

Application story



Polystyrol Transfer - Over 5.8km

Location	Germany	Hydra-Cell model	G35EDGJHFEHB
Type of application	Polystyrol Transfer - Over 5.8km	Flow rate	7.5 m ³ /hr (33 gpm)
Liquid	Polystyrol	Pressure	35 bar (500 psi)
Application details	The customer had been using a magnetic drive centrifugal pump with 55kW motor to transfer polystyrol into a process line from a remote storage tank over a distance of 5.8km. After careful consideration of several alternative units, the company replaced the original pump with a Hydra-Cell G35, which only needed a 13.2kW motor. Much lower power consumption was only one factor in its favour. Other units in contention included a 4-stage stainless steel centrifugal pump with double axial face seal, and a multi-stage canned motor pump. The G35 had a clear price advantage and the pumping efficiency of the Hydra-Cell was double that of its competitors. The final decisive factor was heat energy input. Polystyrol tends to flocculate if liquid temperature rises above 60°C. Because of their pumping action, none of the centrifugal pumps could perform without dragging heat energy into the liquid at more than twice the rate of the Hydra-Cell pump. The customer's choice was not difficult. Two years after it went into service, the Hydra-Cell pump was still working well. No spare parts had been required. Inspection at that time revealed no visible wear, though in practice BASF have planned for a precautionary replacement of valves and diaphragms at 4-yearly intervals.		
Advantages of Hydra-Cell pump on this application	Seal-less design. Low heat energy input to the liquid. Low investment cost. Low power requirement. Good adjustability and ability to vary flow rate at full pressure. Easy, low cost maintenance.		

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