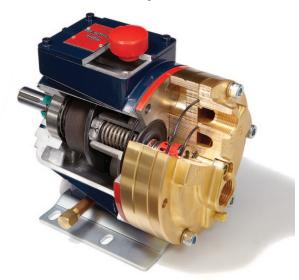
News from Wanner

Hydra-Cell Pumps Shear Sensitive Liquids



Pumping shear sensitive materials can be problematical. Shear helps non-Newtonian fluids flow but too much shear can cause temporary or even irrevocable damage. Hydra-Cell diaphragm pumps from Wanner International are claimed to impose only low levels of tangential stress on the pumped fluid making them ideal for pumping a wide range of shear sensitive materials such as polymers, paints, coatings, dyes, inks, latex solutions and technical suspensions.

As soon as the liquid leaves the vessel and enters the suction piping, it begins to shear as the liquid traveling through the middle of the pipe moves in relation to the pipe walls. Rotary pumps impart more shear between the rotating elements and the stationary casing. However, because Hydra-Cell pumps have no rotating elements in contact with the pumped liquid and no tight internal tolerances, they impose minimal tangential stress to cause shear.

"Having as many as five individual diaphragms in a single pump head, each with its own spring supported horizontal check valves also helps minimize tangential stress," said Nick Herrington, Wanner's Technical Support Manager. "The open area of each valve is large, relative to the volume of liquid being pumped by each diaphragm, so shear stress is minimised."

The fact that one of Europe's largest paint and coatings manufacturer uses Hydra-Cell pumps for a range of transfer and dosing duties would tend to substantiate these claims.

Further information from:

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