MICROFLUID

High-Pressure Homogenizer

400 LPH Technical Datasheet

Model: HM-10

HM-10 two-stage high-pressure homogenizer, a positive displacement reciprocating pump manufacturing with state-of-the-art technology for customized solutions for many applications. This machine is convenient for dairy, food & beverages, pharmaceuticals, biotechnology, chemical, and cosmetic industries.

Microfluid homogenizers are specially designed for low speed, which can execute high efficiency and reduce noise, vibrations, and maintenance costs.

Liquid End (Drive Unit)

- A single piece of highly precise and high wear resistant machined cylinder block made from special high tensile corrosion resistance forged stainless steel materials.
- This cylinder block is designed with a reduced number of parts for easy use and maintenance.
- This cylinder block is designed and is suitable for interchangeable ball and poppet-type valve seats.
- Friendly maintenance of the liquid end.
- The fully sanitary design, which can be suitable for CIP, SIP and pharma.
- Fully electropolished available as an option.
- Duplex and super duplex material for cylinder block available as option.

Power End (Pump Head)

- The single piece high strength cast iron crank case specially design for heavy duty and reliable transmission.
- Special forged alloyed steel crankshaft on standard roller bearings.
- Self-align roller bearings.
- The crossheads are designed with self-align and adjustable technical, which is very reliable and can reduce maintenance and break-down time.
- Splash lubrication.
- “V” bets drive system.

Homogenizing Valve

- Double stage hand operated manual homogenizing valve for effective homogenization of product.
- Impact head and valve seat specially surfaced from stellite material (hardness 56 to 58 HRC).
- Impact head is specially designed to reduced maintenance cost.
- Microfluid’s homogenising valve engineered for easy maintenance and cleaning.
- Its suitable for CIP, SIP and pharma.
- Fully electropolished available as an option.
- Wear parts made in tungsten carbide and in ceramics material as an option or request.
- Duplex and super duplex material for homogenising valve available as an option.
- Pneumatic operated homo valve available as an option.

Plunger & Seals

- Colmonoy coated stainless steel (hardness 58 to 6o HRC).
- Many options available in plunger materials like tungsten carbide coated, hard chrome coated, solid ceramic, ceramic coated.
- Self-centring clamped connections.
- Dedicated hygienic food grade seals & O-rings.
- Sealing cooling system.

Valve & Valve Seats

- High wear resistances stainless steel double side stellite surfaced alloy seats, which reduce maintenance cost and down time.
- Ball type and poppet type valve available for different viscus materials.
- Tungsten carbide and ceramic materials available as an option.

Valve & Valve Seats

- Made out from polished stainless steel with sound proof facing and reduce noise.
- Made on CNC laser cut and CNC bending for better quality and appearance.
- Easy to maintenance and operate.
- Appropriate ventilations with lowers.

Product Line Connections

- SMS standard union connections.
- Tri-clamps and any other standard options available on request.

Technical Details

Inlet connections	1½” SMS
Outlet connections	1½” SMS
Oil type	220 gear oil
Oil capacity	3 litter
Approx. weight	100 Kg
Max. power up to	10 kw @ 1200 LPH, 250 Bar

Applications

Dairy

Food & Beverages

Chemical

Home & Personal Care

Pharmaceuticals & Biotech

Pressure Measurement & Safety

- Sanitary design diaphragm type analog high-pressure gauge.
- Pressure relief valve (Safety valve) installed on liquid end.
- Pressure transducer & controller available as an option.
- Diaphragm type analog digital pressure gauge available as an option.
- Stainless steel encloser control panel.

Special Option

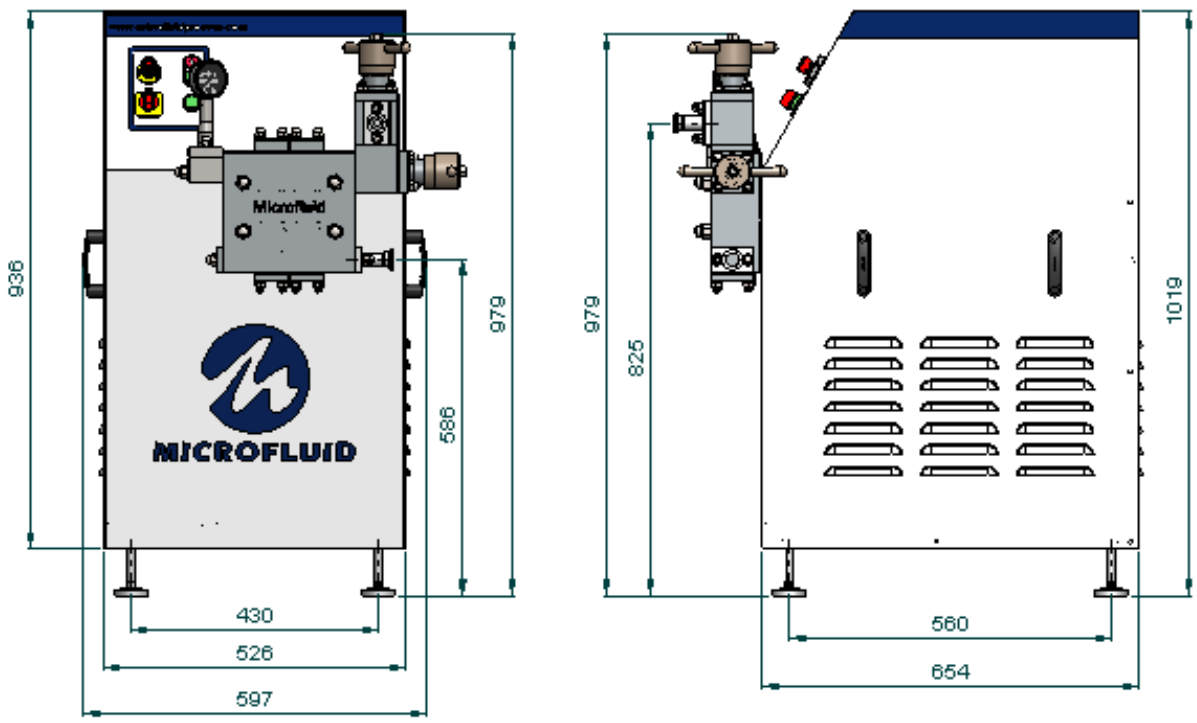
- Fully machine automation.
- Pneumatic homogenizing valve.
- Duplex & Super duplex material.
- Electropolished liquid end and contact parts available as an option.

Performance Chart

Max. Flow Rate (LPH)	Max. Pressure in BAR (PSI)	Max. Motor HP (KW)
200 LPH	250 Bar (3600 PSI)	2 HP (5.6)
300 LPH	250 Bar (3600 PSI)	3 HP (2.2)
400 LPH	250 Bar (3600 PSI)	5 HP (3.7)
500 LPH	200 Bar (2900 PSI)	5 HP (3.7)

❑ Customized models are available.

Dimensional Drawing



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