

PROJECT NO:

jg Associates
ARCHITECTS PLANNERS INTERIOR DESIGN

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CONSULTANTS

PROJECT:
OTOLARYNGOLOGY LAB
FOURTH FLOOR-MEEI
243 CHARLES ST, BOSTON-MA

OWNER:



DRAWING TITLE
HVAC
SCHEDULES

NO DATE DESCRIPTION

REVISIONS

DRAWN : MMR

DATE : July 16, 2012

JOB NO :

SCALE : NTS

H0.01

DRAWING NO.
SHEET ___ OF TOTAL ___ SHEETS

AIR TERMINAL BOX ASSEMBLY SCHEDULE

AIR TERMINAL BOX ASSEMBLY SCHEDULE																																				6/10/16	08/04/16
UNIT NUMBER	TYPE	ASSEMBLY				AIR VALVE IN. WG	MAX. APD IN. WG	HOT WATER COIL										SOUND CONTROL SECTION										MAX. ASSEMBLY DEPTH (IN)	SYSTEM SIDE		ROOM SIDE		ACCESSORIES		ACCEPTABLE MANUFACTURERS SUBJECT TO CONFORMANCE WITH SPECIFICATIONS		
		DESIGN RANGE CFM MIN.-MAX.	AIR PD IN. WG	TURNDOWN MIN. CFM	AIR SIDE										WATER				NOISE CRITERIA (AT LISTED INLET SP)						MAX. APD IN. WG	LINING	HOSPITAL GRADE										
					MAX. HEATING CFM (*)			EAT °F	LAT °F (MIN) (**)	MAX FV FPM	MAX AIR PD IN. WG	MIN NO.OF ROWS	MAX FPI	MIN FIN THICK. IN.	GPM	EWT °F	LWT °F	MAX ΔP FT. H ₂ O	INLET STATIC PRESS (IN.)	MAX. RAW POWER LEVEL db (LEAVING ASSEMBLY)																	
																				DISCHARGE SPL @ 1.5" WG																	
																				125hz	250hz	500hz	1khz	2khz					4khz								
VCV-5	VARIABLE VOLUME	120-250	0.30	60	0.03	125	55	95	360	0.10	2	6	0.0095	0.5	180	140	10	1.5	67	63	58	56	54	53	0.17	YES	12	5ø	6ø	12x10	12x6	YES	YES	ENVIRO-TEC, PRICE, NAILOR			
VCV-6	VARIABLE VOLUME	150-400	0.30	70	0.03	200	55	95	560	0.10	2	6	0.0095	0.6	180	140	10	1.5	67	63	58	56	54	53	0.17	YES	12	6ø	8ø	12x10	12x8	YES	YES	ENVIRO-TEC, PRICE, NAILOR			
VCV-8	VARIABLE VOLUME	300-650	0.30	140	0.03	325	55	95	560	0.10	2	6	0.0095	1.0	180	140	10	1.5	67	63	58	56	54	53	0.17	YES	15	8ø	12ø	14x15	14x12	YES	YES	ENVIRO-TEC, PRICE, NAILOR			
VCV-10	VARIABLE VOLUME	500-925	0.30	225	0.03	463	55	95	560	0.10	2	6	0.0095	1.4	180	140	10	1.5	67	63	58	56	54	53	0.17	YES	15	10ø	14ø	16x15	16x12	YES	YES	ENVIRO-TEC, PRICE, NAILOR			
VCV-12	VARIABLE VOLUME	800-1400	0.30	310	0.03	700	55	95	560	0.10	2	6	0.0095	2.1	180	140	10	1.5	67	63	58	56	54	53	0.17	YES	18	12ø	16ø	20x18	20x12	YES	YES	ENVIRO-TEC, PRICE, NAILOR			
VCV-14	VARIABLE VOLUME	1000-1650	0.30	440	0.03	825	55	95	560	0.10	2	6	0.0095	2.5	180	140	10	1.5	67	63	58	56	54	53	0.17	YES	18	14ø	16ø	24x18	24x12	YES	YES	ENVIRO-TEC, PRICE, NAILOR			
VCV-16	VARIABLE VOLUME	1200-2300	0.30	575	0.03	1150	55	95	560	0.10	2	6	0.0095	4.0	180	140	10	1.5	67	63	58	56	54	53	0.17	YES	18	16ø	18x16	34x18	30x12	YES	YES	ENVIRO-TEC, PRICE, NAILOR			
VCV-24	VARIABLE VOLUME	2000-3200	0.30	1000	0.03	1600	55	95	560	0.10	2	6	0.0095	6.0	180	140	10	1.5	67	63	58	56	54	53	0.17	YES	18	28x16	28x16	46x18	40x12	YES	YES	ENVIRO-TEC, PRICE, NAILOR			
CV-5	CONSTANT VOLUME	65-250	0.30	60	0.03	250	55	88	360	0.10	2	6	0.0095	0.5	180	140	10	1.5	67	63	58	56	54	53	0.17	YES	12	5ø	6ø	12x10	12x6	YES	YES	ENVIRO-TEC, PRICE, NAILOR			
CV-6	CONSTANT VOLUME	75-400	0.30	70	0.03	400	55	88	560	0.10	2	6	0.0095	1.0	180	140	10	1.5	67	63	58	56	54	53	0.17	YES	12	6ø	8ø	12x10	12x8	YES	YES	ENVIRO-TEC, PRICE, NAILOR			
CV-8	CONSTANT VOLUME	150-650	0.30	140	0.03	650	55	88	560	0.10	2	6	0.0095	1.4	180	140	10	1.5	67	63	58	56	54	53	0.17	YES	15	8ø	12ø	14x15	14x12	YES	YES	ENVIRO-TEC, PRICE, NAILOR			
CV-10	CONSTANT VOLUME	250-925	0.30	225	0.03	925	55	88	560	0.10	2	6	0.0095	2.0	180	140	10	1.5	67	63	58	56	54	53	0.17	YES	15	10ø	14ø	16x15	16x12	YES	YES	ENVIRO-TEC, PRICE, NAILOR			
CV-12	CONSTANT VOLUME	350-1400	0.30	310	0.03	1400	55	88	560	0.10	2	6	0.0095	3.0	180	140	10	1.5	67	63	58	56	54	53	0.17	YES	18	12ø	16ø	20x18	20x12	YES	YES	ENVIRO-TEC, PRICE, NAILOR			
CV-14	CONSTANT VOLUME	475-1650	0.30	440	0.03	1650	55	88	560	0.10	2	6	0.0095	4.0	180	140	10	1.5	67	63	58	56	54	53	0.17	YES	18	14ø	16ø	24x18	24x12	YES	YES	ENVIRO-TEC, PRICE, NAILOR			
CV-16	CONSTANT VOLUME	600-2300	0.30	575	0.03	2300	55	88	560	0.10	2	6	0.0095	4.5	180	140	10	1.5	67	63	58	56	54	53	0.17	YES	18	16ø	18x16	34x18	30x12	YES	YES	ENVIRO-TEC, PRICE, NAILOR			
CV-24	CONSTANT VOLUME	1000-3200	0.30	1000	0.03	3200	55	88	560	0.10	2	6	0.0095	6.2	180	140	10	1.5	67	63	58	56	54	53	0.17	YES	18	28x16	28x16	46x18	40x12	YES	YES	ENVIRO-TEC, PRICE, NAILOR			
WE-5	VARIABLE VOLUME EXHAUST	120-250	0.20	60	0.03	----	----	----	----	----	----	----	----	----	----	----	----	1.5	67	63	58	56	54	53	0.17	YES	12	5ø	6ø	12x10	12x6	YES	YES	ENVIRO-TEC, PRICE, NAILOR			
WE-6	VARIABLE VOLUME EXHAUST	150-400	0.20	70	0.03	----	----	----	----	----	----	----	----	----	----	----	----	1.5	67	63	58	56	54	53	0.17	YES	12	6ø	8ø	12x10	12x8	YES	YES	ENVIRO-TEC, PRICE, NAILOR			
WE-8	VARIABLE VOLUME EXHAUST	300-650	0.20	140	0.03	----	----	----	----	----	----	----	----	----	----	----	----	1.5	67	63	58	56	54	53	0.17	YES	15	8ø	12ø	14x15	14x12	YES	YES	ENVIRO-TEC, PRICE, NAILOR			
WE-10	VARIABLE VOLUME EXHAUST	500-925	0.20	225	0.03	----	----	----	----	----	----	----	----	----	----	----	----	1.5	67	63	58	56	54	53	0.17	YES	15	10ø	14ø	16x15	16x12	YES	YES	ENVIRO-TEC, PRICE, NAILOR			
WE-12	VARIABLE VOLUME EXHAUST	800-1400	0.20	310	0.03	----	----	----	----	----	----	----	----	----	----	----	----	1.5	67	63	58	56	54	53	0.17	YES	18	12ø	16ø	20x18	20x12	YES	YES	ENVIRO-TEC, PRICE, NAILOR			
WE-14	VARIABLE VOLUME EXHAUST	1000-1650	0.20	440	0.03	----	----	----	----	----	----	----	----	----	----	----	----	1.5	67	63	58	56	54	53	0.17	YES	18	14ø	16ø	24x18	24x12	YES	YES	ENVIRO-TEC, PRICE, NAILOR			
WE-16	VARIABLE VOLUME EXHAUST	1200-2300	0.20	575	0.03	----	----	----	----	----	----	----	----	----	----	----	----	1.5	67	63	58	56	54	53	0.17	YES	18	16ø	18x16	34x18	30x12	YES	YES	ENVIRO-TEC, PRICE, NAILOR			
WE-24	VARIABLE VOLUME EXHAUST	2000-3200	0.20	1000	0.03	----	----	----	----	----	----	----	----	----	----	----	----	1.5	67	63	58	56	54	53	0.17	YES	18	28x16	28x16	46x18	40x12	YES	YES	ENVIRO-TEC, PRICE, NAILOR			

(*) MAXIMUM PRESSURE DROP AT MAXIMUM DESIGN CFM.
(**) MINIMUM TEMPERATURE AT MAXIMUM HEATING CFM

NOTES:
1. THE DISCHARGE SOUND LEVEL SHALL BE LESS THAN SCHEDULED IN EACH FREQUENCY WHEN THE ASSEMBLY IS TESTED AND CERTIFIED IN A CERTIFIED NOISE LABORATORY. THE TEST SHALL BE WITH 1.5" WC AT THE INLET OF THE BOX AND AT THE MAXIMUM SCHEDULED AIR FLOW. IN ADDITION THE ASSEMBLY PRESSURE DROP SHALL BE LESS THAN SCHEDULED. THE ORDER OF COMPONENTS SHALL BE VALVE, COIL, SILENCER OR VALVE, SILENCER, COIL, BUT SHALL BE TESTED AS SUPPLIED.
2. THIS TEST SHALL OCCUR IF ALL COMPONENTS ARE BY THE SAME MANUFACTURER OR IF THE COMPONENTS ARE BY DIFFERENT MANUFACTURER.
3. CERTIFIED TEST DATA SHALL BE PROVIDED FOR EACH BOX ASSEMBLY AND FOR EACH BOX TYPE INCLUDING EXHAUST RETURN ASSEMBLIES.
4. EACH HEATING COIL SHALL BE PROVIDED WITH AN ACCESS DOOR ON EACH SIDE, UP STREAM AND DOWN STREAM. 5. SUFFIX "SS" OR "S/S" ON ROOM TERMINAL SCHEDULES INDICATES ALL STAINLESS STEEL CONSTRUCTION, UN-LINED.

VARIABLE FREQUENCY DRIVE SCHEDULE

NUMBER	DRIVEN EQUIPMENT	MHP	DRIVE TYPE	NUMBER OF PULSES INPUT	5% LINE REACTOR	BYPASS	LOGS OVERSIZED	ADDITIONAL DEVICES TO REDUCE HARMONICS (CURRENT AND VOLTAGE)	SIMILAR TO	REMARKS
VFD-EF-38	EF-38	1.5	PWM	6	YES	NO	YES	AS REQUIRED TO MEET THE SPECIFIED	DANFOSS	

NOTES:
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FAN SCHEDULE

UNIT NUMBER	LOCATION	SERVICE	CFM	S.P. (IN. H ₂ O)	FAN RPM	WHEEL DIAMETER (IN.)	CLASS	DRIVE DIRECT/RELT	MOTOR DATA @ 60 HZ					INLET VANES	FAN TYPE	SIMILAR TO	EQUIPMENT INTERLOCK	NOTES SEE BELOW	FREE ALARM INTEGRATION	EMER POWER
									BHP	MIN. MHP	RPM	VOLTS	PHASE							
EXIST EF-38	LEVEL 14	ROOM 450	550	1.5	1380	-	-	B	-	1/3	XXX	120	1	-	CENT	-	-	1	-	-
EF-38	ROOF	ROOM 450	1300	3.5	2,608	12	II	B	1.1	1.5	1,750	480	3	NO	CENT	COOK CPA-A	VFD-38	1,2,3	NO	YES

NOTES:
1. EXIST EF-38 IS FOR REFERENCE ONLY.
2. MOTOR TO BE VFD READY
3.

LABORATORY HOOD EXHAUST VALVE SCHEDULE

UNIT TYPE	LOCATION	CFM		SIZE	MAX N.C.	Δ P IN.	SELECTION BASED ON	REMARKS	NOTES SEE BELOW
		MAX	MIN						
HV-1	SEE PLANS	200	45	6"ø	40	0.3	SIEMENS VENTURI 106	1	1
HV-2	SEE PLANS	700	40	10"ø	40	0.3	SIEMENS VENTURI 110	1	1

NOTES:
1. CONSTANT VOLUME HOOD VALVES WITH HERESITE COATING.

SOUND ATTENUATOR SCHEDULE

UNIT NUMBER	LOCATION	SYSTEM	AIRFLOW (CFM)	MAX. FACE VELOCITY (FPM)	LENGTH (FEET)	MAX. PRESS. DROP (IN. W.G.)	MIN. DYNAMIC INSERTION LOSS								MAX. SELF-NOISE				
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