

# Excella® Shakers

Superior Performance at an Affordable Price



**New Brunswick**  
an eppendorf company

# NBS Excella® Shakers



New Brunswick Scientific's Excella line of biological shakers provides advanced features and excellent performance at an affordable price. All eight temperature-controlled and open-air Excella models feature heavy-duty drives, providing long life and quiet operation under moderate loads and at speeds up to 400 rpm. A wide variety of interchangeable platforms, clamps and test tube racks provide virtually unlimited flexibility. Excella... simply the best performing biological shakers in their price class!

## Excella Shakers feature:

- Microprocessor Controls to enable precise setting of speed, running time and temperature; and automatically compensate for changes in load, voltage and temperature\*
- Easy-to-Use Keypad to reduce operator error in establishing running conditions\*
- Large LED display to provide a clear view of operating parameters\*
- Unique Acceleration/Deceleration Circuit to prevent sudden starts and stops\*
- Timer to enable programmable shaking periods from 0.1 – 99.9 hours with automatic agitation shutoff
- Clear Audible and Visible Alarms to alert you to setpoint deviations of  $\geq 2$  rpm and  $\geq 5^\circ\text{C}$ \*
- Certification: cETLus meets UL, CSA and CE standards

\* Applies to all models except the analog-controlled E1, which is provided with reference calibrations that allow the shaker to be set manually for reproducible results from one run to the next.

## Temperature-Controlled Excella Shakers

When there is a need to precisely control temperature either by heating, refrigeration or both, the Excella line of Incubated/Refrigerated Shakers will meet your critical needs.

- **Flask Capacity:**
  - Benchtop E24 Series: For flasks up to 2.8 Liters
  - Console E25 Series: For flasks up to 6 Liters
- **Temperature Control**
  - E24 & E25:  $7^\circ\text{C}$  above ambient to  $60^\circ\text{C}$
  - E24R & E25R:  $15^\circ\text{C}$  below ambient to  $60^\circ\text{C}$
  - Accuracy:  $\pm 0.1^\circ\text{C}$  at  $37^\circ\text{C}$
- **Orbit**
  - E24 & E24R:  $3/4"$  (1.9 cm)
  - E25 & E25R:  $1"$  (2.5 cm)
- **Agitation:** 50 – 400 rpm,  $\pm 2$  rpm
- **Uniform Temperature Control** and rapid temperature recovery result from microprocessor feedback controls, air-tight chamber and high-velocity fans
- **Thermostat Fail-Safe** device turns off heaters if the high temperature limit is exceeded
- For operator safety, an **Open Lid Cutoff Switch** immediately stops agitation when the lid is opened
- RS-232 provided for data logging



Excella E25



Excella E24

Model	Description	Electrical	Catalog No.	Dimensions (W x D x H)	Platform Size	Weight	Ambient Operating Conditions
E24	Benchtop Incubated $3/4"$ (1.9 cm) Orbit Shaker	120 V, 50/60 Hz	M1352-0000	22 x 30 x 24" (56 x 76 x 61 cm)	18 x 18" (46 x 46 cm)	Net: 133 lbs (60 kg) Gross: 200 lbs (91 kg)	10°C to 35°C Humidity: 20–80% Non-Condensing
		230 V, 50/60 Hz	M1352-0002				
E24R	Benchtop Incubated/Refrigerated $3/4"$ (1.9 cm) Orbit Shaker	120 V, 50/60 Hz	M1352-0004	22 x 30 x 24" (56 x 76 x 61 cm)	18 x 18" (46 x 46 cm)	Net: 175 lbs (79 kg) Gross: 245 lbs (111 kg)	10°C to 35°C Humidity: 20–80% Non-Condensing
		230 V, 50/60 Hz	M1352-0006				
E25	Console Incubated $1"$ (2.5 cm) Orbit Shaker	120 V, 50/60 Hz	M1353-0000	50 x 30.5 x 41.7" (127 x 77.5 x 106 cm)	30 x 18" (76 x 46 cm)	Net: 367 lbs (167 kg) Gross: 527 lbs (239 kg)	10°C to 35°C Humidity: 20–80% Non-Condensing
		230 V, 50/60 Hz	M1353-0002				
E25R	Console Incubated/Refrigerated $1"$ (2.5 cm) Orbit Shaker	120 V, 50/60 Hz	M1353-0004	50 x 30.5 x 41.7" (127 x 77.5 x 106 cm)	30 x 18" (76 x 46 cm)	Net: 431 lbs (196 kg) Gross: 591 lbs (268 kg)	10°C to 35°C Humidity: 20–80% Non-Condensing
		230 V, 50/60 Hz	M1353-0006				

## Benchtop Open-Air Shakers

When built-in temperature control is not required, NBS Excella Open-Air Shakers are the perfect solution. These ruggedly built shakers are ideal for use on the bench, inside incubators, or in a warm or cold room.

- **Flask Capacity:**
  - E1 & E2: For flasks up to 500 mL
  - E5 & E10: For flasks up to 6 Liters
- All but the E1 are microprocessor controlled with digital display
- Analog-controlled E1 provides a low-cost solution for more basic needs
- Calibrate the speed using the microprocessor-controlled keypad\*
- **Agitation:** 50 – 400 rpm,  $\pm 2$  rpm
- **Orbit**
  - E1, E2, E5:  $3/4"$  (1.9 cm)
  - E10:  $1"$  (2.5 cm)



Model	Description	Electrical	Catalog No.	Dimensions (W x D x H)	Platform Size	Weight	Controls
E1	Open-Air Shaker with $3/4"$ (1.9 cm) Orbit	120 V, 50/60 Hz	M1354-0000	15.8 x 17.9 x 8.5" (40 x 45.5 x 21.6 cm)	13 x 11" (33 x 28 cm)	Net: 51 lbs (23 kg) Gross: 60 lbs (27 kg)	Analog
		230 V, 50/60 Hz	M1354-0001				
E2	Open-Air Shaker with $3/4"$ (1.9 cm) Orbit	120 V, 50/60 Hz	M1350-0000	15.8 x 17.9 x 8.5" (40 x 45.5 x 21.6 cm)	13 x 11" (33 x 28 cm)	Net: 52 lbs (24 kg) Gross: 61 lbs (28 kg)	Digital
		230 V, 50/60 Hz	M1350-0001				
E5	Open-Air Shaker with $3/4"$ (1.9 cm) Orbit	120 V, 50/60 Hz	M1355-0000	20.5 x 17.9 x 8.5" (52 x 45.5 x 21.6 cm)	18 x 18" (46 x 46 cm)	Net: 85 lbs (39 kg) Gross: 95 lbs (43 kg)	Digital
		230 V, 50/60 Hz	M1355-0001				
E10	High Capacity Open-Air Shaker with $1"$ (2.5 cm) Orbit	120 V, 50/60 Hz	M1351-0000	30 x 27 x 8.5" (76 x 68.6 x 21.6 cm)	30 x 18" (76 x 46 cm)	Net: 93 lbs (42 kg) Gross: 115 lbs (52 kg)	Digital
		230 V, 50/60 Hz	M1351-0001				

## Accessories, Platforms and Test Tube Racks

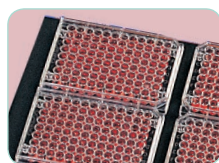
- A. Universal Platform:** Provides flexibility for mixing different sizes of glassware on a single platform (accessory flask clamps, racks and sticky tape/pad, sold separately)
- **Flask Clamps:** Stainless-steel, single-piece construction ensures rigid strength and safety
  - **Sticky Tape:** 16.4' x 1.6" (5 m x 4 cm) roll, ideal for small flasks and speeds up to 250 rpm (M1250-9600)
- B. Dedicated Platform:** Provides maximum capacity when using a single flask size, and comes with clamps installed
- C. Utility Tray:** Quickly place/remove samples on the non-skid mat. For low-speed applications. **Utility Carrier**, not shown, adds 2 adjustable bars
- D. Sticky Pad:** 8" x 8" (20 x 20 cm) pad uses adhesive to secure flasks or racks in place; simply wash to regenerate; for speeds up to 250 rpm (M1200-9700). Requires Adapter Kit
- E. Test Tube Racks:** Mounts to Universal Platforms; thumb screws let you easily adjust the angle of the rack to increase media oxygenation as well as quickly remove the rack holder for transporting tubes from shaker to bench; available in a variety of sizes
- F. Microplate Holders:** Mount to any universal platform for shaking microplates. Microplate Platforms (not shown) are also offered for models E10 and E25



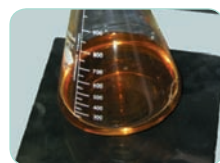
A



B



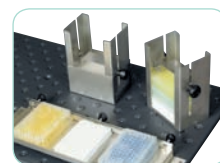
C



D



E



F

## Test Tube Racks

Test Tube Diameter	Small Rack		Medium Rack		Large Rack	
	Capacity	Catalog No.	Capacity	Catalog No.	Capacity	Catalog No.
8 to 11 mm	48	M1289-0001	60	M1289-0010	80	M1289-0100
12 to 15 mm	34	M1289-0002	44	M1289-0020	60	M1289-0200
15 to 18 mm	24	M1289-0003	31	M1289-0030	42	M1289-0300
18 to 21 mm	18	M1289-0004	23	M1289-0040	30	M1289-0400
21 to 26 mm	13	M1289-0005	16	M1289-0050	22	M1289-0500
26 to 30 mm	12	M1289-0006	16	M1289-0060	20	M1289-0600

## Platforms & Flask Clamps

Description	Catalog No.	Used With	10 ml	25 ml	50 ml	125 ml	250 ml	500 ml	1 L	2 L	2.8 L	4 L	6 L	Microplate Holders			
															1 Layer	Stack	
Universal Platforms	M1001-0240	E1, E2	60	20	15	11	6	4								3	
	M1250-9902	E5, E24/24R	109	64	45	21	18	14	8	5	4	4*	2*		2	8	
	M1250-9920	E10, E25/25R			92	39	30	18	12	8	6	6	4	4	4	16	
Dedicated Platforms (clamps included)	AG2-10	E1, E2	60														
	M1190-9919			32													
	M1190-9915				20												
	M1190-9916					12											
	M1190-9917						8										
	M1190-9918							6									
	M1194-9903	E5, E24/24R			64												
	M1194-9904					34											
	M1194-9905						25										
	M1194-9906							16									
	M1194-9907								9								
	M1194-9908										5						
	M1194-9932											4					
	M1191-9908	E10, E25/25R			108												
	M1191-9909					60											
	M1191-9910							40									
M1191-9911								24									
AG-1									15								
AG-2										12							
AG-28											6						
AG-4												6					
AG-6													4				

Flask Clamp Size	10 ml	25 ml	50 ml	125 ml	250 ml	500 ml	1 L	2 L	2.8 L	4 L	6 L	Microplate Holders		
	Catalog No.	ACE-10S	M1190-9004	M1190-9000	M1190-9001	M1190-9002	M1190-9003	ACE-1000S	ACE-2000S	ACFE-2800S	ACE-4000S	ACE-6000S	TTR-221	M1289-0700

\* Model E5 only



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