MAAG Group
a DOVER company

PELLETIZING SYSTEMS ›

CENTRO centrifugal dryer

Energy-efficient drying with minimal required space

AUTOMATIK

The CENTRO series of dryers is suitable for use with both underwater pelletizing and underwater strand pelletizing systems. Well thought-out and highly accessible components, such as the core rotor device, serve to provide excellent operating characteristics and efficient servicing.

Your benefits

- Excellent pellet quality due to minimal residual moisture
- Compact design providing optimized access for cleaning and maintenance
- Pneumatic interlock of dryer doors for safe and easy servicing
- Integrated pre-dewatering chute provided as standard equipment
- Easy exchange of all parts subject to wear, e.g. rotor blades
- Special design for micro-granular compounds
- Adjustable rotor speed – optional
- Self-cleaning system – optional

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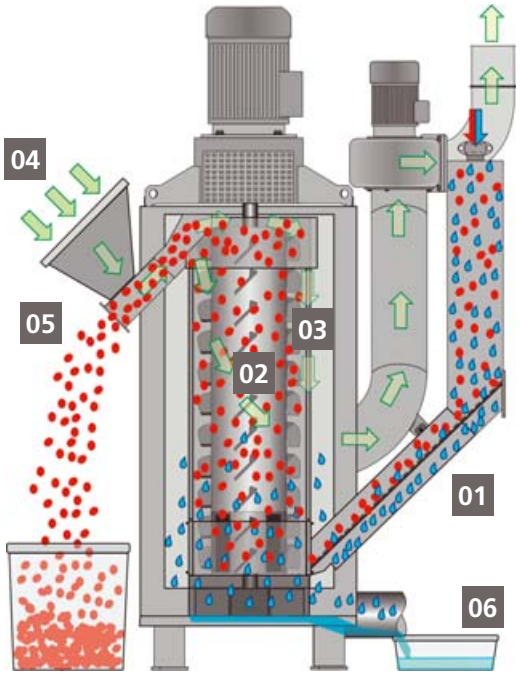
Functioning

The slurry of pellets in water from the pelletizer is washed into the dryer either in a horizontal or in a vertical way. As an initial step, 95% of the water is separated through gravitational force 01.

The spinning rotor with its inclined lifter blades drives 02 the pellets in an upward spiral toward the pellet discharge opening. The adhering process water is hurled away and escapes outward through the cylindrical screen 03. In addition, an airflow in reverse direction is generated 04. The negative pressure at the pellet outlet 05 lets the pellets exit the unit and keeps moisture back. The collected water 06 is recirculated back to the process loop.

The combination of centrifugal force, airflow in reverse direction, and the pellet temperature optimized for the hygroscopic properties of the polymer raises the guarantee to achieve high pellet quality.



Functional diagram of a CENTRO centrifugal dryer

Technical data:	CENTRO 50	CENTRO 150	CENTRO 300	CENTRO 800	CENTRO 1600	CENTRO 2200	CENTRO 4000
Throughput rates:	500 kg/h	1,500 kg/h	3,000 kg/h	8,000 kg/h	16,000 kg/h	22,000 kg/h	40,000 kg/h
Water throughput:	20 m³/h	35 m³/h	45 m³/h	70 m³/h	120 m³/h	120 m³/h	250 m³/h
Motor power rotor:	1.1 kW	4 kW	5.5 kW	7.5 kW	11 kW	15 kW	22 kW
Air throughput:	10 m³/min	27 m³/min	27 m³/min	27 m³/min	74 m³/min	74 m³/min	125 m³/min
Motor power:	0.13 kW	1.1 kW	1.1 kW	1.1 kW	3 kW	3 kW	5.5 kW

Rotor and sieve inside the CENTRO centrifugal dryer

Technical specifications:	
System:	M-USG, P-USG, CYCLO® or SPHERO®
Main applications:	All virgin polymers, compounds, masterbatches, recycling applications, micro-granular compounds, thermoplastic elastomers, etc.
Pre-dewatering:	Gravitational separation through a slotted screen
Primary drying:	Separation through impact against surface of rotor blades and of cylindrical screen. Airflow in reverse direction. Evaporation of the residual surface moisture due to residual heat of the pellets
Pellet conveyance:	Pellets are lifted and hurled by a spinning rotor with inclined lifting blades
Throughput rate:	Up to 40,000 kg/h

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