



PROGRESSIVE CAVITY DOSING PUMP MFE 06-2



HYGIENE



BIOTECHNOLOGY



INDUSTRIAL

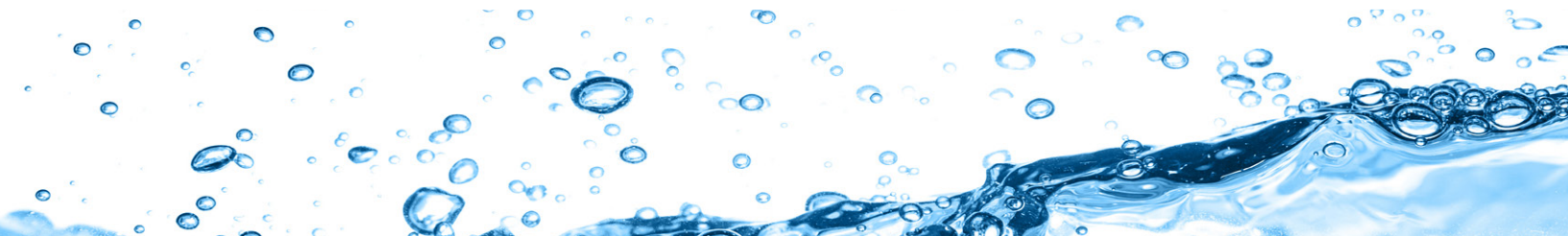
The MFE 06-2 dosing unit is a self-priming progressive cavity pump with a single rotating shaft characterised by gentle pumping with no pulsations and a flow rate proportional to the number of revolutions.

The MFE is designed to be integrated into automated production lines and semi-automatic dosing machinery in the food and industrial cosmetics sectors.

The main benefits of the MFE pump are: accurate dosing, delicate product transfer, dosing of non-viscous products and high viscosity fluids, low pulsation level without foaming, even when handling liquids with a high gas content.



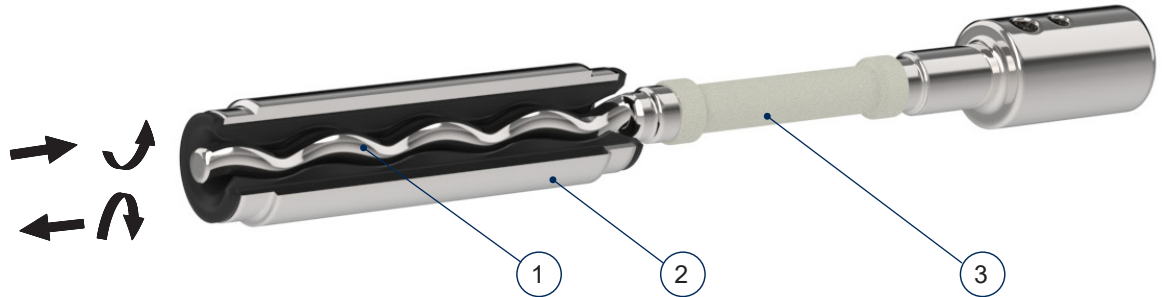
Numerous food products can be pumped: custards, chocolate, fruit juices and concentrates, tomato juice, ketchup, oils, molasses, mayonnaise, dairy products, honey, food sauces, creams (cosmetics, toothpastes, etc.) , various semi-finished products and pharmaceutical goods, wine and syrups.



CHARACTERISTICS

Operation

The rotor (1) turns inside the stator (2), making a hypocycloidal movement during which the internal cavities between rotor and stator convey the fluid with a helicoidal movement from the suction port to the delivery port.



Pump shaft

The pump shaft is made up of a rotor, connecting rod and drive shaft assembled without the use of threads or articulated joints.

The hypocycloidal movement of the rotor is controlled by the flexible connecting rod (3), made with a stainless steel core and coated with foodsafe polyurethane.

Stainless steel flexible connecting rod with FDA and 1935/2004 certified polyurethane coating.

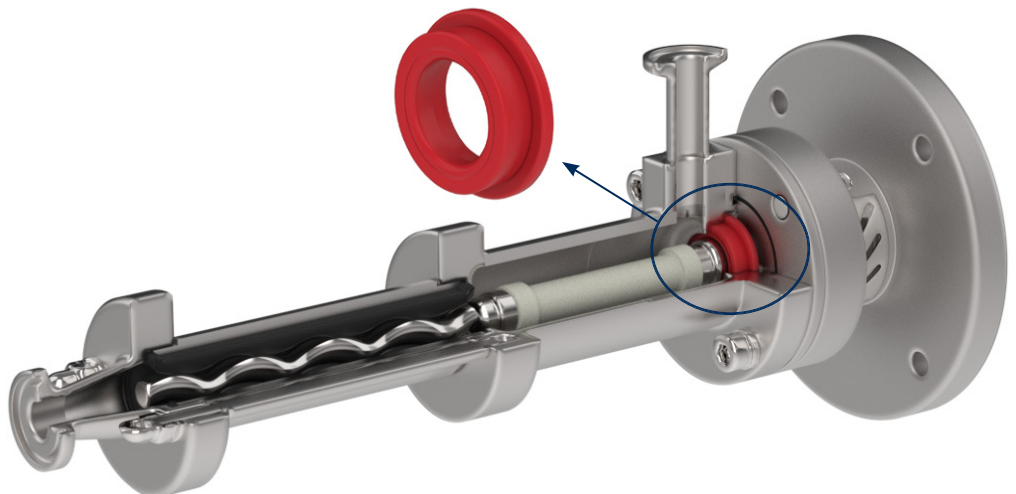


Ceramic coating, recommended for handling abrasive products and/or products containing solid particles (optional).

Pump seal

The pump casing seal is a radial ring with a geometry designed specifically to ensure that internal areas remain free of product stagnation after pump washing.

The ring is made from a foodsafe polyurethane compound with excellent abrasion resistance properties. Max. working temperature 90°C.



CHARACTERISTIC AND PERFORMANCE DATA

Pump material: AISI 316/1.4401.

Inlet connection: Clamp 32676-C D.1/2".

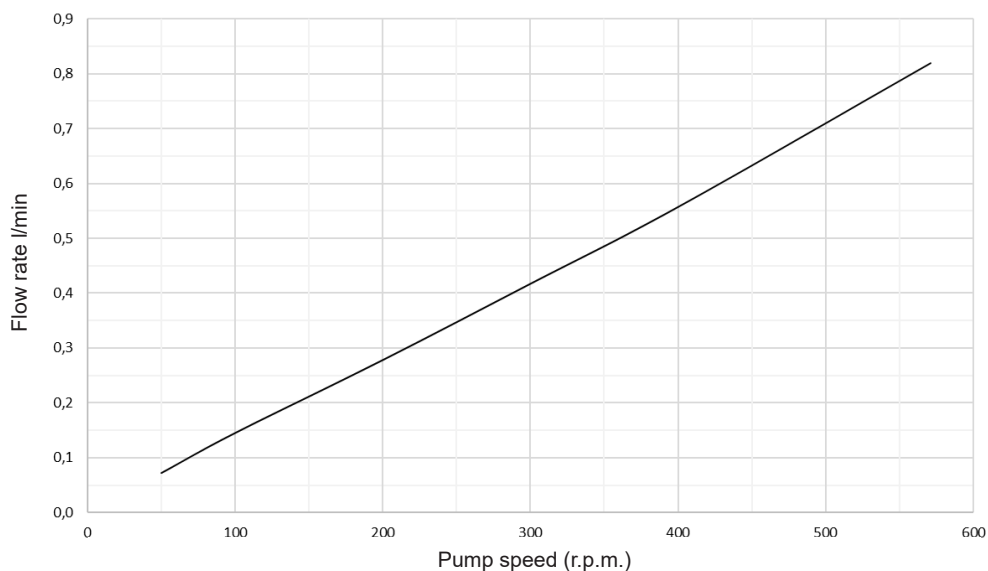
Outlet connection: Clamp 32676-C D.1/2" - tube int \varnothing = 3 mm (for low viscosity products);
- pipe \varnothing i= 8 mm (for high viscosity products).

Pump seal: FDA and 1935/2004 certified polyurethane radial ring.

Stator material: FDA and 1935/2004 certified NBR, other compounds available on request.

Characteristic curve - MFE 06-2

Data obtained by testing the pump with H₂O at 20°C.



Dosing accuracy

- The dosing weight is approximately 1.46 g per revolution with H₂O (Ps~0.98 kg/dm³)
- Dosing repeatability error is in the order of 0.2% and depends on product type and its viscosity.
- Max. working pressure: 12 bar.
- Max. temperature 60°C (evaluate higher temperature requirements with CSF inox).

EXECUTIONS

Two dosing pump management set-ups are available:

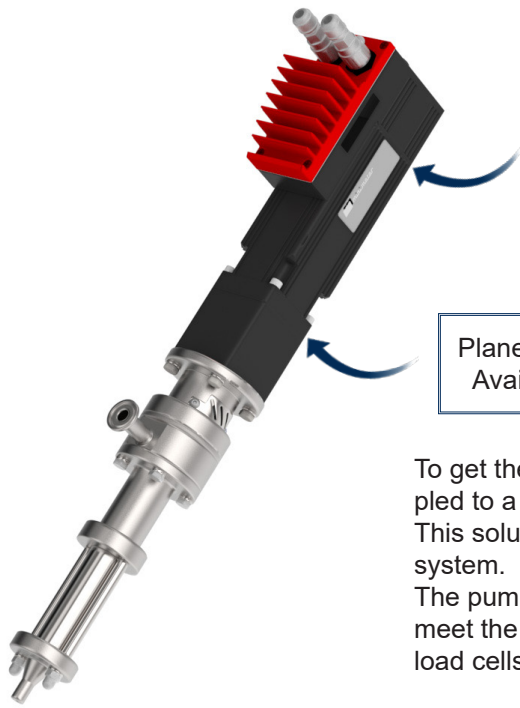
With three-phase asynchronous coaxial gearmotor



Optional:
Integrated inverter on
electric motor.



With brushless planetary gearmotor



Brushless motor:
- Installed power 235 W
- 48 Volt DC power supply
- Electronic board with Profinet communication Bus
- Absolute magnetic encoder

Planetary gear unit with precision gears.
Available reduction ratios 1:5 and 1:7.

To get the best performance out of the MFE 06, C.S.F. Inox offers the pump coupled to a Brushless gearmotor.
This solution makes it possible to integrate the machine into an automated dosing system.
The pump can be installed in precision and efficient dosing systems that aim to meet the specific personalised needs of customers, such as: timers, flowmeters, load cells.

OPTIONAL



Electrical panel with PLC control

General specifications:

- Siemens PLC with PROFINET® communication bus;
- Control panel with 7" screen;
- "RJ45" socket for remote assistance;
- Customisable software for automated dosing systems.

Optional:

- Load cells complete with transmitter.
- Input from external 4-20 mA/0-10V digital signal.



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