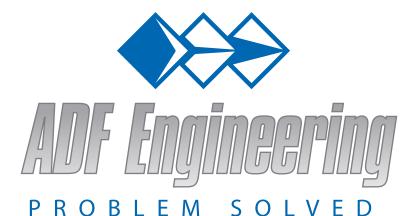
# **Other Services and Capabilities**

#### **Process Engineering**

- Process Flow Development Using "Smart" Flow Diagrams
- Mass and Energy Balances
- Process Scale-Up
- Process Modeling and Simulation
- Process Optimization and Debottlenecking
- "Intelligent" P&IDs
- Equipment Sizing and Specification
- Process Alternative Evaluations
- Process Control and Instrumentation
- Piping Design with 3D Piping Models
- Ventilation, Temperature, and Humidity Control
- Material Handling and Conveying
- CIP Capacity and System Design
- Start-Up Services
- Process Validation

### **Facility Engineering**

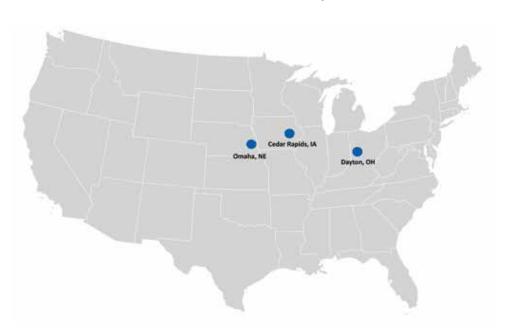
- · Master Planning and Feasibility Studies
- Utilities Design for:
- Steam
- Compressed Air
- Process and Utility Water
- Waste Water Treatment
- Electrical Power
- Emissions Control
- Equipment Layouts and 3D Modeling
- Structural Engineering:
- Foundations and Equipment Supports
- Buildings, Pipe Racks, and Towers
- · Storage Bins, Tanks, Pressure Vessels Design
- HVAC and Environment Control
- Electrical, Instrumentation, Automation, and Controls
- 3D Laser Scanning and Modeling
- Experienced in OSHA, NFPA,FDA, IBC, and Food Safety Compliance



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### Dayton, OH – Corporate Headquarters

Omaha, NE · Cedar Rapids, IA



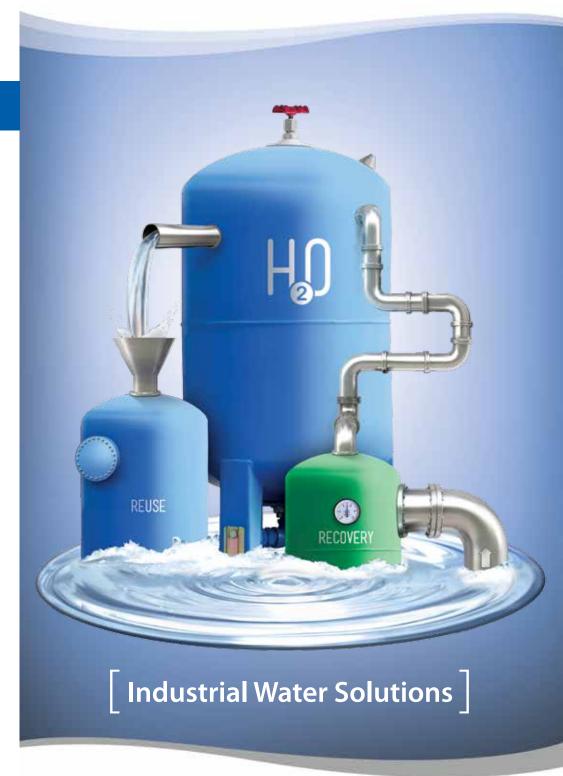
#### ADF Engineering, Inc.

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E-mail: info@adfengineering.com





# ADF Engineering, a Process and Facility Engineering Company

### Industrial Expertise

ADF Engineering provides comprehensive engineering solutions to the manufacturing and processing industries. ADF offers multidisciplinary engineering expertise and technical support including process, mechanical, piping, civil/structural, electrical, controls, and instrumentation. We use the latest process technologies, and process modeling to meet client production demands, and regulatory compliance.

#### ADF is the Go-To Source for:

- Professional Engineering
- Automation and Instrumentation
- Equipment Integration
- Project and Construction Management

# An Experienced Partner

As a select supplier to several of the world's largest processing facilities, ADF's key to success is the technical knowledge and extensive field experience of our staff. We collaborate as partners with your internal team to ensure that every step of the project will meet your expectations and requirements.







#### **Industrial Water Solutions**

The ADF Engineering team understands that water keeps your operation flowing. As a process and facility engineering company, we also have the experience to integrate water solutions into your plant operation in order to maximize efficiencies, reduce energy costs, and increase production consistency.

- Water Recovery and Reuse
- Boiler Feedwater
- Cooling Water
- Softeners
- Steeping
- Fermentation
- Sanitary/Culinary Grade
- · Pharmaceutical Grade
- Biological Treatments
- Energy Reclaim
- Permitting and Compliance Support
- Potable

- Deionization
- Dealkalization
- Reverse Osmosis
- Clean/Sanitize-in-Place
- Washdown
- Wet Scrubbing
- Water for Injection (WFI)
- pH Adjustments
- Disinfection
- Demineralization
- Modular Skids
- Waste Water Treatment

## **Integrated Solutions**

As a full service engineering company, ADF has the unique ability to integrate a water solution that interconnects streams to users for maximum efficiency of your overall operations. From conceptual design and engineering, to turn-key equipment services, to training and maintenance, ADF can guide your entire project lifecycle.

#### The ADF Difference

- In-House Engineering
- Exclusive Focus on Industrial Facilities
- Process and Facility Knowledge Across Industries
- Understanding of Unique Production Constraints
- Integrations with Existing Infrastructure
- Use of Existing Plant Energy for Increased Efficiency and Sustainability
- Custom Design Solutions

- Use of Controls and Automation to Optimize Production, Reduce Discharge, and Minimize Chemical Use
- Experience with Seismic Structural Restraints
- Material Selection for Facility Environment
- Relationships with 300+ Vendors/Suppliers
- Real Time Testing
- Remote Monitoring and Smart Alarming

