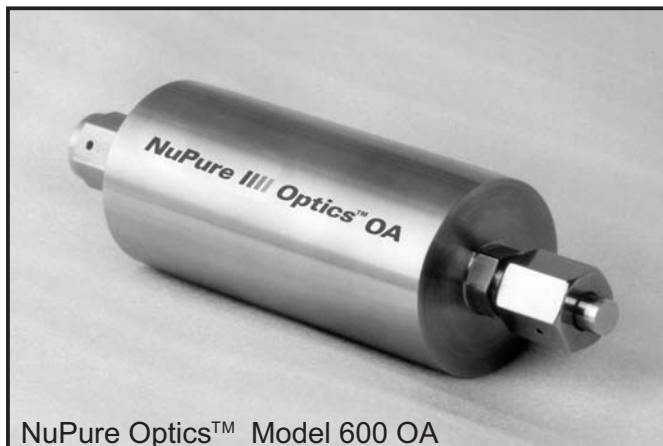


Optics™ OA Room Temperature Purifier for Optics Purge Gases

FEATURES



NuPure Optics™ Model 600 OA

- ◆ Removal of impurities to <0.5 ppb¹
- ◆ No heaters or power required
- ◆ Room-temperature operation
- ◆ 316L SS (<10 Ra EP) vessel
- ◆ Factory regenerable for up to 10 year life
- ◆ Field regenerable for up to 10 year life
- ◆ Improved process equipment performance
- ◆ Optional built-in 0.003 µm filter (PF type)
- ◆ High Flow - up to 2500 slpm
- ◆ Lowest cost (initial and operating)

NuPure's Optics™ OA Gas Purifier is designed to purify CDA, Inerts (e.g. Nitrogen or Helium), O₂, and O₂/Inert gas mixtures. It reduces hydrocarbons and other gaseous impurities commonly found in N₂ and CDA to PPT levels using *room temperature operation*. The Optics™ OA is ideally suited to purifying gases for lens purging.

The NuPure™ Optics™ OA contains a new proprietary combination of non-reactive inorganic absorber media containing no hydrocarbons or sulfur compounds. Because the Optics™ OA does not react with oxygen, complicated temperature sensing equipment is not required and because no heat generated during our purification process, the Optics™ OA purifier can be located at the point-of-use with no effect on temperature sensitive processes.

The NuPure™ Optics™ OA gas purifiers come in standard size ranges from 0 to 2500 slpm. The use of optional factory-installed inlet isolation valve is recommended for elimination of possible operator error during installation.

APPLICATIONS

- ◆ Photolithography
- ◆ Lens Purging
- ◆ Removal of hydrocarbons
- ◆ Removal of sulfur compounds
- ◆ Manufacturing of flat panel displays
- ◆ Metrology

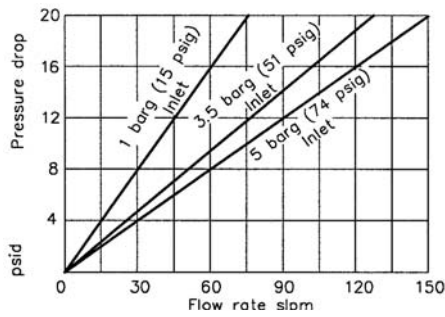
IMPURITIES REMOVED¹

Version	SO ₂ /SO _x	H ₂ S	Toluene	CO ₂ /CO	NH ₃	H ₂ O	NMHCs	Particles
PF or XL	<0.5 ppb	<0.5 ppb	<0.5 ppb	<0.5 ppb	<0.5 ppb	<0.5 ppb	<0.5 ppb	0.003 µm or 1 µm

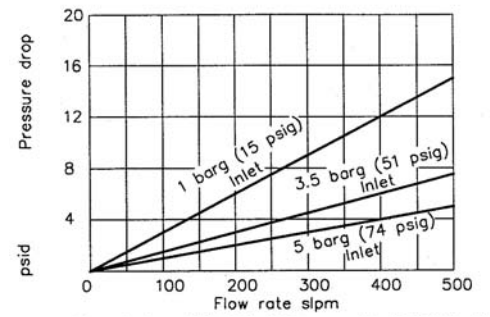
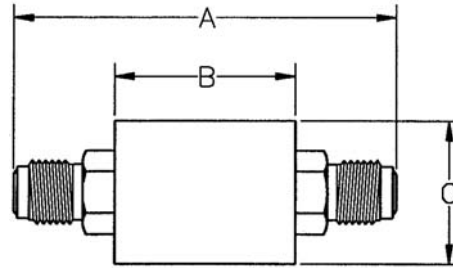
1 - Removes: acid gases, alcohols, amines, ammonia, CO/CO₂, all hydrocarbons, H₂O, H₂S, NO_x, SO₂, SO_x, siloxanes and toluene.

OPTICS™ OA

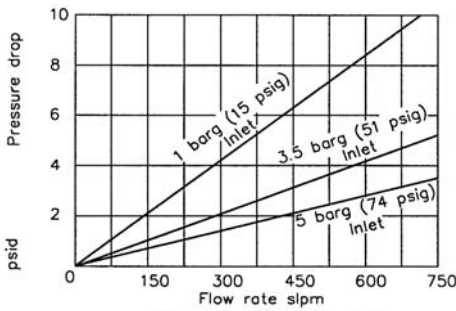
Dimensional and Performance Specifications



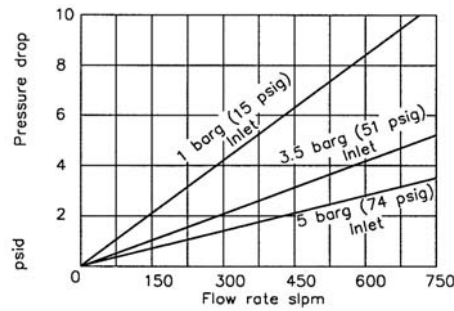
Models 1200 OA and 3000 OA (VR4)



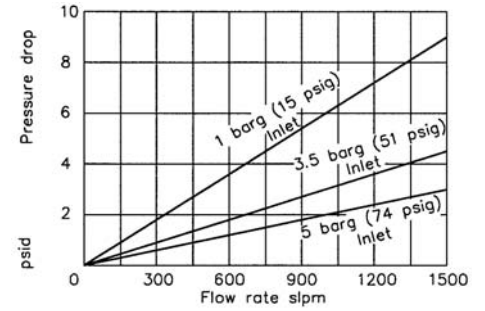
Model 3000 OA (VR2)



Models 10000 OA



Models 15000 OA



Models 25000 OA

Purifier Model	A in (mm)	B in (mm)	C in (mm)	Particle Filtration Level	Max Flow @90 psig	Part Number
Mini OA	3.3 (84)	1.5 (38)	1.0 (25)	0.003 μm^1 or 1 μm	4 slpm	00040-OA-VR4-PF ¹ or XL
100 OA	3.3 (84)	1.5 (38)	1.5 (38)	0.003 μm^1 or 1 μm	12 slpm	00100-OA-VR4-PF ¹ or XL
200 OA	4.8 (122)	3.0 (76)	1.5 (38)	0.003 μm^1 or 1 μm	25 slpm	00200-OA-VR4-PF ¹ or XL
600 OA	6.3 (160)	4.5 (114)	2.0 (51)	0.003 μm^1 or 1 μm	75 slpm	00600-OA-VR4-PF ¹ or XL
1000 OA	8.8 (224)	7.0 (178)	2.0 (51)	0.003 μm^1 or 1 μm	125 slpm	01000-OA-VR4-PF ¹ or XL
1200 OA	7.9 (202)	6.1 (156)	3.0 (76)	0.003 μm^1 or 1 μm	150 slpm	01200-OA-VR4-PF ¹ or XL
2000 OA	12.5 (317)	10.7 (272)	2.5 (63)	0.003 μm^1 or 1 μm	250 slpm	02000-OA-VR4-PF ¹ or XL
3000 OA	17.3 (439)	15.5 (394)	3.0 (76)	0.003 μm^1 or 1 μm	350 slpm	03000-OA-VR4-PF ¹ or XL
3000 OA	17.7 (449)	15.6 (396)	3.0 (76)	0.003 μm^1 or 1 μm	500 slpm	03000-OA-VR2-PF ¹ or XL
10000 OA ²	24.9 (632)	22.8 (579)	4.0 (101)	0.003 μm^1 or 1 μm	1200 slpm	10000-OA-VR2-PF ¹ or XL
15000 OA ²	24.9 (632)	22.8 (579)	5.0 (127)	0.003 μm^1 or 1 μm	1800 slpm	15000-OA-VR2-PF ¹ or XL
25000 OA ²	24.9 (632)	22.8 (579)	6.0 (152)	0.003 μm^1 or 1 μm	2500 slpm	25000-OA-VR2-PF ¹ or XL
Maximum Pressure	250 psig (USA) / 9.9 kg/cm ² G (Japan)			Materials	316L SS (<10 Ra EP)	
Operating Temperature	Room Temperature			Fittings	1/4" MVCR ³ available on sizes Mini-3000	
Leak Rate	<2 x 10 ⁻⁹ atm cc/sec He				1/2" MVCR ³ available on sizes 600-25000	

1 - Sub-micron filtration only with PF version.

2 - For models 10000 and larger - the printed dimensions are subject to future change. Please check with factory prior to ordering.

3 - VCR-compatible standard. VCR is Registered Trademark of Cajon Corporation. Special fittings on request.

NuPure III

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Or Contact:

Optics™ OAG Room Temperature Purifier for Optics Purge Gases



NuPure Optics™ Model 600 OAG

FEATURES

- ◆ Removal of impurities to <0.5 ppb¹
- ◆ Removes *all* hydrocarbons, including CH₄
- ◆ No heaters or power required
- ◆ Room-temperature operation
- ◆ 316L SS (<10 Ra EP) vessel
- ◆ Factory regenerable for up to 10 year life
- ◆ Field regenerable for up to 10 year life
- ◆ Improved process equipment performance
- ◆ Optional built-in 0.003 µm filter (PF type)
- ◆ High Flow - up to 2500 slpm
- ◆ Low cost (initial and operating)

NuPure's Optics™ OAG Gas Purifier is designed to purify CDA, Inert Gases (Nitrogen or Helium), O₂, and O₂/Inert Gas mixtures. It removes *all* hydrocarbons (including methane) and all other gaseous impurities commonly found in purge gases to PPT levels using *room temperature operation*. The Optics™ OAG is ideal for the **most critical applications** in lens purging.

The NuPure™ Optics™ OAG contains a new proprietary combination of non-reactive inorganic absorber media and oxygen-stabilized metal getter (*patent pending*). It contains no hydrocarbon or sulfur compounds. Because the Optics™ OAG does not react with oxygen, complicated temperature sensing equipment is not required, and it can be located at the point-of-use with no effect on temperature sensitive processes.

The NuPure™ Optics™ OAG gas purifiers come in standard size ranges from 0 to 2500 slpm. The use of optional factory-installed inlet isolation valve (shown in photo) is recommended for elimination of possible operator error during installation. Optional high Cv valves are available to ensure a low system pressure drop.

APPLICATIONS

- ◆ Photolithography
- ◆ Lens Purging
- ◆ Removal of all hydrocarbons
- ◆ Removal of sulfur compounds
- ◆ Manufacturing of flat panel displays
- ◆ Metrology
- ◆ Research and Development

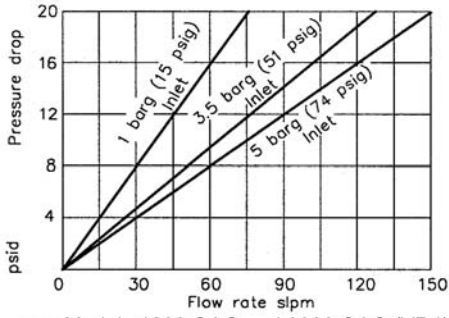
IMPURITIES REMOVED¹

Version	SO ₂ /SO _x	Toluene	CO ₂ /CO	NH ₃	H ₂ O	CH ₄	NMHCs	Particles
PF or XL	<0.5 ppb	<0.5 ppb	<0.5 ppb	<0.5 ppb	<0.5 ppb	<0.5 ppb	<0.5 ppb	0.003 µm or 1 µm

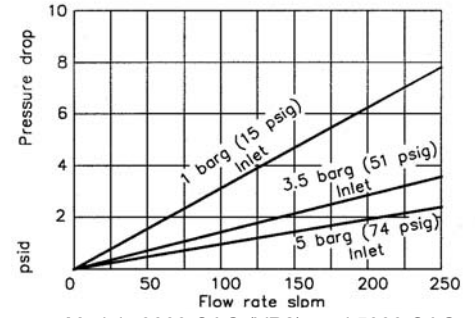
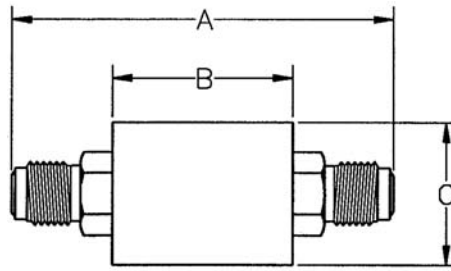
1 - Removes: acid gases, alcohols, amines, ammonia, CO/CO₂, all hydrocarbons, H₂O, H₂S, NO_x, SO₂, SO_x, siloxanes and toluene.

OPTICS™ OAG

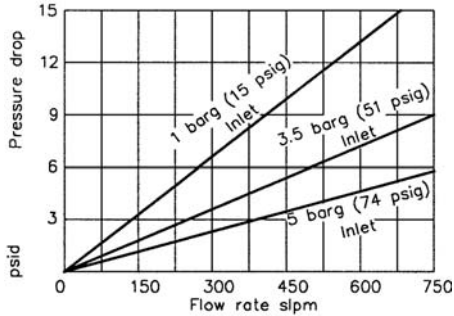
Dimensional and Performance Specifications



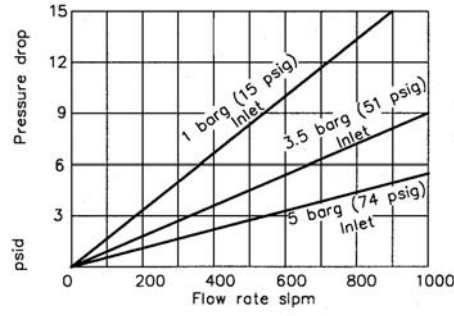
Models 1200 OAG and 3000 OAG (VR4)



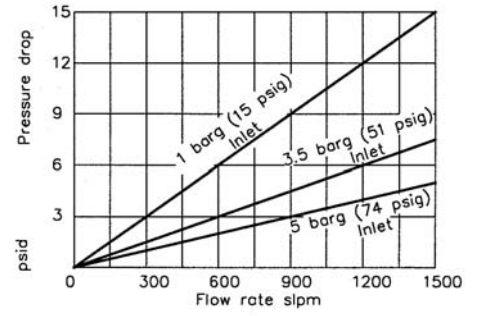
Models 3000 OAG (VR2) and 5000 OAG



Model 10000 OAG



Model 15000 OAG



Model 25000 OAG

Purifier Model	A in (mm)	B in (mm)	C in (mm)	Particle Filtration Level	Max Flow	Part Number
Mini OAG	4.5 (114)	2.7 (69)	1.0 (25)	0.003 μm^1 or 1 μm	4 slpm	00040-OAG-VR4-PF ¹ or XL
100 OAG	4.5 (114)	2.7 (69)	1.5 (38)	0.003 μm^1 or 1 μm	12 slpm	00100-OAG-VR4-PF ¹ or XL
200 OAG	6.0 (152)	4.2 (107)	1.5 (38)	0.003 μm^1 or 1 μm	25 slpm	00200-OAG-VR4-PF ¹ or XL
500 OAG	7.9 (202)	6.1 (156)	2.0 (51)	0.003 μm^1 or 1 μm	50 slpm	00500-OAG-VR4-PF ¹ or XL
600 OAG	8.2 (208)	6.5 (167)	2.0 (51)	0.003 μm^1 or 1 μm	75 slpm	00600-OAG-VR4-PF ¹ or XL
1000 OAG ²	12.9 (328)	11.1 (282)	2.0 (51)	0.003 μm^1 or 1 μm	125 slpm	01000-OAG-VR4-PF ¹ or XL
1200 OAG	7.9 (202)	6.1 (156)	3.0 (76)	0.003 μm^1 or 1 μm	150 slpm	01200-OAG-VR4-PF ¹ or XL
2000 OAG	17.7 (449)	15.9 (402)	2.5 (63)	0.003 μm^1 or 1 μm	250 slpm	02000-OAG-VR4-PF ¹ or XL
3000 OAG	17.3 (439)	15.5 (394)	3.0 (76)	0.003 μm^1 or 1 μm	300 slpm	03000-OAG-VR4-PF ¹ or XL
3000 OAG	17.7 (449)	15.6 (396)	3.0 (76)	0.003 μm^1 or 1 μm	500 slpm	03000-OAG-VR2-PF ¹ or XL
5000 OAG ³	25.3 (643)	23.2 (590)	3.0 (76)	0.003 μm^1 or 1 μm	850 slpm	05000-OAG-VR2-PF ¹ or XL
10000 OAG ³	35.9 (913)	33.8 (860)	4.0 (101)	0.003 μm^1 or 1 μm	1200 slpm	10000-OAG-VR2-PF ¹ or XL
15000 OAG ³	35.9 (913)	33.8 (860)	5.0 (127)	0.003 μm^1 or 1 μm	1800 slpm	15000-OAG-VR2-PF ¹ or XL
25000 OAG ³	35.9 (913)	33.8 (860)	6.0 (152)	0.003 μm^1 or 1 μm	2500 slpm	25000-OAG-VR2-PF ¹ or XL
Maximum Pressure	250 psig (USA) / 9.9 kg/cm ² G (Japan)			Materials	316L SS (<10 Ra EP)	
Operating Temperature	Room Temperature			Fittings	1/4" MVCR ⁴ available on sizes Mini-3000	
Leak Rate	<2 x 10 ⁻⁹ atm cc/sec He				1/2" MVCR ⁴ available on sizes 600-25000	

1 - Sub-micron filtration only with PF version.

2 - For model 1000 dimension "A" has changed from 12.1 in to 12.9 in, dimension "B" has changed from 10.3 in to 11.1 in.

3 - For models 5000 and larger - the printed dimensions are subject to future change. Please check with factory prior to ordering.

4 - VCR-compatible standard. VCR is Registered Trademark of Cajon Corporation. Special fittings on request.

NuPure III

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