

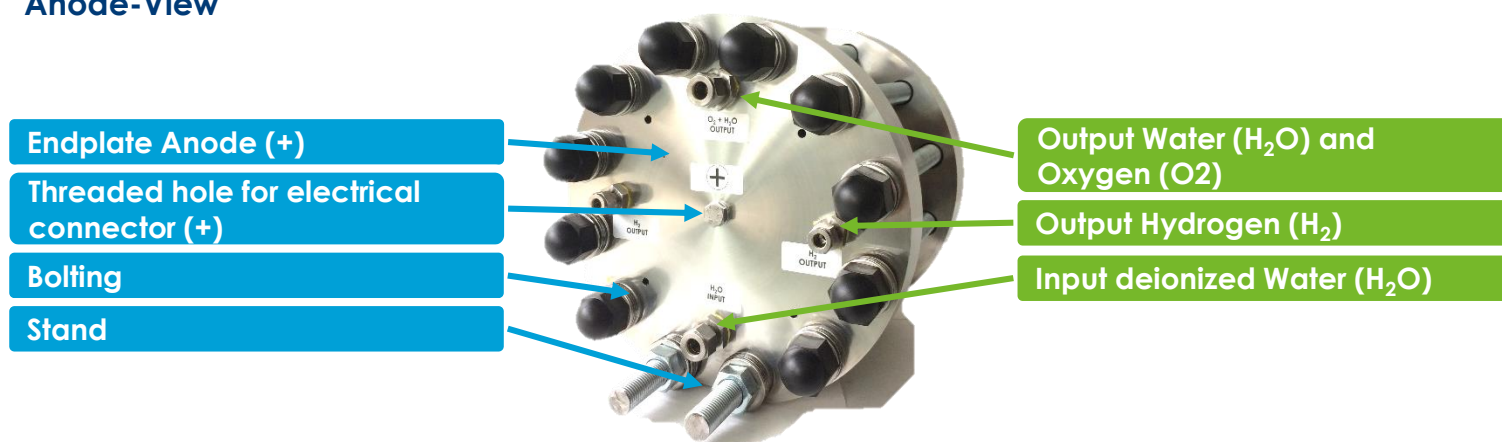
## Technical Datasheet – HYP40 – HYP100

In recent years, HIAT has succeeded in developing a novel PEM Electrolysis Stack to marketability. High differential pressures of up to 100 bar (1450 psi) were achieved by using innovative construction and manufacturing techniques. The high performance core components have been developed especially for this application at HIAT and have been integrated into their own stack design.

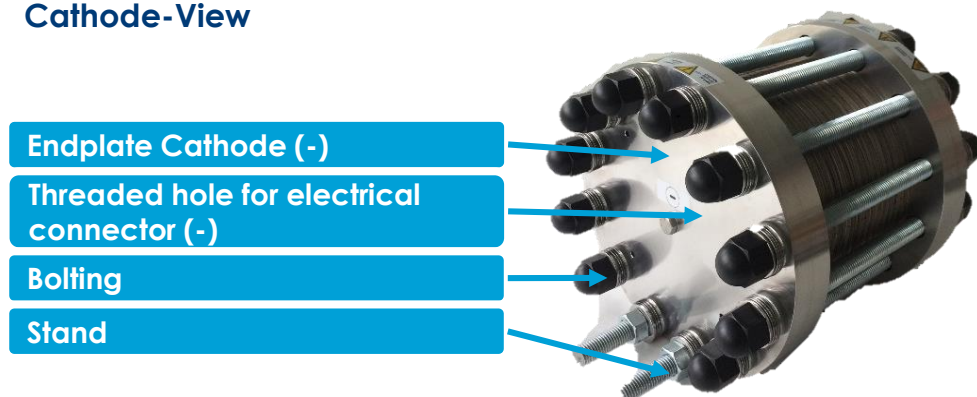
Our scalable PEM electrolysis stacks consists of circular electrolytic cells, each containing two electrodes, the PEM membrane assembly and bipolar plates. The bipolar plates separate the cells in the stack and provide flow channels for the deionized water, hydrogen and oxygen. Hydrogen and oxygen are generated when direct current is applied on the cell stack.

### View and Main Applications

#### Anode-View



#### Cathode-View



## Main Features

Product Name	HYP40	HYP100
Max. Number of Cells	45	45
Max. H2-Production [Nm³/h]	17	5
Max. O2-Production [Nm³/h]	8,5	2,5
Operating Temperature [°C]	65 - 80	
Cell Voltage [V] BOL @ 70 °C	2,0	2,0
Max. Electric Current Density [A/cm²]	2	1,4
Stack Performance [kW]	85	35
Max. H2-Pressure [bar/psi]	40 / 580	100 /1450
Water Supply		
Pressure [bar/psi]	pe = 2,5 / 36	
Quality	DIN ISO 3696 type 1	
Water Input Temperature/Output Temperature [°C]	+75 / +80	
Hydrogen-Production		
Control Range	10 to 100 % of the rated capacity	
Max. Stack Efficiency [%]	80	
Safety	Physical Separation of H2 and O2 production	
Oxygen-Production		
Pressure	Ambient Pressure	