## Plantware

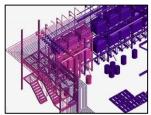
Iffer Preparation; Industry

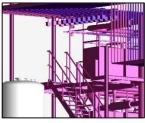
Design of Buffer Preparation Plants for General Industry Purpose – e.g Chemical Plants or Production Facilities. P-Engineering designs

- Process & PID
- Process Calculations
- Piping Specifications
- Insulation Specification
- Equipment Sizing (Pumps, Heat Exchangers, Vessels etc.)
- Cooling Installation
- Vessel Design EN13445
- Pipe Design including of Pipe Isometric for fabrication
- Pipe Flexibility Check if applicable
- Support Structure
- Platforms, Access Stairs & Ladders
- Pipe Support Structure
- Ventilation; Process Extraction and General Room Venting.
- Instrumentation; Measuring
- Instrumentation; Control Valves
- Remote I/O Cabinets
- MCC Design and Power Dist.
- Lighting Design
- Cabling Project (Power & Signal)
- Process Control Specification with SCADA and MES.
- ATEX and Ex Design if applicable











Buffer Preparation Plant at <u>SUN Chemicals</u> (DK). Vessels here are IBC Containers.

P-Engineering uses e.g.

- AVEVA PDMS Software for 3D design
- CONVAL® for Control Valve Design
- PIPE-FLO® Pump Sizing and Pressure Loss
- SolidWorks for Vessel Detailed Design

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## Buffer Preparation; Industry P-372









Present day pictures of the Buffer Preparation.