

Process Design & Control

Mech-Chem designs, manufactures, and installs fully automated acid recovery and recycling systems. Systems include diffusion dialysis, vacuum evaporators, distillation systems and filtration/centrifuging equipment. Applications include recovery and recycling of acid solutions. These systems reduce raw material usage, waste treatment, and disposal costs. Mech-Chem interacts with our clients to develop the conceptual design, prepare the detail design, and provide the drawings to permit and construct the facility.

Process Engineering Design

Process Selection

Process Flow Diagrams (PFD's)

Energy and Material Balances

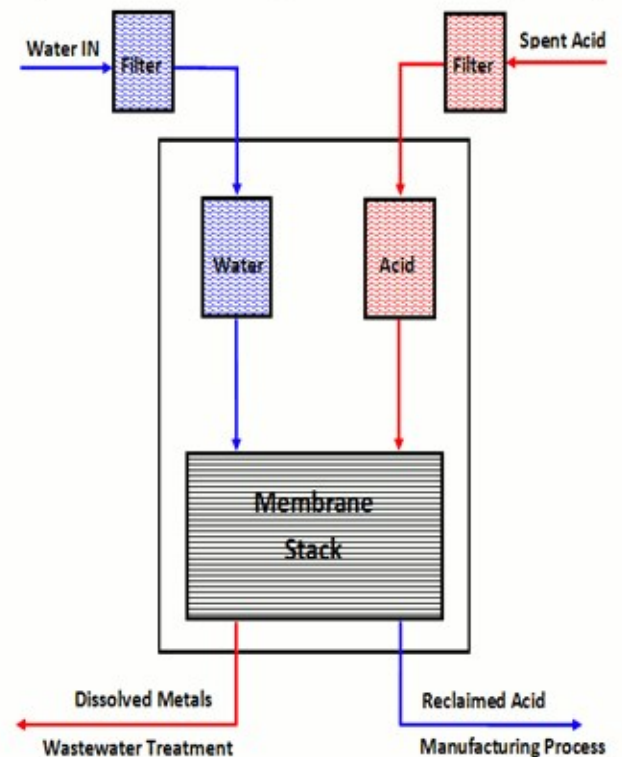
Equipment and Facility Layouts

Equipment/ Instrumentation Specifications

Capital Cost Estimate



Diffusion Dialysis Flow Diagram



Detailed Engineering and Design

Piping and Instrumentation Diagram (P&ID)

Structural Drawings

Mechanical and Piping Drawings

Electrical/Instrumentation Drawings

Detailed Equipment Specifications

Construction Bid Packages

Environmental & Operator Safety

Facilities incorporate state of the art technology to protect the safety of the operators as well as the environment. Trenches are incorporated to keep pipes carrying hazardous materials from being installed overhead. This, along with double walled contained piping and leak detection systems, insure safe operating conditions for everyone in the facility.

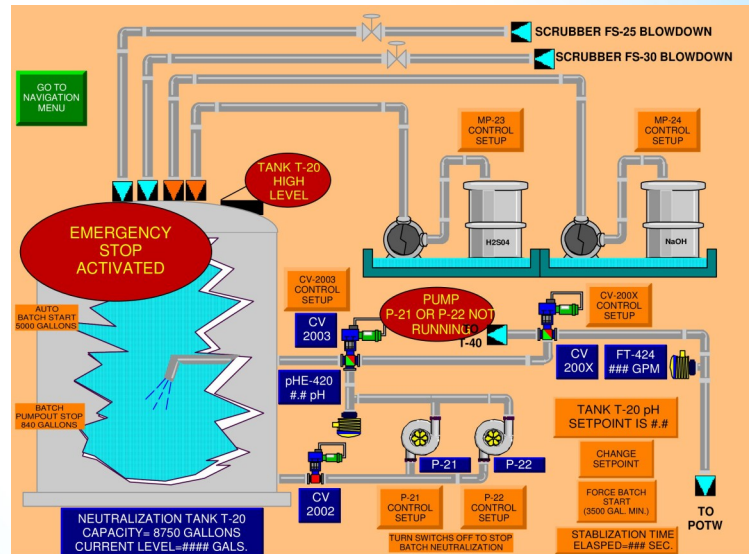
Controls & Power Distribution

Mech-Chem also designs, fabricates, and installs the instruments and controls for full PLC automated systems and facilities. Power distribution panels can also be designed, fabricated, and installed for new or refurbished production facilities.

Codes and Regulations

Mech-Chem adheres to the applicable regulations and codes in the engineering, design, and construction of chemical handling and piping systems. For piping systems (including bulk storage, process piping, and secondary containment) these codes include:

- ◆ API Codes
- ◆ UL Codes
- ◆ ASME Codes
- ◆ NFPA Fire Protection Codes
- ◆ OSHA Safety Regulations
- ◆ EPA Environmental Regulations



Telephone: (508) 528-5990

Fax: (508) 528-8972

P.O. Box 473 144 Main Street Norfolk, MA 02056

E-mail: inquiry@mech-chem.com

Visit: www.mech-chem.com