

# Shaker & Platform Capacity Chart

## Universal and Dedicated Platforms

Each NBS shaker accepts a wide variety of interchangeable platforms.

**Universal Platforms (U)** have multiple holes enabling you to mount an assortment of flask clamps or other accessories on a single platform. The capacities shown below represent the maximum number of flasks in a given size that will fit on the platform in a balanced pattern. Universal Platform, clamps & accessories are sold separately.

**Dedicated Platforms (D)** - When just one size flask will be used on the shaker, (ie. 250 mL flasks) Dedicated Platforms (D) come with flask clamps already mounted. Dedicated Platforms generally will hold a greater number of flasks than the Universal Platform, but do not offer the versatility.

For platform catalog numbers, see the corresponding shaker page. Clamps and test tube racks are shown on page 5.

Shaker Model, Platform Dimensions & Maximum Capacity																				
Innova Models	2000		2050		2100 40/40R 42/42R 4000/4080 4200/4230		2150 4900 †		43/43R 2300 4300 Series 4400 Series		2350		3100		44/44R		5000 (Per platform - Max. 6 per shaker)			
Excella Models	E1/E2				E5/E24/E24R				E10/E25/E25R											
I26 & C76 Models													C76						I26	
Platform (in & cm)	13" x 11" 33 x 28 cm		16" x 12" 41 x 31 cm		18" x 18" 46 x 46 cm		24" x 18" 61 x 46 cm		30" x 18" 76 x 46 cm		36" x 24" 91 x 61 cm		12" x 16.5" 31 x 42 cm		30" x 18" 76 x 46 cm		32.5" x 26.7" 83 x 68 cm		30" x 18" 76 x 46 cm	
Ded Plat. (D) Univ Plat. (U)	D	U	D	U	D	U	D	U	D	U	D	U	D	U	D	U	D	U	D	U
10 mL	60	60	86	86	N/A	109	N/A	N/A	N/A	183	N/A	N/A	N/A	59	N/A	187	300	264	N/A	187
25 mL	32	20	48	32	N/A	64	N/A	N/A	N/A	92	N/A	N/A	N/A	35	N/A	93	248	143	N/A	93
50 mL	20	15	35	32	64	45	80	63	108	92	N/A	N/A	31	18	N/A	91	161	143	N/A	93
125 mL	12	11	20	16	34	21	48	35	60	39	96	75	22	18	60	39	99	72	60	39
250 mL	8	6	12	10	25	18	35	24	40	30	70	50	13	8	40	30	64	42	40	30
500 mL	6	4	8	8	16	14	20	20	24	18	40	30	8	6	24	24	42	33	24	24
1 L	N/A	N/A	6	N/A	9	8	12	12	15	12	24	24	6	4	15	14	23	17	15	12
2 L	N/A	N/A	3	N/A	5	5	8	6	12	8	15	15	2	2	12	8	14 §	12 §	12	8
2.8 L	N/A	N/A	N/A	N/A	4	4	5**	5	6	6	12	12	N/A	N/A	6Δ	6Δ	9 §	8 §	6	6
4 L	N/A	N/A	N/A	N/A	4*	4*	4**	5	6	6	12	10	N/A	N/A	6Δ	6Δ	9	8	N/A	N/A
5 L	N/A	N/A	N/A	N/A	4	4*	N/A**	4	N/A	6 ∞⊗	N/A	10	N/A	N/A	N/A	6Δ ^	N/A	6 ΔΔ	N/A	N/A
6 L	N/A	N/A	N/A	N/A	2*	2*	4**	3	4 ∞⊗	4⊗	6	8	N/A	N/A	N/A	N/A	8 ΔΔ	6 ΔΔ	N/A	N/A
Large TT Rack	N/A	N/A	N/A	N/A	N/A	4	N/A	6	N/A	7	N/A	12	N/A	N/A	N/A	7	N/A	10	N/A	7
Medium TT Rack	N/A	N/A	N/A	3	N/A	5	N/A	7	N/A	9	N/A	13	N/A	3	N/A	9	N/A	10	N/A	9
Small TT Rack	N/A	3	N/A	4	N/A	5	N/A	8	N/A	9	N/A	18	N/A	4	N/A	9	N/A	16	N/A	9
Microplate Rack (stack)	N/A	3	N/A	6	N/A	8	N/A	12	N/A	16	N/A	27	N/A	6	N/A	16	N/A	24	N/A	16
Microplate Rack (1 layer)	N/A	N/A	N/A	N/A	N/A	2	N/A	3	N/A	4	N/A	8	N/A	N/A	N/A	4	N/A	6	N/A	4

(\*) Innova 42/42R, 4200/4230, Innova 2100 and Excella E5 only.

(\*\*) 4900 only.

(†) Innova 4900 accepts up to 4 shaker modules. When using 2 L or 2.8 L flasks, the maximum number of shaker modules is 3. With 4, 5 or 6 L flasks, the maximum shaker modules is 2. The maximum capacity of flasks using a 125 mL Dedicated Platform is decreased to 48 when using a Slide-Out Platform.

(∞) Not for use with Innova 4340, Innova 4400/4430.

(⊗) Maximum flask size when using Photosynthetic Light Bank is 4 Liters.

(^) Using Sticky Tape - less capacity with clamps.

(§) Only half of bottom tier can be used.

(⊗⊗) For use on top tier only.

# Accessories: Clamps & Test Tube Racks

## SHAKER PLATFORMS & CLAMPS

Shakers are sold separately from platforms and accessories to provide the flexibility to select the platform(s) best suited to your application. **Universal Platforms** accommodate a mix of different size glassware on a single platform. Flask clamps, test tube and microplate racks sold separately. **Sticky Tape** and **Sticky Pad** provide another alternative for securing vessels to a

platform without need for a clamp. (See below.) If using a single flask size only, our **Dedicated Platforms** include clamps already installed, and maximize platform capacity. **Utility Trays** provide a non-slip surface for low-speed applications. **Utility Carriers** secure vessels between adjustable, cushioned rods.



Universal Platform



Universal Platform shown with clamps, test tube racks and sticky tape



Sticky Pad Platform



Dedicated Platform



Utility Tray



Utility Carrier

## Flask Clamps<sup>††</sup> & Sticky Tape/Pad



Flask clamps are of a single piece stainless-steel construction (not spot welded or riveted) for added strength and safety. Clamps 2L and above come with an extra girdle for added security when agitating flasks at high speeds. Includes mounting screws.

Catalog No.	Description	Catalog No.	Description
ACE-10S	10 mL Erlenmeyer Clamp	ACSB-500S	500 mL Media Bottle Clamp with spring retainer
M1190-9004	25 mL Erlenmeyer Clamp	ACSB-1000S	1 L Media Bottle Clamp with spring retainer
M1190-9000	50 mL Erlenmeyer Clamp with spring retainer	TTR-210	Angled Tube Rack Holder for user-supplied test tube racks
M1190-9001	125 mL Erlenmeyer Clamp with spring retainer	TTR-215	Spacer Bar for TTR-210
M1190-9002	250 mL Erlenmeyer Clamp with spring retainer	M1289-0700	Microplate rack, stack 3 deep well or 9 standard plates
M1190-9003	500 mL Erlenmeyer Clamp with spring retainer	TTR-221	Microplate rack, for single layer of 5 plates
ACE-1000S	1 L Erlenmeyer Clamp with spring retainer	M1250-9600 <sup>⓪</sup>	Sticky Tape (16.4' x 1.5")
ACE-2000S	2 L Erlenmeyer Clamp with spring retainer	M1250-9700 <sup>**</sup>	Sticky Pad, 8" x 8" (20 x 20 cm)
M1190-9005 <sup>***</sup>	2 L Lauber Clamp with spring retainer	M1250-9504 <sup>3</sup>	Sticky Pad Adapter Kit
ACFE-2800S	2.8 L Fernbach Clamp with spring retainer	S2116-3051P	Spare Flat Phillips Head Screws, 10–24 x 5/16 , Pack of 25, for aluminum & phenolic platforms
ACE-3000S	3 L Erlenmeyer Clamp with spring retainer	S2116-3101P	Spare Flat Phillips Head Screws, 10–24 x 5/8 , Pack of 25 , for model 2350 (plywood) platform only
ACE-4000S	4 L Erlenmeyer Clamp with spring retainer		
ACE-5000S	5 L Erlenmeyer Clamp with spring retainer		
ACE-6000S	6 L Erlenmeyer Clamp with spring retainer		

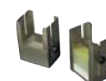
(††) Flask clamps are stainless steel, come complete with required screws, and are fitted with coiled wire springs for added stability at elevated speeds.

(⓪) Replaces the need for clamps when shaking at speeds up to 250 rpm. Not for use with water bath shakers, or at speeds above 250 rpm.

(\*\*) Sticky Pad should be used on an anodized aluminum substrate. Select from M1250-9504, M1250-9903, M1250-9904 or M1282-9913.

(\*\*\*) Fits 2L Thomson flask with our universal platform.

(3) Two anodized aluminum sheets each 6" x 18" (15.2 x 45.7 cm). Used with Sticky Pad on aluminum Universal platforms.



Microplate Racks

## Test Tube Racks



Test Tube Racks have an adjustable angle and tube height support. Made from stainless-steel with inserts to help retain tubes and prevent them from spinning in the rack. Finger-tight knobs let you quickly adjust angle, or release the rack from the base plate, for easy transport to the bench.

Large Racks			Medium Racks			Small Racks		
Part number	Diameter	Tubes/Rack	Part number	Diameter	Tubes/Rack	Part number	Diameter	Tubes/Rack
M1289-0100	8-11 mm	80	M1289-0010	8-11 mm	60	M1289-0001	8-11 mm	48
M1289-0200	12-15 mm	60	M1289-0020	12-15 mm	44	M1289-0002	12-15 mm	34
M1289-0300	15-18 mm	42	M1289-0030	15-18 mm	31	M1289-0003	15-18 mm	24
M1289-0400	18-21 mm	30	M1289-0040	18-21 mm	23	M1289-0004	18-21 mm	18
M1289-0500	22-26 mm	22	M1289-0050	22-26 mm	16	M1289-0005	22-26 mm	13
M1289-0600	26-30 mm	20	M1289-0060	26-30 mm	16	M1289-0006	26-30 mm	12

# Innova® Incubator Shakers

## Innova® 44 Stackable Incubator Shakers & 44R with Added Refrigeration - Programmable

Space-saving Innova 44 incubator shakers, and 44R with added refrigeration, stack up to three high and have front door that glides up to further minimize space requirements. Slide-out platform†: 30" x 18" (76 x 46 cm). (Platform sold separately.) Temperature range\*\*: Innova 44: 5°C above ambient to 80°C; Innova 44R: 20°C below ambient to 80°C (minimum 4°C). Speed (rpm)∧: 25 - 400 with 1" orbit; 25 - 300 with 2" orbit or when stacking 2 units; 25 - 250 when stacking three units. Programmable controller automatically changes temperature, speed, optional photosynthetic and UV germicidal lights at timed intervals. Overall dimensions: 53" W x 34.4" D x 26" H (135 x 87.3 x 66 cm). Height: add 26" (66 cm) for each added unit; door open adds 21" (53 cm). Net weight: Innova 44: 523 lbs. (238 kg); Innova 44R: 566 lbs. (257 kg).



Three shakers shown. Slide-out platforms provide easy access to all flasks.

Model	Catalog No. 1" (2.54 cm) Orbit	Catalog No. 2" (5.08 cm) Orbit	Electrical Service
<b>44 Incubated</b>	M1282-0000	M1282-0010	120V, 60Hz
	M1282-0001	M1282-0011	100V, 60Hz
	M1282-0002	M1282-0012	230V, 50Hz
	M1282-0003	M1282-0013	100V, 50Hz
<b>44R Incubated/ Refrigerated</b>	M1282-0004	M1282-0014	120V, 60Hz
	M1282-0005	M1282-0015	100V, 60Hz
	M1282-0006 ‡	M1282-0016	230V, 50Hz
	M1282-0007 ‡	M1282-0017	100V, 50Hz

(†) Shaker does not include platform which must be ordered separately. (\*\*) Maximum temp. is 60°C when using optional RH humidity probe and 55°C above ambient without RH probe. (∧) Less with baffled flasks. (‡) Refrigerated 50 Hz units temperature range: ambient -17°C to 80°C.

## Innova 44/44R Interchangeable Platforms, Slide-Out

30" x 18" (76 x 46 cm) Aluminum unless otherwise stated below. (Not interchangeable with other 30" x 18" platforms)

Catalog No.	Description	Clamps 1 Shaker	Clamps 2 Shakers	Clamps 3 Shakers
M1282-9904 *	Universal Platform, (can be used with New Sticky Tape)	—	—	—
M1282-9915 *†	Universal Platform, 3/8" Aluminum Plate	—	—	—
M1282-9905	125 mL Erlenmeyer Flask Dedicated Platform	60	120	180
M1282-9906	250 mL Erlenmeyer Flask Dedicated Platform	40	80	120
M1282-9907	500 mL Erlenmeyer Flask Dedicated Platform	24	48	72
M1282-9908	1 L Erlenmeyer Flask Dedicated Platform	15	30	45
M1282-9925 †	1 L Dedicated Platform, 3/8" Aluminum Plate	15	30	45
M1282-9909	2 L Erlenmeyer Flask Dedicated Platform	12	24	36
M1282-9926 †	2 L Dedicated Platform, 3/8" Aluminum Plate	12	24	36
M1282-9910	2.8 L Fernbach Flask Dedicated Platform	6	12	18
M1282-9927 †	2.8 L Dedicated Platform, 3/8" Aluminum Plate	6	12	18
M1282-9911	4 L Erlenmeyer Flask Dedicated Platform	6	12	18
M1282-9928 †	4 L Dedicated Platform, 3/8" Aluminum Plate	6	12	18
M1282-9913 ^	Sticky Pad Platform	—	—	—

(\*) Flask clamps, test tubes and Sticky Tape for Universal Platforms must be ordered separately. See page 5. (^) Sticky Pad sold separately. See page 5.  
(†) Recommended for use with a full load of flasks, 1 liter or larger, containing more than 20% volume and/or baffles.

## Innova 44/44R Optional Accessories (Not interchangeable with Innova 4400 Series Accessories)

Catalog No.	Description
<b>Base: Raises shaker height for easier access to chamber &amp; controls.</b>	
M1282-0600	Short Base to raise shakers by 4" (10.2 cm). For use with up to three stacked units
M1282-0800	Medium Base to raise shakers by 12" (30.5 cm). For use with up to two stacked units
M1282-0700	Tall Base to raise shakers by 16" (40.6 cm). For use with a single unit
<b>Stacking Kit: Bolts shakers together for stability when stacking two or more units. One needed for two shakers. Two needed for three shakers.</b>	
M1282-0500	Stacking Kit to join two Innova 44/44R Shakers
M1282-0501	Stacking Kit to join Innova 44/44R with Innova 4400. (44 shakers must be installed below 4400).
<b>Other Options:</b>	
M1282-9922	Photosynthetic Light Bank for Model 44R only, factory installed
M1282-0291	12-Port Gassing Manifold for direct gassing into flasks, factory installed
M1282-5011	Humidity Monitor, factory installed
M1282-9921	UV Germicidal Lamp for Model 44R only, factory installed
M1282-8038	Remote Alarm, factory installed
M1282-6000	Spare Parts Kit (refer to page 2 for details)

## Innova® 43 Console Incubator Shakers & 43R with Added Refrigeration - Programmable

**Large-capacity Innova 43 Incubator Shakers and Model 43R with added refrigeration accommodate numerous culture flasks up to 6 liters.† Platform†:** 30" x 18" (76 x 46 cm) sold separately.) **Temperature range:** Model 43: 5°C above ambient to 80°C; Model 43R: from 20°C below ambient to 80°C (minimum setpoint 4°C). **Speed:** 25 - 500 in models with 1" orbit; 25 - 300 rpm with 2" orbit. **Programming capability** automatically changes temperature, speed, optional photosynthetic and UV germicidal lights at timed intervals. **Overall dimensions:** 45.5" W x 32" D x 40.6" H (115.6 x 81.3 x 103.1 cm). With door open, height is 63 1/2" (161 cm). **Net weight:** Innova 43 - 420 lbs. (191 kg); Innova 43R - 475 lbs. (204 kg).



Model	Catalog No. 1" (2.54 cm) Orbit	Catalog No. 2" (5.1 cm) Orbit	Electrical Service
<b>43 Incubated</b>	M1320-0000	M1320-0010	120V, 60Hz
	M1320-0001	M1320-0011	100V, 60Hz
	M1320-0002	M1320-0012	230V, 50Hz
	M1320-0003	M1320-0013	100V, 50Hz
<b>43R Incubated/ Refrigerated</b>	M1320-0004	M1320-0014	120V, 60Hz
	M1320-0005	M1320-0015	100V, 60Hz
	M1320-0006 <sup>^</sup>	M1320-0016	230V, 50Hz
	M1320-0007 <sup>^</sup>	M1320-0017	100V, 50Hz

- (†) Shaker does not include 30" x 18" platforms which must be ordered separately. See below. (⊞) Baffled flasks will significantly reduce maximum speed.  
 (‡) With Photosynthetic lights, maximum flask size is 4 liters. (∧) Temperature range is Ambient -17°C to 80°C for refrigerated 50 Hz units.

### Innova 43 & 43R Interchangeable Platforms 30" x 18" (76 x 46 cm) Aluminum

Catalog No.	Description	Clamps
M1250-9920*	Universal Platform	—
M1243-2500	Microplate Platform. Holds 105 standard or 21 deep well plates	—
AG-00	Utility Tray with non-skid surface	—
M1191-9908	50 mL Erlenmeyer Flask Dedicated Platform	108
M1191-9909	125 mL Erlenmeyer Flask Dedicated Platform	60
M1191-9910	250 mL Erlenmeyer Flask Dedicated Platform	40
M1191-9911	500 mL Erlenmeyer Flask Dedicated Platform	24
AG-1	1 L Erlenmeyer Flask Dedicated Platform	15
AG-2	2 L Erlenmeyer Flask Dedicated Platform	12
AG-28	2.8 L Fernbach Flask Dedicated Platform	6
AG-4	4 L Erlenmeyer Flask Dedicated Platform	6
AG-6	6 L Erlenmeyer Flask Dedicated Platform	4
M1250-9904	Platform for Sticky Pad	—

- (\*) Flask clamps and test tube racks for Universal Platform must be ordered separately. See page 5.  
 (1) AG-6 Platform can not be used with photosynthetic light bank.  
 (2) Sticky Pad ordered separately. See page 5.

### Innova 43 & 43R Accessories

Catalog No.	Description
M1320-0500	12-Port Gas Manifold for direct gassing into flasks, factory installed
M1320-0300	Photosynthetic Light Bank for Model 43R only, factory installed
M1320-0400	UV Germicidal Lamp for Model 43R only, factory installed
M1320-0600	Humidity Monitor, factory installed
M1320-8029	Remote Alarm, factory installed
M1320-0700	Utility Basket for incubating/refrigerating stationary glassware
M1282-6000	Spare Parts Kit includes drive belt and fuses
M1320-6000	Spare Parts Kit includes drive belt, fuses, chamber bulbs and hinge assemblies

# Innova® Incubator Shakers

## Innova® 42 Stackable, On-or-Under-Bench Incubator Shakers & 42R with Added Refrigeration - Programmable

NEW

**Our most versatile incubator shakers, programmable 42 & 42R provide "set it and forget it" convenience.** Use on or under the bench, or double stacked for space savings <sup>S</sup>. Programming capability automatically changes temperature and speed as well as optional Photosynthetic Lighting and UV Germicidal lights at timed intervals. Optional culture drawer and humidity probe are available for both the 42 and 42R. Optional photosynthetic light bank and UV disinfection available for the 42R only. **Temperature range:** Innova 42: 5°C above ambient to 80°C; Innova 42R: 20°C below ambient to 80°C. **Speed:** <sup>Ⓢ</sup> 25 - 400 rpm. **Platform<sup>†</sup>:** 18" x 18" (46 x 46 cm) accommodates flasks up to 4 liters. (Platform sold separately.) **Overall dimensions:** 25" W x 29.7" D x 32.2" H (62 x 75.4 x 82 cm). Height stacked: 64.50" (164 cm). Depth with door open: 51.5" (130.8 cm). **Net weight:** Innova 42: 217 lbs. (98.5 kg); Innova 42R: 267 lbs. (121 kg).



Shown stacked two units high. Stationary shelf and internal power receptacle are standard.

Model	Catalog No. 3/4" (1.92 cm) Orbit	Catalog No. 1" (2.54 cm) Orbit	Electrical Service
<b>42 Incubated</b>	M1335-0000	M1335-0010	120V, 60 Hz
	M1335-0002	M1335-0012	230V, 50 Hz
	M1335-0001	M1335-0011	100V, 60 Hz
	M1335-0003	M1335-0013	100V, 50 Hz
<b>42R Incubated/ Refrigerated</b>	M1335-0004	M1335-0014	120V, 60 Hz
	M1335-0006	M1335-0016	230V, 50 Hz
	M1335-0005	M1335-0015	100V, 60 Hz
	M1335-0007	M1335-0017	100V, 50 Hz

(†) Shaker does not include 18" x 18" platforms which must be ordered separately.

(S) Stacking kit required when stacking 2 units. See accessories below.

(Ⓢ) Baffled flasks will significantly reduce maximum speed. When stacked, maximum speed is 400 rpm with 250/500 mL flasks; maximum 300 rpm or lower with larger flasks.

## Innova 42 & 42R Interchangeable Platforms - See next page

## Innova 42 & 42R Optional Accessories

Catalog No.	Description
M1335-0300	Photosynthetic Light Bank for Model 42R only, factory installed
M1335-0500	Humidity Monitor, factory installed
M1335-0400	UV Germicidal Light for Model 42R only, factory installed
M1335-0501	Culture Drawer, prevents plates from drying
M1335-0800	Stacking Kit, required when stacking 42/42R units (See also M1335-0810 below)
M1335-0600	12-Port Gassing Manifold for direct gassing into flasks, factory installed
M1335-0080	Additional Shelf & Brackets
M1320-8029	Remote Alarm, factory installed
M1335-6000 <sup>††</sup>	Spare Parts Kit, all voltages

## Innova 4200 & 4230 Optional Accessories

Catalog No.	Description
M1233-9996	Additional Shelf & Brackets
M1233-6002 <sup>††</sup>	Spare Parts Kit - 120V, 50/60 Hz
M1335-0810	Stacking Kit, to stack Innova 42/42R units on Innova 4200/4230 shakers

(††) Refer to page 2 for details of Spare Parts Kits.

## Innova® 40 Benchtop Incubator Shakers & 40R with Added Refrigeration - Programmable

Innova 40 incubator shakers provide high-temperature capability for culturing a wide variety of organisms in flasks up to 3 liters. Refrigeration module is built into the Innova 40R, or can be easily added to Model 40, at any time. **Temperature range:** Innova 40: 5°C above ambient to 80°C. Innova 40R: 15°C below ambient to 80°C. **Speed:** 25 - 500 with choice of 3/4" or 1" orbit (1.9 or 2.54 cm). Programming capability automatically changes temperature and speed at timed intervals. **Platform<sup>†</sup>:** 18" x 18" (46 x 46 cm), sold separately. **Overall dimensions:** 22" W x 30" D x 24" H (55.88 x 76.2 x 61 cm). With lid open, height is 40" (102 cm). **Net weight:** Innova 40: 133 lbs. (60.3 kg); Innova 40R: 175 lbs. (79.4 kg).



Model	Catalog No. 3/4" (1.92 cm) Orbit	Catalog No. 1" (2.54 cm) Orbit	Electrical Service
<b>40 Incubated</b>	M1299-0080	M1299-0090	120V, 60Hz
	M1299-0081	M1299-0091	100V, 60Hz
	M1299-0082	M1299-0092	230V, 50Hz
	M1299-0083	M1299-0093	100V, 50Hz
<b>40R Incubated/ Refrigerated</b>	M1299-0084	M1299-0094	120V, 60Hz
	M1299-0085	M1299-0095	100V, 60Hz
	M1299-0086	M1299-0096	230V, 50Hz
	M1299-0087	M1299-0097	100V, 50Hz

(†) Shaker does not include 18" x 18" platforms which must be ordered separately.  
 (⊕) Baffled flasks will significantly reduce maximum speed.

### Innova 40 & 40R / 4000 & 4080 Options

Catalog No.	Description	
M1299-0061	Refrigeration Module to upgrade Innova 40 to Innova 40R	
M1320-8029	Remote Alarm, factory installed only	
M1299-6000 <sup>††</sup>	Spare Parts Kit - Innova 40 & 40R, (120V, 50/60 Hz)	—
M1192-6002 <sup>††</sup>	Spare Parts Kit - Innova 4000 & 4080, (120V, 50/60 Hz)	—

(††) Refer to page 2 for details of Spare Parts Kits.

### Innova 40 & 40R / 42 & 42R / 4000 & 4080 / 4200 & 4230 Interchangeable Platforms 18" x 18" (46 x 46 cm) Phenolic Resin unless otherwise stated

Catalog No.	Description	Clamps
M1250-9902*	Universal Platform, Aluminum	—
M1250-9906	Drip Pan for Universal Platform M1250-9902	—
M1194-9909	Utility Carrier holds glassware between rubber-cushioned cross bars	—
M1194-9923	Rod Kit for Utility Carrier (one additional rod)	—
M1194-9910	Utility Tray with non-skid surface	—
M1194-9903	50 mL Erlenmeyer Flask Dedicated Platform	64
M1194-9904	125 mL Erlenmeyer Flask Dedicated Platform	34
M1194-9905	250 mL Erlenmeyer Flask Dedicated Platform	25
M1194-9906	500 mL Erlenmeyer Flask Dedicated Platform	16
M1194-9907	1 L Erlenmeyer Flask Dedicated Platform	9
M1194-9908	2 L Erlenmeyer Flask Dedicated Platform	5
M1233-9932	2.8 L Fernbach Flask Dedicated Platform	4
M1233-9930 <sup>†</sup>	4 L Erlenmeyer Flask Dedicated Platform	4
M1250-9903 <sup>2</sup>	Sticky Pad Platform	—
M1192-9901 <sup>1</sup>	Quick-Change Platform Kit	—

(\*) Flask clamps for Universal Platform must be ordered separately. See page 5. (2) Sticky Pad sold separately, see page 5.  
 (1) Maximum speed 400 rpm. (†) Available for models 42/42R and 4200/4230 only.

# Innova® Water Bath Shakers

## Innova® 3100 High-Temperature Water Bath Shakers

**Large-capacity Gyrotory shaker with microprocessor control of speed and temperature.**

One-piece stainless steel bath. Adjustable water-level control automatically replenishes evaporated water. Has drain, water-in and overflow lines. **Speed:** 25-400 rpm (less for baffled flasks). **Orbit:** 1/2" (1.3 cm). **Temperature range:** 5°C above ambient to 100°C. **Platform†:** 12" x 16.5" (30.5 x 42 cm), sold separately. **Overall dimensions:** 17" W x 27.5" D x 14.5" H (43 x 70 x 37 cm). **Net weight:** 115 lbs. (63 kg).



For flasks and gel trays

Model	Catalog No.	Electrical Service
<b>3100 Water Bath</b>	M1231-0000	120V, 50/60Hz
	M1231-0001	100V, 50/60Hz
	M1231-0002	220/230V, 50/60Hz
	M1231-0003	240V, 50/60Hz

(†) Shaker does not include 12" x 16.5" platforms which must be ordered separately. See below.

(S) Elevated temperatures attained with aid of a gable cover using bath liquid with a high boiling point to minimize evaporation. For lower temperatures an optional cooling assembly is available. See below.

## Innova 3100 Interchangeable Platforms & Accessories

12" x 16.5" (30.5 x 42 cm) Stainless Steel

Catalog No.	Description	Clamps
M1231-9930*	Universal Platform	—
M1231-9933	50 mL Erlenmeyer Flask Dedicated Platform	31
M1231-9934	125 mL Erlenmeyer Flask Dedicated Platform	22
M1231-9935	250 mL Erlenmeyer Flask Dedicated Platform	13
M1231-9936	500 mL Erlenmeyer Flask Dedicated Platform	8
M1231-9937	1 L Erlenmeyer Flask Dedicated Platform	6
M1231-9938	2 L Erlenmeyer Flask Dedicated Platform	2
M1231-9939	Sub-Platform for mounting half-size platforms containing flasks and test-tube racks. Sub-platform holds 2 half-size flask platforms or 4 racks.	—

### Half-Size Platforms (Half platforms require Sub-Platform listed above)

Catalog No.	Description	Half Platforms Per Bath	Clamps Per Platform
AG7-50	50 mL Erlenmeyer Flask Half Platform	2	13
AG7-125	125 mL Erlenmeyer Flask Half Platform	2	8
AG7-250	250 mL Erlenmeyer Flask Half Platform	2	5



Half-Size Platforms with accessory clamps

### Test Tube Racks

Catalog No.	Description	Racks Per Bath	Tubes Per Rack
AG7-TT13	Rack for 13 mm Tubes	4	60
AG7-TT16	Rack for 16 mm Tubes	4	36
AG7-TT20	Rack for 20 mm Tubes	4	29
AG7-TT25	Rack for 25 mm Tubes	4	18

### Additional Accessories

Catalog No.	Description	Clamps
M1231-2010	Gable Cover, Plexiglas, minimizes heat loss and heat-up time. Not recommended for temperatures above 60°C.	—
M1231-2000	Gable Cover, Stainless Steel, for high-temperature applications up to 100°C. Reduces heat-up time. Minimizes evaporation.	—
M1231-9920	Cooling Assembly, for below ambient temperature applications. Must be factory installed.	—
M1195-1020	Space-Saving Dolly, (Under lab bench operation) 18" W x 28.25" long (46 x 72 cm). Overall height, of shaker on dolly: 20" (51 cm)	—
M1231-0730	Spare Set of Arms	—
M1020-1220	Portable Cart, 22 1/2" W x 32.25" L, (57 x 87 cm). Overall height, shaker on cart: 42.5" (108 cm)	—
M1231-6000††	Spare Parts Kit	—



Stainless Steel Gable Cover



Cooling Assembly

(\*) Flask clamps for Universal Platform must be ordered separately. For platform capacities and clamp information see page 5.

(††) Refer to page 2 for details of Spare Parts Kit.

# Innova® Open Air Shakers







## Innova® 2000, 2100 & 2300 Series Benchtop Open Air Shakers

**Low-profile shakers with Triple-Eccentric Drive for uniform motion and microprocessor controls for accurate regulation of shaking speed, 25 – 500 rpm (less with baffled flasks). Includes audible and visual alarms, timer (0 – 99.9 hrs) with continuous operation or automatic shut-off at the end of**

the study. Models 2000, 2100 and 2300 provide for small, intermediate and large-capacity shaking, respectively. Models 2050, 2150 and 2350 come with additional stabilizing feet and/or counterweight to balance larger loads on oversized platforms. Platforms sold separately, see pages 12 – 13.

Model No.	Platform Size		Capacity/ Flask size†	Orbit	Overall Dimensions		Net Weight	
	Inches	cm			Inches (W x D x H)	cm (W x D x H)	lbs.	kg.
Innova 2000	13 x 11	33 x 28	6 x 500 mL	3/4"	14 x 14.5 x 5.75	35.5 x 37 x 14.6	33	18.6
Innova 2050	16 x 12	40.6 x 30.5	3 x 2 L	3/4"	17 x 14.5 x 5.75	43 x 37 x 14.6	35	19.1
Innova 2100	18 x 18	45.7 x 45.7	5 x 2 L	3/4"	19 x 21.9 x 6.4	48 x 55.5 x 16.3	75	54.4
Innova 2150	24 x 18	61 x 45.7	8 x 2 L	3/4"	24 x 23.3 x 6.4	60.1 x 59.1 x 16.3	80	57
Innova 2300	30 x 18	76.2 x 45.7	4 x 6 L	1" or 2"	30 x 22.3 x 6.4	76.2 x 56.6 x 16.3	105	66
Innova 2350	36 x 24	91.4 x 61	6 x 6 L	1" or 2"	36 x 24 x 6.4	91.4 x 61 x 16.3	115	68

(†) Indicates number of largest flask size with dedicated platform. Universal platform capacity may be less. Flask clamps for Universal Platform must be ordered separately. See page 5.

Model	Catalog No.	Electrical Service		
<b>2000</b>	M1190-0000	120V, 50/60Hz		
	M1190-0001	100V, 50/60Hz		
	M1190-0002	220/230V, 50/60Hz		
	M1190-0003	240V, 50/60Hz		
<b>2050</b>	M1190-0010	120V, 50/60Hz		
	M1190-0011	100V, 50/60Hz		
	M1190-0012	220/230V, 50/60Hz		
	M1190-0013	240V, 50/60Hz		
<b>2100</b>	M1194-0000	120V, 50/60Hz		
	M1194-0001	100V, 50/60Hz		
	M1194-0002	220/230V, 50/60Hz		
	M1194-0003	240V, 50/60Hz		
<b>2150</b>	M1194-0010	120V, 50/60Hz		
	M1194-0011	100V, 50/60Hz		
	M1194-0012	220/230V, 50/60Hz		
	M1194-0013	240V, 50/60Hz		
<b>2300</b> 1" Stroke (2.54 cm)	M1191-0000	120V, 50/60Hz		
	M1191-0001	100V, 50/60Hz		
	M1191-0002	220/230V, 50/60Hz		
	M1191-0003	240V, 50/60Hz		
<b>2300</b> 2" Stroke (5.08 cm)	M1191-0020	120V, 50/60Hz		
	M1191-0021	100V, 50/60Hz		
	M1191-0022	220/230V, 50/60Hz		
	M1191-0023	240V, 50/60Hz		
<b>2350</b> 1" Stroke (2.54 cm)	M1191-0010	120V, 50/60Hz		
	M1191-0011	100V, 50/60Hz		
	M1191-0012	220/230V, 50/60Hz		
	M1191-0013	240V, 50/60Hz		
<b>2350</b> 2" Stroke (5.08 cm)	M1191-0030	120V, 50/60Hz		
	M1191-0031	100V, 50/60Hz		
	M1191-0032	220/230V, 50/60Hz		
	M1191-0033	240V, 50/60Hz		

For multi-shaker racking system, see page 14.

# Innova® Open Air Shakers

## Innova® 2000 Interchangeable Platforms & Accessories

13" x 11" (33 x 28 cm) Stainless Steel

Catalog No.	Description	Clamps
M1001-0240*	Universal Platform	—
AG2-UT	Utility Carrier holds a variety of glassware between rubber-cushioned cross bars	—
AG2-00	Utility Tray with non-skid rubber surface	—
M1001-9920	Rod Kit for Utility Carrier (one additional rod)	—
AG2-10	10 mL Erlenmeyer Flask Dedicated Platform	60
M1190-9919	25 mL Erlenmeyer Flask Dedicated Platform	32
M1190-9915	50 mL Erlenmeyer Flask Dedicated Platform	20
M1190-9916	125 mL Erlenmeyer Flask Dedicated Platform	12
M1190-9917	250 mL Erlenmeyer Flask Dedicated Platform	8
M1190-9918	500 mL Erlenmeyer Flask Dedicated Platform	6
M1190-0300	Sticky Pad Platform	—
M1190-9910 <sup>§</sup>	Capacity Upgrade Kit, converts Model 2000 to a Model 2050	—
M1190-9909	Temperature & Speed Monitoring Kit for recording on an external chart recorder	—
M1190-6100 <sup>††</sup>	Spare Parts Kit, Innova 2000/2050 (120V, 50/60Hz)	—

## Innova 2050 Interchangeable Platforms

16" x 12" (40.6 x 30.5 cm) Stainless Steel

Catalog No.	Description	Clamps
M1190-9900*	Universal Platform	—
M1190-9907	Utility Carrier holds a variety of glassware between rubber-cushioned cross bars	—
M1190-9920	Rod Kit for Utility Carrier (one additional rod)	—
M1190-9908	Utility Tray with non-skid rubber surface	—
M1190-9901	10 mL Erlenmeyer Flask Dedicated Platform	86
M1190-9902	25 mL Erlenmeyer Flask Dedicated Platform	48
M1190-9903	50 mL Erlenmeyer Flask Dedicated Platform	35
M1190-9904	125 mL Erlenmeyer Flask Dedicated Platform	20
M1190-9905	250 mL Erlenmeyer Flask Dedicated Platform	12
M1190-9906	500 mL Erlenmeyer Flask Dedicated Platform	8
M1190-9911	1 L Erlenmeyer Flask Dedicated Platform	6
M1190-6100 <sup>††</sup>	Spare Parts Kit, Innova 2000/2050 (120V, 50/60Hz)	—

## Innova 2100 Interchangeable Platforms and Accessories

18" x 18" (45.7 x 45.7 cm) Phenolic Resin - Unless otherwise stated

Catalog No.	Description	Clamps
M1250-9902*	Universal Platform, Aluminum	—
M1250-9906 <sup>‡</sup>	Drip Pan to catch accidental spills for use with Universal Platform M1250-9902	—
M1194-9909	Utility Carrier holds a variety of glassware between rubber-cushioned cross bars	—
M1194-9923	Rod Kit for Utility Carrier (one additional rod)	—
M1194-9910	Utility Tray with non-skid rubber surface	—
M1194-9903	50 mL Erlenmeyer Flask Dedicated Platform	64
M1194-9904	125 mL Erlenmeyer Flask Dedicated Platform	34
M1194-9905	250 mL Erlenmeyer Flask Dedicated Platform	25
M1194-9906	500 mL Erlenmeyer Flask Dedicated Platform	16
M1194-9907	1 L Erlenmeyer Flask Dedicated Platform	9
M1194-9908	2 L Erlenmeyer Flask Dedicated Platform	5
M1233-9932	2.8 L Fernbach Flask Dedicated Platform	4
M1250-9903**	Sticky Pad Platform	—
M1194-9926 <sup>§</sup>	Capacity Upgrade Kit to convert a Model 2100 to a Model 2150	—
M1192-9901 <sup>◇</sup>	Quick-Change Platform Kit, Innova 2100/4000/4230	—
M1194-9924	Temperature & Speed Monitoring Kit for recording on an external chart recorder. For Models 2100, 2150, 2300 & 2350	—
M1194-6001 <sup>††</sup>	Spare Parts Kit, Innova 2100/2150 (120V, 50/60Hz)	—

(\*) Flask clamps for Universal Platform must be ordered separately. See page 5. (\*\*) Sticky Pad sold separately, see page 5. (§) Includes counterweight and hardware to balance larger workloads. (◇) Enables platforms to be snapped in place without tools; platforms must be ordered separately; maximum speed is 400 rpm. (††) Refer to page 2 for details of Spare Parts Kits.

## Innova® 2150 Interchangeable Platforms & Accessories

24" x 18" (61 x 45.7 cm) Phenolic Resin

Catalog No.	Description	Clamps
M1194-9912*	Universal Platform	—
M1194-9921	Utility Carrier holds a variety of glassware between rubber-cushioned cross bars	—
M1194-9925	Rod Kit for Utility Carrier (one additional rod)	—
M1194-9922	Utility Tray with non-skid rubber surface	—
M1194-9915	50 mL Erlenmeyer Flask Dedicated Platform	80
M1194-9916	125 mL Erlenmeyer Flask Dedicated Platform	48
M1194-9917	250 mL Erlenmeyer Flask Dedicated Platform	35
M1194-9918	500 mL Erlenmeyer Flask Dedicated Platform	20
M1194-9919	1 L Erlenmeyer Flask Dedicated Platform	12
M1194-9920	2 L Erlenmeyer Flask Dedicated Platform	8
M1194-9924	Temperature and Speed Monitoring Kit for recording on an external chart recorder. For Models 2100, 2150, 2300 & 2350 Shakers	—
M1194-9927◇	Quick-Change Platform Kit	—
M1194-6001††	Spare Parts Kit, Innova 2100/2150 (120V, 50/60Hz)	—

## Innova 2300 Interchangeable Platforms & Accessories

30" x 18" (76.2 x 45.7 cm) Aluminum

Catalog No.	Description	Clamps
M1250-9920*	Universal Platform	—
M1250-9921	Drip Pan to catch accidental spills for use with Universal Platform, M1250-9920	—
AG-00	Utility Tray with non-skid rubber surface	—
M1191-9908	50 mL Erlenmeyer Flask Dedicated Platform	108
M1191-9909	125 mL Erlenmeyer Flask Dedicated Platform	60
M1191-9910	250 mL Erlenmeyer Flask Dedicated Platform	40
M1191-9911	500 mL Erlenmeyer Flask Dedicated Platform	24
AG-1	1 L Erlenmeyer Flask Dedicated Platform	15
AG-2	2 L Erlenmeyer Flask Dedicated Platform	12
AG-4	4 L Erlenmeyer Flask Dedicated Platform	6
AG-6	6 L Erlenmeyer Flask Dedicated Platform	4
AG-28	2.8 L Fernbach Flask Dedicated Platform	6
M1250-9904**	Sticky Pad Platform	—
M1191-9905§	Capacity Upgrade Kit to convert a Model 2300 to a Model 2350	—
M1191-9904◇	Quick-Change Platform Kit, Innova 2300	—
M1194-9924	Temperature and Speed Monitoring Kit for recording on an external chart recorder. For Models 2100, 2150, 2300 & 2350 Shakers	—
M1191-6102††	Spare Parts Kit, Innova 2300/2350, (120V, 50/60Hz)	—
M1243-2500	Microplate platform holds 105 standard or 21 deep well plates	—

## Innova 2350 Interchangeable Platforms & Accessories

36" x 24" (91.4 x 60.9 cm) Marine Plywood unless otherwise stated

Catalog No.	Description	Clamps
PTL-386◇	Universal Platform	—
PTL-393◇	Universal Platform, aluminum	—
AG-21-00	Utility Tray with non-skid rubber surface	—
M1191-9912	125 mL Erlenmeyer Flask Dedicated Platform	96
M1191-9913	250 mL Erlenmeyer Flask Dedicated Platform	70
M1191-9914	500 mL Erlenmeyer Flask Dedicated Platform	40
M1194-9924	Temperature and Speed Monitoring Kit for recording on external recorder. For Models, 2100, 2150, 2300 & 2350	—
M1191-6102††	Spare Parts Kit, Innova 2300/2350, (120V, 50/60Hz)	—

(\*) Flask clamps for Universal Platform must be ordered separately. For platform capacities and clamp information see page 5. (\*\*) Sticky Pad sold separately. See page 5. (S) Includes counterweight, hardware and outrigger feet to balance larger workloads. (◇) Enables platforms to be snapped in place without tools; platforms must be ordered separately. Maximum speed with 1" orbit shaker is 400 rpm. (††) Refer to page 2 for details of Spare Parts Kits.

# Innova® Multi-Tier Shakers

## Innova® 5000 Multi-Tier Shaker — An Industrial Workhorse

**Culture hundreds of samples on this industrial workhorse. Speed:** 25 to 350 rpm (less for baffled flasks). **Orbit:** 2" (5.08 cm). Counterbalanced shaker imparts uniform agitation to all samples without being bolted to the floor. Cantilevered design provides unobstructed access to all glassware. **Six removable platforms†:** 32.5 x 26.75" (82.5 x 68 cm) accommodate flasks 10 mL to 6 L. (Platforms sold separately.) Digital display indicates speed, setpoint, running time and alarm conditions. **Overall dimensions:** 62" W x 38" D x 53" H (157.5 x 96.5 x 135 cm). **Net weight (with platforms):** 1,554 lbs. (706 kg).



Simultaneously agitate hundreds of samples on up to six accessory platforms

Model	Catalog No.	Electrical Service
Innova 5000	M1196-0000	120V, 50/60Hz
	M1196-0001	100V, 50/60Hz
	M1196-0002	220V, 50/60Hz
	M1196-0003	240V, 50/60Hz

(†) Shaker does not include 32.5 x 26.75" Platforms which must be ordered separately. See below.

## Innova 5000 Interchangeable Platforms & Accessories

32.5" x 26.75" (82.5 x 68 cm) Phenolic Resin. Capacity: 6 Platforms per Shaker

Flask Catalog No.	Description	No. of Flasks Per Platform	No. of Flasks Per Machine
M1196-9447**	Universal Platform	—	—
M1196-9900	125 mL Erlenmeyer Flask Dedicated Platform	99	594
M1196-9901	250 mL Erlenmeyer Flask Dedicated Platform	64	384
M1196-9902	500 mL Erlenmeyer Flask Dedicated Platform	42	252
M1196-9903	1 L Erlenmeyer Flask Dedicated Platform	23	138
M1196-9904⊗	2 L Erlenmeyer Flask Dedicated Platform	14	70
M1196-9905⊗	2.8 L Fernbach Flask Dedicated Platform	9	54
M1196-9906‡	4 L Erlenmeyer Flask Dedicated Platform	8	16
M1196-9907‡	6 L Erlenmeyer Flask Dedicated Platform	8	16
M1196-6000††	Spare Parts Kit (120V, 50/60Hz)		

(\*\*) Flask clamps for Universal Platform must be ordered separately. For platform capacities and clamp information see page 5.

⊗ Can only use front half of platform on bottom tier.

‡ For use on top tier only. Maximum, 16 flasks on 2 top trays.

†† Please refer to page 2 for details of Spare Parts Kits.

## Innova 5050/5051 Racking Systems for Innova 2300 Shakers

**Model 5050** consists of a sturdy, stainless-steel rack to hold up to four Innova 2300 Shakers. **Innova 5051** rack extension can be added to support an additional four shakers, bringing the total number to eight. **Each unit includes an electrical strip** for powering the shakers. Shakers must be ordered separately. See page 11 & 13 for Innova 2300 shaker and platform ordering information. **Maximum speed:** 400 rpm for 1" (2.54 cm) orbit, and 300 rpm for 2" (5.08 cm) orbit shakers. See chart below for rack capacities. **Overall dimensions 5050 or 5051:** 39" W x 27" D x 72" H (99.1 x 68.6 x 182.9 cm).

Model	Catalog No.	Description	Electrical Service
Innova 5050 & 5051	M1232-0100	5050 Rack System	100V/120V, 50/60Hz
	M1232-0101	5050 Rack System	230V/240V, 50/60Hz
	M1232-0110*	5051 Rack Extension	100V/120V, 50/60Hz
	M1232-0111*	5051 Rack Extension	230V/240V, 50/60Hz



Innova 5050 & 5051 Extension Racks shown. Shakers sold separately.

Flask Size	Max. Shakers per Rack	Max. Flasks with Innova 2300	Max. Flasks with Innova 5050 Rack	Max. Flasks with Innova 5051 Extension
50 mL	4	108	432	864
125 mL	4	60	240	480
250 mL	4	40	160	320
500 mL	4	24	96	192
1 L	3	15	45	90
2 L **	3	12	36	72

(\*) Must be used with Model 5050 Rack System. (\*\*) Larger flasks can be used by removing one or more adjustable-height shelves.

# I Series Incubator Shakers

## I26 Stackable Incubator Shakers & I26R with added Refrigeration

**Stackable, incubated I26 and Incubated/Refrigerated Model I26R Shakers feature NBS' triple-eccentric drive for uniform motion and dependable operation.**

Based on the design concepts of the Innova shakers, the I26 & I26R offer excellent performance at a value price. **Platform†**: 30" x 18" (76.2 x 45.72 cm) slides out for easy access to all flasks. (Platform sold separately). **Speed‡**: 25 - 400 with a 1" orbit (2.54 cm). **Temperature range**: I26: 5°C above ambient to 60°C; I26R: 15°C below ambient to 60°C. **Overall dimensions**: 50" W x 30" D x 25.25" H (127 x 76.2 x 64.14 cm)\*. Add 25.25" (64 cm) for each additional unit. With door open, add 19.5" (49.5 cm) to depth. **Net weight**: I26: 370 lbs. (168 kg); I26R: 400 lbs. (182 kg).



Stacks up to 3 shakers.  
2 shakers shown on a medium base

Model	Catalog No. 1" (2.54 cm) Orbit	Electrical Service
<b>I26 Incubated</b>	M1324-0000	120V, 60Hz
	M1324-0001	100V, 60Hz
	M1324-0002	230V, 50Hz
	M1324-0003	100V, 50Hz
<b>I26R Incubated/ Refrigerated</b>	M1324-0004	120V, 60Hz
	M1324-0005	100V, 60Hz
	M1324-0006	230V, 50Hz
	M1324-0007	100V, 50Hz

(†) Shaker does not include platform which must be ordered separately. See below.

(‡) Less with baffled flasks.

(\*) When using 1 unit on the floor, height is 27" (68.58 cm) including shaker feet. When using shaker on a base or stacked, no feet are required and each shaker will be 25.25" high (64.14 cm).

## I26 & I26R Interchangeable Platforms, Slide-Out 30" x 18" (76.2 x 46 cm) Aluminum

Platforms are not interchangeable with other 30" x 18" platforms

Catalog No.	Application/Size of Glassware	Clamps 1 Shaker	Clamps 2 Shakers	Clamps 3 Shakers
M1324-9904*	Universal Platform	—	—	—
M1324-9905	125 mL Erlenmeyer Flask Dedicated Platform	60	120	180
M1324-9906	250 mL Erlenmeyer Flask Dedicated Platform	40	80	120
M1324-9907	500 mL Erlenmeyer Flask Dedicated Platform	24	48	72
M1324-9908	1 L Erlenmeyer Flask Dedicated Platform	15	30	45
M1324-9909	2 L Erlenmeyer Flask Dedicated Platform	12	24	36
M1324-9910	2.8 L Fernbach Flask Dedicated Platform	6	12	18
M1324-9911	Sticky Pad Platform	—	—	—

(\*) Flask clamps and test tubes for Universal Platforms must be ordered separately. See page 5.

## I26 & I26R Optional Accessories

Accessories are not interchangeable with any other shaker

Catalog No.	Description
<b>Base: Raises shaker height for easier access to chamber &amp; controls.</b>	
M1324-0600	Short Base to raise shakers by 4" (10.2 cm). For use with up to three stacked units
M1324-0800	Medium Base to raise shakers by 13" (33 cm.) For use with up to two stacked units
M1324-0700	Tall Base to raise shakers by 17" (43.2 cm). For use with a single unit
<b>Stacking Kit: Bolts shakers together for stability when stacking two or more units. One needed for two shakers; Two needed for three shakers.</b>	
M1324-0500	Stacking Kit to join two I26/I26R Shakers

## Excella® Shakers — Excellent Performance & Value

These next-generation shakers from New Brunswick Scientific are offered in eight models to suit a wide variety of culturing applications. Replacing our C-Line, these completely re-designed shakers combine sleek looks, micro-processor controls and heavy-duty counterbalanced drives to provide years of continuous, quiet operation. Digital displays

are user friendly and easily seen throughout the lab. Excella shakers are available with a large selection of accessories to accommodate a wide range of flasks, test tubes and general labware. Like most NBS shakers, Excella platforms, clamps and accessories are interchangeable with earlier NBS models.

### Excella® E24 Benchtop Incubator Shakers & E24R with Added Refrigeration

**Microprocessor-controlled incubator shaker with clear lid allows easy viewing of all flasks. Temperature:** Model E24: 7°C above ambient to 60°C; Model E24R: 15°C below ambient to 60°C. **Speed:** 50 - 400 rpm, (less for baffled flasks). **Orbit:** 3/4" (1.9 cm). **Platform†:** 18" x 18" (46 x 46 cm), for test tubes and flasks up to 2.8 liters. (Platform sold separately.) **Overall dimensions:** 22" W x 30" D x 24" H (56 x 76.2 x 61 cm). **Net weight:** E24: 145 lbs. (66 kg); E24R: 180 lbs. (82 kg).

Model	Catalog No. 3/4" (2.54 cm) Orbit	Electrical Service
<b>E24 Incubated</b>	M1352-0000	120V, 60Hz
	M1352-0001	100V, 60Hz
	M1352-0002	230V, 50Hz
	M1352-0003	100V, 50Hz
<b>E24R Incubated/ Refrigerated</b>	M1352-0004	120V, 60Hz
	M1352-0005	100V, 60Hz
	M1352-0006	230V, 50Hz
	M1352-0007	100V, 50Hz



(†) Shaker does not include 18" x 18" platforms which must be ordered separately. See below.

### Excella E24 & E24R Interchangeable Platforms

18" x 18" (46 x 46 cm) Phenolic Resin unless otherwise stated

Catalog No.	Description	Clamps
M1250-9902*	Universal Platform, Aluminum	—
M1250-9906	Drip Pan for Universal Platform M1250-9902	—
M1194-9909	Utility Carrier holds glassware between rubber-cushioned cross bars	—
M1194-9923	Rod Kit for Utility Carrier (one additional rod)	—
M1194-9910	Utility Tray with non-skid surface	—
M1194-9903	50 mL Erlenmeyer Flask Dedicated Platform	64
M1194-9904	125 mL Erlenmeyer Flask Dedicated Platform	34
M1194-9905	250 mL Erlenmeyer Flask Dedicated Platform	25
M1194-9906	500 mL Erlenmeyer Flask Dedicated Platform	16
M1194-9907	1 L Erlenmeyer Flask Dedicated Platform	9
M1194-9908	2 L Erlenmeyer Flask Dedicated Platform	5
M1233-9932	2.8 L Fernbach Flask Dedicated Platform	4
M1192-9901	Quick-Change Platform Kit	—
M1250-9903 <sup>1</sup>	Sticky Pad Platform	—
M1352-6000	Spare Parts Kit, E24 & E24R	—

(\*) Flask clamps for Universal Platform must be ordered separately. See page 5.

(1) Sticky Pad sold separately, see page 5

## Excella® E25 Console Incubator Shakers & E25R with Added Refrigeration

**Large-capacity, floor model incubator shaker. Temperature:** Model E25: 7°C above ambient to 60°C; E25R: 15°C below ambient to 60°C (minimum setpoint of 4°C). **Speed:** 50 - 400 rpm (less for baffled flasks). **Orbit:** 1" (2.54 cm). **Platform†:** 30" x 18" (76 x 46 cm) accommodates a variety of flask capacities up to 6 liters. (Platform sold separately.) **Overall dimensions:** 50" x 30.5" x 41.7" (127 x 77 x 85 cm). With lid open: 65" H (165 cm). **Net weight:** Model E25: 377 lbs. (171.2 kg); Model E25R: 417 lbs. (189.3 kg).



Model	Catalog No. 1" (2.54 cm) Orbit	Electrical Service
<b>E25 Incubated</b>	M1353-0000	120V, 60Hz
	M1353-0001	100V, 60Hz
	M1353-0002	230V, 50Hz
	M1353-0003	100V, 50Hz
<b>E25R Incubated/ Refrigerated</b>	M1353-0004	120V, 60Hz
	M1353-0005	100V, 60Hz
	M1353-0006	230V, 50Hz
	M1353-0007	100V, 50Hz

(†) Shaker does not include 30" x 18" platforms which must be ordered separately. See below.

## Excella E10 Large-Capacity Benchtop Open Air Shakers

**Large-capacity, microprocessor-controlled shaker with digital display. Speed:** 50 - 400 rpm (less for baffled flasks). **Orbit:** 1" (2.54 cm). **Platform†:** 30" x 18" (76 x 46 cm) accommodates flasks up to 6 liters. **Overall dimensions:** 30" x 27" x 8.5" (76 x 68.3 x 21.6 cm). **Net weight:** 100 lbs. (45.4 kg).



Model	Catalog No.	Electrical Service
<b>E10 Open Air</b>	M1351-0000	120/100V, 50/60Hz
	M1351-0001	230V, 50/60Hz

(†) Shaker does not include 30" x 18" platforms which must be ordered separately. See below.

## Excella E25, E25R and E10 Interchangeable Platforms 30" x 18" (76 x 46 cm) Aluminum

Catalog No.	Description	Clamps
M1250-9920**	Universal Platform	—
M1250-9921‡	Drip Pan to catch accidental spills, for Universal Platform M1250-9920	—
AG-00	Utility Tray with non-skid rubber surface	—
M1191-9908	50 mL Erlenmeyer Flask Dedicated Platform	108
M1191-9909	125 mL Erlenmeyer Flask Dedicated Platform	60
M1191-9910	250 mL Erlenmeyer Flask Dedicated Platform	40
M1191-9911	500 mL Erlenmeyer Flask Dedicated Platform	24
AG-1	1 L Erlenmeyer Flask Dedicated Platform	15
AG-2	2 L Erlenmeyer Flask Dedicated Platform	12
AG-28	2.8 L Fernbach Flask Dedicated Platform	6
AG-4	4 L Erlenmeyer Flask Dedicated Platform	6
AG-6	6 L Erlenmeyer Flask Dedicated Platform	4
M1250-9904^	Platform for Sticky Pad	—
M1243-2500	Microplate platform holds 105 standard or 21 deep well plates	—

(\*\*) Flask clamps for Universal Platforms must be ordered separately. See page 5.

(^) Sticky Pad sold separately, see page 5.

(‡) For use with E10 Shakers only.

# Excella® Open Air Shakers

## Excella® E5 Mid-Sized Benchtop Open Air Shakers

**Microprocessor-controlled benchtop platform shaker for agitating test tubes and flasks up to 2 L. Speed:** 50 - 400 rpm (less for baffled flasks), with electronic speed control. **Orbit:** 3/4" (1.9 cm). **Platform†:** 18" x 18" (45.7 x 45.7 cm), sold separately. **Overall dimensions:** 20.5" W x 17.90" D x 8.5" H (52 x 45.5 x 21.6 cm). **Net weight:** 100 lbs. (45.4 kg).



Model	Catalog No.	Electrical Service
E5 Open Air	M1355-0000	120/100V, 50/60Hz
	M1355-0001	230V, 50/60Hz

(†) Shaker does not include 18" x 18" platforms which must be ordered separately. See below.

## Excella E5 Interchangeable Platforms

18" x 18" (46 x 46 cm) Phenolic Resin unless otherwise stated

Catalog No.	Description	Clamps
M1250-9902†	Universal Platform, Aluminum	—
M1250-9906	Drip Pan to catch accidental spills for use with Universal Platform M1250-9902	—
M1194-9909	Utility Carrier holds a variety of glassware between rubber-cushioned cross bars	—
M1194-9923	Rod Kit for Utility Carrier (one additional rod)	—
M1194-9910	Utility Tray with non-skid rubber surface	—
M1194-9903	50 mL Erlenmeyer Flask Dedicated Platform	64
M1194-9904	125 mL Erlenmeyer Flask Dedicated Platform	34
M1194-9905	250 mL Erlenmeyer Flask Dedicated Platform	25
M1194-9906	500 mL Erlenmeyer Flask Dedicated Platform	16
M1194-9907	1 L Erlenmeyer Flask Dedicated Platform	9
M1194-9908	2 L Erlenmeyer Flask Dedicated Platform	5
M1250-9903**	Sticky Pad Platform	—

(†) Flask clamps for Universal Platform must be ordered separately. See page 5. (\*\*) Sticky Pad sold separately, see page 5.

## Excella E2 Microprocessor Controlled & E1 Analog-Controlled Compact Open Air Shakers

**E2: Benchtop shaker for agitating test tubes and flasks up to 500 mL. Speed:** 50 - 400 rpm (less for baffled flasks), with electronic speed control. **Orbit:** 3/4" (1.9 cm). **Platform†:** 13" x 11" (33 x 28 cm), sold separately. **Overall dimensions:** 15.75" W x 17.9" D x 8.5" H (40 x 45.5 x 21.6 cm). **Net weight:** 35 lbs. (15.9 kg).



E2 with LED display, left.  
Analog-controlled E1, right.

**E1: Same as E2, but with analog control.**

Model	Catalog No.	Electrical Service	Model	Catalog No.	Electrical Service
E2 Open Air	M1350-0000	120/100V, 50/60Hz	E1 Open Air	M1354-0000	120V, 50/60Hz
	M1350-0001	230V, 50/60Hz		M1354-0001	230V, 50/60Hz

(†) Shakers do not include 13" x 11" platforms which must be ordered separately. See below.

## Excella E2 & E1 Interchangeable Platforms

13" x 11" (33 x 28 cm) Stainless Steel

Catalog No.	Description	Clamps
M1001-0240**	Universal Platform	—
AG2-UT	Utility Carrier holds a variety of glassware between rubber-cushioned cross bars	—
AG2-00	Utility Tray with non-skid rubber surface	—
M1001-9920	Rod Kit for Utility Carrier (one additional rod)	—
AG2-10	10 mL Erlenmeyer Flask Dedicated Platform	60
M1190-9919	25 mL Erlenmeyer Flask Dedicated Platform	32
M1190-9915	50 mL Erlenmeyer Flask Dedicated Platform	20
M1190-9916	125 mL Erlenmeyer Flask Dedicated Platform	12
M1190-9917	250 mL Erlenmeyer Flask Dedicated Platform	8
M1190-9918	500 mL Erlenmeyer Flask Dedicated Platform	6

(\*\*) Flask clamps for Universal Platform must be ordered separately. See page 5.

# C-Line Shakers

## C76 High-Temperature Water Bath Shakers

**Microprocessor-controlled orbital shaker for high-temperature applications.**

**Temperature:** 7°C above ambient\*\* to 80° C. **Speed:** 50 - 300 rpm (less for baffled flasks). **Orbit:** 1/2" (1.3 cm), dynamically balanced. Features feedback control of temperature and agitation rate, with self-diagnostic status lights for speed, temperature and elapsed time. One-piece seamless bath with rounded corners. **Platform†:** 12" x 16.5" (30.5 x 42 cm) holds flasks to 2 L. (Platform sold separately.) **Overall dimensions:** 21.4" x 26.9" x 18.5" (54 x 68 x 47 cm). **Net weight:** 115 lbs. (52 kg).



Shown with accessory Plexiglas Gable Cover

Model	Catalog No.	Electrical Service
<b>C76 Water Bath</b>	M1248-0002 M1248-0003	120V, 50/60Hz 230/240V, 50/60Hz

(†) Shaker does not include 12" x 16.5" platforms which must be ordered separately. See below. (\*\*) Elevated temperatures attained with aid of a gable cover using bath liquid with a high boiling point to minimize evaporation. For lower temperatures an optional cooling assembly is available. See below.

## C76 Interchangeable Platforms & Accessories

12" x 16.5" (30.5 x 42 cm) Stainless Steel

Catalog No.	Description	Clamps
M1231-9930*	Universal Platform	—
M1231-9933	50 mL Erlenmeyer Flask Dedicated Platform	31
M1231-9934	125 mL Erlenmeyer Flask Dedicated Platform	22
M1231-9935	250 mL Erlenmeyer Flask Dedicated Platform	13
M1231-9936	500 mL Erlenmeyer Flask Dedicated Platform	8
M1231-9937	1 L Erlenmeyer Flask Dedicated Platform	6
M1231-9938	2 L Erlenmeyer Flask Dedicated Platform	2
M1231-9939	Sub-Platform for mounting half-size platforms containing flasks and test tube racks. Sub-platform holds 2 half-size flask platforms or 4 racks.	—

### Half-Size Platforms (Half platforms require Sub-Platform listed above)

Catalog No.	Description	Half Platforms Per Bath	Clamps Per Platform
AG7-50	50 mL Erlenmeyer Flask Half Platform	2	13
AG7-125	125 mL Erlenmeyer Flask Half Platform	2	8
AG7-250	250 mL Erlenmeyer Flask Half Platform	2	5

### Test Tube Racks

Catalog No.	Description	Racks Per Bath	Tubes Per Rack
AG7-TT13	Rack for 13 mm Tubes	4	60
AG7-TT16	Rack for 16 mm Tubes	4	36
AG7-TT20	Rack for 20 mm Tubes	4	29
AG7-TT25	Rack for 25 mm Tubes	4	18

### Additional Accessories

Catalog No.	Description	Clamps
M1231-2010	Gable Cover, Plexiglas, minimizes heat loss and heat-up time. Not recommended for temperatures above 60°C.	
M1231-2000	Gable Cover, Stainless Steel, for high-temperature applications up to 100°C. Reduces heat-up time. Minimizes evaporation.	
M1231-9920**	Cooling Assembly, factory installed only. Must be ordered with unit for factory installation	
M1248-0730	Spare Set of Arms	
M1231-6000††	Spare Parts Kit	

(\*) Flask clamps for Universal Platform must be ordered separately. See page 5.

(\*\*) For below-ambient temperature an optional factory installed cooling coil is available. (††) Refer to page 2 for details of Spare Parts Kit.