

SU PUMPS

MVP Series

Food, beverages, dairy

Cosmetics, pharmacy, chemistry

Water, sanitary water, industrial water, HVAC

Diesel & Biofuels, oils, lubricants, emulsions

Gasoline, LNG, kerosene, alcohols...



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UNIVERSAL INTELLIGENT DESIGN FOR EVERY APPLICATION

The compact positive displacement rotary vane pump brand SU pumps of MVP series is oil-free, two-vane, single-stage, self-priming (does not require pre-filling of the housing and suction pipe-dry suction) up to 3.5 m (it depends on the viscosity, density and flow rate of the liquid), relatively low mass and dimensions. It is used to transport various liquids: without mechanical and insoluble impurities (max 0.5 % by mass and 0.25 mm), ordinary, toxic, combustible, explosive, crystallizing, sticky mixtures, creams, resins, mixtures of liquids and gases etc. It allows constant flow. It is economical and high-efficient energy device with a flexible mono-block version (standard IEC electric motor/gear motor with one-piece shaft). The speed of the shaft and the flow of the pump are directly proportional. The overall degree of efficiency of the pump practically remains constant over the entire working range of pressures.

In our innovative MVP design, the vanes made of high-quality POM thermoplastic or bronze have good antifriction and other properties that ensure good sealing and exploitation of the volume and good rotor technology, whereby a very large flow of fluid can be achieved taking into account the overall dimensions. The pump housing has inner radii with distant centers, which makes it unnecessary to use springs or fluid pressure under the vanes, and the vanes are radially unloaded, which minimizes their wear, fluid acceleration and noise level. Fluid compression and swirling were eliminated and current pulsation was avoided. In idle mode, the pump closes almost completely, preventing backflow, siphoning and slipping. Optimal static sealing of the cover is achieved with an FPM O-ring.

Parts of SU pumps are made of stainless steel AISI 304. High-tech processing increases the reliability and efficiency of the pump. The design of the increased inlet port (internal thread ISO 228-1) practically eliminates cavitation, improves pump pressure and extends pump life. Single/double seal with composite PTFE sealing lip of FREUDENBERG SIMRIT have increased the service life of the pumps several times and has a high degree of sealing reliability as a mechanical seal. These pumps can be used in both closed and open systems and humid environments. They can be mounted vertically/horizontally, in series/parallel, into the pipeline, as a booster pump, stationary/mobile unit.

The pumps fully meet the spectrum of hygienic and industrial requirements for transporting liquids in the food and beverages industry, cosmetics, pharmacy, chemistry, petrochemical, shipbuilding, energy, transport, agriculture, ecology, water supply, HVAC systems etc., without breaking, damaging, spoiling, delaminating, foaming, mixing solutions and aroma changes. They are also used for dosing, filling/emptying, spraying, circulation, crystallization, emulsification, homogenization, concentration, bottling etc. The pumps are also designed as laboratory pumps and as mixers for continuous/serial mixing of fluids.

COMPARATIVE ADVANTAGES

- Available in various flow configurations, simplicity, robustness, modularity
- Minimum dimensions and masses
- Mounted on 50/60 Hz electric motors/gear motors B3/B14 IEC, F, IP55, ATEX/IECEX or DC motors
- Easy visual inspection, operation without maintenance, long service life
- Quiet and smooth operation, low vibration and pulsation, gentle continuous transport, control range between 25% and 100%
- Constant flow, good repeatability, have a higher degree of efficiency and suction lift than the centrifugal, lobe, gear and screw pumps
- Flow direction of the transported liquid can be changed by changing the direction of rotation (bi-directional rotation)
- High pump efficiency, economical and reliability throughout the service life, 20-30% lower energy costs
- Connecting directly to the electric motor/gear motor, saving space
- It is not necessary to service the pump in the production line and the pipeline, they are cleaned and sterilized by CIP processes.

TECHNICAL DATA

Series	MVP												
Model number	5	8	12	18	25	35	50	70	100	140	170	200	
Flow l/min	5	8	12	18	25	35	50	70	100	140	170	200	
Differential pressure bar	0.3 – 10												
Speed min ⁻¹	100-3000												
Viscosity-max mPa s	100000												
In-line port size BSP (G)	3/8"	3/8"	1/2"	1/2"	3/4"	3/4"	1"	1"	3/2"	3/2"	2"	2"	
Nominal diameter DN mm	10	10	15	15	20	20	25	25	40	40	50	50	
Dry suction	■												
Bi-directional rotation	■												
Heating of pump head	■												
Electric motor/gear motor	up to 3 kW 230/400 V, >3 kW 400 V or DC motor												
Pressure in system-max bar	10												
Media temperature °C	-50/110												
Ambient temperature °C	-20/40												

Other models, hydraulic characteristics, masses and drawings for installation purposes will be given on request.

Example of labeling a pump: PUMP SERIES Model number/Differential pressure-Speed=MVP 35/4-3000