

Hydrogen Generators

For GC & GC/MS fuel and carrier gas applications



Hydrogen on demand up to 1,300 ml/min

The Parker Balston ultra high purity hydrogen generators offer the optimum combination of safe operation, reliability, performance and low cost of ownership.

Utilising field proven PEM cell technology, hydrogen is produced on demand from deionized water and electricity. It then passes through a palladium purifier module to remove oxygen down to <0.01ppm. Innovative control software allows remote monitoring and the connection of several generators together (cascading) to supply applications with a large hydrogen demand.

With an output capacity of up to 1,300 ml/min at a purity of 99.99999+% and pressures up to 11.9 bar, the generator is ideal for all GC & GC/MS carrier gas (including fast GC) and combustion detector applications, and a more cost effective alternative to helium. To ensure continuous operation all generators include automatic water feed as standard.



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Product Features:

- Flow capacities up to 1,300 ml/min and pressures up to 11.9 bar
- Ultra high purity, 99.99999+%, an ideal alternative to helium for GC & GC/MS carrier gas applications
- 3 year standard cell warranty
- Designed to run continuously with automatic water feed as standard
- Automatic shut-down in case of a hydrogen leak
- Minimal maintenance and operator attention

Certified safety

Parker Balston hydrogen generators utilise an exclusive Proton Exchange Membrane and palladium catalyst to produce ultra high purity hydrogen on demand.

A built in sensing circuit shuts the generator down if a hydrogen leak is detected and an eight stage explosion protection systems ensures the highest level of operator safety.

A sophisticated control system connected to a liquid crystal display continuously monitors the vital operating parameters to ensure a safe and consistent performance.

That's why the Parker Balston hydrogen generators meet the strict safety guidelines to be certified for CE, CSA and UL approval.

Proven technology

Parker Balston's exclusive Proton Exchange Membrane is proven in thousands of GC installations worldwide. Maintenance requires only a few moments per year, so no inconvenient extended downtime, simply change the deionizer cartridge and filter every 6 months.

High pressure for fast GC is achieved via an electrolytic cell utilising patented interlocking gaskets. The cell is protected by alarms that will detect low water quality and low water levels and a small internal pump ensures the cell is supplied with water at all times.

Parker Balston's hydrogen generators are the most reliable hydrogen generators on the market today.

Principal Specification

Model	H2PEMPD-510	H2PEMPD-650	H2PEMPD-850	H2PEMPD-1100	H2PEMPD-1300
Purity	99.99999+%	99.99999+%	99.99999+%	99.99999+%	99.99999+%
Flow Rates	510 ml/min	650 ml/min	850 ml/min	1,100 ml/min	1,300 ml/min
Outlet Connection	1/4" compression	1/4" compression	1/4" compression	1/4" compression	1/4" compression
Delivery Pressure (adjustable)	11.9	11.9	11.9	11.9	6.8 or 11.9 bar options*
Remote Monitoring	Yes	Yes	Yes	Yes	Yes
Auto Water Fill	Included as standard	Included as standard	Included as standard	Included as standard	Included as standard
Water Quality Required	>5 Mohm	>5 Mohm	>5 Mohm	>5 Mohm	>5 Mohm
Ambient Temperature	10 to 35°C	10 to 35°C	10 to 35°C	10 to 35°C	10 to 35°C
Electrical Requirements	100-230V - 50/60Hz	100-230V - 50/60Hz	100-230V - 50/60Hz	100-230V - 50/60Hz	100-230V - 50/60Hz
Power Consumption	270 Watts	300 Watts	340 Watts	420 Watts	450 Watts
Dimensions (H x W x D)	435 x 342 x 533 mm				
Weight (Shipping)	25 kg (29)	25 kg (29)	25 kg (29)	25 kg (29)	25 kg (29)

* for 6.8 bar option add suffix -100 and 11.9 bar option suffix -175 ie H2PEMPD-850-100 - see ordering details below.

Ordering Information

Description	Model Number
1,300 ml/min Hydrogen Generator - 6.8 bar	H2PEMPD-1300-100
510 ml/min Hydrogen Generator - 11.9 bar	H2PEMPD-510-175
650 ml/min Hydrogen Generator - 11.9 bar	H2PEMPD-650-100
850 ml/min Hydrogen Generator - 11.9 bar	H2PEMPD-850-175
1,100 ml/min Hydrogen Generator - 11.9 bar	H2PEMPD-1100-175
1,300 ml/min Hydrogen Generator - 11.9 bar	H2PEMPD-1300-175

H2PEMPD - Remote Interface	B02-0795
H2PEMPD - 8 Port Manifold	B02-0853
H2PEMPD - H2 Load Balance Assy	B02-0851
H2PEMPD - Kit, Hydrogen Purge	B02-0852
H2PEMPD - 2 Port Manifold	B02-0861

Maintenance Items	Model Number	Change Frequency
6 Month Maintenance Kit	MKH2PEMPD-6M	6 Months
24 Month Maintenance Kit	MKH2PEMPD-24M	24 Months

All H2PEMPD generators are fitted with auto water fill (AWF) as standard. When using the AWF the maximum water inlet pressure is 0.1 bar. The B02-0880 auto water feed regulator assemble is available if required. The B02-0880 is supplied as standard with the H2PEMPD-1100 and H2PEMPD-1300