

Nitto

Innovation for Customers

HYDRANAUTICS



K4R-PW1

Ultrafiltration Solution for Human Life Segments

PURE < PURER < PUREST

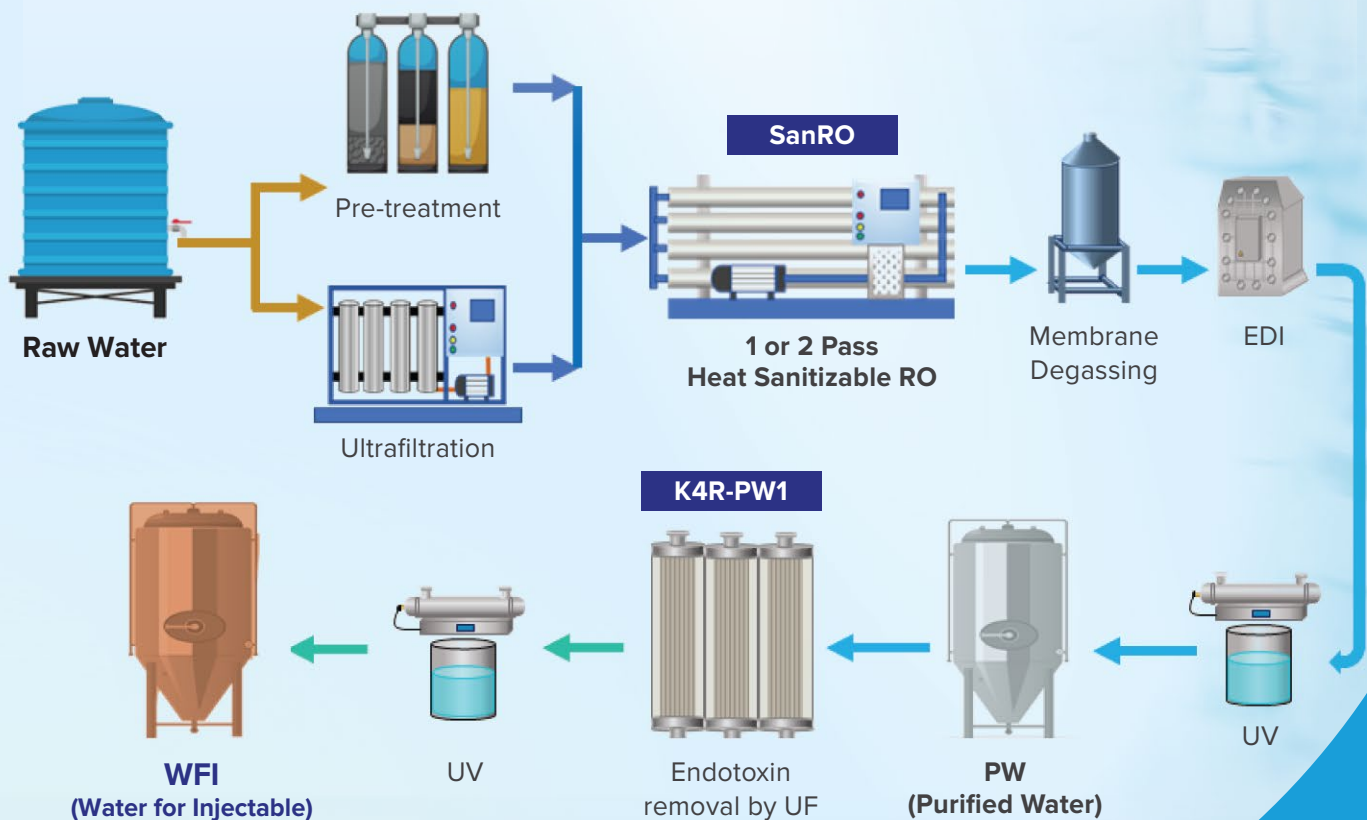


Defining Purity

The segments focusing on human life, such as Pharmaceutical, Biotechnology and Life-sciences, are playing a pivotal role in improving the health and quality of life for people around the world. Water is critical to these industries as it is used as an excipient, raw material, ingredient, or solvent in manufacturing pharmaceutical products or for research and development work in life sciences industries.

For the pharmaceutical industry, global pharmacopeias, including the United States (US), European (Ph. Eur), Japanese, Indian and Chinese provide quality standards for different grades of water to be used for various applications. These grades of water include Purified Water (PW) and Water For Injection (WFI). To generate PW and WFI, the microbiological quality of water needs to be controlled. This is to ensure that the water used in manufacturing of pharmaceutical products should not contain any organisms that are capable of growing in the products.

We at Hydranautics understand the requirement of high purity water in the pharmaceutical industry. To address this requirement, we offer the innovative hot water sanitizable Ultrafiltration (UF) membrane **K4R-PW1**, which along with our industry trusted sanitizable Reverse Osmosis (RO) membrane **SanRO** can help you achieve PW and WFI water quality and comply with the regulations of major global pharmacopeias.



K4R-PW1

Hot Water Sanitizable Ultrafiltration Membrane

K4R-PW1 is our hot water sanitizable ultrafiltration membrane that helps in the reduction of endotoxins to < 0.25 EU/ml to achieve Water for Injections quality water. The membrane is specifically designed to produce bacteria and pyrogen-free water.

Key Features & Benefits



6000 Dalton MWCO provides highest reduction of endotoxins, pyrogens & bacteria



Outside-in mode of treatment enables high flux filtration due to clean structure and no liquid accumulation on permeate side



Hot water sanitizable sanitary construction with excellent heat and chemical resistance properties



Reliable module parts which are FDA CFR Title 21 compliant, USP <88> Class VI compliant









About Hydranautics

Hydranautics – A Nitto Group Company is a global leader in research, including reverse osmosis, nanofiltration, ultrafiltration, and microfiltration. Hydranautics has over 40 years' experience in the membrane technology arena and are committed to creating innovative membrane technologies which provide clean water to a thirsty world.

Our Global Membrane Division is headquartered in Oceanside, CA, USA. With three state-of-the-art manufacturing sites located in Oceanside – CA – USA, Shiga – Japan and Shanghai – China, Hydranautics has a combined manufacturing area more than 1,400,000 ft² (130,064 m²). Our world-wide sales and customer service offices are located throughout Europe, Asia, the Middle East, North America, and South America.

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