



## RO Hybrid 4000

RO Hybrid 4000 is first of its kind system which combines two membrane processes, ultrafiltration and reverse osmosis. It enables production of drinking water from fresh and salt water sources (e.g. sea, well, lake, river). All salt waters like sea and brackish water can be desalinated. It also eliminates contamination induced by biological (bacteria, viruses) and chemical (nitrates, heavy metals, pesticides...) contaminants.

System automatically chooses the optimum purifying program, depending on the water source characteristics. After autonomous analysis of salinity in the raw water it will choose the right combination of ultrafiltration and reverse osmosis. This feature enables our hybrid system to optimize the production of safe drinking water.

Core of the system is composed of carefully selected components which as a whole provide a simple and effective process for obtaining safe, clean and fresh drinking water.

RO Hybrid 4000 was developed for the production of safe drinking water from salt water sources by reverse osmosis. Reverse osmosis can produce up to 24.000 litres of fresh, disinfected, safe drinking water per day.

Ultrafiltration process can be used for non-saline water sources and can produce up to 96.000 litres of fresh, clean, disinfected drinking water per day.

# TECHNICAL DATA

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## Dimensions RO Hybrid 4000:

Length	2800 mm
Width	1900 mm
Height	1450 mm
Weight	1500 kg

## Dimensions RO T Hybrid 4000:

Length	5100 mm
Width	2250 mm
Height	2020 mm

## Generator for RO GT Hybrid 4000:

Tank capacity	100L
Engine output	20 kW
Autonomy	26 h (at 75% load)

## Pipe connections:

Raw water inlet	STORZ C
Outlet rising	CAMLOCK 1"
Outlet pure water	CAMLOCK 1"
Outlet concentrate	CAMLOCK 1"

Raw water inlet pressure	max. 6 bar
Raw water temperature	10 - 50 °C
Raw water inlet flow	max. 4 m <sup>3</sup> /h

## RO treatment capacity (at 25 °C):

Salt content of raw water	
< 20.000 ppm (brackish water)	max. 28.000 l/day
45.000 ppm (sea water)	max. 24.000 l/day

## UF treatment capacity (at 25 °C):

	max. 96.000 l/day
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## Components of RO Hybrid 4000:

### Antiscale dosing unit:

User-friendly automatic dosing pump
Neutral scale inhibitor - 25kg

### Prefilter 1-bag filter:

Filter bag fineness	25-300 microns
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### Prefilter 2-sediment trapper:

Self-cleaning	
Mesh fineness	15 - 100 microns

### Ultrafiltration membrane:

Pore size	0,01 micron
Operating pressure	max. 4 bar

### Reverse osmosis membrane:

Pore size	0,0001 micron
Operating pressure	max. 70 bar

### Calcite filter:

Addition of essential minerals e.g. CaCO <sub>3</sub> and MgCO <sub>3</sub> after reverse osmosis
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### Multifilter:

Taste reduction	
Removing odors or colour	
Replacement time	after 300 h

### UV light:

Water disinfection	
Bulb lifetime	9000 h

# OPTIONAL

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## COAGULATION DOSING UNIT as additional pre-treatment

- Addition of coagulant improves organic removal efficiency and automatic self-cleaning of ultrafiltration membranes

## CHLORINE DOSING UNIT

- Secondary protection for providing high quality drinking water

## TRAILER AND POWER GENERATOR

- For easier transport the customer can choose model with trailer: RO T Hybrid 4000
- For full autonomy of the system in the most remote locations we offer a system with a power generator: RO Hybrid 4000