S

ENGINEERING CHANGE NOTICE

Page 1 of 2

1. ECN 659373

Proj.
ECN

2. ECN Category (mark one)		3. Originator's Name, Organization, MSIN, and Telephone No.		4. USQ Required?	5. Date
Supplemental ☐ Direct Revision ☒ Change ECN ☐ Temporary ☐ Standby ☐ Supersedure ☐ Cancel/Void ☐		Elaine N. Diaz, 1AK00, T4-20, 373-0210		☐ Yes ☒ No	6/7/00 7/13/00 EDN
		6. Project Title/No./Work Order No.	7. Bldg./Sys./Fac. No.	8. Approval Designator	
		Plutonium Finishing Plant	PFP, System 25	Q	
		9. Document Numbers Changed by this ECN (includes sheet no. and rev.)	10. Related ECN No(s).	11. Related PO No.	
		HNF-5186 REV 2	None	None	
12a. Modification Work		12b. Work Package No.	12c. Modification Work Completed	12d. Restored to Original Condition (Temp. or Standby ECNs only)	
☐ Yes (fill out Bk. 12b) ☒ No (NA Bks. 12b, 12c, 12d)		N/A	N/A	N/A	
		Design Authority/Cog. Engineer Signature & Date		Design Authority/Cog. Engineer Signature & Date	
13a. Description of Change					
13b. Design Baseline Document? ☒ Yes ☐ No					
Supersedes revision 2 of the PFP HVAC SYSTEM COMPONENT INDEX (HNF-5186). This document identifies the critical characteristics of Commercial Grade Items necessary to ensure the HVAC system operates properly. Revision 3 identifies all Safety Class and Safety Significant System 25 components in the PFP complex.					
14a. Justification (mark one)		14b. Justification Details			
Criteria Change ☒ Design Improvement ☐ Environmental ☐ Facility Deactivation ☐ As-Found ☐ Facilitate Const. ☐ Const. Error/Omission ☐ Design Error/Omission ☐		Update list to include additional items.			
15. Distribution (include name, MSIN, and no. of copies)				RELEASE STAMP	
See distribution sheet				JUL 26 2000 DATE: STA: 5 HANFORD RELEASE ID: 12	

PFP HVAC SYSTEM COMPONENT INDEX

Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Management

Project Hanford Management Contractor for the
U.S. Department of Energy under Contract DE-AC06-96RL13200

Fluor Hanford
P.O. Box 1000
Richland, Washington

PFP HVAC SYSTEM COMPONENT INDEX

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Date Published

July 25th, 2000

Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Management

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Fluor Hanford

P.O. Box 1000

Richland, Washington

Release Approval

7-26-00
Date

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Total Pages 56

TABLE OF CONTENTS

1.0	PURPOSE.....	2
2.0	BACKGROUND.....	2
3.0	SCOPE.....	3
4.0	CRITICAL CHARACTERISTICS.....	3
4.1	Fabrication Materials	3
4.2	HEPA filter Certification.....	3
4.3	Critical Components.....	4
	SYSTEM 25 SAFETY CLASS EQUIPMENT.....	5
	SYSTEM 25 SAFETY SIGNIFICANT EQUIPMENT.....	26
5.0	INDEX.....	52

1.0 PURPOSE

This document lists safety class (SC) and safety significant (SS) components for the Heating Ventilation Air Conditioning (HVAC) and specifies the critical characteristics for Commercial Grade Items (CGI), as required by HNF-PRO-268 and HNF-PRO-1819. These are the minimum specifications that the equipment must meet in order to properly perform its safety function. There may be several manufacturers or models that meet the critical characteristics for any one item.

2.0 BACKGROUND

The Plutonium Finishing Plant (PFP) HVAC System includes sub-systems 25A through 25K. Specific system boundaries and justifications are contained in HNF-SD-CP-SDD-005, "Definition and Means of Maintaining the Ventilation System Confinement Portion of the PFP Safety Envelope." The procurement requirements associated with the system necessitates procurement of some system equipment as Commercial Grade Items in accordance with HNF-PRO-268, "Control of Purchased Items and Services."

Many of the components and subcomponents listed in this document have not been ordered during the life of the current material management software, BMS Passport. In some cases, components with extremely high reliability or long service lives have not been procured since construction of the facility. Incomplete information is provided on these items, with the understanding that as they fail and are researched and reordered, the database will grow more accurate and extensive. This document is expected to require regular revisions as the components that comprise the ventilation system become obsolete and new components are installed.

Store stock descriptions for many items in stock were transposed to the Passport format, including obsolete "Impact Level" assignments which do not correctly translate to the current quality level system (SC/SS/GS). When removing these items from stores, they will be inspected to the critical characteristics defined here and assigned the correct quality level grade.

3.0 SCOPE

The following list contains engineering and maintenance information associated with each component that describes the minimum specifications (characteristics) for Safety Class (SC), Safety Significant (SS) and General Service (GS) equipment needed for the items to qualify for the intended end use of the item.

General Service items shall be procured and receipt inspected from any manufacturer/supplier using a Quality Assurance Inspection Plan (QAIP) requiring inspection to the characteristics listed in this document.

Safety Class and Safety Significant items may be procured from either a manufacturer/supplier the Fluor Hanford Evaluated Supplier List (FH-ESL) or as a "Commercial Grade Item" (CGI) from

any manufacturer/supplier. In both cases, the item(s) shall be receipt inspected using a QAIP requiring inspection to the characteristics listed in this document.

In order for an item to be procured as a SC or SS "CGI", all the criteria required by HNF-PRO-1819, "PHMC Engineering Requirements", sections 2.1.e and 2.1.f, must be met. These criteria are:

1. The item is not subject to design or specification requirements that are unique to nuclear facilities,
2. The item is used in applications other than nuclear facilities, and
3. The item is ordered from the manufacturer/supplier on the basis of specifications set forth in the manufacturer's public product description (such as a catalogue) or manufactured to a national standard, such as an ASTM standard.

For SC and SS items, it shall be demonstrated that each procured CGI is suitable for use in the intended application and will perform its safety function. This requires a documented engineering evaluation that establishes and verifies the critical characteristics before the item is relied upon for operation. This document identifies those critical characteristics.

4.0 CRITICAL CHARACTERISTICS

4.1 Fabrication Materials:

In the interest of providing a concise document, materials used to fabricate assemblies specified in this list that are designated as Safety Class (SC) or Safety Significant (SS) and are commercial grade items as defined in HNF-PRO-1819 for in-house dedication meeting critical characteristics as follows:

- a. All stainless steel/carbon steel flat stock shall be ANSI/ASME/ASTM designated and specified thickness/gauge within standard manufacturer's tolerances.
- b. All stainless steel/carbon steel bar stock shall be ANSI/ASME/ASTM designated and specified cross sectional dimension within standard manufacturer's tolerances.
- c. All gasket material shall be ANSI/ASME/ASTM (if so designated), meet specified thickness within standard manufacturer's tolerances, and meet the specified durometer hardness. Gasket material procured for PFP must meet Hanford's quality procurement clause B43, Identification of Age Control Items, to ensure shelf life is not exceeded.
- d. All stainless steel/carbon steel fasteners (i.e. bolts, nuts, washers, etc.) shall be ANSI/ASME/ASTM (if so designated) size and thread specified. Fasteners procured for PFP must meet Hanford's quality procurement clause B73, Control of Graded Fasteners, to ensure counterfeit fasteners are rejected.

e. All electrical components procured for PFP must meet Hanford's quality procurement clause B76, Procurement of Potentially Suspect or Counterfeit Items, to ensure counterfeit components are rejected.

4.2 HEPA Filter Certification:

High Efficiency Particulate Air (HEPA) filters are procured in accordance with HNF-S-0552 or HNF-S-0447. All HEPA filters procured for PFP must meet Hanford's quality procurement clauses B01 and B04 to ensure suppliers' quality programs have been evaluated and are current. Vendors must provide documentation certifying the efficiency test of each filter shipped. This step is verified via quality procurement clause B52, "Inspection and Test Documentation". In addition, safety class and safety significant HEPA filters must now be tested at Oak Ridge Filter Test Facility to ensure they meet the ASME N510 monodisperse testing standard. A label on each filter crate will indicate results of this test.

Because Flanders is on the FH-ESL, inspection of the certificate of conformance to verify critical characteristics can be used in lieu of actual testing of many properties that are not easily measured. For instance, inspectors may verify filter dimensions by actual testing, but should not be expected to verify the moisture resistance of the filter media or the tensile strength of the stainless steel case. These would be considered destructive tests, and have already been accomplished at previous test facilities to ensure compliance with ASME N510 and guarantee Flanders status as an evaluated supplier.

Storage and staging requirements for HEPA filters are listed in HNF-MD-6226.

4.3 Critical Components:

The following tables list all of the safety class (SC) and safety significant (SS) components and sub-components required to operate and maintain the PFP ventilation system (system 25). Items are listed by system designator, safety classification level, and component identification number (see index for alphabetical component list). Critical characteristics of each SS or SC subcomponent are highlighted in the tables. Subcomponents without highlighted material or with "NR" in the critical characteristics block are not required to support component operation. They are therefore general service items and do not have associated critical characteristics.

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25A SAFETY CLASS

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION BLDG/ RM	MTCE PROC OPER PROC	REF. DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART# VENDOR/MANUFACTURER & MODEL # COMPONENT DATA/CRITICAL CHARACTERISTICS
F-E3-1N F-E3-1S F-E3-2N F-E3-2S	SECONDARY HEPA FOR 242-Z ZONE 3 REQUIRING E-4 FILTRATION DUE TO CONTAMINATION POTENTIAL	234-Z/ 262	ZSE-25A-035	H-2-131559 H-2-29681	559636-1	6167-4800-1685 FLANDERS 0-007-C-02-N2-NU-00-23-Z-90477 Filter Media: 99.97% fire & moisture resistant glass fiber media per MIL-F-51068 Pack Type: 11" deep PUREFORM filter pack (separatorless) Frame Material: 16-gauge type 409 stainless steel Frame Style (flanges): 2 nipple connections Pack-to-Frame sealant: Fire retardant solid urethane Gasket/Seal Material: None Gasket Location: No gasket Faceguard Material: Stainless steel (18 ga) Location: Upstream & Downstream both (Subject to substitution options)
F-A1 through F-A11	FINAL E-3 HEPA FILTERS IN BANK A FOR PRF	236-Z/ 26	ZO-060-302 ZSE-25A-081	H-2-131559 H-2-29676 H-2-27716 H-2-29681		<p>H: 24" W: 24" D: 30" X: 11 1/2" Y: 12 3/4" Z: 4"</p>
F-B1 through F-B12	FINAL E-4 HEPA FILTERS IN BANK B FOR PRF	236-Z/ 26	ZO-060-302 ZSE-25A-083	H-2-131559 H-2-29676 H-2-27716 H-2-29681		
F-C1 through F-C12	FINAL E-4 HEPA FILTERS IN BANK C FOR PRF	236-Z/ 26	ZO-060-302 ZSE-25A-084	H-2-131559 H-2-29676 H-2-27716 H-2-29681		
F-D1 through F-D11	FINAL E-3 HEPA FILTERS IN BANK D FOR PRF	236-Z/ 26	ZO-060-302 ZSE-25A-085	H-2-131559 H-2-29676 H-2-27716 H-2-29681		
F-36	SECONDARY E-4 HEPA FILTERS FOR RM 19, 27	236-Z/ 36	ZSE-25A-076	H-2-131559 H-2-29674		
						SEE H-2-131559 & PROCUREMENT SPECIFICATION HNF-S-0447 FOR SUBSTITUTION OPTIONS FOR THIS FILTER & STORAGE REQUIREMENTS

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25A SAFETY CLASS

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION/ BLDG/ RM	MTCE PROC OPER PROC	REF. DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART#	VENDOR/MANUFACTURER & MODEL #	COMPONENT DATA/CRITICAL CHARACTERISTICS
EF-C5	SECONDARY E-4 HEPA FILTERS (1 required) FOR ROOM 221C	234-5Z/ 263	ZO-060-302 ZO-170-006 ZSE-25A-041	H-2-131559 H-2-80202 H-2-80206	559630-1	6167-4800-0800	FLANDERS T-007-W-43-05-NU-51-23-GG-FU5	<p>Frame Hardware: Extractor T-Clips</p> <p>Filter Media: 99.97% fire & moisture resistant glass fiber media</p> <p>Pack Type: 11" deep PUREFORM filter pack (separatorless)</p> <p>Frame Material: 16-gauge type 409 stainless steel</p> <p>Frame Style (flanges): 3/4" deep channel/groove filled w/ fluid sealant</p> <p>Pack-to-Frame sealant: Fire retardant urethane</p> <p>Gasket/Seal Material: Blu-Jel</p> <p>Gasket Location: Upstream & Downstream both</p> <p>Faceguard Material: Stainless steel (18 ga)</p> <p>Location: Upstream & Downstream both</p> <p>(Subject to substitution options)</p> <p>H: 24" W: 24" D: 11 1/2"</p>
EF-D8	SECONDARY E-4 HEPA FILTERS (1 required) FOR ROOM 221D	234-5Z/ 263	ZO-060-302 ZO-170-006 ZSE-25A-041	H-2-131559 H-2-80202 H-2-80206				
EF-E5	SECONDARY E-4 HEPA FILTERS (1 required) FOR ROOM 221E	234-5Z/ 263	ZO-060-302 ZO-170-006 ZSE-25A-041	H-2-131559 H-2-80202 H-2-80206				

SEE H-2-131559 & PROCUREMENT SPECIFICATION HNF-S-0552 FOR
SUBSTITUTION OPTIONS FOR THIS FILTER & STORAGE REQUIREMENTS

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25A SAFETY CLASS

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION BLDG/ RM	MTCE PROC OPER PROC	REF. DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART#	VENDOR/MANUFACTURER & MODEL #	COMPONENT DATA/CRITICAL CHARACTERISTICS
FB-2	SECONDARY E-4 HEPA FILTERS (3 required) FOR ROOM 148, 149	234-5Z/ 308	ZO-060-302 ZO-170-006 ZSE-25A-013	H-2-131559 H-2-23400 H-2-80006	559660-1	6167-4800-4250	FLANDERS T-007-W-42-05-NU-52-23-GG-FU5	<p>Frame Hardware: Extractor T-Clips</p> <p>Filter Media: 99.97% fire & moisture resistant glass fiber media</p> <p>Pack Type: 11" deep PUREFORM filter pack (separatorless)</p> <p>Frame Material: 16-gauge type 409 stainless steel</p> <p>Frame Style (flanges): 3/4" deep channel/groove filled w/ fluid sealant</p> <p>Pack-to-Frame sealant: Fire retardant urethane</p> <p>Gasket/Seal Material: Blu-Jel</p> <p>Gasket Location: Upstream & Downstream both</p> <p>Faceguard Material: Stainless steel (18 ga)</p> <p>Location: Upstream & Downstream both</p> <p>(Subject to substitution options)</p> <p>H: 24" W: 24" D: 11 1/2"</p>
FB-13	SECONDARY E-4 HEPA FILTERS FOR ROOM 179 (4 REQUIRED)	2345Z/ 308	ZSE-25A- 050	H-2-131559 H-2-23400				
FB-31	(2 REQUIRED)	2345Z/ 270		H-2-93488				
F-3-1- F-3-2	EXHAUST FILTERS (1 REQUIRED)	2736-ZA/ FAN ROOM	ZSE-25B-001 ZSE-25B-002	H-2-27971				<p>SEE H-2-131559 AND PROCUREMENT SPECIFICATION HNF-S-0552 FOR SUBSTITUTION OPTIONS FOR THIS FILTER & STORAGE REQUIREMENTS</p>

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25A SAFETY CLASS

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION BLDG/ RM	MTCE PROC OPER PROC	REF. DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART#	VENDOR/MANUFACTURER & MODEL #	COMPONENT DATA/CRITICAL CHARACTERISTICS
FB-3	SECONDARY E-4 HEPA FILTERS (8 required) FOR ROOM 152, 153	234-5Z/ 308	ZO-060-302 ZSE-25A-014	H-2-131559 H-2-23400 H-2-16181	559625-1	6167-4800-0781	FLANDERS 0-007-W-42-03-NU-13-23-GG-FU5	Filter Medium: 99.97% fire & moisture resistant glass fiber media Pack Type: 11" deep PUREFORM filter pack (separatorless) Frame Material: 16-gauge type 409 stainless steel Frame Style (flanges): Two double-turn flanges Pack-to-Frame sealant: Fire retardant urethane Gasket/Seal Material: Neoprene Gasket Location: Upstream & Downstream both Faceguard Material: Stainless steel (4x4 mesh) Location: Upstream & Downstream both (Subject to substitution options)
FB-4	SECONDARY E-4 HEPA FILTERS (8 required) FOR ROOM 136, 145, 146	234-5Z/ 308	ZO-060-302 ZSE-25A-015	H-2-131559 H-2-23400 H-2-16181				
FB-5	SECONDARY E-4 HEPA FILTERS (8 required) FOR ROOM 154, 155	234-5Z/ 308	ZO-060-302 ZSE-25A-016	H-2-131559 H-2-23400 H-2-16181				
FB-6	SECONDARY E-4 HEPA FILTERS (4 required) FOR ROOM 131, 132, 139	234-5Z/ 308	ZO-060-302 ZSE-25A-017	H-2-131559 H-2-23400 H-2-16181				
FB-7	SECONDARY E-4 HEPA FILTERS (4 required) FOR ROOM 141, 142, 143	234-5Z/ 308	ZO-060-302 ZSE-25A-018	H-2-131559 H-2-23400 H-2-18692				
FB-8	SECONDARY E-4 HEPA FILTERS (4 required) FOR ROOM 159	234-5Z/ 308	ZO-060-302 ZSE-25A-019	H-2-131559 H-2-23400 H-2-18692				
FB-9	SECONDARY E-4 HEPA FILTERS (4 required) FOR ROOM 166	234-5Z/ 308	ZO-060-302 ZSE-25A-020	H-2-131559 H-2-23400 H-2-18692				
FB-10	SECONDARY E-4 HEPA FILTERS (4 required) FOR ROOM 170, 174	234-5Z/ 308	ZO-060-302 ZSE-25A-021	H-2-131559 H-2-23400 H-2-18692				
FB-11	SECONDARY E-4 HEPA FILTERS (4 required) FOR ROOM 179-C, 179-B	234-5Z/ 308	ZO-060-302 ZSE-25A-022	H-2-131559 H-2-23400 H-2-18692				
FB-12	SECONDARY E-4 HEPA FILTERS (8 required) FOR ROOM 188, 189, 190	234-5Z/ 308	ZO-060-302 ZSE-25A-023	H-2-131559 H-2-23400 H-2-16181				
FB-14	SECONDARY E-4 HEPA FILTERS (4 required) FOR RMC/RMA	234-5Z/ 320	ZO-060-302 ZSE-25A-024	H-2-131559 H-2-23400 H-2-18468				
FB-15	SECONDARY E-4 HEPA FILTERS (8 required) FOR ROOM 185, 186	234-5Z/ 308	ZO-060-302 ZSE-25A-025	H-2-131559 H-2-23400 H-2-16181				

H: 24" W: 24" D: 11 1/2"

SEE H-2-131559 AND PROCUREMENT SPECIFICATION HNF-S-0552 FOR
SUBSTITUTION OPTIONS FOR THIS FILTER & STORAGE REQUIREMENTSCOMPONENT NUMBER LIST ASSOCIATED WITH THIS
FILTER CONTINUES ONTO FOLLOWING PAGES

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25A SAFETY CLASS

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION BLDG/ RM	MTCE PROC OPER PROC	REF. DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART#	VENDOR/MANUFACTURER & MODEL #	COMPONENT DATA/CRITICAL CHARACTERISTICS
FB-16E	SECONDARY E-4 HEPA FILTERS (4 required) FOR ROOM 143W	234-5Z/ 308	ZO-060-302 ZSE-25A-027	H-2-131559 H-2-23400 H-2-18692				
FB-16W	SECONDARY E-4 HEPA FILTERS (4 required) FOR ROOM 144E	234-5Z/ 308	ZO-060-302 ZSE-25A-026	H-2-131559 H-2-23400 H-2-16181				
FB-17	SECONDARY E-4 HEPA FILTERS (4 required) FOR ROOM 144W	234-5Z/ 308	ZO-060-302 ZSE-25A-028	H-2-131559 H-2-23400 H-2-18692				
FB-18	SECONDARY E-4 HEPA FILTERS (8 required) FOR ROOM 156, 157	234-5Z/ 308	ZO-060-302 ZSE-25A-029	H-2-131559 H-2-23400 H-2-16181				
FB-19	SECONDARY E-4 HEPA FILTERS (4 required) FOR ROOM 227	234-5Z/ 308	ZO-060-302 ZSE-25A-030	H-2-131559 H-2-23400 H-2-18692				
FB-20	SECONDARY E-4 HEPA FILTERS (4 required) FOR RMC/RMA	234-5Z/ 320	ZO-060-302 ZSE-25A-031	H-2-131559 H-2-23400 H-2-18468				
FB-21	SECONDARY E-4 HEPA FILTERS (4 required) FOR TOP-LEVEL 9-B	234-5Z/ 308	ZO-060-302 ZSE-25A-032	H-2-131559 H-2-23400 H-2-18692				
FB-22	SECONDARY E-4 HEPA FILTERS (4 required) FOR RMC/RMA LINE	234-5Z/ 308	ZO-060-302 ZSE-25A-033	H-2-131559 H-2-23400 H-2-16181				
FB-1-N	SECONDARY E-4 HEPA FILTERS (4 required) FOR ROOM 135	234-5Z/ 308	ZO-060-302 ZSE-25A-012	H-2-131559 H-2-23400 H-2-18692				
FB-1-S	SECONDARY E-4 HEPA FILTERS (4 required) FOR ROOM 134, 137	234-5Z/ 308	ZO-060-302 ZSE-25A-010	H-2-131559 H-2-23400 H-2-18692				
FB-25	PRIMARY E-3 HEPA FILTERS FOR AIR SAMPLE VACUUM	234-5Z/ 308	ZSE-25A-036	H-2-131559 H-2-23400				
FB-26	SECONDARY E-4 HEPA FILTERS (4 required) FOR ROOM 186, 188	234-5Z/ 308	ZO-060-302 ZSE-25A-037	H-2-131559 H-2-23400 H-2-16181				

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25A SAFETY CLASS

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION BLDG/ RM	MTCE PROC OPER PROC	REF. DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART# VENDOR/MANUFACTURER & MODEL #	COMPONENT DATA/CRITICAL CHARACTERISTICS
FB-F2-S	SECONDARY E-4 HEPA FILTER FOR PROCESS VACUUM	234-5Z/ 308	ZO-060-302 ZSE-25A-039	H-2-96418 H-2-28997 H-2-28735			
FB-F4-S	SECONDARY E-4 HEPA FILTER FOR PROCESS VACUUM	234-5Z/ 308	ZO-060-302 ZSE-25A-087	H-2-96418 H-2-28997 H-2-28735			
FB-242-Z	SECONDARY E-4 HEPA FILTERS (2 required) FOR 242-Z	234-5Z/ 308	ZO-060-302 ZSE-25A-038	H-2-131559 H-2-23400 H-2-43543			
FB-10E	SECONDARY E-4 HEPA FILTERS (2 required) FOR PROCESS CELL	236-Z/ CORR 10	ZO-060-302 ZSE-25A-070	H-2-131559 H-2-29674 H-2-29658			
FB-10W	SECONDARY E-4 HEPA FILTERS (2 required) FOR PROCESS CELL	236-Z/ CORR 10	ZO-060-302 ZSE-25A-071	H-2-131559 H-2-29674 H-2-29658			
FB-20E	SECONDARY E-4 HEPA FILTERS (2 required) FOR PROCESS CELL	236-Z/ CORR 10	ZO-060-302 ZSE-25A-073	H-2-131559 H-2-29674 H-2-29658			
FB-20W	SECONDARY E-4 HEPA FILTERS (2 required) FOR PROCESS CELL	236-Z/ CORR 10	ZO-060-302 ZSE-25A-074	H-2-131559 H-2-29674 H-2-29658			
FB-50	SECONDARY E-4 HEPA FILTERS (4 required) FOR COL HOOD, MISC. TREAT. PULSE, CHRG. LOAD, CAN HOOD	236-Z/ 50	ZO-060-302 ZSE-25A-078	H-2-131559 H-2-29674 H-2-29658			

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Please view the native document
for the original page.

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25A SAFETY CLASS

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION: BLDG/ RM	MTCE PROC OPER PROC	REF. DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART# VENDOR/MANUFACTURER & MODEL # COMPONENT DATA/CRITICAL CHARACTERISTICS
F-A12	FINAL E-3 HEPA FILTERS IN BANK A FOR PRF FILTER ROOM EXHAUST FILTER	236-Z/ 26	ZO-060-302 ZSE-25A-082	H-2-131559 H-2-29676 H-2-27716 H-2-29681 H-2-27716, Type IV	559638-1	6167-4800-1700 FLANDERS 0-007-C-02-N1-NU-00-23-ZXXXXX Filter Medium: 99.97% fire & moisture resistant glass fiber media per MIL-F-51068 Pack Style: Pleated flat sheet with corrugated aluminum separators Frame Material: 16-gauge type 409 stainless steel Frame Style (flanges): 1 nipple connection Pack-to-Frame sealant: Fire retardant urethane Gasket/Seal Material: None Gasket Location: No gasket Faceguard Material: Stainless steel (4x4 mesh) Location: Upstream & Downstream both (Subject to substitution options) H: 24" W: 24" D: 28" X: 11 1/2" Y: 12 3/4" Z: 4"
F-D12	FINAL E-3 HEPA FILTERS IN BANK D FOR PRF FILTER ROOM EXHAUST FILTER	236-Z/ 26	ZO-060-302 ZSE-25A-082	H-2-131559 H-2-29676 H-2-27716 H-2-29681		<p>SEE H-2-131559 AND PROCUREMENT SPECIFICATION HNF-S-0477 FOR SUBSTITUTION OPTIONS FOR THIS FILTER & STORAGE REQUIREMENTS</p>

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25A SAFETY CLASS

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION BLDG/ RM	MTCE PROC OPER PROC	REF. DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART#	VENDOR/MANUFACTURER & MODEL #	COMPONENT DATA/CRITICAL CHARACTERISTICS
FB-32	FINAL E-3 HEPA FILTER AIR SAMPLE VACUUM 232-Z/291-Z	291- Z/502	ZSE-25A-086	H-2-131559	559642-1 or 559611-1	6167-4800-1705	FLANDERS 0-007-W-03-05-NU-51-00-CC-FU5	<p>Filter Medium: 99.97% fire & moisture resistant glass fiber media per MIL-F-51068 Pack Type: 11" deep PUREFORM filter pack (separatorless) Frame Material: 16-gauge type 304 stainless steel Frame Style (flanges): 3/4" deep channel/groove filled with fluid sealant Pack-to-Frame sealant: Fire retardant urethane Gasket/Seal Material: Blu-Jel Gasket Location: Both faces Faceguard Material: None Location: No faceguard (Subject to substitution options)</p> <p>H: 12" W: 12" D: 11 1/2"</p>

SEE H-2-131559 AND PROCUREMENT SPECIFICATION HNF-S-0552 FOR
SUBSTITUTION OPTIONS FOR THIS FILTER & STORAGE REQUIREMENTS

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25A SAFETY CLASS

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION BLDG/ RM	MTCE PROC OPER PROC	REF. DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART#	VENDOR/MANUFACTURER & MODEL #	COMPONENT DATA/CRITICAL CHARACTERISTICS
F-AL3 F-AL4 F-AL5	Air lock filter	236-Z/ air lock		H-2-28369 H-2-131559	559649-1	6167-4800-1716	FLANDERS 0-007-D-42-03-NU-13-23-BB-DU5	<p>Filter Media: 99.97% fire & moisture resistant glass fiber media per MIL-F-51068 Pack Type: 4" deep PUREFORM filter pack (separatorless) Frame Material: 16-gauge type 409 stainless steel Frame Style (flanges): Double-turn flanges, both faces Pack-to-Frame sealant: Fire retardant urethane Gasket/Seal Material: Neoprene Gasket Location: Upstream & Downstream both Faceguard Material: Stainless steel (18 ga) Location: Upstream & Downstream both (Subject to substitution options)</p> <p>H: 8" W: 8" D: 5 7/8"</p>
SF-C2 SF-D6		234-5Z/ 221C 221D		H-2-97257 H-2-131559				SEE H-2-131559 & PROCUREMENT SPECIFICATION HNF-S-0552 FOR SUBSTITUTION OPTIONS FOR THIS FILTER & STORAGE REQUIREMENTS

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25A SAFETY CLASS						
COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION BLDG/ RM	MTCE PROC OPER PROC	REF. DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART# VENDOR/MANUFACTURER & MODEL # COMPONENT DATA/CRITICAL CHARACTERISTICS
F-157-3	Glovebox supply and exhaust filters	234-5Z Room 156 Room 157	ZSR-25A- 054 ZO-060-305	H-2-80209		<p>FLANDERS P-007-D-02-05-NU-51-23-CC-DU5</p> <p>Frame Hardware: 2" extended frame w/ roughing prefilter Filter Media: 99.97% fire & moisture resistant glass fiber media Pack Type: 4" deep PUREFORM filter pack (separatofless) Frame Material: 16-gauge Type 409 stainless steel Frame Style (flanges): Channel for fluid seal on one face Pack-to-Frame sealant: Fire retardant urethane Gasket/Seal Material: BLU-JEL seal Gasket Location: Upstream & Downstream both Faceguard Material: Stainless steel (18 ga) Location: Upstream & Downstream both (Subject to substitution options)</p> <p>H: 12" W: 12" D: 5 7/8"</p>
SEE H-2-131559 & PROCUREMENT SPECIFICATION HNH-S-0552 FOR SUBSTITUTION OPTIONS FOR THIS FILTER & STORAGE REQUIREMENTS						

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25A SAFETY CLASS

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION BLDG/ RM	MTCE PROC OPER PROC	REF. DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART# VENDOR/MANUFACTURER & MODEL # COMPONENT DATA/CRITICAL CHARACTERISTICS
F-37 F-38 F-156-1 F-157-1 F-157-2	Glovebox supply and exhaust filters	2736- ZB Room 636		H-2-80179	559651-1	6167-4800-1720 FLANDERS 007-D-02-05-NU-51-23-CC-DU5 Filter Media: 99.97% fire & moisture resistant glass fiber media Pack Type: 4" deep PUREFORM filter pack (separatorless) Frame Material: 16-gauge Type 409 stainless steel Frame Style (flanges): Channel for fluid seal on one face Pack-to-Frame sealant: Fire retardant urethane Gasket/Seal Material: BLU-JEL seal Gasket Location: Upstream & Downstream both Faceguard Material: Stainless steel (18 ga) Location: Upstream & Downstream both (Subject to substitution options) H: 12" W: 12" D: 5 ⁷ / ₈ " <div> </div>

SEE H-2-131559 & PROCUREMENT SPECIFICATION HNF-S-0552 FOR
SUBSTITUTION OPTIONS FOR THIS FILTER & STORAGE REQUIREMENTS

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25B SAFETY CLASS

COMP ID	DESCRIPTION/ FUNCTION	LOCATION BLDG/ RM	MTCE PROC OPER PROC	REF. DRAWINGS, DIAGRAM	CATALOG I.D. & Quality Level	SPARE PART#	VENDOR/MANUFACTURER & MODEL #	COMPONENT DATA/CRITICAL CHARACTERISTICS
F-1-1	SECONDARY E-3/E-4 HEPA FILTERS (6 required) FOR 2736-Z/A	2736-Z A	ZO-060-302 ZSE-25B-001	H-2-131559 H-2-80167 H-2-27971	559660-1	6167-4800-4250	FLANDERS T-007-W-02-05-NU-52-23-GG-FU5	<p>Frame Hardware: Extractor T-Clips</p> <p>Filter Media: 99.97% fire & moisture resistant glass fiber media</p> <p>Pack Type: 11" deep PUREFORM filter pack (separatorless)</p> <p>Frame Material: 16-gauge type 409 stainless steel</p> <p>Frame Style (flanges) 3/4" deep channel/groove filled w/ fluid sealant</p> <p>Pack-to-Frame sealant: Fire retardant urethane</p> <p>Gasket/Seal Material: Blu-Jel</p> <p>Gasket Location: Upstream & Downstream both</p> <p>Faceguard Material: Stainless steel (18 ga)</p> <p>Location: Upstream & Downstream both</p> <p>(Subject to substitution options)</p>
F-1-2	SECONDARY E-3/E-4 HEPA FILTERS (6 required) FOR 2736-Z/A	2736-Z A	ZO-060-302 ZSE-25B-002	H-2-131559 H-2-80167 H-2-27971				
F-2-1	FINAL E-3/E-4 HEPA FILTERS (6 required) FOR 2736-Z/A	2736-Z A	ZO-060-302 ZSE-25B-001	H-2-131559 H-2-80167 H-2-27971				<p>H: 24" W: 24" D: 11 1/2"</p>
F-2-2	FINAL E-3/E-4 HEPA FILTERS (6 required) FOR 2736-Z/A	2736-Z A	ZO-060-302 ZSE-25B-002	H-2-131559 H-2-80167 H-2-27971				

SEE H-2-131559 AND PROCUREMENT SPECIFICATION HNF-S-0552 FOR
SUBSTITUTION OPTIONS FOR THIS FILTER & STORAGE REQUIREMENTS

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25C SAFETY CLASS

COMP. ID	DESCRIPTION/ FUNCTION	LOCATION BLDG/RM	MTCE PROC OPER PROC	REF. DRAWINGS, DIAGRAM	CATALOG I.D. & Quality Level	SPARE PART#	VENDOR/MANUFACTURER & MODEL #	COMPONENT DATA/CRITICAL CHARACTERISTICS
F-14-P1 F-14-P2	SECONDARY E-3/E-4 HEPA FILTER FOR 2736-ZB	2736-ZB/ 600	ZO-060-302 ZO-170-006 ZSE-25C-011	H-2-131559 H-2-80167 H-2-80173	559630-1	6167-4800-0800	FLANDERS T-007-W-02-05-NU-51-23-GG-FU5	Frame Hardware: Extractor T-Clips Filter Media: 99.97% fire & moisture resistant glass fiber media Pack Type: 11" deep PU REFORM filter pack (separatorless) Frame Material: 16-gauge type 409 stainless steel Frame Style (flanges): 3/4" deep channel/groove filled w/ fluid sealant Pack-to-Frame sealant: Fire retardant urethane Gasket/Seal Material: Blu-Jel Gasket Location: Upstream & Downstream both Faceguard Material: Stainless steel (18 ga) Location: Upstream & Downstream both (Subject to substitution options)
F-14-S1 F-14-S2	FINAL E-3/E-4 HEPA FILTER FOR 2736-ZB	2736-ZB/ 600	ZO-060-302 ZO-170-006 ZSE-25C-011	H-2-131559 H-2-80167 H-2-80173				
F-15-P1 F-15-P2	SECONDARY E-3/E-4 HEPA FILTER FOR 2736-ZB	2736-ZB/ 600	ZO-060-302 ZO-170-006 ZSE-25C-012	H-2-131559 H-2-80167 H-2-80173				
F-15-S1 F-15-S2	FINAL E-3/E-4 HEPA FILTER FOR 2736-ZB	2736-ZB/ 600	ZO-060-302 ZO-170-006 ZSE-25C-012	H-2-131559 H-2-80167 H-2-80173				
F-16-P1 F-16-P2	SECONDARY E-3/E-4 HEPA FILTER FOR 2736-ZB	2736-ZB/ 600	ZO-060-302 ZO-170-006 ZSE-25C-013	H-2-131559 H-2-80167 H-2-80173				
F-16-S1 F-16-S2	FINAL E-3/E-4 HEPA FILTER FOR 2736-ZB	2736-ZB/ 600	ZO-060-302 ZO-170-006 ZSE-25C-013	H-2-131559 H-2-80167 H-2-80173				
F-17-P1 F-17-P2	SECONDARY E-3/E-4 HEPA FILTER FOR 2736-ZB	2736-ZB/ 600	ZO-060-302 ZO-170-006 ZSE-25C-014	H-2-131559 H-2-80167 H-2-80173				
F-17-S1 F-17-S2	FINAL E-3/E-4 HEPA FILTER FOR 2736-ZB	2736-ZB/ 600	ZO-060-302 ZO-170-006 ZSE-25C-014	H-2-131559 H-2-80167 H-2-80173				
F-18-P1 F-18-P2	SECONDARY E-3/E-4 HEPA FILTER FOR 2736-ZB	2736-ZB/ 600	ZO-060-302 ZO-170-006 ZSE-25C-015	H-2-131559 H-2-80167 H-2-80173				
F-18-S1 F-18-S2	FINAL E-3/E-4 HEPA FILTER FOR 2736-ZB	2736-ZB/ 600	ZO-060-302 ZO-170-006 ZSE-25C-015	H-2-131559 H-2-80167 H-2-80173				
F-19-P1 F-19-P2	SECONDARY E-3/E-4 HEPA FILTER FOR 2736-ZB	2736-ZB/ 600	ZO-060-302 ZO-170-006 ZSE-25C-016	H-2-131559 H-2-80167 H-2-80173				
F-19-S1 F-19-S2	FINAL E-3/E-4 HEPA FILTER FOR 2736-ZB	2736-ZB/ 600	ZO-060-302 ZO-170-006 ZSE-25C-016	H-2-131559 H-2-80167 H-2-80173				

H: 24" W: 24" D: 11 1/2"

SEE H-2-131559 & PROCUREMENT SPECIFICATION HNF-S-0552 FOR
SUBSTITUTION OPTIONS FOR THIS FILTER & STORAGE REQUIREMENTSCOMPONENT NUMBER LIST ASSOCIATED WITH THIS
FILTER CONTINUES ONTO FOLLOWING PAGE

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25C SAFETY CLASS

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION/ BLDG/RM	MTCE PROC OPER PROC	REF. DRAWINGS, DIAGRAM	CATALOG I.D. & Quality Level	SPARE PART# VENDOR/MANUFACTURER & MODEL # COMPONENT DATA/CRITICAL CHARACTERISTICS
F-20-P1 F-20-P2	SECONDARY E-3/E-4 HEPA FILTER FOR 2736-ZB	2736-ZB/ 600	ZO-060-302 ZO-170-006 ZSE-25C-017	H-2-131559 H-2-80167 H-2-80173		
F-20-S1 F-20-S2	FINAL E-3/E-4 HEPA FILTER FOR 2736-ZB	2736-ZB/ 600	ZO-060-302 ZO-170-006 ZSE-25C-017	H-2-131559 H-2-80167 H-2-80173		
F-21-P1 F-21-P2	SECONDARY E-3/E-4 HEPA FILTER FOR 2736-ZB	2736-ZB/ 600	ZO-060-302 ZO-170-006 ZSE-25C-018	H-2-131559 H-2-80167 H-2-80173		
F-21-S1 F-21-S2	FINAL E-3/E-4 HEPA FILTER FOR 2736-ZB	2736-ZB/ 600	ZO-060-302 ZO-170-006 ZSE-25C-018	H-2-131559 H-2-80167 H-2-80173		

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25D SAFETY CLASS

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION BLDG/IRM	MTCE PROC OPER PROC	REF. DRAWINGS, DIAGRAM	CATALOG I.D. & Quality Level	SPARE PART#	VENDOR/MANUFACTURER & MODEL #	COMPONENT DATA/CRITICAL CHARACTERISTICS
F-E1-25D	SECONDARY E-3/E-4 HEPA FILTER FOR 241-Z, 241-ZA	241-Z	ZO-060-302 ZSE-25D-001	H-2-131559 H-2-28852 H-2-28851	5596660-1	6167-4800-4250	FLANDERS T-007-W-02-05-NU-52-23-GG-FU5	<p>Frame Hardware: Extractor T-Clips</p> <p>Filter Media: 99.97% fire & moisture resistant glass fiber media</p> <p>Pack Type: 1" deep PUREFORM filter pack (separatorless)</p> <p>Frame Material: 16-gauge type 409 stainless steel</p> <p>Frame Style (flanges): 3/4" deep channel/groove filled w/ fluid sealant</p> <p>Pack-to-Frame sealant: Fire retardant urethane</p> <p>Gasket/Seal Material: Bio-Jel</p> <p>Gasket Location: Upstream & Downstream both</p> <p>Faceguard Material: Stainless steel (18 ga)</p> <p>Location: Upstream & Downstream both</p> <p>(Subject to substitution options)</p> <p>H: 24" W: 24" D: 11 1/2"</p>
F-E3-25D	SECONDARY E-3/E-4 HEPA FILTER FOR 241-Z, 241-ZA	241-Z	ZO-060-302 ZSE-25D-001	H-2-131559 H-2-28852 H-2-28851				
F-W2-25D	FINAL E-3/E-4 HEPA FILTER FOR 241-Z, 241-ZA	241-Z	ZO-060-302 ZSE-25D-001	H-2-131559 H-2-28852 H-2-28851				
F-W4-25D	FINAL E-3/E-4 HEPA FILTER FOR 241-Z, 241-ZA	241-Z	ZO-060-302 ZSE-25D-001	H-2-131559 H-2-28852 H-2-28851

SEE H-2-131559 AND PROCUREMENT SPECIFICATION HNF-S-0552 FOR
SUBSTITUTION OPTIONS FOR THIS FILTER & STORAGE REQUIREMENTS

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25E SAFETY CLASS

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION BLDG/ RM	MTCE PROC OPER PROC	REF. DRAWINGS, DIAGRAM	CATALOG I.D. & Quality Level	SPARE PART#	VENDOR/MANUFACTURER & MODEL #	COMPONENT DATA/CRITICAL CHARACTERISTICS	
HF-1	PRIMARY E-3/E-4 HEPA FILTER FOR 232-Z PROCESS AREA	232-Z	ZO-060-302 ZO-170-043 ZSE-25E-003	H-2-131559 H-2-131620 H-2-79467	559623-1	6167-4800-0770	FLANDERS 0-007-W-02-N2-NU-00-23-GG-FU5	Filter Medium: 99.97% fire & moisture resistant glass fiber media per MIL-F-51068 Pack Type: 11" deep PUREFORM filter pack (separatortess) Frame Material: 16-gauge type 409 stainless steel Frame Style (flanges): 2 nipple connections Pack-to-Frame sealant: Fire retardant urethane Gasket/Seal Material: None Gasket Location: No gasket Faceguard Material: Stainless steel (18 ga) Location: Upstream & Downstream both (Subject to substitution options) H: 24" W: 24" D: 20" X: 8" Y: 12" Z: 4"	
HF-2	SECONDARY E-3/E-4 HEPA FILTER FOR 232-Z PROCESS AREA	232-Z	ZO-060-302 ZO-170-043 ZSE-25E-003	H-2-131559 H-2-131620 H-2-79467					
HF-4	FINAL E-3/E-4 EHPA FILTER FOR 232-Z PROCESS AREA	232-Z	ZO-060-302 ZO-170-043 ZSE-25E-004	H-2-131559 H-2-131620 H-2-79467					
HF-3	PRIMARY E-3/E-4 HEPA FILTER FOR 232-Z PROCESS AREA	232-Z	ZO-060-302 ZO-170-043 ZSE-25E-005	H-2-131559 H-2-131620 H-2-79467					
HF-5									
HF-6

SEE H-2-131559 & PROCUREMENT SPECIFICATION HNF-S-0447 FOR
SUBSTITUTION OPTIONS FOR THIS FILTER

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25 SAFETY CLASS						
COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION BLDG/ RM	MTCE PROC OPER PROC	REF. DRAWINGS, DIAGRAM	CATALOG I.D. & Quality Level	SPARE PART#
COMPONENT DATA/CRITICAL CHARACTERISTICS						
N/A	Containment Tent Filters	Containment Tents 236-Z		H-2-131559	559619-3	6167-4800-0715
FLANDERS 0-007-D-04-N2-NU-00-23-Z91202-U5						
Filter Medium: 99.97% fire & moisture resistant glass fiber media per MIL-F-51068						
Pack Type: 4" deep PUREFORM filler pack (separatorless)						
Frame Material: 3/4" fire retardant plywood						
Frame Style (flanges): 2 nipple connections						
Pack-to-Frame sealant: Fire retardant urethane						
Gasket/Seal Material: None						
Gasket Location: No gasket						
Faceguard Material: Stainless steel (18 ga)						
Location: Upstream & Downstream both						
(Subject to substitution options)						
H: 8" W: 8" D: 5 7/8" X: 4" Y: 2" Z: 1.5"

SEE H-2-131559 & PROCUREMENT SPECIFICATION HNF-S-0447 FOR SUBSTITUTION OPTIONS FOR THIS FILTER						

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25 SAFETY CLASS

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION BLDG/ RM	MTCE PROC OPER PROC	REF. DRAWINGS, DIAGRAM	CATALOG I.D. & Quality Level	SPARE PART#	VENDOR/MANUFACTURER & MODEL #	COMPONENT DATA/CRITICAL CHARACTERISTICS	
F-149- G1		234-5Z Room 149		H-95652 H-2-27716, Type 2 H-2-131559	559612-1	6167-4797-1700	FLANDERS P-007-D-02-05-NU-51-23-CC-DU5		
								Frame Hardware: 2" Extended frame with roughing prefilter	
								Filter Media: 99.97% fire & moisture resistant glass fiber media per MIL-F-51068	
								Pack Type: 4" deep PUREFORM filter pack (separatorless)	
								Frame Material: 16-gauge type 409 stainless steel	
								Frame Style (flanges): Channel for fluid seal on one face	
								Pack-to-Frame sealant: Fire retardant urethane	
								Gasket/Seal Material: BLU-JEL	
								Gasket Location: Upstream & Downstream both	
								Faceguard Material: Stainless steel (18 ga)	
								Location: Upstream & Downstream both	
								(Subject to substitution options)	
								H: 12" W: 12" D: 5 7/8"

SEE H-2-131559 & PROCUREMENT SPECIFICATION HNF-S-0552 FOR
SUBSTITUTION OPTIONS FOR THIS FILTER & STORAGE REQUIREMENTS

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25 SAFETY CLASS

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION BLDG/ RM	MTCE PROC OPER PROC	REF. DRAWINGS, DIAGRAM	CATALOG I.D. & Quality Level	SPARE PART#	VENDOR/MANUFACTURER & MODEL #	COMPONENT DATA/CRITICAL CHARACTERISTICS
FB-7A		234-5Z /264		H-2-22958 H-2-25803	559629-1	Use until stock runs out: 6167-4800-0795	FLANDERS 0-007-D-04-00-NU-13-23-GG-D	
								<p>Filter Media: 99.97% fire & moisture resistant glass fiber media + HF resistance Pack Type: 4" deep PUREFORM filter pack (separatorless) Frame Material: 3/4" fire resistant plywood Frame Style (flanges): box type Pack-to-Frame sealant: Fire retardant urethane Gasket/Seal Material: Neoprene Gasket Location: Upstream & Downstream both Faceguard Material: Stainless steel (18 ga) Location: Upstream & Downstream both (Subject to substitution options)</p>

H: 24" W: 24" D: 5 7/8"

Then switch to:
6167-4800-1704

FLANDERS 0-007-D-03-03-NU-13-23-GG-D-U5

Filter Media: 99.97% fire & moisture resistant glass fiber media + HF resistance
Pack Type: 4" deep PUREFORM filter pack (separatorless)
Frame Material: 16 gage 304 SS riveted
Frame Style (flanges): double turn flanges, both faces
Pack-to-Frame sealant: Fire retardant urethane
Gasket/Seal Material: Neoprene
Gasket Location: Upstream & Downstream both
Faceguard Material: Stainless steel (18 ga)
Location: Upstream & Downstream both
 (Subject to substitution options)

H: 24" W: 24" D: 5 7/8"

SEE H-2-131559 & PROCUREMENT SPECIFICATION HNF-S-0552 FOR
SUBSTITUTION OPTIONS FOR THIS FILTER & STORAGE REQUIREMENTS

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25 SAFETY CLASS

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION BLDG/ RM	MTCE PROC OPER PROC	REF. DRAWINGS, DIAGRAM	CATALOG I.D. & Quality Level	SPARE PART#	VENDOR/MANUFACTURER & MODEL #	COMPONENT DATA/CRITICAL CHARACTERISTICS
EF-C1 EF-C2 EF-C7		234-5Z/ 221C		H-2-80206	559603-1	6167-4787-1700	FLANDERS P-007-W-02-05-NU-51-23-Z91443	Frame Hardware: 2" Extended frame with roughing prefilter Filter Media: 99.97% fire & moisture resistant glass fiber media per MIL-F-51068 Pack Type: 11" deep PUREFORM filter pack (separatorless) Frame Material: 16-gauge type 409 stainless steel Frame Style (flanges): Channel for fluid seal on one face Pack-to-Frame sealant: Fire retardant urethane Gasket/Seal Material: BLU-JEL Gasket Location: Upstream & Downstream both Faceguard Material: Stainless steel (18 ga) Location: Upstream & Downstream both (Subject to substitution options)
EF-D5 EF-D6	SECONDARY E-4 HEPA (1 required) FOR RM 221D	221D						
EF-R3 EF-R4 EF-R5		146						
SF-C1		221C						
SF-D1		221D						
SF-R2		146						

H: 12" W: 12" D: 11 1/2"

SEE H-2-131559 & PROCUREMENT SPECIFICATION HNF-S-0552 FOR
SUBSTITUTION OPTIONS FOR THIS FILTER & STORAGE REQUIREMENTS

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25 SAFETY SIGNIFICANT (all sub systems)

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION/ BLDG/RM	MTCE PROC OPER PROC	REF DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART#	VENDOR/MANUFACTURER + CVI # & MODEL # COMPONENT DATA/CRITICAL CHARACTERISTICS
AR-5	RELAY CLOSED UPON EXHAUST PLENUM LOW PRESSURE, CONNECTED TO AL-5		NR	H-2-16318 H-2-96434 H-2-26089			NR
CU-1	Security Bldg. A/C unit	2701- ZA (AMS)					
CV8-01 CV9-01 CV9-02	CHECK VALVE ON STEAM CONDENSATE		ZO-060-111	H-2-79486 H-2-26089			NR 3/4" M-1 PIPE CODE
D-89-25A	INLET DAMPER TO EXHAUST FAN ET-8		2Z23064 1-ZM-036 ZO-060-111	H-2-26089			JOHNSON (CVI# 1536) SIZE 78x78, PARALLEL BLADE, NORMALLY OPEN
D-99-25A	INLET DAMPER TO EXHAUST FAN ET-9		2Z23064 1-ZM-036 ZO-060-111	H-2-26089			
D-90-25A	INLET DAMPER TO EXHAUST FAN ET-8		1-ZM-036 ZO-060-111	H-2-26089			JOHNSON (CVI# 1536)
D-100-25A	INLET DAMPER TO EXHAUST FAN ET-9		1-ZM-036 ZO-060-111	H-2-26089			SIZE 78-1/2x56-1/4, PARALLEL BLADE, NORMALLY OPEN
DM-A-1-25A	PNEUMATIC OPERATOR FOR DAMPER D-A (ZONE 1)		1-ZM-068	H-2-26089 H-2-16451			6167-3310-7030 (SPRING, 5-10 PSI RANGE) 6167-3310-3300 (BALL JOINT) 6167-3310-0940 (CRANKARM) 6167-3310-1100 (DIAPHRAGM) JOHNSON (CVI# 1536)
DM-A-2-25A	PNEUMATIC OPERATOR FOR DAMPER D-A (ZONE 1)		1-ZM-068	H-2-26089			
DM-A-3-25A	PNEUMATIC OPERATOR FOR DAMPER D-A (ZONE 1)		1-ZM-068	H-2-26089			
DM-A-4-25A	PNEUMATIC OPERATOR FOR DAMPER D-A (ZONE 1)		1-ZM-068	H-2-26089			
DM-B-1-25A	PNEUMATIC OPERATOR FOR DAMPER D-B (ZONE 3)		1-ZM-068	H-2-26089 H-2-16451			
DM-B-2-25A	PNEUMATIC OPERATOR FOR DAMPER D-B (ZONE 3)		1-ZM-068	H-2-26089			

DAMPER OPERATOR, D-251 #4 (FROM CVI, DIMENSIONS FROM CVI MATCH
FIELD) NAMEPLATE: D 7/16, 5-10 PSI SPRING, 7620

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25 SAFETY SIGNIFICANT (all sub systems)

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION/ BLDG/RM	MTCE PROC OPER PROC	REF DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART#	VENDOR/MANUFACTURER + CVI # & MODEL #
COMPONENT DATA/CRITICAL CHARACTERISTICS							
DM-B-3-25A	PNEUMATIC OPERATOR FOR DAMPER D-B (ZONE 3)		1-ZM-068	H-2-26089			
DM-B-4-25A	PNEUMATIC OPERATOR FOR DAMPER D-B (ZONE 3)		1-ZM-068	H-2-26089			
DM-C-1-25A	PNEUMATIC OPERATOR FOR DAMPER D-C (ZONE 3)		1-ZM-068	H-2-26089 H-2-16451			
DM-C-2-25A	PNEUMATIC OPERATOR FOR DAMPER D-C (ZONE 3)		1-ZM-068	H-2-26089 H-2-16451			
DM-C-3-25A	PNEUMATIC OPERATOR FOR DAMPER D-C (ZONE 3)		1-ZM-068	H-2-26089			
DM-C-4-25A	PNEUMATIC OPERATOR FOR DAMPER D-C (ZONE 3)		1-ZM-068	H-2-26089			
DM-C-5-25A	PNEUMATIC OPERATOR FOR DAMPER D-C (ZONE 3)		1-ZM-068	H-2-26089			
DM-D-1-25A	PNEUMATIC OPERATOR FOR DAMPER D-D (ZONE 3A)		1-ZM-068	H-2-26089 H-2-16451			
DM-D-2-25A	PNEUMATIC OPERATOR FOR DAMPER D-D (ZONE 3A)		1-ZM-068	H-2-26089 H-2-16451			
DM-D-3-25A	PNEUMATIC OPERATOR FOR DAMPER D-D (ZONE 3A)		1-ZM-068	H-2-26089			
DM-D-4-25A	PNEUMATIC OPERATOR FOR DAMPER D-D (ZONE 3A)		1-ZM-068	H-2-26089			
DM-D-5-25A	PNEUMATIC OPERATOR FOR DAMPER D-D (ZONE 3A)		1-ZM-068	H-2-26089			

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25 SAFETY SIGNIFICANT (all sub systems)

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION BLDG/RM	MTCE PROC OPER PROC	REF DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART#	VENDOR/MANUFACTURER + CVI # & MODEL #	COMPONENT DATA/CRITICAL CHARACTERISTICS
DM-E-1-25A	PNEUMATIC OPERATOR FOR DAMPER D-E (ZONE 3B)	234-5Z	1-ZM-068	H-2-26089				Diaphragm actuator: 6167-1710-0030 Fisher controls Type 656, Size 40, 3-20 psi, spring range 3.1 to 12.7, 3.5 inch travel Mounting bracket: see ECN 657695 HAGAN UNIT SYSTEM, SER NO 2Z00455, MACHINE NO 12330C491, SIZE 5X10 Helical Spring: 3/8" dia, extra duty, high strength Damper Connecting Link: Ball Joint Rod End McMaster-Carr #99 catalog #6072K34 1/2-20 Female THD w/ Stud McMaster-Carr #99 catalog #6072K14 1/2-20 Male THD w/ Stud
DM-F-A-25A DM-F-B-25A	PNEUMATIC OPERATOR FOR DAMPER D-F (ZONE PRF)		1-ZM-042	H-2-26089		6167-2707-0030 (ACTUATOR) 6167-2707-1100 (DIAPHRAGM)	HONEY-WELL (CVI# 22231)	ACTUATOR SIZE 800-9SLO, SPRING RANGE 3-15 PSI, POS. RANGE 3-15 PSI, AIR PRESSURE REQ'D 20 PSI, SPRING TYPE, AIR TO CLOSE NOTE: 1 IN SERVICE AT A TIME, ROTATE EVERY 6 MONTHS
DM-4	Pneumatic Operator for D-3 (SF-1 & 2)		ZO-060-623 1-ZM-033	H-2-80167		6167-5500-0030 (ACTUATOR W/POS) 6167-5500-1100 (DIAPHRAGM) 6167-5500-5550 (POSITIONER) 6167-5500-7030 (SPRING)	JOHNSON (CVI# 21307)	
DM-6	Pneumatic Operator for D-5 (SF-1 & 2)		ZO-060-623 1-ZM-034	H-2-80167		PIN D-3153-4, D-9502 POSITIONER		
DM-7	Pneumatic Operator for SF-3		1-ZM-032 ZO-060-623	H-2-80167				
DM-9	Pneumatic Operator for SF-4		1-ZM-032 ZO-060-623	H-2-80167				
DM-26	Pneumatic Operator for SF-5		Z0067-6 1-ZM-049 ZO-060-623	H-2-80167				
DM-27	Pneumatic Operator for SF-6		Z0067-4 1-ZM-049 ZO-060-623	H-2-80167				

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25 SAFETY SIGNIFICANT (all sub systems)

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION BLDG/RM	MTCE PROC OPER PROC	REF DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART#	VENDOR/MANUFACTURER + CVI # & MODEL #	COMPONENT DATA/CRITICAL CHARACTERISTICS
DM-89-1-25A DM-89-2-25A DM-89-3-25A DM-89-4-25A	PNEUMATIC OPERATOR FOR DAMPER D-89 (ET-8)		1-ZM-036 ZO-060-111	H-2-26089		6167-3310-0030 (ACTUATOR) 6167-3310-7030 (SPRING)	JOHNSON (CVI# 1536)	
DM-90-1-25A DM-90-2-25A DM-90-3-25A DM-90-4-25A	PNEUMATIC OPERATOR FOR DAMPER D-90 (ET-8)		1-ZM-036 ZO-060-111	H-2-26089		6167-3310-3300 (BALL JOINT) 6167-3310-0940 (CRANK-ARM) 6167-3310-1100 (DIAPHRAGM)		
DM-99-1-25A DM-99-2-25A DM-99-3-25A DM-99-4-25A	PNEUMATIC OPERATOR FOR DAMPER D-99 (ET-9)		1-ZM-036 ZO-060-111	H-2-26089				
DM-100-1-25A DM-100-2-25A DM-100-3-25A DM-100-4-25A	PNEUMATIC OPERATOR FOR DAMPER D-100 (ET-9)		1-ZM-036 ZO-060-111	H-2-26089				
DPC-1	DIFFERENTIAL PRESSURE CONTROLLER Zone IV Pressure Range 0 to .15	2736- ZB	Z0017-2 1-ZM-034 ZO-060-623	H-2-80167	559787-3	6167-5500-0904	Taylor (CVI# 21307)	444RF1637 LOW PRESSURE UNIT P/N 6156036 INPUT 3 TO 15 PSI SUPPLY 20 PSI RANGE 3-15 PSI GLOVEBOX RANGE -0.5 to 0 SCALE -0.5 to 0
DPC-2	DIFFERENTIAL PRESSURE CONTROLLER REPACKAGING ROOM Pressure Range 0 TO .5	2736- ZB	Z0024-2 1-ZM-033 ZO-060-623	H-2-80167				
DPC-4	DIFFERENTIAL PRESSURE CONTROLLER	2736- ZB	Z0025-2 1-ZM-033 ZO-060-623	H-2-80167				
DPC-5	DIFFERENTIAL PRESS CONTROLLER JCI-810005 CABINET IN 2736-ZA	2736- ZA	Z0067-2 ZCP-4-019 1-ZM-049 ZO-060-623	H-2-80167				
DPC-1-25E	VOLTAGE CONVERTER FOR D-14 CONNECTED TO DPIC-21	2736- ZB	ZO-060-203 1-ZM-048	H-2-79466 H-2-131620	554218-3	6117-0001-0900	JOHNSON CONTROLS (CVI# 22097)	SQ-6100-1 CONTROLLER WITH 2 EACH 120V PRIMARIES & 2 EACH 24V SECONDARIES

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25 SAFETY SIGNIFICANT (all sub systems)

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION/ BLDG/RM	MTCE PROC OPER PROC	REF DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART#	VENDOR/MANUFACTURER + CVI # & MODEL #	COMPONENT DATA/CRITICAL CHARACTERISTICS
DPIC-1-25A	DP CONTROLLER TO CONTROL DAMPER D-95 AND D-97		ZCP-4-011 1-ZM-050 ZO-060-117	H-2-26089	561406-3	6418-2330-0915	ACCO, BRISTOL DIV (CVI# 20293) PNEUMATIC CONTROLLER, 624-II, MODEL 5453-11D-232-02F-100 SUPPLY 18-20 PSI, OUTPUT 3-15 PSI, RANGE 3-15 PSI, SCALE 0.0 TO -0.2 "WG	
DPIC-21-25E	DIFFERENTIAL PRESSURE INDICATING CONTROLLER FOR D-14	232-Z	ZO-060-203 1-ZM-048	H-2-79466 H-2-131620	554907-3	6118-0002-0910	ABB KENT-TAYLOR (CVI# 22097)	
DPIC-22-25E	DIFFERENTIAL PRESSURE INDICATING CONTROLLER FOR D-15	232-Z	ZO-060-203 1-ZM-048	H-2-79466 H-2-131620			P/N type C300/0010/STD PROPORTIONAL CONTROLLER SETPOINT: -0.25 ± 0.1 IN WG	
DPIX-1-25A	TRANSMITTER TO DPIC-1	234-5Z Zone 1 Zone 3 Zone 3A, 3B	1-ZM-050	H-2-26089	561408-3 561409-3	6418-2330-7665 6418-2330-7670	ACCO INDUSTRIES, BRISTOL DIV (CVI# 20293)	
DPT-1-25E	DIFFERENTIAL PRESSURE TRANSMITTER FOR D-14 CONNECTED TO DPIC-21	232-Z	1-ZM-048	H-2-79466 H-2-131620	554909-3	6118-0002-7650	SETRA (CVI# 22097)	MODEL 2641001WD2DT1C Range 0.00 to 1.0" w.g. Output = 0-5 VDC Process connections = Barbed brass pressure fitting for 3/4 push on tubing Accuracy = ± 1.0% Full Scale Repeatability < 0.3% Full Scale
DPT-2-25E	DIFFERENTIAL PRESSURE TRANSMITTER FOR D-15 CONNECTED TO DPIC-22	232-Z	1-ZM-048	H-2-79466 H-2-131620				
EC-11 EC-12 EC-13 EC-14 EC-15	Evaporative Coolers	291-Z			-0		Float Valves: 1/2" 2 x 524, ST500, EDP # 0770202 Belts: BP66 (2 required) Fan Sheaves: 2B124OSK Motor Sheaves: 2B56SDS (replaced with 2B48SDS) Pump: Ingersoll-Rand SMP1000 1 x 4-3/4-C S/N 1191-1129 Pump Motor: Baldor 56C frame, 3450 rpm, .75 hp, 1.25 SF, 1.5 FL amps	

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25 SAFETY SIGNIFICANT (all sub systems)

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION BLDG/RM	MTCE PROC OPER PROC	REF DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART# VENDOR/MANUFACTURER + CVI # & MODEL # COMPONENT DATA/CRITICAL CHARACTERISTICS
EF-01	Exhaust Fan	243-Z outside	ZO-106-103	H-2-82747 H-2-82751	558053-3	<p>Fan Blade: 6167-0012-0534 Centrifugal Exhaust Fan (1600 cfm at 5.25" wg) with 3 hp motor Loran Cook model 120CF (CVI #22167-045)</p> <p>Bearing: 6167-0012-0455 1-7/16" bore pillow block Dodge P2B-SCM-107 Grade 208</p> <p>Belts: 6167-0012-0470 A-31 belts</p>
EF-1 EF-2 (2736-ZB)	Exhaust Fans	2736- ZB/600	ZO-060-623	H-2-80167	560131-3	<p>Fan: Twin City (CVI # 21196) Type BAF SISW Size 222 Arr. 9</p> <p>Bearings:</p> <p>SealMaster # MPD-31 Bore = $1\frac{15}{16}$" Dimensions to match diagram 1-15/16" shaft dia. Ball Pillow Block Assembly</p> <p>Belt: 6167-7770-0450</p> <p>Size = B60 Gates 8M-1600-36 P/N 9273-0083 Outside Circumference = 63 inches $[\pm \frac{1}{8}]$ Pitch Length (inner circumference of belt) = 61.8" $[\pm \frac{1}{8}]$</p>

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25 SAFETY SIGNIFICANT (all sub systems)

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION BLDG/RM	MTCE PROC OPER PROC	REF DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART#	VENDOR/MANUFACTURER + CVI # & MODEL #	COMPONENT DATA/CRITICAL CHARACTERISTICS
EF-1 EF-2 (232-Z)	Exhaust Fans	232-Z outside		H-2-131620	558004			<p>Belt: (2 required) Size = B47 Outside Circumference = 50 inches $[\pm \frac{1}{8}]$ Pitch Length = 48.8" $[\pm \frac{1}{8}]$</p> <p>Bearings: SealMaster NP-23 1-7/16" bore</p> <p>Motor: 40 hp, 215T frame, 460V, 3 phase, 3450 rpm</p>
EF-1-1 EF-1-2	Exhaust Fans	2736- ZA/ rm 650	ZO-060-623	H-2-80167 H-2-27969				<p>Fan: Aladdin (CVI #20326) Size 222S875, Type B, 7000 cfm, SP-9", 460V, 2400 rpm</p> <p>Belts (3 required): 6167-3375-0475 Size = BX64 Outside Circumference = 66-7/8" inches $[\pm \frac{1}{8}]$ Pitch Length (inner circumference of belt) = 65.8" $[\pm \frac{1}{8}]$</p> <p>Bearings & Pillow Block: 6167-3207-0450 pillow block bearing 6167-3375-0450 bearing with zerks Fafnir RSAO 1-15/16" bore</p>

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25 SAFETY SIGNIFICANT (all sub systems)

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION/ BLDG/RM	MTCE PROC OPER PROC	REF DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART# VENDOR/MANUFACTURER + CVI # & MODEL # COMPONENT DATA/CRITICAL CHARACTERISTICS
EF-1 EF-2 EF-3 EF-4 EF-5 EF-6 EF-7	Ventilation Exhaust fan	291-Z	2Z23065 ZO-060-102 ZO-060-117	H-2-26089	559472-3 559468-3	<p>Fan: 6167-2335-1625 Buffalo Forge Size 12, Super Load Limit, Type 65, 950 cfm at 1" static pressure capacity, 1055 cfm, 162.8 bhp, model class IV</p> <p>Shaft: 6167-3690-6750 C-1045 carbon steel, 4-7/16" dia, 12" $\pm$ 1/4" x 1" $\pm$ 1/16" keyway (CVI file # BPF922)</p> <p>Bearings: 6167-3690-0400 OLD: Fafnir SAOL P/N SMN407-WS 4-7/16" bore EM-1-6: 1063 rpm EM-7: 1305 rpm</p> <p>NEW: Dodge #043972 Configuration = Split Spherical Pillow Block Assembly Bearing Dimensions: Bore = 4 7/16" [$\pm$.0004-.004] Outer Diameter = 9.055 [$\pm$ 0.001]" Width of Inner Ring = 4.094 [$\pm$ 0.001]" Width of Outer Ring = 2.519 [$\pm$ 0.001]" D₁ = 5.984 [$\pm$ 0.001]" R = 0.12"</p> <p>Bells: (2 required) 6167-3690-0425 Gates Powerband P/N 3/D210, (2 required) or D210 (6 required) 215" O.C.</p> <p>Fan Shaft Sheave / Bushing: 6167-3690-6780 Original or QD 6D18.0-J, bushing QD-J, 4-7/16" bore</p> <p>Motor: 6417-2335-4400 NEMA frame 449Z w/ transition base to convert from existing 876C pattern to NEMA 449Z, 900 rpm, continuous duty, class F insulation, horizontal shaft, NEMA design B special shaft, V dim = 15", 1.15 service factor, std shaft diameter EM-1, EM-3, EM-4, EM-5, EM-6: Westinghouse type CS induction motor 200 hp, frame 876-C, 440V, 3 phase, 60 hz, 880 rpm, Class 1 EM-2: Westinghouse life-line T AC motor model T&DP style 83B20763 200 hp, frame 449T2, 3 phase, 60 hz, 880 rpm EM-7: Reliance Duty master AC motor XE type P design B 200 hp, 449T2 frame, 460 V, 3 phase, 60 hz, 885 rpm</p> <p>Motor Sheave: 3-3/8" bore EM-1-6: QD 6D22.O-M 6167-3690-6760 EM-7: QD 6D27.O-M 6167-3690-6770</p> <p>Bearings: 6117-5380-0415 6117-5380-0420 Fafnir W1R-320W Fafnir 5320W Bushings: #QD-M, 3-3/8" dia. bore</p>
33 of 53						

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25 SAFETY SIGNIFICANT (all sub systems)

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION BLDG/RM	MTCE PROC OPER PROC	REF DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART#	VENDOR/MANUFACTURER + CVI # & MODEL #	COMPONENT DATA/CRITICAL CHARACTERISTICS
ET-8	EMERGENCY EXHAUST FAN (STEAM TURBINE DRIVEN)	291-Z	ZZ23124 ZO-060-111	H-2-79486 H-2-26089		Fan: BUFFALO FORGE (CVI# 1336) SIZE 12, CLASS 2A, LOAD LIMIT Bearings: FAFNIR SAOL 4-3/16" bore Turbine: Carling (CVI #22197) model 24C-ID-RH, 173 HP, 3036 rpm, trip 3450 PO WDW/XVV047575 Speed Reducer: Browning Power Match, Size 5007HP1, service factor 1.53, ratio 5.071, output rpm 598.7 Couplings: 6110-4300-0900 1-3/4" shaft half, steel Rexnord(Thomas) E63721 model DBZ-A-226 6110-4300-0905 2-3/4" shaft half, steel Rexnord(Thomas) model DBZ-401		
ET-9	EMERGENCY EXHAUST FAN (STEAM TURBINE DRIVEN)	291-Z	ZZ23124 ZO-060-111	H-2-79486 H-2-26089	552676-3 552677-3	Fan: BUFFALO FORGE (CVI# 1336) SIZE 12, CLASS 2A, LOAD LIMIT Bearings: FAFNIR SAOL 4-3/16" bore Turbine: Carling (CVI #22197) model 24C-ID-RH, 173 HP, 3036 rpm, trip 3450 PO WDW/XVV047575 Speed Reducer: Browning Power Match, Size 5007HP1, service factor 1.53, ratio 5.071, output rpm 598.7 Couplings: 6110-4300-0900 1-3/4" shaft half, steel Rexnord(Thomas) E63721 model DBZ-A-226 6110-4300-0905 2-3/4" shaft half, steel Rexnord(Thomas) model DBZ-401		552676-3 552677-3

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25 SAFETY SIGNIFICANT (all sub systems)

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION/ BLDG/RM	MTCE PROC OPER PROC	REF DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART# VENDOR/MANUFACTURER + CVI # & MODEL # COMPONENT DATA/CRITICAL CHARACTERISTICS
EF-11 & 12	Zone 1 Exhaust fans	234-5Z/ rm 321	ZO-060-102 ZO-060-117	H-2-26089	559452-3	Fan: Buffalo Forge Class 1A, Size 8 Load Limit
						Bearings: 6167-3676-0450 Fafnir SAOL P/N SMN203KS 2-3/16" bore w/ collar SN203K
						Motor: 15 hp, 364 frame, 440V, 3 phase, 1160 rpm Belts (1 required): 6167-3676-0530 Gates PowerBand # 3/C173 Sheave: QD3C20.0, bushing E
EF-14	Zone 1 Exhaust fan (rm 198)	234-5Z/ rm 321	ZO-060-102 ZO-060-117	H-2-26089	558134-3 558134-3 558133-3	Fan: Aladdin (CVI #1387) Type EX, Size 20
						Bearings: FAFNIR SAO 1-7/16" dia. (F-1681, meas.) Fan Shaft Sheave / Bushing QD 2A7 0/B7.4 Bushing QD-SK 1-7/16" dia.
						Motor: 5.0 hp, 254 frame, 440V, 3 phase, 1735 rpm (1773 meas.) Motor Sheave: 6167-0170-6750 QD 2A6.6/B7.0 Vulcomount multidity w/ bushing QD-SK, 1-7/16" dia. Bore Belts (1 required): 6167-0170-0450 Gates PowerBand 2/B66 69" O.C.

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25 SAFETY SIGNIFICANT (all sub systems)

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION BLDG/RM	MTCE PROC OPER PROC	REF DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART# VENDOR/MANUFACTURER + CVI # & MODEL # COMPONENT DATA/CRITICAL CHARACTERISTICS
EF-15	Zone 1 Exhaust fan (rm 202)	234-5Z/ rm 321	ZO-060-102 ZO-060-117	H-2-26089		<p>Fan: Garden City (CVI#1387) Model RF-2, Size 11", 300°F max temp, 3992 max rpm</p> <p>Bearings: 6167-2002-0450 SealMaster SPM-23 1-7/16" bearing insert for SPM med duty pillow block</p> <p>Belts (1 required): 6167-2002-0500 Gates PowerBand 2/B-71 74" O.C. #9093-2071</p> <p>Motor: 3 hp, 224 frame, 440V, 3 phase, 3455 rpm</p> <p>Sheave: 6167-2002-6750 QD2A3 0/B3.4 1-7/16" bore Super HC sheave SH bushing, Gates 2-A-3-4-QD</p>
EF-16	Zone 1 Exhaust Fan for Chem Prep	234-5Z/336	2222072	H-2-26089 H-2-16318	558926-3	<p>Belt: 4L-270</p>
EF-19	Zone 1 Lunch Room Range Exhaust Fan	234-5Z/305				<p>Breaker: Square D # QOB 3201021 (3 phase, 20 amp, bolt-on) w/ shunt trip rated at 120/208/240V</p>

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25 SAFETY SIGNIFICANT (all sub systems)

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION/ BLDG/RM	MTCE PROC OPER PROC	REF DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART# VENDOR/MANUFACTURER + CUI # & MODEL # COMPONENT DATA/CRITICAL CHARACTERISTICS
EF-21-25D	Standby (Small) Exhaust Fan for 241-Z/241-ZA	241-Z	ZO-060-117 ZO-060-205	H-2-28852		<p>Fan: Aladdin model AR15</p> <p>Fan Shaft Sheave / Bushing: Woods 2BQD 5.0, bore 1-3/16" dia.</p> <p>Motor: 5.0 hp, 184T frame, 440V, 3 phase, 1745 rpm (14.5" CL to CL)</p> <p>Motor Sheave: 2LVP54B66/ 1-1/8" dia. bore</p> <p>Bearings: 6167-0160-0460 Fairfir RAOL 1-3/16" bore 2000 rpm P/N GN103KRRB</p> <p>Sheave: 6167-0160-6750 QD2A4.6/B5.0, Gates 2-B-5.0-QD 1-3/16" bore super HC sheave w/ SDS bushing</p> <div data-bbox="722 535 885 787"> </div> <p>Belts (1 required): 6167-0160-0450 Gates PowerBand Size = 2/B46 Outside Circumference = 49 inches $[\pm \frac{1}{16}]$ Pitch Length (inner circumference of belt) = 47.8" $[\pm \frac{1}{16}]$</p>

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25 SAFETY SIGNIFICANT (all sub systems)

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION/ BLDG/RM	MTCE PROC OPER PROC	REF DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART# VENDOR/MANUFACTURER + CVI # & MODEL # COMPONENT DATA/CRITICAL CHARACTERISTICS
EF-22-25D	Large Exhaust Fan	241-Z	ZO-060-117 ZO-060-205	H-2-28852		Fan: Buffalo Forge 330BL, Class II
					559448-3	Bearings: 6167-3580-0460 Fafnir SAOL P/N SMN107KS 1-7/16" bore 2569 max rpm, w/ collar
					559450-3	Sheaves: 6167-3580-6760 QD1/3V8.00, SDS bushing 1-7/16" bore super HC sheave w/ QD-SDS bushing Gates P/N 7872-1085 or Martin SDS-1-7/16"
					559449-3	6167-3580-6750 QD 1/3V6.00 bushing QD-SH, 1-1/8" dia. Bore super HC sheave w/ QD-SH bushing Gates P/N 7872-1060 or Martin SH-1-1/8"
					559447-3	Belt: 6167-3580-0450 Super HC belts, Gates model 3VX800 Outside Circumference = 80 inches [± 1/8"]
					559433-3	Motor: 5.0 hp, 213T frame, 440V, 3 phase, 3425 rpm 6167-3320-8110 ASCO (CVI# 22114) MODEL WPKP8300D76F, 1/2" solenoid valve

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25 SAFETY SIGNIFICANT (all sub systems)

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION BLDG/RM	MTCE PROC OPER PROC	REF DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART#	VENDOR/MANUFACTURER + CVI # & MODEL #	COMPONENT DATA/CRITICAL CHARACTERISTICS
EV-TC1A	SOLENOID VALVE TURBINE CONTROL	291-Z rm 501	ZO-060-111	H-2-96434 H-2-26089	559813-3 559814-3 559815-3 559816-3 559817-3	6167-5500-7652 6167-5500-7653 6167-5500-7654 6167-5500-7655 6167-5500-7656	Brandt 5A40-4010-0.15 valve Brandt PI-valve Stage 1 transmitter Brandt pneumatic DP transmitter PI-DPT-2540-12-CR Brandt 21DPT2220 PI valve stage 2 transmitter Diff pressure transmitter Brandt Serial # 8110JJ02643 (STAGE 3 IS IDENTICAL ON ALL DIFFERENTIAL PRESSURE TRANSMITTERS.)	<p># DPT 2200-0.5"-3 Calibrated 0.00 to 0.50" w.g. Output = 3-15 psig, linear with DP Continuous purge through high & low legs Inst Aid requirement = 20 psig Process connections = 1/4 NPTF Accuracy = ± 0.5%, Repeatability & Hysteresis Approximate dimensions shown at right</p>
EV-TC1B	SOLENOID VALVE TURBINE CONTROL	291-Z rm 501	ZO-060-111	H-2-96434 H-2-26089				
FX-1	RECIRC. FAN FLOW TRANSMITTER	2736-ZB	ZCP-6-006 1-ZM-032	H-2-80167		6167-5500-7652 6167-5500-7653 6167-5500-7654 6167-5500-7655 6167-5500-7656	Brandt 5A40-4010-0.15 valve Brandt PI-valve Stage 1 transmitter Brandt pneumatic DP transmitter PI-DPT-2540-12-CR Brandt 21DPT2220 PI valve stage 2 transmitter Diff pressure transmitter Brandt Serial # 8110JJ02643 (STAGE 3 IS IDENTICAL ON ALL DIFFERENTIAL PRESSURE TRANSMITTERS.)	<p># DPT 2200-0.5"-3 Calibrated 0.00 to 0.50" w.g. Output = 3-15 psig, linear with DP Continuous purge through high & low legs Inst Aid requirement = 20 psig Process connections = 1/4 NPTF Accuracy = ± 0.5%, Repeatability & Hysteresis Approximate dimensions shown at right</p>
FX-2	NDA LAB SUPPLY AIRFLOW TRANSMITTER	2736-ZB	ZCP-6-006 1-ZM-032	H-2-80167				
FX-3	FLOW TRANSMITTER		ZCP-6-006 1-ZM-049	H-2-80167				

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25 SAFETY SIGNIFICANT (all sub systems)

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION BLDG/RM	MTCE PROC OPER PROC	REF DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART#	VENDOR/MANUFACTURER + CUI # & MODEL # COMPONENT DATA/CRITICAL CHARACTERISTICS
K-2A	HIGH EXHAUST PLENUM PRESSURE SHUTDOWN RELAY			H-2-96434			NR
K-2B	HIGH EXHAUST PLENUM PRESSURE SHUTDOWN RELAY					POTTEN & BRUMFIELD	KUP-14A35-120
KES-1	EMER FAN SHUTDOWN FOR ELECT/STEAM DRYER			H-2-26089 H-2-16318		6117-5704-6180	STRUTHERS-DUNN 4 PDT RELAY, WITH 120 VAC COIL, 10 amp, 14 PIN P/N 219xDxP
KES-03	EMER FAN SHUTDOWN RELAY FOR SF-5 THRU SF-8			H-2-26089 H-2-16318			
KES-05	EMER FAN SHUTDOWN RELAY FOR EM-11 THRU EM-15			H-2-26089 H-2-16318			
KES-11	RELAY FOR EMER FAN SHUTDOWN RESULTING FROM EXHAUST PLENUM LOW PRESSURE		H-2-26089	H-2-16318			
KES-13	EMER FAN SHUTDOWN FOR EM-16, 19, 20			H-2-26089 H-2-16318 H-2-78074			
KTD-1A	TIME DELAY RELAY TURBINE CONTROL	291-Z rm 501	ZO-060-111	H-2-96434 H-2-26089	559430-3	6167-3320-7550	AUTOMATIC TIMING AND CONTROL (CUI# 22114) MODEL 328C200Q10XX DPDT LOAD RELAY, 0-10 SEC RANGE, 0-60 SEC RANGE 120V
KTD-1B	TIME DELAY RELAY TURBINE CONTROL	291-Z rm 501	ZO-060-111	H-2-96434 H-2-26089			
PC-1-25A	DP CONTROLLER DAMPER D-A		ZCP-4-011 1-ZM-068 ZO-060-100	H-2-26089 H-2-28310	561406-3	6418-2330-0915	ACCO. BRISTOL DIV (CUI# 20293) PNEUMATIC CONTROLLER, 624-II, MODEL 5453-11D-232-02F-100 SUPPLY 18-20 PSI, OUTPUT 3-15 PSI, RANGE 3-15 PSI, SCALE 0.0 TO -0.2 "WG

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25 SAFETY SIGNIFICANT (all sub systems)

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION BLDG/RM	MTCE PROC OPER PROC	REF DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART#	VENDOR/MANUFACTURER + CVI # & MODEL # COMPONENT DATA/CRITICAL CHARACTERISTICS
PC-1	SUPPLY PLENUM PRESSURE CONTROLLER		Z0005-2 1-ZM-035 ZO-060-623	H-2-80167	559787-3	6167-5500-0904	Taylor (CVI# 21307) 444RF1637 LOW PRESSURE UNIT P/N 6156036 0 TO 4.0 WC 0-30 PSI GAUGE INPUT 3 TO 15 PSI SUPPLY 20 PSI RANGE 3-15 PSI GLOVEBOX RANGE -0.5 to 0 SCALE -0.5 to 0
PC-1A	TRANSMITTER		Z0005-1 1-ZM-035	H-2-80167	559818-3	6167-5500-7657	TAYLOR (CVI# 21307) Differential Pressure Transmitter #391TD00725 0 TO 4 IN WC
PC-2	PRESSURE TRANSMITTER EXHAUST PLENUM		Z0029-2 1-ZM-035 ZO-060-623	H-2-80167	559787-3	6167-5500-0904	TAYLOR (CVI# 21307) #444RF1137 RANGE 0 TO -10" WG LOW PRESSURE UNIT P/N 6156036 RANGE 3-15 PSI
PC-2-25A	DP CONTROLLER DAMPER D-B AND D-C		ZCP-4-011 1-ZM-068 ZO-060-100	H-2-26089 H-2-28310	561406-3	6418-2330-0915	ACCO BRISTOL DIV (CVI# 20293) PNEUMATIC CONTROLLER, 624-II, MODEL 5453-11D-232-02F-100 SUPPLY 18-20 PSI, OUTPUT 3-15 PSI, RANGE 3-15 PSI, SCALE 0.0 TO -0.2 "WG
PC-2A	PRESSURE TRANSMITTER EXHAUST PLENUM		Z0029-1 1-ZM-035	H-2-80167	559818-3	6167-5500-7657	TAYLOR (CVI# 21307) 391TD00725 0 TO -10 IN WC
PC-4-25A	DP CONTROLLER DAMPER D-D		ZCP-4-011 1-ZM-068 ZO-060-100	H-2-26089 H-2-28310	561406-3	6418-2330-0915	ACCO BRISTOL DIV (CVI# 20293) PNEUMATIC CONTROLLER, 624-II, MODEL 5453-11D-232-02F-100 SUPPLY 18-20 PSI, OUTPUT 3-15 PSI, RANGE 3-15 PSI, SCALE 0.0 TO -0.2 "WG
PC-5-25A	DP CONTROLLER DAMPER D-E		ZCP-4-011 1-ZM-068 ZO-060-100	H-2-26089 H-2-28310			
PCI-19	PRESS CONTROL INDICATOR, AIR TO FX-1, FC-1		ZCP-4-002 Z0318-1	H-2-80167			NORGREN 11-002-021

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25 SAFETY SIGNIFICANT (all sub systems)

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION/ BLDG/RM	MTCE PROC OPER PROC	REF DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART#	VENDOR/MANUFACTURER + CVI # & MODEL # COMPONENT DATA/CRITICAL CHARACTERISTICS
PRV-4-1B	VACUUM BREAKER ON DRY AIR SUPPLY TO HC-1		ZSR-25A- 103	H-2-23400	559284-0	6167-2738-8130	FISHER (CVI# 11663) TYPE 66-127VB VACUUM BREAKER, 125 LB FLANGED BODY, CAST IRON BRASS TRIM, service air 6 to 20" wg outlet setting, scale -0.3 TO -0.8 IN WC
PRV-4-1C -4-1 -5-1 -5-2	VACUUM BREAKER ON DRY AIR SUPPLY TO HA28-1		2Z83010	H-2-23400			
PRV-5-1B PRV-5-2B	EMERGENCY EXHAUST VALVE FOR HA28-1		2Z83010	H-2-23400	559281-3 559281-0	6167-2738-8125	FISHER (CVI# 11663) TYPE 66-114 VACUUM REGULATOR, 4" CAST IRON 125 LB, FLANGED BODY, BRASS TRIM, -0.3 TO -0.8 IN WC
PRV-5-1C PRV-5-2C	EMERGENCY EXHAUST VALVE FOR HC-1		ZSR-25A- 103	H-2-23400			
PRV-5-1D	EMERGENCY EXHAUST VALVE FOR HC-3		2Z83010	H-2-23400			
PS-1LA/1HA	PRESSURE SWITCH FOR EXHAUST PLENUM PRESSURE CHANNEL A	291-Z rm 501	ZCP-4-003 1-ZM-036 1-ZM-059 ZO-060-111	H-2-96434 H-2-26089	559428-3	6167-3320-7300	DWYER (CVI# 22114) PHOTOHELIC MODEL 3010C, RANGE 1-10 IN WG
PS-1LB/1HB	PRESSURE SWITCH FOR EXHAUST PLENUM PRESSURE CHANNEL B	291-Z rm 501	ZCP-4-003 1-ZM-036 1-ZM-059 ZO-060-111	H-2-96434 H-2-26089			
PS-2A	PRESSURE SWITCH	291-Z rm 501	1-ZM-059	H-2-96434 H-2-26089	559429-3	6167-3320-7310	TRANSAMERICA / DELAVAL -BARKSDALE DIV. (CVI# 22114) MODEL D2T-H18SS-P2, SER NO 2Z00491 0.4 - 18 PSIG
PS-2B	PRESSURE SWITCH	291-Z rm 501	1-ZM-059	H-2-96434 H-2-26089			

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25 SAFETY SIGNIFICANT (all sub systems)

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION/ BLDG/RM	MTCE PROC OPER PROC	REF DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART#	VENDOR/MANUFACTURER + CVI # & MODEL #	COMPONENT DATA/CRITICAL CHARACTERISTICS
PX-1	ZONE IV PRESSURE TRANSMITTER		Z0017-1 ZCP-6-006 1-ZM-034	H-2-80167			6167-5500-7652 0-0.15" wc Brandt 5A40-4010-0.15 valve 6167-5500-7653 0-0.5" wc Brandt PI-valve Stage 1 transmitter 6167-5500-7654 0-12" wc Brandt pneumatic DP transmitter PI-DPT-2540-12-CR 6167-5500-7655 0 to -0.5" wc Brandt 21DPT2220 PI valve stage 2 transmitter 6167-5500-7656 Diff pressure transmitter Brandt Serial # 8110JJ02643 (STAGE 3 IS IDENTICAL ON ALL DIFFERENTIAL PRESSURE TRANSMITTERS)	<p># DPT 2200-0.5"-3</p> <p>Calibrated 0.00 to 0.50" w.g. Output = 3-15 psig, linear with DP Continuous purge through high & low legs Inst Aid requirement = 20 psig Process connections = 1/2 NPTF Accuracy = ± 0.5% Repeatability & Hysteresis Approximate dimensions shown at right</p>
PX-2	ZONE II MAIN SUPPORT AREA PRESSURE TRANSMITTER	2736- ZB	Z0024-1 ZCP-6-006 1-ZM-033	H-2-80167			6167-5500-7652 0-0.15" wc Brandt 5A40-4010-0.15 valve 6167-5500-7653 0-0.5" wc Brandt PI-valve Stage 1 transmitter 6167-5500-7654 0-12" wc Brandt pneumatic DP transmitter PI-DPT-2540-12-CR 6167-5500-7655 0 to -0.5" wc Brandt 21DPT2220 PI valve stage 2 transmitter 6167-5500-7656 Diff pressure transmitter	<p># DPT 2200-0.5"-3</p> <p>Calibrated 0.00 to 0.50" w.g. Output = 3-15 psig, linear with DP Continuous purge through high & low legs Inst Aid requirement = 20 psig Process connections = 1/2 NPTF Accuracy = ± 0.5% Repeatability & Hysteresis Approximate dimensions shown at right</p>
PX-3	PRESSURE TRANSMITTER NDA LAB	2736- ZB	Z0012-1 ZCP-6-006 1-ZM-032	H-2-80167				

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25 SAFETY SIGNIFICANT (all sub systems)

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION/ BLDG/RM	MTCE PROC OPER PROC	REF DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART#	VENDOR/MANUFACTURER + CVI # & MODEL #
COMPONENT DATA/CRITICAL CHARACTERISTICS							
PX-4	ZONE 1 PRESS TRANSMITTER		Z0025-1 ZCP-6-006 1-ZM-033	H-2-80167		6167-5500-7652 6167-5500-7653 6167-5500-7654 6167-5500-7655 6167-5500-7656	0-0.15" wc Brandt 5A40-4010-0.15 valve 0-0.5" wc Brandt PI-valve Stage 1 transmitter 0-12" wc Brandt pneumatic DP transmitter PI-DPT-2540-12-CR 0 to -0.5" wc Brandt 21DPT2220 PI valve stage 2 transmitter 21DPT2230 Diff pressure transmitter 0 TO -2.0 IN WG
PX-5	PRESS TRANSMITTER FOR DPC-5		Z0067-1 ZCP-6-006 1-ZM-049	H-2-80167		6167-5500-7652 6167-5500-7653 6167-5500-7654 6167-5500-7655 6167-5500-7656	0-0.15" wc Brandt 5A40-4010-0.15 valve 0-0.5" wc Brandt PI-valve Stage 1 transmitter 0-12" wc Brandt pneumatic DP transmitter PI-DPT-2540-12-CR 0 to -0.5" wc Brandt 21DPT2220 PI valve stage 2 transmitter Diff pressure transmitter
<p>MODEL DPT2225-5</p> <p>Calibrated 0.00 to 0.50" w.g. Output = 3-15 psig, linear with DP Continuous purge through high & low legs Inst Aid requirement = 20 psig Process connections = 1/4 NPTF Accuracy = ± 0.5% Repeatability & Hysteresis Approximate dimensions shown at right</p>							
PX-1-25A	DP TRANSMITTER ZONE 1	234-5Z	ZCP-6-009 1-ZM-068	H-2-26089	561408-3	6418-2330-7665 6418-2330-7670 20293)	AMERICAN CHAIN & CABLE CO BRISTOL DIV. (CVI#
PX-2-25A	DP TRANSMITTER ZONE 3	234-5Z	ZCP-6-009 1-ZM-068	H-2-26089			624-II PNEUMATIC, MODEL 73A-OGC504PUA-X5921 LOW RANGE BELL PNEUMATIC
PX-4-25A	DP TRANSMITTER ZONE 3A	234-5Z	ZCP-6-009 1-ZM-068	H-2-26089			
PX-5-25A	DP TRANSMITTER ZONE 3B	234-5Z	ZCP-6-009 1-ZM-068	H-2-26089			
PX-6-25A	DP TRANSMITTER ZONE PRF	236-Z	ZCP-6-009 1-ZM-042	H-2-26089 H-2-80010			

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25 SAFETY SIGNIFICANT (all sub systems)

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION: BLDG/RM	MTCE PROC OPER PROC	REF DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART# VENDOR/MANUFACTURER + CVI # & MODEL # COMPONENT DATA/CRITICAL CHARACTERISTICS
SF-1 SF-2	Ventilation Supply fan	234-5Z rm 321	2Z23054 2Z23052 2Z24062 ZO-060-100 ZO-060-102 ZO-060-117	H-2-26089 H-2-99998	559574-0 559481-3	Shaft: 6167-4530-7150 Buffalo Forge (CVI#965) Class 1A, Size 10, Load Limit Shaft 3-3/16" Fan Bearings: (2 required) 6167-3705-0450 Spherical roller bearing, SKF #22218CKKW33 P/N 22218CKJC3W33 w/ adapter SNW-18 x 3-3/16 3-3/16" bore, spacer, 9900-4944-9001, ring 7900-0474-2401 Bearing Seals: (4 per fan) SKF LOR 188 Pillow Block: 6167-3705-0440 SKF model SAF 22518 3-3/16" Spacer: 6167-3705-7050 model SR-18-15 or 6167-3705-0460 Fan Shaft Sheave / Bushing: 6167-3705-6750 QD 4/5V23.6-F Gates SF-1-8 bushing QD-F, Super HC sheave 3-3/16" dia. Bore Motor: Baldor Cat ID M4411T-4, specs 18E67W26, 445T frame, serial # 10920, 125 hp, 460V, 60 Hz, 1160 rpm Hardware: slinger ring: Baldor # HA1005A10 seals: Baldor #RM1002A05SP & #RM1002A07 Motor Sheave: QD 4/5V16.00-E bushing #QD-E, 3-3/8" dia. Bore Motor Bearings: (2 required per part number (4 total)) Japan RE, NTN, drive end, #6319C3 Japan TH, NTN, #6313C3 Belts: (8 required) 6167-3705-0500 Gates Powerband 4/5V2000 Pre-filters: (72 required per fan) 6167-5151-5600 24x24x2 pleated fiberglass filters, Airguard DP40 or AmericanAir 300E Secondary filters: (72 required) 6167-5150-1700 24" X 24" X 12" filter: Continental CR8F, Airguard R-804; Aerocell AC85-4412, or engineer equivalent Preheat Coils: Aerofin Type B-nonfreeze, Casing Height 27-9/16", 2 row, 90" NTL, dwg no CA-140-3BNF, 14/13 tube face, 12 FPI, series 82, 200 psig, 400 deg F, 5/8" OD x .025" copper outer tubes, 3/8" OD copper inner tubes, MPT 2" supply 1-1/2" return connections, CS headers, silver brazed joints, galvanized casing, CU solder coated fins Reheat Coils: Aerofin Type B-flex, Casing Height 37-7/16", 1 row, 70" NTL, dwg no CA-143-2BF, 14 tube face, 12 FPI, series 31B, 200 psig, 400 deg F, 5/8" OD x .025" Copper tubes, MPT 2" supply, 1-1/4" return connections, CS headers, silver brazed joints, galvanized casing *NOTE: Aerofin does not have a part number system. Each part is built custom and thus all of this information must appear on every P.O.
					559485-0	Spray nozzles: (72 required per fan) Spraying Systems Co. model # 3/8 GA 20

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25 SAFETY SIGNIFICANT (all sub systems)

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION/ BLDG/RM	MTCE PROC OPER PROC	REF DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART# VENDOR/MANUFACTURER + CVI # & MODEL # COMPONENT DATA/CRITICAL CHARACTERISTICS
SF-3 SF-4 SF-5 SF-6 SF-7 SF-8	Ventilation Supply fan	234-5Z rm 321	2Z23054 2Z23052 2Z24062 ZO-060-100 ZO-060-102 ZO-060-117	H-2-26089 See H-2-99998 for spacer installation	559574-0 559481-3 559480-3 559488-0 559486-3 -0 559482-3 559731-0 559730-3 559484-0 559483-0 559485-0	Shaft: 6167-4530-7150 Buffalo Forge (CVI#965) Class 1A, Size 10, Load Limit Shaft 3-3/16" Fan Bearings: (2 required) SF-3, 4, 5, 7, 8 (old bearings) KH22331C SAOFN EQUAL B&B Industries 3-3/16" bore SF-6: (new bearings) 6167-3705-0450 SKF #22218CCKW33 P/N 22218CCKJ3W33 w/ adapter SNW-18 x 3-3/16 3-3/16" bore, spacer , 9900-4944-9001, ring 7900-0474-2401 Bearing Seals: (4 per fan) SKF LOR 188 Pillow Block: 6167-3705-0440 SKF model SAF 22518 3-3/16" Spacer: 6167-3705-7050 model SR-18-15 or 6167-3705-0460 Fan Shaft Sheave / Bushing: 6167-3705-6750 QD 4/5V23 6-F Gates SF-1-8 bushing QD-F, Super HC sheave 3-3/16" dia. Bore Motor: 100 hp, frame 584-3, 440V, 3 phase, 1200 rpm Motor Sheave: QD 4/5V16.00-E bushing #QD-E, 3-3/8" dia. Bore Motor Bearings: (2 required per part number (4 total)) Japan RE, NTN, drive end, #6319C3 Japan TH, NTN, #6313C3 Belts: (8 required) 6167-3705-0500 Gates Powerband 4/5V2000 Pre-filters: (72 required per fan) 6167-5151-5600 24x24x2" pleated fiberglass filters, Airguard DP40 or AmericanAir 300E Secondary filters: (72 required) 6167-5150-1700 24" X 24" X 12" filter: Continental CR8F, Airguard R-804; Aerocell AC85-4412; or engineer equivalent Preheat Coils: Aerofin Type B-nonfreeze, Casing Height 27-9/16", 2 row, 9'0" NTL, dwg # CA-140-3BNF, 14/13 tube face, 12 FPI, series 82, 200 psig, 400 deg F, 5/8" OD x .025" CU outer tubes, 3/8" OD CU inner tubes, MPT 2" s 1-1/2" r connections, CS headers, silver brazed joints, galvanized casing, CU solder coated fins Reheat Coils: Aerofin Type B-flex, Casing Height 37-7/16", 1 row, 7'0" NTL, dwg no CA-143-2BF, 14 tube face, 12 FPI, series 31B, 200 psig, 400 deg F, 5/8" OD x .025" Copper tubes, MPT 2" supply, 1-1/4" return connections, CS headers, silver brazed joints, galvanized casing *NOTE: Aerofin does not have a part number system. Each part is built custom and thus all of this information must appear on every P.O. Spray nozzles: (72 required per fan) Spraying Systems Co. model # 3/8 GA 20

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25 SAFETY SIGNIFICANT (all sub systems)

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION BLDG/RM	MTCE PROC OPER PROC	REF DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART# VENDOR/MANUFACTURER + CVI # & MODEL # COMPONENT DATA/CRITICAL CHARACTERISTICS
S-9-25A	Booster fan for AC to room 131	234-5Z rm 131	2223056	H-2-26089		Fan: Carrier model 50K12-B139, 2hp fan, charge 12.5 lbs, R-22 refrigerant
S-10	Filter Frame Supply Fan	234-5Z	2223058 2222072	H-2-26089		Fan: American Blower 122-BZ Fan Sheave: 6167-0180-6750 QD1A7 0/B7.4, bushing SDS Motor: GE model 5KH45AB1738D Motor Sheave: QD1A3.0/B3.4, bushing SH bore needed Bearing: 6167-0180-0450 Fafnir RAK 15/16" bore Belt (1 required): 6167-0180-0460 A-36
S-11-25A	AC to inspection area, Zone 3A	234-5Z rm 262	2223056	H-2-26089		Fan: Pace (Brod & McClung) K-1-3-1, Size U-12, ser no 73-20374-01 AC: Model 07KA004520, refr. 22, ser no 24311 Bearing: Air & Refr. Corp Drw # 729-1 / Fan Bishop & Babcock #118, VI# 1399 Fan Shaft Sheave / Bushing: 12" PD, 1-3/16" dia. Motor: 3 hp, 182T frame, 460V, 3 phase, 1750 rpm Motor Sheave: 3.5 to 4.9 pd., 1" dia. shaft Belts: B-68

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25 SAFETY SIGNIFICANT (all sub systems)

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION BLDG/RM	MTCE PROC OPER PROC	REF DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART# VENDOR/MANUFACTURER + CVI # & MODEL # COMPONENT DATA/CRITICAL CHARACTERISTICS
SF-1 SF-2	Supply fans	2736- ZB/602	2223080 ZO-060-623		561460-3	Fan: 6167-2331-1610 Trane Co. Model Q, 24B-9-2VFU w/ mounting legs, motor & inlet vanes mounted rt. Bearings: SealMaster SFT 105 1-3/16" Belts (3 required): Pre-filters: (6 required) 6167-5151-5600 24x24x2" pleated fiberglass filters, Airguard DP1-205 or AmericanAir 300X Secondary filters: (6 required) 24" X 24" X 6" filter: Airguard R-502-C1 (fiberglass media, UL900 Class 1) or engineer equivalent
SF-3	Supply fan	2736- ZB/602			559561-3 559561-0	Fan: 6167-4206-1601 Trane Co. Model Q, 21B-9-2VFU w/ mounting legs, motor&inlet vanes mounted right Bearings: SealMaster SFT 105 1-3/16" Bells: B-59 Pre-filters: (4 required) 6167-5151-5600 24" X 24" X 2" Secondary filters: (4 required) 24" X 24" X 6" filter: Airguard R-502-C1 (fiberglass media, UL900 Class 1) or engineer equivalent
SF-4	Supply fan	2736- ZB/602			559561-3 559561-0	Fan: 6167-4206-1601 Trane Co. Model Q, 21B-9-2VFU w/ mounting legs, motor&inlet vanes mounted right Bearings: SealMaster SFT 105 1-3/16" Bells: B-67 Pre-filters: (4 required) 6167-5151-5600 24" X 24" X 2" Secondary filters: (4 required) 24" X 24" X 6" filter: Airguard R-502-C1 (fiberglass media, UL900 Class 1) or engineer equivalent

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25 SAFETY SIGNIFICANT (all sub systems)

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION/ BLDG/RM	INTCE PROC OPER PROC	REF DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART#	VENDOR/MANUFACTURER + CVI # & MODEL #	COMPONENT DATA/CRITICAL CHARACTERISTICS
SF-5 SF-6	Supply fans	2736- ZB/602						Belts: B-60 Pre-filters: (6 required) 6167-5151-5600 24" X 24" X 2" Secondary filters: (6 required) 24" X 24" X 6" filter: Airguard R-502-C1 (fiberglass media, UL900 Class 1) or engineer equivalent
ST8-01 ST9-01 ST9-02	Y-STRAINER ON STEAM CONDENSATE		ZO-060-111	H-2-79486 H-2-26089			NR	3/4" M-1 PIPE CODE
T8-01 T9-01 T9-02	STEAM TRAP ON STEAM CONDENSATE	291-Z	ZO-060-111	H-2-79486 H-2-26089			ARMSTRONG 3/4" 811-CV	
V8-07	PNEUMATIC OPERATED STEAM VALVE TO EXHAUST TURBINE ET-8	291-Z	ZO-060-111	H-2-79486 H-2-26089	559434-3 559425-3 559426-3 559427-3		6167-3320-8120 (VALVE) CS body, 3" valve, actuator size 13 valve ANSI 500V 6167-3320-1100 (DIAPHRAGM) diaphragm, actuator, rubber case 13 6167-3320-5380 (PLUG PIN) 316 SST 3" valve actuator size 13 6167-3320-7100 (PLUG STEM) valve 316 SST actuator size 13, 3" valve	
V9-05	PNEUMATIC OPERATED STEAM VALVE TO EXHAUST TURBINE ET-9	291-Z	ZO-060-111	H-2-79486 H-2-26089			MASONEILAN/DRESSER (22232) MODEL 37-21125, SIZE 3", ACTION AIR TO CLOSE, RANGE 3-15 PSI, SUPPLY 35 PSI, CS BODY, TRIM 316 SST, ANSI 500	
V8-52	PNEUMATIC OPERATED WATER VALVE TO EXHAUST TURBINE ET-8	291-Z	ZO-060-111	H-2-79486 H-2-26089	559432-3	6167-3320-8100	JOHNSON (CVI# 22114) Valve, model V-7216-4505, SIZE 1/2", 300 PSI, Kv 2.5, Cv 3, ANSI Class 300	
V9-26	PNEUMATIC OPERATED WATER VALVE TO EXHAUST TURBINE ET-9	291-Z	ZO-060-111	H-2-79486 H-2-26089				

HVAC SYSTEM COMPONENT MATRIX, SYSTEM 25 SAFETY SIGNIFICANT (all sub systems)

COMP. I.D.	DESCRIPTION/ FUNCTION	LOCATION BLDG/RM	MTCE PROC OPER PROC	REF DRAWINGS	CATALOG I.D. & Quality Level	SPARE PART#	VENDOR/MANUFACTURER + CVI # & MODEL #	COMPONENT DATA/CRITICAL CHARACTERISTICS
ZC-A-1-25A	VALVE POSITIONER FOR DAMPER D-A (ZONE 1)		ZCP-7-002	H-2-26089	559419-3	6167-3310-5550	MOORE (CVI# 22230)	
ZC-A-2-25A	VALVE POSITIONER FOR DAMPER D-A (ZONE 1)		ZCP-7-002	H-2-26089			Pneumatic damper actuator, MODEL 72G214 Part # D-9502-2	
ZC-B-1-25A	VALVE POSITIONER FOR DAMPER D-B (ZONE 3)		ZCP-7-002	H-2-26089			For use on #4 D-251 pneumatic piston actuators	
ZC-B-2-25A	VALVE POSITIONER FOR DAMPER D-B (ZONE 3)		ZCP-7-002	H-2-26089				
ZC-C-1-25A	VALVE POSITIONER FOR DAMPER D-C (ZONE 3)		ZCP-7-002	H-2-26089				
ZC-C-2-25A	VALVE POSITIONER FOR DAMPER D-C (ZONE 3)		ZCP-7-002	H-2-26089				
ZC-D-1-25A	VALVE POSITIONER FOR DAMPER D-D (ZONE 3)		ZCP-7-002	H-2-26089				
ZC-D-2-25A	VALVE POSITIONER FOR DAMPER D-D (ZONE 3)		ZCP-7-002	H-2-26089				
ZC-E-1-25A	DAMPER POSITIONER			H-2-26089			HAGEN NR	
ZC-F-A-25A	VALVE POSITIONER FOR DAMPER D-F (ZONE 3)		ZCP-7-002	H-2-26089		6167-3310-5550	MOORE (CVI# 22230)	Valve Positioner, Model 72G315

5.0 EQUIPMENT INDEX**A**

AR-5 26

C

CONTAINMENT TENT FILTER 22

CV8-01 26

CV9-01 26

CV9-02 26

CU-1 26

D

D-89-25A 26

D-90-25A 26

D-99-25A 26

D-100-25A 26

DM-100-1-25A 29

DM-100-2-25A 29

DM-100-3-25A 29

DM-100-4-25A 29

DM-26 26

DM-27 26

DM-4 26

DM-6 26

DM-7 26

DM-89-1-25A 29

DM-89-2-25A 29

DM-89-3-25A 29

DM-89-4-25A 29

DM-9 28

DM-90-1-25A 29

DM-90-2-25A 29

DM-90-3-25A 29

DM-90-4-25A 29

DM-99-1-25A 29

DM-99-2-25A 29

DM-99-3-25A 29

DM-99-4-25A 29

DM-A-1-25A 26

DM-A-2-25A 26

DM-A-3-25A 26

DM-A-4-25A 26

DM-B-1-25A 26

DM-B-2-25A 26

DM-B-3-25A 27

DM-B-4-25A 27

DM-C-1-25A 27

DM-C-2-25A 27

DM-C-3-25A 27

DM-C-4-25A 27

DM-C-5-25A 27

DM-D-1-25A 27

DM-D-2-25A 27

DM-D-3-25A 27

DM-D-4-25A 27

DM-D-5-25A 27

DM-E-1-25A 28

DM-F-A-25A 28

DM-F-B-25A 28

DPC-1 29

DPC-1-25E 29

DPC-2 29

DPC-4 29

DPC-5 29

DPIC-1-25A 30

DPIC-21-25E 30

DPIC-22-25E 30

DPIX-1-25A 30

DPT-1-25E 30

DPT-2-25E 30

E

E-3/E-4 HEPA FILTERS 5

EF-01 30

EF-1 THROUGH EF-7(234-5Z) 33

EF-1& EF-2 (2736-ZB) 31

EF-1 & EF-2 (232-Z) 32

EF-1-1 (2736-ZA) 32

EF-1-2 (2736-ZA) 32

EF-11 35

EF-12 35

EF-14 35

EF-15 36

EF-16 36

EF-21-25D 37

EF-22-25D 38

EF-C1 25

EF-C2 25

EF-C5 6

EF-C7 25

EF-D5 25

EF-D6 25

EF-D8 6

EF-E5 6

EF-R3 25

EF-R4 25

EF-R5 25

ET-8 34

ET-9 34

EV-TC1A 38

EV-TC1B 38

F

F-1-1 17

F-1-2 17

F-14-P1 18

F-14-P2 18

F-14-S1 18

F-14-S2 18

F-15-P1 18

F-15-P2 18

F-15-S1 18

F-15-S2 18

F-16-P1 18

F-16-P2 18

F-16-S1 18

F-16-S2 18

F-17-P1 18

F-17-P2 18

F-17-S1 18

F-17-S2 18

F-18-P1 18

F-18-P2 18

F-18-S1 18

F-18-S2 18

F-19-P1 18

F-19-P2 18

F-19-S1 18

F-19-S2 18

F-20-P1 19

F-20-P2 19

F-20-S1 19

F-20-S2 19

F-2-1 17

F-21-P1 19

F-21-P2 19

F-21-S1 19

F-21-S2 19

F-2-2 17

F-3-1 7

F-3-2 7

F-36 5

F-37 16

F-38 16

F149-G1 23

F-156-1 16

F-157-1 THROUGH F-157-3 16

F-A1 THROUGH F-A11 5

F-A12 12

F-AL3 THROUGH F-AL5 14

F-B1 THROUGH F-B12 5

FB-10 8

FB-10E 10

FB-10W 10

FB-11 8

FB-12 8

FB-13 7

FB-14 8

FB-15 8

FB-16-E 9

FB-16-W 9

FB-17 9

FB-18 9

FB-19 9

FB-1-N 9

FB-1-S 9

FB-2 7

FB-20 9

FB-20E 10

FB-20W 10

FB-21 9

FB-22 9

FB-242-Z 10

FB-25 9

FB-26 9

FB-3 8

FB-32 13

FB-4 8

FB-5 8

FB-31 7

FB-50 10

FB-6 8

FB-7 8

FB-7A	24	PRV-5-2B	42
FB-8	8	PRV-5-2C	42
FB-9	8	PS-1LA/1HA	43
FB-F1-P	29	PS-1LB/1HB	43
FB-F2-S	10	PS-2A	43
FB-F3-P	29	PS-2B	43
FB-F4-S	10	PX-1	43
F-C1 THROUGH F-C12	5	PX-1-25A	45
F-D1 THROUGH F-D11	5	PX-2	44
F-D12	12	PX-2-25A	45
F-E1-25D	20	PX-3	44
F-E3-1N	5	PX-4	44
F-E3-1S	5	PX-4-25A	45
F-E3-25D	20	PX-5	45
F-E3-2N	5	PX-5-25A	45
F-E3-2S	5	PX-6-25A	45
FR-309 THROUGH FR-316	11	R	
FR-318	11	RF-1 & RF-2	46
F-W2-25D	20	S	
F-W4-25D	20	SF-1 & SF-2 (234-5Z)	47
FX-1	39	SF-1 & SF-2 (2736-ZB)	50
FX-2	39	SF-3 THROUGH SF-6 (ZB)	51
FX-3	40	SF-3 THROUGH SF-8 (-5)	48
H		SF-C1	25
HF-1 THROUGH HF-6	21	SF-C2	14
K		SF-D1	25
K-2A	40	SF-D8	14
K-2B	40	SF-R2	25
KES-03	40	ST8-01	51
KES-05	41	ST9-01	51
KES-1	40	ST9-02	51
KES-11	41	S-9-25A	48
KES-13	41	S-10	49
KTD-1A	41	S-11-25A	49
KTD-1B	41	V	
P		V8-07	51
PC-1	41	V8-52	52
PC-1-25A	41	V9-05	51
PC-1A	41	V9-26	52
PC-2	42	Z	
PC-2-25A	42	ZC-A-1-25A	52
PC-2A	42	ZC-A-2-25A	52
PC-4-25A	42	ZC-B-1-25A	52
PC-5-25A	42	ZC-B-2-25A	52
PCI-19	42	ZC-C-1-25A	52
PRC-10E	11	ZC-C-2-25A	52
PRC-10W	11	ZC-D-1-25A	52
PRC-20E	11	ZC-D-2-25A	52
PRC-20W	11	ZC-E-1-25A	52
PRV-4-1	42	ZC-F-A-25A	52
PRV-4-1B	42	ZC-F-B-25A	52
PRV-4-1C	42		
PRV-5-1	42		
PRV-5-1B	42		
PRV-5-1C	42		
PRV-5-1D	42		
PRV-5-2	42		

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