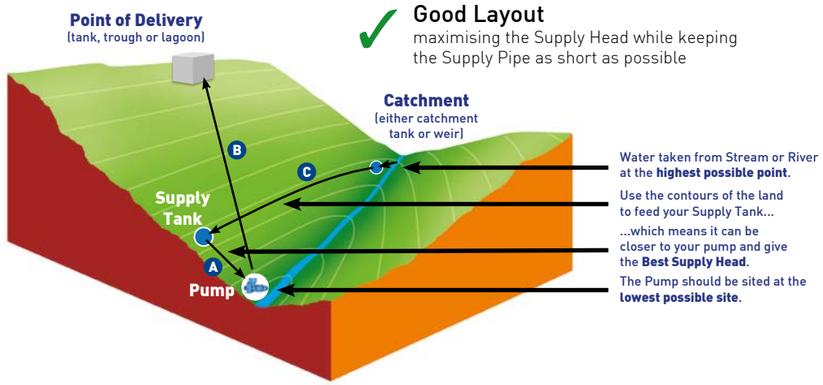
Planning your Water System Installation

System Layout | Measuring | Costing & Ordering Materials

the pump that uses no fuel!

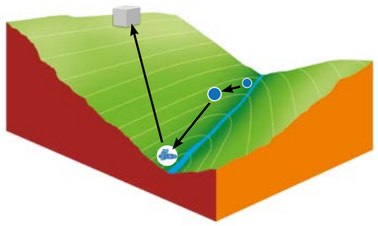
System Layout Principles

Your first task is to find the highest water catchment point and the lowest point you can place your pump to maximise the Supply Head.

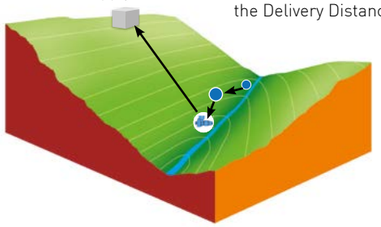


✓ **Good Layout**
maximising the Supply Head while keeping the Supply Pipe as short as possible

✗ A short (plastic) Feed Pipe and long (metal) Supply Pipe is an inefficient and expensive layout.



✗ Resist placing the pump closer to the delivery point if it means reducing the Supply Head. The Supply Head is much more critical than the Delivery Distance.



Planning your layout correctly is essential to an efficient system and ensures that you can maximise the potential water delivery. The main principles are:

Maximising the Supply Head is most important
(the difference in height from your supply tank to the pump)

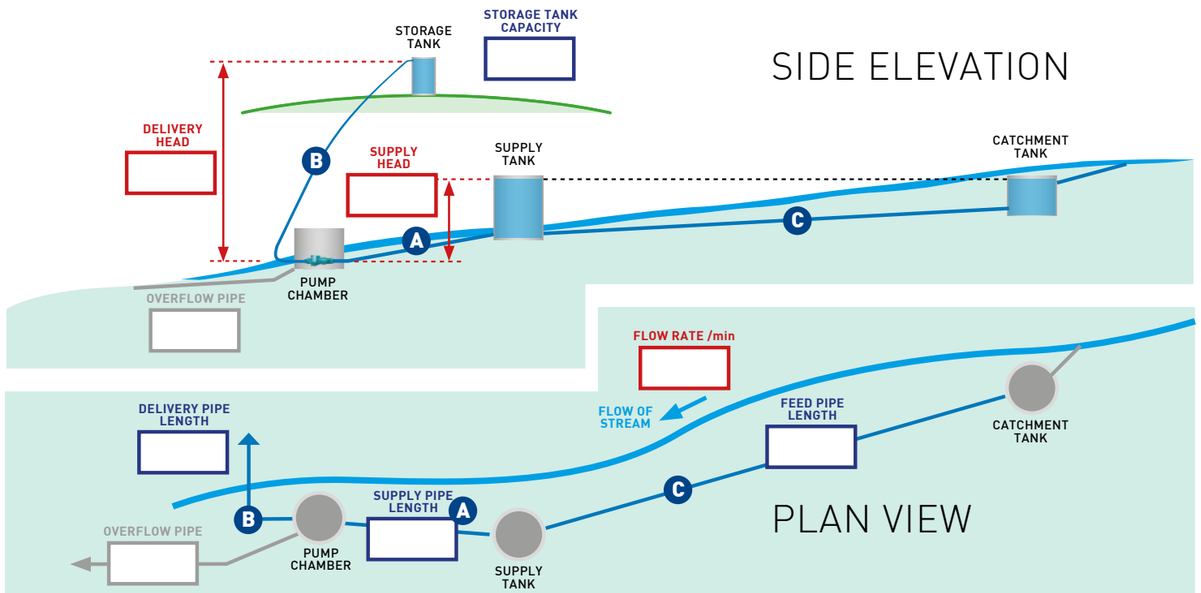
The greater the Supply Head, the more water you can pump

The greater the Supply Head, the higher you can pump it.

Measuring

Consult the INSTALLATION GUIDE for methods of measuring heights. Enter essential measurements in the boxes below.

To calculate your potential water delivery enter the amounts in the RED BOXES below and consult the PUMP PERFORMANCE CHART.



Recommended Materials

IT IS ESSENTIAL THAT STEEL PIPE IS USED FOR THE SUPPLY PIPE (From the supply tank to the pump)

- **A** **Supply Pipe** - 2 inch (internal diameter) Steel Pipe should be used for the Supply Pipe
- **B** **Delivery Pipe** - 32mm MDPE (Medium Density Polyethylene) Pipe
- **C** **Feed Pipe** - 110mm Soil Pipe should be used for systems with 1 or 2 Pumps
  150mm Soil Pipe should be used for systems with 3+ Pumps

Inlet Pipe (Stream to Catchment) and **Overflow Pipe** (from Pump Chamber) should be the same as the Feed Pipe.

Catchment Tank / Supply Tank - Min. 1m depth & 1m diameter. Cover tanks to protect from debris and wildlife.

Pump Chamber - We recommend 1.2m Concrete Ring (with lid) to give adequate room for installation/maintenance.

System Materials/Parts List

	No of metres	Cost per metre (£)	Total (£)
A (Supply Pipe) 2" Galvanised Steel Thread & Socket Pipe			
B (Delivery Pipe) 32mm MDPE Pipe			
C (Feed/Inlet/Overflow Pipe **for 1-2 pump systems**) 110mm Soil Pipe			
C (Feed/Inlet/Overflow Pipe for **3+ pump systems**) 150mm Soil Pipe			

	Quantity	Unit Cost (£)	Total (£)
Papa Pump Kit Pump/Pressure Vessel/2xFilters/Stop Valve/Delivery Assembly			
Storage Tank Capacity litres			
Concrete Ring with steps 1200 x 1000m with tongue and grove joints			
Concrete Cover Slab with 600 x 600 access			
Manhole Cover 600 x 600m			
Double Socket Coupler either 110mm or 150mm			
Double Socket & Single Socket 90º bend either 110mm or 150mm			
Plain Socket Plug either 110mm or 150mm			
Tee either 110mm or 150mm			
32mm Joiner			
32mm Elbow			
32mm Tee			
32mm Stop Tap			
32mm Inserts			
TOTAL (£)			

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