

Raymond Bartlett Snow Research & Development Center

The time to test is before you buy...

- Pulverizing, classifying and thermal testing
- Full size equipment
- Test large material lots
- Comprehensive tests



The purchase of process equipment can involve considerable risk because selecting equipment that's "almost" right for the job can be an expensive mistake. Eliminate that risk by testing before purchasing. The Raymond Bartlett Snow Research & Development Center was designed to do just that.

Testing resources

Our twenty-five thousand square foot facility is used exclusively to test and demonstrate the capabilities of Raymond® and Bartlett-Snow™ equipment under simulated production conditions. It houses a wide range of full-scale processing equipment capable of grinding, classifying and thermally processing virtually any material, chemical, food or other material.

We do it differently

Some manufacturers test materials in small quantities on small scale or bench models. We don't. We test large material lots on full-size equipment to reduce much of the uncertainty of scale-up between bench and full-scale equipment. Managing large product quantities of test materials often uncovers handling difficulties and other problems that might be overlooked.

Capabilities

You will work with our engineers and technicians to simulate your operations as closely as possible. Upon completion of the testing you will receive a comprehensive report, as well as equipment recommendations to best address your application.

Sample of material tested

Alumina, Aluminium Hydrate, Ammonium CPD, Antimony Sulphide, Barium Nitrates, Barites, Bentonite, Biomass, Borax, Burnt Lime, Calcium CPD, Carbon (AC), Chalk, Charcoal, Clays, Coal, Cocoa, Coke, Detergents, Dolomite, Diatomaceous Earth, Fluorspar, Graphite, Glutens, Gums, Gypsum, Grains, Hydrated lime, Lignite, Lime, Limestone, Lithage, MnO₂, Magnesite, Magnesium CPD, Metal Oxides, Metal Powders, Pigments, Plastics, Polymers, Potassium CPD, Potatoes, Resins, Salts, Silica, Sludges, Starch, Sodium CPD, Soy Bean Meal, Strontium, Nitrate Sugar, Talc, TiO₂, Tobacco, Wollastonite, Zeolite, Zircon

Pulverizing equipment

- Raymond® Roller Mill – over 1,000 types of non-metallic materials have been tested at the facility
- Raymond® Imp™ Mill – best for material low in abrasion characteristics
- Raymond® Vertical Mill – for a wide variety of non-abrasive materials
- Raymond® Ultra Fine Mill – for products as fine as d50 of 2 microns
- Raymond® Table Mill – high capacity for solid fuel and mineral processing

Classification equipment

- Raymond® Jet-Stream Classifier – for ultra fine classification
- Raymond® Turbine Dynamic Classifiers for Mills
- Raymond® Mechanical Air Separators – for fine classification

Thermal processing equipment

- Bartlett-Snow™ Rotary Electric Calciner – for indirect heating, calcining or other heat treatment of materials in an oxidizing, inert or reducing atmosphere
- Bartlett-Snow™ High Temperature Rotary Calciner – utilizes special non-metallic cylinder
- Bartlett-Snow™ Rotary Dryer – for drying a variety of materials that can be brought into contact with the products of combustion.
- Bartlett-Snow™ Rotary Kiln – for direct-fired, high-temperature calcination of various process materials up to 2912°F / 1600°C.
- Raymond® Flash Drying System – for simultaneous drying and transport of materials requiring minimal retention time.

Material tests

- Moisture analysis and loss on ignition
- Material specific gravity and bulk density measurement
- Particle size distribution analysis – several techniques are available to determine particle size distribution.
 - Microtac – S3500 computer based analyzer using laser diffraction technology to determine the full range of distribution from 2000 microns down to 0.02 microns
 - Ro-Tap Screen Analysis – determines particle size from 1in / 25.4mm down to 500 mesh /31 microns
 - Alpine Air Sieve – vacuum operated single screen analysis
- Abrasion/Grindability
 - Raymond® Grindability – proprietary test determines grindability characteristics of different materials
 - Raymond® Abrasion – proprietary test determines abrasion characteristics in order to select mill type and predict parts life.
 - Hardgrove Grindability – determines grindability of coal
- Gypsum Phase Analysis



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