

GateKeeper® Nonreactive Gas Purifiers

*Cost-effective, environmentally
friendly gas purification*

Available for low- and high-flow point-of-use applications, GateKeeper® nonreactive gas purifiers are designed for use with SF₆, O₂, N₂O, and O₂/inert gas mixtures. The purifiers remove CO₂ and H₂O to sub-ppb (parts-per-billion) levels; NMHCs to sub-ppt (parts-per-trillion) levels.

FEATURES & 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



SPECIFICATIONS

Materials of construction	316L stainless steel, electropolished 10 Ra	
Gases purified	SF ₆ , CO ₂ , O ₂ , H ₂ O, O ₂ /inert gas mixtures	
Outlet purity	<1 ppb CO ₂ , H ₂ O; only H ₂ O is removed from SF ₆ and CO ₂	
	<1 ppt nonmethane hydrocarbons	
Outlet particle filtration	30KF to 75KF, 300KF to 10MH	0.003 µm 316L stainless steel
	100KF	0.003 µm nickel
Media	Specialty inorganic oxides	
Leak rating	1 × 10 ⁻⁹ atm cc/sec	
Maximum inlet challenge of contaminant to maintain product efficiency	10 ppm (parts-per-million)	
Operating conditions	Minimum operating pressure:	
	101 kPa (14.7 psia)	
	Maximum differential pressure:	
	1379 kPa (200 psid)	
	Maximum operating temperature:	
	65°C (149°F)	
Lifetime	One year at nominal flow rate with 1 ppm inlet challenge of moisture	

OPERATING SPECIFICATIONS

Model	Maximum flow rate	Nominal flow rate	Maximum operating pressure – purifier only ¹	Maximum operating pressure – purifier with options ²	Pressure drop ³
35KF	1 slpm	1 slpm	19995 kPa (2900 psig)	1724 kPa (250 psig)	3.4 kPa (0.5 psid)
70KF	3 slpm	2.7 slpm	19995 kPa (2900 psig)	1724 kPa (250 psig)	4.8 kPa (0.7 psid)
100KF	20 slpm	5.5 slpm	6895 kPa (1000 psig)	1724 kPa (250 psig)	27.6 kPa (4 psid)
300KF	50 slpm	16 slpm	4826 kPa (700 psig)	1724 kPa (250 psig)	34.5 kPa (5 psid)
500KF	60 slpm	32 slpm	4826 kPa (700 psig)	1724 kPa (250 psig)	48.3 kPa (7 psid)
700KF	120 slpm	43 slpm	4826 kPa (700 psig)	1724 kPa (250 psig)	48.3 kPa (7 psid)
2500KH	300 slpm	150 slpm	1724 kPa (250 psig)	1724 kPa (250 psig)	17.2 kPa (2.5 psid)
10MH	1000 slpm	560 slpm	1724 kPa (250 psig)	1724 kPa (250 psig)	½" – 62 kPa (9 psid) ¾" – 36.5 kPa (5.3 psid)

Drop-in replacements for Waferpure® purifiers

30KF (Micro)	1 slpm	1 slpm	19995 kPa (2900 psig)	1724 kPa (250 psig)	3.4 kPa (0.5 psid)
75KF (Mini-XL)	5 slpm	2.7 slpm	19995 kPa (2900 psig)	1724 kPa (250 psig)	10.3 kPa (1.5 psid)
300KF (Megaline)	50 slpm	16 slpm	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.

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 lbs)	8.4 cm (3.31")	3.8 cm (1.5")	Centered
70KF	1/4" face seal	Male/male	0.4 kg (0.88 lbs)	11.4 cm (4.5")	3.8 cm (1.5")	Centered
100KF	1/4" face seal	Male/male	0.5 kg (1.1 lbs)	8.4 cm (3.31")	15.2 cm (6") ¹	1.12 cm (0.44")
300KF	1/4" face seal	Male/male	1.8 kg (4 lbs)	20.8 cm (8.2")	5.1 cm (2")	Centered
500KF	1/4" face seal	Male/male	1.6 kg (3.5 lbs)	20.2 cm (7.94")	7.6 cm (3")	Centered
700KF	1/4" face seal	Male/male	1.6 kg (3.5 lbs)	25.4 cm (10")	7.6 cm (3")	Centered
2500KH	1/4" face seal	Male/male	9.5 kg (20.9 lbs)	43.9 cm (17.3")	10.2 cm (4")	Centered
	1/2" face seal	Male/male	9.5 kg (20.9 lbs)	44.7 cm (17.6")	10.2 cm (4")	Centered
10MH	1/2" face seal	Female/male	27 kg (59.5 lbs)	97.4 cm (38.36")	15.2 cm (6")	Centered
	3/4" face seal	Female/female	41 kg (90.3 lbs)	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 lbs)	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 lbs)	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 lbs)	20.8 cm (8.2")	5.1 cm (2")	Centered

¹ Height

OPTIONS

Model	Isolation valves	GC 300 manifold	3 valve bypass manifold	5 valve bypass manifold	4 valve changeover manifold ¹	8 valve changeover manifold ²	Moisture breakthrough indicator ³
70KF	Yes	—	Yes	—	—	—	Yes
300KF	Yes	Yes	—	—	—	—	Yes
500KF	Yes	—	Yes	Yes	—	—	Yes
700KF	Yes	—	—	—	—	—	Yes
2500KH	Yes	—	Yes	Yes	—	Yes	Yes
10MH	Included	—	Yes	—	Yes	—	Yes
200MZ	Included	—	—	—	—	—	—

Drop-in replacements for Waferpure purifiers

75KF (Mini-XL)	Yes	—	—	—	—	—	Yes
300KF (Megaline)	Yes	Yes	—	—	—	—	Yes

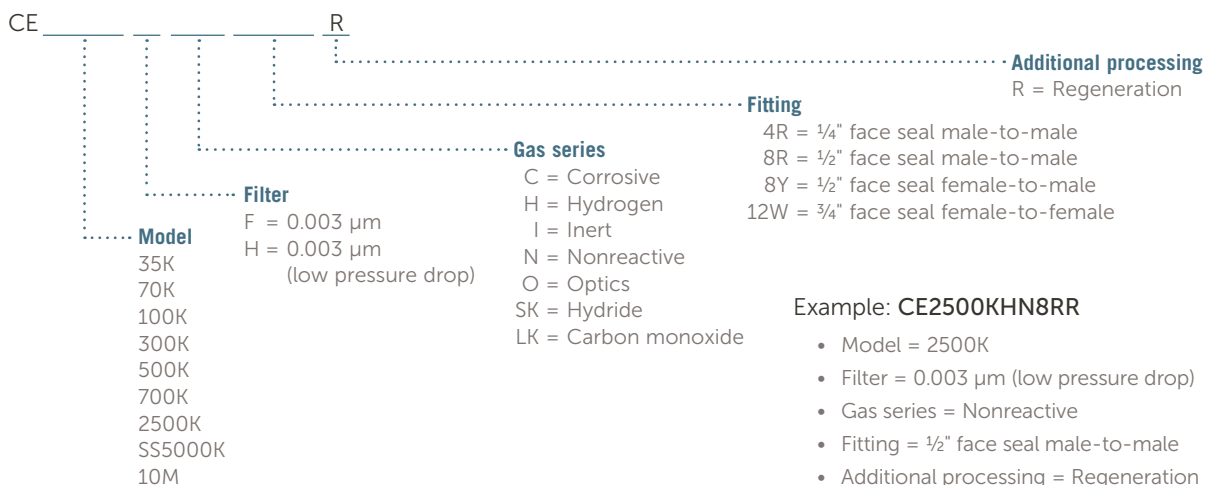
¹ ½" Purifier only.

² ¼" Purifier only.

³ External to purifier for models 30KF–700KF.

ORDERING INFORMATION

GateKeeper Nonreactive Gas Purifiers: part number



Notes:

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

For Entegris replacement, specify 30K, 75K, or 300K for all models.

All products 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 entegris.com and select the [Contact Us](#) link to find the customer service center nearest you.

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