



Lenox Instrument Company, Inc.
265 Andrews Road • Trevoose, PA 19053
USA 800-356-1104 • Worldwide 215-322-9990
Fax 215-322-6126 • sales@lenoxinst.com

Furnace Camera Systems For The Steel Industry ***Real-Time, High Resolution, Color Video Monitoring and Recording***



Why Use **Lenox Furnace Camera Systems?**

- Designed to be rugged and durable for the brutal atmosphere of the steel industry.
- Proven reliable dual cooling system and the highest camera resolution with superior optics.
- Minimal maintenance and operating cost once correctly installed.
- Backed by an industry leading **two year warranty**.
- Flexibility in the choice of penetration lengths and viewing angle options.
- **Lenox** know how, expertise and installation/field service.

Lenox high-temperature, video camera systems are designed to be mounted either directly through the wall or flush with the exterior wall of a furnace or other combustion chamber. The **Lenox Furnace Camera HD** with stainless steel camera housing mounts in a 3.5 inch (89 mm) opening and employs a steel triple wall laminar flow for efficient water-cooling of the camera and the latest optical lens technology to provide clear, real time images, enabling operation in hostile environments up to 4250°F (2345°C). The **Lenox Hot Area Camera** with an aluminum water-cooled camera housing enables operation in environments up to 500°F (260°C) with fixed lens or 300°F (149°C) with window and are ideal for hot area steel process monitoring.

Lenox high-temperature, furnace probe camera systems are widely used by the steel and metals industry in reheat furnaces, vacuum degassers, continuous casters, blast furnaces, electric arc furnaces, tunnel furnaces, continuous annealers, galvannealers, pellet and sintering operations, molten metal pouring stations, and other hot steel processes.

*(Contact **Lenox** for information on other industrial high-temperature CCTV camera systems for remote viewing)*



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FURNACE CAMERA SYSTEM SPECIFICATIONS		
Furnace Camera HD (6935SC)		Hot Area Camera (6900AC)
1/3" CCD Color Camera	Camera Type	1/3" CCD Color Camera
Water-cooled 304 Stainless Steel with through air purge and RTD for monitoring internal enclosure temperature	Construction	Water-cooled aluminum enclosure with window purge or through air purge
4250°F (2345°C) (Fixed or 5X Zoom Lens)	Max Temperature	300°F (149°C) with Window-Variable Zoom (standard), 500°F (260°C) with Fixed Lens (special)
Straight	Direction of View	Straight
Fixed or 5X Zoom	Field Coverage (see below)	Fixed or Variable Zoom
24" (61 cm), 31" (79 cm), 36" (92 cm)	Length	17" (432 mm)
3.5" (88.9 mm)	Diameter	5.5" (139.7 mm)
Good quality, sediment – free water	Cooling Requirements	Good quality, sediment – free water

Furnace Camera HD Systems are supplied with a NEMA 4 (IP66) junction/interface box that houses the following:

- 12 volt camera power supply and line power interface
- Interface & temperature readout for camera housing RTD (available 4 - 20 mA, 0 - 20 mA or 0 - 10 V transmitter outputs)
- Digital (RS232) camera interface for remote adjustment of gain control, shutter speed and color
- RS170 analog video - standard
- Optional Outputs - Ethernet 10/100 Base-T or Fiber Optic - 1 multimode fiber 62.5/125µm

Optional System Accessories:

- Automatic Retract System - Pulls Furnace Camera HD back on loss of cooling preventing over-temperature damage.
- Monitoring Station - Provides a local point of connection and status monitoring of coolant flow, purge air pressure, and electrical connections.

Model Number Information: (Example: 6935SC-2406/F0)

XXXXXX - XX 0 6 / XX XX
 (Model) (Length) (Filters) (Lens) (Mounting) (Special)

- Model:** 6935SC = Stainless Enclosure, 6900AC = Aluminum Enclosure
- Lengths:** See Specification Chart Above
- Filters:** (For all "SC" types and for "AC" with "PH" special
 "0" = None, "1", "2", "3", "4" are Neutral Density, "W" is shade 5 green)
- Lenses:** Select Lens Number from Coverage Chart Below
- Mounting:** "F0" is standard cradle mount for AC and SC types
 SC options only are: "F1" = 8"-150# flange, "F2" = Flat plate flange
- Specials:** "EX" for Export (PAL type, 220V, SC and AC type.)
 "PH" = Fixed High Resolution Lens modification for AC type.

CAMERA TYPE AND LENS NUMBER AVAILABILITY		
Camera Type	Lens Number	Coverage (Approx)
6935SC and 6900AC with "PH" Special	3	62°V x 78°H x 95°D
	4	45°V x 60°H x 72°D
	6	34°V x 44°H x 55°D
	Z	45°V x 60°H x 72°D to 9°V x 12°H x 15°D
6900AC only	V	62°V x 78°H x 95°D to 26°V x 34°H x 43°D