



Newtreat Super System - Frequently Asked Questions

Q: Has the Newtreat Super System met the South Australian EPA discharge standards?

A: Yes, the Newtreat Super System was the first system to achieve these Standards which is all that is required for vessels operating on Rivers and Inland Waters in South Australia.

The South Australian EPA discharge Standards have been adopted in their entirety for the recently published Australian Standard. Newtreat is in the process of undertaking the Australian Standard.

Q: How big is the Newtreat system? And what is the weight?

A: Comparatively small. However, if size is a problem the Newtreat System has the added advantage of being able to be split!

When both chambers are joined together the overall length is 2145mm. The width is 280mm and the height is 690mm. If both chambers are full the water weight is around 200kg.

When the Newtreat System is split the “Reaction Chamber” is 960mm long, 280mm wide and 690mm high. The “Settling Chamber” is 1185mm long, 280mm wide and 690 mm high.

Q: What are the electrical requirements for the Newtreat Super System?

A: To simplify installation, the control system has been designed to plug into a single 240 volt outlet
Please note: The Newtreat System has only 1 x 240v pump. Other systems have up to 3 x 240 v pumps.

The Newtreat system requires a “clean” 240 v supply from a power point. During treatment the system draws a maximum 1 amp at 240 volts for a maximum of 5 minutes, an average of 0.55 amps when unit is processing or 0.2 amps when idle.

In order to counter some erroneous claims, here's a chart detailing exactly what the Newtreat System draws:

Actual Electrical Current Readings

Cycle Step	240 Volt Current (Amps)	Minutes
Pumping from Holding Tank	0.66	4.6
Iron Fe Plate	0.44	5
Aluminium Al Plate	0.49	10
Empty Settling Tank (while plates still active and including UV Light)	0.95	5
Transfer treatment to Settling Tank	0.23	5
System Idle	0.2	

Therefore the maximum current of 0.95 amps occurs for no more than 5 minutes in the cycle. Otherwise, it averages less than 0.55 amps.

Certified by : D Stammers BEng, MBA, Licensed Electrical Contractor 9/12/2011

If your vessel does not have a Pure Sine Wave supply we can supply, install and connect to your batteries a small inverter solution (alongside your existing system) at a cost to be negotiated.

Q: How long does the Newtreat System run?

A: You do not have to turn on generators to specifically run the Newtreat System. It operates like any other major appliance on your vessel. It runs automatically and silently.

When greywater is produced it is treated. When there's no greywater the unit "goes to sleep." Speaking of sleeping, the Newtreat System can be programmed to shut down at night. In fact it can be programmed to run at any time you desire – depending on the number of people on board and the amount of greywater you produce.

Q: Do I have to store and use chemicals on my vessel?

A: Not with the Newtreat System. We have designed the system with safety and convenience well and truly in mind. The Newtreat System is installed and certified by a licensed electrician to assist you meet insurance compliance.

Q: Q: How does the Newtreat System work?

A: Electroflocculation is a proven and long established treatment process.

Greywater is pumped from the holding tank (s) installed beneath the houseboat to the Newtreat **“Reaction Chamber.”** The chamber contains an Electrolytic Treatment Module (plate set consisting of a number of plates) which treats water by controlled electro-chemical reaction.

The key plates are iron and aluminium. The iron electrodes energise first - driving iron ions into the solution. These ions combine with chemical impurities precipitating them from the solution in a very insoluble form. Heavy metals, fats and greases, volatile organic compounds and other pollutants are removed. Then the aluminium electrodes energise - driving aluminium into the solution to clarify it. This has the same effect as adding alum.

The treated water is then pumped into the second **“Settling Chamber”** for settling.

After settling, the clear water is “polished” by a cartridge filter before passing through an ultra violet light which kills any remaining bacteria. Treated water is then dispersed back into the river.

After every five treatment processes a small amount of “inert sludge” emanating from the rigorous treatment process is now sent to the houseboats existing “Black Tank.”

Q: How much greywater will the Newtreat system treat in a day?

A: The Newtreat "Super System" will treat over 3000 litres of greywater a day. If you had 10 people on board creating 75 litres of grey water per person per day (*in fact the actual amount is probably closer to 50-60 litres per person per day*) the unit would operate for a maximum of 5 hours a day – as when needed. Again, there’s no need to run your generators specifically for the Newtreat System it operates just like any other major appliance – quietly and unobtrusively.

Q: What does Newtreat Supply in its package?

A: Newtreat supplies the stainless steel treatment chambers located on board the vessel. Newtreat also supplies the system controller (box), electrical wiring, loom and pumps.

Q: What does the Newtreat Super System package cost?

A: [Please call us to discuss your specific requirements and to obtain details of our regular promotional offers.](#)

As required by Law, all Newtreat prices are **GST inclusive.**

The recommended retail price of the **Newtreat System**, is \$AU 9,500 **GST inclusive.**

Q: Who installs the Newtreat System?

A: The houseboat needs to be slipped so associated plumbing and electrical work can be undertaken safely and according to established Standards.

For warranty, insurance and certification purposes, Newtreat requires the installation of the Newtreat system and associated electrical work be undertaken and signed off by authorised, licensed Newtreat Installers. Newtreat ensures its authorised installers have appropriate qualifications (an A Grade Electrical Licence) enabling provision of an *Electrical Certificate of Compliance*.

Electrical and plumbing work is an additional cost to the Newtreat system price.

All vessels are different and the installation costs will naturally be determined by the greywater “capture” and connection required i.e. some vessels have one or two bathrooms – others have up to six ensuites.

Q: Plumbing work not included in the basic Newtreat package cost

A: Typical plumbing work not included in the package cost comprises the following:

1. Supply and install of Storage Tank(s) underneath the houseboat
2. Supply and install of fixed 25mm pipes up to the vicinity of the treatment unit and pump.(e.g. black tank, greywater, and outlet to the river) Note: Flexible hose and basic fittings are supplied from the treatment unit to within 0.5m meter below deck.

Plumbing work is usually undertaken by slipway operators. Some houseboat owners elect to undertake the work themselves.

Q: Electrical Work Not included in the Basic Package Cost

A: The electrical installation cost of the unit is not included in the system package cost. Typically the electrical work comprises the following:

1. Install double pole power outlet in suitable location for control system to plug into
2. Install greywater pump with switched power outlet in suitable location above or below deck. Note: Below deck mounting may not be feasible depending upon water hazard and special mounting plates could be required. Other below deck locations could be in an engine room pod.
3. Install and supply pure sine wave inverter - **only if boat power supply is not suitable for control electronics**
4. Run control wiring between control unit and the treatment system - which could be from one end of the boat to the other.
5. Assist owner with general install requirements and maintenance guidelines
6. Connect/ commission unit and provide certification

Generally, the hourly rate for electrical and system installation is \$60 per hour. A simple install takes up to 2 days (travel and accommodation may need to be considered - depending upon location.)

Q: What are the key features of the Newtreat Super System?

A: The Newtreat Super System:

- Is sleek, aesthetically pleasing and relatively light (the empty onboard treatment chamber weighs around 80 kilograms)
- Has been designed with a minimum number of (easy to access) serviceable components
- Does not require any chemical additives
- Has been designed to enable easy “houseboat turnaround “ to minimise the time requirements placed on houseboat owners and managers
- Was awarded the 2009 Water Industry Alliance “**Innovation of the Year**” Award – sponsored by the Australian Water Industry
- Is totally electrically isolated and cannot, under any circumstances, contribute to corrosion

Please do not hesitate to contact Newtreat should you have any further questions.

Contacts:

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