Membrane Pumps
Solids Handling Pumps
High Pressure Pumps
Marine Pumps

ABEL HM

Hydraulic Membrane Pumps
Low Energy Consumtion

Superior efficiency and high availability

ABEL®
Pump Technology

ABEL HM Hydraulic Membrane Pumps
Capacity range up to 116 m³/h, up to 10.0 MPa

Application-oriented design

Membrane pump in top form.

ABEL HM in action for

- Filter press feed
- Sludge transfer
- Spray dryer feeding
- Furnace feeding
- Metering

In many sectors:

- Water and wastewater industries
- Ceramic industry
- Mining industry
- Cement industry
- Chemical and petrochemical Industry
- Automobile industry

Membrane housing materials:

- Nodular cast iron
- Nodular cast iron/rubber lined
- Stainless steel
- Polypropylene (PPH)
- other materials on request

ABEL Hydraulic Membrane Pump are equipped with a newly designed, preformed membrane and pressure-balanced membrane positioning. During the suction as well as the pressure stroke the membranes are not loaded with pressure peaks; this ensures membrane positioning with optimal membrane end positions.

Single or double acting

ABEL HM is available in simplex single or double-acting design. In addition to the attributes of piston membrane pumps such as self-priming and dry running resistance, the pumps are characterized by high efficiency, quiet running and availability.

Design advantages side by side

The hydraulic side is equipped with tested safety valves to safe-guard the maximum permissible pressure. The product side is equipped with a preformed membrane adapted to the operating conditions. The drive side consisting of the reduction and eccentric gear ensures an optimum power transmission even at lower speed – and all that without external oil lubrication.

A considerable reduction of the energy costs is achieved by using frequency converters in filter press operation. No heating and thus no energy losses occur on the hydraulic side of the pump.

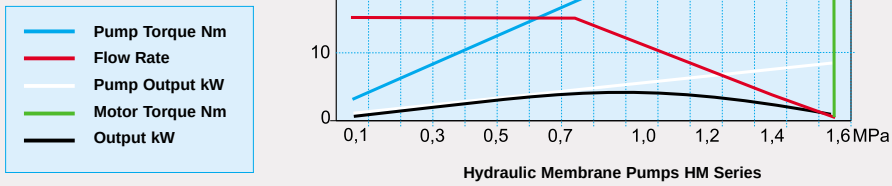
ABEL HM are controllable in compliance with the present technical status.

Energy Reduction by Control:

Exemple Filter Press

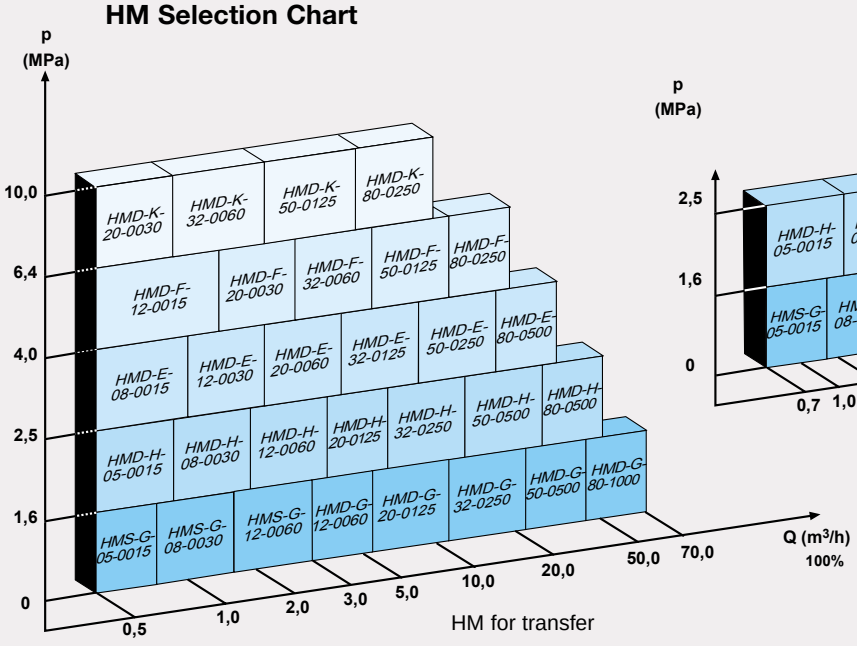
Control:

- Filtration cycle 1,5 h
- Energy consumption:
  - conventional 7,08 kWh
  - HM-Pump 4,46 kWh
- **Energy saving: 2,62 kWh or approx. 37%**

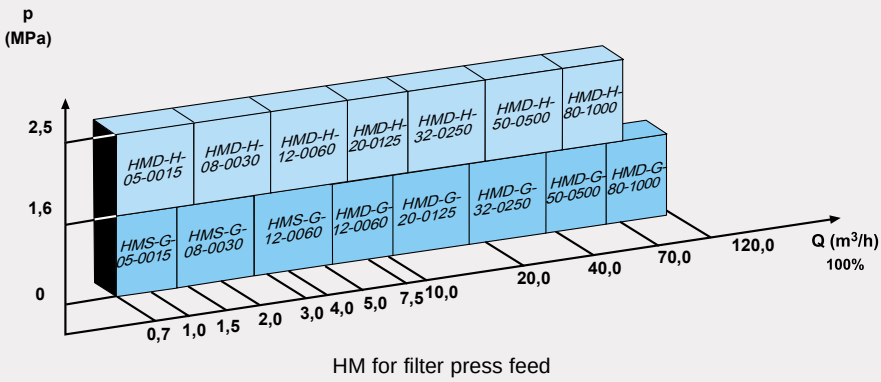


Hydraulic Membrane Pumps HM Series

HM Selection Chart



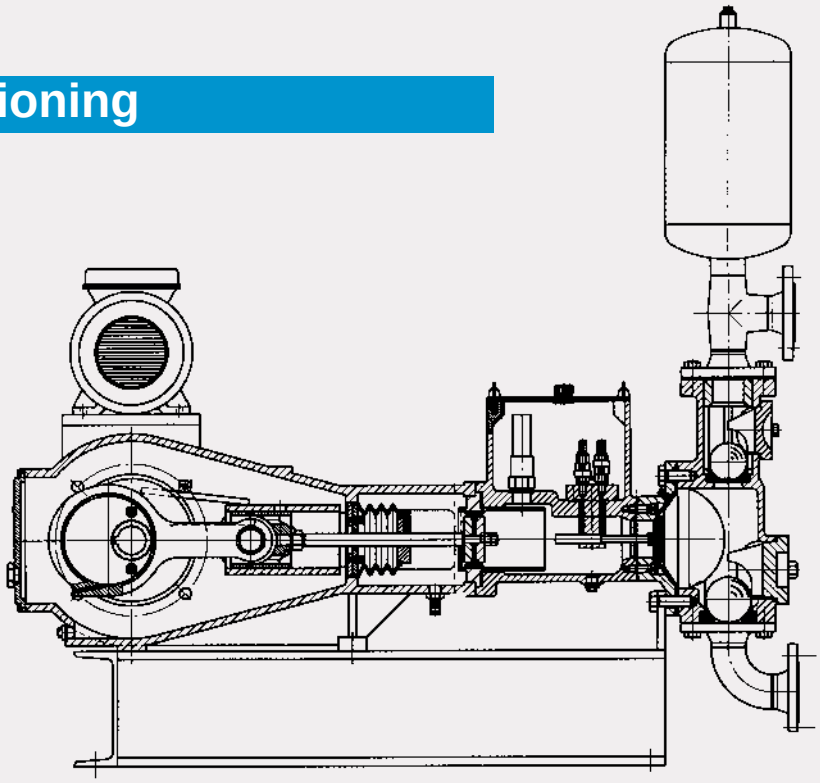
HM for transfer



HM for filter press feed

Membrane positioning

Robust under load.

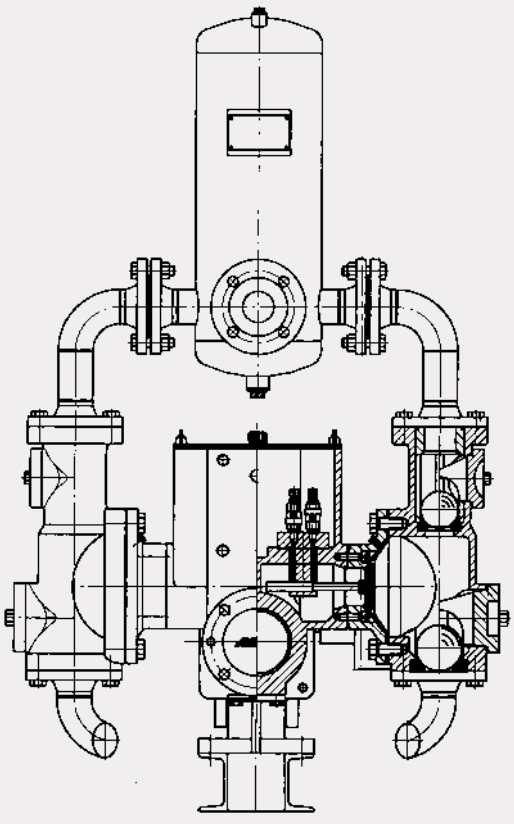


Single-acting design

Through V-belt, external transmission gear and eccentric gear the motor speed is converted into a reciprocating piston movement. The stroke volume displaced by the piston deflects the membranes.

During suction and pressure stroke the membrane positioning system monitors the controlled movement of the membranes.

ABEL HM pumps are available in single or double-acting design depending on the pump capacity.



Double-acting design


HMD-G-20-0125-ED


HMS-G-08-0030-PP


HMD-G-12-0060-PP

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