

TFV SERIES

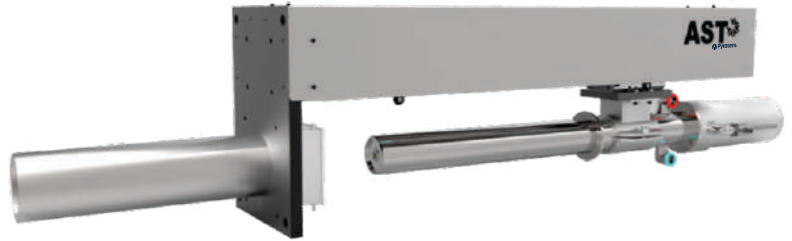
Key Features

- High resolution imaging with wide angle view.
- Relay alarm output for DCS.
- Water-cooled lens tube, vortex-cooled camera chamber.
- Air purge system.
- Clear live video in low/ high light conditions.
- Working in harsh and high ambient conditions.
- Safety lock points.
 - Air Failure
 - Power Failure
 - Water Failure
 - Over Temperature

Applications

- Steel Industry
- Cement Industry
- Glass Industry
- Power Industry
- Waste burning Industry
- Paper and pulp Industry
- Petrochemical and refining Industry
- Incinerators
- Research and development

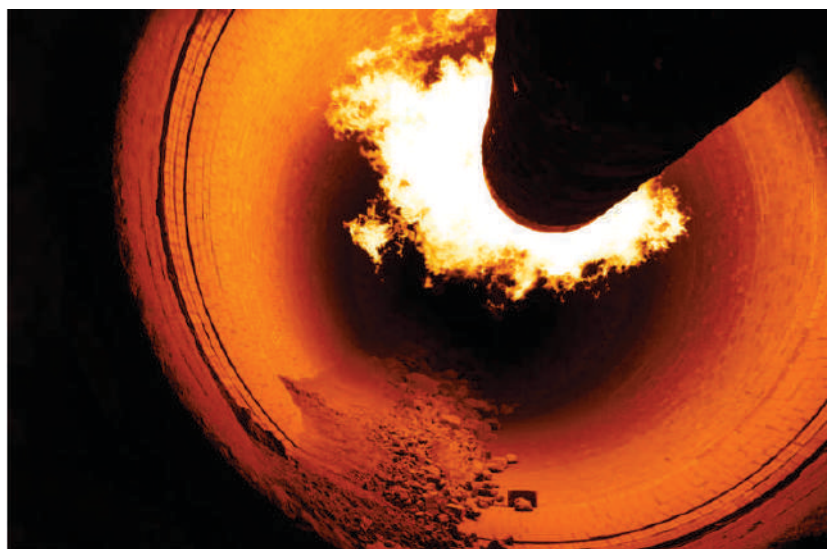
FURNACE MONITORING VISUAL CAMERA SYSTEM



TFV Series high temperature furnace monitoring visual camera system provide a wide angle view of burner flames, material alignment and other process conditions inside the glass furnace, boiler, reheating furnace, kiln, cooler and other combustion chamber. This system provided with an auto-retraction and insertion device. In the event of a fault, the probe is automatically removed from the furnace by a retraction device and the furnace opening is closed preventing damage from overheating of probe, camera and lense. This auto-retraction system is regulated by a control cabinet with pneumatic control system.

The system uses a high resolution camera with high precision pinhole lens mounted inside stainless steel probe. The probe is equipped with a vortex air and water cooling system that enables the system to work in high temperature environment also a continuous supply of air keeps the lens clean.

TFV series camera can be mount on the wall of the furnace.



Visual View of TFV series camera

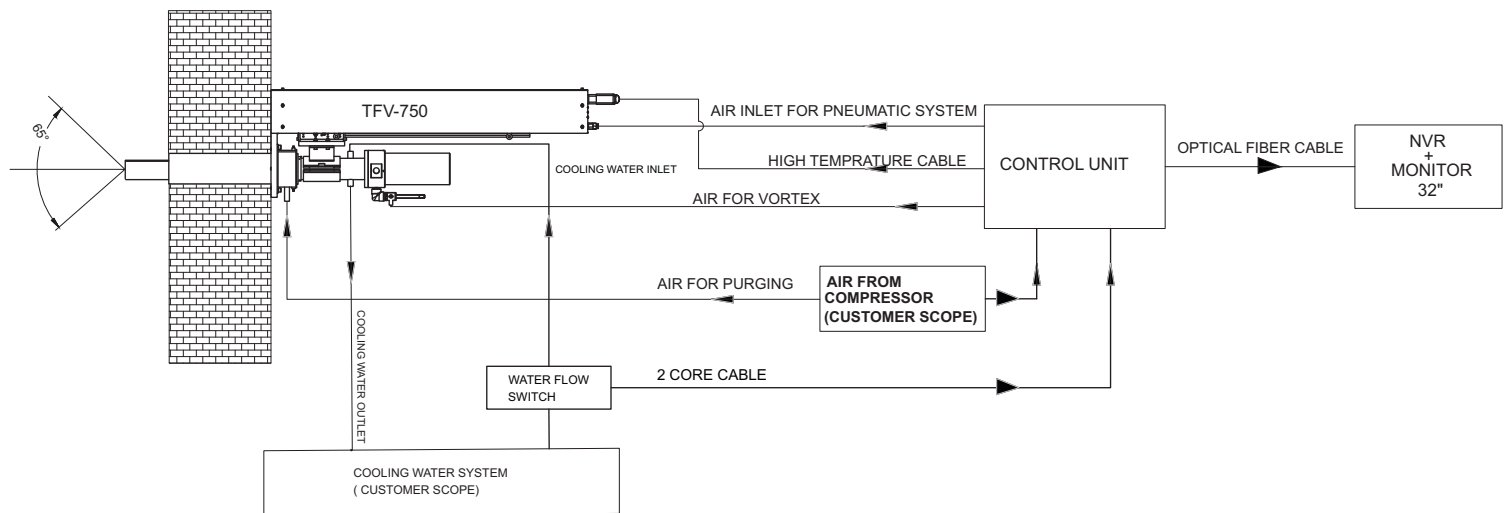
Specifications

Technical	
Environment	up to 2000°C
Cooling system	Vortex AIR & Water cooling
Transmission device	Pneumatic AIR cylinder
Power	AC 220V/110V
Hole Diameter	100mm
Requirement of Compressed Air	
Pressure	7 ~ 10 kg/cm ²
Volume Flow	50m ³ /h
Temperature	<35°C
Quality	Dust, Oil & Moisture free clean air
Requirement of Cooling Water	
Inlet Pressure	2 ~ 5 kg/cm ²
Volume Flow	0.2-1m ³ /h
Quality	DM Water
High Resolution Camera Specification	
Image Sensor	1/2.7" progressive scan CMOS
Resolution	5 Megapixel
Pixels	2592 (H) × 1944 (V)

Minimum Illumination	0.005 Lux@F1.4
Lens	C/CS Mount
Shutter Speed	Auto/Manual, 1/3 s-1/100000 s
Streaming Capability	Three streams
WDR	120db
Gain Control (AGC)	Auto/Manual
Video Compression	H.265+/H.265/H.264+/H.264/MJPEG
Video Out	Ethernet RJ-45 (10/100Base-T)
Power	DC 12V (±25%), AC 24V (±25%), PoE (802.3af)
Power Consumption	<9.2W
Casing	Metal
Pinhole lens	
Lens length	820 mm/ 1080 mm
Focal Length	Verifocal Lens: 3.6 mm- 8 mm
Angle of view	Straight view: 0°/ Elbow view: 60°
Field of view	Horizontal 65°, vertical 56°, Diagonal 85°
Focus and IRIS	Manual
Mount	CS Mount

Our Models

Specifications	TFV-750	TFV-750/OV	TFV-1100	TFV-1100/OV
Wall thickness	400mm	400mm	600mm	600mm
Lens angle	Straight	Elbow (60°)	Straight	Elbow (60°)
Retraction Length	1400mm	1400mm	1800mm	1800mm
Lens tube length	820mm	820mm	1080mm	1080mm



Block Diagram of camera system

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