

PumpAction..... Issue 17

CASE STUDY

Viking pumps prove blue-chip for Bluescope

BlueScope Steel Pty Ltd is a major manufacturer of coated sheet steel products that are used for such items as washing machines, refrigerators, and clothes dryers. The internal coating of the sheet steel is a solvent-based paint from a leading Victorian-based paint company, and could be considered very abrasive in nature, and is applied via a series of spray-rollers on a continuous 24-hour, 365-day conveyor system.



The existing pumps were air-operated double diaphragm, of which there are currently 40-off units. They are required to feed the spray-rollers from the outside bulk storage tanks on a 24-hour daily basis. The pumps were in need of repair every month, e.g. replacing components such as diaphragms, check balls, and seals that wore out due to the abrasive nature of the solvent-based paint and this amounted to a significant cost over the year. This was in addition to the expense of delivering compressed air to run each of the 40 pumps during the year.

Kelair approached BlueScope Steel with the idea of considering both capital cost and running cost, and offered a Viking Abrasive Liquid Internal Gear Pump, designed specifically for abrasive paints and inks.

BlueScope Steel agreed to a six-months' trial of a Viking model K4625 Abrasive Liquid Pump, coupled to a 2.2kW, 140rpm geared Exd electric motor on a common base frame. The pump is built with cast iron rotor and idler, Tungsten Carbide idler pin, Tungsten Carbide idler bush, and a Silicon Carbide versus Silicon Carbide hard-face mechanical seal with Viton O'ring, and all components in contact with the liquid being of a hard-wearing nature.

The trial was successful which convinced BlueScope Steel to purchase a second unit. They discovered not only did the pump perform without maintenance problems or downtime, but delivered a smooth non-pulsing flow onto the spray-rollers and reduced the vibration stress on the pipework from the storage tanks.