



## 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.

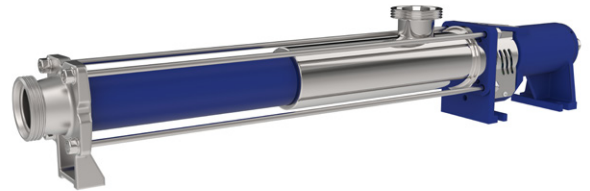
The progressive cavity pumps can handle almost any kind of fluid up to 800.000 cps., including abrasive liquids and suspensions with solids. The pumping action is delicate, without sudden pulsation and the flow rate is proportional to the rotational speed.

### EXECUTIONS

#### MA series - Foodstuffs execution

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

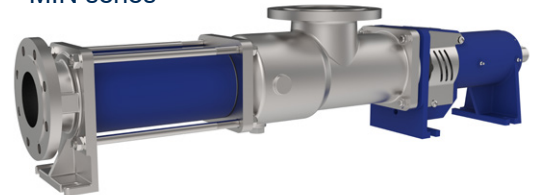
#### MAN series



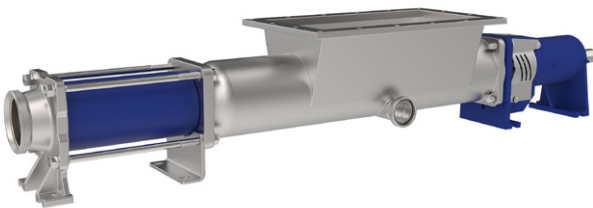
#### MI series - Industrial execution

Sturdy industrial pumps suitable for heavy duty requirements. Cast suction chamber and flanged connections. Available in Aisi 316.

#### MIN series



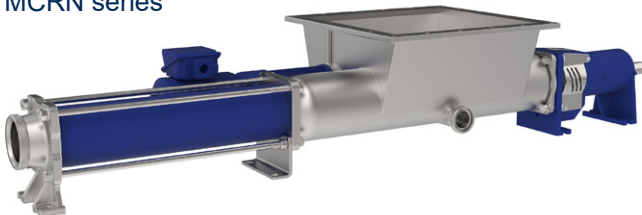
#### MCN series



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

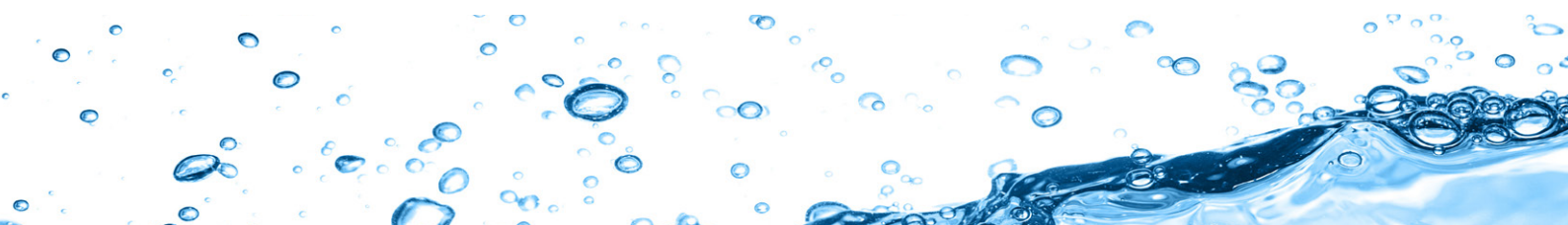
Version with a hopper equipped with pre-feeding auger screw suitable for viscous products that do not flow easily through pipes. The top part is equipped with a rectangular flange to which any type of conveyance system can be connected.

#### 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.



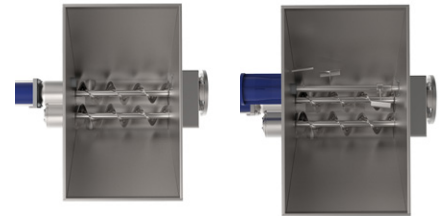
**MC2C series - Features an hopper and 2 pre-feeding screws**

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

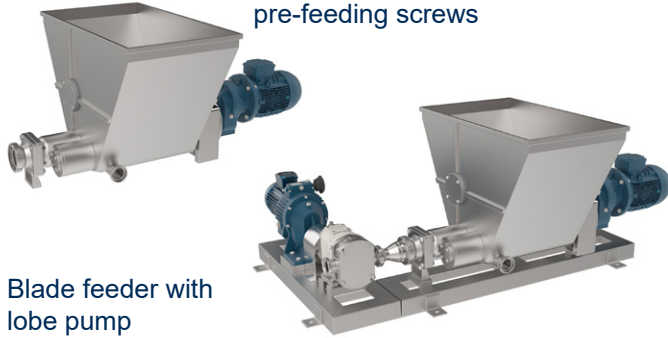
Version with hopper and double synchronised pre-feeding screws, mounted below a vane crusher (vers. for MC2CR). The vane crusher blades chop the product and push it towards the bottom of the hopper. The two pre-feeding screws then push the product into to the pump stator.

MC2C series

MC2CR series



Blade feeder with 2 pre-feeding screws



Blade feeder with lobe pump

**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 lobe pump.

**MAV series - Vertical execution**

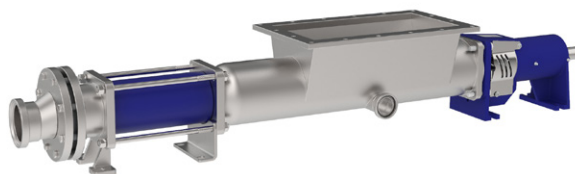
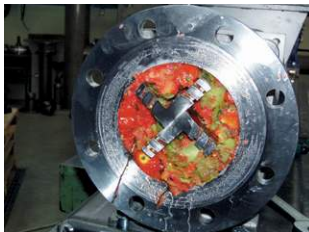
MAV Series pumps are intended for product transfer and drum or container emptying applications, in which the suction port is plunged directly into the product. As standard, MAV pumps have a suction to discharge port dimension of 1100 - 1400 mm according to the pump size. It can be mounted on a vertical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

MAV series



**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.



**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.

## TECHNICAL DATA

Flow rates up to 200 m<sup>3</sup>/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.

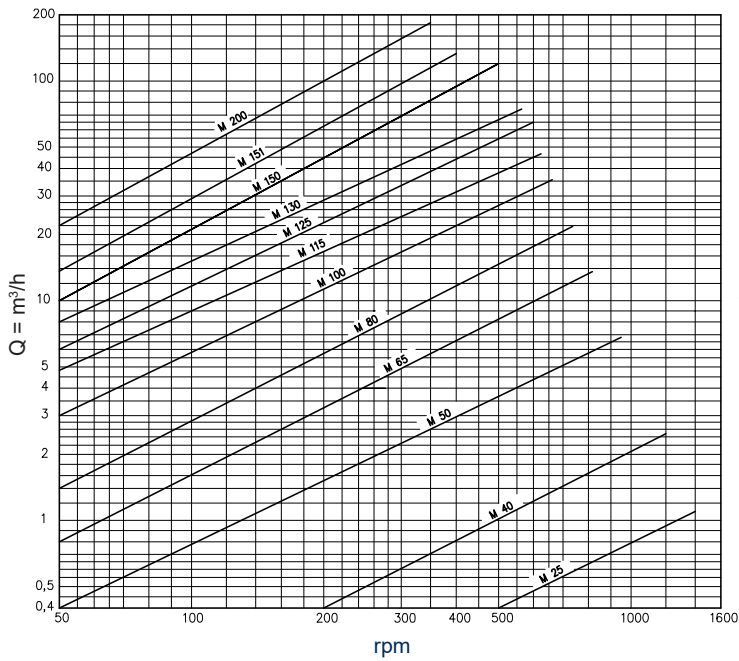
### Stator materials

- 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)

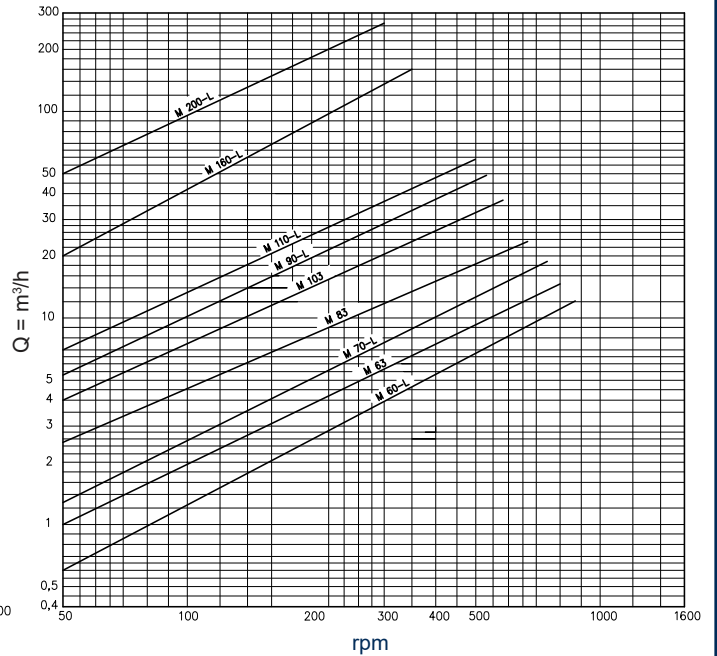
## DIAGRAMS

The diagrams shows the theoretical flow rates at 0 pressure.

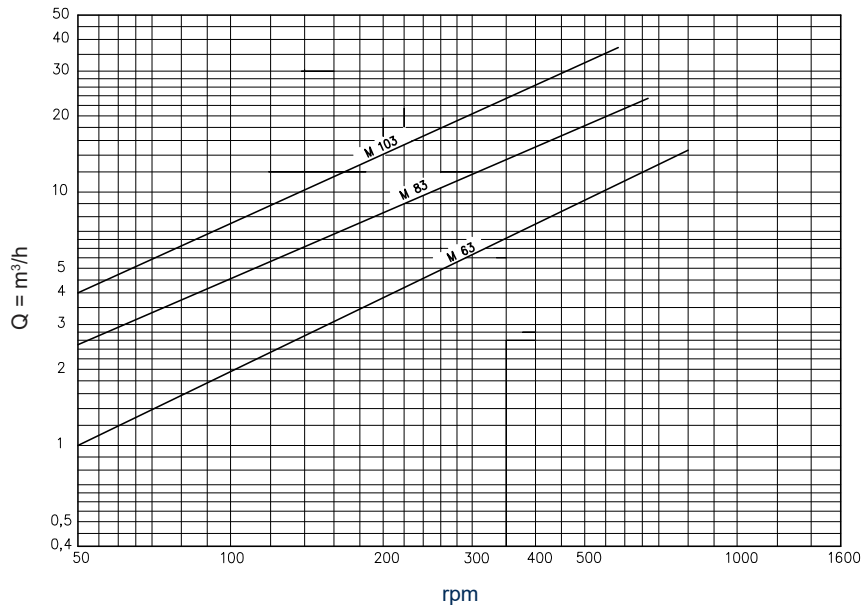
### 1/2 lobe series



### Long pitch series



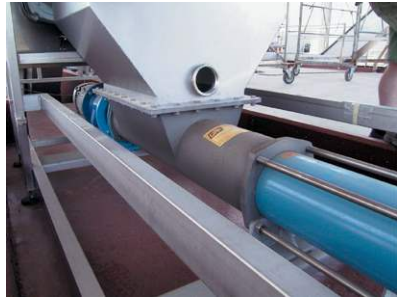
### 2/3 lobe series



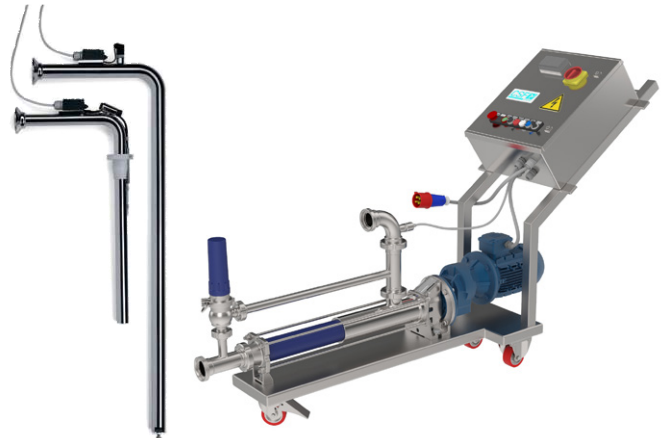
PRESSING - TRANSFER OF PRESSED GRAPES, MASH, MUSTS AND WINE



MC - MCR series



FILLING AND EMPTYING OF BARRELS



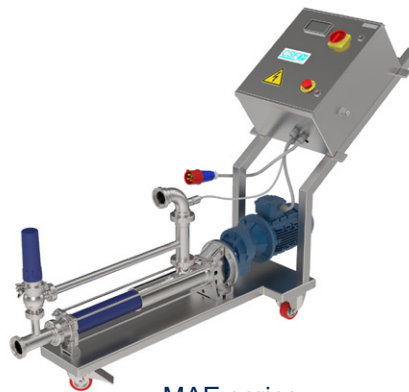
MAE series with electrical control panel for remote On/Off control from the stainless steel suction probes

RECIRCULATION - DECANTING



BOTTLING - FILTRATION - REFRIGERATION

MAE series



MAE series with electrical control panel enclosure



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