

Process Engineering, Facilities Engineering, and Process & Plant Safety Management

The Evolution of Process and Facility Engineering

Lower margins, rapid change, and limited resources make it difficult to keep pace with increasingly complex process requirements. Deaton Engineering can help you stay focused on your core competencies by managing and implementing process and facility changes for you. Our experts can apply the latest technology to help you gain strategic advantage through automation and optimization of your manufacturing processes.

Deaton Engineering specializes in developing and integrating equipment to control and improve critical processes. We work in a variety of industries including food & beverage, pharmaceutical, medical device, semiconductors, and general manufacturing. We design systems that provide plant managers with real-time access to their manufacturing process data.

Providing Operational Excellence, Risk Management, and Quality by Design to Speed up Manufacturing Process Development, Improve Product Quality, and Drive Down the Cost of Goods Sold

Facility Engineering & Design

Our mechanical, electrical, and software engineers work with a wide variety of facility, process, and control systems. We can provide equipment and utility layouts as well as perform material flow analyses. From concept through commissioning, we provide design solutions that assure process integrity, operational efficiency, and regulatory compliance.

Process Engineering & Design

We take the time to fully understand your facility, process, and software control needs. Our engineers design processes and systems that meet regulatory requirements set forth by the FDA, USDA, EPA, and others. Our designs can incorporate sanitary piping, purified water, water-for-injection, clean-in-place, and many other system requirements. Process tools such as in-line analysis, production and recipe management, asset utilization, process safety, and material tracking can provide a high level of control and efficiency.

Validation and Compliance Engineering

Our engineers provide turnkey validation services that cover the entire validation process. We develop and execute qualification protocols for equipment facility systems, and processes. Our documentation packages are extremely thorough and comply with regulatory requirement. Deaton Engineering can perform validations of automated control systems in accordance with 21 CFR 11.

Machine Design & Automation Engineering

Deaton Engineering designs fully automated systems and can incorporate industrial robots, vision systems, automated process control systems, and in-line monitoring.

Process, Facilities, & Safety Engineering Services

- Process & facility optimization
- Process automation & control
- Rugged and modular design
- Powder & bulk solids
- Process development & design
- Quality by design
- Process analysis technology (PAT)
- FDA, GMP, cGMP compliance & design
- Current good manufacturing practice (cGMP) GMP
- Quality assurance & quality control
- USP purified water, water for injection (WFI)
- Design of experiments
- Aseptic process & equipment design
- Plant engineering
- Contamination control
- Electrical area classification
- Start up and commissioning
- Statistical process control (SPC)
- Ergonomics, safety equipment & machine guarding
- Industrial microwave systems
- Sanitary & clean process design
- Process safety and risk management
- Hazard analysis (HAZOP)
- Hazardous area classification
- Process & piping instrumentation diagram (P&ID)
- Bulk flow
- Facilities services list
- Process engineering services list
- Process and manufacturing equipment list
- Engineering services list
- Validation engineering services list
- FDA, regulatory and safety services list