AZUD WATERTECH DWE
BW

OFF-GRID DRINKING WATER PLANT
AZUD WATERTECH DWE BW

Production

> 0.3 to 3.0 m³/h

Raw water

> Brackish water; TDS: 1000 - 6000 mg/l
> Fresh water; TDS < 1000 mg/l

APPLICATIONS

> Isolated villages
> Emergencies
> Temporary settlements
> Military operations

ADVANTAGES

> PREASSEMBLED and FACTORY-TESTED plant. PLUG&PLAY solution.

> Very COMPACT and MOBILE plant.

> Energy EFFICIENCY and energy SELF-SUFFICIENCY. SURPLUS ENERGY supply (models with battery).

> QUICK and EASY installation. IMMEDIATE commissioning with no setbacks.

> VERSATILE plant. Immediate supply of GUARANTEED POTABLE WATER, from fresh or brackish water.

> EXCLUSIVE PRE-TREATMENT thanks to the disc filtration system AZUD HELIX AUTOMATIC.

> MECHANICAL FILTRATION technologies, without unnecessary chemicals and consumables.

> EASY operation and maintenance.

TECHNOLOGIES

Disc filtration (130 µm)

UF — Ultrafiltration membranes (0.08 µm)

RO — Reverse osmosis membranes desalination

FRAMEWORK

Closed mobile framework

AUTOMATION

AUTO — Automatic control of:

> Start / Stop
> Equipment cleaning

POWER SUPPLY

Solar energy (S)

Electrical grid (E)

AUX — Generator (G)

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Off-grid drinking water plant

Closed framework on trailer

Closed framework with solar panels

MODELS

Model	Code	Power supply	Production (maximum) *				Power	Dimensions
			Fresh w.		Brackish w.			
			m³/h	gpm	m³/h	gpm	kW	L x W x H (m)
BW0.3 VERSATILE L5 SOLAR	71EEA3H0	S | E | G	1.5	6.6	0.3	1.3	1.0	1.7 x 1.3 x 2.0
BW0.5 VERSATILE L5	71EEA5B0	E | G	3.0	13.2	0.5	2.2	2.1	1.7 x 1.3 x 1.5

*** Design criteria: Turbidity = 15 NTU; TSS = 30 mg/l; TDS = 4500 mg/l; T = 18 ºC.**

S: Solar energy; E: Electrical grid; G: Generator | Dimensions without auxiliary equipment. L=Length; W=Width; H=Height.

MAIN COMPONENTS

- Stainless steel submersible FEED PUMP. For SOLAR models, solar-powered pump with controller.
- AZUD HELIX AUTOMATIC disc filter (130 µm). Included automatic cleaning system.
- ANTISCALANT dosing pump.
- PVDF ULTRAFILTRATION membranes (0.08 µm), housed inside PVC vessel. Automatic cleaning system included.
- ACTIVATED CARBON cartridge, housed inside polypropylene vessel.
- Stainless steel HIGH PRESSURE PUMP with variable frequency drive.
- Polyamide REVERSE OSMOSIS membranes, housed inside fiberglass reinforced polyester pressure vessels.
- RESIDUAL CHLORINATION for the treatment of potable water.
- PLC with operator touch screen. Control program included.
- Electric cabinet including transformer, circuit breakers and motor starters.
- FRAMEWORK: Compact and robust closed framework designed for an easy transportation (by air, sea or ground).
- SOLAR model: Included foldable solar panels (327 W/module), solar controller, charger and 4 monoblock batteries (maintenance free).

OPTIONS

All-terrain steel TRAILER, with double axle frame and four wheel suspension system. Includes lockers to place the tools and the generator.
PILLOW TANK for drinking water storage.
Single-phase GENERATOR with AUTOMATIC or MANUAL starter.
REMOTE CONTROL system.

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Off-grid drinking water plant

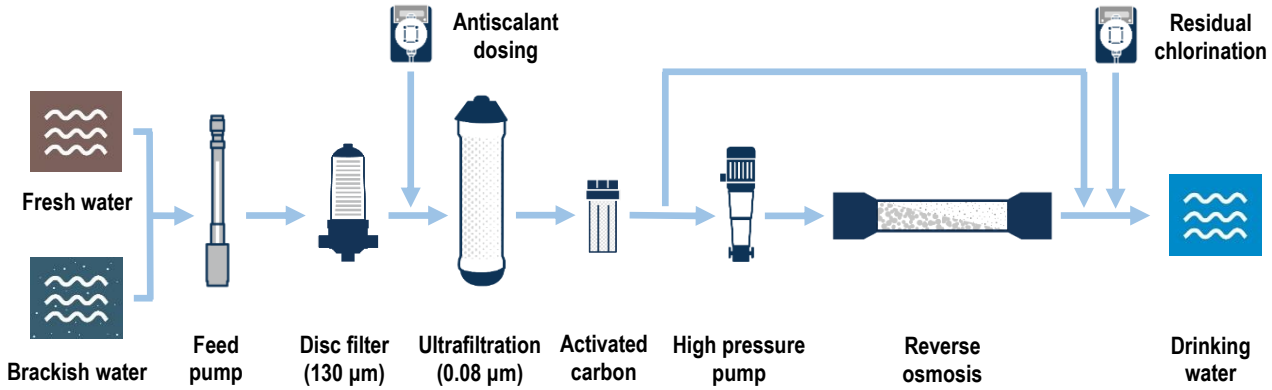
WATER QUALITY

RAW WATER	FRESH WATER from rivers, lakes, reservoirs, etc. > High level of suspended solids and high turbidity. > Dissolved contaminants concentration should meet the legal requirements. > High level of pathogens and organic matter. BRACKISH WATER; usually from aquifers. > Low-medium level of suspended solids. > Medium level of dissolved pollutants. > Low level of pathogens and organic matter.
TREATED WATER	Compliance with the requirements of the GUIDELINES FOR DRINKING WATER QUALITY published by the World Health Organization's (WHO): > Free from microbiological contaminants > TDS < 1000 mg/l > TSS < 10 mg/l > Turbidity < 1 NTU

SYSTEM LIMITATIONS

Turbidity	< 200 NTU
TSS	< 150 mg/l
TDS	< 6000 mg/l
Oil and grease	< 0.1 mg/l
Iron + Manganese	< 0.3 mg/l
Aluminum	< 0.05 mg/l
Boron	< 0.5 mg/l
COD	< 10 mg/l
TOC	< 3 mg/l
Chlorine	< 0.1 mg/l
pH	6.5 - 8.5

TREATMENT LINE



INSTALLATION REQUIREMENTS

POWER SUPPLY	Single-phase // 220 V AC // 50 Hz (Other options available).
FOOTPRINT	According to plant dimensions. One meter free space around the plant for operation and maintenance to be considered.
OPERATION PARAMETERS	> Feed pressure: 2 - 4 bar. > Ambient temperature: 0 - 40 °C. > Water temperature: 5 - 30 °C.

NOTE: In order to assure the treated water quality and nominal production for each model, a COMPLETE and UPDATED CHEMICAL-PHYSICAL ANALYSIS of the raw water is RECOMMENDED. This analysis will be requested before manufacturing the plant.

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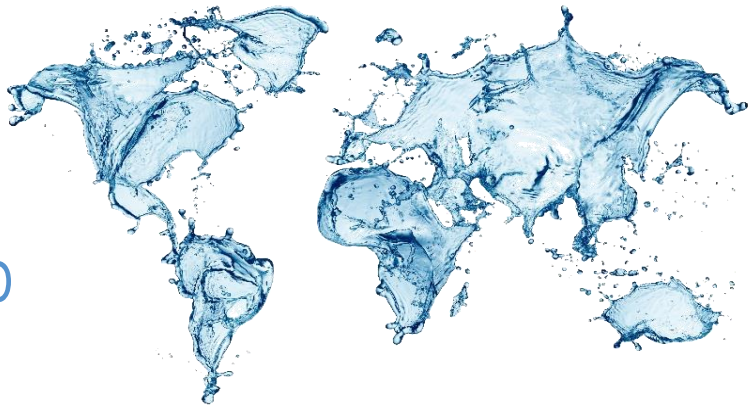
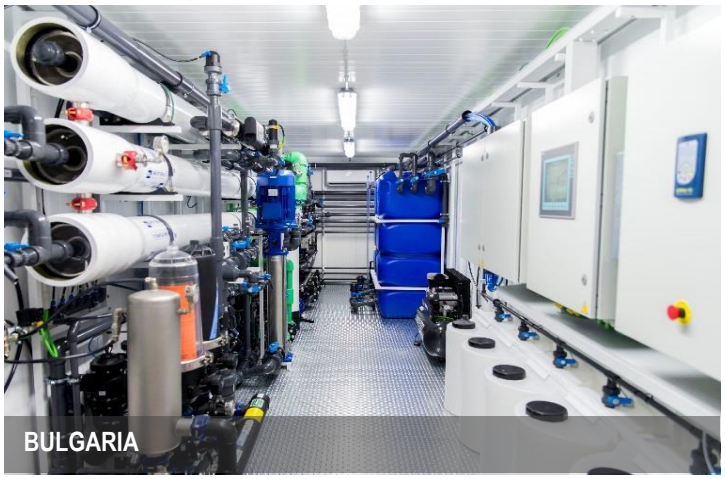
ACROSS THE WORLD





BULGARIA

MAURITANIA - UN

AUSTRALIA

SENEGAL - UN

MEXICO

UNITED ARAB EMIRATES

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