



# Flow battery lab-cell

Research tool proven by thousands efficient cycles



## Easy to handle

Laboratory flow battery single-cell is made of PVC (may be changed). Our cells do not exhibit any external or internal leakages of electrolytes. Assembly of our cells is easy to assure everyday testing of your materials and electrolytes. The work can be more easier with our fast clamping system for stack assembly.



## Optimized design

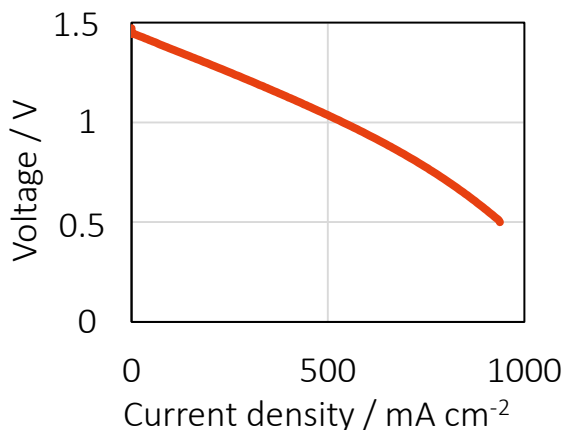
Outer construction: 144 x 134 x 60 mm  
 Electrode zone: 40 x 50 x 3.75 (or 5.00) mm  
 Cell architecture can be modified on your demand. Connection to electrolyte circuits is assured by internal thread G1/8" or by polypropylene fitting for 6/4 mm hose.



## Under load

Load curve is measured with standard vanadium electrolytes at 50% SoC. Our cells are unique due to low internal resistance. More data from our research collaboration:

<https://doi.org/10.1016/j.memsci.2018.02.011>  
<https://doi.org/10.1016/j.jpowsour.2018.01.079>

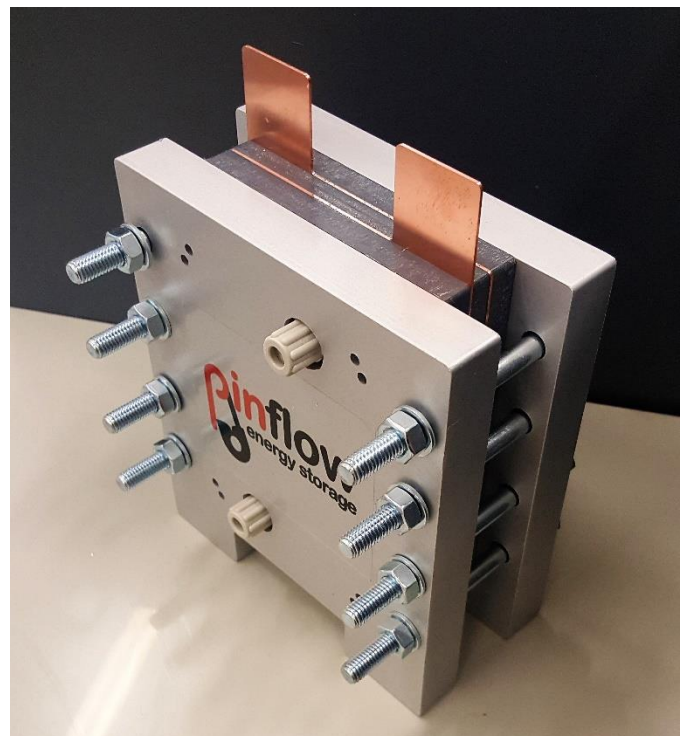


## Lab-cell package content

- Construction plate (2 pcs)
- Insulating plate (2 pcs)
- Copper current collector plate (2 pcs)
- Composite bipolar plate (carbon-polyolefin) for standard felt compression (3 pcs)
- Gasket (flat, polyolefin) (5 sets)
- Spacer (2 pcs) + flow distributors (4 pcs)
- Screws and nuts M8
- Instruction manual

Let your research flow

[info@pinflowes.com](mailto:info@pinflowes.com)



## Cells

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20 cm<sup>2</sup> active area, PVC body, 1 cell, 3.75 mm

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20 cm<sup>2</sup> active area, PVC body, 1 cell, 5.00 mm

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20 cm<sup>2</sup> active area, PVC body, 5 cell stack, 3.75 mm

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Additional internal cell for 5 cell battery

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## Accessories

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Vessels + tailored lids

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Stand for cell assembly

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Small laboratory press for compression

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Fast clamping system for single-cell

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## Consumable components

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Set of carbon composite plates for standard compression (2 plates)

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Set of carbon composite plates for on demand compression (2 plates)

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Set of bipolar plates for variable compression in range 0 – 50 % with step of 10 or 5 % (12 or 22 plates)

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Set of gaskets (4 pcs)

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Set of copper current collectors (2 pcs)

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On demand modification of cell architecture and components

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Information subject to change without notice.

