

HIGH SHEAR MIXER



WORKING PRINCIPLE

High Shear Mixer is designed for circulation over an external batch tank. The machine comprises a mixing tank, a belt-driven turbo unit located in a pump housing at the mixing tank's centre outlet and an optional control system. The heart of the module is the turbo unit, consisting of a rotor and perforated stator. In addition to mixing and dis-persing, the unit also provides pumping functionality. During circulation over the mixer, powders and liquids are added manually to the mixer. The process continues until all products have been added and the mix is homogeneous. The rotor draws ingredients into the mixing unit, pushing them out through the holes in the perforated stator. During this process, impeller wings at the bottom of the rotor subject the product to high shear. As the mixing unit is placed beneath the mixing tank, the product will pass the mixing unit at least once

APPLICATION

High shear mixer is designed for optimal wetting and processing. The efficient mixing systems produces homogeneous and lump-free products e.g. for dairy, ice cream, beverage and prepares food applications, The mixer is designed for low viscous products up to 300 cP

Highlights

- High capacity
- High shear mixing
- Energy efficient
- Manual level control
- Self pumping
- Compact design
- Low maintenance
- Safe operation
- Low raw material losse



Basic unit

Main components

- Mixing tank (volume 400 l) with grill, safety switch, baffles, lid and cover with CIP connection, and spray ball
- High-shear turbo unit with water-flushed seal
- Manual level control
- Manual product valves

Options

- Inlet pump, 4 kW
- Outlet pump, 4 kW, for dry matter contents of 20-40 %
- Propeller for the turbo unit
- Control panel in stainless steel with main switch, relay operated start/stop buttons for mixing unit and pumps, emergency stop, contactors, soft starter and internal wiring
- Non-standard power supply, e.g. 3x200 V, 3x575 V

MATERIALS

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

TECHNICAL DATA

Processing parameters	R200-400
Capacity, l/h	≤ 18,000
Circulation, l/h	20,000-30,000
Dry matter, %	≤20(40%as an option)
Viscosity	≤ 300 cP
Mixing temperature	≤ 90°C
Instrumental air, NI/h	≤ 50
Powder capacity*, kg/min	≤ 100
Oil addition rate, kg/min	≤ 50
Additives	Flavour,sugar,emulsifiers,stabilisers,etc.

Consumption data

Power consumption, kW	22/25.3
Power supply	380-480V,50/60Hz
Shaft seal water turbo unit, l/h	10

Shipping data

Net weight, kg	500
Gross weight, kg	700
Volume, m³	5



DIMENSIONS

