

Application story



Resinous Glue Spraying for Particle Board Manufacture

Location	Poland	Hydra-Cell model	G35XKSGHFECA
Type of application	Resinous Glue Spraying for Particle Board Manufacture	Flow rate	100 l/min (26 gpm)
Liquid	Resinous Glue	Pressure	80 bar (1160 psi)
Application details	The Gravejo (Poland) plant of particle board manufacturer Pfeleiderer was frequently replacing high-pressure gear pumps on its production lines – giving concern over potentially disruptive pumping problems in the early stages of board manufacture. Pfeleiderer solved the problem when the gear pumps were replaced by seal-less Hydra-Cell pumps. The pumps play an essential part in the main continuous production process - delivering resinous glue to nozzles where it is sprayed on to the wood fibres. The resin has to be pumped at 80 bar pressure to the spray nozzles, and the original pumps were chosen for their high pressure capability. But they soon ran into difficulties. There were problems with mechanical seals, which began to leak. Moreover the pumps were not easy to clean. Particles of hardened resin became trapped between closely meshing gears and damaged them. A pump and gearbox on one system had to be replaced three times within months. The Hydra-Cell G35 proposed as an alternative positive displacement pump offered something different: high pressure combined with seal-less design. Six months after the first G35 was installed, and no problems having been reported, Pfeleiderer bought a second G35 for the same application. Working at 80 bar, and driven economically by 18.5 kw motors, each of these pumps delivers resin to the spray bars at 100 l/min. Encouraged by their performance, Pfeleiderer subsequently installed G10 pumps on another system, pumping ammonia nitrate. A year later none of the Hydra-Cell pumps had needed repair or replacement.		
Advantages of Hydra-Cell pump on this application	Seal-less design. No closely meshing surfaces. Able to operate continuously at high pressure. Reliability. Low maintenance.		

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