

INNOVA MODELS 2000, 2100 & 2300 SERIES SHAKERS SPECIFICATIONS*

		Model 2000/2050	Model 2100/2150	Model 2300/2350
Shaking	Range § & Control	25 to 500 rpm ± 1 rpm over entire speed range by means of PI microprocessor control. Acceleration circuit prevents sudden starts/stops, minimizing both splashing & mechanical damage		
	Motion	3/4" (1.9 cm) diameter circular orbit	1" (2.54 cm) or 2" (5.0 cm) diameter circular orbit. Max. speed with 2" stroke is 300 rpm	
	Indication	Digital LED electronic display in 1 rpm increments. Character height: 3/8" (0.95 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 and visual signals indicate when speed deviates more than 5 rpm from setpoint, and when timer operation has expired. (Audible alarm may be muted)			
LED Display	Indicates speed, running time and alarm conditions. Displays readout of internal clock (actual accumulated operating time). Character height: 3/8" (0.95 cm)			
Drive	Triple-eccentric counterbalanced drive in cast-iron housing with 9 permanently lubricated ball bearings			
Motor	Solid-state brushless D.C. motor. Maximum torque for Innova 2000/2100 Series: 40-oz-in (0.28 N-m). For 2300 Series: 63-oz-in (0.44 N-m)			
Safety	Unique sensor limits speed of shaker when overloaded or unbalanced			
Setpoint Retention	All setpoints and operating status are retained by non-volatile memory. Automatic restart after power is restored (indicated by flashing display)			
Power	35 VA		80 VA	150 VA
Dimensions	Platform, Wide x Deep (See p. 22)	2000: 11" x 13" 28 x 33 cm	2100: 18" x 18" 45.7 x 45.7 cm	2300: 30" x 18" 76.2 x 45.7 cm
		2050: 12" x 16" 30.5 x 40.6 cm	2150: 24" x 18" 61 x 45.7 cm	2350: 36" x 24" 91.4 x 60.9 cm
	Overall, Wide x Deep x High	2000: 14" x 14.5" x 5.75" 35.5 x 37 x 14.6 cm	2100: 19" x 21.9" x 6.4" 48 x 55.5 x 16 cm	2300: 30" x 22.3" x 6.4" 76.2 x 45.7 x 16 cm
		2050: 17" x 14.5" x 5.75" 43 x 37 x 14.6 cm	2150: 24" x 23.3" x 6.4" 60.1 x 59.1 x 16.2 cm	2350: 36" x 24" x 6.4" 91.4 x 61 x 16 cm
Weight	2000: 33 lbs. (15 kg) Net 41 lbs. (18.6 kg) Gross	2100: 76 lbs. (34.5 kg) Net 120 lbs. (54.4 kg) Gross	2300: 108 lbs. (49 kg) Net 145 lbs. (66 kg) Gross	
	2050: 35 lbs. (16 kg) Net 43 lbs. (19.1kg) Gross	2150: 80 lbs. (36.3 kg) Net 125 lbs. (57 kg) Gross	2350: 112 lbs. (51 kg) Net 150 lbs. (68 kg) Gross	
Ambient Conditions	Temperature: 0 - 60°C. Humidity: 90% non-condensing			



Gain extra flask capacity by selecting Models 2050 (shown), 2150 or 2350, each offering oversize platforms and stabilizing kit. Available factory-ready or with a field conversion kit to upgrade from a Model 2000, 2100 or 2300, respectively.

* Specifications subject to change without notice. All non-incubated Innova benchtop shakers are cETL listed.

§ Based on shaking a typical workload. Baffled flasks may significantly reduce maximum speed.

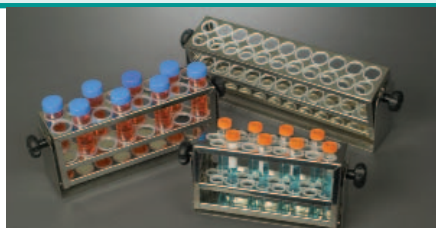
Shaker Capacity, Models 2000, 2100, 2300 Series & 4300 Series												
Flask Size	Model 2000		Model 2050		Model 2100		Model 2150		Model 2300 & 4300 Series		Model 2350	
	Platform: Ded.	Univ.**	Platform: Ded.	Univ.**	Platform: Ded.	Univ.**	Platform: Ded.	Univ.**	Platform: Ded.	Univ.**	Platform: Ded.	Univ.**
10 mL	60	60	86	86	—	109	—	—	—	183	—	—
25 mL	32	20	48	32	—	64	—	—	—	92	—	—
50 mL	20	15	35	32	64	45	80	63	108	92	—	—
125 mL	12	11	20	16	34	21	48	35	60	39	96	75
250 mL	8	6	12	10	25	18	35	24	40	30	70	50
500 mL	6	4	8	8	16	14	20	20	24	18	40	30
1 L	—	—	6	—	9	8	12	12	15	12	24	24
2 L	—	—	3	—	5	5	8	8	12	8	15	15
2.8 L	—	—	—	—	—	4	—	5	6	6	12	12
4 L	—	—	—	—	—	4	—	5	6	6	12	10
5 L	—	—	—	—	—	4	—	4	—	6 §§	—	10
6 L	—	—	—	—	—	2	—	3	4	4 §§	6	8

Other Optional Accessories, 2000, 2100 & 2300 Series	
Temperature/Speed Monitoring Kit	Senses, measures & displays temperature and speed for recording on an external recorder. (2100 & 2300 Series only)
Capacity Upgrade Kit	Converts a Model 2000 to a 2050
	Converts a Model 2100 to a 2150
	Converts a Model 2300 to a 2350

** Flask clamps and test tube racks for the Universal Platform must be ordered separately. Dedicated Platforms include clamps. Utility Carrier and Utility Tray Platforms also available. A white, reflective universal platform for photosynthetic work is also available for Model 4340 only. See page 22-23.

§§ Model 4340 maximum flask size is 4L.

Test Tube Rack & Microplate Carrier Capacity



				Models 2100 4000 /4080 4200/4230	Models 2150 4900	Models 2300 4300 Series 44/44R	Model 2350	Model 5000	Model 2000	Models 2050 3100
Part number		Test Tube Size	Tubes/Rack	Racks per platform						
Large Racks	M1289-0100	8-11 mm	80	4	6	7	12	10	—	—
	M1289-0200	12-15 mm	60							
	M1289-0300	15-18 mm	42							
	M1289-0400	18-21 mm	30							
	M1289-0500	22-26 mm	22							
	M1289-0600	26-30 mm	20							
Medium Racks	M1289-0010	8-11 mm	60	5	7	9	13	10	—	3
	M1289-0020	12-15 mm	44							
	M1289-0030	15-18 mm	31							
	M1289-0040	18-21 mm	23							
	M1289-0050	22-26 mm	16							
	M1289-0060	26-30 mm	16							
Small Racks	M1289-0001	8-11 mm	48	5	8	7	18	16	3	4
	M1289-0002	12-15 mm	34							
	M1289-0003	15-18 mm	24							
	M1289-0004	18-21 mm	18							
	M1289-0005	22-26 mm	13							
	M1289-0006	26-30 mm	12							
Rack Holder	TTR-210	Angled Tube Rack Holder uses thumbscrew to secure user-supplied test-tube racks, 10° angle, 4" - 5" W (12.7 cm) and up to 15" L (38 cm)		2	3	4	8	6	—	—
	TTR-215	Spacer bar to TTR-210 for narrower test tube racks		—	—	—	—	—	—	—
Microplate	M1289-0700	Microplate Holder, stack (3 deep well or 9 standard)		8	12	16	27	24	3	6
	TTR-221	Microplate Holder, single Layer (5 deep well or standard)		2	3	4	8	6	—	—