



GATEKEEPER® CARBON MONOXIDE GAS PURIFIERS

Cost-effective gas purification



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Overview

Available for low- and high-flow point-of-use applications, GateKeeper® carbon monoxide gas purifiers are designed for use with CO and remove moisture and metal carbonyls to sub-ppb (parts-per-billion) levels.

Features and Benefits

Cost-effective

- Gas purification improves process consistency, increases product yields and lengthens tool life
- Transforms low-purity gas into UHP grade, reducing process costs

Process Protection

- Consistently delivers ultrapure gas
- Guards against bulk gas purifier breakthrough, impurity spikes from liquid storage tanks, cylinder changeouts and unexpected contaminants in the process

- Does not release hydrocarbons that may contaminate the process
- Low pressure drop across purifiers
- CE certified to the Pressure Equipment Directive (PED) and manufactured in an ISO 9001:2000 facility
- Backed by global service and support staff

Safe and Simple to Use

- Easy to install
- Uses ambient temperature purification technology – no power or heat required
- No moving parts

General Specifications

Materials of construction:	316L stainless steel, electropolished 10 Ra
Gases purified:	CO
Outlet purity:	<1 ppb H ₂ O, metal carbonyls
Outlet particle filtration:	0.003 µm 316L stainless steel
Media:	Inorganic
Maximum differential pressure:	1379 kPa (200 psid)
Minimum operating pressure:	101 kPa (14.7 psia)
Leak rating:	1 × 10 ⁻⁹ atm cc/sec
Maximum inlet challenge of contaminant to maintain product efficiency:	10 ppm (parts-per-million)
Lifetime:	One year at nominal flow rate with 1 ppm inlet challenge of metal carbonyls and 1 ppm H ₂ O
Maximum operating temperature:	65°C (149°F)

Operating Specifications

Model	Maximum Flow Rate (SLPM)	Nominal Flow Rate (SLPM)	Maximum Operating Pressure Purifier Only ¹	Maximum Operating Pressure Purifier with Options ²	Pressure Drop ³
300KF	50	3	4826 kPa (700 psig)	1724 kPa (250 psig)	34.5 kPa (5 psid)
500KF	60	6.5	4826 kPa (700 psig)	1724 kPa (250 psig)	48.3 kPa (7 psid)
2500KH	300	30	1724 kPa (250 psig)	1724 kPa (250 psig)	17.2 kPa (2.5 psid)
10MH	1000	115	1724 kPa (250 psig)	1724 kPa (250 psig)	1/2" – 62 kPa (9 psid) 3/4" – 36.5 kPa (5.3 psid)

Drop-in Replacements for Waferpure® Purifiers

30KF (Micro)	1	0.3	19995 kPa (2900 psig)	1724 kPa (250 psig)	3.4 kPa (0.5 psid)
75KF (Mini-XL)	5	0.5	19995 kPa (2900 psig)	1724 kPa (250 psig)	10.3 kPa (1.5 psid)
300KF (Megaline)	50	3	4826 kPa (700 psig)	1724 kPa (250 psig)	34.5 kPa (5 psid)

¹ Do not use under vacuum. Minimum pressure should be 1 atm (14.7 psia).

² Pressure limited by standard valves, higher pressures available; please consult your local sales representative.

³ Pressure drop at maximum flow rate and 90 psig (620 kPa) inlet pressure. For a detailed pressure drop curve and other pressures or flows, please consult your local sales representative or visit www.entegris.com.

All product information is subject to change without notice.

Facility Specifications

Model	Fitting Sizes	Configuration (inlet/outlet)	Approximate Weight	Length	Diameter	Fitting Offset
300KF	1/4" face seal	male/male	1.8 kg (4 lb)	20.8 cm (8.2")	5.1 cm (2")	Centered
500KF	1/4" face seal	male/male	1.6 kg (3.5 lb)	20.2 cm (7.94")	7.6 cm (3")	Centered
2500KH	1/4" face seal	male/male	9.5 kg (20.9 lb)	43.9 cm (17.3")	10.2 cm (4")	Centered
	1/2" face seal	male/male	9.5 kg (20.9 lb)	44.7 cm (17.6")	10.2 cm (4")	Centered
10MH	1/2" face seal	female/male	27 kg (59.5 lb)	97.4 cm (38.36")	15.2 cm (6")	Centered
	3/4" face seal	female/female	41 kg (90.3 lb)	143.3 cm (56.4")	15.2 cm (6")	Centered

Drop-in Replacements for Waferpure Purifiers

30KF (Micro)	1/4" face seal	male/male	0.3 kg (0.66 lb)	8.4 cm (3.31")	3.8 cm (1.5")	0.97 cm (0.38")
75KF (Mini-XL)	1/4" face seal	male/male	0.4 kg (0.88 lb)	12.7 cm (5")	3.8 cm (1.5")	0.97 cm (0.38")
300KF (Megaline)	1/4" face seal	male/male	1.8 kg (4 lb)	20.8 cm (8.2")	5.1 cm (2")	Centered

Options

Model	Isolation Valves	GC 300 Manifold	3 Valve Bypass Manifold	5 Valve Bypass Manifold	4 Valve Changeover Manifold ⁴	8 Valve Changeover Manifold ⁵
300KF	Yes	Yes				
500KF	Yes		Yes	Yes		
2500KH	Yes		Yes	Yes		Yes
10MH	Included		Yes		Yes	

Drop-in Replacements for Waferpure Purifiers

30KF (Micro)	Yes		Yes	Yes		
75KF (Mini-XL)	Yes					
300KF (Megaline)	Yes	Yes				

⁴ 1/2" Purifier only.

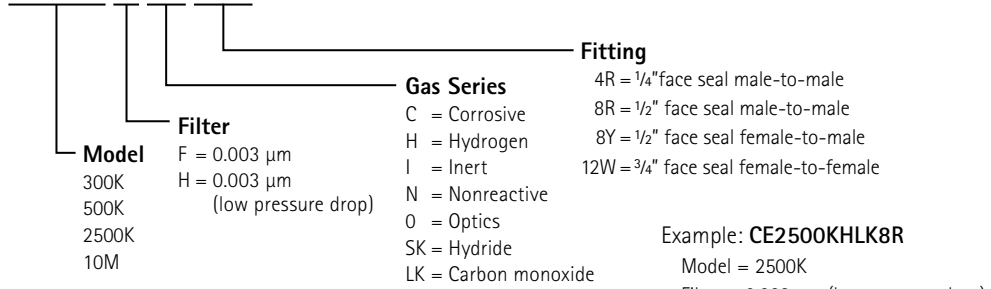
⁵ 1/4" Purifier only.

Ordering Information

GateKeeper Gas Purifiers

Part Number

CE



Note: Not all models are available with all gas series or fittings; contact your salesperson for more information.

Note: For Entegris replacement, specify 30K, 75K or 300K for model.

For detailed product information including dimension drawings, pressure drop curves, safety information, regeneration service and for help selecting a purifier and determining purifier lifetimes, please visit our website at www.entegris.com. Go to Products>Purification>Gas Purification

All products meet CE Directive 97/23/EC requirements.



For More Information

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit www.entegris.com and select the Customer Service link for the center nearest you.

Terms and Conditions of Sale

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