Membrane Pumps
Solids Handling Pumps
High Pressure Pumps
Marine Pumps

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References

ABEL®
Pump Technology

ABEL Reciprocating
Positive Displacement Pumps
Development + Design
+ Manufacture + Service

With the diversity of pump technologies, and the number of quality manufacturers from which to choose, it is a challenge to select the brand and technology that best match your critical needs.

Colorado Springs ABEL EM-80

Years of costly maintenance and downtime spurred Colorado Springs WWTP to replace their DAF circuit lobe pumps with a low maintenance / high efficiency alternative. Their choice was the ABEL EM-80 electric diaphragm pump. The EM produces 150 GPM at 30 PSI with 95% volumetric efficiency while limiting wear to less expensive and long-lasting elastomer components.

Colorado Springs WWTP

This EM-50 is one of several in a row at the Colorado Springs WWTP on primary sludge at 4 % solids. These pumps are rated for 90 GPM and 60 PSI.

The EM-50's replace rotary lobe pumps due to high maintenance costs.
One EM 50 replaces two lobe pumps. ABEL EM-50s cost less to maintenance and are energy efficient.

Flapper valves were originally included on the EM's due to particle size concerns with the primary sludge. However, they have recently been modified to ball checks. The ball checks last longer than flappers and require no grinder pumps for this circuit.

Colorado Springs WWTP

Due to the success of the earlier EM-50 installations, ABEL EM-100s will be installed to transfer primary sludge at the Colorado Springs WWTP. Each EM-100 will replace two EM-50s thereby consolidating their maintenance effort and freeing the EM-50s for other plant service applications including replacement of lobe pumps on clarifier underflow.

Weber County WWTP

Four EM-80s pump thickened sludge to clarifiers at 4 % solids at the Weber County WWTP. These pumps replaced plunger pumps that had worn out.

The EM 80's are unaffected by variations in % solids and have performed with minimal maintenance.

Powder Pumping

PAC 21 in Southern California has tested the EM-50 to pump powders such as silica, talc and diatomaceous earth. The EM proves superior to augers, screw conveyors, and AOD pumps for moving powders. The EM fills bags quicker and eliminates the need for costly higher ply bags required for vacuum systems. The EM is more controllable than other systems and requires no additional air. Less powder is needed to fill the bags to ensure that the minimum weight is packed. As an example, 50.3 pounds are sufficient for filling a 50 pound bag instead of 52 or more by other means. This results in big savings in material costs per bag.

Inland Empire Paper

A trouble free EM-80 replaced a rotary lobe pump at Inland Empire Paper that was maintenance intensive.
The EM-80 transfers materials from its DAF circuit at 175 GPM and 50 PSI.

TDK Ferrites

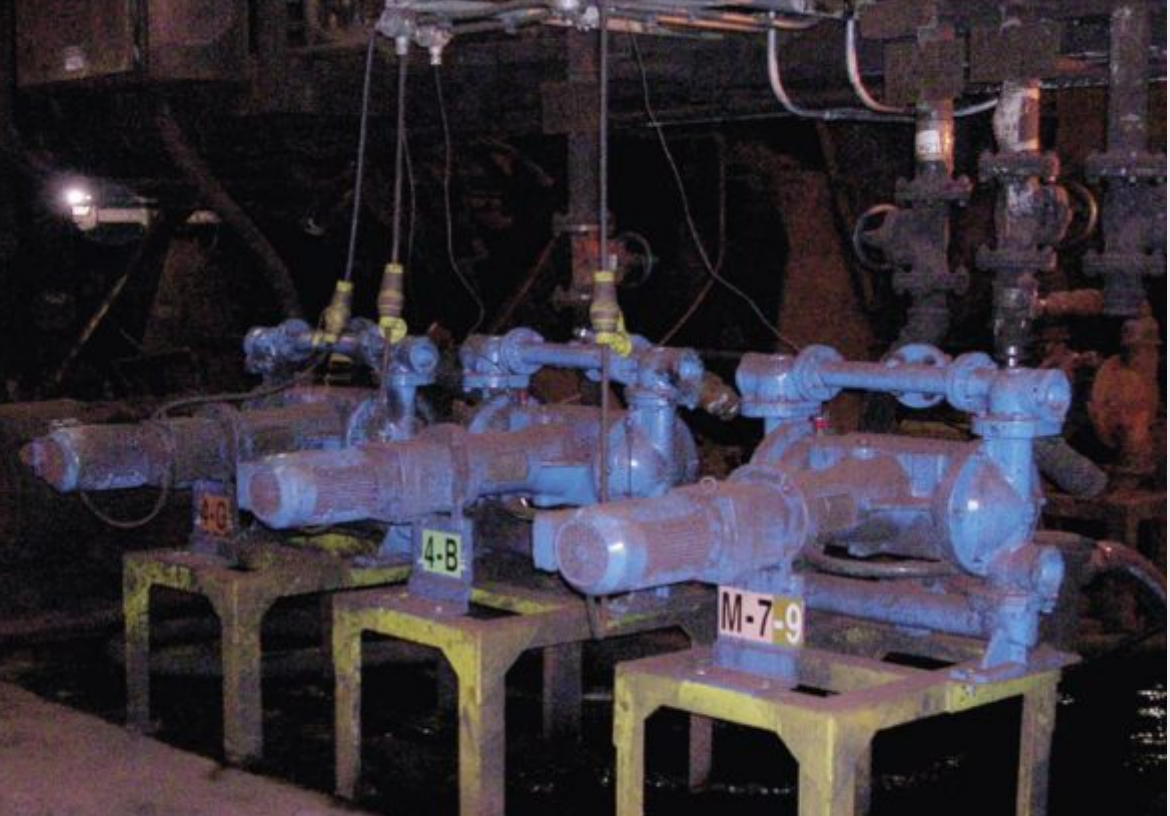
Ferrite slurry is transferred by several EM-40 pumps at TDK Ferrites. The pumps produce 40 GPM at up to 90 PSI with 1/3 the power requirement of the old AOD (Air Operated Diaphragm) pumps, freeing their air compressor for other services. Typical AOD energy efficiency is less than 30%...even less when considering line losses.

The EM offers more than 2.5 times the efficiency which translates into big energy savings.

TDK Ferrites

An EM-50 is used to feed a plate and frame filter press at TDK Ferrites with pressures up to 90 PSI and flow rates up to 90 GPM. The pump is controlled with a VFD. The EM's controlled pressure and flow delivery near cycle termination results in drier filter cake and faster cycle times.

The EM surpassed the performance of all other diaphragm pumps tested.



TDK Ferrites

AOD's are replaced by three EM-50s transferring ferrite slurry from a ball mill on a batch basis at TDK ferrites.

The energy efficient EM's eliminate the use of plant air and the need for line maintenance in this area.

City of Los Angeles Glendale WWTP

This EM-50 with plastic head draws a 6 foot suction lift from a sump at the Glendale WWTP.

A clean alternative to submersible pumps, the EM is easily accessible for maintenance, is self priming and can run dry.

Pueblo WTP

The Pueblo WTP replaced a centrifugal pump with this EM-40 to pump carbon slurry.

The low shear pumping motion of the EM minimizes the effects of abrasion and outlives most other centrifugal or lobe pumps.

The EM pumps are not as sensitive to viscosity or specific gravity fluctuations as are centrifugals.

Chandler Airport WWTP

Four EM-100s pump to belt presses at the Chandler, Arizona WWTP.

Two more EM 50's are slated for an expansion in 2006.
The EM's have a much smaller footprint verses progressive cavity pumps and operated with minimal maintenance.

Thank you for the opportunity to be of service!

ABEL Pumps, L.P.

The International Experts

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