8   Technical data

8.1   Specifications

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

Shaking	
Speed	• Single unit: 25 – 400 rpm • 2 or 3 units stacked: 25 – 250 rpm
Control accuracy	• ±1 rpm
Indication	• 3 digit LED, in 1 rpm increments
Stroke/orbit	• 2.5 cm (1 in)

Temperature	
I26 range	• 5 °C above ambient temperature to 60 °C
I26R range	• 15 °C below ambient (minimum 4 °C) to 60 °C
Control accuracy	• ±0.1 °C from 30 °C – 40 °C, ±0.5 °C over the remaining range
Indication	• 3 digit LED, in 1 rpm increments
Heaters	• Long-life, low-watt density resistance type heaters with high temperature thermostats

Dimensions and weight			
	Single unit	**2 units**	**3 units**
Width	127 cm (50 in)	127 cm (50 in)	127 cm (50 in)
Depth	77 cm (30.26 in)	77 cm (30.26 in)	77 cm (30.26 in)
Height	70 cm (27.56 in)	140 cm (52.62 in)	210 cm (77.68 in)
Chamber width	• 86.4 cm (34 in)		
Chamber depth	• 58.4 cm (23 in)		
Chamber height	• 39.4 cm (15.5 in) clearance above platform		
Platform width	• 76 cm (30 in)		
Platform depth	• 46 cm (18 in)		
Weight	• I26 weight: 167.8 kg (370 lb) • I26R weight: 181.5 kg (400 lb)		

Altitude limit	• 2000 m

Alarms	• Visible and audible warning indication when speed deviates more than 5 rpm from setpoint • Visible and audible warning indication when temperature deviates more than 1 °C from setpoints • Visible and audible warning indication when timer has expired • Audible alarm can be muted • Visual tilt alarm when the shaker is out of balance
LED display	• Indicates speed • Indicates temperature • Indicates running time alarm conditions • Displays readout of internal clock (actual accumulated operating time) • Character height: 14.3 mm (9/16 in)
RS-232	• Provides access for remote data logging
Setpoint retention	• All setpoints and operating status are retained in non-volatile memory
Automatic restart	• After power is restored • Indicated by a flashing display
Stacking	• Up to 3 units may be stacked • Second and third units require stacking kits
Drive	• Triple eccentric counterbalanced drive • 9 permanently lubricated ball bearings
Drive motor	• Solid-state brushless DC motor
Safety	• Independent mechanical sensing *tilt switch* shuts off the motor in an unbalanced condition • Drive Interrupt shuts off power to shaker when door opens • Acceleration/deceleration circuit prevents sudden starts and stops, minimizing both splashing and mechanical damage
Electrical requirements	• 100 V, 50/60 Hz I26: 800 VA per shaker • 120 V, 60 Hz I26R: 1500 VA per shaker • 230 V, 50 Hz
ETL regulatory standards	• UL61010A-1 • CAN/CSA-C22.2 No 1010.1 • UL61010A-2-010 • CAN/CSA-C22.2 No 1010.2.010
CE regulatory standards	See Declaration of Conformity
Fuses	• (2) 8.0 A, 250 V, Slo-Blo®

8.2 Platform capacity

Universal platforms have multiple holes enabling you to mount an assortment of flask clamps or other accessories on a single platform. The capacities shown below reflect the maximum number of flasks in a given size that fits on the platform in a balanced pattern. Universal platforms, clamps, and accessories are sold separately.

When just one size flask is used on the shaker, (i.e., 250 mL flasks), dedicated platforms come with flask clamps already mounted. Dedicated platforms generally hold a greater number of flasks than the universal platform, but do not offer the versatility.

WARNING!

▸ Do not use this equipment with accessories not provided or recommended by Eppendorf, or used in a manner not specified by Eppendorf and this manual. Protection provided by the equipment may be impaired, and serious injury or death can occur.

The following table shows a list of the maximum flask capacity for both dedicated and universal platforms that measure 76 cm × 46 cm (30 in × 18 in).

Tab. 8-1: Platform capacity

Flask size	Dedicated platform	Universal platform
10 mL	--	187
25 mL	--	93
50 mL	--	93
125 mL	60	39
250 mL	40	30
500 mL	24	24
1 L	15	12
2 mL	12	8
2.8 L	6	6
Large test tube rack	--	7
Medium test tube rack	--	9
Small test tube rack	--	9
Microplate rack (stack)	--	16
Microplate rack (1 layer)	--	4

8.3   Load and speed graphs

These graphs show the maximum recommended speed for unstacked and stacked shakers, according to load.

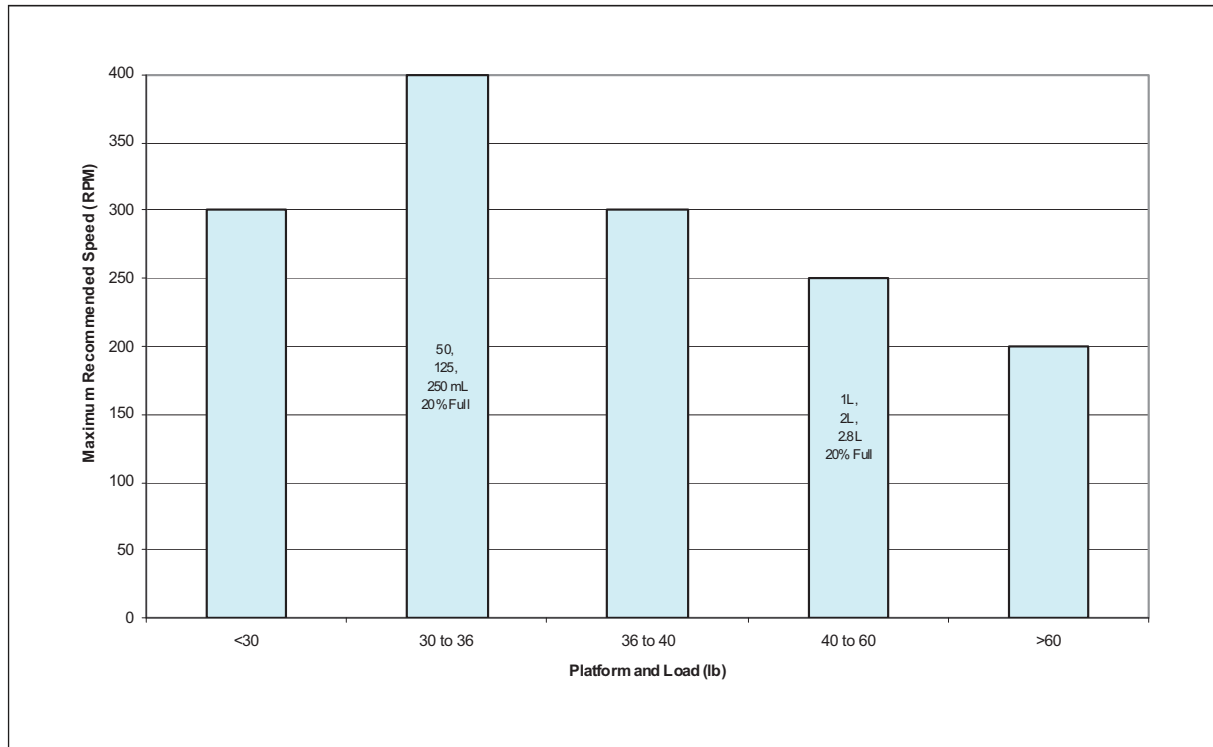> In both figures, *20 % full* refers to the amount of liquid in the flasks. The platforms are fully loaded with flasks.

Fig. 8-1:   Load and speed for 1 unstacked shaker