



## DESCRIPTION

The Reznor Model REC evaporative cooling module is designed as a freestanding module with duct flanges for connection **upstream** from an air moving device. The Model REC cooling module may be connected to any Reznor indirect-fired makeup air system, a Reznor direct-fired makeup air system, a Reznor blower cabinet or to some other type of makeup air heating system or blower cabinet within the allowable CFM range. The evaporative cooling module provides excellent comfort cooling at low initial equipment and installation costs and low operating and maintenance costs.

This type of evaporative cooling works on the principles that water in direct contact with a moving airstream will eventually evaporate if the droplets have long enough exposure and that evaporation will lower the air temperature. To increase the droplet exposure to the moving airstream, wetted cellulose media is used to retain the water in order to allow time for evaporation. The Model REC evaporative cooler has standard 6" rigid cellulose media. Optional 12" cellulose media; 6" or 12" rigid glass fiber media are available. The addition of an optional moisture elimination pad allows for use of the evaporative cooling module at higher air velocities.

The thermally protected water pump features a heavy duty, fan cooled motor with moistureproof windings along with a corrosion resistant one-piece motor shaft. The snapout base allows for simple access to the impeller for easy cleaning. The pump is wired to allow for manual or automatic thermostat switching to call for cooling.

Standard equipment includes an electrically activated, pump-protector, float switch to ensure that an adequate amount of water is in the reservoir prior to the pump being energized. An automatic float and constant bleed line maintains the proper reservoir level while allow-

ing the appropriate bleed-off to prevent accumulation of scale deposits including calcium and magnesium salts. The optional Aqua Saver® water metering system is designed to decrease water usage by automatically regulating water flow by time and temperature and to decrease maintenance requirements by eliminating the pump and float switches.

## STANDARD FEATURES

- Easily accessible, self-cleaning, high-efficiency evaporative media of 6" rigid cellulose media
- Thermally protected water pump
- Electrical motor-protection float switch with stainless steel arm
- Float valve and bleed line
- 115 volt supply voltage
- Terminal block wiring
- Overflow and drain connections in cabinet bottom (1/2" pipe or standard hose thread)
- 300 Series Grade stainless steel water reservoir
- Weatherized cabinet with mesh intake screen
- Adjustable legs

## OPTIONAL FEATURES

- 12" rigid cellulose media, 6" or 12" rigid glass fiber media
- Moisture elimination pad (See page 8)
- 208 or 230 volt power supply capability
- Automatic fill and drain kit (See page 8)
- Aqua Saver® water metering system (See page 8)
- Water Hammer Arrestor (See page 8)

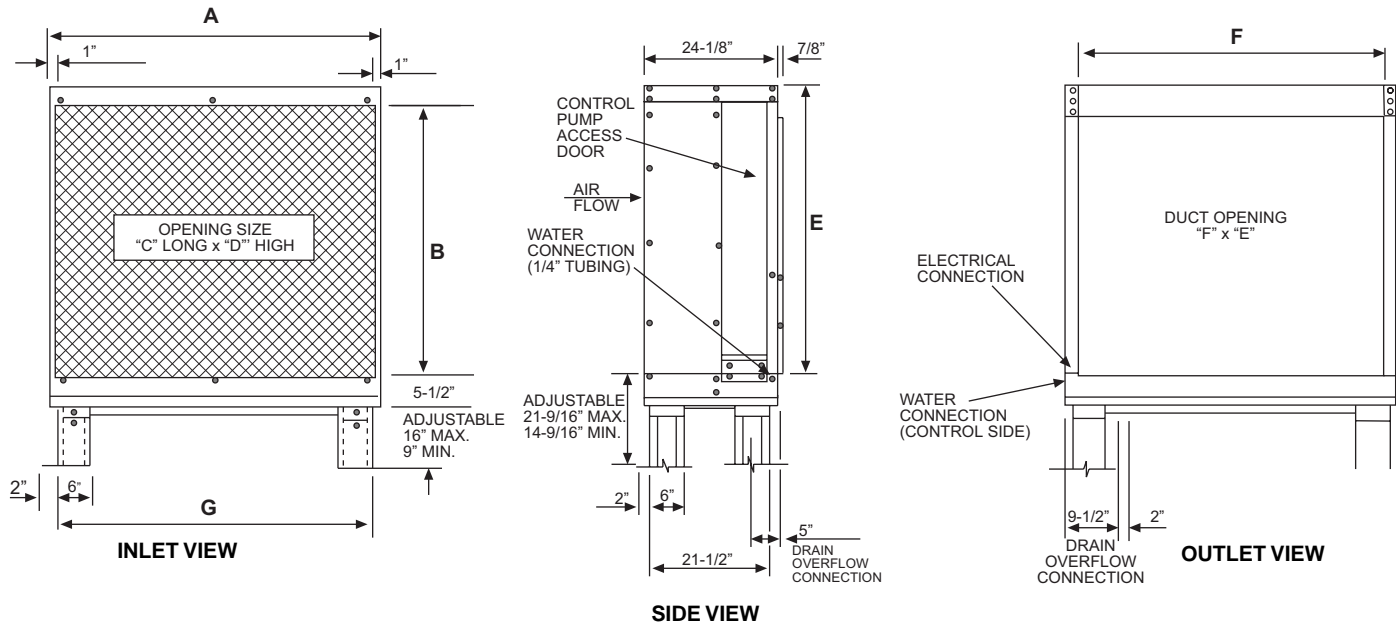
## TECHNICAL DATA

Size		40	50	60	70	80	90	180
Evaporative Efficiency ①	with 6" media	68%	68%	68%	68%	68%	68%	68%
	with 12" media	90%	90%	90%	90%	90%	90%	90%
Maximum Cooling CFM		4,110	5,060	5,860	7,125	8,075	8,860	17,730
Maximum Face Velocity ② (Optional moisture elimination pad required above 600 FPM)		950	950	950	950	950	950	950
Pump Horsepower		1/70	1/70	1/70	1/70	1/70	1/70	1/50
Amps @ 115V/1 phase		0.92	0.92	0.92	0.92	0.92	0.92	1.1
Watts		.85	.85	.85	.85	.85	.85	.80
Media Face size - Media pads are in sections	Dimensions	24" x 26"	24" x 32"	24" x 37"	24" x 45"	24" x 51"	24" x 56"	48" x 56"
	Square Feet	4.33	5.33	6.17	7.50	8.50	9.33	18.67

① The cooling efficiency was determined at the **maximum allowable CFM without the moisture elimination pad** with an inlet dry bulb temperature of 95°F and an inlet wet bulb temperature of 65°F. Evaporative cooling efficiency is a function of inlet temperature (wet and dry bulbs) and of face velocity through the pads. The stated cooling efficiency will **rise** with the decrease of velocity and the increase of inlet temperature.

② Velocity (FPM) = CFM ÷ Media face size (sq. ft.)

**MODEL REC DIMENSIONAL DATA (+ or - 1/8")**

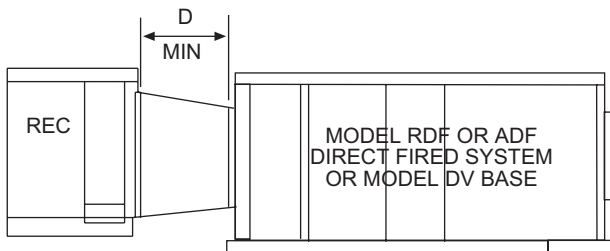


MODEL SIZE	A	B	INLET		DUCT OPENING		G
			C	D	E	F	
40	28-1/2	23-3/4	26-1/2	24	21-1/4	23-3/4	26
50	34	23-3/4	32	24	21-1/4	29-1/4	31-1/2
60	39-1/2	23-3/4	37-1/2	24	21-1/4	34-3/4	37
70	47-3/4	23-3/4	45-3/4	24	21-1/4	43	45-1/4
80	53-1/4	23-3/4	51-1/4	24	21-1/4	48-1/2	50-3/4
90	58-3/4	23-3/4	56-3/4	24	21-1/4	54	56-1/4
180	58-3/4	47-3/4	56-3/4	48	45-1/4	54	56-1/4

Weight (lbs.) - Model REC Evaporative Cooling Module									
Size		40	50	60	70	80	90	180	
Ship Weight	with 6" cellulose media	158	168	182	212	224	239	313	
	with 12" cellulose media	163	174	189	221	234	249	335	
	with 6" glass fiber media	162	173	188	220	232	248	332	
	with 12" glass fiber media	172	185	202	237	252	269	374	
Net Wt. with wet media and a Full Reservoir	with 6" cellulose media	173	197	218	249	271	292	379	
	with 12" cellulose media	184	212	237	270	295	318	431	
	with 6" glass fiber media	181	206	230	262	285	308	420	
	with 12" glass fiber media	201	230	261	296	305	350	514	

**MODEL REC DIMENSIONAL DATA FOR FIELD SUPPLIED TRANSITION DUCT**

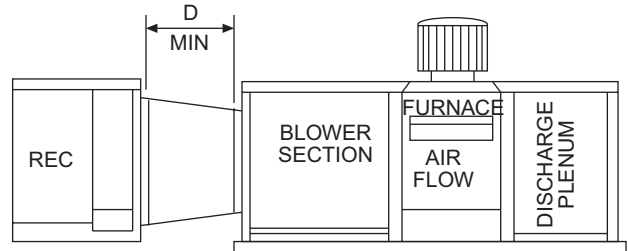
Minimum length of transition duct for connection to Reznor Direct-Fired Makeup Air System.



NOTE: Top view of duct work must be symmetrical

Model and Size	D
ADF/ADFH 300/500	24"
DV 109/112/115	
ADF/ADFH 700/1200	30"
DV 118/122/125	
RDF1, RDF2	38"
RDF3	42"

Minimum length of transition duct for connection to Reznor Indirect-Fired System or Air Handler.



NOTE: Top view of duct work must be symmetrical

Model and Size	D
REC 40 - 90	24"
REC 180	30"