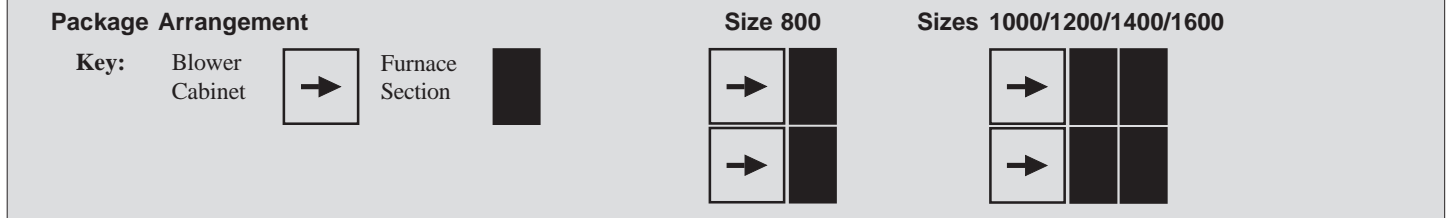




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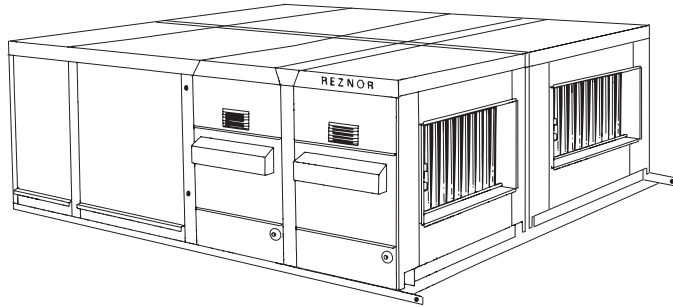
**NOTE: Reznor Models RPDBL and SSCDBL are Ultra Capacity - Side-By-Side units. Each packaged unit consists of two Reznor Model RPBL or SSCBL packaged systems constructed Side-by-Side. Following is a graphic depiction of how these units are arranged.**



**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 equipment could be dangerous. Consult manufacturer's installation manual for instructions and important warnings.

All specifications subject to change without notice.

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.



ANSI  
Z83.9



CAN/CGA  
2.6



### DESCRIPTION

Reznor Model Series RPDBL are 80% thermal efficient rooftop, packaged heating systems including two or four duct furnaces and large-capacity blower cabinets. Sizes are available with heating capacities from 800,000 through 1,600,000 BTUH gas input. The standard package is a heating-only system, but factory-installed gas and inlet-air control options are available to meet combination heating/makeup air specifications.

Each furnace in a Model RPDBL package has a built-in power vent system. Power-vented models are designed for use where environmental conditions pose a problem for gravity-vented models.

RPDBL models are available for use with either natural or propane gas, as specified. All units are equipped with required limit safety controls. Controls and wiring are accessible through lift-away side panels. The weatherized galvalume steel cabinet has interlocking joint construction (U.S. Patent No. 5,373,673); all components are unified on a structural steel, C-channel base. The base is designed for mounting on rails; an optional roof curb is available.

Both the duct furnaces and the packaged systems have been design-certified to ANSI and CGA standards by the Canadian Standards Association.

### STANDARD FEATURES

- Orifices for natural gas
- Aluminized steel heat exchanger (When inlet air temperature is below 40°F or temperature rise is less than 40°F, optional stainless steel heat exchanger is recommended.)
- Aluminized steel burners with stainless steel insert
- 120/1/60 supply voltage
- 24-volt control voltage transformer
- Redundant single-stage combination gas valve on each furnace
- Intermittent spark pilot
- Fan and safety controls
- Reverse air flow limit
- Two sets of coupled twin centrifugal blowers
- Adjustable belt drive
- Terminal block wiring
- Power venter
- Weatherized, galvalume steel cabinet with interlocking joint (U.S. Patent No. 5,373,673) construction for outdoor mounting

- Horizontal discharge outlet with duct flange
- Insulated blower cabinet
- External access to burner(s) and controls through lift-away panels

### OPTIONAL FEATURES - Factory Installed

- Unit equipped for propane gas
- Orifices for high altitude (2001-9000 ft)
- E-3 (409) stainless steel burners
- E-3 (409) stainless steel heat exchanger
- 321 stainless steel heat exchanger
- E-3 (409) stainless steel drip pan
- Intermittent spark pilot with timed lockout
- Two-stage gas controls (unit mounted or remote temperature selector)
- Electronic modulation
- Mechanical modulation
- Mechanical modulation with full fire bypass
- Makeup air controls/dampers
- 208/1, 230/1, 208/3, 230/3, 460/3, 575/3 supply voltages
- 1 - 20 HP open dripproof, totally enclosed and premium efficiency motors; 1-10 HP 2-speed motors
- Burner air shutters (required for propane gas)
- Firestat(s)
- Freezestat
- Convenience outlet
- 1/2" O.D. BX cable (Chicago Code)
- Motor starter (optional with motors having internal overload protection)
- Filter rack with 1" or 2" disposable, pleated or permanent filters
- Double wall cabinet construction
- Manifold arrangement for Illinois School Code, IRI, and/or FM
- High ambient burner cutoff
- Gas pressure safety switches
- Airflow proving switch
- Downturn plenum cabinets with and without open/closed dampers

### TECHNICAL DATA

Model RPDBL		800	1000	1200	1400	1600
Heating Input	BTUH	800,000	1,000,000	1,200,000	1,400,000	1,600,000
	kW	234.5	293.1	351.7	410.3	469.0
Thermal Output (80%) <sup>A</sup>	BTUH	640,000	800,000	960,000	1,120,000	1,280,000
	kW	187.6	234.5	281.4	328.3	375.2
Air Volume Range	cfm	6,600 - 22,000	7,400 - 20,000	8,900 - 20,000	10,400 - 22,000	11,800 - 22,000
	m <sup>3</sup> /hr	11,213 - 37,377	12,572 - 33,979	15,121 - 33,979	17,669 - 37,377	20,048 - 37,377
Control Amps (24-volt)		1.9	3.8	3.8	3.8	5.7
Gas Connection (inches) <sup>B</sup>		1 1/4	1 1/4	1 1/4	2	2
Approximate Net Wt <sup>C</sup>	lbs.	1,810	2,328	2,328	2,508	2,650
	kg	821	1,056	1,056	1,138	1,202
Approximate Shipping Wt <sup>C</sup>	lbs.	1,870	2,398	2,398	2,600	2,760
	kg	848	1,088	1,088	1,179	1,252

<sup>A</sup> Derated at altitudes over 2000 feet.

<sup>B</sup> Sizes are for connections only and **not** supply pipe sizing.

<sup>C</sup> Weights shown are for standard units; additional weight must be added for options/accessories. These units are extra wide and require special shipping arrangements.

### ACCESSORIES - Field Installed

- 100% Outside air hood (screened)
- Remote console
- Disconnect switch
- Thermostats (1-stage, 2-stage, electronic programmable)
- Thermostat guard with locking cover
- Roof curb



Dimensions (inches ± 1/8" / mm ±3)

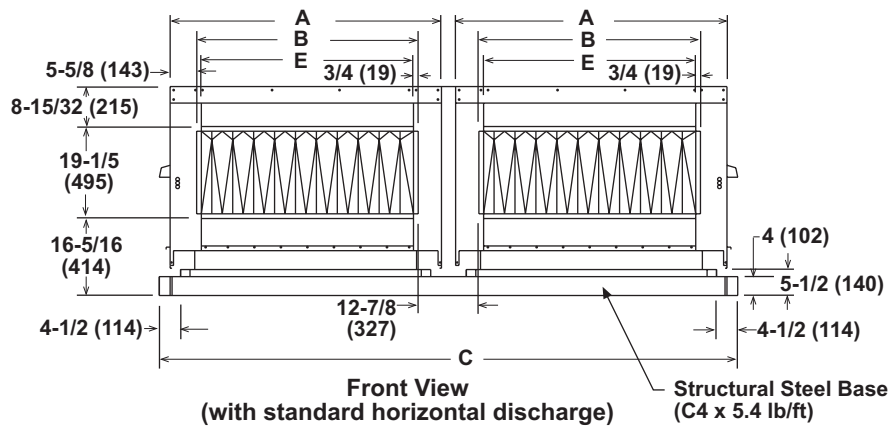
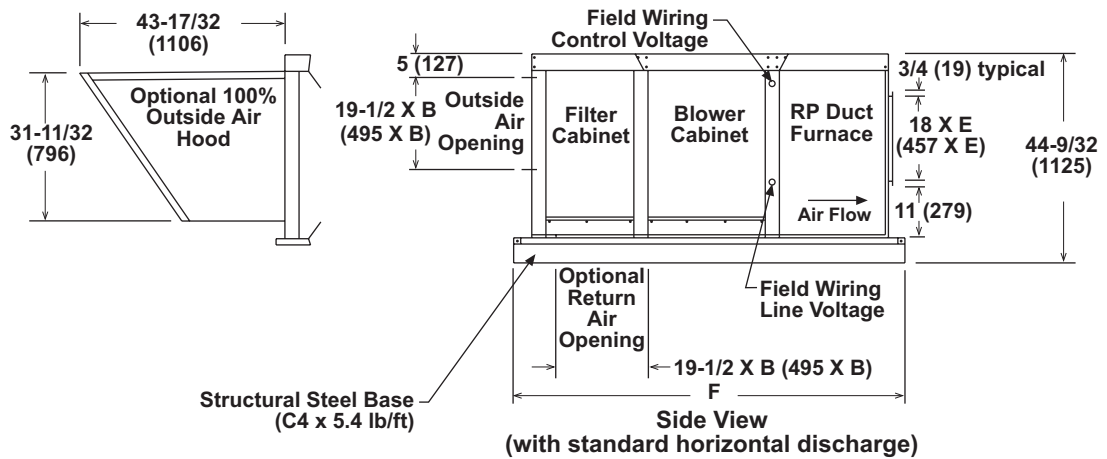
Size	No. of Furnace Sections		A	B	C	E	F	
							horizontal discharge	factory-installed downturn cabinets
800	2 (Size 400)	in.	58-7/8	47-5/8	122-11/16	45-1/2	83-3/4	107-3/4
		mm	1,495	1,210	3,116	1,156	2,127	2,737
1000	4 (Size 250)	in.	47-1/8	36-5/8	100-11/16	34-1/2	109-3/4	133-3/4
		mm	1,197	905	2,557	876	2,788	3,397
1200	4 (Size 300)	in.	47-1/8	36-5/8	100-11/16	34-1/2	109-3/4	133-3/4
		mm	1,197	905	2,557	876	2,788	3,397
1400	4 (Size 350)	in.	53-3/8	42-1/8	111-11/16	40	109-3/4	133-3/4
		mm	1,356	1,070	2,837	1,016	2,788	3,397
1600	4 (Size 400)	in.	58-7/8	47-3/8	122-11/16	45-1/2	109-3/4	133-3/4
		mm	1,495	1,203	3,116	1,156	2,788	3,397

A	Width of Each Cabinet Section
B	Width of Each Standard Horizontal Air Inlet Opening Width of Each Optional Bottom Discharge Air Opening with Duct Flange Width of Each Optional Return Air Bottom Opening
C	Overall Width of Base
E	Width of Standard Horizontal Discharge Air Opening
F	Overall Length of Base

**Clearances**

Bottom - 0"  
 Top to Overhangs - 6' (1.8M)  
 Sides - 59" (1.5M)

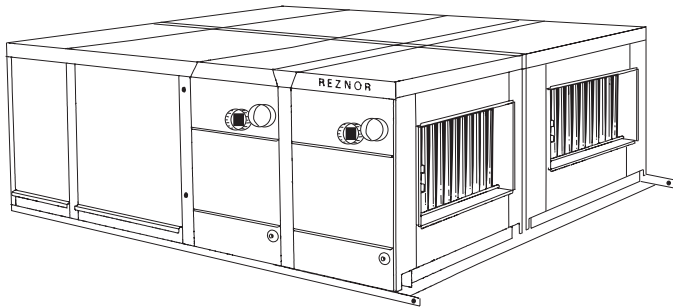
**Key to Dimensions:**





# MODEL SSCDBL

GAS-FIRED,  
SEPARATED-COMBUSTION,  
INDOOR PACKAGED  
FORCED AIR FURNACES/BLOWER  
COMBINATIONS FOR  
COMMERCIAL-INDUSTRIAL USE



ANSI  
Z83.9



CAN/CGA  
2.6



### DESCRIPTION

Reznor Model Series SSCDBL are 80% thermal efficient separated-combustion, packaged heating systems including two or four duct furnaces and large-capacity blower cabinets. Sizes are available with heating capacities from 800,000 through 1,600,000 BTUH gas input. The standard package is a heating-only system, but factory-installed gas and inlet-air control options are available to meet combination heating/makeup air specifications.

Each furnace in a Model SSCDBL package is designed to separate combustion air from the air in the heated space. The furnaces are engineered and manufactured in accordance with the ANSI definition of "separate combustion". While discharging exhaust air, the power venter draws in combustion air from the outside atmosphere. Exclusive outside combustion air prevents dirt, lint, dust or other contaminants in the heated space from entering the combustion zone of the furnace. Installation of a specially designed combustion air inlet/vent terminal assembly is required for each furnace.

SSCDBL models are available for use with either natural or propane gas, as specified. All units are equipped with required limit safety con-

trols. Controls and wiring are accessible through lift-away side panels. The galvalume steel cabinet has interlocking joint construction (U.S. Patent No. 5,373,673). All components are unified on a C-channel base.

Both the duct furnaces and the packaged systems have been design-certified to ANSI and CGA standards by the Canadian Standards Association.

### STANDARD FEATURES

- Orifices for natural gas
- Aluminized steel heat exchanger (When inlet air temperature is below 40°F or temperature rise is less than 40°F, optional stainless steel heat exchanger is recommended.)
- Aluminized steel burners with stainless steel insert
- 120/1/60 supply voltage
- 24-volt control voltage transformer
- Redundant single-stage combination gas valve on each furnace
- Intermittent spark pilot
- Fan and safety controls
- Differential air pressure switch to verify vent flow
- Two twin centrifugal blowers

- Adjustable belt drive
- Terminal block wiring
- Power venter
- Galvalume steel cabinet with interlocking joint (U.S. Patent No. 5,373,673) construction
- Horizontal discharge outlet with duct flange
- Blower cabinet (insulation, filter rack, and filters are optional)
- External access to burner(s) and controls through lift-away panels

### OPTIONAL FEATURES - Factory Installed

- Unit equipped for propane gas
- Orifices for high altitude (2001-9000 ft)
- E-3 (409) stainless steel burners
- E-3 (409) stainless steel heat exchanger
- 321 stainless steel heat exchanger
- E-3 (409) stainless steel drip pan
- Intermittent spark pilot with timed lockout
- Two-stage gas controls (unit mounted or remote temperature selector)
- Electronic modulation
- Mechanical modulation
- Mechanical modulation with full fire bypass
- Makeup air controls/dampers
- 208/1, 230/1, 208/3, 230/3, 460/3, 575/3 supply voltages
- 1 - 20 HP open dripproof, totally enclosed and premium efficiency motors; 1-10 HP 2-speed motors
- Burner air shutters (required for propane gas)
- Firestat(s)
- Freezestat
- Convenience outlet
- 1/2" O.D. BX cable (Chicago Code)
- Motor starter (optional with motors having internal overload protection)
- Filter rack with 1" or 2" disposable, pleated or permanent filters
- Double wall cabinet construction
- Manifold arrangement for Illinois School Code, IRI, and/or FM

- High ambient burner cutoff
- Gas pressure safety switches
- Airflow proving switch
- Downturn plenum cabinets

### ACCESSORIES - Field Installed

- Horizontal or vertical inlet air/vent terminal kit (installation of one per furnace section is **required**)
- Remote console
- Disconnect switch
- Thermostats (1-stage, 2-stage, electronic programmable)
- Thermostat guard with locking cover

### TECHNICAL DATA

Model SSCDBL		800	1000	1200	1400	1600
Heating Input	BTUH	800,000	1,000,000	1,200,000	1,400,000	1,600,000
	kW	234.5	293.1	351.7	410.3	469.0
Thermal Output (80%) <sup>A</sup>	BTUH	640,000	800,000	960,000	1,120,000	1,280,000
	kW	187.6	234.5	281.4	328.3	375.2
Air Volume Range	cfm	6,600 - 22,000	7,400 - 20,000	8,900 - 20,000	10,400 - 22,000	11,800 - 22,000
	m <sup>3</sup> /hr	11,213 - 37,377	12,572 - 33,979	15,121 - 33,979	17,669 - 37,377	20,048 - 37,377
Control Amps (24-volt)		1.9	3.8	3.8	3.8	5.7
Gas Connection** (inches) <sup>B</sup>		1 1/4	1 1/4	1 1/4	2	2
Approximate Net Wt <sup>C</sup>	lbs.	1810	2328	2328	2508	2650
	kg	821	1,056	1,056	1,138	1,202
Approximate Shipping Wt <sup>C</sup>	lbs.	1870	2398	2398	2600	2760
	kg	848	1,088	1,088	1,179	1,252

<sup>A</sup> Derated at altitudes over 2000 feet.

<sup>B</sup> Sizes are for connections only and **not** supply pipe sizing.

<sup>C</sup> Weights shown are for standard units; additional weight must be added for options/accessories. These units are extra wide and require special shipping arrangements.



Dimensions (inches ± 1/8" / mm ± 3)

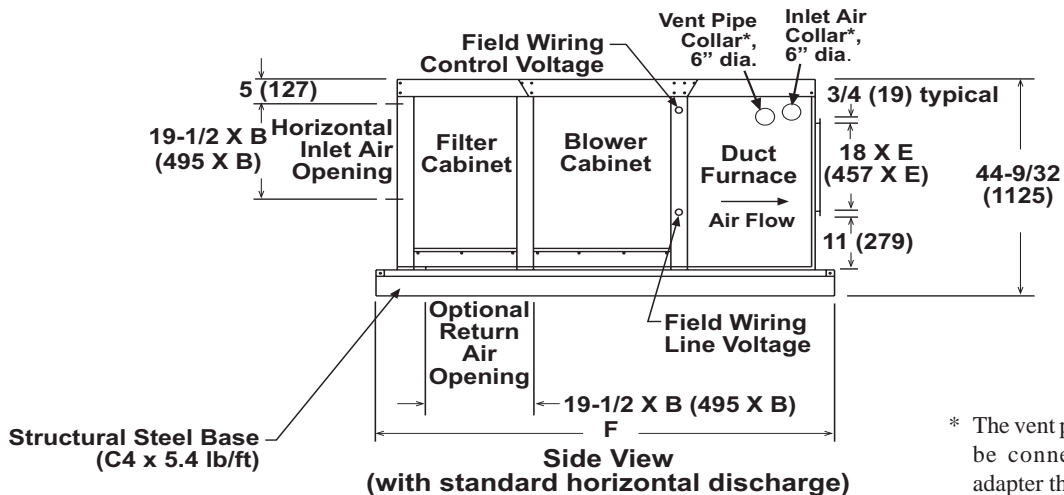
Size	No. of Furnace Sections		A	B	C	E	F	
							horizontal discharge	factory-installed downturn cabinets
800	2 (Size 400)	in.	58-7/8	47-5/8	122-11/16	45-1/2	83-3/4	107-3/4
		mm	1,495	1,210	3,116	1,156	2,127	2,737
1000	4 (Size 250)	in.	47-1/8	36-5/8	100-11/16	34-1/2	109-3/4	133-3/4
		mm	1,197	905	2,557	876	2,788	3,397
1200	4 (Size 300)	in.	47-1/8	36-5/8	100-11/16	34-1/2	109-3/4	133-3/4
		mm	1,197	905	2,557	876	2,788	3,397
1400	4 (Size 350)	in.	53-3/8	42-1/8	111-11/16	40	109-3/4	133-3/4
		mm	1,356	1,070	2,837	1,016	2,788	3,397
1600	4 (Size 400)	in.	58-7/8	47-3/8	122-11/16	45-1/2	109-3/4	133-3/4
		mm	1,495	1,203	3,116	1,156	2,788	3,397

Key to Dimensions:

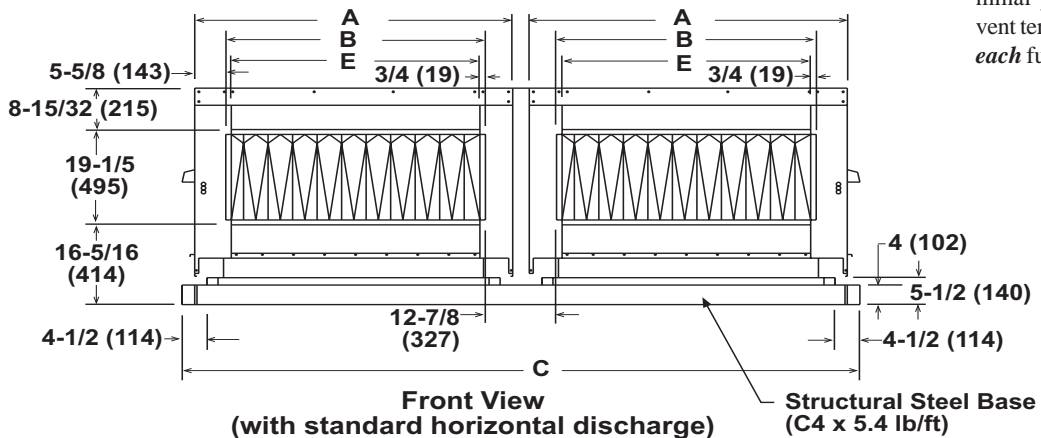
A	Width of Each Cabinet Section
B	Width of Each Standard Horizontal Air Inlet Opening Width of Each Optional Bottom Discharge Air Opening with Duct Flange Width of Each Optional Return Air Bottom Opening
C	Overall Width of Base
E	Width of Standard Horizontal Discharge Air Opening
F	Overall Length of Base

Clearances

- Bottom - 6" (152mm)
- Sides - 59" (1.5M)
- Flue connections - 6" (152mm)



\* The vent pipe and inlet air pipe *must* be connected to the concentric adapter that is part of the horizontal or vertical combustion air/vent terminal package. A combustion air/vent terminal package is *required* for *each* furnace section.



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## GAS CONNECTION, ACCESSORY WEIGHT AND FILTER INFORMATION

Approximate Gas Connection Location	
<b>Height:</b>	Base height on the control side of the system.
<b>Distance:</b>	Size 800 - approximately 7' 6" (2.3M) from the end of the base at the blower end of the system All other Sizes - approximately 8' 8" (2.7M) from the end of the base at the blower end of the system

### Accessory Weights

	Size	800, 1600	1000, 1200	1400
Factory Installed Downturn Plenum Cabinets (RPDBL and SSCDBL)	lbs.	540	460	500
	kg	245	209	227
	Size	800, 1600	1000, 1200	1400
Field Installed Outside Air Hoods (RPDBL only)	lbs.	200	180	185
	kg	91	82	84

			All Sizes
Evaporative Cooling Modules (RPDBL and SSCDBL)	w/6" cellulose media	lbs.	630
		kg	286
	w/12" cellulose media	lbs.	670
		kg	304
	w/6" glass media	lbs.	665
		kg	302
	w/12" glass media	lbs.	750
		kg	340

Quantities and Sizes of Optional Filters			
Type	800, 1600	1000, 1200	1400
1" or 2" Disposable	(4) 16x16, (8) 12x25,	(2) 16 x 25, (8) 12 x 20,	(4) 16 x 25, (8) 12x20,
	(2) 16 x 25, (8)12x30	(2) 16 x 20, (8) 12 x 25	(8) 12x30
1" or 2" Permanent	(4) 16x16, (2) 16x25,	(2) 16 x 20, (2) 16 x 25,	(4) 16 x 25, (16) 12x26
	(16) 12 x 16, (8)12x26	(8) 12 x 20, (8) 12 x 25	
1" or 2" Pleated	(4) 16x16, (2) 16x25,	(2) 16 x 20, (2) 16 x 25,	(4) 16 x 25, (8) 12x20,
	(8) 12 x 25, (8)12x32	(8) 12 x 20, (8) 12 x 25	(8) 12x32



# PRESSURE DROP CHART

## Models RPDBL and SSCDBL

SIZE	CFM	Filter Pressure Drops (clean fltrs)						Outside Air	Dampers	Downturn Plenum Cabinet	Cooling Coil		External Pressure Drop	Total Adjusted Pressure Drop	
		Disposable		Permanent		Pleated					Wet	Dry		Heating	Cooling
		1"	2"	1"	2"	1"	2"								
800 2 Size 400 Furnaces	6600	0.01	0.02	0.02	0.03	0.04	0.03	0.06	0.01	0.02					
	8000	0.02	0.03	0.04	0.05	0.09	0.06	0.10	0.01	0.03					
	10000	0.03	0.04	0.06	0.08	0.15	0.10	0.15	0.02	0.05					
	12000	0.05	0.06	0.08	0.12	0.21	0.14	0.23	0.02	0.07					
	14000	0.06	0.08	0.11	0.16	0.28	0.19	0.31	0.03	0.10					
	16000	0.08	0.10	0.15	0.21	0.37	0.25	0.40	0.04	0.13					
	18000	0.11	0.13	0.19	0.26	0.46	0.31	0.50	0.06	0.17					
	20000	N/A	N/A	0.23	0.33	0.57	0.39	0.62	0.07	0.21					
	22000	N/A	N/A	0.28	0.40	0.69	0.47	0.76	0.08	0.25					
1000 4 Size 250 Furnaces	7400	0.02	0.04	0.03	0.04	0.09	0.06	0.13	0.01	0.04					
	8000	0.04	0.05	0.04	0.06	0.12	0.08	0.16	0.02	0.06					
	10000	0.06	0.08	0.07	0.10	0.18	0.12	0.25	0.03	0.08					
	12000	0.08	0.12	0.10	0.14	0.25	0.17	0.36	0.04	0.12					
	14000	0.10	0.16	0.14	0.20	0.35	0.23	0.49	0.05	0.16					
	16000	N/A	N/A	0.18	0.25	0.47	0.31	0.64	0.07	0.20					
	18000	N/A	N/A	0.22	0.31	0.59	0.40	0.81	0.09	0.26					
	20000	N/A	N/A	0.28	0.39	N/A	N/A	1.00	0.11	0.32					
1200 4 Size 300 Furnaces	8900	0.05	0.07	0.06	0.08	0.15	0.10	0.21	0.03	0.07					
	10000	0.06	0.08	0.07	0.10	0.18	0.12	0.25	0.03	0.08					
	12000	0.08	0.12	0.10	0.14	0.25	0.17	0.36	0.04	0.12					
	14000	0.10	0.16	0.14	0.20	0.35	0.23	0.49	0.05	0.16					
	16000	N/A	N/A	0.18	0.25	0.46	0.31	0.64	0.07	0.20					
	18000	N/A	N/A	0.22	0.31	0.59	0.40	0.81	0.09	0.26					
	20000	N/A	N/A	0.28	0.39	N/A	N/A	1.00	0.11	0.32					
1400 4 Size 350 Furnaces	10400	0.04	0.06	0.06	0.08	0.14	0.10	0.19	0.02	0.06					
	12000	0.04	0.06	0.08	0.10	0.22	0.15	0.28	0.03	0.10					
	14000	0.06	0.08	0.10	0.14	0.30	0.20	0.38	0.04	0.14					
	16000	0.08	0.10	0.14	0.18	0.39	0.27	0.50	0.05	0.16					
	18000	N/A	N/A	0.18	0.24	0.49	0.33	0.63	0.07	0.22					
	20000	N/A	N/A	0.22	0.30	0.61	0.41	0.77	0.09	0.28					
	22000	N/A	N/A	0.26	0.36	N/A	N/A	0.94	0.10	0.34					
1600 4 Size 400 Furnaces	11800	0.04	0.05	0.07	0.10	0.18	0.12	0.20	0.02	0.06					
	14000	0.06	0.08	0.11	0.15	0.28	0.19	0.31	0.03	0.10					
	16000	0.08	0.10	0.15	0.21	0.37	0.25	0.40	0.04	0.13					
	18000	0.11	0.13	0.19	0.26	0.47	0.31	0.50	0.06	0.17					
	20000	N/A	N/A	0.23	0.33	0.57	0.39	0.61	0.07	0.21					
	22000	N/A	N/A	0.28	0.40	0.69	0.47	0.76	0.08	0.25					

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## Blower Chart - RPM/BHP Table

### Models RPDBL and SSCDBL

Size	Temp Rise deg F	CFM	Total Adjusted Pressure Drop ("w.c.)							
			0.2	0.4	0.6	0.8	1.0	1.2	1.4	1.6
2 Size 400 Furnaces	90	6600	420/1.8	530/1.1	600/1.4	720/2.0	760/2.4	810/2.6	880/3.0	940/3.6
	85	7000	440/1.0	550/1.3	610/1.6	730/2.2	770/2.5	820/2.8	890/3.6	950/3.8
	74	8000	470/1.2	570/1.6	640/2.0	740/2.5	780/2.8	830/3.6	900/3.8	970/4.2
	59	10000	540/2.0	610/1.5	700/3.0	780/3.6	810/4.0	880/4.4	950/5.2	1000/6.0
	49	12000	600/3.0	690/3.5	740/4.0	820/5.0	860/5.4	900/6.0	970/6.4	1020/7.2
	42	14000	710/4.6	770/5.4	820/6.0	890/7.0	920/7.4	960/8.0	1000/8.4	1050/9.2
	37	16000	800/6.6	850/7.6	900/8.2	950/9.0	990/9.4	1020/10.0	1050/10.2	1110/11.2
	33	18000	880/9.0	910/9.8	970/10.2	1010/12.0	1050/12.6	1080/14.0	1110/14.6	1200/15.6
	30	20000	960/12.4	1010/14.0	1050/15.0	1120/16.0	1150/17.0	1200/17.6	1210/18.0	1260/18.2
27	22000	1100/17.4	1140/18.0	1180/19.0	1210/20.0	--	--	--	--	
4 Size 250 Furnaces	100	7400	560/1.6	610/1.8	680/2.2	770/2.6	810/3.0	880/3.2	940/3.8	990/4.0
	93	8000	590/1.8	650/2.2	710/2.6	790/2.6	830/3.2	890/3.5	950/4.0	1000/4.4
	74	10000	650/2.6	710/3.2	790/3.8	860/4.2	890/4.4	930/5.0	990/5.4	1030/6.0
	62	12000	780/4.4	810/5.0	880/5.4	920/6.0	970/6.4	1000/7.0	1050/7.8	1100/8.4
	53	14000	880/6.6	910/7.4	980/8.2	1020/8.8	1050/9.6	1100/10.0	1130/11.6	1160/11.2
	46	16000	1000/10.0	1030/10.2	1070/11.0	1100/12.0	1150/12.4	1170/13.6	1200/14.4	1290/15.4
	41	18000	1140/14.0	1160/14.4	1200/15.6	1230/16.0	1260/17.0	1290/17.4	1310/18.0	1360/19.0
37	20000	1240/19.0	1280/20.0	--	--	--	--	--	--	
4 Size 300 Furnaces	100	8900	620/2.2	680/2.6	740/3.2	820/3.4	850/3.8	910/4.2	970/5.0	1010/5.4
	89	10000	650/2.6	710/3.2	790/3.8	860/4.2	890/4.4	930/5.0	990/5.4	1030/6.0
	74	12000	780/4.4	810/5.0	880/5.4	920/6.0	970/6.4	1000/7.0	1050/7.8	1100/8.4
	63	14000	880/6.6	910/7.4	980/8.2	1020/8.8	1050/9.6	1100/10.0	1130/10.6	1160/11.2
	56	16000	1000/10.0	1030/10.2	1070/11.0	1100/12.0	1150/12.4	1170/15.6	1200/14.4	1290/15.4
	53	18000	1140/14.0	1160/14.4	1200/15.6	1230/16.0	1250/17.0	1290/17.4	1310/18.0	1360/19.0
44	20000	1240/19.0	1280/20.0	--	--	--	--	--	--	
4 Size 350 Furnaces	100	10400	590/2.6	660/2.8	730/3.2	800/3.6	880/4.4	910/5.0	980/5.6	1040/6.4
	86	12000	640/3.2	730/3.8	790/4.6	850/5.2	900/6.0	940/6.4	1000/7.4	1060/8.0
	74	14000	760/5.2	800/6.0	860/6.4	920/7.4	960/8.0	1000/8.4	1050/9.2	1100/9.6
	65	16000	850/7.4	900/8.0	950/9.0	1000/9.6	1030/10.0	1060/11.0	1100/12.0	1150/13.0
	58	18000	950/10.0	980/10.6	1030/12.0	1070/13.0	1100/14.0	1130/15.0	1200/16.0	1240/16.6
	52	20000	1040/15.0	1110/15.6	1150/16.0	1180/17.0	1200/17.4	1230/18.0	1280/19.6	1320/20.0
47	22000	1200/17.4	1220/20.0	--	--	--	--	--	--	
4 Size 400 Furnaces	100	11800	650/3.2	730/4.0	800/4.8	860/5.2	900/6.0	940/6.4	1010/7.2	1060/8.0
	85	14000	770/5.2	800/5.8	890/6.8	930/7.6	960/8.0	1000/8.4	1050/9.0	1100/9.8
	74	16000	860/7.4	900/8.0	960/9.0	1000/9.6	1030/10.0	1070/11.0	1100/12.0	1150/12.8
	66	18000	950/10.0	990/11.0	1040/12.0	1080/13.6	1100/14.4	1180/15.2	1200/16.0	1240/16.6
	59	20000	1100/15.6	1130/16.2	1190/17.6	1220/18.0	1240/19.2	1280/19.6	1300/20.0	--
	54	22000	1210/19.8	--	--	--	--	--	--	--



**Blower Chart - RPM/BHP Table - (cont'd)**

Models RPDBL and SSCDBL

Size	Temp Rise deg F	CFM	Total Adjusted Pressure Drop ("w.c.)						
			1.8	2.0	2.2	2.4	2.6	2.8	3.0
800 2 Size 400 Furnaces	90	6600	1000/4.0	1040/4.4	1090/5.4	1140/5.8	1190/6.2	1260/7.0	1270/7.2
	85	7000	1020/4.6	1050/5.0	1110/5.6	1150/6.0	1200/6.4	1270/7.2	1280/7.5
	74	8000	1030/5.2	1060/5.4	1120/6.0	1160/6.6	1205/7.2	1280/8.0	1290/8.4
	59	10000	1060/6.6	1100/7.0	1140/7.6	1180/8.0	1220/8.6	1285/9.4	1300/9.6
	49	12000	1080/8.0	1110/8.4	1150/9.0	1190/9.4	1230/9.8	1290/10.2	1310/11.0
	42	14000	1110/9.6	1140/10.0	1190/10.4	1210/12.0	1260/12.6	1300/14.0	1350/15.0
	37	16000	1150/12.4	1180/14.0	1200/14.4	1250/15.0	1300/16.0	1350/16.4	1370/17.4
	33	18000	1240/16.4	1260/17.2	1300/17.8	1320/18.2	1350/19.2	1400/20.0	--
	30	20000	1290/19.8	--	--	--	--	--	--
27	22000	--	--	--	--	--	--	--	
1000 4 Size 250 Furnaces	100	7400	1080/5.0	1110/5.2	1140/5.6	1180/6.0	1220/6.6	1280/9.0	1290/9.8
	93	8000	1090/5.4	1120/5.6	1150/5.8	1190/6.4	1230/7.6	1290/9.8	1300/10.0
	74	10000	1100/7.0	1130/7.6	1160/8.2	1200/9.0	1240/10.0	1300/11.0	1320/12.0
	62	12000	1140/9.0	1180/9.8	1200/10.2	1250/11.4	1280/12.4	1320/13.2	1350/14.0
	53	14000	1210/12.4	1250/13.8	1270/14.0	1300/14.8	1380/15.2	1410/15.8	1450/17.0
	46	16000	1320/16.0	1340/16.4	1370/17.2	1400/17.6	1440/18.4	1490/19.2	1510/20.0
	41	18000	1400/20.0	--	--	--	--	--	--
	37	20000	--	--	--	--	--	--	--
1200 4 Size 300 Furnaces	100	8900	1090/5.8	1120/6.2	1150/7.0	1190/8.0	1230/9.6	1290/10.4	1310/11.0
	89	10000	1100/7.0	1130/7.6	1160/8.2	1200/9.0	1240/5.0	1300/11.0	1320/12.0
	74	12000	1140/9.0	1180/9.8	1200/10.2	1250/11.4	1280/12.4	1320/13.2	1350/14.0
	63	14000	1210/12.4	1250/13.8	1270/14.0	1300/14.8	1380/15.2	1410/15.8	1450/17.0
	56	16000	1320/16.0	1340/16.4	1370/17.2	1400/17.6	1440/18.4	1490/19.2	1510/20.0
	53	18000	1400/20.0	--	--	--	--	--	--
	44	20000	--	--	--	--	--	--	--
1400 4 Size 350 Furnaces	100	10400	1090/7.2	1120/7.6	1160/8.0	1200/8.4	1240/9.0	1290/9.6	1300/9.8
	86	12000	1100/8.4	1140/8.8	1180/9.2	1210/9.8	1250/10.4	1300/11.6	1320/12.0
	74	14000	1140/10.0	1160/10.4	1200/11.0	1240/12.2	1280/13.2	1310/14.2	1340/14.6
	65	16000	1200/14.0	1240/14.6	1260/15.0	1300/15.8	1340/16.8	1380/18.0	1410/18.6
	58	18000	1280/17.2	1300/18.0	1320/19.0	1360/19.6	--	--	--
	52	20000	--	--	--	--	--	--	--
	47	22000	--	--	--	--	--	--	--
1600 4 Size 400 Furnaces	100	11800	1110/8.4	1140/8.8	1180/9.2	1210/10.0	1260/11.2	1300/12.0	1330/12.6
	85	14000	1150/10.4	1180/11.8	1210/12.2	1240/13.0	1290/14.0	1310/14.4	1350/15.0
	74	16000	1190/13.8	1230/14.2	1280/15.0	1300/16.0	1340/17.4	1390/18.0	1410/18.6
	66	18000	1280/17.2	1300/18.0	1320/18.6	1360/9.8	--	--	--
	59	20000	--	--	--	--	--	--	--
	54	22000	--	--	--	--	--	--	--

**REZNOR**

# PILOT AND GAS CONTROL OPTIONS

## PILOT IGNITION SYSTEMS

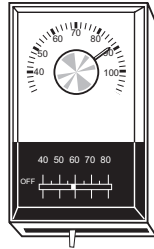
- OPTION AH2** • **INTERMITTENT SPARK PILOT:** Automatic lighting of pilot with an electronic spark on a call for heat. Pilot gas flow is shut off between heat cycles. Certified by the Canadian Standards Association for use in Canada with natural gas only. RPDBL certified for use in U.S.A. for outdoor units with natural gas or propane.
- OPTION AH3** • **INTERMITTENT SPARK PILOT WITH TIMED LOCKOUT:** Automatic lighting of pilot with an electronic spark on a call for heat. Pilot gas flow is shut off between heat cycles. This system also incorporates a lockout device which stops gas flow to the pilot if the pilot fails to light in 120 seconds. Reset of lockout requires manual interruption of the thermostat cycle. Approved for use with natural or propane gas.

## GAS CONTROL SYSTEMS

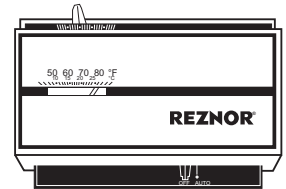
(Available with either natural or propane unless noted otherwise.)

### HEATING APPLICATION OPTIONS

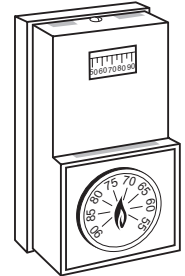
- AG1** • **ONE-STAGE CONTROL:** Single-stage gas valve which cycles on at 100% fire on a call for heat by a remote single-stage thermostat. Thermostat is not included.
- AG10** • **ONE-STAGE CONTROL with thermostat:** Each furnace is equipped with single-stage gas valve and relay. Each furnace cycles on at 100% fire on call for heat from remote single-stage thermostat. Thermostat is included. (Illustration, right)
- AG2** • **TWO-STAGE CONTROL:** Two-stage gas valve which fires at 100% or 50%, as required, on call by a remote two-stage thermostat. Thermostat is not included.



- AG11** • **TWO-STAGE HEATING CONTROL with thermostat:** Each furnace is equipped with a two-stage gas valve and relay. Two-stage gas valves fire at 100% or 50% as required, on call from remote two-stage thermostat. Thermostat is included (Illustration, right).



- AG7** • **ELECTRONIC MODULATION (60°-85°F):** Solid state control system, providing close temperature control through related manifold pressure. On a call for heat from a remote electronic thermostat, controls modulate between 50% and 100%. Remote thermostat is included (Illustration, right).



### MAKEUP AIR APPLICATION OPTIONS

(For ductstat control illustrations Gas Control Section)

- AG3** • **TWO-STAGE CONTROL FROM DUCTSTAT (60°-110°F):** Two-stage gas valve which fires at 100% or 50% as required, on call from a unit-mounted, two-stage ductstat. **For units with two furnace sections,** Option AG3 includes a two-stage valve on each furnace and two ductstats which provide for **FOUR-STAGE CONTROL**. **For units with four furnace sections,** Option AG3 includes a two-stage valve on each furnace and three ductstats which provide for **EIGHT-STAGE CONTROL**.\*
- AG15** • **ELECTRONIC TWO-STAGE CONTROL USING DUCTSTAT (50°-130°F) WITH REMOTE TEMPERATURE ADJUSTMENT:** Same type of control as Option AG3, but the setpoint of the ductstat is adjustable from a remote temperature-selector. Includes factory-installed sensor and field-installed temperature-selector module with an adjustable stage-adder module. **For packages with two furnace sections,** Option AG15 includes a two-stage valve on each furnace and ductstat which provides for **FOUR-STAGE CONTROL**. Includes factory-installed sensor and field-installed remote temperature-selector module with three adjustable stage-adder modules. **For packages with four furnace sections,** Option AG15 includes a two-stage valve on each furnace and ductstat which provides for **EIGHT-STAGE CONTROL**. Includes factory-installed sensor and field-installed remote temperature-selector module with five adjustable stage-adder modules.\*
- AG16** • **ELECTRONIC TWO-STAGE CONTROL USING DUCTSTAT (50°-130°F) WITH REMOTE TEMPERATURE ADJUSTMENT AND TEMPERATURE DISPLAY:** Same as Option AG15, plus a digital (liquid crystal) temperature-display module that provides selectable set point and continuous display of sensor reading.\*
- AG4** • **TWO-STAGE CONTROL FOR UNITS WITH TWO (2) FURNACES:** Each furnace is equipped with a single-stage gas valve. The gas valves are staged by a unit-mounted, two-stage ductstat (60°-110°F). Applicable only to packaged systems with two furnace sections.\*
- AG17** • **ELECTRONIC TWO-STAGE CONTROL FOR MODELS WITH TWO (2) FURNACE SECTIONS USING A DUCTSTAT (50°-130°F) WITH REMOTE TEMPERATURE ADJUSTMENT:** Same type of control as Option AG4, but the ductstat has a remote temperature selector. Includes factory-installed sensor and field-installed remote temperature-selector module with an adjustable stage-adder module.\*

\*APPLICATION NOTE: If the installation of a packaged unit with more than one furnace section requires that any of the controls in this table be used in conjunction with an override thermostat, additional factory-installed relays are required. Since this application is not covered by "normal" control sequence, the additional relays (Option BG2) must be specified (See table on next page).



# GAS CONTROL OPTIONS

## MAKEUP AIR APPLICATION OPTIONS (cont'd)

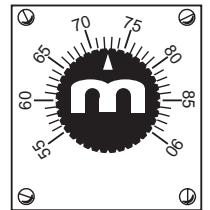
- AG18 • ELECTRONIC TWO-STAGE CONTROL FOR MODELS WITH TWO (2) FURNACE SECTIONS USING A DUCT-STAT (50°-130°F) WITH REMOTE TEMPERATURE ADJUSTMENT AND TEMPERATURE DISPLAY:** Same as Option AG17, plus a digital (liquid crystal) temperature-display module that provides selectable set point display and continuous display of sensor reading.\*
- AG5 • FOUR-STAGE CONTROL FOR UNITS WITH FOUR (4) FURNACES:** Each furnace is equipped with a single-stage gas valve. The gas valves are staged in sequence by two (2) unit-mounted, two-stage ductstats (60°-110°F). Applicable only to packaged systems with four furnace sections.\*
- AG22 • ELECTRONIC FOUR-STAGE CONTROL FOR UNITS WITH FOUR (4) FURNACE SECTIONS USING A DUCT-STAT (50°-130°F) WITH REMOTE TEMPERATURE ADJUSTMENT:** Same type of control as Option AG5, but the ductstat has a remote temperature selector. Includes factory-installed sensor and field-installed remote temperature-selector module with two adjustable stage-adder modules.\*
- AG23 • ELECTRONIC FOUR-STAGE CONTROL FOR UNITS WITH FOUR (4) FURNACE SECTIONS USING A DUCT-STAT (50°-130°F) WITH REMOTE TEMPERATURE ADJUSTMENT AND TEMPERATURE DISPLAY:** Same as Option AG22, plus a digital (liquid crystal) temperature-display module that provides selectable set point and continuous display of sensor reading.\*
- AG6 • MECHANICAL MODULATION (50°-100°F):** Nonelectric control system, hydraulic capillary-actuated. Upon sensing a requirement for heat, controls modulate between 50% and 100%. (Available with natural and propane gas on Size 800.)
- AG13 • MECHANICAL MODULATION (50°-100°F) WITH FULL FIRE BYPASS:** Mechanical modulation control is the same as Option AG6, except that the unit is also equipped with a parallel

single-stage valve and relay. On call from a remote override thermostat, the single-stage gas valve cycles on at 100% fire. Override thermostat is not included. (Available with propane gas on Size 800.)

- AG8 • ELECTRONIC MODULATION (55°-90°F) WITH DUCT-STAT:** Solid state control system, providing close temperature control through regulated manifold pressure. On a call for heat from a unit-mounted ductstat, controls modulate between 50% and 100%, as required. Requires field installation of ductstat sensor. Includes an outside air controller. When setpoint temperature is reached, one or two furnaces will be shut down providing 25% minimum system firing rate with two furnaces and 12-1/2% minimum with four furnaces. A room override thermostat (Option CL9) is available for use with this system.

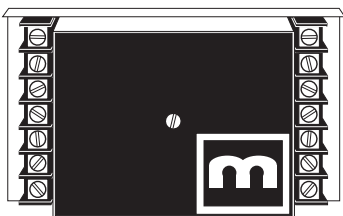
- AG9 • ELECTRONIC MODULATION WITH DUCTSTAT AND REMOTE TEMPERATURE SELECTION:** Control is the same as Option AG8 except that the duct sensor setpoint may be reset from a remote selector.

Includes an outside air controller. When setpoint temperature is reached, one or two furnaces will be shut down providing 25% minimum system firing rate with two furnaces and 12-1/2% minimum with three furnaces. Remote temperature selector is included. A room override thermostat (Option CL9) is available for use with this system (See illustration, right).



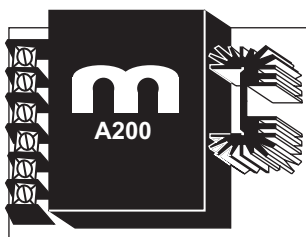
- AG21 • ELECTRONIC MODULATION WITH DDC CONTROL:** Used with customer-supplied 4-20MA or 0-10V input signal. Includes Maxitrol A200 signal conditioner and special modulating gas regulator.

**Options AG7, AG8, AG9**

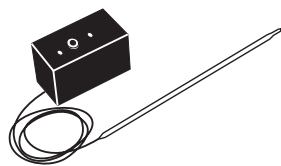


Amplifier (Maxitrol Model varies by Option and number of furnace sections)

**Maxitrol A200 Signal Conditioner used in Options AG21**

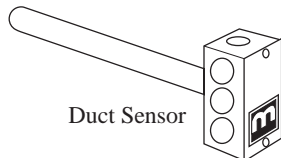


**Options AG3, AG4, AG5**



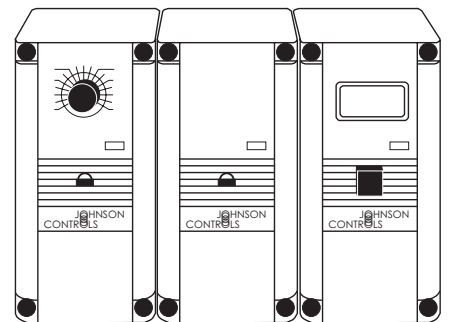
Unit-Mounted Ductstat P/N 41700 (quantity varies - see Option description)

**Options AG8, AG9**



Duct Sensor

**Options AG15, AG16, AG17, AG18, AG22, AG23**

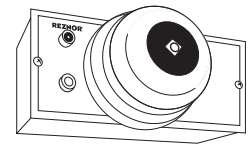


- A = Ductstat Temperature Module P/N 115848
- B = Stage Adder Module, P/N 115849 (quantity varies - see Option description)
- C = Digital Temperature Display Module, P/N 115852 (Options AG16, AG18 and AG23 only)

**\*APPLICATION NOTE:** If the installation of a packaged unit with more than one furnace section requires that any of the controls in this table be used in conjunction with an override thermostat, additional factory-installed relays are required. Since this application is not covered by "normal" control sequence, the additional relays (Option BG2) must be specified.

MINIMUM QUANTITY OF RELAYS (Option BG2) REQUIRED WHEN:		Model Series	RPDBL SSCDBL	AG3	AG4	AG5	AG15 AG16	AG17 AG18	AG22 AG23
• Pkg Model w/2 or 4 furnaces			800	4	2	N/A	4	2	N/A
• with AG Option Listed (right)			1000, 1200, 1400, 1600	8	N/A	4	8	N/A	4
• plus Override Thermostat									

**OPTION BM12** • **MANIFOLD ARRANGEMENT TO MEET ILLINOIS SCHOOL CODE REQUIREMENTS:** In **addition** to the standard gas train, this optional manifold arrangement includes main gas high and low pressure switches, pilot gas high pressure switch, manual main and pilot shut-off valves, and additional main and pilot line safety solenoid valves. A remote console with special alarm bell and push button alarm silencing switch is included. Other **field-installed components may be required to complete Code requirements.**



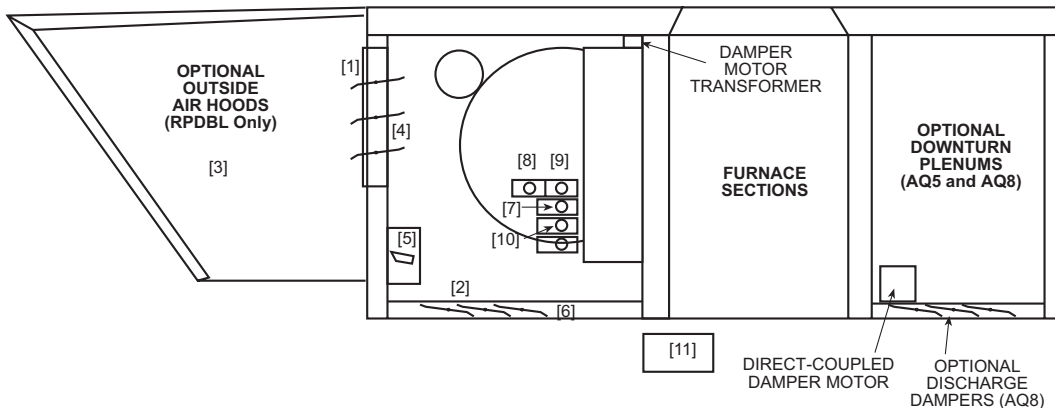
**OPTION BM13** • **MANIFOLD ARRANGEMENT TO MEET IRI REQUIREMENTS:** Applies to power vented models with over 1,000,000 BTU's — Sizes 1000, 1200, 1400 and 1600. In **addition** to the standard gas train, this optional manifold arrangement includes two fluid power gas valves, main gas high and low pressure switches, a pilot solenoid gas valve, a vent solenoid valve (requires vent pipe on indoor installation), and a manual shut-off gas valve. **These additional safety components are external to the heater cabinet.** All blower cabinets on units with Option BM13 include an air proving switch.

**NOTE:** Standard power vent models with spark ignition with less than and including 1,000,000 BTU's meet IRI requirements. (IRI requirements for these sizes are the same as ANSI Standards.)

**OPTION BM14** • **MANIFOLD ARRANGEMENT TO MEET FM REQUIREMENTS:** Applies to all sizes. In **addition** to the standard gas train, this optional manifold arrangement includes a fluid power gas valve, a manual gas shut-off valve, and a pilot solenoid valve. **These additional safety components are external to the heater cabinet.**

## AIR CONTROL SYSTEMS

(Applies to each packaged system)



- **Standard (SSCDBL only)** [1] Horizontal Air Inlet [2-11] N/A
- **Standard (RPDBL only)** [1] Outside Horizontal Air Inlet [2-11] N/A
- **Reznor Option AR4** [1] N/A [2] Bottom Return Air Inlet [3-11] N/A  
100% Return Air Inlet only - Designed for 100% recirculated heating system.
- **Reznor Option AR6 (RPDBL only)** [1] 30% Outside Horizontal Air Inlet [2] Bottom Return Air Inlet [3] 30% Outside Air Hood [4] Outside Air Dampers [5-11] N/A  
100% Return Air Inlet, 30% Outside Air Inlet with Hood (see Outside Air Hood section) and Manual Outside Air Damper - Supplies constant 30% or less outside air to recirculating heating system. Outside air hood is shipped separately for field installation.
- **Reznor Option AR7 (RPDBL only)** [1] 30% Outside Horizontal Air Inlet [2] Bottom Return Air Inlet [3] 30% Outside Air Hood [4] Outside Air Dampers [5] Damper Motor [6-11] N/A  
100% Return Air Inlet, 30% Outside Air Inlet with Hood (see Outside Air Hood section) and Motorized Outside Air Damper - Supplies 30% outside air to a recirculating heating system at specific times, as controlled by a time clock or switch. On shutdown, the outside air damper closes. Outside air hood is shipped separately for field installation.
- **Reznor Option AR8** [1] Outside Horizontal Air Inlet [2-3] N/A [4] Outside Air Dampers [5] Damper Motor (2-Position) [6-11] N/A  
100% Outside Air Inlet, with Two-Position (open/closed) Motorized Damper - 100% outside air system which provides makeup air intermittently, usually in unison with a building exhauster. Outside air damper opens when unit is on; closes when units is off.
- **Reznor Option AR9** [1] Outside Horizontal Air Inlet [2-3] N/A [4] Outside Air Dampers [5] Damper Motor (3-Position) [6-7] N/A [8] Potentiometer [9-11] N/A  
100% Outside Air Inlet, with a Three-Position (full/partial/closed) Motorized Damper and Potentiometer - 100% outside air system that provides for low and high air flow damper positions to control the supply of makeup air, usually wired in unison with a two-speed exhauster. Motor and drive selections must be based on high air flow. On shutdown, the outside air damper closes.

# AIR CONTROL SYSTEMS - (cont'd)

(Applies to each packaged system)



- **Reznor Option AR11**

[1] Outside Horizontal Air Inlet	[2] Bottom Return Air Inlet	[3] N/A
[4] Outside Air Dampers	[5] N/A	[6] Return Air Dampers
[7-11] N/A		

Not shown - manual locking quadrant

100% Outside Air and 100% Return Air Inlet, Dampers and Manual Quadrant - Manually fixed position dampers to provide constant mix of return and makeup air.
  
- **Reznor Option AR12**

[1] Outside Horizontal Air Inlet	[2] Bottom Return Air Inlet	[3] N/A
[4] Outside Air Dampers	[5] Damper Motor (Modulating)	[6] Return Air Dampers
[7] Mixed Air Controller	[8-11] N/A	

100% Outside Air and 100% Return Air Inlets with Dampers, Modulating Damper Motor and Mixed Air Controller - Automatically controlled mix of outside and return air to meet temperature setting of mixed air controller. ON shutdown, the outside air damper closes.
  
- **Reznor Option AR13**

[1] Outside Horizontal Air Inlet	[2] Bottom Return Air Inlet	[3] N/A
[4] Outside Air Dampers	[5] Damper Motor (Modulating)	[6] Return Air Dampers
[7] N/A	[8] Potentiometer	[9-11] N/A

100% Outside air and 100% Return Air Inlets with Dampers, Modulating Damper Motor, Mixed Air Controller and Potentiometer - Automatically controlled mix of outside and return air to meet temperature setting of mixed air controller, with a minimum amount of outside air as determined by the potentiometer setting. On shutdown, the outside air damper closes.
  
- **Reznor Option AR14**

[1] Outside Horizontal Air Inlet	[2] Bottom Return Air Inlet	[3] N/A
[4] Outside Air Dampers	[5] Damper Motor (2-Position)	[6] Return Air Dampers
[7-9] N/A	[10] Warm Up Control	[11] N/A

100% Outside Air and 100% Return Air Inlets with Dampers, Two-Position Damper Motor and Warm-up Control (ASHRAE Cycle I) - 100% return air on warm-up and 100% makeup air after warm-up. On shutdown, the outside air damper closes.
  
- **Reznor Option AR15**

[1] Outside Horizontal Air Inlet	[2] Bottom Return Air Inlet	[3] N/A
[4] Outside Air Dampers	[5] Damper Motor (Modulating)	[6] Return Air Dampers
[7] Mixed Air Controller	[8] Potentiometer	[9] N/A
[10] Warm Up Control	[11] N/A	

100% Outside Air and 100% Return Air Inlets with Dampers, Modulating Damper Motor, Potentiometer, Mixed Air Controller and Warm-up Control (ASHRAE Cycle II) - 100% return air on warm-up and automatically controlled mix of outside/return air to meet the temperature setting of the mixed air controller after warm-up. A minimum amount of outside air is allowed after warm-up as determined by the potentiometer setting. When used with mechanical cooling, optional air change over control may be added. An outside air change over control (not included in Option AR15 package ) closes outside air dampers when the entering air reaches a set temperature (Usually 75 degrees F).
  
- **Reznor Option AR16**

[1] Outside Horizontal Air Inlet	[2] Bottom Return Air Inlet	[3] N/A
[4] Outside Air Dampers	[5] Damper Motor (Modulating)	[6] Return Air Dampers
[7] Mixed Air Controller	[8-9] N/A	[10] Warm Up Control
		[11] N/A

100% Outside Air and 100% Return Air Inlets with Dampers, Modulating Damper Motor, Mixed Air Controller and Warm-up Control (ASHRAE Cycle III) - 100% return air on warm-up and automatically controlled mix of return and outside air to meet the temperature setting of the mixed air controller after warm-up. ON shutdown, the outside air damper closes.
  
- **Reznor Option AR17**

[1] Outside Horizontal Air Inlet	[2] Bottom Return Air Inlet	[3] N/A
[4] Outside Air Dampers	[5] Damper Motor (2-Position)	[6] Return Air Dampers
[7-11] N/A		

100% Outside Air and 100% Return Air Inlets with Dampers and a Two-Position Damper Motor - 100% return air or 100% outside air as controlled by a switch or time clock. ON shutdown, the outside air damper closes.
  
- **Reznor Option AR18**

[1] Outside Horizontal Air Inlet	[2] Bottom Return Air Inlet	[3] N/A
[4] Outside Air Dampers	[5] Damper Motor (Modulating)	[6] Return Air Dampers
[7-10] N/A	[11] Remote Potentiometer	

100% Outside Air and 100% Return Air Inlets with Dampers, a Modulating Damper Motor and Potentiometer - Mixture of return and outside air as controlled by a manually set remote potentiometer. On shutdown, the outside air damper closes.
  
- **Reznor Option AR23**

[1] Outside Horizontal Air Inlet	[2] Bottom Return Air Inlet	[3] N/A
[4] Outside Air Dampers	[5] Damper Motor (Modulating)	[6] Return Air Dampers
[7-10] N/A	[11] Remote Pressure Null Switch	

100% Outside Air and 100% Return Inlets with Dampers, a Modulating Damper Motor and Pressure Null Switch - Mixture of return and outside air as automatically controlled by a remote pressure null switch. On shutdown, the outside air damper closes.
  
- **Reznor Option AR24 (RPDBL)**

[1] Outside Horizontal Air Inlet	[2] Bottom Return Air Inlet	[3-11] N/A
----------------------------------	-----------------------------	------------

100% Outside Air and 100% Return Air Inlets, **without** Factory-Supplied Dampers - Designed for installation of field supplied damper system.



**REZNOR****DISCHARGE AIR CONFIGURATIONS**

Discharge Air Configurations		Application
<b>Standard</b>	<b>Horizontal Outlet</b> * 3/4" Duct Flange designed for "U" channel top/bottom ductwork connection and "L" type on each side	Installation that requires connection to horizontal ductwork before turning downward or where immediate downturn ductwork with horizontal connection is field supplied.
<b>Option AQ5</b>	<b>Vertical Outlet</b> * Downturn Plenum Cabinet * 1" Duct Flange for slip-type connection (flange is perpendicular to the cabinet)	Installation where vertical ductwork is attached and sealed directly to the duct flange on the bottom of the downturn plenum cabinet.
<b>Options AQ8 A-D</b> <b>A = 115V</b> <b>B = 208V</b> <b>C = 230V</b> <b>D = 460V</b>	<b>Vertical Outlet w/Dampers</b> * Downturn Plenum Cabinet * Two-Position Dampers * Direct-Coupled Motor (rated for use in discharge airstream) * 1" Duct Flange for slip-type connection (flange is perpendicular to the cabinet)	Installation where vertical ductwork is attached and sealed directly to the duct flange on the bottom of the downturn plenum cabinet. The two-position (open/close) dampers in the discharge opening are designed to isolate the unit from the building atmosphere when the system is not operating. The damper motor is located inside the downturn plenum cabinet.

## INSTALLATION

**WARNING: Gas-fired appliances are not designed for use in hazardous atmospheres containing flammable vapors or combustible dust, or atmospheres containing chlorinated or halogenated hydrocarbons.**

Installations in public garages or airplane hangars are permitted when in accordance with ANSI Z223.1 and NFPA 54 codes or CAN1-B149 and enforcing authorities.

**WARNING: Failure to provide proper venting could result in death, serious injury, and/or property damage. Unit must be connected to flue having sufficient draft to ensure safe and proper operation. Unit must be properly vented to the outside of the building. Safe operation of any gravity vented heating equipment requires a properly operating vent system, correct provision for combustion air and regular maintenance and inspection.**

**WARNING: Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury, or death. Read the installation operation and maintenance instructions thoroughly before installing or servicing any heating equipment.**

**FOR YOUR SAFETY**

If you smell gas:

1. Open windows.
2. Don't touch electrical switches.
3. Extinguish any open flame.
4. Immediately call your gas supplier.

**FOR YOUR SAFETY**

**WARNING: The use and storage of gasoline or other flammable vapors and liquids in the vicinity of this appliance is hazardous.**

**DANGER: The gas burner in all Reznor gas-fired equipment is designed and equipped to provide safe and economically controlled complete combustion. However, if the installation does not permit the burner to receive the proper supply of combustion air, complete combustion may not occur. The result is incomplete combustion which produces carbon monoxide, a poisonous gas that can cause death. Safe operation of indirect-fired gas burning equipment requires a properly operating vent system which vents all flue products to the outside atmosphere. Failure to provide proper venting will result in a health hazard which could cause serious personal injury or death.**

Always comply with the combustion air requirements in the installation codes and instructions. Combustion air at the burner should be regulated only by manufacturer-provided equipment. **NEVER RESTRICT OR OTHERWISE ALTER THE SUPPLY OF COMBUSTION AIR TO ANY HEATER.** Indoor units installed in a confined space must be supplied with air for combustion as required by code and in the installation manual. **INSTALL AND MAINTAIN THE VENT SYSTEM TO CONTINUALLY VENT ALL FLUE PRODUCTS SAFELY TO THE OUTSIDE ATMOSPHERE.**

**CODE REQUIREMENTS**

The unit shall be installed by a qualified agency in accordance with the standards of the National Fire Protection Association and the national Fuel Gas Code for gas-fired duct furnaces. These standards should be followed carefully. Authorities having jurisdiction should be consulted prior to installation to verify local codes. The unit shall be installed in accordance with the National Fuel Gas Code ANSI Z223.1 (latest edition).

In Canada, the installation of these appliances is to be in accordance with CAN/C.G.A.-B149.1 and B149.2, Installation Code for Gas Burning Appliances and Equipment, and local codes.

Installation in aircraft hangars should be made in accordance with ANSI/NFPA No. 409 (latest edition), standard for aircraft hangars, and in public garages in accordance with NFPA No. 88A (latest edition), standard for parking structures, and NFPA No. 88B for repair garages. In Canada, installation in aircraft hangars should be in accordance with the requirements of the enforcing authorities and in public garages in accordance with CAN1-B149 codes.



# INSTALLATION - (cont'd)

**REZNOR**

ANSI/NFPA-409 specifies a clearance of 10 feet to the bottom of the heater from the highest surface of the top of the wings or engine enclosures, or whatever aircraft would be highest to be housed in the hangar, and a minimum clearance of 8 feet from the floor in other sections of aircraft hangars, such as offices and shops which communicate with areas used for servicing or storage. The heaters must be located so as to be protected from damage by aircraft or other objects such as cranes and movable scaffolding.

NFPA-88 specifies overhead heaters must be installed at least 8 feet above the floor. Clearances to combustible construction or material in storage from the heater and vent must conform with the National Fuel Gas Code ANSI Z223.1-(latest edition) pertaining to gas-burning devices, and such material must not attain a temperature over 160°F by the continued operation of the heater.

## CONDENSATION

When air inlet temperatures are below 40°F or temperature rise is less than 40°F, condensation on the heat exchanger is possible. The resulting steel corrosion will shorten the heat exchanger life expectancy. Use E-3 (409) or 321 stainless steel for heat exchanger material to inhibit corrosion.

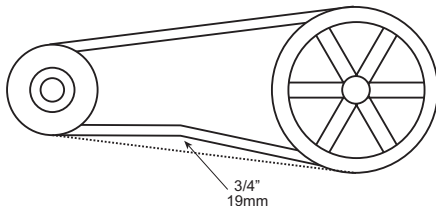
If there is a possibility of condensation of flue products, E-3 (409) stainless steel should be used for burner material.

## CHLORINE

The presence of chlorine vapors in the combustion air of gas-fired heating equipment presents a potential corrosive hazard. Chlorine will, when exposed to flame, precipitate from the compound, usually freon or degreaser vapors, and to into solution with any condensation that is present in the heat exchanger or associated parts. The result is hydrochloric acid which readily attacks all metals including 300 grade stainless steel. Care should be taken to separate these vapors from the combustion process. This may be done by wise location of units with regard to exhausters or prevailing wind directions. Remember, chlorine is heavier than air. This fact should be kept in mind when determining installation locations of heaters and building exhaust systems.

## BELTS AND DRIVES

Belt driven motors are equipped with adjustable pitch pulleys which permit adjustment of blower speed. Proper belt tension is important to the long life of the belt and motor. A loose belt will cause wear and slippage. Too much tension will cause excessive motor and blower bearing wear. Adjust belt tension by means of the adjusting screw on the motor base until belt can be depressed 1/2" to 3/4".



## ELECTRICAL SUPPLY AND CONNECTIONS

All electrical wiring and connections including electrical grounding should be made in accordance with the National Electric Code ANSI/NFPA No. 70-(latest edition) or, in Canada, the Canadian Electrical Code, Part I-C.S.A. Standard C22.1 Check any local ordinance or gas company requirements that apply.

A separate line voltage supply should be run directly from the main panel to a fused disconnect switch, at the unit, and then making connection to leads in the unit junction box. All external wiring must be made within approved conduit and have a minimum temperature rating of 60°C.

The unit must be electrically grounded in accordance with the National Electrical Code, ANSI/NFPA No. 70-(latest edition) or C.S.A. Standard C22.1 when installed, if an external electrical source is use.

## GAS PIPING AND PRESSURES

To provide adequate gas pressure at the furnace, refer to pipe sizing tables. The unit is equipped for a maximum gas supply pressure of 1/2 pound or 8 ounces. An additional service regulator external to the unit is required to reduce higher supply pressures to the 1/2 pound maximum.

**WARNING: Never expose gas control on unit to greater than 1/2 pound pressure! Pressure testing of the gas supply piping system must be carried out before connecting the furnace. A pipe cap or field-supplied high pressure gas cock must be used during proof testing of the system.**

### For Natural Gas

Manifold pressure is regulated by the combination valve to 3.5" water column. Line pressure upstream of the controls must be a minimum of 5" water column or as noted on unit rating plate.

### For Propane Gas

Manifold pressure is regulated by the combination valve to 10" water column. Line pressure upstream of controls must be 11" water column minimum and 14" maximum.

**NOTE:** Gas supply pressures higher than 14" w.c. or 1/2 pound require an additional service regulator to be added to the unit or supply system.

All piping must be in accordance with requirements outlined in the National Fuel Gas Code ANSI Z223.1-(latest edition) or Canadian Gas Association CAN/C.G.A.-B149 (.1 or .2).

When regulations require and for ease of servicing, install a ground joint union and manual shut-off valve upstream of unit control system.

**WARNING: All components of gas supply system must be leak tested prior to placing equipment in service. NEVER TEST FOR LEAKS WITH AN OPEN FLAME.**

CAPACITY OF PIPING - NATURAL GAS															
Cubic Feet/Meters per Hour Based on 0.3" W.C. Pressure Drop															
Specific Gravity for Natural Gas - 0.6 (1,000 BTU/CU Foot)															
Length of Pipe		Diameter of Pipe													
		1/2"		3/4"		1"		1-1/4"		1-1/2"		2"		2-1/2"	
Ft	M	Ft <sup>3</sup> /Hr	M <sup>3</sup> /Hr	Ft <sup>3</sup> /Hr	M <sup>3</sup> /Hr	Ft <sup>3</sup> /Hr	M <sup>3</sup> /Hr	Ft <sup>3</sup> /Hr	M <sup>3</sup> /Hr	Ft <sup>3</sup> /Hr	M <sup>3</sup> /Hr	Ft <sup>3</sup> /Hr	M <sup>3</sup> /Hr	Ft <sup>3</sup> /Hr	M <sup>3</sup> /Hr
20	6.1	92	2.6	190	5.4	350	9.9	730	20.7	1100	31.1	2100	59.5	3300	93.4
30	9.1	73	2.1	152	4.3	285	8.1	590	16.7	890	25.2	1650	46.7	2700	76.5
40	12.2	63	1.8	130	3.7	245	6.9	500	14.2	760	21.5	1450	41.1	2300	65.1
50	15.2	56	1.6	115	3.3	215	6.1	440	12.5	670	19.0	1270	36.0	2000	56.6
60	18.3	50	1.4	105	3.0	195	5.5	400	11.3	610	17.3	1105	31.3	1850	52.4
70	21.3	46	1.3	96	2.7	180	5.1	370	10.5	560	15.9	1050	29.7	1700	48.1
80	24.4	43	1.2	90	2.5	170	4.8	350	9.9	530	15.0	990	28.0	1600	45.3
90	27.4	40	1.1	84	2.4	160	4.5	320	9.1	490	13.9	930	26.3	1500	42.5
100	30.5	38	1.1	79	2.2	150	4.2	305	8.6	460	13.0	870	24.6	1400	39.6
125	38.1	34	1.0	72	2.0	130	3.7	275	7.8	410	11.6	780	22.1	1250	35.4
150	45.7	31	0.9	64	1.8	120	3.4	250	7.1	380	10.8	710	20.1	1130	32.0
175	53.3	28	0.8	59	1.7	110	3.1	225	6.4	350	9.9	650	18.4	1050	29.7
200	61.0	26	0.7	55	1.6	100	2.8	210	5.9	320	9.1	610	17.3	980	27.7

**NOTE:** When sizing supply lines, consider possibilities of future expansion and increased heating requirements. Refer to National Fuel Gas Code for additional information on sizing supply line.

CAPACITY OF PIPING - PROPANE															
Cubic Feet/Meters per Hour Based on 0.3" W.C. Pressure Drop															
Specific Gravity for Propane Gas - 1.6 (2,550 BTU/CU Foot)															
Length of Pipe		Diameter of Pipe													
		1/2"		3/4"		1"		1-1/4"		1-1/2"		2"		2-1/2"	
Ft	M	Ft <sup>3</sup> /Hr	M <sup>3</sup> /Hr	Ft <sup>3</sup> /Hr	M <sup>3</sup> /Hr	Ft <sup>3</sup> /Hr	M <sup>3</sup> /Hr	Ft <sup>3</sup> /Hr	M <sup>3</sup> /Hr	Ft <sup>3</sup> /Hr	M <sup>3</sup> /Hr	Ft <sup>3</sup> /Hr	M <sup>3</sup> /Hr	Ft <sup>3</sup> /Hr	M <sup>3</sup> /Hr
20	6.1	56	1.6	116	3.3	214	6.1	445	12.6	671	19.0	1281	36.3	2013	57.0
30	9.1	45	1.3	93	2.6	174	4.9	360	10.2	543	15.4	1007	28.5	1647	46.6
40	12.2	38	1.1	79	2.2	149	4.2	305	8.6	464	13.1	885	25.1	1403	39.7
50	15.2	34	1.0	70	2.0	131	3.7	268	7.6	409	11.6	775	21.9	1220	34.5
60	18.3	31	0.9	64	1.8	119	3.4	244	6.9	372	10.5	674	19.1	1129	32.0
70	21.3	28	0.8	59	1.7	110	3.1	226	6.4	342	9.7	641	18.2	1037	29.4
80	24.4	26	0.7	55	1.6	104	2.9	214	6.1	323	9.1	604	17.1	976	27.6
90	27.4	24	0.7	51	1.4	98	2.8	195	5.5	299	8.5	567	16.1	915	25.9
100	30.5	23	0.7	48	1.4	92	2.6	186	5.3	281	8.0	531	15.0	854	24.2
125	38.1	21	0.6	44	1.2	79	2.2	168	4.8	250	7.1	476	13.5	763	21.6
150	45.7	19	0.5	39	1.1	73	2.1	153	4.3	232	6.6	433	12.3	689	19.5
175	53.3	17	0.5	36	1.0	67	1.9	137	3.9	214	6.1	397	11.2	641	18.2
200	61.0	16	0.5	34	1.0	61	1.7	128	3.6	195	5.5	372	10.5	598	16.9

**NOTE:** When sizing supply lines, consider possibilities of future expansion and increased heating requirements. Refer to National Fuel Gas Code for additional information on sizing supply line.

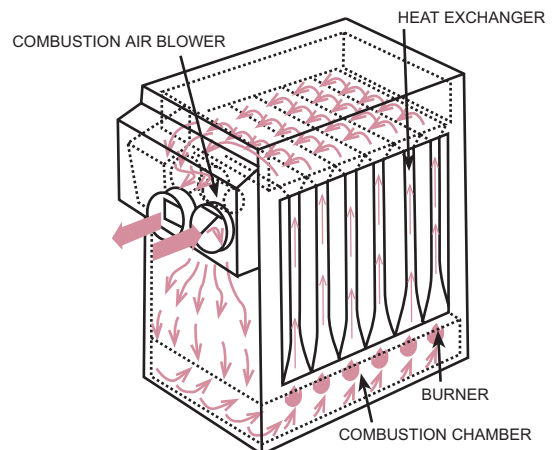
### Reznor Separated Combustion Systems Applies to Model SSCDBL

The manufacturer of Reznor heating equipment, for years, has pioneered in separated combustion system technology, eliminating "open flame" combustion problems. This has resulted in a complete line of Reznor products using the separated combustion principle-

- air for combustion is mechanically induced from outside the building, preventing dirt, lint, dust or other contaminants in the indoor atmosphere from entering the burner, pilot or combustion zone of the furnace,
- the air flow is metered to provide optimum and efficient combustion that is unaffected by negative building pressure or wind,
- after combustion, the air is exhausted back to the outdoor atmosphere.

Reznor separated combustion products provide all of the benefits while requiring only one building penetration. See the venting illustration on the following pages.

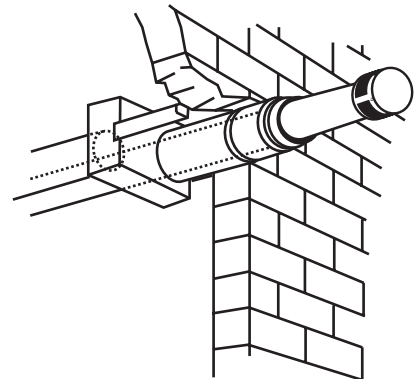
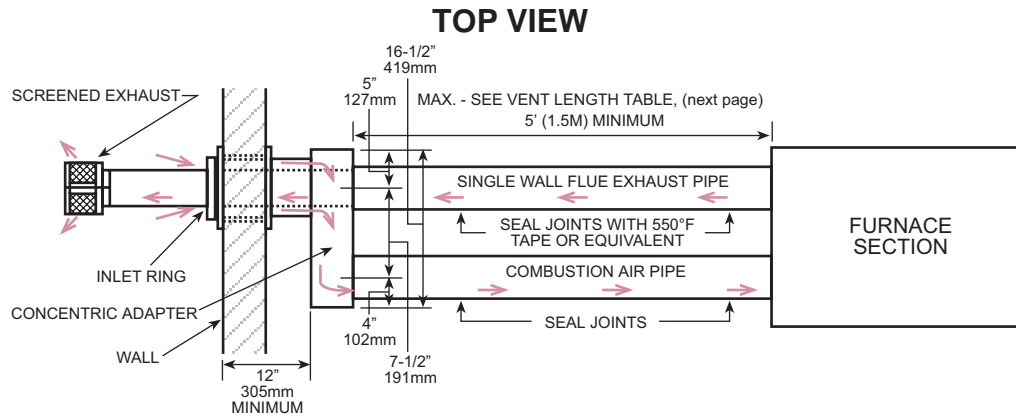
Flow of combustion air through furnace in Models SSCDBL



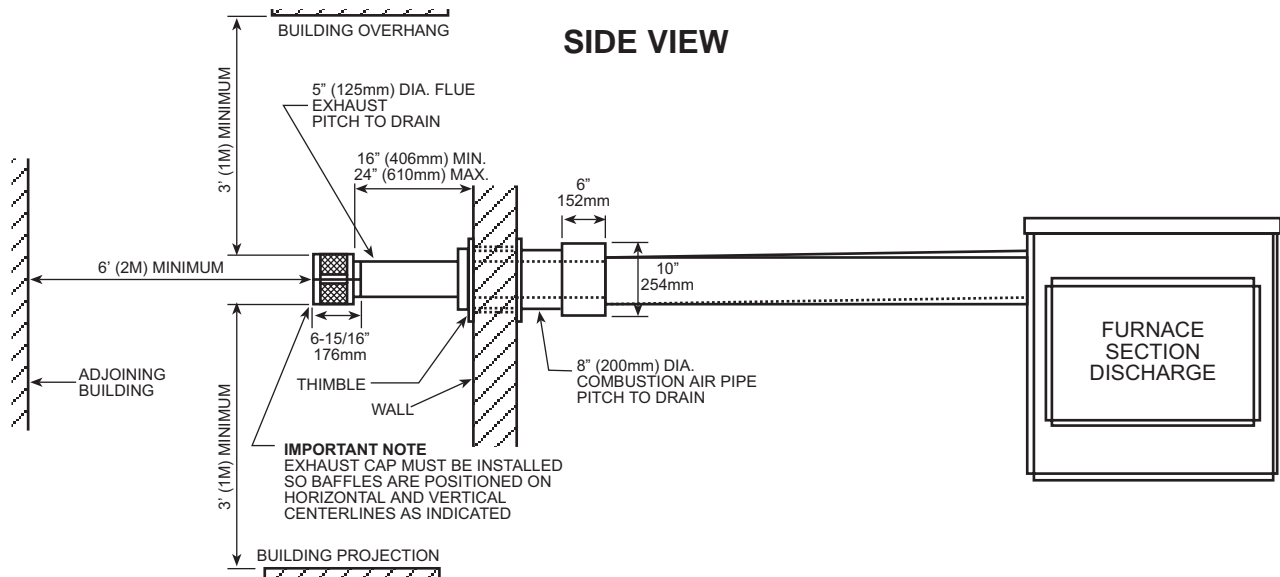
## Horizontal Vent Terminal/Combustion Air Inlet Assembly (Option CC6)

Approved vent terminals are illustrated below. No other venting arrangements are approved or certified for use with Reznor separated combustion heaters.

Both the horizontal and vertical assemblies include: concentric adapter, screened exhaust or cap, inlet ring or inlet cap, and a tube of high temperature silicone rubber sealant; all shipped separately.



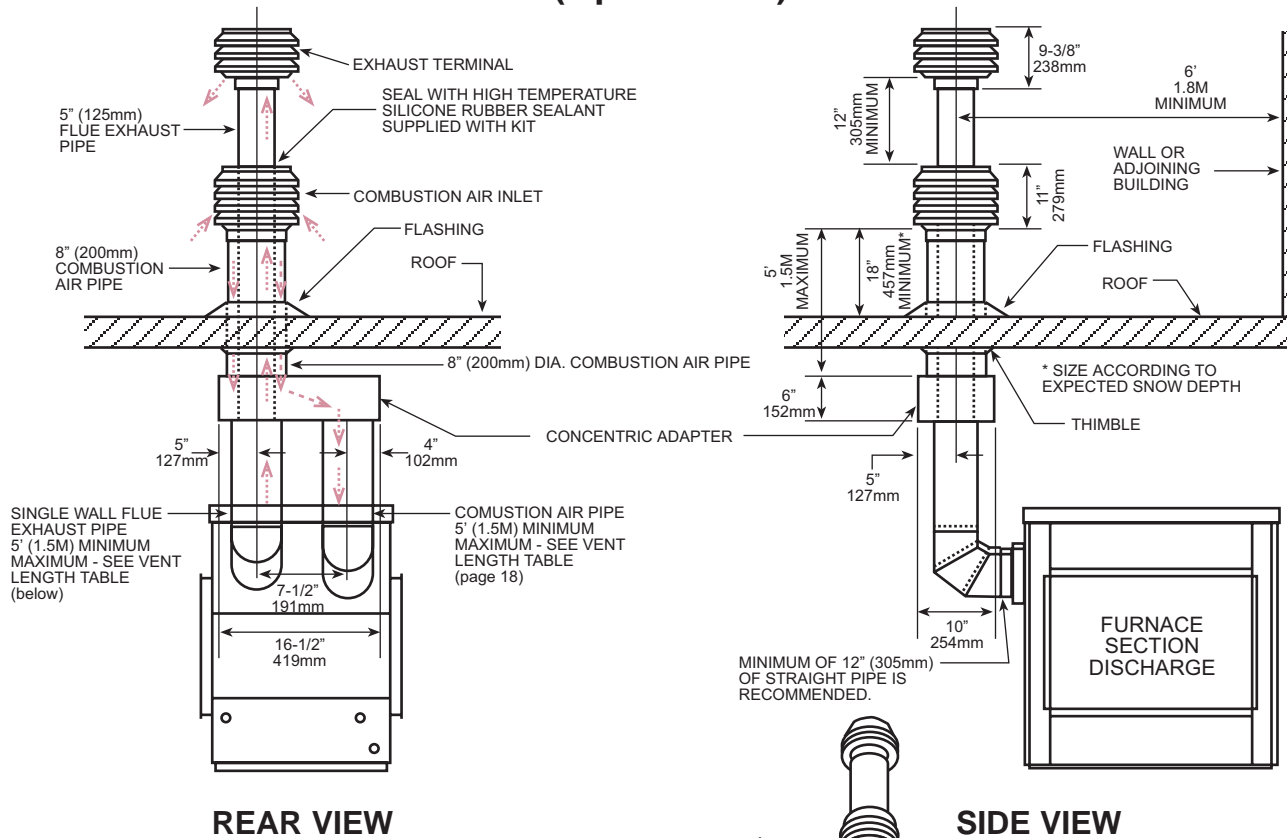
**Separated Combustion Unit** - Showing typical installation of a single horizontal vent terminal and concentric adapter. When Option CC6 is ordered, one horizontal vent terminal/combustion air inlet assembly is provided for **EACH** furnace section. A Model SSCDBL with multiple furnaces requires installation of an inlet air/vent terminal assembly for each furnace.





# Reznor Separated Combustion Systems (cont'd)

## Vertical Vent Terminal/Combustion Air Inlet Assembly (Option CC2)



**Separated Combustion Unit** - Typical installation of one vertical vent terminal and concentric adapter. If vertical vent (Option CC2) is selected, a vertical vent terminal/combustion-air inlet assembly is provided for EACH furnace section. A Model SSCDBL with multiple furnaces requires installation of an inlet air/vent terminal assembly for each furnace.

### VENTING REQUIREMENTS - Model SSCDBL

Vent terminals illustrated on these pages are approved for use with Reznor Model SSCDBL. No other venting arrangements are approved.

All pipes are field-supplied. Consult the heater installation manual for requirements.

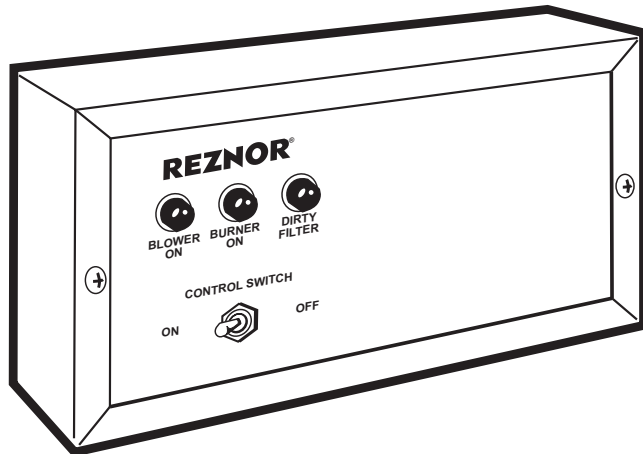
On Model SSCDBL with multiple furnace sections, a separate air inlet/vent terminal assembly **must be installed for each furnace**. A minimum of 26-1/4" (667mm) is required between the center lines of the outdoor terminal pipes.

VENT LENGTH TABLE

SIZE	Pipe Diameter		Max. Length	
	in.	mm	ft.	M
1000, 1200	6	150	50	15
800, 1400, 1600	6	150	30	9
All Sizes	7	175	70	21
90 degree elbow equals 8 feet of pipe; 45 degree elbow equals 4 feet of pipe.	Minimum length is 5 feet.			

# REMOTE CONSOLE

OPTIONAL ON INDIRECT FIRED PACKAGED HEATING/MAKEUP AIR SYSTEMS



## STANDARD FEATURES

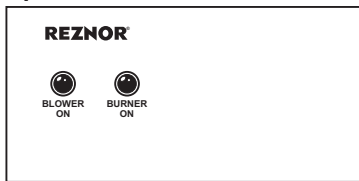
- 16 Gauge steel box
- Wiring terminal blocks
- Engraved plastic cover
- Stainless steel mounting ring
- Designed for either recessed or wall mounting

## DESCRIPTION

A Reznor remote console is designed to allow remote control of the system as well as provide indicator safety lights. The console is comprised of a 16-gauge steel box with knockouts for field wiring, wiring terminal blocks suited to components, and a custom engraved plastic cover. The engraved lettering on the cover indicates the function and position of the switch and the message of the indicator light. The box may be either recessed or wall mounted. A mounted ring is included for wall mounting. In place of the standard plastic cover, an optional stainless steel cover is available (requires extended lead time).

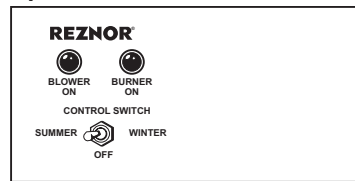
The remote console option is available with twelve pre-selected combinations of factory-installed switches, indicator lights and controls. The available combinations of components are illustrated below. Each of the consoles may be ordered with one additional factory-mounted control. Controls available are a one- or two-stage heating thermostat, a one- two-stage heating/cooling thermostat, or a Maxitrol Temperature Selector. If the installation requires any components or component combinations that are not available with Options RC1-12, it is necessary to specify a custom-built remote console.

### Option RC1



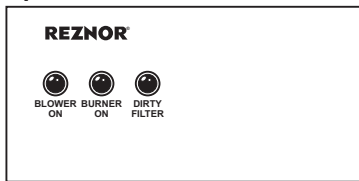
- Lights**
- Blower On
  - Burner On

### Option RC5



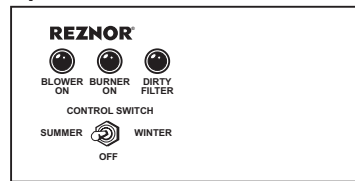
- Lights**
- Blower On
  - Burner On
- Switch**
- Summer/Off/Winter

### Option RC2



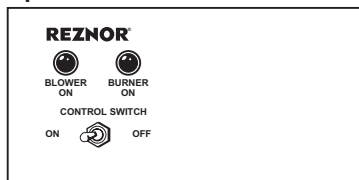
- Lights**
- Blower On
  - Burner On
  - Dirty Filter

### Option RC6



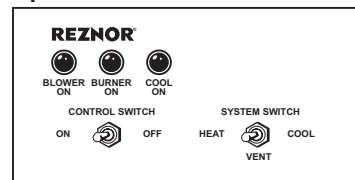
- Lights**
- Blower On
  - Burner On
  - Dirty Filter
- Switch**
- Summer/Off/Winter

### Option RC3



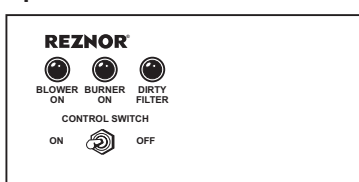
- Lights**
- Blower On
  - Burner On
- Switch**
- On/Off

### Option RC7



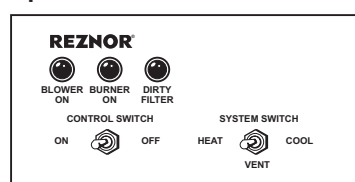
- Lights**
- Blower On
  - Burner On
  - Cool On
- Switch**
- On/Off
  - Heat/Vent/Cool

### Option RC4



- Lights**
- Blower On
  - Burner On
  - Dirty Filter
- Switch**
- On/Off

### Option RC8



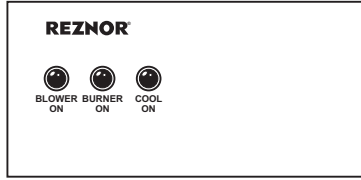
- Lights**
- Blower On
  - Burner On
  - Dirty Filter
- Switch**
- On/Off
  - Heat/Vent/Cool



# REMOTE CONSOLE (cont'd)

## OPTIONAL ON INDIRECT FIRED PACKAGED HEATING/MAKEUP AIR SYSTEMS (cont'd)

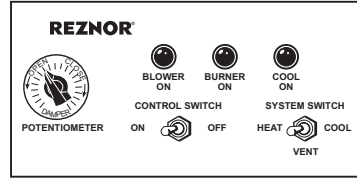
### Option RC9



#### Lights

- Blower On
- Burner On
- Cool On

### Option RC11



#### Lights

- Blower On
- Burner On
- Cool On

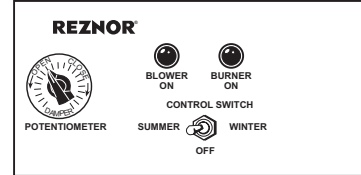
#### Switch

- On/Off
- Heat/Vent/Cool

#### Control

- Potentiometer\*

### Option RC10



#### Lights

- Blower On
- Burner On

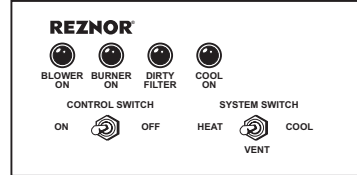
#### Switch

- Summer/Off/Winter

#### Control

- Potentiometer\*

### Option RC12



#### Lights

- Blower On
- Burner On
- Dirty Filter
- Cool On

#### Switch

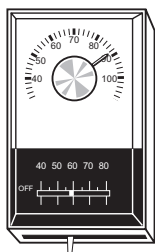
- On/Off
- Heat/Vent/Cool

\* Must order Damper Arrangement Option AR18 to get a remote potentiometer (see Air Control Systems section).

**NOTE:** To coordinate option selection, see Air Control Arrangement section and Gas Control Options section.

Remote Console Components	Function	Included on Options											
		RC1	RC2	RC3	RC4	RC5	RC6	RC7	RC8	RC9	RC10	RC11	RC12
Blower On Indicator Light	Lights when blower is operating	X	X	X	X	X	X	X	X	X	X	X	X
Burner On Indicator Light	Lights when burners are lit	X	X	X	X	X	X	X	X	X	X	X	X
Dirty Filter Indicator Light	Lights when the pressure switch indicates that filters need to be cleaned or replaced	N/A	X	N/A	X	N/A	X	N/A	X	N/A	N/A	N/A	X
On/Off Control Switch	"On" position energizes the unit for thermostat control "Off" position de-energizes the unit and closes optional automatically controlled outside air dampers	N/A	N/A	X	X	N/A	N/A	X	X	N/A	N/A	X	X
Summer/Winter/Off Control Switch	"Summer" position operates the blower only "Winter" position energizes the unit for thermostat control "Off" position de-energizes the unit and closes optional automatically controlled outside air dampers	N/A	N/A	N/A	N/A	X	X	N/A	N/A	N/A	X	N/A	N/A
Heat/Vent/Cool System Switch	"Heat" position energizes the unit for thermostat control. "Vent" position operates the blower and opens automatically controlled outside air dampers "Cool" position energizes the blower, the dampers and cooling unit	N/A	N/A	N/A	N/A	N/A	N/A	X	X	N/A	N/A	X	X
Cooling Indicator Light	Lights when cooling system is operating	N/A	N/A	N/A	N/A	N/A	N/A	X	N/A	X	N/A	X	X

### 1-Stage Heating Thermostat (Options RCT1)

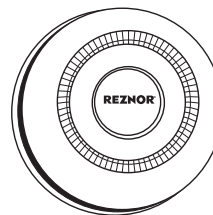


40-80 Degree Range,  
30 V.A.C Maximum,  
.15 to 1.0 Amps  
Adjustable Anticipator

(Cross reference: Same thermostat as Option CL1, P/N 91919)

Use with Remote Consoles RC1-12

### 1-Stage Heating/Cooling Thermostat (Options RCT3)

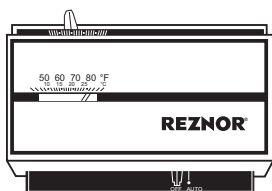


40-90 Degree Range, 30 V.A.C. Maximum, .1 to 1.2 Amps, Adjustable Anticipator

(Cross reference: Same thermostat as P/N 39581 with subbase P/N 103352)

Use with Remote Consoles RC1, 2, 9

### 2-Stage Heating Thermostat (Options RCT2)

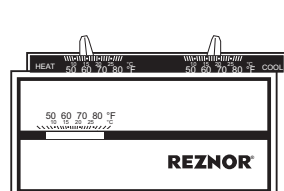


40-90 Degree Range,  
30 V.A.C. Maximum,  
.1 to 1.2 Amps,  
Adjustable Anticipator,  
Subbase with Off/Auto System Switch

(Cross reference: Same thermostat as Option CL7, P/N 93435)

Use with Remote Consoles RC1-12

### 2-Stage Heating/Cooling Thermostat (Options RCT4)



40-90 Degree Range, 30 V.A.C. Maximum, .1 to 1.2 Amps, Adjustable Anticipator, Subbase with Auto/On Fan Switch and Off/Heat/Auto/Cool System Switch

(Cross reference: Same thermostat as Option CL 11, P/N 93437)

Use with Remote Consoles RC1, 2, 9

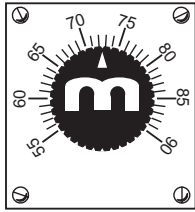


# REMOTE CONSOLE (cont'd)



## OPTIONAL ON INDIRECT FIRED PACKAGED HEATING/MAKEUP AIR SYSTEMS (cont'd)

### Maxitrol Temperature Selector (Option RCM)



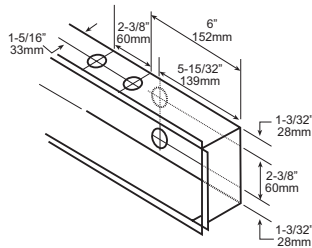
To set the duct temperature for units equipped with Maxitrol electron modulating gas control system. (Temperature Selector is part of Option AG9. Order Options RCM to have selector mounted on the remote console.)  
(Cross reference: P/N 48042)

Use with Remote Consoles RC1-12

Console Option	Minimum No. of Wires	Console Option	Minimum No. of Wires
RC1	3	RC10	7-9
RC2	4	RC11	9-10
RC3	5-6	RC12	8
RC4	6-7	1-Stage Heating Thermostat	+2
RC5	5-6	2-Stage Heating Thermostat	+3
RC6	6-7	1-Stage Heating/Cooling Thermostat	+4
RC7	7	2-Stage Heating/Cooling Thermostat	+5
RC8	8	Maxitrol Temperature Selector	+2
RC9	4		

CAUTION: The minimum number of wires listed should be used only as a guideline. Do NOT use for actual wiring. The required number of wires varies depending upon the circuit and the function of the switch and can only be accurately determined from the wiring diagram designed for the specific installation.

### Location of Knockout Holes - dimensions to Center Line of all holes



	Dimensions		Length		Height		Depth	
	in.	mm	in.	mm	in.	mm	in.	mm
<b>Wall Mounted - Remote Console with wall mounting ring</b>								
Consoles RC1-RC10, RC12 <b>without</b> an optional control	10 3/4	273	5 1/4	133	2 5/8	67		
Consoles RC1-RC6, RC9 <b>with</b> an optional control	10 3/4	273	5 1/4	133	2 5/8	67		
Consoles RC7, RC8, RC10 and RC12 <b>with</b> an optional control and RC11 <b>with or without</b> an optional control	15 3/4	400	5 1/4	133	2 5/8	67		
<b>Recessed - Size of the body; do not use mounting ring</b>								
Consoles RC1-RC10, RC12 <b>without</b> an optional control	10 1/16	256	4 5/8	117	2 5/8	67		
Consoles RC1-RC6, RC9 <b>with</b> an optional control	10 1/16	256	4 5/8	117	2 5/8	67		
Consoles RC7, RC8, RC10 and RC12 <b>with</b> an optional control and RC11 <b>with or without</b> an optional control	15 1/16	383	4 5/8	117	2 5/8	67		

## CUSTOM BUILT REMOTE MONITORING CONSOLE

### DESCRIPTION

If components or component combinations are required that are not included in the standard remote console option offering, select a custom-built remote console. Custom-built remote consoles have the same features as the standard offering except that they are available with a stainless steel cover only. (The plastic cover is not available on custom-built consoles.)

Optional Components Installed in Remote Console	Option No.
Burner Light	EB1
Blower Light	EB2
Filter Light	EB3
Cooling Light	EB4
DPDT, 3-Position Toggle Switch	EB5
SPDT, 2-Position Toggle Switch	EB7
SPST, On/Of Toggle Switch	EB8
Single-Stage Heating Thermostat	EB9
Two-Stage Heating Thermostat	EB10
Single-Stage Heating/Cooling Thermostat	EB11
Two-Stage Heating/Cooling Thermostat	EB12
Potentiometer for Damper Control	EB13
Installation of Additional Components	EB14

Custom design the console by selecting from the following list of factory-installed component options. The Option No. and specific function of all switches and signal light messages must be included on the order. The console will be built according to the instructions given. These specific instructions are also required to determine the number of relays required to provide the desired operation. NOTE: Custom-built remote consoles require extended lead time.

### Wires:

Console Feature	Minimum No. of Wires
1 Light	2
2 Lights	3
3 Lights	4
4 Lights	5
NOTE: For cooling light, add one wire.	
1 DPDT (3-position) Switch	4-6
1 SPDT Switch	3
1 DPST Switch	3-4
1 SPST Switch	2
1 2-Stage Thermostat	3-9
1 1-Stage Thermostat	2-8
1 Potentiometer	3
CAUTION: The minimum number of wires listed should be used only as a guideline. Do NOT use for actual wiring. The required number of wires varies depending upon the circuit and the function of the switch and can only be accurately determined from the wiring diagram designed for the specific installation.	

### General Sizing Guidelines

From the list of components required, use these general guidelines to determine whether a REMCON Model A or B should be specified.

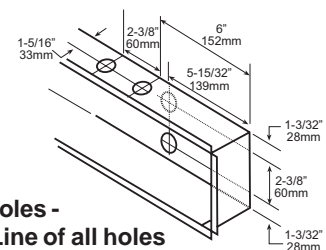
RC A will accommodate the following combinations:

- 3 Lights, 2 Switches, Single-Stage Thermostat;
- 3 Lights, 1 Switch, Two-Stage Thermostat;
- 3 Lights, Thermostat with Cover

RC B is required with:

- 3 Lights, 1 Switch, Thermostat with Cover;
- 3 Lights, 2 Switches, Two-Stage Thermostat;
- Any other combination that will not fit in the smaller console.

	Dimensions		Length		Height		Depth	
	in.	mm	in.	mm	in.	mm	in.	mm
<b>Wall Mounted - Remote Console with wall mounting ring</b>	<b>RCA</b>	10 3/4	273	5 1/4	133	2 5/8	67	
	<b>RCB</b>	15 3/4	400	5 1/4	133	2 5/8	67	
<b>Recessed - Size of the box; do not use mounting ring</b>	<b>RCA</b>	10 1/16	256	4 5/8	117	2 5/8	67	
	<b>RCB</b>	15 1/16	383	4 5/8	117	2 5/8	67	



### Location of Knockout Holes - dimensions to Center Line of all holes

**REZTOR****MOTOR FULL LOAD AMPS (F.L.A.) TABLES**

HP	Motor Type	Motor F.L.A.	Motor RPM	Voltage	PH
1.00	OPEN	13	1750	120	1
1.00	OPEN	7.5	1750	208	1
1.00	OPEN	6.5	1750	240	1
1.00	OPEN	3.7	1750	208	3
1.00	OPEN	3.2	1750	240	3
1.00	OPEN	1.6	1750	480	3
1.00	OPEN	1.4	1750	575	3
1.00	TEFC	13	1750	120	1
1.00	TEFC	6.5	1750	240	1
1.00	TEFC	3.3	1750	208	3
1.00	TEFC	3.4	1750	240	3
1.00	TEFC	1.7	1750	480	3
1.00	TEFC	1.4	1750	575	3
1.00	EE	3.1	1750	208	3
1.00	EE	2.7	1750	240	3
1.00	EE	1.35	1750	480	3
1.00	EE	1.1	1750	575	3
1.50	TEFC	16.4	1750	120	1
1.50	TEFC	9.5	1750	208	1
1.50	TEFC	8.2	1750	240	1
1.50	TEFC	4.3	1750	208	3
1.50	TEFC	4.4	1750	240	3
1.50	TEFC	2.2	1750	480	3
1.50	TEFC	1.8	1750	575	3
1.50	EE	4.5	1750	208	3
1.50	EE	3.9	1750	240	3
1.50	EE	1.95	1750	480	3
1.50	EE	1.6	1750	575	3
1.50	OPEN	15	1750	120	1
1.50	OPEN	8.3	1750	208	1
1.50	OPEN	7.5	1750	240	1
1.50	OPEN	5.6	1750	208	3
1.50	OPEN	5	1750	240	3
1.50	OPEN	2.7	1750	480	3
1.50	OPEN	2	1750	575	3
2.00	OPEN	20.4	1750	120	1
2.00	OPEN	10	1750	208	1
2.00	OPEN	10.2	1750	240	1
2.00	OPEN	7	1750	208	3
2.00	OPEN	6.6	1750	240	3
2.00	OPEN	3.3	1750	480	3
2.00	OPEN	2.4	1750	575	3
2.00	TEFC	24	1750	120	1
2.00	TEFC	12	1750	240	1
2.00	TEFC	6.5	1750	208	3
2.00	TEFC	5.6	1750	240	3
2.00	TEFC	2.8	1750	480	3
2.00	TEFC	2.2	1750	575	3
2.00	EE	6	1750	208	3
2.00	EE	5.2	1750	240	3
2.00	EE	2.6	1750	480	3
2.00	EE	2.1	1750	575	3

HP	Motor Type	Motor F.L.A.	Motor RPM	Voltage	PH
3.00	OPEN	14	3600	208	1
3.00	OPEN	12.4	3600	240	1
3.00	OPEN	9.1	3600	208	3
3.00	OPEN	8.4	3600	240	3
3.00	OPEN	4.2	3600	480	3
3.00	OPEN	3.6	3600	575	1
3.00	TEFC	30	3600	120	1
3.00	TEFC	15	3600	240	3
3.00	TEFC	8.5	3600	208	3
3.00	TEFC	8.2	3600	240	3
3.00	TEFC	4.1	3600	480	3
3.00	TEFC	3.1	3600	575	3
3.00	EE	8.6	3600	208	3
3.00	EE	7.8	3600	240	3
3.00	EE	3.9	3600	480	3
3.00	EE	3	3600	575	3
5.00	OPEN	28	3600	208	1
5.00	OPEN	26	3600	240	1
5.00	OPEN	13.4	3600	208	3
5.00	OPEN	13.2	3600	240	3
5.00	OPEN	6.6	3600	480	3
5.00	OPEN	5.4	3600	575	3
5.00	TEFC	13.2	3600	208	3
5.00	TEFC	12	3600	240	3
5.00	TEFC	6	3600	480	3
5.00	TEFC	4.8	3600	575	3
5.00	TEFC	22.8	3600	240	1
5.00	EE	13.9	3600	208	3
5.00	EE	12.6	3600	240	3
5.00	EE	6.3	3600	480	3
5.00	EE	4.8	3600	575	3
5/2.2	2 SPD	17.2/11.3	1800/1200	208	3
5/2.3	2 SPD	15.5/10.2	1800/1200	230	3
5/2.4	2 SPD	7.1/4.8	1800/1200	460	3
7.50	OPEN	35	1750	208	1
7.50	OPEN	32	1750	240	1
7.50	OPEN	22	1750	208	3
7.50	OPEN	21	1750	240	3
7.50	OPEN	10.5	1750	480	3
7.50	OPEN	8.4	1750	575	3
7.50	TEFC	34	1750	240	1
7.50	TEFC	23	1750	208	3
7.50	TEFC	21	1750	240	3
7.50	TEFC	10.5	1750	480	3
7.50	TEFC	8.4	1750	575	3
7.50	EE	22.5	1750	208	3
7.50	EE	19.6	1750	240	3
7.50	EE	9.8	1750	480	3
7.50	EE	7.5	1750	575	3

# MOTOR FULL LOAD AMPS (F.L.A.) TABLES

(cont'd)



HP	Motor Type	Motor F.L.A.	Motor RPM	Voltage	PH
7.5/3.3	2 SPD	21.6/13.6	1800/1200	208	3
7.5/3.3	2 SPD	19.5/12.3	1800/1200	230	3
7.5/3.3	2 SPD	9.75/6.2	1800/1200	460	3
10.00	OPEN	42	1750	208	1
10.00	OPEN	38	1750	240	1
10.00	OPEN	30	1750	208	3
10.00	OPEN	26	1750	240	3
10.00	OPEN	13	1750	480	3
10.00	OPEN	10.4	1750	575	3
10.00	OPEN	9.9	1750	575	3
10.00	TEFC	39	1750	240	1
10.00	TEFC	30	1750	208	3
10.00	TEFC	26	1750	240	3
10.00	TEFC	13	1750	480	3
10.00	TEFC	10.4	1750	575	3
10.00	EE	28	1750	208	3
10.00	EE	24.4	1750	240	3
10.00	EE	12.2	1750	480	3
10.00	EE	9.7	1750	575	3
10/4.4	2 SPD	31/19.4	1800/1200	208	3
10/4.4	2 SPD	28/17.5	1800/1200	230	3
10/4.4	2 SPD	13.5/7.5	1800/1200	460	3
15.00	OPEN	43.1	1750	208	3
15.00	OPEN	39	1750	240	3
15.00	OPEN	19.5	1750	480	3
15.00	OPEN	16	1750	575	3
15.00	TEFC	38	1750	240	3
15.00	TEFC	19	1750	480	3
15.00	TEFC	15	1750	575	3
15.00	EE	40	1750	208	3
15.00	EE	36	1750	240	1
15.00	EE	18	1750	480	3
15.00	EE	14.5	1750	575	3
20.00	OPEN	58.7	1750	208	3
20.00	OPEN	53	1750	240	3
20.00	OPEN	26.5	1750	480	3
20.00	OPEN	21.2	1750	575	3
20.00	TEFC	52	1750	240	3
20.00	TEFC	26	1750	480	3
20.00	TEFC	20.6	1750	575	3
20.00	EE	52.9	1750	208	3
20.00	EE	48	1750	240	3
20.00	EE	24	1750	480	3
20.00	EE	19.2	1750	575	3

**RPDBL - ROOF MOUNTED HEATING AND MAKEUP AIR UNITS (POWER-VENTED)**

Provide packaged, roof-mounted heating and make up air units as Reznor® brand equipment. These units shall be the RPDBL series designed for 80% thermal efficiency with power-vented gas furnaces, arranged for roof or slab mounting on a (field-assembled curb) (rails). The units are to be arranged for field duct connection with horizontal (downturn plenum) supply connection at discharge and horizontal (and/or bottom) inlet connection.

The units are to include centrifugal blowers, (open drip-proof) (totally enclosed) (energy efficient) (two-speed) blower motor, and adjustable belt drives, filter racks with (1" or 2") (disposable) (permanent) (pleated) filters, factory installed. Include all required controls, dampers, and inlets to provide an air control cycle of (100% return air inlets [with two-position motorized dampers] [with three-position motorized dampers and potentiometers]) / (100% return air inlets, 30% outside air inlet with air hood [with manual damper] / [with motorized damper]) (100% outside air inlets and 100% return air inlets with dampers and [manual quadrant] [modulating damper motors and mixed air controllers]) / (100% outside air inlets and 100% return air inlets with dampers, modulating damper motors, mixed air controllers and potentiometers) (100% outside air inlets and 100% return air inlets with dampers, potentiometers, mixed air controllers and warm-up controls - ASHRAE Cycle II) (100% outside air inlets and 100% return air inlets with dampers, mixed air controllers and warm-up controls - ASHRAE Cycle II) (100% outside air inlets and 100% return air inlets with two-position damper motors) (100% outside air inlets and 100% return air inlets with dampers, modulating damper motors, and potentiometers) (100% outside air inlets and 100% return air inlets with dampers, modulating damper motors, and pressure null switches) (100% outside air inlets and 100% return air inlets without factory supplied dampers) with full cabinet insulation.

All units shall be equipped for use with (natural) (propane) gas (120/1) (208/1) (230/1) (208/3) (230/3) (460/3) (575/3) supply voltage, 24-volt control transformers, automatic power venters, (motor contactors) (motor starters), (intermittent spark pilots [with timed lockout]), and a (one-stage) (two-stage [from ductstat]) (electronic two-stage using ductstat [with remote temperature adjustment] [with remote temperature adjustment and temperature display]) (four-stage) (electronic four-stage using ductstat with remote temperature adjustment [and temperature display]) (mechanical modulation [with full fire bypass]) (electronic modulation with 2:1 turndown ratio [with ductstat] [with remot selector] [with DDC control]) gas control systems. Manifold arrangement to meet (Illinois School Code) (FM) (IRI).

The gas furnace(s) shall contain a heat exchanger of (aluminized) (E-3 [409] stainless) (321 stainless) steel, die-formed burners of (aluminized) (E-3 [409] stainless) steel, and an (aluminized) (E-3 [409] stainless) steel drip pan.

The following accessories shall be provided: (convenience outlet), (air proving switch), (high ambient burner cutoff), (firestat[s]), (freezestats), summer/winter control), (remote console with required lights and switches), (high and/or low gas pressure switches), (outside air screened hood with moisture-eliminating louvers), (downturn plenum), (double wall cabinet construction), (2-position discharge damper).

All gas-fired packaged heating equipment must bear the C.S.A. label. The manufacturer must have a minimum of eight (8) years experience with gas-fired packaged heating equipment. Product shall be manufactured at an ISO9001 registered facility.

See drawings and schedules for quantities, sizes and capacities.

Unit shall be warranted for 12 months from date of installation or 18 months from date of shipment, whichever occurs first.

## MODEL SSCDBL - INDOOR HEATING AND MAKEUP AIR UNITS (SEPARATED COMBUSTION)

Provide packaged heating and makeup air unit as Reznor® brand equipment. These units shall be the SSCDBL series with power-vented separated combustion 80% thermal efficient gas furnaces, arranged for suspension or slab mounting on a (field-assembled curb) (rail).

The (insulated) (uninsulated) blower cabinets are to be arranged for (recirculated) (makeup) (combination recirculated and makeup) air. The cabinets shall be supplied with (horizontal supply openings) (bottom supply air openings) (horizontal makeup air inlet with dampers and two-position damper motors) (horizontal makeup air inlet with dampers, bottom return air inlets with dampers, two-position damper motors and potentiometers) (horizontal makeup air inlets with dampers, bottom return air inlets with dampers and manual locking quadrants) (horizontal makeup air inlets with dampers, bottom return air inlets with dampers and modulating damper motors) (horizontal makeup air inlets with dampers, bottom return air inlets with dampers, modulating damper motors, potentiometers and mixed air controls) (horizontal makeup air inlets with dampers, bottom return air inlets with dampers, two-position damper motors and warm-up controls) (horizontal makeup air inlets with dampers, bottom return air inlets with dampers, modulating damper motors, potentiometers, mixed air controls, [outside air changeover], and warm-up controls) (horizontal makeup air inlets with dampers, bottom return air inlets with dampers, modulating damper motors, mixed air controls, and warm-up controls) (horizontal makeup air inlets with dampers, bottom return air inlets with dampers and two-position damper motors) (horizontal makeup air inlets with dampers, bottom return air inlets with dampers, modulating damper motors and remote potentiometers) (horizontal makeup air inlets with dampers, bottom return air inlets with dampers, modulating damper motors and pressure null switches).

The units are to include centrifugal blowers, (open dripproof) (totally enclosed) (energy efficient) (two-speed) blower motor, and adjustable belt drives, filter racks with (1" or 2" disposable) (1" or 2" permanent) (1" or 2" pleated) filters, factory installed. Include all required controls.

All units shall be equipped for use with (natural) (propane) gas, (120/1) (208/1) (230/1) (208/3) (230/3) (460/3) (575/3) supply voltage, 24-volt control transformer, automatic power venter, (motor contactor) (motor starter), and a(n) intermittent spark pilot (intermittent spark pilot with timed lockout). Unit shall have a(n) (one-stage gas control [with thermostat]) (two-stage gas control [with thermostat]) (two-stage gas control from ductstat per furnace section) (electronic two-stage gas control using ductstat with remote temperature adjustment [and temperature display] per furnace section) (two-stage gas control for dual furnace units [using a ductstat with remote temperature adjustment {and temperature display}]) (four-stage gas control for four furnace units) (electronic four-stage gas controls for four furnace units using a ductstat with remote temperature selector [and temperature display]) (mechanical modulation) (electronic modulation - 50%-100% turndown - with ductstat and remote temperature selector) (electronic modulation with DDC controls). Manifold arrangement to meet (Illinois School Code) (FM) (IRI).

The gas furnace shall contain a heat exchanger of (aluminized) (E-3 [409] stainless) (321 stainless) steel, die-formed burners of (aluminized) (E-3 [409] stainless) steel, and an (aluminized) (E-3 [409] stainless) steel drip pan. The furnace(s) shall be equipped with all required safety and limit controls.

The following accessories shall be provided: (convenience outlet), (air proving switch), (high ambient burner cutoff), (firestat[s]), (freezestat), (summer/winter control), (remote console with required lights and switches) (high and/or low gas pressure switches), (downturn plenum) (downturn plenum with 2-position dampers), (double wall cabinet construction).

The duct furnace and the packaged heating and makeup air system shall be design-certified to ANSI and CGA Standards.

See drawings and schedules for quantities, sizes and capacities.

Product shall be manufactured in an ISO9001 registered facility. Manufacturer must have minimum of 8 years of experience with this type of heating equipment.

## 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.

### LIMITATIONS AND EXCLUSIONS

Thomas & Betts Corporation's obligation under this warranty is limited to replacement or repair at its manufacturing facility of any part or parts of a Reznor product. The part to be replaced or repaired shall be returned to an authorized Reznor Distributor along with model number and serial number of equipment from which the part was taken. Manufacturer along with the authorized distributor shall determine, to their mutual satisfaction, the part to be defective. 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 unit has been operated outside the designed output (heating, cooling or airflow), 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 WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS AND IMPLIED, AND THOMAS & BETTS CORPORATION DISCLAIMS ALL OTHER EXPRESS WARRANTIES AND ALL IMPLIED WARRANTIES INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE.** No person is authorized to assume for Thomas & Betts Corporation any other warranty, obligation, or liability for any Reznor products.





