

IMA will provide an update on our achievements in robotic filling, IMA's INJECTA, the latest solution at the forefront of processing Ready-To-Use syringes, vials and cartridges. The machine's design realizes the use of advanced robotics to assure smooth processing of the tubs and components while minimizing operator access to the working area. INJECTA's ground-breaking and unique innovation is performing 100% in-line quality control. Advanced robotic driven manipulations and state-of-the-art design makes INJECTA a true step forward towards perfection. In addition, IMA will talk about some of the technical characteristics of the INJECTA and update the different installations and layouts that can be provided. Fully integrated freeze drying equipment, automatic loading system, robotic filler and isolation technology layout will be presented with possible configurations for a state of the art aseptic filling line.

Air Compression Refrigeration: The search for a low environmental impact, high performance, safe, refrigeration system for freeze drying is now complete. Air compressions refrigeration utilizes air as the refrigerant and is therefore not reliant on manmade refrigerants with their inherent negative impact on the environment. Further, the use of air avoids using the "natural" refrigerants, that while environmentally friendly, are most often flammable or toxic. To cope with high peak demand heat loads, IMA combines a novel thermal energy storage system along with the turbo compressor expander. The combination offers a high performance, efficient refrigeration system that has zero environmental impact caused by using refrigerants with a global warming potential.

QUANTUM is the IMA Life, new, non-invasive system capable of performing quantitative, real-time process measurements for freeze drying. It is a multi-purpose device designed ground-up for detecting contaminants and process gases at concentrations down to ppm levels. Not only does this allow for silicon oil and water vapor detection, but can also function as a leak detection tool. IMA offers the Quantum as a stand alone device to serve multiple freeze dryers or fully integrated into the eLyomaster control system for dedicated service.

Isolation technology add-on - Giacomo

When reviewing the current offering of injectable products and related isolated aseptic fill-finish lines, we increasingly come across configurations in which we must maintain a low-risk production environment for operators and the environment while dealing with a high toxic or biological risk production processes. IMA LIFE will present how to combine operational flexibility and high-risk products, which are more prevalent due to the ever-increasing use of personalized therapies, biological or biosimilar products and genome-specific treatments (more generally referred to as ATMP).

Data analytics – Giacomo

Pharma 4.0 requires rethinking the data acquisition and analysis architectures in fill-finish systems. IMA LIFE will provide an update on the integration of data analytics tools and how the potential of the cloud has been exploited to implement solutions able to increase productivity, while having complete visibility on the efficiency of the line and its maintenance status.

Thanks to IMA LIFE analytical expertise and the new Sentinel architecture, applied on process machines such as freeze dryers and isolators, advancements on specific models for establishing golden batch comparisons as well as predictive maintenance methods will be presented.