

Hybridization Ovens

Versatile instruments for common hybridization applications

- OV 500 Minidizer Hybridization Oven
- OV 1000 Hybridization Oven
- OV 2000 Hybridization Oven
- OV 4000 Hybridization Oven



Hybridization Ovens

OV 1000 Hybridization Oven

The OV 1000 Hybridization Oven provides uniform temperature and rotation controls for thorough mixing of materials. Oven is ideal for Southern, Northern, and Western blots, in situ hybridization and binding nucleic acids to nitrocellulose or nylon-reinforced transfer membranes or other media. Precise microprocessor rotation speed and variable speed control settings enable consistent sample saturation. A touch-sensitive key pad allows for precise temperature control and an internal circulating fan maintains temperature uniformity. A large LED display shows the current chamber temperature. Internal stainless steel construction enables the environment to be kept clean.

The oven accommodates multiple bottle sizes, arrangements, and positions to meet a variety of mixing requirements. The rotary wheel holds twenty 35 x 150 mm bottles or 35 x 100 mm bottles, ten 35 x 300 mm bottles, or a combination of the various sizes. The rotary wheel can be removed and replaced with a rocker tray or rocker plate to create a rocking motion and to accommodate various types of flasks. The removable protective trays allow for easy cleanup of spilled media.

Features

- Carousel for multiple bottle sizes and off-set bottle positioning
- Variable rotor speed 10 – 15 rpm
- Microprocessor controlled incubation temperature
- LED display for easy operation
- Temperature range: Ambient +10°C to 99.9°C maximum
- Easy to clean interior made of stainless steel
- Removable protective tray to allow easy cleanup of spilled media
- Glass door for easy viewing of samples and blocking of β -emission from the hybridization chamber
- Orbital motion tray or rocker tray as optional accessory available
- Carousel capacity: 20 x 35 mm x 150 mm bottles or 10 x 35 mm x 300 mm bottles



OV 1000 Hybridization Oven



OV 2000 Hybridization Oven

OV 2000 Hybridization Oven

Self-contained unit provides the unique combination of a hybridization oven and a 254 nm ultraviolet crosslinker. The hybridization unit shares the same features with the OV 1000 and is meant to be used for common blotting procedures.

The ultraviolet crosslinker portion of the OV 2000 provides uniform shortwave (254 nm) ultraviolet radiation exposure maintained by five 254 nm UV tubes. UV output is measured by an internal sensor and is controlled by an on-board microprocessor. The crosslinker features an internal interlocking system for added safety. The hybridization oven and crosslinker components have separate power supplies and may operate independently.

Features

Upper chamber (Oven):

- The upper chamber is the hybridization unit and has the same features as the OV 1000

Lower chamber (Crosslinker):

- Shortwave 254 nm, 8 Watt, UV-tubes
- Preset and manual controls for ultraviolet or time exposures
- Microprocessor measures and controls UV output, ensuring maximum energy efficiency
- Large LED display continuously displays time or energy settings
- Window on the door allows viewing of the process yet blocks UV radiation
- Orbital motion tray or rocker tray as optional accessory available
- Carousel capacity: 20 x 35 mm x 150 mm bottles or 10 x 35 mm x 300 mm bottles

OV 4000 Hybridization Oven

The OV 4000 is designed with two separate chambers offering several motion functions: shaking, orbital rocking and rotating all in one unit. Two chambers operate independently and allow hybridization and blotting procedures requiring different containers, motions or temperature settings.

The upper chamber can be used with a reciprocating shaker tray, an orbital rocker tray, or an acrylic carousel. The lower chamber shares the same features with the OV 1000.

Features

Upper chamber:

- The lower chamber has the same features as the OV 1000

Upper chamber:

- Uses a roller action to operate the shaker tray (included) or optional acrylic carousel or orbital tray
- Shaker tray, for replacement of flasks or other containers, operates at 54 – 106 cycles/min.
- Carousel (acrylic) rests on the rollers and rotates at 10 – 20 rpm; carousel holds eight 35 x 150 mm or four 35 x 300 mm bottles or eight 50 ml conicals
- Orbital tray motion ranges from 1 – 30 rpm at 0°, 0.5° or 1.0°
- Temperature range: Ambient +10°C to 80°C maximum



OV 4000 Hybridization Oven

Technical data

Oven	OV 1000	OV 2000	OV 4000	
Number of Hybridization chambers	1	1 plus crosslinker	2	
Temperature			Lower chamber	Upper chamber
Min. Temperature	10°C above RT	10°C above RT	10°C above RT	10°C above RT
Max. Temperature	99.9°C	99.9°C	99.9°C	80°C
Temperature Accuracy	± 0.3°C to 68°C	± 0.3°C to 68°C	± 0.3°C to 68°C	± 0.3°C to 68°C
Temperature Uniformity	± 0.1°C to 68°C	± 0.1°C to 68°C	± 0.1°C to 68°C	± 0.1°C to 68°C
Display	LED	LED	LED	
Rotation Speed				
Rotor Speed	10 – 15 rpm	10 – 15 rpm	10 – 15 rpm	12 – 20 rpm
Sample Capacity				
Bottles (30 cm)	10	10	10	4
Bottles (15 cm)	20	20	20	8
Reciprocating Shaker				
Shaker tray	–	–	–	Yes, upper chamber
Shaking speed	–	–	–	54 – 106 rpm
Crosslinker				
UV-Crosslinker	Yes 5 x 8 W 254 nm bulbs			
Maximum UV energy setting	999,900 microjoules per cm ²		–	
Preset or user-selected UV time exposure settings	Internal interlocking safety system			–
Display	Tactile membrane keypad		–	
Dimensions				
Footprint (W x D)	40 cm x 38 cm	40 cm x 38 cm	45 cm x 38 cm	
Height	45 cm	61 cm	72 cm	
Weight	19.5 kg	27.2 kg	34.0 kg	
Interior hybridization chamber	35.6 x 27.3 x 27.3 cm		35.6 x 27.3 x 27.3 cm	
Interior Crosslinker	–	28.8 x 9.5 x 29.2 cm		–
Electrical				
	115V, 60Hz	115V, 60Hz	115V, 60Hz	
	230V, 50Hz	230V, 50Hz	230V, 50Hz	
	100V, 50Hz	100V, 50Hz	100V, 50Hz	
Heating element				
	1.250W	1.250W	1.250W	500W
Additional Specifications				
Working conditions	5°C to 40°C, max. 2,000m		5°C to 40°C, max. 2,000m	
Usage	The oven is designed for operation inside a building only		The oven is designed for operation inside a building only	
Main supply	Not to exceed 10% of the nominal supply voltage		Not to exceed 10% of the nominal supply voltage	
Maximum power consumption	1,210W	1,150W	950W	

OV 500 Minidizer Hybridization Oven

The OV 500 Minidizer Hybridization Oven is a cost-effective device with low space requirements for temperature incubation of membranes during blotting procedures. The Minidizer operates with a state-of-the-art microprocessor as well as temperature and variable speed controls. The instrument enables consistent saturation of samples, whether it is used for washing or hybridizing.

Features

- Microprocessor controlled incubation temperature
- LCD display for easy operation
- Rotation speed set at 12 rpm
- Temperature range: Ambient +10°C to 80°C maximum
- 3/8" thick acrylic door for easy viewing of samples and blocking of β -emission
- Easy to clean interior made of stainless steel
- Cover swings open for easy access to the bottle carousel; the carousel pops out of chamber for easy insertion of bottles
- Carousel capacity: 4 x 35 mm x 150 mm bottles, 8 x 50 ml tubes or 8 x 15 ml tubes

Technical data

Temperature

Min. Temperature	10 °C above RT
Max. Temperature	80 °C
Temperature Accuracy	$\pm 0.5^\circ\text{C}$ to 68°C
Temperature Uniformity	$\pm 0.1^\circ\text{C}$ to 68°C
Display	LCD

Sample Capacity

Bottles (15 cm)	4
50 ml tubes	8
15 ml tubes	8

Dimensions

Footprint (W x D)	33 x 20 cm
Height	23 cm
Weight	5.1 kg

Rotation Speed

Carousel	12 rpm
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Electrical

115 V	60Hz
230 V	50Hz
100 V	50Hz

Additional Specifications

Working conditions	5°C to 40°C, max. 2,000 m
Indoor Use	The oven is designed for operation inside a building only
Main supply	Not to exceed 10% of the nominal supply voltage
Maximum power consumption	500 Watts



OV 500 Minidizer Hybridization Oven

Optional accessories

Oven	OV 1000	OV 2000	OV 4000
Orbital motion tray			
Rotation speed	30rpm @ 2° angle	30rpm @ 2° angle	30rpm @ 2° angle
Maxium load	1,36kg	1,36kg	1,36kg
Rocker tray			
Shaking speed	7 – 14 rpm	7 – 14 rpm	7 – 14 rpm
Shaking angle	12°	12°	12°
2nd Carousel	–	–	Yes

Order information

Order number	Instrument
849-30004-2	OV 500 Minidizer Hybridization Oven, 230V (UK plug and Euro)
849-30004-3	OV 500 Minidizer Hybridization Oven, 230V (UK plug)
849-30004-4	OV 500 Minidizer Hybridization Oven, 115V (US plug)
849-30004-5	OV 500 Minidizer Hybridization Oven, 100V (US plug)
849-30001-2	OV 1000 Hybridization Oven, 230V, UK and Euro plug
849-30001-3	OV 1000 Hybridization Oven 230V, Euro plug
849-30001-4	OV 1000 Hybridization Oven 115V, US plug
849-30001-5	OV 1000 Hybridization Oven 100V, US plug
849-30002-2	OV 2000 Hybridization Oven 230V, UK and Euro plug
849-30002-3	OV 2000 Hybridization Oven 230V, Euro plug
849-30002-4	OV 2000 Hybridization Oven 115V, US plug
849-30002-5	OV 2000 Hybridization Oven 100V, US plug
849-30003-2	OV 4000 Hybridization Oven 230V, UK and Euro plug
849-30003-3	OV 4000 Hybridization Oven 230V, Euro plug
849-30003-4	OV 4000 Hybridization Oven 115V, US plug
849-30003-5	OV 4000 Hybridization Oven 100V, US plug

Order number	Accessories Ovens
849-30080-0	Hybridization bottle large, 30 x 3.5 cm incl. cap, O-ring and PTFE seal
849-30081-0	Hybridization bottle medium, 15 x 3.5 cm incl. cap, O-ring and PTFE seal
849-30082-0	Hybridization bottle small, 10 x 3.5 cm incl. cap, O-ring and PTFE seal
849-30083-0	Bottle cap incl. O-ring and PTFE seal, 2 pcs
849-30084-0	Nylon meshes 15 x 10 cm, 5 pcs
849-30085-0	Nylon meshes 23 x 23 cm, 5 pcs
849-30058-0	Carousel Kit for four oversized bottles (for OV 1000, OV 2000 and OV 4000)
849-30059-0	Carousel for (10) 50ml conical bottles (for OV 1000, OV 2000 and OV 4000)
849-30057-0	Carousel Acrylic (for upper chamber OV 4000)
849-30050-0	Rocker Tray (for OV 1000, OV 2000 and OV 4000)
849-30051-0	Orbital Motion Tray (for OV 1000, OV 2000 and OV 4000)

Order number	Accessories Crosslinker OV 2000
849-30220-0	UV tube, 365 nm Longwave
849-30221-0	UV tube, 302 nm Midrange
849-30222-0	UV tube, 254 nm Shortwave
849-00014-0	Sensor, UVX-36 Longwave
849-00013-0	Sensor, UVX-31 Midrange
849-00012-0	Sensor, UVX-25 Shortwave