



# **EFFICIENT DRYING FOR SPECIAL AND MASS POLYMERS**

Fluidized bed drying and cooling  
for polymers and plastics

**ANDRITZ**

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



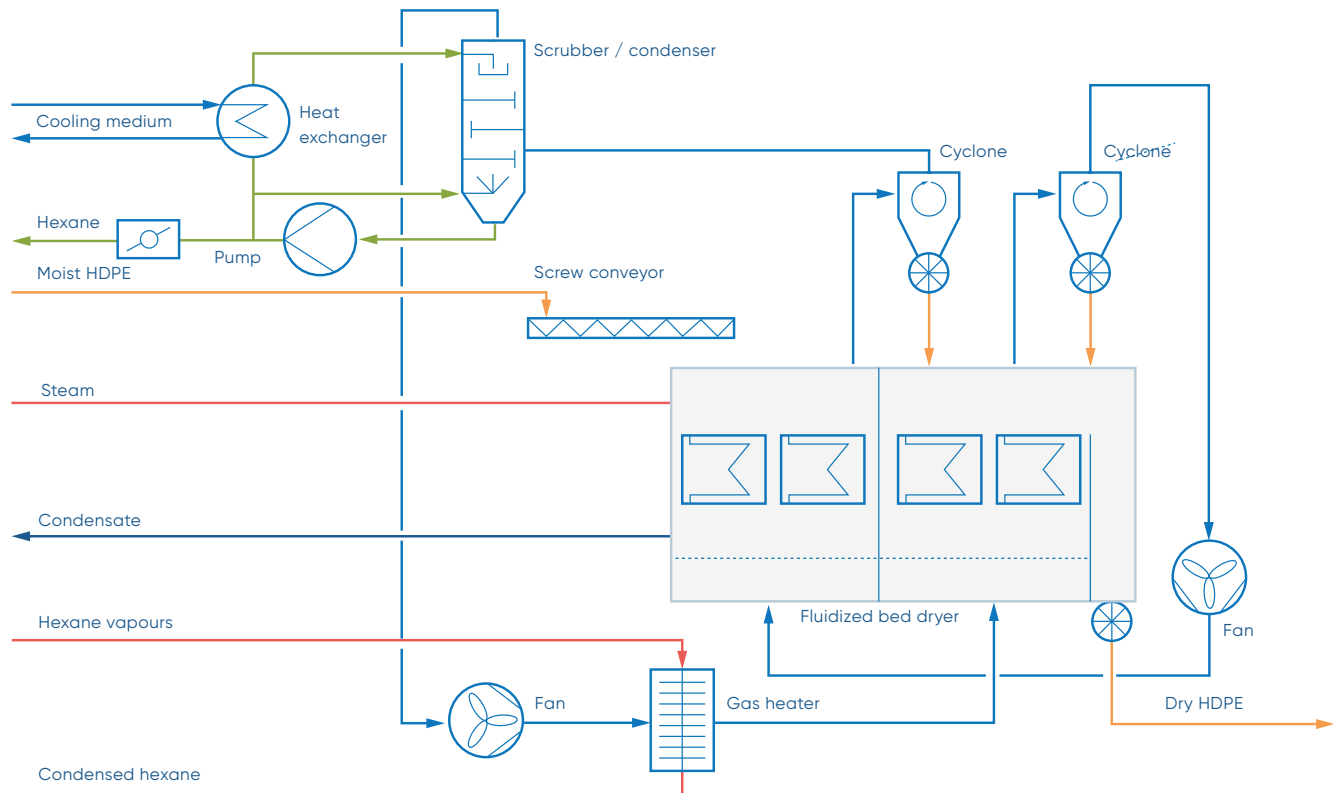
# Experience makes the difference

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.

ANDRITZ provides tailor-made solutions for drying and cooling of pellets in static and vibrating fluidized beds.



Drying of HDPE in a closed gas loop system

# Process development to improve product quality

## **WE SUPPLY**

- Competent consulting
- State-of-the art technology tailor-made 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)
- Polyoxymethylene (POM)
- Polyacrylamide (PAA)
- Polypropylene (PP)
- Terephthalic Acid (PTA, QTA)

## **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



Fluidized bed unit for polymers

## YOUR BENEFITS

- 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



# Reliable technology for your peace of mind

## **SAFETY FIRST**

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. It has capacities for development of components and processes, and for providing product samples (over 2,100 products already tested on lab and pilot scale).

**SAFE &  
RELIABLE**



## **Main services**

Our services include development, planning, design, manufacturing, and delivery of single key-components or complete systems, as well as supervising their installation and commissioning.

# The right solution for any separation challenge

**PEACE OF MIND, COST EFFICIENCY, AND SUSTAINABILITY – ALL FROM ONE TRUSTED PARTNER.**

Regardless of your industry – whether environmental, chemicals, mining and minerals, or food and beverage – efficient separation processes are essential for high product quality, reduced waste, and the responsible use of valuable resources. With our advanced technologies, comprehensive services, and smart automation and digitalization solutions, we deliver peace of mind today and lasting success for tomorrow – efficiently, responsibly, and with measurable impact. What's more, with us you also gain access to one of the world's largest OEM manufacturers for solid/liquid separation for well-known brands such as 3Sys Technologies, Bird, Dedert, Delkor Capital Equipment (Pty) Ltd., Escher Wyss dryers, Guinard Centrifugation, KHD Humboldt Wedag, Krauss-Maffei centrifuges, dryers, and filters, LENSER Filtration, Netzsch Filtration, REINEVELD centrifuges, Rittershaus and Blecher, Royal GMF Gouda, Sprout Bauer, and Vandenbroek.

## SEPARATION EQUIPMENT AND SYSTEMS

- Decanter and filter centrifuges
- Filter presses
- Dryers
- Presses and screens
- Extractors
- Thickeners
- Evaporators and crystallizers
- Disc and drum filters
- Screening and filtration components
- Specialized thermal systems



## FULL-SERVICE OFFERING

- OEM spare and wear parts
  - Maintenance and repairs
- Service agreements
  - Automation and digitalization
  - Machine and process optimization
  - Second-hand and rentals

## AUTOMATION AND DIGITALIZATION SOLUTIONS

Site assessment and integration • Advanced process control and artificial intelligence • Simulation and training • Digital twin technology • Data analytics and prediction • Electrification, instrumentation and controls

# Enabling the green transition

As a technology leader in a changing world, we strive to make a positive impact on our environment. We believe that what we do today can make a difference tomorrow and in the future. We drive change and enable our customers to achieve their sustainability goals and make the world greener with our sustainable solutions in decarbonization, circular economy, renewable energy, and environmental technologies. It all starts with your specific process requirements and ends with a system that gives you the best results – day in and day out, for decades to come.

**ANDRITZ. FOR GROWTH THAT MATTERS.**



## A WORLD OF SEPARATION SOLUTIONS

ANDRITZ provides mechanical and thermal solid/liquid separation technologies, complemented by comprehensive services, automation, and digitalization solutions for the chemicals, environment, food and beverage, as well as mining and minerals industries. Our customized, innovative solutions focus on minimizing resource consumption and maximizing process efficiency, thus making a substantial contribution towards sustainable environmental protection. With over 150 years of experience and more than 2,700 separation specialists around the globe, we are a driving force in the evolution of separation solutions – enabling industries to meet tomorrow's demands responsibly. **ANDRITZ. FOR GROWTH THAT MATTERS.**

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