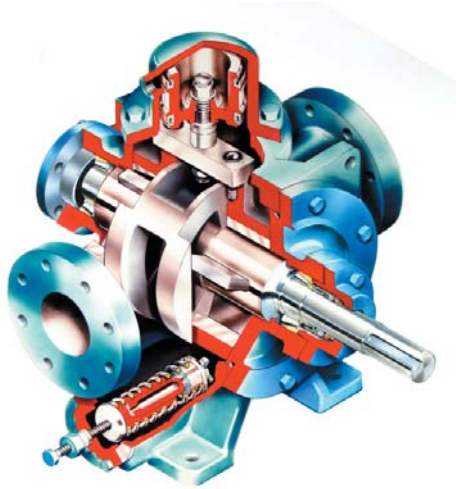


Vane Pumps

U2000 - Variable Flow Rotary Pumps



Operating Parameters

- **Flow range:** 0 to 265 m³/hr. (higher flows on application)
- **Temperature range:** -30 to + 260° C.
- **Operating pressure:** 14 bar (standard)
50 bar (special construction)
- **Viscosity range:** 2 to 75,000 cst. (standard).

Applications

- Almost any process plant variable flow requirement.
- Typically: Lube oil blending, bitumen blending, ships bunkering.

The "U" (Universal) 2000 offers infinitely variable flow from zero to 100% by varying the eccentricity of the shaft to rotor mechanism within the pump. The eccentricity can be varied in three ways.

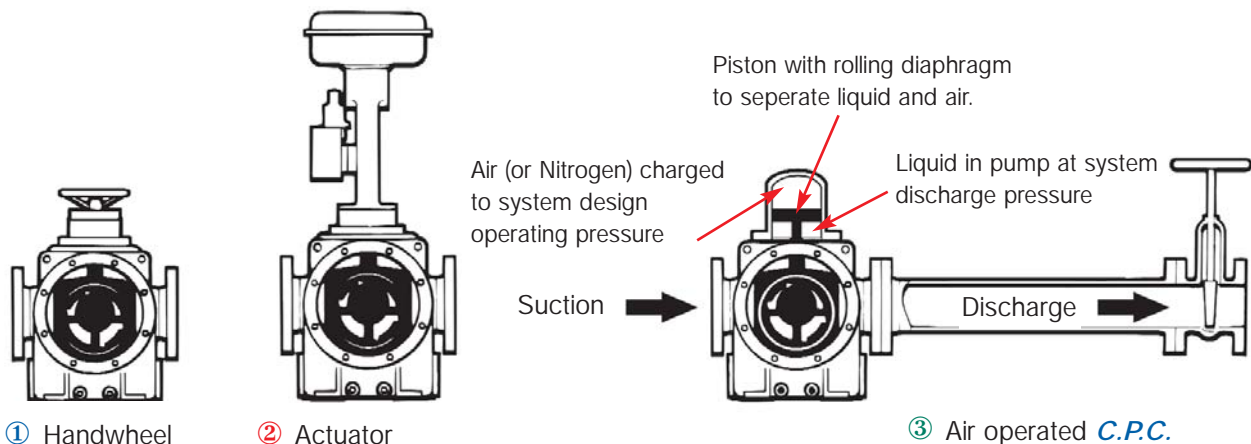
- ① Manually at the pump by a handwheel situated on top of the pump.
- ② Remotely from a control centre with a pneumatic or electric stroke actuator on top of the pump
- ③ Automatically by **C.P.C.** (**C**onstant **P**ressure **C**ontrol) where pump flow is automatically adjusted to suit a constant system design pressure.

Energy absorbed is proportional to the eccentricity (flow) setting, offering, considerable energy savings over conventional fixed flow pumps using system pressure/flow control valves. The **C.P.C.** system is particularly suited to automated blending plants where blending vessels and filling machines have constantly varying flow requirements.

Typical Liquids

Almost any viscous liquid

- | | |
|--|----------------------|
| ■ Lubricating oils | ■ Edible oils |
| ■ Lube oil additive | ■ Oily water (bilge) |
| ■ Residual (black) and distillate (white) fuel oil | ■ Molasses/fats |
| ■ Grease | ■ Emulsions |
| ■ Bitumen and asphalts | ■ Paint (oil based) |
| ■ Polymers and polyols | ■ Soap stock |
| ■ Resin/varnish/glue | ■ Inks |
| | ■ Acetate dope |



Plenty **Mirrlees** Pumps

Vane Pumps

G2000 & P2000 - Fixed Flow Rotary Pumps



Typical Liquids

The pumps are suitable for almost any liquid with lubricating properties and are particularly suitable for

- Oils
- Grease
- Bitumens
- Polymers
- Molasses
- and other viscous liquids

The fixed flow pumps are available in two mounting styles

G2000 For conventional baseplate mounting (featuring an API bedplate) with either direct motor drive or geared motor unit for lower speeds.

P2000 Integral floor mounting for minimum space requirement and timing belt drive from top mounted electric motor.

A rotary pump with a unique construction of eight blades with flat tips sliding in a precision machined rotor. The mechanism provides for low shear, low pulse flow with high volumetric and mechanical efficiency. The design enables low or highly viscous liquids to be pumped. The robust construction ensures very low vibration quiet running and a long service life. Designed to operate at low speeds offering high resistance to wear.

Pumps are available in a variety of metallurgical combinations to suit a wide variety of liquid and plant requirements. Heating jackets for steam or heating oil are available. Sealing is by mechanical seal or soft packing. Bearing arrangement can be journal (sleeve) type or ball/roller bearing lubricated by the pumped liquid, or ball/roller bearings external to the pumped liquid.

Pumps can be supplied with internal full flow pressure relief valves or without relief valves to API 676 requirements.

Operating Parameters

- **Flow range:** Up to 265 m³/hr. (Higher flows on application)
- **Temperature range:** -30 to + 260° C
- **Operating pressure:** 14 bar (standard)
50 bar (special construction)
- **Viscosity range:** 2 to 75,000 cst. (standard).



MAGMO - Ellipse and Scraper Pumps

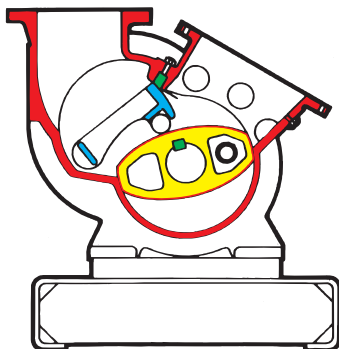
In the sugar industry the most reliable pump in service is the world famous MAGMO pump. Famous for its ability to give long trouble free service in tough conditions.



Available in three sizes (No. 6, No. 8 and No. 10). The pumps are specifically designed for pumping massecuite and magma in the sugar processing industry.

The MAGMO pump is extremely robust and simple to maintain in remote sites. It runs at low speeds (typically 20 to 40 r.p.m.) and can be arranged in "V" belt or gearbox drive format. Shearpin couplings are also available for pump and gearbox protection.

The pump features a large inlet chamber, robust bearings and strong spring mechanism to keep the scraper effective over the elliptical rotor.



Operating Parameters

- **Flow range:** 3.7 to 50 m³/hr.
- **Temperature range:** Ambient (up to 50° C max.)
- **Operating pressure:** Up to 7 bar
- **Maximum viscosity:** approx. 1,000,000 cSt.

