

Side view SBT 60/5 with 2 air fans

Belt drier	A	B	C	D	E	F	G
	Belt width	Chamber length	Chamber height	feet	Total height	Total width	Total length
Drier type	mm	mm	mm	mm	mm	mm	mm
SBT 60	5800	2400	2400	1100	3500	7580	4800+(2400x n) n= number of chambers

Up to SBT 60/4 with one air fan, from SBT 60/5 with two air fans.

Services:

- Engineering, assembly and commissioning of drying plants including accessory equipment
- Engineering, assembly and commissioning of drying components and accessory equipment
- Optimisation, repair, and increasing of requirements of existing drying plants
- Assembly and dismantling of components and complete plants
- Spare part supply
- Periodical maintenance
- Laboratory tests and simulations

Products:

- Feeding and decoupling devices
- Spredder and granulators
- Convective belt driers
- Belt drier for wood, pellets
- Contact belt driers
- Microwave plants
- Transportation devices
- Controlling systems

EL-A Verfahrenstechnik GmbH
Diebsweg 7
D-69123 Heidelberg

Tel: +49/ (0) 6221 / 75708-0
Fax: +49/ (0) 6221 / 75708-11
E-Mail: info@ela-vt.de
www.ela-vt.de

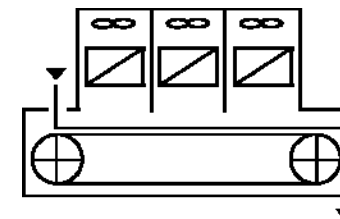


Competent Technology for:

Chemical, Pharmaceutical,
Food and
Animal Food Industry

Ceramical, Environmental
and Recycling Technology

PRODUCT INFORMATION
BELT DRIER FOR WOOD SHAVINGS,
WOOD CHIPS AND WOOD PELLETS



Belt drier for drying wood shavings, wood chips, pellets and other raw materials for pellet production.

Belt drier type SBT 60 in modular design was developed especially for drying of wood shavings, wood chips and similar products for pellet industry.

This drier can be used too for another products coming from the group of renewable raw materials like biomass and digestates. Using waste heat coming from biogas plant can

increase its efficiency.

Wood shavings belt drier is suitable especially for using low temperature heat coming in greater amount from biogas plants, ORC-plants or block heat and power plants .

Even using different heat systems in same drying plant represents no problem.

Function:

For getting an even product layer on drying belt, product is fed into circulation and distribution screw. This screw distributes the product across the width of the

belt and conveys a too much of product back to the beginning of the screw. In this way screw compensates inequalities of product feeding.

Height of product layer can be adjusted by a hydraulic lifter below the distribution screw.

Inside drier warm air cares for an even drying of the product layer.

On the top of the drier, heat exchangers heat up drying air and care for an even air flow through the product layer.

As heating medium can be used different low temperature heating medias so as steam or thermal oil. Hot or warm air coming from pellet burner or another thermal process are suitable for drier heating.

During flow through product layer, warm drying air is loaded up to its maximum with water so energy content of air can be used in an optimal way.

Mixing the product layer after half of drying time avoids an overdrying of top of the layer and supports an even drying of the product for an optimal production of wood pellets.

For checking outlet quality a moisture content sensor is installed in discharge screw of the drier. This sensor allows an automatical operation of the plant.

Product layer height, feeding screws and belt speed together are responsible for maximum operation capacity at optimal moisture content.

Construction and installation

Construction is made in modular design. Therefore moduls can be installed very easy and fast. This reduces installation time on

erection site.

Modules will be transported to erection site, connected with other modules, tubes and energy medias, electrical wired and started-up after erection of wire belt.

Details:

Several constructive details of the drier rise efficiency and operation security.

High effeicient insulation minimizes heat loss so heat can used for drying. According to product requirements different drying belts can be choosen. Temperatures over 100°C are no problem, never for belt never for drier.

Belt run is garranteed by a full automatical belt control. Additional detectors provide operation failures.

Supporting rolls minimize belt wear in comparision to statical supportings.

Fire protection:

Because of drying a burnable product fire extinguishing system with water tube und special nozzles is included in every drier. Detection of fire is realized with a temperature based system.

Additional equipment:

As additional equipment are usuitable dust blower and water wash system for belt cleaning. For dust blower no additional storage is suitable. Dust is blown into discharge screw.

Installation outside:

For installation outside drier will be equiped with a fresh air hut and a weather protection.

Emission limits:

All necessary noise levels are held by special air fans.

For dust limits a special sealing system inside drier avoids emission of product parts and dust particles and ensures so all limits. An additional equipment like filters is not necessary.

Hold of dust limits was checked by an independent institute.

Advantages:

- Simple transport of the pre-assembled modules by standard container measurements.
- High pre-assembling grade at fabrication site reduces assembling time and costs on

customer site.

- Use of waste heat on low temperature standard.
- Gentle and even product drying.
- Low emission data regarding dust and sound.
- Uncomplicated operation and maintenance.
- Automaticly operation mode.
- Low maintenance costs.
- Possibility of expanding up to 10 drying chambers because of the module construction.



Belt drier SBT 60/3 –modular chambers (above)



SBT 60/5 new insulation



SBT 60/5 product discharge



Side view



Exhaust air fan



Brush for sealing



SBT 60 discharge area