

**REZNOR****MODEL  
ERSA****ENERGY RECOVERY, OUTSIDE  
AIR PRECONDITIONER****DESCRIPTION**

The REZNOR® ERSA Series of makeup air preconditioners is specifically designed to reduce the energy required to heat or cool outside makeup air by as much as 80%. With conditioned outside air being supplied to the building's HVAC system, that system can more efficiently provide makeup air quantities recommended by the ASHRAE IAQ Standard (62-89R). The Model ERSA unit can assist in providing a more healthy environment for both new and existing buildings.

The Model ERSA unit is a double-wall, insulated cabinet mounted on a curb cap base for installation outdoors or indoors. The cabinet provides for separate supply and exhaust airstreams. Each airstream includes a centrifugal blower and a filter bank. In the center of the cabinet, a motor slowly rotates a specially designed energy recovery wheel through the paths of both airstreams. Due to its special design, the wheel will transfer both sensible (temperature) and latent (moisture) energy from one airstream to the air in the other airstream. This allows the Model ERSA unit to both cool and dehumidify outdoor makeup air during the cooling season and heat and humidify outdoor makeup air in the heating season.

From the energy recovery unit, the conditioned outside air is ducted directly to the building's HVAC system, supplying the system with "conditioned" makeup air either warmer and more moist or cooler and dryer than the outside air. After giving up its energy, the exhaust airstream is exhausted to the outdoors, providing a balance of air pressure and improved air quality in the building.

Three units are available in sizes ranging from 850 CFM to 6,500 CFM. Additional CFM capacity, up to 13,000, is available by installing two Model ERSA units.

Reznor® Model ERSA units are ETL listed and display the ETL label.

**STANDARD FEATURES**

- Double-wall, insulated galvalume steel cabinet on a curb cap base for mounting on a slab, on rails, or on a curb
- Removable panels for easy access to all components
- Horizontal supply and return air openings
- 208, 230 or 460 volt, 3 phase electrical supply (factory wired for specific supply voltage or field convertible)
- UL recognized energy recovery wheel
  - ~ corrugated synthetic fiber-based media impregnated with a non-migrating water selective 4 Angstrom molecular sieve desiccant
  - ~ galvanized steel spokes and band
  - ~ aluminum hub with bearings with a life of 100,000+ hours
- Supply and exhaust centrifugal blowers, each with adjustable belt drive and permanently lubricated bearings
- Open dripproof blower motors (1/2 - 2 HP with contactors; 1/4, 1/3, 3, and 5 HP with starters)
- Disconnect switch for single supply connection
- Outdoor and return air filters, 2" pleated

**OPTIONAL FEATURES (Factory installed)**

- Energy efficient blower motors (with starters) that meet the energy efficiency requirements of the Energy Policy Act (EPAAct)
- Motor starters with 1/2 - 2 HP open dripproof motors
- Interlocking relays
- Vertical supply and/or return air openings

**ACCESSORIES (Field installed)**

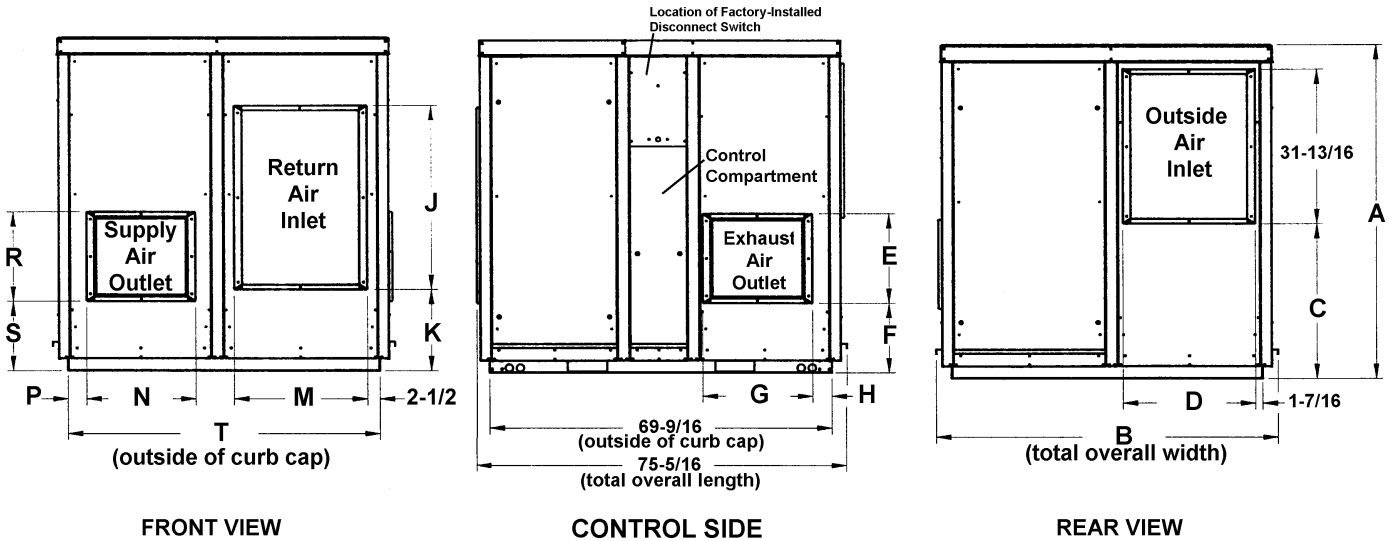
- Screened outside air hood with louvers for inlet opening and screened discharge hood for exhaust opening (Required on outdoor installations for ETL certification)
- 16" Roof curb
- Kit for vertical (bottom) supply and/or return air openings
- Remote secondary on/off switch
- Electric pre-heater for frost protection

# FOR INDOOR OR OUTDOOR INSTALLATION

## TECHNICAL DATA

Model ERSA				3			4			5		
CFM Range				850 - 2500			2000 - 4000			3500 - 6500		
Total Unit Amps (@ maximum HP)	208/3	230/3	460/3	17.5	16.4	8.2	21.7	19.9	10.0	30.0	29.6	14.8
Motor Horsepower Range (2)				1/4 - 2			1/2 - 3			1-1/2 - 5		
Blower Size (2)				10 x 10			15 x 11			15 x 15		
Energy Recovery Wheel Diameter				36"			42"			54"		
Energy Recovery Wheel Face Area (per airstream)				3.535 sq ft			4.811 sq ft			7.952 sq ft		
Pleated Filters - Total Quantity and Sizes				(6) 16x20x2"			(6) 20x25x2"			(16) 16x20x2"		
Approximate Net Wt (lbs)				809			948			1178		
Approximate Shipping Wt (lbs)				909			1048			1278		

## DIMENSIONS (inches) - Model ERSA



Size	A	B	C	D	E	F	G	H	J	K	M	N	P	R	S	T
3	50-3/4	51-15/16	13-15/16	18-1/16	14	12	16-15/16	6-1/2	23	13-3/4	18	16-15/16	2-1/16	14	12	45-11/16
4	56-3/4	57-15/16	19-15/16	21-1/16	18-1/2	14-5/16	18-1/2	5-11/16	26	16-3/4	21	18-1/2	2-3/8	18-1/2	14-3/8	51-11/16
5	68-3/4	69-15/16	31-15/16	27-1/16	18-1/2	14-5/16	22-7/16	3-7/8	38	16-3/4	27	22-7/16	3-7/8	18-1/2	14-5/16	63-11/16

## Duct Opening Dimensions

Horizontal Supply and Return Air Openings with Duct Flanges: Supply Air Outlet - R x N; Return Air Inlet - J x M  
 Optional Vertical Supply and/or Return Air Openings with Duct Flanges: See dimensions on page 6.

**Service Clearances** Control Side - 24"; Side Opposite Control Side - Width of the Unit