

GateKeeper® HX Series Gas Purifiers

Superior purity control

GateKeeper® HX series gas purification technology delivers exceptional purity consistency and increased lifetime. It was developed to remove molecular contaminants from hydrogen (H₂), nitrogen (N₂) and noble gases to parts-per-trillion levels.



FEATURES & BENEFITS

Process Control and Protection

- Superior purity control at ppt levels
- Gas purification improves process consistency, increases product yields and lengthens tool life
- 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

Cost Effective

- Regenerable—eliminates disposal issues
- Longer lifetime—fewer changeouts reduce potential contamination events and cost-of-ownership

Safe and Simple to Use

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

GENERAL SPECIFICATIONS

Materials of construction:	316L stainless steel, electropolished 10 Ra
Gases purified:	Hydrogen (H ₂), nitrogen (N ₂) and noble gases
Outlet purity	<100 ppt H ₂ O, O ₂ , CO, CO ₂ and H ₂ *
Outlet particle filtration	70KF to 17MH: 0.003 µm 316L stainless steel
Minimum operating pressure	101 kPa (14.7 psia)
Leak rating	1 × 10 ⁻⁹ atm cc/sec
Maximum inlet challenge of contaminant	Contact Entegris. The maximum inlet challenge varies by contaminant.
Lifetime	One (1) year at nominal flow rate at 1 ppm H ₂ O inlet challenge
Maximum operating temperature	0°–65°C (32°–149°F)

*H₂ is removed from N₂ and noble gases only.

OPERATING SPECIFICATIONS

Model	Maximum flow rate (slpm)	Nominal flow rate (slpm)	Maximum operating pressure purifier only	Maximum operating pressure purifier with options ¹	Pressure drop ²
70KF	3	2.8	19995 kPa (2900 psig)	1724 kPa (250 psig)	4.8 kPa (0.7 psid)
80KF	10	3.3	19995 kPa (2900 psig)	1724 kPa (250 psig)	2.8 kPa (0.4 psid)
200KF	20	8.2	6895 kPa (1000 psig)	1724 kPa (250 psig)	2.8 kPa (0.4 psid)
300KF	50	13	4826 kPa (700 psig)	1724 kPa (250 psig)	48.3 kPa (7 psid)
500KF	60	26	4826 kPa (700 psig)	1724 kPa (250 psig)	48.3 kPa (7 psid)
700KF	120	36	4826 kPa (700 psig)	1724 kPa (250 psig)	48.3 kPa (7 psid)
2500KF	300	120	3482 kPa (505 psig)	1724 kPa (250 psig)	96.5 kPa (14 psid)
2500KH	300 (¼") 500 (½")	120	3482 kPa (505 psig)	1724 kPa (250 psig)	27.6 kPa (4 psid) 20.7 kPa (3 psid)
10MH	1000 (½") 1500 (¾")	450	3038 kPa (505 psig)	1724 kPa (250 psig)	62 kPa (9 psid) 36.5 kPa (5.3 psid)
13MH	2000	570	3038 kPa (440 psig)	1724 kPa (250 psig)	¾" – 37.9 kPa (5.5 psid)
17MH	2500	725	3038 kPa (440 psig)	1724 kPa (250 psig)	1" – 37.9 kPa (5.5 psid)

¹Pressure limited by standard valves. For higher pressure, please contact Entegris.

²Pressure drop at maximum flow rate and 620 kPa (90 psig).

For detailed pressure drop curves at different pressures and flow rates, please contact Entegris or go to www.entegris.com.

All product information is subject to change without notice.

FACILITY SPECIFICATIONS

Model	Fitting sizes	Configuration (inlet/outlet)	Approximate weight	Length (end-to-end)	Diameter	Fitting offset
70KF	¼" face seal	male/male	0.4 kg (0.9 lb)	11.4 cm (4.5")	3.8 cm (1.5")	Centered
80KF	¼" face seal	male/male	0.5 kg (1.1 lb)	12.7 cm (5.0")	3.8 cm (1.5")	Centered
200KF	¼" face seal	male/male	0.5 kg (1.1 lb)	16.5 cm (6.5")	5.1 cm (2")	Centered
300KF	¼" face seal	male/male	1.6 kg (3.5 lb)	20.8 cm (8.2")	5.1 cm (2")	Centered
500KF	¼" face seal	male/male	1.6 kg (3.5 lb)	20.2 cm (7.94")	7.6 cm (3")	Centered
700KF	¼" face seal	male/male	1.6 kg (3.5 lb)	25.4 cm (10")	7.6 cm (3")	Centered
2500KF	¼" face seal	male/male	5.4 kg (12 lb)	43.9 cm (17.3")	10.2 cm (4")	Centered
2500KH	¼" face seal ½" face seal	male/male	5.4 kg (12 lb)	43.9 cm (17.3") 44.7 cm (17.6")	10.2 cm (4")	Centered
10MH	½" face seal ¾" face seal	female/male male/male	27 kg (59.5 lb) 25 kg (55 lb)	97.4 cm (38.36") 74.9 cm (29.5")	15.2 cm (6")	Centered
13MH	¾" face seal	male/male	23.6 kg (52 lb)	89.05 cm (35.06")	15.2 cm (6")	Centered
17M/MH	1" face seal	male/male	45 kg (99.26 lb)	108.9 cm (42.9")	15.2 cm (6")	Centered

OPTIONS

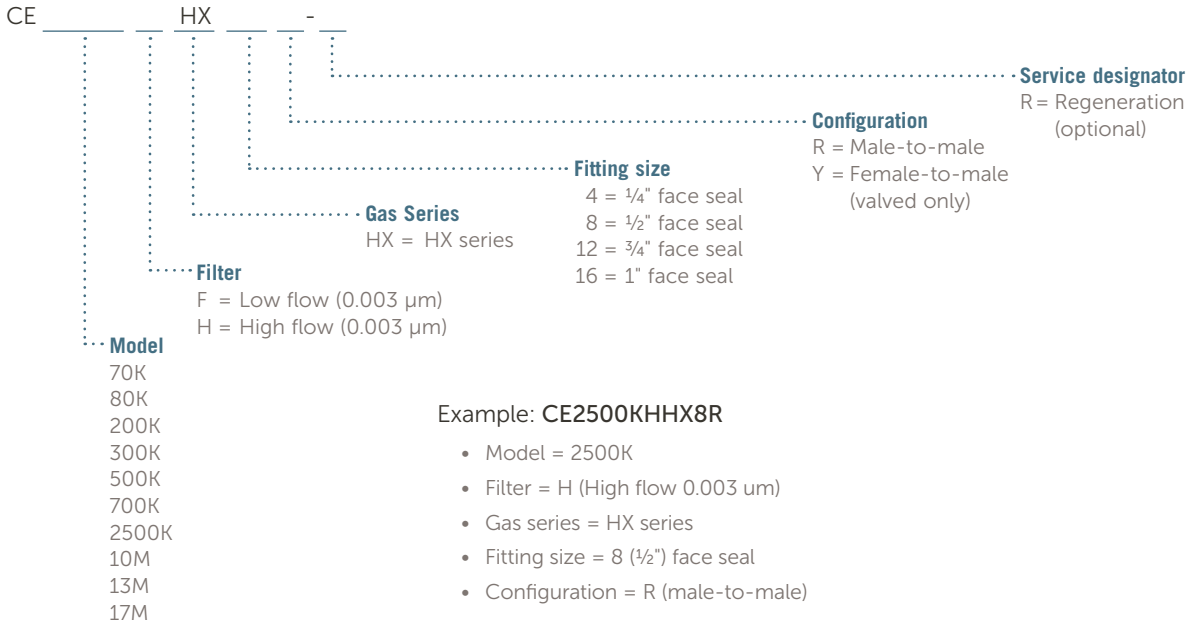
Model	Isolation valves	GC 300 manifold	3-valve bypass manifold	4-valve changeover manifold	5-valve bypass manifold	8-valve changeover manifold	Break-through indicator ²
70KF, 80KF	Yes	—	Yes	—	Yes	—	Yes
200KF	Yes	—	Yes	—	Yes	—	Yes
300KF	Yes	Yes	—	—	—	—	Yes
500KF	Yes	—	Yes	—	Yes	—	Yes
700KF	Yes	—	Yes	—	—	—	Yes
2500KF	Yes	—	Yes	—	Yes	Yes	Yes
2500KH	Yes	—	Yes	—	Yes	Yes ¹	Yes
10MH ½"	Included	—	Yes	Yes	—	—	Yes
10MH ¾"	Yes	—	Yes	—	—	—	Yes
13MH	Yes	—	—	—	—	—	Yes
17M/MH	Yes	—	—	—	—	—	Yes

¹ ¼" purifier only

² External to purifiers 70KF through 700KF

ORDERING INFORMATION

GateKeeper HX Series Gas Purifiers: part number



Notes: Not all models are available with all gas series or fittings; contact your salesperson for more information.
 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 gaspurifiers.entegris.com.
 Go to Products>Purification>Gas Purification



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.

TERMS AND CONDITIONS OF SALE

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



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