

[®]**RENNOR**

C-GN-F

HEATING VENTILATING & MAKEUP AIR SYSTEMS

SPECIFICATION AND TECHNICAL GUIDE

GAS FIRED UNIT HEATERS

REZNOR® gas-fired unit heaters are design certified by the Canadian Standards Association for commercial/industrial installation in the United States and Canada. Heaters display either the A.G.A. or C.G.A. label. All REZNOR® gas-fired unit heaters are equipped with safety controls and are available for use with either natural or propane gas. All manufacturing facilities are ISO Certified (NOTE: Model SHE separated combustion unit heater is not certified for use in Canada).

Model FE and BE unit heaters are standardly equipped with a built-in power venter and an intermittent electronic ignition system. Blower models may be connected to a duct system. These power-vented models can save up to 20% in annual fuel costs compared to gravity-vented units with the same thermal efficiency.

Model F and B gas-fired unit heaters are gravity vented with a manual reset, 100% shutoff pilot. The blower models may be connected to a duct system. Units may be equipped with an optional intermittent electronic spark ignition system.

Model FT Series is a **lower profile** fan-type, power-vented unit heater with a **tubular** aluminized steel heat exchanger and inshot burners. Standard controls include direct spark ignition with 100% shutoff and an integrated circuit board that includes an LED diagnostic indicator light. The circuit board monitors heater operation and indicates normal operation as well as identifying any abnormalities in the control functions. Sizes 30, 45 and 60 are approved for residential installation.



Model F



Model FE



Model B



Model BE



Model FT

Model Series	Air Delivery	MBH Input Range	Thermal Efficiency	CFM Range	Approximate Overall Dimensions (+ or - 1/8")			Approx. Net Weight (Lbs.)
					Width	Height	Depth	
FE	Fan	25 - 400	80%	380 - 4940	13-1/2 - 37	29-3/4 - 39-3/4	32-1/2 - 36	76 - 281
BE	Blower	25 - 400	80%	245 - 6580	10-3/4 - 34-1/4	29-3/4 - 39-3/4	43-1/2 - 57-1/2	97 - 395
F	Fan	25 - 400	80%	380 - 4940	13-1/2 - 37	29-3/4 - 39-3/4	31-1/2 - 36	72 - 276
B	Blower	25 - 400	80%	245 - 6580	10-3/4 - 34-1/4	29-3/4 - 39-3/4	46-1/2 - 57-1/2	93 - 395
FT	Fan	30 - 300	80-81%	525 - 4020	28-3/4 - 50-1/4	12-1/4 - 33	25-1/2 - 35-1/4	60 - 280

IMPORTANT: This guide is intended to provide specifications and technical information only. This guide is not intended to be an instruction manual. When installing heating and ventilating equipment, you must check and conform to all local and national building codes. Improper installation of heating and ventilating equipment could be dangerous. Consult manufacturer's installation manual for instructions and important warnings.

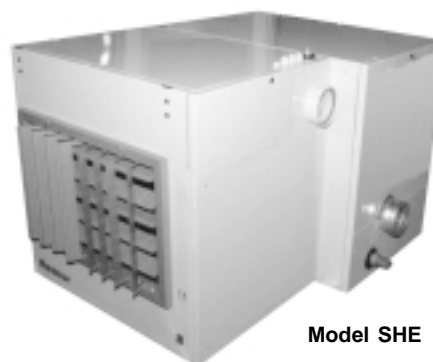
GAS FIRED UNIT HEATERS - SEPARATED COMBUSTION



Model SCA



**Model SFT
(Rear View)**



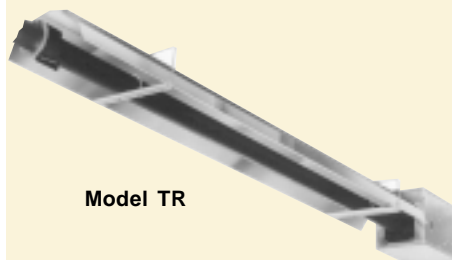
Model SHE



Models SCA, SCB and SFT unit heaters have a separated combustion system with an integral power venter. Air for combustion is drawn from outside, providing for operation in mildly contaminated or dusty surroundings. The concentric vent and combustion air intake requires only one relatively small penetration in the wall or roof of the building. An intermittent electronic ignition system is standard on all three separated-combustion models. **Model SFT** has the same lower profile cabinet, tubular aluminized steel heat exchanger, inshot burners, direct spark ignition, and diagnostic integrated circuit board as the Model FT unit heaters. Model SFT Sizes 45, 60, and 75 are approved for residential installation.

Model SHE unit heaters are **high efficiency condensing heaters** equipped with a fan for air delivery and automatic burner controls. Model SHE units have a sealed combustion system that separates the combustion air from room air, providing the same advantages as the other "S" Models above. High efficiency is achieved by circulating the products of combustion from the primary heat exchanger through a secondary heat exchanger of special corrosion-resistant alloy. In the secondary heat exchanger heat is recovered from those flue gases; the combustion products are cooled to below dew-point to achieve an **operating efficiency of 93%**. The heater is equipped with a horizontal standard fitting for connection to a condensate drain.

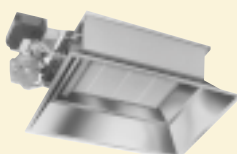
Model Series	Air Delivery	MBH Input Range	Thermal Efficiency	CFM Range	Approximate Overall Dimensions (+ or - 1/8")			Approx. Net Weight (Lbs.)
					Width	Height	Depth	
SCA	Fan	100-400	80%	1230 - 4480	22-1/2 - 55-1/2	32-1/4 - 35-1/4	34 - 36-3/4	198 - 485
SCB	Blower	125 - 400	78-80%	1160 - 4930	27-1/4 - 57-3/4	32-1/4 - 35-1/4	46-1/2 - 48-1/4	276 - 510
SFT	Fan	45 - 300	80%	750 - 4020	29-5/8 - 51-1/4	12-1/8 - 33	26-1/4 - 35-3/8	85 - 294
SHE	Fan	218 - 394	93%	3320 - 5650	39-7/8 - 59-1/8 (+flue collar)	39-1/4	61-3/8 (base)	375 - 595



Model TR



Model TRP



Model RIH

GAS-FIRED LOW AND HIGH INTENSITY INFRARED HEATERS

INFRA-REZ® **Model TR** and **TRP** are tubular radiant low intensity heaters. **Model TR** is a modular system available in sizes from 50,000 through 200,000 BTUH input. Lengths are from 20 to 70 feet in straight, "U" or "L" configuration. High altitude operation with full input rate is available. **Model TR** heaters are power-vented systems that operate on either inside or outside combustion air. **Model TRP** is a packaged system available in four sizes - 30,000 through 100,000 BTUH input. **Model TRP** is completely factory assembled and shipped to the installation site "ready to hang." **Model TRP** is either a separated combustion or power-vented system.

Reznor **Model RIH** high-intensity infrared heating equipment warms people, heats floors, walls, machinery and other surfaces without heating the air between. Available in eight sizes, Model RIH infrared heat assures floor-level comfort with fuel savings up to 50%.

All Reznor infrared heaters are approved for use in the United States and Canada by the Canadian Standards Association.

Most sizes of infrared heaters are available fueled by natural gas or propane.

Model Series	Type	MBH Input Range	Approximate Overall Dimensions + or - 1/8"			Approx. Net Weight Lbs.
			Width	Height	Length	
TR	Low Intensity, Tubular	50-200	17-3/4*	13-1/4	257-1/2 - 837-1/2* (21-1/2 - 70 ft.)	125 - 314
TRP	Low Intensity, Tubular, Packaged System	30-100	18-1/2 - 24-1/2	10-1/2	96 - 174	85 - 180
RIH	High Intensity	30-160	23-3/4	8-1/2	16-3/4 - 42-1/2	26 - 61

* Widths and lengths given for tubular infrared heaters set up in straight configuration. Dimensions for units using 5-foot, "U" or "L" tubes will be different.

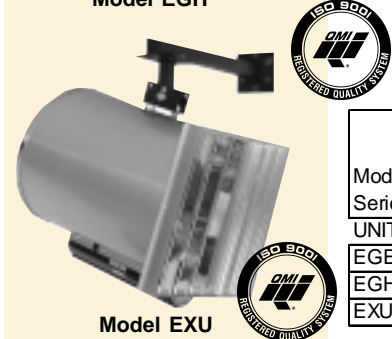
ELECTRIC HEATING EQUIPMENT

Reznor has a full line of electric heating products. The line includes warm air unit heaters and duct furnaces, convection heaters, infrared heaters, and water heaters and boilers. Many are available for explosion resistant applications.

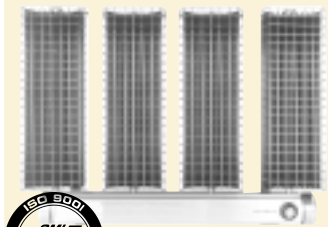
Some equipment is designed for use in space heating applications. Other equipment is designed to provide process heat.



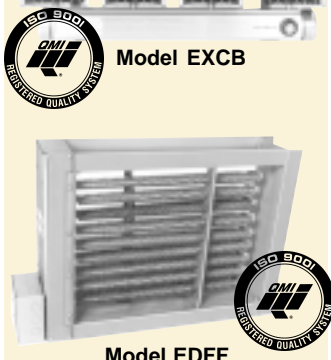
Model EGH



Model EXU



Model EXCB



Model EDFF



Model ERIR



Model EVWB



Model Series	Description	Heating Output Range	Dimensions + or - 1/4"			Approx Net Weight lbs.
			Height in.	Width in.	Depth/Length in.	
UNIT HEATERS						
EGE	Standard	2 - 40 kW	14 - 19-12	17 - 24	15-1/2 - 22	59 - 104
EGH	Heavy Duty	15 - 50 kW	18-1/2	23	29	105 - 125
EXU	Explosion Resistant	3-3/4 - 30 kW	22	19-3/4	26-1/4	155 - 205

CONVECTION HEATERS						
EPH	Control Panel & Pump House Heater	50 - 600 W	5-5/8	8-3/8 - 28-1/2	4-1/4	2-1/2 - 7-1/2
ECV	Heavy Duty Convection Heater	2 - 3 kW	16	26-1/2	4	30
EXCA	Explosion Resistant	50 - 550 W	5-1/2	11 - 31	5-1/4	5-1/4 - 9-3/4
EXCB	Heavy Duty Explosion Resistant	50 - 5,000 kW	10 - 30	7-1/4 - 33-7/8	8	10 - 100

DUCT HEATER						
EDFF	with Flanged Openings	1 - 120 kW	9 - 40	15 - 57	6-1/2	15 - 150
EDIF	Insert Duct Heater	1 - 120 kW	9 - 40	15 - 57	6-1/2	15 - 150

INFRARED RADIANT HEATERS FOR PROCESS HEATING						
ERIC	with Single Tubular Heating Element	1 - 3.8 kW	2-3/8	4-1/8	29 - 71	2-1/2 - 6-1/4
ERIE	with Double Tubular Heating Elements	1.8 - 6.2 kW	2-3/8	4-1/8	29 - 71	3-1/2 - 8
ERIR	with Hairpin Tubular Heating Element and Moisture Resistant Housing	1.1 - 6.5 kW	2-3/8	4-1/8	18-1/4 - 75-1/4	3 - 10-1/2
ERIQT	with Quartz Tube Heating Element	0.8 - 3.1 kW	2-3/8	4-1/8	25 - 71	2-3/4 - 5-3/4
ERIQF	with Double Quartz Heating Elements	106 - 6.2 kW	2-3/8	4-1/8	25 - 71	3-1/4 - 7
ERIQL	with Quartz Lamp Heating Element	0.5 - 3.8 kW	2-3/8	4-1/8	14 - 47	2 - 4-1/4

HEAVY DUTY INFRARED RADIANT HEATERS FOR PROCESS OR COMFORT HEATING						
ERIH	with Double Tubular Heating Elements	6.4 - 10 kW	7-3/4	9-3/8	72	17-1/2

INFRARED RADIANT HEATERS FOR COMFORT HEATING						
ERC	with Single Tubular Heating Element	1 - 3.8 kW	4-3/4	4-1/8	31-1/2 - 73-1/2	2-1/2 - 5-1/2
ERE	with Double Tubular Heating Elements	1.8 - 6.2 kW	4-3/4	4-1/8	31-1/2 - 73-1/2	6 - 13-1/2
ERQT	with Quartz Tube Heating Element	0.8 - 3.1 kW	4-3/4	4-1/8	31-1/2 - 73-1/2	5 - 11-1/2
ERQL	with Quartz Lamp Heating Element	0.5 - 3.8 kW	4-3/4	4-1/8	31-1/2 - 73-1/2	3-1/2 - 8

HEAVY DUTY INFRARED RADIANT HEATERS FOR COMFORT HEATING						
ERHC	with Single Tubular Heating Element	1 - 3.8 kW	6-5/8	6-7/8	31-1/2 - 73-1/2	7-3/4 - 17-1/2
ERHR	with Hairpin Tubular Heating Element and Moisture Resistant Housing	1.6 - 6.5 kW	6-5/8	6-7/8	23-1/4 - 75-1/4	6-1/2 - 15-3/4
ERHQT	with Quartz Tube Heating Element	0.8 - 3.1 kW	6-5/8	6-7/8	27-1/2 - 73-1/2	7-1/4 - 17

PACKAGED CIRCULATION WATER HEATERS						
EPWP	Commercial Pool Water Heating	6 - 60 kw	22-1/2	29	15	189 - 209
EPWD	Domestic Water Heating and Dishwasher Booster Heating	6 - 60 kw	22-1/2	29	15	189 - 209
EPWH	Comfort Heating or Process Water Heating	6 - 60 kw	22-1/2	29	15	189 - 209

PACKAGED STEAM/HOT WATER BOILERS						
EVSB	Steam for Comfort or Process Heating	9 - 270 kW	54 - 64	24 - 36	16 - 26	320 - 790
EVWB	Hot Water for Comfort or Process Heating	12 - 585 kW	54 - 64	24 - 36	16 - 26	350 - 1,250

OIL FIRED UNIT HEATER

Oil-fired unit heaters are available in three sizes designed for overhead suspension in both a fan and blower type. They are complete, prepackaged units that operate on low cost, commercial No. 2 fuel oil. Model OH and OB heaters are UL listed and CSA certified and display either the UL or CSA label. All are manufactured at an ISO 9001 Certified Facility.

Model Series	MBH Output Range	CFM Range	Approximate Overall Dimensions (+ or - 1/8")			Approx. Net Weight (Lbs.)
			Width	Height	Length	
OH	94-188	2,000 - 3,200	47-1/2 - 57-1/2	32	37 - 38-1/2	290 - 345
OB	94-188	2,000 - 3,200	47-1/2 - 57-1/2	32	47-3/4 - 51	355 - 410



Model OH

HYDRONIC UNIT HEATER

The hydronic unit heater is designed to be technically advanced and esthetically pleasing, which makes it the hydronic heater for the 21st century. This single unit can be suspended from a wall or ceiling and arranged for horizontal or vertical (down-flow) air discharge delivery. Model WS is also supplied with a 2-speed motor that can be set for high air volume for increased heating capacity, or low air volume for quieter operation. It can be used with either hot water or steam for spot or full area heating. The fan/motor/fan guard assembly is mounted with anti-vibration rubber mountings. The heat exchanger tubes and fins receive a special paint coating which makes them long lasting and increases the thermal output.

Reznor Model WS Hydronic Heaters are manufactured in an ISO 9001 facility.

Model Series	Approx. Output Range MBH (kW)	Air Volume Range cfm (m ³ /hr)	Approximate Overall Dimensions + or - 1/4" (8mm)			Approx. Net Weight lbs. (kg.)
			Width in. (mm)	Height in. (mm)	Depth in. (mm)	
WS	13 - 350	270 - 4,750	16-1/2 - 35-1/2	16-1/2 - 35-1/2	18-1/4 - 22-5/8	37 - 146
	(4 - 103)	(459 - 8,071)	(418 - 900)	(418 - 900)	(465 - 575)	(17 - 66)



Model WS



Model EEDU



Model SC



Model X



Model RG



Model RP

GAS-FIRED DUCT FURNACES

Reznor duct furnaces are available for installation indoors or with weatherized cabinet and control compartment for outdoor installation. Each model is completely prepackaged, factory wired, and fire tested. Units are designed for use with standard air handling systems for air conditioning, heating or makeup air applications. All models are available for natural or propane gas.

These duct furnaces are approved for use in The United States and Canada by C.S.A. Thermal efficiencies range from 78-80% (see Key at bottom of page). Units are approved for installation upstream or downstream of a cooling coil.

On Reznor **Model EEDU** series indoor power vented duct furnaces, an integral motorized vent exhauster meters the air flow through the system, reducing the fuel losses. A pressure switch measures proper vent system flow and opens the gas valve when the correct amount of flow is present. A sealed flue collection box limits loss of dilution air from the heated space during both on and off cycles. Due to the motorized vent exhauster, this duct furnace can be vented through a sidewall or roof using 4", 5" or 6" single wall vent pipe.

Reznor **Model SC** series separated combustion, gas-fired, indoor duct furnace is designed to separate the combustion air from the air in the heated space. These units are designed and manufactured in accordance with the ANSI definition of Separated Combustion. While discharging exhaust air, the power venter draws in combustion air from the outside atmosphere. Using exclusive outside combustion air, prevents dirt, lint, dust or other contaminants in the heated space from entering the combustion zone of the furnace.

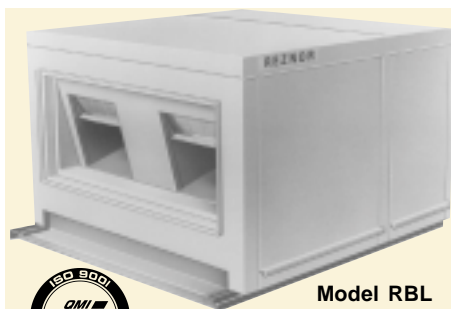
Model X duct furnaces are designed for 80% thermal efficiency for indoor applications with gravity venting.

The Reznor rooftop duct furnace line is composed of **Models RG, CRG and RP**. **Models RG and CRG** are gravity-vented units. **Model RG** is certified for 78% thermal efficiency. **Model CRG** is certified for 80% thermal efficiency. **Model RP** is a power-vented, rooftop duct furnace and is certified for 80% thermal efficiency.

All duct furnaces are manufactured at an ISO 9001 Certified Facility.

Model Series	Installation/Type	MBH Input Range	CFM Range	Approximate Overall Dimensions (+ or - 1/8")			Approx. Net Weight (Lbs.)
				Width	Height	Depth	
● (H)X	Indoor/Gravity Vent	75-400	615 - 14,745	19-1/4 - 52-1/4	32-1/4 - 35-1/4	26	150 - 355
● (H)SC	Indoor/Separated Combustion	100-400	820 - 14,815	22-1/2 - 55-1/2	32-1/4 - 35-1/4	26	158 - 410
● (H)EEDU	Indoor/Power Vent	75-400	615 - 14,745	15-1/4 - 45-1/2	34-1/2	26	104 - 328
●● (H)RG	Outdoor/Gravity Vent	75-400	600 - 14,375	28-1/2 - 58-3/4	38-1/2	26	160 - 354
● (H)RP	Outdoor Power Vent	125-400	1,020 - 14,745	26 - 61-1/4	38-1/2	26	201 - 361

Note: Prefix letter "H" indicates high CFM models.



Model RBL

MODEL RBL BLOWER FILTER CABINET

A packaged air handling unit, consisting of a blower/filter cabinet and twin centrifugal blowers. The cabinet is weatherized with an integral curb cap base for outdoor installation, but may also be installed indoors. A large selection of motors and adjustable drives allows air handling capabilities from 5,000 to 15,000 CFM at total static pressures to 4.0" w.c.

MODEL RBA/RBHA CABINET BLOWERS

Reznor RBA/RBHA series cabinet blowers were designed for use with Reznor duct furnaces when design considerations prohibit the use of Reznor packaged forced air furnaces. Both models have a weatherized cabinet with an integral curb cap base for outdoor installation, but may also be installed indoors. The RBA model includes a centrifugal blower and provides for internal motor mounting. The RBHA model is designed for applications requiring inlet air temperatures above that recommended by the motor manufacturer. The motor, bearings and adjustable drive are mounted in a weatherized housing external of the air stream.

All blower cabinets are manufactured at an ISO 9001 Certified Facility.



Model RBA



Model	CFM	Approximate Dimensions + or - 1/8"			Approx. Weight Lbs.
		Width	Height	Depth	
Series	Range				
RBA	1,500 - 5,000	34-1/8	40-1/2	39-1/2	330
RBHA	1,500 - 5,000	56	51-7/8	39-1/2	382
RBL	5,000 - 15,000	58-7/8	40-5/8	84-3/8	495

EVAPORATIVE COOLING MODULE

Available in seven sizes, Model REC is designed for use with packaged heating makeup air systems or as a freestanding unit with supply ductwork and a separate air moving device. Evaporative Cooling modules are always used with 100% makeup air.

The evaporative cooler is equipped with specially treated, high-efficiency evaporative pads and a multiple spray nozzle system, providing saturation efficiencies to 90%. Unit is provided with an automatic float and bleed valve to maintain reservoir level while allowing bleed off to prevent accumulation of calcium and magnesium salts.

Model REC is also available with the Optional AquaSaver™ Water Metering System. This water distribution system is designed to increase cooler performance while reducing water consumption. It also eliminates the need for sumps, pumps and floats thereby reducing overall system maintenance.



Model REC

Model Series	Evaporative Efficiency	CFM Range	Max. Face Velocity (FPM)	Approx. Width (+ or - 1/8")	Approx. Net Weight (Lbs.)
REC	68% - 90%	4,110 - 17,730	950	28-1/2 - 61	158 - 374

ENERGY RECOVERY PRECONDITIONER

Model ERSA is a makeup air preconditioner that is specifically designed to reduce the energy required to heat or cool outside makeup air. Incoming fresh makeup air is "preconditioned" and discharged as supply air to the HVAC system; return, stale building air is exhausted to the outdoors, With conditioned outside air being supplied to the building HVAC system, that system can more efficiently provide makeup air quantities recommended by the ASHRAE IAQ Standard (62-89R). Available in three sizes, 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.

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



Model ERSA



Model Series	CFM Range	Wheel Diameter (inches)	Approximate Dimension (+ or - 1/8")			Approx. Net Weight (Lbs.)
			Width	Height	Length	
ERSA	850 - 6,500	36 - 54	52 - 70	50-3/4 - 68-3/4	75-1/4	809 - 1,178

VERTICAL PACKAGED HEATING AND COOLING SYSTEMS

Reznor **Model CAUA** Packaged Heating System is designed to be a simple solution for applications that previously required "twinning" two smaller units together. Simple and easy to install, yet the Model CAUA is still versatile enough to meet a wide variety of needs. The system has a standard direct drive motor able to handle up to 1" w.c. of external static pressure. For those jobs that require more CFM, an optional belt drive motor may be ordered if higher static pressures are required.

With an optional air conditioning cooling coil, this system is ready to be installed in churches, medical offices, retail shops or storage facilities. Optional separated combustion and outside air supply capabilities make this ideal for printing shops, photo developing labs, pet stores or other places where controlling indoor air quality is difficult.

As illustrated below, *when used together*, the optional inlet air base and discharge plenum change the Model CAUA upflow "ductable heating system" into an upflow "unit heater" or an "air turnover unit". Add the Model ACUC cased cooling coil, and it becomes a heating/cooling unit. The airflow through the upflow system is engineered to circulate the air in the building. When used in an air turnover application, an optional two-stage valve will provide the recommended lower temperature rise.

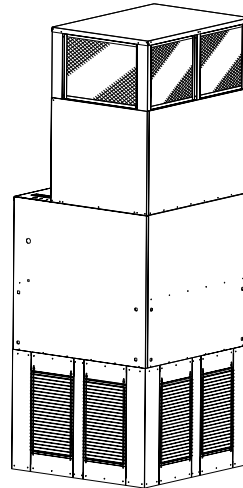
Or if used separately, the optional inlet air base can be installed on a size 350 or 400 with discharge duct-work, or the screened discharge plenum can be used with an optional filter cabinet or mixing box.

The inlet air base and the plenum are shipped separately for field installation. If a Model ACUC cased coil is ordered with a discharge plenum, the plenum is factory-installed on the cooling section. If the base is ordered with optional filters, the filters are installed at the factory.

Model CAUA is designed for commercial/industrial installation, but it is also certified to IAS Requirement 10-96 for residential installation.



**Model CAUA
with Optional Cased
Cooling Coil Model ACU**



**Model CAUA
with Optional Inlet Air Base with
or without Filters and Screened
Discharge Air Plenum**
(Available on size 350 and 400 only)

Model Series	Installation/Type	MBH Input	Cooling Range	CFM Range	Approximate Overall Dimensions (+ or - 1/8")			Approx. Net Weight (Lbs.)
					Width	Height	Length	
CAUA with Cooling Option ACU	Indoor/Vertical with optional cased cooling coil	150 - 400	60 - 180	1,600 - 6,500	34-3/4 - 48-3/4	46-1/2 - 79-1/8	38 - 50	288 - 763

GAS-FIRED DIRECT FIRED MAKEUP AIR

The need for tempered makeup air to eliminate negative building pressure caused by exhaust fans is an accepted fact. The benefits of providing building pressurization are the elimination of infiltration, drafts, accumulation of toxic fumes, and ineffective operation of exhaust systems. The burner/control section includes a cast iron burner with drilled ports and stainless steel mixing plates. The burner is designed for high efficiency combustion and to meet ANSI CO and NO₂ requirements.

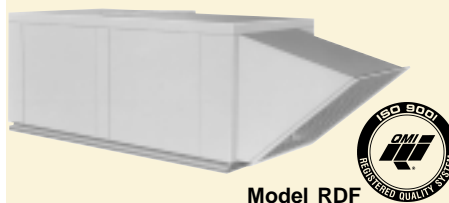
Reznor direct-fired makeup air systems are designed for indoor or outdoor installation. An evaporative cooling module is available as an option on Model ADF/ADFH or as a matched Model REC on Model RDF.

Model ADF/ADFH makeup air systems are available in heating capacities from 500 to 1,250 MBH and a CFM range of 2,000 to 15,500. Model ADF may be ordered to discharge either horizontally or vertically. Model ADFH units have an optional motor cabinet to allow for a higher discharge temperature and are available for vertical discharge only.

ADF/ADFH Models are design certified for installation in the United States and Canada. Model ADF/ADFH are manufactured at an ISO 9001 registered facility.



Model ADF



Model RDF

Model RDF makeup air systems are available in eight sizes with heating capacities from 400 to 3,000 MBH. All units may be ordered with either horizontal or vertical discharge. Model RDF offers three air control selections - 100% makeup air with (1) constant air volume or (2) variable air volume or (3) outside makeup air at a constant volume and blended with inside air.

RDF Models are ETL Listed. Model RDF is manufactured at an ISO 9001 registered facility.



Model DV

Model DV units are direct fired heating/makeup air systems in a vertical configuration. Units are designed for either indoor or outdoor installation. Heating capacities range from 250 to 3,000 MBH. The blower section includes a forward curved, centrifugal blower that is statically and dynamically balanced for vibration-free operation.

Model DV units are self-contained, ready to operate, assembled and test-fired before shipment. In addition to the basic heater, many options are available to provide features that may be required for particular applications. Model DV units are design-certified for installation in the United States and Canada.

Model Series	Installation/Type	MBH Input Range	CFM Range	Max. Temp Rise (°F)	Max. Gas Pressure	Approximate Overall Dimensions (+ or - 1/8")			Approx. Net Weight (Lbs.)
						Width	Height	Length	
ADF/ADFH	Indoor/Outdoor - Horizontal	500-1,250	2,000-15,500	130°	1/2	34 - 58-3/4	39-1/4	85-3/4 - 117	700-1,100
RDF	Indoor/Outdoor - Horizontal	400-3,000	1,000-28,000	120°	5	45-1/2 - 83	41 - 65-5/8	88-3/8 - 136-1/8	915-2,480
DV	Indoor/Outdoor - Vertical	250-3,000	750-22,000	120°	1/2 - 5	40-1/2 - 73	106-1/4 - 188-1/4	40-1/2 - 73	710 - 2,300

* Weights and dimensions do not include optional screened air hood.

REZNOR

HIGH TEMPERATURE OUTSIDE AIR

COOLING, HEATING AND DEHUMIDIFYING PRODUCTS

The **PCCA/PCDA Series** packaged direct expansion rooftops are designed to cool, dehumidify and heat 100% outside air year round for makeup air and ventilation applications. These systems include the same approaches to outside air treatment found in field engineered or split systems.

The 100% outside air PCCA unit is designed to provide an average cooling supply air temperature of 55°F. In heating modes, the indirect fired gas furnaces can provide an average temperature rise of 30°F to 100°F. The PCDA series packaged units offer all the features of the PCCA, but adds a dedicated dehumidifier and compressor as an extra stage of control and dehumidification. Reheating the supply air can also be accomplished by full condenser heat of rejection at relatively low condensing temperatures and air pressure drop. Applications for the PCCA/PCDA series include:

Neutral Air - Conditioned makeup air. Use in addition to other space heating/air conditioning units such as fan coils or unit heaters. Delivers conditioned outside air at 70°-75°F, 50% relative humidity.

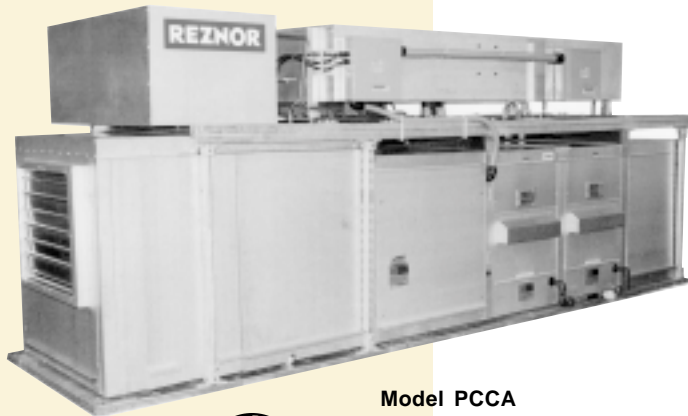
Tempering Air - Preconditions makeup air. Use to partially condition high outside air. This application can dramatically reduce space conditioning equipment size when the application calls for significant make up air.

Sole Source - Provides heated/air conditioned makeup air. Use as the sole source for heating/air conditioning.

Economizer - Makeup air only. Use during the Spring and Fall when outside air does not need conditioning. Best for drier climates.

PCCA series rooftops 15 tons and greater include 3 independent stages of compressor discharge air control. Twenty tons and greater include 4 stages of capacity control. The PCDA series expands compressor modulation by one additional compressor stage. In heating mode, modulation control is available down to 25% of rated input.

The PCCA/PCDA can be installed in a wide array of applications. This includes:



Model PCCA



- **Restaurants** – Combined dining room ventilation and kitchen hood transfer air
- **Schools** – Classroom Ventilation and make up air to restrooms
- **Hotels** – Corridor ventilation and space conditioning
- **Sports & Recreational facilities** – Make up air to therapeutic pools, locker rooms and restrooms. Ventilation air to minimize body odors.
- **Smoking Lounges/ Casinos** – Outside air dilution of tobacco particulates
- **Medical Facilities** – Ventilation air for many types of minor out patient surgery, waiting rooms, etc.
- **Agriculture & Live Stock Facilities** – Make up air for dilution of animal waste odor or ventilation air for plant growth
- **Office Buildings** – Complete office ventilation and make up air for densely populated office buildings, such as a telemarketing business
- **Retail Stores/ Supermarkets** – Specialty Ventilation (printers, photographic equipment, etc.) or make up air for door infiltration
- **Public Assemblies** – Ventilation Air for densely occupied areas such as: Churches, Auditoriums, Courtrooms and Theaters
- **Industrial Ventilation** – Make up and ventilation air for special processes, areas with noxious fumes, dusty environments, etc.
- **Retrofit Jobs** – Meet local ventilation codes or enhance occupant comfort with fresh outside air dilution

Model Series	Installation/Type	MBH Input	Cooling Range	CFM Range	Approximate Overall Dimensions (+ or - 1/8")			Approx. Net Weight (Lbs.)
					Width	Height	Length	
PCCA/PCDA	Outdoor/Horizontal - Makeup Air - with compressor and cooling coil	125 - 700	60 - 360	1,200 - 7,100	39-5/8 - 53-3/8	66	143-1/2 - 170	1,925 - 3,105

HEAVY DUTY INDUSTRIAL HEATING, COOLING, VENTILATING AND AIR RECIRCULATION EQUIPMENT



Model ACB
with optional
power venter



Model PCBH

Reznor **Model ACB** is an indoor, indirect gas-fired, packaged heating and air recirculation system. The unit is designed for recirculating large volumes of indoor air in a large industrial or commercial space. Two heavy duty axial fans provide high air flow using minimum horsepower. Low temperature rise allows reduced stratification of temperature from floor to ceiling.

The primary combustion chamber is all-welded 400 series stainless steel construction with a minimum of 16 gauge material on tank, 16 gauge material on headers. Combustion chamber is free of all refractory lining. Units are designed to operate with natural gas, propane, oil or combination gas/oil fuels.

The Reznor **Model PCB** Series units are indirect fired heating, ventilation and air handling systems designed for indoor or outdoor installation in industrial and commercial applications. These units are suitable for a variety of space heating, cooling and ventilating applications. Models are available in either horizontal or vertical configuration and operate on either natural or propane gas, oil or gas/oil combinations.

Cabinets are constructed of 16 gauge steel or heavier and properly supported with welded structural angle, channel and tubular steel. All sheet metal cabinets are constructed with large modular design to accommodate multiple arrangements of sectionized components.

Fan sections are ruggedly constructed, using forward curved, dual inlet centrifugal blowers. The primary combustion chamber is all-welded 400 series stainless steel construction with a minimum of 16 gauge material on tank, 16 gauge material on headers. Combustion chamber is free of all refractory lining. **Model PCB** units are self-contained, ready to operate, assembled and test-fired before shipment. In addition to the basic heater, many options are available to provide features that may be required for particular applications.

Reznor **Model PAD** Series units are through-the-wall indirect fired heaters mounted with the front of the unit flush with the inside wall and cabinet extending to the outside. Overall capacities are similar to PCB.

Model Series	Installation/Type	MBH Output Range	CFM Range	Approximate Overall Dimensions (+ or - 1")			Approx. Net Weight (Lbs.)	
				Width	Height	Length		
ADB	Indoor - Vertical	None*	CALL FOR INFORMATION					
ACB	Indoor - Vertical	240 - 2,500	4,500 - 65,000	50 - 72	155 - 202	60 - 165	2,400 - 11,500	
PCBH	Indoor/Outdoor - Horizontal	240 - 4,500	3,500 - 57,000	60 - 195	30 - 72	90 - 378	1,700 - 13,000	
PCBV	Indoor/Outdoor - Vertical			30 - 72	90 - 318	60 - 195		
PAD	Through-Wall	CALL FOR INFORMATION						

Options such as air intake vents and supply air dampers will add to dimensions and weights.



Model DFBV

Model DFB units are direct fired heating/makeup air systems designed for either indoor or outdoor installation. Units are available in either vertical (DFBV) or horizontal (DFBH) configuration. Heating capacities range from 70 to 8,000 MBH with CFM ranging from 9,000 to 75,000.

Fan sections are ruggedly constructed, using forward curved, double width, dual inlet centrifugal blowers. Blower motors are mounted outside the air stream in cooler atmosphere for longer motor life.

Model DFB units are self-contained, ready to operate, assembled and test-fired before shipment. In addition to the basic heater, many options are available to provide features that may be required for particular applications. Model DFB units are E.T.L. listed by Intertek Testing Services and C.G.A. approved.



Model DFBH

Model Series	Installation/Type	MBH Output Range	CFM Range	Max. Temp Rise (°F)	Max. Gas Pressure (psi)	Approximate Overall Dimensions			Approx. Net Weight (Lbs.)
						Width	Height	Length	
DFBH	Indoor/Outdoor - Horizontal	70-8,000	9,000-75,000	140°	5	72 - 191	36 - 72	62 - 252	1,045-12,000
DFBV	Indoor/Outdoor - Vertical			140°	5	36 - 72	62 - 192	72 - 191	1,045-11,000

BACKGROUND

Reznor was founded in 1888 to manufacture the "Reznor" reflector heater, which used a luminous flame gas burner developed by George Reznor. This technological breakthrough was an immediate success and hastened the expansion of gas heating in residential and commercial applications. Technological development and innovation have been the hallmark of Reznor products through the years. The development of the forced air gas unit heater, the modular Thermocore® heat exchanger, and the high-efficiency, sealed-draft Venturion® unit heater have kept Reznor products at the forefront of technological advances in commercial and industrial gas heating. As a result of this pioneering role in the heating, makeup air, and ventilating equipment field, the products offered today are the most advanced in engineering design to satisfy a wide variety of applications.

FACILITIES

Reznor heaters were first manufactured and sold in Mercer, Pennsylvania (70 miles north of Pittsburgh) in 1888. Over the years, the company has grown and expanded. Today, with sales worldwide, Reznor products are being manufactured at six different facilities throughout North America and Europe.

PRODUCT SCOPE

Well-equipped engineering laboratories for both product development and testing can be found at many of the manufacturing sites. All domestic lab sites are agency approved.

Reznor Products include a complete line of heating, makeup air and ventilating systems, using gas, oil, hot water/steam, or electric heat sources. Reznor heater catalogs are designed to aid the engineer, architect or contractor in specifying the correct equipment for all standard and special applications. Complete data is presented on unit heaters, duct furnaces, infrared heaters, makeup air systems, pre-engineered custom-designed systems, and evaporative cooling modules. Consult your local Reznor Sales Representative for further assistance in specifying Reznor Equipment for your specific application.

SERVICES

Product service requirements are handled through contractors and/or distributors, with backup from local representatives and factory-based service team. Replacement parts inventories for both warranty and non-warranty requirements are maintained at service centers throughout the country and at the manufacturing facilities.

See back cover for the Reznor Representative in your area. Or call 800-695-1901.

In keeping with our policy of continuous product improvement, we reserve the right to alter, at any time, the design, construction, dimensions, weights, etc., of equipment information shown here.

REZNOR®

Thomas & Betts

REZNOR® PRODUCT LIMITED WARRANTY

Thomas & Betts Corporation warrants to the original owner-user that this Reznor product will be free from defects in material or workmanship. This warranty is limited to twelve (12) months from the date of original installation, whether or not actual use begins on that date, or eighteen (18) months from date of shipment by Thomas & Betts Corporation, whichever occurs first.

EXTENDED WARRANTY (Limited to the following Models and Items)

Models F and B -- Extended nine (9)-year, non-prorated warranty on the heat exchanger, burners, draft hood, and flue baffle assembly. Extended four (4)-year, non-prorated warranty on all electrical and mechanical operating components (with the exception of blower belts on Model B).

Models F and B — Extended nine (9)-year, non-prorated warranty on the heat exchanger, burners, draft hood, and flue baffle assembly. Extended four (4)-year, non-prorated warranty on all electrical and mechanical operating components (with the exception of blower belts on Model B).

Models FE and BE — Extended nine (9)-year, non-prorated warranty on the heat exchanger, burners, and flue collection box assembly. Extended four (4)-year, non-prorated warranty on all electrical and mechanical operating components (with the exception of blower belts on Model BE).

Model FT — Extended nine (9)-year, non-prorated warranty on the heat exchanger, burners, and flue collection box assembly. Extended four (4)-year, non-prorated warranty on all electrical and mechanical operating components.

Model SFT — Extended nine (9)-year, non-prorated warranty on the heat exchanger, burners, and flue collection box assembly. Extended four (4)-year, non-prorated warranty on all electrical and mechanical operating components. Warranty is valid even when heater is installed in mildly corrosive or dirty environment.

Model SHE — Extended four (4)-year, non-prorated warranty on the primary heat exchanger. Extended two (2)-year, non-prorated warranty on the secondary heat exchanger and burners.

Model CAUA — Extended nine (9)-year, non-prorated warranty on the heat exchanger and burners. Extended four (4)-year, non-prorated warranty on all electrical and mechanical operating components (with the exception of blower belts).

Models SCA and SCB — Extended four (4)-year, non-prorated warranty on the heat exchanger, burners, and all electrical and mechanical operating components (with the exception of blower belts on Models SCB).

Models TR and TRP — Extended nine (9)-year, non-prorated warranty on all tubes. Extended four (4)-year, non-prorated warranty on the burner and all electrical and mechanical operating components.

Models OH and OB — Extended four (4)-year, non-prorated warranty on the heat exchanger and combustion chamber.

Model ERSA — Extended two (2)-year, non-prorated warranty on the energy recovery wheel.

Models SHE -- Extended four (4)-year, non-prorated warranty on the primary heat exchanger and two (2) years on the secondary heat exchanger and burners.

Model WS — If leaks or other failure occur within the warranty period (12 months from date of installation or 18 months from date of shipment - whichever occurs first), Thomas & Betts will pay up to \$50 for qualified contractor to make necessary repairs. If the heat exchanger cannot be repaired, Thomas & Betts will exchange the damaged unit for a new hydronic heater.

LIMITATIONS AND EXCLUSIONS

Thomas & Betts Corporation's obligation under this warranty is limited to repair or replacement at its manufacturing facility of any part or parts of this Reznor product identified by model or serial number which shall be returned to Thomas & Betts Corporation with transportation charges prepaid and which the manufacturer's examination shall disclose to its satisfaction to be defective. Reznor parts or products will not be accepted at the manufacturing facility without an attached Return Materials Tag. Repaired or replacement parts will be shipped by the Thomas & Betts Corporation facility, F.O.B. shipping point.

1. This warranty does not cover labor or other costs incurred in repairing, removing, installing, servicing, or handling of parts or complete products.
2. This warranty will not apply if the input to the product exceeds the rated input as indicated on the nameplate by more than 5%, or if the product in the judgment of the manufacturer has been subjected to misuse, negligence, accident, corrosive atmospheres, atmospheres containing any contaminant (silicone, aluminum oxide, etc.), excessive thermal shock, physical damage, impact, abrasion, unauthorized alterations, or operation contrary to the manufacturer's printed instructions, or if the serial number has been altered, defaced or removed.
3. Thomas & Betts Corporation shall not be liable for any default or delay in performance of its warranty obligations hereunder caused by any circumstances beyond its control, including but not limited to judicial or government restrictions or restraints, strikes, fires, floods, or reduced supplies of raw materials, energy, or parts.
4. To the maximum extent provided by law, Thomas & Betts Corporation will not be liable for any loss, damage, cost of repair, or incidental or consequential damages of any kind in connection with the sale, use, or repair of any Reznor products.

THIS IS THOMAS & BETTS SOLE WARRANTY. THOMAS & BETTS MAKES NO OTHER WARRANTY OF ANY KIND WHATEVER, EXPRESS OR IMPLIED; AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEED THOMAS & BETTS AFORESTATED OBLIGATION ARE HEREBY DISCLAIMED BY THOMAS & BETTS AND EXCLUDED FROM THIS WARRANTY. Thomas & Betts neither assumes nor authorizes any person to assume for it, any obligation in connection with the sale of Reznor heaters. This warranty shall not apply to any Reznor heaters or Reznor heater parts which (1) have been repaired or altered outside of the Thomas & Betts factory in any manner; or (2) have been subjected to misuse, negligence or accident; or (3) have been operated in a manner contrary to Thomas & Betts printed instructions. Under no circumstances shall Thomas & Betts be liable for any loss, damage, cost or repair, incidental or consequential damages of any kind, in connection with the sale, use or repair of any Reznor heaters. Parts of Reznor heaters manufactured by others are sold subject to the warranty such other manufacturers have extended to Thomas & Betts Corporation.

REZNOR®

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MANUFACTURER OF GAS, OIL, ELECTRIC HEATING, COOLING AND VENTILATING EQUIPMENT
25M 9/00 YL RGM-C-GN (Version F)

Thomas&Betts
