

Mechanical stimulation for cell culture

The simplest and most versatile mechanical stimulation bioreactor upgraded!



Designed to reproduce the mechanical growth conditions of a wide variety of tissues, **now** with extended capabilities:

- Force measurement
- Tension/compression + flow
- Tension/compression + electrical stimulation
- Hydrostatic pressure

Put aside other rigid and hard to use mechanical testing devices and save time and money with the TC-3 system: the cell culture mechanical stimulation system designed for cell culture.

A highly customizable mechanical stimulation system

KEY FEATURES

- Upgradable modular system
- Multi-chamber
- Horizontal and vertical working configurations
- A wide variety of chambers and grips available
- Lightweight and compatible with standard incubators
- Compact autoclavable chambers with small volume
- Medium renovation and instrumentation ports available upon request
- Optimized sample visualization



STIMULATION CONDITIONS

Configure your system to obtain a multitude of stimulation conditions.

- Tension and compression. Obtain physiological deformation conditions for almost any kind of scaffold.
- Tension and flow. Ideal stimulation conditions for tubular scaffolds.
- Compression and flow. Use the TC-3 to simulate the deformation conditions in bone scaffolds.
- Hydrostatic pressure. Up to 4 bar of hydrostatic pressure stimulation.
- Electrical stimulation. Use the electrical stimulation module in combination with the TC-3 to obtain coordinated mechanical and electrical stimulation.



The most adequate stimuli for every kind of tissue with a single device

	Stimulus						Measure	
Tissue	Tension	Compression	Flow	Electrical	Hydrostatic pressure	Air-Liquid interface	Force	Pressure
Skin	х	-	x	-	-	х	х	-
Membranes	x	-	x	x	-	x	x	-
Ligaments	x	-	-	-	-	-	x	-
Tendons	x	-	-	-	-	-	x	-
Bone	-	x	x	-	-	-	x	-
Cartilage	-	X	x	-	X	-	x	х
Blood vessels	x	-	x	-	-	-	x	-
Heart tissue	x	-	x	x	-	-	x	-

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