

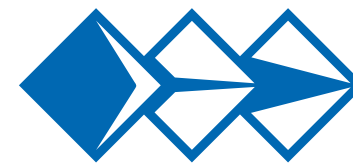
## Full-Service Engineering

### [ 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



# ADF Engineering

PROBLEM SOLVED

ADF Engineering is a leading provider of process and facility engineering solutions for the food, feed, fuel, and bioscience industries. We provide cutting edge, high quality and cost-effective engineering solutions to industrial clients that have a business presence across the United States, Canada and the globe.

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## Omaha, NE – Field Office

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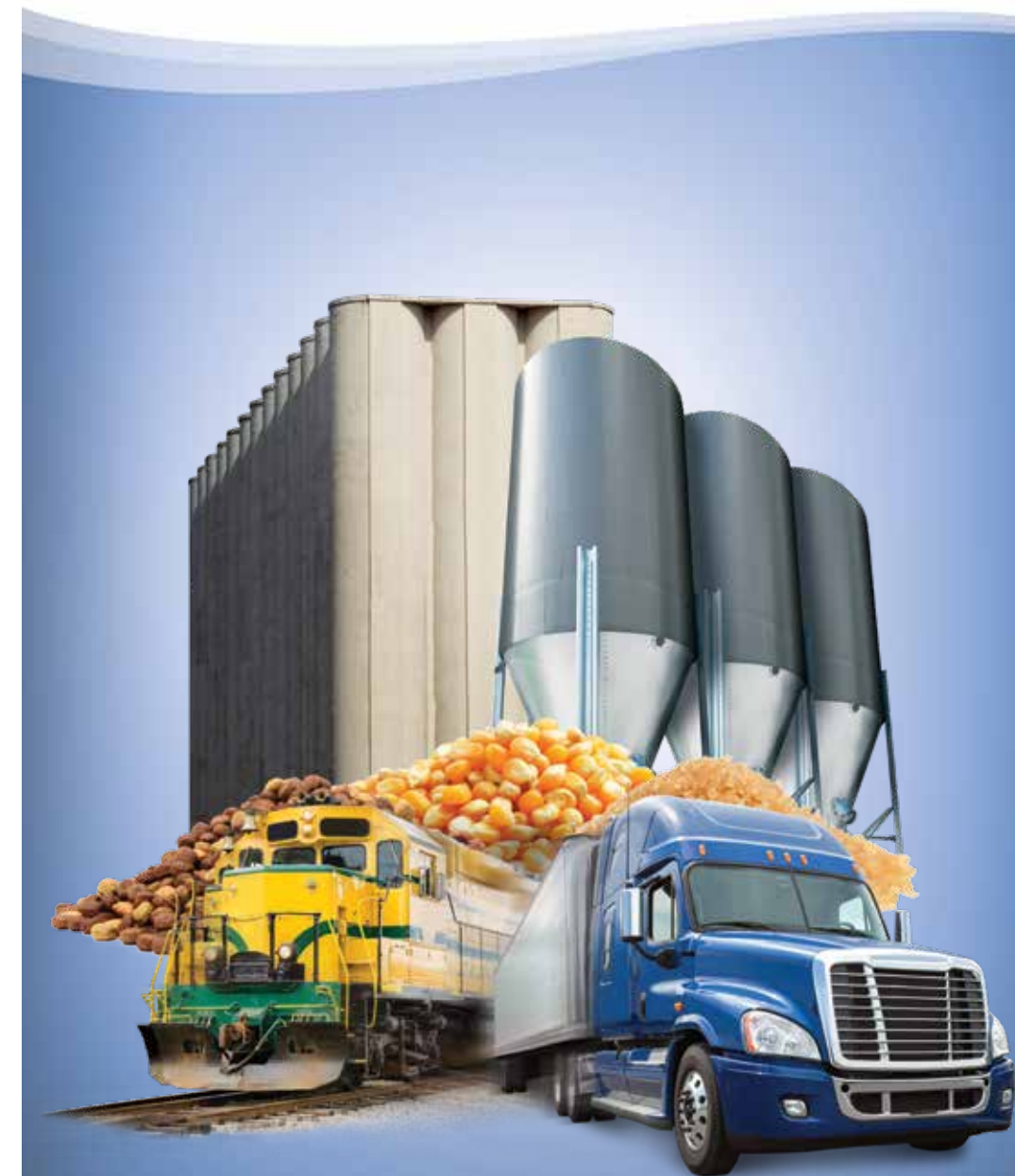
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# ADF Engineering

PROBLEM SOLVED



[ Powder and Bulk Engineering ]

[www.adfengineering.com](http://www.adfengineering.com)

# ADF Engineering, a Process and Facility Engineering Company

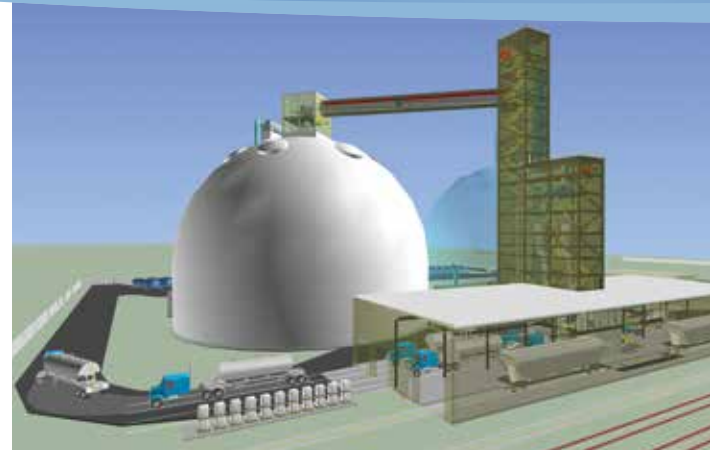
## [ Powder and Bulk Solids ]

The ADF Engineering team knows that every material is unique. Developing the right process for you is a balance that requires the knowledge and equipment experience to move your bulk products through your facility with ease and efficiency, from receiving to loadout.

- Conveyors
  - Belts
  - Drags
  - Screws
  - Self-leveling
  - Linear
  - Aero-mechanical
  - Vibratory
- Pneumatic Systems
- Bucket Elevators
- Loading Stations
- Sifting, Grinding, and Mixing
- Pelletizing
- Cooling and Drying
- Agglomeration
- Gentle Handling
- Magnets and Metal Detectors
- Bins, Silos, and Domes
- Walking Floor Bunkers
- Bin Dischargers
- Bulk Weighing & Scales

## [ Load/Unload Solutions ]

- Trucks
- Railcars
- Barges
- Sea Containers (20' & 40')
- Bulk Bags
- Storage Bins



► Sugar Storage Dome, Bridge, and Transloading Facility

## [ Dust Safety and Regulatory Compliance ]

The dust created through powder and bulk solids handling carries a unique risk of fire, explosion, and toxicity. Protecting your employees and your operations from these dangers is one of the most important considerations for your facility management and design. ADF is experienced in managing these risks, and knows how to create safe and efficient processes to meet your needs. Our practical knowledge includes:

- Dust Control
- Aspiration Design
- Dust Hazard Analysis
- Explosion Venting
- Explosion Suppression
- Explosion Isolation
- Safety Studies
- NFPA
- OSHA
- EPA

## [ Tough and Hazardous Materials ]

Appropriate handling during processing means being gentle on products as well as having fewer negative impacts on your equipment – meaning longer equipment life and reduced downtime for maintenance. This is especially true when dealing with tough and hazardous materials. We have experience with:

- Sticky
- Abrasive
- Corrosive
- Hygroscopic
- Flammable
- Heavy
- Reactive
- Gentle Handling

## [ Industry 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 Process Engineering
- Facility Design
- Equipment Integration
- Project and Construction Management



## [ Markets ]

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.

- Agri-Industrial
- Minerals
- Plastics
- Cement
- Chemicals
- Food and Feed
- Steel
- Grain Handling
- Sweeteners and Sugar
- Biomass



► Truck Loadout with an Aspiration Hood