Activ-Ox® for Legionnaires Disease, Legionella and Biofilm Control

Legionnaires’ Disease is an often fatal form of pneumonia caused by inhaling contaminated water droplets containing dangerous legionella bacteria. Legionella bacteria have been shown to thrive in biofilm that grows on the surfaces of pipes and tanks in domestic and process water systems. Many disinfectants and control techniques fail to adequately control the development of biofilms in water systems leaving an unacceptable risk to health and safety.

Chlorine Dioxide has, however, been shown to be extremely effective at controlling biofilm and killing legionella bacteria thus preventing Legionnaires’ Disease. Whilst Chlorine Dioxide has been shown to be effective it has traditionally been difficult and potentially hazardous to use.

Activ-Ox® makes chlorine dioxide easy!

Activ-Ox® Accepta’s patented chemistry and generation process is simpler, safer and more effective than other ways of producing chlorine dioxide and is equally suitable for building services, food & beverage and industrial applications. It can be used to treat anywhere from a few litres of water to thousands of cubic metres per day and has also been incorporated into a unique foam disinfection and cleaning process.
Why is Activ-Ox® better?

Conventional systems often take many hours to produce chlorine dioxide and the process yield is poor which means that complex generation equipment is required and running costs are high because chemical is wasted. By contrast the patented Activ-Ox chemistry releases chlorine dioxide instantaneously and the process yield is very high, converting around 95% of the pre-cursor chemical to powerful chlorine dioxide. Conventional systems require the use of a strong, hazardous acid. The Activ-Ox process by contrast uses a special, non-hazardous, food and drinking-water approved activator, Activ-8. The patented Activ-Ox chemistry is so different from the way a conventional chlorine dioxide generator works, you could even activate it with your favourite Cola!

Activ-Ox® Products

The Activ-Ox process is so simple and reliable that we have developed a range of unique products to allow the power of chlorine dioxide to be exploited in a wide range of application areas. Robust and reliable dosing systems have been developed to allow the continuous dosage of chlorine dioxide into domestic, drinking and process water streams. Special grades of Activ-Ox chemicals are available for the periodic super-disinfection of water storage tanks and distribution system, pools and spas, shower heads and many other applications.

Activ-Ox® Dosing Systems

ACTIV-OX® dosing systems have a number of unique design features which make them the safest, most controllable way of continuously dosing Chlorine Dioxide to a water system.

• Since ACTIV-OX® activates instantaneously, there is no need for mixing and dilution tanks, or reaction vessels containing large volumes of strong chlorine dioxide solutions.
• Activation takes place in a special reaction manifold which is integral to the system pipework, so there are no fragile injection tubes containing concentrated Chlorine Dioxide.
• No gas is produced, Chlorine Dioxide is only ever produced in solution, and only a few millilitres of concentrated solution are held within the manifold, so there is no hazard.
• The dosing pumps are controlled automatically and are normally initiated by an impulsing water meter to prevent under or overdosing.
• To prevent the inadvertent mixing of chemicals the dosing pumps are housed in separate lockable enclosures, the injection tubing is double-walled and the chemical drums are placed inside individual bunds with lids.
• A range of alarm options are available including chemical low level, dosing pump flow monitoring and chlorine dioxide monitoring.

Simple Monitoring

Water supplies and water distribution systems will have a chlorine dioxide demand, particularly if they already have an established biofilm on pipe work surfaces. Each Activ-Ox chlorine dioxide dosing system is supplied with a simple test kit to enable the residual chlorine dioxide to be tested at strategic locations. The dosage level is adjusted accordingly, to establish and maintain the required free chlorine dioxide residual throughout the treated system.