



## CASE STUDY

Immaculate Heart Academy—  
Washington Twp., NJ

**Issue:** School searching for the best solution to provide a safer reopening during the pandemic

**Solution:** D&B supplied GPS Needle-point Bi-polar Ionization products to inactivate viruses, such as SARS-CoV-2 (COVID-19)

# Prestigious NJ School Installs Bi-Polar Ionization for a Safer Reopening

*These products are proven to inactivate viruses, including COVID-19*

Amidst the COVID-19 pandemic, most schools were searching for the best approach in creating a safer learning environment for this upcoming school year. One such school was Immaculate Heart Academy (IHA), a private school located in Washington Twp., NJ.

D&B Building Solutions, who had provided their HVAC equipment in the past, supplied Global Plasma Solutions' (GPS) Needle-point Bi-polar Ionization (NPBI) products to IHA. After lengthy consideration, IHA decided installing GPS NPBI to inactivate viruses, including the strain that causes COVID-19, was the optimal choice.



Prior to the start of the semester, the President of IHA, Patricia Molloy, stated in a letter to parents, "After extensive research on various systems that can provide a safer environment for our students, faculty, staff, and visitors, the school has moved forward with the installation of a Needle-point Bi-polar Ionization system that is effective in removing particulate matter from the circulating air. Particulate matter includes pollutants, dust, allergens, mold, bacteria, and viruses, including COVID-19." This patented technology produces high concentration of positive and negative

ions, delivering them to the space via the ventilation system. Within the air stream, ions attach to particles, where they combine, become larger and are more easily filtered from the air. When ions come into contact with pathogens, they disrupt the pathogens' surface proteins rendering them inactive. A study performed by a 3rd party lab showed a 99.4% reduction of SARS-CoV-2 (COVID-19) after 30 minutes (see graph).

"The main issue with viruses is that they may be airborne and also live on surfaces. Surface transmission happens when a non-infected person touches a contaminated surface and subsequently becomes infected thus furthering the spread of illness," Molloy went on to explain. GPS NPBI is a multi-purpose solution for targeting viruses within a building: inactivating them both in the air and on surfaces.

D&B has been providing GPS products to customers for years, prior to the pandemic, because the technology offers numerous additional benefits for supreme indoor air quality. Molloy addressed this in the letter as well. Aside from being an "effective weapon for the current COVID-19 virus, it [NPBI] can improve the air in our building for students with allergies, asthma, and other respiratory sensitivities. The Bi-polar ionization system is cost-effective, requiring minimal maintenance and very low energy consumption," the letter stated.

Additionally, NPBI is OZONE free and can save you money on costly energy bills. By keeping the air inside cleaner, using NPBI reduces the air required from outside to keep things fresh – saving you initial venti-

lation equipment costs and up to 30% on energy consumption.

PATHOGEN	TIME IN CHAMBER	RATE OF REDUCTION	TESTING LAB
SARS-CoV-2	30 MINUTES	99.4%	INNOVATIVE BIOANALYSIS
Norovirus*	30 MINUTES	93.5%	ATS LABS
Human Coronavirus**	60 MINUTES	90.0%	ALG LAB GROUP
Legionella	30 MINUTES	99.7%	EMSL
Clostridium Difficile	30 MINUTES	86.8%	EMSL
Tuberculosis	60 MINUTES	69.0%	EMSL
MRSA	30 MINUTES	96.2%	EMSL
Staphylococcus	30 MINUTES	96.2%	EMSL
E. Coli	15 MINUTES	99.6%	EMSL

\* Surrogate for Norovirus, actual strain tested was Feline Calicivirus, ATCC VR-782, Strain F-9  
\*\* Surrogate for Human Coronavirus SARS-CoV-2, actual strain tested was Human Coronavirus 229E

"All schools and businesses are looking for ways to reopen a safer facility and we are happy to offer the preeminent solution and give them the answers they're looking for. We were proud to partner with an organization like IHA to give their students and staff peace of mind," stated Dan Daniello, Partner at D&B.

For more information on D&B Building Solutions, GPS products and NPBI, visit us at [www.dbnj.com/covid-19](http://www.dbnj.com/covid-19)