Fluidized bed drying and cooling
for polymers and plastics
ANDRITZ SEPARATION was among the first to introduce fluidized bed technology for use in industrial drying. We have been focusing on the development of tailored process solutions for our customers since the early 1960s.

With our experience and target-oriented development of process solutions in our pilot plants, we are able to provide you with the optimum solution for your process at any time.

Polymers from suspension polymerization processes are mainly temperature-sensitive and carry moisture. Thus, it is important to choose the right drying technology to achieve the requested product quality in an efficient process. Fluidized bed dryers with integrated heat exchangers are a significant advantage in drying high production capacities efficiently at a low temperature level.

High heat flux rates can be achieved with efficient, integrated heat exchangers designed specifically for the application and used for indirect heat transfer to the product. This provides the opportunity to minimize the size of the fluidized bed drying system and all its components. A significant reduction can be achieved in energy consumption compared to only direct heat transfer to the product by fluidization media.

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Process development to improve product quality

We supply:
- Competent consulting
- State-of-the-art technology tailored for your application
- Energy-optimized solutions with focus on feasibility
- Compact equipment layout
- Solution operating fully automatically for increased reliability
- High safety standard for every customer
- Low maintenance effort and turn-down times

Typical applications
- Polyethylene (HDPE)
- Polyvinylchloride (PVC)
- Adipic Acid (AA)
- Acrylonitrile Butadiene Styrene (ABS)
- Polymethylmethacrylate (PMMA)
- Polycrylamide (PAA)
- Polypropylene (PP)
- Terephthalic Acid (PTA, QTA)

Our strength is your advantage
- Tailor-made systems to meet your particular needs
- Maximum energy efficiency from optimized process configuration
- Customized product quality
- Low costs over the entire life cycle
- Extensive test facilities to resolve your specific drying challenge
- Market leader in fluidized beds with incorporated heat exchangers
- Line capacities from less than 100 kg/h to more than 1000 t/h

Complete systems for the following dryer types:
- Vibrated fluidized bed dryer and cooler
- Stationary fluidized bed dryer and cooler (direct heating)
- Stationary fluidized bed dryer and cooler with in-bed heat exchangers
- Belt dryer and cooler
Wherever you operate, our network of 550 service specialists and global service centers ensures we’ll always be there to support you for many life cycles to come. Let’s sit down and see how we could take your operations to the next level.

Safety
Most of the polymers and related solvents are flammable or explosive. Using their many years of experience in drying of explosive goods, our specialists will choose the optimum safety technology for your plant. Feasible options are a pressure-resistant or pressure shock-resistant, design with relief devices, explosion suppression systems, or inertized drying in closed gas loop systems.

Lab-scale and pilot testing
Our R&D center with its qualified personnel and integrated laboratory is at your disposal to develop your process or examine your specific tasks.

Put our 150 years of OEM experience to work for you
With ANDRITZ SEPARATION, you gain access to one of the world’s largest OEM manufacturers for solid/liquid separation systems, including such well-known names as Bird, KHD, Frautech, and more.

From initial consulting through to service agreements, plant optimization, automation, and training programs, we are always looking for ways to minimize downtime and increase predictability in operations, while raising your overall production efficiency.

Our services include development, planning, design, manufacturing, and delivery of single key-components or complete systems, as well as supervising their installation and commissioning.
No time left for downtimes or wrong decisions? For decades, we have been the preferred contact for companies in all bulk handling industries. We are listed by many licensors and offer a wide range of proven experience in fluidized bed processing.

No matter whether you are in the chemical, minerals, feed, or food industry – we have the expertise and answers to close the gap between your planning and being ready for operation – fast, reliable, and accurate.

Our target
We ensure your peace of mind so that you can be available for the more important things.