



**E.Tzen, "New Desalination Plants in the Greek Islands", EDS Newsletter, Issue 17, January 2003.**

During the years 2000-2002 several new Reverse Osmosis desalination units were built in the Greek islands of Aegean Sea. The Aegean Sea consists of around a thousand islands with populations of up to 20,000 people. In recent there has been an increased awareness of desalination technology by the Greek people and especially of the Greek islands' Municipalities.

Desalination offers an important option in these islands where water transportation is still the main supply alternative. Table 1 lists the desalination units that have been installed in the Greek Islands of both the Ionian and the Aegean Sea. As a general rule these belong to the islands' Municipalities. Most of them have a good operational record despite the hard maintenance conditions on the islands, many of which are located far from the mainland. The water cost for the seawater plants is ranged from € 0.7/m<sup>3</sup> to € 2.6/m<sup>3</sup>\* while for the brackish water plants is around € 0.4/m<sup>3</sup>.

Regrettably, in these islands the water produced from desalination units is not used for drinking due to the mixing of this with water from other resources (drills, wells, tankers, etc) and/or due to the unproven old water distribution system.

Hopefully, with the Greek Government's support more and more desalination units will be installed and successfully operated in the Greek islands to provide this most precious resource, fresh water.

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Table 1

Reverse osmosis units in the Greek Islands

Location	Area	Year of	Daily production,	Feed water type
Mykonos	Ornos	1989	1200	seawater
Mykonos	Ornos	2001	2000	seawater
Syros	Ermoupolis	1989	1200	seawater
Syros	Ermoupolis	1993	800	seawater
Syros	Ermoupolis	1998	960	seawater
Syros	Ermoupolis	2000	2x250	seawater
Syros	Ermoupolis	2001	4x500	seawater
Syros	Ermoupolis	2001	4x120	seawater
Syros	Kini	1993	144	seawater
Syros	Kini	2000	250	seawater
Syros	Kini	2002	500	seawater

Syros	Poseidonia	2001	250	seawater
Syros	Poseidonia	2002	250	seawater
Syros	Poseidonia	2002	250	seawater
Thira	Oia	1994	400	seawater
Thira	Oia	1998	160	seawater
Thira	Oia	2002	250	seawater
Thirasia <sup>1</sup>	Thirasia	1997	4.8	seawater
Ios	Milopotas	2001	1000	seawater
Sifnos	Kamares	2002	500	brackish
Kimolos <sup>2</sup>	—	2001	110	seawater
Paros	Naousa	2001	1200	brackish
Nisyros	Mandraki	2001	300	seawater
Chios	Omiroupolis	2000	720	brackish
Chios	Omiroupolis	2001	900-1000	brackish
Ithaki	—	1983	500	seawater

<sup>1</sup>Desalination units powered by renewable energy sources

<sup>2</sup>Units in Thira, pump the seawater from a height of around 80 m above the sea level leading to a high energy cost