

Fix Mount Visual Camera

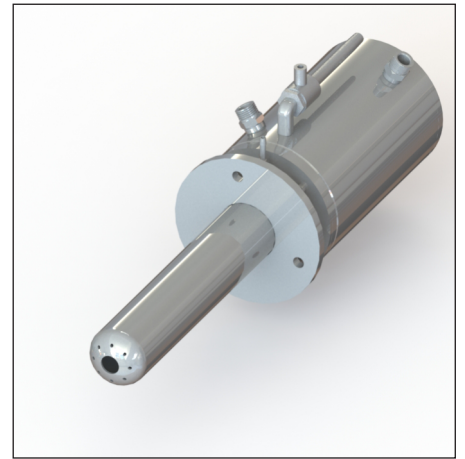
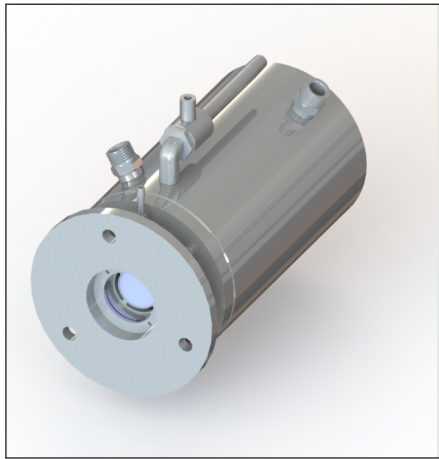
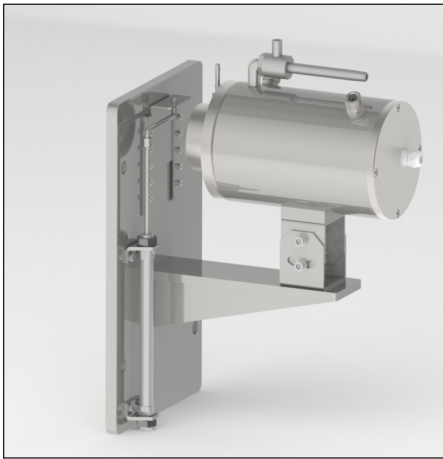
FMC Series

High Temperature Furnace monitoring fixed mount video camera system **AST FMC-100/VFL, FMC-100/VFL(FF), FMC-300/PHL & FMC-300/PHL(A)** provides wide angle view of burner flames, material alignment & other process conditions in furnace, Incinerator, boiler, reheating furnace or other combustion chamber. The **AST FMC Series** is mounted on wall of the furnace.

The system has pneumatic furnace flap shutter which is regulated by air for safety.

It uses special HD camera with high precision pin hole lens/auto iris varifocal lens which is mounted inside stainless steel housing. The housing is equipped with vortex air & water cooling system that enables the system to work in high temperature environment & also continuous supply of air keeps the lens clean.

The camera is inserted through a shutter which opens with the force of camera probe & shuts the furnace opening when the probe retracts.



Features

- Wide angle of view 85°.
- Relay alarm outputs for DCS.
- Clear live video in low/high light condition.
- Working in harsh and high ambient conditions.
- Rodless cylinder reduce size and weight of system.
- Two Stage air filtration system for clear view and smooth working of system.
- 600mm Stroke useful in wall thickness of 400mm and 800mm Stroke in wall thickness of 600mm.



REHEATING FURNACE DISCHARGING CAMERA VIEW



REHEATING FURNACE CHARGING CAMERA VIEW

Technical Data	
Environment	Up to 1000°C
Cooling system	Vortex air cooling/water cooling
Transmission device	Pneumatic shutter
Power supply	220VAC 50Hz

Requirement of Compressed Air	
Pressure	2 ~ 5 Kg/cm ²
Volume Flow	20 m ³ /h
Temperature	<35°C
Quality	Dust, Oil & Moisture free clean air

Requirement of Cooling Water	
Inlet pressure	3 ~ 5 Kg/cm ²
Volume flow	0.2-1m ³ /h

High Temperature Video Camera	
Model	Description
FMC-100/VFL	High Temperature Fixed Mount Camera with Auto Iris Varifocal Lens
FMC-100/VFL(FF)	High Temperature Fixed Mount Camera with Auto Iris Varifocal Lens & Pneumatic Furnace Flap Shutter System
FMC-300/PHL	High Temperature Fixed Mount Camera with 300mm PinHole Lens Tube
FMC-300/PHL(A)	High Temperature Fixed Mount Camera with 300mm PinHole Lens Tube & Air Cooled Jacket

Bullet Camera (HCC-690) Specification		Digital Box Camera (CV-344) Specification	
CCD Sensor	Color SONY 1/3 " Super HAD CCD	CCD Sensor	2.5 Megapixel (1/2.8") sensor
Image	Manual adjustable	Image	Manual adjustable
Scanning System	2:1 Interlace	Scanning System	4:2:2 color
OSD Menu	Remote adjustable	OSD Menu	Remote adjust through RS485 (Visca) or OSD menu joystick
Lens	5 times manual/electric zoom lens	Lens	5 times manual/electric zoom lens
Video Output	Composite 1Vp-p75(Ω)	Video Output	3G/HDSDI output
White Balance	Auto/manual adjustable	White Balance	Auto/manual adjustable
Color to black	Manual adjustable	Color to black	Manual adjustable
Gain Control	Auto/manual adjustable	Gain Control	Auto/manual adjustable
Power	DC12V (±10%)	Power	DC12V (±10%)
Power Consumption	Less than 120mA	Power Consumption	Less than 120mA
Electric shutter	Electric shutter EI(1/50~1/100~000sec)	Electric shutter	Electric shutter EI(1/50~1/100~000sec)
Gamma Coefficient	γ = 0.45	Gamma Coefficient	γ = 0.45
SNR	More than 48dB	SNR	More than 48dB
Voice frequency	Adjustable	Voice frequency	Adjustable
TV Lines	Black and white 650 lines	TV Lines	Full-HD resolutions: 1920 x 1080p, 1920 x 1080i, and 1280 x 720p
Illumination	0.005Lux @F2.0	Illumination	Frame rates: 60, 59.94, 50, 30, 29.97, 25, 24, 23.98 fps
Working temperature	-10°C ~ +70°C (Humidity: 10%RH ~ 60%RH)	Working temperature	-10°C ~ +70°C (Humidity: 10%RH ~ 60%RH)
Storage temperature	-20°C ~ +60°C (Humidity: 10%RH ~ 60%RH)	Storage temperature	-20°C ~ +60°C (Humidity: 10%RH ~ 60%RH)
Dimension	20mm x Length 350mm	Dimension	56mmX56mmX58.67mm
Mount	C/CS	Mount	C/CS
Lens type	Compatible with Pinhole Lens	Lens type	Compatible with Pinhole Lens & Varifocal Lens

We measure accurate temperature in extreme conditions

Varifocal lens

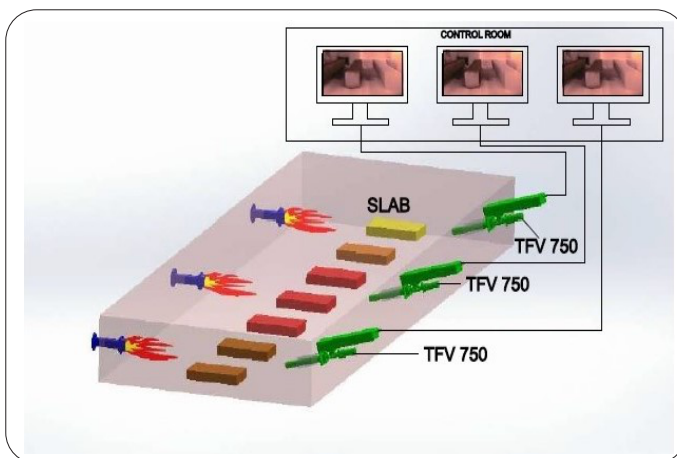
Part no.	VS-M2812-2	VS-M0660-2
Megapixel rating	3MP	3MP
Focal Length	2.8~12mm	6~60mm
Horizontal AOV	98°~25°	55°~5°
IRIS	DC Auto (4 pin)	DC Auto (4 pin)
F-Stop.	F1.4	F1.6
Focus Range	∞ - 0.3m	∞ - 0.3m
Image	1/3"	1/3"
Mount	CS	CS

Pin hole lens

Part no.	V-ZPL-HITEMP-B-323
Focal Length	3.6mm - 18.0mm
Aperature	F1.8 - F9.1
FOV	80° ~ 19°
Image	1/3"
Mount	CS
Pin hole diameter	3.8mm
Housing	Stainless steel
Optical elements	sapphire front first element, quartz second element
Dimensions	323mm x ø 20mm
Max operating temperature	Up to 10 min at 1000° C; Continuous operation up to 150° C

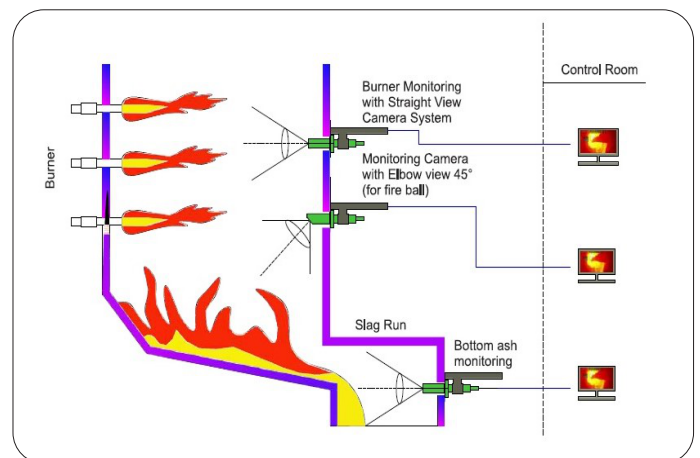
Applications

Steel Industries



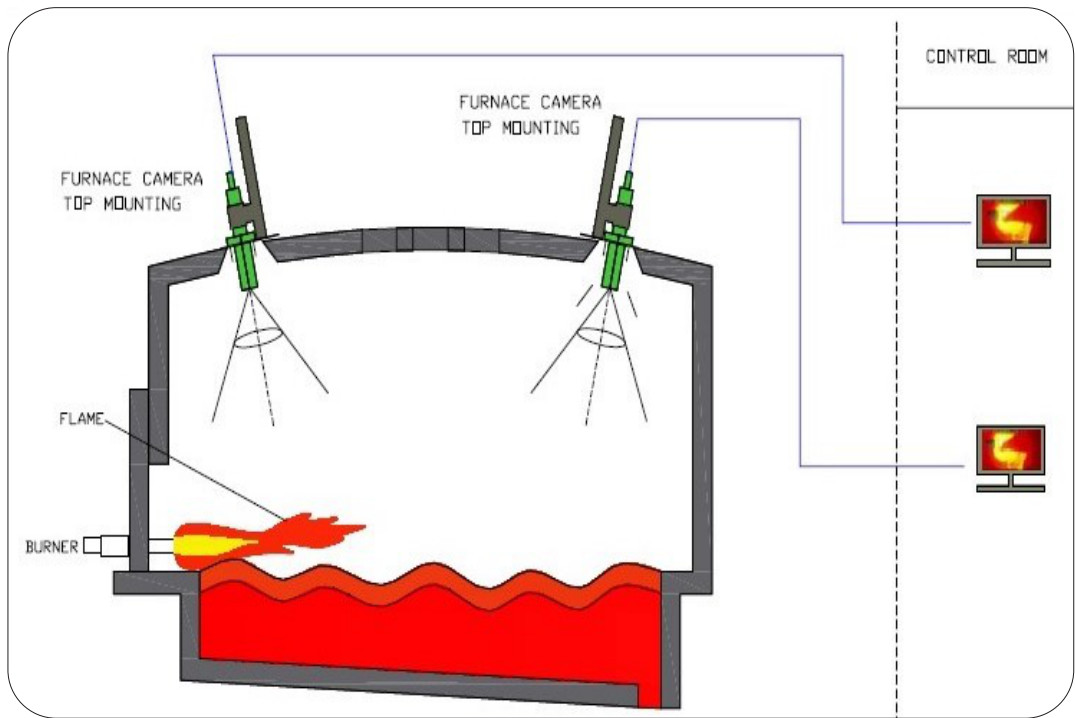
- Cement Industries - Kiln & Cooler
- Steel Industries - Reheating Furnace
- Power Industries - Boilers
- Glass Industries - Melting Furnace

Power Industries



- Incinerator
- Waste Heat Treatment Boiler
- Bio Mass Boiler

Glass Industries



Cement Industries

