Plantware

Design of Buffer Preparation Plant for Pharmaceutical Plants – Supply of Buffers for e.g. HPLC Column Product Filtering/Extraction.

P-Engineering designs

- PFD & PID
- Process Calculations
- General 3D Layout
- Piping Specifications EN13480
- Insulation Specification
- Equipment Sizing (Pumps, Heat Exchangers etc.)
- Control Valve Sizing & Selection
- Cooling Installation
- Heating Installations
- Vessel Design EN13445
- Pipe Design including of Pipe Isometric for fabrication
- Support Structure and Pipe Supports
- Ventilation; General and HEPA filtering at Vessel Hatches.
- Instrumentation
- Remote I/O Cabinets
- MCC's and Electrical Supply
- Cabling Power, Signal & IT
- Process Control System Specification & FDs with SCADA Spec. and MES
- ATEX Design if applicable.
- Equi-Potential Bonding

P-Engineering uses e.g.

- <u>AVEVA PDMS</u> Software for 3D design
- <u>CONVAL®</u> for Control Valve Design
- PIPE-FLO® Pump Sizing and Piping Pressure Loss

Contact Information:

Christian Pallesen; +45 2526 8805; cp@p-engineering.dk











Pictures from the Buffer Preparation Plant at the <u>AGC Biologics</u> factory in Søborg (DK) .

