



Control Rod Blade Compactor

In support of your ongoing efforts to reduce nuclear waste volume and increase spent fuel pool storage capacity, GE Hitachi Nuclear Energy has developed a full-length control rod blade (CRB) compactor.

How does it work?

The tool's key features work together to deliver ease of use, 8-to-1 volume reduction efficiency, and excellent debris collection capability.

Control Rod Blade Compactor. Resting on the floor of the spent fuel pool and operated via a hydraulic power unit, the tool employs hydraulic cylinders that deliver a full crushing cycle for each blade over the CRB's length. The tooling also is equipped with lifting lugs to further enhance ease of use.

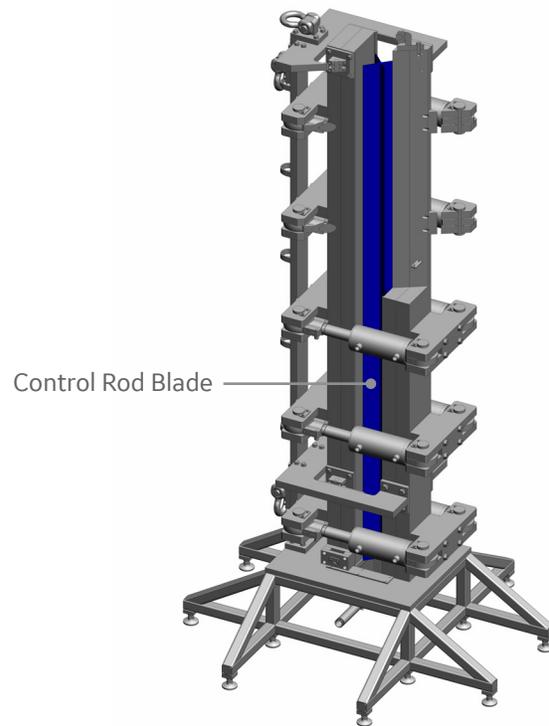
Containment Sleeve. The CRB is placed in a containment sleeve prior to compaction. This eliminates the potential generation of foreign material associated with the sheaths' loss of integrity due to embrittlement. The use of the sleeve also cuts down on "spring back," thereby increasing the packaging efficiency within the shipping/storage container. Moreover, the lack of direct contact between the CRB and the tooling translates to a significantly smaller decontamination effort at the end of your project.

Debris Collection. Because debris may become dislodged during the crushing cycle, piping connects the tooling to the common fuel pool vacuum systems. The piping allows for downward flow through the sacrificial can to contain any debris and sediment.

Key advantages

Backed by more than 60 years of nuclear industry innovation, GEH delivers an easy-to-use, full-length CRB compaction tool with:

- Remote hydraulically operated controls
- Exceptional 8-to-1 volume reduction efficiency
- Highly effective debris collection



Optional tools

Stellite Bearing Punch

This hydraulic cutting tool punches the stellite bearing and pin at the top of the CRB by shearing off the entire corner of the control rod blade below the tube sheet.

Velocity Limiter Shear

Another hydraulic cutting device, the velocity limiter shear tool is specifically designed to shear the velocity limiter from the CRB. It cuts the solid metal area immediately above the "D" ring located in the window opening near the bottom of the CRB.

Universal Shear

If additional size reduction is required for loading in selected packages, the universal shear creates shorter segments of the crushed CRBs.

Other Applications

Fuel Channels

Fuel channels are compacted using the same technique as the CRBs utilizing a modified sacrificial sleeve for debris containment.

For more information, contact your GE Hitachi Nuclear Energy sales representative or visit us at:

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