

12 Technical data

12.1 Specifications

These specifications assume a maximum load of 15.5 kg (34 lb), including platform, clamps, glassware and contents.

Alarms	Visible and audible warning indication when: <ul style="list-style-type: none"> • Speed deviates more than 5 rpm from setpoints • Temperature deviates more than 1 °C from setpoints • Timer has expired Audible alarm can be muted		
LCD display	<ul style="list-style-type: none"> • 240 x 128 backlit 		
RS-232	<ul style="list-style-type: none"> • Remote control • Remote monitoring • Remote data logging 		
Setpoint retention	<ul style="list-style-type: none"> • All setpoints and operating status are retained in non-volatile memory 		
Automatic restart	<ul style="list-style-type: none"> • Automatic restart after power is restored • Restart indicated by flashing display 		
Stacking	<ul style="list-style-type: none"> • Up to 3 units may be stacked • Second and third units require stacking kit(s) 		
Drive	<ul style="list-style-type: none"> • Triple-eccentric counterbalanced drive • 9 permanently lubricated ball bearings 		
Drive motor	<ul style="list-style-type: none"> • Solid-state brushless DC motor 		
Safety	<ul style="list-style-type: none"> • <i>Drive interrupt</i> shuts off power to shaker when door opens • Acceleration/deceleration circuit prevents sudden starts and stops, minimizing both splashing and mechanical damage • Independent mechanical sensing switch shuts the motor off in unbalanced condition 		
Electrical requirements	100 V, 50Hz	44: 800 VA per shaker 44R: 1500 VA per shaker	
	100 V, 60 Hz		
	120 V, 60 Hz		
	230 V, 50 Hz		
ETL regulatory standards	UL 61010A-1, CAN/CSA-C22.2 No. 1010.1 UL 61010A-2-010, CAN/CSA-C22.2 No. 1010.2.010		
CE regulatory standards	!Invalid cross reference to: D-NBS-007910.1		
Chamber dimensions	Width	Depth	Height
	91 cm (36 in)	66 cm (26 in)	46 cm (18 in) from top of platform
Chamber door	<ul style="list-style-type: none"> • Door glides out and up 		

Technical data

New Brunswick Innova® 44/44R Shaker
English (EN)

Platform	<ul style="list-style-type: none"> Aluminum 46 × 76 cm (18 × 30 in) Select universal or dedicated styles <p>PLEASE NOTE: Innova 44 and 44R platforms are NOT interchangeable with platforms from other New Brunswick shakers.</p>
Altitude Limit	<ul style="list-style-type: none"> 2000 meters

12.1.1 Shaking ¹

Speed	<ul style="list-style-type: none"> 25 – 400 rpm with 2.5 cm (1 in) orbit 25 – 300 rpm with 5.1 cm (2 in) orbit or with 2 units stacked 25 – 250 rpm for 3 units stacked
Control accuracy	<ul style="list-style-type: none"> ±1 rpm
Indication	<ul style="list-style-type: none"> Displayed in 1 rpm increments
Stroke/orbit	<ul style="list-style-type: none"> 2.5 cm (1 in) 5.1 cm (2 in)

¹ Use of baffled flasks will significantly reduce maximum speed for any shaker

12.1.2 Temperature ²

Range (44)	<ul style="list-style-type: none"> 5 °C above ambient temperature to 80 °C
Range (44R)	<ul style="list-style-type: none"> 20 °C below ambient temperature (minimum 4 °C) to 80 °C
Control accuracy	<ul style="list-style-type: none"> ±0.1 °C from 30 – 40 °C ±0.5 °C over the remaining range
Indication	<ul style="list-style-type: none"> Displayed in 0.1 °C increments
Heater	<ul style="list-style-type: none"> Long-life Low-watt density resistance-type High temperature thermostat

² Depending on ambient factors, such as relative humidity, and options installed

12.1.3 Unit dimensions ³

	Single unit	2 units	3 units
Width	135 cm (53 in)	135 cm (53 in)	135 cm (53 in)
Depth	84 cm (33 in)	84 cm (33 in)	84 cm (33 in)
Height	66 cm (26 in)	132 cm (52 in)	198 cm (78 in)

³ Add 53 cm (21 in) to height and 15.2 cm (6 in) to depth for door clearance

12.1.4 Gross weight

44	238 kg (525 lb)
44R	259 kg (570 lb)
Short base	16.4 kg (36 lb)
Medium base	40.9 kg (90 lb)
Tall base	57.3 kg (126 lb)