

NUHOMS® EOS 89BTH DSC

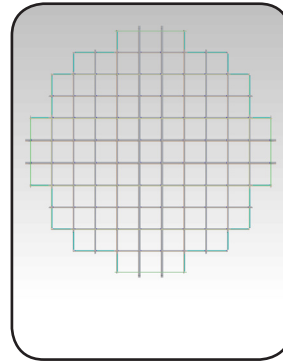
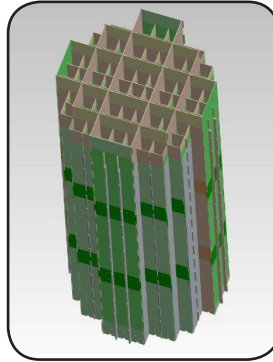
Extended Optimized Storage (EOS)

AREVA TN's NUHOMS® EOS 89BTH Dry Shielded Canister (DSC) provides customers with a high-capacity, high-burnup, and high-heat load system for BWR dry used fuel storage needs. The EOS 89BTH DSC is an improvement to the NUHOMS® 61BTH DSC, which is AREVA TN's most widely used BWR dry storage system. The 89BTH DSC is designed to store and transport 89 BWR fuel assemblies with or without channels.

The EOS 89BTH DSC is an optimized design for plants with minimum crane capacity of 125 tons and has a 108 ton option available. It will be transferred in the new NUHOMS® EOS TC series transfer cask to gain the benefit of being fully shielded. The EOS 89BTH DSC is transferred and stored in a horizontal configuration using the NUHOMS® EOS HSM concrete modules. The EOS HSM is a new and improved HSM-H, with redesigned vents for a higher capacity heat load while maintaining the same overall footprint. The EOS 89BTH DSC assembly incorporates the proven NUHOMS® weld design that has been used in numerous loaded canisters in the United States.

The EOS 89BTH basket is constructed using steel, alloy, aluminum, and metal matrix composite (MMC) plates configured into an egg crate design, allowing for a more cost-efficient fabrication. The compartment assemblies are connected to perimeter aluminum transition rail assemblies. Geometric spacing and fixed neutron absorbers are used to maintain criticality control for enrichments up to 4.5 wt% U235. For enrichments above 4.5 wt% U235, limited burnup credit is used.

The EOS 89BTH DSC will be available in 2017 for storage under a new license and is also designed to be transportable for future applications.



About AREVA TN

AREVA TN, a business unit of AREVA Inc., is a leader in the American nuclear market offering innovative total systems solutions for used fuel and radioactive waste management and transportation. More than 50 percent of American nuclear plant operators use AREVA TN's used fuel storage or transport solutions, irradiated waste removal and processing, and pool to pad services.

As part of AREVA, the global leader in nuclear technology, AREVA TN offers the industry an unparalleled level of engineering, technical and logistics expertise.

AREVA TN's track record of providing safe storage and transportation of used fuel is driven by state-of-the-art products and services, innovative engineering solutions, and integrity in meeting customer expectations for low-dose and error-free campaigns. By the end of 2013, nearly 900 AREVA TN canisters housed more than 30,000 assemblies at more than 30 sites in the U.S. AREVA TN customers include utilities, reactor operators, research reactors and the U.S. Government.

AREVA TN's products are marked by the highest standard of safety, uncompromising commitment to quality and operational dependability, and "as promised" service integrity.

Technical Features

Product Capabilities

Max. Payload – 89 BWR Fuel Assemblies
Intact Fuel with or w/o Channels
Reconstituted Fuel Assemblies

Materials of Construction

Stainless Steel Shell and Cover Plates
Optional High Corrosion-Resistant Steel Shell
Steel Alloy/Aluminum/MMC Egg-Crate Basket
Coated Carbon Steel Shield Plugs

Physical Dimensions

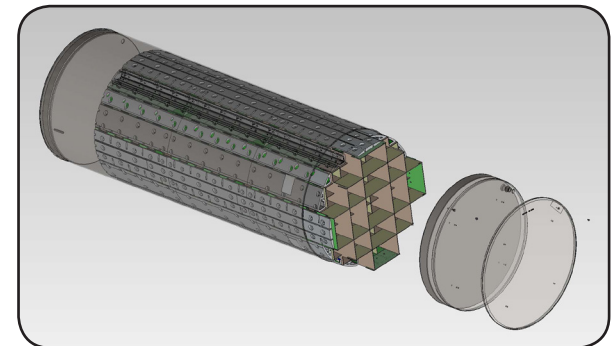
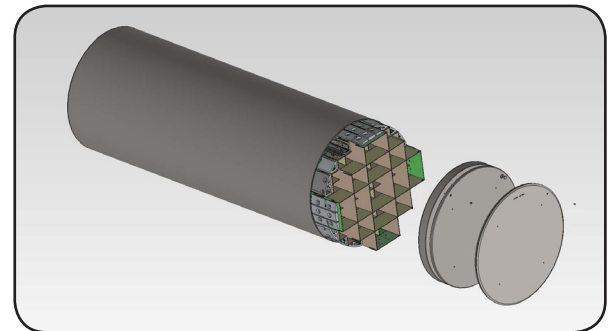
Outside Diameter – 75.5 in
Outside Length – Variable
Cavity Length – Customized to Fit Fuel
Weight, Dry & Loaded – 124,000 lbs

Intact Fuel

Zirconium-Based Alloy Cladding Material
Max. Initial Enrichment – 5.0 wt% U235
Min. Initial Enrichment – 0.7 wt% U235
Min. Cooling Time – 3 years
Max. Burnup – 62 GWd/MTU
Max. Decay Heat – 700 W/Assembly
Max. Heat Load – 47 kW
Max. Uranium Content – 198 kg/Assembly
Max. Assembly Weight – 705 lbs
Variable Assembly Length

Features and Benefits

- Designed to meet BWR dry used fuel storage and transport needs
- Optimal design for plants with crane capacity of 125 tons or larger (108 ton option available)
- Leverages proven closure weld design
- Integrated hold down ring reduces operation time
- Customizable DSC length to fit any fuel assembly
- Increased heat load capacity allows loading of shorter-cooled fuel
- Highest BWR fuel assembly capacity reducing ISFSI footprint



AREVA TN

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