			3			PU	MP	Ĺ	3						
MARK	SERVICE	MANUFACTURER	MODEL NUMBER	TYPE	MIN FLOW GPM	DES FLOV GPM	SIGN V/GPM HEAD (FT)	PUMP BHP	MOTOR HORSE POWER	MAX. RPM	VFD (Y/N)	V/P	DISCONNECT TYPE	WEIGHT	REMARKS
CHWP-1	CHILLED WATER	GRUNDFOS	CRE 125-1	VERTICAL INLINE	220	578.0	95	17.75	25.0	3172	Yes	460/3	NON-FUSED	2295	A, B, D, E, G, H, K
CHWP-2	CHILLED WATER	GRUNDFOS	CRE 125-1	VERTICAL INLINE	220	578.0	95	17.75	25.0	3172	Yes	460/3	NON-FUSED	2295	A, B, D, E, G, H, K
PHWP-1	HOT WATER	TACO	KV3006D	INLINE CIRCULATOR	-	132.0	20	0.86	1.0	1760	-	460/3	NON-FUSED	-	A, C-G
PHWP-2	HOT WATER	TACO	KV3006D	INLINE CIRCULATOR	-	132.0	20	0.86	1.0	1760	-	460/3	NON-FUSED	-	A, C-G
SHWP-1	HOT WATER	GRUNDFOS	CRE 32-2-1	VERTICAL INLINE	35	141.3	79	4.39	7.5	3020	Yes	460/3	NON-FUSED	622	A, B, D, E, G, J, K
SHWP-2	HOT WATER	GRUNDFOS	CRE 32-2-1	VERTICAL INLINE	35	141.3	79	4.39	7.5	3020	Yes	460/3	NON-FUSED	622	A, B, D, E, G, J, K

www.www. MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODEL NUMBERS ONLY. REVIEW THE COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED. THE MANUFACTURERS LISTED ARE THE BASIS FOR THE DESIGN. NOTES:

SUPPORT PUMP FROM FLOOR WITH VERTICAL SUPPORTS INDEPENDENT FROM PIPING.

VFD SHALL BE INTEGRAL TO PUMP MOTOR. DISCONNECT SWITCH PROVIDED BY DIVISION 26 CONTRACTOR.

PUMP MOTOR SHALL BE NON-OVERLOADING THROUGHOUT THE FULL RANGE OF THE PUMP CURVE.

PROVIDE SUCTION DIFFUSER AT PUMP INLET. E. PUMP SHALL BE SELECTED BY BOILER MANUFACTURER, WITH DISCONNECT AND STARTER BY ELECTRICAL CONTRACTOR AND CONTROLLED BY BOILER. G. PUMP SHALL BE SELECTED NEAR BEP AND NOT WHERE OPERATING POINT IS WITHIN 10% OF THE MAX GPM AND HEAD LOSS OF THE CURVE. DUTY POINT SHALL BE SELECTED BELOW PUMP MAX SPEED TO ALL OW FOR A TOH INCREASE OF AT LEAST 10% AT THE SPECIFIED GPM SPEED TO ALLOW FOR A TDH INCREASE OF AT LEAST 10% AT THE SPECIFIED GPM.

PROVIDE CHWP-1 AND CHWP-2 AS PART OF A SINGLE DELTA HCU 2CR125-1 PUMP PACKAGE. PROVIDE SHWP-1 AND SHWP-2 AS PART OF A SINGLE DELTA HCU 2CRE32-2-1 PUMP PACKAGE

SCHEDULED WEIGHT INCLUDES ENTIRE PUMP PACKAGE

FAN SCHEDULE

			•												l	
												ELECTRIC	CAL			ĺ
						ESP	NOM	FAN	DRIVE	VFD			STARTER	WEIGHT		
MARK	SERVICE DESCRIPTION	MANUFACTURER	MOUNTING	MODEL	CFM	(IN)	HP	RPM	(BELT/DIRECT)	(Y/N)	V/PH	DISC TYPE	TYPE	(LBS)	NOTES	
EF 1	WARE WASH 128 EXHAUST	COOK	ROOF	ACRU-D VF	600	0.5	0.125	1523	DIRECT	No	115/1	NON-FUSED	MAGNETIC	40	A,C,E,G,K	
EF 2	PUMP ROOM 156/FILTER ROOM 157 EXHAUST	COOK	ROOF	ACE-D VF	1200	0.4	0.250	1351	DIRECT	No	115/1	NON-FUSED	MAGNETIC	76	A,C,E,H,K	
EF 3	ELECTRICAL ROOM 145 EXHAUST	COOK	ROOF	ACE-D VF	400	0.4	0.125	1229	DIRECT	No	115/1	NON-FUSED	MAGNETIC	60	A,C,E,H,K	3
EF 4	BOILER ROOM 146 EXHAUST	COOK	ROOF	ACE-D VF	300	0.4	0.125	1351	DIRECT	No	115/1	NON-FUSED	MAGNETIC	60	A,C,E,G,K	5
EF 5	TEXAS ROUND UP 110 EXHAUST	COOK	ROOF	ACE-D VF	800	0.4	0.167	1725	DIRECT	No	115/1	NON-FUSED	MAGNETIC	62	A,C,E,G,K	
EF 6	FUEL ALLEY 147 EXHAUST AIR	COOK	IN-LINE	SQN-D	1200	0.5	0.500	1013	DIRECT	No	115/1	NON-FUSED	MAGNETIC	131	D, E, H, K	
KEF 1	HOOD #1 KITCHEN EXHAUST	CAPTIVEAIRE	ROOF	DU85HFA	2000	0.9	1.000	1587	DIRECT	No	120/1	NON-FUSED	MAGNETIC	97	A,B,E,K,L	ĺ
KEF 2	HOOD #2 KITCHEN EXHAUST	CAPTIVEAIRE	ROOF	DU85HFA	2000	0.9	1.000	1587	DIRECT	No	120/1	NON-FUSED	MAGNETIC	97	A,B,E,K,L	
KEF 3	HOOD #3 KITCHEN EXHAUST	CAPTIVEAIRE	ROOF	DU180HFA	1800	1.3	1.500	1068	DIRECT	Yes	208/3	NON-FUSED	VFD	180	A,B,E,K,L	
KEF 4	HOOD #4 KITCHEN EXHAUST	CAPTIVEAIRE	ROOF	DU180HFA	1800	1.3	1.500	1068	DIRECT	Yes	208/3	NON-FUSED	VFD	180	A,B,E,K,L	ĺ
KEF 5	HOOD #5 KITCHEN EXHAUST	CAPTIVEAIRE	ROOF	DU180HFA	1800	1.3	1.500	1068	DIRECT	Yes	208/3	NON-FUSED	VFD	180	A,B,E,K,L	$\frac{3}{3}$
SF 1	IT ROOM 144 SUPPLY AIR	COOK	IN-LINE	SQN-D	2000	0.5	0.500	1013	DIRECT	No	115/1	NON-FUSED	MAGNETIC	131	D - F,H,K	Ť
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MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODEL NUMBERS ONLY. REVIEW THE COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED. THE MANUFACTURERS LISTED ARE THE BASIS FOR THE DESIGN. NOTES:

PROVIDE INSULATED ROOF CURB WITH MINIMUM HEIGHT REQUIRED TO MAINTAIN BOTTOM OF EQUIPMENT A MINIMUM OF 16 INCHES ABOVE FINISHED ROOF SURFACE. PROVIDE SLOPED CURB IF Α. NEEDED TO MATCH ROOF SLOPE. COORDINATE WITH ROOF INSULATION THICKNESS AND ROOF TAPER AT INSTALLED LOCATION. COORDINATE CURB TYPE WITH DRAWING. PROVIDE GREASE EXHAUST FAN WITH ROOF CURB EXTENSION FOR 40 INCH MINIMUM DISCHARGE HEIGHT ABOVE ROOF SURFACE OR AT ELEVATION HIGHER THAN ADJACENT BUILDING STRUCTURE WITHIN 10 FEET WHICHEVER IS GREATER, GREASE TRAP WITH ABSORBANT MATERIAL AND DRAIN CONNECTION, HINGE KIT, ACCESS PORT FOR CLEANING FAN BLADES AND INTEGRAL MOTOR OVERLOAD PROTECTION.

PROVIDE BIRDSCREEN AND MOTORIZED DAMPER PROVIDE RUBBER IN SHEAR ISOLATION AND ALL-THREAD HANGING RODS.

PROVIDE FACTORY MOUNTED DISCONNECT SWITCH. PROVIDE WITH MANUFACTURER'S FAN SPEED CONTROLLER FOR BALANCING PURPOSES.

PROVIDE WITH MANUFACTURER'S ELECTRONICALLY COMMUTATED (EC) MOTOR WITH CONTROLLER MOUNTED TO FAN. PROVIDE WITH MANUFACTURER'S ELECTRONICALLY COMMUTATED (EC) MOTOR WITH FAN CONTROLLED VIA TEMPERATURE CONTROLLER.

NOT USED. NOMINAL MOTOR HP SHALL BE NO LARGER THAN THE FIRST AVAILABLE NOMINAL MOTOR SIZE GREATER THAN THE BHP. SEE MANUFACTURER'S DETAILS AND DRAWINGS FOR FULL DESCRIPTION OF EXHAUST FAN. THIS SCHEDULE IS ONLY A BRIEF REPRESENTATION OF MANUFACTURER'S DETAILED DESCTRIPTIONS AND IS FOR REFERENCE ONLY. DO NOT USE FOR PRICING, SIZING, OR INSTALLATION.

			GRIL	LE, REU		ר אות כ	JOER O				
				CONSTRUCTION		MOUNTING				MAX PRESS	
MARK	MANUFACTURER	SERVICE	MODEL	TYPE	FACE TYPE	LOCATION	BORDER TYPE	FACE SIZE (IN)	MAX NC	DROP (IN W.C.)	NOTES
CEG1	TITUS	EXHAUST	PAR-AA	ALUMINUM	PERFORATED	LAY-IN CEILING	NA	24"x24"	30	0.08	B, C, F, J, K
CEG2	TITUS	EXHAUST	PAR	STEEL	PERFORATED	LAY-IN CEILING	NA	24"x12"	30	0.08	B, C, F, J, K
CRG1	TITUS	RETURN	PAR	STEEL	PERFORATED	LAY-IN CEILING	NA	24"x24"	30	0.05	B, C, F, J, K
CRG2	TITUS	RETURN	8FF	ALUMINUM	PERFORATED	LAY-IN CEILING	NA	24"x24"	30	0.05	B, C, F, J, K
CSD1	TITUS	SUPPLY	TDC	STEEL	LOUVER	LAY-IN CEILING	NA	24"x24"	30	0.08	A - C, F, J, K
CSD2	TITUS	SUPPLY	T3SQ-4	STEEL	PLAQUE	LAY-IN CEILING	NA	24"x24"	30	0.08	B, C, F, J, K
CSD3	TITUS	SUPPLY	PAR-AA	ALUMINUM	PERFORATED	LAY-IN CEILING	NA	24"x24"	30	0.08	B, C, F, J, K
DEG1	TITUS	EXHAUST	350RL	STEEL	LOUVER	DUCT	NA	REFER TO PLANS	30	0.00	C, D, F, J, K
DSG1	TITUS	SUPPLY	S300FL	ALUMINUM	LOUVER	DUCT	NA	REFER TO PLANS	30	0.08	C - E, J, K
	TITUS	SUPPLY	300RL	STEEL	LOUVER	DUCT	NA	REFER TO PLANS	30	0.08	C-EJK
LSD1	TITUS	SUPPLY	FT-10	ALUMINUM	(1) 1" SLOT (JET THROW)	LAY-IN CEILING	NA	48"	30	0.08	B, C, F, H - K
WEG	TITUS	EXHAUST	300FL	ALUMINUM	LOUVER	WALL	NA	REFER TO PLANS	30	0.08	C, D, F, H, J, K
WRG ²	TITUS	RETURN	350RL	STEEL	LOUVER	WALL	NA	REFER TO PLANS	30	0.05	C, D, F, H, J, K
WSG ²	TITUS	SUPPLY	300RL	STEEL	LOUVER	WALL	NA	REFER TO PLANS	30	0.08	C - G, J, K
WTG1	TITUS	TRANSFER	350RL	STEEL	LOUVER	WALL	NA	REFER TO PLANS	30	0.08	C, D, F, H, J, K

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4-WAY THROW PATTERN UNLESS OTHERWISE INDICATED BY FLOW ARROWS ON DRAWINGS. NECK SIZE SHOWN ON DRAWINGS. PROVIDE BRANCH DUCT TO MATCH NECK SIZE UNLESS OTHERWISE SHOWN ON DRAWINGS. BAKED ENAMEL FINISH, WHITE TO MATCH CEILING COLOR.

FRONT BLADES PARALLEL TO LONG DIMENSION. DOUBLE DEFLECTION BARS SHALL BE ADJUSTABLE.

FRAME TYPE TO MATCH CEILING/WALL CONSTRUCTION, COORDINATE WITH ARCHITECTURAL REFLECTED CEILING/WALL PLAN.

PROVIDE OPPOSED BLADE DAMPER ADJUSTABLE FROM FACE OF DEVICE. PROVIDE BORDER TYPE TO MATCH CEILING CONSTRUCTION WITH FLANGE MOUNTING, AND INSULATED PLENUM BOX WITH NECK. PROVIDE DIFFUSERS, LINEAR SLOTS, AND GRILLES WITH NO EXPOSED MOUNTING SCREWS. PAINT ALL INTERIOR SURFACES SLOTS, GRILLES AND PLENUMS FLAT BLACK.

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			=R _ F(IR _}2	5%	PR(٦P	VI	F
MARK	MANUFACTURER	MODEL NUMBER	TYPE	MIN EFF (%)	MIN GAS INPUT (MBH)	MIN HEAT OUT (MBH)	MAX WPD (FT)	GPM	EWT	LWT	FI
B-1	RBI	FLEXCORE-2000	CONDENSING	96	2,000	1,681	10.0	132	110	140	
B-2	RBI	FLEXCORE-2000	CONDENSING	96	2,000	1,681	10.0	132	110	140	
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NOTES:

BOILER BURNER TRIM AND CONTROLS TO MEET LOCALLY ADOPTED IFGC REQUIREMENTS. PROVIDE CONCRETE HOUSEKEEPING PAD PER SPECIFICATIONS.

PROVIDE INDUCED DRAFT FAN. DISCONNECT SWITCH(ES) PROVIDED BY DIVISION 26 CONTRACTOR.

PROVIDE SINGLE POINT POWER CONNECTION.

			OUTSIDE	
		SINGLE-ZONE S	SYSTEMS ONLY	MULTI-ZC
SYSTEM	SYSTEM TAB NAME	SINGLE-ZONE SYSTEM	SINGLE ZONE WORST CASE	SYSTE
DESIGNATION	OR LIST 'SINGLE'	ASSOCIATED	ZONE AIR DISTRIBUTION	EFF
		VENTILATION ZONE	EFFECTIVENESS [Ez]	
SALES	MULTIZONE (SALES)	-	-	
AHU 5	MULTIZONE (AHU 5)	-	-	
AHU 6	MULTIZONE (AHU 6)	-	-	
AHU 7	MULTIZONE (AHU 7)	-	-	
AHU 8	MULTIZONE (AHU 8)	-	-	
AHU 9	MULTIZONE (AHU 9)	-	-	
AHU 10	SINGLE ZONE	100 VESTIBULE 1	0.80	
AHU 11	SINGLE ZONE	101 VESTIBULE 2	0.80	
AHU 12	SINGLE ZONE	102 VESTIBULE 3	0.80	
RTU 1	SINGLE ZONE	144 IT ROOM	0.80	
RTU 2	SINGLE ZONE	145 ELECTRICAL ROOM	0.80	
FCU 1	SINGLE ZONE	148 ICE ROOM, 149 TOOL ROOM	0.80	

GENERAL NOTES:

VENTILATION CALCULATIONS BASED ON IMC-2021. SYSTEM POPULATIONS BASED ON MAX SEATING AND/OR CODE MAXIMUM VALUES.

SINGLE ZONE SYSTEMS (Vot = Voz): SYSTEM VENTILATION EFFICIENCY CALCULATION IS NOT REQUIRED FOR SINGLE ZONE SYSTEMS. WORST CASE AIR DISTRIBUTION EFFECTIVENESS BETWEEN HEATING AND COOLING MODES OF OPERATION IS SHOWN IN TABLE. 100% OA SYSTEMS (Vot = Sall zones Voz): WHEN ONE AIR HANDLER SUPPLIES ONLY OUTDOOR AIR TO ONE OR MORE ZONES. EACH ZONE IS INDIVIDUALLY CALCULATED WITH ITS WORST CASE ZONE AIR DISTRIBUTION EFFECTIVENESS (HEATING/COOLING). MULTI-ZONE RECIRCULATING SYSTEMS: CALCULATOR USED TO DETERMINE VENTILATION AIRFLOW IN COMPLIANCE WITH IMC-2021 VRP AND ASHRAE 62.1-2019 APPENDIX A. VENTILATION RATE SHOWN IS ACTUAL CALCULATED WITH CORRECTION FACTORS INCLUDED. EACH ZONE IS CALCULATED WITH ITS WORST CASE ZONE AIR DISTRIBUTION EFFECTIVENESS (HEATING/COOLING) AS PART OF CALCULATIONS TO FIND Ev.

VENTILATION AIR PROVIDED VIA DEDICATED OUTSIDE AIR SYSTEM.

COLLE DECISTED AND DIEFLIGED SCHEDULE



ROOF HOOD SCHEDULE MARK SERVICE MANUFACTURER MODEL CFM MAX. PD. THROAT CURB (INTAKE, EXHAUST (L" x W") (L" x W") (IN) REH-1 **RELIEF / EXHAUST** COOK 36X72GR 0.10 36" x 72" 41.5" x 77.5" 4355 REH-2 COOK 36" x 84" 41.5" x 89.5" RELIEF / EXHAUS 36X84GR 5020 0.10 IH-1 INTAKE COOK 12X18GI 0.10 12" x 18" 16" x 22" 600 IH-2 INTAKE COOK 12X18GI 0.10 12" x 18" 16" x 22" 600

MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODEL NUMBERS ONLY. REVIEW THE COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED. THE MANUFACTURERS LISTED ARE THE BASIS FOR THE DESIGN.

. PROVIDE WITH INTEGRAL INSECT SCREEN.

B. PROVIDE INSULATED ROOF CURB WITH MINIMUM HEIGHT REQUIRED TO MAINTAIN BOTTOM OF EQUIPMENT A MINIMUM OF 16 INCHES ABOVE FINISHED ROOF SURFACE. PROVIDE SLOPED CURB IF NEEDED TO MATCH ROOF SLOPE. COORDINATE WITH ROOF INSULATION THICKNESS AND ROOF TAPER AT INSTALLED LOCATION. COORDINATE CURB TYPE WITH DRAWINGS. . PROVIDE INTEGRAL BACKDRAFT DAMPER.

. PROVIDE WITH INTEGRAL MOTORIZED DAMPER INTERLOCKED TO ASSOCIATED EXHAUST FAN.

AIR CURTAIN SCHEDULE UNIT SPECS

MARKAREA SERVEDMANUFACTURERMODELMAX LENGTHMAX AIRFLOWFAN QTYMOTOR HPVOLTAC 1138 WAREHOUSE HALLWAYMARS AIRNH236-1U36205911.00208AC 2137 TRUCK DOCK RECEIVINGMARS AIRNH236-1U36205911.00208AC 3117 CONVENIENCE WAREHOUSEMARS AIRNH236-1U36205911.00208AC 4148 ICE ROOMMARS AIRNH236-1U36205911.00208MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODE							-00		
MARKAREA SERVEDMANUFACTURERMODELLENGTH (IN)AIRFLOW (CFM)FAN QTYMOTOR HPVOLTAC 1138 WAREHOUSE HALLWAYMARS AIRNH236-1U36205911.00208AC 2137 TRUCK DOCK RECEIVINGMARS AIRNH236-1U36205911.00208AC 3117 CONVENIENCE WAREHOUSEMARS AIRNH236-1U36205911.00208AC 4148 ICE ROOMMARS AIRNH236-1U36205911.00208MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODE						MAX			
MARK AREA SERVED MANUFACTURER MODEL (IN) (CFM) QTY HP VOLT AC 1 138 WAREHOUSE HALLWAY MARS AIR NH236-1U 36 2059 1 1.00 208 AC 2 137 TRUCK DOCK RECEIVING MARS AIR NH236-1U 36 2059 1 1.00 208 AC 3 117 CONVENIENCE WAREHOUSE MARS AIR NH236-1U 36 2059 1 1.00 208 AC 4 148 ICE ROOM MARS AIR NH236-1U 36 2059 1 1.00 208 MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODE MARS AIR NH236-1U 36 2059 1 1.00 208					LENGTH	AIRFLOW	FAN	MOTOR	
AC 1 138 WAREHOUSE HALLWAY MARS AIR NH236-1U 36 2059 1 1.00 208 AC 2 137 TRUCK DOCK RECEIVING MARS AIR NH236-1U 36 2059 1 1.00 208 AC 3 117 CONVENIENCE WAREHOUSE MARS AIR NH236-1U 36 2059 1 1.00 208 AC 4 148 ICE ROOM MARS AIR NH236-1U 36 2059 1 1.00 208 MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODE	MARK	AREA SERVED	MANUFACTURER	MODEL	(IN)	(CFM)	QTY	HP	VOL
AC 2 137 TRUCK DOCK RECEIVING MARS AIR NH236-1U 36 2059 1 1.00 208 AC 3 117 CONVENIENCE WAREHOUSE MARS AIR NH236-1U 36 2059 1 1.00 208 AC 4 148 ICE ROOM MARS AIR NH236-1U 36 2059 1 1.00 208 MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODE	AC 1	138 WAREHOUSE HALLWAY	MARS AIR	NH236-1U	36	2059	1	1.00	208
AC 3117 CONVENIENCE WAREHOUSEMARS AIRNH236-1U36205911.00208AC 4148 ICE ROOMMARS AIRNH236-1U36205911.00208MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODE	AC 2	137 TRUCK DOCK RECEIVING	MARS AIR	NH236-1U	36	2059	1	1.00	208
AC 4148 ICE ROOMMARS AIRNH236-1U36205911.00208MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODE	AC 3	117 CONVENIENCE WAREHOUSE	MARS AIR	NH236-1U	36	2059	1	1.00	208
MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODE	AC 4	148 ICE ROOM	MARS AIR	NH236-1U	36	2059	1	1.00	208
	MODEL N	NUMBERS SHALL NOT BE CONSIDERED COM	PLETE AND MATERIA	AL SHALL NOT B	E ORDERE	D BY MANU	ACTUR	RER AND I	NODE

COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED. THE MANUFACTURERS LISTED ARE THE BASIS FOR THE DESIGN. NOTES:

- EQUIPMENT PROVIDED BY DIVISION 23 MOUNT UNIT PER MANUFACTURER'S RECOMMENDATIONS TO FACE OF WALL AND SUPPORT VERTICALLY. PROVIDE INTEGRAL STARTER AND DISCONNECT SWITCH.
- PROVIDE AIR CURTAIN WITH MAGNETIC NORMALLY CLOSED DOOR LIMIT SWITCH FOR INSTALLATION ON DOOR. PROVIDE WITH TIME DELAY MICROSWITCH WITH ADJUSTABLE DELAY TIMERS PRE MOUNTED IN THE AIR CURTAIN CONTROL PANEL
- PROVIDE WITH POWDER COAT. COLOR SHALL BE RAL 1001, OR AS SELECTED BY THE ARCHITECT. INSTALL DISCHARGE NOZZLE AT 7' AFF TO ENSURE PROPER VELOCITY FOR INSECT CONTROL.





OUTSIDE AIR REQUIREMENTS, IMC-2021 (IP) ONE SYSTEMS ONLY FLOOR AREA SYSTEM AVERAGED SYSTEM SYSTEM AVERAGED REQUIRED REQUIRED POPULATION NOTES EM VENTILATION SERVED AREA-BASED PEOPLE-BASED OA INTAKE DCV OA INTAKE DESIGN OA FICIENCY [Ev] BY SYSTEM [As] OUTDOOR AIR RATE [Ps] OUTDOOR AIR RATE FLOW [Vot] FLOW [Vot] INTAKE FLOW [Vot] (SF) (CFM/SF) (PEOPLE) (CFM/P) (CFM) (CFM) (CFM) 5,124 0.89 37,900 0.061 296.608 7.50 N/A 9,870 0.75 5,633 0.00001 0.00 511 N/A 0.068 900 Α 1.00 6,123 0.112 75.46 7.48 1,250 N/A 1,480 Α 0.66 5,735 0.007 0.00001 0.00 N/A Α 60 100 0.89 6,172 804 N/A 0.113 3.76 5.00 1,000 Α 0.94 2,424 0.00001 0.00 154 N/A Α 0.060 300 1,125 0.00 N/A 0.000 N/A 0.000 0.00 Α N/A 591 0.000 0.00 218 0.00 N/A 0.000 476 0.00 N/A 0.000 300 1,001 0.120 0.00 150 TOTALS 8,053 14,250

F	R SCH	HED	DUL	E (A	IR-	CC	$\mathbf{)}\mathbf{O}$		D. 25%	6 P	ROPY	′LEN	E C	<u> </u>	YCOL	_)					
 MIN	I EFF			<u> </u>	EVA	PORA	ATOR			••••	CONDENSE	R				- ,					
Έ)	(FER-IPLV)	REFR TYPE	3 PASS	DESIGN	MIN GPM	EWT (°F)	LWT (°F)	MAX WPD (FT)	MAX WORKING PRESS (PSIG)	AMB TEMP	MIN NO OF	NO OF CIRCUITS	VOLTS	РН	DISC TYPE	STARTER TYPE	VFD (Y/N)	MCA	MOCP	WEIGHT (LBS)	NOTES
	17.29	R32	1 5	144.5	90	52	42	10	150	105	VARIABLE	2	460	3	NON-FUSED	VFD	Yes	155	175	4100	A-K
;	17.29	R32	1	144.5	90	52	42	10	150	105	VARIABLE	2	460	3	NON-FUSED	VFD	Yes	155	175	4100	A-K
;	17.29	R32	1	144.5	90	52	42	10	150	105	VARIABLE	2	460	3	NON-FUSED	VFD	Yes	155	175	4100	A-K
	17.29	R32	1	144.5	90	52	42	10	150	105	VARIABLE	2	460	3	NON-FUSED	VFD	Yes	155	175	4100	A-K
	17.29	R32	1	144.5	90	52	42	10	150	105	VARIABLE	2	460	3	NON-FUSED	VFD	Yes	155	175	4100	A-K
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MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODEL NUMBERS ONLY. REVIEW THE COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS TO DETERMINE THE EXACT

PROVIDE FACTORY CHILLER CONTROL PANEL THAT INCLUDES AN ANALOG OUTPUT SIGNAL TO DIRECTLY CONTROL A HEAD PRESSURE CONTROL VALVE. SCHEDULED MINIMUM EFFICIENCY IS AT AHRI CONDITIONS.

EXPANSION TANK SCHEDULE

						TANK SIZE	ACCEPTANCE	MIN TEMP	MAX TEMP	MAX PRESS	WEIGHT	
MARK	MANUFACTURER	MODEL	LOCATION	STOTEINITTPE	MOUNTING	(GAL)	(GAL)	(°F)	(°F)	(PSIG)	(LBS)	NOTES
ET M1	GRUNDFOS	GNTA-80	BOILER ROOM	CHILLED WATER	FLOOR	40.0	26.8	42.0	240.0	150.0	148	A - D
ET M2	GRUNDFOS	GNTA-60	BOILER ROOM	HOT WATER	FLOOR	31.8	22.1	42.0	240.0	125.0	100	A-D
		·····					and the second second				www	
MODEL	NUMBERS SHALL N	IOT BE CONSIDE	ERED COMPLETE AND MAT	ERIAL SHALL NOT	BE ORDEREI	D BY MANUF	ACTURER AND	MODEL NU	MBERS ONL	Y. REVIEW T	HE	
COMPL	ETE DESCRIPTION,	NOTES AND SP	ECIFICATIONS TO DETERM	1INE THE EXACT MA	ATERIAL AND	ACCESSOF	RIES TO BE ORD	ERED. THE	E MANUFACT	FURERS LISTI	ED ARE TH	ΙE
BASIS F	OR THE DESIGN.	λ					X				Å	
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NOTES												

PROVIDE PRECHARGED DIAPHRAGM-TYPE ASME RATED TANK

VERTICAL TANKS SHALL BE INSTALLED TO ACCOMMODATE BOTTOM DRAIN CONNECTION. PROVIDE CONCRETE HOUSEKEEPING PAD PER SPECIFICATIONS FOR FLOOR-MOUNTED UNITS.

SCHEDULED WEIGHT INCLUDES WEIGHT OF TANK AND WATER UNDER FULL ACCEPTANCE.

r										
		W	ATER	SPECI	ALTIES S	SCHED		3	Z	3
					SYSTEM OPERATING	MAX WORKING	FLOW RATE	PRESS.	SIZE	1
	MARK	MANUFACTURER	MODEL	SYSTEM TYPE	TEMP (F)	PRESS (PSIG)	(GPM)	DROP (FT)	(IN.)	NOTES
	AS 1	GRUNDFOS	GSPA-6	CHILLED WATER	42	125	578	10	6.0	А
	AS 2	GRUNDFOS	GBSF-040-W	HOT WATER	140	125	141.3	10	4.0	A
	CF 1	GRUNDFOS	GPFTA-5	CHILLED WATER	42	200	N/A	N/A	N/A	Α
	CF 2	GRUNDFOS	GPFTA-5	HOT WATER	140	200	N/A	N/A	N/A	Α
$\langle \mathbf{x} $	GE 1	GRUNDFOS	GMP-13050	CHILLED WATER	42	100	4.3	N/A	NA	A
	GF 2	GRUNDFOS	GMP-13050	CHILLED WATER	42	100	4.3	N/A	NA	A
	MODEL	NUMBERS SHALL NOT BE	CONSIDERED	COMPLETE AND M	ATERIAL SHALL NOT E	BE ORDERED BY	MANUFACTU	RER AND MC	DEL	

MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODEL NUMBERS ONLY. REVIEW THE COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED. THE MANUFACTURERS LISTED ARE THE BASIS FOR THE DESIGN.

NOTES: A. REVIEW SPECIFICATIONS FOR INSULATION REQUIREMENTS.

UNIT HEATER SCHEDULE (ELECTRIC)

						•			/		
				MIN OUT	NOM	MIN NO OF		MOTOR			
MARK	AREA SERVED	MANUFACTURER	MODEL	(MBH)	(KW)	STAGES	CFM	HP	V/PH	DISC TYPE	NOTES
EUH 1	PUMP ROOM 156	REZNOR	EGEB	4.5	3.0	1	310	0.02	277/1	NON-FUSED	A - D
EUH 2	FILTER ROOM 157	REZNOR	EGEB	4.3	3.0	1	310	0.02	277/1	NON-FUSED	A - D
MODEL N MODEL N MATERIA	UMBERS SHALL NOT BE CON UMBERS ONLY. REVIEW THE L AND ACCESSORIES TO BE	ISIDERED COMPLET E COMPLETE DESCR ORDERED. THE MAN	E AND MA IPTION, NO NUFACTUR	TERIAL SHA DTES AND S RERS LISTE	ALL NO SPECIF D ARE	T BE ORDERI ICATIONS TO THE BASIS F	ED BY M DETER OR THE	IANUFACT RMINE THE DESIGN.	TURER E EXAC	AND T	

NOTES

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A-C

A, B, D

A, B, D





NOTES: MOUNT 10 FEET ABOVE FINISHED FLOOR WITHOUT OBSTRUCTING AIRFLOW.

PROVIDE WITH UNIT MOUNTED THERMOSTAT. MAINTAIN SETPOINT OF 60 DEG F UNLESS NOTED OTHERWISE. PROVIDE NECESSARY MOUNTING BRACKET AND ACCESSORIES FOR WALL MOUNTING FOR HORIZONTAL DISCHARGE.

PROVIDE FACTORY MOUNTED DISCONNECT SWITCH INSTALLED ON SERVICE SIDE OF UNIT.

UNIT	SUPPLY	OUTDOOR	EXHAUST	PERCE
NO.	(CFM)	(CFM)	(CFM)	OA/SA
AHU 1	12,500	4,935		39%
AHU 2*	12,500	4,935		39%
AHU 3	12,500	4,935		39%
AHU 4*	12,500	4,935		39%
AHU 5	4,400	900		20%
AHU 6	13,000	1,490		11%
AHU 7	3,000	100		3%
AHU 8	2,800	1,000		36%
AHU 9	3,000	300		10%
FCU 1	1,450	300		21%
FCU 2	800	0		0%
RTU 1	1,600	0		0%
RTU 2	1,600	300		19%
MUA 1	1,560	1,560		100%
MUA 2	1,560	1,560		100%
MUA 3	4,320	4,320		100%
EF 1			600	
EF 3			400	
EF 4			300	
EF 5			800	
KEF 1			2,000	
KEF 2			2,000	
KEF 3			1,800	
KEF 4			1,800	
KEF 5			1,800	
ERU 1			6,575	
TOTALS	64,090	21,700	18,075	
	TOTAL AIRFLOW AV	AILABLE FOR PRESS	SURIZATION (CFM)	3625
				40.70



BENTON, ARKANSAS