

in di



WALK-II	N FREEZER/C	OOLER	SPE	C'S:		
CONSTRUCTION	4" T & G HIGH DENSITY F W/ FACTORY MUTUAL A	Railing Pproved Cl	ASS   FC	DAM		
PANEL FINISH	WALL INT. CLG. INT. EXPOSED EXT. UNEXPOSED EXT.	STUC STUC STUC STUC	CO EMBO CO EMBO CO EMBO CO EMBO	SSED GALV. ST SSED GALV. ST SSED GALV. ST SSED GALV. ST	L. L. L. L.	
	FLOORING (FREEZER ONLY)	INSUL WEAF (BREA	ATION ON RING SURF AKER STR	ILY, CONCRETE FACE BY OTHEF IP TYPE)	AND RS	
DOOR	(2)36"x78" WALK-IN DOO FLUSH MOUNTED, SELF FINISH - TO MATCH PAN	rs Closing El				
	LOCKING HANDLE W/ INSIDE RELEASE HINGES (3) CLOSER					
36" HIGH, INT. & EXT. ALUMINUM TREAD KICKPLATES 3-WAY INT. & EXT. LIGHT SWITCH W/ PILOT LIGHT VAPOR PROOF LIGHT FIXTURE HEATED DOOR OPENING(FREEZER ONLY) HEATED AIR VENT(FREEZER ONLY)						
	PLASTIC VINYL STRIP CU	JRTAIN				
ACCESSORIES	2-1/2" DIAL THERMOMET (3)48" LED LIGHT FIXTUR MATCHING VERTICAL TF MATCHING INT. & EXPOS MATCHING CEILING ENC SEISMIC ANCHOR	TER PER COM RES RIMS SED EXT. CO CLOSURES	IPARTMEN	νT		
REFRIGERATION	2HP OUTDOOR SCROLL W/ MATCHING 13500BTU	COOLER CO J AIR DEFROS	ND.UNIT(2 ST EVAPO	230V,3PH) RATOR		
	6HP OUTDOOR SCROLL W/ MATCHING 18000BTU	FREEZER CO J ELECTRIC D	OND.UNIT( EFROST E	230V,3PH) EVAPORATOR		
DEALER: CH FO	EF'S TOYS UNTAIN VALLEY, CA		SC ALE: DRAWN BY: DATE:	AS SHOWN EPM APRIL 16, 2018	REVISIONS	
SPEC'S FOR: MATILIJA JR	. HIGH SCHOOL, (	DJAI, CA	<b>DWG</b> 1 OF 1	6	1/ 5/ 15	

1551 SOUTH PRIMROSE AVENUE

TELEPHONE: (626) 358-1710





			CAPTRA' GREASE FILTER I	TÉ -STOP COMBO NFORMATION					KLEEN-C SS BAFFI FILTER I	GARD LE TYPE NFORMATION	
Т	VELOCITY	STATIC PRESSURE	NOM. SIZE	ACTUAL DIMENSIONS	FREE AREA	WEIGHT	VELOCITY	STATIC PRESSURE	NOM. SIZE	ACTUAL DIMENSIONS	FREI
	(FPM)	(WATER GAUGE)	(H x W)	(H x W x D)	(SQ. FEET)	(LBS)	(FPM)	(WATER GAUGE)	(H x W)	(H x W x D)	(SQ.
	100	0.25	20 x 20	19-5/8" x 19-5/8" x 1-7/8	" 2.28	15	100	0.50	20 x 20	19-5/8" x 19-5/8" x 1-7/8"	2
	125	0.35	20 x 16	19-5/8" x 15-5/8" x 1-7/8	" 1.78	12	125	0.70	20 x 16	19-5/8" x 15-5/8" x 1-7/8"	1
	150	0.45	16 x 20	15-5/8" x 19-5/8" x 1-7/8	" 1.78	12	150	0.90	16 x 20	15-5/8" x 19-5/8" x 1-7/8"	1
	175	0.75	16 x 16	15-5/8" x 15-5/8" x 1-7/8	" 1.39	10	175	1.20	16 x 16	15-5/8" x 15-5/8" x 1-7/8"	1

#### System Design Verification (SDV)

If ordered, CAS Service will perform a System Design Verification (SDV) once all equipment has had a complete start up per the Operation and Installation Manual. Typically, the SDV will be performed after all inspections are complete.

Any field related discrepancies that are discovered during the SDV will be brought to the attention of the general contractor and corresponding trades on site. These issues will be documented and forwarded to the appropriate sales office. If CAS Service has to resolve a discrepancy that is a field issue, the general contractor will be notified and billed for the work. Should a return trip be required due to any field related discrepancy that cannot be resolved during the SDV, there will be additional trip charges.

During the SDV, CAS Service will address any discrepancy that is the fault of the manufacturer. Should a return trip be required, the general contractor and appropriate sales office will be notified. There will be no additional charges for manufacturer discrepancies.



L55 SERIES E26 CANOPY LIGHT FIXTURE -HIGH TEMP ASSEMBLY, INCLUDES CLEAR THERMAL AND SHOCK RESISTANT GLOBE (L55 FIXTURE)

> ATTACHING PLATES SUPPLY RISER WITH VOLUME DAMPER 2 3/4" 23.5% OPEN STAINLESS STEEL PERFORATED PANEL 6" 12" NOM. 3" 6" 68" 68" 68"



EXHA	1UST	<u>FAN INFORMATION – Job</u>	<u>#366797</u>	73				
FAN UNIT NO.	TAG	FAN UNIT MODEL #	CFM	ESP.	RPI	M	H.P.	B.H
1		DU180HFA	3150	1.600	1376 3.00		3.000	1.35
MUA	FAN	INFORMATION - Job#366	7973					
FAN UNIT NO.	TAG	FAN UNIT MODEL #	BLOWER	HOUSI	SING MIN CFM		1	DESIC CFN
2		A2-20D	20MF-2-MOD A2			-		3150
FAN	OPTIC	ONS						
FAN UNIT NO.	TAG		OPTION (	Qty Descr	.)			
		1 - Grease Box						
1		1 - Full Crating For Exhaust Fans						
		1 - Fan Base Ceramic Seal - Installed At Pla	int - For Greas	e Ducts				

#### FAN ACCESSORIES

2

FAN UNIT NO.	EXHAUST			SUPPLY				
	TAG	GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1		YES						
2					YES			

### <u>CURB ASSEMBLIES</u>

NO.	ON FAN	WEIGHT	ITEM	SIZE
1	# 1	41 LBS	Curb	26.500"W x 26.500"L x 20.000"H Vented Hir
2	#2	42 LBS	Curb	31.000"W x 31.000"L x 20.000"H

FAN #2 A2-20D - SUPPLY FAN

1. UNTEMPERED SUPPLY UNIT WITH 20" DIRECT DRIVE FAN IN SIZE #2 HOUSING

5. SEPARATE 120VAC WIRING PACKAGE FOR MAKE-UP AIR UNITS. OPTION MUST BE SELECTED WHEN MOUNTING VFD IN PREWIRE PANEL OR WITH DCV PACKAGE. PROVIDES SEPARATE 120VAC INPUT TO SUPPLY FAN. THIS 120V SIGNAL MUST BE RUN BY ELECTRICIAN FROM DCV TO MUA SWITCH.

TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT. SUGGESTED STRAIGHT DUCT SIZE IS 26" x 26" x 108" LONG.





- Ноос		()0 - 200		er or Ethernet	Switch		N	IONITORING A	ND CON	TROL POINTS LIST	<u> </u>	
- Ноос		UNTAC					D	CV Packages		Function	DCV Pack	ages
- Ноос	(						R	oom Temperature		MONITOR	Fan Status	;
- Ноос							D	uct Temperature(s)		MONITOR	PCU Fault	S
- Ноос							М	JA Discharge Temperatu	ıre	MONITOR	PCU Filter	Clog Percentag
- Ноос							Ki	chen RTU Discharge Te	mperature	MONITOR	Fire Condi	tion
- Ноос							Fa	n Speed		MONITOR	CORE Fire	e System
- Ноос							Fa	n Amperage		MONITOR	Building P	essures
- Hood		Ċ	CASlink I	Monito	r and C	ontrol	Fa	n Power		MONITOR	Prep Time	Button
- HOOC							V	D Faults		MONITOR	Fans Butto	n
Manage	ement System.	to support	communicat		uo-based B	ullaing	C	ontroller Faults		MONITOR	Lights But	on
<ul> <li>Hood monitor</li> <li>Hood control</li> </ul>	d Control Pane real time para d Control Pane	I to allow commeters out I to allow continued as C	cloud-based E tlined as MOI cloud-based E CONTROL in	Building Ma NITOR in tl Building Ma the points	anagement he points lis anagement list	System to st. System to	Fa	n Faults		MONITOR	Wash But	ton
- Hood	d control panel equencies, EC	to allow re M speeds,	emote change temperature	es to system set points	m setting si , fan and w	uch as: ash schedules	, etc.			DRAWN BY	SCHEMATIC	TYPF <b>[</b>
	366	67973		-	JOB NA	ME	-1111			DATE	INSTALL DWG NO	D m
1						Matilija Junior I	HS, Ojai Un	if		1/4/2019	ECP #1-1	d
2 .												MO
<u> </u>	BKEAK	EK PAN	CLIOPRI Responsibility	Electrici	on i ROL an	PANEL		C		Responsibility: Electric	cian	SIVI
3	BREA	KER SIZE	SHOWN IS	THE MAXI	IMUM ALLC	WED			PANEL			COMPONE
L F	BREAKER PANEL				PRIMAR	Y CONTROL PAN	EL					MICROSWITC
B	REAKER 1PH				Hot			CONTROL PANEL	-			0 <sup>4:NC</sup>
<u> </u> ₅	120 V	001						FIRE SYSTEM				<u>1:C</u> 2:NC
	15 A	TO GF	CI OR SHU	<u>-</u> K. DO JNT TRII	NOT WI P BREAK	KE ER.		MICROSWITCH		WIRE C1 TO COMMON WIRE AR1 TO NORMAL	(1). LY CLOSED (2	
6		1ST HOOI	D LIGHT BREA	AKER SHAR	RED W/ CON	TROL				C1 TO AR1 SHOULD HA	AVE RMED.	MS-1 4:N(
		POWER.	SWITCH #1		LINE							<u>1.0</u> 02:NC
7 B	REAKER 3PH				LINE			FIRE SYSTEM,				MS-2 1:0
N	208 V ICA: 11.9 A				LINE			IN OLIVILO AO C				<u></u>
8 M	10CP: 20 A	EXH-1		SM-1	Ground							
		WIRE TO	VFD QUICK		TOR			CONTROL PANEL		WIRE DIRECTLY TO CO	ONTROL BOAF	
9	REAKER 3DH				LINE	<u>L4</u>			ſJ4	CAT-5 CONNECTION		1
L B	208 V				LINE	<u>L5</u>				PLACE END OF LINE	PLUG	11201 2
10 N	1CA: 4.8 A				Ground			SWITCHES		IN EMPTY JACK. PN	EOL120	
IV	100F. 15 A	SUP-2		SM-2								HOOD LIGHT
11		WIRE TC	ערט QUICk	CONNEC	IUK			CONTROL PANEL			BLACK	Ö-
											GREEN	`,
12 .								1400 W MAX		WIRE TO J-BOX ON TO	OP OF HOOD	_
		CON	NTROL PA	NEL TO F	ANS				COMM		NECTION	ROUTER
13		F	Responsibility	: Electricia	an	_		CONTROL PANEL	· [		NINEGTION	
∟ г	PRIMARY PA	NEL			_	FANS		TO WORLD WIDE				NË
14	Load Wiring	<u></u>	LOAD LEG 1	-	FAN: 01	EXH-1	FLA:9.5	WEB		UDP PORT 1444 & 1445	5 OPEN FOR	'
	SM-1		LOAD LEG 2			~~~~	VOLT: 208 V			OUTBOUND TRAFFIC C	ONLY.	
15	VFD QUICK	GNDO	GROUND	$-\nabla$								——¢
			MUST HAV	E ITS OWI		WIRE TO	т	I U KITCHEN TEMP	<u>  11r</u> 0-	WIRE TO CONTROL BO SENSOR IN ROOM AW	DARD. INSTALI AY FROM HEA	- ROOM TE
16			DO NOT SH	IARE CON	IDUIT!			SENSOR		SOURCES. DO NOT IN	STALL SENSO	R
47	Load Wiring		LOAD LEG 1	A	FAN: 02 BLACK	SUP-2	FLA:3.8			GRI THE GEILING GRID	, JEE WANUAL	
1/	SM-2	V2 +	LOAD LEG 2		BLACK		VOLT: 208 V		- T2AO			
19	VFD QUICK		120V HOT		RED			CAPTURE VOLU		SENSOR MOUNTED IN	HOOD CAPTU	HOOD ?
0	CONNECTOR		120V NEUTRAL		GREEN			SENSOR		VOLUME.		
19	IF VFD MOUN		GROUND		GREEN							GAS SOLE
19			MUST HAV DO NOT SH	E ITS OWI HARE CON	N CONDUIT IDUIT!	Ī				HOT	NEUTRAL	O
20	ZIND PANEL, SF SIGNAL F							GAS VALVE		ONLY ENERGIZED 1		D
L	PANEL WITH ECPM03					L		120V ONLY		HMI WHEN FIRE SYS	STEM ARMEI	Э.
21											NNECTIONS	
										MAY OR MAY N REQUIRED BASED (		
22										SPECIFICATI	UNS	0111117
i i								CONTROL PANEL		HOT T		
								SIGNAL FOR	ONTO			<u> </u>
23								SHUNT TRIP		IN FIRE CONDITION	LINGIZED	

setpoint on demand. The duct temperature sensor input(s) to the digital controller

actual minimum speed set as required to meet minimum ventilation requirements.

- The VFD speed range of operation shall be from 0% to 100% for the system, with the

shall be used to calculate the speed reference signal.

- f. A single low voltage Cat-5 RJ45 wiring connection
- g. An energy savings indicator that utilizes measured kWh from the VFDs







GREASE DUCT & CHIMNEY SPECIFICATIONS:

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PROVIDE GREASE DUCT EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW" ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "DW" IS LISTED TO UL-1978 AND IS INSTALLED USING "V" CLAMP LOCKING CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "DW" DOES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER THE MANUFACTURES INSTALLATION GUIDE.

PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER. PER MANUFACTURES LISTING MODEL "DW" HORIZONTAL RUNS LESS THAN 75 FT. CAN BE SLOPED 1/16" PER 12", HORIZONTAL RUNS MORE THAN 75 FT. CAN BE SLOPED 3/16" PER 12". DUCT SHOULD BE SLOPED AS MUCH AS POSSIBLE TO REDUCE THE CHANCE OF GREASE ACCUMULATION IN HORIZONTAL RUNS.

IF THE DUCT OR CHIMNEY IS WITHIN 18 INCHES OF COMBUSTIBLE MATERIAL, PROVIDE UL-2221 OR UL-103 HT LISTED DOUBLE WALL GREASE DUCT OR DOUBLE WALL CHIMNEY EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW- 2R" OR "DW-3R" ROUND 20 GAUGE 430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL. MODELS DW-2R AND DW-3R ARE ETL LISTED UNDER FILE NO. 1000082319SAT-006 EEV AND COMPLY WITH UL1978 AND UL2221 STANDARDS.

# HVAC DISTRIBUTION NOTE

HIGH VELOCITY DIFFUSERS OR HVAC RETURNS SHOULD NOT BE PLACED WITHIN TEN (10) FEET OF THE EXHAUST HOOD. PERFORATED DIFFUSERS ARE RECOMMENDED.

## VERIFY CEILING HEIGHT

8' - 2"

HEIGHT REQUIRED TO VERIFY THAT HOOD FITS SPACE AND TO SIZE THE ENCLOSURE PANELS

CAPTIVEAIRE SYSTEMS RECOMMENDS THE USE OF LISTED, PRE-FABRICATED ROUND GREASE EXHAUST DUCT TO REDUCE STATIC PRESSURE IN THE SYSTEM, MINIMIZE INSTALLATION AND INSPECTION TIMES, AND ENSURE DUCT IS LIQUID TIGHT.

### - EXHAUST FAN.

THE INNER DUCT IS FULLY WELDED TO THE TRANSITION PLATE, ALL WELDS ARE DYE TESTED.

 REFER TO
 MECHANICAL FOR FAN FLANGE CONNECTION TO CURB AND STRUCTURAL FOR CURB CONNECTION TO STRUCTURE





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HOR	HORIZONTAL						
DUCT DIAMETER	SUPPORT SPACING (ft)						
8"	7'						
10"	7'						
12"	7'						
14"	7'						
16"	7'						
18"	5'						
20"	5'						
22"	5'						
24"	5'						

	TYPE
2R	& 2R
	3R
	3Z

- WHERE HORIZONTAL DUCTS EXCEED 75 FEET IN LENGTH, THE SLOPE SHALL NOT BE LESS THAN 3/16" PER LINEAR FOOT.

- FOR A COMPLETE LIST OF APPROVED SUPPORT METHODS, SEE THE ENTIRE INSTALLATION AND OPERATION MANUAL - DUCTWORK SHALL SLOPE NOT LESS THAN 1/16" PER LINEAR FOOT TOWARDS THE HOOD OR AN APPROVED GREASE COLLECTION RESERVOIR.

- ALL DUCTWORK IS REQUIRED TO BE INSTALLED WITH THE MAXIMUM SUPPORT SPACING LISTED BELOW.

HORIZONTAL DUCT DIAMETER SUPPORT (ft) 10' 8" 10" 10' 12" 10' 10' 14" 10' 16" 18" 10' 20" 10' 22" 10' 24" 10'

- WHERE HORIZONTAL DUCTS EXCEED 75 FEET IN LENGTH, THE SLOPE SHALL NOT BE LESS THAN 3/16" PER LINEAR FOOT.

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- ALL DUCTWORK IS REQUIRED TO BE INSTALLED WITH THE MAXIMUM SUPPORT SPACING LISTED BELOW. - FOR A COMPLETE LIST OF APPROVED SUPPORT METHODS, SEE THE INSTALLATION AND OPERATION MANUAL

l otal weight SINGLE WALL FACTORY BUILT DUCTWORK

DOUBLE WALL FACTORY BUILT DUCTWORK

Tag	Part #	CFM	S.P.	Weight	Velocity	QTY	Description
P1	DW1645DWASY-2R-S	3150	-0.084	24.86	2256.02	1	Double Wall Duct - 20" Stainless Steel
P2	DW1645DWASY-2R-S	3150	-0.12	24.86	2256.02	1	Double Wall Duct - 20" Stainless Steel
P3	DW1647DWAJD-2R-S	3150	-0.031	103.97	2256.02	1	Double Wall Adjust Clearance - 20" Sta 48.5" / Adjustment single and double v
P4 Assembled w/P5	DW1647DWLT-2R-S	3150	-0.031	72.94	2256.02	1	Double Wall Duct - 20" Stainless Steel
P5 Assembled w/P4	DW2616TPDBEX	3150	0	9.00	2256.02	1	Duct to Curb Trans Used on NCA16FA is 27.00" Designed
System at P5		3150	-1.5995				
	3M-2000PLUS			0.80		2	Duct - 3M Fire Barr
	DW16DWCLASY-2R-S			8.49		1	Duct - 16" Duct - 20 Reduced Clearance
	DW20DWRISER-2R-S			9.05		1	Double Wall Riser Clearance - 20" Sta & Single V Clamps
Total Weight				254.77			

<u>DuctWork #1 Parts - Job#3667973</u>



