

## 6 SPECIFICATIONS

*This chapter provides technical details of interest, but not necessarily essential for operation of the instrument.*

<b>SHAKING</b>	
<b>Speed</b>	25-500 RPM
<b>Motion</b>	1 inch (25.4 mm) diameter circular orbit
<b>Indication</b>	LED digital electric display, 1 RPM increments
<b>Setpoint &amp; Control</b>	Digital adjustment with PI microprocessor control and instantaneous visual feedback
<b>Accuracy</b>	$\pm 1$ RPM
<b>DRIVE</b>	
Triple eccentric counterbalanced ball bearing drive.	
<b>TEMPERATURE</b>	
<b>Range</b>	5.0°C above ambient to 60°C
<b>Control Stability</b>	$\pm 0.1^\circ\text{C}$ by use of PI microprocessor controller and pulse width modulation of heater
<b>Setpoint</b>	Digital adjustment increments within 0.1°C instantaneous visual feedback
<b>Accuracy</b>	$\pm 0.1^\circ$ @ 30-40°C range $\pm 0.25^\circ\text{C}$ for remaining range
<b>Uniformity</b>	Better than $\pm 0.25^\circ\text{C}$ over entire range
<b>Safety</b>	Heater shuts off if temperature exceeds operating range
<b>Heater</b>	Low watt density resistance heater with high temperature safety thermostat
<b>TIMER (Shaker)</b>	
<ul style="list-style-type: none"> <li>• Programmable shaking periods from 0.1 hour to 99.9 hours by a digital timer that shuts off at the end of period and energizes status light.</li> <li>• Timer counts down and digital display indicates remaining time. Can be deactivated for continuous operation.</li> <li>• Additionally, unit will display total accumulated running time for service information.</li> </ul>	
<b>AMBIENT OPERATING ENVIRONMENT</b>	
0° - 40°C, 90% humidity, non-condensing	
<b>SELF-DIAGNOSTIC STATUS</b>	
Warning signal (audible and visible) indicates when shaking speed deviates more than 5 RPM or the temperature deviates more than 1.0°C from setpoint and when timer operation has expired. The audible alarm can be deactivated/activated by the operator.	
<b>REMOTE MONITORING</b>	
<ul style="list-style-type: none"> <li>• Chart recorder outputs for speed and temperature (0-5V).</li> <li>• 1V per 100 RPM; 1V per 20°C, accuracy <math>\pm 25\text{mV}</math>.</li> </ul>	

<b>AUTOMATIC RESTART</b>		
<ul style="list-style-type: none"> <li>• Unit will automatically restart after undesired power interruption.</li> <li>• Setpoints are maintained by non-volatile memory.</li> <li>• Interruption is indicated by a flashing display.</li> </ul>		
<b>AUTOMATIC DRIVE</b>		
Interrupt when lid is opened.		
<b>MOTOR</b>		
1/8 HP, 3-phase brushless ball bearing DC motor.		
<b>ELECTRICAL SERVICE</b>		
<ul style="list-style-type: none"> <li>• 100V, 120V, 220V, 240V</li> <li>• 50 or 60 Hz</li> <li>• 700 VA Universal power entry system adapts to U.S. or International requirements.</li> </ul>		
<b>DIMENSIONS</b>		
<b>Width</b>	43 inches	109 cm
<b>Depth</b>	28 inches	71 cm
<b>Height</b>	37 inches	94 cm
<b>PLATFORM DIMENSIONS</b>		
	18 inches x 30 inches	46 cm x 74.6 cm
<b>CHAMBER DIMENSIONS (Interior)</b>		
<b>Width</b>	34 $\frac{3}{4}$ inches	88.3 cm
<b>Depth</b>	22 $\frac{1}{4}$ inches	56.6 cm
<b>Clearance (above platform)</b>	19 $\frac{1}{4}$ inches	48.9 cm
<b>CONSTRUCTION</b>		
<ul style="list-style-type: none"> <li>• Heavy gauge steel, phosphate-coated and texture-painted cabinet.</li> <li>• 17-inch hermetically sealed double-pane viewing window for complete chamber visibility.</li> <li>• Stainless steel chamber (interior).</li> </ul>		
<b>WEIGHT</b>		
<b>Net</b>	398 lbs	181 kg
<b>Gross</b>	490 lbs	223 kg