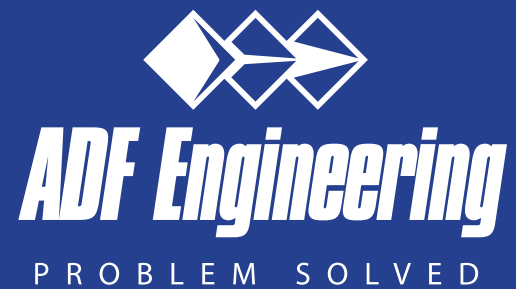


Transloading Design

For Dry and Liquid Products



WE KNOW TRANSLOADING:

ADF Engineering has transloading engineering design experience with:

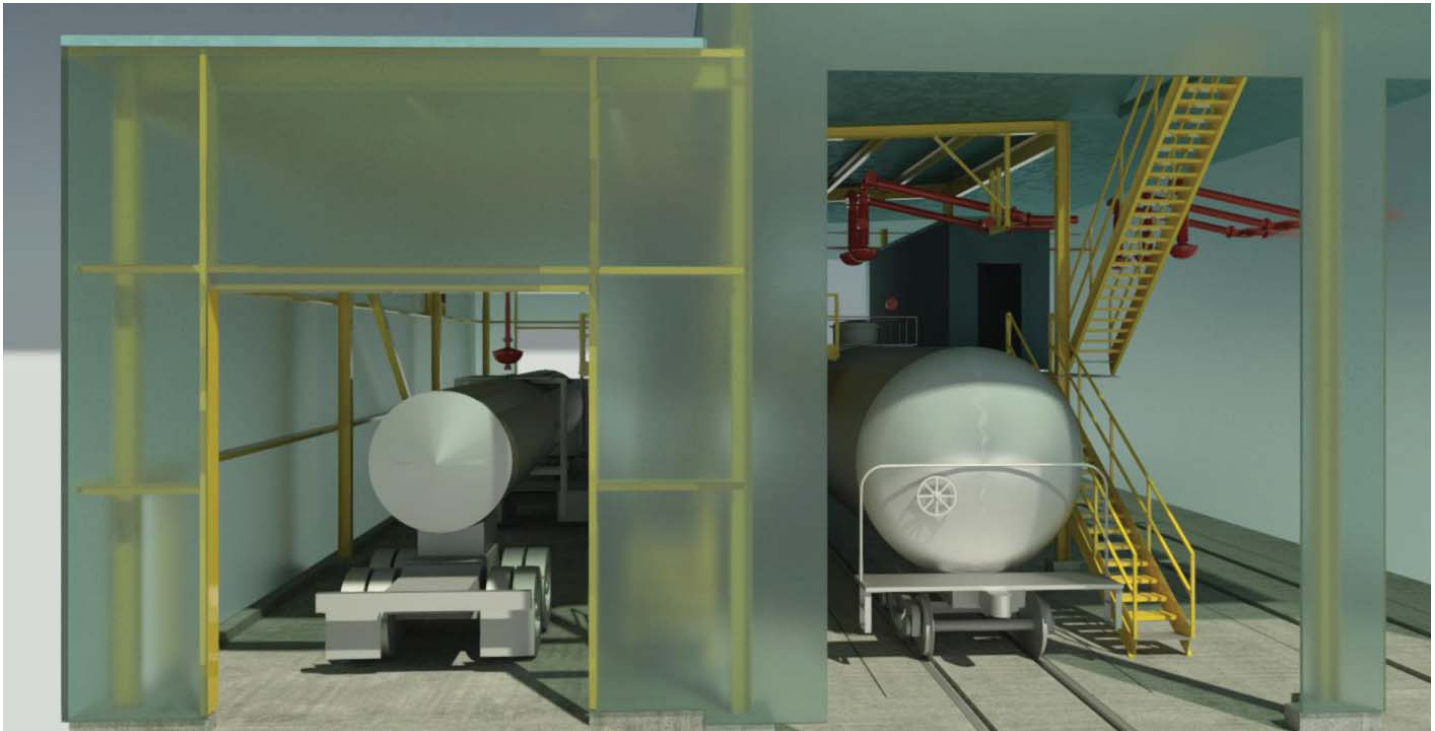
- Liquid, dry, bulk, and powder
- Rail to truck
- Sea container loading (20' and 40')
- Storage tanks
- Bins
- Scales

THE ADF ADVANTAGE:

We provide experienced and proven knowledge regarding alternative transloading methods that can help your facility:

- Improve efficiency and productivity
- Assure quality and food safety
- Lower costs
- Product operations
- Technical expertise

Below is an example of a transloading model showing a liquid goods transfer between a rail car and a truck.



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.

MARKETS SERVED:

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

TOUGH & HAZARDOUS MATERIALS HANDLED:

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



ADF Engineering

PROBLEM SOLVED

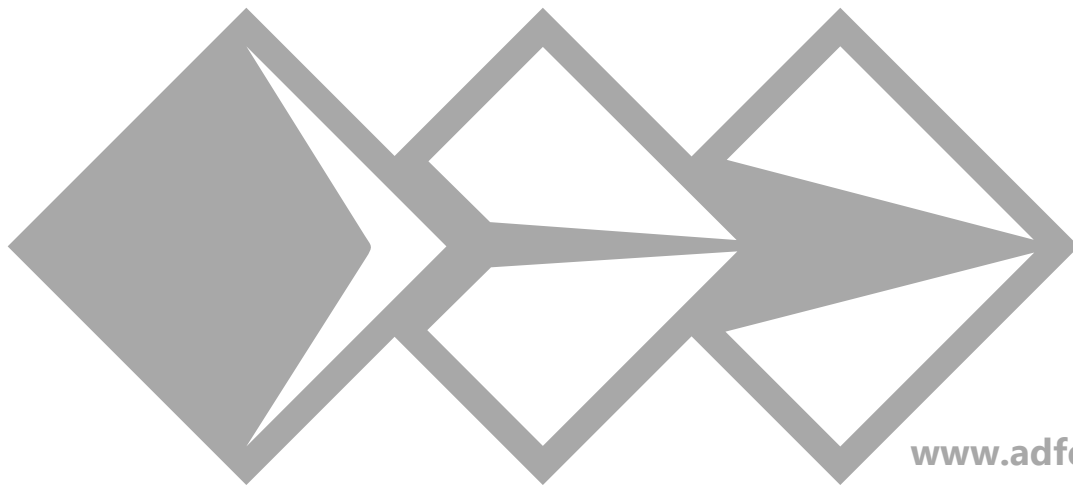
Additional Services

Process Engineering

- Dust Hazardf Analyses
- Dust Control
- Truck Hoods
- Drying
- 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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