

# Spark Arrestors/ Pre-Filters

For high efficiency air  
filtration systems

## Introduction

VOKES Spark Arrestors/Pre-Filters are designed for installation up-stream of absolute filters in applications where there is a risk of fire. Intended to protect absolute filter media from fire damage, they are non-combustible panels which prevent glowing embers and large particles from reaching the absolute filter. There are two types of unit, a spark arrester which does not perform a filtration function and a combined spark arrester/pre-filter.

Spark arrestors/pre-filters can be fitted into ductwork using separate frames, directly fitted to an absolute filter using a mounting frame or contained within the pre-filter sections of a Unipak Containment System. Although principally designed for use with high efficiency filters, they can also be used to protect other types of equipment.

## Spark Arrestors

VOKES Spark Arrestors are intended to perform the function of a spark trap and not a pre-filter. Fitted up-stream of an absolute filter, they are designed to prevent the passage of sparks and flames, while offering a minimal pressure drop.

Designed to meet performance requirements within the nuclear industry, they are also suitable for use in a wide range of air handling systems.

## Construction

- Media:** Contains alternate layers of flat and crimped steel wire.
- Frame:** A rigid mild steel frame with a corrosion and heat resistant paint finish. Similarly treated mild steel grilles are fitted on both sides.
- Gasket:** Available with or without a silicone rubber gasket.
- Specification:** VOKES spark arrestors are designed to meet the requirements contained in AESS 30/93700 Type 2.

## Performance

- Air Volume Capacity:** Two standard spark arrestors are available with air volume capacities of 340 m<sup>3</sup>/h (94 l/s) and 1,700m<sup>3</sup>/h (470 l/s).

**Initial Resistance:** <25 Pa. at the rated flow.

**Max. Temp.:** 250°C continuous

500°C short periods only

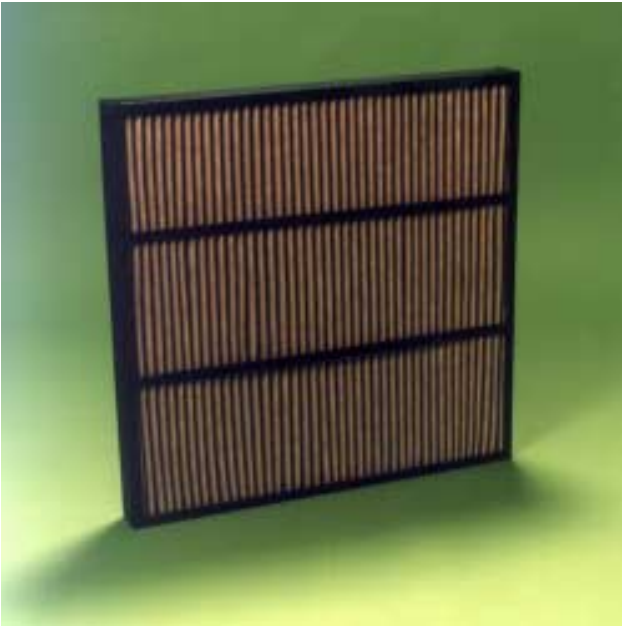
**Dimensions:** 340m<sup>3</sup>/h Spark Arrester – 304 x 304 x 51mm (57mm with gasket)

1,700m<sup>3</sup>/h Spark Arrester – 609 x 609 x 51mm (57mm with gasket)

## Spark Arrester/Pre-Filters

VOKES Spark Arrester/Pre-Filters are designed to be fitted up-stream of absolute filters, to provide a combined pre-filter and spark trap. In the event of a fire the glass wool filter media fuses, leaving a double layer of wire mesh to hold back the flames.

Designed to meet performance requirements within the nuclear industry, they are also suitable for use in a wide range of air handling systems. Where full fire protection is required, a separate VOKES Spark Arrester should be fitted.



## Construction

- Media:** A layer of glass wool filter media, sandwiched between two layers of steel wire mesh and pleated to give an increased surface area.
- Frame:** A rigid mild steel frame with horizontal supporting strips. The frame assembly has a corrosion and heat resistant paint finish.
- Gasket:** Available with or without a silicone rubber gasket.
- Specification:** VOKES spark arrester/pre-filters are designed to meet the requirements contained in AESS 30/93700 Type 1.

## Performance

- Air Volume Capacity:** Two standard spark arrester/pre-filters are available with air volume capacities of 340 m<sup>3</sup>/h (94 l/s) and 1,700m<sup>3</sup>/h (470 l/s).
- Initial Resistance:** <50 Pa. at the rated flow.
- Max. Temp.:** 250°C continuous  
500°C short periods only
- Dimensions:** 340 m<sup>3</sup>/h Spark Arrester – 304 x 304 x 51mm (57mm with gasket)  
1,700m<sup>3</sup>/h Spark Arrester – 609 x 609 x 51mm (57mm with gasket)



A McLeod Russel Company

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