

# Case Study

YOU CAN DEPEND ON  
**DAVEY**

**PRODUCT:**  
Davey XF171S Transfer Pump

**DAVEY MASTER DEALER:**  
**Water Makers Australia**  
809 Princes Hwy,  
Tempe NSW 2044  
watermakers.com.au



**WATER MAKERS AUSTRALIA**  
CLEAR. FRESH. VITAL.

## Fresh Water on the Great Barrier Reef: Marine Desalination Powered by Davey

Water Makers Australia has designed and manufactured marine desalination systems in Sydney since 2020, when founders Kalim Scharenguivel and Stephen Tritton designed the first system one Sunday afternoon on the Port Hacking. Today the company builds seawater reverse osmosis watermakers for everything from small sailboats to large power catamarans across Australia, and every 240V system it has built starts with a Davey XF171S at the feed stage.

That design choice was put to work when Mark Berg refitted his Silverton 38 Convertible at Sanctuary Cove for the fishing series Fishing Addiction, ahead of extended filming trips to the Great Barrier Reef.

### The Challenge

The vessel's 375 litre water tank was the limit on how long it could stay out on the reef:

- Drinking water, showers, cleaning and washdown all drew on a single small tank
- Extended trips meant a long steam back to a marina purely to refill
- A fully kitted 38 foot flybridge convertible had limited spare space, so the system had to be distributed through the hull with custom fit out work
- Reliability at the seawater feed stage was critical, because without stable feed flow the entire desalination process stops

### Our Solution

Water Makers Australia supplied a double membrane system producing up to 160 litres per hour. At the front of it sits the Davey XF171S, a transfer pump that draws seawater from the intake and supplies it through pre-filtration to the high-pressure stage, which pressurises the seawater before it passes through the membranes to produce fresh water.

The XF171S was specified for the same reasons it goes into every Water Makers Australia 240V system:

- Silicon carbide mechanical seal with 316 stainless steel seal spring
- 304 stainless steel pump shaft and clamp band
- Marine grade aluminium motor shell in an IP55 TEFC enclosure
- Corrosion resistant casing and componentry throughout
- Rated for frequent starts, suiting a watermaker that cycles far more often than a continuously running pump
- Seawater is a listed application for the XF Series

Behind the feed stage sit two seawater membranes, a timed automatic fresh water flush, and a remote panel carrying boost and membrane pressure gauges, flow meter and TDS water quality meter.



## DAVEY CASE STUDY Water Makers Australia



YOU CAN DEPEND ON  
**DAVEY**



### Implementation and Results

The system was installed and commissioned at Sanctuary Cove in June 2025, with the fit out filmed for the production. It has been in service for more than a year since, through repeated trips to the Great Barrier Reef:

- The tank is no longer the limit, and trips are planned around weather and fishing rather than refills
- At full production, the system can refill the vessel's 375 litre tank in under two and a half hours
- The crew have stopped rationing water for showers, washdown and cleaning

**"Feed is everything. No seawater feed means no fresh water in the tank," says Kalim Scharenguivel, founder of Water Makers Australia. "The XF171S has gone into every 240V system we have built since 2020 and I can honestly say I have never had one come back."**

This OEM solution demonstrates how Davey's transfer pump technology performs as the feed stage of a marine desalination system in repeated seawater service. The combination of corrosion-resistant construction and frequent-start capability makes the XF171S a dependable foundation for marine desalination, keeping vessels in fresh water wherever they venture.

