

BOILERSPECTION MB

Mobile infrared camera for clear inspection of boiler tubes and furnace walls in temperatures between 500 to 1600°C (932 to 2912°F).



The BoilerSpection™ MB thermal imaging system uses a special mid-wave infrared detector, allowing operators to better see through flames in a boiler, furnace, kiln, or incinerator. This unique feature means BoilerSpection MB provides the clearest and most stable through-flame images.

With a real-time infrared inspection, plant operators can quickly and accurately identify process abnormalities, allowing for more optimal combustion and heat transfer. Operators can then direct cleaning operations, regulate flow of fuel and air, reduce emissions, reduce fuel consumption, speed up boiler start up, and improve safety.

BoilerSpection MB is a completely digital and IP addressable camera system that utilizes standard connections for viewing and recording real-time images. It also includes a standard video (BNC) output for use with legacy video equipment.

PRODUCT BENEFITS

- Mobile or semi-permanent through-flame imaging inside power boilers, furnaces and incinerators
- Pinpoint problems before they cause outages
- Inspect buildup of ash/slag on boiler tubes
- Diagnose burner flame conditions
- Measure temperature across entire image
- Record and analyze data to optimize combustion processes
- Compatible with BoilerSpection SD continuous monitoring solution



Superheat pendants in 700MW power boiler burning PRB coal



Opposing wall burner and slag on water wall

TECHNICAL DATA

Infrared Camera Specifications	
Spectral Wavelength	~3.9 μm narrowband pass filter
Resolution	320 x 240
Detector Type	Uncooled focal plane array VOx microbolometer
Speed	30 Hz / 9 Hz
Protective Housing	Stainless steel enclosure with vortex air cooling (air is only required for longterm monitoring)
Measurement Range	500 to 1600°C (932 to 2912°F)
Video Out	NTSC / PAL
Power Supply	Included, input is universal AC
Camera Weight	< 13.5 kg (30 lb)

Lens Specifications	
Lens Shroud Outer Diameter	42 mm (1.65")
Lens Length	18" ("A" Dimension 15.75" [400 mm])
	24" ("A" Dimension 22.50" [572 mm])
	36" ("A" Dimension 34.10" [866 mm])
Field of View (H x V)	50° x 38°
Construction	Stainless Steel Borescope Optics with ZnS optical elements (can be operated without air for brief inspections)
Protection	Sapphire window tip with air purge shield

Recording and Analysis Software	
Key Features	Image recording, region of interest analysis, export data to Excel, save recordings as JPGs and AVI movies

Base Camera System Components

- BoilerSpection MB Camera with 18", 24", or 36" lens
- Removable radiation shield
- Power and Ethernet connection cables
- Software for image recording and analysis
- Camera storage and travel case
- User manual

Available Options

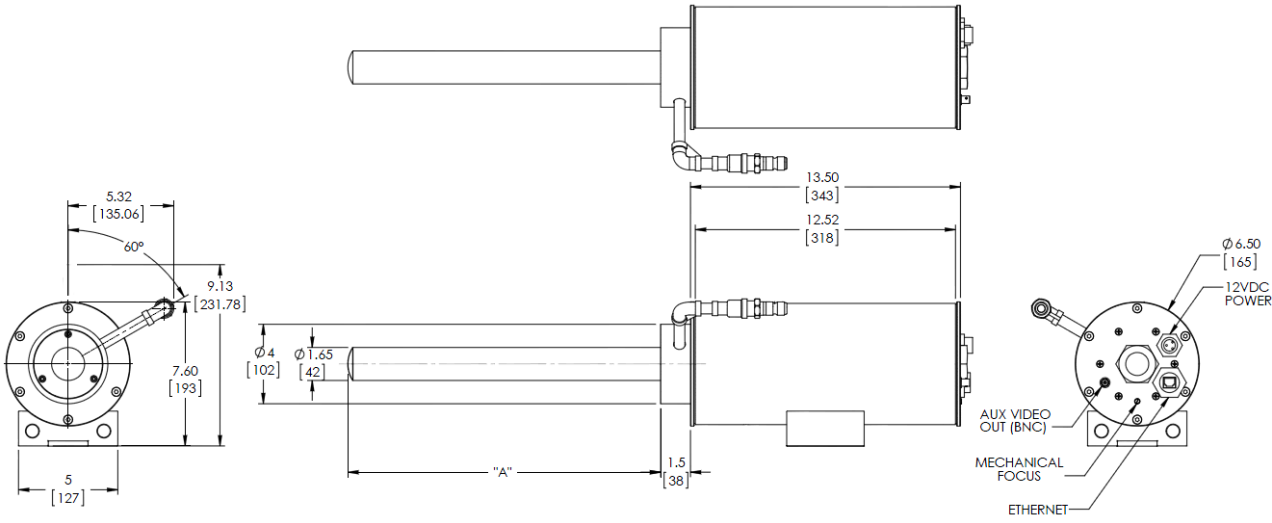
- Battery pack
- Automatic retraction system for continuous monitoring installation

Accessory Kit Components

- 4.5 m (15') flexible stainless braided air lines with fittings
- Dual stage air filters with regulators
- Industrial grade laptop computer with software pre-installed
- LumaSpec Offline Analyzer
- Accessory kit storage and travel case
- Bottom mounted handle (see below)



DIMENSIONS



All dimensions in mm



ABOUT ADVANCED ENERGY

Advanced Energy (AE) has devoted more than three decades to perfecting power for its global customers. AE designs and manufactures highly engineered, precision power conversion, measurement and control solutions for mission-critical applications and processes.

AE's power solutions enable customer innovation in complex semiconductor and industrial thin film plasma manufacturing processes, demanding high and low voltage applications, and temperature-critical thermal processes.

With deep applications know-how and responsive service and support across the globe, AE builds collaborative partnerships to meet rapid technological developments, propel growth for its customers and power the future of technology.

PRECISION | POWER | PERFORMANCE

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