framatome

Primary pump full flow test

Dedicated to primary loop coolant pumps

Performance and safety tests in real conditions

Challenge

Find a test center able to check the performance and behavior of any type of primary loop coolant pump, in real conditions in order to set the optimization.

Solution

Located in northernmost region of France, Framatome Jeumont plant has industrial capacities and experience for developing, manufacturing, and testing primary loop coolant pumps with the highest level of safety and quality standards.

The test center is equipped with a loop to carry out hydraulic tests representing on-site operation :

- Full flow test loop with controls for : flow, pressure, and temperature ; in nominal, transient and incidental conditions.
- Various pump design can be tested.
- Technology used for full-flow testing ensures numerous data recorded.
- Test are performed under high accuracy control command system (electrical and hydraulic survey).
- All handling devices are available up to 70 T.
- Regulatory test on shaft seal systems if needed

Customer benefits

Internationally trusted supplier with proven experience.

Full scale tests enabling :

- Advanced research programs on hydraulic components
- Evaluation of the primary loop coolant pump behavior
- Validation of real hydraulic performances
- Assessment and implementation of specific tests needs

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

Technical information

Pressure : 20 - 175 bars, with pressure control system

Fluid temperature: 50 - 330°C

Flow : 19 000 - 35 000 m3/h

Power : 3 000 - 11 000 kW

Closed loop using demineralized water (according to customer specifications)

Variable speed boot with converter

Suitable for 50 Hz and 60 Hz motors

Electrical voltage from 4,000 to 13,800 V

Key figures

50 years of experience in manufacturing of mobile components for nuclear industry

> 300 Reactor Coolant Pumps manufactured, tested and delivered to Customers by Jeumont Plant since 1970

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