

Case Study



Converting Waste Lignin into Bio-Based Products

Cat Pumps (U.K.) were contacted by Nova Biochem who are developing sustainable alternatives to traditional petrochemicals using waste streams from pulping and agriculture. They are set to turn pulping industry waste, called lignin, into bio-based chemicals. Their aim is to reduce CO₂ emissions from burning lignin and reduce emissions from current manufacturing practices. With industry attention and interest, Nova Biochem are excited about the potential for their technology to bring about a cleaner, more sustainable future.



What is Pulping?

Pulping is a process of converting lignocellulosic materials into pulp. Pulp is an intermediate material applied in papermaking.

What is Lignin?

Lignin is the solid waste removed from mechanical pulping. It consists mainly of bark and wood residues from debarking, washing and screening of chips, primary sludge, ash from energy production and biological sludge.

Nova Biochem is developing sustainable alternatives to traditional petrochemicals using waste streams from pulping and agriculture. They use a water-based clean process to convert waste lignin into bio-based chemicals and building blocks. This saves 10 kg of CO₂ for every 1 kg of processed waste. Their process is based on hydrothermal chemistry and requires high-pressure water, which is what led them to contacting Cat Pumps (U.K.). Due to our ability to offer short lead times and our wealth of technical knowledge on our pumps and pump systems, we were awarded an order for a high-pressure pump package.

Cat Pumps are delighted to have our pumps play part in Nova Biochem's mission to reduce CO₂ emissions, helping to bring about a cleaner, more sustainable future.

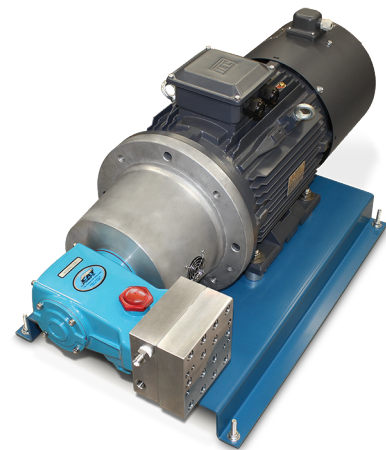
Our customer advised:

“We had fantastic support from Cat Pumps, they answered all our questions and we derived the best option given our time constraints. It was certainly a very good experience and we feel confident that if technical help is required we will get it.”

Case Study Application Specifications

Model No. E24519

Cat Pumps Pump Model:	781
Pump Pressure:	270 bar
Pump Flow:	15 lpm
Fluid:	Water
Temperature:	Ambient
Motor:	11 kW 1000 rpm 400/3/50 IP55 TEFC B35



For more information on Custom Units, call us on 01252 622031 or visit www.catpumps.co.uk/products/custom-units.asp

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