



GATEKEEPER® CORROSIVE (C-XPC) GAS PURIFIERS

Cost-effective gas purification



cost-effective gas purification

Overview

Available for low-flow point-of-use, GateKeeper® corrosive XPC series gas purifiers are designed for use with Cl₂, HBr, BCl₃, SiCl₄ and SiF₄. The purifiers remove moisture to <1 ppb (part-per-billion) in N₂.

- 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

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

Safe and Simple to Use

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

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

General Specifications

| | | |
|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------|-------------------------------|
| Materials of construction: | 316L stainless steel, electropolished 10 Ra | |
| Gases purified: | Cl ₂ , HBr, BCl ₃ , SiCl ₄ , SiF ₄ | |
| Outlet purity: | <1ppb H ₂ O in N ₂ | |
| Outlet particle filtration: | 30KF to 75KF, 300KF to 700KF | 0.003 µm 316L stainless steel |
| | 100KF | 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 H ₂ O to maintain product efficiency: | 10 ppm (part-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 | Pressure Drop ² |
|-------|--------------------------|--------------------------|-------------------------------------------------------|--------------------------------------------------|----------------------------|
| 35KF | 1 | 0.35 | 19995 kPa (2900 PSIG) | 1724 kPa (250 PSIG) | 3.4 kPa (0.5 PSID) |
| 70KF | 3 | 0.6 | 19995 kPa (2900 PSIG) | 1724 kPa (250 PSIG) | 4.8 kPa (0.7 PSID) |
| 100KF | 20 | 1.3 | 6895 kPa (1000 PSIG) | 1724 kPa (250 PSIG) | 27.6 kPa (4 PSID) |
| 300KF | 50 | 3.7 | 4826 kPa (700 PSIG) | 1724 kPa (250 PSIG) | 34.5 kPa (5 PSID) |
| 500KF | 60 | 7 | 4826 kPa (700 PSIG) | 1724 kPa (250 PSIG) | 48.3 kPa (7 PSID) |
| 700KF | 120 | 10 | 4826 kPa (700 PSIG) | 1724 kPa (250 PSIG) | 48.3 kPa (7 PSID) |

Drop-in Replacements for Waferpure® Purifiers

| | | | | | |
|------------------|----|------|-----------------------|---------------------|---------------------|
| 30KF (Micro) | 1 | 0.35 | 19995 kPa (2900 PSIG) | 1724 kPa (250 PSIG) | 3.4 kPa (0.5 PSIG) |
| 75KF (Mini-XL) | 5 | 0.6 | 19995 kPa (2900 PSIG) | 1724 kPa (250 PSIG) | 10.3 kPa (1.5 PSIG) |
| 300KF (Megaline) | 50 | 3.7 | 4826 kPa (700 PSIG) | 1724 kPa (250 PSIG) | 34.5 kPa (5 PSIG) |

¹ Do not use under vacuum. Minimum pressure should be 1 atm (14.7 PSIA). ² 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 |
|-------|----------------|------------------------------|--------------------|-----------------|---------------------------|-----------------|
| 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") ³ | 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 |
| 700KF | 1/4" face seal | male/male | 1.6 kg (3.5 lb) | 25.4 cm (10") | 7.6 cm (3") | 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 |

³ Height

Options

| Model | Isolation Valves | GC 300 Manifold | 3 Valve Bypass Manifold | 5 Valve Bypass Manifold |
|-------|------------------|-----------------|-------------------------|-------------------------|
| 35KF | Yes | | Yes | Yes |
| 70KF | Yes | | Yes | Yes |
| 100KF | | | | |
| 300KF | Yes | Yes | | |
| 500KF | Yes | | Yes | Yes |
| 700KF | Yes | | | |

Drop-in Replacements for Waferpure Purifiers

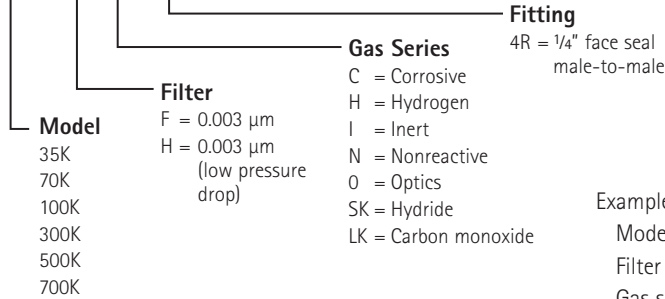
| | | | | |
|------------------|-----|-----|-----|-----|
| 30KF (Micro) | Yes | | Yes | Yes |
| 75KF (Mini-XL) | Yes | | Yes | Yes |
| 300KF (Megaline) | Yes | Yes | | |

Ordering Information

GateKeeper Gas Purifiers

Part Number

CE XXXX X XX 4R -XPC



Example: **CE700KFC4R-XPC**
 Model = 700K
 Filter = 0.003 μm
 Gas series = Corrosive XPC
 Fitting = 1/4" face seal male-to-male

For detailed product information including dimensional drawings, pressure drop curves, safety information 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.



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

Note: For Mykrolis® replacement, specify 30K, 75K or 300K for all models.

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 Entegris' website at www.entegris.com and select the Legal Notices link from the footer found on the home page.

Entegris®, Waferpure®, GateKeeper® and Mykrolis® are registered trademarks of Entegris, Inc.

ENTEGRIS, INC.

Corporate Headquarters / 3500 Lyman Boulevard / Chaska, Minnesota 55318 USA
 Customer Service Tel. +1 952-556-4181 / Customer Service Fax +1 952-556-8022
www.entegris.com