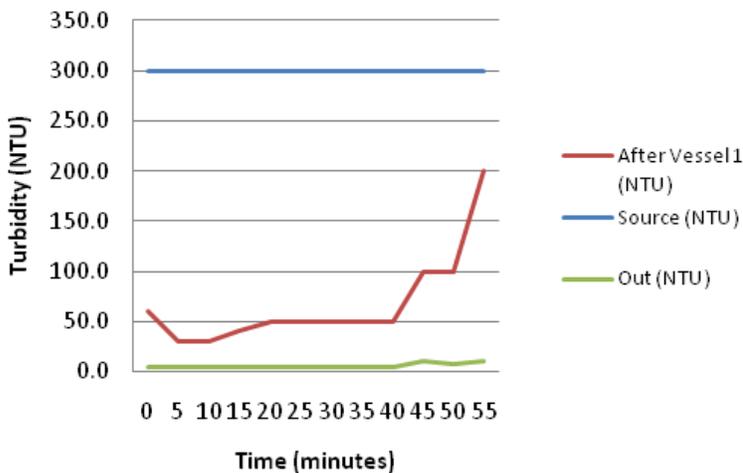





AquaLab

Performance Data

P4000 performance with 300 NTU source water



The **P4000** is a non-electric pressurized water treatment system that performs above and beyond other available mobile treatment systems in this sector. The system uses the principle of rapid direct sand filtration assisted by coagulation, flocculation and chlorination. The P4000M includes Ultrafiltration. The high performance of the P4000 was developed through rigorous testing in the UK and India.

Throughput: 4000L/hr

Water quality improvement: It has been proven to treat raw water with a turbidity level of **300 NTU** and produce **4000l/hr** of treated water, with a turbidity level of **<5 NTU**.

Treatment cycle run time: Before the treatment system will need cleaning through a backwash it has been proven to run for around 2 hours at 50 NTU and 50 minutes at 300 NTU.

Reliability: Extensive research and development of this kit has ensured that this system is extremely effective and reliable in its operation for use in disaster response.

Maintenance level: This is a low maintenance system, being non-electric there are few components that would malfunction. Daily cleaning routines will keep the system running effectively. For the P4000M the membrane will need to be chemically cleaned periodically, eventually replaced.

Rate and ease of deployment: Due to an individual skid set up only 4 people are needed to transport the system to the required location. The inclusion of attachable transport handles for each skid allows for ease of movement.

Capital and operational cost: The P4000 is \$8000, P4000M is \$10,000 (a third of the cost of other treatment systems on the market). Operational costs include fuel, around 1L/hr, chemicals: coagulant and chlorine.

Required consumables: Kit is provided with 25kg of coagulant and 5kg of chlorine. This is to last for 1 month; further consumables will need to be purchased. There is no prescribed requirement for imported chemicals and no need for polyelectrolytes.

System complexity: The system uses the principle of rapid direct sand filtration assisted by coagulation and flocculation. Chlorination is included and for the P4000M only Ultrafiltration.

Required operator skill: With a small amount of technical training, technical and non-technical people can effectively run this system.



The inclusion of the UF Membrane increases the efficiency of the system at removing turbidity, bacteria and viruses from the water. It also allows for a **multi-barrier** set up, adding extra control to ensure the highest quality water for emergency use.

Permeate quality is guaranteed to have a turbidity level of **<2 NTU** and a **99.9999%** removal of bacteria and viruses.

It also allows for an **alternative disinfection option.**

Membranes are certified by the Institute of virology, India.

Technical Specifications

P4000

Pump and coagulation stage

- Petrol driven Honda pump
- Suction-side doser: with 100l Alum tank
- Flocculation pipe: 3" 90m PVC Food Grade pipe

Filter vessels + Flange:

- Capacity: 4m³/hr
- Vessel size: diameter= 550mm, height= 800mm
- Multiport valve: 1.5" fitting
- Dual Media in 1st vessel: Anthracite 0.8 – 1.6 HC + 1.5 – 2.5 NC
- Dual Media in 2nd vessel: 0.4mm Fine sand + Gravel
- Special quick fit camlock fittings- no tools required

Chlorination: tablet doser

Water Monitoring Test Kit: Aqualab Base Kit

Total weight of kit: 600kg

Total transport size (mm): 900 x 1400 x 1400

P4000M

P4000 specs plus:

UF Membrane 6040 x 3

Type

- Hollow fiber capillary
- Flow = outside in
- Molecular Weight Cut Off: 70KD
- Membrane material: Modified Polysulphone

Connections

- 2" special fit camlock fittings-no tools required

Cleaning mechanism

- Rapid draw down once a day

Total weight of kit with membrane: 660 kg

Total transport size (mm): 1700 x 1500 x 1500

Contact us for further information and price guide:

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