Introduction

With the ever increasing variety of vessels being used in the sciences, Stuart® offers a range of mixing products to give you the ideal solution. Each entry also has a symbol to show the type of mixing (see page 141 for guide). Some products also have a timer.

Rollers

A roller mixer is ideal for a gentle mixing action. It consists of a number of motor driven rollers which rotate at either a fixed or variable speed. When the samples are placed between these rollers, typically in tubes or bottles, they are gently rolled. During this rolling action, simultaneously a rocking action is applied whereby the rollers are gently raised and lowered at one end. This increases the effectiveness of the mixing whilst still providing a subtle mixing action. Ideal for mixing blood samples, viscous substances and liquid-solid suspensions where minimum aeration is required or for aiding de-frosting of samples.

SRT6D
Tube roller

Rotators

Mixing by rotation is more vigorous than a roller mixer, typically the sample, in either tubes or bottles, are turn end-over-end. Rotators can be based on a rotisserie type design whereby a single axis is rotated and samples are attached to this by a variety of different methods. Alternatively, a rotator can take the form of a disk rotated around its central point; samples are attached to the edge of the disk, this form of rotator is less vigorous than the rotisserie style as the angle of the disk can be lowered to lessen the end over end action. Speed adjustment is available in both types to alter the severity of the mixing action. Ideal for aerating cultures, keeping biological samples in suspension and for general mixing applications including smaller samples held in 1.5ml micro tubes.

Vortex Mixers

Vortex mixers have an electric motor with the drive shaft oriented vertically and attached to a cupped rubber piece mounted slightly off-centre. As the motor runs the rubber piece oscillates rapidly in a circular motion. When a test tube or other appropriate container is pressed into the rubber cup (or touched to its edge) the motion is transmitted to the liquid inside and a vortex is created. Most vortex mixers have variable speed settings and can be set to run continuously, or to run only when downward pressure is applied to the rubber piece. It is an ideal mixing action for re-suspending pellets, vortexing cell suspensions or drug extractions, mixing tissue samples, enzymatic and RIA assays.

SB2
Rotator

All mixers are provided with BioCote® antimicrobial protection. See page 130 for more information.