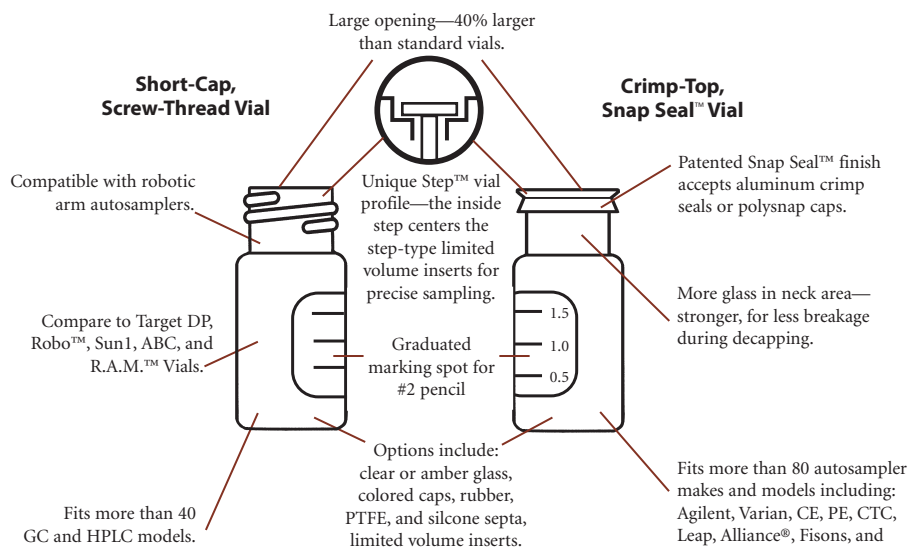


### The Ultimate Autosampler Vials

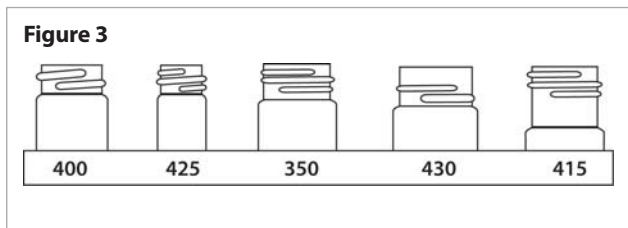
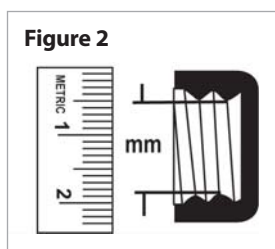
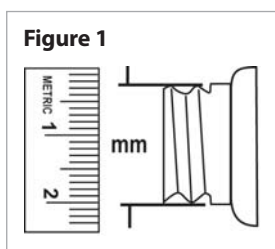


### How to Measure for Vial, Cap, Liner, and Seal Selection

Bottles and caps are described with a two part number system referred to as the Finish\* (e.g., 13/425). The first number represents the neck size of the vial or cap in millimeters.

The vial is measured from the outside edge of the threads on one side to the outside edge of the threads on the opposite side (Figure 1). The cap is measured from one side of the inner wall to the opposite side of the inner wall (Figure 2).

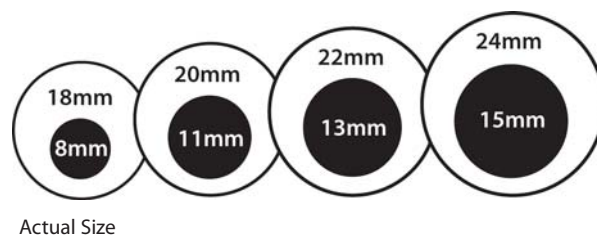
The second number describes the thread pattern and assures that the bottle and cap will fit together (Figure 3).



\*Finish sizes are standardized and controlled by GCM (Glass Container Manufacturers Institute). Both cap and vial manufacturers use these specifications.

Liner size can be determined by comparing liners or crimp seals to the measured circles (Figure 4). The seals will be slightly larger than the circle size measured for the liner.

**Figure 4**  
Liner thickness is measured in mils: 1 mil = 0.001 inch



With combination liners (e.g., TFE/silicone, 5/55), the numbers represent the thickness of the individual components of the liner in mils. This same liner could be described as 0.060" or 60 mil.

Durometer or hardness of liner material is referred to as "shore" and is an important consideration in working with some autosamplers (45-60 shore is the typical range for autosampler liners). Liners with slits or molded starburst patterns (Figure 5) allow easier needle penetration which can prevent needles from bending or jamming on the autosampler arm.

