FLEXCELL® FX-5000™
Tension System

(cat. no. FX-5000T)

Apply equibiaxial or uniaxial tension to cells in 2D or 3D culture.

- Computer-regulated bioreactor that applies cyclic or static tensile strains to cells cultured *in vitro*.

- Uses regulated vacuum pressure to deform flexible-bottomed culture plates producing up to 33 % substrate elongation.

- Simulate *in vivo* tissue strains and frequencies in cells from muscle, lung, heart, blood vessels, skin, tendon, ligament, cartilage, and bone.

- Contains state-of-the-art digital valve to automatically regulate and maintain pressure to provide the specified strain regimen.

- Works with BioFlex, TissueTrain, UniFlex series culture plates.

- Multiple frequency, amplitude and waveform changes can be programmed in one regimen (Fig. 3).

- Uses cylindrical or Arctangle Loading Posts to provide equibiaxial or uniaxial strain, respectively.

- Apply gradient biaxial strain (unconstrained distention) by removing Loading Stations.

- Drives up to four independent FlexLink remote compression and/or tension controllers.

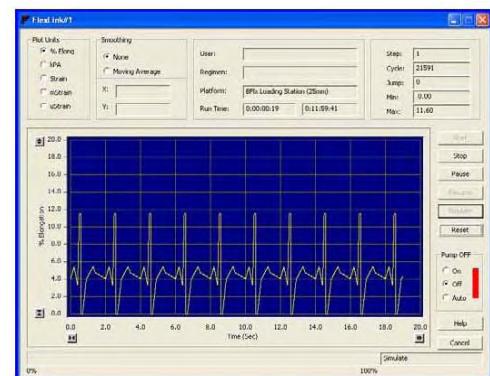- Better control of waveforms at low and high amplitudes.

Figure 3. Waveform plot showing typical heart waveform.

Waveforms available:
- *Static*
- *Sinusoidal*
- *Heart Stimulation*
- *Triangular*
- *Square*
- *Custom*

FX-5000 Tension System includes:
- Host computer with 17" flat panel monitor
- FlexSoft FX-5000 software
- FX5K™ Tension FlexLink
- Tension accessory package:
  - BioFlex Baseplate and four gaskets
  - BioFlex Loading Stations with 25 mm diameter Loading Posts
  - Four BioFlex culture plates
  - Drying filter, water trap, vacuum tubing, and grease/lubricant