

# COMPLETE SYSTEMS

AGGLOMERATION - BIOSYSTEMS

MATERIAL HANDLING - THERMAL PROCESSING

**FEECO**  
INTERNATIONAL

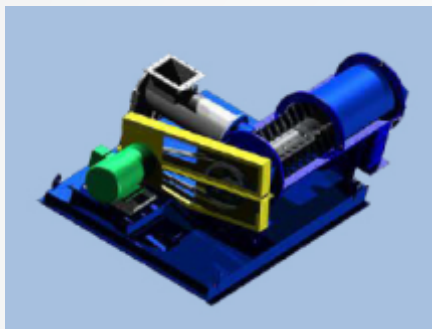


# AGGLOMERATION THERMAL PROCESSING SYSTEMS

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## AGGLOMERATION SYSTEMS

FEECO can provide a family of solutions to meet your agglomeration needs. Whether the purpose is to eliminate dust and fines, convert a waste to a marketable product, or improve product characteristics, we can design, manufacture and install agglomeration equipment and systems to create a highly efficient process.



### PAN MIXER

A high-speed, high-intensity mixer consisting of an axial rotor and pins which efficiently mixes and agglomerates fine particles into micropellets.

### PADDLE MIXER

A series of paddles mounted on dual counter rotating shafts in a "U" shaped trough. With the addition of liquid binder, the material undergoes a tumbling, kneading and medium shear action as it travels down the mixer.

### BRIQUETTING / COMPACTION

Particle size enlargement using a dry process in which dusts or powders are formed into shapes. The densification of the product is obtained by mechanical compression through a Sahut-Conreur double roll press.

### DRUM ROTARY GRANULATOR

Open-ended rotating drum which imparts a tumbling and growth action



to form spherical pellets in a wide size range, and are often operated with recycled material.



### DISC PELLETIZER

Raw material is continually fed into the rotating pan and is wetted by fine sprays of binder. This tumbling action in the pan first forms nuclei, which grow into larger pellets. Spherical pellets are continuously discharged over the lip of the pan.

## THERMAL PROCESSING SYSTEMS

FEECO International, Inc. is an industry leader in the field of thermal processing. Our designs can address a vast array of materials and processing

requirements. We can supply rotary dryers, coolers, kilns, calciners and combination dryer-coolers. All of our designs are developed with efficiency, durability and process flexibility in mind. Our thermal systems can be designed in virtually any configuration; parallel flow or counter-current flow, direct or indirectly fired, utilizing a variety of fuel sources such as natural gas, oil, steam, waste heat, steam, etc. We can supply single stand-alone thermal processing units or complete systems. A complete system can include everything required for the treatment of a given material from feed handling, metering, exhaust gas-cleaning equipment, and a variety of control systems from a simple single control loop in a microprocessor to a sophisticated PLC based system with multiple control loops. Our experience base is vast and wide. We can offer cost competitive designs for pilot scale units that process as little as one ton per hour to heavy-duty units at up to 17 feet in diameter that process hundreds of tons per hour.

**WE CAN EFFICIENTLY SELECT, SIZE & PRICE THE APPROPRIATE THERMAL SYSTEM FOR YOUR NEEDS USING OUR COMPUTER DESIGN PROGRAM!**



## MATERIAL HANDLING SYSTEMS

Rugged, Long Lasting and Dependable are some of the common words used by our many customers who have come to depend on the quality and durability of FEECO material handling equipment and systems. Since 1951, FEECO has developed extensive experience in bulk material handling equipment which is backed by the strength of our engineering and design departments, and our custom manufacturing capabilities. FEECO's base product line includes:



**Belt Conveyors:** 18" to 72" wide with capacities up to 8,000 TPH.

**Bucket Elevators:** centrifugal and continuous type in both belt and chain.

**Steep Incline Conveyors:** up to 72" wide and 90° incline.

**Heavy Duty Belt Feeders:** up to 84" wide under rail and truck dump hoppers.

Other custom designed handling / conveying equipment.



FEECO's expertise in providing a wide range of optional equipment to complement its base product line means a custom designed, total turnkey system can be supplied to meet a customer's specific needs. Equipment such as travelling trippers, reclaim units, weighing devices, crushing/sizing machinery, transfer/screening towers, etc., are commonly integrated into FEECO'S scope of design and supply.

## FEECO BIOSYSTEMS

FEECO BioSystems, Inc., is a sister company born of FEECO International, Inc., an industry leader in fertilizer plant design and production machinery for 50 years.

FEECO BioSystems prime directive is the conversion of biowaste into a profitable product. The FEECO process converts chicken manure, hog slurry and municipal sewage into a fortified NPK granular fertilizer. The production of clean, safe, odor free fertilizers not only produces a profitable product, but also eliminates disposal problems.

The FEECO BioSystems process is a robust and innovative approach to granulating organic waste material. The process is tailored to the specific demands of each waste stream, but is based on traditional fertilizer granulation methods. FEECO can offer specific granulation equipment and turnkey process plants including complete gas treatment and material handling systems.

The FEECO BioSystems process is a closed-loop granulation cycle, collecting and reintroducing dust and off-specification product to minimize yield loss in the process. Customized gas treatment solutions are available for the specific requirements of each organic waste stream. Typical gas treatment includes odor, ammonia, and particulate control. The FEECO granulation process produces a high-quality, spherical product, which is capable of meeting accepted fertilizer standards for size and strength. This gives the organic fertilizer product unique penetration into existing markets. FEECO works closely with clients by customizing the size, strength, and nutrient value of granule, guaranteeing a high value, environmentally sustainable, and marketable organic fertilizer.

LET US TEST YOUR MATERIAL.  
FEECO OFFERS AN INITIAL FEASIBILITY TEST  
FREE OF CHARGE

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#### FEECO INTERNATIONAL INC.

Our mission at FEECO International is to provide innovative solutions that meet our customer's needs by supplying high quality products and services at a competitive price.

Since 1951, we have been designing, manufacturing, marketing and installing equipment and systems throughout the world.

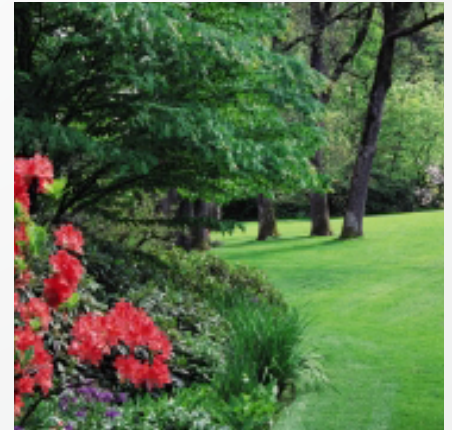
You will find a highly trained and experienced staff consisting of engineers, technicians, CAD operators, skilled fabricators and site service personnel ready to serve your project needs.



#### MATERIALS TESTING LABORATORY

The FEECO International materials testing laboratory is a state-of-the-art facility consisting of a pilot plant and analytical laboratory. The pilot plant can be set up for testing on a single piece of equipment or multiple pieces of equipment as a continuous process loop with agglomeration, drying, sizing and recycling capabilities. We record all the necessary operating data for process scale-up to meet your production requirements.

The analytical laboratory is designed to test the properties of your feed material and product. Among the tests routinely performed include bulk density, compression strength, moisture content, sieve analysis, hardness, abrasion resistance and particle structure analysis.



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TÜRKİYE ve ORTA DOĞU TEMSİLCİSİ



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