

FID Gas Station



Analytical Gas Systems

Features

Supplies the gas requirement of up to 2 FIDs

Produces UHP Zero Air from house compressed air (<0.1 ppm THC) and 99.9995% pure hydrogen in one enclosure

Eliminates zero air and hydrogen cylinders from the laboratory

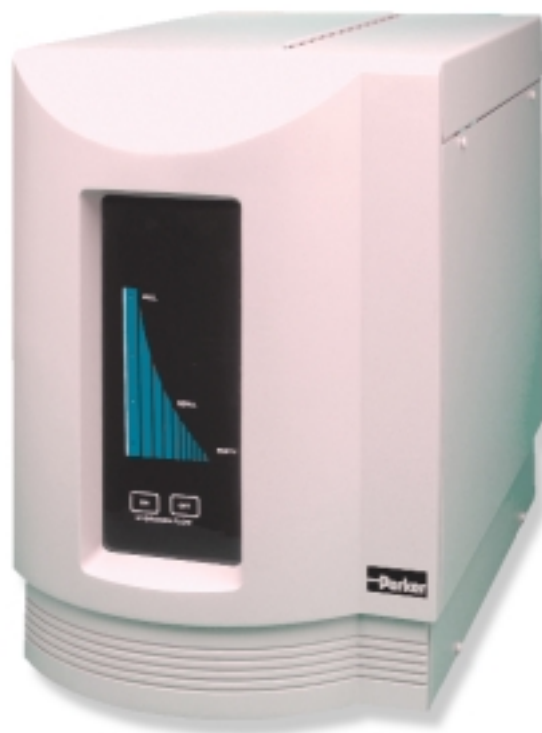
Increases the accuracy of analysis and reduces the cleaning requirement of the detector

Recommended and used by many GC and column manufacturers

Payback period of typically less than one year

Automatic water fill standard

Silent operation and minimal operator attention required



Proven Technology

Parker Balston's FID Gas Station provides both hydrogen gas and zero grade air for FID detectors on Gas Chromatographs. This system is specifically designed to provide fuel gas for up to 2 Flame Ionisation Detectors (FIDs).

Hydrogen Technology

Hydrogen gas is produced from deionised water using a Proton Exchange Membrane Cell. The hydrogen generator utilizes the principle of electrolytic dissociation of water and hydrogen proton conduction through the membrane. The hydrogen supply produces 90 cc/min of 99.9995% pure hydrogen with pressures up to 4.1 bar(g).

Zero Air Technology

Zero air is produced by purifying on-site compressed air to a total hydrocarbon concentration of less than 0.1 ppm (measured as methane). The zero air produces up to 1,000 cc/min of Zero Grade Air.

Built to International Standards

Produced and supported by an ISO 9001 registered organization, Parker Balston's hydrogen generators are the first built to meet the toughest laboratory standards in the world: CSA, UL, CE and IEC 1010.



Meet OSHA and NFPA Requirements

All Parker Balston gas generators meet NFPA and OSHA 1910.103 regulations governing the storage of hydrogen.



Gas Generator Benefits

The FID-1000 is a complete system with state-of-the-art, highly reliable components engineered for easy installation, operation, and long term performance. The Parker Balston FID-1000 eliminates all of the safety concerns, inconvenience and cost of zero air and hydrogen high-pressure cylinder gas supplies and dependence on outside vendors. Uncontrollable price increases, contract negotiations, long term commitments, and tank rentals are no longer a concern. With the FID Gas Generator, you control your gas supply.

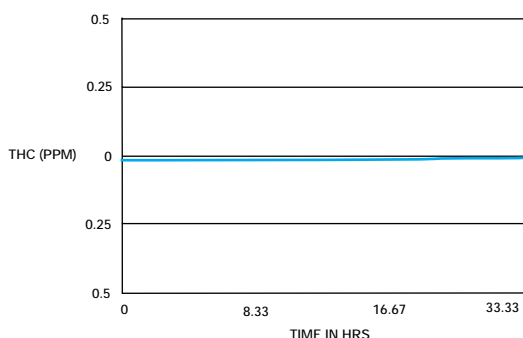
Principal Specifications

FID-1000	Hydrogen Specification	Zero Air Specification
Product Purity:	99.9995% Pure Hydrogen	< 0.1 ppm THC
Flow Rate:	90 cc/min	1,000 cc/min
Delivery Pressure:	4-1 bar(g)	
Inlet Connection:	NA	1/4" NPT (female)
Power Requirements:	117 VAC/234 VAC	
Dimensions:	330 x 380 x 360 mm	
Weight Dry:	18.1kg	
Outlet:	1/8" Compression	1/8" Compression

Ordering Information

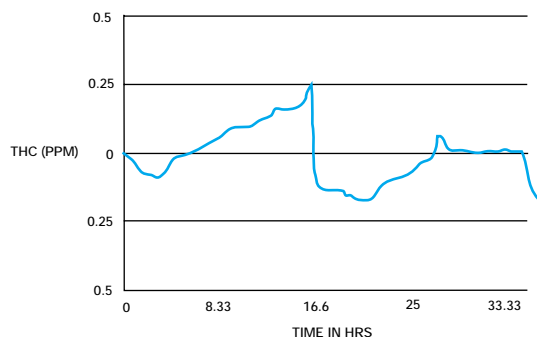
Description	Type Number
FID Gas Station	FID-1000
Desiccant Cartridge	1647727

Parker Balston Zero Air Generator



The Chromatograms compare baselines produced by a Parker Balston Zero Air Generator and bottled fuel air. The baseline produced by the Parker Balston Generator is very flat, with no fluctuations or peaks, in comparison with the chromatogram of the bottled air fuel supply, which has many peaks ranging from 0.25 ppm to -0.25 ppm.

Bottled Fuel Air



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Parker TOC Gas Generator

Flow Capacities to 1,250 cc/min



Analytical Gas Systems

Features

Replaces high pressure oxygen or nitrogen gas cylinders with hydrocarbon-free, carbon dioxide free compressed gas for TOC Analysers

Ensures consistent, reliable, TOC operation and significantly reduces instrument service and maintenance costs

Compact design frees up valuable laboratory floor space

Purity meets or exceeds all TOC manufacturers' gas purity requirements



The Parker Balston® TOC-1250 TOC Gas Generator produces carrier/combustion gas from an existing compressed air supply for TOC instruments, eliminating the need to purchase expensive, inconvenient, high pressure cylinders of oxygen, air or nitrogen.

The Parker Balston TOC-1250 utilizes catalytic oxidation and pressure swing adsorption technologies to remove hydrocarbons to 0.1 ppm (measured as methane), carbon dioxide to 1 ppm and water vapour to 1 ppm (-73°C/-100°F dewpoint).

The Parker Balston TOC Gas Generator eliminates all the inconvenience and cost of cylinder gas supplies and dependence on outside vendors. Uncontrollable vendor price increases, contract negotiations, long term commitments and cylinder rentals are no longer a concern. The Parker Balston TOC Gas Generator offers long term cost stability.

The TOC-1250 is a complete system with carefully matched components engineered for easy installation, operation and long term reliability. Installation consists of connecting a standard compressed air line to the inlet and connecting the outlet to the TOC gas supply line. Plug the generator into a standard electrical wall outlet and within minutes high purity carrier/combustion gas is supplied!

Parker TOC Gas Generator

Flow Capacities to 1,250 cc/min



Analytical Gas Systems

Principal Specifications

Type TOC-1250 TOC Gas Generator

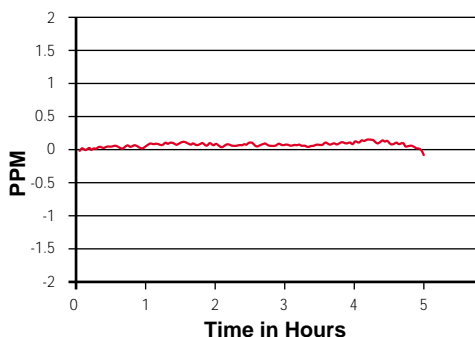
Maximum TOC Gas Flow Rate (outlet) at 7 barg	1,250 cc/min
Outlet Hydrocarbon Concentration (as methane)	0-1 ppm
Outlet Carbon Dioxide Concentration	< 1.0 ppm
Dewpoint	< -73°C (-100°F)
Inlet and Outlet Port Connections	1/4" NPT (female)
Minimum/Maximum Inlet Air Pressure	4.5 barg/8.6 barg (65 psig / 125 psig)
Maximum Inlet Air Temperature	25°C (78°F)
Minimum Required Inlet Air Flow	2,500 cc/min
Maximum Inlet Hydrocarbon Concentration (as methane)	100 ppm
Pressure Drop at Maximum Flow Rate	0.5 barg (7 psig)
Warm-up Time	45 minutes
Electrical Requirements	220-240V/50 Hz
Dimensions (mm)	280 x 430 x 430mm (11 x 17 x 17")
Shipping Weight	22 kg (48 lbs)

Ordering Information

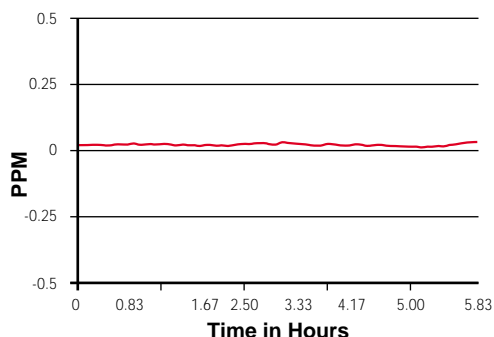
Description	Model Number
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TOC Gas Generator	TOC-1250-220
Installation Kit	IK76803
Maintenance Kit	MK7840

CO₂ Base Chart



THC Base Chart



Baselines of THC Analyzer (left) and carbon dioxide Content Analyzer (right) after 5 hours supplied by a Parker Balston® TOC Gas Generator

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TOC-GEN 1.0 JULY 03

