

# Reactor Stud Handling System



AREVA delivers a multi-stud handling system, designed to remove multiple studs from the reactor head simultaneously. This design can be modified to accept a wide variety of head and stud diameters as well as quantity of studs.

This proven design safely and efficiently removes up to nine reactor studs in a single crane lift utilizing a curved beam and a waterfall setup. The waterfall setup allows removal and installation in the head flange through holes in paired sets instead of all simultaneously, allowing safe alignment of each stud with its respective stud hole.

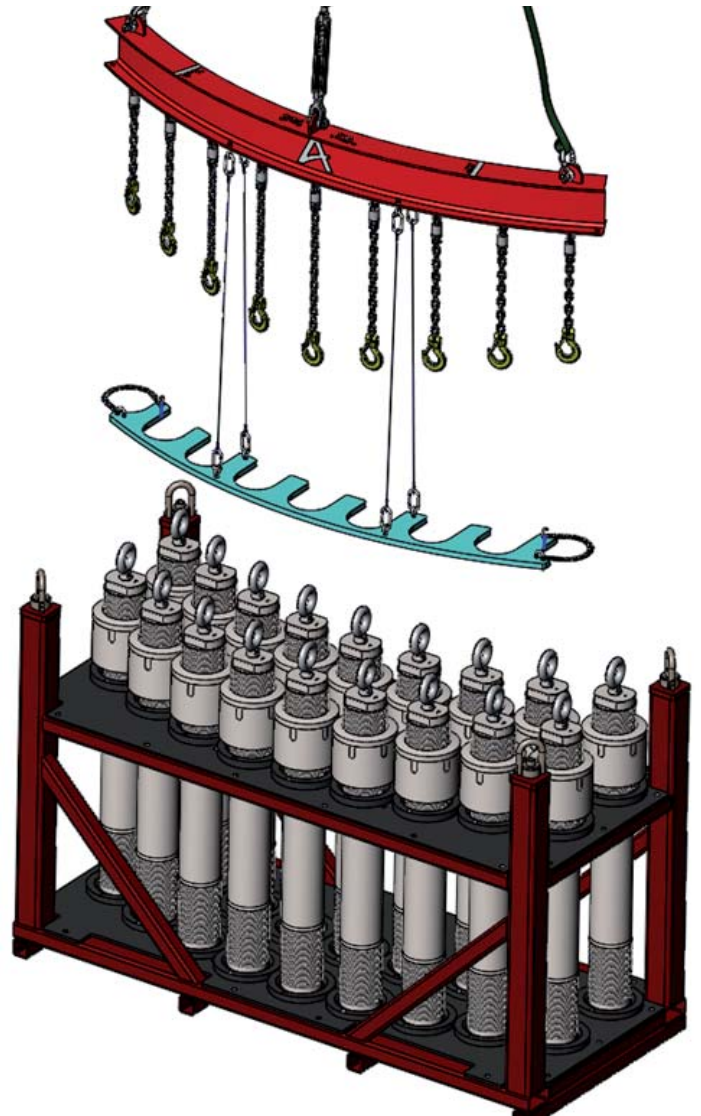
A custom three-legged bridle with a turnbuckle adjustment allows the crane operator to keep the polar crane block above the reactor head superstructure for precise adjustment, ensuring the picked load is level, eliminating the potential of binding. The beam comes equipped with a one-piece stud spacer that cradles the studs to keep them equally spaced apart and stabilized during removal and installation.

Each rack contains an arc pattern that mimics the head flange to quickly and easily load stud racks after stud removal from the reactor head. Acetyl plastic lines the rack at the upper support and the base to cushion the interaction between the

studs and the rack. In addition, each rack is equipped with installed lifting points for ease of rigging during removal from the containment building.

## Features and Benefits

- Waterfall design
- Independent swivels for each stud
- Stud support spacer for stabilization
- Long rigging to stay above reactor head superstructure
- Easily modified design to accommodate a wide variety of needs
- Reduces dose accumulated during evolution
- Decreases evolution duration
- Lessens number of required crane picks
- Minimizes risk of misalignment



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