

# Package Treatment Plant

for Potable Water



*Drinking Water from Rivers and Lakes*

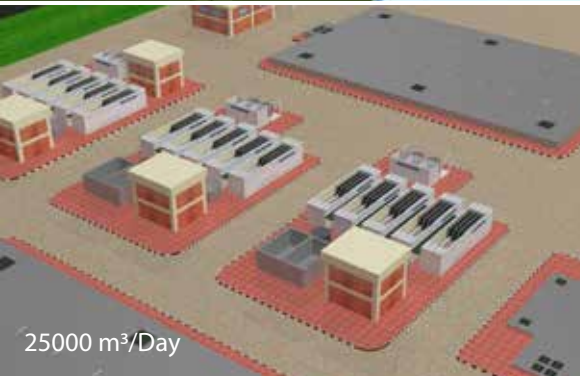




5000 m³/Day



10000 m³/Day



25000 m³/Day



30000 m³/Day

## MENA-Water SafeDrink – Safe Drinking Water

MENA-Water drinking water plant SafeDrink is a cost effective package plant that meets WHO and other international treated water standards. It is easy to operate, consumes less energy and can be delivered in short time.

### SafeDrink Package Plant

SafeDrink is a containerized plant that combines all the necessary components for coagulation, flocculation, clarification, filtration and disinfection in a compact system. Its versatile design makes it ideal for potable water treatment and industrial process water and also can be used as advanced treatment of wastewater or to reduce suspended solids, phosphorus and other contaminants like heavy metal.

### Coagulation

Coagulating chemicals are injected in the pipe to be mixed with the raw water. Coagulants promote collisions between the small suspended particulates, called colloids, enabling them to form large flocs that settle easily in the clarifier leaving behind clear water with very low turbidity.

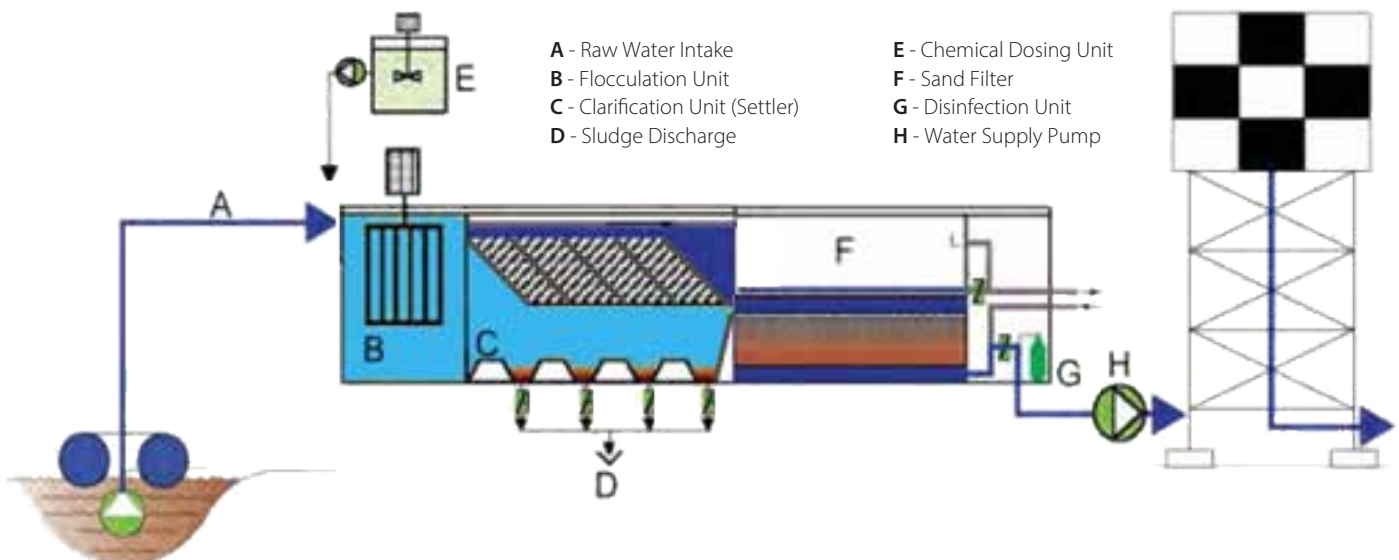
### Flocculation

The coagulated water enters the flocculation area. A coagulant aid or polymer can be added to strengthen the floc bonding. Slow stirring motion forms collision between the forming precipitates and the remaining contaminant particles to form larger flocs.

### Clarification

The coagulated and flocculated water is evenly distributed at the bottom of the lamella settler using well designed distribution laterals. The large surface area of the tube settler causes the flocs to settle by gravity to the bottom thickening zone.

The sludge is periodically withdrawn through an automatic valve. Clarified water is collected from the clarifier surface through perforated tubes.



## Filtration

Clarified water enters the high rate gravity filter for removal of the remaining finer solid particles. Based on the application, the filter media can be dual media or multi-media. The water passes through the layers of the media and passes an underdrain system.

The filter is backwashed intermittently depending on the influent turbidity of the raw water.

## Disinfection

Disinfection can be with liquid or gas chlorine. Ultra violet disinfection also can be used.

## Features

- Pre-engineered complete system in ISO containers
- Small foot print
- Simple operation and low maintenance requirements
- Low energy consumption
- Working on gravity sand filter and lamella settler principle
- Higher throughputs possible through modular arrangement of units
- European quality components
- Fast delivery and start-up due to the mobile concept
- Very good price-performance ratio
- Highly stable process that produces quality water even during peaks
- Effectively removes turbidity, suspended solids, color, odor and TOC
- Produces highly pure water that meets WHO Drinking Water standards

### Applications

- Potable water for cities and villages
- Process water treatment
- Grey water treatment

## Optional Equipment to Customize the System

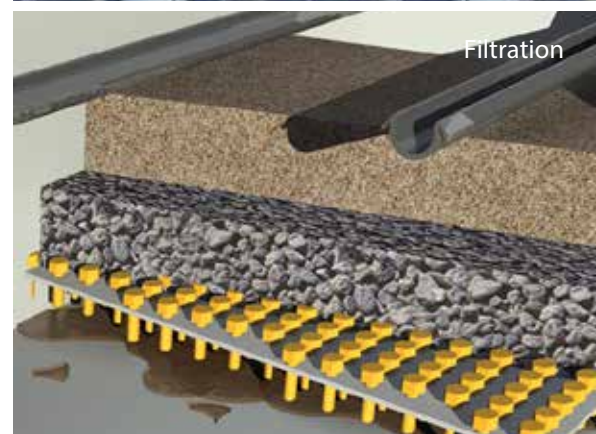
Many options can be provided to suit the site, such as

- Pre-settling unit for highly turbid water
- Pontoon to carry the feeding pumps
- Power generator
- Storage tanks as ground or elevated tower
- Portable small Laboratory for water quality testing
- Containerized operator rooms
- Skid mounted pumps alternatives as self-priming

## Standard sizes for SafeDrink Package Plants

| MODEL                         | MWSD 20       | MWSD 40       | MWSD 60       | MWSD 100                           | MWSD 200                               |
|-------------------------------|---------------|---------------|---------------|------------------------------------|--|
| Capacity in m <sup>3</sup> /d | 500           | 1000          | 1500          | 2500                               | 5000                                   |
| Arrangement                   | 20' Container | 40' Container | 40' Container | 40' Container<br>1 x 20' Container | 2 x 40' container<br>1 x 20' container |

Other sizes on demand



# MENA WATER

OUR AIM - YOUR CONFIDENCE



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