



Fuel Assembly Inspection System

- Time saving – Inspect all four sides of fuel assemblies simultaneously
- No impact – Inspection performed off critical path
- Proven technology – Based on Diakont’s state-of-the-art D40 rad-tolerant camera systems
- Versatile control – PTZ camera control for bottom nozzle inspection
- Tailored to fit – Customizable installation to meet any plant configuration

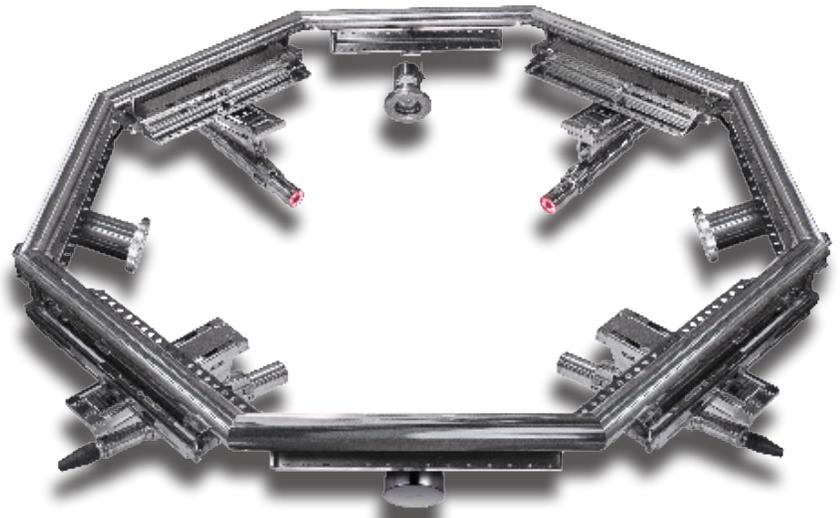
High-Efficiency Fuel Assembly Inspection

Spent fuel inspections not only increase safety, but done right, also help minimize outage downtime, resulting in cost savings for plant operators. To this end, Diakont has developed the Fuel Assembly Inspection System to maximize the efficiency of this process. Our Fuel Assembly Inspection System is comprised of four D40 cameras installed on a ring assembly with integrated auxiliary high-power lighting. This configuration speeds up inspection time up to three times as fast as single-camera systems.

During routine fuel transfer from the refueling cavity to the spent fuel pool, Diakont’s Fuel Inspection System is temporarily installed in the transfer canal near the upender in the spent fuel building. The fixture is positioned directly above the upender, with each camera oriented perpendicular to the four faces of the fuel assembly. The inspection is performed while the fuel is being extracted from the upender, with zero impact (in added time or motion) to the fuel transfer operation. One of the four cameras is installed on a pan/tilt mount for remote manipulation and viewing of the bottom nozzle.

High Quality and Reliability

Diakont’s D40 camera systems are the proven industry standard for radiation-tolerant, high-quality visual inspection equipment, making them the ideal solution for fuel inspection applications. Designed and manufactured to stringent quality standards, the D40’s innovative technology, versatility, and rugged durability have led to the deployment of close to 1000 D40 systems to date in Russia, the U.S., Japan, France, Finland, and other countries.



360 Fuel Inspection System Camera Ring

D40 Camera Specifications

Camera Tube	2/3" E-Chalnicon
Resolution	600+ H-TVL
Signal/Noise Ratio	≥46 dB
Sensitivity	16 lux
Zoom	2x analog (10:1 option)
Iris	Auto / Remote; F/1.4 to 16
Cumulative Dose	5*10 ⁸ Rads
Maximum Dose Rate	Up to 3*10 ⁶ Rads/hr
Lights	Integral, LED
Housing	Stainless Steel
Protection	IP 68, 40m submersible

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