

## Decontamination

### Removal of Radioactivity from Tools and Machine Parts

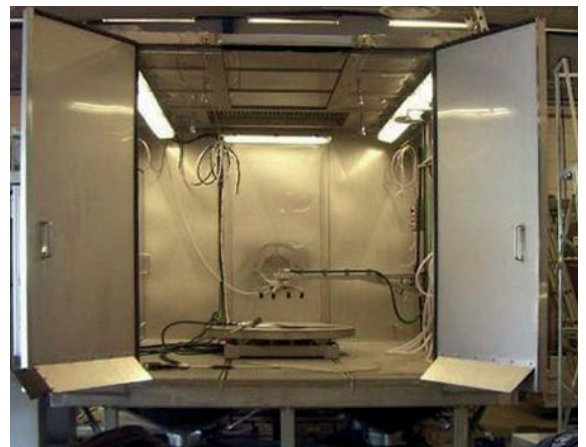
Efficient decontamination equipment for nuclear power plant components, which is essential to reduce the dose rates below the defined limits by removing dust and corrosion particles as well as surface coating

#### Challenge

During everyday operation of nuclear power plants, various components and systems become contaminated. During plant maintenance activities or plant refurbishment programs, old contaminated parts and used tools often exceed required dose rates for disposal or reuse. Common decontamination systems regularly produce high amounts of secondary waste and high volumes of radioactively polluted water. This requires extensive reprocessing which is time consuming and an expensive procedure.

#### Solution

Framatome offers a number of proven decontamination solutions, both mobile and stationary. With the custom-tailored processes, decontamination targets with repeatable decontamination factors become easily attainable. Small and sensitive parts as well as large components can be decontaminated without producing any secondary waste and only small amounts of polluted water (depending on chosen methods). Even dose rates, which are low enough to allow free release of a component, can be reached with our specialized equipment (if applicable according to regulations).



Decontamination booth

#### Customer benefits

- Tools become reusable after the decontamination process
- Reduced cost due to no generation of secondary waste and drastically reduced amounts of contaminated water
- Minimization of activity inventory
- Stationary and mobile units available
- Capable of using various cleaning media, depending on decontamination requirements

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

## Technical information

Framatome offers clean and time-saving decontamination solutions using the following technologies:

### Wet blasting

- High pressure cleaning
- Blasting with additional abrasive

### Dry blasting

- Sandblasting
- Dry ice blasting

### Passive decontamination

- Ultrasonic bath
- Dipping bath (option: addition of chemicals)
- Electro polishing

### Special technologies

- Decontamination via laser

The decontamination booth, one of the key systems in the product portfolio, features:

- Possibility of semi-automatic decontamination in case of high dose rate
- Decontamination only with demineralised water under high pressure (no secondary waste, nearly no surface removal)
- Pressure level of high pressure pumps is flexible and will be chosen based on the decontamination task
- Possibility for addition of chemicals
- Size of booth will be adapted to the size and weight of the components to be decontaminated
- Accessible and equipped with changing cabin



Ultrasonic bath



Decontamination booth

## References

- China: decontamination workshop for EPR reactor (twin unit, under construction)
- Finland: decontamination workshop for EPR reactor (single unit, under construction)



**Contact:** [chemistry-services@framatome.com](mailto:chemistry-services@framatome.com)  
[www.framatome.com](http://www.framatome.com)

It is prohibited to reproduce the present publication in its entirety or partially in whatever form without prior written consent. Legal action may be taken against any infringer and/or any person breaching the aforementioned prohibitions.

Subject to change without notice, errors excepted. Illustrations may differ from the original. The statements and information contained in this publication are for advertising purposes only and do not constitute an offer of contract. They shall neither be construed as a guarantee of quality or durability, nor as warranties of merchantability or fitness for a particular purpose. All statements, even those pertaining to future events, are based on information available to us at the date of publication. Only the terms of individual contracts shall be authoritative for type, scope and characteristics of our products and services.