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**MRP-227 Revision 1**

*Updated Westinghouse  
Figures*

**Westinghouse NSSS  
Combustion Engineering NSSS**

2/2015

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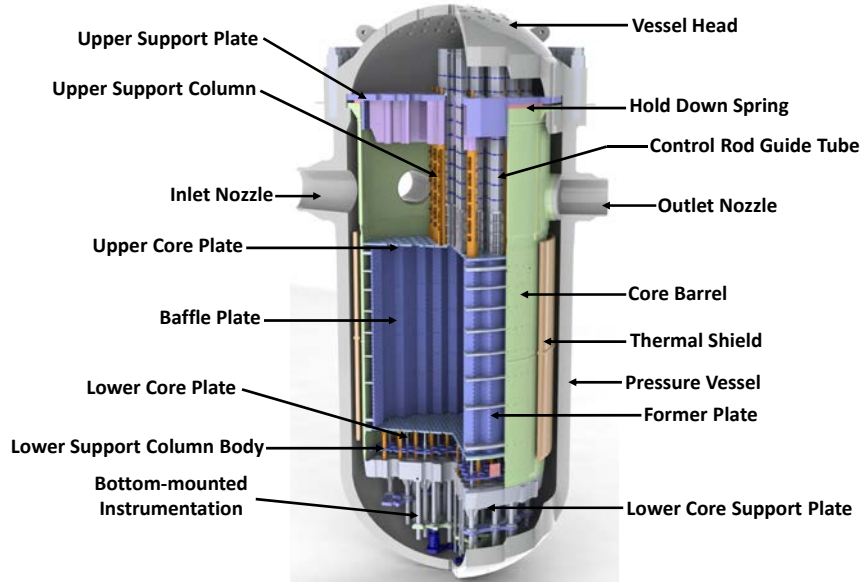
**Westinghouse NSSS  
Reactor Internals Component Figures**

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### Overview of Westinghouse NSSS Internals (Figure 1)



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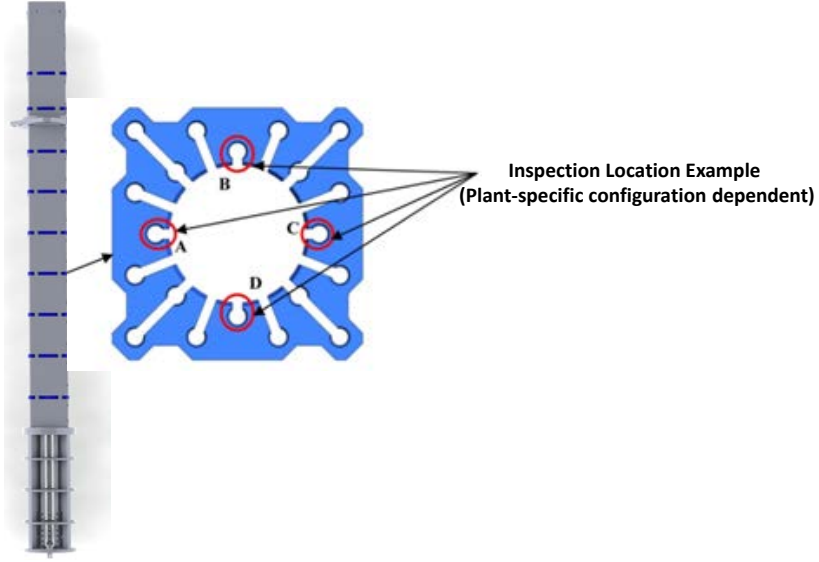
## Primary

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

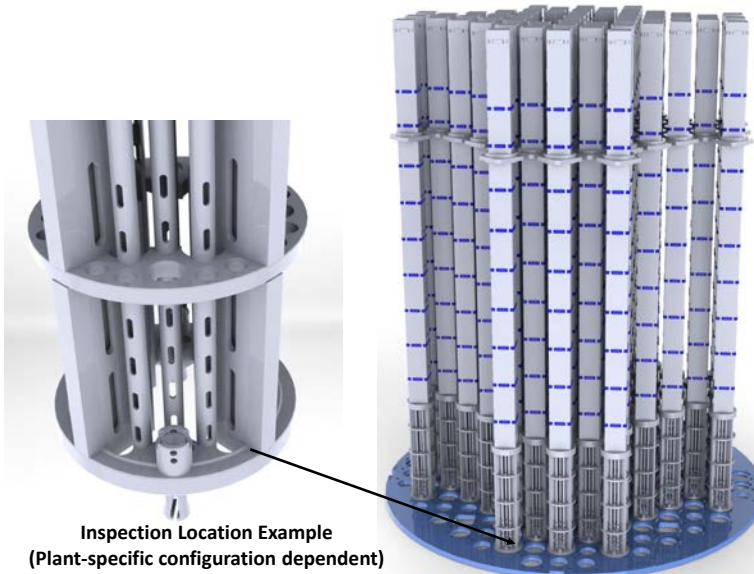


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### Control Rod Guide Tube Assembly Lower Flange Welds (Figure 3)

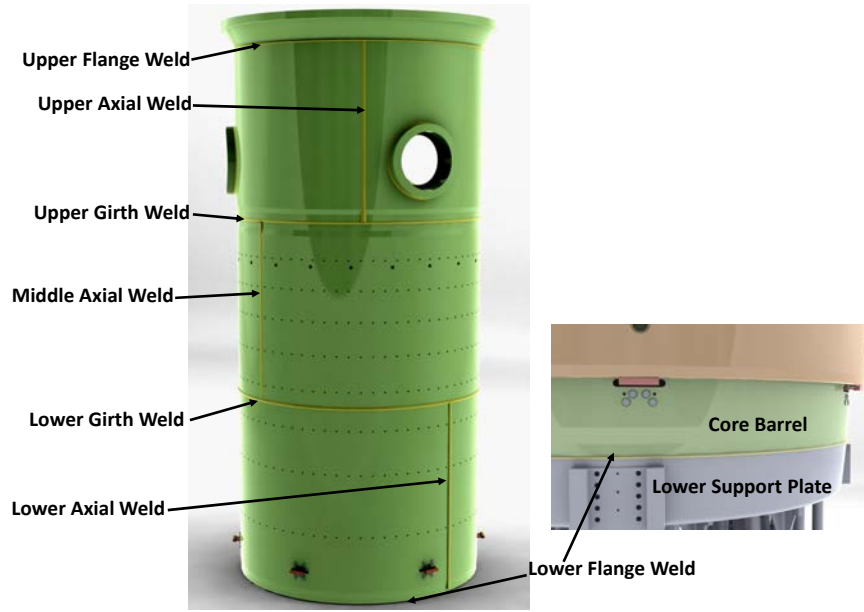


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### Core Barrel Assembly Core Barrel Welds (Figure 4)

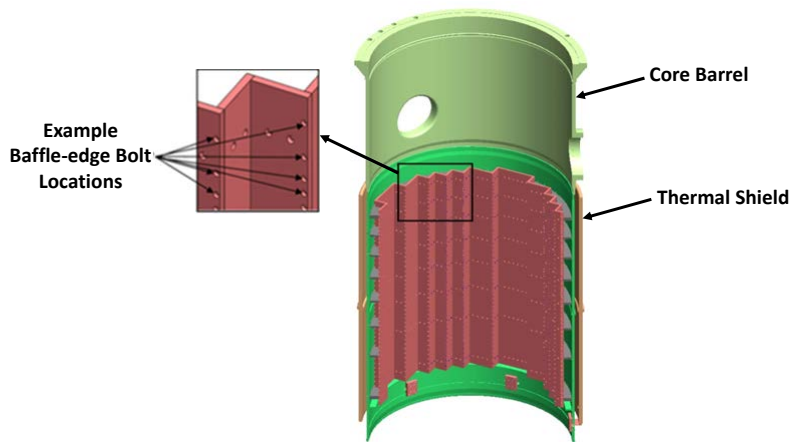


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### Baffle-Former Assembly Baffle-edge bolts (Figure 5)

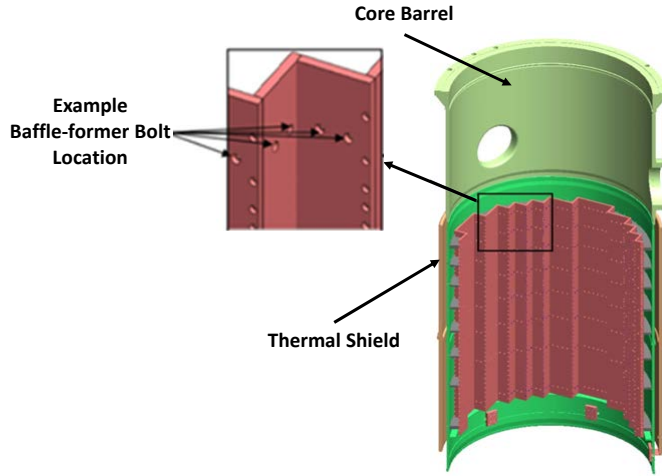


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### Baffle-Former Assembly Baffle-former bolts (Figure 6)

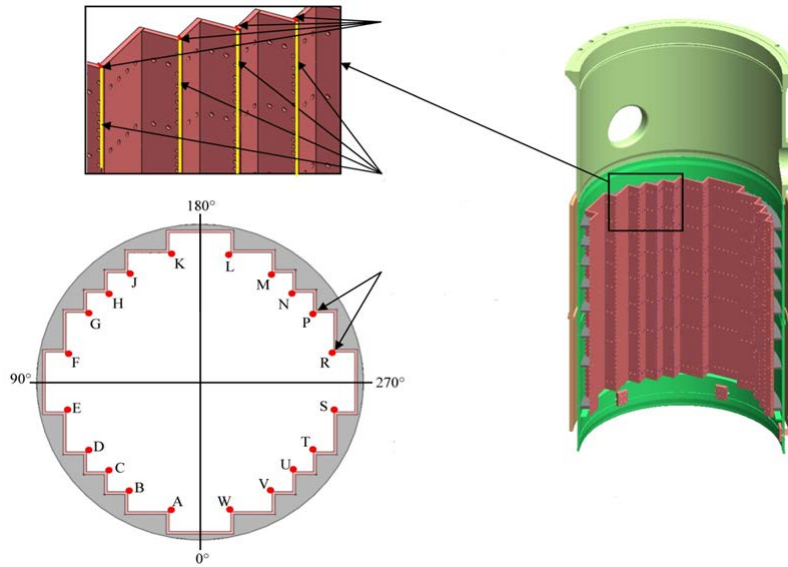


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### Baffle-Former Assembly Assembly (Figure 7)

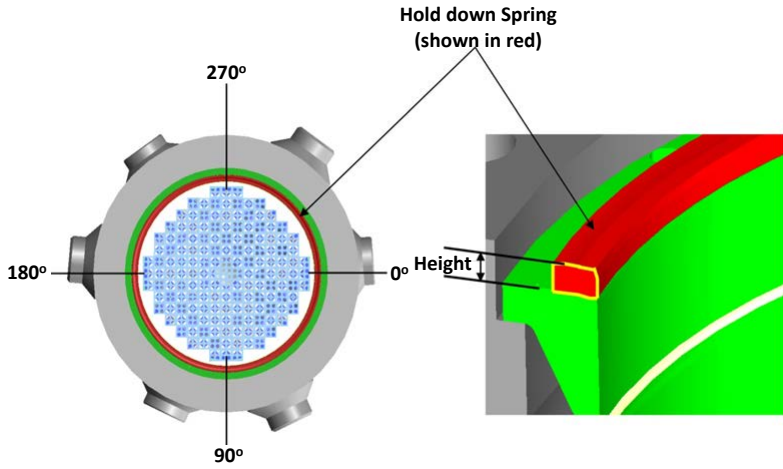


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### Alignment and Interfacing Components Internals Hold Down Spring (Figure 8)

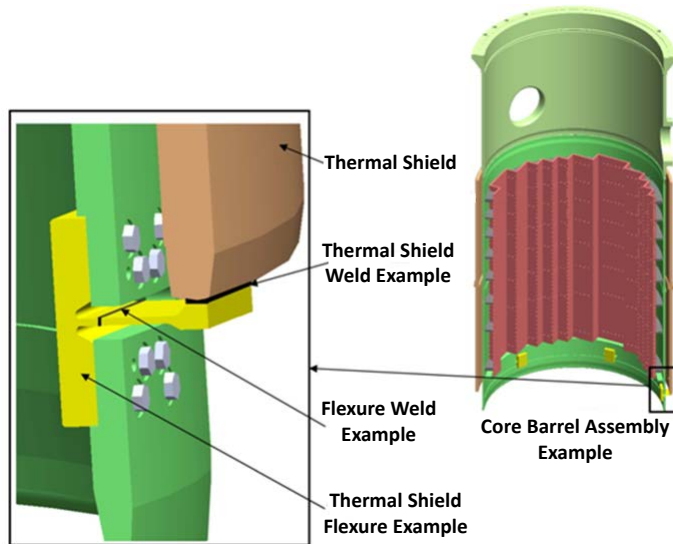


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### Thermal Shield Assembly Thermal Shield Flexures (Figure 9)



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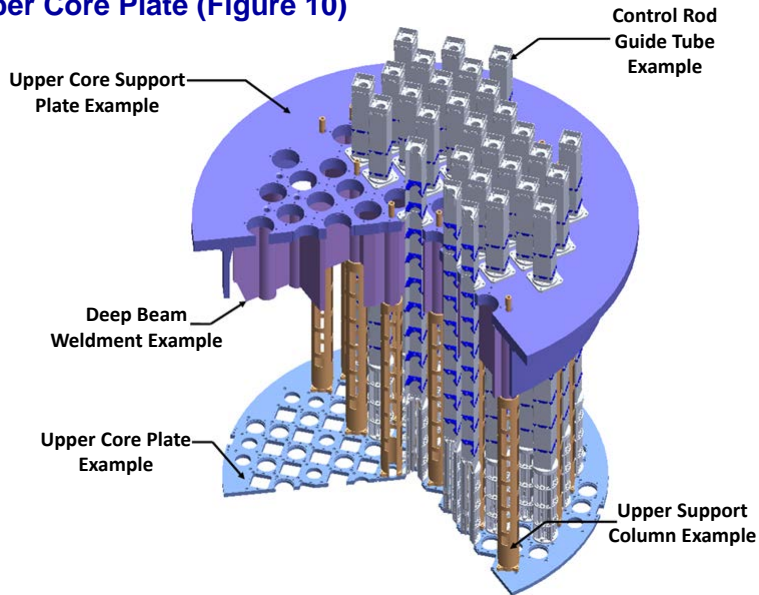
# Expansion

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

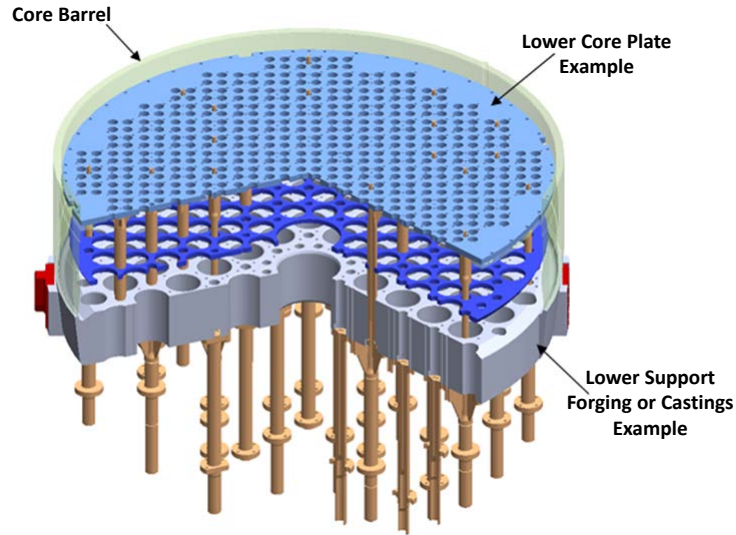


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### Lower Internals Assembly Lower Support Forging or Castings (Figure 11)

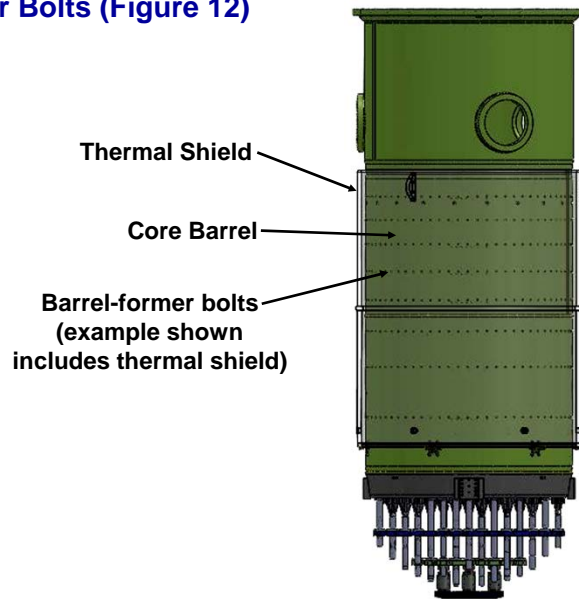


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### Core Barrel Assembly Barrel-former Bolts (Figure 12)



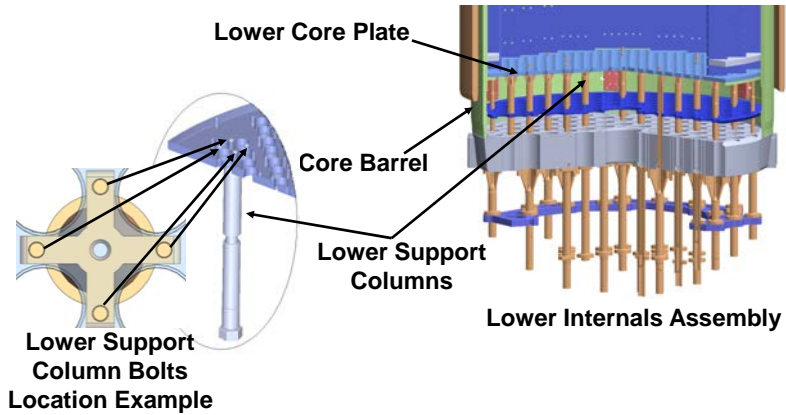
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### Lower Support Assembly Lower Support Column Bolts (Figure 13)

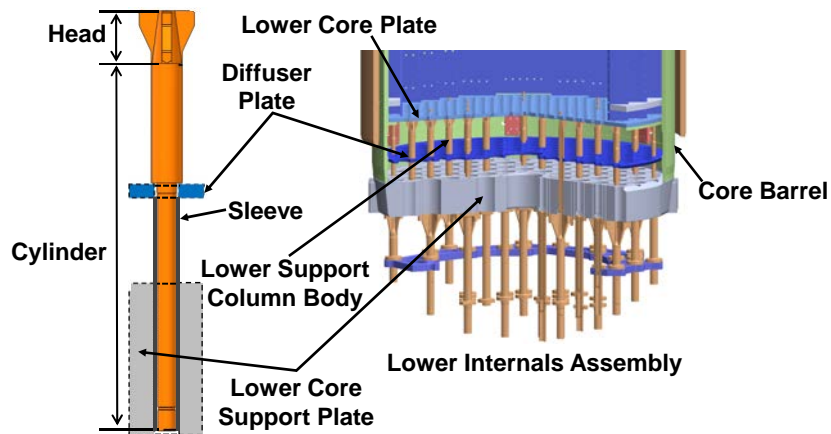


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### Lower Support Assembly Lower Support Column Bodies (Cast/Non-cast) (Figure 14)

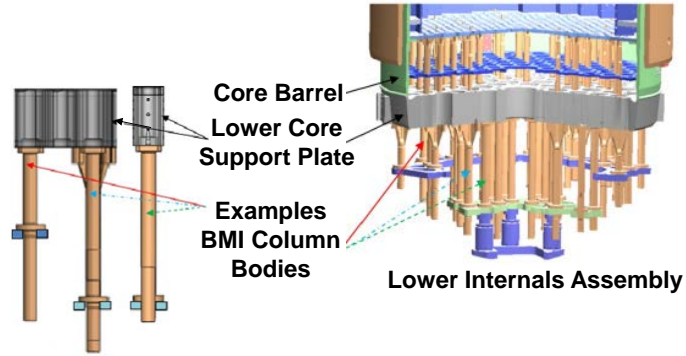


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**Lower Support Assembly Bottom-mounted Instrumentation (BMI) Column Bodies (Figure 15)**



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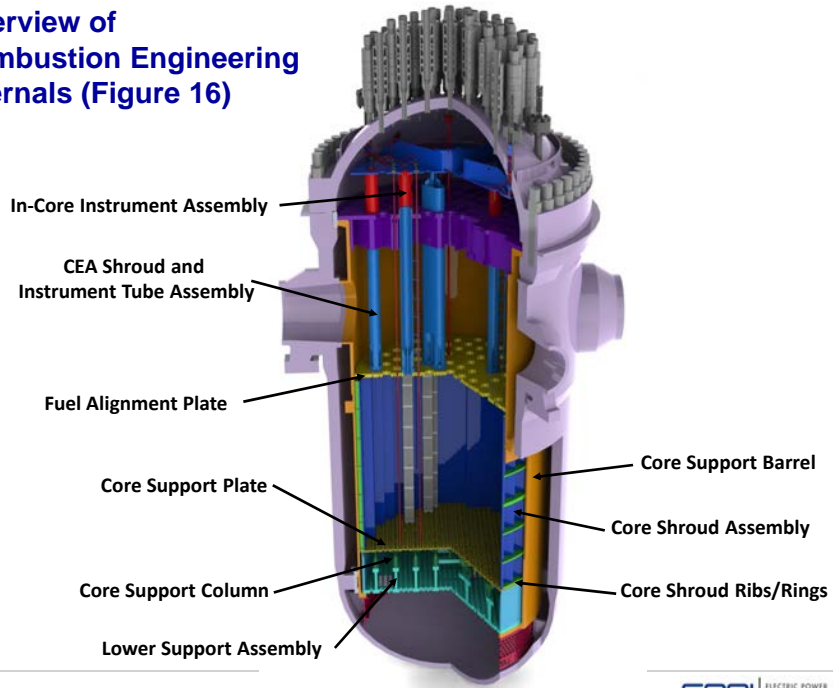
**Combustion Engineering NSSS  
Reactor Internals Component Figures**

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### Overview of Combustion Engineering Internals (Figure 16)



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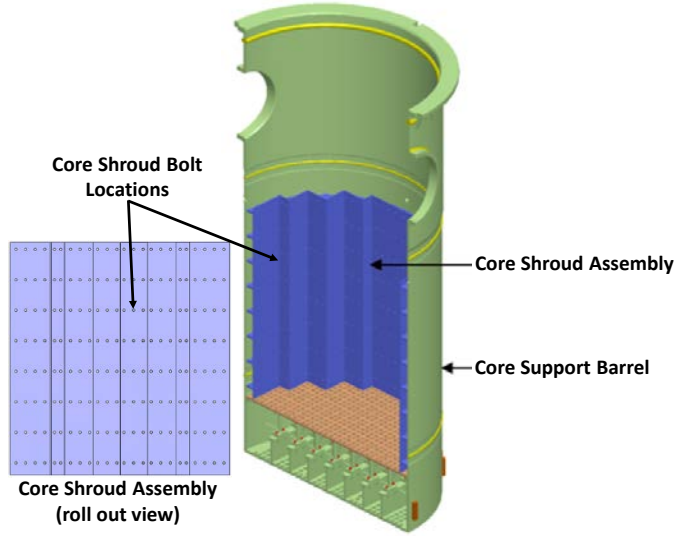
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### Core Shroud Assembly (Bolted) Core shroud bolts (Figure 17)

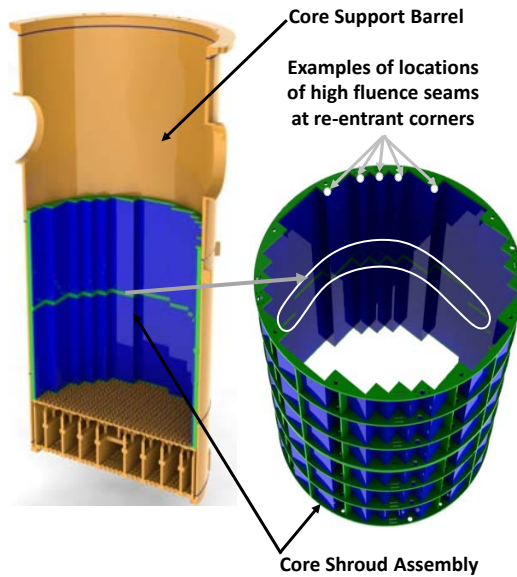


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### Core Shroud Assembly (Welded) Assembly and Core shroud plate-former plate weld (Figure 18)

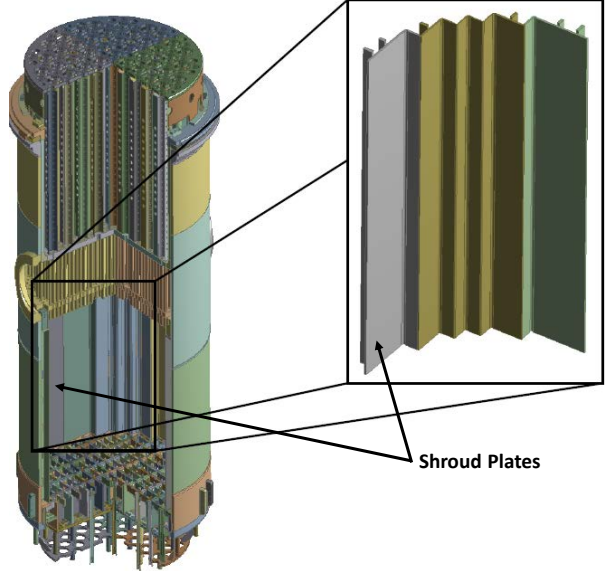


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### Core Shroud Assembly (Welded) Shroud plates (Figure 19)



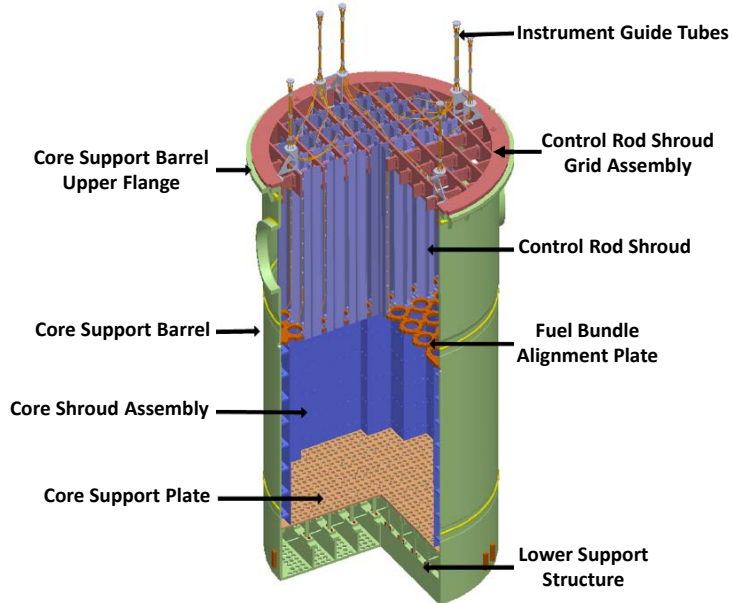
Shroud Plates

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

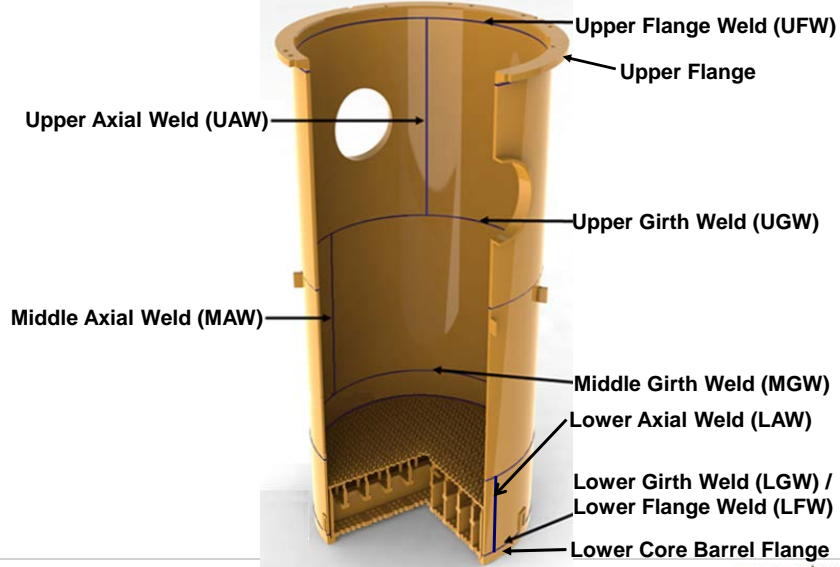


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**Core Support Barrel Assembly – Welds, Upper cylinder (including welds), Upper core barrel flange, Core barrel assembly axial welds, Lower core barrel flange (Figure 21)**

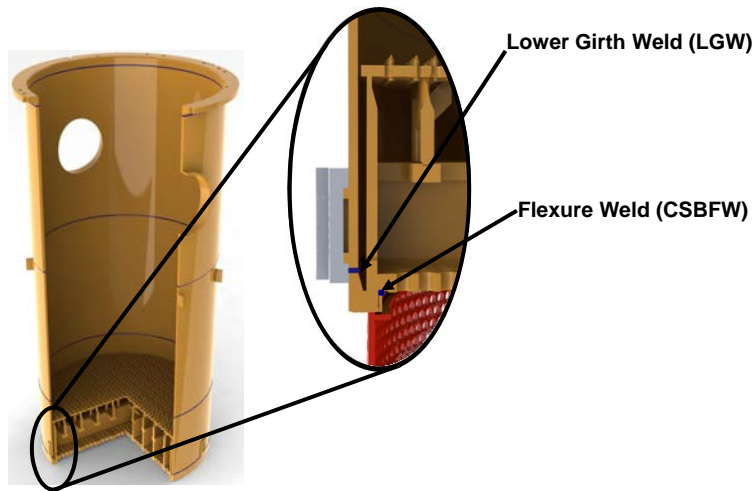


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**Core Support Barrel Assembly  
CSB Flexure Weld (CSBFW) (Figure 22)**

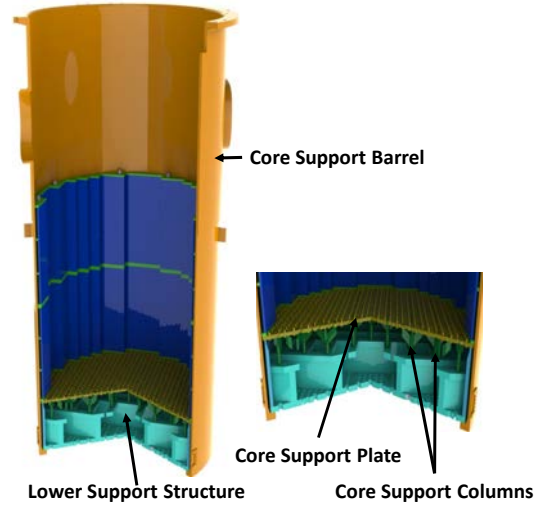


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**Lower Support Structure: Core support plate, Core support column welds, Core support beam (Figure 23)**

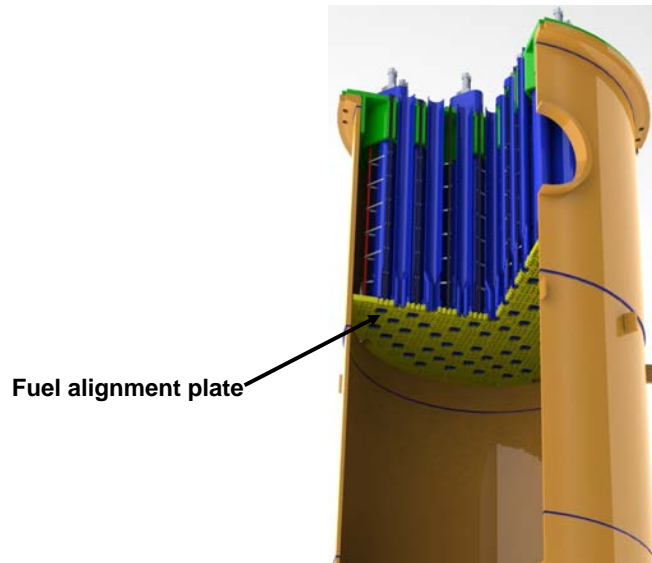


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**Upper Internals Assembly Fuel alignment plate (Figure 24)**

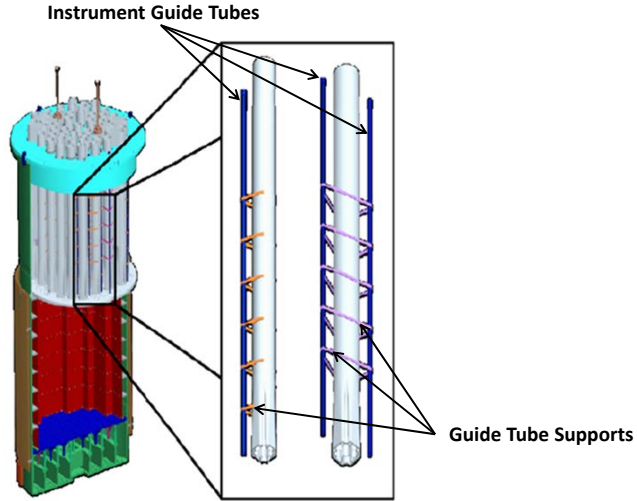


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### Control Element Assembly Instrument guide tubes (Figure 25)

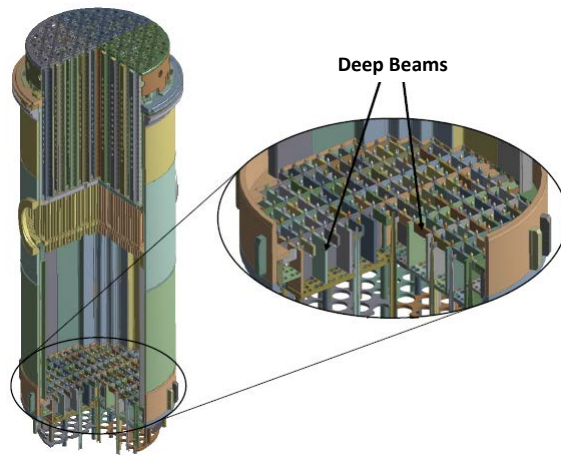


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### Lower Support Structure Deep beams (Figure 26)



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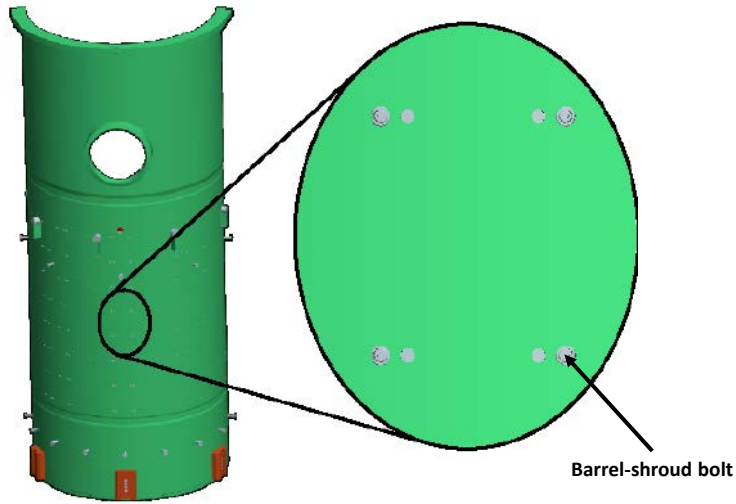


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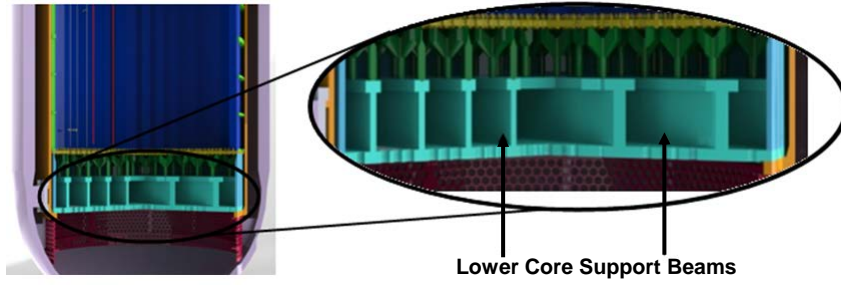
## Core Shroud Assembly (Bolted) Barrel-shroud bolts (Figure 27)



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

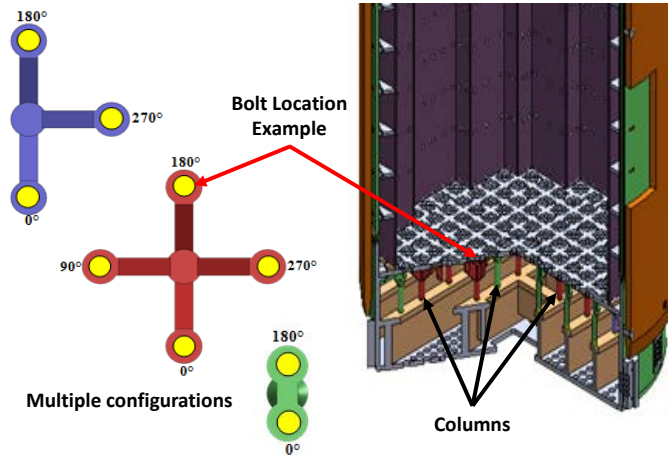


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**Core Shroud Assembly (Bolted)**  
**Core support column bolts (Figure 29)**

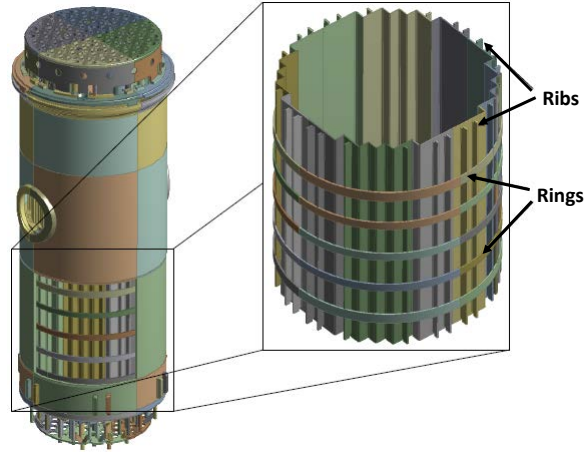


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**Core Shroud Assembly (Welded)  
Remaining axial welds, Ribs and rings (Figure 30)**



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