

Case story | SK Watermakers

# SK Watermakers chooses more **Danfoss APP pumps** for more desalination applications

Fresh water  
produced with high  
reliable APP pumps**24/7**[hpp.danfoss.com](http://hpp.danfoss.com)

SK Watermakers builds a wide variety of desalination systems for marine and land-based applications. A cornerstone of the Florida firm's approach is the use of standard, non-proprietary components to give its customers competitive pricing and to make it easy for them to find replacement parts anywhere, fast.

So after trying out the Danfoss APP 1.8 for several fishing fleet owners with good results, SK Watermakers has selected more APPs for more applications – and will build the pumps into its newest RO series as standard.

### **The challenge: Keep fresh water flowing 24/7 for demanding commercial fishing boats**

SK Watermakers manufactures many types of desalination systems for customers in the US, the Caribbean, Latin and South America, as well as other areas of the world. For years, the company has stayed away from proprietary solutions and components – despite the temptation of higher margins – to instead build its successful value proposition around standard components that can be replaced at competitive prices. For marine RO systems, this has traditionally meant that SK Watermakers has selected high-pressure plunger pumps.

But a fishing fleet owner who runs his desalination systems hard wanted to try something new. His boats were typically on the water for one to two intense weeks at a time, and depended on RO to produce water nearly 24/7 for icemakers to chill the catch and to cover the crew's needs. Pump maintenance was a hassle the crew could do without when the fishing was good – and pump failure was an expensive risk that would force the ship into port. Did SK Watermakers have an alternative to traditional plunger pumps?

### **The solution: APP pumps that prove their worth in heavy marine use**

SK Watermakers' engineers suggested the fleet owner try out the Danfoss APP 1.8. The axial piston pump's simple construction uses fewer parts and is designed for easy maintenance, long service intervals and high-use reliability.

According to operations manager Darryl Hershberger, the move to Danfoss APP was new for both the customer and SK Watermakers. "Many of our customers don't need that much water, and opt for pumps whose initial price is lower but require higher maintenance. But this particular fleet owner had burned his fingers on pump failure one too many times, and prioritized reliability.

We ordered the APP 1.8 for first one of his vessels, then another and they've worked out just as we planned. The fact that APP pumps don't use oil as lubricants – and thus have zero contamination risk – has also been a plus for fishing fleets."

**The results: SK Watermakers specs Danfoss pumps for more marine applications – as well as land-based retrofits – and has designed its latest RO series around APP pumps**

Since SK Watermakers' first use of APP pumps in a marine application, the Florida firm has opted for Danfoss axial piston technology in more vessels and several land-based retrofits. Now, it is also designing its newest series of convertible water makers for marine applications exclusively around Danfoss pumps.

Danfoss pumps work well with our business model – maybe even a little too well," explains Hershberger with a smile. "When we sold the first water making system built around an APP pump, we didn't hear from the customer for quite a while. There aren't many service calls, so we didn't have any contact with the customer for a very long time. But the next time we did, it was for a similar RO system for another vessel."



*A Blue Gold Vertical water maker with a Danfoss APP pump*

SK Water makers has also just retrofitted a Danfoss APP 7.2 producing 15 KGPD on a Caribbean island, and will soon launch its latest RO marine series with APP pumps as standard.

"Our newest series of convertible water makers will be available as self-contained or modular units, 600 or 1500 GPD (2.3 or 5.7 m<sup>3</sup>/day), with 3 pieces of 2.5" x 21" or 3 pieces of 2.5" x 40" inch membranes," says Hershberger. "Because the Blue Gold Series is so flexible we think it will appeal to everyone from pleasure boat to commercial fleet owners. And based on our good experience with Danfoss pumps' reliability and low maintenance, APP pumps will be included as standard."



*Day Boat One - fishing vessel with heavy, nonstop use of its RO switched from a plunger pump to a Danfoss APP pump. The result - less maintenance, less down time and no yearly replacements so less cost.*

**Danfoss A/S High Pressure Pumps** . Nordborgvej 81 . DK-6430 Nordborg, Denmark

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