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1. ELECTRICAL DISCONNECT SWITCH, AUTO-RESET THERMAL OVERLOAD, AND WALL-MOUNTED 24V THERMOSTAT.
2. PROVIDE DOOR SWITCH WITH TIME DELAY. BUILDING AUTOMATION SYSTEM (BAS) CONTROLLER.
3. THERMOSTAT HEATING SETPOINT AT 60 DEG F

WALL LOUVER SCHEDULE														
SYMBOL / TAG	MANUFACTURER	MODEL #	QNTY.	AIRFLOW SERVICE	LOUVER SIZE (WIDTH X HEIGHT)	BLADE TYPE	MINIMUM FREE AREA EACH (FT2)	MINIMUM FREE AREA EACH [%]	MINIMUM FREE AREA TOTAL (FT2)	MAXIMUM PRESSURE DROP @ 700 FPM	OPERATOR	EQUIPMENT INTERLOCK	FRAME	REMARKS
WL - FP1	GREENHECK	ESD - 435	1	INTAKE	76" X 36"	FIXED BLADE	-	-	-	0.07"	ACTUATOR	EF - FP	EXTRUDED ALUMINUM	1,2,3,4,5,6

1. COORDINATE EXACT LOCATION/ELEVATION OF WALL OPENING WITH ARCHITECTURAL DRAWINGS
2. LOUVER SHALL BE ALUMA LAMCENSED AND PROVIDED WITH AN INTEGRAL BIRDSCREEN
3. VERIFY SIZE OF LOUVER WITH BUILDING WALL OPENING. LOUVER MAY HAVE TO BE FABRICATED TO FIT IN A SMALLER WALL OPENING. FIELD-MEASURE OPENING BEFORE ORDERING.
4. LOUVER SHALL HAVE KYNAR FINISH - FINAL COLOR SELECTION BY ARCHITECT AT THE TIME OF SUBMITTALS
5. WALL LOUVERS SHALL BE CAPABLE OF WITHSTANDING A WIND LOAD OF 20 LBS/ SF
6. PROVIDE LOW LEAKAGE 3V BLADE VOLUME CONTROL DAMPER MODEL#VCD. PROVIDE ALTERNATE THERMALLY BROKEN BLADE INSULATED CONTROL DAMPER MODEL# ICD-44

INDUSTRIAL HVLS CIRCULATION FAN EQUIPMENT SCHEDULE												
SYMBOLS / TAG	AIRFLOW [CFM]	MINIMUM DOE COMPLIANCE DRIVE/MOTOR EFFICIENCY [CFM/W]	FAN MOTOR					FAN BLADE RADIAL DIMENSION	MAX SOUND DATA [ Dba ]	WEIGHT [LBS]	ACCESSORIES/OPTIONS:	
			POWER [W]	TORQUE [FT*LB]	FLA	MOCp	VOLT / PH					
CF - A	243,000	2.32	1525	125.0	3.5	5	460 / 3	24'-0"	56	250	1,2,3	

GENERAL NOTES:

- A. UNIT SHALL BE ETI/UL LISTED; UNIT NAMEPLATE SHALL BEAR THE AGENCY LABEL.
- B. PERFORMANCE SHALL BE RATED AND CERTIFIED PER AMCA. UNIT NAMEPLATE SHALL BEAR THE LABEL.
- C. FAN SHALL BE INTERLOCKED WITH THE FIRE ALARM SYSTEM TO SHUT DOWN UPON A FIRE ALARM SIGNAL (NFPA COMPLIANT)
- D. ALLOWED MANUFACTURERS: 1) BIG ASS FANS (BAF) MODEL PDP "POWERFOIL D" 2) RITE-HITE MODEL "REVOLUTION 150 SERIES", NO ALTERNATE MANUFACTURE'S OR EXCEPTIONS.

**ACCESSORIES/OPTIONS:**

1. SAFETY CABLE, GUY WIRE, RAPID INDUSTRIAL MOUNT, BLADE RETAINER LINKS
2. PERMANENT MAGNET BRUSHLESS ECM VARIABLE SPEED DC MOTOR
3. FACTORY CONTROLLER WITH BacNet/MODBUS CONNECTIVITY. MANUFACTURER SHALL PROVIDE QUANTITY OF REQUIRED CONTROLLERS BASED ON TOTAL FAN QUANTITY. INSTALL PER MANUFACTURE'S RECOMMENDATIONS

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1. SEE DIFFUSER TAG ON MECHANICAL FLOOR PLANS FOR ROUND/RECTANGULAR NECK SIZE CONNECTION.
2. SUPPLY GRILLE SHALL BE MOUNTED IN THE CEILING SO THAT AIRFLOW IS "DUMPED" DIRECTLY DOWN IN THE COLD AISLE (FRONT SIDE OF THE EQUIPMENT RACKS)

FIRE PUMP ROOM HVAC CALCULATIONS - NFPA 20			
FP RM CALCULATION #1 - VENTILATION AIR FOR ENGINE COMBUSTION			
COMBUSTION AIR REQUIRED			
FIRE PUMP MANUFACTURE'S REQUIREMENTS (REFERENCE PUMP CALCULATION BELOW)			621 CFM
FP RM CALCULATION #2 - COOLING AND/OR VENTILATION REQUIRED TO ENSURE ROOM MAXIMUM TEMP 120F			
UNDER FIRE ALARM			
MAXIMUM INDOOR DESIGN CONDITION (UNDER FIRE ALARM)			120 F
DESIGN AMBIENT TEMPERATURE			110 F
MAXIMUM ALLOWABLE RISE IN INTERNAL ROOM TEMPERATURE (UNDER FIRE ALARM)			10 F
FIRE PUMP HEAT DISSIPATION			68,400 BTU/HR
CALCULATED AIRFLOW REQUIRED AT TEMPERATURE RISE (REFERENCE PUMP CALCULATION BELOW)			6,233 CFM
COMBUSTION AIRFLOW (FROM CALCULATION#1 ABOVE)			621
TOTAL AIRFLOW REQUIRED			6,854 CFM
TOTAL AIRFLOW PROVIDED (EF-FP)			7,000 CFM
		Results	
Input Data			
Engine Model: JU6H-UFADT0			
Rated HP: 274			
Rated Speed ( RPM ): 2100			
Combustion air flow ( CFM ): 621 <sup>(2)</sup>			
$\Delta T$ - Maximum design temperature rise inside pump room ( °F ): 10 <sup>(3)</sup>			
Engine radiated heat ( Btu/Sec ): 19 <sup>(3)</sup>			
Pump Room Calculations <sup>(1)</sup>			
		621 Combustion air flow ( CFM )	
+		6,233 Flow for engine radiated heat ( CFM )	
		6,854 Total ( CFM )	
FP RM CALCULATION #3 - HEATING TO MAINTAIN MINIMUM OF 40F			
HEATING CALCULATIONS			
OUTDOOR DESIGN TEMPERATURE			0 F
INDOOR DESIGN TEMPERATURE			50 F
EXTERIOR WALL/ROOF THERMAL HEATING LOSS			13,750 BTU/HR
TOTAL HEATING LOSS LOAD			13,750 BTU/HR
HEATING EQUIPMENT PROVIDED (EUH-FP)			17,065 BTU/HR
HEATING EQUIPMENT PROVIDED (EUH-FP)			5.0 KW

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