POWER GENERATION

Quick STUDY

Hydra-Cell® Seal-less Pumps

www.Hydra-Cell.com

Location:	Ukraine
Application:	Burner fuel feed
Media:	• Coal tar oil • Benzene - crude • Benzene - polymers
Model No.:	M03XKSGHFEHA
Flow Rate:	1.6 gpm (6 l/min)
Pressure:	300 psi (20 bar)
Hydra-Cell Advantages:	• (Versus gear pumps) - diaphragms isolate drive end from liquid end of pump • (Versus AOD pumps) - high pressure, low-pulse flow • (Both) - wetted parts in choice of chemically resistant materials

Boiler Burner Feed

The customer is a utility waste company in the Ukraine. There has been a significant increase in the cost of energy supplied by the local government, so many manufacturers prefer to use an independent power source. The waste company has a power generation system in which various low-cost fuels are fed to burner nozzles to heat a boiler. They include polymers of benzene (35%), naphthalene coal-tar oil (20%), anthracite light coal-tar oil (19%) and crude benzene.

Previously gear pumps had been used for this task, but the aggressive and corrosive nature of the fuels being pumped caused rapid wear in the pump internals. So the customer was searching for a specific solution for this application. Air-operated diaphragm (AOD) pumps were already in use elsewhere in the process, so the company looked for another diaphragm pump - but one capable of an outlet pressure of around 20 bar.

The Hydra-Cell M03 was then proposed. The customer liked the Hydra-Cell's unique design, and requested a soak test with an FKM diaphragm to check for chemical compatibility in the process liquid. After a one month test the customer placed an order for the pump.

The company is now planning to order a Hydra-Cell D10 pump for use in a similar process.

Characteristics of Fluid Pumped:

○ Contains Abrasives ● Corrosive ○ Solids in Suspension ○ High-temp. (>158˚F/70˚C) ○ Non-lubricating ○ High-viscosity (>500 cPs)