CLAIMS:

1. An electrochemical cell stack comprising:

a plurality of stacked cell units, each defining an external perimeter;

a housing surrounding the stack to define or enclose a volume around the external perimeters;

two opposed electrically insulating boards located between the housing and the plurality of stacked cell units, each being against one of two opposing sides of the plurality of stacked cell units; and

at least one electrically insulating beam that extends across multiple cell units of the stack, and engages against the external perimeters of those respective multiple cell units,

wherein:

the electrically insulating beam also engages against either or both the housing and one of the electrically insulating boards;

the electrically insulating beam extends generally in a stacking direction of the stacked cell units; and

the electrically insulating beam is located between the external perimeters of the cell units and the housing.

2. The cell stack of claim 1, wherein an electrical connection member of the cell stack's current delivery system extends inside the electrically insulating beam.

3. The cell stack of any preceding claim, comprising:

at least two electrically insulating beams each extending across a multiple of the cell units, and each engaging against the external perimeters of at least two of those respective multiple of cell units,

wherein the beams define a line that extends between the two beams, which line defines a lateral line across the respective cell units,

and wherein either or both:

a) the tangents of contact between each beam and the respective ones of the multiple of cell units are co-operative to resist movement of the respective ones of the multiple of cell units both in both lateral directions along that defined lateral line of the cell unit and in at least one longitudinal direction that lies both generally perpendicular to that lateral line and generally planar to the external perimeter of that respective cell unit; or

b) the tangents of contact of each beam with the respective ones of the multiple cell units being co-operative for each beam to resist movement of the respective one of the multiple cell units both in at least one lateral direction along that defined lateral line of the cell unit and in at least one longitudinal direction that lies both generally perpendicular to that lateral line and generally planar to the external perimeter.

4. The cell stack of any one of the preceding claims, wherein the or each board that engages edges of the cell units has a cell engaging face that provides that engagement, the beam closest to that cell engaging face of one of the boards having a cell engaging surface that extends distal of that board's cell engaging face.

5. The cell stack of claim 4, wherein there are two beams and each has a cell engaging surface that extends distal of its closest board's cell engaging face, the two beams providing a constriction across the width of the cell units between the two beams compared to the width between the two boards.

6. The cell stack of any one of the preceding claims, wherein each electrically insulating board is also in engagement with the inner wall of the housing.

7. The cell stack of any one of claims 1 to 6, wherein two or more boards are provided between each opposing side of the plurality of stacked cell units and the housing.

8. The cell stack of any one of the preceding claims, wherein the electrically insulating boards are located to just two of the sides of the stacked cell units.

9. The cell stack of any one of the preceding claims, wherein more than one electrically insulating board is located side by side, or one above the other, in a common plane, against each of two respective opposing sides of the stacked cell units.

10. The cell stack of any one of the preceding claims, wherein the or each beam is formed of two or more parts.

11. The cell stack of any one of the preceding claims, wherein a length of the or each beam is adjustable.

12. The cell stack of any one of the preceding claims, wherein the or each beam has one or more cut-away section to increase fluid flow in that area.

13. The cell stack of any one of the preceding claims, wherein the housing initially comprises at least two separate parts;

the at least one electrically insulating beam is assembled between one initially separate part of the housing and the stacked cell units, the electrically insulating beam extending across a multiple of the cell units, and abutting the external perimeters of at least two of the multiple of cell units so as to exert a force that resists movement of the multiple of cell units further towards the beam; and

wherein the first and second initially separate parts of the housing clamp or engage the at least one beam against the external perimeters of those at least two of the multiple of cell units upon closing two parts of the housing together.

14. The cell stack of any one of the preceding claims, wherein the at least one beam defines a barrier for fluid flow entering or exiting the stacked cell units, blocking or reducing fluid flow around the outside of the beam between the external perimeter of the cell units and the housing, and to direct the flow of fluid through or towards a central stream through the stacked cell units.

15. The cell stack of any one of the preceding claims, wherein the at least one beam sits in concavities or recesses formed in the external perimeters of the cell units.

16. The cell stack of any one of the preceding claims, wherein the housing comprises a skirt around the cell units and the skirt is formed of at least two parts, joined together at their seams – for example by welding.

17. A method of assembling the cell stack of any one of the preceding claims, the method comprising providing:

stacked cell units, each cell unit defining an external perimeter; and

at least two electrically insulating beam, assembled against the stacked cell units such that each electrically insulating beam extends across a multiple of the stacked cell units, and engages against the external perimeters of those respective multiple cell units

the method comprising;

fitting a housing around the stacked cell units and the electrically insulating beam, the housing defining a volume around the external perimeters, the housing being initially in at least two separate parts;

wherein:

the first and second initially separate parts of the housing are clamped against the external perimeters of those at least two of the multiple of cell units upon closing two parts of the housing together to exert a force that resists movement of the multiple of cell units further towards the beams and the initially separate parts are then connected or joined together in that clamping state to retain the clamping force by the beam against the external perimeters of those at least two of the multiple cell of cell units.

18. The method of claim 17, wherein there are at least two electrically insulating beams;

one electrically insulating beam is assembled between a first initially separate part of the housing and the stacked cell units, and a second of the electrically insulating beams is assembled between a second initially separate part of the housing and the stacked cell units, the at least two electrically insulating beams each extending across a multiple of the cell units, and abutting the external perimeters of at least two of the multiple of cell units so as to exert a force that resists movement of the multiple of cell units further towards the beams; and

the first and second initially separate parts of the housing are clamped against the external perimeters of those at least two of the multiple of cell units upon closing two parts of the housing together to exert a force that resists movement of the multiple of cell units further towards the beams and the initially separate parts are then connected or joined together in that clamping state to retain the clamping force by the beams against the external perimeters of those at least two of the multiple of cell units.

19. The method of claim 17 or claim 18, wherein the first and second initially separate parts of the housing are clamped indirectly against the external perimeters of those at least two of the multiple cell of cell units via one or more electrically insulating boards in addition to the or each electrically insulated beam.

20. The method of any one of claims 17 to 19, wherein the beam or beams engages against the external perimeters in recesses in those external perimeters.