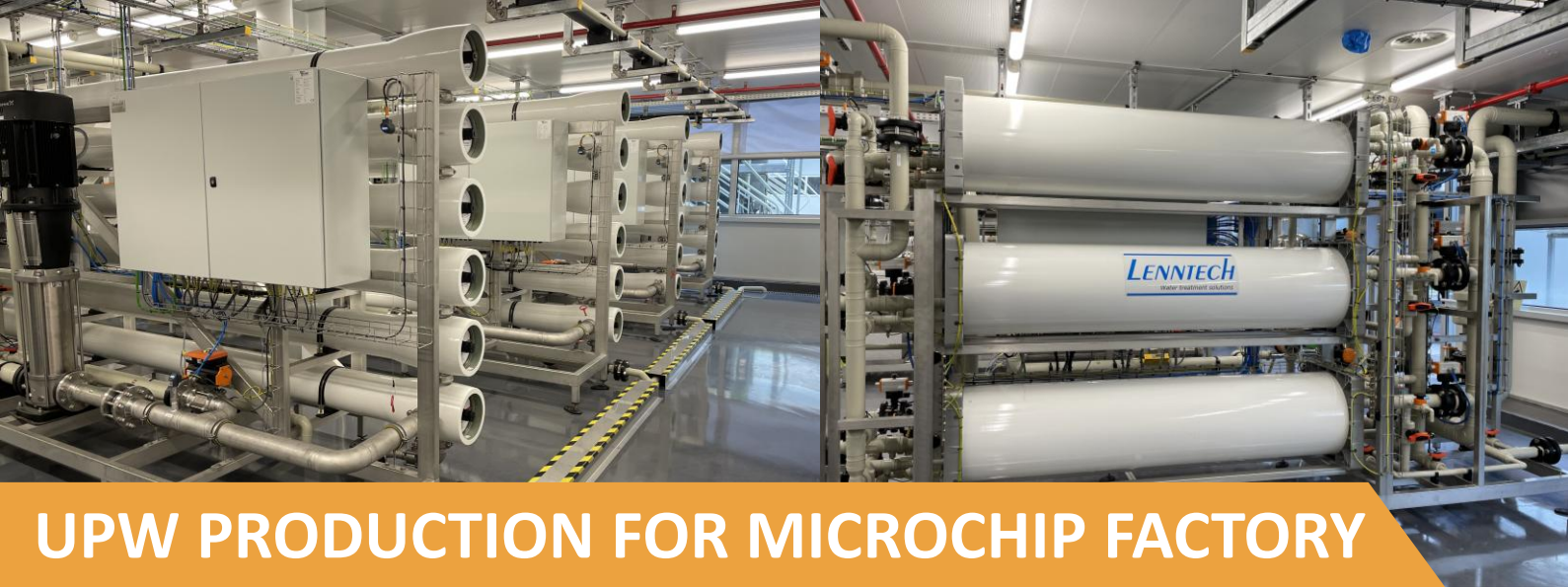




UPW PRODUCTION FOR MICROCHIP FACTORY

Portugal, 720 m³/d

Aim of the Project

The Ultra Pure Water (UPW) production plant is designed to produce process water for a microchip factory with strict requirements. The fully automatic plant is designed to purify water to the highest quality possible, and reduces particles and organics compounds to traces concentration, in ppb.

Lenntech has engineered and built the UPW plant considering full redundancy to ensure continuous UPW water production for the different client's points of uses, for 24/7 availability. Top brand instruments has been considered so all parameters such as pressure, flow, temperature, TOC or particles concentration are constantly measured.

The complete installation has been built and installed on modular skids (more than 15!) to facilitate quick and efficient installation.

The system can produce 30 m³/h of UPW water, following high standards for quality, reliability and sustainability.

Scope of Work

- ▶ Engineering, manufacturing and assembly
- ▶ Installation and multi-phases commissioning
- ▶ PP-H low-pressure piping, Skids in SS316
Technologies: MMF, RO, EDI, UV, IEX, UF filtration and membrane degassers
- ▶ 2 x 100% redundancy for all technologies
- ▶ Advanced parameters monitoring (TOC, particles, resistivity,...)
- ▶ UPW loop capacity of 40 m³/h with production flexibility from 25 to 100%
- ▶ After sales service including preventive maintenance at site

PRODUCT WATER QUALITY

Conductivity < 0.06 µS/cm

TOC < 10 ppb

Particles (> 0.3 µm) < 1000 un/L

Total bacteria < 10 CFU/100mL

Temperature: 18°C (+/- 1°C°)

Key accomplishments

PRODUCED
WATER
QUALITY

RESISTIVITY

18.2 MΩm

REUSE

> 80%

GENERATED
WASTEWATER
INTO PROCESS

OVERALL
RECOVERY

> 90%