

BARTLETT SNOW™ ROTARY DRYERS

With a 130 years of experience, Raymond Bartlett Snow thermal products have successfully provided solutions in heat transfer applications for industries worldwide.

The Choice for Process Solids Drying

Bartlett-Snow Rotary Dryers: Engineered to ensure reliable operation, enhanced efficiency, maximum availability and facilitate necessary maintenance. Units are simple to erect, easy to operate and require minimal maintenance.

We offer an extensive range of systems, components and services to support the Bartlett-Snow product line. From initial pilot plant testing, equipment design and manufacture; to training, start-up and commissioning; maintenance assistance and supply of replacement parts, we are committed to meeting our client's needs.

Design Features

Bartlett-Snow rotary dryers are designed and manufactured with exacting standards to meet processing requirements for a variety of industries worldwide.

Material used for dryer construction vary based on the process requirements for a given applications. These materials include carbon steel, stainless steel, high grade alloys, and composite cladding.

TYPICAL MATERIAL PROCESSED

- Activated Carbon
- Alumina
- Ammonium Phosphate
- Catalysts
- Clays
- Coke
- Ferrites
- Food Products
- Granulated Fertilizer
- Manganese Oxide
- Metallic Oxides
- Nuclear Materials
- Proppants
- Pigments
- Rare Earth Compounds
- Titanium Dioxide

- Direct air swept dryers are available in sizes ranging from 18" to 156" in diameter, with lengths from 10' to over 100'.
- Indirect heated rotary dryers are available in sizes ranging from 6" to 120" in diameter, with lengths from 10' to 100'.



BARTLETT SNOW™ ROTARY DRYERS

The Bartlett-Snow Rotary Dryers are offered in two designs, direct and indirect heated. They are readily adaptable to a wide variety of processing applications and are offered as standalone units, or as part of a complete thermal processing system. Specialty dryer designs, such as compartmentalized, multiple pass, and combination dryer-cooler can be supplied for unique applications.

Direct Heated Rotary Dryers

Direct heated rotary dryers use convective heat transfer, bringing hot drying gases into direct contact with the process material in the rotating cylinder. The hot gases can be provided by tempering combustion products or hot waste gases with air to the temperature and volume required. Combustion of a variety of fuels or waste gases can be done with a standalone air heater or a burner mounted at the end of the dryer.

The wet process material is introduced into the rotating cylinder where it is lifted by internal flights and showered through the hot gases. The dryer can be arranged so that the hot gases pass through the unit either counter-current or co-current to the material flow. This flexibility allows the dryer to provide the most efficient heat transfer and best product quality for a given process.



Indirect Heated Rotary Dryers

Indirect heated rotary dryers utilize radiation as the principle medium of heat transfer. Indirectly heated dryers are an excellent way to process solids that are easily entrained, need to be gently handled, or require special process atmospheres. The dryer design features a rotating cylinder housed along its active length in an insulated lined casing or furnace. Hot products of combustion or waste gases are introduced at one or several points along the length of the casing and are circulated around the cylinder. Radiation from the cylinder heats the material, driving off moisture and other volatiles. Because the process material is segregated from the heating gases, the material can be blanketed with necessary process gases to provide inert, oxidizing, or reducing environments within the cylinder. Proprietary seal technology lends itself to gas tight operation for such process.

Engineered Systems

For applications such as drying wood chips, fibers or plastic pellets custom internal hardware is designed into the dryer to maximize retention time and drying efficiency. When the process material cannot come in contact with an open flame or with products of combustion due to heat sensitivity or product purity concerns, a heat exchanger or banks of steam coils are used to heat filtered air, or other process gas, to the required inlet temperature.

We also design complete systems that integrate the rotary dryer with other process equipment to address unique material processing requirements.