

# ECO PHYSICS Pure Air Generator 003.

## Pure Air for Analyzers and Gas Blenders

For checking the zero point of gas analyzers as well as for diluting calibration gas a source for very pure compressed air is needed.

The increasing sensibility of air pollution analyzers as they are required by tougher laws and regulations demands pure, dry air in sufficient quantity and at constant pressure. Such a source should also be available on a continuous basis and lend itself to be integrated in monitoring systems.

The technological most advanced product for integration into monitoring systems is the ECO PHYSICS Pure Air Generator (PAG).

### PAG 003:

Eliminates all air pollutants down to traces of individual ppt ( $=10^{-12}$  units in volume).



### Appealing concept.

The air is being dried with a Peltier element cooler. This means continuous operation without maintenance.

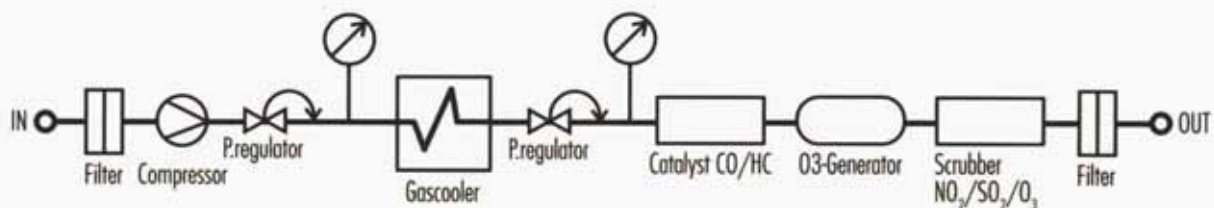
In order to accommodate direct connection to electronically controlled mass flow controllers the pressure regulation has been designed very carefully.

No application has higher demands on zero air as background level analysis. The ECO PHYSICS PAG was created for it!



ECO PHYSICS

# Flowdiagram PAG 003.



## Specifications.

### PAG 003

Air Pollutant Elimination:

NO<sub>x</sub>, SO<sub>2</sub> and O<sub>3</sub> < 10 ppt, additionally HC, CO < 3 ppb

H<sub>2</sub>O Dewpoint:

-15 °C

Remaining Particle Size:

<<< 7 μm

Max. Performance:

15 l/min. NPT

Pressure:

2 bar

Line voltage:

230 V / 50 Hz or 110 V / 60 Hz

Power Requirements:

max. 650 Watt

external compressor: 350 Watt

Dimensions:

19" Rack, 6 UH (height units)

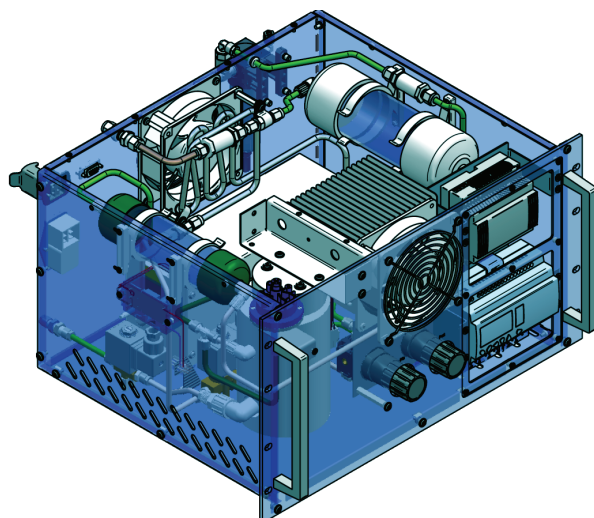
Weight:

PAG 003: 26.5 kg

external compressor: 6.7 kg



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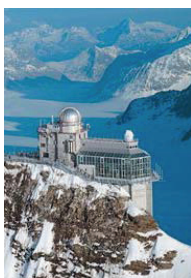


Zero point verification and calibration of trace gas analyzers

Dilution gas for gas phase titration (GPT)

Fuel gas for gas chromatographs, flame ion analyzers (FID) and flame photometric detectors (FPD)

**The Pure Air Generator PAG 003 is your source for efficient and reliable zero air. It eliminates the need for ultrahigh purity zero air cylinders. In particular it is designed for CLDs measuring sub ppb levels. Other trace gas analyzers benefit as well.**



Ambient air monitoring.

### Appealing concept.

The PAG 003 pure air generator is the reference source of zero air. The increasing sensitivity of air pollution analyzers as they are required by laws and regulations demands pure air in sufficient quantity and at constant pressure. For zero point verification and calibration of gas analyzers as well as the dilution of calibration gases and for GPT a source of very pure compressed air is needed. Additionally it eliminates the need for ultrahigh purity (UHP) zero air cylinders which are required for operating many on-line process gas analyzers like flame ionization analyzers and gas chromatographs.

The pure air generator is capable of delivering pure air free from water vapor, particles, sulfur dioxide (SO<sub>2</sub>), oxides of nitrogen (NO<sub>x</sub>), ozone (O<sub>3</sub>), carbon monoxide (CO) and hydrocarbons (HC).

### Maintenance.

The PAG 003 is designed for continuous operation. Maintenance requirements are minimal and easy to perform. The installed particle filters and water traps guarantee seamless operation.

### Specifications.

<b>Elimination:</b>	NO <sub>x</sub> , SO <sub>2</sub> , ozone < 10 ppt
	HC, CO < 3 ppb
<b>Dew point:</b>	- 15 °C
<b>Particles:</b>	< 7 µm
<b>Output flow:</b>	15 l/min (max.)
<b>Output pressure:</b>	2 bar (max.)
<b>Gas connections:</b>	¼" Swagelok
<b>Supply voltage:</b>	230 V / 50 Hz or 115 V / 60 Hz
<b>Power consumption:</b>	900 VA total
<b>Dimensions:</b>	19" rack (6 HU)
<b>Weight:</b>	25.5 kg PAG 003 6.6 kg compressor

- Pure air down to ppt level
- Particle free
- Dry air
- Adjustable output pressure
- 19" rack size

