



Aqua-Tec

INDOOR POOL DEHUMIDIFIERS

MODEL AR-0051

STANDARD FEATURES

Performance:

- ◆ Moisture Removal: 28.7 #/hr @ 82°F, 60% RH
- ◆ CFM: 2,800 CFM @ 0.5"ESP
- ◆ Ventilation Air Opening for 840 CFM (Max)

Refrigeration Circuit:

- ◆ Evaporator: 8-Row, 8 Fins per Inch, Totally Coated Coil
- ◆ Condenser: 3-Row, 12 Fins per Inch, 100% THR Capacity
- ◆ Scroll Compressor, Vibration Isolated
- ◆ Coaxial Hot-Gas Pool Water Heating, On Demand

Fan Assembly:

- ◆ Fan: Forward Curved, Double Wide, Double Inlet Fan
- ◆ Blower Motor: Open Drip Proof, Standard Efficiency
- ◆ Vibration Isolation

Cabinet:

- ◆ Bottom Supply, Bottom Return, Side Ventilation Air Opening
- ◆ Service Access to Refrigeration Circuit and Control Panel from One Side
- ◆ 2" Cotton Pleated Air Filters: MERV 6 Minimum Rating
- ◆ 1.5" Insulation: 1.5#/ft³ Density, Anti-microbial Agent Treated Mat Facing

Controls:

- ◆ 24 V Control Voltage
- ◆ Electromechanical Controls
- ◆ Magnetic and Thermal Motor Protection
- ◆ Expanded Terminal Strip for Total Environmental Control
- ◆ Alarm Status for: Refrigerant Circuit High Pressure Trip, Water Flow Interruption

...WHEN TOTAL ENVIRONMENTAL CONTROL IS VITAL



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		AIRFLOW (CFM)		FILTERS		
		Supply	Return	O/A	QTY	Size (in)
Base Unit R-22 (lbs)	Weight (lbs)	2,800	1,960	840	(2)	16" x 25" x 2"
20.0	1,010	2,800	2,800	0		
	Max.					
	Min.					



SPECIFICATIONS: ENVIRONMENTAL PERFORMANCE

RETURN AIR CONDITION	MOISTURE REMOVAL (lbs/hr)	SENSIBLE COOLING (btuh)	TOTAL COOLING (btuh)	TOTAL HEAT OF REJECTION (btuh)
78° F / 50% RH	18.4	43,700	63,000	
78° F / 60% RH	25.8	38,500	65,800	
80° F / 50% RH	19.5	43,900	64,300	
80° F / 60% RH	27.3	38,500	67,300	
82° F / 50% RH	20.7	43,900	65,700	
82° F / 60% RH	28.7	38,400	68,800	84,700
84° F / 50% RH	22.0	44,020	67,700	
84° F / 60% RH	30.2	38,300	70,300	
86° F / 50% RH	23.4	44,000	68,500	
86° F / 60% RH	31.7	38,250	71,800	

MOISTURE REMOVAL & SPACE COOLING

Ratings Based on ARI Standard 910 test conditions of 80° F water temperature, 82° F air temperature and 60% RH

POOL HEATING	
Heat Cap. (btuh)	27,700
Water Flow (gpm)	5.5
Pressure Drop (ft)	9.2
Connections (in)	¾" FPT

SPACE HEATING	
Heat Cap. (btuh)	111,770
Water Flow (gpm)	11.0
Pressure Drop (ft)	1.4
Connections (in)	1 ¼" FPT
Ent. Water Temp.	180° F



SPECIFICATIONS: HEAT REJECTION CONDENSER PERFORMANCE

MAX. AMBIENT	MODEL	CONNECTIONS (in)		UNIT WEIGHT (LBS)	R-22 ADDER (lbs)	
		HOT GAS	LIQUID		50' RUN	100' RUN
95° F	B-1310	7" 8	5" 8	185	24.0	31.0
100° F	B-1410	7" 8	5" 8	200	30.0	36.0
105° F	B-2210	7" 8	5" 8	350	30.0	36.0

Water-Cooled CONDENSER	
THR (btuh)	84,700
Water Flow (gpm)	15.0
Pressure Drop (ft)	5.0
Connections (in)	1" FPT
R-22 Adder (lbs)	0



SPECIFICATIONS: ELECTRICAL PERFORMANCE

VOLTAGE/PH/Hz	0.5" ESP				1.0" ESP			
	230/1/60*	230/3/60*	460/3/60	575/3/60	230/1/60	230/3/60*	460/3/60	575/3/60
Blower (HP)	1.5	1.5	1.5	1.5	2.0	2.0	2.0	2.0
Blower (FLA)	9.5	5.3	2.5	1.7	11.3	6.8	3.2	2.2
Compressor (HP)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Compressor (FLA)	32.1	19.3	10.0	7.8	32.1	19.3	10.0	7.8
Compressor (LRA)	169.0	123.0	62.0	50.0	169.0	123.0	62.0	50.0
Min. Circuit Amps	49.6	29.4	15.0	11.5	51.4	30.9	15.7	12.0
Max. Overload Protection Device	80	45	25	15	80	50	25	15
Unit Min. Wire Size (75° Insulation CU)	# 6	# 10	# 12	# 12	# 4	# 8	# 12	# 12
Max. Unit Total KW Input	6.15	5.84	5.76	5.56	6.48	6.25	6.14	5.91
Control Voltage	24	24	24	24	24	24	24	24

ELECTRICAL

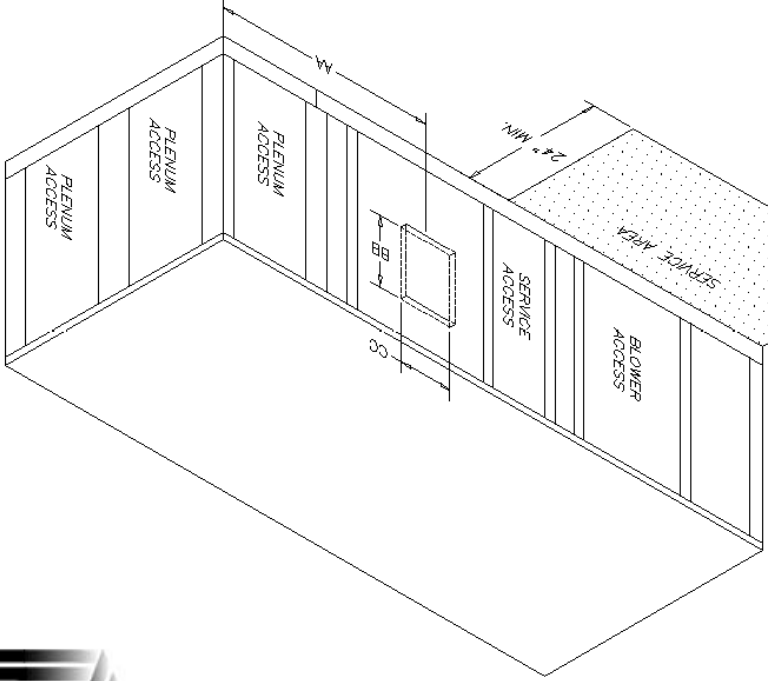
* Unit can also operate at 208V

**Electrical performance based on standard unit with no options. Electrical Ratings subject to change with the addition of options.

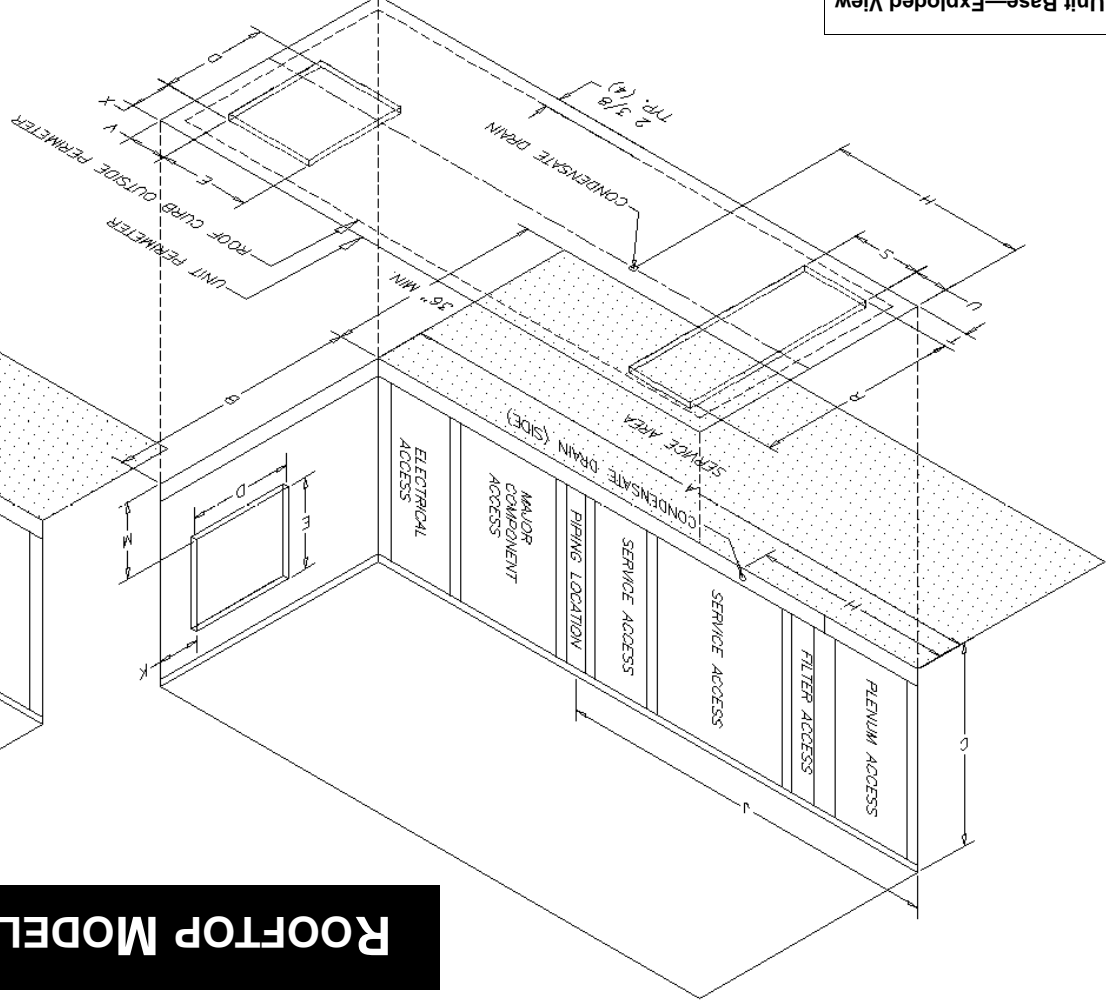


ROOFTOP MODEL AR-0051

RETURN END VIEW



SUPPLY END VIEW



Unit Base—Exploded View

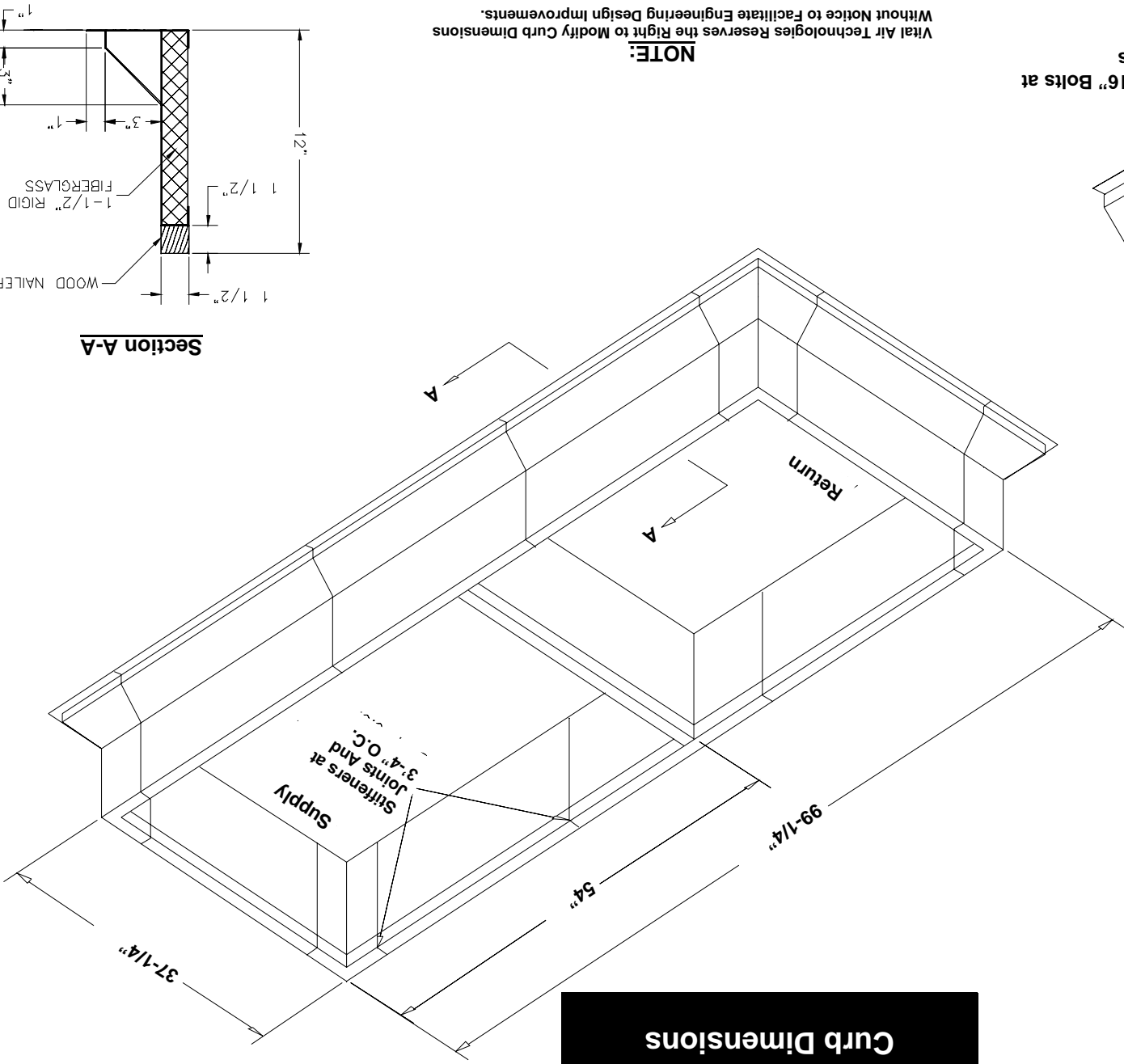
NOTES:

- Bottom Supply is standard—Optional end supply location is also shown
- Side Ventilation is standard
- Drawings are not to scale
- Drawings and dimensions are subject to change without notice
- Use "J" Dimension for piping as a "rough in" dimension. Actual pipe locations vary

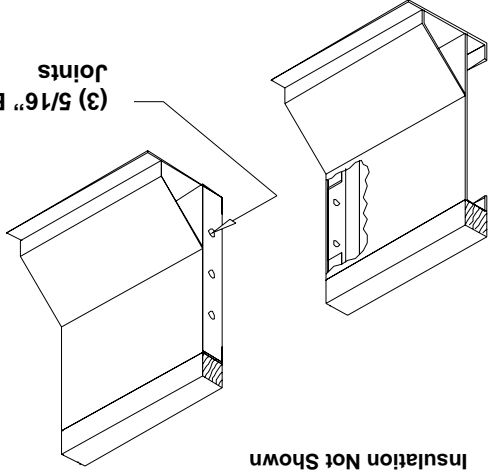
DIMENSIONS: STANDARD UNIT								
A	B	C	D	E	H	J	K	M
104"	42"	34"	16-7/8"	14-7/8"	33-5/8"	63"	6-5/8"	13-1/4"
R	S	T	U	V	X	AA	BB	CC
33-7/8"	11-7/8"	4-1/8"	5-1/2"	6-5/8"	7-1/4"	37-5/8"	12"	9-1/2"



MODEL AR-0051 Curb Dimensions



Typical Detail
Insulation Not Shown



NOTE:
Vital Air Technologies Reserves the Right to Modify Curb Dimensions
Without Notice to Facilitate Engineering Design Improvements.

