



# Aqua-TEC

## INDOOR POOL DEHUMIDIFIERS

### MODEL AR-0041

#### STANDARD FEATURES

##### Performance:

- Moisture Removal: 22.5 #/hr @ 82°F, 60% RH
- CFM: 2,000 CFM @ 0.5"ESP
- Ventilation Air Opening for 600 CFM (Max.)

##### Refrigeration Circuit:

- Evaporator: 8-Row, 8 Fins per Inch, Totally Coated Coil
- Condenser: 3-Row, 12 Fins per Inch, 100% THR Capacity, Totally Coated
- 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
- 1.5" Insulation: 1.5#/ft<sup>3</sup> 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



## MODEL AR-0041

		AIRFLOW (CFM)		FILTERS		
		Supply	Return	O/A	QTY	Size (in)
Base Unit R-22 (lbs)	Weight (lbs)	2,000	1,400	600	(2)	16" x 25" x 2"
18.0	775	2,000	2,000	0		

### SPECIFICATIONS: ENVIRONMENTAL PERFORMANCE

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

MOISTURE REMOVAL & SPACE COOLING		MOISTURE REMOVAL	SENSIBLE COOLING	TOTAL COOLING	TOTAL HEAT OF REJECTION
78° F / 50% RH	14.3	31,900	47,250	X	X
78° F / 60% RH	20.2	28,250	49,500		
80° F / 50% RH	15.2	32,000	48,300	X	X
80° F / 60% RH	21.3	28,175	50,600		
82° F / 50% RH	16.1	32,050	49,350	65,300	X
82° F / 60% RH	22.5	28,100	51,750		
84° F / 50% RH	17.1	32,020	50,400	X	X
84° F / 60% RH	23.6	28,000	52,900		
86° F / 50% RH	18.2	31,900	51,500	X	X
86° F / 60% RH	24.8	27,900	54,000		

**POOL HEATING**

Heat Cap. (btuh)	21,600
Water Flow (gpm)	3.2
Pressure Drop (ft)	9.2
Connections (in)	$\frac{3}{4}$ " FPT

**SPACE HEATING**

<b>HOT WATER COIL</b>	
Heat Cap. (btuh)	96,400
Water Flow (gpm)	10.0
Pressure Drop (ft)	1.4
Connections (in)	1" FPT
Ent. Water Temp.	180° F

### SPECIFICATIONS: HEAT REJECTION CONDENSER PERFORMANCE



MAX. AMBIENT	MODEL	CONNECTIONS (in)		UNIT WEIGHT	R-22 ADDER (lbs)		
		HOT GAS	LIQUID		50' RUN	100' RUN	
95° F	B-1210	$\frac{7}{8}$ "	$\frac{5}{8}$ "	181	18.0	26.0	
100° F	B-1310	$\frac{7}{8}$ "	$\frac{5}{8}$ "	185	23.0	31.0	
105° F	B-1410	$\frac{7}{8}$ "	$\frac{5}{8}$ "	200	30.0	36.0	

**Water-Cooled CONDENSER**

THR (btuh)	65,300
Water Flow (gpm)	14.0
Pressure Drop (ft)	7.5
Connections (in)	1" FPT
R-22 Adder (lbs)	0

### SPECIFICATIONS: ELECTRICAL PERFORMANCE



	0.5" ESP				1.0" ESP				
	230/1/60*230/3/60*	460/3/60	575/3/60	230/1/60230/3/60*	460/3/60	575/3/60	230/1/60230/3/60*	460/3/60	575/3/60
Blower (HP)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Blower (FLA)	9.5	5.3	2.5	1.7	9.5	5.3	2.5	1.7	1.7
Compressor (HP)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Compressor (FLA)	22.1	16.4	7.9	5.7	22.1	16.4	7.9	5.7	5.7
Compressor (LRA)	137.0	91.0	50.0	37.0	137.0	91.0	50.0	37.0	37.0
Min. Circuit Amps	37.1	25.8	12.3	8.8	37.1	25.8	12.3	8.8	8.8
Max. Overload Protection Device	50	40	20	15	50	40	20	15	15
Unit Min. Wire Size (75° Insulation CU)	# 8	# 10	# 12	# 12	# 6	# 10	# 12	# 12	# 12
Max. Unit Total KW Input	5.44	5.13	5.13	4.84	5.73	5.13	5.13	4.84	4.84
Control Voltage	24	24	24	24	24	24	24	24	24

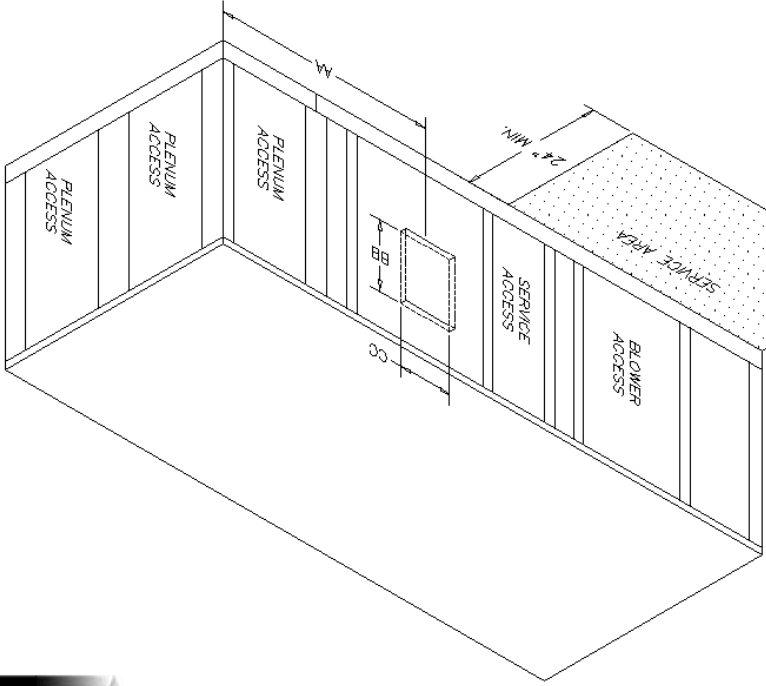
\* Unit can also operate at 208V

\*\*Electrical performance based on standard unit with no options.

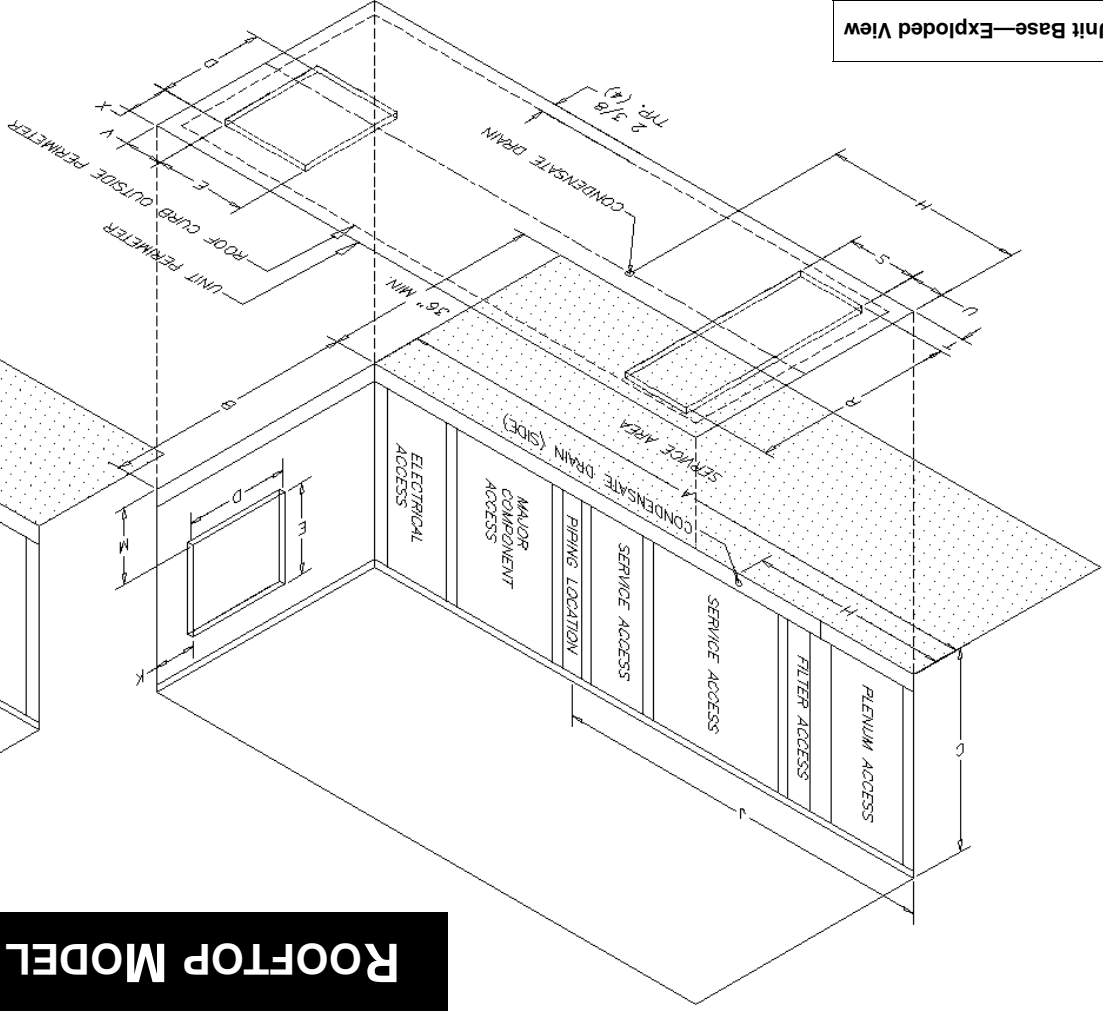


# ROOFTOP MODEL AR-0041

## RETURN END VIEW



## SUPPLY END VIEW



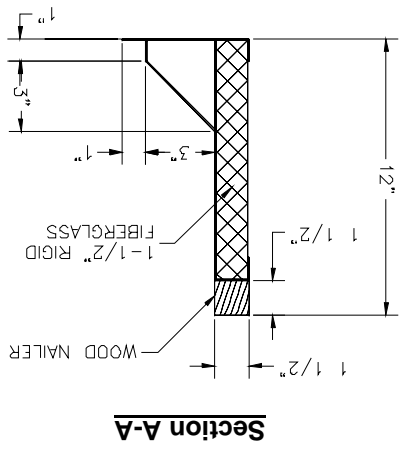
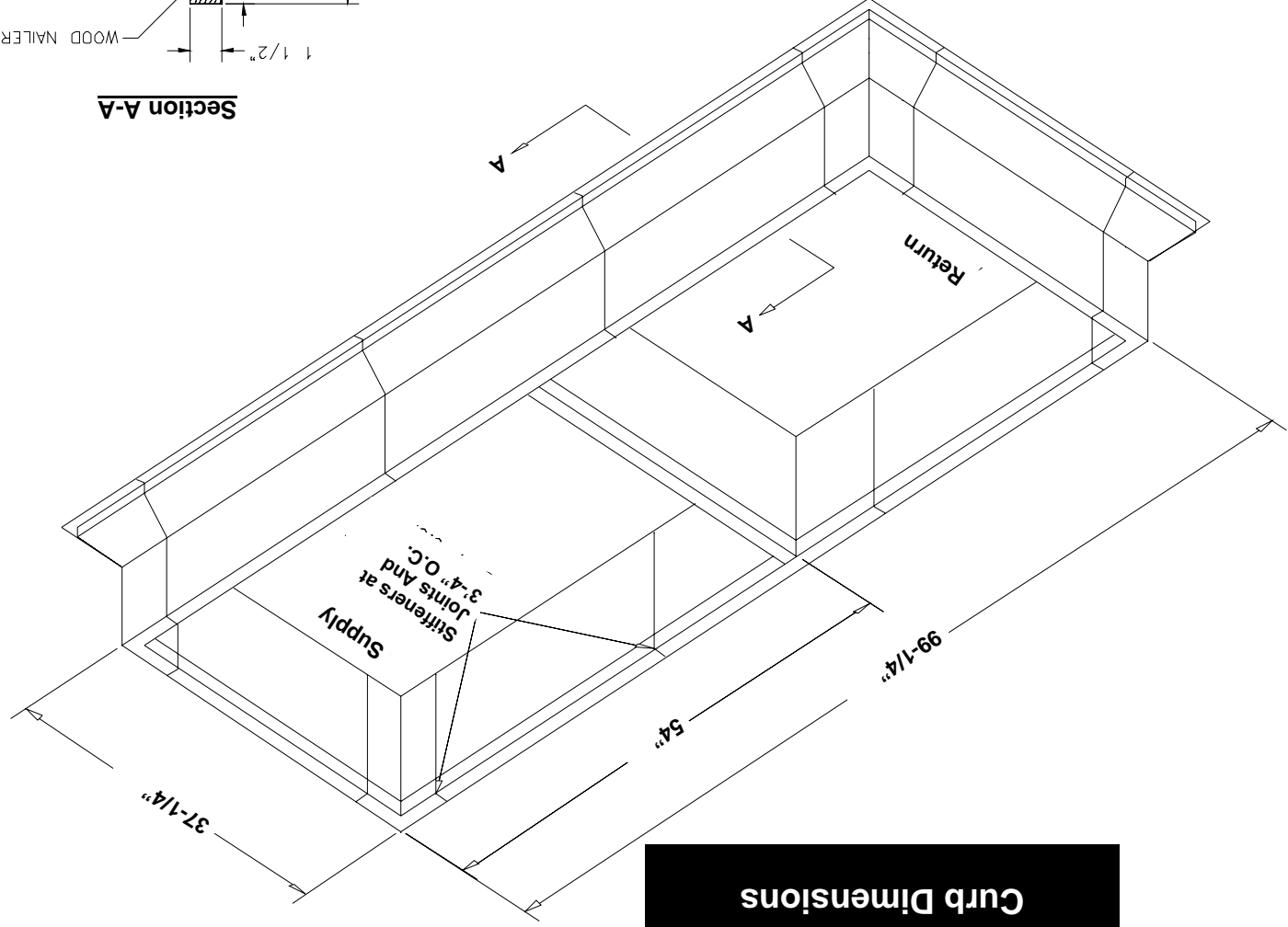
Unit Base—Exploded View

**DIMENSIONS: STANDARD UNIT**

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

**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

# MODEL AR-0041 Curb Dimensions



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

(3) 5/16" Bolts at  
Joints

