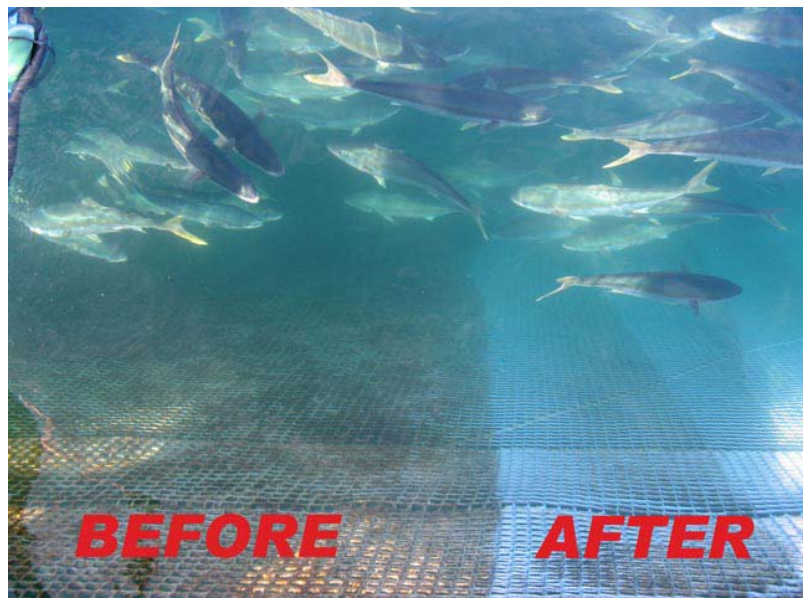


## Yanmar Robot Revolutionises Net Cleaning

The commissioning of the first Yanmar Submersible Net Cleaning Robot is set to alter forever the way professional fish farms manage their net cleaning and maintenance operations. Clean Seas Tuna of Port Lincoln is the first Australian company to put the new Yanmar product into service.

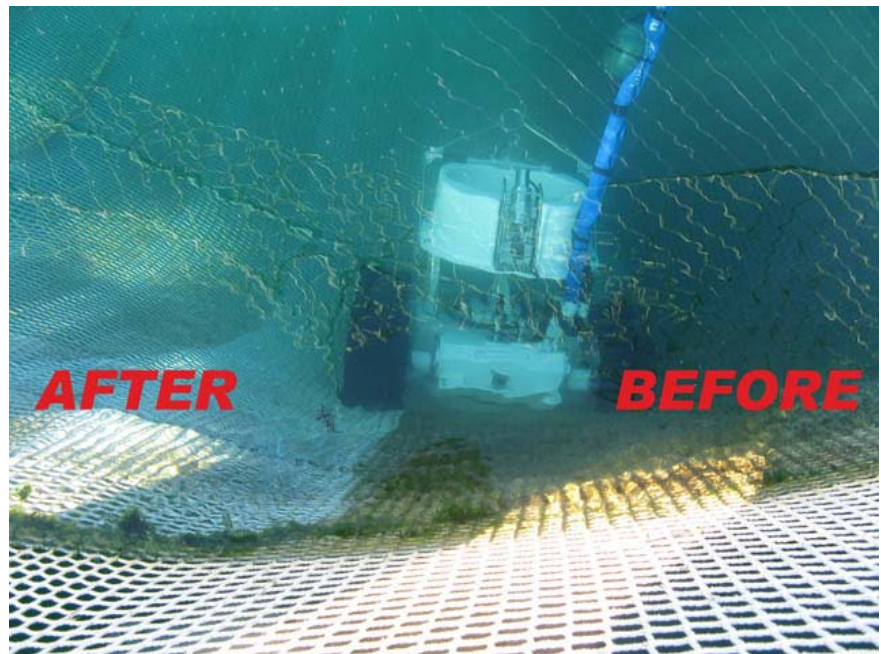


Clean Seas Tuna use large nets suspended from collars which contain the fish being farmed. In the case of Clean Seas, the nets are attached to collars which are 40 metres in diameter. Before Yanmar brought the Submersible Net Cleaning Robot to market, the cleaning process meant that nets would be installed and followed by the subsequent hauling and removal of the fouled net. The fouled net would then be shipped to shore and transported to Clean Seas Tuna net wash and maintenance facility at Arno Bay.



Nets need to be maintained in as close to pristine condition as possible for the health of the fish stock. Nets which remain in the water for even a relatively short period of time become blocked with weed fouling. Further, as the nets become laden with fouling, water flow through the net is restricted which results in reduced oxygen levels within the cage. This reduction in oxygen level affects fish health and growth rates.

The Yanmar Submersible Net Cleaning Robot addresses all of these issues in a simple, yet revolutionary process. The net cleaning process is achieved by lowering the robot into the sea cage and commencing operation.



On board the mothership, the Yanmar power pack provides all necessary electrical power and the all important high pressure and high flow pump. High pressure water is supplied to the submersed robot via 100 metres of high pressure hose to the submerged robot at an incredible 1600psi @ 120lpm. This highly pressurised jet stream is directed at the net via two (2) ceramic nozzles to remove any form of fouling present on the net.

With the aid of front and rear cameras fitted to the robot the operator is able to view and manage the operation on two (2) LCD monitors from the comfort of the wheelhouse. A single operator on board the mothership is able to direct the movement of the robot by juggling a pair of joy sticks on the remote control box. It's almost like a kid's video game, only the Yanmar Submersible Net Cleaning Robot delivers real life benefits to the fish farming community.

According to Marcus Stehr, Executive Director of Marine Operations at Clean Seas Tuna, the Yanmar Submersible Net Cleaning Robot is delivering meaningful and measurable results.

“We are using the net cleaning robot five days a week and cleaning one net every day,” Marcus Stehr said.

“This is new technology and we are becoming more efficient with the unit each time we use it. So far we have established that the Yanmar unit is easy to use and that we have substantially decreased the frequency of our net changing process.”

“We are yet to completely exploit the full capacity of the Yanmar unit, but so far we are greatly impressed by the capability of this robot.”

When operating, all of the water from the high pressure pump is used to ensure powerful cleaning. The recoil from the water is used to turn the propeller and keep the robot pressed against the net.

Due to the ease of set up and use, the Yanmar Submersible Net Cleaning Robot can clean nets anytime it is needed. As the performance is monitored in real-time by an underwater camera, the robot can be guided accurately by the operator for efficient operation.

The Yanmar Submersible Net Cleaning Robot is marketed exclusively in Australia, New Zealand and the Pacific by Power Equipment.

Power Equipment is the exclusive and authorised Australian, New Zealand, Papua New Guinea and South Pacific Distributor of Yanmar Marine and Industrial diesel engines importing product from Yanmar plants in Japan, Asia, USA and Europe. With an extensive marine dealer and branch network, Power Equipment has the expertise and experience to assist boat owners and boat builders for both new installations and repowers. Power Equipment is

also the exclusive authorised Distributor of JCB DieselMax engines for Australia, New Zealand, Papua New Guinea and the South Pacific. Power Equipment also distribute the Yanmar powered MASE diesel marine generators range and Gori high quality folding sailboat propellers.

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