framatome

Protection Sleeve for In-Core Thermocouple Column

Save time and reduce dose during Reactor Vessel Head opening / closing with the upgraded protection sleeve for thermocouples.

Challenge

Over time, recurrent maintenance on thermocouples using the OEM protection sleeve can damage the Swagelok connectors and Core Exit Thermocouples (CET) during the Reactor Vessel Head (RVH). Those repetitive operations can also generate Foreign Material Exclusion (FME) risks.

Solution

Framatome's innovative protection sleeve for thermocouples allows a simpler and faster RVH installation and removal.

The upgraded protection sleeve keeps performing its two main functions:

- Guide the CETs during the reactor vessel head lift

- Protection for the thermocouples conduits and CETs while internals are on the stand underwater.

With improved clearance on the inside diameter, the CETs are more easily inserted, while decreasing damage or possible FME risks. Weighing only 9 pounds each, the new sleeve is significantly lighter than most OEM protection sleeve.

As an option, the protection sleeve can be equipped with an anti-collision avoidance system to prevent thermocouple columns bending during Upper Internals moves.

@Framatome – Protection Sleeve for CET

Technical information

- Weight: 4 kg / 9 lb
- Easily decontaminated
- Stainless steel
- Adaptable to all plant designs
- CE certified

Customer benefits

- Easier installation and removal thanks to an optimized inner diameter
- Dose reduction thanks to a faster installation
- Reduced CET damage thanks to a easier insertion

Key figures

100% adaptable

3 times lighter

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