

iH2 Hydrogen Generators

For large industrial requirements

The cost-effective, reliable and safe solution for high flow / high purity hydrogen requirements.

Hydrogen generators from Parker produce hydrogen gas from de-ionized water and offer a cost effective, reliable and safe alternative to traditional hydrogen gas supplies such as cylinders.

Parker iH2 hydrogen generators provide an on demand, continuous source of hydrogen gas which can be used in a wide range of applications such as power generation, chemical, metal treatment, renewable energy, research and laser cutting.



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Product Features:

- **Continuous production of hydrogen in high volumes**
- **Hydrogen pressures of 5 or 12 bar / 70 or 175 psi.**
- **High purity hydrogen up to 99.9995%**
- **Built-in hydrogen conditioning**
- **Automatic hydrogen production flow control**
- **Remote monitoring and control**
- **Complies with ATEX equipment directive 94/9/EC**
- **Low maintenance alkaline cell**
- **Extended cell warranty**

Benefits:

- **Up to 90% ongoing savings**
Typical capital pay-back is achievable within 12-24 months
- **Energy savings**
Low energy consumption cell design
- **Convenient**
The easy to use system is simple to install, requires minimal maintenance
- **Safe**
The system eliminates safety hazards associated with storing large volumes of hydrogen
- **Reduced carbon footprint**
The elimination of cylinder deliveries and transportation means carbon footprint can be reduced



Product Selection

Model	Hydrogen Flow Rate	Oxygen Flow Rate	Hydrogen & Oxygen Pressure	Hydrogen Purity at Full Flow	Oxygen Purity at Full Flow	Hydrogen Dewpoint	De-ionized Water Consumption
	m ³ /hr / scfm	m ³ /hr / scfm	Bar(g) / psig	%	%	°C / °F	l / hr
iH2-08-05-0	8.6 / 5.1	4.3 / 2.5	5 / 70	99.5	99	-10 / 14	7.4
iH2-08-05-P	8.6 / 5.1	4.3 / 2.5	5 / 70	99.9995	99	-70 / -94	7.4
iH2-08-12-0	8.6 / 5.1	4.3 / 2.5	12 / 175	99.5	99	-20 / -4	7.4
iH2-08-12-P	8.6 / 5.1	4.3 / 2.5	12 / 175	99.9995	99	-70 / -94	7.4
iH2-10-05-0	10.6 / 6.2	5.3 / 3.1	5 / 70	99.5	99	-10 / 14	9
iH2-10-05-P	10.6 / 6.2	5.3 / 3.1	5 / 70	99.9995	99	-70 / -94	9
iH2-10-12-0	10.6 / 6.2	5.3 / 3.1	12 / 175	99.5	99	-20 / -4	9
iH2-10-12-P	10.6 / 6.2	5.3 / 3.1	12 / 175	99.9995	99	-70 / -94	9

m³ reference standard = 20°C / 68°F, 1013 millibar(a), 0% relative water vapour pressure

Inlet Parameters

De-ionised water quality	Maximum conductivity 5 µS / cm
Cooling water max temperature	35°C / 95°F
Cooling water min flow	iH2-08: 3.5 m ³ /hr / 2 scfm iH2-10: 4.5 m ³ /hr / 2.6scfm
Compressed air quality	ISO8573-1:2001 Class 3.2.2
Compressed air	Maximum flow: 3 m ³ /hr / 2.1 scfm Pressure: 5-8 bar(g) / 70 - 115 psig
Nitrogen (start-up)	Maximum flow: 5 m ³ /hr / 3 scfm Pressure: 2-5 bar(g) / 30 - 75 psig Purity: <0.5% O2
Nitrogen (regeneration) Models P only	Maximum flow: 7m ³ /hr / 4.2 scfm Pressure: 2-5 bar(g) / 30 - 75 psig Purity: <0.5% O2

Electrical Parameters

Supply Voltage	3x400Vac+N – 50 Hz 3x480Vac+N – 60 Hz
Maximum Power Consumption	iH2-08: 46 Kwh iH2-10: 57 Kwh
Fuse	iH2-08: 100A iH2-10: 125A
Net Cable	iH2-08: 35 mm ² iH2-10: 50 mm ²

Environmental Parameters

Ambient Temperature	5 – 35°C / 41 – 95°F
Humidity	20 – 80%
IP rating	IP20 / NEMA 1
Altitude	<1000 m
Noise	<78 dB (A)

Port Connections

Hydrogen Outlet	G ³ / ₈ "-F
Oxygen Outlet	G ³ / ₈ "-F
Nitrogen inlet	G ³ / ₈ "-F
Compressed air inlet	G ³ / ₈ "-F
De-ionised water inlet	G ³ / ₈ "-F
H2 & O2 vent	G ¹ / ₂ "-F
H2 & O2 condensate drain	G ¹ / ₂ "-F
Cooling water inlet/outlet	G ¹ / ₂ "-F

Weights and Dimensions

Model	Height		Width		Depth		Weight	
	mm	in	mm	in	mm	in	kg	lb
iH2-08-0	2015	80	1160	46	2180	86	1555	3428
iH2-08-P	2015	80	1160	46	2180	86	1785	3935
iH2-10-0	2015	80	1160	46	2180	86	1700	3747
iH2-10-P	2015	80	1160	46	2180	86	1935	4265

Packed Weights and Dimensions

Model	Height		Width		Depth		Weight	
	mm	in	mm	in	mm	in	kg	lb
iH2-08-0	2250	89	1450	57	2350	92.5	1860	4100
iH2-08-P	2250	89	1450	57	2350	92.5	2190	4828
iH2-10-0	2250	89	1450	57	2350	92.5	2005	4420
iH2-10-P	2250	89	1450	57	2350	92.5	2235	4927

