



**GREEN
HYDROGEN
WATER
TREATMENT**

SOLUTIONS FOR
THE INDUSTRY

GREEN HYDROGEN (POWER-TO-X)

Hydrogen is indispensable for reaching the goals of the Paris Climate Agreement.

It is produced by water electrolysis, using only power from renewable energy sources such as wind or solar energy.

Subsequently, green hydrogen can be used as alternative fuel or base material in the industry, as fuel for shipping or long-haul trucking or it can be transformed to electricity and heat.

These different options to utilize green hydrogen are also referred to as PtX (Power-to-X) and contribute significantly to climate action and the decarbonisation of economies.

WATER AS FEEDSTOCK FOR GREEN HYDROGEN PRODUCTION

Water is the central feedstock for production of green hydrogen.

Herco provides the entire water treatment system incl. the pure water cycle tailored to the necessities of the client. Our portfolio includes compact units for piloting, large-scale plants with sophisticated process technology or containerised units for rapid installation and start-up on site.

Our experts will be happy to advise you on requirements of PEM, AEM or alkaline electrolysis, the appropriate process technology for water treatment and the selection of suitable materials.

We design modular, scalable units for you and customise or label them according to your requirements.

MADE IN GERMANY. INSTALLED WORLDWIDE. SINCE 1947.

REVERSE OSMOSIS UNIT UO-D 100

Hydrogen production
in wind park in Sweden.

ULTRAPURE WATER UNIT (RO+EDI) UP-S7 1500

Production of carbon-neutral fuel
from hydrogen in Chile.

ULTRAPURE WATER UNIT (RO+EDI) UP-S7 150

Production of hydrogen as fuel
for vehicles in Austria.

"I BELIEVE THAT
THE FUTURE OF
OUR BLUE PLANET
DEPENDS ON NEW
TECHNOLOGIES
LIKE GREEN
HYDROGEN."

Birgit Fabritius
(Product Manager, Herco)



OUR TECHNOLOGY

1 PRE-TREATMENT

Filtration
Iron and manganese removal
Softening

2 REVERSE OSMOSIS

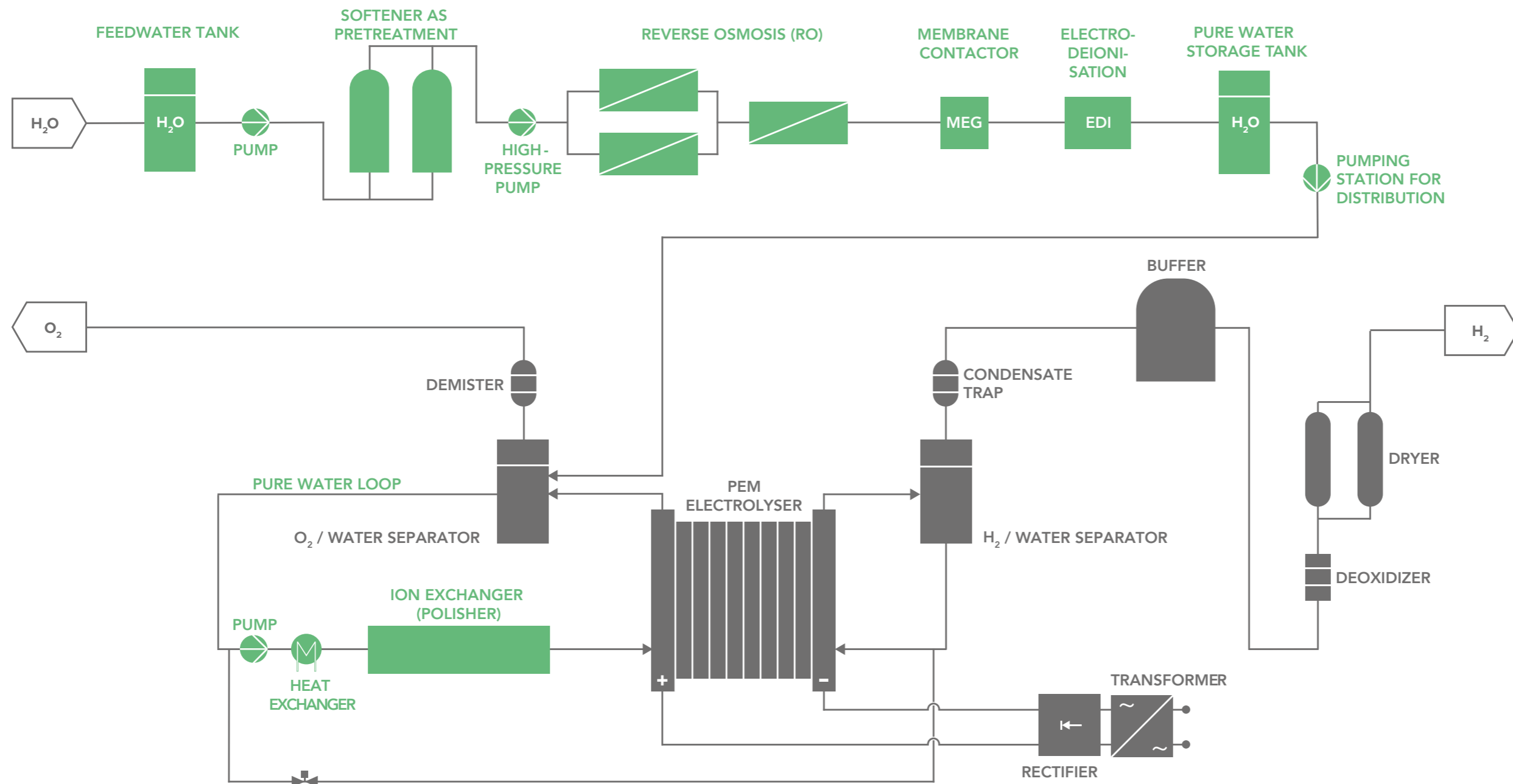
Single or double stage RO
Membrane contactors (MEG)
Electro-deionisation (EDI)

3 STORAGE AND DISTRIBUTION

Pure water storage tank
Pumping station for distribution
Mixed-bed demin cartridge as control

4 PURE WATER

UV unit for TOC reduction
Mixed-bed demin cartridge for conductivity reduction





TRUST US.

WE ALWAYS PUT
QUALITY FIRST.

WE UNDERSTAND
YOUR NEEDS.

WATER PURIFICATION

We provide efficient, resource-saving and reliable treatment systems that are tailored to your requirements in terms of conductivity, metal content and TOC. In this way, we create the prerequisites for high availability of the electrolyser and smooth operation. In consultation with you, we find intelligent solutions for space-saving container installation and the appropriate control concept.

PURE WATER LOOP

Treatment in the ultrapure water loop is indispensable in PEM electrolysis in order to ensure the longest possible service life of the electrolyser. Our units for the reduction of TOC and conductivity are adapted to the elevated temperatures in the loop and are only made of materials that are not harmful for the electrolyser stack. Depending on customer requirements, we provide complete systems or components for individual installation.

WHY HERCO FOR POWER-TO-X?

Our high-quality systems are manufactured by our engineering and production team in Freiberg am Neckar, parameterised before delivery and tested extensively in our test field. This means that commissioning on site can be carried out quickly and smoothly. Because of standardisation and direct communication between design and production departments, we can offer you short delivery times and thus support you in the rapid completion of your project.

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**More about our solutions for green
hydrogen on our website**

www.hercowater.com/hydrogen

