



Package Treatment Plant

for Potable Water

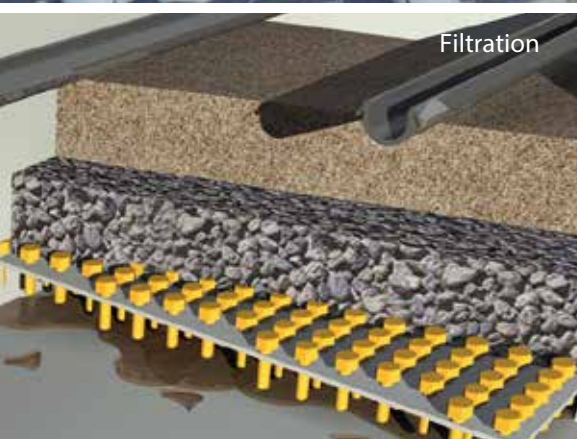


Drinking Water from Rivers and Lakes



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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.

With a well-proven and compact design, the SafeDrink package plant achieves a reliable system operation within smallest footprint area and fast realization time. Inside the treatment plant, water is flowing by gravity which ensures highest efficiency with lowest energy consumption.

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The sludge is periodically withdrawn through an automatic valve.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.

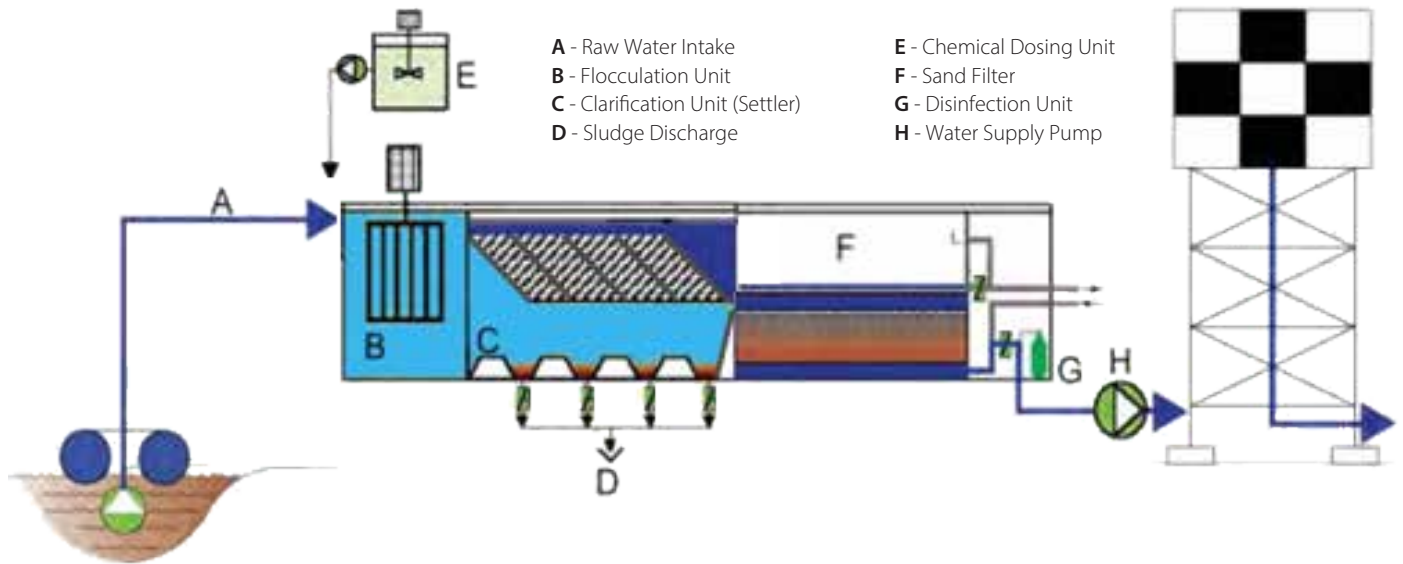
Filtration

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

Chlorination is the final step in the system for treatment as it prevents microorganism growth in the treated water. Alternatively a gas chlorination, UV or ozone system can be used for disinfection.



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

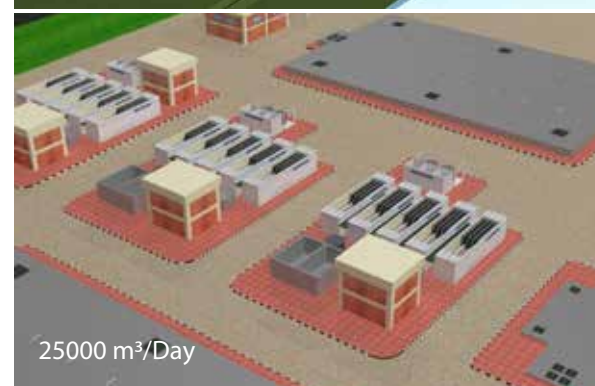
Optional Equipment to Customize the System

- 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 ³ /d	500	1000	1500	2500	5000
Arrangement	20' Container	40' Container	40' Container	40' Container 1 x 20' Container	2 x 40' container 1 x 20' container

Other sizes on demand





MENA WATER FZC

P.O. Box: 120881, D3-11, SAIF Zone

Sharjah, United Arab Emirates

Tel.: +971 6 5575507

Fax: +971 6 5575508

E-Mail: info@mena-water.com

www.mena-water.com

MENA WATER GmbH

Industriepark Erasbach A1

92334 Berching, Germany

Tel.: +49 8462 201 390

Fax: +49 8462 201 239

E-Mail: info@mena-water.de

www.mena-water.de



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