CLEANING & WASHING

Quick STUDY

Hydra-Cell® Seal-less Pumps

www.Hydra-Cell.com

Location:	United States
Application:	High-pressure cleaning
Media:	• Hot water
Model No.:	H25XMSGHFEMB x 2
Flow Rate:	6 - 40 gpm (24 - 152 l/min)
Pressure:	1000 psi (69 bar)
Hydra-Cell Advantages:	• 100% turndown capability • Linear relationship between speed and flow • Immediate response to signal • Runs dry without damage

Cleaning Food Plant and Cutting Energy Cost by 84%

A new in-plant cleaning system designed by a fluid handling specialist for a major food processor, and incorporating Hydra-Cell H25 pumps, replaced a previous system that relied on pitot tube pumps. It enabled the food plant to reduce its energy consumption on cleaning operations by 84%.

Hot water is supplied from a central source to all cleaning stations, with spray outlets throughout the plant. Demand can range from 100% of capacity during cleaning and preparation work to 25% of capacity or less during food processing shifts. But high pressure must be constantly available at all nozzles - a difficult requirement for the pitot tube pumps. To maintain pressure at the required level they had to run constantly at full flow, even when no sprays were in action. Unused flow was bypassed back to the feed tank. This arrangement resulted in high maintenance and repair costs, frequent down-time - and a massive waste of energy.

Using Hydra-Cell pumps allows 100% turndown. The pumps can maintain line pressure at zero flow. An automatic control system keeps pressure constant, responding to fluctuations in flow requirement by increasing or reducing pump speed. Constant saving in kilowatt hours alone equates to annual cost savings of $22,320 USD. Another benefit is that the Hydra-Cell pumps can run dry without damage. If the water feed tank were to run dry (as occasionally happened) it would not harm the pumps.

Characteristics of Fluid Pumped:

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