

### Optics™ OAG Room Temperature Purifier for Optics Purge Gases



#### FEATURES

- ◆ Removal of impurities to <0.5 ppb<sup>1</sup>
- ◆ Removes *all* hydrocarbons, including CH<sub>4</sub>
- ◆ 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), O<sub>2</sub>, and O<sub>2</sub>/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

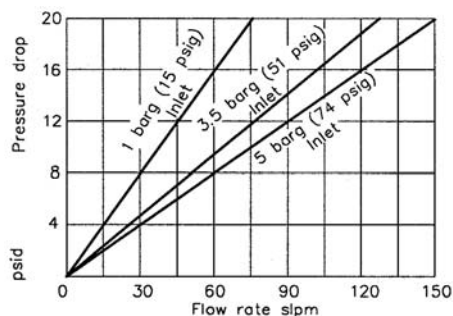
#### IMPURITIES REMOVED<sup>1</sup>

Version	SO <sub>2</sub> /SO <sub>x</sub>	Toluene	CO <sub>2</sub> /CO	NH <sub>3</sub>	H <sub>2</sub> O	CH <sub>4</sub>	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

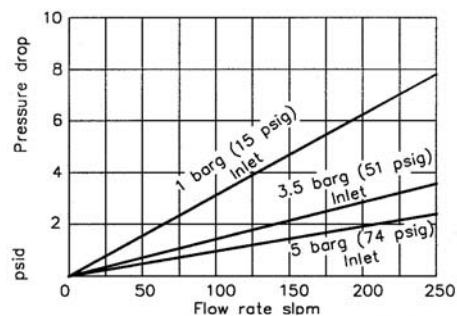
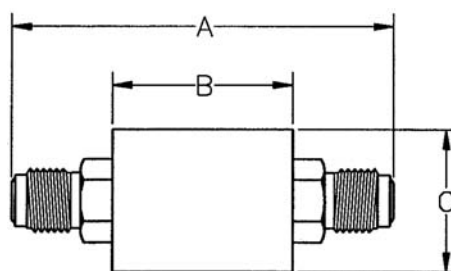
1 - Removes: acid gases, alcohols, amines, ammonia, CO/CO<sub>2</sub>, all hydrocarbons, H<sub>2</sub>O, H<sub>2</sub>S, NO<sub>x</sub>, SO<sub>2</sub>, SO<sub>x</sub>, siloxanes and toluene.

# OPTICS™ OAG

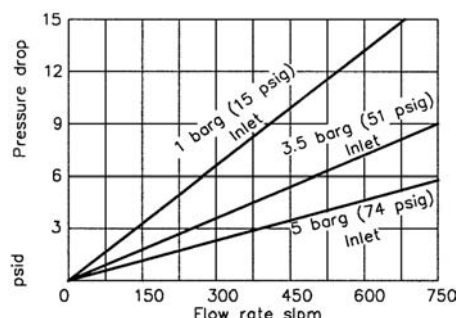
## Dimensional and Performance Specifications



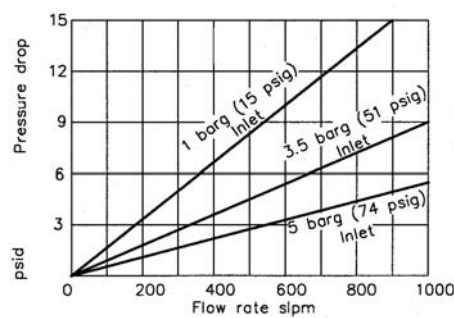
Models 1200 OAG and 3000 OAG (VR4)



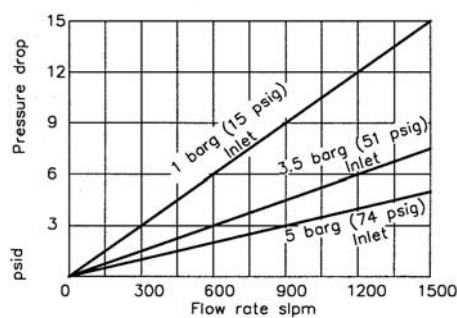
Models 3000 OAG (VR2) and 5000 OAG



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

67 Iber Road, Unit 107,  
Ottawa ON K2S 1E7 Canada  
Tel: (613) 836-0336 Fax: (613) 836-0297  
E-mail: sales@nupure.com Web-site: www.nupure.com

Or Contact: