

Support & Gaskets for Ceramic Filter Elements – Product Data

What They Do

Reinforcing collars and gaskets for the protection of ceramic filter elements by spreading loads more evenly and by absorbing shocks.

The **outer reinforcing collar** reduces fracture of filter elements caused by the forces generated by reverse pulse cleaning or overtightening during installation.

The **inner reinforcing collar** or sleeve ensures that the element hangs vertically and also protects against internal erosion from reverse pulse air.

Gaskets ensure consistent sealing of elements throughout their lifetime.

The collar and gasket assembly even allows filter systems to be fully assembled with elements in position before shipping to site.

How They Work

The outer reinforcing collar, made in spun steel, fits closely over the outside of the head of the filter elements. The **flange** of the element sits on the inside shoulder of the collar, cushioned by the **element gasket**. The **header plate gasket** is fitted between the underside of the shoulder and the **header plate**.

As the **clamping plate** is tightened down the element is first pushed down inside the collar, compressing the element gasket. Soon the clamping plate reaches the top of the collar and the extra thrust is transmitted through the collar to compress the header plate gasket. The inner collar holds the barrel of the element square to the clamping plate, even if the flange is slightly misaligned.

The two gaskets form an effective seal between the header plate and the element flange, preventing dirty gas passing unfiltered to the clean side of the filter.

Materials

Reinforcing collars	spun mild steel, stainless steel available on request
Gaskets	10mm ceramic fibre paper, die cut to size

Dimensions

Reinforcing collars	see drawing overleaf
Hole in header plate	64 mm diameter minimum
Element barrel	60.5 mm diameter maximum
Element flange	80 mm diameter maximum, 18 – 22 mm deep
Element gasket	80 mm o.d., 63 mm i.d.
Header plate gasket	90 mm o.d., 65 mm i.d.

Temperature Limits

Reinforcing collars	450 °C for mild steel
Gaskets	950 °C

