



EDM Machining – Energy Saved on Filter Presses

Location	Hungary	Hydra-Cell model	G10XKSGHFECB x 10
Type of application	Filter Fress Pump – Recycling Electrolyte on EDM Machine	Flow rate	10-20 l/min (2-5 gpm)
Liquid	Recycled Water	Pressure	3-5 bar (40-70 psi)
Application details	An automotive component manufacturer in Hungary improved efficiency and saved energy when the air operated diaphragm pumps originally installed on filter presses were replaced with Hydra-Cell G10 pumps. The filter presses are used in the recycling of water-based electrolyte in a spark machining process. The liquid is thin, non-lubricating and carries 0.2% abrasive solids - up to 0.1 mm (0.003 inches) in size. The filter presses, previously used in Japan, had been shipped to the Hungarian plant with 1-inch aod pumps already fitted. In their new plant these pumps 'gave many problems', but in this case it was their high energy consumption that prompted engineers to find a more efficient alternative – acting under a strong Save Energy directive from Japanese management. Following a plant visit in 2008, the Hydra-Cell distributor was able to present the manager with an energy cost calculation in which energy costs of the aod pump was compared with that of the Hydra-Cell G10. The difference was very clear. There are now ten G10 Hydra-Cell pumps installed at the plant.		
Advantages of Hydra-Cell pump on this application	Energy savings. Ability to pump alkaline water-based (low viscosity non-lubricating) liquid carrying abrasive solid particles.		

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