



SUGAR INDUSTRY TECHNOLOGISTS 2024

WET DUST EXTRACTION SYSTEMS

Tim W. Warden

Englo Inc.



INTRODUCTION

TOPICS

- ISSUES WITH DRY COLLECTION
- OVERVIEW AND INDUSTRIES
- WET SYSTEM OPERATION
- PROJECT JUSTIFICATION
- COMPLETED PROJECTS

MISSION STATEMENT

**“WE ARE FOCUSED ON IMPROVING
THE ENVIRONMENTAL OPERATING
CONDITIONS OF OUR
CUSTOMERS.”**





ISSUES WITH DRY COLLECTION

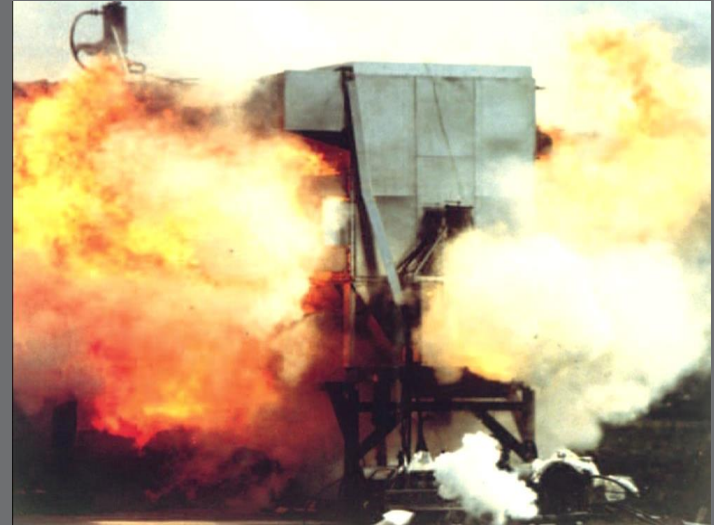
- High Cost to Maintain
- Can be dangerous or hazardous to workers when doing maintenance
- Large size makes work more difficult
- Old Technology





ISSUES WITH DRY COLLECTION

- Constant Risk of Fires or Explosions When Handling Combustible Dust
- Spark or Hot Spot Smolders Inside
- Confinement and Oxygen Create Explosive Environment
- Safety Issue with Workers
- Must Re-Handle Collected Dust



ISSUES WITH DRY COLLECTION

- Clogging Issues?
- Moisture Issues?
- Fire/Explosive Risk?



ISSUES WITH DRY COLLECTION



Retrofits of Existing



Smaller Footprint



OVERVIEW AND INDUSTRIES

- Englo designs and supplies turnkey wet and dry dust mitigation projects for combustible dust applications such as sugar, coal mining and processing, metal / Non-metal mining and processing, heavy industrial operations, and hygroscopic dust.
- Englo's Wet Dust Extraction Systems are fabricated, assembled, and tested at our facilities in Bluefield, West Virginia. Dry systems are USA made.
- Dust generated in process operations is often a problem requiring attention for safety, employee health and protection of plant equipment. Englo wet systems offer a simple, compact and rugged alternative for operation where combustible dust, moisture or high temperature create problems for dry collection systems.

ENGINEERING APPROACH



Lower Capital and Operating Expense
than Conventional Dry Systems



Flexible Modular Engineering Approach





OVERVIEW AND INDUSTRIES

Englo products have been used in a wide variety of dusty industries and applications worldwide.

- Coal Mining and Preparation Facilities
- Power Generation Plants
- Gypsum Industry
- Sugar Industry
- Food Processing Facilities
- Wood Product Facilities and Sawmills
- Tunnel De-Dusting and Ventilation
- Heavy Processing Facilities
- Cement Plants
- Recycling Facilities
- Rail Car Dumper Applications
- Metal Non-Metal underground and surface mining

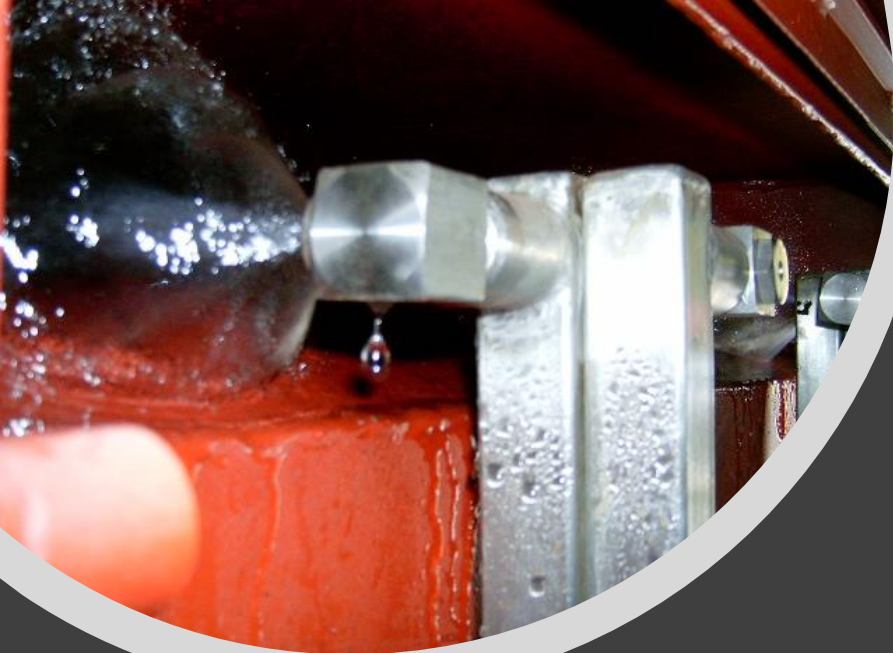


60,000 cfm T-46 Coal Reclaim Tunnel

WET SYSTEM OPERATION



- Sugar Industry Natural Fit for Englo Wet Dust Extraction Systems
- Englo Dust Extractors are Safer to Operate
- Standard System Integration with Existing Dust Collection Systems
- Less Risk to Employees and Facility

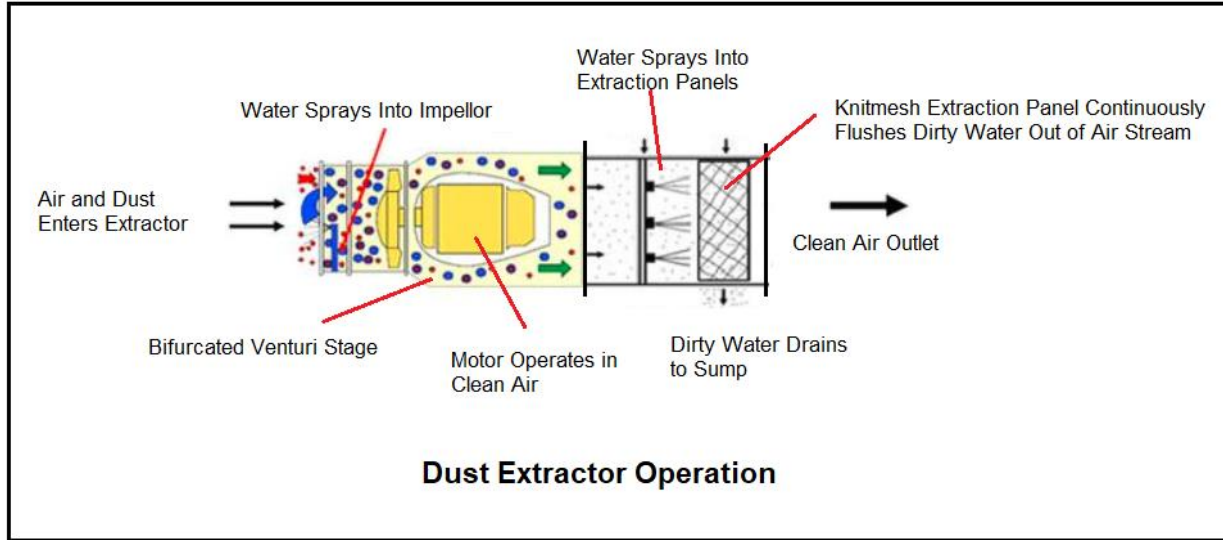


WET SYSTEM OPERATION

- Internal Nozzle System Low Pressure
- Spark Proof Shroud
- U/L XP Motors and Electrical
- Can Locate Inside and Exhaust Inside

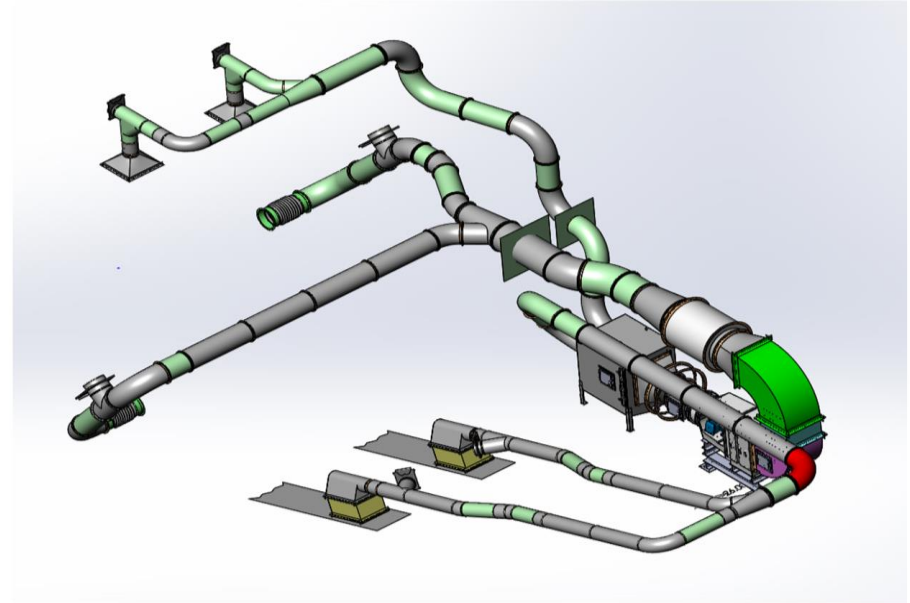


WET SYSTEM OPERATION



WET SYSTEM OPERATION

Clean air exhaust allows for dual purpose applications....Can return air back into the building.

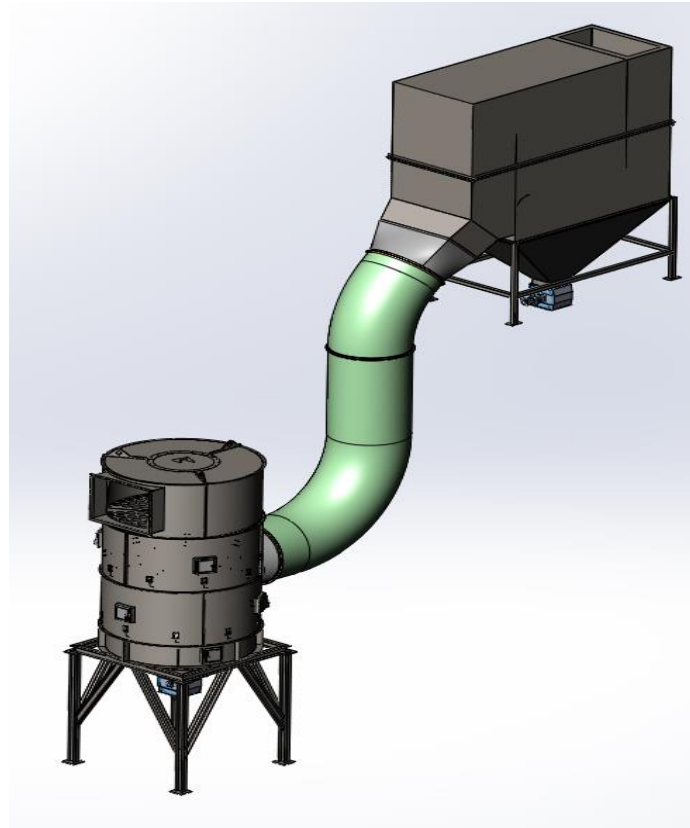




WET DUST EXTRACTION JUSTIFICATION

- Better Solution For Hazardous Dust
- Excellent for Thermal Dryer Dust Control
- Need for Gas Cleaning and Ventilation
- Discharge of Captured Dust without Re-handling
- Aspirate/Melting Dust Recovery
- Small Compact Units
- High Collection Efficiency – Up To 99.98%
- Englo Turnkey Dust Extraction Systems solve problems with fire and explosion risk and deliver superior performance for difficult operating conditions.
- Englo systems are simple, rugged and compact for mining and heavy industrial applications.

WET – One Option - Wet Extractor Tower System

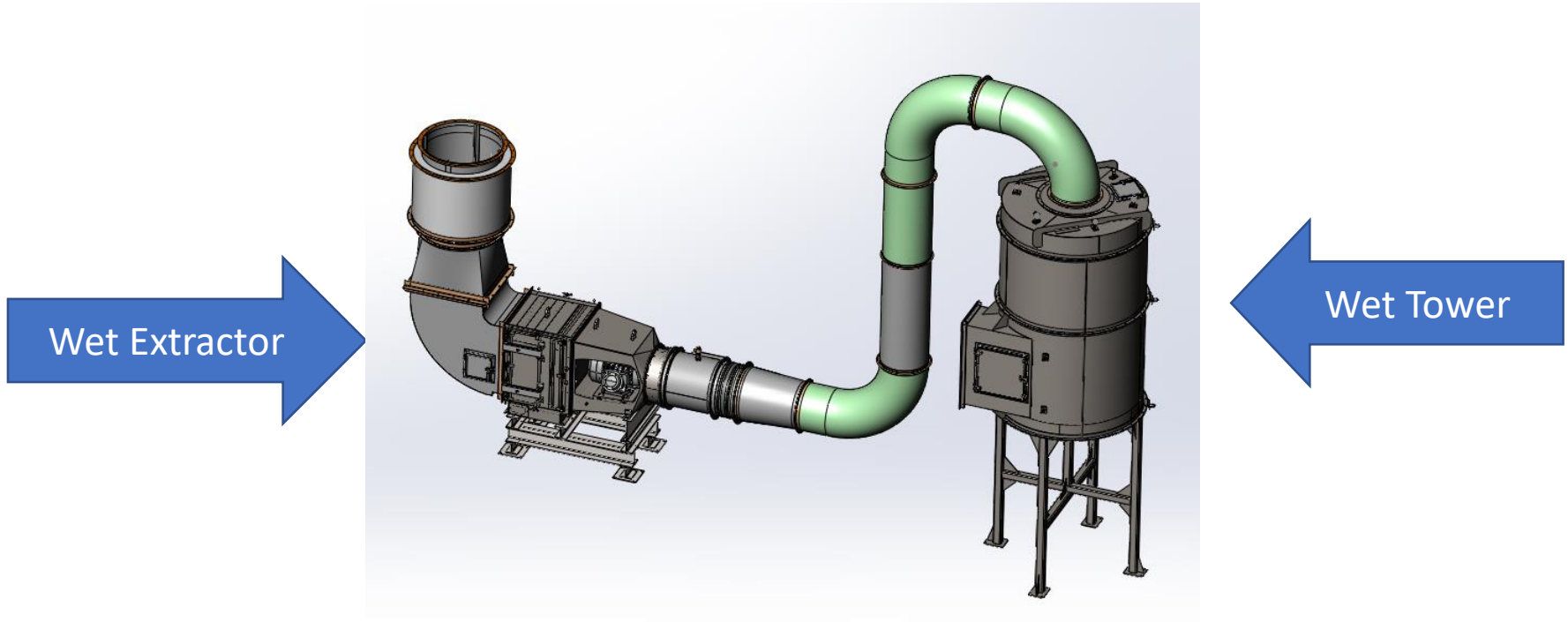


Wet Tower

Classifier

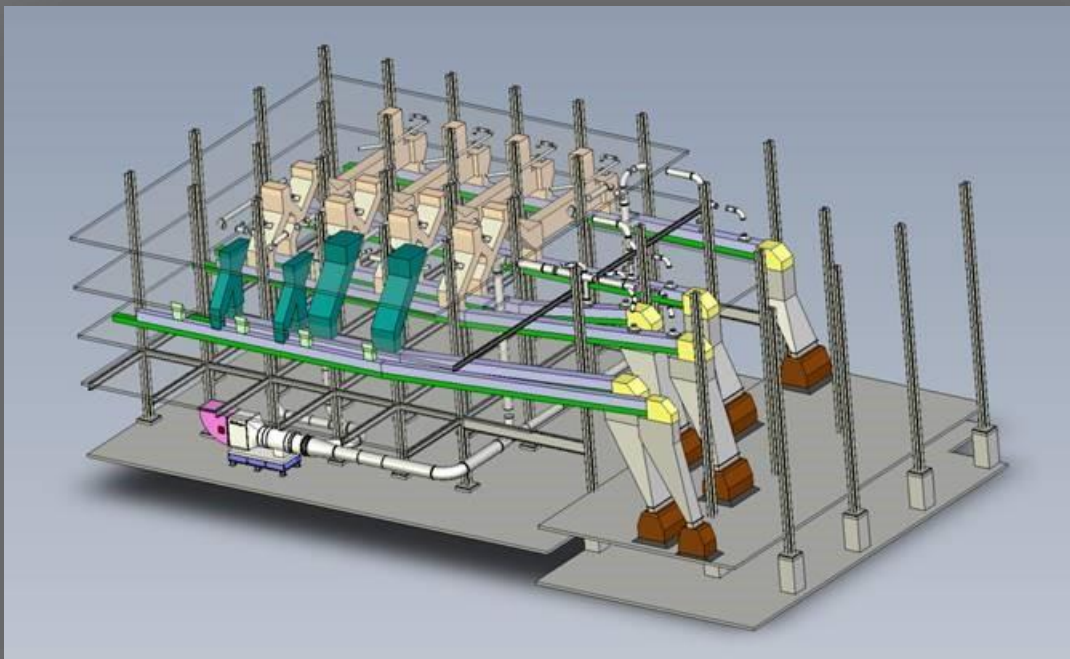
The logo for ENGLO, featuring a stylized sunburst or fan-like graphic above the word 'ENGLO' in a bold, sans-serif font.

WET – Developed for Sugar Industry - Wet Extractor Tower System



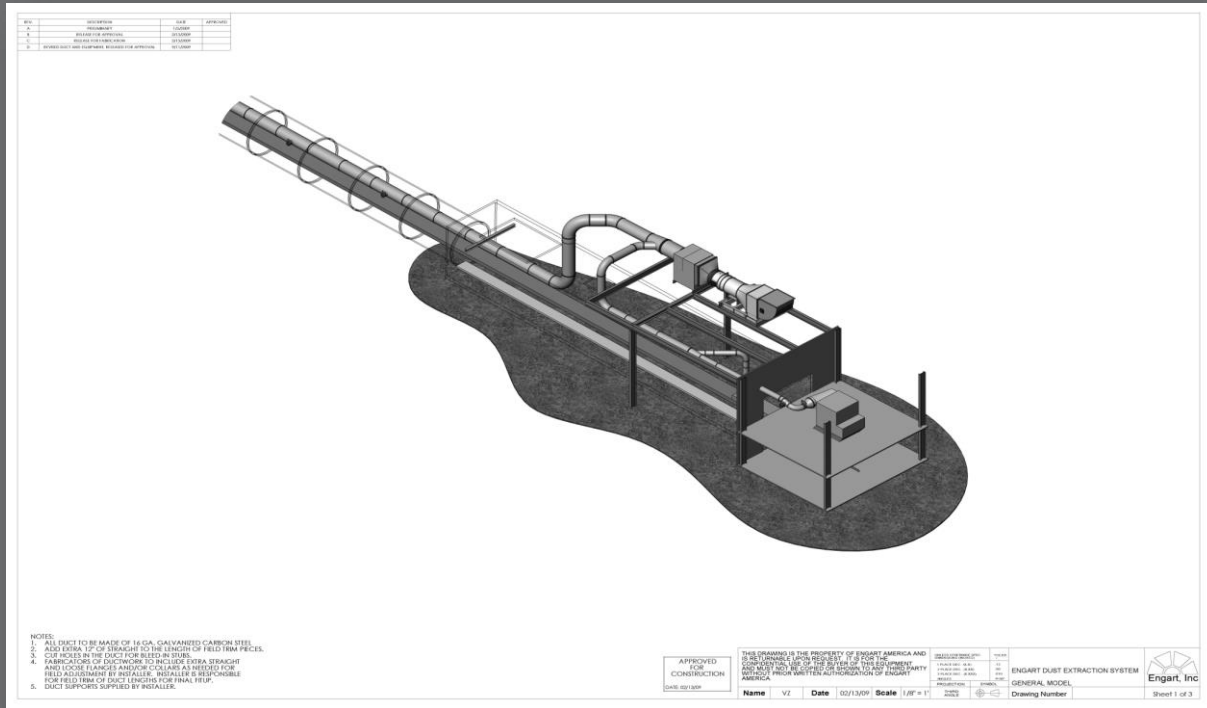


COMPLETE TURNKEY SYSTEM DESIGNS



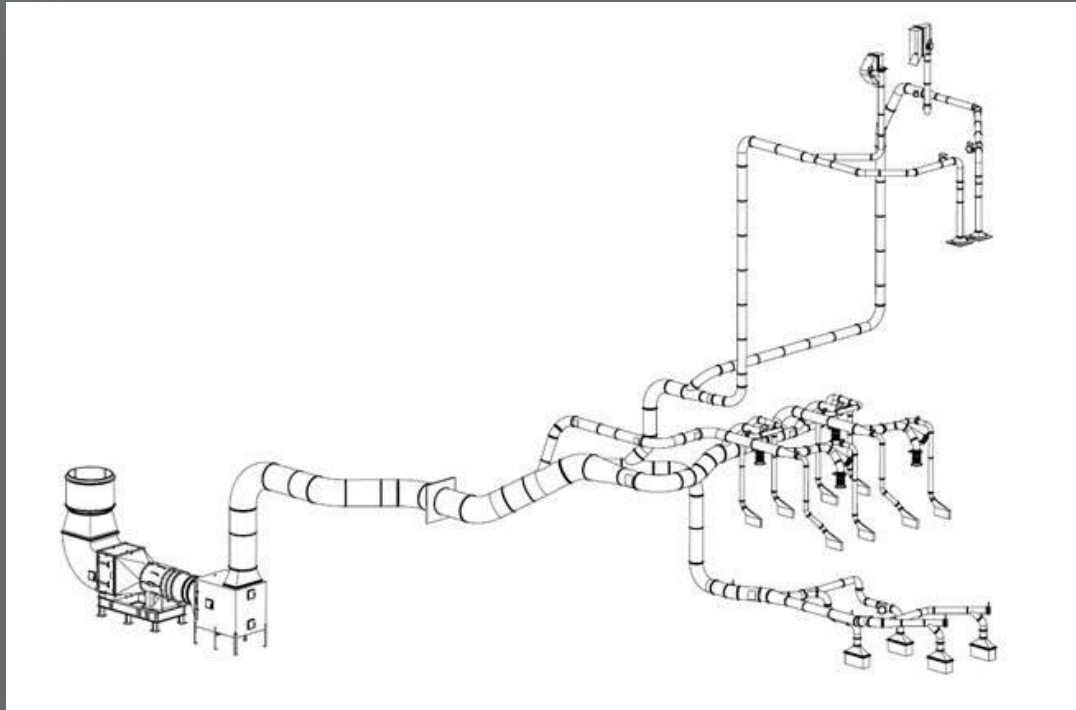


COMPLETE TURNKEY SYSTEM DESIGNS





COMPLETE TURNKEY SYSTEM DESIGNS



Plant Wide Conversions



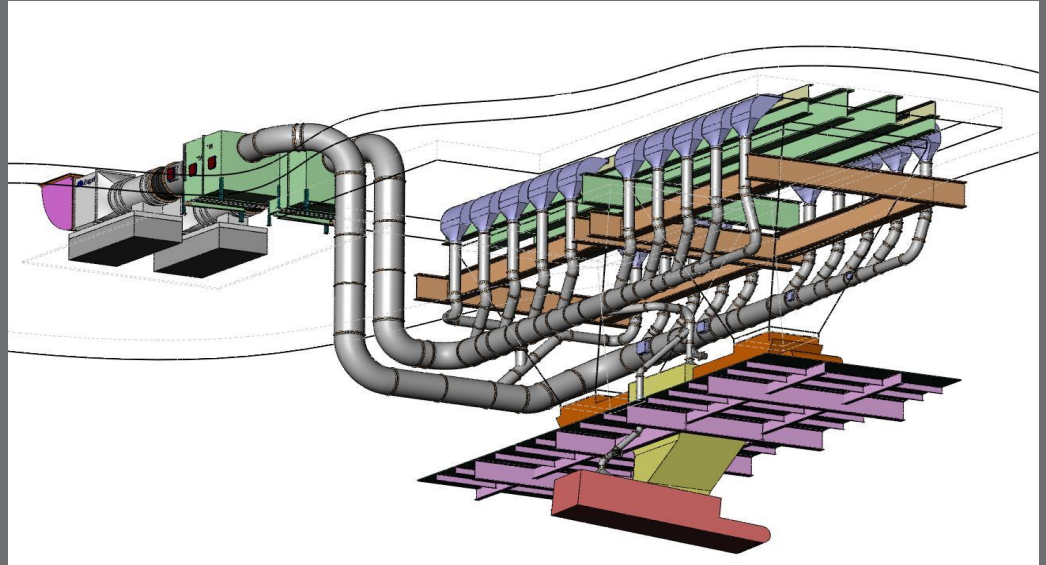


COMPLETE TURNKEY SYSTEM DESIGNS

LIMESTONE RAIL DUMPER SYSTEM



ABOVE GROUND

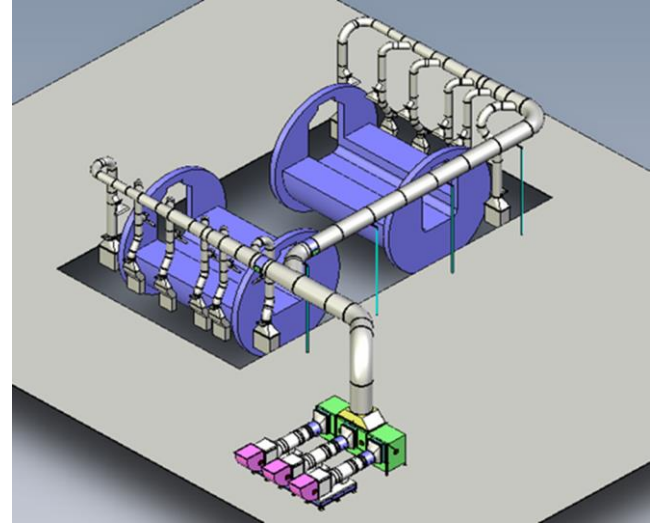


Bottom Rail Car System
-3-D Modeling of System

ROTARY DUMPER SYSTEM REPLACEMENT



ORIGINAL DESIGN



**NEW DESIGN USING ENGLO
DUST COLLECTION SYSTEMS**



ROTARY DUMPER SYSTEM REPLACEMENT



PILOT PROGRAMS FULLY SUPPORTED AND ENCOURAGED



- Pilot Trial Available at Minimal \$
- Side-stream or Full-Scale Operations
- Englo Provided Field Technical Support

QUESTIONS?





We Leave You Spotless...

Leading The Way To Safer Dust Control

