



**Toshniwal  
Industries Pvt. Ltd.**  
Experience • Expertise  
MG Toshniwal Group

# BLAST FURNACE TOP CAMERA

**STV4900**



## Features

- HD Video Output for Clear Video
- Air / Water Cooling System
- Automatic Exposure Control
- Remote Control System
- Pneumatic Retraction Control System
- Temperature Alarms



- Auto / Manual Image Adjustment (Brightness, White Balance & Contrast & Colour Saturation)
- Straight View & Oblique Angle view (45° or 60° with Right / Left / Downward focus)
- Lens Material: Stainless Steel Shroud with High Temperature Window for optics
- Housing Material: Stainless Steel

## Introduction

TIPL introduces the latest High-Temperature Camera System which is designed for continuous monitoring of high-temperature processes. The probe is protected by water/air or both cooling systems used to insert inside the furnace according to the furnace wall to work continuously up to 2000°C temperature of furnace / Boiler / rotary kilns / Incineration process. This system is designed with three interlocks to protect the system. In case of water/air/power failure or temperature exceeding a defined set point, the camera will retract from the process and close the port shutter automatically, thereby securing the system. The camera stays in a parking position till all the interlock conditions resume for normal operations.

## Benefits

- Oblique Angle View makes installation easy in Cement Cooler and Boiler applications.
- High Temperature- Rugged Quality and Scratch resistant lens for less maintenance.
- Auto light exposure helps the system to continuously focus on the process.
- Monitor flame shape in the boiler to adjust burners for maximum combustion and minimize fuel consumption.

## Application

- Reheat Furnace and Annealing Furnace
- Cement Kiln & Cooler
- Glass Furnace
- Power Generation Boiler
- Waste Incinerators

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Industrial Estate, Makhupura, Ajmer- 305002, Rajasthan, India  
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## Technical Specifications

Parameter	Description
Working Temperature	≤2000°C
Air Pressure	0.4 to 0.7 Mpa
Air Consumption	5 to 20 m <sup>3</sup> /h
Cooling	Vortex Air Cooling / Water Cooling / Both cooling options in a single lens tube
Retraction	Pneumatic
Lens Angle (Oblique Angle)	45° / 60° / 90°
Wide Dynamic Range	130db
Digital Noise Reduction	3D Digital Noise Reduction
Image Size(pixels)	HD 1920x1080
Day and Night Conversion mode	Day Night Auto Schedule
Humidity	95% or less (non-condensing)
Power supply	12 VDC ± 20%, 0.25 A, max. 3 W, two-core terminal block
Power consumption	1.1 W to 4.5 W Max
Furnace wall thickness	100 mm ~ 1500mm
Camera Sensor Type	CMOS
Water Consumption(Optional)	0.2 to 1 m <sup>3</sup> /h
Focus	Auto/Manual
Lens Length	330mm to 1500mm
FOV	Straight 87x70 Oblique 62x 53
View Angle	10° to 100° fixed focus or Zoom Focus (Optional)

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<b>Lens</b>	High Temperature
<b>Shutter Time</b>	1/3 s to 1/100,000 s
<b>Communication Type</b>	Digital
<b>Image Setting</b>	Saturation, brightness, contrast, and sharpness adjustable by client software or web browser
<b>Backlight Compensation</b>	Support, Selectable Area
<b>Strong Light Suppression</b>	Supported
<b>Through Fog</b>	Supported
<b>Operating Temperature</b>	Startup and Operating Conditions -30 °C to 60 °C (-22 °F to 140 °F).
<b>Air Cooler</b>	Vortex Type
<b>Protection</b>	IP54 / IP55 / IP64 / IP65 (Select)

## Selection Table

Example - HTSNACSTL50RL42HTO6AT-NSRP2SF20

HTM	HTCCTV Color HD camera with High Temperature Resistance Lens
<b>10</b>	<b>Type of view</b>
S	Straight View
OL	Oblique Angle Left View
OR	Oblique Angle Right View
<b>20</b>	<b>Viewing Angle</b>
N	Cooling
V60	VFL 60 Deg (For OL & OR Only)
F45	Oblique Angle Fixed 45 Deg (For OL & OR Only)
V45	Oblique Angle VFL 45 Deg (For OL & OR Only)
<b>30</b>	<b>Cooling</b>
AC	Air Cooling

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WC	Water Cooling
<b>40</b>	<b>Tube</b>
ST	Single Tube
DT	Double Tube
<b>50</b>	<b>Camera Insertion Length</b>
L50	500MM
L75	750MM
L100	1000MM
L50	500MM
<b>60</b>	<b>Retract Rail</b>
RL42	42" Retract Rail with 18" Stroke cylinder (Only for L50)
RL54	54" Retract Rail with 30" Stroke cylinder (Only for L75)
RL60	60" Retract Rail with 36" Stroke cylinder (Only for L100)
<b>70</b>	<b>Hose</b>
HT06	High-Temperature All metal hose SS braided each 6 Mtr
HT10	High-Temperature All metal hose SS braided each 10 Mtr
HT15	High-Temperature All metal hose SS braided each 15 Mtr
HT20	High-Temperature All metal hose SS braided each 20 Mtr
HTXX	High-Temperature All metal hose SS braided length customized
RT06	Industrial grade hose each 06 Mtr
RT10	Industrial grade hose each 10 Mtr
RT15	Industrial grade hose each 15 Mtr
RT20	Industrial grade hose each 20 Mtr
RTXX	Industrial grade hose Customized Length
<b>80</b>	<b>Field panel</b>
AT-NS	Auto insertion and retraction panel
AT-DS	Auto insertion and retraction panel With data management software
AT-MS	Auto insertion and retraction panel With manual operation
AT-MP	Auto insertion and retraction panel With manual operation with PLC system



AT-CS	Customized panel
<b>90</b>	<b>Remote Panel</b>
NP	No remote panel
RP2	For 2 Camera Remote panel
RP4	For 4 Camera Remote panel
RH2	2 Camera Remote panel With HMI (Only With AT-MP)
RH4	4 Camera Remote panel With HMI (Only With AT-MP)
C	Customized
<b>100</b>	<b>Fiber Cable</b>
SF20	6 Core Single mode fiber optic cable length:200Mtr
SF30	6 Core Single mode fiber optic cable length:300Mtr
SF40	6 Core Single mode fiber optic cable length:400Mtr
SF50	6 Core Single mode fiber optic cable length:500Mtr
SF60	6 Core Single mode fiber optic cable length:600 Mtr
SFXX	Customized cable
<b>110</b>	<b>NVR With Hard Disk</b>
N5G	NVR with 500GB Hard Disk
N1T	NVR with 1TB Hard Disk
N2T	NVR with 2TB Hard Disk
N5G	NVR with 500GB Hard Disk
<b>120</b>	<b>Recorder</b>
M19	19" Monitor
M22	22" Monitor
M24	24" Monitor
M32	32" Monitor
M42	42" Monitor
M49	49" Monitor
M55	55" Monitor
M65	65" Monitor
M75	75" Monitor
P12	12" Panel Mount Monitor
P15	15" Panel Mount Monitor
P17	17" Panel Mount Monitor
<b>130</b>	<b>Option Accessories</b>
N	None
A	Air Chiller

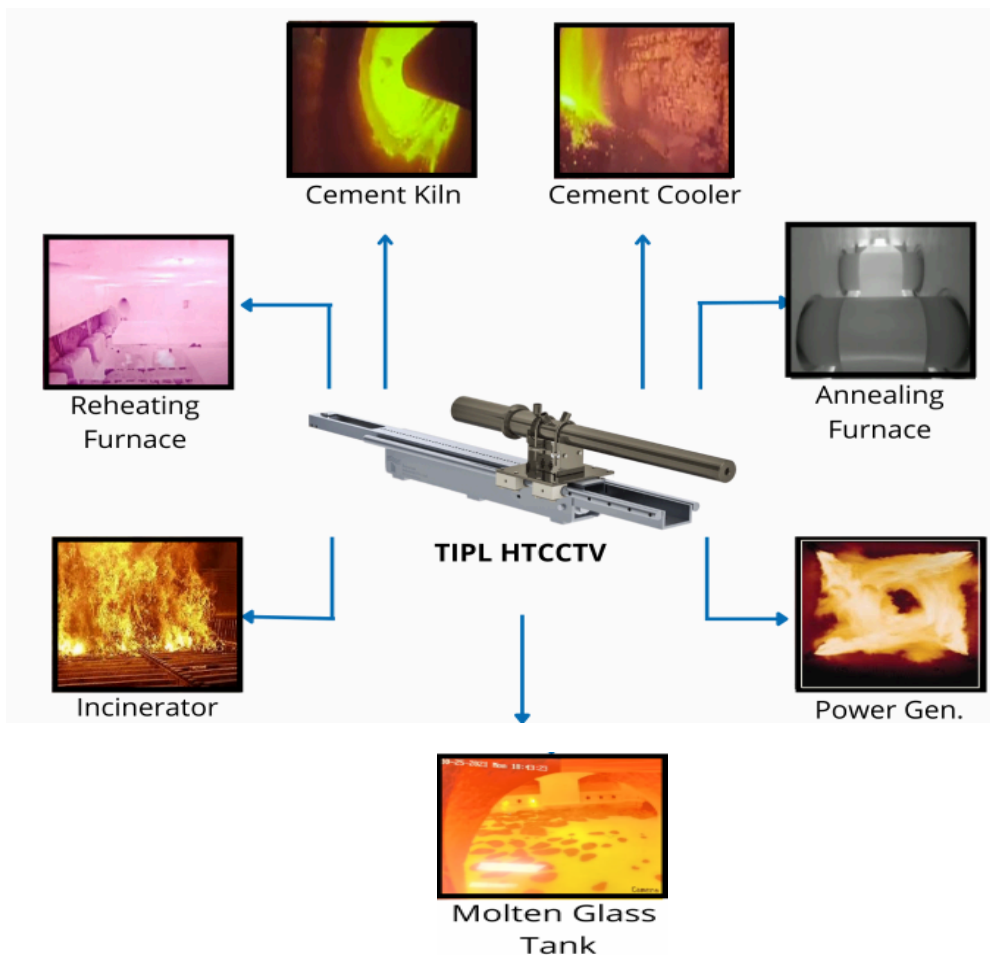


D	Air quality improvement Dryer
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## On Site Images



## Applications



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Order Note:

1. Consult us by calling us on 8448441044 or emailing on [info@tipl.com](mailto:info@tipl.com) for special designs.
2. Evaluate the exact Application, working conditions at the pressure detection point before ordering to avoid losses due to wrong product selection.
3. TIPL will not be responsible for losses due to wrong selection of specifications.
4. Customers should ensure power supply grounding, and installation of anti-lightning (surge protection) devices to minimize the chances of product failure.
5. The photos, color, form and dimensions of the product are indicative and can change based on product selection without prior notice.

Electrical control box

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