

## How reliable is a Papa Pump?

Farmer Julian Tennant took over this farm 9 years ago and found that it had a working Papa Pump. Since then he has not had to spend a penny on maintenance and the pump was still working on its original set of valves and ' 0 ' rings. Julian explains...

We run a livestock farm near Bodmin (Cornwall, UK) which is not connected to a mains water supply; instead we use a private spring to provide water for the livestock and farmhouse all year round.

The farm already had a Papa Pump when we took it on, and this pump has lifted 6,000 litres of water daily for the last 9 years. The pump sits 10 metres below the source of the spring, and from there is able to lift water 50 metres to the highest point on the farm (from where it is gravity-fed everywhere else).

We are fortunate to have mains electricity at the pump site. However, when you use an electric pump it makes you appreciate just how much energy is required to lift water (energy which a hydro ram extracts for free). Our heavy duty ( 1.6 kw ) electric pump needs to run for a total of 8 hours per day to lift the same quantity of water as the Papa Pump over 24 hours; that 8 hours consumes 13 units of electricity, costing $£ 2 /$ day (@15p/kwh) $=€ 700 /$ year in running costs.

In terms of maintenance, the Papa Pump has actually run on the original set of valves and 0 -rings for 10 years (including time with the previous owner) and has needed no routine servicing. On our set-up, the only servicing requirement for the wider system has been to top-up the air in the pressure vessel three times a year. When the pump seals finally required replacing recently, we were so pleased with the pump and the money it has saved that we simply purchased a new Papa Pump.

If you consume significant water volumes and have access to a private water supply, consuming your own water is a 'no-brainer' (even at commercial rates, a mains water bill for our farm would be in the thousands). However annual pumping costs can still be significant if using electricity.
If you are fortunate enough to have a flowing water source, I would strongly recommend considering whether a Papa Pump could be used to provide lift as an alternative to using electric pumps. Initial costs are comparable lonce you add the cost of the power supply and an enclosure required by the electric pump), maintenance costs are very low in either case, but annual running costs with a Papa Pump could be significantly lower; in our case, zero annual running costs for the Papa Pump versus $£ 700$ /year if we were to lift with electricity.



A single Papa Pump has lifted 6,000 litres of water per day up 50 metres to a storage tank. It has operated continuously for 9 years without requiring maintenance.


Water supplied to a storage tank at the highest point of the farm is gravity fed to the farm house and water troughs for livestock.

## Papa Pump/Electric Pump Cost Comparison

A comparison of costs required to deliver 6,000 litres of water per day over a period of 9 years.
Electric Pump Initial Cost £1,000 + $£ 700$ per year energy costs
Papa Pump Initial Cost $£ 1, \mathbf{3 5 0}$ + zero running costs


Papa Pump Kit
2" Composite Pump
8 litre Pressure Vessel
$2 \times$ Seradisc Filters
Metal Ball Valve/Connections
5 year guarantee
£1,350 + VAT

