

1. FAN SHALL HAVE MINIMUM TWO BELTS. MOTOR DRIVING FANS SHALL HAVE A MINIMUM SERVICE FACTOR OF 115.

[illegible]

SPECIFICATION NOTES:

1. FACTORY ELECTRIC OVERLOAD PROTECTION.
2. DOOR INTERLOCKED CIRCUIT BREAKER AND SERVICE SWITCH (PADLOCKABLE).
3. HAND- OFF: AUTOMATIC SWITCH.
4. BYPASS PANEL WITH INTEGRAL BUILT-IN BACnet ELECTRONIC MICROPROCESSOR AND DRIVE- OFF BYPASS AUTOMATIC TRANSFER TO BYPASS UPON FAULT.
5. AUTOMATIC TRANSFER TO BYPASS UPON FAULT.
6. RATED (CLASS 20) MOTOR OVERLOAD PROTECTION FOR AUTO BYPASS MODE.
7. BREAK BEFORE MAKE RELAY FOR REMOTE INSTALLATION AND/OR OF SIGHT REMOTE INSTALLATION APPLICATION.
8. INTEGRAL 5% LINE REACTOR CAPACITY.
9. FACTORY STARTUP AND CONCURRENT TRAINING SESSION.
10. MIN. THREE (3) YEARS PARTS AND LABOR WARRANTY.

PIPE INSULATION THICKNESS							
FLUID TEMPERATURE RANGE (°F)	INSULATION MEAN RATING TEMPERATURE (°F)	NOMINAL PIPE DIAMETER (IN INCHES)					
		RUNOUTS UP TO 2	1 AND 2	1.25-2	2.5-4	5-6	8 AND LARGER
		INSULATION THICKNESS REQUIRED (IN INCHES)					
141-200	125	0.5	1.5	1.5	1.5	1.5	1.5
105-140	100	0.5	1.0	1.0	1.0	1.5	1.5

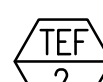
1. CALIFORNIA ENERGY CODE 2013
2. PROVIDE MINIMUM R-8 INSULATION FOR ALL UNCONDITIONED AREAS AND SPACES.

FAN SCHEDULE																	
SYMBOL	QTY	SERVING	LOCATION	MANUFACTURER MODEL	TYPE	CFM	S.P.	RPM	DRIVE	HP	BHP	VOLT	PHASE	HZ	OPER. WEIGHT (LBS)	REMARKS	
	1	EMERGENCY ELECTRICAL ROOM	PARKING P1	COOK 70SQN-B	INLINE	300	0.25	1806	BELT	1/6	0.174	120	1	60	100		
																NOT USED	
	1	MAIN ELECTRICAL ROOM P122	PARKING P1	COOK 120SQN-B	INLINE	1575	1.0	2020	BELT	1.0	0.69	480	3	60	120		
	1	EMERGENCY GENERATOR	EMERGENCY GENERATOR RM	COOK 150SQN-HP	INLINE	2100	1.5	2456	BELT	1.5	1.2	480	3	60	250	ON EMERGENCY POWER	
	1	LAUNDRY P120	ROOF	GREENHECK SWB-21B	CENTRIFUGAL UTILITY FAN	3000	1.0	1110	BELT	1.0	0.8	480	3	60	350	ON EMERGENCY POWER W/ VFD	
	1	RESTROOMS/ LOCKERS	GROUND FLOOR	COOK 180SQN-HP	INLINE	2170	0.75	1143	BELT	0.75	0.584	230	1	60	250		
	1	BICYCLE STORAGE	GROUND FLOOR	COOK 120 SQN-B	INLINE	840	0.25	1056	BELT	1/6	0.103	120	1	60	150		
	1	FIRE PUMP ROOM	FIRE PUMP ROOM	COOK 80SQN-B	INLINE	600	0.25	1614	BELT	0.25	0.129	120	1	60	100		
	1	RESTROOMS	LANDMARK BASEMENT	COOK 70SQN-B	INLINE	210	0.25	1447	BELT	0.16	0.118	120	1	60	100		
	1	HOUSEKEEPING ELEVATOR LOBBIES	ROOF	COOK 120 CADWDI	AIRFOIL CENTRIFUGAL BLOWER	900	0.75	1222	BELT	0.75	0.21	230	1	60	100		
	1	STORAGE RMS SEE PLANS	SEE PLANS	COOK GN-340	CEILING BLOWER	200	0.25	1625	BELT	130W	-	120	1	60	100		
	1	STORAGE RMS SEE PLANS	SEE PLANS	COOK GN-240	CEILING BLOWER	100	0.25	1625	BELT	48.7W	-	120	1	60	100	ON EMERGENCY POWER W/SPEED CONTROLLER	
	1	OUTSIDE AIR	WINE TASTING ROOM	COOK 165SQNB-HP	INLINE	800	1.0	1172	BELT	0.5	0.32	120	1	60	250		
	1	LAUNDRY MAKE-UP	LAUNDRY P120	COOK 180SQN-B	INLINE	3000	1.0	1175	BELT	1.0	1.0	480	3	60	250	ON EMERGENCY POWER W/ VFD	
	11	HOUSEKEEPING	ROOF	COOK 70SQN-B	INLINE	150	0.5	1543	BELT	0.25	0.074	120	1	60	100		
	1	POOL EQUIP. 7TH FLOOR	ROOF	COOK ACE-B 70C3B	CENTRIFUGAL EXHAUST VENTILATOR	200	0.12	1093	BELT	1/6	0.051	120	1	60	75		
	1	POOL EQUIP. 6TH FLOOR	ROOF	COOK ACE-B 100C3B	CENTRIFUGAL EXHAUST VENTILATOR	600	0.5	1494	BELT	0.25	0.117	120	1	60	75		
	1	MENS & WOMENS LOCKER RMS	ROOF	COOK ACE-B 120C2B	CENTRIFUGAL EXHAUST VENTILATOR	760	0.25	922	BELT	1/6	0.067	208	1	60	150		
	1	BATHROOM	- 7TH FLOOR	PANASONIC FV-13VKS3	BATHROOM CEILING	110	0.25	912	DIRECT	15.6 W	-	120	1	60	12.6		
	1	SUITE BATHROOMS	LANDMARK ROOF	COOK 150 CA SWSI	CENTRIFUGAL BLOWER	3500	2.0	2290	BELT	3.0	2.25	480	3	60	200		
	1	ELECTRICAL ROOM EXHAUST	ELECTRICAL ROOM 702	COOK 70SQN-B	INLINE	300	0.25	1806	BELT	0.16	0.118	120	1	60	80		
	1	CHILLER RM EXHAUST	CHILLER RM	COOK ACRU-HP 180	UPBLAST CENTRIFUGAL	MAX. 3500 MIN. 900	1.0	HIGH 1194 LOW 800	BELT	MAX. 1.5 (2) SPEED	1.18	480	3	80	230	HIGH SPEED ON EMERGENCY POWER INTERLOCK W/REF. MONITORING CONTROL PANEL. LOW SPEED ON THERMOSTAT	
	1	MAIN KITCHEN EXHAUST	MAIN KITCHEN P-1 LEVEL	COOK 70SQN-B	INLINE	430	0.5	2580	BELT	1/2	0.33	208	1	60	80		
	1	BANQUET KITCHEN EXHAUST	BANQUET KITCHEN GROUND LEVEL	COOK 70SQN-B	INLINE	430	0.5	2580	BELT	1/2	0.33	208	1	60	80		
	1					1577											
	1					4150											
	1					3424											
	1					2770											
	1					400											
	1					550											
	1					550											

1. FAN SHALL HAVE MINIMUM TWO BELTS; MOTOR DRIVING FANS SHALL HAVE A MINIMUM SERVICE FACTOR OF 115.
2. INTERLOCK SF P1-1 WITH EF LP-1 AND PROVIDE BOTH FANS WITH VFD
3. PROVIDE EF LP-1 WITH PRESSURE SENSOR.
4. PROVIDE ALL FANS WITH DISCONNECT SWITCHES.

UNIFORM MECHANICAL CODE DUCT INSULATION AND DUCT SUPPORT TABLES									
TABLE 6-B Construction Details for Round and Flat-Oval Ducts									
Duct Diameter Max. Width (in inches)	Aluminum B. & S. Gage	STEEL — THICKNESS IN INCHES (STEEL — GALVANIZED SHEET CAGES)					GIRTH JOINTS ²		
		Pressure Equal Or Less than 2" WC	Pressure Equal Or Less than 2" WC ²	Pressure More than 2" WC ² equal or Less than 10" WC	Pressure More than 2" WC ² equal or Less than 10" WC	Welded Fittings	Pressure More than 2" WC equal or Less than 10" WC	Minimum Girth Reinforcing Maximum Spacing and Angle Size	
									Round
Up to 9	24	0.019 (26)	0.024 (24)	0.019 (26)	0.024 (24)	0.030 (22)	2" Slip	None	
Over 9 Up to 14	24	0.030 (28)	0.024 (24)	0.024 (24)	0.030 (22)	0.036 (20)	4" Slip	None	
Over 14 Up to 23	22	0.024 (24)	0.030 (22)	0.030 (24)	0.030 (22)	0.036 (20)	4" Slip	None	
Over 23 Up to 37	20	0.030 (22)	0.036 (20)	0.030 (24)	0.036 (20)	0.036 (20)	4" Slip	None	
Over 37 Up to 51	18	0.036 (20)	0.047 (18)	0.036 (20)	0.036 (20)	0.047 (18)	1-1/4" x 1-1/4" x 1/8" Flange	1-1/4" x 1-1/4" x 1/8" on 72"	
Over 51 Up to 61	16	0.047 (18)	0.058 (16)	X	0.047 (18)	0.047 (18)	1-1/4" x 1-1/4" x 1/8" Flange	1-1/4" x 1-1/4" x 1/8" on 72"	
Over 61 Up to 84	14	0.058 (16)	0.070 (14)	X	0.058 (16)	0.058 (16)	1-1/2" x 1-1/2" x 1/8"	1-1/2" x 1-1/2" x 1/8"	

1. For pressure less than or equal to 2 inches WC, any of the following joints are acceptable: butt slip; pipe slip; pipe lock; roll slip; snap slip; plenum lock and companion flange.
2. Acceptable longitudinal seams for pressure less or equal to 2 inches WC: Acme (grooved); snap lock; standing and spiral.

SYMBOL	MAKE AND MODEL NO.	LOCATION	SERVING	BLOWER		MOTOR/ELECTRICAL DATA						OPER. WEIGHT LBS
				CFM MAX/MIN	EXT. SP. IN. WG.	DC MOTOR		VOLT	PH	HZ	DRIVE	
						WATTS	AMPS					
	AIRKING AKF-100DA	BATHROOM CEILING	RES. BATHROOMS	80	1/4"	±12	±0.04	120	1	60	DIRECT	20
	AIRKING AKF-100DA	BATHROOM CEILING	RES. BATHROOMS	110	1/4"	±22	±0.04	120	1	60	DIRECT	20

REMARKS:

- FAN ASSEMBLY SHALL BE U.L. LISTED, ENERGY STAR QUALIFIED, INCLUDING MANUFACTURER'S NON-METALLIC BACK-DRAFT DAMPER IN COMPLIANCE WITH CAL GREEN SECTION 4.506.1 AND THE CALIFORNIA ENERGY TITLE 24 REQUIREMENTS.
- FAN TO RUN CONTINUOUSLY AT LOW SPEED & FULL FLOW WHEN SWITCHED ON TO COMPLY WITH LEED OUTSIDE AIR REQUIREMENTS OF MAXIMUM VENTILATION EFFECTIVENESS OF 1.
- BATHROOM EXHAUST FAN SHALL BE CONTROLLED BY A HUMIDISTAT AND SHALL BE ADJUSTABLE SPEED LEVEL.
- BATHROOM EXHAUST FAN SHALL BE TERMINATED TO THE OUTSIDE OF THE BUILDING AND FAN SHALL HAVE BACK-DRAFT DAMPER WHICH CLOSSES WHEN THE FAN IS OFF.
- WALL CAP/LOUVER SHALL BE INSULATED WITH MINIMUM INSULATION VALUE OF R-4.2 PER CAL GREEN SECTION 4.507.1 REQUIREMENTS.

REVISIONS	BY	DATE	DESCRIPTION
-		05/07/2015	Addendum 02
-		09/04/2015	Addendum 03
-		10/30/2015	Addendum 04
-		05/27/2016	Addendum 05

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MIXED-USE HOTEL PROJECT
SANTA MONICA - CALIFORNIA, 90401

DATE	June 25, 2013
PROJECT NUMBER	HLA 0000000-000
SHEET	M-003
SCALE	-
APPROVED	-
CHECKED	-
DRAWN	-