

# HEPA AVAILABILITY FOR QUALIFIED AG-1 TYPE FC FILTERS (SPECIFIERS REFERENCE)

## GENERAL NOTES

1. Data is based on best-available information at time of writing, but warrants verification by specifier when finalizing a specification. Please report updates/potential errors to the LANL HEPA SME [Scott Salisbury](#) and ESM [Mechanical POC](#).
2. The materials details below are relevant to LANL Master Specification Sections 23 4133.13 and 4133.16. (*Articles 1.5 Design Requirements and 2.3 Materials of Construction*)

## Summary Table

Data arrangement:

- Common filters (sorted by case material, then other attributes)
- high capacity
- high temperature

Attributes	Available Number Designations and Limitations		
	American	Camfil	AAF Flanders
Type A Metal Case, Aluminum Separators, Galvanized or SST Faceguards Elastomer Gasket	1–7 and 9, but excluding 4	1–7 and 9 SST faceguard only	5, 6, and 9
Type A Metal Case, Coated Aluminum Separators, Galvanized or SST Faceguards, Elastomer Gasket	1–7 and 9, but excluding 4	N/A	N/A
Type A Metal Case, Aluminum Separators, SST Faceguards Gelatinous Seal	N/A	1–7 and 9	N/A
Type C Metal Case, Separatorless, Galvanized or SST Faceguards, Gelatinous Seal	N/A	N/A	5, 6, 7, and 9
Type A Wood Case, Aluminum Separators, Galvanized or SST Faceguards, Elastomer Gasket	1–7 and 9, but excluding 4	1–7, but excluding 4 SST faceguard only	5, 6, and 9
Type A Wood Case, Coated Aluminum Separators, Galvanized or SST Faceguards, Elastomer Gasket	1–7 and 9, but excluding 4	N/A	N/A

Attributes	Available Number Designations and Limitations		
	American	Camfil	AAF Flanders
Type C Wood Case, Separatorless, Galvanized or SST Faceguards, Elastomer Gasket	N/A	N/A	5, 6, 7, and 9
Type C Wood Case, Separatorless, Galvanized or SST Faceguards, Gelatinous Seal	N/A	N/A	5, 6, 7, and 9
Type B High Capacity, Metal Case, Mini-Pleat, SST Faceguards, Elastomer Gasket	N/A	8	8
Type B High Capacity, Metal Case, Mini-Pleat, SST Faceguards, Gelatinous Seal	N/A	8	8
Type A High Temperature, Metal Case, Aluminum Separators, RTV Sealant, SST Faceguards, Silicone Gasket	1–7 and 9, but excluding 4	N/A	5
Type A High Temperature, Wood Case, Aluminum Separators, RTV Sealant, SST Faceguards, Silicone Gasket	N/A	N/A	5

## QUALIFIED FILTER AVAILABILITY—DETAILS

### American Air Filter

For this manufacturer only, variations listed within brackets are qualified filter configurations; consult with filter manufacturer for suffix number (XXX) of specific filter configuration.

- A. Model Number: 105-1332345-XXX. (Qualified on 4/4/2016, expires on 4/3/2021).  
Type A, Number Designation 1–7 and 9, excluding 4.
  - a. Filter media –Lydall #3398
  - b. Case – box type construction, 3/4 inch fire-retardant plywood
  - c. Separator – [corrugated aluminum] or [corrugated vinyl coated aluminum]
  - d. Adhesive – polyurethane
  - e. Gasket – [neoprene gasket on upstream face] or [neoprene gasket on downstream face] or [neoprene gasket on both faces] or [none]
  - f. Faceguard – [galvanized hardware cloth on both faces] or [Type 304 SST hardware cloth on both faces]

- B. Model Number: 105-1413244-XXX. (Qualified on 4/4/2016, expires on 4/3/2021).  
Type A, Number Designation 1–7 and 9, excluding.
- a. Filter media –Lydall #3398
  - b. Case – 14 gauge [304 SST] or [409 SST]
  - c. Separator – [corrugated aluminum] or [corrugated vinyl coated aluminum]
  - d. Adhesive – polyurethane
  - e. Gasket – [neoprene gasket on upstream face] or [neoprene gasket on downstream face] or [neoprene gasket on both faces] or [none]
  - f. Faceguard – [galvanized hardware cloth on both faces] or [Type 304 SST hardware cloth on both faces]

NOTE: Following is a **high temperature** filter design that has been qualified to Section FC. This filter type has been used in TA-55 facility systems.

- C. Model Number: 105-3111354-XXX. (Qualified on 5/1/2017, expires on 4/30/2022).  
Type A, Number Designation 1–7 and 9, excluding 4.
- a. Filter media – Lydall #3398
  - b. Case – 14 gauge [304 SST] or [409 SST]
  - c. Separator – corrugated aluminum
  - d. Adhesive – high temperature resistant red RTV silicone
  - e. Gasket – [silicone gasket on upstream face] or [silicone gasket on downstream face] or [silicone gasket on both faces] or [none]
  - f. Faceguard – [galvanized hardware cloth on both faces] or [Type 304 SST hardware cloth on both faces]

## Camfil

- A. Model Number: 02ES-24Z24Z06-MU-2-F-M-AB-A/00, Part Number 855211759 (Qualified on 8/28/2014, expires on 8/27/2019.) Type A, Number Designation 4.
- a. Filter media – micro glass, acrylic resin binder, qualified per ASME AG-1, Section FC-I.
  - b. Case – 14 gauge 304 SST
  - c. Separator – corrugated aluminum
  - d. Adhesive – fire retardant, phosphorus free 2 part polyurethane
  - e. Gasket – gel seal
  - f. Faceguard –expanded stainless steel on both sides
- B. Model Number: 02ES-24Z24Z06- LU-2-F-M-AB-0/00, Part Number 855211758 (Qualified on 8/28/2014, expires on 8/27/2019.) Type A, Number Designation 4.
- a. Filter media – micro glass, acrylic resin binder, qualified per ASME AG-1, Section FC-I.
  - b. Case – 14 gauge 304 SST
  - c. Separator – corrugated aluminum
  - d. Adhesive – fire retardant, phosphorus free 2 part polyurethane
  - e. Gasket –Epichlorohydrin gasket

- f. Faceguard –expanded stainless steel on both sides
- C. Model Number: 02EH-24Z24Z12- LU-3-F-M-AB-0/00, Part Number 855211755 (Qualified on 8/1/2014, expires on 7/31/2019.) Type A, Number Designation 1–7 and 9, excluding 4.
- a. Filter media – micro glass, acrylic resin binder, qualified per ASME AG-1, Section FC-I.
  - b. Case – 14 gauge 304 SST
  - c. Separator – corrugated aluminum
  - d. Adhesive – fire retardant, phosphorus free 2 part polyurethane
  - e. Gasket –Epichlorohydrin gasket
  - f. Faceguard –expanded stainless steel on both sides
- D. Model Number: 02EH-24Z24Z12- MU-3-F-M-AB-A/00, Part Number 855211756 (Qualified on 8/1/2014, expires on 7/31/2019.) Type A, Number Designation 1–7 and 9, excluding 4.
- a. Filter media – micro glass, acrylic resin binder, qualified per ASME AG-1, Section FC-I.
  - b. Case – 14 gauge 304 SST
  - c. Separator – corrugated aluminum
  - d. Adhesive – fire retardant, phosphorus-free, 2-part polyurethane
  - e. Gasket – gel seal
  - f. Faceguard –expanded stainless steel on both sides
- E. Model Number: VN1560-05-10-37/44, Part Number 855010570 (Qualified on 8/18/2014, expires on 8/17/2019.) Type B, Number Designation 8.
- a. Filter media – micro glass, acrylic resin binder, qualified per ASME AG-1, Section FC-I.
  - b. Case – 14 gauge 304 SST
  - c. Separator – noncombustible threads
  - d. Adhesive – fire retardant, phosphorus-free, 2-part polyurethane
  - e. Gasket –Epichlorohydrin gasket on downstream face
  - f. Faceguard –expanded stainless steel on both sides
- F. Model Number: VN1570-05-10-09-41/44, Part Number 855010571 (Qualified on 8/18/2014, expires on 8/17/2019.) Type B, Number Designation 8.
- a. Filter media – micro glass, acrylic resin binder, qualified per ASME AG-1, Section FC-1.
  - b. Case – 14 gauge 304 SST
  - c. Separator – noncombustible threads
  - d. Adhesive – fire retardant, phosphorus-free, 2-part polyurethane
  - e. Gasket – gel seal
  - f. Faceguard –expanded stainless steel on both sides

- G. Model Number: 02NH-24Z24Z12-TD-3-N-M-1B-0/00, Part Number 855212256 (Qualified on 2/1/2018, expires on 1/30/2023.) Type A, Number Designation 1–7 and 9, excluding 4.
- a. Filter media – micro glass, acrylic resin binder, qualified per ASME AG-1, Section FC-I
  - b. Case – 3/4" fire-retardant plywood
  - c. Separator – corrugated aluminum
  - d. Adhesive – fire retardant, phosphorus-free, 2-part polyurethane
  - e. Gasket – Epichlorohydrin
  - f. Faceguard – galvanized steel hardware cloth on both sides

## AAF|Flanders

- A. Model Number: 0-007-C-04-00-NU-11-13-GG-FU5 (Qualified on 6/22/2017, expires on 6/21/2022.) Type A, Number Designation 5, 6, and 9.
- a. Filter media – pleaded flat sheet non-woven glass paper (boron silicate micro fiber), 99.97 percent minimum efficiency
  - b. Case – box-type construction, 3/4 in. fire-retardant plywood
  - c. Separator – corrugated aluminum
  - d. Adhesive – fire-retardant solid urethane
  - e. Gasket – neoprene on upstream face
  - f. Faceguard – galvanized steel hardware cloth on both faces
- B. Model Number: T-007-W-04-05-NU-51-23-GG-FU5 (Qualified on 7/10/2017, expires on 7/9/2022.) Type C, Number Designation 5, 6, 7, and 9.
- a. Filter media – 11 in. deep PUREFORM® filter pack, non-woven glass paper (boron silicate micro fiber), 99.97 percent minimum efficiency
  - b. Case – box-type construction, 3/4 in. fire-retardant plywood
  - c. Separator – none
  - d. Adhesive – fire-retardant, solid urethane
  - e. Gasket – BLUE-JEL® seal on upstream face
  - f. Faceguard – stainless steel hardware cloth on both faces
- C. Model Number: 0-007-W-04-00-NU-12-23-GG-FU5 (Qualified on 7/10/2017, expires on 7/9/2022.) Type C, Number Designation: 5, 6, 7, and 9.
- a. Filter media – 11 in. deep PUREFORM® filter pack, non-woven glass paper (boron silicate micro fiber), 99.97 percent minimum efficiency.
  - b. Case – box-type construction, 3/4 in. fire-retardant plywood
  - c. Separator – none
  - d. Adhesive – fire-retardant, solid urethane
  - e. Gasket – neoprene on upstream face
  - f. Faceguard – stainless steel hardware cloth on both faces

- D. Model Number: T-007-W-43-05-NU-51-23-GG-FU5 (Qualified on 2/27/2014, expires on 2/26/2019) Type C, Number Designation: 5, 6, 7, and 9.
- a. Filter media – 11 in. deep PURFORM® filter pack, non-woven glass paper (boron silicate micro fiber), 99.97 percent minimum efficiency.
  - b. Case – 14 gauge Type 304 SST, bolted construction with double-turn flange on one face and fluid seal groove on opposite face
  - c. Separator – none
  - d. Adhesive – fire-retardant, solid urethane
  - e. Gasket – BLU-JEL® on upstream face
  - f. Faceguard – stainless steel hardware cloth on both faces
- E. Model Number: 0-007-C-42-03-NU-11-13-GG-FU5 (Qualified on 5/21/2013, expires on 5/20/2018) Type A, Number Designation: 5, 6, and 9.
- a. Filter media – pleated flat sheet non-woven glass paper (boron silicate micro fiber), 99.97 percent minimum efficiency
  - b. Case – 14 gauge Type 409 SST, bolted construction with double-turn flange on both faces
  - c. Separator – corrugated aluminum
  - d. Adhesive – fire-retardant, solid urethane
  - e. Gasket – neoprene on upstream face
  - f. Faceguard – galvanized steel hardware cloth on both faces
- F. Model Number: T-007-K-43-VF-NU-51-23-GG-FU5 (Qualified on 1/15/2014, expires on 1/14/2019.) Type B, Number Designation: 8.
- a. Filter media – 11 in. deep PUREFORM® filter pack, non-woven glass paper (boron silicate micro fiber), 99.97 percent minimum efficiency
  - b. Case – 14 gauge Type 304 SST, bolted construction with double-turn flanges on one face and fluid seal groove on opposite side
  - c. Separator – string
  - d. Adhesive – fire-retardant, solid urethane
  - e. Gasket – BLU-JEL®
  - f. Faceguard – stainless steel hardware cloth on both faces
- G. Model Number: T-007-K-43-VG-NU-11-23-GG-FU5 (Qualified on 5/22/2014, expires on 5/21/2019) Type B, Number Designation: 8.
- a. Filter media – 11 in. deep PURFORM® filter pack, non-woven glass paper (boron silicate micro fiber), 99.97 percent minimum efficiency.
  - b. Case – 14 gauge Type 304 SST, bolted construction with double-turn flange on one face and fluid seal groove on opposite face
  - c. Separator – string
  - d. Adhesive – fire-retardant, solid urethane
  - e. Gasket – neoprene on upstream face
  - f. Faceguard – stainless steel hardware cloth on both faces

NOTE: The models below are **high temperature** filter designs that have been qualified to Section FC. These filter types have been used in TA-55 facility systems.

- H. Model Number: 0-007-C -04-00-NE-32-23-GG-FU5 (Qualified on 2/21/2017, expires on 2/20/2022) Type A, Number Designation: 5.
  - a. Filter media –pleated flat sheet non-woven glass paper (boron silicate micro fiber), 99.97 percent minimum efficiency
  - b. Case –box-type construction, 3/4 in. fire-retardant plywood
  - c. Separator – corrugated aluminum
  - d. Adhesive – high-temperature-resistant, red RTV silicone
  - e. Gasket – silicone gasket on downstream face
  - f. Faceguard – stainless steel hardware cloth on both faces
  
- I. Model Number: 0-007-C -43-03-NE-31-23-Z17163B (Qualified on 12/19/2017, expires on 12/18/2022) Type A, Number Designation: 5.
  - a. Filter media –pleated flat sheet non-woven glass paper (boron silicate micro fiber), 99.97 percent minimum efficiency
  - b. Case –14 gauge Type 304 SST, bolted construction with double-turn flanges on both faces
  - c. Separator – corrugated aluminum
  - d. Adhesive – high-temperature resistant red RTV silicone
  - e. Gasket – silicone gasket on upstream face
  - f. Faceguard – stainless steel hardware cloth on both faces