfacing with alarm systems or computers
- Stand-by drive and alarm system: A redundant stand-by motor is started in case of mechanical or motor fault of the primary motor
- Battery back-up: up to 18 hours of continuous operation during power failure (depending on load and rpm)



Base and 2 Decks,  
Standard unit



Base and 8 Decks,  
Sci/ERA™ unit

#### Standard

Cat. No.	Description	Positions	Dimensions (w x d x h)
7630-75220	Base only	5	approx. 81 x 63 x 46 cm
7630-75221	Base and 1 Deck	10	approx. 81 x 63 x 64 cm
7630-75222	Base and 2 Decks	15	approx. 81 x 63 x 82 cm
7630-75223	Base and 3 Decks	20	approx. 81 x 63 x 100 cm
7630-75224	Base and 4 Decks	25	approx. 81 x 63 x 118 cm
7630-75225	Base and 5 Decks	30	approx. 81 x 63 x 136 cm
7630-75226	Base and 6 Decks	35	approx. 81 x 63 x 154 cm
7630-75227	Base and 7 Decks	40	approx. 81 x 63 x 172 cm
7630-75228	Base and 8 Decks	45	approx. 81 x 63 x 189 cm
7630-75010	Deck only	5	approx. 81 x 63 x 18 cm

7630-50555 All position drive, recommended for use with plastic bottles

#### Sci/ERA™

Cat. No.	Description	Positions	Dimensions (w x d x h)
7630-85220	Base only	5	approx. 81 x 63 x 46 cm
7630-85221	Base and 1 Deck	10	approx. 81 x 63 x 64 cm
7630-85222	Base and 2 Decks	15	approx. 81 x 63 x 82 cm
7630-85223	Base and 3 Decks	20	approx. 81 x 63 x 100 cm
7630-85224	Base and 4 Decks	25	approx. 81 x 63 x 118 cm
7630-85225	Base and 5 Decks	30	approx. 81 x 63 x 136 cm
7630-85226	Base and 6 Decks	35	approx. 81 x 63 x 154 cm
7630-85227	Base and 7 Decks	40	approx. 81 x 63 x 172 cm
7630-85228	Base and 8 Decks	45	approx. 81 x 63 x 189 cm
7630-85010	Deck only	5	approx. 81 x 63 x 18 cm

7630-60666 Slow Speed Kit for 0.100 to 2.0 rpm

7630-70777 Slow Speed Kit for 0.085 to 1.7 rpm

## Roller Apparatus with Alarm System (Sci/ERA™), fixed frame



- Fixed Frame Roller Apparatus with 9 or 10 Decks
- Features please see page 1, Slow Speed Kits available

Cat. No.	Description	Positions	Dimensions (w x d x h)
7630-82509	9 Decks	45	approx. 81 x 63 x 189 cm
7630-82510*	10 Decks	50	approx. 81 x 63 x 213 cm

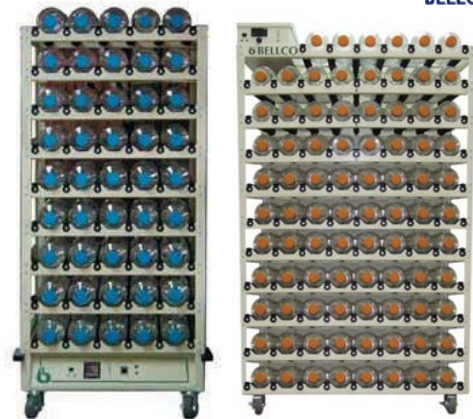
\* This unit does not fit inside Roll-In Incubators

## Top Drive and Bottom Drive Roller Apparatus, fixed frame



### Standard units:

- Brushless motor & controller for smooth operation and easy maintenance
- Speed range: 0.3 to 9.0 rpm
- Rotation switch for CW and CCW operation
- All position drive
- Digital display
- Accepts glass or plastic roller bottles with 11 to 12 cm outer diameter and up to 57 cm total length (roller length 51 cm)
- Clearance between decks: 13.4 cm
- Front locking castors



Bottom Drive and Top Drive Roller Apparatus

### Process-controlled units:

- RS485 network port (RS232 and 4-20 mA also available on request)

### Battery Back-up:

- Up to 18 hours of continuous operation during power failure (depending on load and rpm)
- Battery level indicator flashes during battery mode

### Optional Motion Alarm (factory installation only):

- Audible and visual alarm system with remote jack for interfacing with alarm systems or computers

### Top Drive Roller Apparatus

Standard	Decks / Positions	Dimensions (w x d x h)	Battery Back-up
7440-10230	11 / 53	approx. 81 x 63 x 193 cm	no
7440-20230	11 / 53	approx. 81 x 63 x 193 cm	yes
7460-10230	11 / 86	approx. 122 x 63 x 193 cm	no
7460-20230	11 / 86	approx. 122 x 63 x 193 cm	yes

Process-controlled	Decks / Positions	Dimensions (w x d x h)	Battery Back-up
7400-10230	11 / 53	approx. 81 x 63 x 193 cm	no
7400-20230	11 / 53	approx. 81 x 63 x 193 cm	yes
7420-10230	11 / 86	approx. 122 x 63 x 193 cm	no
7420-20230	11 / 86	approx. 122 x 63 x 193 cm	yes

7400-11111 Motion Alarm for Top Drive Roller Apparatus

### Bottom Drive Roller Apparatus

Standard	Decks / Positions	Dimensions (w x d x h)	Battery Back-up
7370-08230	8 / 40	approx. 81 x 63 x 150 cm	no
7380-08230	8 / 40	approx. 81 x 63 x 150 cm	yes
7340-09230	9 / 45	approx. 81 x 63 x 170 cm	no
7360-09230	9 / 45	approx. 81 x 63 x 170 cm	yes
7340-10230	10 / 50	approx. 81 x 63 x 188 cm	no
7360-10230	10 / 50	approx. 81 x 63 x 188 cm	yes

Process-controlled	Decks / Positions	Dimensions (w x d x h)	Battery Back-up
7375-08230	8 / 40	approx. 81 x 63 x 150 cm	no
7385-08230	8 / 40	approx. 81 x 63 x 150 cm	yes
7300-09230	9 / 45	approx. 81 x 63 x 170 cm	no
7320-09230	9 / 45	approx. 81 x 63 x 170 cm	yes
7300-10230	10 / 50	approx. 81 x 63 x 188 cm	no
7320-10230	10 / 50	approx. 81 x 63 x 188 cm	yes

7440-11111 Motion Alarm for Bottom Drive Roller Apparatus

## Benchtop Roller Apparatus, modular and fixed frame



- All-Position Drive
- Accepts Bellco glass and plastic roller bottles with 11 cm to 12 cm outer diameter and 28.5 cm length (roller length 22 cm)
- Clearance between decks: 13.4 cm

### 10 Position Roller Apparatus 7630-20230 additionally:

- Digital Display
- Rotation switch for CW and CCW operation



7622-01220      7622-02220      7632-00230      7621-20230

### Modular units

Cat. No.	Description	Speed	Positions	Dimensions (w x d x h)
7622-01220	Base	0.25 to 3.00 rpm	2	approx. 36 x 33 x 27 cm
7622-02220	Base and 1 Deck	0.25 to 3.00 rpm	4	approx. 36 x 33 x 45 cm
7632-00230	Base	0.10 to 4.00 rpm	2	approx. 34 x 33 x 27 cm
7632-10000	Deck (max. 2)		2	approx. 34 x 33 x 18 cm

### Fixed frame unit

Cat. No.	Description	Speed	Positions	Dimensions (w x d x h)
7621-20230	Base and 1 Deck	0.30 to 10.00 rpm	10	approx. 74 x 32 x 42 cm

## Benchtop Incubator fo3 Roller Apparatus with 4 or 10 positions (max. 2 decks)



- Temperature range: 5 °C above ambient to 50 °C
- Temperature uniformity:  $\pm 1.0$  °C at 37 °C
- Exterior dimensions (w x d x h): approx. 90 x 54 x 77 cm
- Chamber dimensions (w x d x h): approx. 75 x 35 x 50 cm (interior) (139 l)
- Temperature alarm with remote jack
- One interior electrical outlet



Cat. No.	Description
7728-10230	Incubator with Solid Door
7728-20230	Incubator with Glass Door
7728-00047	Optional Shelf Only

## Standard Roll-In Incubator



These incubators provide high chamber capacities while minimizing the amount of floor space used. Both models incorporate a microprocessor controller to achieve precise temperature uniformity. An independent, secondary temperature controller offers the added security of over-temperature protection. The chamber floors are reinforced to support roller apparatus or shakers. Both models are supplied with six shelves capable of supporting the weight of benchtop instruments. Incubators can be used between 15 °C and 30 °C at an ambient relative humidity of max. 80 %.



- Extra large, with viewing window
- Stainless steel interior and shelves
- Guide rails for roller apparatus
- Temperature range: 8 °C above ambient to 70 °C
- Temperature uniformity:  $\pm 0.8$  °C at 37 °C
- Temperature stability:  $\pm 0.1$  °C
- Over-temperature alarm
- Air jacket
- 4 Interior electrical outlets
- 1 Access port

Cat. No.	Chamber Volume (l)	Shelves supplied/max.	Ext. Dimensions (w x d x h)	Internal Dimensions (w x d x h)
SMI31-2	872	6 / 16	approx. 97 x 83 x 186 cm	approx. 82 x 66 x 162 cm
SMI39-2	1092	6 / 20	approx. 106 x 84 x 229 cm	approx. 90 x 66 x 193 cm

## Large Capacity CO<sub>2</sub> Roll-In Incubator



ShellLab/Sheldon large capacity CO<sub>2</sub> incubators are ideal for use with shelves or in combination with roller apparatus (e.g. from Bellco Glass) for high-volume tissue culture applications. They provide a precisely controlled, accurate, pure environment throughout the culturing process. The incubators can be used between 15 °C and 30 °C at an ambient relative humidity of max. 80 %.



- Extra large CO<sub>2</sub> incubator with guide rails for roller apparatus
- All stainless steel interior and shelves (6 shelves provided)
- Microprocessor temperature control
- Temperature Range: 8 °C above ambient to 60 °C
- Temperature Uniformity: ± 0.5 °C at 37 °C
- Temperature stability: ± 0.1 °C
- Independent over-temperature protection
- Infrared CO<sub>2</sub> sensor, CO<sub>2</sub> Range: 0 to 20 %
- CO<sub>2</sub> Recovery Rate: < 5 minutes
- Air jacketed
- USB-style RS232 serial port and 4-20 mA output for data logging of CO<sub>2</sub> level and temperature
- 1 Interior electrical outlet
- 1 Access port

Cat. No.	Chamber Volume (l)	Shelves supplied/max.	Ext. Dimensions (w x d x h)	Internal Dimensions (w x d x h)
SCO31-2	891	6 / 30	approx. 101 x 86 x 194 cm	approx. 83 x 66 x 160 cm
SCO40-2	1118	6 / 30	approx. 107 x 85 x 224 cm	approx. 88 x 65 x 193 cm
SCO58-2	1641	6 / 30	approx. 130 x 114 x 206 cm	approx. 109 x 88 x 171 cm

## Refrigerated Roll-In Incubators (large and small versions)



These incubators are ideal for the cultivation of temperature sensitive cells in a controlled environment.

- Temperature range: 20 - 50 °C
- Temperature uniformity: ± 0.5 °C cooling; at ± 1.0°C heating
- Microprocessor PID temperature controller
- Forced air circulation for even temperature distribution
- Interior electrical power outlets (2 - 4) in chamber
- Control panel with power switch, convenience outlet, safety thermostat
- Refrigeration switch and temperature controller
- For easy loading and accommodation of small and large roller apparatus (Please inquire for the suitable model size for your roller apparatus!)
- Optional stainless steel shelves or Ultra Vented shelves (on request)
- Temperature recorder available for Large Capacity Roll-In Incubators



Cat. No.	Chamber Volume (l)	Door variant	Ext. Dimensions (w x d x h)	Internal Dimensions (w x d x h)
7728-01230	1075	Single window	approx. 104 x 81 x 221 cm	approx. 89 x 66 x 178 cm
7728-51230	1075	Double window	approx. 104 x 81 x 221 cm	approx. 89 x 66 x 178 cm
7728-04230	508	Double window	approx. 104 x 79 x 130 cm	approx. 88 x 65 x 87 cm

## Roller Bottles from Borosilicate Glass (11 cm diameter)



Cat. No.	Screw Cap	Area (cm <sup>2</sup> )	Length (cm)
7730-51270	51-400	670	27.0
7730-51475	51-400	1330	47.5
7730-51585	51-400	1585	57.0
7730-38285	38-415	670	28.5
7730-38440	38-415	1170	44.0
7730-38490	38-415	1330	49.0
7730-38585	38-415	1585	57.0
7715-45585	GL 45	1585	57.0

