

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

For shaking in ambient conditions: on the bench, in an incubator, or in a warm or cold room, Innova Open Air Shakers are the instruments of choice. Six ruggedly-constructed models provide reliable, continuous-duty shaking of test tubes and flasks to 6 liters.

- **Low Profile** — less than 6" (15 cm) Tall enables use of multiple shakers in an incubator or environmental chamber.
- **Space-Efficient, Four-Tier Racking System** is available to house up to eight Model 2300 shakers.

## Options

- **Optional, Oversize Platforms and Stabilizer Kits Increase Benchtop Shaker Capacity by 45%.** For field conversion kit to upgrade your Model 2000 to a 2050, order catalog no. M1190-9910. Convert 2100 to a 2150: M1194-9926. Convert 2300 to a 2350: M1191-9905. Or select our factory-ready models 2050, 2150 and 2350 from the chart on page 19.
- **Temperature/Speed Monitoring Kit** with RTD sensor displays and records process values. Innova 2100 & 2300 Series only. Catalog No. M1190-9909.



Increase capacity quickly and easily with our oversized platforms and capacity upgrade kits. Model 2150 shown.



Left to right, Innova 2100, 2300 and 2000 Open Air Shakers.



Innova 5050 racking system saves valuable floor space by stacking up to four Model 2300 shakers on sturdy stainless-steel shelves. Shown with additional extension rack, Model 5051, for housing a total of eight shakers. Built-in electric outlet provides convenient power source for shakers, which are sold separately.

# & 5050 Racking System

Specifications *		Innova 2000/2050	Innova 2100/2150	Innova 2300/2350
Shaking	Range §	25 to 500 rpm with 3/4" (1.9 cm) orbit		25 to 500 rpm with 1" (2.54 cm) orbit 25 to 300 rpm with 2" (5.1 cm) orbit
	Control	± 1 rpm		
	Drive Mechanism	Triple-eccentric counter-balanced drive in cast iron housing with 9 permanently lubricated ball bearings. Driven by solid-state brushless DC motor		
	Timer	Digital LED electronic display in 1 rpm increments. Character height: 9/16" (1.4 cm)		
Timer	Programmable shaking periods from 0.1 hr. to 99.9 hrs. Triggers audible alarm and energizes status light at end of period. Can be deactivated for continuous operation			
Alarms	Audible & Visible	Indicate when speed deviates more than 5 rpm from setpoint and when timer operation has expired. Audible alarm may be muted		
Setpoint Retention	All setpoints and operating status are retained by non-volatile memory. Automatic restart after power is restored (indicated by flashing display)			
LED Display	Indicates speed in increments of 1 rpm, running time in 0.1 hrs., and alarm conditions. Character height: 9/16" (1.4 cm)			
Power	Service	120V 50/60 Hz; 220/230V 50/60 Hz; 240V 50/60Hz; 100V 50/60 Hz		
	Power	35 VA	80 VA	150 VA
Ambient Conditions	Temperature: 0 - 60°C. Humidity: 90% non-condensing			
Certifications	Meets CSA and CE standards			
Warranty	Comprehensive warranty – two years on labor, three years on parts			

Model No.	Platform Size **		Orbit	Overall Dimensions		Gross 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	3/4"	14 x 14.5 x 5.75	35.5 x 37 x 14.6	33	15
Innova 2050	16 x 12	40.6 x 30.5	3/4"	17 x 14.5 x 5.75	43 x 37 x 14.6	43	19.1
Innova 2100	18 x 18	45.7 x 45.7	3/4"	19 x 21.9 x 6.4	48 x 55 x 16	120	54.4
Innova 2150	24 x 18	60.9 x 45.7	3/4"	24 x 23.3 x 6.4	60.1 x 59.1 x 16.2	125	57
Innova 2300	30 x 18	76.2 x 45.7	1" or 2"	30 x 22.3 x 6.4	76.2 x 45.7 x 16	45	66
Innova 2350	36 x 24	91.4 x 60.9	1" or 2"	36 x 24 x 6.4	91.4 x 61 x 16	150	68

\* Specifications subject to change without notice. § Based on shaking a typical workload. Baffled flasks may significantly reduce maximum speed.

\*\* Shaker platforms sold separately. See page 22.

Shaker Capacity for 2000, 2100 & 2300 Series & 5050/5051 Racking **																	
Flask Size	Innova 2000		Innova 2050		Innova 2100		Innova 2150		Innova 2300		Innova 2350		5050 Racking		With Added 5051 Rack		
	Flasks/Platform		Flasks/Platform		Flasks/Platform		Flasks/Platform		Flasks/Platform		Flasks/Platform		Flasks/Rack		Flasks/Rack		
	Ded.	Univ.	Ded.	Univ.	Ded.	Univ.	Ded.	Univ.	Ded.	Univ.	Ded.	Univ.	Ded.	Univ.	Ded.	Univ.	
10 mL	60	60	86	86	N/A	109	N/A	N/A	N/A	183	N/A	N/A	N/A	N/A	732	N/A	1,464
25 mL	32	20	48	32	N/A	64	N/A	N/A	N/A	92	N/A	N/A	N/A	368	N/A	736	
50 mL	20	15	35	32	64	45	80	63	108	92	N/A	N/A	432	368	864	736	
125 mL	12	11	20	16	34	21	48	35	60	39	96	75	240	156	480	312	
250 mL	8	6	12	10	25	18	35	24	40	30	70	50	160	120	320	240	
500 mL	6	4	8	8	16	14	20	20	24	18	40	30	96	72	12	144	
1 L	N/A	N/A	6	N/A	9	8	12	12	15	12	24	24	45	48	90	96	
2 L	N/A	N/A	3	N/A	5	5	8	8	12	8	15	15	36	32	72	64	
2.8 L	N/A	N/A	N/A	N/A	4	4	N/A	5	6	6	12	12	N/A	N/A	N/A	N/A	
4 L	N/A	N/A	N/A	N/A	4	4	N/A	5	6	6	12	10	N/A	N/A	N/A	N/A	
5 L	N/A	N/A	N/A	N/A	N/A	4	N/A	4	N/A	6	N/A	10	N/A	N/A	N/A	N/A	
6 L	N/A	N/A	N/A	N/A	N/A	2	N/A	3	4	4	6	8	N/A	N/A	N/A	N/A	

Electric	Ordering Information ** — Catalog No.							
	Innova 2000	Innova 2050	Innova 2100	Innova 2150	Innova 2300		Innova 2350	
	3/4" 1.9 cm orbit	3/4" 1.9 cm orbit	3/4" 1.9 cm orbit	3/4" 1.9 cm orbit	1" 2.54 cm orbit	2" 5.08 cm orbit	1" 2.54 cm orbit	2" 5.08 cm orbit
120V 50/60 Hz	M1190-0000	M1190-0010	M1194-0000	M1194-0010	M1191-0000	M1191-0020	M1191-0010	M1191-0030
100V 50/60 Hz	M1190-0001	M1190-0011	M1194-0001	M1194-0011	M1191-0001	M1191-0021	M1191-0011	M1191-0031
230V 50/60 Hz	M1190-0002	M1190-0012	M1194-0002	M1194-0012	M1191-0002	M1191-0022	M1191-0012	M1191-0032
240V 50/60 Hz	M1190-0003	M1190-0013	M1194-0003	M1194-0013	M1191-0003	M1191-0023	M1191-0013	M1191-0033

\*\* Shaker platforms sold separately. See page 22.