

# SmeltCam® AT II

## advanced technology infrared camera system for recovery boilers

The SmeltCam® AT II solid state infrared camera system from Diamond Power Controls & Diagnostics delivers vastly improved images of the smelt bed, the superheater area, or the liquor guns. Our state-of-the-art camera system provides a large field-of-view, which means more bed coverage with fewer cameras, providing accurate monitoring at an economical price.

### Benefits

- **Improved bed monitoring**

The SmeltCam AT II infrared camera system uses an optimum wavelength to penetrate fume for better, more accurate monitoring of the recovery bed. Using the superior images delivered by the SmeltCam AT II system, you can identify potential problems, control the bed and optimize lower furnace operation quickly and easily. Focusing of the camera from the rear plate allows the user to focus the camera while looking at the 4" LCD monitor.

- **No vidicon tube replacements; No calibration**

The solid-state components of this system eliminate vidicon tubes, which means no replacements. Calibration isn't necessary either, so the images generated by the SmeltCam AT II won't drift.

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

As if eliminating the need for replacement of expensive vidicon tubes



***Diamond Power's SmeltCam® AT II camera system is virtually trouble-free because the camera is completely solid state.***

wasn't enough, the SmeltCam AT II infrared camera system reduces maintenance hours, too. 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.

### Features

- Retract system protects the air-cooled camera assembly from air system failure
- 105° Diagonal field-of-view
- 1.5" (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
- Focusing from rear plate

### Availability

The SmeltCam AT II infrared camera system includes a solid-state infrared camera, an air system for cooling the camera assembly and optical probe, a monochrome monitor and an optional electric retract and control unit. For more information on the SmeltCam AT II infrared camera system, or for engineered solutions to your boiler monitoring problems, contact your Diamond Power International, Inc. representative, or call us at (800) 700-2791.

**The SmeltCam® AT II system comes with an optional electric retraction device to protect the camera against high temperatures in the event of low cooling air pressure.**



## Specifications

<b>Air requirements</b>	Camera assembly:	60 psi (414 kPa) @ 10 scfm (.004 M <sup>3</sup> /s) Instrument or filtered plant air.
	Optical probe:	35 psi (241 kPa) @ 44 scfm (.019 M <sup>3</sup> /s) Based on instrument or filtered plant air at 90° F (32.2° C) to 100° F (37.7° C) ambient
<b>Air connections</b>	Filtered air system:	1" (2.54 cm) NPT pipe
<b>Camera assembly</b>	Available lengths:	24" (60.9cm), 36" (91.4 cm), or 48" (121.9 cm)
	Optical probe outer diameter:	1.50" (2.81cm) material 316L SST
	Weight: (Including lens tube)	24" (60.96 cm) Unit: 32 lb (14.5 kg) 36" (91.44 cm) Unit: 34.5 lb (15.6 kg) 48" (121.9 cm) Unit: 37 lb (16.8 kg)
<b>Retract control unit</b>	Material:	NEMA 4X Fiberglass. Weight: 12 lb (5.4 kg) (Optional NEMA-4 Painted Steel)
<b>Operating temperatures</b>	Camera assembly ambient:	+150°F (+66°C)
	Maximum internal furnace temperature:	+3000°F (+1648°C)
<b>Electric retract assembly</b>	Activated by low-pressure switch on air supply.	
	Weight:	Approx. 20 lb (9.0 kg)
<b>Power requirements</b>	Camera housing:	95 to 240 Vac, 47 to 63 Hz, 1.6A max.
	Electric retract:	102-130 Vac, 50/60 Hz.

Diamond Power Controls & Diagnostics is a division of Diamond Power International, Inc. and is located in Lancaster, OH and Lynchburg, VA.

Diamond Power International, Inc. (DPII) is a globally acknowledged market leader in all aspects of boiler cleaning and ash handling. For more than 100 years, DPII has consistently provided innovative technologies for power generation, pulp & paper and industrial boiler designs, proven to solve the most difficult plant challenges while delivering promised benefits. Diamond Power is headquartered in Lancaster, Ohio, U.S. with more than 80 field sales, service support, distribution and manufacturing locations worldwide.

For more than a century: *Trusted for Experience. Preferred for Performance.*<sup>SM</sup>

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