



INDION® AKD-WP

Reliable Source of
High Purity
Dialysis Water



INDION® AKD-WP

Efficient
Hygienic
Safe

High Purity Water System for Artificial Kidney Dialysis Unit

Water, an integral part of the dialysis facility is mixed with dialysate concentrate in large quantities to form the dialysate. Traces of mineral contaminants and bacterial endotoxins in water can enter into the patient's blood causing nausea, vomiting, muscle weakness, severe headache, skin flushing and low or high blood pressure. Hence, water purity is vital for safe and effective medical treatment.

INDION AKD-WP, a new development from Ion Exchange (India) Ltd., with its unique features, provides ultra pure water which meets AAMI standards (Association for the Advancement of Medical Instrumentation)

Process

Pretreatment may be required on the basis of inlet feed water and outlet quality to be achieved.

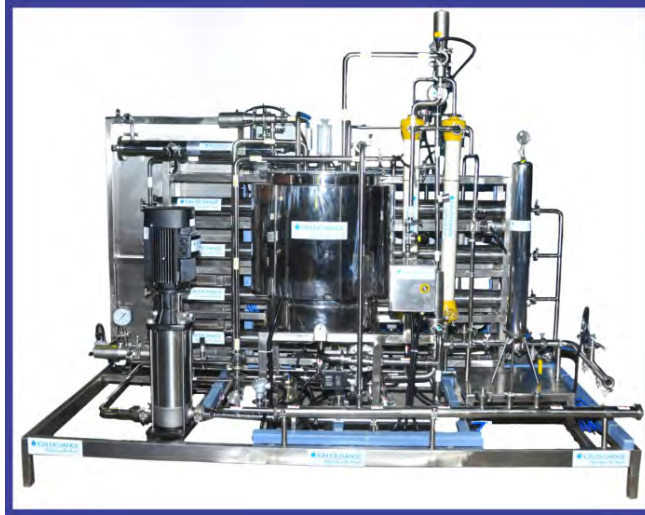
The system treats water in stages:

- Hot Water Sanitisable Reverse Osmosis (HSRO): The process produces water with minimal/low dissolved solids which is free from particulate, colloidal and organic matter. Hot water sanitisation is used for disinfecting water without use of chemicals
- Hot Water Sanitisable Ultra Filtration (HSUF): It is used for sterilisation of water that separates bacteria, micro-organisms and endotoxins

Features

- Touch screen panel for easy and quick operation
- Equipment and components are designed to provide maximum strength, reliability and durability with minimal operational and maintenance cost
- High rejection of TOC, bacteria and endotoxins
- PLC based system with HMI for minimum monitoring and ease of operation
- Skid-mounted modular unit with complete sanitary design
- Minimum space requirement with easy access for maintenance
- HSRO membrane ensures high permeate quality and durability
- HSUF membrane of polyethersulfone offers excellent chemical and heat resistance
- Minimum power consumption
- Semi-automatic sanitising system

Microbiological Level	Previous Standard	New Standard	Previous Action Level	New Action Level
Colony Forming Units	<200 CFU/ml	<100 CFU/ml	=50 CFU/ml	=50 CFU/ml
Endotoxin Units	<200 EU/ml	<0.25 EU/ml	=1 EU/ml	=0.125 EU/ml



Technical Data

Model	AKD-WP - 400	AKD-WP - 1000	AKD-WP - 1500
Type	Fully Auto		
Average Product Flow (LPH)	400	1000	1500
Average Recovery (%)	30	35	55
Average TDS Removal (%)	90 - 95		
Minimum Feed Pressure required at Pump Inlet (kg/cm ²)	Not less than 1.0		
Cartridge Housing	SS 316		
Cartridge	HS (1R-20"-PP)		HS (1R-30"-PP)
RO System			
Membrane	4 HSRO (4040-FF)		
No. of Membranes	2	5	8
Pressure Tube (SS316L)	One Element Long		Two Element Long
Skid	SS 304		
UF System			
Membrane	HSUF		
No. of Membranes	1		2
Membrane Type	6000 MWCO		
UV System			
Model	Api20		
MOC	SS 316		
End Connection	Tri-clamp		

High Pressure Pump			
Capacity and Head	1.97 m ³ /h @ 11.13 bar	5.14 m ³ /h @ 11.20 bar	9.5 m ³ /h @ 11.2 kg/cm ²
MOC	SS 316		
Quantity	1		
Multi-purpose Tank with Band Heater	75 lts - SS 316	100 lts - SS 316	150 lts - SS 316
Automation			
PLC	Non-redundant PLC with 7" HMI		
System Dimensions			
Length (mm)	2000	2100	2750
Width (mm)	800	800	1550
Height (mm)	1740	1740	2000

Our manufacturing units are ISO 9001 & 14001 certified. Our Patancheru unit is also OHSAS 18001 certified.

To the best of our knowledge the information contained in this publication is accurate. Ion Exchange (India) Ltd. maintains a policy of continuous development and reserves the right to amend the information given herein without notice. Please contact our regional/branch offices for current product specifications.

INDION is the registered trademark of Ion Exchange (India) Ltd.

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