

# Diamond Power® UtiliCam® AT III

## Advanced Technology Infrared Camera for Utility Boilers

The Diamond Power® UtiliCam® AT III solid-state infrared camera system from Babcock & Wilcox (B&W) delivers powerful images of boiler operations to better detect and prevent potentially costly damage. Our state-of-the-art camera system provides a wide field-of-view, allowing greater boiler coverage with fewer cameras for improved monitoring and reduced capital costs.

### Benefits

#### Improved boiler monitoring

The UtiliCam AT III infrared camera system uses an optimum wavelength to penetrate fume for better, more accurate monitoring of the utility boiler. Using the superior images delivered by the UtiliCam AT III system, you can identify potential problems, control the boiler and optimize furnace operation quickly and easily.

#### No vidicon tube replacements; no calibration

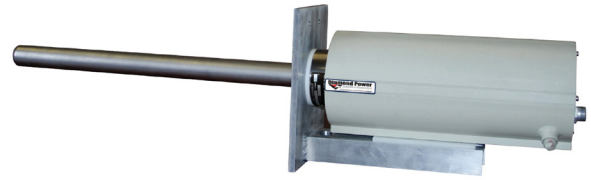
The solid-state components of this system eliminate vidicon tubes that require frequent replacement. Calibration isn't necessary either, so the images generated by the UtiliCam AT III won't drift.

#### Reduced operating and maintenance costs over conventional vidicon / lens tube camera systems

The UtiliCam AT III infrared camera system reduces maintenance hours as compared to conventional vidicon/ lens tube camera systems. The newly designed optical probe has encased optics that are keyed for correct position internal to probes and has no loose components which could fall out and break during cleaning. There are minimal parts to handle, and each optical probe is environmentally sealed for maximum protection and shock resistance.

### System Contents

The UtiliCam AT III infrared camera system includes a solid-state infrared camera, a monitor, an air system for cooling the camera assembly and optical probe, an optional pneumatic or electric retract and control unit.



*B&W's Diamond Power UtiliCam AT III camera system is completely solid state.*

*The system can include an optional pneumatic or electric retraction device to protect the camera against high temperatures in the event of low cooling air pressure.*

### Features

- Retract system option protects the air-cooled camera assembly from air system failure
- 105° diagonal field-of-view
- 1.5 in. (3.81 cm) outer optical probe diameter
- Easily retrofits to existing vidicon IR camera systems
- Color options to further improve monitoring capabilities
- TemPro® II temperature measurement option allows the operator to see accurate temperatures over the entire imaging area based on a maximum of 15 user-selectable temperature regions
- Dual-walled constructed housing
- Uses water or air cooling
- Networking capabilities available

*continued* ▶

## Technical Specifications

Air requirements	Camera housing assembly	30 to 60 psi (207 to 414 kPa) @ 10 scfm (0.004 m <sup>3</sup> /s); instrument or filtered plant air
	Optical probe	15 to 20 psi (103 to 138 kPa) @ 40 to 45 scfm (0.011 to 0.021 m <sup>3</sup> /s); based on instrument or filtered plant air at 90 to 100F (32.2 to 37.8C) ambient
Air connections	Filtered air system	1 in. (2.54 cm) NPT pipe
Camera assembly	Available lengths	24 in. (60.9 cm), 36 in. (91.4 cm), or 48 in. (121.9 cm)
	Optical probe outer diameter	1.5 in. (3.81 cm) material 316L SST
	Weight (including lens tube)	24 in. (60.96 cm) unit: 19 lb (8.6 kg) 36 in. (91.44 cm) unit: 21.5 lb (9.7 kg) 48 in. (121.9 cm) unit: 24 lb (10.8 kg)
Retract control unit	Material	NEMA-rated enclosure. Weight: 12 lb (5.4 kg)
Operating temperatures	Camera assembly ambient	200F (93.3C)
	Maximum internal furnace temperature	3000F (1648C)
Electric retract assembly	Activated by low-pressure switch on air supply	
	Weight	Approx. 85 lb (38.6 kg)
Power requirements	Camera housing	95 to 240 Vac, 47 to 63 Hz, 1.6A max.
	Electric retract	102 to 130 Vac, 50/60 Hz.

### Babcock & Wilcox

20 South Van Buren Avenue  
Barberton, Ohio, U.S.A. 44203  
Phone: +1 330.753.4511

[www.babcock.com](http://www.babcock.com)     

The information contained herein is provided for general information purposes only and is not intended nor to be construed as a warranty, an offer, or any representation of contractual or other legal responsibility.

*Diamond Power* and *UtiliCam* are trademarks of The Babcock & Wilcox Company.



ENERGY | ENVIRONMENTAL

Established in 1867, Babcock & Wilcox is a global leader in advanced energy and environmental technologies and services for the power, industrial and renewable markets, with operations, subsidiaries and joint ventures worldwide.

For more information or to contact us, visit our website at [www.babcock.com](http://www.babcock.com).