



Tetra Pak® High Shear Mixer

Batch process unit B200-300A and B200-300VA for prepared food and ice cream toppings



Application

The Tetra Pak® High Shear Mixer is a semi-manually operated batch process mixer

The mixer is designed for efficient production of a wide range of products e.g. soups and sauces, dips and dressings, tomato-based products, ice cream ripples and toppings.

Highlights

- Plug and play solution
- No-shear and high-shear in the same machine
- Handles high and low viscosity products
- Indirect heating/cooling by jacket
- Heating by direct steam injection
- Agitator/scrapper
- Low raw material losses
- Energy efficient

Working principle

The main component is a mixing tank with a bottom-mounted batch mixing unit. The mixing unit has a rotor and perforated stator to ensure optimal wetting and processing.

The rotor draws the ingredients into the mixing head and pushes them out through the holes in the stator. During this process, the impeller at the bottom of the rotor subjects the product to the desired shear. This rotor/stator design ensures optimal mixing, even particle distribution and consistent high quality. Powders and liquid are added manually to the mixer.

The mixer is equipped with an agitator for efficient scraping of the tank walls and enables mixing of higher viscosities.

The mixing vessel is insulated and equipped with a dimple jacket for indirect heating and cooling of the product. When the desired composition is obtained, the product is discharged to a buffer tank and a new batch can be prepared in the mixer.

Working principle Vacuum

Mixing under vacuum deaerates the product and reduces foam-related problems. The vacuum is also used to drive powder and liquid transport into the tank below liquid level. This ensures optimal wetting of powders, improving mixing and promoting high product quality.

Basic unit

- Mixing tank
- High-shear mixing unit with water flushed seal
- Dynamic stator
- Agitator/scrapper
- Liquid inlets
- Heating/cooling jacket
- Direct steam injection
- CIP
- Sight glass
- Control panel with:
 - Speed control for the mixing unit and agitator
 - Product temperature read out
 - Emergency stop/reset
 - Main switch

Options

- Outlet pump for viscous products
- Vacuum system
- Powder inlets
- Powder hoppers

Materials

All parts in contact with the product are made from stainless steel AISI 316L. Other parts are made from AISI 304.

Technical data

Processing parameters	B200-300A	B200-300VA
Capacity, l/h	300-1 200	300-1 200
Number batches, h	1-4	1-4
Dry matters, %		
Viscosity, cP		
Consumption data		
Installed power, kW	22/25,3	25,7/30
Power supply	3x380-480V, 50/60 Hz	3x380-480V, 50/60 Hz
Seal water, mixer + vacuum pump l/h	20	85
Instrument air, NI/h	100	100
Mixing temperature (no vacuum)	≤90°	≤90°
Mixing temperature (vacuum)	≤70°	≤70°
Steam inlet, mm	1" BSP	1" BSP
Direct steam inlet, mm	1" BSP	1" BSP
Condensate outlet, mm	1" BSP	1" BSP
Steam 4-5 bar, kg/h	250	250
Steam quality	Dry & culinary steam	Dry & culinary steam
Instrumental air, NI/h	100	100
Air inlet, mm	Ø8	Ø8<
Air pressure	6 bar	6 bar
Service water inlet, mm	Ø25 SMS	Ø25 SMS
Product outlet, mm	Ø63,5	Ø63,5

Dimensions	B200-300A	B200-300VA
Length, mm	1 855	2 315
Width, mm	1 560	1 670
Height, mm	1 900	1 900

