

PSS® Plus Series Junior Style Metal Elements

For Low Flow Liquid and/or Environmental Applications

PSS Plus Series porous metal elements in junior style (4463) are designed for low flow liquid and/or gas applications requiring 316L stainless steel porous metal construction.

Description

PSS Plus Series filters are Pall's most recent development in porous metal filtration. The filters utilize a new state-of-the-art manufacturing method to fabricate elements that have more uniform pore structure within the metallic media to increase filtration efficiency and tighten permeability.

The fine sintered stainless steel structure enables filtration in applications with high temperature, pressure, and solvent resistance. They are recommended for clean steam service and well suited for liquid or gas applications including solvents chemical intermediates, heat transfer fluids, polymers, pharma-ceuticals and high-temperature gases.

With a filtration area of 30 in² (194 cm²), these filters are designed specifically for low flow liquid and/or gas applications.

Features

All stainless steel construction

More uniform pore structure within metallic media

High pressure and corrosion resistance

New manufacturing process reduces production time lead

ISO 9001 Certified Facility

Benefits

Compatible for applications like steam, chemicals, high temperature gases

Tighter range of permeability

Withstands high reverse flows

Flexibility in order procurement

Manufactured for use in conformance with cGMP



PSS Plus Series Metal Elements

Recommended Maximum Flow Densities

Liquid Rating¹

10 µm

Gas Rating²

1 µm

Recommended Flow Density

Aqueous (gpm)	Aqueous (lpm)	Air (Nm ³ /hr)	Air (acfm)
0.2	11	8.5	9
0.8	8	8	7

¹ Beta 1000 (99.9 %) by a modified F2 test method and actual particle count data.

² Beta 1000 (99.9 %) by modified F2 test and 10:1 ratio of liquid to gas efficiency.

Materials of Construction

Component	Description
Medium	316L stainless steel
Endcaps and core	316L stainless steel
O-ring seals	Ethylene Propylene, Ethylene Propylene for Steam Service, Viton*

* Viton is a trademark of E.I. du Pont de Nemours and Company

Technical Information

Clean Pressure Drop

Liquid Service³

Aqueous Pressure Drop
mbar-m²/lpm (psi/gpm/ft²)

0.30 (0.18)

Gaseous Service⁴

Air Pressure Drop
mbar-m²/m³/min (psi/acfm/ft²)

7.47 (0.03)

³ Pressure drop in psid obtained by multiplying value shown by actual flow desired in gpm, viscosity of liquid in centipoise (if other than 1 cp), all divided by total filtration area (ft²) selected.

⁴ Pressure drop in psid obtained by multiplying value shown by actual gaseous flow rate desired (acfm), ratio of viscosities [(actual viscosity of gas (in cp)/0.018 (viscosity of air)], all divided by total filtration area (ft²) of element selected.

Operating Conditions

Maximum Differential Pressure:

5.17 bar forward and reverse @ 93.3 °C

75 psid forward and reverse @ 200 °F (93.3 °C)

Ordering Information

This information is a guide to the part number structure and possible options. For availability of specific options and housing details, please contact Pall.

Part number nomenclature:

MCS4463PAH BOX

Table 1

Table 1: Gasket Options

Code	Gasket Material
H	Viton*
J	Ethylene Propylene
J7	Ethylene Propylene for Steam Service

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IF APPLICABLE Please contact Pall Corporation to verify that the product conforms to your national legislation and/or regional regulatory requirements for water and food contact use.

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