

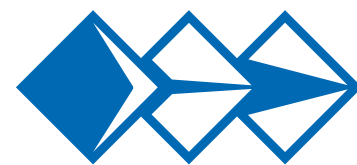
ADF Services Offered

[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
- Integration Services
- Process Validation
- HACCP/PSS

[Facility Engineering]

- Master Planning and Feasibility Studies
- Utilities Design for:
 - Steam
 - Compressed Air
 - Water
 - Electrical Power
 - Waste Water Treatment
 - 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 Engineering
- Instrumentation and Controls
- 3D Laser Scanning
- Experienced in OSHA, NFPA, FDA, IBC and Food Safety Compliance



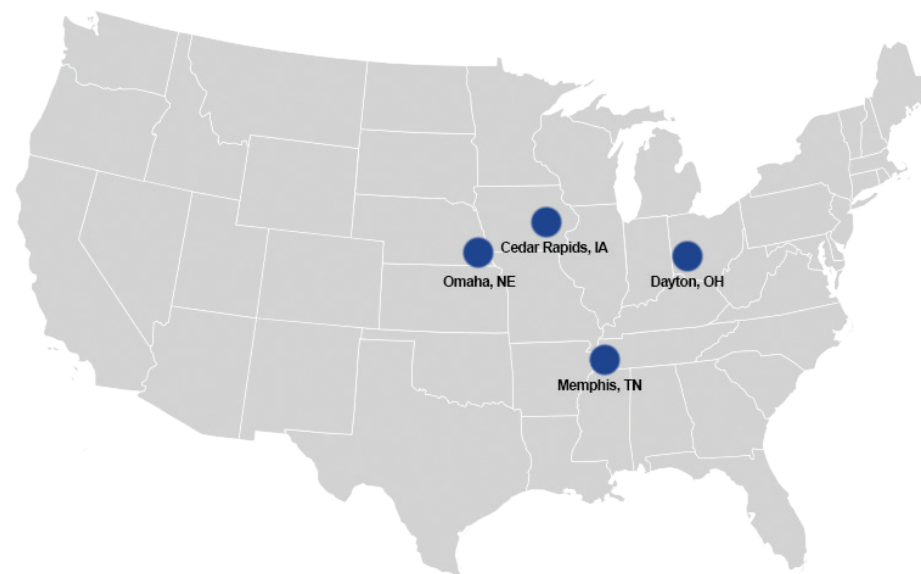
ADF Engineering

PROBLEM SOLVED

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ADF Engineering

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[Animal Feed and Pet Food]

ADF Engineering, a Process and Facility Engineering Company

[Industry and Process Expertise]

ADF Engineering provides comprehensive process engineering services to the food, feed, biofuels, bioscience, and consumer products industries. ADF offers multidisciplinary engineering expertise including piping, civil/structural, electrical, controls, and instrumentation. We use the latest design software, process simulation programs, and 3D laser scanning and modeling to meet client needs.

ADF is the go-to source for:

- Professional Process Engineering
- Facility Design
- Project and Construction Management

[An Experienced Partner]

As a select engineering services supplier to several of the world's largest food ingredient providers and premium pet food companies, ADF's key to success is the technical knowledge and extensive field experience of our staff. We collaborate as partners with your internal teams to ensure that every step of the process will meet your expectations and requirements.



[Animal Feed and Pet Food]

The ADF Engineering team has direct experience and practical knowledge of food safety engineering and best practices that are critical to the success of your project. Process and industry knowledge is a core competency for our staff, and we have experience that covers all aspects of animal feed and pet food processes – from ingredient receiving through finished product storage.

- Storage
- Milling
- Batching and Conveying
- Size Classification
- Screw Press Technology
- Extrusion
- Premium and Organic Food Experience
- Gentle Product Handling
- Pellet Cooling
- Dust Control and NFPA Compliance
- Food Safety and FDA Compliance
- Process Safety Services
- Mixing, Flavor Enhancement, and Dry/Liquid Blending

[Grain and Ingredient Handling]

ADF has extensive expertise with grains and grain-based ingredients, including specialty corn- and soy-based feeds and DDGS and WDG from the biofuels industry. Our in-depth engineering knowledge specifically applies to dust control, aspiration, pneumatic and mechanical conveying, bulk grain storage, and combustible dust safety design and operation.



[ADF Custom Process Solutions]

Our engineers have the specialized knowledge to provide custom solutions that are tailored to your specific needs, while maintaining code compliance and maximizing your return on capital investment.

- Process Modeling and Simulation
- Energy Reclaim
- Food Safety Compliance Assessments
- Combustible Dusts Compliance Assessments
- Energy Reduction Audits
- Process Safety Services
- On-Site Process Evaluation and Optimization
- Environmental Pollution Control
 - Dust Control
 - Scrubbers
 - Thermal Oxidizers
 - Regenerative Thermal Oxidizers