DEVELOPMENT OF FLUID CONNECTIONS: A REUSABLE, ENVIRONMENTALLY FRIENDLY AND STABLE SOLUTION FOR THE TRANSFER OF FLUIDS IN THE COURSE OF ASEPTIC PROCESSING

Georg Pöschl, ZETA GmbH, Lieboch, Austria

To ensure quality, biopharmaceuticals and foodstuffs are subject to strict legal requirements. During production, storage and transport of products or product components, it is necessary to keep them in a germ-free environment. Usually, liquid products of the biopharmaceutical or food industry are transported, temporarily stored or processed in large, aseptic containers. If the liquid is to be transferred between containers, processing or analysis devices, so-called fluid connections must be established. However, there is a risk of introducing contaminants or germs into the product in the procedure. The major challenge in providing a fluid connection is therefore to maintain sterility. Based on existing single-use solutions, ZETA developed a new multi-use system for providing sterile fluid connections. Its essential components are two coupling elements made of stainless steel, which are attached to the two hoses to be connected, two ready-made sealing foil caps and a clamp for fixation. The ZETA system for fluid connections not only perfectly fulfills all requirements regarding sterility, but also offers significant advantages over conventional fluid connections in terms of contamination risk, environmental friendliness and stability.

BENEFITS:

- Minimization of the risk of contamination during the connecting procedure
- Improved sustainability and cost effectiveness due to reusable system
- Significant advantages for process control due to higher mechanical stability, higher tolerance to pressures and temperature resistance; steam sterilization is made possible

REFERENCES:

[1] Birgit Pittermann, ZETA GmbH, Lieboch, Austria