TELSTAR HAS INTRODUCED ionHP BIODECONTAMINATION TECHNOLOGY FOR ASEPTIC SYSTEMS

Telstar, exhibiting at Interpack 2014, has developed an innovative H2O2 based sterilization technology for use in aseptic enclosures

TERRASSA, BARCELONA, SPAIN, April 23, 2014 /EINPresswire.com/ -- Telstar has introduced the new ionHP biodecontamination system for use in pharmaceutical aseptic enclosures, an innovative technology which resolves some of the traditional difficulties associated with H2O2 biodecontamination processes. Unlike conventional systems, the ionHP technology developed by Telstar for application in aseptic isolators increases the efficacy of the decontamination process and reduces degradation of construction materials by virtue of requiring a very low concentration of H2O2. Reduced bio-decontamination cycle times are possible since the process efficiency is not affected by temperature and humidity and therefore there is no need to pre-condition the chamber prior to H2O2 injection.

> Superior efficacy, reduced cycle times, reduced sterilant quantities, excellent materials compatibility and longer durability of materials, help define the ionHP biodecontamination technology”
>
> *Telstar*

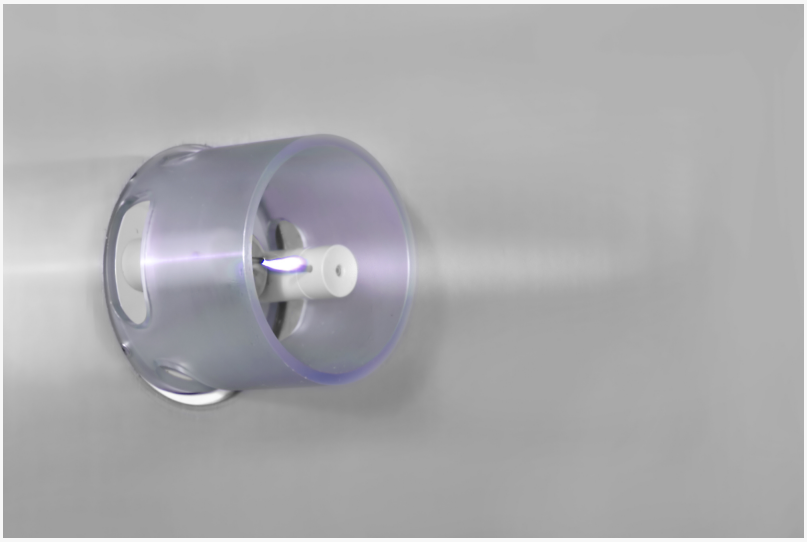
An essential process

The new biodecontamination technology has been developed in response to the increasing demand of the manufacture of sterile potent drugs, which brings increased need for sterility testing. A biodecontamination system is an essential feature of all sterility test isolators, providing a reliable and repeatable method of sterility assurance.

Conventional decontamination systems use vaporized H2O2 to decontaminate the internal surfaces of the isolator and external surfaces of internal process equipment and product packages before testing begins.

More than three years ago, following intensive research by the Technology Centre for Barrier Isolation Systems of Telstar, located in the United Kingdom, the company identified an alternative decontamination system, using ionHP (ionized Hydrogen Peroxide) specifically aimed to aseptic pharmaceutical processes. The initial applications for ionHP had been for large warehouses, hospitals and airplanes and intended for single use, therefore the control systems requirements were

basic.



Telstar has pioneered the development of this system for aseptic isolation technology thereby introducing a viable alternative to traditional systems. The ionHP system has been designed into the Telstar standard sterility test isolator range mechanically, electronically and through software; the result being a PLC based integrated system. This has been followed by extensive testing to provide a proven, globally validated system that provides repeatability. This has resulted in significant technological advancement through the innovative use of a unique decontamination system, previously applied in a different industrial sector.

IonHP technology

ionHP includes a process of ionization that imparts two characteristics introduced by passing a mist through an ionized plasma field:

• Electrostatic charge imparted on the mist gives it a behaviour akin to a gas, due to mutually repulsive positively charged particles;

• Positively charged particles are attracted to negatively charged surfaces in a room or enclosure.

ionHP can be used in open air and, once ionized, acts like a gas as opposed to a vapour, which offers many operational, commercial and environmental benefits. In this sense, ionHP requires a significantly shorter decontamination process time than the traditional alternatives and it has no requirement for special atmospheric conditions, which eliminates the need for the air conditioning units required with traditional systems, reducing equipment cost. At the same time, ionHP uses a base concentration of 7.5% volume, whereas traditional H2O2 systems use 30-35%. This lower level of concentration is more conducive to shipping worldwide due to it being below the threshold level for transportation (especially air transport).

The new innovative system is also is more effective due to the positively charged droplets being attracted to the negatively charged surface areas; ionHP does not leave behind any residue, reducing costs by shortening cleaning activities.

Hydrogen peroxide is the primary component used, which breaks down into oxygen and water at the completion of the decontamination process, making it one of the most environmentally friendly decontaminants available.

Telstar at Interpack 2014

The ionHP biodecontamination system for aseptic pharma solutions will be presented by Telstar at Interpack 2014 (Dusseldorf – May 8-14, 2014). Telstar at Interpack 2014: Hall 08a Booth E33.

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