

MAE series with LS INVERTER



The progressive cavity pump can be equipped with a standard LS inverter. The inverter comes complete with: main power switch, emergency stop button, rotation direction selector, potentiometer for adjusting the operating frequency, and local/remote selector for controlling the pump with an external 4-20 mA analogue signal (4-pin Harting socket on the side of the inverter). There is also a display showing the working frequency and parameter settings.

N.B.: Thanks to its IP66 protection rating, the inverter can be washed with jets of water.

Optional and sensors available:

- Pump priming selector, if a flow switch is installed on pump suction;
- Remote control for Start/Stop, rotation direction reversal, and frequency adjustment functions;
- Safety pressure sensor to prevent overpressure in the system;
- External signal management (on/off);
- Level sensor.

Progressive cavity pump with electrical panel in stainless steel housing complete with Toshiba inverter and HMI panel. The operator panel can be used to control pump operation, set some of the inverter parameters, and see the rotation speed, absorbed current, operating hours, and number of starts.

Optional extras available:

- Flow switch to prevent dry running of the pump.
- Safety pressure sensor to prevent pump overpressure damage.
- PID (proportional-integral-derivative) control to maintain constant pressure inside a tank (e.g. isobaric fillers);
- PT100 temperature probe with temperature controller to stop the pump if the temperature limit is exceeded;
- Level sensor;
- Remote assistance service (EasyAccess2.0).

MAE series with ELECTRICAL PANEL IN STAINLESS STEEL HOUSING WITH HMI PANEL (QTW)



MAE with DECENTRALIZED NORD INVERTER WITH STAINLESS STEEL PANEL AND HMI (QNW)



MAE series equipped with an electric motor with decentralized NORD inverter. The pump is controlled via the HMI panel installed on the stainless steel housing. The inverter is equipped with a soft PLC which, together with the sensors, manages the automatic control system.

The automatic controls available are:

- Pressure control: to keep the pump's operating pressure constant even when system conditions vary (e.g. isobaric fillers);
- Flow control: to keep the flow rate delivered by the pump constant even when system conditions vary;
- Filling cycles: to execute repeat fillings of a set volume of product.

N.B. : The controls can only be used individually.

N.B. : The safety function that stops the pump if the maximum pressure is reached is always active.

The panel features a 4-pin Harting socket for managing both an analogue (4-20 mA) and digital (ON-OFF) remote signal.

Furthermore, the panel can be connected to an Ethernet network via an external RJ45 port.

Optional extras available:

- Remote assistance service (EasyAccess2.0).



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PROGRESSIVE CAVITY PUMPS

The progressive cavity pump is a positive displacement pump with one single rotating shaft. A stainless steel rotor and a rubber stator are the main pumping components. The rotor is a circular section single screw. The rubber stator is vulcanized inside a steel pipe. Renowned for their versatility, different models are available in a choice of AISI 304, 316 stainless steel. Motorisation: direct motor, geared motor, variable speed motor, motor and pulley, gear motor with inverter.
 The progressive cavity pumps can handle almost any kind of fluid up to 800.000 cps., including abrasive liquids and suspensions with solids. The pumping action is delicate, without sudden pulsation and the flow rate is proportional to the rotational speed.



TECHNICAL DATA

Flow rates up to 200 m3/h
 Maximum operating pressure 24 bar up to 100°C *

Mechanical seals:

- Single internal mechanical seal
- Single external mechanical seal
- Double flushed mechanical seal
- Cooled packed gland seal

* To be checked according to the elastomer type.

Stator materials

- GA - NBR black
- GB - EPDM
- GD - FKM rubber Fluoroelastomer
- GE - HYPALON rubber
- GF - NBR white
- GG - NATURAL rubber
- GJ - HYDRO-TREATED NITR. rubber
- GL - SBR SCA972
- GM - EPDM (white rubber)



MOUNTING ARRANGEMENT



N VERSION
Double grease lubricated bearings for drive via a flexible coupling.



E VERSION
Close coupled with shaft directly coupled to the drive.

EXECUTIONS

MA series - Foodstuffs execution

Pumps for foodstuffs with a large suction chamber. Wetted parts are polished stainless steel with DIN threaded hygienic connections.

MAN series



MIN series



MI series - Industrial execution

Sturdy industrial pumps suitable for heavy duty requirements. Cast suction chamber and flanged connections.

MC series - Features a hopper and a pre-feeding screw

Version with a hopper equipped with pre-feeding auger screw suitable for viscous products that do not flow easily through pipes. The top part is equipped with a rectangular flange to which any type of conveyance system can be connected.

MCN series



MCRN series

MCR series -Features a hopper, a pre-feeding screw and a vane crusher

Version with hopper, pre-feeding screw and vane crusher, suitable for dense products in lumps, pieces or that tend to form a bridge around a normal screw feeder. The vane crusher is driven by an independent geared motor, to crush the product to be pumped, breaking down any large lumps and pushing them into the pre-feeding screw.



MC2C series



MC2C series - Features an hopper and 2 pre-feeding screws

MC2CR series



MC2CR series - Features an hopper, 2 pre-feeding screws and 1 blade feeder

Version with hopper and double synchronised pre-feeding screws, mounted below a vane crusher (vers. for MC2CR). The vane crusher blades chop the product and push it towards the bottom of the hopper. The two pre-feeding screws then push the product into to the pump stator.

MHE series - Hygienic execution

Self-priming volumetric pumps with open articulations and internal parts in contact with the product made from polished AISI 316 stainless steel, roughness 0.8 microns, and different kinds of elastomers. The innovative design makes these pumps free of all stagnation points and suitable for all those applications where a high level of hygiene is required, for example in the food, pharmaceutical and cosmetic industries. Thanks to the uniform flow, MH pumps are also suitable for pumping products which are highly viscous, delicate and contain suspended solids.



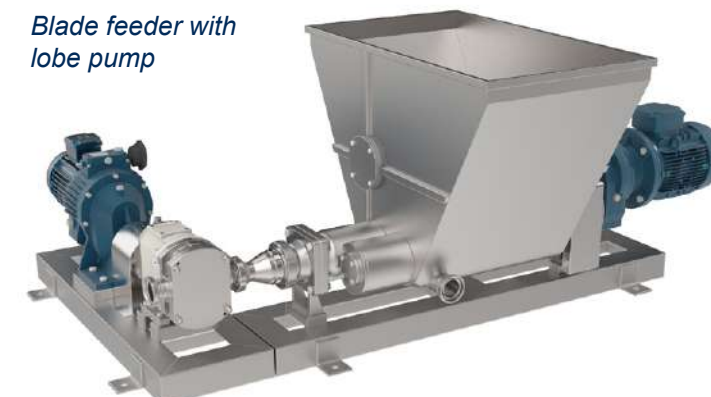
Blade feeders with 2 pre-feeding screws

Version with hopper and double synchronised pre-feeding screw operated by a reduction unit. It can be manufactured as a simple feeder or in combination with a volumetric pump.

Blade feeder with 2 pre-feeding screws



Blade feeder with lobe pump



MAV series



MAV series - Vertical execution

MAV Series pumps are intended for product transfer and drum or container emptying applications, in which the suction port is plunged directly into the product. As standard, MAV pumps have a suction to discharge port dimension of 1100 - 1400 mm according to the pump size. It can be mounted on a vertical trolley, with a choice of either a manual sliding or an alternative pneumatic lift and lower system (up to size MAV 70-L).

MCN series with CRUSHING BLADES

Progressive cavity pump with crushing blades. The right solution designed for crushing products containing soft or fibrous components (fruit and vegetables). The great advantage of this device is to avoid the need for macerating equipment after the pump.

