

Flux Thimble Thermocouple Assemblies

Challenge

U.S. nuclear utilities with moveable in-core monitoring systems need leak-free core temperature monitoring for safe and reliable operations.

Solution

Framatome's Flux Thimble Thermocouple Assemblies feature proven seal and connector design improvements that translate into improved safety and lower costs for plant operators.

Flux Thimble Thermocouple Assembly

The Flux Thimble Thermocouple Assembly integrates core exit thermocouples with the thimble tubes used in the moveable in-core monitoring system. The Type-K thermocouples are located between two Inconel 600 tubes.

While the outer tube is designed to withstand system pressure and provides the first pressure boundary to the reactor coolant, the thicker inner tube provides the pressure boundary of record, meeting ASME over-pressure design margin requirements.

High Quality Manufacturing

Framatome is a global leader in the design and manufacturing of high technology systems. Framatome manufactures the Flux Thimble Thermocouple Assemblies at Framatome's Solution Complex in Lynchburg, Va. The Flux Thimble Thermocouple Assemblies are similar in design and require similar fabrication techniques to Framatome's Incore Detector Assemblies (ICDA). Since the initial supply of ICDA's in 1972, we have fabricated and delivered more than 3,000 Incore Detector Assemblies, including more than 20,000 individual detectors.

Customer benefits

- Proven connector and seal redesign to improve reliability and reduce maintenance
- Lower costs and reduced radiation exposure for maintenance personnel
- High quality manufacturing in Lynchburg, Va.
- Meets ASME over-pressure design margin requirements



Your performance
is **our** everyday **commitment**



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