

Rotary Dryer/Cooler Solutions Guide

FEEDCO INTERNATIONAL—THE AGGLOMERATION SYSTEM EXPERTS™

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FEECO Rotary Dryers and Coolers...

Dealing with the task of drying or cooling large amounts of material in an industrial atmosphere can be a gargantuan task. It's a situation where simplicity and functionality are features that can be taken straight to the financial bottom line.

FEECO International has been a respected name in the design and manufacture of rotary drying and cooling equipment for 50 years. Our engineering expertise in producing rugged, high quality co-current and counter current units is in use by industries around the world. In co-current dryers, the heated drying air flows in the same direction as the product, and in counter current models the drying airflow travels against the flow of the product. These dryers directly expose the product to hot air produced by the heat source. As the drum rotates, lifting "flights" mounted on the inside of the drum shell tumble, slide, lift and shower the material into the air

stream. Lifting flights are carefully designed to accommodate the material being dried and ensure the product is uniformly exposed. This agitation ultimately leads to higher efficiencies and reduced processing times compared to stationary units. It is not uncommon for a process taking 1 hour in a stationary furnace to take just a few minutes in a rotary dryer. A number of options for types of drying fuel and control methods are available including stand-alone microprocessor controllers or PLC controllers that directly interface with plant control systems. FEECO International Inc. rotary equipment has been a recognized quality brand since 1951.



A Rotary Dryer and Combustion Chamber

Additional Drying & Cooling Options from FEECO

Combination Rotary Dryer/Cooler

This highly versatile new product from FEECO combines drying and cooling functions in a single installation utilizing injected air to produce a fluidizing action on the material. Additional internal indirect cooling can be used to help reduce the burden to the dust collection and exhaust system. This proven design can help solve problems encountered in installing a drying/cooling system in an existing space or building. The cooling hood section can also be retrofitted to FEECO and competing brands of rotary dryers.



A Virtual Fluidized Bed Dryer

Virtual Fluidized Bed Dryer/Cooler

FEECO Virtual Fluidized Bed dryers offer a continuous and direct means of removing moisture from a host of solid materials including pumpable sludges, with moisture contents of 95%, with no product re-cycle loop. The benefits of drying with FEECO Virtual Fluidized Bed dryers include; high rates of heat mass transfer, high thermal efficiency, very little mechanical wear and compact layout for efficient space planning. Virtual Fluidized Bed Dryers can dry materials with large particle size ranges, and produce a variety of product sizes utilizing precise but flexible process controls.

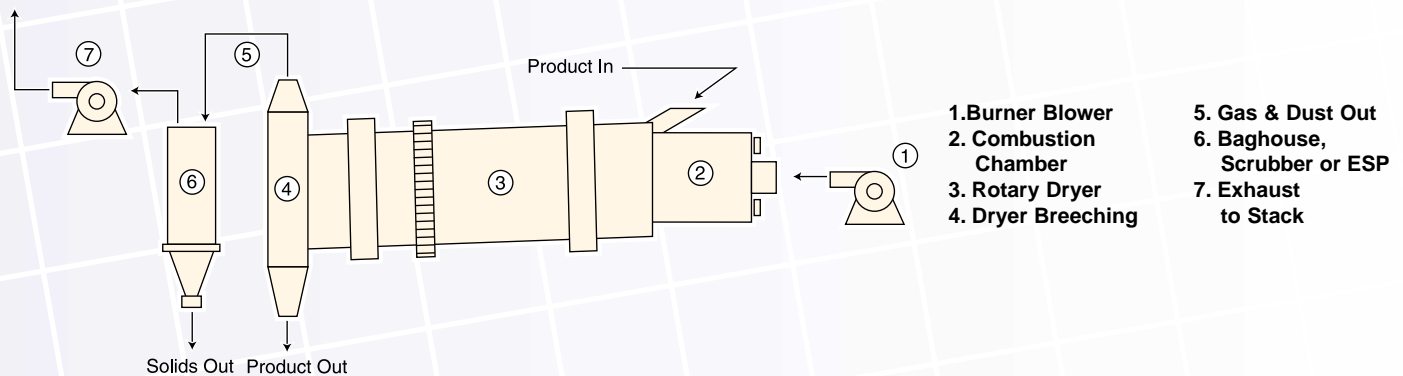
Simply Better

The FEECO Advantage

“To Exceed Customer Expectations”. It’s part of FEECO’s mission statement, and we accomplish this in several ways. From your data our sophisticated computer design software can size your dryer in a matter of hours, and run simulations on your system immediately. We can assure process success through laboratory/pilot plant testing. And we can guarantee on-time delivery to meet or beat your deadlines. Most importantly, we guarantee the smoothest possible interaction with your construction team by providing the following additional services.

- General arrangement drawings are made available to the customer the same day a purchase order is received.
- Typically foundation loading data is provided the same day a purchase order is received.
- As a matter of policy, critical path components are ordered the same day client release is obtained.

FEECO’s integrated quality control process allows our project teams to continue to exceed customer expectations even while simultaneously manufacturing as many as 15 rotary drums.



Service After The Sale

After being in the business for 50 years we understand the financial impact of downtime due to mechanical failure. That’s why we are committed to providing the highest level of service, parts and training in the material and processing industries. We are here to support our customers with installation, start-up, emergency troubleshooting, diagnostics, and routine maintenance.

FEECO Maintenance Programs

- Process Assistance
- Start-up Assistance
- Installation Supervision
- Erecting Services
- Laser Alignment Services
- Annual Maintenance Program
- 24 Hour Hotline (920-468-1000 Option 5)

Typical Dryer/ Cooler Applications:

Aggregates	Municipal Sludge
Agricultural Grains & By-Products	Municipal Waste
Animal Feeds	Organic & Inorganic Chemicals
Animal Waste	Paper Sludge
Biosolids	Plastic Pellets
Ceramics	Potash
Clay	Reclaimed Dust
Fertilizers	Rubber Pellets
Gypsum	Salts
Iron Ore Concentrates	Sand
Limestone	Steel Mill Waste Sludges
Metal Chips & Shavings	Sugar
Mining Ores & Concentrates	Urea Prills & Crystals

FEECO Parts Department

From a complete dryer shell retrofit, to replacement of a nut or bolt, FEECO has the parts available for your job. And when the need arises, we can maintain and supply parts to support rotary dryers and coolers manufactured by our competitors. With the sales of each unit, FEECO provides a spare parts list which we recommend be kept in stock as insurance against downtime.

Parts Department Services

- Repair & Retrofit FEECO and Competitive Products
- Recommended Spare Parts Lists
- Emergency Expediting of Parts
- Internet Parts Ordering

Got a Dryer/Cooler Question? Ask FEECO!

Purchasing and installing a rotary dryer or cooler can be a daunting task, but here's a quick and efficient way to begin. FEECO International has developed a computer program that can produce accurate and realistic budget pricing for these products. By filling out a few questions about your material and its properties, and faxing it to us at FEECO, you can have a budget quote in your hands in just a matter of hours. If you have questions, FEECO design and process engineers will be happy to discuss your project with you.

Fill Out And Fax Or Mail To FEECO:

1. Name of material: _____
2. Total lbs. (wet) per mo/wk/day to be dried: _____
3. Material bulk density (lb/ft³): _____
4. Material moisture content (%): _____
5. Allowable moisture content material out (%): _____
6. Material temperature entering dryer: _____
7. Maximum temperature material exiting dryer: _____
8. Ambient air temperature: _____
9. Specific heat of material: _____
10. Avg. humidity of ambient air: _____
11. Maximum air velocity (exit): _____
12. Elevation above sea level (feet): _____
13. Particle size (Tyler Mesh) material entering dryer:
 smallest _____ percent _____
 largest _____ percent _____
 average _____ percent _____

With more than fifty years experience in the design and construction of rotary equipment, the FEECO laboratory/pilot plant can further assist you in identifying the best workable process and equipment. Using FEECO's own test equipment—in many cases the same equipment that will be used in the final process—we can simulate production conditions, we can scale the process up to pilot plant proportions, and produce end product anywhere from pounds to tons per hour. In fact we can offer several unique services that provide the best workable answers to your drying and cooling questions, quickly and accurately.

Name: _____ Title: _____
Company: _____
Street: _____ City: _____ State: _____ ZIP: _____
Phone: _____ Fax: _____ email: _____

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