

Parker Balston® H2PEMPD Hydrogen Generators

- Proton exchange membrane (PEM) cell eliminates the need for liquid electrolytes.
- Maintenance-free palladium purifier removes oxygen to <0.01 ppm and moisture to <1.0 ppm.
- Produces continuous supply of 99.99999+% pure hydrogen gas.
- Does not require downstream gas filters.
- Maximum outlet pressures of 100 or 175 psig (690 or 1,200 kPa).
- Automatic safety feature shuts the generator down if a hydrogen leak is detected.
- Compact unit, requires only one square foot of bench space.



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Specifications:

Purity:	99.99999+% pure hydrogen
Outlet Port:	1/4" compression
Electrical Requirements:	100 to 230 VAC, 50/60Hz
Physical Dimensions:	17.1" h x 13.5" w x 21" d
Shipping Weight:	60 lb

Description	Model #	Capacity	Delivery Pressure	qty.	cat.#
Hydrogen Generator	H2PEMPD-510	510 cc/min	100 psig	ea.	22144
Hydrogen Generator	H2PEMPD-510	510 cc/min	175 psig	ea.	22145
Hydrogen Generator	H2PEMPD-650	650 cc/min	100 psig	ea.	22146
Hydrogen Generator	H2PEMPD-650	650 cc/min	175 psig	ea.	22147
Hydrogen Generator	H2PEMPD-850	850 cc/min	100 psig	ea.	22148
Hydrogen Generator	H2PEMPD-850	850 cc/min	175 psig	ea.	22149
Hydrogen Generator	H2PEMPD-1100	1,100 cc/min	100 psig	ea.	22150
Hydrogen Generator	H2PEMPD-1100	1,100 cc/min	175 psig	ea.	22151
Hydrogen Generator	H2PEMPD-1300	1,300 cc/min	100 psig	ea.	22152
Hydrogen Generator	H2PEMPD-1300	1,300 cc/min	175 psig	ea.	22153

Maintenance Kits

6-Month Maintenance Kit for H2PEMPD Units Includes: Deionizer cartridge, 100 µm water filter, environmental filters (2), and filter replacement tool	kit	22154
24-Month Maintenance Kit for H2PEMPD Units Includes: deionizer cartridge, 100 µm water filter, environmental filters (2), filter replacement tool, tube clamp, water pump, and fan guard (2)	kit	22155



Your satisfaction is our top priority.



- Dimensions: 17.12" x 13.46" x 17.95"
- 59 lb dry weight

Safer alternative to high-pressure gas cylinders!

Parker Balston® PEM Hydrogen Generators

- Proton exchange membrane (PEM) cell eliminates the need for liquid electrolytes.
- Reliably generate 99.9995% pure hydrogen—for better chromatography.
- Eliminates high-pressure cylinders—greater convenience and improved lab safety.
- Compact unit, requiring only one square foot of bench space.
- Quick and easy to service and maintain; unique display lighting changes color for easy status checks and water level indication.
- Comes with a set of universal power adapters for U.S., European, and Asian plug types.
- Automatic safety feature shuts the generator down if a hydrogen leak is detected.

Specifications

Purity:	99.9995% pure hydrogen
Delivery Pressure:	5-100 psig ± 0.5 psig (69-689 kPa ± 7kPa)
Outlet Port:	1/8" compression
Electrical Requirements:	100-230 VAC/50-60 Hz
Physical Dimensions:	17.12" h x 13.46" w x 17.95" d (43.48 x 34.19 x 45.6 cm)
Shipping Weight:	59 lb (27 kg) dry

Description	Model #	Capacity	qty.	cat.#
Hydrogen Generator	H2PEM-100	100 cc/min	ea.	23065
Hydrogen Generator	H2PEM-165	165 cc/min	ea.	23066
Hydrogen Generator	H2PEM-260	260 cc/min	ea.	23067
Hydrogen Generator	H2PEM-510	510 cc/min	ea.	23068

Replacement and Maintenance Components for Hydrogen Generators (for all models listed above)

Replacement Desiccant Cartridge for H2PEM Generators	ea.	23069
6-Month Maintenance Kit for H2PEM Generators	kit	23070
Includes: 1 deionizer cartridge, 1 water filter, 3 environmental filters		
24-Month Maintenance Kit for H2PEM Generators	kit	23071
Includes: 1 deionizer cartridge, 1 water filter, 3 environmental filters, 1 water level sensor, 1 water pump, and 1 desiccant cartridge		

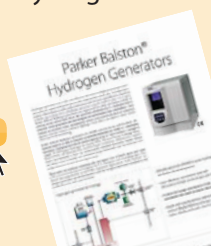
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Parker Balston® Hydrogen Generators

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lit. cat.#
GNTS1440-UNV



Restek Electronic Leak Detector

Protect your instrument and analytical column!

- Ergonomic, handheld design.
- Handy probe storage for cleanliness and convenience.

www.restek.com/leakdetector



Parker Balston® Model FID-1000 and FID-2500 Gas Stations

- Single unit produces UHP zero air from house compressed air and 99.9995% pure hydrogen from deionized water.
- Ideal for supplying up to 5-6 FIDs.
- Eliminates inconvenient and dangerous gas cylinders.
- Silent operation, minimal operator attention required.

Parker Balston® gas stations provide both UHP grade hydrogen gas and zero grade air for flame ionization detectors. The system is specifically designed to supply gas to FIDs and to support flame thermionic and flame photometric detectors. The units produce zero air by purifying compressed air to a total hydrocarbon concentration of 0.1 ppm or less (measured as methane).

The hydrogen generators produce hydrogen gas from deionized water, using the principle of electrolytic dissociation of water and hydrogen proton conduction through a proton exchange membrane cell.

Specifications - FID Gas Stations:

Hydrogen Purity:	99.9995%
Zero Air Purity:	< 0.1 ppm total hydrocarbons as methane
Max. Hydrogen Flow Rate:	FID-1000: 90 cc/min FID-2500: 250 cc/min
Max. Zero Air Flow Rate:	FID-1000: 1000 cc/min FID-2500: 2500 cc/min
Power:	120 VAC/amp, 60 Hz, 480 watts
Hydrogen Outlet Pressure:	60 psig (414 kPa)
Zero Air Outlet Pressure:	40-125 psig* (276-862 kPa)
Inlet Connection:	1/4" NPT (female)
Outlet:	1/8" compression
Dimensions:	16.5" h x 10.5" w x 17" d (42 cm x 27 cm x 43 cm)
Weight:	53 lb (24 kg)

Description	Model #	qty.	cat. #
Gas Station	Model FID-1000 (ideal for 1-2 FIDs)	ea.	20177
Gas Station	Model FID-2500 (ideal for 5-6 FIDs)	ea.	24913

Replacement Components for FID Gas Stations

Resin Bed Cartridge for Hydrogen Generators in FID-1000 and FID-2500 Gas Stations	ea.	24914
Replacement Desiccant Cartridge	ea.	21671
FID Gas Station Annual Maintenance Kit	ea.	24915

*Zero air inlet requires minimum of 40 psig (276 kPa) compressed air pressure.

** Filters should be changed every year; resin and desiccant cartridges can be replaced every 2 years.

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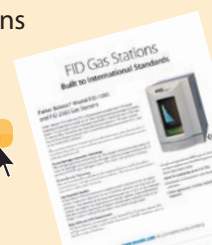
Produce zero air and pure hydrogen
from one unit!

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Parker Balston® Nitrogen Gas Generators

- Produces ultra-pure nitrogen (up to 99.9999%).
- Require only a compressed air source and 110 volt AC power.
- Typical applications include GC carrier gas, make-up gas, and low flow sample concentrators.
- Maintenance kits include replacement filters.

Specifications	Model HPN2-1100 or UHPN2-1100
Maximum Nitrogen Flow Rate:	See Flow Table
Nitrogen Purity:	99.9999%
Minimum/Maximum Inlet Pressure:	60 psig/125 psig (414/862 kPa)
Electrical Requirements ¹ :	120 VAC/60 Hz
Dimensions:	35" h x 12" w x 16" d (89 cm x 30 cm x 41 cm)
Shipping Weight:	115 lb (52 kg)

Flow Table for Models HPN2-1100 and UHPN2-1100

Inlet Air Pressure	Maximum Outlet Flow (cc/min)	Maximum Outlet Pressure	Note:
125 psig (862 kPa)	1100	85 psig (586 kPa)	Model HPN2-1100 does not remove hydrocarbons. ¹ Power consumption is: Model HPN2-1100 = 25 Watts Model UHPN2-1100 = 700 Watts
110 psig (758 kPa)	1000	75 psig (517 kPa)	
100 psig (689 kPa)	900	65 psig (448 kPa)	
90 psig (621 kPa)	800	60 psig (414 kPa)	
80 psig (552 kPa)	700	50 psig (345 kPa)	
70 psig (483 kPa)	600	45 psig (310 kPa)	
60 psig (414 kPa)	500	35 psig (241 kPa)	

Nitrogen Generators	Model #	qty.	cat.#
Nitrogen Generator	HPN2-1100 (ultra-high purity)	ea.	21653
Nitrogen Generator	UHPN2-1100 (ultra-high purity zero grade)	ea.	20697
Maintenance Kits	Model #	qty.	cat.#
Annual Maintenance Kit Includes: 1st and 2nd stage prefilters (1 each) and 1 final filter	for HPN2-1100, 76-92	kit	21649
Annual Maintenance Kit Includes: 1st, 2nd, and 3rd stage prefilters (1 each) and 1 final filter	for UHPN2-1100, 76-94, 76-96	kit	21655

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Gas Management Supplies for GC Labs

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lit. cat.# GNBR1758-UNV

Parker Balston® Nitrogen Gas Generators for LC-MS

- Turn compressed air into ultra-pure nitrogen (up to 99.5%).
- Flows from 1 to 44 L/min.
- Models N2-04, N2-14, N2-22, and N2-35 require no electricity.
- Safe, reliable, low maintenance.
- Maintenance kits include replacement filters.



22130



22129

Specifications	NitroFlow Lab*	N2-04	N2-14	N2-22 or N2-22A	N2-35 or N2-35A
Maximum Nitrogen Flow Rate:	32 L/min	8 L/min N2-22A: 29 L/min	36 L/min max. flow	N2-22: 44 L/min	44 L/min
Nitrogen Purity:	99.50%	99%	95.0%–99.5%	99%	99%
Min/Max Inlet Pressure:	N/A	60 psig/145 psig	60 psig/145 psig	60 psig/145 psig	60 psig/145 psig
Electrical Requirements:	120 VAC/60 Hz	None	None	N2-22: None N2-22A: 120 VAC/60 Hz	N2-35: None N2-35A: 120 VAC/60 Hz
Dimensions:	27.6" h x 35.4" w x 12.2" d (70 cm x 90 cm x 31 cm)	11" h x 13" w x 16" d (27 cm x 34 cm x 41 cm)	50" h x 16" w x 16" d (127 cm x 41 cm x 41 cm)	50" h x 16" w x 16" d (127 cm x 41 cm x 41 cm)	50" h x 16" w x 16" d (127 cm x 41 cm x 41 cm)
Shipping Weight:	205 lb (93 kg)	43 lb (20 kg)	75 lb (34 kg)	N2-22: 101 lb (46 kg) N2-22A: 106 lb (48 kg)	N2-35: 115 lb (52 kg) N2-35A: 119 lb (54 kg)

* Has built-in air compressor.

Nitrogen Generators for LC-MS	Model #	qty.	cat. #
Nitrogen Generator for LC-MS	NitroFlow Lab Model, 32 L/min max. flow	ea.	22129
Nitrogen Generator for LC-MS	N2-04 Model for ELSD, 8 L/min max. flow	ea.	22130
Nitrogen Generator for LC-MS	N2-14 (general purpose) 36 L/min max. flow	ea.	20677
Nitrogen Generator for LC-MS	N2-22 Model, 44 L/min max. flow	ea.	22131
Nitrogen Generator for LC-MS	N2-22A Model, 29 L/min max. flow	ea.	22132
Nitrogen Generator for LC-MS	N2-35 Model, 44 L/min max. flow	ea.	22133
Nitrogen Generator for LC-MS Includes: Oxygen analyzer and audible alarm (monitors oxygen in nitrogen stream and signals high or low concentrations)	N2-35A Model, 44 L/min max. flow	ea.	22134
Maintenance Kits	Model #	qty.	cat. #
Maintenance Kit Includes: carbon filter	for NitroFlow Lab	kit	22156
6-Month Maintenance Kit* Includes: 1st stage prefilter, 2nd stage prefilter, and final filter (2 each)	for N2-14, N2-14A, 75-72, 75-72ONA	kit	21648
6-Month Maintenance Kit With Carbon Filter* Includes: 1st stage prefilter, 2nd stage prefilter, hydrocarbon scrubber, and final filter (1 each)	for N2-14, N2-14A, 75-72, 75-72ONA	kit	22135
Generator Maintenance Kit Includes: 1st and 2nd stage prefilters (1 each) and 1 final filter	for HPZA-3500, HPZA-7000, HPZA-18000, HPZA-30000, and 75-80 (Zero Air); N2-04 (Nitrogen); and TOC-1250 (TOC)	kit	21647

*The manufacturer recommends maintenance for this unit every 6 months.



20677

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Parker Balston® Zero Air Generators

- Turn in-house compressed air into ultra-pure air (<0.1 ppm total hydrocarbons).
- Remove hydrocarbons to less than 0.1 ppm by catalytic oxidation.
- Operate at 40–125 psi (276–862 kPa).
- Typical payback is less than one year, based on cylinder costs.
- Install easily and take up little bench space*.
- Maintenance kits include a one-year supply of prefilters and final filter.



Specifications

Maximum Zero Air Flow Rate:	75-83NA	1 L/min
	HPZA-3500	3.5 L/min
	HPZA-7000	7 L/min
	HPZA-18000	18 L/min
	HPZA-30000	30 L/min
Outlet Hydrocarbon Concentration (as Methane):	75-83NA	< 0.1 ppm
	HPZA-30000	< 0.1 ppm
	Other Models	< .05 ppm
Minimum/Maximum Inlet Air Pressure:	40 psig/125 psig (276/862 kPa)	
Maximum Inlet Hydrocarbon Concentration (as Methane):	100 ppm	
Pressure Drop at Maximum Flow Rate:	4 psi (28 kPa) differential	
Maximum Inlet Air Temperature:	78°F (25°C)	
Inlet/Outlet Ports:	1/4" NPT (female)	
Start-up Time to Specified Hydrocarbon Concentration:	45 minutes	
Electrical Requirements:	75-83NA	120 VAC/60 Hz, 0.5 amps
	HPZA-3500, HPZA-7000	120 VAC/60 Hz, 2.0 amps
	HPZA-18000, HPZA-30000	120 VAC/60 Hz, 4.0 amps
Dimensions:	75-83NA	10" h x 12" w x 3" d (25 cm x 30 cm x 8 cm)
	Other Models	16" h x 11" w x 13" d (42 cm x 27 cm x 34 cm)
Shipping Weight:	75-83NA	7 lb (3 kg)
	Other Models	41 lb (19 kg)

Model	Number of FIDs*
75-83NA	Up to 2
HPZA-3500	Up to 8
HPZA-7000	Up to 16
HPZA-18000	Up to 40
HPZA-30000	Up to 66

*Based on a 450 cc/min fuel air rate

Zero Air Generator	Model #	Capacity	qty.	cat. #	
Zero Air Generator	75-83NA	1,000 cc/min	ea.	20684	
Zero Air Generator	HPZA-3500	3,500 cc/min	ea.	20680	
Zero Air Generator	HPZA-7000	7,000 cc/min	ea.	20681	
Zero Air Generator	HPZA-18000	18,000 cc/min	ea.	20682	
Zero Air Generator	HPZA-30000	30,000 cc/min	ea.	20683	
Annual Maintenance Kits				qty.	cat. #
Annual Maintenance Kit					
Includes: 1 prefilter and 1 sintered metal filter	for 75-83NA		kit	21646	
Generator Maintenance Kit					
Includes: 1st and 2nd stage prefilters (1 each) and 1 final filter	for HPZA-3500, HPZA-7000, HPZA-18000, HPZA-30000, and 75-80 (Zero Air); N2-04 (Nitrogen); and TOC-1250 (TOC)		kit	21647	
Replacement Catalyst Towers	Model #	Capacity	qty.	cat. #	
Replacement Catalyst Tower	for 75-83NA	1,000 cc/min	ea.	22005	
Replacement Catalyst Tower	for HPZA-3500	3,500 cc/min	ea.	22004	
Replacement Catalyst Tower	for HPZA-7000	7,000 cc/min	ea.	22006	
Replacement Catalyst Tower	for HPZA-18000	18,000 cc/min	ea.	22007	
Replacement Catalyst Tower	for HPZA-30000	30,000 cc/min	ea.	22008	

*Parker Model 75-83NA (Restek cat. # 20684) is a wall-mount model, and its dimensions are 12" w x 10" h x 3" d.

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Zero Air Generators

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