

## Pharma: Process Design

### P-211

Design of Process / Product Handling for Life Science, Pharmaceutical, Biotech and API-plants:

- Fermentation<sup>1</sup> plants – Sugar<sup>1</sup>
- Fermentation<sup>2</sup> - all Support Systems for Microbial & Mammalian Fermentation
- Product Treatment – Hydrolysis<sup>1</sup>
- Product Treatment – Spray Drying<sup>1</sup> inclusive of Product Prep. and Powder Handling.
- Product Treatment – Ultra Filtration<sup>2</sup>
- HPLC Columns<sup>2</sup> with Buffer Preparation
- Separation<sup>1</sup>
- Sedimentation<sup>1</sup> w. Ethanol
- Filtering Processes in General

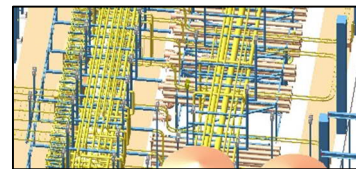
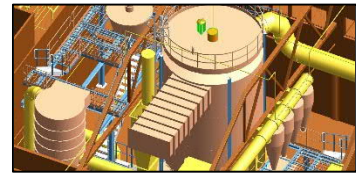
Mark<sup>1</sup>: Design of above system with full process design package (Process, PID, 3D, Functional Descriptions & Detail Design as stated below)

Mark<sup>2</sup>: Detail Design Package for manufacturing of MCC, Piping and Support including design/specification of Control Valves, Instruments, Tanks, Vessels and Equipment (Static and Rotating).

P-Engineering has references for Process Design from e.g., [GE HealthCare](#) (DK, SE & NO), pK Chemicals (DK) and [AGC Biologics](#) (DK)

Contact Information:

Christian Pallesen; +45 2526 8805; [cp@p-engineering.dk](mailto:cp@p-engineering.dk)



*Top Picture: Erection of Fermentation Tank and Product Spray Draying at API-factory – EPCm contract. Middle Picture: Ultrafiltration Installation with Product and Utility Piping. Bottom Picture: HPLC columns – Project Execution for [GE HealthCare Uppsala](#).*