

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.

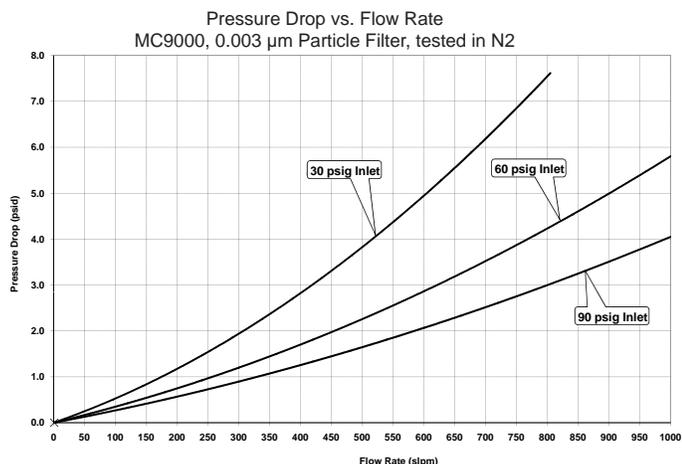
Competitive Advantages and Benefits:

- **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.



MC9000

- **Lifetime**
Consult factory for specific lifetimes
- **Maximum Flow: 1000 slpm**
- **Nominal Flow: 300 slpm**
- **Maximum Pressure: 250 psig**



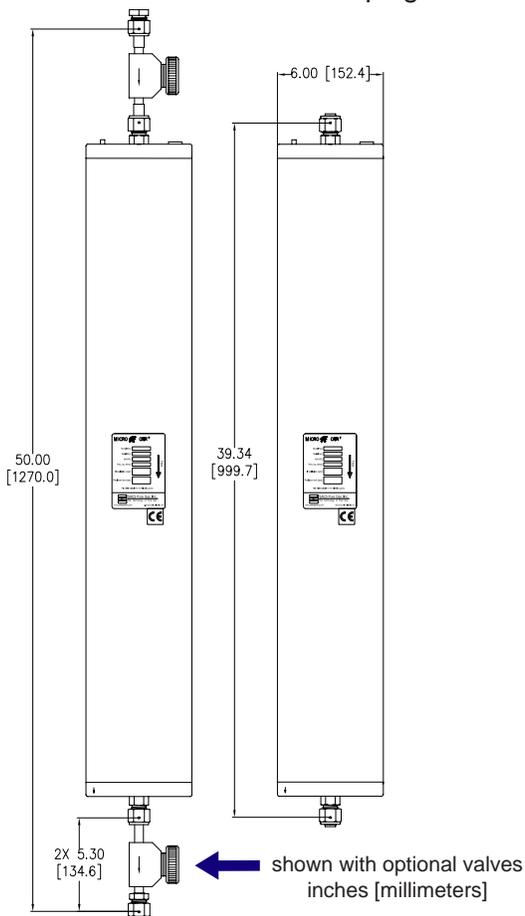
Ordering Information

MC9000 - XXX XX

Model	Media	Options
MC9000	202, 203, 302, 403, 404, 702, 703, 902, 904, 905	No options F 0.003µm Particle Filter V Inlet/Outlet Valves FV Filter and Valves

Example: MC9000-902F

Model: MC9000 Media: 902 Options: 0.003µm Particle Filter





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MICRO TORR® Specifications
 MC9000

Mechanical Specifications

Model	MC9000-*	MC9000-*V	MC9000-*F	MC9000-*FV
Maximum Flow	1,000 slpm	1,000 slpm	1,000 slpm	1,000 slpm
Nominal Flow	300 slpm	300 slpm	300 slpm	300 slpm
Material	Body-316L Stainless Steel		Body-316L Stainless Steel	
Filter (Outlet)	2.0 micron metal		Integrated 0.003 micron, metal	
Valves	N/A	1/2" Manual Diaphragm	N/A	1/2" Manual Diaphragm
Max Operating Pressure	250 psig (17.3 barg) @ 40°C		250 psig (17.3 barg) @ 40°C	
Max Temperature Rating	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" MVCR	1/2" MVCR	1/2" MVCR
Length (Face to Face)	39.34"±.06 [99.97cm±1.5]	50"±.11 [127.0cm±2.8]	39.34"±.06 [99.97cm±1.5]	50"±.11 [127.0cm±2.8]
Outside Diameter	6.0" [152.4mm]		6.0" [152.4mm]	
Electropolish	Yes	Yes	Yes	Yes
Leak Rating	1x10 ⁻⁹ atm cc/sec of He			
Weight	60.4 lbs (27.4 kg)	66.0 lbs (29.9 kg)	60.4 lbs (27.4 kg)	66.0 lbs (29.9 kg)

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

Purification and Removal Capabilities

Media	Gases Purified	Impurities Removed	Outlet Performance	Regenerable	Dangerous Goods (DG) Classification
202	Ar, CDA, H ₂ , He, Kr, N ₂ , Ne, O ₂ , Xe, CO ₂ , N ₂ O, CO, D ₂	H ₂ O	< 1 ppbV	YES	Non-DG
203	Ar, CDA, H ₂ , He, Kr, N ₂ , Ne, O ₂ , Xe, N ₂ O, CO, D ₂	H ₂ O, CO ₂	< 100 pptV	YES	Non-DG
		Acids, Organics, Refractory Compounds*	< 1 pptV		
		Bases*	< 5 pptV		
302	B ₂ H ₆ , BCl ₃ , BF ₃ , CCl ₄ , Cl ₂ , CO ₂ , GeCl ₄ , GeH ₄ , H ₂ S, H ₂ Se, HBr, HCl, N ₂ O, NF ₃ , NO, SiCl ₄ , SiF ₄ , SiH ₂ Cl ₂ , SiHCl ₃ , SO ₂ , CHClF ₂	H ₂ O	< 1 ppbV	NO	Non-DG
		Metals Removal	< 1 ppbW		
403	Ar, CDA, H ₂ , He, Kr, N ₂ , Ne, O ₂ , Xe, CO ₂	Acids, Organics, Refractory Compounds*	< 1 pptV	NO	Non-DG
		Bases*	< 5 pptV		
404	Ar, CDA, H ₂ , He, Kr, N ₂ , Ne, O ₂ , Xe, CO ₂ , C ₂ H ₂ , C ₃ H ₈ , C ₂ H ₄ , NH ₃	Organics*	< 1 ppbV	YES	Non-DG
702	NH ₃ , C ₂ H ₇ N, C ₂ H ₆ N ₂ , C ₂ H ₄ , C ₃ H ₈ , CH ₃ SiH ₃ , GeH ₄ , H ₂ -SiH ₄ mix, SF ₆	H ₂ O, O ₂ , CO ₂	< 1 ppbV	YES	DG - UN3089 Class 4.1
703	NH ₃	H ₂ O, O ₂ , CO ₂ , NMHCs	< 1 ppbV	YES	DG - UN3089 Class 4.1
902	Ar, He, Kr, N ₂ , Ne, Xe	H ₂ O, O ₂ , CO, CO ₂ , H ₂	< 100 pptV	YES	DG - UN2881 Class 4.2
		Acids, Organics, Refractory compounds*	< 1 pptV		
		Bases*	< 5 pptV		
904	H ₂ , H ₂ -Inerts Mix, D ₂	H ₂ O, O ₂ , CO, CO ₂	< 100 pptV	YES	DG - UN2881 Class 4.2
		Acids, Organics, Refractory compounds*	< 1 pptV		
		Bases*	< 5 pptV		
905	C ₂ F ₆ , C ₂ H ₆ , C ₂ F ₈ , C ₃ H ₈ , C ₂ F ₄ H ₂ , C ₄ F ₈ , C ₄ H ₁₀ , CCl ₄ , CF ₄ , CH ₄ , CHF ₃ , SF ₆	H ₂ O, O ₂ , CO, CO ₂ , H ₂ NMHCs	< 1 ppbV	YES	DG - UN2881 Class 4.2

*Organic compounds (C>5) measured as Toluene. Acid compounds (SO₂, NO_x, H₂S...) measured as SO₂. Base compounds (NH₃, amines...) measured as NH₃. Silicon/Refractory compounds (HMDSA, HMDSO, TMS) measured as HMDSO

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