



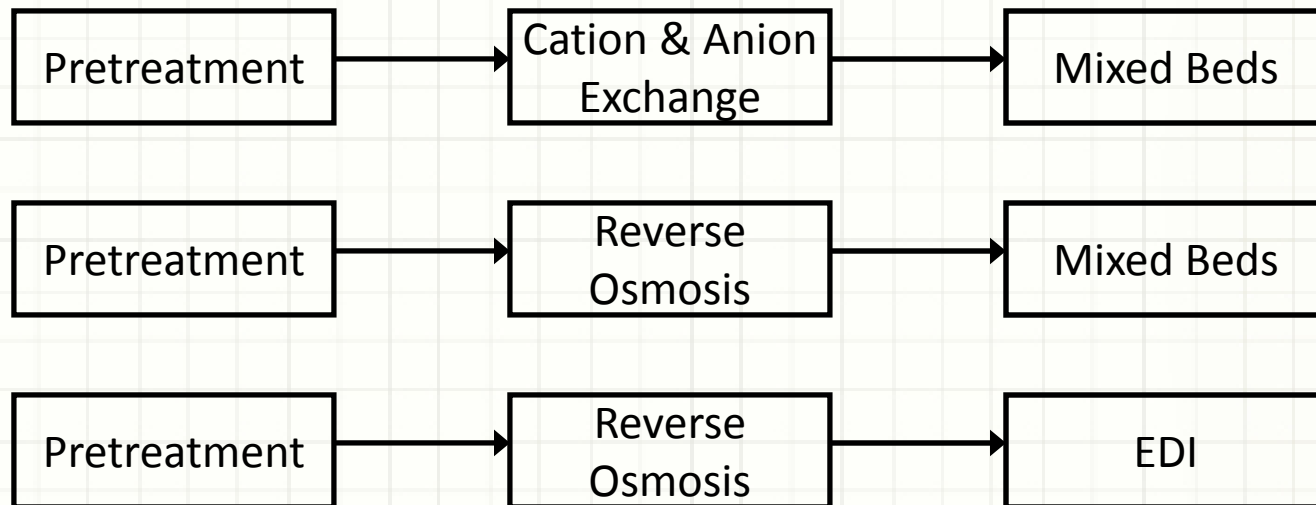
ULTRAPURE WATER POLISHING

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WQA 11Mar10



AGAPE WATER SOLUTIONS
Providing pure water for a cleaner tomorrow...

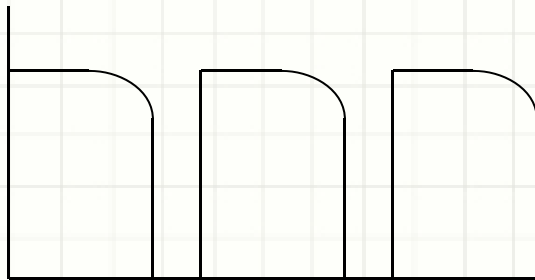
UPW Pretreatment



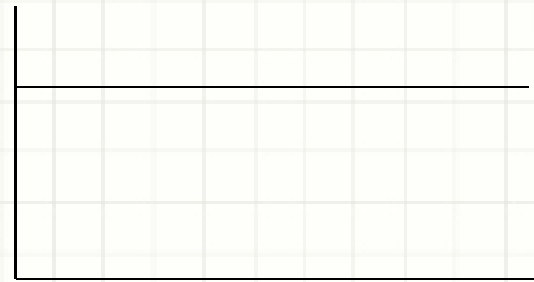
Pretreatment Includes Suspended Solids Removal & SDI Reduction, Dechlorination, Softening or Antiscalant Injection

UPW Polishing Options

- On Site Chemically Regenerated Mixed Beds
- Off Site Chemically Regenerated Mixed Beds
- Electrodeionization, No Chemical Regeneration.



MB Performance



EDI Performance

RO-EDI delivers 5 to 18 Mohm.cm water continuously



Case Studies

Case Study

- Power Plant
 - 1400 $\mu\text{S}/\text{cm}$ average feed water, surface water
 - Single Pass RO Hydranautics Membranes
 - Ionpure VNX EDI
 - Integrated PLC controls
 - 17 $\Omega\text{ohm-cm}$, 1 ppb silica



Case Study

- General Industrial
 - 750 $\mu\text{S}/\text{cm}$ average feed water, municipal water
 - Integrated MMF, Softener & ACF.
 - Single Pass RO Hydranautics Membranes
 - Ionpure LX EDI
 - Simple controls
 - 16 $\Omega\text{ohm-cm}$.



Case Study

- Electronics Manufacturer
 - 500 $\mu\text{S}/\text{cm}$ average feed water, surface water
 - Single Pass RO Toray Membranes
 - Ionpure VNX EDI
 - Integrated PLC
 - 17.4 $\text{M}\Omega\text{-cm}$

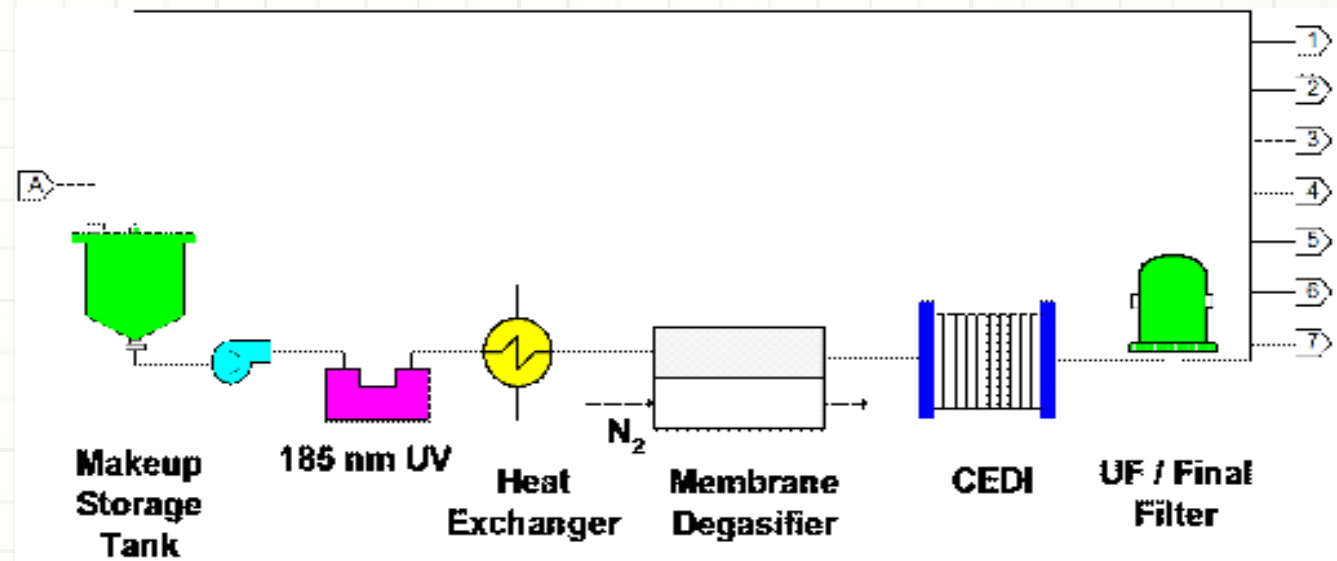




UPW Loop

UPW Loop

- TOC Destruction
- Polishing DI or EDI
- Disinfection
- UF or Final Filter



Graphics Source: Ionpure

EDI in UPW Loop

- 95-97.5% recovery
- 18 Ω ohm guaranteed
- Consistent Quality
- No resin replacement needed
- Low Operating Cost

Summary

1

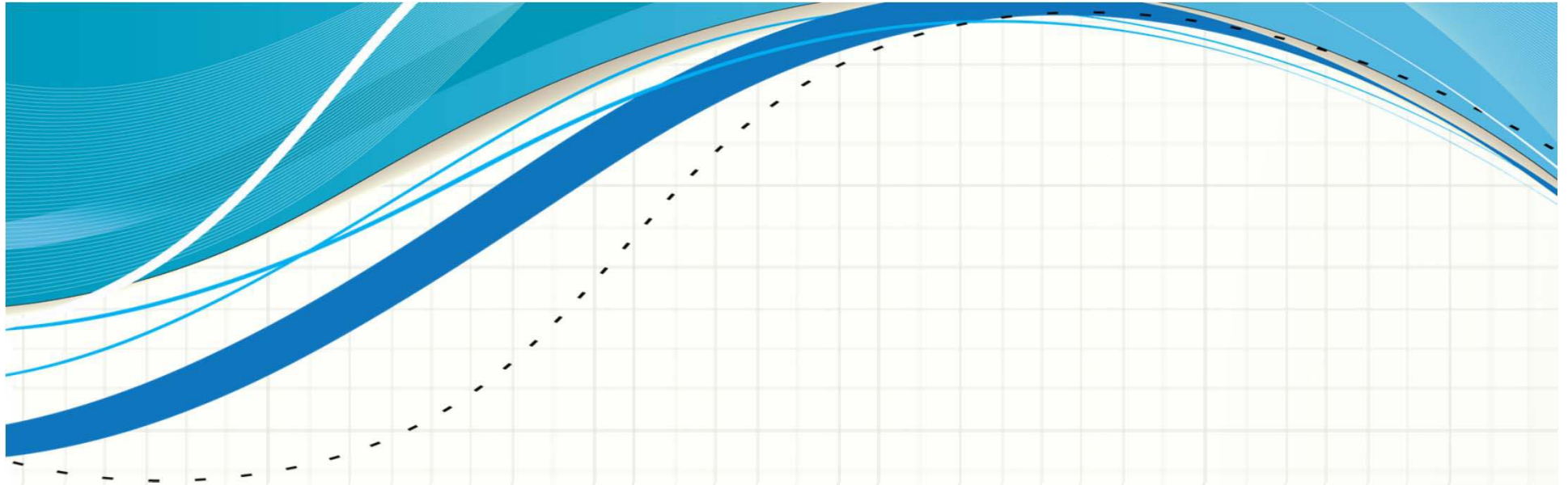
- Mixed Beds or EDI polish RO permeate for high quality

2

- Integrate RO & EDI design for optimal performance

3

- EDI can be used in UPW polishing loop



QUESTIONS?

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