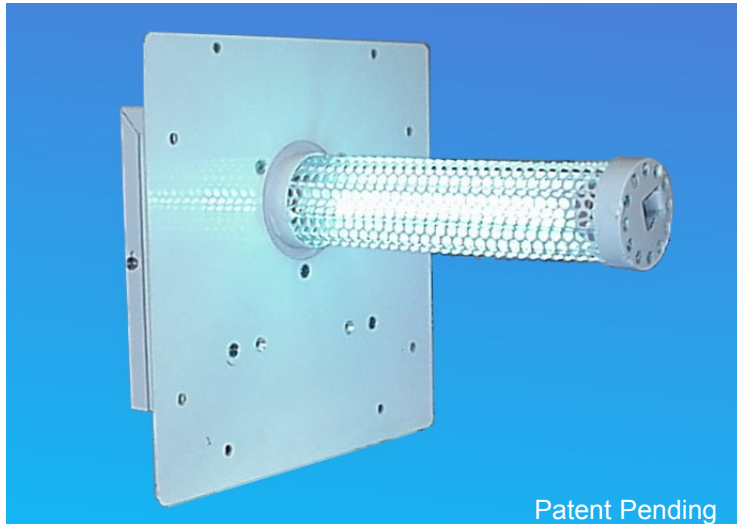


Lamers ENVIRONMENTAL

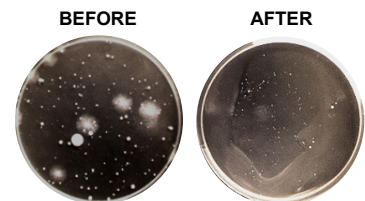
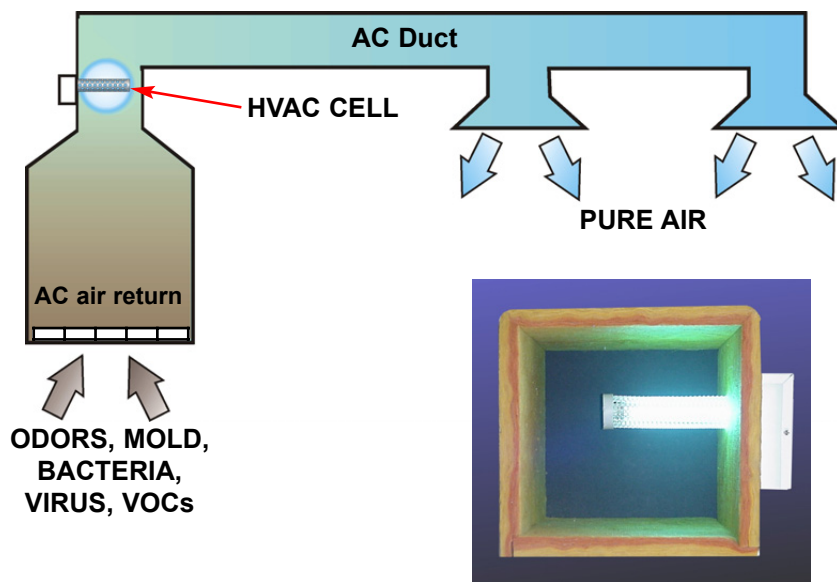
AC/Heat Duct Air Purification System A Photohydroionization™ (PHI) Technology



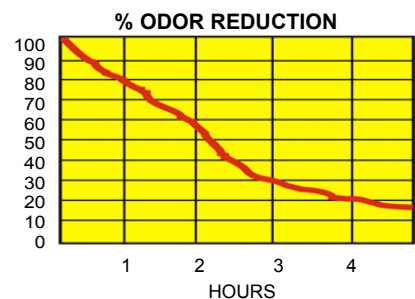
The **HVAC PHI Cell** is designed to eliminate sick building syndrome risks by reducing odors, air pollutants, VOCs (chemical odors), smoke, mold bacteria and viruses*. The HVAC-PHI Cells are easily mounted into air conditioning and heating systems air ducts where most sick building problems start. When the HVAC system is in operation the HVAC-PHI Cell creates an Advanced Oxidation Process consisting of: Hydro-peroxides, safe low level ozone and super oxide ions. All are friendly oxidizers. By friendly oxidizers we mean oxidizers that revert back to oxygen and hydrogen after the oxidation of the pollutant.

Why Use Photohydroionization Technology?

Germicidal UV light rays have been used for decades by the medical industry as a method for destroying micro-organisms (germs, viruses, bacteria). UV light is dependable and can be easily installed in HVAC ducts or a plenum. Germicidal UV light is effective in reducing only the airborne micro-organisms that pass directly through the light rays. However, germicidal UV light has little to no effect on gases, vapors or odors. Photohydroionization Advanced Oxidation, on the other hand, is very effective on gases, vapors, VOCs and odors.



Actual lab tests showing up to 90% reductions of airborne bacteria and mold

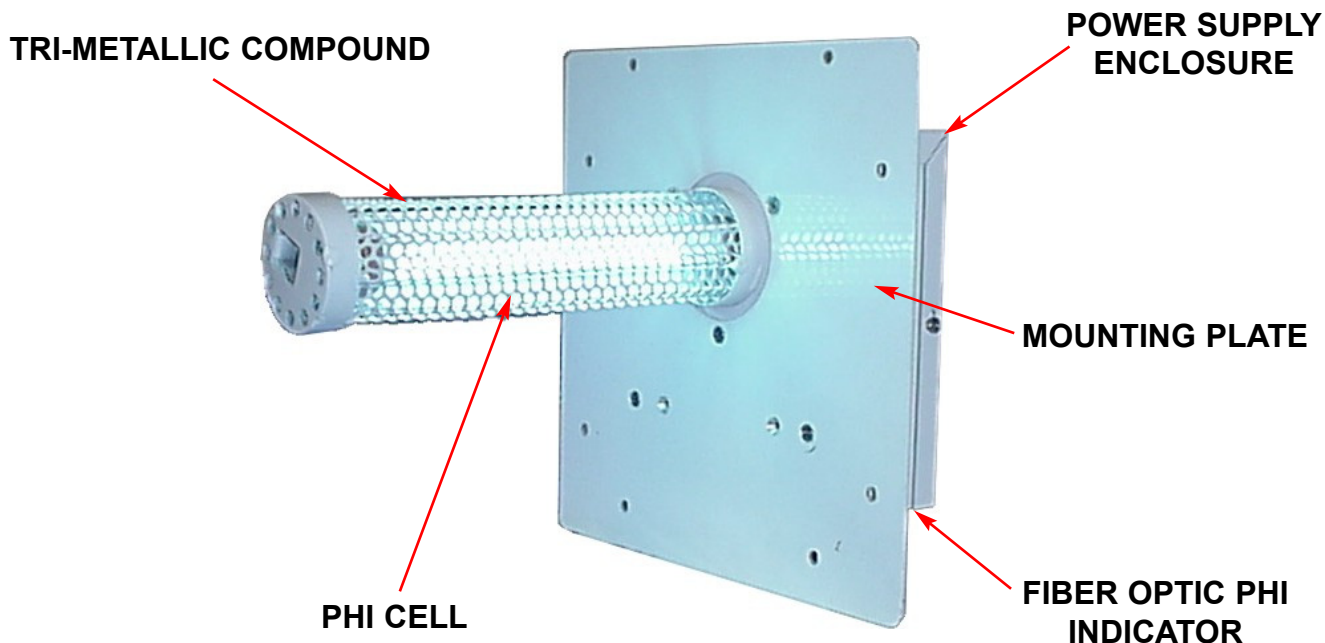


The combination of safe low level ozone (O_3) and UV light enhanced by a hydrated tri-metallic compound develops an advanced oxidation reaction that creates as well as reduces ozone to safe low levels. This process also produces hydro-peroxides and super oxide ions. By engineering the proper UV light wavelength, in combination with a triple function, no maintenance PHI cell. There has been effectively designed a system that will not exceed the recommended Federal safe limits for ozone (0.04 ppm) in an occupied room, while also providing safe hydro-peroxides and super oxide ions to help purify the air.

With the HVAC-PHI Cell Advanced Oxidation System, micro-organisms can be reduced by over 90%. Gases, VOCs and odors can also be reduced significantly, and the room will have passive ozone, hydro-peroxides and super oxide ion levels no greater than that found in forest air or air after a thunderstorm. The HVAC-PHI Cell will help give your room fresh, clean and odor free air.

*UV, Hydro-peroxides and Ozone are recorded as effective in killing viruses however clinical tests have not been performed as there are thousands of strains.

HVAC PHI CELL




Low Level Ozone Production:	0.04 ppm maximum
Hydro-peroxides distribution:	distributed thru air handler
Super Oxide Ion distribution:	distributed thru air handler
Ion distribution:	distributed thru air handler
Installation:	installed in hvac duct or plenum
Electrical:	230V 50-90 watts Other power supplies available
PHI Cell Replacement	Recommended after 1 year

The **PHI Cell** unit size is scaled to accommodate the various air flow rates of different HVAC systems. Locate the air blower size in cubic feet per minute (SCFM) of the HVAC system you are intending to install the system in, then pick the model number that corresponds to that flow rate. **Note:** It is recommended these units be installed by a licensed electrician.

Item #	HVAC Air Blower Size	Approx.m ²	Dimensions	Ship Wt.	Replacement Cell#
HVAC-PHI-212 -25	1.600 - 10.000 m ³ /h	180	9" probe / 23 x 23 cm	2 kg	PHIC - 9C
HVAC-PHI-212HO -25	10.000 - 16.000	280	9" probe / 23 x 23 cm	2 kg	PHIC - 9HOC
HVAC-PHI-357-25	16.000 - 30.000	465	14" probe / 23 x 23 cm	3 kg	PHIC - 14C
HVAC-PHI-357HO -25	30.000 - 44.000	650	14" probe / 23 x 23 cm	3 kg	PHIC - 14HOC
HVAC-PHI-357HOD-25	44.000 - 50.000	900	*14" probe / 28 x 28 cm	6 kg	PHIC - 14HOC

*Dual probes

	reinigingstechniek bv	Postbus 48	7020 AA Zelhem Nederland
		Ambachtsweg 2	7021 BT Zelhem
	Tel. 0314 - 62 33 41		info@lamersequipment.nl
	Fax 0314 - 62 33 11		www.lamersequipment.nl