

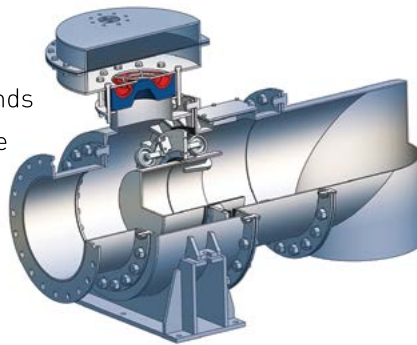


LARGE SCALE WATER PUMPING without the use of any Fuel or Electric Power

The Venturo does not use fuel, electricity, wind or solar. It just uses the natural kinetic power from a river or tidal flow and works 24hrs a day - 365 days a year with very little maintenance.

Venturo Applications:

- **Zero Energy Water Pumping** - Pump long distances to canals/reservoirs/storage ponds
- **Sustainable Flood Management** - Alleviate flood water and store for drought periods.
- **Pump and Improve Water Quality** - the delivered water and the exhaust water returned to the watercourse are both naturally improved through aeration.
- **Mining Applications** - move large amounts of water around active mine sites. Pump waste water to central treatment areas. Ideal for remote off-grid sites.



Venturo Advantages:

- **Significant cost savings and quick ROI** - Fuel and electricity savings, low cost installation and reduced maintenance leads to a quick payback, typically of 1-2yrs.
- **An environmental solution** - The working pump emits **ZERO CO² EMISSIONS**, improves the water quality and reduces pollution.
- **Low impact installation** - reduced installation and infrastructure compared with traditional pumps save money. The Venturo can be concealed underground and needs no unsightly and hazardous power cables, reducing the impact on environmentally sensitive areas.
- **Remote operation** - The Venturo is designed with telemetry packages to allow remote control as operating conditions change.
- **Near zero operating costs**
- **Debris** - The Venturo benefits from simple and standard debris screening methods, but the design is inherently tolerant to periodic exposure to a high volume of particulates.
- **Lifetime Support** - WPT will support through the lifetime of the project to ensure maximum efficiency and potential.

The Venturo is patented globally.

The system with unique intellectual properties is scalable and units can be made both larger and smaller to suit particular projects.

Venturo FACTS & STATS

There are 2 sizes of Pumps Available:

500mm inlet diameter
pumps 5 million litres per day

1000mm inlet diameter
pumps 30 million litres per day

Operation and Pump Performance:

Maximum delivery distance
Up to 50km

Water inflow
1000 - 40,000 litres per minute

Water outflow
0.5 - 50% of inflow

The Venturo operates at an efficiency of around 85%.

A self regulating valve can be fitted which will enable the pump to automatically respond to water level changes, ensuring the system never runs out of water.

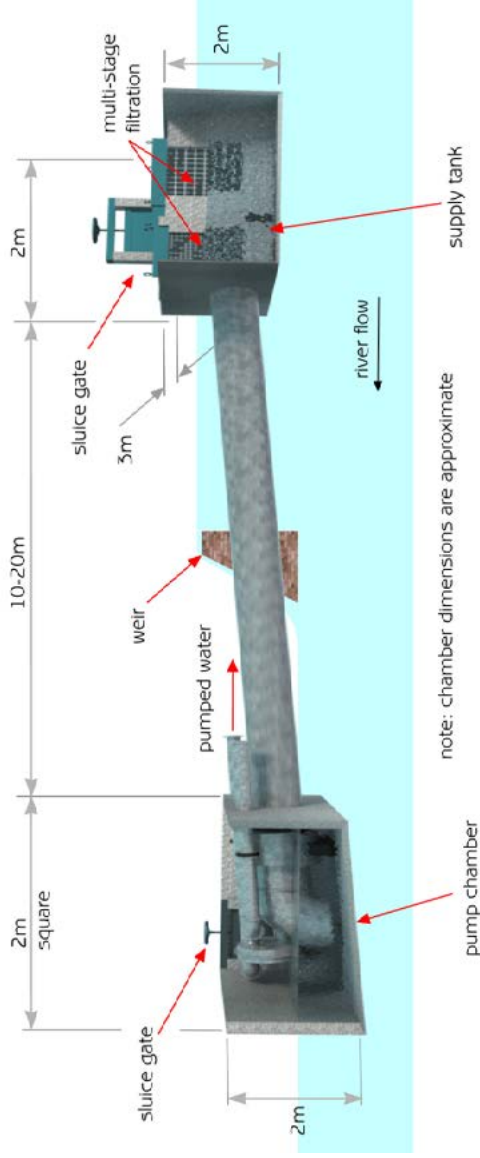
Expected system life: **50 years +**

Operating Example: A single 500mm Venturo Pump installed off a river with a **2 metre supply head** and **250 litres/sec supply flow** will lift and deliver **6 litres/sec** to a **height of 50 metres**. *This estimated figure of 60% combined efficiency allows for frictional losses.*

This equates to a **constant output of 3kW an hour** or **72kW per day**. If this power was drawn off in a 2 hour peak period, then this would be an **available supply of 38kW** which could be **converted to 28.5kW of electrical power** - allowing for a generating and transmission efficiency of 75%. A simple pond/storage lake of 30x30x2 metres would **hold 3 days worth of energy**. *(The higher the storage facility is above the lake, the greater the energy capacity.)*

See Schematic 1 overleaf →

Venturo Schematic 1 (off river installation)



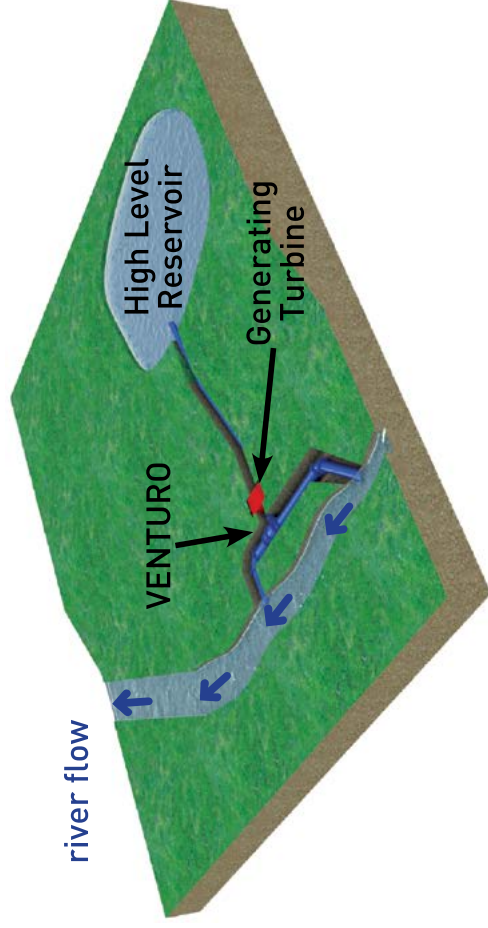
Venturo 500 Performance Chart

Delivery Flow per Minute
(based on 250 litres per second through the Venturo 500 Pump)

feet	metres	Figures shown are amounts of water delivered (litres per minute)									
100	31										
75	23	4500	3300	2400	1950	1500	1200	900	750	600	450
50	15	4500	3000	2100	1650	1200	900	750	600	450	300
40	12	3600	2850	2100	1650	1200	900	750	600	450	300
35	11										
30	9	4200	3150	2550	1800	1425	1200	900	750	600	450
25	8	3600	2850	2100	1575	1200	1050	825	600	450	300
20	6	3000	2700	1800	1300	1050	825	675	450	300	225
15	5	4500	3600	2550	2100	1350	1050	825	675	450	300
10	3	4500	3600	3000	2400	1950	1500	1200	900	750	600
9	3	4050	3300	2700	2100	1650	1200	900	750	600	450
8	2	3600	3000	2400	1800	1350	1050	825	600	450	300
7	2	3150	2550	2100	1500	1200	900	750	600	450	300
6	2	2700	2100	1650	1200	900	750	600	450	300	225
5	1	2100	1650	1200	900	750	600	450	300	225	150
4	1	1500	1125	825	675	450	300	225	150	150	150
3	1	900	750	600	450	300	225	150	150	150	150
2	0	600	375	300	225	150	75				
6	7.5	9	12	15	23	31	46	62	77	92	123
20	25	30	40	50	75	100	150	200	250	300	400

Delivery Head (Lift)

Venturo Schematic 1a (off river - pump and store)



Venturo 1000 Performance Chart

Delivery Flow per Minute
(based on 1000 litres per second through the Venturo 1000 Pump)

feet	metres	Figures shown are amounts of water delivered (litres per minute)									
100	31										
75	23	18000	13200	9600	7800	6000	4800	3600	2700	2100	1500
50	15	18000	12000	8400	6600	4200	3000	1800	1200	900	600
40	12	14400	11400	8400	6600	4200	3000	2400	1500	900	600
35	11										
30	9	16800	12600	10200	7800	6000	4800	3600	2700	2100	1500
25	8	14400	11400	8400	6600	4200	3000	2400	1500	900	600
20	6	18000	14400	10200	8400	5400	4200	3300	2700	1800	1200
15	5	18000	13200	9600	7800	6000	4800	3600	2700	2100	1500
10	3	18000	14400	12000	9600	7800	6000	4800	3600	2700	2100
9	3	16200	13200	10800	8400	6600	4200	3000	1800	1200	900
8	2	14400	12000	9600	7200	5400	4200	3000	2400	1500	900
7	2	12600	10200	8400	6000	4800	3000	2100	1200	900	600
6	2	10800	8400	6600	4800	3600	2400	1800	1200	900	600
5	1	8400	7200	5400	3600	3000	1800	1200	900	600	600
4	1	6000	4500	3300	2700	1800	1200	900	600	300	300
3	1	3600	3000	2400	1800	1200	600	300	300	300	300
2	0	2400	1500	1200	900	600	300	300	300	300	300
6	7.5	9	12	15	23	31	46	62	77	92	123
20	25	30	40	50	75	100	150	200	250	300	400

Delivery Head (Lift)

