Thermal Drying & Solidification

With over a century of experience and innovation behind every system, Buflovak offers a comprehensive range of proven technologies tailored to meet the unique needs of various industries. Our thermal drying and solidification solutions have earned a reputation world-wide for superior design, quality, and reliability.

Whether the application calls for atmospheric drum drying, vacuum drum drying, another drying technology, or cooling drum flakers for precise solidification processes, our team of experts is committed to delivering high-performance solutions that maximize efficiency, ensure product integrity, and support your operational goals. Our products provide specialized drying or cooling solutions tailored to our customer's process needs.



Thermal Drying & Solidification Solutions

- Drum Dryers
- Vacuum Dryers
- Cooling Drum Flakers
- Integrated Solutions



Atmospheric Drum Dryers

Double Drum Dryers, Twin Drum Dryers, and Single Drum Dryer with applicator rolls are highly efficient drum dryers all utilizing the proven principle of thin film evaporation to process and dry within one revolution of the drum, feed streams of widely varying densities and viscosities: dilute solutions, heavy liquids, pasty materials, wet cakes, and crystal bearing materials, utilized in the chemical, food, nutraceutical and pharmaceutical process industries.



Features & Benefits

- Indirect drying technology via conductive heat transfer provides homogeneous and evenly dried products without product degradation.
- Steam pressurized center drum with multiple rotating water cooled or non-cooled applicator rolls deliver highly effective drying of materials.
- Adjustable rotating applicator rolls produce a dry product sheet with uniform thickness, density, and minimum dusting.
- Innovative self-cleaning drying surface for low cleanup.
- Standard ASME or PED Pressure Code compliant steel drum constructed of cast iron or fabricated steel delivers a 140 – 160 psig pressure rating and provides long-lasting durability.
- Double gasket design ensures a tight filter seal.
- Designed for continuous operation to provide increased efficiency and productivity with minimal downtime.
- Evenly spreads and applies a thin film of liquid streams, slurries, and flowable past onto a rotating heated drum for more consistent product quality.

Advantages of Drum Dryers

- Ideal for heat sensitive as well as non-heat sensitive products.
- All drying operating variables can be independently monitored and controlled.
- Self-aligning bearings split sleeve type with inexpensive, easily replaced bronze half bushing in lower sleeve.
- High thermal operating efficiency (Averaging 1.3 units of steam per mass unit of water evaporated).
- Historically proven with over 100 years of operation in multiple process Industries, such as pharmaceuticals, nutraceuticals, foods, chemicals and environmental.



Vacuum Dryers

Buflovak vacuum, drum, shelf, pan, & rotary drying systems deliver unmatched performance. Designed to meet the highest industry standards, our vacuum dryers are ideal for heat-sensitive, oxygen-sensitive, or explosive materials that cannot be exposed to atmospheric conditions.



Features & Benefits

- Horizontal cylindrical chamber with rotating agitator for fast, uniform drying and minimal dusting.
- Vertical jacketed cylinder with internal agitator, enabling versatile, multi-process batch operations.
- Fixed-tray systems in vacuum chamber with heated shelves; ideal for delicate, heat-sensitive products.
- Closed vacuum design prevents oxidation or contamination.
- Designed to comply with ASME, PED, or other pressure codes.
- Agitators and drum rotation promote rapid, even drying; reduce dusting and minimize energy usage.
- Pilot-run validation ensures predictable throughput and capacity alignment with upstream/downstream systems.
- Anti-ramp rails provide the proper filter alignment to prevent overlapping.

Advantages of Vacuum Dryers

- Improved Drying Efficiency.
- Greater Control Over Moisture Levels.
- Energy Savings.
- Enhanced Product Quality.
- Scalable, Customizable Designs.
- Ideal for Processing High-Value Products.





Vacuum Double Drum Dryer



Vacuum Rotary Dryer



Vacuum Pan Dryer



Vacuum Shelf Dryer

Cooling Drum Flakers

Solidification by Buflovak's cooling drum flakers is engineered to transform molten materials into manageable, uniform solids through controlled cooling and crystallization. Our cooling drum flakers deliver consistent, high-quality results for a wide range of industries—including chemicals, food, and specialty materials. Whether you're converting liquids into flakes, pastilles, or sheets, expect reliable, high-throughput solutions tailored to your process.

Features & Benefits

- Rotating drum with an internally sprayed cooling liquid delivers rapid and continuous cooling through conductive heat transfer.
- Ridged knife assembly and self-cleaning design ensures 100% recovery of solidified product from the drum surface.
- Controlled cooling process with adjustable knife scraper allows production of uniform flakes with minimal fines.
- Robust construction with a simple design delivers low operational and maintenance expenses.
- Inlet baffles redirect airflow to separate the debris from the air.
- Continuous flaking operation for maximum efficiency of consistent product.
- Optional enclosed hood specifically suited for dust containment or toxic vapor containment.





Advantages of Cooling Drum Flakers

- Produces consistent, free-flowing flakes for easy handling, storage, and downstream processing.
- Available in lab, pilot, and production-scale units to match capacity needs.
- Options for drum sizes, finishes, and ancillary equipment tailored to process requirements.
- The flakers are typically enclosed to contain dust, toxic vapors, or provide an inert gas environment for oxygen-sensitive products, meeting modern health and safety requirements.
- Complete product removal ensures 100% removal of the solidified product from the drum surface, minimizing waste and improving efficiency.

Aftermarket Parts Sales & Service

Buflovak atmospheric dryers, vacuum dryers, and cooling flakers are built for performance and long-lasting durability. When customers need us for aftermarket parts or field service, our team of experts stand ready to ensure your equipment is up and running with the least amount of downtime. Rely on our aftermarket team to identify the right replacement parts, drum reconditioning, or complete unit rebuilds your equipment requires, while providing expert technical guidance and ongoing customer support.

Spare Parts:

- Buflovak Sleeve Bearings
- Knife Blades
- Rotary Unions
- End Boards
- Buflovak Gears
- Pneumatic Cylinders
- OEM Motors & Gear boxes

Drum Reconditioning & Replacement:

- Expert refurbishing of dryer and flaker drums
- Reconditioning for all models

Field Service:

- Field Service Department always available
- Instructional operation recommendations
- Preventative maintenance contracts available

Industries We Serve



Environmental



Chemicals



Food & Beverage



Pharmaceuticals



Nutraceuticals

Available Units

Need to dry, cool, or flake now? Buflovak has readily available units in stock for immediate delivery. We maintain a variety of stock products in our inventory, but availability can change quickly as units are sold. Please check back regularly to see the most up-to-date units on our website.







Lab Testing

Buflovak provides laboratory feasibility testing with a variety of products for process guarantees. Atmospheric Drum Dryers, Vacuum Drum Dryers, Kettle Dryers, Cooling Drum Flakers, and Evaporators and Distillation machines are available for pilot scale testing of your materials at our Research & Test Center in Tonawanda, NY. Additional multistep and multistage process testing can be performed at the CPEG Innovation Center & Testing Lab in Louisville, KY.



Complete Systems Integration

As a subsidiary of Carrier Process Equipment Group (CPEG), additional thermal processing and dry solids processing equipment is available to supplement and build out your production line. From Buflovak equipment to a wide range of other processing technologies and automation options, our team of experts can help determine the most suitable products for your manufacturing line.

- Tumble Dryers
- Vibratory & Static Fluid Bed Dryers
- Rotary Dryers
- Flash Dryers
- Tornesh Dryers
- Bulk Material Heat/Cool Exchangers
- Vibratory Feeders
- Vibratory & Screw Conveyors
- Vibratory Screeners & Power Sifters

- Rotary Calciners
- Bin & Pile Dischargers
- Loading Spouts
- Mixers & Blenders
- Size Reduction Equipment
- Dry Dust Collectors
- Wet Scrubbers
- Ancillary Components
- And More

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