

AZUD



Technical Catalogue

ENGLISH

AZUD WATERTech



GENERAL TECHNICAL DATA**DRINKING WATER DW**

AZUD WATERTECH DW DU
AZUD WATERTECH DW ZPOX
AZUD WATERTECH DW ZPOW
AZUD WATERTECH DW DUSW
AZUD WATERTECH DW ZSW

OFF-GRID DRINKING WATER DWE

AZUD WATERTECH DWE FW
AZUD WATERTECH DWE BW
AZUD WATERTECH DWE SW

WASTE WATER TREATMENT WW

AZUD WATERTECH WW MBBR

WATER RECYCLING RW

AZUD WATERTECH RW DU

GREY WATER GW

AZUD WATERTECH GW DU

AZUD WATERTECH PLANTS

AZUD WATERTECH designs and manufactures COMPACT WATER TREATMENT PLANTS:

- ✓ PREFABRICATED, ASSEMBLED and FACTORY TESTED plants.
- ✓ PLUG & PLAY installation, for its QUICK START-UP without any setbacks.
- ✓ Using MECHANICAL FILTRATION technologies, without unnecessary chemicals and consumables.
- ✓ Simple OPERATION and minimum MAINTENANCE. No qualified staff required.
- ✓ AUTOMATION level according to the application requirements; available fully automated plants with remote control, as well as semiautomatic plants with no automatism included.
- ✓ Integrating international FIRST BRAND PROVIDERS of equipment and components.



Main technologies

	DISC FILTRATION	Automatic self-cleaning disc filter, to remove suspended solids larger than the filtration degree of the selected disc (5-400 µm).
	ULTRAFILTRATION MEMBRANES	Hollow fiber membrane to remove suspended solids, colloids and pathogens larger than 0.08 µm. High quality and disinfected water supply is guaranteed.
	MEDIA FILTRATION WITH ZEOLITE AND PYROLUSITE	Multi media filtration using zeolite to remove suspended solids larger than 5 µm. Filtration using pyrolusite for iron and manganese removal.
	MICROFILTRATION CARTRIDGES	Security filter to remove suspended solids larger than the selected microfiltration cartridge (1-25 µm).
	DESALINATION WITH REVERSE OSMOSIS MEMBRANES	Spiral wound porous membrane to remove dissolved contaminants in water (removal rate ≥ 99%), such as mineral salts, heavy metals, dissolved organic matter, pesticides and radioactive elements.
	MBBR WASTE WATER TREATMENT	Biological waste water treatment based on the development of biomass on plastic carriers suspended into the biological reactor.
	ULTRAVIOLET DISINFECTION	Ultraviolet radiation lamp to remove pathogens such as protozoa, bacteria and viruses.



DRINKING WATER



WATER RECYCLING



WASTE WATER



GREY WATER RECYCLING

Drinking water plants AZUD WATERTECH DW

POTABLE WATER supply from any source of fresh water, brackish water or sea water.

- ✓ Villages
- ✓ Industries
- ✓ Hotels
- ✓ Hospitals

Skid-mounted

Shipping Container

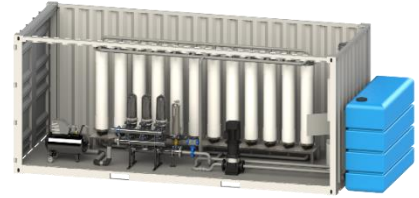
Fresh water

TDS < 1000 mg/l

Production: 3 to 123 m³/h



AZUD WATERTECH **DW DU**



AZUD WATERTECH **DW DU L**

Low salinity brackish water

TDS: 1000 - 3000 mg/l

Production: 2 to 42 m³/h



AZUD WATERTECH **DW ZPOX**



AZUD WATERTECH **DW ZPOX L**

Medium salinity brackish water

TDS: 3000 - 6000 mg/l

Production: 2 to 42 m³/h



AZUD WATERTECH **DW ZPOW**



AZUD WATERTECH **DW ZPOW L**

Sea water

TDS: 35000 - 45000 mg/l

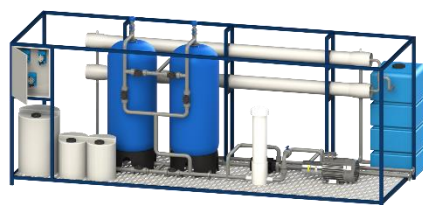
Production: 0.8 to 30.0 m³/h



AZUD WATERTECH **DW DUSW**



AZUD WATERTECH **DW DUSW L**



AZUD WATERTECH **DW ZSW**

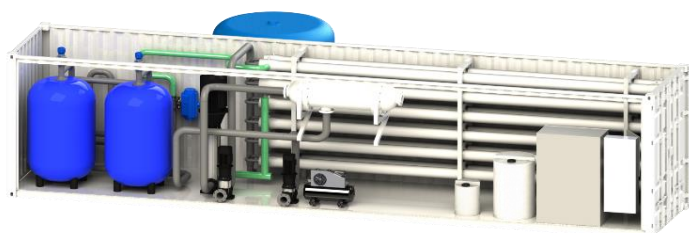


AZUD WATERTECH **DW ZSW L**

Competitive advantages

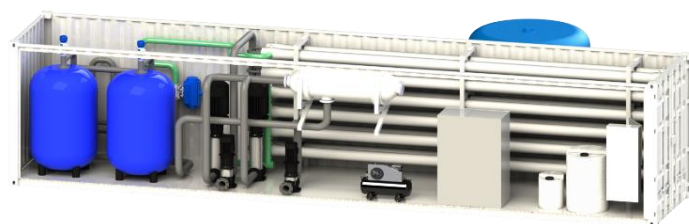
Models DU / DUSW	> EXCLUSIVE PRE-TREATMENT thanks to the disc filtration system AZUD HELIX AUTOMATIC AA. > ULTRAFILTRATION MEMBRANE system designed for removal of high TSS loads. > HIGH EFFICIENCY backwash system for disc filters and ultrafiltration membranes, thanks to the mix water/air.
Models ZPOX / ZPOW	> ZEOLITE and PYROLUSITE media filtration for suspended solids removal and iron / manganese reduction.
Models ZSW / DUSW	> EXTENDED LIFE SPAN of RO membranes, thanks to an improved physical-chemical pre-treatment. > CONTROL and MONITORING system to guarantee the quality of potable water.

Drinking water plants AZUD WATERTECH DW HIGH FLOW*



AZUD WATERTECH **DW ZPOX78 L40**

HIGH FLOW drinking water plant for LOW SANILITY BRACKISH WATER	
Production: 78 m ³ /h	1800 m³/day
Recovery: 75%	
Design criteria:	
Turbidity = 15 NTU; TSS = 30 mg/l; TDS = 2000 mg/l; T = 18°C	
TREATMENT LINE	
Media filtration with ZEOLITE AND PYROLUSITE (5 µm)	
MICROFILTRATION cartridges (1 µm)	
Desalination with REVERSE OSMOSIS membranes	



AZUD WATERTECH **DW ZPOW72 L40**

HIGH FLOW drinking water plant for MEDIUM SANILITY BRACKISH WATER	
Production: 72 m ³ /h	1700 m³/day
Recovery: 65 %	
Design criteria:	
Turbidity = 15 NTU; TSS = 30 mg/l; TDS = 6000 mg/l; T = 18°C	
TREATMENT LINE	
Media filtration with ZEOLITE AND PYROLUSITE (5 µm)	
MICROFILTRATION cartridges (1 µm)	
Desalination with REVERSE OSMOSIS membranes	



AZUD WATERTECH **DW ZSW42 L40**

HIGH FLOW drinking water plant for SEA WATER	
Production: 42 m ³ /h	1000 m³/day
Recovery: 45%	
Design criteria:	
Turbidity = 15 NTU; TSS = 30 mg/l; TDS = 38000 mg/l; T = 18°C	
TREATMENT LINE	
Preoxidation with HYPOCHLORITE	
ZEOLITE media filtration (5 µm)	
CHLORINE REDUCER dosing	
MICROFILTRATION cartridges (1 µm)	
Desalination with REVERSE OSMOSIS membranes	

* Plants not included in the catalogue. Please check with our Technical Department.



Drinking water plant for FRESH WATER (TDS<1000 mg/l)

Production: 3 to 123 m³/h

TREATED WATER

Meets the requirements of the GUIDELINES FOR DRINKING WATER QUALITY published by the WHO.

- TSS < 10 mg/l
- Turbidity < 1 NTU

TREATMENT LINE

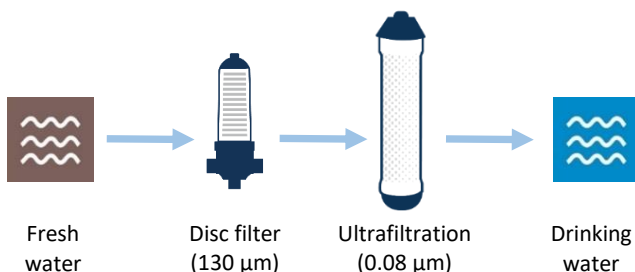
AZUD HELIX AUTOMATIC AA disc filtration (130 µm)
ULTRAFILTRATION membranes (0.08 µm)

250	Production max.*							
Model	Code	Framework	15 NTU		50 NTU		Power	Dimensions
			m³/h	gpm	m³/h	gpm	kW	L x W x H (m)
D1U4	71DA04A0	Open skid	4	18	3	13	3.3	1.2 x 1.0 x 2.3
D2U8	71DA08A0	Open skid	8	35	6	26	3.3	2.2 x 1.2 x 2.3
D3U12	71DA12A0	Open skid	12	53	8	35	5.2	2.5 x 1.2 x 2.3
D3U12 L10	71DA12C0	10' Container	12	53	8	35	5.2	3.0 x 2.5 x 2.6
D4U16	71DA16A0	Open skid	16	71	11	48	7.0	3.0 x 1.5 x 2.3
D4U16 L10	71DA16C0	10' Container	16	71	11	48	7.0	3.0 x 2.5 x 2.6
D6U24	71DA24A0	Open skid	24	106	17	75	7.7	4.0 x 1.5 x 2.3
D6U24 L20	71DA24D0	20' Container	24	106	17	75	7.7	6.1 x 2.5 x 2.6
D8U31	71DA31A0	Open skid	31	137	23	101	9.2	5.0 x 1.5 x 2.3
D8U31 L20	71DA31D0	20' Container	31	137	23	101	9.2	6.1 x 2.5 x 2.6
D10U38	71DA38A0	Open skid	38	167	27	119	10.3	5.5 x 2.0 x 2.3
D10U38 L20	71DA38D0	20' Container	38	167	27	119	10.3	6.1 x 2.5 x 2.6
D12U45	71DA45A0	Open skid	45	198	34	150	12.0	5.0 x 2.5 x 2.3
D12U45 L20	71DA45D0	20' Container	45	198	34	150	12.0	6.1 x 2.5 x 2.6
D14U55	71DA55A0	Open skid	55	242	40	176	13.0	5.0 x 2.5 x 2.3
D14U55 L40	71DA55E0	40' Container	55	242	40	176	13.0	12.2 x 2.5 x 2.6
D16U62	71DA62A0	Open skid	62	273	45	198	18.0	6.0 x 2.5 x 2.3
D16U62 L40	71DA62E0	40' Container	62	273	45	198	18.0	12.2 x 2.5 x 2.6
D20U77	71DA77A0	Open skid	77	339	57	251	10.3	6.0 x 3.0 x 2.3
D20U77 L40	71DA77E0	40' Container	77	339	57	251	10.3	12.2 x 2.5 x 2.6
D24U90	71DA90A0	Open skid	90	396	68	299	12.0	7.0 x 3.0 x 2.3
D24U90 L40	71DA90F0	40' Container	90	396	68	299	12.0	12.2 x 2.5 x 2.6
D28U104	71DAZ4A0	Open skid	104	458	80	352	13.0	7.0 x 3.0 x 2.3
D28U104 L40	71DAZ4F0	40' Container	104	458	80	352	13.0	12.2 x 2.5 x 2.6
D32U123	71DAX3A0	Open skid	123	542	90	396	18.0	7.0 x 3.0 x 2.3
D32U123 L40	71DAX3F0	40' Container	123	542	90	396	18.0	12.2 x 2.5 x 2.6

Note: From plant model D20U77 on cleaning is performed through blocks of ultrafiltration membranes, therefore the energetic consumption is reduced.

Dimensions without auxiliary equipment. L=Length; W=Width; H=Height.

* Design criteria: Turbidity = 15 NTU (TSS = 30 mg/l) and 50 NTU (TSS = 100 mg/l).



SYSTEM LIMITATIONS

Turbidity	< 200 NTU
TSS	< 150 mg/l
TDS	< 1000 mg/l
Oil and grease	< 0.1 mg/l
BOD	< 50 mg/l
COD	< 300 mg/l
TOC	< 15 mg/l
Chlorine	< 1 mg/l
pH	6.5 - 8.5



Drinking water plant for LOW SALINITY BRACKISH WATER (TDS: 1000 - 3000 mg/l)

Production: 2 to 42 m³/h

TREATED WATER

Meets the requirements of the GUIDELINES FOR DRINKING WATER QUALITY published by the WHO.

- TDS < 1000 mg/l
- TSS < 10 mg/l
- Turbidity < 1 NTU

TREATMENT LINE

Media filtration with ZEOLITE AND PYROLUSITE (5 µm)
MICROFILTRATION cartridges (1 µm)
Desalination with REVERSE OSMOSIS membranes

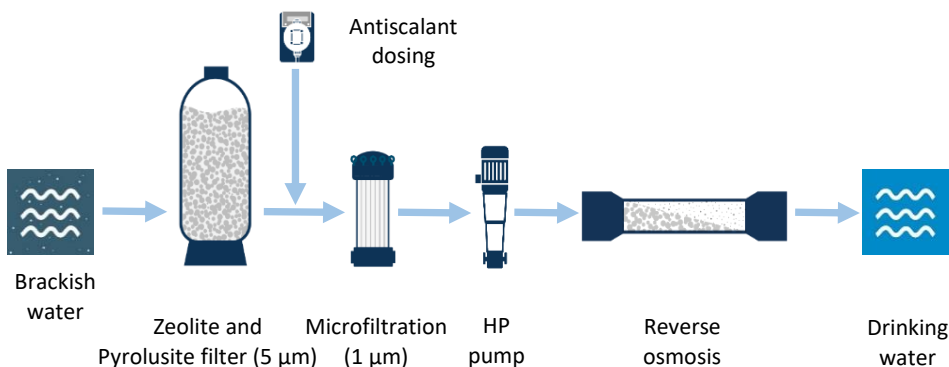
ADDITIONAL EQUIPMENT

FLUSHING SKID and CIP SKID

250 Model	Code	Framework	Production max.*		Power kW	Dimensions L x W x H (m)
			m ³ /h	gpm		
ZPOX2	71DG02A0	Open skid	2	9	5.5	3.0 x 1.2 x 2.2
ZPOX2 L10	71DG02C0	10' Container	2	9	5.5	3.0 x 2.5 x 2.6
ZPOX3	71DG03A0	Open skid	3	13	7.0	3.0 x 1.2 x 2.2
ZPOX3 L10	71DG03C0	10' Container	3	13	7.0	3.0 x 2.5 x 2.6
ZPOX4	71DG04A0	Open skid	4	18	7.0	3.5 x 1.2 x 2.2
ZPOX4 L10	71DG04C0	10' Container	4	18	7.0	3.0 x 2.5 x 2.6
ZPOX5	71DG05A0	Open skid	5	22	7.0	4.5 x 1.2 x 2.2
ZPOX5 L20	71DG05D0	20' Container	5	22	7.0	6.1 x 2.5 x 2.6
ZPOX6	71DG06A0	Open skid	6	26	9.0	4.5 x 1.2 x 2.2
ZPOX6 L20	71DG06D0	20' Container	6	26	9.0	6.1 x 2.5 x 2.6
ZPOX10	71DG10A0	Open skid	10	44	12.5	6.5 x 1.2 x 2.2
ZPOX10 L20	71DG10D0	20' Container	10	44	12.5	6.1 x 2.5 x 2.6
ZPOX14	71DG14A0	Open skid	14	62	12.5	6.5 x 1.5 x 2.4
ZPOX14 L20	71DG14D0	20' Container	14	62	12.5	6.1 x 2.5 x 2.6
ZPOX18	71DG18A0	Open skid	18	79	16.5	7.5 x 1.5 x 2.4
ZPOX18 L40	71DG18E0	40' Container	18	79	16.5	12.2 x 2.5 x 2.6
ZPOX25	71DG25A0	Open skid	25	110	23.5	6.5 x 2.0 x 2.4
ZPOX25 L40	71DG25E0	40' Container	25	110	23.5	12.2 x 2.5 x 2.6
ZPOX42	71DG42A0	Open skid	42	185	31.5	10.5 x 2.0 x 2.4
ZPOX42 L40	71DG42E0	40' Container	42	185	31.5	12.2 x 2.5 x 2.6

* Design criteria: Turbidity = 15 NTU; TSS = 30 mg/l; TDS = 2000 mg/l; T = 18 °C.

Dimensions without auxiliary equipment. L=Length; W=Width; H=Height.



SYSTEM LIMITATIONS

Turbidity	< 15 NTU
TSS	< 30 mg/l
TDS	< 3000 mg/l
Oil and grease	< 0.1 mg/l
Iron + Manganese	< 0.5 mg/l
Aluminium	< 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



Drinking water plant for MEDIUM SALINITY BRACKISH WATER (TDS: 3000 - 6000 mg/l)

Production: 2 to 42 m³/h

TREATED WATER

Meets the requirements of the GUIDELINES FOR DRINKING WATER QUALITY published by the WHO.

- TDS < 1000 mg/l
- TSS < 10 mg/l
- Turbidity < 1 NTU

TREATMENT LINE

ZEOLITE AND PYROLUSITE media filtration (5 µm)
MICROFILTRATION cartridges (1 µm)
Desalination with REVERSE OSMOSIS membranes

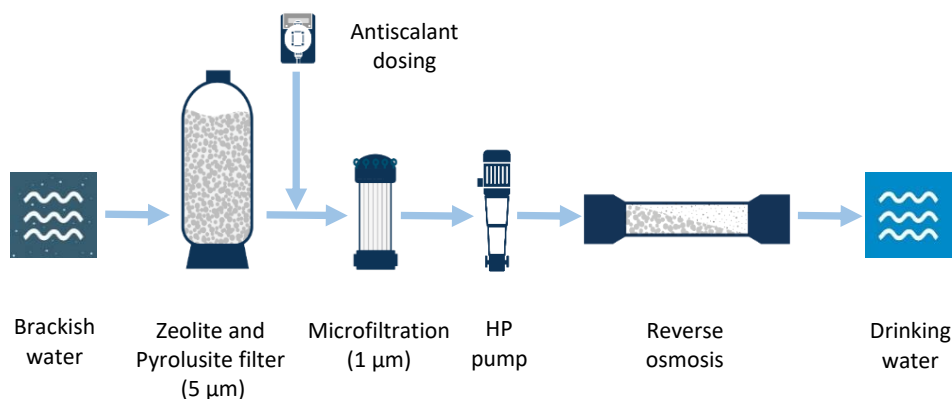
ADDITIONAL EQUIPMENT

FLUSHING SKID and CIP SKID

250 Model	Code	Framework	Production max.*		Power kW	Dimensions L x W x H (m)
			m ³ /h	gpm		
ZPOW2	71DH02A0	Open skid	2	9	5.5	4.0 x 1.2 x 2.2
ZPOW2 L10	71DH02C0	10' Container	2	9	5.5	3.0 x 2.5 x 2.6
ZPOW3	71DH03A0	Open skid	3	13	7.0	3.5 x 1.2 x 2.2
ZPOW3 L10	71DH03C0	10' Container	3	13	7.0	3.0 x 2.5 x 2.6
ZPOW5	71DH05A0	Open skid	5	22	9.0	4.5 x 1.2 x 2.2
ZPOW5 L20	71DH05D0	20' Container	5	22	9.0	6.1 x 2.5 x 2.6
ZPOW6	71DH06A0	Open skid	6	26	9.0	5.5 x 1.2 x 2.2
ZPOW6 L20	71DH06D0	20' Container	6	26	9.0	6.1 x 2.5 x 2.6
ZPOW10	71DH10A0	Open skid	10	44	16.5	5.5 x 1.4 x 2.3
ZPOW10 L20	71DH10D0	20' Container	10	44	16.5	6.1 x 2.5 x 2.6
ZPOW14	71DH14A0	Open skid	14	62	20.0	8.0 x 1.4 x 2.3
ZPOW14 L20	71DH14D0	20' Container	14	62	20.0	6.1 x 2.5 x 2.6
ZPOW18	71DH18A0	Open skid	18	79	23.5	5.5 x 2.0 x 2.3
ZPOW18 L40	71DH18E0	40' Container	18	79	23.5	12.2 x 2.5 x 2.6
ZPOW25	71DH25A0	Open skid	25	110	38.5	6.5 x 2.0 x 2.4
ZPOW25 L40	71DH25E0	40' Container	25	110	38.5	12.2 x 2.5 x 2.6
ZPOW42	71DH42A0	Open skid	42	185	61.5	11.5 x 2.0 x 2.4
ZPOW42 L40	71DH42E0	40' Container	42	185	61.5	12.2 x 2.5 x 2.6

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

Dimensions without auxiliary equipment. L=Length; W=Width; H=Height.



SYSTEM LIMITATIONS

Turbidity	< 15 NTU
TSS	< 30 mg/l
TDS	< 6000 mg/l
Oil and grease	< 0.1 mg/l
Iron + Manganese	< 0.5 mg/l
Aluminium	< 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



Drinking water plant for SEA WATER (TDS: 35000 - 45000 mg/l)

Production: 0.8 to 30.0 m³/h

TREATED WATER

Meets the requirements of the GUIDELINES FOR DRINKING WATER QUALITY published by the WHO.

- TDS < 1000 mg/l
- TSS < 10 mg/l
- Turbidity < 1 NTU

TREATMENT LINE

AZUD HELIX AUTOMATIC AA disc filtration (130 µm)
ULTRAFILTRATION membranes (0.08 µm)
Desalination with REVERSE OSMOSIS membranes

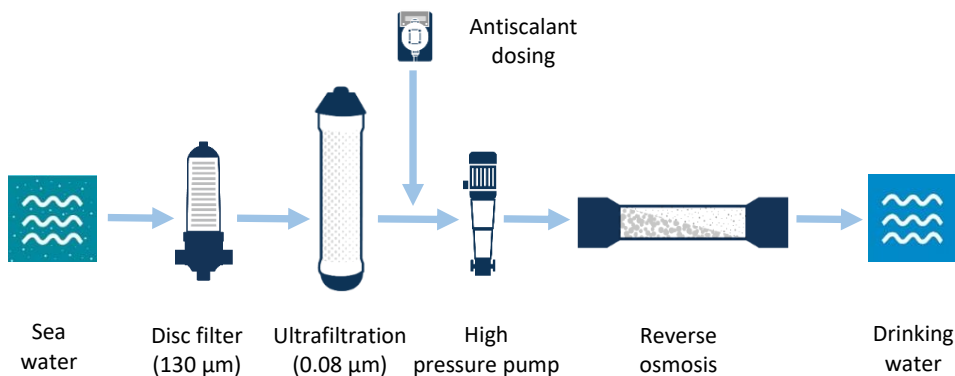
ADDITIONAL EQUIPMENT

FLUSHING SKID and CIP SKID

250 Model	Code	Framework	Production max.*		Power kW	Dimensions L x W x H (m)
			m ³ /h	gpm		
D1USW0.8	71DFA8A0	Open skid	0.8	3.5	7.3	4.5 x 1.5 x 2.2
D1USW0.8 L20	71DFA8D0	20' Container	0.8	3.5	7.3	6.1 x 2.5 x 2.6
D2USW1.5	71DFB5A0	Open skid	1.5	6.6	8.8	5.8 x 1.5 x 2.2
D2USW1.5 L20	71DFB5D0	20' Container	1.5	6.6	8.8	6.1 x 2.5 x 2.6
D3USW3	71DF03A0	Open skid	3.0	13.2	23.7	5.8 x 1.5 x 2.2
D3USW3 L20	71DF03D0	20' Container	3.0	13.2	23.7	6.1 x 2.5 x 2.6
D4USW4	71DF04A0	Open skid	4.0	17.6	37.0	5.5 x 2.0 x 2.2
D4USW4 L20	71DF04D0	20' Container	4.0	17.6	37.0	6.1 x 2.5 x 2.6
D6USW7	71DF07A0	Open skid	7.0	30.8	33.2	8.0 x 2.2 x 2.2
D6USW7 L40	71DF07E0	40' Container	7.0	30.8	33.2	12.2 x 2.5 x 2.6
D8USW10	71DF10A0	Open skid	10.0	44.0	46.7	10.0 x 2.2 x 2.2
D8USW10 L40	71DF10E0	40' Container	10.0	44.0	46.7	12.2 x 2.5 x 2.6
D16USW17	71DF17A0	Open skid	17.0	74.9	61.7	11.5 x 2.2 x 2.2
D16USW17 L40	71DF17E0	40' Container	17.0	74.9	61.7	12.2 x 2.5 x 2.6
D24USW30	71DF30A0	Open skid	30.0	132.1	98.0	11.9 x 2.2 x 2.2
D24USW30 L40	71DF30E0	40' Container	30.0	132.1	98.0	12.2 x 2.5 x 2.6

* Design criteria: Turbidity = 50 NTU; TSS = 100 mg/l; TDS = 40000 mg/l; T = 18 °C.

Dimensions without auxiliary equipment. L=Length; W=Width; H=Height.



SYSTEM LIMITATIONS

Turbidity	< 200 NTU
TSS	< 150 mg/l
TDS	< 45000 mg/l
Oil and grease	< 0.1 mg/l
Iron + Manganese	< 0.3 mg/l
Aluminium	< 0.05 mg/l
Boron	< 5 mg/l
COD	< 10 mg/l
TOC	< 3 mg/l
Chlorine	< 0.1 mg/l
pH	6.5 - 8.5



Drinking water plant for SEA WATER (TDS: 35000 - 45000 mg/l)

Production: 0.8 to 30.0 m³/h

TREATED WATER

Meets the requirements of the GUIDELINES FOR DRINKING WATER QUALITY published by the WHO.

- TDS < 1000 mg/l
- TSS < 10 mg/l
- Turbidity < 1 NTU

TREATMENT LINE

ZEOLITE media filtration (5 µm)
MICROFILTRATION cartridges (1 µm)
Desalination with REVERSE OSMOSIS membranes

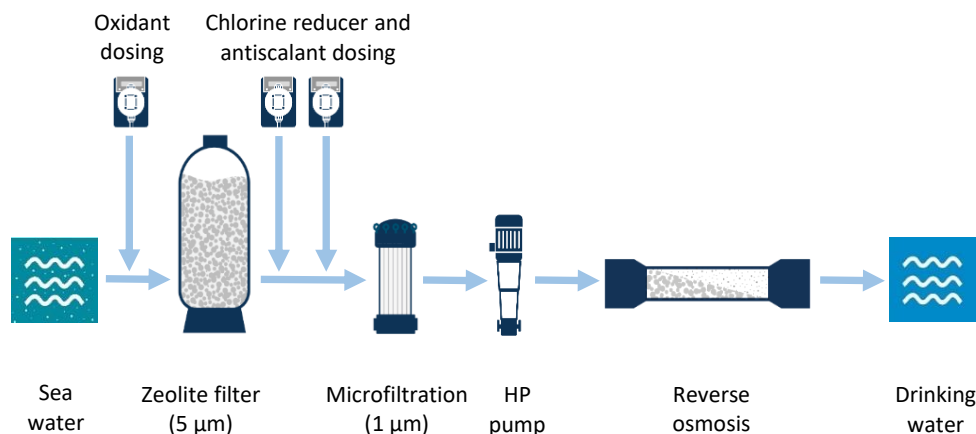
ADDITIONAL EQUIPMENT

FLUSHING SKID and CIP SKID

250 Model	Code	Framework	Production max.*		Power kW	Dimensions L x W x H (m)
			m ³ /h	gpm		
ZSW0.8	71DSA8A0	Open skid	0.8	3.5	5.5	4.5 x 1.5 x 2.2
ZSW0.8 L20	71DSA8D0	20' Container	0.8	3.5	5.5	6.1 x 2.5 x 2.6
ZSW1.5	71DSB5A0	Open skid	1.5	6.6	7.0	5.5 x 1.5 x 2.2
ZSW1.5 L20	71DSB5D0	20' Container	1.5	6.6	7.0	6.1 x 2.5 x 2.6
ZSW3	71DS03A0	Open skid	3.0	13.2	20.0	6.0 x 1.5 x 2.2
ZSW3 L20	71DS03D0	20' Container	3.0	13.2	20.0	6.1 x 2.5 x 2.6
ZSW4	71DS04A0	Open skid	4.0	17.6	31.5	5.5 x 1.5 x 2.2
ZSW4 L20	71DS04D0	20' Container	4.0	17.6	31.5	6.1 x 2.5 x 2.6
ZSW7	71DS07A0	Open skid	7.0	30.8	25.5	7.0 x 2.0 x 2.2
ZSW7 L40	71DS07E0	40' Container	7.0	30.8	25.5	12.2 x 2.5 x 2.6
ZSW10	71DS10A0	Open skid	10.0	44.0	37.0	7.5 x 2.0 x 2.2
ZSW10 L40	71DS10E0	40' Container	10.0	44.0	37.0	12.2 x 2.5 x 2.6
ZSW17	71DS17A0	Open skid	17.0	74.9	52.0	9.0 x 2.0 x 2.2
ZSW17 L40	71DS17E0	40' Container	17.0	74.9	52.0	12.2 x 2.5 x 2.6
ZSW30	71DS30A0	Open skid	30.0	132.1	87.5	11.0 x 2.2 x 2.2
ZSW30 L40	71DS30E0	40' Container	30.0	132.1	87.5	12.2 x 2.5 x 2.6

* Design criteria: Turbidity = 15 NTU; TSS = 30 mg/l; TDS = 40000 mg/l; T = 18 °C.

Dimensions without auxiliary equipment. L=Length; W=Width; H=Height.



SYSTEM LIMITATIONS

Turbidity	< 15 NTU
TSS	< 30 mg/l
TDS	< 45000 mg/l
Oil and grease	< 0.1 mg/l
Iron + Manganese	< 0.3 mg/l
Aluminium	< 0.05 mg/l
Boron	< 5 mg/l
COD	< 10 mg/l
TOC	< 3 mg/l
Chlorine	< 0.1 mg/l
pH	6.5 - 8.5

Off-grid drinking water plants AZUD WATERTECH DWE

POTABLE WATER supply with an ENERGY SELF-SUFFICIENT solution, from any source of fresh water, brackish water or sea water.

- ✓ Isolated villages
- ✓ Emergencies
- ✓ Temporary settlements
- ✓ Military operations

Competitive advantages

- > EXCLUSIVE PRE-TREATMENT thanks to the disc filtration system AZUD HELIX AUTOMATIC.
- > MECHANICAL FILTRATION technologies, without unnecessary chemicals and consumables.
- > VERSATILE plant. Immediate supply of GUARANTEED POTABLE WATER, from fresh, brackish and/or sea water.
- > Energy EFFICIENCY and energy SELF-SUFFICIENCY. SURPLUS ENERGY supply (models with battery).
- > Very COMPACT and MOBILE plant.

Solar



Non solar



Skid mounted

FW

Fresh water



AZUD WATERTECH DWE FW SOLAR



AZUD WATERTECH DWE FW

- SOLAR models include solar-powered pump and solar panels.
- Available in AUTOMATIC or SEMIAUTOMATIC version.



Closed mobile framework

FW

Fresh water



BW VERSATILE

Brackish/Fresh water



SW VERSATILE

Sea/Brackish/Fresh water



AZUD WATERTECH DWE FW/BW/SW L5 SOLAR



**Optional off-road trailer*

AZUD WATERTECH DWE FW/BW/SW L5

- Optional off-road trailer with special box for generator (optional) and tools.
- SOLAR models include solar-powered pump, solar panels and batteries (6-36h autonomy).
- Available in AUTOMATIC or SEMIAUTOMATIC (only FW model) version.





Off-grid drinking water plant from FRESH WATER (TDS<1000 mg/l)

Production: 1.5 to 6.0 m³/h

TREATED WATER

Meets the requirements of the GUIDELINES FOR DRINKING WATER QUALITY published by the WHO.

- TSS < 10 mg/l
- Turbidity < 1 NTU

TREATMENT LINE

Feed PUMP
AZUD HELIX AUTOMATIC disc filtration (130 µm)
ULTRAFILTRATION membranes (0.08 µm)
ACTIVATED CARBON filtration
RESIDUAL DISINFECTION

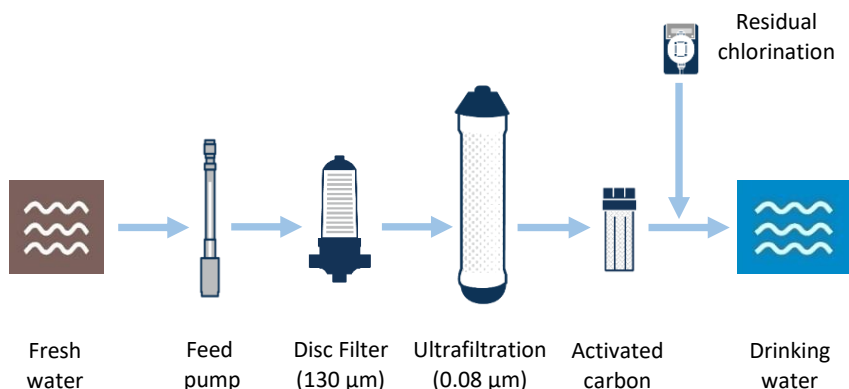
OPTIONS

All-terrain TRAILER
PILLOW TANK
GENERATOR

250 Model	Code	Framework	Control	Power supply	Produc. max.*		Power	Dimensions
					m ³ /h	gpm	kW	L x W x H (m)
FW1.5 L5 SOLAR	71EBB5H0	Closed framework	Automatic	S E G	1.5	6.6	0.4	1.7 x 1.3 x 2.0
FW1.5 L5 SOLAR SA	71EBB5M0	Closed framework	Semi-automatic	S E G	1.5	6.6	0.4	1.7 x 1.3 x 2.0
FW1.5 SOLAR SA	71EBB5L0	Open skid	Semi-automatic	S E G	1.5	6.6	0.3	1.2 x 1.0 x 2.0
FW2.5 L5 SOLAR	71EBC5H0	Closed framework	Automatic	S E G	2.5	11.0	0.8	1.7 x 1.3 x 2.0
FW2.5 L5 SOLAR SA	71EBC5M0	Closed framework	Semi-automatic	S E G	2.5	11.0	0.8	1.7 x 1.3 x 2.0
FW2.5 SOLAR SA	71EBC5L0	Open skid	Semi-automatic	S E G	2.5	11.0	0.7	1.2 x 1.0 x 2.0
FW3 L5	71EB03B0	Closed framework	Automatic	E G	3.0	13.2	0.8	1.7 x 1.3 x 1.5
FW3 L5 SA	71EB03N0	Closed framework	Semi-automatic	E G	3.0	13.2	0.8	1.7 x 1.3 x 1.5
FW3 SA	71EB03K0	Open skid	Semi-automatic	E G	3.0	13.2	0.8	1.2 x 1.0 x 1.8
FW6 L5	71EB06B0	Closed framework	Automatic	E G	6.0	26.4	1.4	1.7 x 1.3 x 1.5
FW6 L5 SA	71EB06N0	Closed framework	Semi-automatic	E G	6.0	26.4	1.4	1.7 x 1.3 x 1.5
FW6 SA	71EB06K0	Open skid	Semi-automatic	E G	6.0	26.4	1.4	1.6 x 1.1 x 1.8

* Design criteria for maximum production: Turbidity = 15 NTU; TSS = 30 mg/l; T = 18°C.

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



SYSTEM LIMITATIONS

Turbidity	< 200 NTU
TSS	< 150 mg/l
TDS	< 1000 mg/l
Oil and grease	< 0.1 mg/l
BOD	< 50 mg/l
COD	< 300 mg/l
TOC	< 15 mg/l
pH	6.5 - 8.5



Off-grid drinking water plant for BRACKISH WATER (TDS: 1000 - 6000 mg/l)

Production: 0.3 to 3.0 m³/h

TREATED WATER

Meets the requirements of the GUIDELINES FOR DRINKING WATER QUALITY published by the WHO.

- Free from microbiological contaminants
- TDS < 1000 mg/l
- TSS < 10 mg/l
- Turbidity < 1 NTU

TREATMENT LINE

Feed PUMP

AZUD HELIX AUTOMATIC disc filtration (130 µm)

ULTRAFILTRATION membranes (0.08 µm)

ACTIVATED CARBON filtration

Desalination with REVERSE OSMOSIS membranes

RESIDUAL DISINFECTION

OPTIONS

All-terrain TRAILER

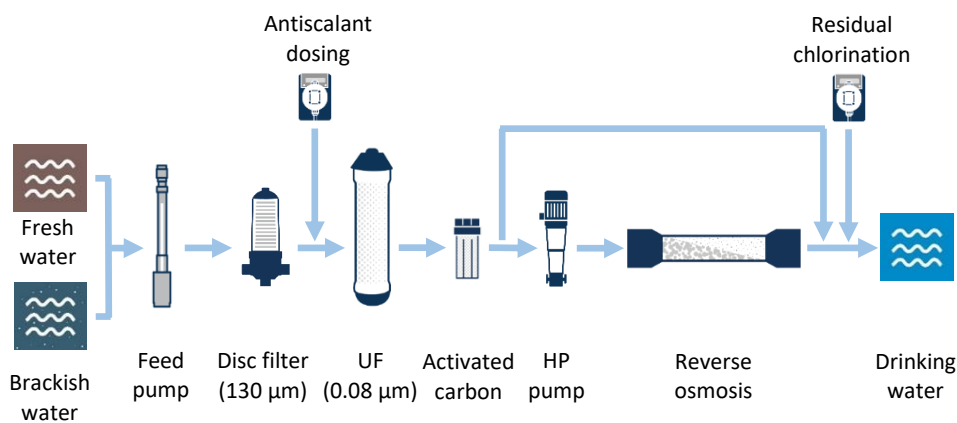
PILLOW TANK

GENERATOR

250			Production max.*					
Model	Code	Power supply	Fresh w.		Brackish w.		Power	Dimensions
			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 °C.

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



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
Aluminium	< 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



Off-grid drinking water plant for SEA WATER (TDS: 35000 - 45000 mg/l)

Production: 0.2 to 3.0 m³/h

TREATED WATER

Meets the requirements of the GUIDELINES FOR DRINKING WATER QUALITY published by the WHO.

- Free from microbiological contaminants
- TDS < 1000 mg/l
- TSS < 10 mg/l
- Turbidity < 1 NTU

TREATMENT LINE

Feed PUMP
AZUD HELIX AUTOMATIC disc filtration (130 µm)
ULTRAFILTRATION membranes (0.08 µm)
ACTIVATED CARBON filtration
Desalination with REVERSE OSMOSIS membranes
Remineralization with CALCITE
RESIDUAL DISINFECTION

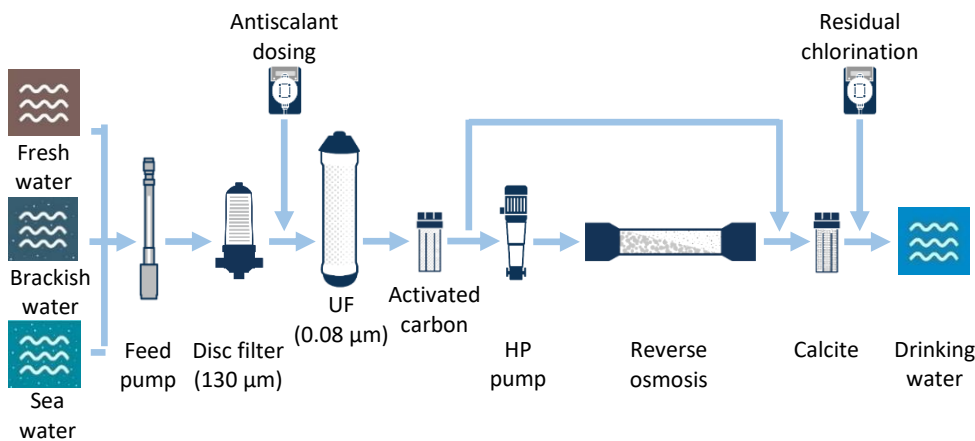
OPTIONS

All-terrain TRAILER
PILLOW TANK
GENERATOR

250			Production max.*					
Model	Code	Power supply	Fresh w.		Sea water		Power	Dimensions
			m³/h	gpm	m³/h	gpm		
SW0.2 VERSATILE L5 SOLAR	71EFA2H0	S E G	1.5	6.6	0.2	0.9	1.9	1.7 x 1.3 x 2.0
SW0.2 VERSATILE L5	71EFA2B0	E G	3.0	13.2	0.2	0.9	2.1	1.7 x 1.3 x 1.5

* Design criteria: Turbidity = 15 NTU; TSS = 30 mg/l; TDS = 40000 mg/l; T = 18 °C.

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



SYSTEM LIMITATIONS

Turbidity	< 200 NTU
TSS	< 150 mg/l
TDS	< 45000 mg/l
Oil and grease	< 0.1 mg/l
Iron + Manganese	< 0.3 mg/l
Aluminium	< 0.05 mg/l
Boron	< 5 mg/l
COD	< 10 mg/l
TOC	< 3 mg/l
Chlorine	< 0.1 mg/l
pH	6.5 - 8.5

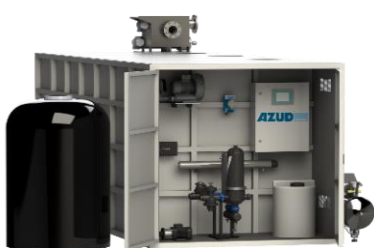
AZUD WATERTECH WW Waste water treatment plant

Urban waste water treatment for treated water discharge to the environment / sewer or recycling for industrial applications / irrigation.

- ✓ Villages
- ✓ Hotels
- ✓ Campings
- ✓ Camps

Competitive advantages

- > CONTAINERIZED steel framework with external ANTI RUST treatment and internal FRP coating.
- > COMPACT and MOVABLE plant for ABOVE-GROUND installation. Odorless and noiseless.
- > COMPLETE waste water TREATMENT per module.
- > Moving Bed Bio Reactor waste water treatment system, HIGH TREATMENT CAPACITY with MINIMUM FOOTPRINT.
- > Two stages process: HIGH EFFICIENCY and ADAPTABLE for load or flow rate changes.
- > FLEXIBILITY in the waste water treatment capacity, just increasing the carriers filling percentage.

Waste water treatment capacity	Discharge treatment	Water recycling treatment
 According to size: T1, T2, T3, T4 * Plants fitting in 20' HC and 40' HC shipping containers.  According to % carriers: 30%, 50%, 70%	  AZUD WATERTECH WW MBBR	    AZUD WATERTECH WW MBBR DV

MBBR T1



	MBBR	MBBR DV
L (m)	3.3	4.0
H (m)	2.2	2.2
W (m)	2.2	2.2



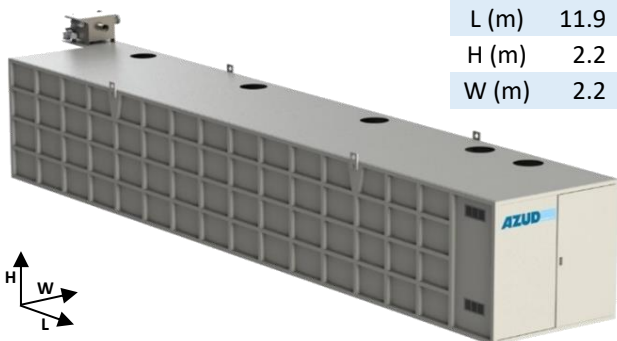
MBBR T2



	MBBR	MBBR DV
L (m)	5.8	6.3
H (m)	2.2	2.2
W (m)	2.2	2.2



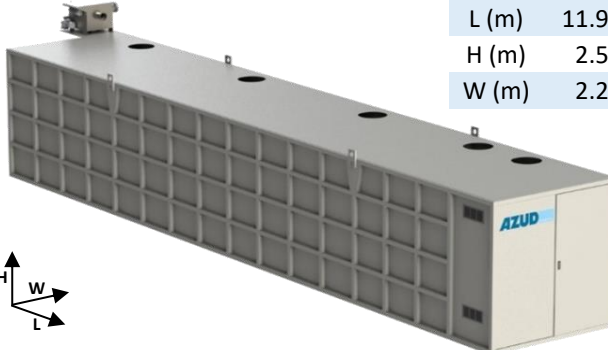
MBBR T3



	MBBR	MBBR DV
L (m)	11.9	11.9
H (m)	2.2	2.2
W (m)	2.2	2.2



MBBR T4



	MBBR	MBBR DV
L (m)	11.9	11.9
H (m)	2.5	2.5
W (m)	2.2	2.2





Containerized waste water plant for URBAN WASTE WATER

Flow rate: 12 to 200 m³/d

TREATED WATER

Meets the requirements established for public watercourses discharge.
European Directive 91/271/EEC:

BOD₅ ≤ 25 mg/l; COD ≤ 125 mg/l; TSS ≤ 60 mg/l

With recycling system:

TSS ≤ 20 mg/l; E. Coli ≤ 1000 CFU/100 ml; Intest. nem. ≤ 1 egg/10 l

TREATMENT LINE

Feed PUMP

Screening with automatic ROTARY DRUM

MBBR biological waste water treatment

Clarification by LAMELLAR DECANTER

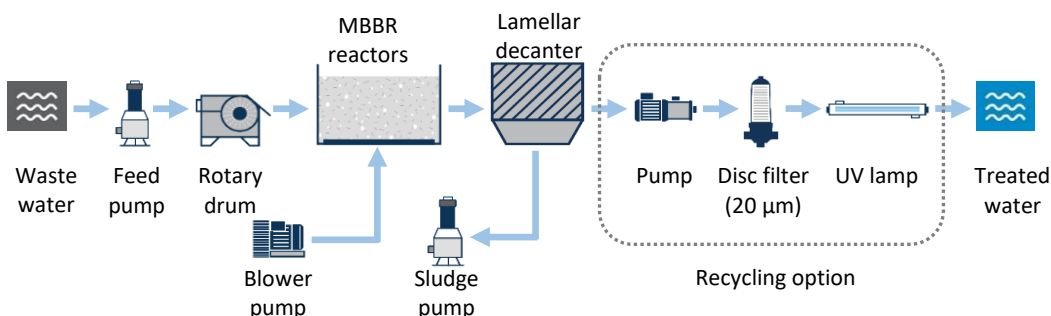
SLUDGE EXTRACTION with submersible pump

Extras included in the WWTP with water recycling system:

PUMP + AZUD HELIX AUTOMATIC AA (20 µm) + UV LAMP

250 Model	Code	Flow rate		PE *	% Carriers	Power kW	Dimensions L x W x H (m)
		m ³ /d	gpd				
MBBR T1 C30	71WJP3P0	12	3170	60	30	3.1	3.3 x 2.2 x 2.2
MBBR T1 C30 DV	71WKP3P0	12	3170	60	30	5.1	4.0 x 2.2 x 2.2
MBBR T1 C50	71WJP5P0	24	6340	120	50	3.4	3.3 x 2.2 x 2.2
MBBR T1 C50 DV	71WKP5P0	24	6340	120	50	5.5	4.0 x 2.2 x 2.2
MBBR T1 C70	71WJP7P0	32	8453	160	70	3.8	3.3 x 2.2 x 2.2
MBBR T1 C70 DV	71WKP7P0	32	8453	160	70	5.9	4.0 x 2.2 x 2.2
MBBR T2 C30	71WJP3Q0	25	6604	125	30	3.4	5.8 x 2.2 x 2.2
MBBR T2 C30 DV	71WKP3Q0	25	6604	125	30	5.5	6.3 x 2.2 x 2.2
MBBR T2 C50	71WJP5Q0	50	13209	250	50	4.5	5.8 x 2.2 x 2.2
MBBR T2 C50 DV	71WKP5Q0	50	13209	250	50	6.9	6.3 x 2.2 x 2.2
MBBR T2 C70	71WJP7Q0	70	18492	350	70	5.3	5.8 x 2.2 x 2.2
MBBR T2 C70 DV	71WKP7Q0	70	18492	350	70	7.9	6.3 x 2.2 x 2.2
MBBR T3 C30	71WJP3R0	65	17171	325	30	5.6	11.9 x 2.2 x 2.2
MBBR T3 C30 DV	71WKP3R0	60	15850	300	30	7.2	11.9 x 2.2 x 2.2
MBBR T3 C50	71WJP5R0	130	34342	650	50	6.9	11.9 x 2.2 x 2.2
MBBR T3 C50 DV	71WKP5R0	120	31700	600	50	8.6	11.9 x 2.2 x 2.2
MBBR T3 C70	71WJP7R0	170	44909	850	70	6.9	11.9 x 2.2 x 2.2
MBBR T3 C70 DV	71WKP7R0	150	39626	750	70	11.2	11.9 x 2.2 x 2.2
MBBR T4 C30	71WJP3S0	75	19813	375	30	5.6	11.9 x 2.2 x 2.5
MBBR T4 C30 DV	71WKP3S0	68	17964	340	30	8.2	11.9 x 2.2 x 2.5
MBBR T4 C50	71WJP5S0	150	39626	750	50	6.9	11.9 x 2.2 x 2.5
MBBR T4 C50 DV	71WKP5S0	135	35663	675	50	8.6	11.9 x 2.2 x 2.5
MBBR T4 C70	71WJP7S0	200	52834	1000	70	8.1	11.9 x 2.2 x 2.5
MBBR T4 D70 DV	71WKP7S0	175	46230	875	70	12.4	11.9 x 2.2 x 2.5

* PE = Population equivalent (60 g BOD/d). | Dimensions without auxiliary equipment. L=Length; W=Width; H=Height.



SYSTEM LIMITATIONS

BOD	≤ 300 mg/l
COD	≤ 750 mg/l
TSS	≤ 500 mg/l
TDS	≤ 2000 mg/l
Oil/grease	≤ 50 mg/l
pH	6.0 - 9.0

Water recycling plant AZUD WATERTECH RW

Water reuse in industrial processes and agricultural irrigation.

- ✓ Cooling towers
- ✓ Heat exchange system
- ✓ Fruit and vegetables processing
- ✓ Washing centers
- ✓ Irrigation

Competitive advantages

- > EXCLUSIVE PRE-TREATMENT thanks to the disc filtration system AZUD HELIX AUTOMATIC AA.
- > ULTRAFILTRATION MEMBRANE system designed for removal of high TSS loads.
- > HIGH EFFICIENCY backwash system for disc filters and ultrafiltration membranes, thanks to the mix water/air.

Skid-mounted

Shipping Container

Water recycling

(↑TSS; ↑Turbidity)

Production: 1.7 to 53.3 m³/h



AZUD WATERTECH **RW DU**



AZUD WATERTECH **RW DU L**



Water RECYCLING plant (↑TSS; ↑Turbidity)

Production: 1.7 to 53.3 m³/h

TREATED WATER

Compliance with the water quality requirements for INDUSTRIAL PROCESS, TREATED WASTEWATER, or for IRRIGATION:

- TSS < 10 mg/l
- Turbidity < 5 NTU

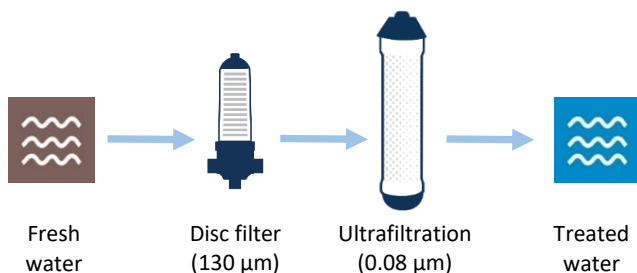
TREATMENT LINE

AZUD HELIX AUTOMATIC AA disc filtration (130 µm)
ULTRAFILTRATION membranes (0.08 µm)

250 Model	Code	Framework	Production max.*		Power kW	Dimensions L x W x H (m)
			m ³ /h	gpm		
D1U1.7	71RAB7A0	Open skid	1.7	7.5	3.3	1.2 x 1.0 x 2.3
D2U3.3	71RAC3A0	Open skid	3.3	14.5	3.3	2.2 x 1.2 x 2.3
D3U5	71RA05A0	Open skid	5.0	22.0	5.2	2.5 x 1.2 x 2.3
D3U5 L10	71RA05C0	10' Container	5.0	22.0	5.2	3.0 x 2.5 x 2.6
D4U7	71RA07A0	Open skid	6.7	29.5	7.0	3.0 x 1.5 x 2.3
D4U7 L10	71RA07C0	10' Container	6.7	29.5	7.0	3.0 x 2.5 x 2.6
D6U10	71RA10A0	Open skid	10.0	44.0	7.7	4.0 x 1.5 x 2.3
D6U10 L20	71RA10D0	20' Container	10.0	44.0	7.7	6.1 x 2.5 x 2.6
D8U13	71RA13A0	Open skid	13.3	58.6	9.2	5.0 x 1.5 x 2.3
D8U13 L20	71RA13D0	20' Container	13.3	58.6	9.2	6.1 x 2.5 x 2.6
D10U17	71RA17A0	Open skid	16.7	73.5	10.3	5.5 x 2.0 x 2.3
D10U17 L20	71RA17D0	20' Container	16.7	73.5	10.3	6.1 x 2.5 x 2.6
D12U20	71RA20A0	Open skid	20.0	88.1	12.0	5.0 x 2.5 x 2.3
D12U20 L20	71RA20D0	20' Container	20.0	88.1	12.0	6.1 x 2.5 x 2.6
D14U23	71RA23A0	Open skid	23.3	102.6	13.0	5.0 x 2.5 x 2.3
D14U23 L40	71RA23E0	40' Container	23.3	102.6	13.0	12.2 x 2.5 x 2.6
D16U27	71RA27A0	Open skid	26.7	117.6	18.0	6.0 x 2.5 x 2.3
D16U27 L40	71RA27E0	40' Container	26.7	117.6	18.0	12.2 x 2.5 x 2.6
D20U33	71RA33A0	Open skid	33.3	146.6	10.3	6.0 x 3.0 x 2.3
D20U33 L40	71RA33E0	40' Container	33.3	146.6	10.3	12.2 x 2.5 x 2.6
D24U40	71RA40A0	Open skid	40.0	176.1	12.0	7.0 x 3.0 x 2.3
D24U40 L40	71RA40E0	40' Container	40.0	176.1	12.0	12.2 x 2.5 x 2.6
D28U47	71RA47A0	Open skid	46.7	205.6	13.0	7.0 x 3.0 x 2.3
D28U47 L40	71RA47E0	40' Container	46.7	205.6	13.0	12.2 x 2.5 x 2.6
D32U53	71RA53A0	Open skid	53.3	234.7	18.0	7.0 x 3.0 x 2.3
D32U53 L40	71RA53E0	40' Container	53.3	234.7	18.0	12.2 x 2.5 x 2.6

* Design criteria: Turbidity = 25 NTU; TSS = 50 mg/l; T = 20°C.

Dimensions without auxiliary equipment. L=Length; W=Width; H=Height.



SYSTEM LIMITATIONS

Turbidity	< 200 NTU
TSS	< 150 mg/l
TDS	< 6000 mg/l
Oil and grease	< 0.1 mg/l
BOD	< 50 mg/l
COD	< 300 mg/l
TOC	< 15 mg/l
Chlorine	< 1 mg/l
pH	6.5 - 8.5

Grey water recycling plant AZUD WATERTECH GW

Recycling of grey water coming from showers, baths and sinks, to be reused in toilets and irrigation.

- ✓ Residential
- ✓ Hotels
- ✓ Hospitals
- ✓ Public swimming pools
- ✓ Public buildings

Competitive advantages

- > CLOSED and LOCKED control CABINET, to prevent operation by unauthorized staff.
- > COMPACT and DETACHABLE in modules plant.
- > MECHANICAL FILTRATION technologies, odorless, without waste generation and with reduced operational noise.
- > Exclusive pre-treatment AZUD HELIX AUTOMATIC AA, specially designed for filamentous solids.
- > ULTRAFILTRATION MEMBRANE system designed for removal of high TSS loads.
- > HIGH EFFICIENCY backwash system for disc filters and ultrafiltration membranes, thanks to the mix water/air.

D1U2



Production: **2 m³/h | 40 m³/d**

D2U5



Production: **5 m³/h | 100 m³/d**

D3U7



Production: **7 m³/h | 140 m³/d**

D4U9



Production: **9 m³/h | 180 m³/d**





GREY WATER recycling plant (↑TSS; ↑Turbidity; ↑BOD/COD)

Production: 2 to 9 m³/h

TREATED WATER

Meets the requirements for GREY WATER RECYCLING in toilets and green area irrigation.

- TSS ≤ 10 mg/l
- Turbidity ≤ 2 NTU
- BOD5 ≤ 25 mg/l
- E. Coli ≤ 10 CFU/100ml
- Residual chlorine: 0.5 – 2.0 mg/l

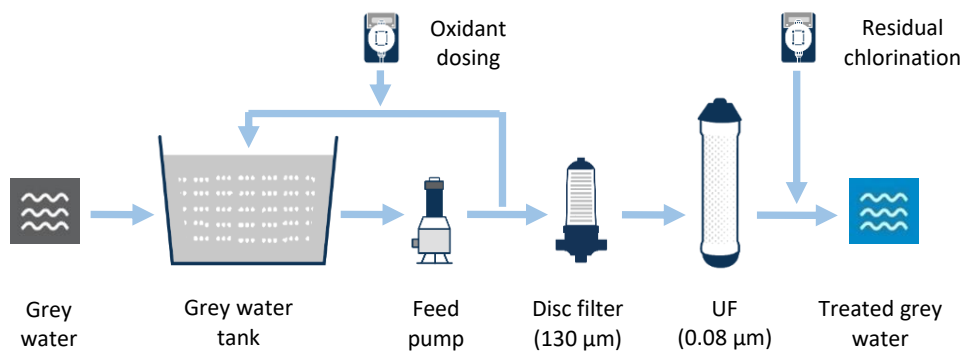
TREATMENT LINE

Feed PUMP
DOSING PUMP for OXIDANT
AZUD HELIX AUTOMATIC AA disc filtration (130 µm)
ULTRAFILTRATION membranes (0.08 µm)
RESIDUAL DISINFECTION

250 Model	Code	Production max.*		Disc Configuration	Ultrafiltration Configuration	Power kW	Dimensions L x W x H (m)
		m³/h	gpm				
D1U2	71GA02A0	2	9	1 x 201 AA	1 x 60"	7.2	2.5 x 0.8 x 2.3
D2U5	71GA05A0	5	22	1 x 201 AA	2 x 60"	7.8	3.1 x 0.8 x 2.3
D3U7	71GA07A0	7	31	1 x 201 AA	3 x 60"	8.0	3.5 x 0.8 x 2.3
D4U9	71GA09A0	9	40	1 x 202 AA	4 x 60"	12.8	4.5 x 0.8 x 2.3

* Design criteria: Turbidity = 25 NTU; TSS = 50 mg/l; T = 20°C.

Dimensions without auxiliary equipment. L=Length; W=Width; H=Height.



SYSTEM LIMITATIONS

Turbidity	< 200 NTU
TSS	< 150 mg/l
Oil and grease	< 0.1 mg/l
Chlorine	< 1 mg/l
BOD	< 150 mg/l
COD	< 300 mg/l
TOC	< 15 mg/l
pH	6.5 - 8.5

AZUD



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