

Membrane Pumps
Solids Handling Pumps
High Pressure Pumps
Marine Pumps

ABEL HM

Hydraulic Membrane Pumps
Low Energy Consumption



Highly Efficient, Reliable, and Dependable

ABEL[®]
Pump Technology

ABEL HM Hydraulic Membrane Pumps

Capacity range up to 116 m³/h, up to 10.0 MPa

Versatil modular construction

Optimum membrane performance

ABEL HM in action for

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

Markets:

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

Wet-end construction:

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

ABEL Hydraulic Membrane Pumps are equipped with a newly designed, preformed membranes and pressure-balanced membrane positioning. During the suction as well as the pressure stroke the membranes are not loaded with pressure peaks; The design ensures positive membrane positioning.

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 extended service life.

Design advantages side by side

The hydraulic side is equipped with tested safety valves to safeguard the maximum allowable 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 optimum power transmission even at low speed – without external oil lubrication.

A significant 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.

The ABEL HM is compatible with corrupt state of the art controls.

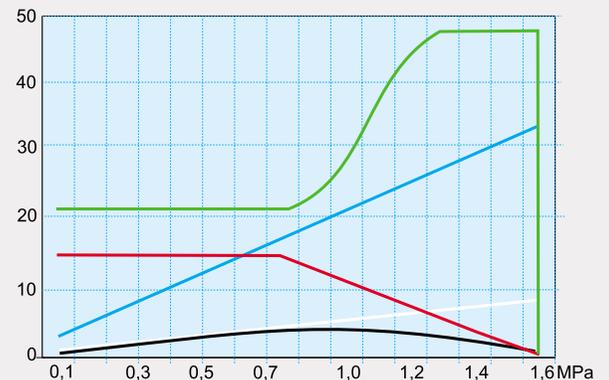
Energy Reduction by Control:

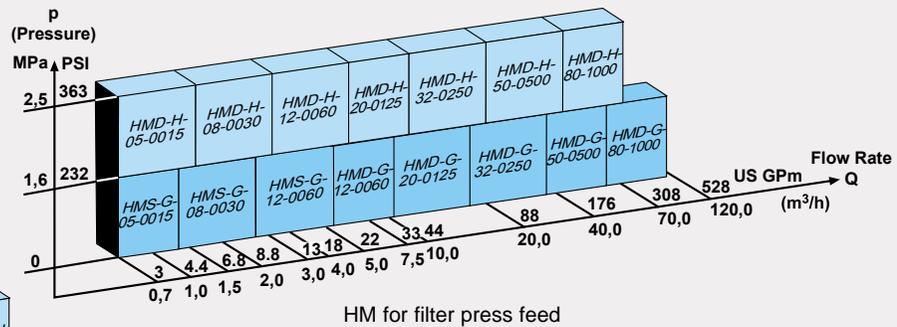
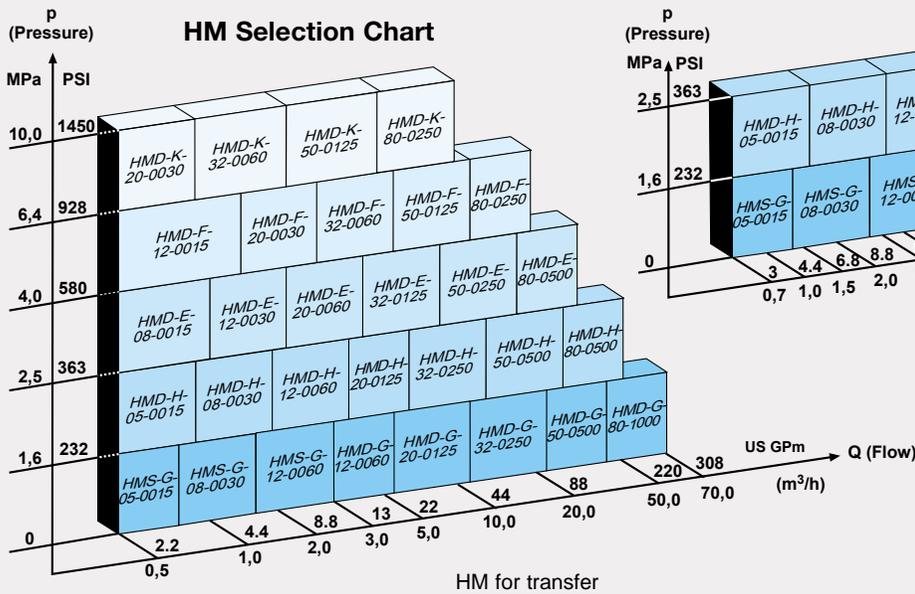
Exemple Filter Press

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%**

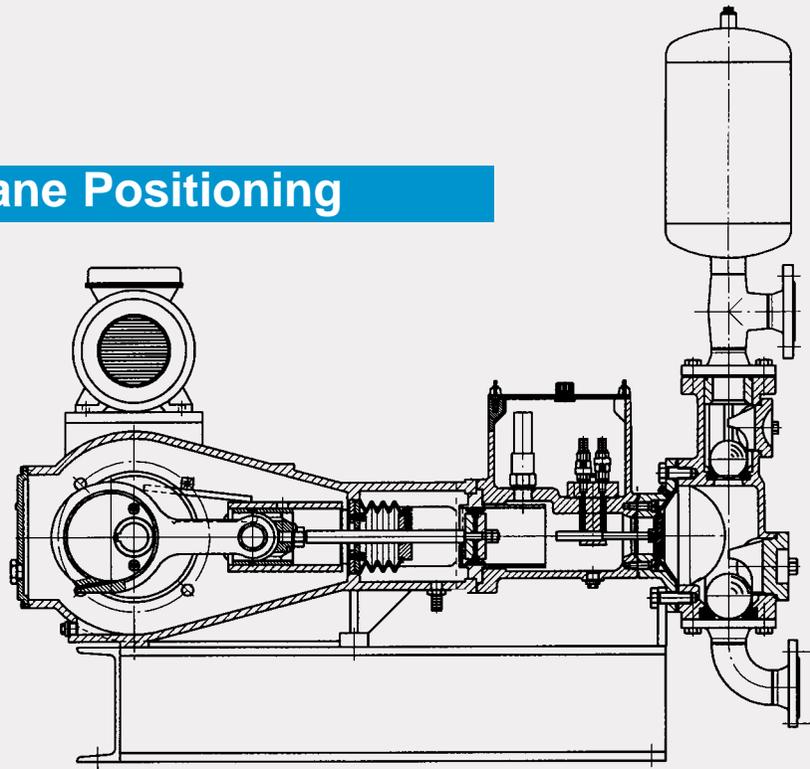
Pump Torque Nm
Flow Rate
Pump Output kW
Motor Torque Nm
Output kW





Positive Membrane Positioning

Durable under pressure

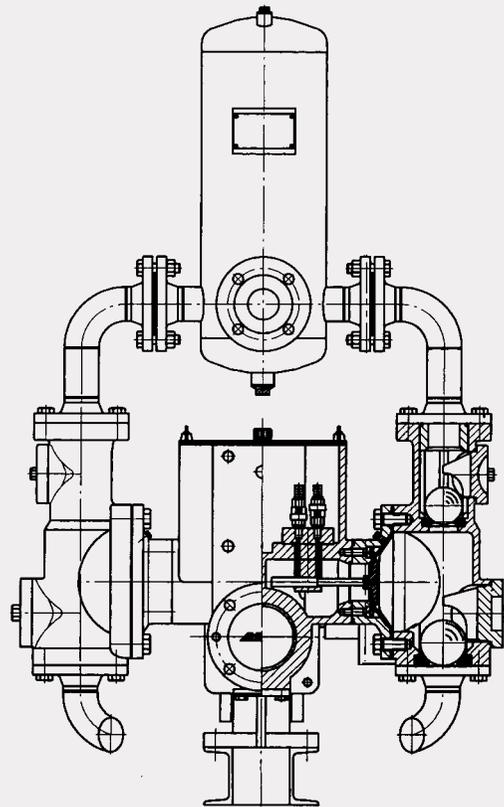


Single-acting design

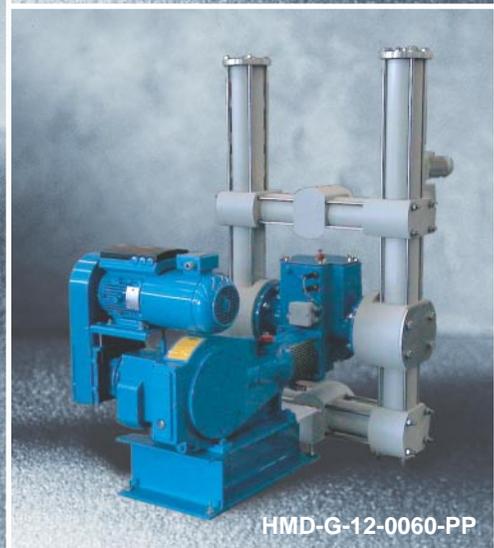
Through V-belt, external transmission gear and eccentric gear the motor speed is converted into a reciprocating piston movement. The stroke volume displaced by the piston deflects the membranes.

During the 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 upon pump capacity.



Double-acting design



ABEL HM
 Hydraulic Membrane Pumps
 Low Energy Consumption



ABEL Pumps, L.P.
 79 N. Industrial Park
 511 N. Drive
 Sewickley, Pennsylvania
 15143-2339 USA
 Tel: 412 741 3222
 Fax: 412 741 2599
 mail@abelpumps.com
 www.abelpumps.com

Accessories include:



Assistance:

For more specific information than this general brochure can provide, please contact us with specific information about your special needs. We will be glad to supply you with digital or printed information as required.

The qualified staff of ABEL Pumps, L.P. is ready to assist you with your critical needs in product and service. Please contact us with your specific requirements.

Services include:

- ▲ Start-up
- ▲ Training
- ▲ Installation
- ▲ Repair
- ▲ Warranty Contracts
- ▲ Upgrades
- ▲ Telephone Diagnostics
- ▲ On Site Repairs
- ▲ Part Kits
- ▲ Qualified Representatives for Local Assistance

Certifications:

- ▲ ISO 9001
- ▲ MIL-I-45208A Inspection Compliant

Helpful Information:

Company:	e-mail:
Address:	Tel./Fax:
	Contact:
Application:	Why needed?
	Temperature:
Fluid:	Sp. Gr.:
Flow Rate:	Pressure:
Solids? % & size:	Viscosity:
Operating Cycle:	Special Materials:

Combined Slurry:

% Solids 1) By Weight 2) By volume

Abrasivity (Miller Number) PH Value

Viscosity Describe consistency

Remarks:

Thank you for the opportunity to be of service! – ABEL Pumps, L.P.