








TOMORROW'S PROCESSES, **TODAY.**

[FEECO.com](http://FEECO.com)

SINCE 1951



# TABLE OF CONTENTS

	<b>ABOUT</b> FEECO INTERNATIONAL	3
	<b>EQUIPMENT</b>	5
	AGGLOMERATION	7
	THERMAL PROCESSING	9
	MATERIAL HANDLING	11
	SUPPLEMENTAL	13
	<b>ENGINEERING</b> CAPABILITIES	15
	<b>RESEARCH &amp;</b> DEVELOPMENT	19
	<b>PARTS</b> & SERVICE	23





ABOUT

FEECO International, Inc. was founded in 1951 as an engineering and equipment manufacturer. Today, we provide an array of process solutions, equipment, and services to companies looking to solve material problems, develop advanced processes, and streamline production. We've built a reputation on custom, quality work that has allowed us to serve thousands of companies around the world with the best in agglomeration, thermal processing, and material handling equipment.

FEECO is recognized globally as an expert in providing:

- Custom Equipment Manufacturing
- Engineering
- Feasibility/Materials Testing
- Process Design & Development
- Process Optimization
- Product Development
- Parts & Service

WHO WE WORK WITH

Many of the world's most notable companies, across nearly all industries, rely on FEECO for innovative solutions in process design, engineering, and manufacturing, including:



INDUSTRIES WE SERVE

- Chemical
- Fertilizer & Granulation
- Mining & Minerals
- Power Generation
- Forest Products
- Waste Transformation

75

— YEARS —  
IN BUSINESS

25

DEGREED ENGINEERS  
ON STAFF

1,000'S

OF HOURS OF CUMULATIVE  
EXPERIENCE

1,000+

HOURS OF DOWNTIME  
AVOIDED

100'S

OF SATISFIED  
CUSTOMERS GLOBALLY

1,000'S

OF CAPITAL PROJECTS  
EXECUTED SEAMLESSLY





CE Certification is available on request

# EQUIPMENT

BUILT TO LAST



# AGGLOMERATION EQUIPMENT

## AGGLOMERATION DRUMS



**ABOUT**  
[Agglomeration drums](#) are diverse in their ability to accomplish a variety of objectives. They are favored for their durability and high throughput.



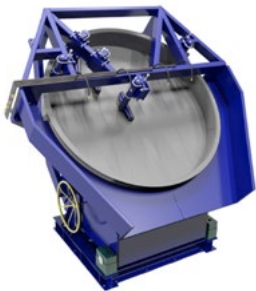
**SIZE**  
Diameters from 36" - 15'  
(1 - 4.6m)

**CAPACITY**  
500 lb/hr - 3500+ TPH\*

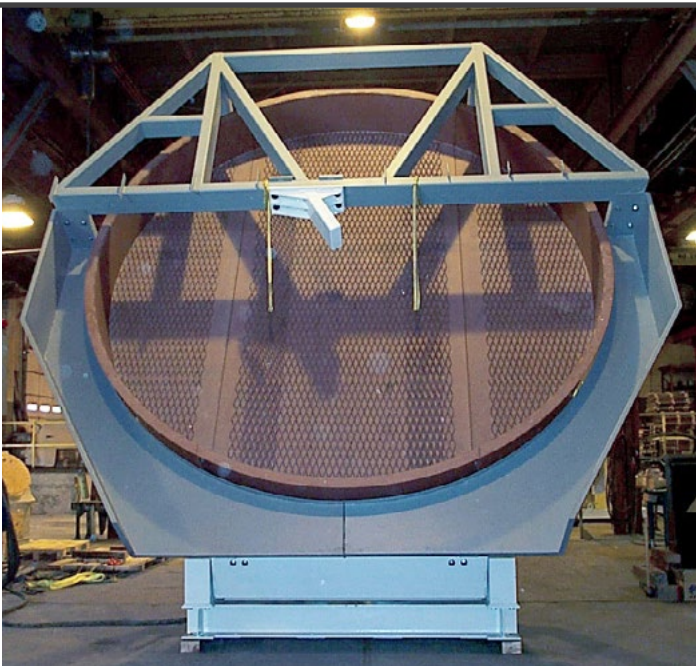
- APPLICATIONS**
- Granulation
  - Agglomeration
  - Conditioning
  - Coating
  - Mixing

*\*Testing & rental options available*

## DISC PELLETIZERS



**ABOUT**  
[Disc pelletizers](#) offer a high level of particle size control, producing refined, rounded pellets. They are often combined with a pin mixer.



**SIZE**  
6' - 25' (1.8 - 7.5m)

**CAPACITY**  
1 TPH - 140 TPH\*

- APPLICATIONS**
- Granulation
  - Agglomeration

*\*Testing & rental options available*

For additional details and specifications on agglomeration equipment, see our [Agglomeration Equipment brochure](#).

## PUGMILL MIXERS



**ABOUT**  
[Pugmill mixers](#) (paddle mixers) use a kneading and folding action to thoroughly mix solid and liquid feed components and if desired, produce granules.

**SIZE**  
22" - 78" (560 - 1,980mm)

**CAPACITY**  
2 TPH - 300 TPH\*

- APPLICATIONS**
- Granulation
  - Agglomeration
  - Conditioning
  - Coating
  - Mixing



*\*Testing & rental options available*

## PIN MIXERS

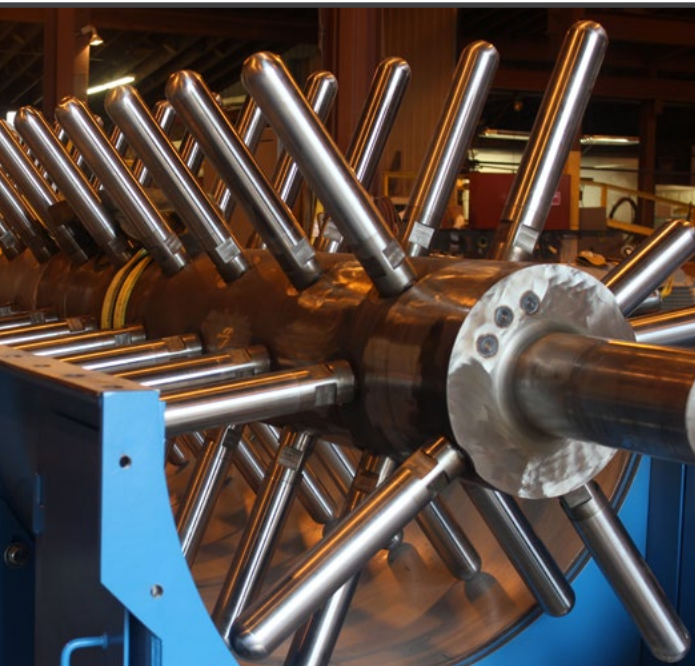


**ABOUT**  
[Pin mixers](#) use an intense spinning action to homogeneously mix solid and liquid feed components and produce dense granules.

**SIZE**  
15" - 50" (380 - 1,270mm)

**CAPACITY**  
500 lb/hr - 70 TPH\*

- APPLICATIONS**
- Granulation
  - Agglomeration
  - Conditioning
  - Coating
  - Mixing



*\*Testing & rental options available*



# THERMAL PROCESSING EQUIPMENT

## ROTARY DRYERS



**ABOUT**  
[Rotary dryers](#) are known as a workhorse when it comes to drying bulk solids. They offer a high throughput, tolerance to changes in feedstock, a robust build, and long-term longevity and reliability.

**SIZE**  
3' - 15' (1 - 4.6 m)

**CAPACITY**  
1 TPH - 200 TPH+\*  
(1 MTPH - 181 MTPH+)

- CONFIGURATIONS**
- Direct
    - Co-Current
    - Counter-Current
  - Indirect

*\*Testing options available*

## ROTARY COOLERS



**ABOUT**  
Like rotary dryers, [rotary coolers](#) offer a high-throughput processing solution for cooling bulk solids. They are also recognized for their heavy-duty construction, reliability, and long lifespan when properly maintained.

**SIZE**  
3' - 15' (1 - 4.6 m)

**CAPACITY**  
1 TPH - 200 TPH+\*  
(1 MTPH - 181 MTPH+)

- CONFIGURATIONS**
- Direct
    - Co-Current
    - Counter-Current
  - Indirect Water Deluge

*\*Testing options available*

For additional details and specifications on thermal processing equipment, see our [Rotary Dryer & Cooler](#), [Rotary Kiln](#), and fluid bed dryer brochures.

## ROTARY KILNS



**ABOUT**  
[Rotary kilns](#) are used to carry out chemical reactions and phase changes in bulk solids. They are frequently used in applications involving incineration, calcination, thermal desorption, carbon reactivation, and more.

**SIZE**  
Up to 15' (4.6m) diameter  
x 100'+ (30.5m+)

**CAPACITY**  
1 TPH - 50 TPH\*  
(1 MTPH - 45 MTPH)

- CONFIGURATIONS**
- Direct
    - Co-Current
    - Counter-Current
  - Indirect

*\*Testing options available*

## FLUID BED DRYERS



**ABOUT**  
[Fluid bed dryers](#) offer a cost-effective option for drying bulk solids in lower-capacity settings. They require minimal structural support and boast simple construction and improved heat transfer efficiency. They can also be configured to reuse recovered waste heat.

**SIZE**  
4' - 20' (1.2 - 6 m)

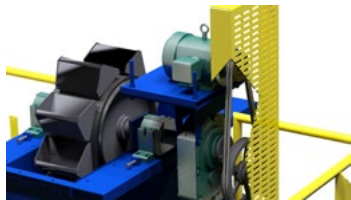
**CAPACITY**  
1 TPH - 50 TPH\*  
1 - 15mmBtu/hr  
3,000 - 50,000 ACFM

*\*Testing options available*



# BULK MATERIAL HANDLING EQUIPMENT

## BUCKET ELEVATORS



**ABOUT**  
[Bucket elevators](#) are the industry standard for vertical handling, capable of moving everything from ores to fine chemicals.



**SIZE**  
Buckets from 8" - 52"  
(0.2 - 1.3 m wide)

**CAPACITY**  
20 - 600 TPH

**CONFIGURATIONS**

- Centrifugal Chain
- Centrifugal Belt
- Continuous Chain
- Continuous Belt

## TROUGHED BELT CONVEYORS



**ABOUT**  
[Troughed belt conveyors](#) horizontally convey a wide range of materials at angles between 0°-20°, or up to 30° with cleated belting.

**SIZE**  
18" to 72" (0.5 - 1.8 m) wide

**CAPACITY**  
up to 6,000 TPH



For additional details and specifications on agglomeration equipment, see our [Belt Conveyor](#) & [Bucket Elevator](#) brochures.

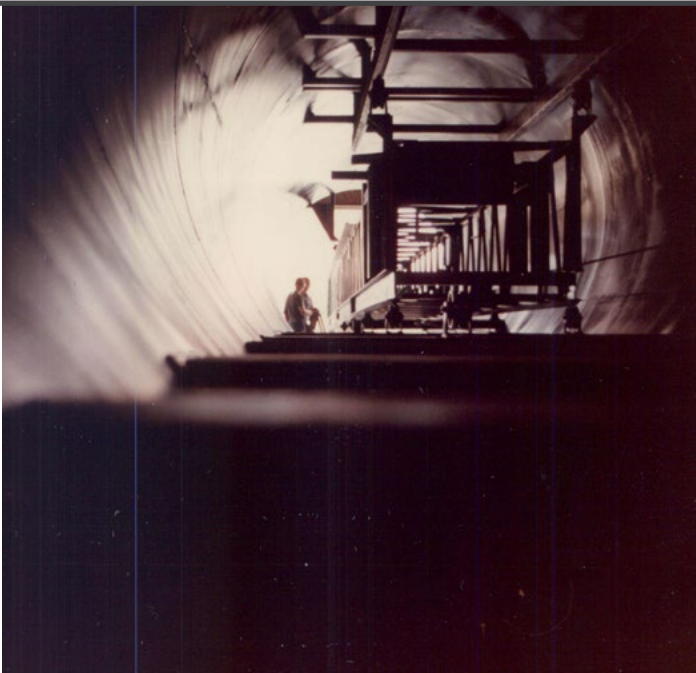
## REVERSING SHUTTLE CONVEYORS



**ABOUT**  
[Reversing shuttle conveyors](#) are used for building in-line, continuous piles, or feeding multiple fixed discharge points.

**SIZE**  
18" to 72" (0.5 - 1.8 m) wide

**CAPACITY**  
Up to 6,000 TPH



## STEEP INCLINE CONVEYORS



**ABOUT**  
[Steep incline conveyors](#) are a great substitute for drag chains or bucket elevators, because of the reduced noise and the elimination of transfer points.

**SIZE**  
18" to 72" (0.5 - 1.8 m) wide

**CAPACITY**  
Up to 600 TPH





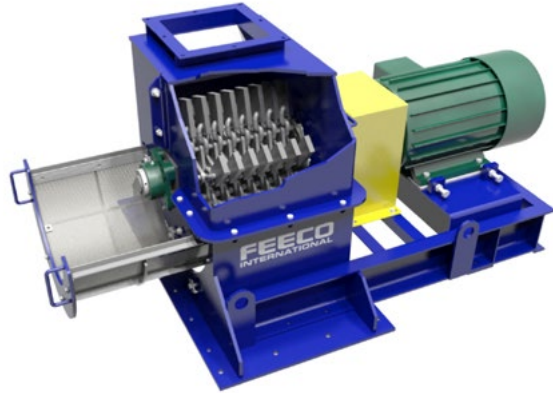
# SUPPLEMENTAL EQUIPMENT

## HIGH-SPEED MIXERS



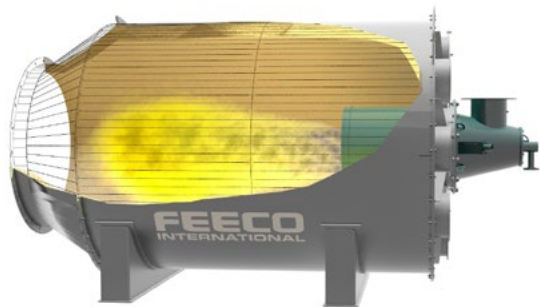
[High-speed mixers](#) are incorporated onto pug mills in the production of MCP, DCP, and DFP animal feeds. This improves the pre-mixing step in animal feed granulation, producing a more thorough reaction.

## HAMMER MILLS



FEECO double rotor [hammer mills](#) are a heavy-duty crusher for use in size reduction efforts. Two sets of chain/bar links reduce dry and semi-moist materials with a minimum amount of fines and caking or plastering within the crusher.

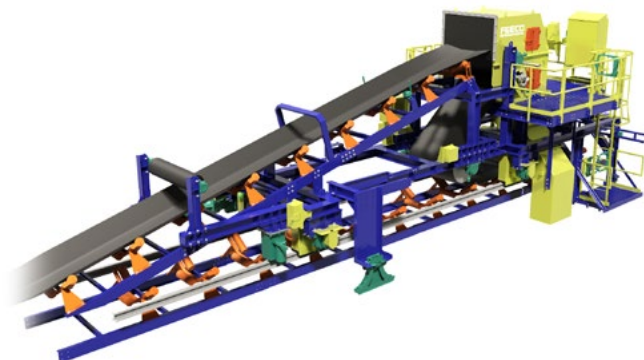
## COMBUSTION CHAMBERS



[Combustion chambers](#) serve to house the actual combustion reaction in direct dryers and kilns, preventing the flame from coming into contact with the material being processed.



## BELT TRIPPERS



[Belt trippers](#), or traveling trippers, add versatility and functionality to troughed belt conveyors by creating multiple discharge points along the conveyor, along either side of the belt.

## BELT PLOWS



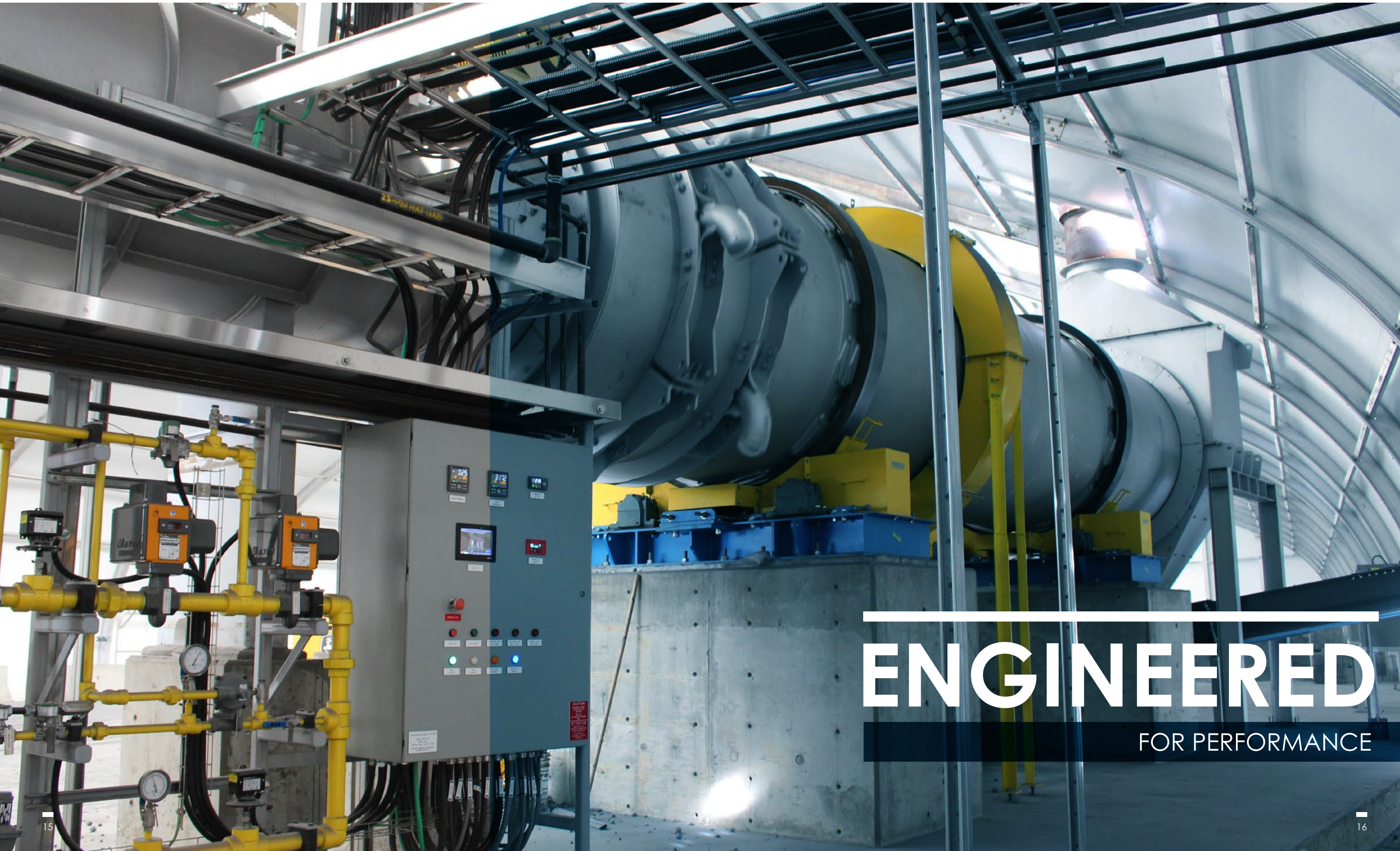
[Belt plows](#) add another stationary point of discharge along a belt conveyor on either side of the belt to increase its flexibility.

## BELT FEEDERS



[Belt feeders](#) are used to provide a controlled discharge rate of material. Commonly used when material that is either stockpiled or loaded (at an uncontrolled rate) in a bin or hopper needs to be introduced into the system at a controlled feed rate.





# ENGINEERED

FOR PERFORMANCE



# ENGINEERING CAPABILITIES

One of the advantages to working with FEECO is our extensive experience in engineering; our highly qualified staff of chemical, mechanical, and electrical engineers provides a well-rounded approach to system design, whether you are in need of a single piece of equipment, or a complete process system.

We can help bring your project to fruition with our versatile capabilities in front-end engineering, including the provision of:

- Equipment engineering
- Process flow diagrams/Mass balance
- Conceptual plant layouts
- Plant general arrangement drawings
- Civil works guide drawings with static and dynamic loads
- Structural steel and access platform guide drawings
- Chute and ductwork guide drawings
- Vendor interface, bid evaluation and analysis
- P&ID development
- Electrical and control systems engineering
- Material handling engineering
- Installation and commissioning review
- Site supervision for installation & start-up

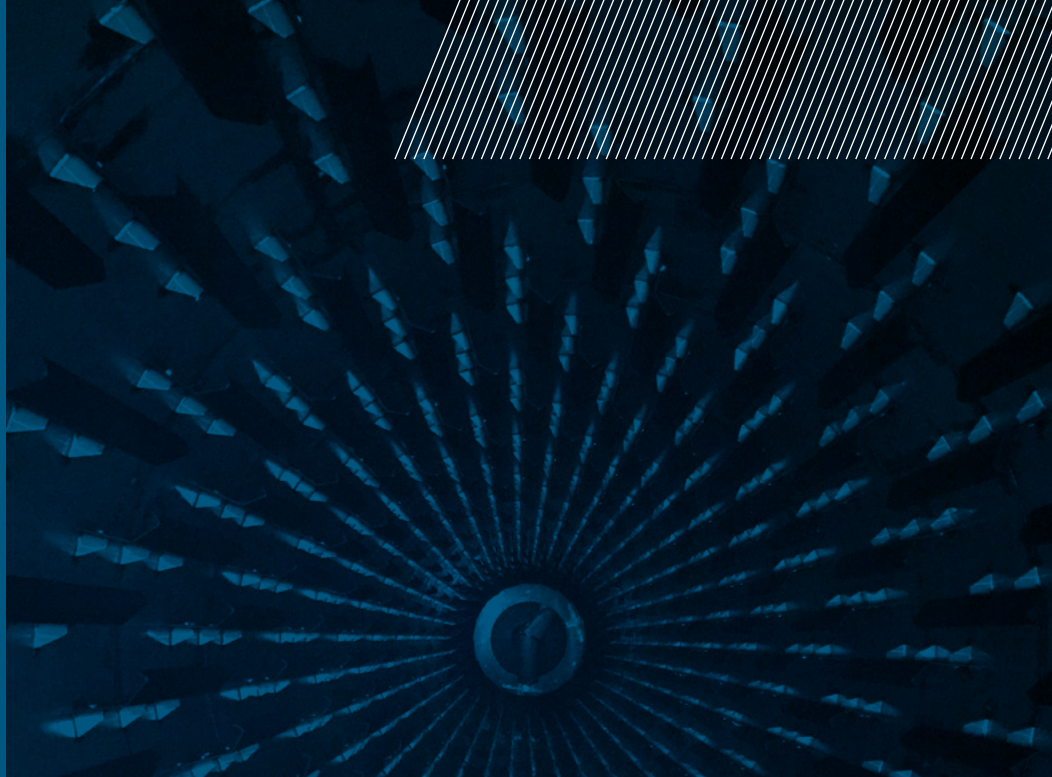
Our engineering department works closely with our on-site fabrication facility to ensure stringent design and quality standards are met.

Project managers work to oversee your system is designed, manufactured, and installed to spec—on time and on budget.



◀ Covered Pugmill Mixer with observation panels for use in animal feed production

▲ Copper Ore Agglomeration Drums



▲ Rotary Dryer Interior

All project managers and sales team members are experienced engineers and work with our staff of fully trained CAD and Inventor users to engineer a system around your unique requirements.







# THE FEECO INNOVATION CENTER

The [FEECO Innovation Center](#) is a unique testing facility where we can test your material at both batch and pilot scale. Testing offers a host of invaluable information, allowing you to gain critical data on your material, work out process variables, fine-tune product characteristics, and develop a recipe for process scale-up. We've built a vast database on a variety of materials and test procedures. We offer comprehensive testing services in four categories:

- 1. **Feasibility/Proof of Concept** - An initial, non-witnessed batch testing phase in which the possibility of creating a product is explored.
- 2. **Proof of Product** - A more in-depth batch testing phase in which more time is spent determining whether a product can be made to desired specifications.
- 3. **Proof of Process** - A continuous testing phase that aims to establish the equipment setup and parameters required for continuous production of your specific material.
- 4. **Process/Product Optimization** - An in-depth study to optimize your specific material's characteristics and/or production parameters

## UNPARALLELED REPORTING CAPABILITIES

The FEECO Innovation Center features a Rockwell Automation PLC/MCC system, which utilizes current technologies for optimizing testing operations through the collection and reporting of critical process data. These capabilities not only provide real-time insight into process performance, but they also allow returning customers to pick up exactly where they left off.

## INTERESTED IN TESTING?

It's easy!

- 1

Fill out some **paperwork**
- 2

Send us a **sample**
- 3

We'll run some **tests**
- 4

We'll mail you the **results**

Get started today by going to: [FEECO.com/contact-us/](https://www.feeco.com/contact-us/)



## TYPES OF TESTING CONDUCTED IN THE FEECO INNOVATION CENTER:

### AGGLOMERATION

- Pelletizing (Rotary drum, disc pelletizer, pin mixer)
- Micro-Pelletizing
- Coating
- Conditioning

### THERMAL

- Drying
- Calcination
- Carbon Activation
- Catalyst Production
- Metal Recovery
- Organic Combustion
- Reduction
- Thermal Desorption
- Upgrading of Ores

Rotary Kiln  
Batch Testing



Synthetic Gypsum  
pelletized at FEECO







---

# PARTS & SERVICE



SERVICE

From start-up and installation support, to preventative maintenance, FEECO offers a comprehensive [customer service](#) program to help keep your equipment running its best for years to come, whether your equipment is FEECO brand or otherwise. We offer the following services:

- Installation & Start-up Support
  - Spare Parts
  - Field Services
  - Tire & Trunnion Grinding
  - Drum Training
- Laser Alignment
  - Gear Replacement
  - Spare Parts Installation
  - Inspections
- Equipment Audits
  - Training Programs
  - Process Optimization

PARTS

FEECO offers an extensive parts program to assist customers in keeping an inventory of wear-critical parts, as well as providing parts on an as-needed basis. In addition to providing parts for all FEECO equipment, we will also provide replacement parts for equipment built by other brands.

Our line of parts includes everything from the smallest component, to major items, including:

- ROTARY DRUMS**

  - Tires (Riding Rings)
  - Trunnion Wheels
  - Thrust Rollers
  - Drum Shells
  - Drive Components
  - Girth & Pinion Gears
  - Seals
  - Bearings
- DISC PELLETIZERS**

  - Spray Systems
  - Disc Assembly
  - Drive Motor
  - Scrapers/Plows
  - Gear Reducer
  - Bearings
- MIXERS**

  - Pins & Paddles
  - Shafts
  - Shaft Bearings
  - Drive Motors
  - Spray Ports/System
- ELEVATORS & CONVEYORS**

  - Buckets
  - Chains & Belts
  - Drive Motors
  - Pulleys
  - Gear Reducers
  - Guarding
  - Bearings
  - Idlers
  - Covers
  - Drives
  - Dust Collection Hoods
  - Trippers
  - Plows
  - Feeders



◀ Rotary Drum Repair

Rotary Drum Tire Mounting ▶



MITIGATE INEFFICIENCIES.  
**AVOID COSTLY DOWNTIME.**



## ABOUT FEECO

FEECO International, Inc. was founded in 1951 as an engineering and equipment manufacturer. We are recognized globally as an expert in industry-leading process design, engineering capabilities (including everything from process development and sample generation, to feasibility studies and detailed plant engineering), custom equipment manufacturing, and parts and service. We serve a range of industries, including fertilizer and agriculture, mining and minerals, power/utility, paper, chemical processing, forest products, and more. As the leading manufacturer of processing and handling equipment in North America, no company in the world can move or enhance a concept from process development to production like FEECO International, Inc.

The choice to work with FEECO means a well-rounded commitment to quality. From initial feasibility testing, to engineering, manufacturing, and parts and service, we bring our passion for quality into everything we do.



Scan the QR code to view all of our brochures, project profiles, handbooks, and more!

FOR DETAILED PRODUCT INFORMATION & CAPABILITIES, **DOWNLOAD THE FEECO HANDBOOK** AT: [FEECO.com/FEECO-handbook/](https://FEECO.com/FEECO-handbook/)