Process Design Practices (PDPs)

Universal Principles for Process & Equipment Design

The Equity Engineering Practices® (EEPs) have expanded to include the Process Design Practices (PDPs). This collection is a set of universal documents to support process and equipment design from conceptual engineering through to unit commissioning.

Globally applicable, the PDPs draw upon chemical engineering best practices and industry experience to deliver technical details and guidelines for designing, requesting, evaluating, and troubleshooting the most common equipment in the process industry.

Project Timeline

- FEASABILITY STUDY
- PLANNING — CONCEPTUAL ENGINEERING — BASIC ENGINEERING
- EXECUTION — DETAILED ENGINEERING
- CONTROL PROCESS
- CLOSE PROJECT

KEY • = PDPs Used

EEPs Platform

The PDPs are available through the cloud-native EEPs platform, which is designed specifically for the management and use of the PDPs and all engineering practices. This one-of-a-kind platform offers company-specific customization, intuitive search and filtering capabilities, enhanced security and controls, and increased performance.

Closed-Source AI Chat

With Q, the closed-source AI Chat tool, process engineers can combine the full value of the PDPs with the productivity of AI to design efficient equipment and processing conditions at a plant or facility. Q, a closed-source and secure AI tool, is available to all subscribers as an add-on.

How to Leverage the PDPs:

Develop Process Engineering Packages

Use the PDPs as the foundation for creating internal process engineering packages that are consistent and technically rigorous.

Guide EPC Firm Deliverables

Use the PDPs to provide clear equipment or process design requirements for third-party engineering, procurement, and construction (EPC) firms.

Review Program Recommendations

Compare EPC deliverables against the PDPs to ensure design and engineering packages meet specified requirements.

Revamp Existing Equipment

Use the PDPs to apply established design and engineering principles when modifying or upgrading equipment for new service requirements.

Troubleshoot Operations

Consult the PDPs to diagnose or change operational issues with existing equipment versus original design requirements.

Mentor New Employees

Capture corporate process engineering knowledge in the PDPs and use it to mentor and train new engineers.

BENEFITS

Harmonize design conditions across global operations

Deliver consistent, high-quality project execution

Minimize design risk and variability

Customize collection for corporate design rules and conditions

EQUIPMENT COVERED

Vessels • Towers • Heat Exchanger
Pumps • Tanks • Compressors
Fractionation Towers • Piping

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