

Application story



Latex for Paper Coating

Location	Sweden	Hydra-Cell model	G25XDSGNNEYB
Type of application	Latex for Paper Coating	Flow rate	Up to 75 l/min (20 gpm)
Liquid	Latex	Pressure	25 bar (652 psi)
Application details	<p>Latex is a difficult product to pump, which is one reason why mills producing waterproof paper have often relied on a system of compressed air and pressure vessels to deliver the latex to the coating nozzles.</p> <p>Using Hydra-Cell pumps in place of compressor and pressure vessels has made the process safer, more efficient and easier to control. Under the original system, latex was loaded from the mixer into one of a pair of pressure vessels by lobe pump.</p> <p>The vessel was then pressurised to 25 bar by means of compressed air, ready to feed the coating nozzles. While coating proceeded, the second pressure vessel could be loaded. This arrangement had serious disadvantages - not least, the potential danger presented by large vessels under high pressure. In practice, there were also problems with the compressor and pressure amplifier system and valves. Moreover the process was difficult to control (pressure at the nozzles fluctuated) and wasteful in terms of energy.</p> <p>The current system, using a Hydra-Cell G25 pump in place of each pressure vessel, with a third G25 on standby, is safer. Latex can be held in an ordinary vessel with no applied pressure. The compressor and pressure vessels are redundant. Pressure and flow can be stabilised at a desired level by means of frequency control of pump speed. System efficiency is increased and operating costs are lower.</p>		
Advantages of Hydra-Cell pump on this application	<p>Ability to handle abrasive liquid. Seal-less design excludes risk of air penetration through worn seals. Can operate well within its pressure capability. Accurate, repeatable metering. Ease of control. High pumping efficiency (saves energy). Ease of maintenance.</p>		

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