

Streamer® Shear Stress Device (STR-4000)

Apply fluid shear stress to cells with laminar, pulsatile, or oscillating flow

- Parallel-plate flow system used to apply fluid-induced shear stress to cells grown in a monolayer.
- Includes a six-chamber laminar flow device and can be used to apply laminar, pulsatile*, or oscillating* flow to cells cultured on special matrix coated PTFE rimmed 25 x 75 x 1 mm Culture Slips® (page 28).
- Regulation of shear stress from 0 - 35 dynes/cm² by computer-controlled peristaltic pump.
- Analyze effects of fluid flow on cell alignment, mRNA and protein expression, and signaling pathways.
- Remove quick disconnect fittings for easy cleaning after use.
- Streamer® device is autoclavable.
- Run up to six slides at one time.
- Comes with two pulse dampeners.

- Streamer® System includes:
 - Streamer® device
 - Notebook computer
 - Tubing and quick disconnects
 - Peristaltic pump
 - StreamSoft™ software
 - Two pulse dampeners
 - 12 Culture Slips®

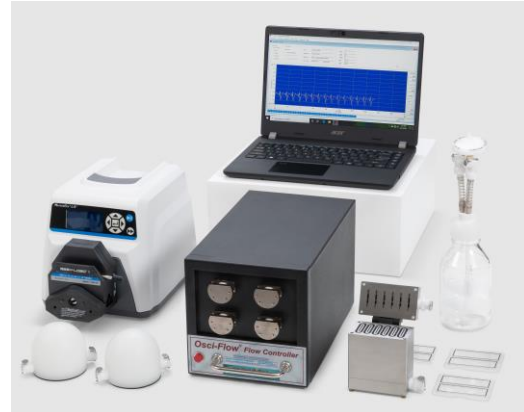


Figure 29. Streamer® Shear Stress Device

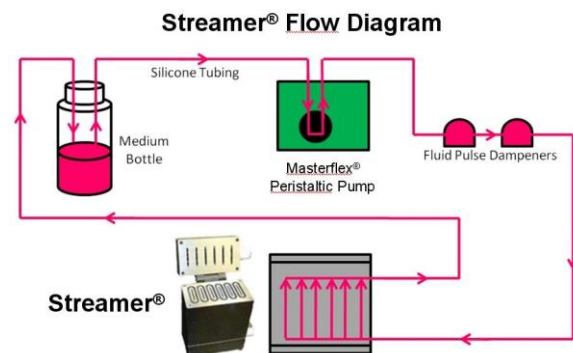


Figure 30. Streamer® system set-up without Osci-Flow® Controller

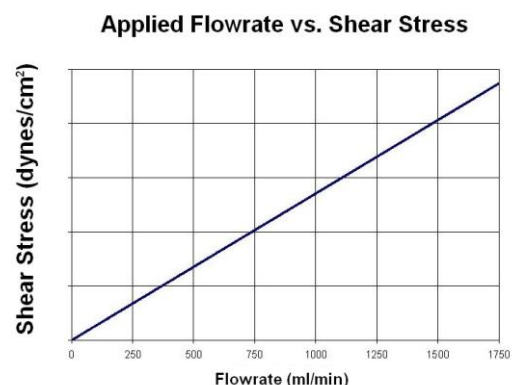


Figure 31. Representative graph of applied fluid shear stresses for a given pump flow rate for cells cultured on Culture Slips® and placed within the Streamer® device

*In order to apply pulsatile or oscillating flow the Osci-Flow® (page 16) is required. Osci-Flow® needs to be ordered separately in addition to the Streamer® System.