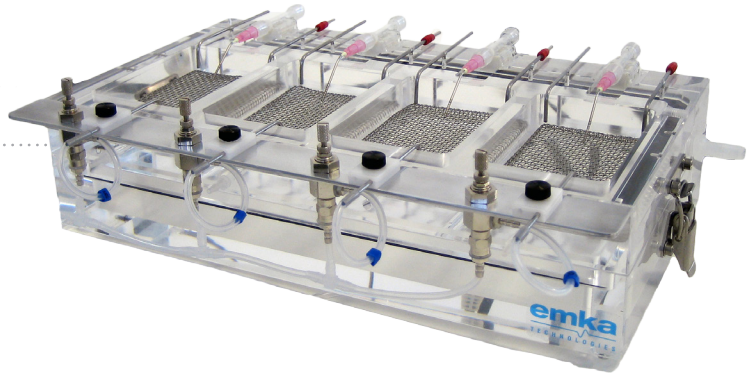
Perfusion SYSTEM

PERFUSION SYSTEM FOR MESENTERIC BEDS

Study the effect of vasoactive substances and electrical stimulation

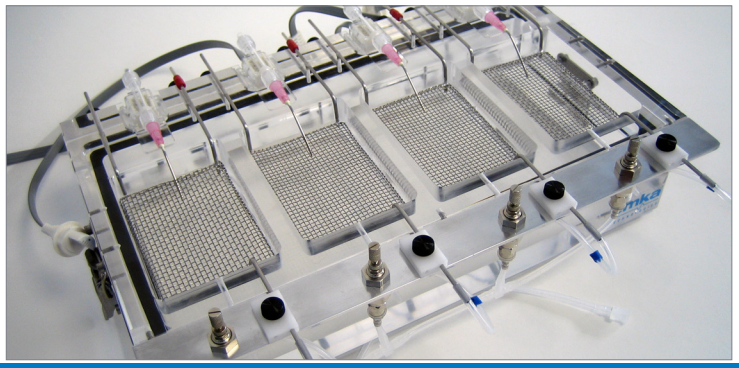


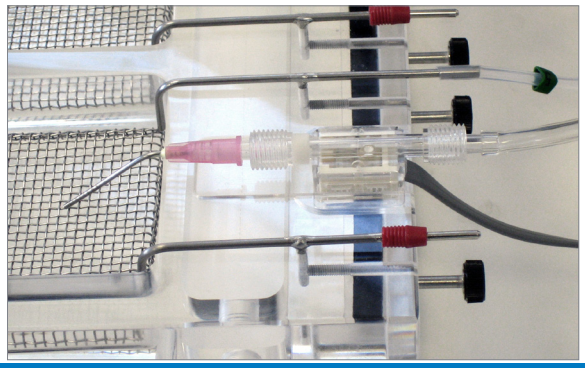
FEATURES & BENEFITS

- Up to 4 mesenteric beds may be studied
- Perfusate flow rate from 5 to 20 ml/min
- Several small cannulas to suit different artery sizes
- Easy to manipulate stainless steel grids
- Adjustable bath heights and volumes
- Adjustable carbogen supply
- Easy maintenance
- Compact
- Optional electrical stimulation through stainless steels beds
- One protocol for each organ (different flow rate from one bath to another, simultaneous or staggered perfusion…)

PRINCIPLES

- Each organ lies on a stainless steel grid and bathes in a buffer solution
- The organ is perfused at a constant flow rate via its artery
- Buffer flow rate 5 to 10 times greater (max 150ml/min) than perfusion flow in order for perfusion to fully infuse bath liquid
- Pressure is measured just upstream of the cannula, reflecting changes in vascular tone
- Buffer solution maintained at the right temperature with heated water, circulating behind the bath walls
- Carbogen is released directly into the buffer solution





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SETUP

- 4 independent tissue baths (90 x 60 x 20 mm)
- Flow regulator (peristaltic pump)
- Heater/pump for heating circuit
- Amplifier

ACQUISITION & REAL-TIME ANALYSIS

The system can be used with emka TECHNOLOGIES's iox2 software:

- Perfusion pressure measured upstream of each mesenteric bed is acquired
- iox' analyzer generates an average value based on user-defined intervals
- External devices control
- Protocols, to automate the experiment