framatome

Special Anchor Technology

Solves your anchorage challenges for new and installed NPPs

Framatome's innovative anchoring solutions help nuclear operator to ensure assets reliability and to achieve safe operation and efficient power generation.



Special concrete-embedded part for the main steam line
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Challenge

Nuclear refurbishment and modernization projects often require the installation of new equipment. Safety authorities may change design basis requirements, which may impact the support means. This can require reinforcement measures, such as new anchoring or additional complex anchor technology. However, limited installation space often makes it difficult to meet nuclear and structural safety standards with conventional anchor solutions.

Solution

Framatome's expert anchoring solutions offer customized designs for even the most complex structural challenges or complex loading scenarios.
Services cover consultation, concept, design, installation and as-built documentation. Our experts support during the installation phase and ensure seamless project handover. Framatome covers the design of:

- Standard-, Special anchor plates and -designs
- Through-wall anchors
- Post-installed anchor plates (expansion anchors, undercut anchors)
- Special anchor designs for components
- Embedded parts such as steel support frames or pipe penetration sleeves in concrete structures

Customer benefits

- Expert consulting on all design phases
- Optimized design, compliant to nuclear safety standards
- Documentation under nuclear safety standards
- Input to digital structural design models
- Experience and international references in operating plants and nuclear new
- University partnerships for R&D, laboratory tests and further development projects
- Expert, high-density anchor design tool with complementary impact (edges, objects, anchors) analysis

Technical Information

Framatome covers designs with various calculation methods, which relate to utilization and to national and international nuclear codes and standards. Following these standards, design approaches vary in complexity and thus concern both, linear and non-linear analysis methods, covering mechanical or thermal stresses, whether static or dynamic. Examples include seismic events, fatigue loading, or loss of coolant accidents.

Key figures

> 1.000.000 anchor plates designed for

> 50 nuclear facilities in

> 20 countries

35% time saving in design activities

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