

FIBER OPTIC VIEWING HEAD EXTENSIONS

FEATURES

- Transmission up to 25 feet
- Withstands high temperatures
- Withstands high vibrations (application dependent)
- Corrosion protected stainless steel construction
- Different lens assemblies available for changing the angle of view or for specific applications

APPLICATIONS

- Tilting burners firing pulverized coal, oil or gas
- Applications where normal sighting is impossible
- Hostile environments, such as:
 - Lime Kilns
 - Black Liquor Recovery Boilers
 - Thermal Oxidizers
 - Incinerators - Biomass and other waste fuel streams
 - Gas and Oil Fired turbine generator sets

World Leader in Flame Monitoring

FIBER OPTIC VIEWING HEAD EXTENSIONS

The viewing head extension makes it possible to see a flame in a hostile environment such as intense heat or chemicals. A fibre optic bundle is used to transmit flame radiation to the remote flame detector. Flexible stainless steel tubes enclose the fibre optic bundle with forced air injected for cooling. A lens is used to focus the flame to one end of the fibre optic bundle, with the other end coupled directly to the flame detector. This effectively extends the optical path of a standard viewing head allowing for greater flexibility in sighting flames.

The fibre optic viewing head extension is particularly useful for solving the sighting problems associated with tilting or movable burners. The flame envelope from this type of burner can be tilted from a horizontal position up or down as much as 30 degrees. It would be impossible to follow this flame pattern with a fixed sighting through the windbox. Welding the tip guide (lens end) of this viewing head extension to the movable air compartment nozzle solves this problem.

This viewing head extension can also be used for those applications where it is impossible to find a clear unobstructed view of the flame using a standard sight pipe. Here again the viewing head extension is mounted inside the furnace for a clear unobstructed view of the flame.

Further applications would be those involving hostile environments. For example, the radiated heat from the burner front of a lime kiln may prohibit the use of a viewing head in this location even though there is an adequate supply of purge air.

Another application would be gas and oil fired turbines where there can be a combination of high vibration, temperature and pressure excursions.

Generally speaking, this viewing head extension should be considered for any application deemed too hostile for the viewing head itself.

SPECIFICATIONS

MATERIAL:	Carrier Tubes	- Furnace Side Stainless Steel - Rear Portions Steel Pipe
MOUNTING:	Outer Carrier Tube Guide (3.375" O.D. x 9" Long), Stainless Steel, Welded to Air Compartment Nozzle. Outer Carrier Tube Connected to 3" NPT Mounting Assembly via 3 Locking Screws	
PURGE AIR:	Volume Required-	22 CFM at 1 PSI Above Furnace Pressure.
	Connections	- 1" NPT on Outer Carrier Mount. - 1/2" NPT on Viewing Head Flange
OPTICS:	Transmission	- 25 Feet
	Temperature	- Lens 260° C Max. - Fibre Optics 260° C Max.

For additional information, please contact:

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