



- Diakont produces complete systems for Reactor Pressure Vessel inspection and in-situ repair
- Inspections are completed using either visual, UT, or laser-holographic
- Entire operations are automated, for completion at high speed and with minimal critical path impact
- RPV repairs are completed through grinding and weld-filling

Laser-holographic visual testing for crack detection

The STS-K-78P is a unique, radiation-resistant television system that provides controlled surface scanning at high speed and measures deviations with metrological-certified accuracy. The system is designed for automated pre-operational and operational control of the base metal, weld coatings, and welds inside PWR, BWR, and VVER reactors. The system meets the visual inspection criteria VT-1, PNAE G-7-016-RD-89, and EA-0079-2005. STS-K-78P systems have discovered dozens of RPV defects that inspectors determined would not have been detected by other means.



High speed crack detection camera

Technical specifications

Radiation Resistance	3 x 10 ⁵ Rads/hr
Control Modes	Automated Scanning / Static
Resolution	600 TV Lines
Rad-hardened zoom	12x
Image	Color / Monochrome
Minimum detectable COD	40 microns (0.001")

Automated defect grinding and filling

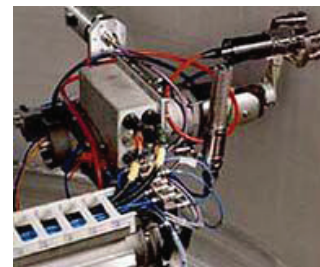
The SUDKR System is a precision manipulator for automated removal of defects inside surface of the reactor vessel. It comprises the delivery system, the intervention manipulator, and visual and volumetric inspection tools. Once deployed into the vessel, from the refueling machine, the manipulator engages telescopic arms that press against the reactor vessel, to ensure its secure fit. The grinding device is then manipulated to the defect using precision actuators. Grinding is then conducted in 50-micron increments. Integral radiation-hardened cameras are employed monitor the operation.



Crack grinding tool

Features:

- High-precision grinding
- Minimal support personnel requirements
- Repair is completed with minimal dose exposure
- Compact and easy deployment



Diakont RPV inspection tool

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