SELECTING A PUMP FOR YOUR BOREHOLE

When choosing a borehole pump the correct selection will be based on two crucial factors: Flow Rate and Pressure (or head).

Firstly, determine your volume requirement as cubic metre per hour (m³/h) or litre per minute (lpm), based on how much water you need each day divided by twenty four (OR by the number of hours per day you wish to run the pump). (1 lpm = 0.06 m³/h)

(An ‘average’ household might use in the region of 35 litre per person per day and gardens or agriculture might need in the region of 5 litre per square metre per day – though these figures can vary widely in individual circumstances.)

It is important not choose a pump that is more than 65% of the capacity of the borehole – established by test-pumping – otherwise the borehole might collapse or the motor can burn out if the borehole runs dry.

Next, look at the vertical head in metre (m) that you will pump: measured from the water level in the borehole to the point of discharge. If you borehole has been test-pumped you should know the water level when pumping at your chosen rate – otherwise you will have to estimate a draw-down level …. and allow a little more for friction through any great lengths of pipework.

NOW take a look at the various pump performance curves you’ll find on our website and find a match for your flow rate. As a guide:

- **Well Pumps 4”** stainless steel pumps will give flows between 0.5 and 15 m³/h
- **Felsom 4”** pumps will give flows between 0.6 and 21 m³/h
- **E-Tech 5” ‘Nauti’** submersible pumps will give flows between 0.5 and 15 m³/h
- **E-Tech 6”** stainless steel pumps will give flows between 6 and 75 m³/h
- **E-Tech 8”** stainless steel pumps will give flows between 50 and 120 m³/h

(A bold curve – or similar – indicates the permissible operation range of each individual pump type.)

Finding a chart where the desired flow is a good match for the Best Efficiency Flow (highest point of the η curve), chose an individual curve which will give (at least) the necessary head – A010 on the typical pump curve example shown below.

You now have a suitable pump for your needs and – other than for the ‘Nauti’ type – you will have to select a Franklin motor to suit (single-phase available up to 2.2kW). You will also find a variety of starter panels, riser, wellheads and other accessories elsewhere on the website: contact us if you need any further guidance –