

## Autotap™ and Dual Autotap™: Tap Density Analyzers

The apparent densities of powdered, granular or flaked materials are highly dependent on the manner in which the particles are packed together. During tapping, smaller particles distribute into the spaces between larger particles. Gradually particles pack more efficiently, the powder volume decreases and the tap density increases, often by 50% to 100%.

For this measurement, Quantachrome has developed two instruments which conform to the British Pharmacopoeia method for Apparent Volume and ASTM standard test methods B527, D4164 and D4781 for Tap Density. These two models, the **Autotap** and the two sample **Dual Autotap**, automate the required procedures to provide accurate, reproducible values.

Samples are placed in standard graduated cylinders and mounted on a universal tap platform designed to accommodate cylinders from 10 ml to 1000 ml. Rotation of the tap platform facilitates reading by keeping a flat interface. After noting the initial volume and weight of the material, tapping is started.

If the material characteristic is unknown, tapping may be done continuously, or step-wise by user specified numbers of taps, while noting or graphing the results until the volume becomes constant. In either case the number of taps is displayed. Once the material characteristic is known the proper number of taps, typically thousands, can be preset on subsequent runs thus freeing the operator for other work.



## Specifications

<b>Graduated Cylinders(s) provided</b>	250 ml*	<b>Dimension</b>	<b>Length</b>	<b>Width</b>	<b>Height</b>
<b>Cam Shaft Speed</b>	260 rpm	inches	11	21	6
<b>Tap Stroke Travel</b>	0.125 inch, 3.18 mm	centimeters	28	54	15
<b>Electrical</b>	115 V, 60 Hz	<b>Weight</b>	<b>SINGLE</b>		<b>DUAL</b>
<b>Tap Counter</b>	4 digit (0-9999)	pounds	25.1		27.9
		kilograms	11.4		12.7

\* 10 ml, 25 ml, 50 ml, 100 ml, 500 ml and 1000 ml cylinders are also available.