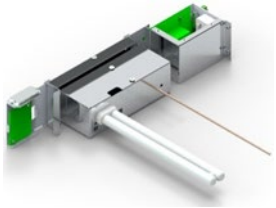
HQAir Professional (HQP) –Hydroxyl Unit

Introduction

The HQAir Professional system produces Hydroxyls to destroy odours, mould, viruses and bacteria both in the air and on surfaces.

The HQAir Professional is a wall mountable unit with a single driver. (see below)



Specifications

Function	***HQAir Professional***
Dimensions – Portable (mm)	360(w) x 120(d) x 360(h)
Power	40-65w (one driver)
Inbuilt fan	Yes – Low flow – Quiet operation < 48dbA @ 1m
Room Size	Up to 60m^2 allowing for 2 air exchanges per hour in occupied spaces.
Maintenance schedule	Check pre-filters and drivers every 8 weeks – remove dust and contaminates if built up. Replace driver tubes and elements every 12,000 hours.
Hydroxyl Generators and life	1 x 12,000 hours
Uses	Home/Office/Commercial – small to medium space. Occupied and unoccupied spaces
Interfaces	• Digital Input – Run and Interlock • Digital Output – Running and Fault • RS485 MODBUS • WiFi (MODBUS-Ethernet, MQTT, HTTP) • Infrared control

Power

The HQAir Professional uses a standard power cord (IEC320-C14, the standard jug or PC cord) is connected. When connected to power and turned on, the LED will light to show it operating correctly and flash if there is an error in operation. When the light is on and the fan is operating, the HQAir Professional unit is generating Hydroxyls.

Airflow

The HQAir has a built in fan. The Hydroxyls generated by the system are fast-acting, but to do their job they need to be moved to the site of contamination or have contaminated air drawn past the tubes. In larger rooms, an additional fan or source of air movement will assist the distribution of the Hydroxyl treated air to cover all spaces.

RS485 connector

The HQAir Professional has an RS485 connector on the bottom right side of the unit. This will be used for control systems that are currently being developed, which will allow remote control of the HyGens inside multiple HQAir. Please contact us for further information if required.

Questions:

1. What experience has there been in Australia and other countries?

   The product has been in Australia and China (as the smaller units and limited industrial applications). The 5 HyGen unit is a new generation of the product developed to meet needs in medical/office/commercial and light industrial applications. Hydroxyl technology has been developed and implemented for over 10 years in medical facilities through to cruise ships and commercial applications. In Australia, we currently have installs in Assisted Living centers, hotel installations, Childcare and aged care facilities.

2. One unit may cover up to 80m^2, what is the limit on height or air flow rate of one equipment?

   The airflow from the unit can be directed over the areas to be treated. Given larger areas may need to be treated, the focus should be on treating the air and using fans/air movers to distribute the treated air over the area. This will reduce the air-born virus and deactivate the virus on surfaces much faster.

3. Does the Odour/VOC/Viracidal/Bactericidal Efficiency decay with operation time?

   No. This is why the life of the HyGen driver is controlled. If there are filters installed, they will need to be cleaned and replaced on a schedule depending on the level of contamination in the application.

   The unit should be installed with a pre-filter to reduce particulate contamination. This should be checked and cleaned every few weeks to months depending on possible contamination. This can also be automated by installing a differential pressure sensor that triggers a service on increase of backpressure. The optics themselves need changing every 12,000 hours. They will still be operating past this point; however, the oxidant output will have reduced by about 20-30% at this point and replacement is required to ensure efficacy. The hours of use is monitored and controlled into the drivers themselves and can be reported by a control interface, so that the need to service can be monitored and a service schedule setup based on actual use monitored from a central location.