



D40 Pan & Tilt Camera System with Auxiliary Lighting

SOLUTIONS:
General Operation, Visual Inspection

DIAKONT

- Unrivaled clarity – High-rad, precision imaging to perform critical inspections including core verification and gap analysis
- Proven technology – Based on [Diakont's D40](#) rad-tolerant camera systems
- Dimmable lighting – Integrated high-intensity lights are positioned laterally to provide even lighting and maximize image quality
- Simplified operation – Easy, pole-mounted deployment
- Versatile functionality – Pan, tilt, and zoom functionality



Optional Integrated Console Available

Rugged, High-Precision Technology in a Compact Package

Based on our industry-leading D40 radiation-tolerant camera technology, this tool allows for inspections to take place at a much closer proximity to the sources of radiation. Especially beneficial during core verifications, the close proximity capability reduces the impact of thermal distortions and particulates in the water, and results in significantly clearer video of serial numbers. A rugged pan and tilt module and integrated lighting allows for viewing fuel assemblies without the need to reposition the refueling bridge.

- Monitor reactor assembly/disassembly
- Monitor tool deployment and operation
- Fuel serial number verification (high-speed “core mapping”)
- Inspection of reactor internals and steam dryer OD
- Monitor cask loading activities

Optional Integrated Console

The D40 Pan & Tilt Camera System with Auxiliary Lighting is available with an optional Integrated Console. This console houses the system controls within a shock resistant rackmount case on wheels, and includes a tiltable LCD monitor with integrated speakers*, a microphone, and a DVR system to support recording (both video and audio) and viewing functions with local playback. Video recordings can be played on the monitor and can also be backed up to USB or DVD storage.

*Console also available as a compact version with a low profile pull-out monitor and with or without wheels

Model	Fixed Field of View	Optical Zoom
Cumulative Dose	2*10 ⁸ rads	2*10 ⁸ rads
Maximum Dose Rate	10 ⁶ rads/hr	10 ⁶ rads/hr
Operational Temperature in Water	50°F to 149°F (10°C - 65°C)	50°F to 149°F (10°C - 65°C)
Image Sensor	Diakont Chalnicon 2/3"	Diakont Chalnicon 2/3"
Image	High resolution monochrome (RS-170/CCIR format)	High resolution monochrome (RS-170/CCIR format)
Resolution	+600 H-TVL	+600 H-TVL
Sensitivity	16 lux	24 lux
Zoom	2x (analog)	5x (optical) + 2x (analog) = 10x
Depth Rating	164 ft (50m)	164 ft (50m)
Iris	F2.8 - F16	F2.2 - F16
Operation Distance in Air	20mm – ∞ (6mm lens) 35mm – ∞ (17mm lens)	45mm - 1000mm (Macro focus mode) 1000mm – ∞ (Normal mode)
Housing Material	316 Stainless steel	316 Stainless steel
Rotation Speed	1.8° - 24° per second	1.8° - 24° per second
Scan Range	360° rotational +/- 80° tilt	360° rotational +/- 80° tilt