RadialSHIELD® RESPA® Filtration Program





RECIRCULATION FILTRATION ALTERNATIVE:

High-Efficiency Cab HVAC Filter Kits

- Easy to install; no wiring or plumbing required.
- Customized for specific machine models.
- Significantly more protection than factory recirculation filters.



Three Steps to Selecting a Cab Air Quality Filter for Your Jobsite

1. SELECT HVAC APPLICATION: FRESH AIR Page 2-3



RESPA CF2 Precleaner/Filter/Pressurizer Standard or Extended Length

2. SELECT FILTRATION TYPE

- For job sites with heavy dust and debris, a MERV 16 filter will substantially improve cab air quality.
- For ISO 23875 Cab Air Quality compliance, an EPA filter provides near HEPA-level protection with restriction almost as low as a MERV 16 filter.
- For job sites with harmful dust, such as asbestos, coal dust, etc., or where required by regulatory concerns, upgrade to HEPA filters.
- Where odor is a concern but toxic gases are not present, use standard-length Odor+HEPA filters.
- Where gas is an issue, use extended-length Gas+HEPA or Ammonia+HEPA filters.

BEST

RESTRICTION LESS

EPA

EPA

HFPA

RECIRCULATED AIR Page 4



* In addition, High-Efficiency Cab HVAC Panel Filter Kits are available for specific machines

3. SELECT FILTER SIZE

- Standard: For use in standardsize Sy-Klone RESPA systems, providing advanced precleaning, pressurization, and filtration in the smallest footprint possible. Odor+HEPA is standard-length only.
- Extended: For use in extended **RESPA** systems, providing increased filter life on jobsites. Gas+HEPA and Ammonia+HEPA are extended-length only.

ISO 23875 COMPLIANT





GOOD

MORE

MERV 16

HEPA

FRESHAIR RESPA® RadialSHIELD® PARTICULATE FILTERS

Model	Powered	MERV 16	EPA	HEPA	Odor+HEPA	Gas+HEPA	Ammonia+HEPA
RESPA CF2 Standard	٠	•	•	•	٠		
RESPA CF2 Extended	•	٠	•	•		٠	•



For RESPA CF2, CF Type and Length	Sy-Klone Part No.	Filter Test Method, Classification	Minimum Average Efficiency	Nominal Airflow	Effective Against	Applications	
MERV 16 EXTENDED FEFF208 EXTENDED FEFF209 FEFF209 EXTENDED FEFF209 FEFF209 FEFF209 FEFF209 FEFF209	FEFF208 Ejective filter cap FEFF209 Ejective filter cap	ASHRAE 52.2, ISO 11155-1 MERV 16 EN779:2002 F9	≥95% @ 0.3 µm to 1.0 µm particle size ≥95% @ 0.4 µm particle size	≤ 150 CFM (255 m³/h)	All 0.3 µm to 1.0 µm particulate, including: • Bacteria • Diesel particulate matter (DPM) • Droplet nuclei (sneeze) • Most tobacco smoke • Respirable crystalline silica (RCS) • Other respirable particulate within the size range	 Agricultural, meets EN15695 Category 2 cab filter requirement Construction Demolition Forestry, logging, mulching Mining Rail maintenance of way Waste and indoor recycling All applications where respirable dust is present 	
EPA EXTENDED FEFF241 FEFF240 EXTENDED FEFF240	FEFF240 Ejective filter cap FEFF241 Ejective filter cap	ISO 23875:2021 Ammendment 1, ASHRAE 52.0, ISO 11155-1 EPA Meets ISO 23875 Requirements	>99.6% @ 0.16 µm	≤ 100 CFM (170 m³/h) Pressure ΔP 0.2 kPa	All MERV 16 contaminants, plus: • All combustion smoke • Carbon dust • Sea salt dust • Carcinogenic materials • Friable asbestos	 ISO 23875 compliant filter Agricultural, meets EN15695 Category 2 cab filter requirement Demolition Fire fighting Industrial processing of cement, rock, aggregate, man-made stone Mining Rail maintenance of way Waste and indoor recycling Any applications where harmful particulate or ultra-fine aerosols are present 	
HEPA FEFF219 FEFF218 FEFF219 FEFF219 FEFF219 FEFF219 FEFF219 FEFF219 FEFF219 FEFF219	FEFF218 Ejective filter cap FEFF219 Ejective filter cap	ISO 23875:2021 Amd. 1 EN1822-5, ISO 29463-5 ASHRAE 52.2, ISO 11155-1 HEPA Meets ISO 23875 Requirements	99.99% @ 0.3 μm Initial Efficiency ≥99.95% @ MPPS (0.063 μm)	≤ 100 CFM (170 m³/h) Pressure ΔP 0.4 kPa	 All MERV 16 and EPA contaminants, plus all 0.06 μm to 1.0 μm particulate, including: Carcinogenic materials Sub-100 nanometer particulate, such as: Viruses (COVID-19 is 60nm - 100nm) Respiratory droplet nuclei Ultra fine aerosols 	 ISO 23875 compliant filter Agricultural, meets EN15695 Category 3 cab filter requirement Demolition Fire fighting Industrial processing of cement, rock, aggregate, man-made stone Mining Rail maintenance of way Waste and indoor recycling Any applications where harmful particulate or ultra fine aerosols are of concern, or required by regulations 	

NOTES: μ m = micrometer. Mishandling can result in loss of efficiency rating. Change filter based on cabin pressure. Hazardous gas or particulate environments require additional monitoring. For latest information, see sy-klone.com ¹MPPS = Most Penetrating Particle Size. Each filter passes breach test at time of manufacture. ²Fits RESPA-CF2; RESPA-CF requires Odor Filter Retrofit Kit. ³Additional steps should be taken to monitor gas exposure. Use appropriate replacement interval.

FRESHAIR RESPA® RadialSHIELD® SPECIALTY FILTERS



RESPA CF2 STANDARD LENGTH

• HEPA, EPA, and

MERV 16 filters

• Odor filters



RESPA CF2 Extended length

• HEPA, EPA, and

MERV 16 filters

Gas+HEPA filters

Ammonia+HEPA filters

SY-KLONE

EJECTIVE FILTER CAP

Designed to eject debris as part of the precleaning process and selfcleaning capability.

For RESPA-CF2, CF Type and Length	Sy-Klone Part No.	Filter Test Method, Classification	Minimum Average Efficiency	Nominal Airflow	Effective Against	Applications
Odor+HEPA Standard OF131	OF131 ² Ejective filter cap (Replaces FEFF131)	ISO 23875:2021 Amd. 1 EN1822-5, ISO 29463-5 ASHRAE 52.2, ISO 11155-1 HEPA and ISO 11155-2 Odor Retention Meets ISO 23875 Requirements	99.99% @ 0.3 μm Initial Efficiency ≥99.95% @ MPPS (0.063 μm)	≤ 50 CFM (85 m³/h) Pressure ΔP 0.2 kPa	 General odors caused by particulate and non-toxic gas contaminants Particulate as listed on page 2 for HEPA filters 	 Applications that involve non-toxic odors ISO 23875 compliant filter Agricultural, meets EN15695 Category 3 cab filter requirement Farming and agricultural spraying equipment Waste and indoor recycling Applications as listed on page 2 for HEPA filters
ABEK Gas+HEPA	GF130 ³ <i>RESPA-CF2</i> <i>only</i> Ejective filter cap (Replaces FEFF130)	ISO 23875:2021 Amd. 1 EN1822-5, ISO 29463-5 ASHRAE 52.2, ISO 11155-1 HEPA and EN12941:1998 + A1:2004 + A2:2008 Gas ABEK1 Meets ISO 23875 Requirements	99.99% @ 0.3 μm Initial Efficiency ≥99.95% @ MPPS (0.1 μm)	≤ 50 CFM (85 m³/h) Pressure ΔP 0.2 kPa	 Ammonia gases Inorganic gases Sulfur gases Volatile organic compounds (VOC) Particulate as listed on page 2 for HEPA filters 	 For use in known toxic gas environments³ ISO 23875 compliant filter Agricultural, meets EN15695 Category 4 cab filter requirement Agricultural spraying equipment Industrial processing, ore processing Waste and indoor recycling Applications as listed on page 2 for HEPA filters
Ammonia+HEPA	GF132 ³ <i>RESPA-CF2</i> <i>only</i> Ejective filter cap	ISO 23875:2021 Amd. 1 EN1822-5, ISO 29463-5 ASHRAE 52.2, ISO 11155-1 HEPA and EN12941:1998 + A1:2004 + A2:2008 Gas K2 Meets ISO 23875 Requirements	99.99% @ 0.3 μm Initial Efficiency ≥99.95% @ MPPS (0.1 μm)	≤ 50 CFM (85 m³/h) Pressure ΔP 0.2 kPa	 Ammonia gases Particulate as listed on page 2 for HEPA filters 	 For use in ammonia gas environments³ ISO 23875 compliant filter Agricultural, meets EN15695 Category 4 cab filter requirement Waste and indoor recycling Applications as listed on page 2 for HEPA filters

NOTES: μ m = micrometer or micron. Mishandling can result in loss of efficiency rating. Change filter based on cabin pressure. Hazardous gas or particulate environments require additional monitoring. For latest information, see sy-klone.com ¹MPPS = Most Penetrating Particle Size. Each filter passes breach test at time of manufacture. ²Fits RESPA-CF2; RESPA-CF requires Odor Filter Retrofit Kit. ³Additional steps should be taken to monitor gas exposure. Use appropriate replacement interval.

RECIRCULATED	System Type		Model	Power	red M	ERV 16	EPA	HEPA		SY-KLONE	
RESPA® RadialSHIELD®			RESPA	CFX2 (Std. & Ext.)	•		•	•	•		
PARTICULATE FILTERS		Recirculated Air	RESP	A FFX2 (Std. only)			•	•	•		Alternate Recirculation Filtration Option: High-Efficiency Cab HVAC
			RESP	A PFX (Std. only)	•	• •		• •			Filter Kits
For RESPA-CFX2, FFX2, PFX Type and Length	Sy-Klone Part No.	Filter Test Me Classifica	ethod, I tion	Min. Averag Efficiency	ge N / /	Nomin Airflov	al N	Effective Against		inst	Applications
MERV 16 STANDARD FEFF210 EXTENDED FEFF212 LOWEST RESTRICTION, GOOD PROTECTION	FEFF211 Closed filter cap FEFF220 FFX2, PFX only Louvered filter cap	ASHRAE 52.2, ISO 11155-1 MERV 16 EN779:2002 F9		≥95% @ 0.3 µm 1.0 µm particle s ≥95% @ 0.4 µ particle size	n to size ≤ m (o ^{2e} ≤ 150 CFIV (255 m³/h)		 All 0.3 µm to 1.0 µm particulate, including: Bacteria Diesel particulate matter (DPM) Droplet nuclei (sneeze) Most tobacco smoke Respirable crystalline silica (RCS) Other respirable particulate within the size range 			 Agricultural, meets EN15695 Category 2 cab filter requirement Construction Demolition Forestry, logging, mulching Mining Rail maintenance of way Waste and indoor recycling All applications where respirable dust is present
EFFF243 EXTENDED FEFF244 LOW RESTRICTION, EXCELLENT PROTECTION	FEFF243 Closed filter cap FEFF242 <i>FFX2, PFX only</i> Louvered filter cap	ISO 23875:2 Ammendme ASHRAE 52 ISO 11155 EPA Meets ISO 2387 Requireme	2021 nt 1, 2.0, i-1 75 nts	99.6% @ 1.6 μm		≤ 100 CF (170 m³/ ressure 0.2 kPa	iM Al • ΔP • a	All MERV 16 contaminants, plus: • All combustion smoke • Carbon dust • Sea salt dust • Carcinogenic materials • Friable asbestos		ts, plus:	 ISO 23875 compliant filter Agricultural, meets EN15695 Category 2 cab filter requirement Demolition Fire fighting Industrial processing of cement, rock, aggregate, man-made stone Mining Rail maintenance of way Waste and indoor recycling Any applications where harmful particulate or ultra-fine aerosols are present
HEPA STANDARD FEFF210 FEFF222 FEFF222 FEFF222	FEFF210 Closed filter cap FEFF222 FFX2, PFX only Louvered filter cap FEFF213 Closed filter cap	ISO 23875:2 Ammendme EN1822-5, 29463-5 ASHRAE 52 ISO 11155 HEPA Meets ISO 2387 Requireme	2021 nt 1, ISO 2.2, i-1 '5 nts	99.99% @ 0.3 µm Initial Efficiency ≥99.95% @ MPPS (0.063 µm)		≤ 100 CFM (170 m³/h) Pressure ΔP 0.4 kPa		All MERV 16 contaminants, plus all 0.06 µm to 1.0 µm particulate, including: • All combustion smoke • Carbon dust, sea salt dust • Carcinogenic materials • Friable asbestos • Sub-100 nanometer particulate, such as: • Viruses (COVID-19 is 60nm - 100nm) • Respiratory droplet nuclei • Ultra fine aerosols			 ISO 23875 compliant filter Agricultural, meets EN15695 Category 3 cab filter requirement Demolition Fire fighting Industrial processing of cement, rock, aggregate, man-made stone Mining Rail maintenance of way Waste and indoor recycling Any applications where harmful particulate or ultra fine aerosols are of concern, or required by regulations

NOTES: µm = micrometer. Mishandling can result in loss of efficiency rating. Change filter based on cabin pressure. Hazardous gas or particulate environments require additional monitoring. For latest information, see sy-klone.com ¹MPPS = Most Penetrating Particle Size. Each filter passes breach test at time of manufacture.

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RECIRCULATED AIR System Type

SY-KIONE®