

# MRP-227 Revision 1

## *Updated Westinghouse Figures*

Westinghouse NSSS  
Combustion Engineering NSSS


2/2015

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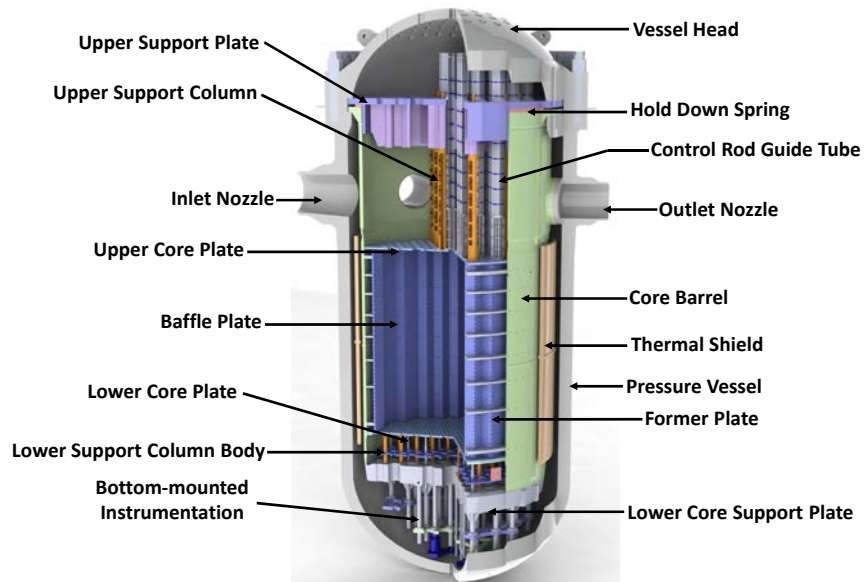
# Westinghouse NSSS Reactor Internals Component Figures

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## Overview of Westinghouse NSSS Internals (Figure 1)



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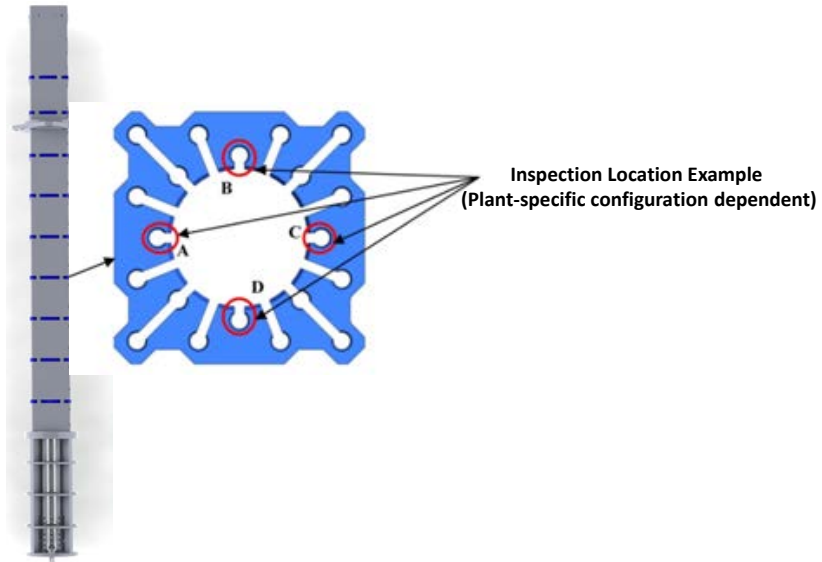
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### Control Rod Guide Tube Assembly Guide plates (cards) (Figure 2)

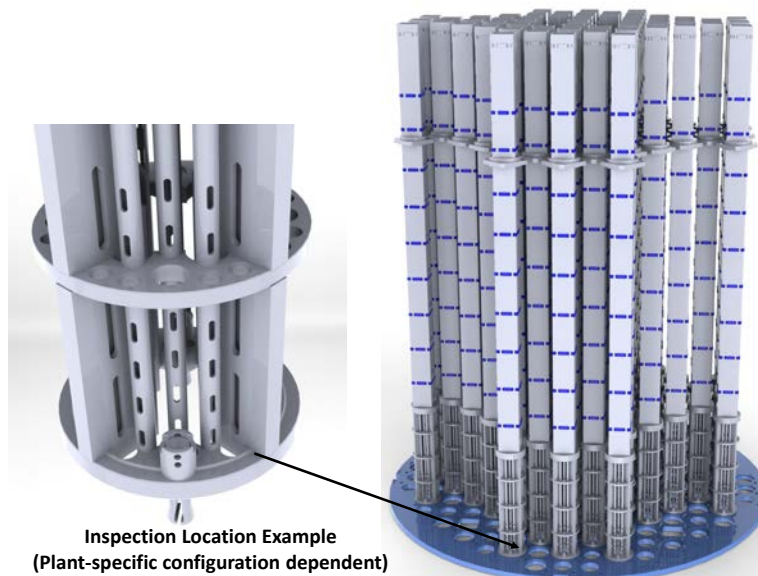


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### Control Rod Guide Tube Assembly Lower Flange Welds (Figure 3)

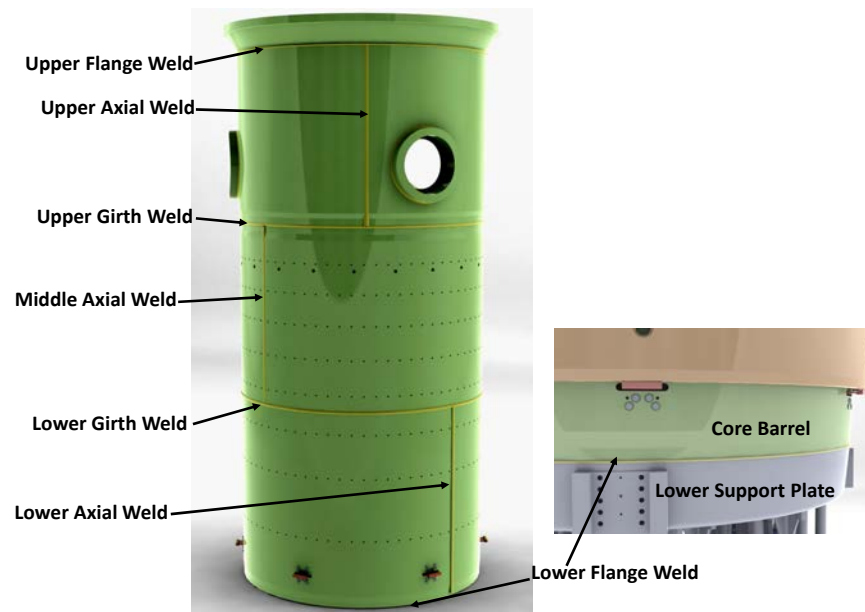


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### Core Barrel Assembly Core Barrel Welds (Figure 4)

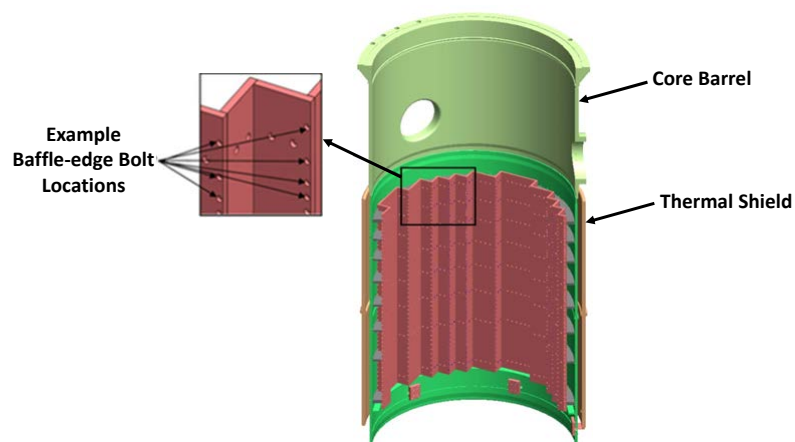


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### Baffle-Former Assembly Baffle-edge bolts (Figure 5)

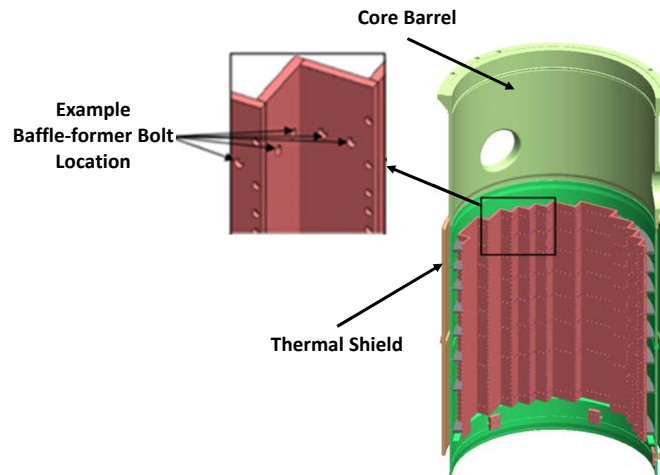


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### Baffle-Former Assembly Baffle-former bolts (Figure 6)

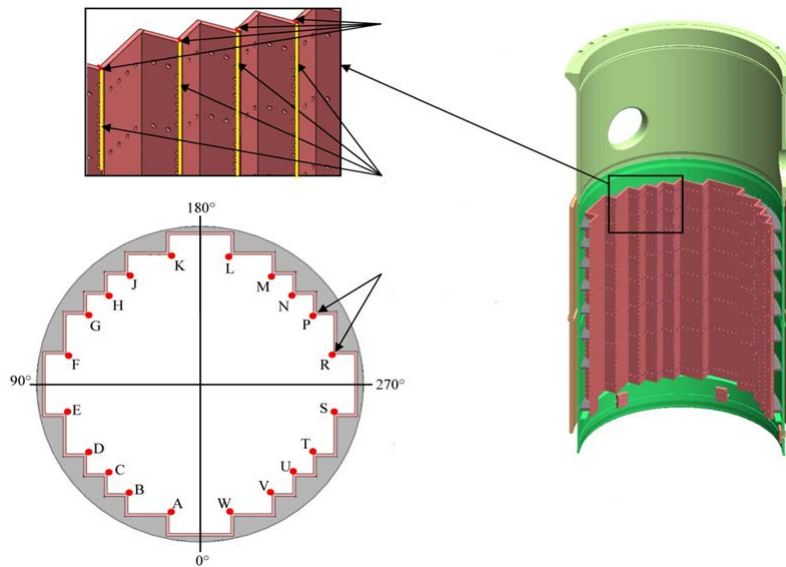


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### Baffle-Former Assembly Assembly (Figure 7)

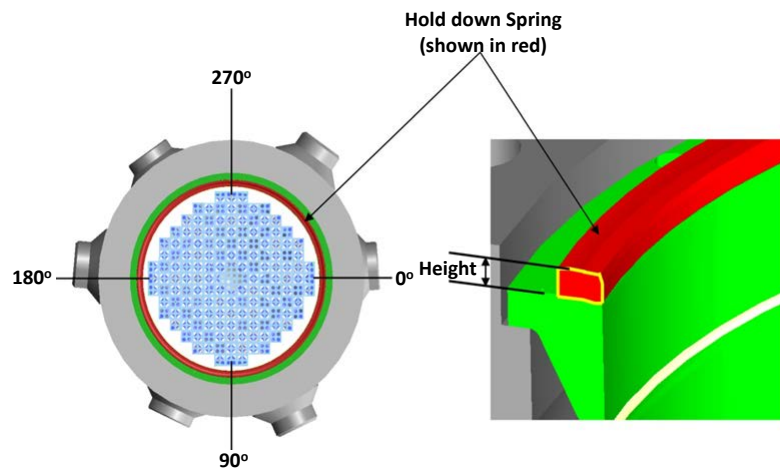


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### Alignment and Interfacing Components Internals Hold Down Spring (Figure 8)

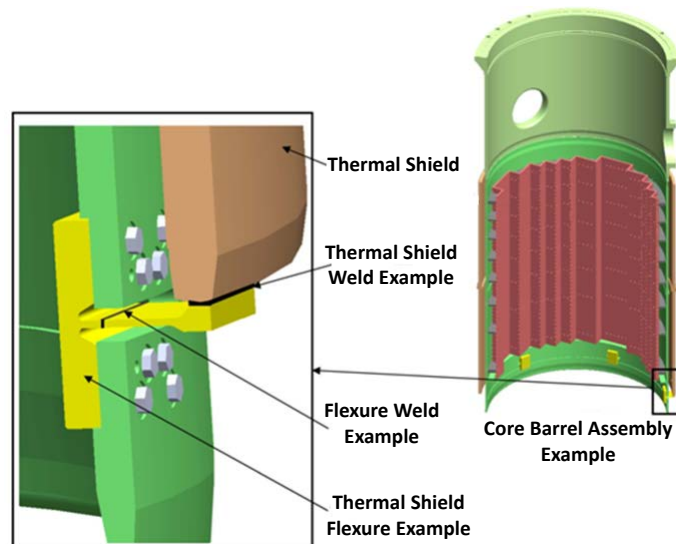


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### Thermal Shield Assembly Thermal Shield Flexures (Figure 9)



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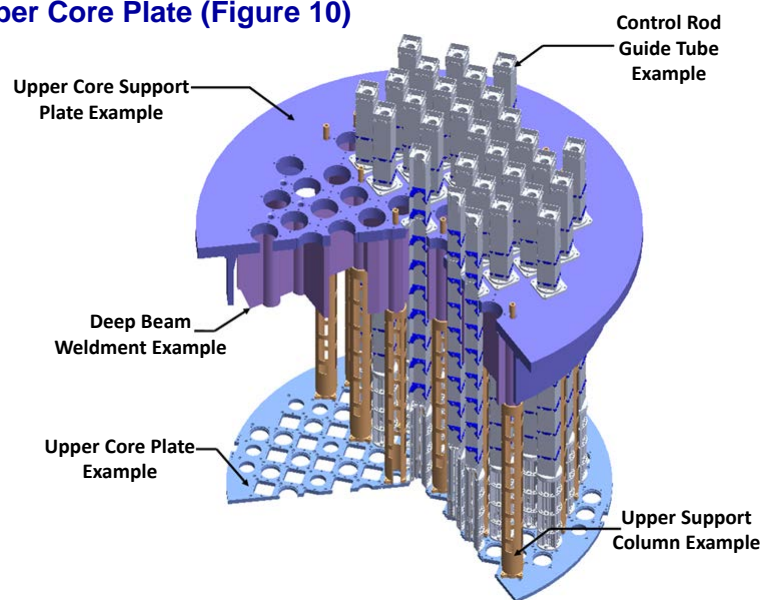
## Expansion

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### Upper Internals Assembly Upper Core Plate (Figure 10)

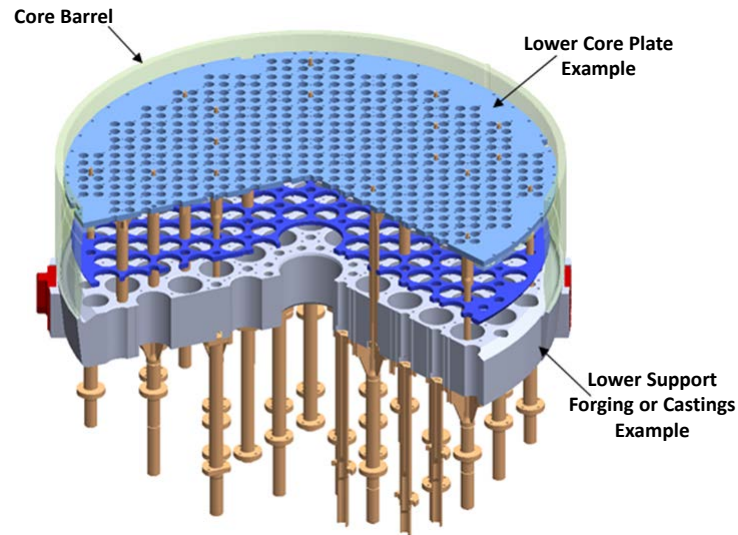


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### Lower Internals Assembly Lower Support Forging or Castings (Figure 11)

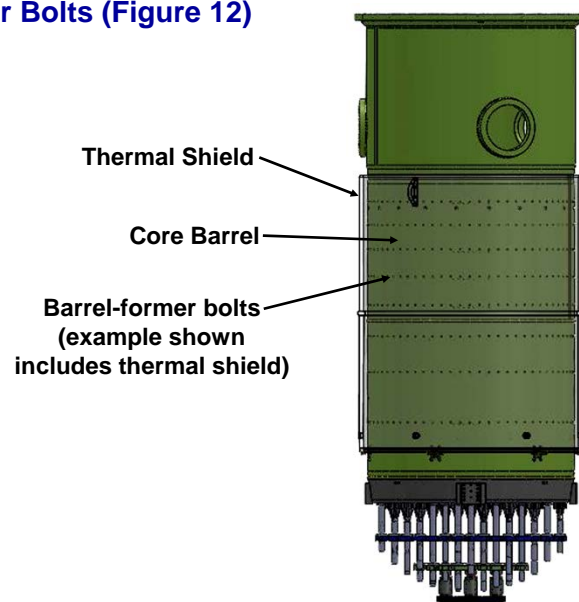


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### Core Barrel Assembly Barrel-former Bolts (Figure 12)



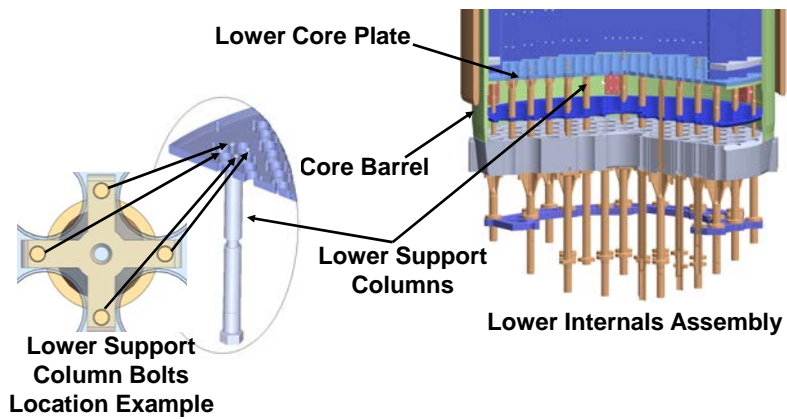
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### Lower Support Assembly Lower Support Column Bolts (Figure 13)

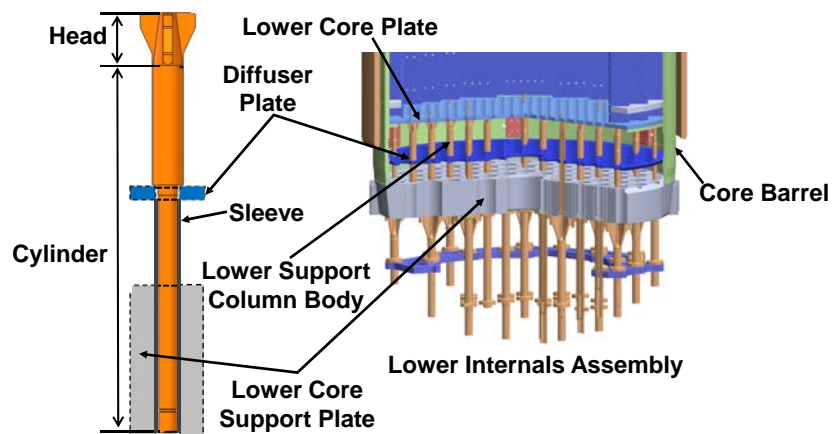


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### Lower Support Assembly Lower Support Column Bodies (Cast/Non-cast) (Figure 14)

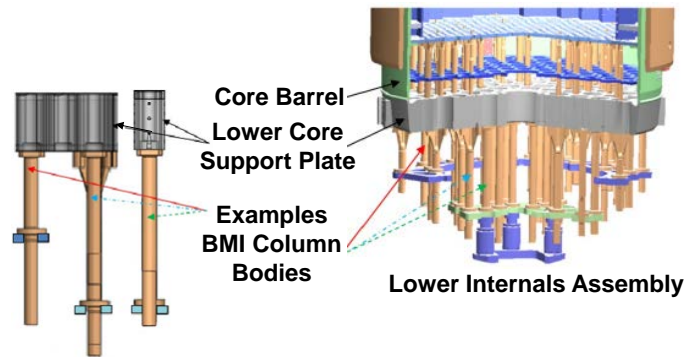


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### Lower Support Assembly Bottom-mounted Instrumentation (BMI) Column Bodies (Figure 15)



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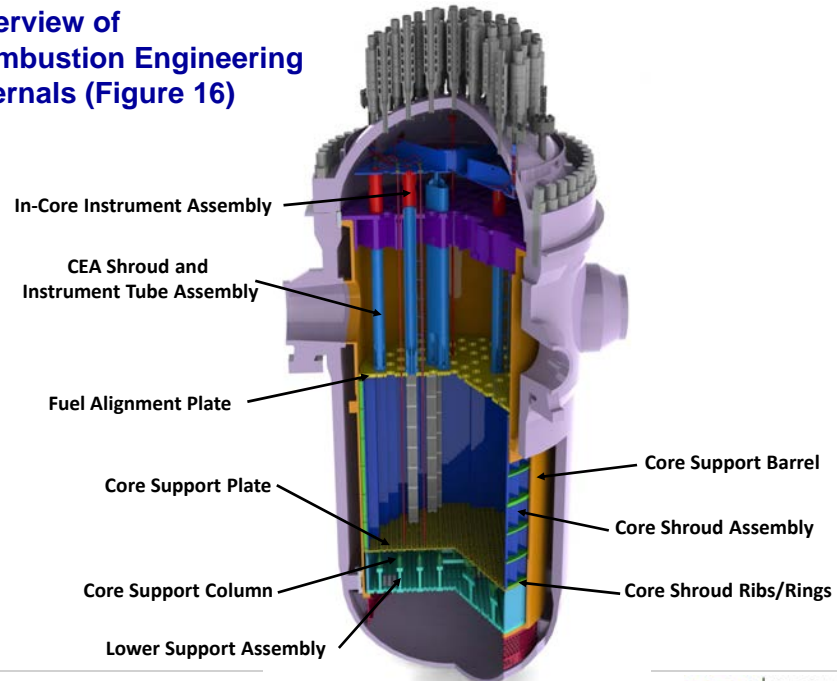
### Combustion Engineering NSSS Reactor Internals Component Figures

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## Overview of Combustion Engineering Internals (Figure 16)



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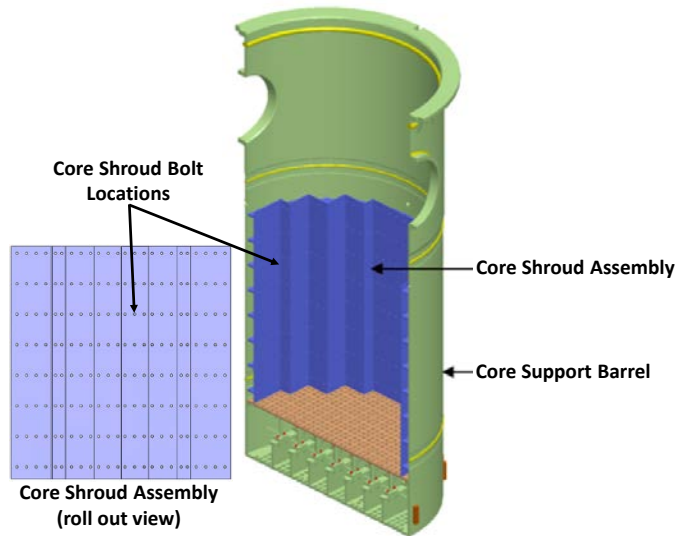
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### Core Shroud Assembly (Bolted) Core shroud bolts (Figure 17)

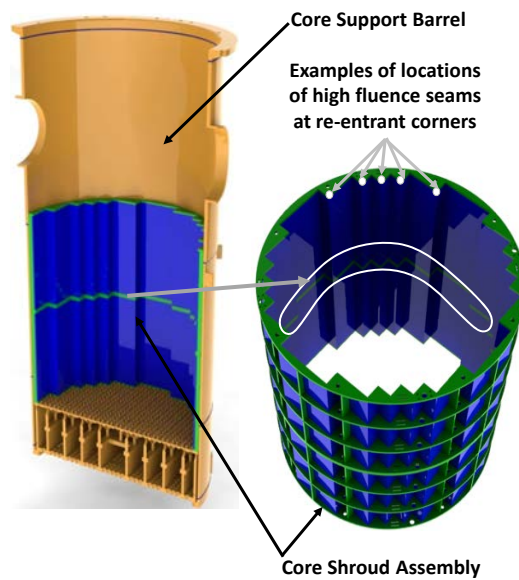


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### Core Shroud Assembly (Welded) Assembly and Core shroud plate-former plate weld (Figure 18)

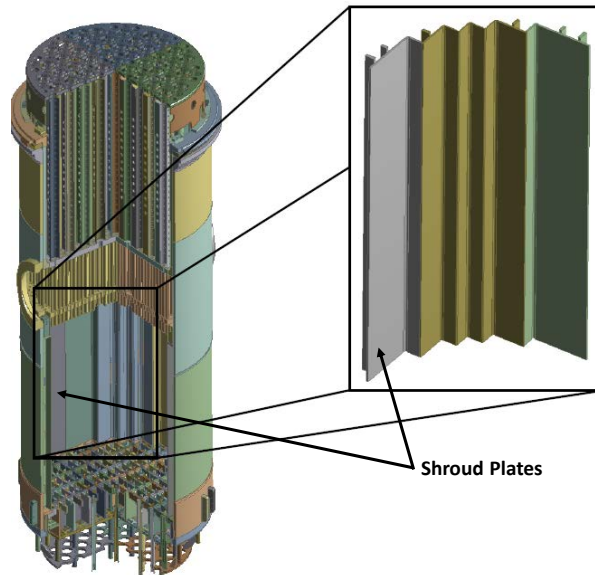


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### Core Shroud Assembly (Welded) Shroud plates (Figure 19)

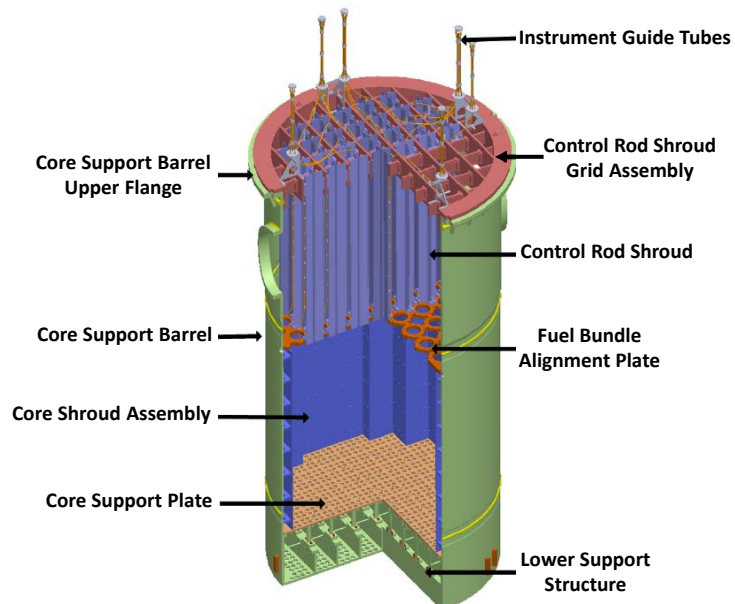


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### Core Shroud Assembly (Bolted) Assembly (Figure 20)

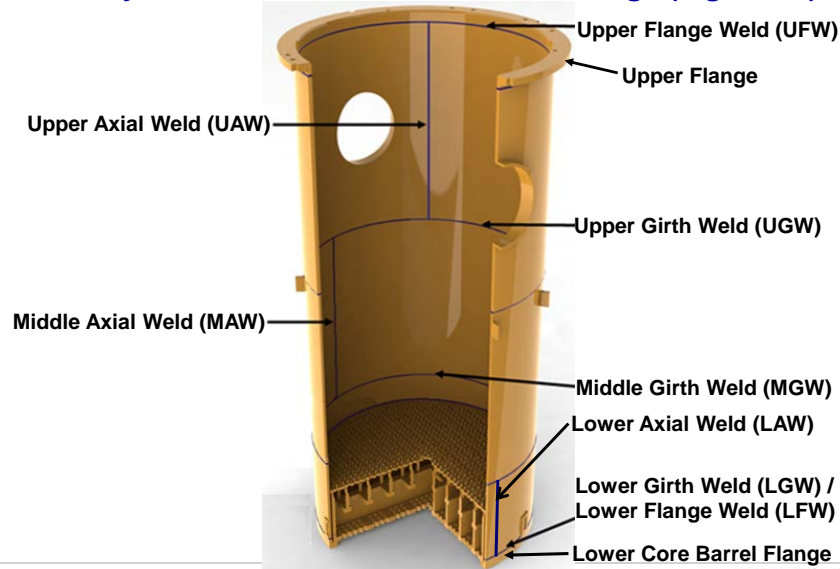


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**Core Support Barrel Assembly – Welds, Upper cylinder (including welds), Upper core barrel flange, Core barrel assembly axial welds, Lower core barrel flange (Figure 21)**

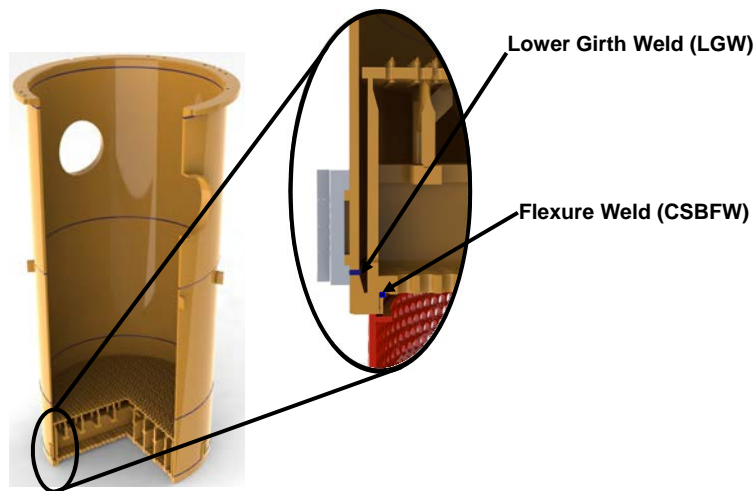


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**Core Support Barrel Assembly  
CSB Flexure Weld (CSBFW) (Figure 22)**

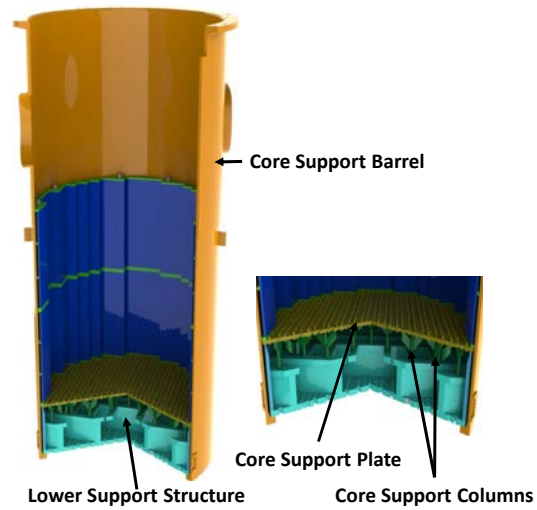


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**Lower Support Structure: Core support plate,  
Core support column welds, Core support beam (Figure 23)**

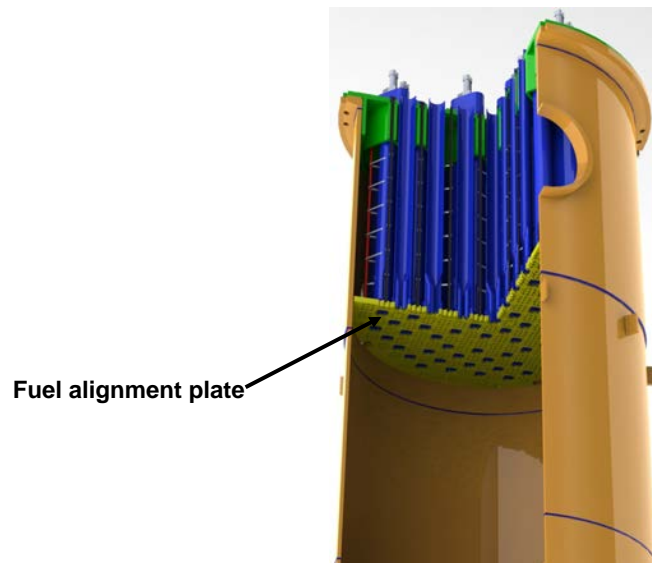


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**Upper Internals Assembly  
Fuel alignment plate (Figure 24)**

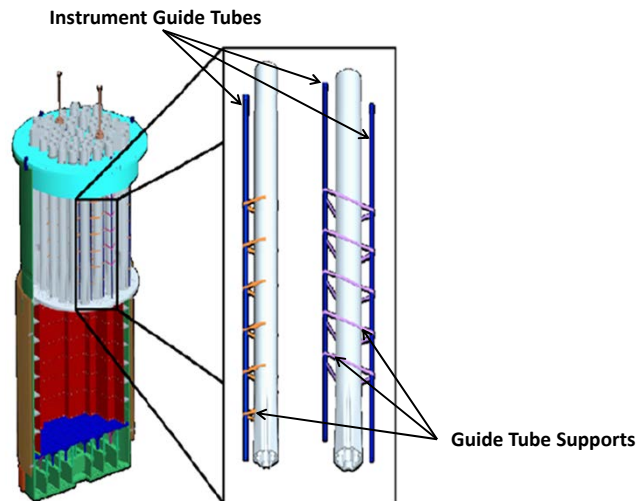


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### Control Element Assembly Instrument guide tubes (Figure 25)

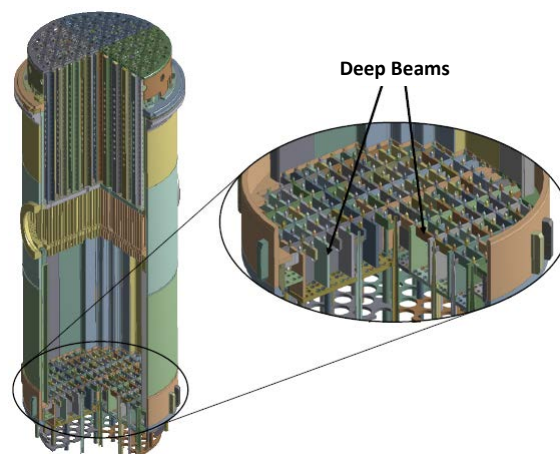


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### Lower Support Structure Deep beams (Figure 26)



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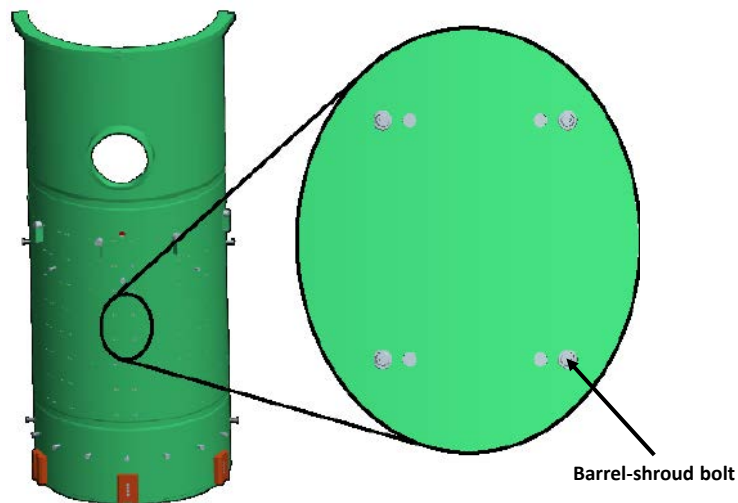
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### Core Shroud Assembly (Bolted) Barrel-shroud bolts (Figure 27)

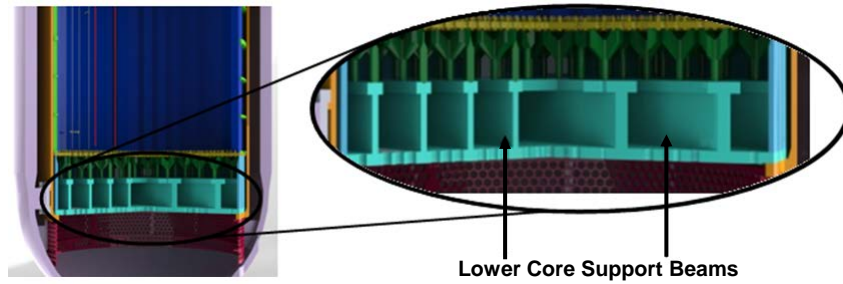


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### Lower Support Structure Lower core support beams (Figure 28)

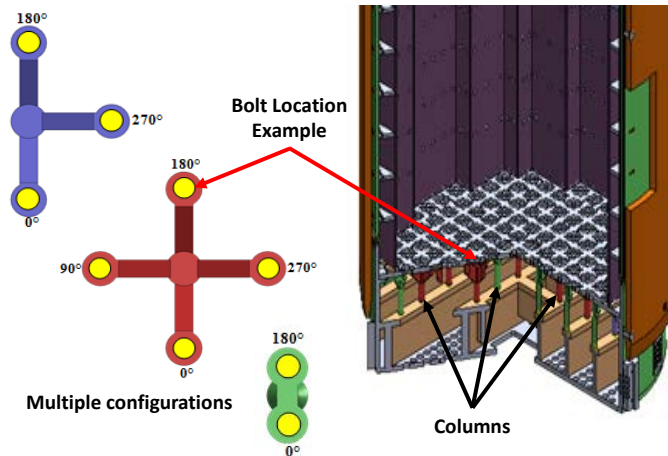


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### Core Shroud Assembly (Bolted) Core support column bolts (Figure 29)

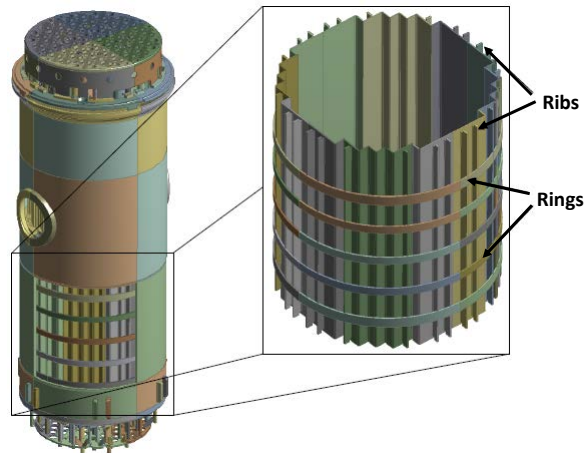


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**Core Shroud Assembly (Welded)  
Remaining axial welds, Ribs and rings (Figure 30)**



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