

COLLABORATING ROBOT SYSTEM (COBOT) FOR REMOTE UT INSPECTIONS

6-Axis Cobot based Inspection system with a wide range of different packages

Implementation of cost-efficient collaborative robots help our customers to solve their complex inspection tasks with a variety of different configurations and interfaces

Challenge

When testing safety-relevant components, e.g. in the aerospace or nuclear industry, you often need NDT hard- and software specially developed and adapted to the respective test area and component. Other challenges that arise during testing are geometric deviations between the CAD model and the real part and associated incorrect evaluations. Sometimes actual CADs do not even exist. Finally, poor accessibility, hazardous environments and high dose rates require special designed solutions

Solution

Framatome's highly flexible cobot based inspection systems helps you to solve your challenging inspection projects by using collaborative robots with our unique UT inspection technologies. The following inspection systems are offered either separate or in combination from Framatome:

- Cobot for support of manual NDT (encoder system): by using a cobot during manual inspections, the results can be retraced to any inspection area. Recurring components can be tested in the automated mode in best quality for improved performance.
- Cobots with optical scanner (surface scan): in combination with an optical scanner, it is possible to generate an accurate surface even for unknown geometries or components that differ from the CAD model. After a quick scan of the surface, the corresponding probe path can be calculated in the connected software (application for poorly accessible components and hazardous environments).
- Cobots with simulation software (specific crack simulations): the exact calculation of sound fields and sound attenuation is important for the inspection of volumetric components with high wall thicknesses and complex geometries. For this purpose, Framatome offers the two different software solutions IMAV and CIVA, to meet the most challenging UT requirements.



© Cobot with UT Inspection System during trade fair

Customer benefits

- Easy automation of manual inspections and for recurring components
- Optical surface scan for unknown geometries
- Detailed UT simulation of sound propagation on real part

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is our everyday commitment**