ピュアロン
PURERON®
Pure Ideas & Technology for
Flow Control Innovation

Venting Filter

Filter for quick diffuse vent

FBA Series

Flying particles and transient turbulence in chambers of semiconductor manufacturing equipment such as a load lock chamber and a transfer chamber, which occur when the vacuum is broken, may lead to particle adhesion and damage to wafers. Usually, the method called slow venting where nitrogen gas is slowly injected is used to prevent this. However, when you use Pureron's venting filter, slow venting will no longer be required, and throughput will increase dramatically.

[Features]

- ■ All the parts of the filter consist of SUS316L.
- ■ The filter has high heat resistance.
- ■ The filter has high filtration accuracy.
- ■ Gas can be injected from the tip of the filter because of its cup shape.

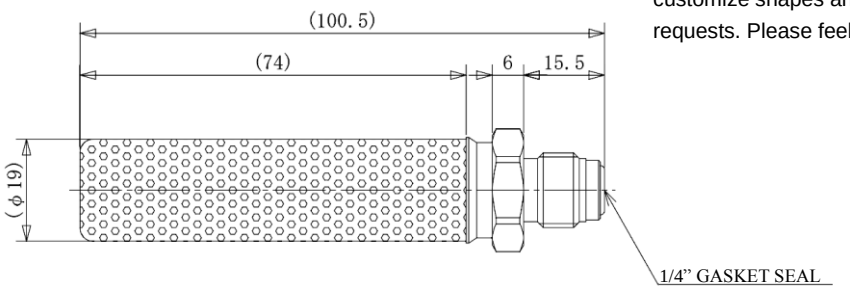
Specifications

Removal rating	0.003 μm
Normal operation pressure	Less than 1 MPa
Max. Operating Temperature	400°C
Baking Temperature	400°C
Gas Contact Material	SUS316L
Joint	1/4" tube, 3/4" tube, 1/4" gasket seal, 1/2" gasket seal Compatible with various flanges*

* For more information including information about other shapes of joints, please contact us or agents.

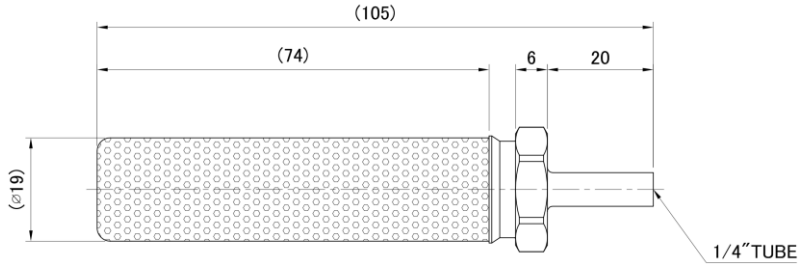
Dimensional Outline Drawings

FBA-4-02VR

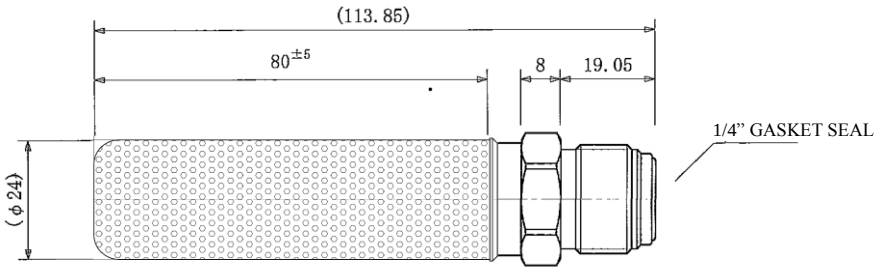


* Followings are just examples. We can customize shapes and specifications to your requests. Please feel free to contact us.

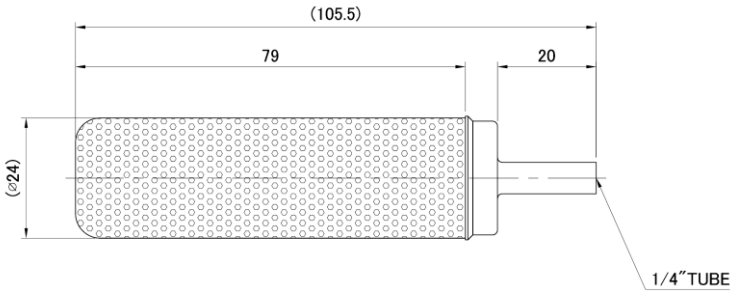
FBA-4-02ST



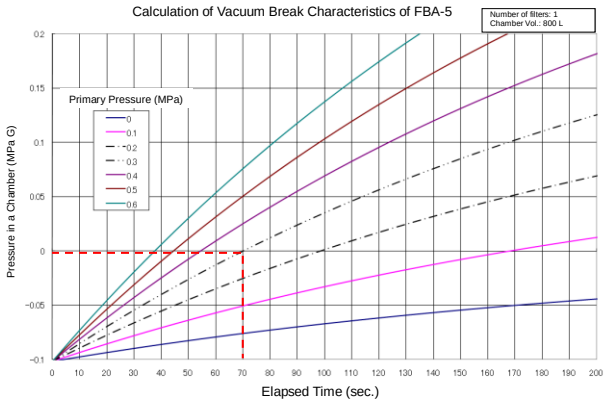
FBA-5-04VR



FBA-5-02ST



Failure Flow Characteristics



From 0 MPa on the vertical axis (the pressure in a chamber (MPa G)) of the characteristics curve, move horizentally to the curves of 0.3 MPa. Then move vertically to the holozental axis (elapsed time (sec.)) and find the value (70 sec.).

[How to read the characteristics curves for FBA-5 series with a chamber capacity of 800 L]

- Examples -

Under the following conditions, the time required for the pressure to rise from the one in a vacuum to the atmosophic pressure is about 70 seconds from the failure characteristics curve.

Primary Pressure	0.3 MPa
Secondary Pressure	Vacuum
Chamber Capacity	800 L
Number of FBA-5 Used	1

The required time for each promary pressure is as follows from the characteristics curve.

Primary Pressure	0.1 MPa	0.2 MPa	0.3 MPa	0.4 MPa	0.5 MPa	0.6 MPa
Time required from vacuum to atmospheric pressure atmospheric pressure	168 sec.	100 sec.	70 sec.	55 sec.	45 sec.	38 sec.

Flow characteristics curves vary depending on the chamber capacity. For characteristics curves, please contact us or agents.

Ver. 20180309-Rev1

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