Water Treatment Solutions

Industry

TEMAK®

TOTAL WATER SOLUTIONS

Proper Water Treatment Solutions lead to **Efficiency & Economy**

Water is a key element in every industry and has many uses in all industry sectors. Particularly in food, beverage, metal, pharmaceutical, cosmetics and electrical industries (power plants), water is a key factor, as in addition to its other applications, it serves as a product ingredient. It is also a fact that large quantity of water is required to cover the needs of an industry at all stages of production process. The high demand on both quantity and specific water quality that industries require, are covered by either private or public bodies. Typically, the water used by industries comes from ground or surface water, desalination of brackish or seawater (private investment), or from water networks through municipal water utilities. Adequate water resources are paramount and water treatment systems designed and supplied by TEMAK provide solutions regarding water quantity and quality for every industry.

Filtration

The filtration method ensures that turbidity, suspended solids and other pollutants are retained by water. TEMAK's automatic filtration systems offer a direct solution to the cases when turbidity, iron, manganese and organic substances need to be removed. Filter types are available for all hourly water capacities.

Bag Filters

Cartridge Filters

Turbidity Filters

Softening

TEMAK softening systems remove the total hardness of water (calcium and magnesium salts) by providing «soft» industrial water, protecting hydraulic installations, steam networks and cooling circuits from hardness salt deposits. A complete range of automatic softeners is available for every daily capacity.

Time Based Setup

Volumetric Setup

Twin Softening System

«The proper design and selection of water treatment systems and hydraulic equipment ensures high performance with Safe and Optimal operation»

Ultrafiltration (UF)

Ultra-filtration is one of the most modern methods of water treatment with special membranes, which is applied to specific requirements for removal of turbidity and suspended solids, bacteria, organic, high molecular weight proteins, etc.

Ultrafiltration

Electrodeionization (EDI)

Water used in certain sectors of the industry, such as pharmaceuticals, cosmetics, electricity production, has very strict quality standards for ultra-pure or deionized water (<0.1 μS/cm).

EDI

Desalination of Water by the Reverse Osmosis Method

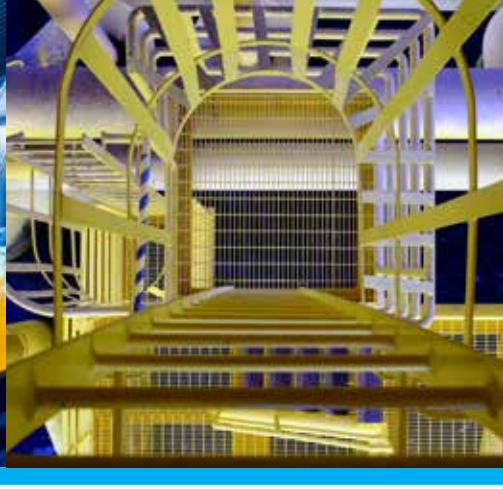
TEMAK provides integrated solutions for the desalination of brackish and seawater, as a result of its long experience, its successful applications, the large number of satisfied customers and its specialized and well-trained personnel. TEMAK systems produce water of high quality with special specifications so that it can be used for various applications and processes (in the sectors of food, pharmaceuticals, metals, chemical and petroleum industries, energy production, etc.), in cooling and heating applications, steam generation, etc. Each case is studied and designed separately based on the quality and quantity of raw water, for any desired daily production and pre-specified quality. Salts, microorganisms, organic substances, odors, chlorine, particles, ammonia, iron, manganese, arsenic, and other harmful elements are removed from water.

TEMAK water treatment systems are complete, portable, reliable, state-of-the-art, equipped and tested.

Brackish Water Reverse Osmosis System 30m³/day

Brackish Water Reverse Osmosis System 700m³/day

Sea Water Reverse Osmosis System 350m³/day



Deionizers

TEMAK deionizers are used for total ion removal from treated water. Thus, product water is characterized by very low conductivity. Water is driven through two columns of ion-exchange resins or one column with mix-bed resins. As product water contains no salt, it also meets the requirements to be used in the following equipment. A full range of automatic deionizers as well as mixed-bed deionizers, covering every required capacity and all areas of application.

Deionizing Systems

UV - OZONE Dosing Instruments

TEMAK has products for water quality control such as pH, conductivity, residual chlorine, redox potential, turbidity, etc. dosing systems as well as solutions to some applications with ozone disinfection systems.

Metering Controlers & Dosing Pumps

Ultra Violet Disinfection System

Hydraulic Equipment

TEMAK is specialized in selecting and implementing various components of a hydraulic network, while at the same time has developed partnerships with the most important international brands for import and distribution of products in the Greek market.

- Stream traps
- Ball valves
- Safety valves
- Heat exchanger
- Boiler equipment

Steam Equipment

Valves with Pneumatic & Electric Actuator

Heat Exchanger

Safety Valve

Chemicals

TEMAK, having the knowledge and experience, supplies water treatment chemical additives for the optimal operation of boilers and cooling towers. The main reasons for the chemical treatment of water that enters and circulates cooling towers and boilers are the maintenance of high performance units and the protection of equipment against problems such as clearing, settling, corrosion and growth of microorganisms. TEMAK's chemical additives C-Fine and B-Fine provide solutions to these problems.

Benefits of cooperating with **TEMAK**

- ✓ Excellent
  water quality in the boiler room and
  high quality steam production
- ✓ Excellent water quality in cooling systems and smooth operation of them
- ✓ High quality water in the production line and in the other consumptions of the company
- ✓ Lower energy costs due to the reduction of blowdown in boilers or cooling towers
- ✓ High degree of automation
- ✓ Excellent condition of networks and circuits resulting in longer life-cycle of fittings and pipes
- ✓ Utilization of drilling water and waste water for cost reduce and saving water
- ✓ Monitoring of water treatment system operation through maintenance contracts
- ✓ Opportunity of leasing our systems

- Top quality - reliability
- Competitive prices
- Short delivery times
- Material availability
- Support in funded programs
- Appropriate selection of materials
- Consultation on system improvement
- Consultation on project studies/new installations
- Compliance with international regulations
- Technical support
- Fast service

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Since 1980, TEMAK has been at the side of industrial sector covering its needs with reliability and consistency, having a full range of certified water treatment products.
Thanks to the systems manufacture in Greece and the high expertise of its specialized personnel, TEMAK is able to offer integrated water treatment solutions, from study and design to manufacture and installation of required systems.

The 800.000 m^3/day of clean potable water or water for general uses, produced daily from TEMAK's installed systems in Greece and 30 abroad countries, constitute the proof of our experience and know-how in water treatment.

TEMAK®
TOTAL WATER SOLUTIONS

WATER VALUE AMBASSADOR
• ATHENS 1980 •

ISO 9001 ISO 14001 ISO 45001 ISO 50001 ISO 22000 ISO 22301

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