Power used by the Electrode Cell	Nominally 1.30 amp @12 volts:
Power consumed (start-up):	20 amp-hours (15 hour initiating cycle)
Power consumed (in operation):	0.8 amp-hours per flush (approx 40 mins)
Nominal Capacities:	
Electrode Cell Tank:	Approx 7.5 litres
Kill Tank:	Approx 15 litres
Holding Tank:	Approx 30 or 50 or 60 litres
Tank Construction:	Polyethylene (approx 8 mm thick)
Oxidizing agent:	Hypochlorous Acid (0.3 - 0.6% Chlorine – not classified as 'Dangerous Goods')
Weight (approx) – full:	
Electrode Cell Tank:	10 kg
Integrated Kill and Holding Tank:	30l: 55 kgs/ 50l: 77 kgs/ 60l: 90 kgs
Dimensions (approx):	
Electrode Cell Tank (rectangular: H x W x D):	300mm H x 200 W x 200 D
Electrode Cell Tank incl fittings, pump, etc	500mm H x 300 W x 300 D
Kill Tank (cylindrical: 400mm dia x Length):	400mm x 255mm L
Holding Tank (cylindrical: 400mm dia x Length):	30l: 280 mm / 50l: 360 mm / 60l: 600mm.
Kill & Holding Tank combined (400mm dia):	30l: 520 mm / 50l: 600 mm / 60l: 820 mm.
Kill & Holding Tank incl feet, fittings, etc	580mm dia x 30l: 700 mm / 50l: 780 mm / 60l: 1000 mm
Person Capacity (maximum achievable volume):	At 3 litres per flush, a 60 litre tank will hold approximately 20 flushes, which is suitable for up to eight (8) persons overnight, with normal use.

More Information:

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AQUA-SAN II

MARINE SEWAGE TREATMENT SYSTEMS

AND

MARINE SANITATION COMPONENTS

The **AQUA-SAN II Marine Sewage Treatment System** (M.S.T.S.) produces a strong, safe oxidising and disinfecting agent from saltwater and uses that chemical to deodorise, disinfect and oxidise marine toilet wastes.

Clean seawater provides an excellent source of salt and, when the Electrode Cell Tank is full of seawater and the system turned on, a ceramic/titanium electrode reacts with the seawater to produce Hypochlorous Acid - a powerful chemical that is ideal for killing bacteria.

When an on-board toilet is activated, the macerated waste is pumped into the front chamber of the integrated sterilisation and holding tanks of the AQUA-SAN II M.S.T.S.

At the same time, a small amount of saltwater is pumped into a separate Electrode Cell Tank. The incoming saltwater displaces a similar amount of Hypochlorous Acid, which also flows into the front chamber (the 'Kill Tank') of the M.S.T.S. It mixes with the treated and untreated effluent, and oxidises the waste material.

The Kill Tank holds about 15 litres of waste when full. Once the Kill Tank is full, further use of the toilet results in an equal volume of treated waste being displaced from the Kill Tank via a 'snorkel' into the Holding Tank, where it continues to be disinfected and oxidised, but at a lesser rate.

When the Holding Tank is approximately 80% full, a light comes on and a buzzer sounds to warn the operator that the system is reaching capacity and needs to be discharged. The Holding Tank is normally available in three nominal sizes: 30 litre, 50 litre and 60 litre; other sizes and shapes are available to specific order.

In general, after several hours, the treated effluent in the Holding Tank should be chlorine-neutral and should have no negative effects on the environment when discharged.

However, we do recommend that the Kill Tank effluent is discharged into the environment only when the vessel is underway or when the vessel is positioned/anchored in an area of strong tidal flow.

The Hypochlorous Acid used in the AQUA-SAN II M.S.T.S., unlike commercial Hypochlorite Solution e.g. liquid pool chlorine, is relatively safe to handle and is not classified as being a 'dangerous good', an important point in some marine insurance policies. It readily reverts to its original safe components once used and is environmentally-friendly.

The AQUA-SAN II M.S.T.S. Electrode Cell operates at around 1.3 amps at 12 volts when in use, which means that the system can readily be powered by a suitable solar panel, except for when the toilet and discharge pumps are working. A 24 volt version is also available.

Many of the components of the **AQUA-SAN II Marine Sewage Treatment System** are also available for sale individually for installation in vessels already fitted with holding tanks.

We also manufacture and market the **SANI-TANK**, a simplified Grade C version of the AQUA-SAN targeted at the bare-boat charter market, and the **AQUA-MARE** Grade A Marine Sewage Treatment System for commercial charter vessels and larger recreational vessels.

Please contact Barry on 0411 598 306 for further information about these products.

All **AQUA-SAN II Marine Sewage Treatment Systems** are currently **Grade C** devices and are designed to comply with the existing Queensland Government legislation for the treatment of on-board toilet waste.

Please note that areas where discharge of any form of treated toilet waste is **NOT** allowed include all marinas, boat harbours and canals, and some designated smooth water areas. In addition, in Queensland, discharge is not permitted within 926 metres of reefs, aquaculture resources e.g. oyster leases, or people in the water.

All NWS systems are being constantly re-engineered to ensure that they continue to satisfy the clean-water proposals being considered by various State Water Authorities for cleaner Australian waterways and for the retention of waste on board until discharge is permitted.

Tests undertaken by Queensland Health (a NATA approved laboratory) have confirmed that the AQUA-SAN II M.S.T.S. kills 99.8% of bacteria and many viruses within 30 minutes of introducing toilet waste into a working system.

There is no better way to treat effluent and keep our waterways clean than with the AQUA-SAN II M.S.T.S. It provides complete control of the on-board sanitisation program and pump-out operation, allowing you to readily comply with legislative discharge requirements.