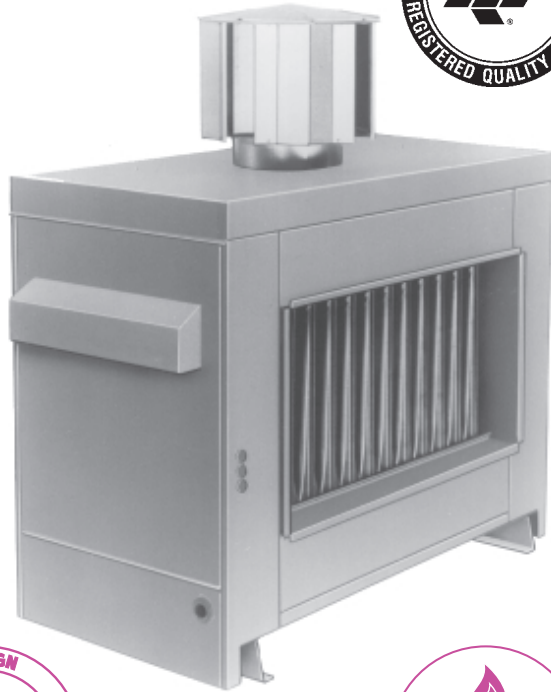


REZNOR®

ANSI Z83.8a



CGA 2.6a

MODEL CRG

ROOFTOP, GAS-FIRED, GRAVITY-VENTED DUCT FURNACE FOR COMMERCIAL/ INDUSTRIAL USE

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-volt supply voltage
- 24-volt control voltage transformer
- Redundant, single-stage combination gas valve
- Spark-ignited, intermittent safety pilot with electronic flame supervision (see page 18)
- High limit safety cutout
- Left side access for burners and controls (slide out burner drawer)
- Vent cap
- Weatherized steel cabinet with interlocking joints (U.S. Patent No. 5,373,673) for outdoor mounting

OPTIONAL FEATURES -FACTORY INSTALLED

- Orifices for propane gas
- Elevations from 2,001 to 9,000 ft.
- 409 or 321 stainless steel heat exchanger
- 409 stainless steel burners
- 409 stainless steel bottom pan
- Burner Controls for Recirculated Heating (see page 18)
 - Two-stage gas valve
 - Electronic Modulation
- Gas Controls for Make up Air (see page 19)
 - Two-stage gas valve with ductstat
 - Mechanical modulation (50°-100°F)
 - Mechanical modulation (50°-100°F) with bypass
 - Electronic modulation - 50%-100% firing rate with duct probe (55°-90°F)
 - Electronic modulation - 50%-100% firing rate with duct probe with remote adjustment
- Intermittent spark pilot with timed lockout (see page 18)
- Voltage - 208/230/460
- Fan control
- Right side controls (facing airstream)
- Terminal block wiring
- Manifold arrangement to comply with Illinois School Code requirements
- High and low pressure gas switches
- Vent extension, 4 ft.

OPTIONAL FEATURES -FIELD INSTALLED

- One-stage thermostat
- Two-stage thermostat
- Electronic modulating room override thermostat
- Thermostat guard with locking cover
- Manual gas shut-off valve and union
- Disconnect switch (UL Listed)

DESCRIPTION

Reznor CRG Series Rooftop Duct Furnaces are designed to be used as the heating component in a heating, heating/cooling, or makeup air system. The CRG Series furnaces are certified for **80% thermal efficiency** for use with either natural or propane gas, as specified, in sizes from 75,000 through 360,000 BTUH input. The furnace is gravity vented with a weatherized, aluminized steel cabinet for outdoor mounting. A separate blower system is required for air delivery.

The furnace has a patented Reznor Thermocore® aluminized steel heat exchanger with venturi-design tubes. The die-formed burners are of aluminized steel and include flared ports with a stainless steel insert.

Standard features include a spark-ignited intermittent pilot and a single-stage, 24-volt gas valve. Each unit has all the required limit and safety controls and is wired for field connection to a remote 24-volt thermostat.

For approved temperature rises, see page 11.

NOTES:

1. Burner and control access shown left hand side (standard). Specify right hand side for opposite access and connections.
2. Standard air flow as shown. Direction of air flow may be reversed by field relocation of air flow baffles in the heat exchanger.
3. To install units side-by-side, specify one unit with standard left-hand controls and one unit with optional right-hand controls. Allow 6" minimum clearance between furnaces. Ductwork must attach only to separate duct flanges, never attach duct to heater cabinet.
4. All casing parts are suitable for outdoor installation. Heater mounting rails are 12 Ga. zinc grip steel.
5. One inch thick fiberglass insulation full length and width of top.
6. Approved for installation downstream of an air conditioning coil (optional drain flange, stainless steel heat exchanger, and stainless steel burners are recommended).
7. **Not** approved for residential use.

MODEL CRG

ROOFTOP, GAS-FIRED, GRAVITY-VENTED DUCT FURNACE FOR COMMERCIAL/INDUSTRIAL USE

Technical Data

Size		75	100	125	175	225	250	300	350	400
Input Heating Capacity	BTUH	75,000	90,000	112,000	150,000	200,000	225,000	270,000	315,000	360,000
	kW	22.0	26.4	32.8	44.0	58.6	65.9	79.1	92.3	105.5
Output Heating Capacity (80%) ^A	BTUH	60,000	72,000	89,600	120,000	160,000	180,000	216,000	252,000	288,000
	kW	17.6	21.1	26.3	35.2	46.9	52.8	63.3	73.9	84.4
Full Load Amps (120V)		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Unit Control Amps (24V)		0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
CRG Air Volume Range (A.G.A./C.G.A.)	cfm	650-1,110	780-1,330	975-1,655	1,305-2,220	1,740-2,960	1,960-3,330	2,350-4,000	2,745-4,665	3,135-5,330
	m ³ /hr	1,104-1,886	1,325-2,260	1,656-2,812	2,217-3,772	2,956-5,029	3,330-5,657	3,993-6,796	4,664-7,926	5,326-9,055
HCRG Air Volume Range (A.G.A.) ^B	cfm	790-2,775	950-3,330	1,185-4,145	1,585-5,555	2,115-7,405	2,380-8,330	2,855-10,000	3,330-11,665	3,805-13,330
	m ³ /hr	1,342-4,715	1,614-5,657	2,013-7,042	2,693-9,438	3,593-12,581	4,043-14,152	4,850-16,989	5,657-19,818	6,464-22,647
HCRG Air Volume Range (C.G.A.) ^B	cfm	1,110-2,775	1,330-3,330	1,655-4,145	2,220-5,555	2,960-7,405	3,330-8,330	4,000-10,000	4,665-11,665	5,230-13,330
	m ³ /hr	1,886-4,715	2,260-5,657	2,812-7,042	3,772-9,438	5,029-12,581	5,657-14,152	6,796-16,989	7,926-19,818	8,885-22,647
Net Weight	lbs	160	160	196	212	242	290	290	327	354
	kg	73	73	89	96	110	132	132	148	161
Ship Weight	lbs	170	170	227	259	278	328	328	366	396
	kg	77	77	103	117	126	149	149	166	180
Gas Connection (in.) Natural ^C		1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	3/4"	3/4"	3/4"

^A In U.S. ratings for altitudes to 2,000 feet. Above 2,000 feet derate by orifice change, 4% for each 1,000 feet above sea level.
In Canada ratings are for altitudes to 2,000 feet. For high altitude units (2,001-4,500 ft.) derate by 10% of maximum input.

^B Prefix "H" indicates high CFM units without finger baffles.

^C Sizes shown are for natural gas connections and are applicable to single stage gas valves, NOT supply line size. Propane gas connection is 1/2" for all sizes.

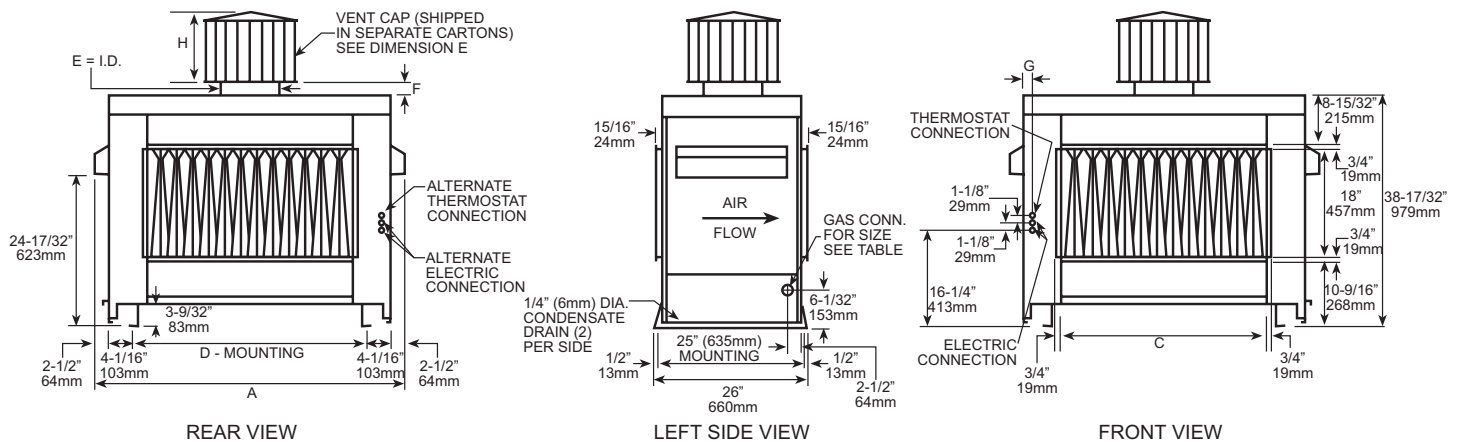
CLEARANCE FROM COMBUSTIBLES

1. Top - 36"
2. Side opposite controls - 6"
3. Control side - unit width plus 6"
4. Radius from vent cap to obstructions - 10 feet
5. Bottom - 0" (Unit is certified for installation on a combustible surface when equipped with standard heater mounting rails.)

VENT CAP EXTENSION DATA (See Dimension "F")			
Type of Gas	Size Furnace	Extention Height	Part No.
Natural	350, 400	12"	20524
Propane	350, 400	12"	20524

TEMPERATURE RISE RANGE		
U.S.	CRG	50°F - 90°F
	HCRG	20°F - 75°F
Canada	CRG	50°F - 90°F
	HCRG	20°F - 50°F

Model CRG includes finger baffles for proper air distribution at the lower air volumes.



Dimensions ±1/8" (3mm)

SIZE	A		B		C		D		E (I.D.)		F		G		H		GAS CONN.	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	NAT.	PRO.
75	33 7/16	849	28 1/2	724	12 1/2	318	20 5/16	516	6	152	2	51	3 3/32	79	7	178	1/2	1/2
100	33 7/16	849	28 1/2	724	12 1/2	318	20 5/16	516	6	152	2	51	1 21/32	42	7	178	1/2	1/2
125	33 7/16	849	28 1/2	724	15 1/4	387	20 5/16	516	8	203	2	51	1 21/32	42	9 1/2	241	1/2	1/2
150, 175	38 15/16	989	34	864	20 3/4	527	25 13/16	656	8	203	2	51	1 21/32	42	9 1/2	241	1/2	1/2
200, 225	44 7/16	1,129	39 1/2	1,003	26 1/4	667	31 5/16	795	10	254	3	76	1 21/32	42	11 3/4	298	1/2	1/2
250	52 11/16	1,338	47 3/4	1,213	34 1/2	876	39 9/16	1,005	10	254	3	76	1 21/32	42	11 3/4	298	1/2	1/2
300	52 11/16	1,338	47 3/4	1,213	34 1/2	876	39 9/16	1,005	12	305	12	305	1 21/32	42	14 1/8	359	3/4	1/2
350	58 3/16	1,478	53 1/4	1,353	40	1,016	45 1/16	1,145	12	305	12	305	1 21/32	42	14 1/8	359	3/4	1/2
400	63 11/16	1,618	58 3/4	1,492	45 1/2	1,156	50 9/16	1,284	12	305	12	305	1 21/32	42	14 1/8	359	3/4	1/2