IQAir[®] - The World's No. 1 HEPA Air Cleaning Systems for Airborne Infection Control

For close to 50 years, INCEN AG of Switzerland (a member of *The IQAir Group*) has been an industry leader for indoor air quality and hygiene. In the 1990s, the *IQAir* product line was developed which is now recognised as the world's premier range of mobile high-efficiency air cleaning systems. Leading institutions around the world are relying on *IQAir* to protect against airborne infectious diseases, toxic chemicals and particulate contaminants.



IQAir's particular strength lies in providing cost-effective decentralised airborne infection control solutions for hospital and professional health-care applications. The IQAir Cleanroom Series is the dedicated IQAir product line for advanced airborne infection and particulate control. Here is a summary of the key reasons why IQAir systems are the No.1 choice of world leading medical and research institutions:

1. In an independent research study published in February 2010 in the **American Journal of Infection Control**, it was shown that IQAir HyperHEPA® systems reduced the rate of invasive aspergillosis infections by 50%. The research was conducted by a team of doctors and scientists at **Singapore General Hospital**. They concluded that IQAir systems are an effective and powerful tool for hospital infection control, and that the deployment of IQAir will enable hospitals to realise massive cost savings by reducing infection rates:

"Compared with patients without IA [invasive apergillosis], patients with IA have an average excess duration of hospitalization of 12.3 days and an excess cost of \$ 51'779. Thus, the deployment of [IQAir] portable HEPA units is a very cost-effective strategy."

In view of the fact that invasive aspergillosis is often fatal, with mortality rates ranging from 30% to 95%, and the enormous costs associated with the treatment, IQAir systems can save lives as well as costs.

2. The HyperHEPA® filter of the IQAir Cleanroom models has been tested and classified in accordance with the world's most stringent filter test norm for HEPA filters - **European Norm EN 1822**. The awarded "H13" classification means that the IQAir Cleanroom systems have an absolute minimum efficiency of 99.95%, even for the tiniest and most infectious particles known to mankind.

3. The outstanding filtration efficiency of IQAir's HyperHEPA filter for removal of microorganisms (such as spores, bacteria and viruses) has been tested and verified by the British Government's **Health Protection Agency**.

4. In a British research study published in the **Journal of Hospital Infection** in April 2006, it was shown that the use of an IQAir Cleanroom system significantly reduced (by 75% to 93%) the environmental MRSA contamination within the patient rooms, thus reducing the risk of MRSA spreading and infecting other patients.

5. In response to the SARS crisis, the **Hong Kong Hospital Authority** selected IQAir as the only mobile air filtration solution for SARS patient rooms to protect staff, visitors and patients. Over 150 hospitals, clinics and health-care centres in Hong Kong have been equipped with IQAir systems since 2003.

6. Each IQAir model is individually tested and certified for actual filtration efficiency and actual air delivery. The individual test results are recorded on a hand-signed Certificate of Performance supplied with the IQAir system. This provides total quality assurance for critical applications. The HyperHEPA replacement filters of the IQAir Cleanroom models are also individually tested and certified to ensure continuing high-efficiency performance after filter replacement.

7. IQAir systems can be deployed as stand-alone air cleaners, or may be attached to optional *OutFlowTM* and *InFlowTM* ducting adaptors to create negative pressure (containment) or positive pressure (protective) isolation environments in a matter of minutes. The creation of pressure differentials is by far the most effective way to limit the airborne spread of infectious particles within buildings.

8. IQAir systems are registered with the FDA (U.S. Food & Drug Administration) as a Class II Medical Device.

9. The outstanding filtration efficiency of IQAir Cleanroom systems can be impressively demonstrated in real-life applications with the use of professional airborne particle counters (e.g. *ParticleScan*). These instruments objectively prove that IQAir Cleanroom systems actually remove all particles down to a size of 0.3 microns (i.e. 3 times smaller than Mycobacterium tuberculosis) with over 99.97% efficiency.

10. Every IQAir Cleanroom Series air cleaning system is equipped with antimicrobial PreMax[™] and HyperHEPA[®] filter media for advanced infection control. The antimicrobial filter surface acts as a contact bactericide and thus provides an additional barrier against airborne microorganisms that are captured by the filter. The active component PHMB (polyhexamethylene biguanide) has been used successfully for more than four decades and is incorporated in a wide variety of disinfection products, such as liquid hard surface disinfectants, antimicrobial hand soaps, wound dressings and in disinfectants for medical device sterilisation. PHMB is active against a broad spectrum of microorganisms, including antibiotic resistant bacteria such as MRSA and VRE.