

**Marine Sea Water Reverse Osmosis Systems  
Singapore Yacht Club**



**INTRODUCTION**

In December 2006, Pure Aqua successfully supplied 3 X 50TPD 440V/3Ph/60Hz & 6 X 30TPD 415V/3Ph/50Hz customized Industrial Sea Water Reverse Osmosis systems to the Singapore Yacht Club.

**SYSTEMS & PROCESS**

Feed water to the system is from sea water, TDS of about 35,000 PPM. The SW-13K-1380 & SW-8.0K-1280 Sea Water Reverse Osmosis systems were modified from our SWI Series.

Pre-treatment of raw water includes media filtration to remove suspended solids down to 25 microns and antiscalant dosing to prevent fouling the membranes.

The Seawater Reverse Osmosis (SWRO) units consist of 5-micron cartridge filters to reduce feed water Silt Density Index (SDI) and to limit the SS to 5 microns. The unit also has an advanced microprocessor with permeate water divert option and fresh water flush.

**PERFORMANCE**

The SW-13K-1380 SWRO system was designed to produce 50cmd and the SW-8.0K-1280 SWRO was designed to produce 30cmd, both at 35,000 ppm feed TDS. Since the time of its start-up in February 2007, the plants have been running smoothly with minimal trouble-shooting.

