Plantware

narma: Neutralization

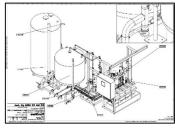
Design of Small Batch-based Neutralization Plants for handling of various industrial waste with pHadjustment to fit the regulations for discharge.

Design package contains off:

- PFD & PID
- 3D General Arrangement
- 2D Detail Arrangement
- Foundation Concrete Design
- Vessel Design with Support for Agitators & Platform
- Mixing Static & Agitators
- Acid and Lye System
- Pump Sizing & Selection
- Control Valve Sizing
- Emptying System
- Cleaning with CIP and Automatic Washing if applicable
- Structural Steel and Supports
- Platforms and Grating
- Access Stairs & Ladders
- Instrumentation
- MCC's and Electrical Supply
- Cabling Power, Signal & IT
- Process Control System Specification & FDs with SCADA Specification, MES and Environmental Reporting.







Pictures of a Neutralization Plant for Batch Operation. Performed as EPC and Installed aand Commissioned at a Pharmaceutical Plant (DK).

For all areas manufacturing drawings will be created.

P-Engineering will use <u>AVEVA PDMS</u> as 3D software and <u>DXT-software</u> for pipe and vessel calculation.

Contact Information:

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