

HEPA AVAILABILITY FOR QUALIFIED AG-1 TYPE FC FILTERS (SPECIFIER'S 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 filter SMEs \(e.g., Ben Nelson and Scott Salisbury\), plus the ESM Mechanical POC.](#)
2. The materials details below are also relevant to LANL Master Specification Section 23 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 and 6	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 and 6	N/A	N/A
Type A Metal Case, Aluminum Separators, SST Faceguards Gelatinous Seal	1-7 and 9, but excluding 4 and 6	1–7 and 9	N/A
Type A Metal Case, Coated Aluminum Separators, Galvanized or SST Faceguards Gelatinous Seal	1-7 and 9, but excluding 4 and 6	N/A	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 and 6	1–7 and 9, but excluding 4	5, 6, and 9

Attributes	Available Number Designations and Limitations		
	American	Camfil	AAF Flanders
Type A Wood Case, Coated Aluminum Separators, Galvanized or SST Faceguards, Elastomer Gasket	1–7 and 9, but excluding 4 and 6	N/A	N/A
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	N/A
Type B High Capacity, Metal Case, Mini-Pleat, SST Faceguards, Gelatinous Seal	N/A	8	N/A
Type A High Temperature, Metal Case, Aluminum Separators, RTV Sealant, SST Faceguards, Silicone Gasket	1–7 and 9, but excluding 4 and 6	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 12/31/2018, expires on 12/30/2023).
Type A, Number Designation 1–7 and 9, excluding 4 and 6.
 - 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 1/2/2019, expires on 1/1/2024).
Type A, Number Designation 1–7 and 9, excluding 4 and 6.
 - 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]
- C. Model Number: 105-1689868-XXX. (Qualified on 1/2/2019, expires on 1/1/2024).
Type A, Number Designation 1–7 and 9, excluding 4 and 6.
 - 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 –[gel seal on upstream face] or [gel seal on downstream face]
 - 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.

- D. 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]
 - 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 – Type 304 SST hardware cloth on both faces

Camfil

- A. Model Number: 02ES-24Z24Z06-WU-2-F-M-AB-A/00, Part Number 855212403 (Qualified on 9/3/2019, expires on 9/2/2024.) Type A, Number Designation 4.
 - a. Filter media – micro glass, acrylic resin binder, qualified per ASME AG-1, Section FN.
 - 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- VU-2-F-M-AB-0/00, Part Number 855212402 (Qualified on 6/18/2019, expires on 6/17/2024.) Type A, Number Designation 4.
- a. Filter media – micro glass, acrylic resin binder, qualified per ASME AG-1, Section FN.
 - 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- VU-3-F-M-AB-0/00, Part Number 855212400 (Qualified on 6/11/2019, expires on 6/10/2024.) Type A, Number Designation 1–7 and 9, excluding 4.
- a. Filter media – micro glass, acrylic resin binder, qualified per ASME AG-1, Section FN.
 - 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- WU-3-F-M-AB-A/00, Part Number 855212401 (Qualified on 7/2/2019, expires on 7/1/2024.) Type A, Number Designation 1–7 and 9, excluding 4.
- a. Filter media – micro glass, acrylic resin binder, qualified per ASME AG-1, Section FN.
 - 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: VN1560-05-10-44/55, Part Number 855010602 (Qualified on 6/18/2019, expires on 6/17/2024.) Type B, Number Designation 8.
- a. Filter media – micro glass, acrylic resin binder, qualified per ASME AG-1, Section FN.
 - 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: VN1570-05-10-09/44/56, Part Number 855010603 (Qualified on 8/26/2019, expires on 8/25/2024.) Type B, Number Designation 8.
- a. Filter media – micro glass, acrylic resin binder, qualified per ASME AG-1, Section FN.
 - 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 FN.
 - 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 – 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 – 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 6/7/2019, expires on 6/6/2024) 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 12/13/2018, expires on 12/12/2023) 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

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.

- F. 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

- G. 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