



WANNER
Hydra-Cell[®]
 Seal-less Pump Technology

Case Study

Pressing the grapes for a world-famous wine

Hydra-Cell pump users are to be found worldwide on all sides of industry and other sectors. Many companies first turned to the seal-less pump technology because they were facing a pumping problem. Among these are many 'famous names' along with those of less well-known organisations.

The purchase by a French wine company in 2013 of a high pressure Hydra-Cell Go4 pump certainly involves a famous name, but also has its own interest for those weighing costs against need.



No company in its field is more celebrated than the House of Veve Clicquot, arguably the most famous wine producer in France, whose Champagne has been blended and bottled for more than two centuries with a technique invented by Barbe-Nicole – the Widow Clicquot – who took over the family firm when her husband died in 1805.

Hydra-Cell users in some other industries, running their pumps 24/7 for months or years on end, could well endorse Veve Clicquot's choice of pump; but as outsiders perhaps unfamiliar with wine



Pump code: Go4XDBTNNECK

production might find the pump's annual work programme more surprising. The Go4 is required to run only 10 hours each year. However it is at a critical point – the time of grape pressing.

The pumping task is to deliver water at high pressure to a hydraulic grape press. (Oil is not accepted as a hydraulic fluid in wine production.) The company had previously been using piston pumps in its grape presses, but the consequences of seal leakage, and the high maintenance cost in seeking to avoid them, have been significant limitations.

Customer – Champagne Veuve Clicquot

Veuve Clicquot is one of the numerous Hydra-Cell customers who have appreciated the practical benefits of our seal-less pump technology and subsequently shared their experience with us.



A pump easily able to match required operating pressure and flow specification, but not reliant on seals, had obvious advantages. It was also observed that pump flow was smooth, with virtually no pulsation, and that the simple build of the unit made it easy to service.

So despite the brevity of the required duty cycle, the importance of avoiding seal leaks and the high cost of recurrent pump seal repairs justified the investment in leak-free Hydra-Cell pumping technology - culminating with the purchase by Veuve Clicquot of its first seal-less Go4 pump.

The pump is required to operate on this application at a pressure of 160 bar, delivering 540 l/hr of water to the grape press. Water is totally isolated from the drive end of the pump by flexible diaphragms, hydraulically balanced so that they operate free of stress at all pressure levels.

Duty-compatible materials were chosen for all wetted parts, including brass pump head, Buna-N-XS diaphragms and Nitronic 50 for valves and valve seats.

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