

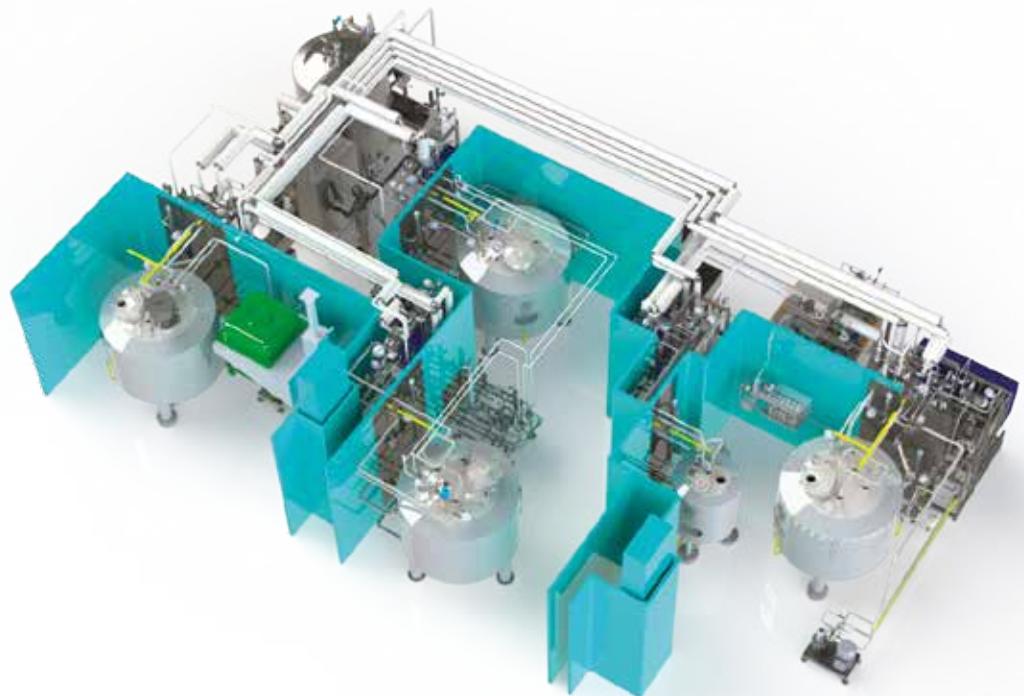


PARENTERAL FORMULATION COMPOUNDING

FOR INJECTION OR INFUSION



DIFFERENT PROCESS FOR DIFFERENT PRODUCTS



SOLUTIONS, EMULSIONS AND SUSPENSIONS

Parenteral formulations are normally formulated as solutions, emulsions and suspensions, administered via injection or infusion.

In parenteral formulation, a challenge for the process engineering is defining the structure, the equipment and the process steps in order to guarantee the right compatibility and stability between active principles and excipients.

Parenteral formulations have to be sterile and pyrogen-free, in order to assure final product security.



FULLY CUSTOMIZABLE, compliant with cGMP and GEP

Every plant is designed together with the customers and based on URS, every space and every equipment are defined and selected to meet specific needs. It is important to manage the engineering, the electronics and the automation, while guaranteeing a high level of flexibility in the transfer systems.

CIP Skids can be integrated, and set as operative in different areas of the plant to optimize down time.



ATTENTION TO DETAILS

High-Tech Components

The parenteral formulation plants can be equipped with high shear mixer, high-pressure homogenizer to keep the product homogeneous; block valves and mix proof valves to manage cleaning and sterilization activities. Some common features that can be applied are drainable, crevice free design with no dead leg.

Each component complies with the regulation: flush-mounted tank sanitary clamp and TK connect mounted are used for tanks; fittings are ASME-BPE compliant and aseptic sampling device are applied.



HOW TO OPTIMIZE: modular approach and virtual commissioning

Parenteral formulation compounding plants can be majestic masterpiece and modular approach can be implemented to optimize timing and costs. Virtual Commissioning can also be performed before plant construction to analyze process phases, identify and solve bugs before the real start-up step.



**WE LISTEN, WE DESIGN,
WE CREATE WITH PASSION.**

IT IS THE MIND THAT SHAPES THE STEEL

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