

# Vacuum Generators

## VGB and VGM Series



### Introduction

VGB and VGM series vacuum generators are designed to create a vacuum and establish suction for purging piping systems, which are widely used in the semiconductor industry. The inlet and vent ports of the VGB series offer multiple options, while the VGM series specifies the sizes and types of inlet and vent ports.

### Features

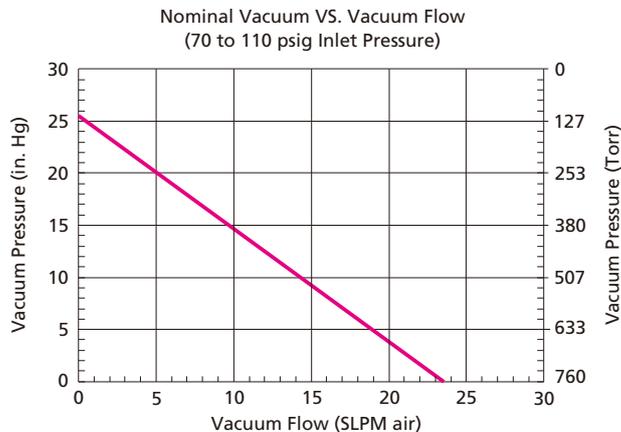
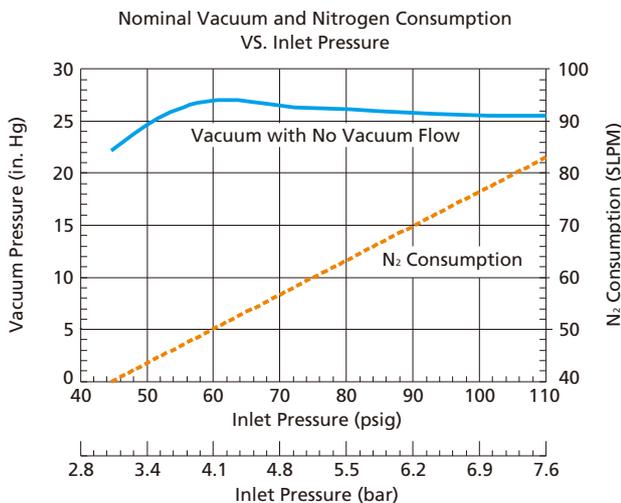
- ⦿ All welded construction improves sealing performance and service life
- ⦿ Wetted surface roughness machine finished to Ra 15 μin. (0.38 μm)
- ⦿ Ultrasonic and DI water cleaned for semiconductor ultra-high purity
- ⦿ Final packaging in ISO class 4 (FS 209E class 10 equivalent) cleanroom

### Technical Data

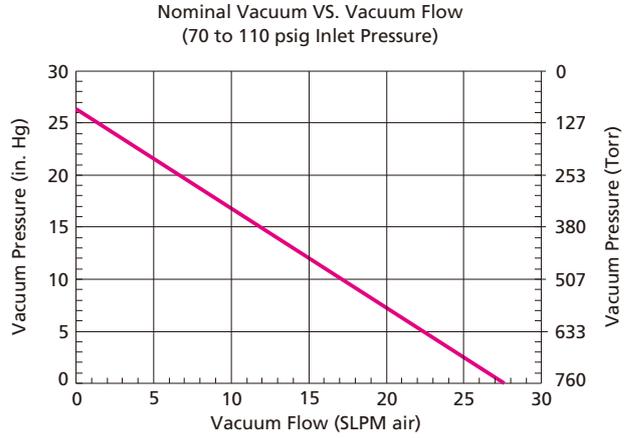
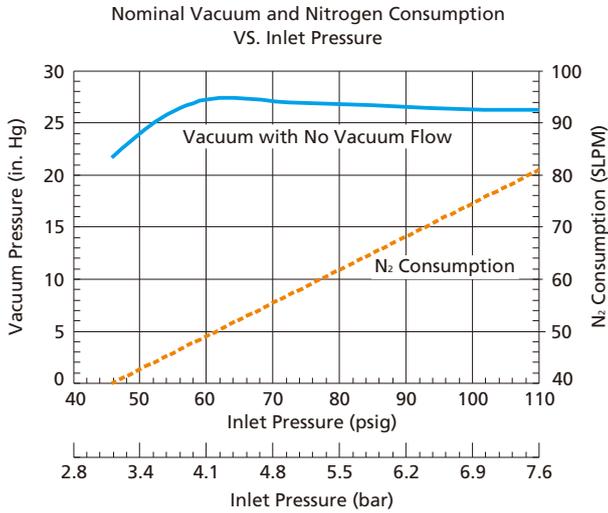
<b>N<sub>2</sub> Inlet Pressure</b>	70 ~ 110 psig (4.8 ~ 7.6 bar)	
<b>Vacuum Maximum</b>	26 in. Hg (100 Torr)	
<b>Working Temperature</b>	-40 ~ 160 °F (-40 ~ 71 °C)	
<b>Vacuum Port Maximum Pressure</b>	3500 psig (241 bar)	
<b>Proof Pressure (Vacuum)</b>	5250 psig (362 bar)	
<b>Burst Pressure (Vacuum)</b>	10500 psig (724 bar)	
<b>Leak Rate (Helium)</b>	<b>Inboard</b>	≤ 2 × 10 <sup>-10</sup> std cm <sup>3</sup> /s
	<b>Outboard</b>	

### Exhaust and Flow Specification

#### VGB Series



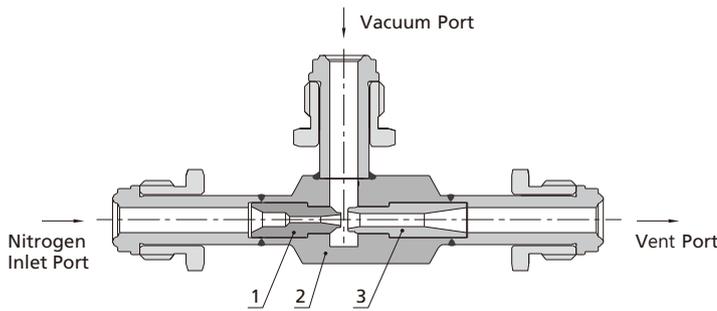
**VGM Series**



Note: Achieved vacuum level with the characteristics described above produces abnormal noise (soft clicking sound) at supply pressure (around 4 bar) just before reaching the peak value. When this abnormal noise occurs, the characteristics become unstable and operation becomes louder. Increase the supply pressure within the specification range, as it may affect the sensor, etc., and cause trouble.

**Major Materials of construction**

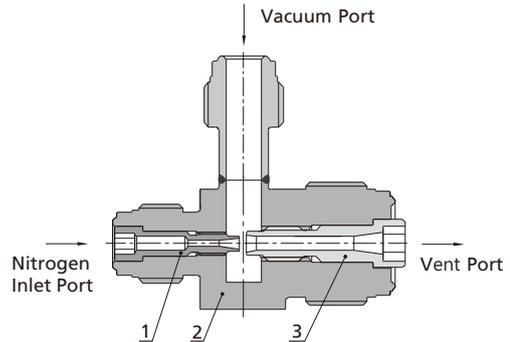
**VGB Series**



Item	Componet	Material/Specification
1	<i>Nozzle</i>	<i>316L SS/SEMI F20</i>
2	<i>Body</i>	
3	<i>Diffuser</i>	

Note: Components in contact with the media are listed in italics.

**VGM Series**



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Fittings

Valves

Regulators

Filters

Tubing

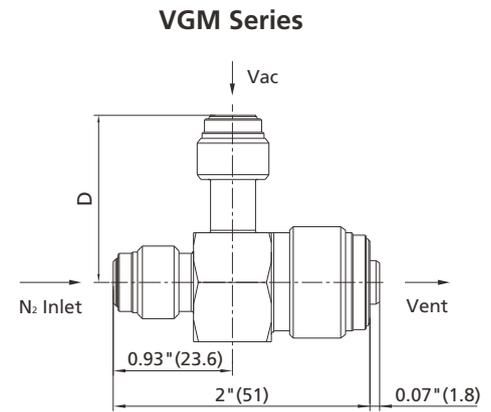
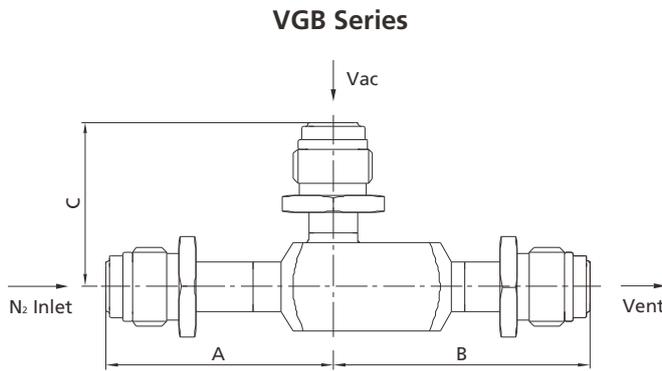
Integrated Systems

Other Products

Technical Information

## Dimensions and Ordering Information

Dimensions in in. (mm) are for reference only and subject to change.



Connection	A in. (mm)	B in. (mm)	C in. (mm)
RFR4/FFR4	1.62 (41)	1.83 (46)	1.18 (30)
TB4	1.25 (32)	1.46 (37)	0.81 (21)
TB6	1.25 (32)	1.46 (37)	0.81 (21)
RFR8/FFR8	2.13 (54)	2.34 (59)	1.69 (43)

Connection	D in. (mm)
FR4/FFR4/RFR4	1.31 (33)
TB4	0.97 (25)
TB6	0.97 (25)
FR8/FFR8/RFR8	1.85 (47)

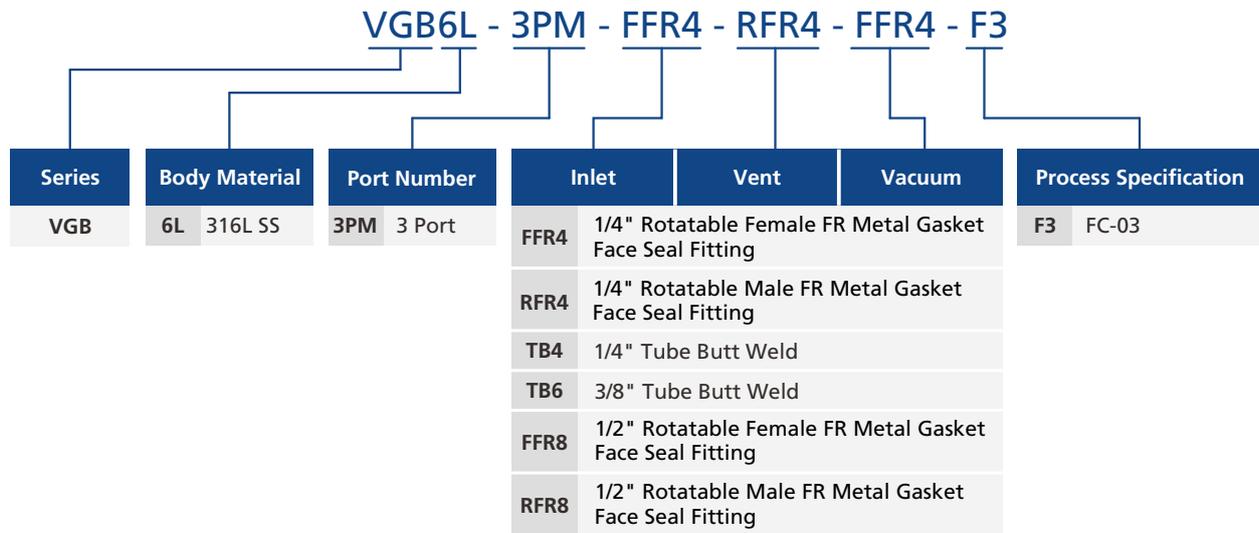
**Notes:**

- Optional connections and face to face dimensions available.
- All dimensions are for reference only and are subject to change. For dimensions not shown above, please contact FITOK Group or our authorized distributors.

**Note:**

VGM series is only available with FR4 inlet port and FR8 vent port.

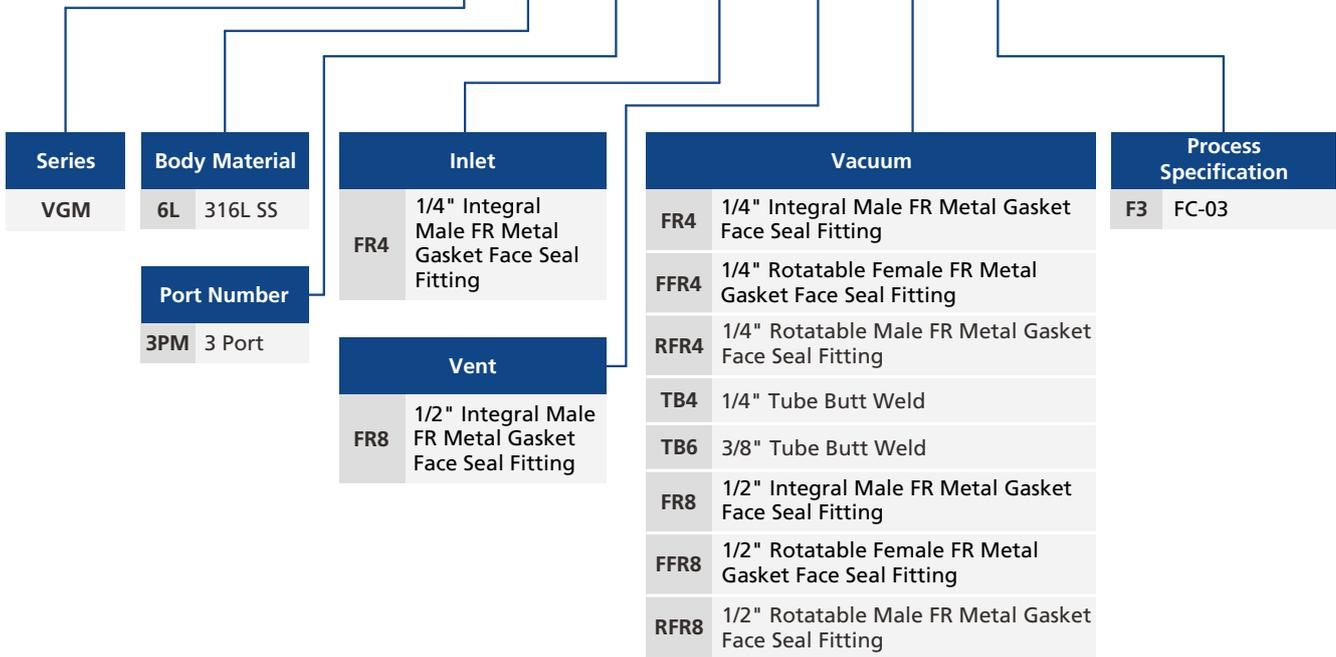
## Ordering Number Description



**Notes:**

- Inlet, vent, and vacuum ports are separate selections and should be listed independently, even if they are the same port type and size.
- "Ordering Number Description" is a reference to understand the combination rules of FITOK product part number. Not all combinations are available, Should you have any questions, please contact FITOK Group or our authorized distributors.

VGM6L - 3PM - FR4 - FR8 - FR4 - F3



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