

Quench your thirst
with brackish
and sea water



BRACKISH AND SEA WATER

Your goal

Obtaining drinking water through water desalination

The desalination of seawater and brackish water is a process that reduces the water dissolved organic and inorganic components and the salts it contains (*Total Dissolved Solids*). Ships, islands and coastal regions of countries particularly arid require the application of the desalination techniques to produce fresh water. In addition, today, the natural scarcity and mismanagement of water resources make the water an increasingly precious resource, so you resort to desalination as a solution to water needs.

Kind of water as the total dissolved solids

Kind of water	TDS [mg/l]
Fresh water	0 - 1.000
Brackish water	1.000 - 5.000
Moderately saline water	5.000 - 10.000
Highly saline water	10.000 - 30.000
Salt water	> 30.000



To meet the different consumption needs of fresh water, Gel has designed and built systems the "GELPUR" Systems which, based on reverse osmosis technology, can overcome the increase in maintenance costs, energy costs and lost production.

Gel solutions

Safeguard the quality and availability of water resources

To reduce the salt content in the brackish and sea water and make it usable, Gel designs and manufactures BIOSMOSIS GELPUR Systems that have, among others, the following advantages:

- **Ridotti Reduced energy consumption.** Utilizing the latest generation of membranes able to work at low pressures and inverter systems for the pressure pumps modulation, energy conservation and lower operating costs are guaranteed.
- **Accurate monitoring and plant automation.** The operating parameters of the system are monitored both framework locally and remotely.
- **Energy Recovery System.** The systems can be equipped with energy recovery system by which you can reduce the energy consumption required up to 70%
- Reduction of salinity according to the standards for drinking water set by WHO
- Automatic switching from bi-osmosis to mono-osmosis
- Reduced space dimensions



Gel technology

Innovative technology for brackish and sea desalination

The "GELPUR" reverse osmosis have:

- Seawater Supply System
- Micronic pretreatment
- Activated carbon filtration
- Further microfiltration
- Ultrafiltration
- UV disinfection
- Metering station Antiscalant
- Reverse Bi-Osmosis

The plants are designed to operate 24 hours a day, 365 days a year. Built in a single assembled skid, plants are easily transportable and quick to install.



Gel partner

With you to achieve your goal

- » Study of the system and problem identification
- » Chemical and plant solutions
- » Modular mobile plants
- » Technical Support, installation and start-up phase
- » Training course
- » Post-sale Technical Assistance





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