

Advantages and benefits of MOZER drum dryers

1. MOZER advantage: High efficiency

Customer's benefit: Minimum of energy costs

Minimal fuel consumption due to a maximum temperature difference inside the dryer. Very high hot gas inlet temperatures (from 200°C up to 1.000°C depending on material to be dried) and very low exhaust air temperatures (approx. 70°C to 120°C) for best heat transfer.

Minimal fuel consumption due to low exhaust air flow rate and low exhaust air temperature. Therefore minimal exhaust air losses.

Minimal electrical power consumption due to low exhaust air flow rate: therefore small filter fan / low fan power.

Minimal electrical power consumption due to smallest number of fans for the drying system. Even with combined MOZER drying/cooling systems only one exhaust air fan is required.

Minimal size of the de-dusting equipment due to low exhaust air volume. Low invest cost for dust filter plant.



2. MOZER PROCESS TECHNOLOGY PVT. LTD. advantage: High flexibility

Customer's benefit: Minimum investment costs

Optimal dryer operation for all kind of materials (high, medium or low drying velocity) due to experience- and/or test-based, optimal design of the dryer's internal components by MOZER.

Optimal dryer operation for a very wide range of grain/particle sizes, from dust-fine to more than 100 mm lumps. Material with different grain/particle sizes can be processed on the same dryer with a minimum of process adaptations.

Easy optimization of the material retention time inside the dryer is possible by using a frequency convertor (VSD / VFD) for the drum drive, e. g. if different materials have to be processed on the same dryer.

Adoption of the hot gas inlet temperature to the wet material properties is possible over a very wide temperature range from 200°C up to 1.000°C.

Parallel flow or counter flow principle between hot gases and material to be dried is possible. We select according to the process demands:

Parallel flow for pure drying when only a minimum of material warming-up is desired

Counter flow for pure heating-up or a combination of drying and heating

Three different basic MOZER dryer designs are available:

Single-shell rotary dryers

Double shell rotary dryers

Triple shell rotary dryers

Technical and economical optimal selection of the basic design.

Selection according to process and/or spatial requirements.

Technically and economically optimal selection of the heating medium:

Light diesel oil LDO

Residual oil

Natural gases

Liquid gases

Special gases (according to individual check)

Coal dusts (according to individual check)

Customer's hot gases (according to individual check)

Electrical energy

Combinations of above mentioned heating media

Technically and economically optimal selection of the heating system:

Direct heating without combustion chamber (type OB):

Contact between wet material and burner flame cannot be avoided.

Direct heating with short combustion chamber (type KB without secondary air system):

Reduced flame contact if burner operation is within a high capacity range, or

No flame contact if burner operation is within low capacity range.

Direct heating with long combustion chamber (type GB with secondary air system):

No flame contact between wet material and burner flame.

Customer's hot gases can be used as pre-heated secondary air.

Hot gas inlet temperature into the dryer is adjustable with amount of secondary air flow (adjustment by motorized damper in secondary air flow).

Indirect heating with a heat exchanger installed before the dryer if contact between flue gases and material to be dried has to be avoided (individual check requisite)

Indirect heating with a heating tunnel around the dryer if contact between hot gases and material to be dried has to be avoided (individual check requisite)

Technically and economically optimal combination of different processing stages in one single drum aggregate is possible (process integration), for example:

Drying and cooling

Drying and heating

Drying and cleaning

Drying and crushing

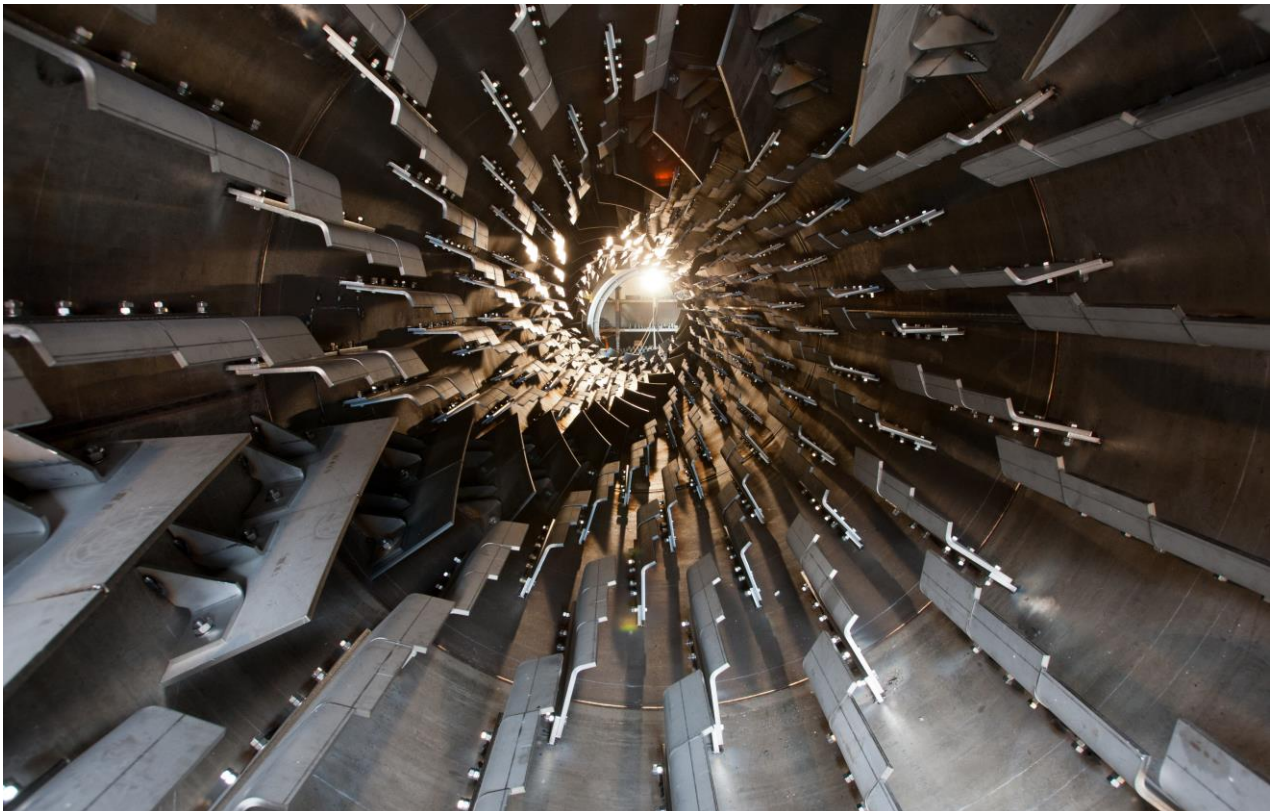
Drying and separating

Drying and extraction of fines

more combinations are possible according to individual check.

Extraction of fines during drying is possible and can be influenced by:

Selection and optimization of the dryer basic geometry (for low, medium or high internal hot gas velocity) and/or by variation of the exhaust air volume (within reasonable limits)



3. MOZER PROCESS TECHNOLOGY PVT. LTD. advantage: High reliability

Customer's benefit: Low operation and maintenance costs

Very sturdy basic design for a long lifetime.

Thickness of dryer components, material selection and additional wear protection measures are technically and economically **optimized according to the individual application** taking into account the:

Abrasivity of the material (low, medium, high)

Corrosivity of the material (according to individual check in borderline cases)

Operation mode of the dryer (1-shift, 2-shift, 3-shift)

Minimal quantity of moving and rotating components ensuring:

A minimal probability of mechanical failure.

A minimal probability of rapid wear.

A minimal quantity of components prone to natural wear.

Slow motion of rotating dryer parts ensuring:

Minimal mechanical stress.

Minimal speed of wear.

Easy access to dryer areas where natural wear can occur, therefore easy and swift possibility of inspection and maintenance.

Burner, drive and bearing systems for MOZER dryers are **high-quality products** and only delivered by **renowned suppliers** which have an efficient **service organization**.



4. MOZER PROCESS TECHNOLOGY PVT. LTD. advantage: Easy control and operation

Customer's benefit: Low operation costs

Minimal efforts for inspection due to:

Simple and sturdy basic design.
Small quantity of components for the drying plant.
Easy access to all components.

No especially skilled staff is required for the plant operation:

Basic operation training for customer's staff is executed during the commissioning by a MOZER specialist.

No permanent presence of operation staff is required:

If the control, regulation and safety system of the whole drying plant is designed suitably the drying plant can be operated during long periods without being permanently monitored by customer's staff.

Short period for heating-up and production start



5: MOZER PROCESS TECHNOLOGY PVT. LTD. advantage: Competent and reliable service

Customer's benefit: Highest availability and value preservation

MOZER experience based onto more than 1.000 applications in the field of thermal processing of bulk materials. (Ask for our reference list)

Thorough and efficient MOZER consulting in the plant **design phase** taking into account customer's special demands and desires.

Execution of tests on our laboratory equipment in the case of need.

Qualified inspection of your drying plant by MOZER staff within the scope of a maintenance and inspection contract or upon individual request.

Process-related measurements and checks for preservation of the high efficiency.

Mechanical measurements and checks for preservation of availability and value, also for dryers which were not originally delivered by MOZER (according to individual agreement)

Reconstruction and optimization of customer's drying plant in the case of demand for higher capacity and/or process adaptations:

Drying of different or additional materials on customer's MOZER dryer.

Increasing of drying capacity.

Implementation of additional process stages (e.g. cooling, crushing etc.), also for dryers which were not originally delivered by MOZER PROCESS TECHNOLOGY PVT. LTD. (according to individual agreement).

We maintain a **large stock of spare parts** for quickest delivery in the case of need.

Selection of our sub suppliers according to their **service organisation**.

Fast reaction in the case of requisite reconstructions or emergencies on purchased components.

Customer's demands concerning the **selection of sub suppliers** can be taken into account according to individual agreement (e.g. for burner systems, drum drive, filter system).