

# Replacement Filter Cartridges

AREVA offers a line of high-quality replacement filter cartridges that provide exceptional capacity for trapping foreign substances while maintaining interchangeability with original equipment cartridges.

All AREVA filter cartridges will fit existing filter housings without modification. These cartridges are available for a wide variety of plant applications, including:

- Primary side letdown and makeup water
- Steam generator blowdown
- Spent fuel pool
- Auxiliary cooling water systems

## Adaptable to Multiple Cartridge Assemblies

The use of single housing/multiple cartridge filter designs in some nuclear plants has resulted in excessively high radiation exposure, labor and disposal costs.

AREVA has a unique system that eliminates the costly and dangerous task of disassembling a permanent “cage” of small diameter, wound-fiber, multiple cartridge assemblies. A simple adaptor permits the use of a single, completely disposable cartridge in place of multiple cartridge assemblies. The completely removable system allows rapid reversion to the original configuration.

Replacing the multiple cartridge with a single disposable cartridge reduces exposure to radiation, labor and disposal costs. An added advantage of using highly-efficient, modern filtration materials is a further reduction in overall plant operating costs.

## High-Quality Filter Media

All AREVA filter cartridges are manufactured with high-quality filter media, using the latest in filtration technology, and offer:

- High dirt holding capacity
- Low clean water pressure drop
- High wet strength and radiation resistance
- Superior filtration characteristics
- No unloading or carry-over of media or residue



The filters are configurable with glass fiber, polypropylene and Nanofiber® media. Filters are also engineered to meet specific plant needs. For these special applications, filter media is selected on the basis of several factors, including micron rating and flow rate. Where dirt holding capacity is particularly important, an integral pre-filter layer is pleated over the medium to increase filter life.

AREVA filter media have been tested to meet the following requirements:

- Exposed to 3 mega-rads of radiation (glass fiber and polypropylene) and 10 mega-rads of radiation (Nanofiber) from an equivalent Cobalt-60 source without reduction in overall integrity.
- Independently tested and certified for efficiency using ASTM F795-88, the filtration industry consensus standard. Tested and certified to contain no more than 150-ppm total of leachable chlorides, fluorides and sulfur.

## Built-in Reliability

AREVA's filter cartridges are integrated units with silicone rubber end fittings and seals molded directly to a stainless steel support structure. This innovative design eliminates the potentially troublesome split o-rings and separate rubber seals used in older designs.

Every new filter design is tested to the extreme of its rated operating conditions. AREVA seals and filter membranes remained intact and functional when tested at temperatures as high as 250°F and differential pressure of 75 psi – conditions far exceeding those encountered by filters in normal operation.

This careful attention to detail in design and testing assures that every AREVA filter will operate as designed in its service environment.

## Quick Delivery

The unique design allows for quick manufacture as well as dependable operation. Filters are readily available in sizes ranging from 2.5" to 12" in diameter and 9" to 41" in length.

## Quality Program

The filters are fabricated as non-safety related components (10CFR21 is not applicable). However, the subcomponents are procured and the filters fabricated per AREVA quality assurance program requirements that impose material traceability and process controls sufficient to support a Certificate of Conformance (COC). The inspectors are ANSI N45.2.6 qualified inspectors. The filters are stored in a Level B storage facility. Cleaning, packaging and shipping meet ANSI N45.2.1, Class B and ANSI N45.2.2, Level B and ANSI/ASME NQA-2.

## Why AREVA?

AREVA is uniquely qualified to provide replacement filter cartridges to nuclear power plant operators. Our years of experience with commercial nuclear power plant systems go into every filter we sell. Call us today to find out how you can put AREVA's filter cartridge technology to work in your plant.

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## Features and Benefits

- All AREVA filter cartridges will fit in existing filter housings without modification
- High-quality filter material
- The unique design allows for quick manufacture as well as dependable operation
- Configurable with glass fiber, polypropylene, and Nanofiber® media
- We can fill orders in four weeks
- AREVA's Nuclear Parts Center maintains a steady inventory of the cartridge filters online at:  
[www.us.aveva-np.com/cisweb](http://www.us.aveva-np.com/cisweb)



Scan to view our parts on the web:  
[www.us.aveva-np.com/cisweb](http://www.us.aveva-np.com/cisweb)

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