



**H<sub>2</sub>ORO**

**Reverse osmosis water treatment plants**



**H-RO Units**

# REVERSE OSMOSIS DRINKING WATER UNITS IN FLEXIBLE COMPACT SOLUTIONS for various applications

- Compact and robust systems
- Plug & play execution
- Low maintenance cost
- Large variety of configurations
- Stainless steel components
- Generator or solar or grid power
- **Purification of any kind of water source for potable water production**

High quality safe potable water

Reliable operation

Up to 1200 m<sup>3</sup>/day flowrate (24H operation)

Powered by diesel generator or main grid or solar panels



## SIZE OF THE MODELS:

H-ROXXX		
Model	Drinking water flowrate (m <sup>3</sup> /hour / day)	Water quality
10	0.5 / 10	All parameters according to WHO Drinking Water Quality Guidelines (4 <sup>th</sup> ed. Latest edition) and local law limits
25	1 / 25	
50	2 / 50	
100	4.15 / 100	
150	6.25 / 150	
200	8.3 / 200*	
300	12.5 / 300*	
450	18.75 / 450*	
500	21 / 500*	
960	40 / 960*	
1200	50 / 1200*	
>1200	on multiple lines or modular configuration	
*also available with energy recovery/PX		

# H-RO Units

always available as:

**Complete H-ROXXX code:**

**H-ROXXXB/S**

B for brackish water

S for seawater

**H-ROXXX1/2**

1 in one line

2 in two half-lines\*

\* The best way to manage seasonal variations



## AVAILABLE SERVICES & ACCESSORIES:

### Commissioning & Start-up of the H-RO Unit:

always directly performed  
by H2ORO's technicians for  
the best performances  
and satisfaction of the  
customer



# H-RO Units

Accessories	Description
Tools for operation	Special tool Kit always included
Portable Laboratory	Kit for chemical water testing always included
Instruction manuals	Special training for users and instruction manuals in hard and soft copies
Spare parts	All required spare parts are available for a 10-year operation
Chemicals	Chemical supply according to operation
Trailer	Robust trailer for easy displacement of the Unit (if required for mobile Units)
Water tanks	Food-grade water storage tanks in various sizes (for mobile Units)



# Technical details:

- ✓ All kind of water source
- ✓ Stainless steel components and piping
- ✓ Already assembled and factory tested
- ✓ Fully automated and remote controlled
- ✓ Emerging pollutants removal



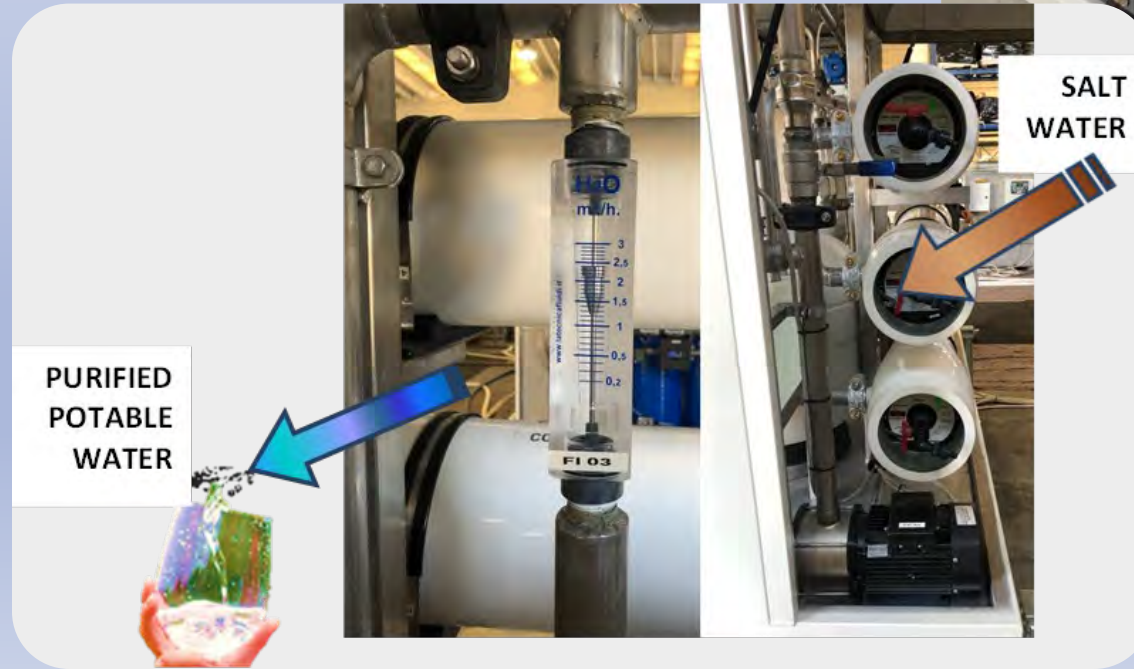
CE Declaration of Conformity



- **H-RO Units** are simple and compact **REVERSE OSMOSIS DRINKING WATER Units** from a **primary water source**, from ground water to well water or to river, lakes and medium brackish salt water up to seawater, capable to **produce potable water** in a very quick on-site installation, thanks to their **plug & play concept**: systems are pre-assembled and tested in total at factory, RO elements are already installed and preserved for a quick commissioning in the field.
- All piping, valves, bolts and nuts components are in **AISI 304/316 stainless steel or Duplex/Super Duplex SS for seawater applications**, thus resulting in a very long-lasting service life, improved quality output and corrosion prevention.
- **Energy consumption is low**, powered by grid or generator or solar panels (for small Units). Operation is simple to manage and includes **automatic functioning, training and remote assistance**.
- The basic principles of drinking water production are based on multistep stages via microfiltration, reverse osmosis and remineralizing of different water sources and final disinfection of the product water, for a **complete safe and reliable potable water production**.
- This multistep process **removes all impurities** such as organic matter, solids, salts and heavy metals as well as microbiological organisms, bacteria and virus.
- Pre-filtration can be designed for the **removal of Iron, Manganese, Arsenic and other emerging heavy contaminants such as PFAS** (perfluoroalkyl substances), thus resulting in a longer service life of the RO membranes and in the best delivery of safe potable water.

# H-RO10/25/50

1. With SS frame/skid or customized housing
2. 6 to 15 kW depending on flow/pressure
3. Very quick installation and start-up



# H-RO100/ 150/ 200

1. On skid or in 20' ISO modified & certified sea container
2. 15 to 50 kW depending on flow/pressure
3. Well designed pre- & post-treatments



# H-RO300/450/500

1. On skid or in 40' ISO modified & certified sea container
2. Half reduced energy consumption due to application of energy recovery/pressure exchanger devices
3. Well designed pre- & post-treatments



# H-RO960/1200 or modular

- Customized design and installation
- Containerized supply in single/multiple lines or built on site plants



# Water Form for H-RO Unit quote

Parameter	Unit	Data
Required flow-rate	m <sup>3</sup> /h	
Inlet pressure	bar	
Temperature	°C	
Altitude	m	
Inlet conductivity / TDS	μS/cm / mg/l	
Inlet pH	pH	
Other specific inlet components	Fe, Mn, As, B	
Required outlet pressure	bar	
Required out conductivity / TDS	μS/cm / mg/l	
Required output hardness	ppm CaCO <sub>3</sub>	
Required output pH	pH	
Available Power or Generator	V – Hz – generator size	
Storage tanks available (in-out)	YES/NO	
Name of the site	.....	
Permissible Emission Limits for Aqueous Discharges into	..... or	
Drinking Water Quality Limits for	.....(Country)	
Other:	.....	



**And a quick look  
at the latest  
installations...**



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**H-RO200B2**  
containerized  
system for  
potable water



on 2 separated  
half-lines

200 m<sup>3</sup>/day  
of potable water  
from brackish  
source

complete with pre-treatments, Iron/Manganese removal  
and remineralizing



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with pre & post-  
disinfection  
and  
pH control



# H-RO200B2

-  
containerized  
system for  
potable water



200 m<sup>3</sup>/day  
of potable  
water from  
brackish  
source

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**complete with borehole pump,  
pre-treatments  
and remineralizing**



H<sub>2</sub>ORO

with disinfection  
and pH control



on 2 independent  
separated  
half-lines



**H-RO100S2**

**100 m<sup>3</sup> per day  
of product water from seawater**



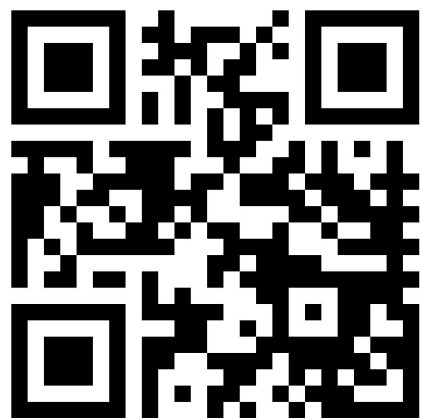


on 2 half-lines  
separately managed  
2,1 m<sup>3</sup>/h each

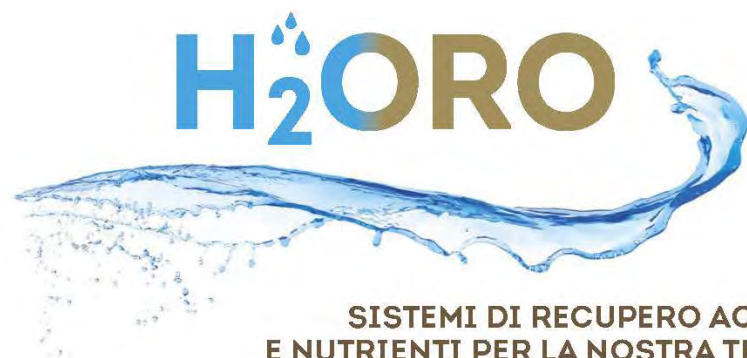


Product water salinity  
290  $\mu\text{S}/\text{cm}$  / 145 mg/l TDS

for further information:



[www.h2orosistemi.com](http://www.h2orosistemi.com)



**SISTEMI DI RECUPERO ACQUA  
E NUTRIENTI PER LA NOSTRA TERRA**

SYSTEMS FOR RECOVERING WATER  
AND NUTRIENTS FOR OUR LAND

Osmosi inversa e oltre...  
*Reverse osmosis and more...*

**H2ORO SRL**

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