



## **Biodiesel Production**

Location	Austria	Hydra-Cell model	G35EKSJHFEHB
Type of application	Biodiesel Production	Flow rate	Up to 10 m3/hr (2640 gph)
Liquid	Rape Seed Oil Potassium Hydroxide Methanol	Pressure	60-70 bar (870-1000 psi)
Application details	Higher outputs and lower costs are associated with high-pressure/low-flow continuous inline production of biodiesel, as compared with batch processing, which uses lower pressures and higher flows.  Using the inline process, an Austrian producer is pumping a mix of vegetable oils and additives to a special mixing system at pressures of 60-70 bar and temperatures of 50-60° C. The mix includes rapeseed oil, KOH and methanol, a combination which is non-lubricating, chemically aggressive and very difficult to pump. In tests, various pump types such as screw pumps, piston pumps and gear pumps, had lifetimes ranging from 2-8 weeks. Repair costs of over 10,000 Euros were incurred. Hydra-Cell pumps, with PTFE diaphragms, had a lifetime of 5500 hours (32 weeks), were easy to maintain and repair costs were judged acceptable.		
Advantages of Hydra-Cell pump on this application	Ability to pump non-lubricating, chemically	/ aggressive liquids relial	bly.

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