

# Flow battery test equipment

Research tool proven by thousands efficient cycles



## Lab-scale

Pinflow test equipment comprises two classes. Lab-scale test rig (dimensions 55x55x90 cm) is tailored for one or two Pinflow battery lab-cells. Use for direct proof-of-concept measurement for new chemistries or material research of components.



## Pilot-scale

Characterization of stacks or engineering research of redox flow battery scale-up may be faster with Pinflow pilot-scale test rig (dimensions 75x120x125 cm). Together with stack may be used as working prototype of redox flow battery.





Scale up those things that do work info@pinflowes.com



## Lab-scale test rig

Peristaltic pumps with flow rate up to 300 cm<sup>3</sup> min<sup>-1</sup>

Temperature control from -5 to +50 °C

Battery cycler (on demand power)

Sensors

Optimized for two Pinflow battery lab-cells

## Pilot-scale test rig

Centrifugal pumps on vessels (2x150 dm<sup>3</sup>)

Battery cycler (up to 10 kW)

Temperature control

Sensors

Control software and hardware





## Available sensors

Temperature (cell in, cell out, vessel, surrounding)

Open circuit voltage (cell in, cell out)

Open circuit potential

Pressure (cell in, cell out)

Ultraviolet-visible spectroscopy (stream, vessel)

Conductivity (stream, vessel)

Leak detection

Electrolyte level indication

Information subject to change without notice.





