

Cooling screw conveyor for food industry - 5822



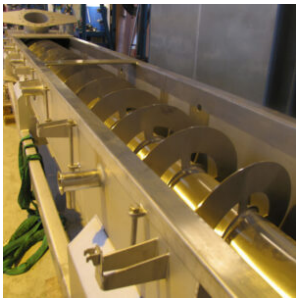
Specifications

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- Material: All manufactured in 1.4404/AISI-316L
- Diameter: Ø600
- Length: 7500 mm.
- Surfaces in contact with food: All surfaces $Ra < 0,6 \text{ m\mu m}$
- Acid pickled after welding and grinding
- Implementation of cooling jacket on the through and cooling of the inner pipe of the screw rotor
- Delivered including legs for installation on-site
- Delivered with full documentation in accordance with the Machine Directive

Additional Information:

Product type:	Process equipment, Screw conveyor
Industry:	Food industry
Transported material:	Bulk material, Powder
Applied steel in product:	Stainless steel
Surface treatment:	Stainless steel – acid pickled



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Short Description

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Cooling screw conveyor for food industry Ø600×7000 mm manufactured in accordance with EC-1935/2004.

Cooling system

1. Jacket cooling of the through
2. Cooling of the inner pipe of the screw conveyor

See another example of a cooling screw conveyor here

Cooling of the inner pipe is not as efficient cooling of the screw flights by the hollow flight principle. But if the filling degree is high and the speed of the screw rotor is above 10 RPM it can be an efficient solution. Cooling of the inner pipe is a more economic solution compared to cooling of the screw flights by using the hollow flight principle.

Besides requirement for cooling the cooling screw conveyor is manufactured in accordance with EC-1935/2004 – the food directive

1. All material in the machine in stainless steel 1.4404/AISI-316L
2. All plate material in 2B – cold rolled plates
3. All surfaces in contact with food grinded to $Ra < 0,8 \text{ mym}$
4. All outside surfaces designed for easy drain off after cleaning

See another application in accordance with EC-1935/2004

Through and centertube are cooled with brine. The brine is connected to the inner tube via a rotary valve coupling. The rotary valve is working in both directions which means that you only need a connection from one side of the machine.

BEMA has made the design in close cooperation with customer.

When you design a cooling screw conveyor you must follow these basic steps

1. Start to determine the effect in which you need to cool the material
2. Find the area needed to give you necessary cooling
3. Determine which type of cooling you want to use in the application:
 1. Jacket cooling
 2. Cooling of the inner tube of the screw auger
 3. Cooling of the screw flight by using the hollow flight principle

BEMA has experienced engineers and technician who can assist and help in design specification process.