

AREVA JSPM

Solutions for Nuclear Reactor Pumps and Devices

SPRING
TECHNOLOGIES
Machining as Designed

Success Story





Information	
Industry :	Process power
Solution :	NCSIMUL Machine / Tool



Company Overview

JSPM, an AREVA subsidiary and world leader in mobile components for primary coolant loops, is introducing a CAM-based digital process.

The company has chosen NCSIMUL Machine for machining simulation and NCSIMUL Tool for cutting tool management as fully integrated extensions to its existing CAD/CAM software, Dassault Systèmes' CATIA.

Its goals are to increase productivity and responsiveness and secure its production capability.

Challenges

JSPM develops and manufactures mobile components for primary coolant loops that are a critical part of nuclear plant operation, and provides maintenance, both on site at the plant and in hot workshops. These components include reactor coolant pump assemblies and rod cluster control mechanisms.

The company is part of the AREVA industrial group and operates several leading-edge facilities, including the company's home base at Jeumont in the north of France, which houses its support, engineering, production and associated services activities.

To optimize productivity and responsiveness and secure its production capability (NC machine tools), JSPM has introduced a digital manufacturing process. Its goal is to integrate machining simulation and cutting tool management

with its existing CAM software, thereby automating workflow, from process engineering through to the workshop.

"Securing the manufacture of high added-value parts in our sector, nuclear energy, is more than a prerequisite, it's an obligation", explains Franck COPIN, CAM Department Manager at JSPM.

"Our commitments in terms of time frame and cost are such that we have to get our parts right first time, eliminating all risks of breakage", he said

Benefits

"The teams at SPRING Technologies have the capacity to address our needs, in terms of software functionality for machining simulation and cutting tool management, as well as integration with our existing CAM setup, and this made the difference", adds Franck COPIN.

"Today, with NCSIMUL Machine we are able to manage the simulation of our NC programs and check the material removal, machining time and collision detections. When we add all this up, we know that we have a reliable and realistic virtual simulation of our tool paths.

With NCSIMUL Tool, we manage our cutting tools, and also our inventory, our suppliers and our cutting conditions. These two solutions enrich and optimize our CAM process, and also completely match our corporate values: leading edge technology driven by our experience."

The other advantages delivered by SPRING Technologies' NCSIMUL SOLUTIONS are :

- NCSIMUL Machine : ergonomics and performance; ISO code checks, including specific sub-programs.
- NCSIMUL Tool : capitalization on JSPM's know-how; reduced cutting tool budgets; optimized tool preparation efficiency, boosting machine tool productivity.