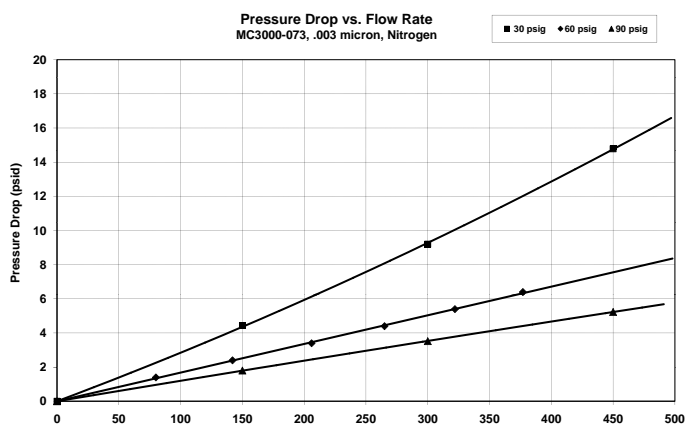


MicroTorr purifiers are the most complete and reliable solution for Point-of-Use (POU) gas purification. Combining model size with a selection of gas-specific purification materials, MicroTorr purifiers can be tailored to many different customer applications, while maintaining impurity removal to Part-Per-Billion (ppbV) levels or better. Optional valves and a 0.003 micron particle filter are available as well as custom subsystem configurations.

**Competitive Advantages and Benefits:**

- **Reliability.** Uncompromised process consistency and yield improvement.
- **Performance.** State-of-the-art purification technology, low pressure drop, and long lifetimes.
- **Regenerability.** Most MicroTorr media are factory regenerable, minimizing potentially hazardous waste.
- **Quality.** 316L stainless steel, Helium leak checked, pressure tested, and analytical testing to Part-per-Trillion (pptv) levels.
- **Support.** Lifetime estimation and regeneration service available through SAES Pure Gas Sales Network.



**Ordering Information**

**MC3000 - XXX XX**

Model	Media	Options
MC3000	202, 203, 302, 403, 404, 502, 602, 702, 703, 804, 902, 904, 905, 906	No options F 0.003µm Particle Filter V Inlet/Outlet Valves FV Filter and Valves

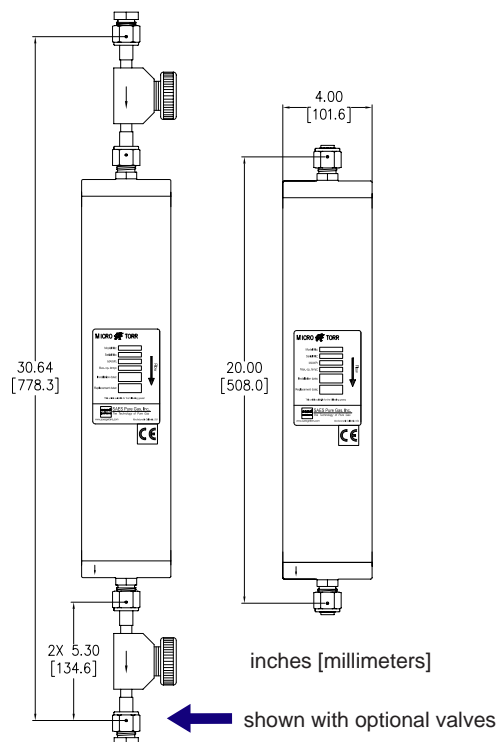
Example: MC3000-902F

Model: MC3000 Media: 902 Options: 0.003µm Particle Filter



**MC3000**

- **Lifetime**  
Consult factory for specific lifetimes
  - **Maximum Flow: 500 slpm†**
  - **Nominal Flow: 80 slpm†**
  - **Maximum Pressure: 250 psig**
- † See reverse for Arsine & Phosphine flowrates



Install Vertically with flow downward in direction of arrow. Consult factory for other mounting options.



**SAES Pure Gas, Inc.**  
*The Technology of Pure Gas*  
 4175 Santa Fe Road, San Luis Obispo, CA 93401  
 Tel: 1 (805) 541-9299 | Fax: 1 (805) 541-9399

**MICRO TORR<sup>®</sup>** Specifications

MC3000

**Mechanical Specifications**

Model	MC3000-*	MC3000- <sup>†</sup> V	MC3000- <sup>†</sup> F	MC3000- <sup>†</sup> FV
Maximum Flow	500 slpm <sup>†</sup>	500 slpm <sup>†</sup>	500 slpm <sup>†</sup>	500 slpm <sup>†</sup>
Nominal Flow	80 slpm <sup>†</sup>	80 slpm <sup>†</sup>	80 slpm <sup>†</sup>	80 slpm <sup>†</sup>
Material	Body-316L Stainless Steel			
Filter (Outlet)	2.0 micron metal		Integrated 0.003 micron, metal	
Valves	N/A	1/2" manual	N/A	1/2" manual
Max Operating Pressure	250 psig (17.3 barg) @ 40°C			
Max Temperature Rating	40°C (104°F)	40°C (104°F)	40°C (104°F)	40°C (104°F)
Inlet	1/2" MVCR	1/2" FVCR	1/2" MVCR	1/2" FVCR
Outlet	1/2" MVCR	1/2" FVCR	1/2" MVCR	1/2" FVCR
Length (Face to Face)	20.00"±.04 [508.0mm±1.0]	30.64"±.06 [778.3mm±1.5]	20.00"±.04 [508.0mm±1.0]	30.64"±.06 [778.3mm±1.5]
Outside Diameter	4.00" [101.6mm]	4.00" [101.6mm]	4.00" [101.6mm]	4.00" [101.6mm]
Electropolish	Yes	Yes	Yes	Yes
Leak Rating	1x10 <sup>-3</sup> atm cc/sec of He	1x10 <sup>-3</sup> atm cc/sec of He	1x10 <sup>-3</sup> atm cc/sec of He	1x10 <sup>-3</sup> atm cc/sec of He
Weight	14.0 lbs (6.4 kg)	18.7 lbs (8.5 kg)	14.0 lbs (6.4 kg)	18.7 lbs (8.5 kg)

\*The 3 digit number found in the model number equates to the "Media" row in the table below.

†Flowrates with 502 media: Arsine/Phosphine max= 125.0 slpm, nominal= 80.0 slpm.

**Purification and Removal Capabilities**

Media	Gases Purified	Impurities Removed	Outlet Performance	Regenerable	Dangerous Goods (DG) Classification
202	Ar, CDA, H <sub>2</sub> , He, Kr, N <sub>2</sub> , Ne, O <sub>2</sub> , Xe, CO <sub>2</sub> , N <sub>2</sub> O, D <sub>2</sub> , NO	H <sub>2</sub> O	< 1 ppbV	YES	Non-DG
203	Ar, CDA, H <sub>2</sub> , He, Kr, N <sub>2</sub> , Ne, O <sub>2</sub> , Xe, N <sub>2</sub> O, D <sub>2</sub>	H <sub>2</sub> O, CO <sub>2</sub>	< 100 pptV	YES	Non-DG
		Volatile Acids, Organics, Refractory Compounds*	< 1 pptV		
		Volatile Bases*	< 5 pptV		
302	B <sub>2</sub> H <sub>6</sub> , BCl <sub>3</sub> , BF <sub>3</sub> , CCl <sub>4</sub> , Cl <sub>2</sub> , CO <sub>2</sub> , GeCl <sub>4</sub> , GeH <sub>4</sub> , H <sub>2</sub> S, H <sub>2</sub> Se, HBr, HCl, N <sub>2</sub> O, NF <sub>3</sub> , NO, SiCl <sub>4</sub> , SiF <sub>4</sub> , SiH <sub>2</sub> Cl <sub>2</sub> , SiHCl <sub>3</sub> , SO <sub>2</sub> , CHClF <sub>2</sub>	H <sub>2</sub> O, Metals	< 1 ppbV	NO	Non-DG
403	Ar, CDA, H <sub>2</sub> , He, Kr, N <sub>2</sub> , Ne, O <sub>2</sub> , Xe, CO <sub>2</sub>	Volatile Acids, Organics, Refractory Compounds*	< 1 pptV	NO	Non-DG
		Volatile Bases*	< 5 pptV		
404	Ar, CDA, H <sub>2</sub> , He, Kr, N <sub>2</sub> , Ne, O <sub>2</sub> , Xe, CO <sub>2</sub> , C <sub>2</sub> H <sub>2</sub> , C <sub>3</sub> H <sub>6</sub> , C <sub>2</sub> H <sub>4</sub> , NH <sub>3</sub>	Organics*	< 1 ppbV	YES	Non-DG
502	PH <sub>3</sub> , AsH <sub>3</sub>	H <sub>2</sub> O, O <sub>2</sub>	< 1 ppbV	NO	Non-DG
602	CO	H <sub>2</sub> O, O <sub>2</sub> , CO <sub>2</sub> , Acids, Bases, Organics, Refractories*	< 1 ppbV	NO	DG - UN3089 Class 4.1
702	NH <sub>3</sub> , C <sub>2</sub> H <sub>6</sub> N, C <sub>2</sub> H <sub>8</sub> N <sub>2</sub> , C <sub>2</sub> H <sub>4</sub> , C <sub>3</sub> H <sub>6</sub> , CH <sub>3</sub> SiH <sub>3</sub> , GeH <sub>4</sub> , H <sub>2</sub> -SiH <sub>4</sub> mix, SF <sub>6</sub>	H <sub>2</sub> O, O <sub>2</sub> , CO <sub>2</sub> , Metals	< 1 ppbV	YES	DG - UN3089 Class 4.1
703	NH <sub>3</sub>	H <sub>2</sub> O, O <sub>2</sub> , CO <sub>2</sub> , NMHCs, Metals*	< 1 ppbV	YES	DG - UN3089 Class 4.1
804	CO <sub>2</sub>	H <sub>2</sub> O, O <sub>2</sub> , CO, H <sub>2</sub>	< 1 ppbV	YES	DG - UN2881 Class 4.2
		Volatile Acids, Refractories, Condensable Organics (>100amu), Volatile Base	< 5 pptV		
		Non-Condensable Organics (>45 amu)	< 100pptV		
902	Ar, He, Kr, N <sub>2</sub> , Ne, Xe	H <sub>2</sub> O, O <sub>2</sub> , CO, CO <sub>2</sub> , H <sub>2</sub>	< 100 pptV	YES	DG - UN2881 Class 4.2
		Volatile Acids, Organics, Refractory Compounds*	< 1 pptV		
		Volatile Bases*	< 5 pptV		
904	H <sub>2</sub> , H <sub>2</sub> -Inerts Mix, D <sub>2</sub>	H <sub>2</sub> O, O <sub>2</sub> , CO, CO <sub>2</sub>	< 100 pptV	YES	DG - UN2881 Class 4.2
		Volatile Acids, Organics, Refractory Compounds*	< 1 pptV		
		Volatile Bases*	< 5 pptV		
905	C <sub>2</sub> F <sub>6</sub> , C <sub>2</sub> H <sub>6</sub> , C <sub>2</sub> F <sub>8</sub> , C <sub>3</sub> H <sub>8</sub> , C <sub>2</sub> F <sub>4</sub> H <sub>2</sub> , C <sub>4</sub> F <sub>8</sub> , C <sub>4</sub> H <sub>10</sub> , CCl <sub>4</sub> , CF <sub>4</sub> , CH <sub>4</sub> , CHF <sub>3</sub> , SF <sub>6</sub>	H <sub>2</sub> O, O <sub>2</sub> , CO, CO <sub>2</sub> , H <sub>2</sub> NMHCs*	< 1 ppbV	YES	DG - UN2881 Class 4.2
906	CDA, O <sub>2</sub> , N <sub>2</sub> O	H <sub>2</sub> O, CO, CO <sub>2</sub> , NMHCs*	< 1 ppbV	YES	Non-DG

\*NMHCs = Organics (C>4); Volatile Acids are compounds including SO2, NOx, HCl, H2S, etc; Volatile Bases are basic compounds including NH3 and amines; Refractories are hydrocarbons with etheroatoms such as Si, Halogens, P, B, S, or metals.

**Other Sizes Available**

Model Number	MC1	MC50	MC190	MC200	MC400	MC450	MC500	MC700	MC1500	MC2525	MC2550	MC3000	MC4500	MC9000
Maximum Flow (slpm)	5	10	50	50	60	75	100	120	250	300	500	500	1000	1000
Average Flow (slpm)	0.5	1.5	5	5	9	10	12	25	40	80	80	80	200	300

**Piping Options Available:** Dual Purifier Manifold, 3 Valve Bypass, 5 Valve Bypass

**S110-480\_S, DCN 5305**

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**Specifications subject to change**