



INTRODUCTION

What is Flame Arresting?

The accidental ignition of flammable gases or vapours from vent pipes of storage tank or process vessel presents a constant threat to plant and personnel. The use of the flame arrestors is one of the essential measures taken to avoid or minimize the possible consequences. Their application is widespread, ranging from the protection of small solvent tanks to the safety of large and complex process plant. The oil, gas, petroleum, chemical and petrochemical industries are major users.

A flame arrester is a static device which stops a flame entering into the storage tank or process vessel containing a flammable gas or vapour. An end-of-line type flame arrester is fitted at the extreme downstream end of a pipeline.

The arrester consists of flame quenching element contained within a housing which incorporates thread or flange connections for fitting to pipe work. The element is often of greater diameter than the pipe work in order to compensate for pressure drop and therefore the housing is enlarged accordingly.

KEY FEATURES

- The key to the proven flame arresting capabilities of Nirmal flame arrester is the element pack, specially woven gauze resistant stainless steel wire gauge provides a controlled and reproductive aperture size combined with the necessary physical strength. A series or pack of these corrosion resistant gauge is assembled and the depth is maintained considering the flame speeds and over pressures likely to be encountered in end of the line applications.
- Extensive flame testing in accordance to the appendix A of **BS 7244-1990** and with **clause 2.1 of IS:11006-1984** has been carried out at CMRI testing cell, Dhanbad.
- These not only provide exceptional protection against fire and explosion from external ignition, but also offer effective flow at the lowest resistance (pressure drop) of the flammable gas or vapour.
- They are extremely robust and will both resist the pressure waves which accompany flame fronts and withstand vigorous cleaning when required.
- Quick and easy inspection and maintenance, due to reduced weight and simple removal of element.
- Complete range of sizes from ½ inch - 20 inch are available with flat face or raised face flanges to match ANSI 150# connections (higher size on request)

TECHNICAL SPECIFICATIONS

- **Size :** 1" (DN25) to 20" (DN500)
- **Flame Arrester Type :**
 - Inline Type
 - End of line Type
 - End of line with Non-Return Valve
- **Rating :** 150# (Higher ratings on request)
- **End Connection :** Flanged (As per ASME B16.5)

Standard Material of Construction

- **Body :** A216 Gr. WCB / A351 Gr. CF8 / A351 Gr. CF8M / A351 Gr. CF3 / A351 Gr. CF3M
- **Element Plate :** SS 316
- **Element Mesh :** SS 321
- **Hood :** Carbon Steel / Stainless Steel

• ENQUIRY SPECIFICATIONS •

INLET PRESSURE	SERVICE FLUID
OUTLET PRESSURE	FLOW MIN./MAX.
LINE SIZE & RATING	MAX. TEMP.
SPECIFIC GRAVITY	BODY MOC
INTERNALS MOC	PERMISSIBLE DROOP