Pump could save US oil fields

With the current global economy the way it is and crude oil prices so low it would appear to be a brave and bold move to expand into the US crude oil pumping industry.

But Perth-based Airwell Pumps and its subsidiary Airwell Oil and Gas, led by managing director Alan Brown, are doing just that.

Airwell believes its newly developed high pressure oil and water pump could be the new technology needed to help keep the United States' "stripper" oil wells flowing. By definition a stripper well is a well that is now producing less than 10 barrels of oil per day.

While the stripper oil wells may only produce small volumes of crude oil, there are more than 460,000 stripper wells in the US today and in total produce more than 900,000 barrels of crude oil per day (average of 2.5bbl per well).

Many of these wells are marginally economic and at risk of being prematurely abandoned, leaving significant quantities of oil remaining behind.

A common misperception is that oil left behind remains readily available for production when oil prices rise again. The fact is to re-equip these wells to bring them back into production is enormously expensive.

Pumping methods from these stripper oil wells had not changed for many years, with the majority using the beam pump, better known as a "nodding donkey".

Because of the way these pumps operate they are not particularly suited to pumping at low volumes. The pumps require careful management (some require visiting the site one to three times per day) and regular maintenance to avoid costly breakdowns or even damage to the oil well through over pumping.

A large majority of these oil beam pumps have a stationary petrol motor driving the oil pump in the field.

The Airwell oil pump is a new approach from top to bottom:

- One centrally located compressor can operate up to 50 Airwell pumps, giving each pump a 24/7 power source
- The Airwell pump is capable of pumping from 0 to 100 bbl per day
- Minimal moving parts in the pump body
- Intermittent or low flow will not damage the pump
- The pump controller is located at the head of the well
- The whole system is capable of being remotely monitored
- Operate with less surface pollution and less visual impact

The Airwell oil pumps have been tested and trialled in Burkesville, Kentucky for the past six months.

Two pumps were installed on an oil lease in Burkesville on September 3 last year. Despite there being extremely little oil in the wells (1/3rd bbl per day) the Airwell equipment consistently pumped all the available oil from these wells.

Airwell Oil and Gas will be opening an office in Texas in April 2009 to commence marketing and promotion of the Airwell oil pumps.

Production of the first 50 oil pumps for the US market is underway and will be shipped to the US this month ready for the launch. ■

Messy: A beam pump, or "nodding donkey" is the traditional way of pumping from a stripper oil well.

Quality: Top view of an Airwell oil pump. The pump is made from 316-grade stainless steel.

Precision Italian pumping technology

When it comes to the design and manufacturing abilities of Italy, names such as Ferrari, Maserati and Alfa Romeo spring to mind but in the world of pumps there is another company which commands attention.

Caprari Pumps Australia (CPA) is a subsidiary of Caprari Italy and since 2004 it has been importing complete pumps and components for the Australian and New Zealand markets.

CPA works with customers to develop and tailor pumps for specific applications – using its expert engineering and vast experience to provide maximum operating efficiency, reliability and lifespan.

Applications include:

High head pumps for de-watering from underground (boreholes or holding tanks).

- Irrigation projects.
- Municipal water supply.
- Stormwater and sewage.

Information:
website – www.caprari.com.