

Hydraulic Membrane Pump for heavy duty applications in the mining, metallurgical and power industry.

Triplex single acting

The Abel HMT pump is a heavy duty triplex single acting Hydraulic Membrane (HMT) pump. The HMT family actually includes a single piston double acting piston membrane pump (HMD) and a Quadruple acting (double piston, double acting) piston membrane pump (HMQ). The HMT family of pumps can be used for capacities up to 1760 GMP (400 m³/h) and pressures up to 3626 PSI (25 MPa) (For higher capacities contact ABEL).

The entire HMT pump range is equipped with heavy duty preformed membranes which separate the abrasive slurry from the hydraulic side of the pump where most of the common wear parts (pistons, cylinder liner etc) are located.

The slurry side of the pump consists of heavy duty cone type slurry valves with a long life time of up to 6000 to 8000 hrs (depending on the operating conditions). As a standard, the pump is further equipped with pulsation dampeners which enforces minimal NPSHa conditions and minimize the pulsations in the discharge piping.

Abel HMT pumps are being used for many severe duty applications in the mining, metallurgical and power industry.

For high temperature applications (such as autoclave or digester feeding), our pumps can be equipped with extensions to the membrane suction manifolds which can be cooled by means of a cooling jacket (so called drop legs). By means of this technology, slurries with temperature up to 480 °F (250 °C) (or even higher) can be handled.

For corrosive slurry handling, the wet slurry end of Abel pumps can be executed in a number of different alloy steels.



Abel HMT

Abel is constantly developing larger pumps for heavy duty applications and is investing heavily in new technologies.

The quality, engineering capabilities and the flexibility of our company ensure that Abel will be at the forefront of pumping technology and will develop and produce pumps which ensure complete customer satisfaction.



Abel HMD



Abel HMQ

Keep it simple!

Technical features

Abel always strives to keep technology, maintenance and operation as easy and simple as possible. This will benefit operation reliability. Keeping technology simple requires extensive and innovative designs which minimizes maintenance and operating costs and increase availability of the equipment.

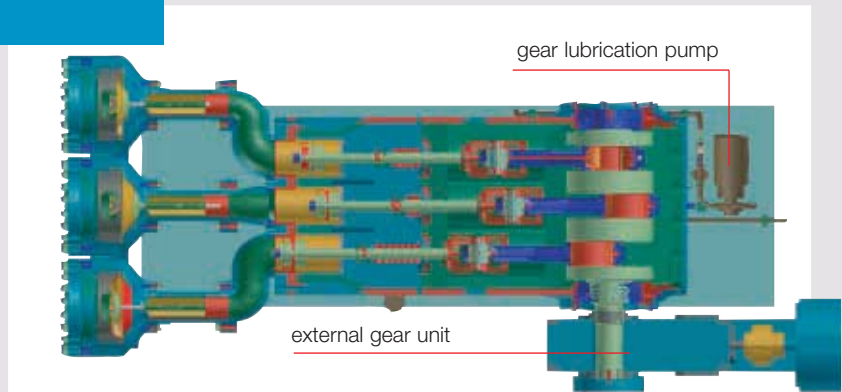
The Abel HMT family of pumps are equipped with relatively simple and easy to understand features. These features include a mechanical membrane stroke control system which will automatically remedy any shortage or excess of propelling liquid or, in case of emergency, shut down the pump. One of the other features is the externally mounted reduction gearbox which is easy to access.

Many more technical details, such as a reinforced piston and gear lubrication system ensure that Abel piston membrane pumps will ensure maximum longevity, availability and minimum operating costs.

Although the technology is simple and easy to understand, it provides the pump with excellent protection measures and easy operational procedures.

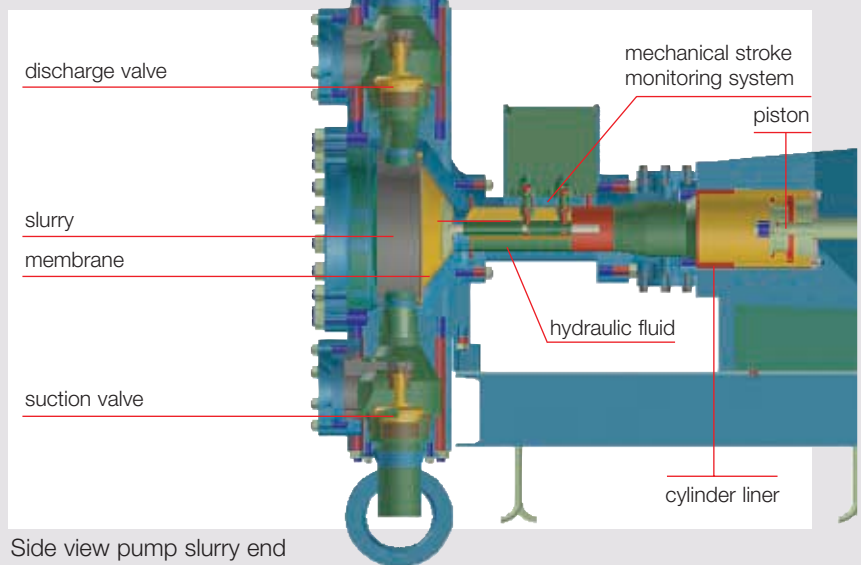


Safety valves

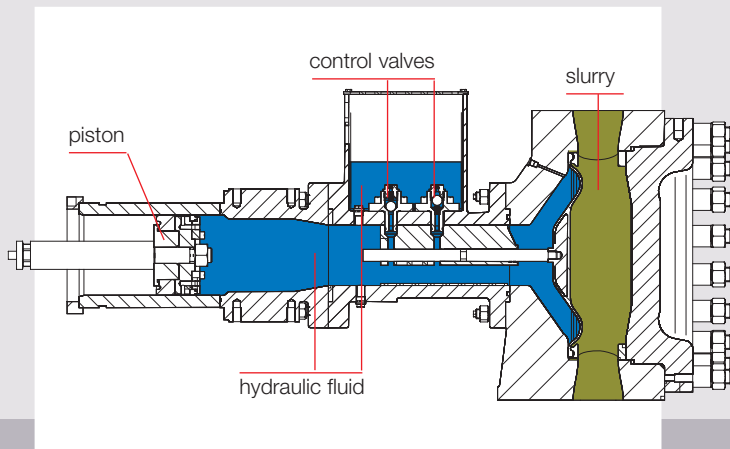


Top view of an HMT with external gearbox

Operating principle



Side view pump slurry end



Mechanical stroke control system