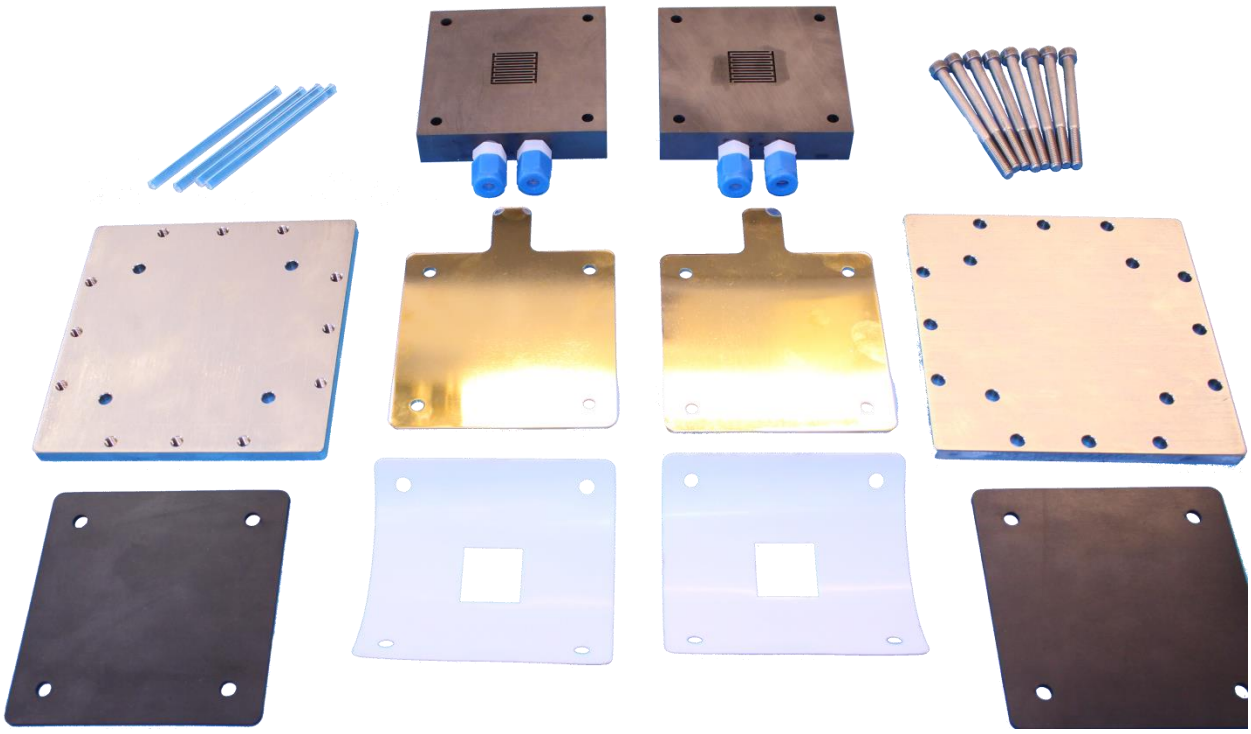
Flow cell assembly manual



Parts in the box

4 Plastic aligners

2 Graphite blocks w/ machined flow fields and tube fittings

8 M6 bolts

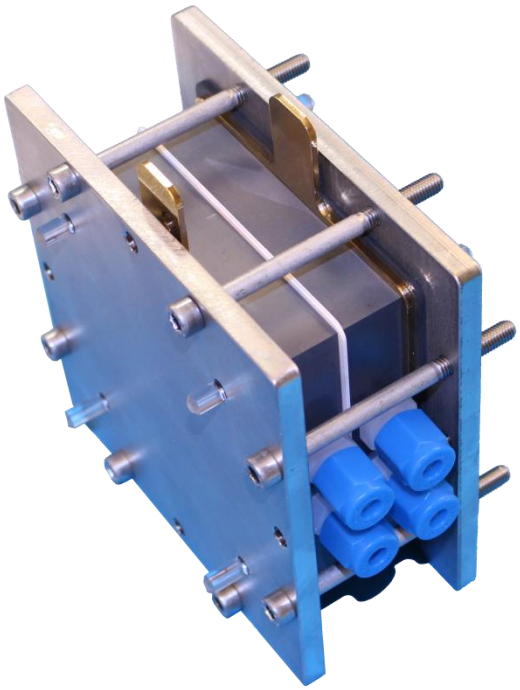
1 Endplate w/ M6 thread

1 Endplate w/o thread

2 Gold plated, cobber, current collectors

2 Insulators

2 Teflon gaskets (0.5 mm)



Additional parts needed for assembly

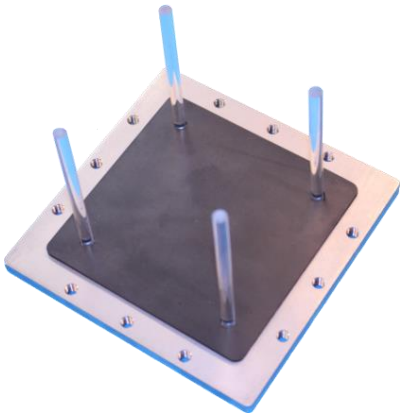
1 Membrane (at least 60 × 60 mm)

2+ Carbon paper (25 × 25 mm), amount depends on thickness

1 torque wrench / screwdriver

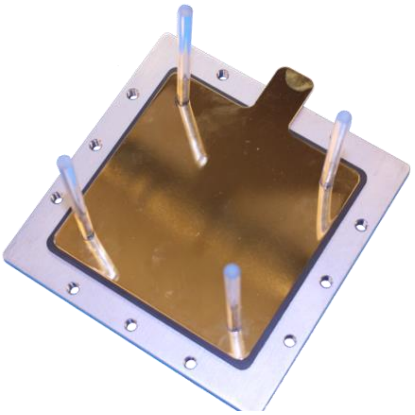
Step 1

Insert aligners into Endplate w/ M6 thread and place the first insulator into these.



Step 2

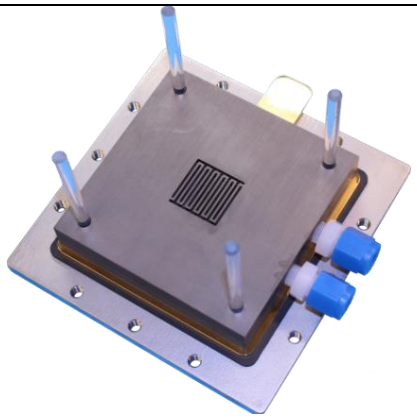
Place the first current collector onto the stack.



Step 3

Slide the first graphite block onto the stack.

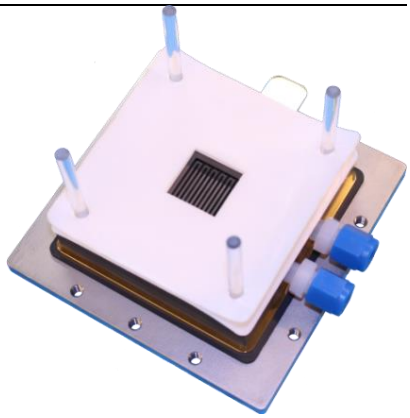
The fittings should point in a different direction than the current collector.



Step 4

Slide the first gasket onto the stack.

Insert carbon paper corresponding to the gasket thickness in the socket.



Step 5

Place a piece of membrane on the stack, covering the entire socket and a large area of the gasket.

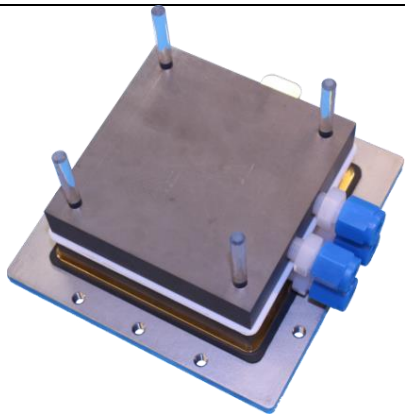
Slide the second gasket onto the stack. Insert the same number of carbon papers as on the other side of the membrane into the socket.

Be aware of not shifting carbon papers or membrane out of place while assembling.

Step 6

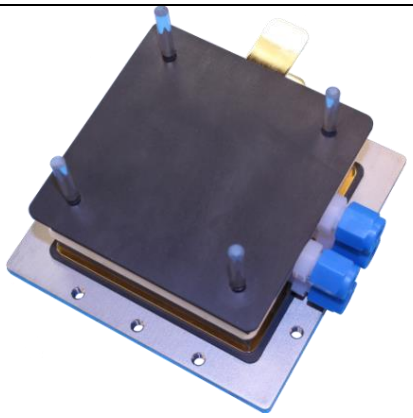
Slide the second graphite block onto the stack.

The fittings should point in the same direction as the fittings of the first graphite block.



Step 7

Slide the second current collector then the second insulator onto the stack. The current collectors should point in the same direction.



Step 8

Place the second Endplate onto the stack.
Insert 8 bolts as shown.
Gradually tigthen each bolt by following the indicated pattern. Increase the force applied by ~1 N m each round to a maximum of 4.5 N m.