

# ASAP 2020™ Chemisorption

<p><b>Pressure Measurement</b></p>	<p><b>Range:</b> 0 to 950 mmHg</p> <p><b>Resolution:</b></p> <table border="0"> <tr> <td>1000-mmHg Transducer</td> <td>0.001 mmHg (Analysis system) 1 mmHg (Degas system)</td> </tr> <tr> <td>10-mmHg Transducer*</td> <td>0.00001 mmHg</td> </tr> <tr> <td>1-mmHg Transducer**</td> <td>0.000001 mmHg</td> </tr> <tr> <td>0.1-mmHg Transducer***</td> <td>0.0000001 mmHg (optional for high stability)</td> </tr> </table> <p><b>Accuracy</b> (Analysis system only): Includes nonlinearity, hysteresis, and nonrepeatability. Transducer manufacturer's specifications.</p> <table border="0"> <tr> <td>1000-mmHg Range</td> <td>Within 0.15% of reading</td> </tr> <tr> <td>10-mmHg Range*</td> <td>Within 0.15% of reading</td> </tr> <tr> <td>1-mmHg Range**</td> <td>Within 0.12% of reading</td> </tr> <tr> <td>0.1-mmHg Range***</td> <td>Within 0.15% of reading</td> </tr> </table> <p>* High Vacuum systems, **Micropore systems, ***Micropore with 0.1 torr transducer</p>	1000-mmHg Transducer	0.001 mmHg (Analysis system) 1 mmHg (Degas system)	10-mmHg Transducer*	0.00001 mmHg	1-mmHg Transducer**	0.000001 mmHg	0.1-mmHg Transducer***	0.0000001 mmHg (optional for high stability)	1000-mmHg Range	Within 0.15% of reading	10-mmHg Range*	Within 0.15% of reading	1-mmHg Range**	Within 0.12% of reading	0.1-mmHg Range***	Within 0.15% of reading
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<p><b>Vacuum System</b></p>	<p><b>Vacuum Pump:</b> Mechanical, two-stage, for analysis; optional for degas. Ultimate vacuum <math>5 \times 10^{-3}</math> mmHg. Dry pumps available for systems equipped with optional High Vacuum pump.</p> <p><b>High Vacuum Pump:</b> (if installed): Less than <math>3.8 \times 10^{-9}</math> mmHg. Ultimate vacuum measured by pump manufacturer according to Pneurop Standard 5608.</p> <p><b>Vacuum Pump Exhaust</b> <b>Analysis:</b> a 12.5-mm (1/2-in.) fitting is provided for the analysis pump to allow connection to a fume hood. <b>Degas:</b> An oil mist filter is provided.</p>																
<p><b>Manifold Temperature Transducer</b></p>	<p><b>Type:</b> Platinum resistance device (RTD)</p> <p><b>Accuracy:</b> <math>\pm 0.02</math> °C</p>																
<p><b>Degas System</b></p>	<p><b>Temperature Range:</b> Ambient to 450 °C</p> <p><b>Selection:</b> 1 °C increments</p> <p><b>Accuracy:</b> Within <math>\pm 4</math> °C of set point at thermocouple</p> <p><b>Backfill Gas:</b> User-selectable, typically helium or nitrogen</p>																
<p><b>System Capacity</b></p>	<p><b>Sample Preparation:</b> 2 degas ports (optional)</p> <p><b>Analysis:</b> 1 sample port</p> <p><b>Total Operating Capacity:</b> Up to two analysis units can be controlled independently by one computer</p>																
<p><b>Sample Temperature Control System</b></p>	<p><b>Temperature Range:</b> 10° above ambient to 1100 °C</p> <p><b>Rate Selection:</b> Heat ramp rate controllable from 1 to 20 °C per minute to 800 °C, 10 °C per minute to 1000 °C, 5 °C per minute to 1100 °C</p> <p><b>Temperature Selection:</b> 1 °C increments</p> <p><b>Accuracy:</b> Within <math>\pm 5</math> °C</p> <p><b>Stability:</b> (Furnace) Within <math>\pm 1</math> °C controller manufacturer's specifications.)</p>																
<p><b>Sample Tube Size</b></p>	<p>Flowthru™ sample tube stems are 1/2-in. (12.5-mm) OD with exhaust path for flow-through preparation. Standard flowthru tubes are quartz for use up to 1100 °C.</p>																

<b>Environment</b>	Temperature: 10 to 30 °C operating -10 to 55 °C storing or shipping Humidity: 20 to 80% relative, noncondensing
<b>Electrical</b>	Voltage: 100, 115, 230 VAC ±10% Frequency: 50/60 Hz Power: 700 VA, operating
<b>Gases</b>	Recommended: Helium for free-space measurement and flowing preparation. Oxygen and hydrogen for flowing preparation. Hydrogen, carbon monoxide, and others for analysis.
<b>Computer Hardware and Software</b>	CD-ROM drive 512 megabytes of main memory 20-gigabyte hard drive SVGA monitor (1024 x 768 minimum resolution) Windows Vista, Windows XP, or Windows 7
<b>Physical</b>	Height: 99 cm (39 in.) Width: 85 cm (33.5 in.) Depth: 61 cm (24 in.) Weight: 115 kg (250 lbs)

*In keeping with a policy of ongoing product improvement, specifications are subject to change without notice.*