



# *ADF Engineering*

PROBLEM SOLVED



[ Bioscience and Pharmaceuticals ]

# ADF Engineering, a Process and Facility Engineering Company

ADF Engineering is a full service engineering and consulting firm serving the bioscience, specialty chemical and food processing industries. Formed in 2003, ADF Engineering offers all disciplines of engineering expertise including process, civil/structural, electrical and instrumentation/controls. ADF has performed services for many clients including Fortune 500 companies.

The key to ADF's success is the technical knowledge and extensive field experience of our staff. We collaborate extensively with your team to ensure that the process will meet your expectations and requirements. ADF Engineering Inc. uses the latest design software and 3-D modeling during design and construction phases.

## Process Engineering

ADF's professionally licensed Process Engineers average over 20 years experience, including pharmaceutical and sanitary process design and validation. Our Process Engineering capabilities include:

- Intelligent P&ID's and Documentation
- Clean-in-Place and Sanitize-in-Place
- Pilot Plant Design and Scale-Up
- Sanitary and Sterile Design
- Fermentation
- Bulk Powders



## Facility Design Services

ADF has extensive experience in Structural, Mechanical, Electrical and Facility design and evaluation, including:

- Architectural Design and Master Planning
- Structural Design and Evaluation
- Equipment Support and Access
- Mechanical Design, Piping and HVAC
- Clean Room Design
- Laboratories and Research Facilities

## Equipment Experience

Every project is different and requires a true expert in the field to do complete the job correctly. ADF has the tools and the knowledge to offer the answers that make sense for your company. The wide range of tools at our disposal allow us to complete the most complex of tasks for our clients. Our tools are the finest the industry has to offer.

## Energy & Critical Utilities

ADF can evaluate your energy usage and make recommendations to reduce costs and create capacity. ADF experience includes:

- Energy Star Auditing and Compliance
- Steam and Condensate Systems
- Ventilation, Temperature and Humidity Control
- Air and Nitrogen Distribution
- Water Recovery and Reuse

## Control of Environment

ADF has extensive experience with environmental controls design and evaluation, including:

- Point Source Evaluation
- Data Collection for Permit Applications
- Scrubber Design
- Thermal Oxidizers and RTO's
- Electrostatic Precipitators

## Validation & Compliance

ADF has provided validation and compliance services for numerous clients.

Our capabilities include:

- Audit Support and Follow-Up
- Validation Protocols and Execution
- Data Collection and Tracking



## CIP and Sanitization Design

ADF can design and evaluate your CIP and sanitization systems.

- CIP Capacity
- Sanitization Validation
- Sterile Process Design



## Process Safety

ADF can assist with process safety management, hazard analyses and hazardous system design.

Our capabilities include:

- OSHA PSM Process Safety Information and Audit Support
- Process Hazard Analysis
- Combustible Dust Requirements
- Flammable, Combustible and Toxic Chemical Process Design



## Waste Reduction

ADF is experienced in waste management, reduction and recovery, including:

- Hazardous Waste Reduction
- Water Recovery and Reuse
- Waste Water Treatment