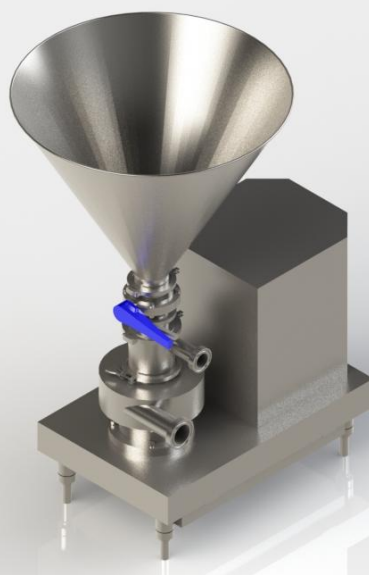


SINGLE STAGE MIXING SYSTEM / EMULSIFIERS



SYSTEM OVERVIEW

SEPAK Industries' Blender Mixing Pump enables rapid, homogeneous mixing of solids into liquids using a vertically mounted centrifugal impeller. Its double-walled suction tube separates solid and liquid inlets to prevent blockages. As liquid enters the chamber at high velocity, a vacuum draws solids from the hopper, controlled by a base valve. This inline system can operate without recirculation in some applications and is ideal for quick, air-free blending. For high-viscosity products (>500 cP) or high suction/discharge pressures, positive displacement or centrifugal pumps can be added upstream or downstream.

APPLICATIONS

- Dairy: Reconstitution of milk and whey powder, yoghurt pre-mix
- Food & Beverage: Sugar syrup, glucose, flour/starch slurries, cocoa/sugar in milk
- Wine & Cheese: Bentonites, casein, caseinates
- Industrial: Fertilisers, pesticides

FEATURES

- Simple, inline operation for quick dispersion of solids without air contact
- 3-A sanitary design with CIP compatibility
- Clamp-connected components for easy assembly/disassembly
- Sanitary single mechanical seal (Carbon/SS/EPDM)
- All product-contact parts in AISI 316L stainless steel
- Gaskets: EPDM (standard)
- Internal finish: $Ra \leq 0.8 \mu\text{m}$ mirror polished
- External finish: Mirror polished stainless steel

CONFIGURATIONS

- **Low solids (<15%):** Direct powder injection and fast mixing to tank.
- **Medium solids (<25%):** With downstream centrifugal pump to aid dissolution
- **High solids (>50%):** Additional pumps for high-viscosity and pressure handling

OPTIONAL

- 60° hopper with pneumatic/electric vibrator and anti-vibration support
- Solid detection sensors for high/low level alerts and valve control
- Dual-cooled mechanical seal
- Mixing chamber screen and drainage
- Pneumatic actuator valve
- High/low level sensors
- Switchboard with emergency stop, start/stop, and motor protection
- DIN or SMS connections

SOLID DETECTION

SEPAK offers optional solid level sensors fitted to the hopper that:

- Detect high/low hopper fill levels
- Prevent air entry by closing hopper valve at low level
- Trigger solid feeding systems at high level
- Support integration into fully automated mixing lines

TECHNICAL SPECIFICATIONS

	HHQ-10	HHQ-20	HHQ-30	HHQ-40	HHQ-50	HHQ-60
Flow (LPH)	10	20	30	40	50	60
Power (kW)	3	4	5.5	7.5	11	15
Solid Inlet Size	DN65 – 3"	DN65 – 3"	DN80 – 3.5"	DN80 – 3.5"	DN100 – 4"	DN100 – 4"
Liquid Inlet Size	DN40 – 1.5"	DN40 – 1.5"	DN50 – 2"	DN50 – 2"	2.5"	2.5"
Outlet	DN50 – 2"	DN50 – 2"	DN65 – 2.5"	DN65 – 2.5"	DN80 – 3"	DN80 – 3"
Hopper Volume	45	45	45	45	65	65
Suction Volume	2000kg/h	3000kg/h	4200kg/h	5500kg/h	7000kg/h	9000kg/h
Connections	Clamp, Thread, Weld	Clamp, Thread, Weld	Clamp, Thread, Weld	Clamp, Thread, Weld	Clamp, Thread, Weld	Clamp, Thread, Weld