
Zero Air. HiQ[®] Zero Air Generator.



Background Pure air is commonly used in the chromatographic world mainly as fuel for flames in detectors such as Flame Ionisation Detectors (FIDs) and Flame Photometric Detectors (FPDs). The pure air can be delivered in classic gas cylinders or be produced on site from oil-free compressed air. Designed with safety and convenience in mind, this system will generate purified and hydrocarbon-free air from an existing in-house oil-free compressed air supply.

Description The HiQ[®] Zero Air generators reduce total hydrocarbon (THC) pollutants to less than 0.1 ppm and removes particles down to 0.1 micron. In the lab, they provide several advantages. Eliminating the need to use and store high-purity air in cylinders saves valuable laboratory floor space. There is no need to continually buy replacement high-purity air in cylinders. Using an on-site gas generator also eliminates the need to purge systems or recalibrate instruments after replacing empty cylinders with full ones. The operation of the generator requires low levels of electrical power. This complete turnkey system is engineered with the highest quality components, is easy to install, and requires only minimal annual maintenance. The log file can easily be downloaded to a PC via the USB interface to make the traceability and diagnostics more efficient.

With a small footprint of 16 x 35 cm (3 to 6 L/min models), the HiQ[®] Zero Air generator saves space. It is compatible to all major voltages and power supplies.

Functioning Air Principle The HiQ[®] Zero Air generator models utilise a 3-stage process to purify ambient air into analytical grade air. Supplied air is initially passed through highly efficient pre-filtration to remove both moisture and particles greater than 5 microns. After filtration, the regulated air is channelled into a stainless steel catalyst chamber to remove background hydrocarbons and carbon monoxide. The chamber is filled with a highly efficient platinum + palladium catalyst which has been heated to very high temperature to ensure final hydrocarbon removal to less than 0.1 ppm. An additional high-grade filter is also used to remove 99.99% of particles greater than 0.5 microns.

Laboratory Applications With its small size, trouble free operational and low maintenance environment, the HiQ[®] Zero Air generator is the preferred source of air fuel gas for THC analysers, GC-FID and GC-FPD detectors and zero air for THC analysers. With its low hydrocarbon content (less than 0.1 ppm) the HiQ[®] Zero Air generator will give excellent and stable baseline to any chromatograph on the market.

Specifications

HiQ® Zero Air-3000	Flow rate: 3000 ml/min*
HiQ® Zero Air-6000	Flow rate: 6000 ml/min*
HiQ® Zero Air-15000	Flow rate: 15000 ml/min*
HiQ® Zero Air-30000	Flow rate: 30000 ml/min*
HiQ® Zero Air-60000	Flow rate: 60000 ml/min*
HiQ® Zero Air-90000	Flow rate: 90000 ml/min*

* need external oil-free compressed Air

Delivery pressure:	Up to 7 barg (100 Psig) (depending on the inlet pressure)
Air purity:	<0.1 ppm Total Hydrocarbons
Particle filtration level:	<0.1 µm
Fittings:	Inlet Air: 1/4" Swagelok / Outlet Air 3 to 6 L: 1/8" and 15 to 90 L: 1/4" Swagelok
User interface:	Pressure setting, system status, user parameter / Touch screen / LCD display
Remote command:	USB / download of the log file possible
Power requirements:	230V/50Hz - 230V/60Hz - 115V/60Hz - 100V/60Hz

Air flow rate (NL/min) (max):	3	6	15	30	60	90
Casing type:	table top	table top	floor	floor	floor	floor
Dimensions (cm) (WxDxH):	16x35x25	16x35x25	36x64x67	36x64x67	36x64x67	36x64x67
Shipping Dim (cm) (WxDxH):	41x51x36	41x51x36	45x80x80	45x80x80	45x80x80	45x80x80
Net weight (kg):	7	7	25	25	30	35
Shipping weight (kg):	10	10	29	29	34	39
Power consumption (Watt):	260	260	420	420	510	610

Spare Parts and Consumables for maintenance

Set of filters (coalescent/dust filter)
Replacement catalysis oven

HiQ® Zero Air generator in principle

