

GC PLUS ZERO AIR GENERATOR



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DESCRIPTION

The VICI DBS® GC Zero Air Generator utilizes compressed air that is prefiltered to 5 micron and then purified using a state of the art combined heated catalyst module. The output zero air is free from total hydrocarbons to <math><0.1\text{ ppm}</math>, making it ideal for all FID applications. This gas purity level (measured as methane) guarantees a low signal to noise ratio, ensuring a flat and stable GC baseline.

With no moving parts and silent operation, the generator is extremely reliable and ideal to be installed directly in the laboratory. With flow rates up to 30 L/min one system can support up to 75 FIDs. With short pay back time, minimal maintenance and operator attention they are an ideal addition to any GC laboratory.



INCREASE EFFICIENCY

A constant gas supply with a guaranteed purity, eliminates interruptions of analysis to change cylinders and reduces the amount of instrument re-calibrations required.



RETURN ON INVESTMENT

Payback period can be as short as 6 to 12 months.



IMPROVE SAFETY

Zero air produced at low pressure and ambient temperature, removes the need for high pressure cylinders.



ENHANCE PERFORMANCE

DETECTOR:

The reduction of hydrocarbons, including methane to <math><0.1\text{ ppm}</math> decreases the background noise level and gives the baseline much better stability, considerably increasing detector sensitivity and ensuring precise analytical results.

INSTRUMENT:

Gas generators can be installed in the laboratory close to the instrument, eliminating the need for long gas lines from external cylinder supplies. A constant guaranteed high purity gas supply improves stability and ensures greater reproducibility of results.





FEATURES

Produces a continuous supply of zero grade air | On-demand supply 24/7 | Flow rate: 1 to 30 L/min
 | Purity: <0.1 ppm THC | Pressure: 10 barg (145 psig) | Proprietary platinum catalyst technology
 | 2-year complete product warranty | Easy to install, operate and maintain



BENEFITS

Eliminates dangerous high pressure cylinders helping to keep your employees safer | Removes the logistics, inconvenience, downtime and costs of a cylinder system | Flow capacity to match your specific instrument demands | Ideal for all GC detector applications - stable baseline with increased sensitivity and repeatability | Meets and exceeds the requirements for the most demanding GC applications | Superior air purification with long life catalyst | Peace of mind | Improve your laboratory work flow and productivity



APPLICATIONS

GC APPLICATIONS

- GC-FID oxidant gas
- GC-NPD gas
- GC-FPD gas

ANALYZER APPLICATIONS

- Total Hydrocarbon Analyzer (THA) detector gas

OPERATING DIAGRAM

Zero Air generators use three steps to transform ambient air into analytical grade air.

STEP 1: PRE-FILTRATION

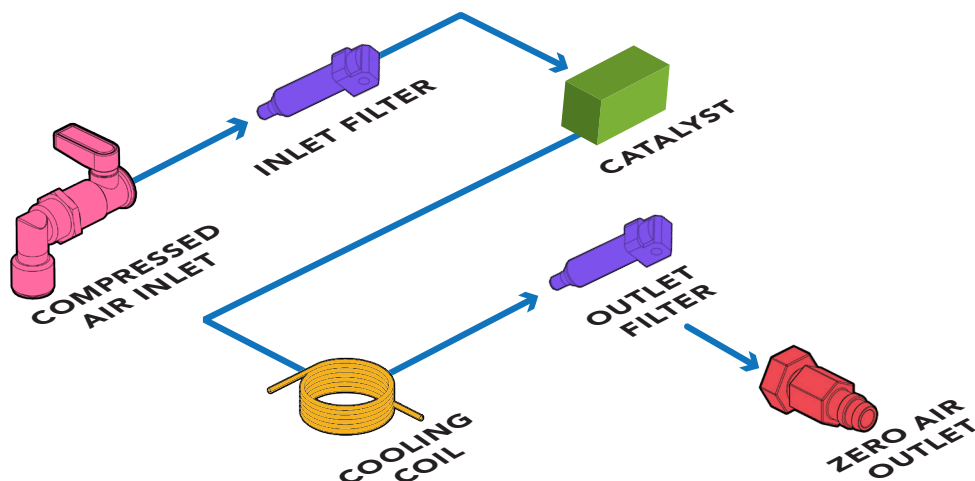
The external oil-free compressor delivers air through a high efficiency filter that removes any particles or aerosols which may damage the system. The filter has an automatic drain system, and removes oil, water and any other particles larger than 5 microns in size.

STEP 2: HC AND CO REMOVAL

The air leaving the filter enters a high-temperature platinum catalyser, through which oxidation eliminates all hydrocarbon molecules down to <0.1 ppm.

STEP 3: FINAL FILTRATION

A high-efficiency polishing filter is used to prevent any kind of particles from entering the instrument.



MODELS & SPECS

| | GC PLUS 1500 | GC PLUS 3000 | GC PLUS 6000 | GC PLUS 15000 | GC PLUS 30000 |
|---------------------------------|---|--------------|--------------|---------------|---------------|
| Flow mL/min | 1500 | 3000 | 6000 | 15000 | 30000 |
| Purity - hydrocarbons | <0.1 ppm | | | | |
| Purity - CO | <0.1 ppm | | | | |
| Inlet pressure barg (psig) | 4.5 to 10 (65 to 145) | | | | |
| Inlet air quality | Clean dry compressed air ISO8573-1:2010 Class 1.2.1 | | | | |
| Max outlet pressure barg (psig) | 1 (15) drop from inlet | | | | |
| Max HC in | 100 ppm | | | | |
| Max CO in | 50 ppm | | | | |
| Technology | Platinum catalyst | | | | |
| LED indicators | Power on/off, system ready, errors | | | | |
| Warm up time (minutes) | 45 | | | | |
| Electrical supply | 110-120V 60Hz / 220-240V 50Hz | | | | |
| Power consumption (watts) | 200 | 550 | 550 | 550 | 550 |
| Dimensions mm (inches) | 550W x 410H x 230D (21.6W x 16H x 9D) | | | | |
| Weight kg (lbs) | 9.5 (21) | 11 (24) | 11 (24) | 12 (26.5) | 13 (28.5) |
| Shipping dimensions mm (in) | 650W x 390H x 560D (25.6W x 15.3H x 22D) | | | | |
| Shipping weight kg (lbs) | 14 (31) | 15 (33) | 15 (33) | 16 (35) | 17 (37.5) |
| Operating temp °C (°F) | 15 to 35 (59 to 95) | | | | |
| Inlet connection | 1/4" Compression | | | | |
| Outlet connection | 1/8" Compression | | | | |
| Certification | CE, FCC, MET (UL and CSA compliant) | | | | |

GC PLUS 1500

DB-NGC1500-EU 230-240V/50-60Hz
DB-NGC1500-US 100-110V/60Hz

GC PLUS 3000

DB-NGC3000-EU 230-240V/50-60Hz
DB-NGC3000-US 100-110V/60Hz

GC PLUS 6000

DB-NGC6000-EU 230-240V/50-60Hz
DB-NGC6000-US 100-110V/60Hz

GC PLUS 15000

DB-NGC15000-EU 230-240V/50-60Hz
DB-NGC15000-US 100-110V/60Hz

GC PLUS 30000

DB-NGC30000-EU 230-240V/50-60Hz
DB-NGC30000-US 100-110V/60Hz

