

Case Study

Air Purification, Infection & Odour Control



Hospital Fights COVID19 with Airius PureAir PHI Series

Dobrich Hospital - Orthopaedic, Surgical & ER Departments

Dobrich Hospital is an 8 storey, state majority funded public medical facility located in Dobrich city centre in Bulgaria.

Challenge

Maintaining a clean, safe environment for patients and staff during the COVID19 pandemic was a top priority for Dobrich hospital. Patient to patient transmission needed to be controlled, whilst medical staff were in desperate need of protection when performing emergency surgeries on COVID positive patients. Due to budget restraints and no HVAC system within the building sourcing an easily adaptable solution was critical.

Solution

After conducting their own in-house tests, the Hospital was so impressed with the results of the PureAir PHI system they immediately installed units within their Orthopaedic department. As units can be installed within a matter of hours this caused minimal disruption to the normal operation of the building. The system was later extended to include their Surgical and ER departments, as well as other high traffic areas.

Results

Directors, staff and patients have been extremely impressed with the results of the PureAir PHI system:

- Staff COVID tested 26 times with 0 positives
- Provide pathogen neutralisation
- Easily adaptable and extendible solution
- Significantly improved air circulation
- Air & surface purification
- Protects against new contaminants
- No filters required
- Occupant comfort vastly improved

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Results

Following installation of the PureAir PHI system concerns regarding the transmission of COVID19 were alleviated, having since tested the full compliment of hospital staff 26 times each and receiving 0 positive results. The flexibility of the PureAir PHI Series allows the hospital to easily adapt or upgrade their system and plans have now been put in place to outfit the Hospital in full. In addition to purification and odour control, the hospital has also benefited greatly from improved air circulation and destratification, improving internal conditions and comfort, even in the absence of an HVAC system.



Testimonial

Date: 02/02/2021

RE: Airius PureAir Installation - Regional Multi-Profile Hospital for Active Treatment - Dobrich, Bulgaria.

Working on the front lines as medics, there has never been a greater need to ensure that staff and patients are kept in clean, controlled environments where the transmission and cross contamination of contagious disease, in the air and on surfaces can be limited, reduced or prevented. This is especially important today in efforts to combat the COVID19 (SARS-CoV-2) pandemic.

Continuing to maintain a safe, clean environment was a top priority in the Hospitals COVID19 response strategy and a number of different purification systems and technologies were considered, but the Airius PureAir system initially stood out due to its cost and its ability to clean both the air and surfaces. Its flexibility and ease of fitting was also an important factor, allowing units to be installed in only a few hours with minimal disruption to the normal operations of the Hospital. Before committing to full investment in the PureAir system tests were carried out in-house and the results were extremely impressive.

Following the outcome of these tests the Hospital immediately installed the PureAir system in the Orthopaedic Department in March 2020. The system was then extended and installed into the Surgical and ER Departments, as well as additional high traffic areas. There was an immediate effect each time a system was turned on, freshening the air and replacing unpleasant odours with a reassuring clean aroma.

Since installation, as the COVID19 outbreak has worsened, the hospital has had to perform emergency surgeries and procedures on COVID19 positive patients. Despite this, of the 26 separate COVID19 tests that were carried out on the attending medics, every single test has been negative.

In addition to the purification benefits of the PureAir system, air circulation has been significantly improved along with better control of internal temperatures through the units destratification benefits. As is common with many Hospitals there is no HVAC or air circulation system so this was another great advantage. The Hospital now plans to install Airius PureAir units throughout the rest of the facilities as part of a financially staged roll-out.

Dr. Georgi Zhelyazkov
Executive Director/



PureAir PHI Technology Explained

How does the PureAir Series PHI Cell kill bacteria and viruses in the air and on surfaces?

The PureAir Photohydroionisation (PHI) Cell manufactured by RGF Environmental, one of the worlds leading specialists in air, water and food purification, is a kind of UV light that emits advanced oxidation plasma. Included as part of a fan system, the PHI cell distributes hydro-peroxides, superoxide ions and hydroxide ions throughout the space, neutralising up to 99%+ of micro-organisms in the air and on surfaces.

PHI cells produce a group of oxidants known as hydroperoxides. Far from new to our world, hydroperoxides have been around for 3.5 billion years – and today they are commonly used in air purification environments, where they offer an anti-microbial treatment without leaving chemical residues.



Benefits of PureAir Technology

Choosing an Airius PureAir Series destratification fan with its integrated PHI Cell is a simple way to reduce bacteria, viruses and odours in your environment.

- Continuous purification of air and surfaces
- Easy to install in any environment
- Kills up to 99%+ of bacteria, germs and viruses
- Reduces gases, vapours and VOCs by up to 99%
- Reduces odours by up to 72%



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Tested and Approved by Leading Agencies



Multiple studies have been conducted on RGF PHI Cell technology and they are widely approved for use to control airborne and surface-based bacteria, viruses, smoke and odours.

- Approved by the USDA, FSIS and FDA for use in food processing plants
- US military approved for use in field hospitals
- Chinese government approved for use in controlling the SARS virus
- Testing carried out by:
 - Kansas State University
 - Midwest Research Institute
 - NELAP Accredited Independent Labs - The NELAC Institute
 - California Microbiology Center
 - IBR Laboratories
 - University of Florida
 - United States Air Force
 - R&D Labs
 - University of Cincinnati
 - Kane Regional Hospital
 - FEMA
 - NEI-Chinese Government

Contact Airius

Airius fans are commonly used to balance temperatures in a wide variety of environments – from care homes to warehouses.

Adding an Airius PureAir Series destratification fan is a simple way to continually clean the air, creating a safer and healthier environment for your residents, colleagues and visitors.

Contact Airius to learn more >>