# **Nuclear Strainers**

## Automatic Self-Cleaning Strainers

Raw water used for essential cooling at nuclear power stations contains debris and contaminants that can damage components and piping used to transport the water throughout the plant. Strainers remove the harmful materials at plant entry.

These self-cleaning strainers do not require removal from service for cleaning. They are equipped for in-service flushing with an automatic backwashing function triggered by an increase in pressure drop or via a cycle timer.

When plant licensing commitments dictate that strainers be safety related or ASME N-stamped components, Super Radiator can fulfill both replacement retrofits and new installation demands. **If it has to be perfect, it has to be Super.** 



# **Featured Installation**

### **BWR Nuclear Power Station**

Essential Service Water Strainer



### **Features of this Project**

- Replacement of RHR Service Water strainers (3)
- Replacement of HPCS Diesel strainer (1)
- Replacement of Emergency Diesel strainer (1)
- ASME Section III, Class 3, N-stamped
- Upgraded with all-stainless construction
- Complete seismic analysis of upgraded design
- Three sizes: 8000 / 2000 / 1300 gpm capacity
- Automatic, self-cleaning backwash function
- 1/16" solids separation
- $\cdot$  Horizontal orientation with top side inlet/outlet
- Safety related, including backwash elements
- Equipped with 8 inch raw water inspection port
- Replaceable straining elements
- Low, clean pressure differential (2 psi)

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# Backwash Filtration Technology



**Raw Water Strainer** 

Strainers are available in horizontal (shown) or vertical orientation in sizes ranging from 400 to 85,000 gpm capacity and 0.125 to 0.001 inch (3,200 to 25 microns) solids removal.



### Automatic Self-Cleaning Backwash Arm & Tube sheet The tube sheet separates the raw, unfiltered water

from the clean, filtered water. During cleaning cycles, the backwash arm rotates slowly, allowing cleaning of individual filter tubes without interrupting process flow.



### **Clean Water Outlet**

Straining tube elements as seen through the clean water outlet connection. These continuous wedge-wire, V-slot straining elements provide maximize filtration of the unfiltered raw water.



### Raw (Dirty) Water Inlet

Raw water enters the straining tube elements, which trap impurities without affecting water flow downstream. The backwash arm accommodates on-line reverse flow to clean strainer tubes when they become overloaded with debris.

# Certifications





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