



FOCUSED ON CHROMATOGRAPHY

AGS-Chromatography-E



ENGINEERING **YOUR** SUCCESS.

FOCUSED ON PURITY

Offering a wide range of advantages over traditional cylinder gas supply, gas generators are increasingly becoming the popular choice in many laboratories.

In chemical sectors such as pharmaceuticals, polymer, environmental monitoring, CRO, and forensics, scientists rely upon specialized instruments for fast and accurate analysis of compound properties.

A consistent, safe supply of high-purity make-up, carrier, and fuel gases is essential to ensure precise results in separation techniques such as gas chromatography.

The challenge is to find a gas supply solution that meets the quality criteria while being easy to use, cost-efficient, and reliable.



Parker on-site gas generation allows us to have a high-purity, safe, and consistent supply of gas.



Consistent, reliable purity

Gas purity varies significantly from cylinder to cylinder, and impurities can be introduced via the pipeline during changeover. In contrast, on-site generators consistently supply high-purity gas, preventing variations in quality, and ensuring ultra-sensitive analysis, every time.

Supported by proven, advanced technologies you can trust, Parker gas generators to deliver the reliability and consistency your work demands.

Expert gas generation solutions

With a history of expertise in gas generation, Parker is perfectly placed to support profitable operations in analytical science. Working with partners in laboratories across a range of sectors, our industry-leading solutions enable consistent accuracy through a constant, on-demand supply of nitrogen, hydrogen, and zero air for carrier, make-up, and fuel gas.

FOCUSED ON PERFORMANCE

A safer choice

High-pressure cylinders are inherently linked to safety issues – from the chance of injury through manual handling to the risk of gas leaks, which can make the atmosphere potentially explosive or deficient in oxygen.

Gas generators from Parker are a safe alternative, thanks to leak detection technology with 'auto shut off' and integral alarms. They also operate at a fraction of the pressure and with low volumes of stored gas, further reducing the potential for harm.

These generators eliminate many of the inconveniences of dependence on outside vendors, such as uncontrollable price increases, dewar ice and condensation, contract negotiations, long term commitments, and tank rentals. With a Parker generator, you control your gas supply.

Cost-efficient with the lowest lifetime cost

In some cases, you can expect to have recouped the cost of your gas generator in less than one year. Energy efficient technologies keep running costs down, there are no hidden charges such as on-going delivery costs, cylinder rental or storage fees for spares and empty cylinders, and maintenance and part replacement costs are minimal.





Global support for your peace of mind

We know that business continuity is vital to your work. That's why we offer a comprehensive package of expert service, care, and maintenance across our complete analytical gas systems range, worldwide.

From installation, scheduled maintenance, and in very rare cases, emergency assistance, wherever you are, you can trust Parker to give you complete peace of mind.

Continuous supply, available on-demand

Parker gas generators are engineered to transform standard compressed air into high quality analytical gas at safe, regulated pressures, on demand, without operator attention. Engineered for easy installation, operation, and long term performance, and permanently installed at the point of use, an on-site generator provides you with straightforward access to an unlimited supply of gas. Always at the correct pressure, flow, and temperature, Parker gas generators improve the stability of your instruments and the accuracy of your results.

Zero Air Generators

HPZA Series

- Produce UHP zero air from house compressed air (<0.05 ppm THC)
- Easy installation and operation
- Increase the accuracy of analysis and reduce the cleaning requirement of the detector
- Qualitative SMART-Display provides operational status at a glance
- Recommended and used by many GC and column manufacturers
- Typical payback period of less than 1 year
- Silent operation and minimal operator attention required
- Models available to service up to 66 FIDs



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

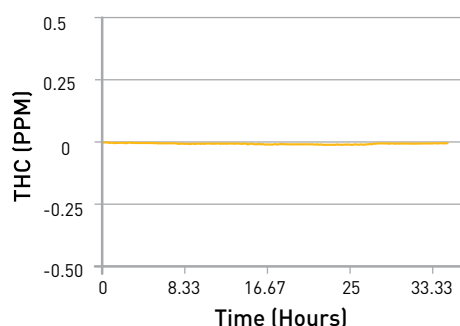
Based on a 450 ccm fuel air rate.



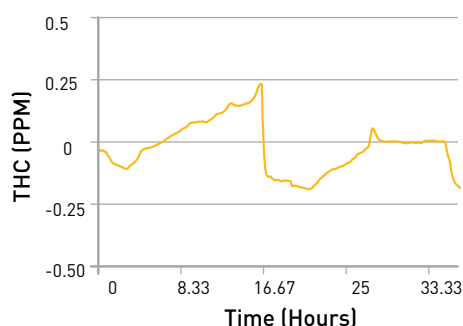
Principal Specifications

| Model | 75-83NA | HPZA-3500 | HPZA-7000 | HPZA-18000 | HPZA-30000 |
|--|--|---|---|---|---|
| Max Zero Air Flow Rate | 1 lpm | 3.5 lpm | 7 lpm | 18 lpm | 30 lpm |
| Outlet Hydrocarbon Concentration (as methane) | < 0.1 ppm | < 0.05 ppm | < 0.05 ppm | < 0.05 ppm | < 0.01 ppm |
| Min/Max Inlet Air Pressure | 40 psig/125 psig | 40 psig/125 psig | 40 psig/125 psig | 40 psig/125 psig | 40 psig/125 psig |
| Max Inlet Hydrocarbon Concentration (as methane) | 100 ppm | 100 ppm | 100 ppm | 100 ppm | 100 ppm |
| Pressure Drop at Max Flow Rate | 4 psig | 4 psig | 4 psig | 4 psig | 4 psig |
| Max Inlet Air Temperature | 78°F (25°C) | 78°F (25°C) | 78°F (25°C) | 78°F (25°C) | 78°F (25°C) |
| Inlet/Outlet Ports | 1/4" NPT (female) | 1/4" NPT (female) | 1/4" NPT (female) | 1/4" NPT (female) | 1/4" NPT (female) |
| Electrical Requirements | 120/230V, 60/50Hz | 120/230V, 60/50Hz | 120/230V, 60/50Hz | 120/230V, 60/50Hz | 120/230V, 60/50Hz |
| Dimensions | 10"w x 3"d x 12"h (25cm x 8cm x 30cm) | 1"w x 13"d x 16"h (27cm x 34cm x 42cm) | 1"w x 13"d x 16"h (27cm x 34cm x 42cm) | 1"w x 13"d x 16"h (27cm x 34cm x 42cm) | 1"w x 13"d x 16"h (27cm x 34cm x 42cm) |
| Shipping Weight | 7 lbs. (3 kg) | 41 lbs. (19 kg) | 41 lbs. (19 kg) | 41 lbs. (19 kg) | 41 lbs. (19 kg) |

**Baseline 75-83NA
Zero Air Generator**



Baseline Bottled Fueled Air



The chromatograms (left) compare baselines produced by a Parker zero air generator and bottled fuel air. The baseline produced by the Parker 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 .25 ppm to -.25 ppm.

Ordering Information

for assistance, call 800-343-4048

| Description | Model |
|--------------------------------------|---|
| Zero Air Generator | 75-83NA, HPZA-3500, HPZA-7000, HPZA-18000, HPZA-30000 |
| Maintenance Kit for Model 75-83NA | MK7583 |
| Maintenance Kit for All Other Models | MK7840 |
| Installation Kit for All Models | IK76803 |
| Preventive Maintenance Plan | 75-83-PM, HPZA-3500-PM, HPZA-7000-PM, HPZA-18000-PM, HPZA-30000-PM |
| Extended Support (24 Month Warranty) | 75-83-DN2, HPZA-3500-DN2, HPZA-7000-DN2, HPZA-18000-DN2, HPZA-30000-DN2 |



Nitrogen Generator with Research Grade Purity

Model UHPN2-1100

- Compact design frees up valuable laboratory floor space
- Ideal for carrier gas applications

The UHPN2 Nitrogen Generator is engineered to transform standard compressed air into 99.9999% nitrogen, exceeding the specification of UHP cylinder gas.

This system can produce up to 1.1 lpm of UHP nitrogen gas by utilizing a combination of state-of-the-art purification technologies and high efficiency filtration. Pressure swing adsorption removes O₂, CO₂, and water vapor. A catalyst module is incorporated in the **UHPN2 Series** to oxidize hydrocarbons from the inlet air supply. High efficiency coalescing prefilters and a 0.01 micron (absolute) membrane filter is also incorporated into the design of the generators. Typical applications include GC carrier and make-up gas and low flow sample concentrators.





Principal Specifications

| Description | UHPN2-1100 |
|--------------------------------|---|
| Max Nitrogen Flow Rate | See flow table |
| Nitrogen Purity | 99.9999% |
| Max Nitrogen Output Pressure | See flow table |
| CO Concentration | <1 ppm |
| CO ₂ Concentration | <1 ppm |
| O ₂ Concentration | <1 ppm |
| H ₂ O Concentration | <1 ppm |
| Argon Concentration | 0.9% |
| Min/Max Inlet Pressure | 60 psig/125 psig |
| Recommended Inlet Temperature | 78°F (25°C) |
| Ambient Operating Temperature | 60°F-100°F (16°C-38°C) |
| Max Air Consumption | 42 lpm (1.5 scfm) |
| Inlet Connection | 1/4" NPT (female) |
| Outlet Connection | 1/8" NPT (female) |
| Electrical Requirements | 120/230 VAC, 60/50 Hz |
| Power Consumption | 700 Watts |
| Dimensions | 12" w x 16" d x 35" h (31cm x 41cm x 89cm) |
| Shipping Weight | 137 lbs. (62 kg) |

Flow Table

| Inlet Air Pressure (psig) | Max Outlet Flow (cc/min.) | Max Outlet Pressure (psig) |
|---------------------------|---------------------------|----------------------------|
| 125 | 1100 | 85 |
| 110 | 1000 | 75 |
| 100 | 900 | 65 |
| 90 | 800 | 60 |
| 80 | 700 | 50 |
| 70 | 600 | 45 |
| 60 | 500 | 35 |

Ordering Information for assistance, call 800-343-4048

| Description | Model |
|--------------------------------------|----------------|
| Ultra High Purity Nitrogen Generator | UHPN2-1100 |
| Optional Prefilter Scrubber Assembly | 76080 |
| Maintenance Kit | MK7694 |
| Installation Kit | IK7694 |
| Preventive Maintenance Plan | UHPN2-1100-PM |
| Extended Support (24 Month Warranty) | UHPN2-1100-DN2 |

NOTES

1. Purity specification for Nitrogen does not include Argon concentration.

Zero Nitrogen Generators for GC Carrier Gas and Makeup Gas Applications

UHPZN2 Series



Parker Zero Nitrogen Generators are engineered to transform standard compressed air in to a safe regulated supply of 99.9995% pure nitrogen, with <0.1ppm of hydrocarbons.

- Ideal for make-up and carrier gas applications including ECD
- Integral oil free compressors with noise reduction technology
- Economy mode: increasing compressor life and reducing ongoing running costs
- Designed to run 24 hours a day

Typical applications include GC make up gas and carrier gas, including ECD (Electron Capture Detector), DSC (Differential Scanning Calorimeter), and virtually any analytical instrument that requires a small flow of ultra high purity zero nitrogen.

Innovative design features include integral compressors with economy mode as standard. This extends compressor life and reduces ongoing running costs.

Nitrogen is produced by utilizing a combination of filtration and pressure swing adsorption (PSA) technology. Standard compressed air is filtered by high efficiency coalescing filters to remove all contaminants down to 0.01 micron. For ultra sensitive applications such as ECD, units also include the addition of a heated catalyst module to ensure hydrocarbons are removed to < 0.1ppm.

The air then passes through two columns filled with proprietary carbon molecular sieve (CMS) which adsorb O₂, CO₂, moisture and hydrocarbons. These are desorbed to atmosphere during the pressure swing cycle leaving a supply of ultra pure nitrogen.



Principal Specifications

| Description | UHPZN2-1000C-W | UHPZN2-3000C-W |
|--------------------------------|--|--|
| Purity | 99.9995% | 99.9995% |
| Hydrocarbon Concentration | <0.1ppm | <0.1ppm |
| CO Concentration | <1 ppm | <1 ppm |
| CO ₂ Concentration | <1 ppm | <1 ppm |
| H ₂ O Concentration | <1 ppm | <1 ppm |
| Flow Rates | 1 L/min | 3 L/min |
| Inlet Pressure | N/A | N/A |
| Outlet Pressure | 75 psig (5 bar) | 75 psig (5 bar) |
| Integral Compressor | Yes | Yes |
| Inlet Connection | N/A | N/A |
| Outlet Connection | 1/8" | 1/8" |
| Ambient Temperature | 60 to 77°F (15 to 25°C) | 60 to 77°F (15 to 25°C) |
| Electrical Requirements | 120/230VAC, 60/50Hz | 120/230VAC, 60/50Hz |
| Power Consumption | 1250 Watts | 1250 Watts |
| Dimensions (HxWxD) | 34.2" x 13.6" x 26.3" [869mm x 345 mm x 668 mm] | 34.2" x 13.6" x 26.3" [869mm x 345 mm x 668 mm] |
| Shipping Weight | 212 lbs (96 Kg) | 212 lbs (96 Kg) |

Ordering Information

for assistance, call 800-343-4048

| Description | Model |
|---|----------------|
| 1,000 ml/min Zero UHP Nitrogen Generator with Integral Compressor | UHPZN2-1000C-W |
| 3,200 ml/min Zero UHP Nitrogen Generator with Integral Compressor | UHPZN2-3000C-W |
| Installation Kit | IK7694 |

| Maintenance Items | Model Number | Change Frequency |
|--|---------------|---|
| Filter Kit - All Non Compressor Models | MKUHPZN2-FK | 12 months |
| Filter Kit - All Compressor Models | MKUHPZN2CL-FK | 12 months |
| Compressor Kit 230V - All Models | MKN2-CK230L | 14,000 hours or 12 months (whichever comes sooner) |



High Purity Nitrogen Generators for GC and Other Analytical Applications

Nitrogen on demand, up to 3,200 ml/min

UHPN2 Series

Parker High Purity Nitrogen Generators are engineered to transform standard compressed air in to a safe regulated supply of 99.9995% nitrogen.

- Produces a continuous supply of high purity nitrogen 99.9995% for analytical applications
- Minimal operator attention and maintenance required
- Integral oil free compressors with noise reduction technology
- Economy mode: increasing compressor life and reducing ongoing running costs
- Designed to run 24 hours a day



Nitrogen is produced by utilizing a combination of filtration and pressure swing adsorption (PSA) technology. Standard compressed air is filtered by high efficiency coalescing filters to remove all contaminants down to 0.01 micron.

The air then passes through two columns filled with proprietary carbon molecular sieve (CMS) which adsorb O₂, CO₂, moisture and hydrocarbons. These are desorbed to atmosphere during the pressure swing cycle leaving a supply of ultra pure nitrogen.

Typical applications include GC make up gas, solvent evaporation, DSC (Differential Scanning Calorimeter) and virtually any analytical instrument that requires a small flow of ultra high purity nitrogen.



Principal Specifications

| | UHPN2-600 | UHPN2-600C | UHPN2-800 | UHPN2-800C | UHPN2-1600 | UHPN2-1600C | UHPN2-3200 | UHPN2-3200C |
|--------------------------------|---|---|---|---|---|---|---|---|
| Purity | 99.9995% | 99.9995% | 99.9995% | 99.9995% | 99.9995% | 99.9995% | 99.9995% | 99.9995% |
| Hydrocarbon Concentration | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| CO Concentration | <1 ppm | <1 ppm | <1 ppm | <1 ppm | <1 ppm | <1 ppm | <1 ppm | <1 ppm |
| CO ₂ Concentration | <1 ppm | <1 ppm | <1 ppm | <1 ppm | <1 ppm | <1 ppm | <1 ppm | <1 ppm |
| H ₂ O Concentration | <1 ppm | <1 ppm | <1 ppm | <1 ppm | <1 ppm | <1 ppm | <1 ppm | <1 ppm |
| Flow Rates | 600ml/min | 600ml/min | 800ml/min | 800ml/min | 1600ml/min | 1600ml/min | 3200ml/min | 3200ml/min |
| Inlet Pressure | 115-145 psig (8-9.9 bar) | N/A | 115-145 psig (8-9.9 bar) | N/A | 115-145 psig (8-9.9 bar) | N/A | 115-145 psig (8-9.9 bar) | N/A |
| Outlet Pressure | 75 psig (5 bar) | 75 psig (5 bar) | 75 psig (5 bar) | 75 psig (5 bar) | 75 psig (5 bar) | 75 psig (5 bar) | 75 psig (5 bar) | 75 psig (5 bar) |
| Integral Compressor | No | Yes | No | Yes | No | Yes | No | Yes |
| Inlet Connection | 1/4" | N/A | 1/4" | N/A | 1/4" | N/A | 1/4" | N/A |
| Outlet Connection | 1/8" | 1/8" | 1/8" | 1/8" | 1/4" | 1/4" | 1/4" | 1/4" |
| Ambient Temperature | 60 to 77°F (15 to 25°C) | 60 to 77°F (15 to 25°C) | 60 to 77°F (15 to 25°C) | 60 to 77°F (15 to 25°C) | 60 to 77°F (15 to 25°C) | 60 to 77°F (15 to 25°C) | 60 to 77°F (15 to 25°C) | 60 to 77°F (15 to 25°C) |
| Electrical Requirements | 120/230VAC, 60/50Hz | 120/230VAC, 60/50Hz | 120/230VAC, 60/50Hz | 120/230VAC, 60/50Hz | 120/230VAC, 60/50Hz | 120/230VAC, 60/50Hz | 120/230VAC, 60/50Hz | 120/230VAC, 60/50Hz |
| Power Consumption | 85 Watts | 606 Watts | 85 Watts | 606 Watts | 88 Watts | 698 Watts | 88 Watts | 698 Watts |
| Dimensions (HxWxD) | 34" x 14" x 16" (869 x 345 x 417mm) | 34" x 14" x 16" (869 x 345 x 417mm) | 34" x 14" x 16" (869 x 345 x 417mm) | 34" x 14" x 16" (869 x 345 x 417mm) | 34" x 14" x 16" (869 x 345 x 417mm) | 34" x 14" x 16" (869 x 345 x 417mm) | 34" x 14" x 16" (869 x 345 x 417mm) | 34" x 14" x 16" (869 x 345 x 417mm) |
| Shipping Weight | 97lbs (44Kg) | 110lbs (50Kg) | 97lbs (44Kg) | 110lbs (50Kg) | 185lbs (84Kg) | 205lbs (93Kg) | 185lbs (84Kg) | 205lbs (93Kg) |

Ordering Information

for assistance, call 800-343-4048

| Description | Model |
|---|-------------|
| 600 ml/min UHP Nitrogen Generator | UHPN2-600 |
| 600 ml/min UHP Nitrogen Generator with Integral Compressor | UHPN2-600C |
| 800ml/min UHP Nitrogen Generator | UHPN2-800 |
| 800ml/min UHP Nitrogen Generator with Integral Compressor | UHPN2-800C |
| 1600ml/min UHP Nitrogen Generator | UHPN2-1600 |
| 1600ml/min UHP Nitrogen Generator with Integral Compressor | UHPN2-1600C |
| 3,200 ml/min UHP Nitrogen Generator | UHPN2-3200 |
| 3,200ml/min UHP Nitrogen Generator with Integral Compressor | UHPN2-3200C |
| Installation Kit | IK7694 |

| Description | Model Number | Change Frequency |
|--|--------------|---|
| Filter Kit - All Non Compressor Models | MKUHPN2-FK | 12 months |
| Filter Kit - UHPN2-600C/800C Models | MKUHPN2C-FK | 12 months |
| Filter Kit UHPN2-1600C / 3200C Models | MKUHPN2CL-FK | 12 months |
| Compressor Kit 230V - UHPN2-600C/800C Models | MKN2CK230S | 8,000 hours or 24 months (which ever comes first) |
| Compressor Kit 230V UHPN2-1600C/3200C Models | MKN2-CK230L | 8,000 hours or 24 months (which ever comes first) |

Flame-Proof Zero Air Generator

Model 75-82S



The Parker Model 75-82S Zero Air Generator produces up to 1,000 cc/min. of high purity zero grade air from a standard compressed air supply. The generator utilizes state-of-the-art catalytic technology to continuously convert compressed air into zero-grade air, at safe regulated pressures, without need for operator attention.

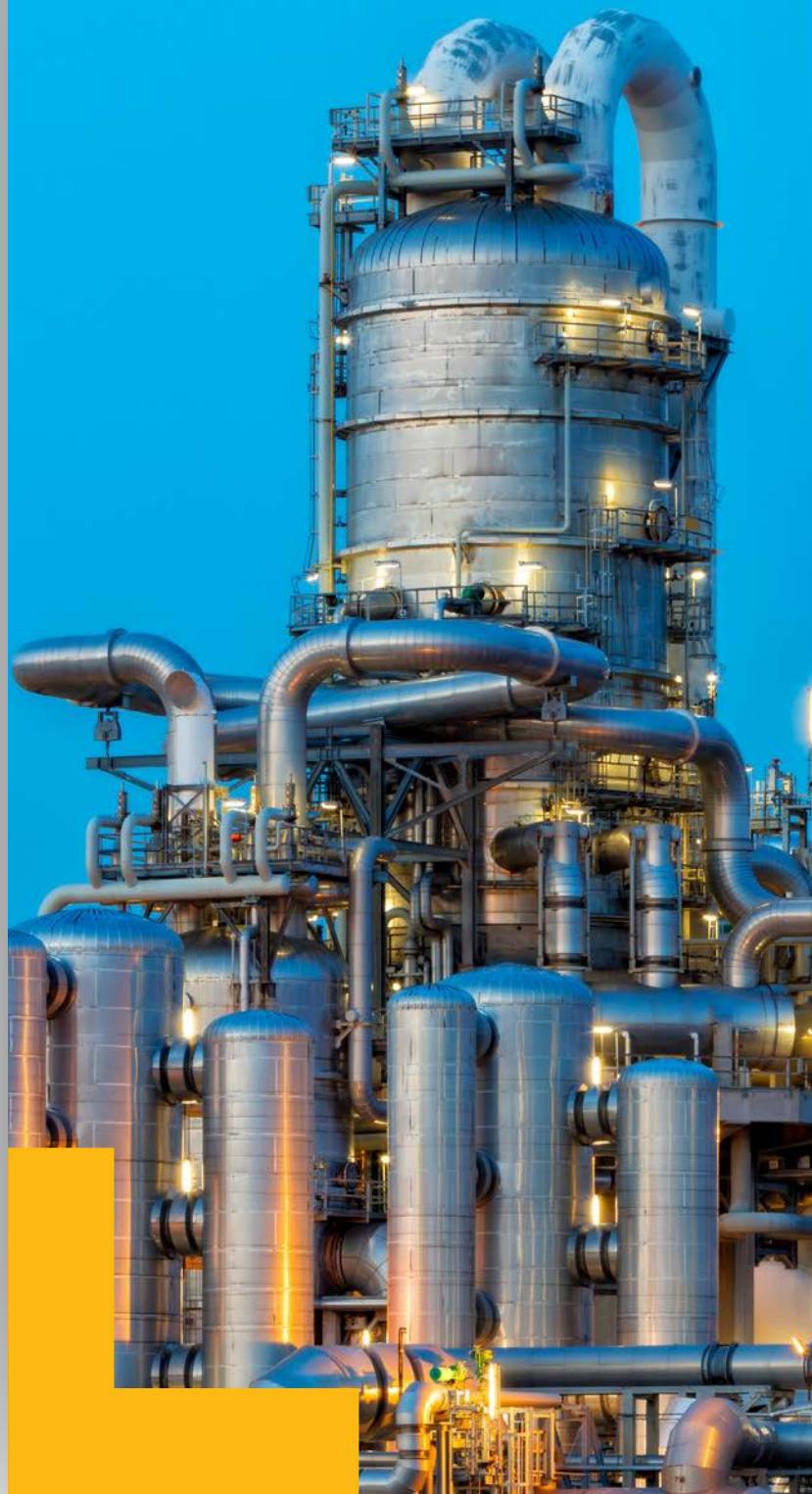
- Safe, even in explosive environments
- Low maintenance
- Produces a continuous supply of ultra high purity zero grade air
- Compact - frees up valuable floor space
- Designed to mount on Unistrut® framing or directly on the wall

The housing is a standard Crouse-Hinds® flame-proof enclosure designed to operate in a class 1, division 1, groups B, C, or D environment. The internals are all stainless steel.

Model 75-82S Zero Air Generator can be used as a fuel air supply to process GC-FIDs, and as a zero grade gas supply/zero reference for process analytical instruments.

Zero grade air is produced from compressed air by means of catalytic oxidation. The compressed air is channeled into a heated catalyst bed where the hydrocarbons are converted to carbon dioxide and water vapor, producing zero-grade air with less than 0.1 ppm hydrocarbon content (measured as methane).

The use of a 75-82S Zero Air Generator has advantages over the conventional sources of fuel air for GC analysis. For example, a lower and more stable baseline signal can be obtained. Lower baseline noise means higher signal-to-noise ratio, giving rise to higher sensitivity or larger peak areas. The result is increased accuracy and reduced cleaning requirement of the detector.





Principal Specifications

| Description | Model |
|--|---|
| Zero Air Generator | 75-82S |
| Flame-Proof Certification (CSA NRTL/C) | Class 1, Division 1, Groups B, C, and D |
| Maximum Flow Rate | 1000 cc/min. |
| Total Hydrocarbon Concentration | < 0.1 ppm (measured as methane) |
| Min./Max. Inlet Pressure | 40 psig/125 psig |
| Maximum Inlet Hydrocarbon Content | 100 ppm |
| Maximum Inlet Air Dewpoint | 10°F (5°C) above ambient |
| Pressure Drop at Max. Flow Rate | < 8 psid |
| Ambient Temperature | 40°F to 100°F (4°C to 38°C) |
| Electrical Requirements ⁽¹⁾ | 120/230 VAC, 60/50 Hz |
| Shipping Weight | 28 lbs. (13 kg) |
| Dimensions | 11" w x 7" h x 6" d (28 x 18 x 15 cm) |

Ordering Information

for assistance, call 800-343-4048

| Description | Model |
|--------------------------------------|----------------------------|
| Zero Air Generator | 75-82S |
| Replacement Catalyst Module | 75398 |
| Final Filter Cartridge | 75820 |
| Optional Prefilter Assemblies | 2002N-1B1-DX, 2002N-1B1-BX |
| Installation Kit | IK76803 |
| Preventive Maintenance Plan | 75-82S-PM |
| Extended Support (24 Month Warranty) | 75-82S-DN2 |

Recommended Gas Generators for Analytical Instruments

| Instrument | Gas Requirements | Gas Purity Requirements | Flow Rates | Generator Recommendation/Model |
|---|---|---|---|--|
| Atomic Absorption (AA) with Flame | Air for Oxidant Gas | Clean, dry | 1-7 SCFM | AA Gas Purifier Model 73-100 |
| Atomic Thermal Desorber | Zero Air Hydrogen for FID Fuel | Clean, dry, hydrocarbon-free Clean, dry, high purity | Up to 1600 ml/min. | Zero Air or TOC Gas Generator HPZA-3500 or TOC-1250 |
| Atmospheric Pressure Ionization (API-MS) | Air for nebulizer gas, nitrogen for curtain, sheath, and shield gas | Clean, dry, hydrocarbon-free 99% or higher (Nitrogen or Zero Air) | 20-67 lpm | Nitrogen Generator N2-14, N2-22, N2-35, N2-45, N2-80, N2-135, N2-200, Nitroflowlab, Nitroflow60, NitroflowTG1, NitroflowTG2, 76-98-N100, 76-98-N200, 76080 |
| Autosamplers for Various Instruments | Air for pneumatic controls, nitrogen for sample injector | Clean, dry Ultra high purity | <1 SCFM <550 cc/min | Membrane Air Dryer 64-02 UHP Nitrogen Generator UHPN2-1100 |
| CO ₂ Analyzers | Calibration Air | CO ₂ free | 0.5-1.0 SLPM | FT-IR Purge Gas Generator Spectra15, Spectra30 |
| Continuous Emissions Monitoring (CEM) | Calibration Air Dilution Air | Dry, CO ₂ , SO ₂ , NO _x , Hydrocarbon-free | 10-15 SLPM | CEM Zero Air Generator 75-45-M744 |
| Emissions Analyzers | Zero Air | Hydrocarbon-free | 2-15 SLPM | Zero Air Generator HPZA-18000 |
| Fourier Transform Infrared Spectrometer (FT-IR) | Air for sample compartment, optics, and/or air-bearing | Clean, dry, CO ₂ -free | 0.5-3 SCFM | FT-IR Purge Gas Generator Spectra 15, Spectra 30 Lab Gas Generator 74-5041NA |
| Gas Chromatograph (GC) GC-FID | Zero air as flame support air Hydrogen as flame fuel gas Hydrogen as capillary carrier gas Nitrogen as packed carrier gas Nitrogen as make up gas | Clean, hydrocarbon-free Ultra high purity Ultra high purity Ultra high purity, zero grade Ultra high purity, zero grade | 150-600 cc/min. 30-40 cc/min. Varies Varies <100 cc/min | Zero Air Generator HPZA-3500 Hydrogen Generator H2PEM-260 Hydrogen Generator H2PD-300 UHP Nitrogen Generator UHPN2-1100 UHP Nitrogen Generator UHPN2-1100 |
| GC-FPD | Zero Air as Flame Support Air Hydrogen as Flame Fuel Gas Hydrogen as Capillary Carrier Gas Nitrogen as Packed Carrier Gas | Clean, hydrocarbon-free Ultra high purity Ultra high purity Ultra high purity | <200 cc/min 50-70 cc/min Varies Varies | Zero Air Generator HPZA-3500 Hydrogen Generator H2PEM-260 Hydrogen Generator H2-1200 UHP Nitrogen Generator UHPN2-1100 |
| GC-NPD | Zero Air to Rubidium/Thermonic Bead Hydrogen as Detector Support Gas Hydrogen as Capillary Carrier Gas Nitrogen as Packed Carrier Gas | Dry, clean, hydrocarbon-free Ultra high purity Ultra high purity Ultra high purity | <200 cc/min <10 cc/min Varies Varies | Zero Air Generator HPZA-3500 Hydrogen Generator H2PEM-100 Hydrogen Generator (Palladium) H2PD-300 UHP Nitrogen Generator UHPN2-1100 |
| GC-ECD | Nitrogen as carrier gas Nitrogen as make up gas | Ultra high purity, zero grade Ultra high purity, zero grade | Varies <100 cc/min | UHP Nitrogen Generator UHPN2-1100 UHP Nitrogen Generator UHPN2-1100 |
| GC-ELCD, HALL | Hydrogen as reaction gas | Ultra high purity | 70-200 cc/min | Hydrogen Generator H2PD-300 |

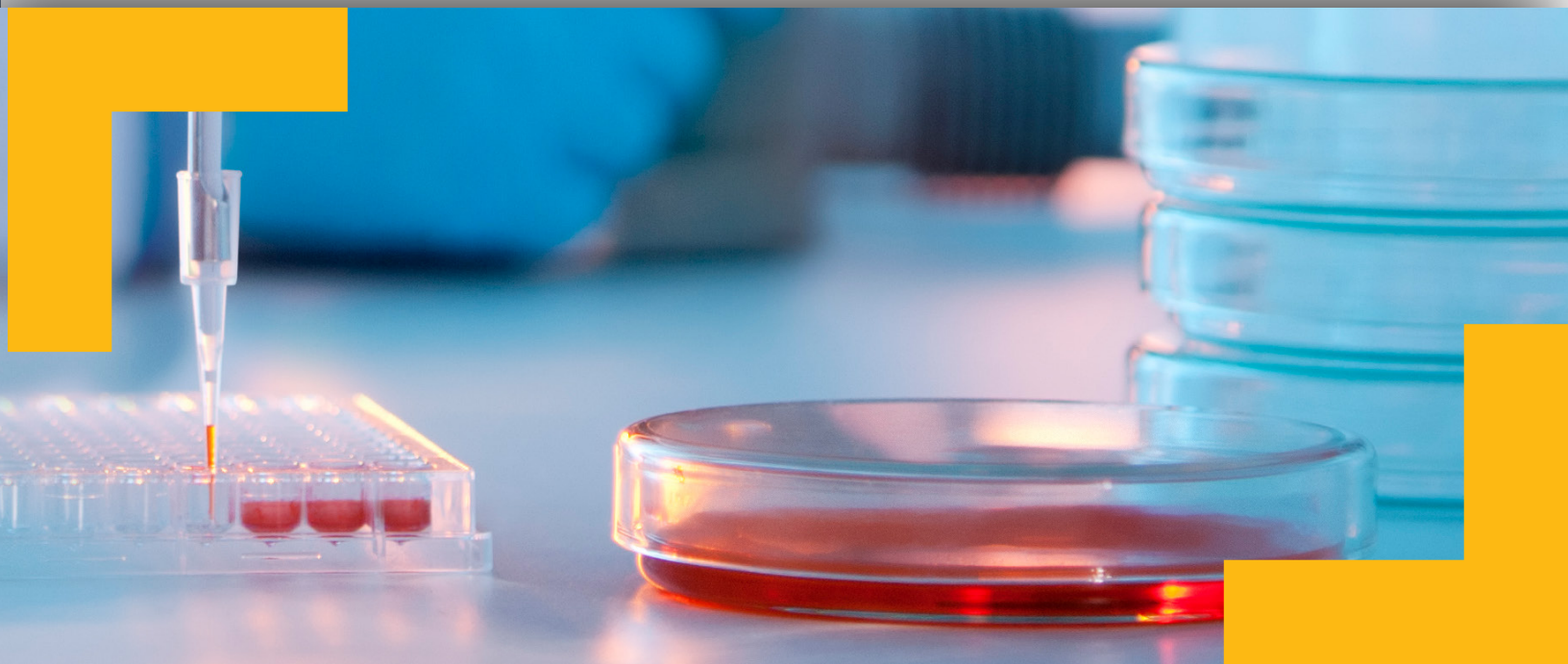
| Instrument | Gas Requirements | Gas Purity Requirements | Flow Rates | Generator Recommendation/Model |
|--|---|--|-------------------------------|--|
| GC-TCD | Hydrogen as carrier & reference gas | Ultra high purity | Varies | Hydrogen generator H2PD-300 |
| LC-MS | Nitrogen as a curtain gas | LC-MS Grade | 3-30 lmp | Nitrogen generator N2-14, NitroFlowLab, NitroFlow60, N2-35 |
| ICP Spectrometer | Nitrogen as Optic/Camera Purge | Ultra high Purity | <1-5 lmp | Nitrogen generator 76-98NA |
| Nuclear Magnetic Resonance (NMR) | Air for lifting, spinning | Clean, dry | <10 SCFM | Air dryer UDA-300NA Lab gas generator 74-5041NA |
| Ozone generator | Supply air | Clean, dry | .3-20 SCFM | Air dryer 64-01, 64-02, 64-10, UDA-300NA |
| Protein analyzer | Dry air, nitrogen | Clean, dry | Up to 5 SCFM | Nitrogen generator N2-14, N2-22, NitroFlowLab, N2-35 |
| Solvent evaporators (sample concentrators) | Nitrogen | Clean, dry nitrogen | 2-15 SLPM | Zero Air Generator Nitrovap-1LV, Nitrovap-2LV |
| Stack gas sampler | Dilution air | Clean, dry | <1.0 SCFM | CEM zero air generator (75-45-M744) |
| Total oxygen demand (TOD) | Nitrogen as a carrier gas | Ultra high purity | 300 cc/min | Nitrogen Generator UHPN2-1100 |
| Thermal gravimetric analyzer (TGA) | Nitrogen as furnace purge | Clean, dry, inert | <100 cc/min | Zero Air Generator HPZA-3500 Hydrogen Generator H2PEM-260 Hydrogen Generator H2PEMPD-1300-100 UHP Nitrogen Generator UHPN2-1100 |
| Differential scanning calorimeter (DSC) | Air for air shield | Clean, dry | <100 cc/min | Dry Air Generator 64-01, UDA-300 |
| Total hydration analyzer (THA) | Zero Air for FID Hydrogen as flame fuel gas | Clear, hydrocarbon free Ultra high purity | 50-500 cc/min 5-50 cc/min | Zero Air Generator 75-82S, 75-83NA Hydrogen Generator H2PEM-100 |
| Total organic carbon analyzer (TOC) | Dry air or nitrogen for carrier gas Combustion gas | Clean, dry, hydrocarbon-free, CO ₂ Free, Ultra high purity | 100-500 SLPM 50-700 cc/min | TOC gas generator TOC-625, TOC-1250 UHP Nitrogen Generator UHPN2-1100 |

Legal Notifications



WARNING

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE. This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met. The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Parker Hannifin Corporation and its subsidiaries at any time without notice.



Worldwide Filtration Manufacturing Locations

North America

Compressed Air Treatment

Industrial Gas Filtration and Generation Division

Lancaster, NY
716 686 6400
www.parker.com/igfg

Haverhill, MA
978 858 0505
www.parker.com/igfg

Engine Filtration

Racor

Modesto, CA
209 521 7860
www.parker.com/racor

Holly Springs, MS
662 252 2656
www.parker.com/racor

Hydraulic Filtration

Hydraulic & Fuel Filtration

Metamora, OH
419 644 4311
www.parker.com/hydraulicfilter

Laval, QC Canada
450 629 9594
www.parkerfarr.com

Velcon
Colorado Springs, CO
719 531 5855
www.velcon.com

Process Filtration

domnick hunter Process Filtration SciLog

Oxnard, CA
805 604 3400
www.parker.com/processfiltration

Water Purification

Village Marine, Sea Recovery, Horizon Reverse Osmosis

Carson, CA
310 637 3400
www.parker.com/watermakers

Europe

Compressed Air Treatment

domnick hunter Filtration & Separation

Gateshead, England
+44 (0) 191 402 9000
www.parker.com/dhfn

Parker Gas Separations

Etten-Leur, Netherlands
+31 76 508 5300
www.parker.com/dhfn

Hiross Zander

Essen, Germany
+49 2054 9340
www.parker.com/hzfd

Padova, Italy
+39 049 9712 111
www.parker.com/hzfd

Engine Filtration & Water Purification

Racor

Dewsbury, England
+44 (0) 1924 487 000
www.parker.com/rfde

Racor Research & Development

Stuttgart, Germany
+49 (0)711 7071 290-10

Hydraulic Filtration

Hydraulic Filter

Arnhem, Holland
+31 26 3760376
www.parker.com/hfde

Ujala, Finland
+358 20 753 2500

Condition Monitoring Parker Kittiwake

West Sussex, England
+44 (0) 1903 731 470
www.kittiwake.com

Process Filtration

domnick hunter Process Filtration Parker Twin Filter BV

Birtley, England
+44 (0) 191 410 5121
www.parker.com/processfiltration

Asia Pacific

Australia

Castle Hill, Australia
+61 2 9634 7777
www.parker.com/australia

China

Shanghai, China
+86 21 5031 2525
www.parker.com/china

India

Chennai, India
+91 22 4391 0700
www.parker.com/india

Parker Fowler

Bangalore, India
+91 80 2783 6794
www.johnfowlerindia.com

Japan

Tokyo, Japan
+81 45 870 1522
www.parker.com/japan

Korea

Hwaseon-City
+82 31 359 0852
www.parker.com/korea

Singapore

Jurong Town, Singapore
+65 6887 6300
www.parker.com/singapore

Thailand

Bangkok, Thailand
+66 2186 7000
www.parker.com/thailand

Latin America

Parker Comercio Ltda.

Filtration Division
Sao Paulo, Brazil
+55 12 4009 3500
www.parker.com/br

Pan American Division

Miami, FL
305 470 8800
www.parker.com/panam

Africa

Aeroporto Kempton Park, South Africa
+27 11 9610700
www.parker.com/africa



Parker Hannifin Corporation
Industrial Gas Filtration
and Generation Division
4087 Walden Avenue
Lancaster, NY 14086
phone 800 343 4048
www.parker.com/igfg

