



GATEKEEPER® INERT GAS PURIFIERS

Cost-effective, reliable gas purification



Entegris GateKeeper Gas Purifier

Model Number	Show Piece
Lot Number	xxxxxxxx 0003
Filtration	0.003 micron
Max Flow Rate	60slm
Max Pressure	48.2 barg(4.82 Mpa) (700 psig)
Max In. Pressure	13.8 bar(1.38 Mpa) (200 PSIG)
Max Temp	65° C (150° F)
Date Mfr	June 2006
Date Install	
Date Regeneration	

MINIMIZE EXPOSURE TO ATMOSPHERE
 FOR USE WITH N₂, He, Ne, Kr, Xe, Ar
 HALOCARBONS, LIGHT HYDROCARBONS
 DO NOT USE WITH O₂, CDA (AIR), NF₃, SF₆

Made in USA
 6975 Flanders Drive, San Diego, CA 92121

Flow Arrow

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Overview

Available for low- and high-flow point-of-use applications, GateKeeper® inert gas purifiers are designed for use with N₂, He, Ne, Kr, Xe, Ar, halocarbons and light hydrocarbons. The purifiers remove O₂, H₂, CO, CO₂ and H₂O to sub-ppb (parts-per-billion) levels; SO₂ to sub-ppt (parts-per-trillion) levels.

Features and Benefits

Cost-effective

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

Environmentally Friendly

- Regenerable – eliminates disposal issues

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	
Gases purified:	N ₂ , He, Ne, Kr, Ar, Xe, halocarbons, light hydrocarbons	
Outlet purity:	<1 ppb H ₂ , CO and CO ₂ ; <100 ppt H ₂ O, O ₂ ; the 45M model is <100 ppb for all contaminants	
Outlet particle filtration:	30KF to 10MH	0.003 µm 316L stainless steel
	200M	20 µm 316L stainless steel
Media:	Nickel metallic/metal oxide	
Minimum operating pressure:	101 kPa (14.7 psia)	
Leak rating:	30KF to 10MH	1 × 10 ⁻⁹ atm cc/sec
	200M	4 × 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 moisture	
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
35KF	1	0.5	19,995 kPa (2900 psig)	1724 kPa (250 psig)	3.4 kPa (0.5 psid)
70KF	3	1.4	19,995 kPa (2900 psig)	1724 kPa (250 psig)	4.8 kPa (0.7 psid)
100KF	20	2.2	6895 kPa (1000 psig)	1724 kPa (250 psig)	27.6 kPa (4 psid)
300KF	50	7	4826 kPa (700 psig)	1724 kPa (250 psig)	34.5 kPa (5 psid)
500KF	60	12	4826 kPa (700 psig)	1724 kPa (250 psig)	48.3 kPa (7 psid)
500KFHP	60	12	19,995 kPa (2900 psig)	19,995 kPa (2900 psig)	48.3 kPa (7 psid)
700KF	120	18	4826 kPa (700 psig)	1724 kPa (250 psig)	48.3 kPa (7 psid)
2500KH	300 (1/4")	60	1724 kPa (250 psig)	1724 kPa (250 psig)	17.2 kPa (2.5 psid)
	500 (1/2")	60	1724 kPa (250 psig)	1724 kPa (250 psig)	17.2 kPa (2.5 psid)
10MH	1000	220	1724 kPa (250 psig)	1724 kPa (250 psig)	1/2" – 62 kPa (9 psid) 3/4" – 36.5 kPa (5.3 psid)
200M ⁴	20000	3500	1379 kPa (200 psig)	1379 kPa (200 psig)	27.6 kPa (4 psid)
Drop-in Replacements for Waferpure® Purifiers					
30KF (Micro)	1	0.5	19,995 kPa (2900 psig)	1724 kPa (250 psig)	3.4 kPa (0.5 psid)
75KF (Mini-XL)	5	1	19,995 kPa (2900 psig)	1724 kPa (250 psig)	10.3 kPa (1.5 psid)
300KF (Megaline)	50	7	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 620 kPa (90 psig) inlet pressure. For a detailed pressure drop curve and other pressures or flows, please consult your local sales representative or visit www.entebris.com. ⁴ Model only available for countries that recognize ASTM US standards; not currently CE certified; contact Entegris if needed for EU application. All product information is subject to change without notice.

Facility Specifications

Model	Fitting Sizes	Configuration (inlet/outlet)	Approximate Weight	Length	Diameter	Fitting Offset
35KF	1/4" face seal	male/male	0.3 kg (0.66 lb)	8.4 cm (3.31")	3.8 cm (1.5")	Centered
70KF	1/4" face seal	male/male	0.4 kg (0.88 lb)	11.4 cm (4.5")	3.8 cm (1.5")	Centered
100KF	1/4" face seal	male/male	0.5 kg (1.1 lb)	8.4 cm (3.31")	15.2 cm (6") ⁵	1.12 cm (0.44")
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
500KFHP	1/4" face seal	male/male	2.5 kg (5.5 lb)	25.4 cm (10")	7.6 cm (3")	Centered
700KF	1/4" face seal	male/male	1.6 kg (3.5 lb)	25.4 cm (10")	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
10M	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
200M	2" tube stub	–	454 kg (1000 lb)	165.9 cm (63.3") ⁵	111.8 cm (44") ⁶	85.9 cm (33.5") ⁷
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

⁵ Height ⁶ Depth ⁷ Width

Options

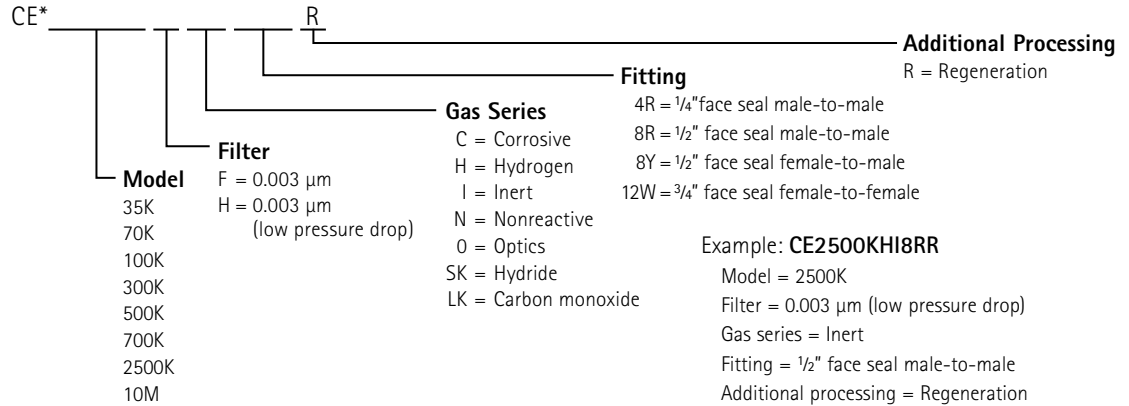
Model	Isolation Valves	GC 300 Manifold	3 Valve Bypass Manifold	5 Valve Bypass Manifold	Moisture Break-through Indicator ⁸
35KF	Yes		Yes	Yes	Yes
70KF	Yes		Yes		Yes
100KF					Yes
300KF	Yes	Yes			Yes
500KF	Yes		Yes	Yes	Yes
500KFHP					Yes
700KF	Yes				Yes
2500KH	Yes		Yes	Yes	Yes
10MH	Included		Yes		Yes
200M	Included				
Drop-in Replacements for Waferpure Purifiers					
30KF (Micro)	Yes		Yes	Yes	Yes
75KF (Mini-XL)	Yes				Yes
300KF (Megaline)	Yes	Yes			Yes

⁸ External to purifier for models 30KF–700KF.

Ordering Information

GateKeeper Inert Gas Purifiers

Part Number



* For all models except 200M.

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.

Note: This product is considered a dangerous good for shipping purposes under IATA/ICAO regulations.

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 with the exception of the 200M meet CE Directive 97/23/EC requirements.



Contact Customer Service to learn about our regeneration service.

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

All purchases are subject to Entegris' Terms and Conditions of Sale. To view and print this information, visit www.entegris.com and select the Legal Notices link from the footer.

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ENTEGRIS, INC.

Corporate Headquarters | 129 Concord Road | Billerica, MA 01821 USA
 Customer Service Tel. +1 952 556 4181 | Customer Service Fax +1 952 556 8022
 In North America 800 394 4083 | www.entegris.com

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