

COLLECTION WELLS

The desalination plant is really a sweet water factory and the sea its principal supplier. Ten wells dug near the sea shore, in Via Augusta are capable of supplying ,daily, more than seventy thousand tons of seawater. Due to their depth and water collection level , more than two hundred metres, they provide the very best treatment conditions due to their homogeneity,the lack of suspended material , the small amount of microorganisms and with small variations in temperature.

PRE TREATMENT

It is in this building , situated next to the seawater deposit, from where the water is drawn by the water pumps. Into the seawater is injected a series of chemicals: sulphuric acid, sodium hypochloride and ferrous chloride, with the objective of stabilizing the ph of the water, sterilizing it and gathering the material particles in larger lumps, so they are more easily caught by the sand filters in the next treatment phase.

Caption –the seawater deposit has a capacity of eighthundred and fifty cubic metres.

PRE TREATMENT

Inside the building you can see the three tanks that we refer to, painted different colors, in the same way as their respective pipes, so that they can be easily identified.

The Red tank : Sulfuric acid, for the PH

Orange: Sodium Hypochlorate: Cloro, disinfection.

Violet : Ferrous Chloro, which is a coagulant.

In the photograph attached you can see the group of pumps that extract the water from the reservoir and pump it in the direction of the filters situated in the main building. Also we find here some auxiliary equipment , security showers etc. Although the work here may appear of secondary importance, on it depends a good part of the final product.

SAND FILTERS

From the pre –treatment building, already sterilized and without live organisms, the water passes by sand filters. It enters in the top of the filter passes by the sand bed, located at a heght of about one metre, en which suspended material is caught and the water exits from the bottom of the filter in order to pass to another stage of filtration.

The photo on the right shows the impressive view of these filters. They are mainly located outside the building. You can see two concrete holes: they are there for future expansion.