

IonKleen™ AQ Purifier



Description

The IonKleen™ AQ Purifier has been specifically designed for the removal of metal ions from ultrapure water. It is ideally suited for use in the semiconductor industry's most critical final cleaning processes. Utilizing Pall's latest technology developments, the IonKleen AQ membrane has been modified to incorporate ion exchange groups on its surface resulting in spontaneous and immediate metal removal from ultrapure water.

- High metal removal efficiency
- Simplifies purification techniques
- High capacity
- Shipped dry
- Manufactured in a cleanroom environment

Specifications

Materials

- Medium: Hydrophilic ultra high molecular weight polyethylene (UHMWPE)
- Core, cage, end caps; support, and drainage: High density polyethylene (HDPE); except DFA which has polypropylene hardware
- O-ring options: Teflon¹ encapsulated Viton¹, Kalrez¹ and Chemraz²

Purifier Media Area

- DFA: 250 in² / 0.16 m²
- ABD1: 9.2 ft² / 0.86 m²

Configurations

- Disposable filter capsule
- 10" / 254 mm code 3 filter cartridge³

Operating Conditions

- Maximum temperature: 104°F / 40°C
- Maximum forward/reverse differential pressure: 50 psid @ 104°F / 3.4 bar @ 40°C

Performance Characteristics

UPW Rinse up

Resistivity: > 18 Megohm-cm in 30 min
TOC: single digit ppb < 30 min

Nominal Life

10" / 254 mm cartridge: > 2 years
(Based upon inlet challenge Ca or Zn with 20 ppt at 20 L/min flow)

Recommended Applications

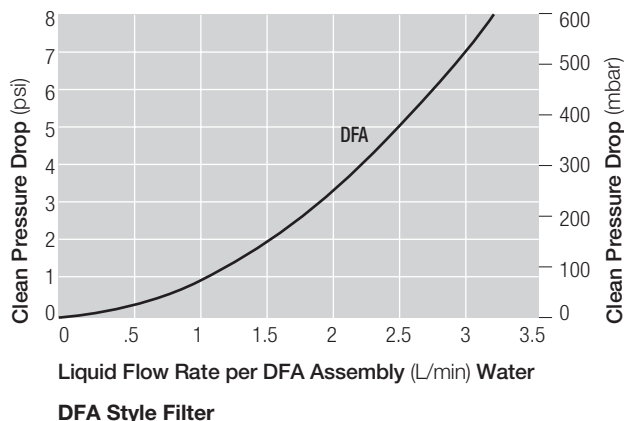
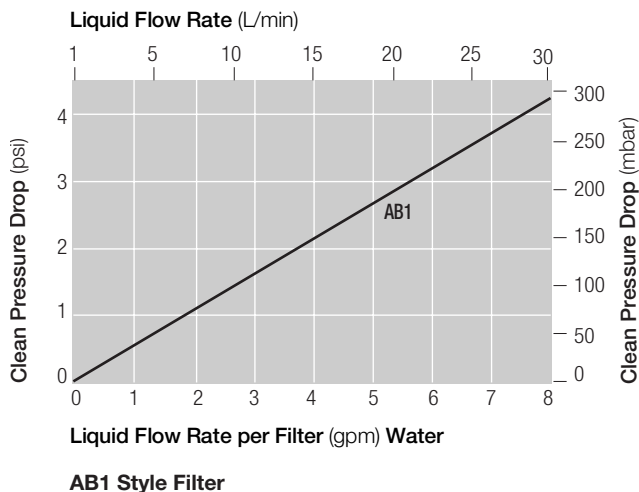
The IonKleen AQ Purifier is recommended for point-of-use rinse water purification. It has also shown positive results in the purification of ultrapure water with pH > 4.

¹ Kalrez, Teflon and Viton are registered trademarks of DuPont Dow Elastomers

² Chemraz is a registered trademark of Greene, Tweed Inc.

³ Multiple lengths are available upon request.

Pressure Drop vs. Liquid Flow Rate



Recommended Flow Rate and Ion Exchange Capacity

Part Number	Maximum Recommended Flow	Total Metal Ion Exchange Capacity (Typically >90% Efficiency ⁴)
DFA1UPWESW44	3 L/min	> 8 meq
ABD1UPW3EH1	30 L/min	> 45 meq

⁴ Typical mixed ion exchange includes Na, Fe, Cu, Ca, Al and Zn, with typical influent level concentrations of 1 ppb or less.

Part Numbers / Ordering Information

Part Number	Nominal Length (in / mm)	Maximum Diameter (in / mm)	Configuration Code	O-ring Size or Capsule Connection
DFA1UPWESW44	4.5 / 115	2.8 / 71	Disposable capsule	¼" Swagelok ⁵ in/out
ABD1UPW3EH1	10 / 254	2.8 / 71	Code 3	2-222 Teflon Encapsulated Viton O-ring

⁵ Swagelok is a registered trademark of Swagelok Co.

Unit conversion: 1 bar = 100 kilopascals



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