HDF PUMP Case Study



Acetylene Production: Columbus, Ohio

Delille Oxygen: Columbus, Ohio

The process of producing acetylene gas involves the combination of calcium carbide and water. When combined inside a sealed vessel, the calcium carbide dissolves in the water resulting in the release of acetylene. The acetylene is drawn off to a gas bottling operation and the remaining lime slurry by-product is pumped away to a wastewater treatment process. With the consistency of a milkshake and containing undissolved calcium chloride solids of various sizes, this combination of viscous fluid and hard particulate of various sizes is extremely difficult for any pump to handle.

DeLille Oxygen has used the SANDPIPER HDF2 pump in their wastewater treatment process for over 15 years because SANDPIPER Heavy Duty Flap Valve Pumps allow for the passage of lime slurry with entrained solids. HDF2 pumps transfer the lime slurry to a water settling tank that requires a discharge head of over 30 feet. Under these extreme conditions, the neoprene diaphragms and flaps typically last for an entire year under continuous use. The fluid is too viscous for the use of a ball valve pump.

Requirements

- Reliably pump viscous fluid
- Pump fluid with entrained solids without affecting pump performance
- Pump over 30 feet of discharge head
- Easy maintenance with access to pilot air valve without removing pump from service





Solution

- SANDPIPER Aluminum HDF2
- Neoprene diaphragm and flaps
- Flap valves allow for easy passage of fluid containing entrained solids
- Typical service life is over one year
- SANDPIPER distributor provides excellent service and support





