

## REVERSE OSMOSIS DESALINATOR "DSL" SERIES

Thanks to the cooperation with important companies of the sector, ENERECO srl has developed a series of photovoltaic and wind KITS for the production of drinking water from seawater.

Thanks to the reverse osmosis technology, the membranes composing the kits "DSL" Series grant the filtering of water from the surplus of salt, from dangerous chemical and microbiologic agents.



## REVERSE OSMOSIS

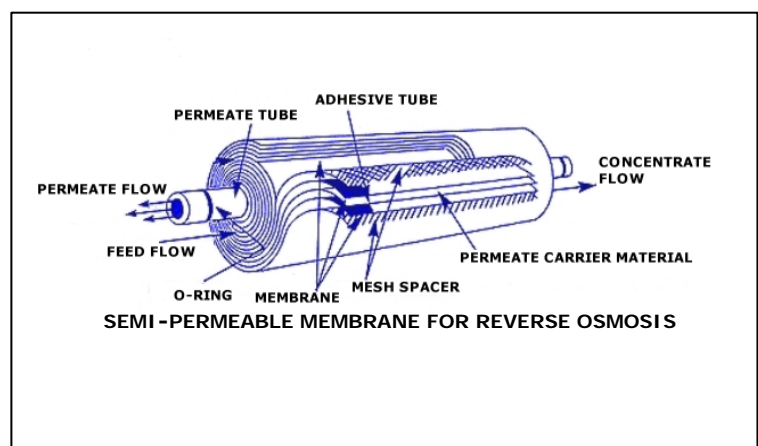
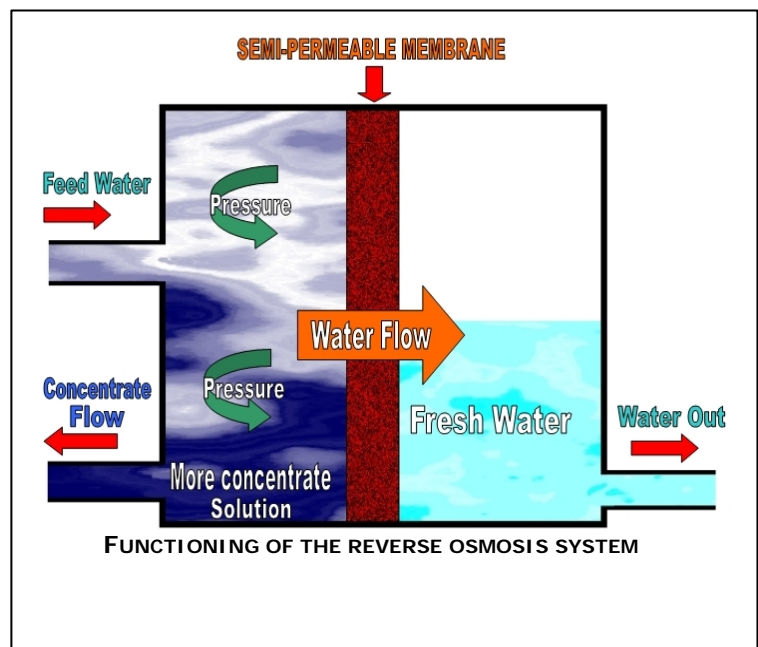
OSMOSIS is the process according to which a fluid passes through a semi-permeable membrane from a more concentrated solution to a solution with more salts. For example, the plants are fed through the roots, thanks to an osmosis exchange.

The REVERSE OSMOSIS is the contrary situation: thanks to a force impressed to the concentrated solution (pump), the fluid passes through the membrane producing pure water.

In this way 100% of the organic substances and 80% of the inorganic ones are removed keeping the right quantity of dissolved salts. All this happens through the so called SEMI-PERMEABLE MEMBRANE, core of the water treatment system, which has a filtering capacity till a ten thousandth of micron, bacteria, viruses and chemical or microbiologic impurities included.

However, the water treated keeps excellent characteristics of colour, flavour, smell and organoleptic purity.

Inverse osmosis systems are used for the conditioning of seawater, lake, river, well water ext.



## AVAILABLE "DSL" UNITS RANGE

Characteristics	DSL35RPTR	DSL70RPTR	DSL140	DSL260
N° of membranes	1x2521	2x2521	1x2540	4x2540
Hourly flow rate	35l/h	70l/h	140l/h	260l/h
Salinity of water produced	200/300µS	200/300µS	200/300µS	200/300µS
Functioning pressure	50 bar	50 bar	62 bar	62 bar
Preloading pump	yes	yes	yes	yes
Total installed power	0.4kW	0.85kW	1.8kW	1.8kW
Functioning voltages	24Vdc	24Vdc	48Vdc	48Vdc
DSW module dimensions: LxHxD	600x2580x260mm	600x2580x260mm	1060x435x430mm	1060x435x430mm
Weight	35kg	45kg	86kg	100kg
<b>We can develop further INVERSE OSMOSIS units according to the customer's demand.</b>				

The flow rates in l/h have been calculated considering a max input salinity of 35000ppm.

Moreover, a series of optional components are available for each model: particular prefilters, panels for remote control, cooling system for pump motor, input water preheating system (to increase the performance of the system), UV sterilizer, ext.

## COMPOSITION OF A DESALINATION SYSTEM SERIES "DESAL KIT"



## DIMENSIONING CHART FOR AN INVERSE OSMOSIS SYSTEM

This questionnaire is important for the realization of inverse osmosis plants for types of water different from seawater such as well water.

The data requested are essential for the exact dimensioning of the inverse osmosis plant, please fill in the questionnaire in all its parts.

**Water source:**     well         lake     river  sea         lagoon     other: \_\_\_\_\_

**Type of water:**     fresh         brackish     salt         other: \_\_\_\_\_

**Use of the water treated:**

drinking water for human uses     zootechnic use     industrial water     other: \_\_\_\_\_

### WATER ANALYSIS

<i>CALCIUM</i>	
<i>MAGNESIUM</i>	
<i>SODIUM</i>	
<i>POTASSIUM</i>	
<i>SILICA</i>	
<i>SULPHATE</i>	
<i>CHLORIDE</i>	
<i>BICARBONATE</i>	
<i>CARBONATE</i>	
TDS	
PH	
<i>BARIUM</i>	
<i>STRONTIUM</i>	
<i>IRON</i>	
<i>FLOURIDE</i>	

### PRE-TREATMENT

**Water softener:**         yes     no     notes: \_\_\_\_\_

**Sand filter:**             yes     no     notes: \_\_\_\_\_

**Cartridge filter:**         yes     no     notes: \_\_\_\_\_

**Chlorination:**          yes     no     notes: \_\_\_\_\_

**Coal filter:**             yes     no     notes: \_\_\_\_\_

**UV sterilizer:**          yes     no     notes: \_\_\_\_\_

### POST-TREATMENT

**Chlorination:**          yes     no     notes: \_\_\_\_\_

**UV sterilizer:**          yes     no     notes: \_\_\_\_\_