

REZNOR**MODEL
SCA****GAS-FIRED, SEPARATED-
COMBUSTION FAN-TYPE
UNIT HEATER****ANSI Z83.8****CAN/CGA 2.6****DESCRIPTION**

The Model SCA Series gas-fired, fan-type, separated-combustion, power-vented unit heaters are available in sizes ranging from 100,000 to 400,000 BTUH gas input for use with either natural or propane gas, as specified. Model SCA heaters are designed to separate their combustion air from the air in the heated space. These units are designed and manufactured in accordance with the ANSI definition of "separated combustion". While discharging exhaust air, the power venter draws in combustion air from the outside atmosphere. Exclusive outside combustion air prevents dirt, lint, dust or other contaminants in the heated space from entering the combustion zone of the heater. This separated combustion heater is designed for use in building areas with negative pressure and/or extremely dirty or mildly corrosive atmospheres. A combustion air inlet/vent terminal assembly designed for the Model SCA heater allows for a single building penetration for both exhaust and combustion air.

Standard features include a patented Thermocore heat exchanger with a venturi design tube and die-formed burners of aluminized steel with flared ports and a stainless steel burner insert. Standard controls include a single-stage 24-volt gas valve, an intermittent safety pilot with electronic flame supervision, a fan motor, a power venter motor and wheel assembly, a combustion air pressure switch, and a safety limit switch. Each unit is arranged for field connection to a remote 24-volt thermostat for automatic operation. The heater cabinet is designed for suspension from two 1" couplings.

The Model SCA line of heaters is approved for installation in The United States and Canada by the Canadian Standards Association (CSA). Model SCA Series 6 heaters are 80% thermal efficient.

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 Codes and enforcing authorities.

NOTE: Regulated combination redundant gas valve consists of combination pilot solenoid valve, electric gas valve, pilot filter, pressure regulator, pilot shutoff, and manual shutoff, all in one body. Gas supply pressure must not exceed 0.5 psi (8 oz. or 14" w.c.). Minimum inlet pressure for natural gas is 5" w.c.; minimum inlet pressure for propane gas is 11" w.c.

STANDARD FEATURES

- Orifices for natural gas
- Aluminized steel heat exchanger
- Aluminized steel burner with stainless steel insert
- Spark-ignited intermittent safety pilot with electronic flame supervision
- Single-stage combination gas valve
- 115/1/60 supply voltage
- 115/1/60 venter motor with stainless steel shaft
- 115 volt fan motor with internal overload protection
- Fan and limit safety controls
- Pressure switch to verify vent flow
- 24-volt control voltage transformer
- Individually adjustable horizontal louvers
- Full safety fan guard
- Burner rack side access (pullout drawer; left side facing airstream)
- 2-point suspension (1" couplings)

OPTIONAL FEATURES - Factory Installed

- Equipped for propane gas
- Equipped for high altitude
- E-3 (409) stainless steel heat exchanger
- 321 Stainless steel heat exchanger
- E-3 (409) stainless steel burners
- Stainless steel bottom pan
- Spark-ignited intermittent safety pilot with electronic flame supervision and timed lockout (required for propane gas)
- Two-stage gas valve (50%/100%)
- Burner air shutters (required for propane gas)
- Manual summer/winter switch
- Electronic modulation
- Air recirculation kits - See page 35 for descriptions
- Relay for summer fan operation
- Vertical louvers
- BX cable - 1/2" O.D. (standard is 3/8" O.D.)

ACCESSORIES - Field Installed

- Horizontal inlet air/vent terminal kit* - See page 33
- Vertical inlet air/vent terminal kit* - See page 34 (200/208, 220/240/480/480, 277)
- Downturn nozzles, 25-65° or 50-90° variable air deflection range
- Manual shutoff valve and union
- Thermostat guard with locking cover
- Thermostats (single stage and two stage)
- Stepdown transformer for alternate supply voltage

NOTE: Not certified for residential use.

* Selection of either a horizontal or vertical inlet air/vent terminal kit is required.

TECHNICAL DATA - Model SCA

Size	100	125	150	175	200	225	250	300	350	400
BTUH Input	100,000	125,000	150,000	175,000	200,000	225,000	250,000	300,000	350,000	400,000
BTUH Thermal Output (80%)*	80,000	100,000	120,000	140,000	160,000	180,000	200,000	240,000	280,000	320,000
CFM (70°F) Std Air	1230	1400	1960	1960	2520	2520	3360	3360	3920	4480
Outlet Velocity (FPM)	840	780	800	800	810	810	810	810	810	820
Throw at 8' Mounting Ht	58	60	68	68	82	82	100	100	105	115
Control Amps (24-volt)	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Full-Load Amps (115 volt)	3.7	4.9	4.4	4.4	6.5	6.5	6.9	6.9	11.1	11.1
Motor HP Standard Open Optional Enclosed	1/30 1/8	1/20 1/6	1/8 1/6	1/8 1/6	1/6 1/4	1/6 1/4	(2) 1/8 (2) 1/6	(2) 1/8 (2) 1/6	(2) 1/6 (2) 1/6	(2) 1/6 (2) 1/4
Motor RPM	1050	1050	1140	1140	1140	1140	1140	1140	1140	1140
Fan Diameter (inches)	14	15	18	18	18	18	(2) 16	(2) 16	(2) 18	(2) 18
Maximum Vent 6" pipe Length (feet)** 7" pipe	40 --	50 --	50 --	50 --	50 70	50 70	50 70	50 70	30 70	30 70
Gas Connection (inches) - Natural Gas***	1/2	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4	3/4
Approximate Net Wt (lbs)	198	211	228	228	314	314	386	386	430	485
Approximate Shipping Wt	253	272	297	297	368	368	465	465	510	562

*A.G.A. ratings for altitudes to 2000 ft. Above 2000 ft, de-rate by orifice change, 4% for each 1000 ft above sea level.

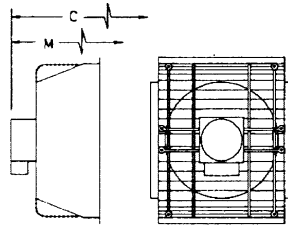
*C.G.A. ratings for altitudes to 2000 ft. High altitude units (2001-4500 ft) are de-rated by 10% of maximum input.

**Minimum vent length is 5 feet. 7" pipe requires four field-supplied tapered reducers. Refer to pages 33 and 34 for wall or roof penetration details.

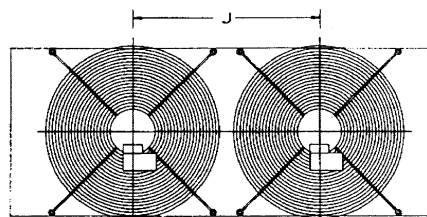
***Gas connection for propane is 1/2" for all sizes. Sizes shown are for gas connection to a single-stage or two-stage gas valve; NOT gas supply line size.

DIMENSIONS (inches + or - 1/8")

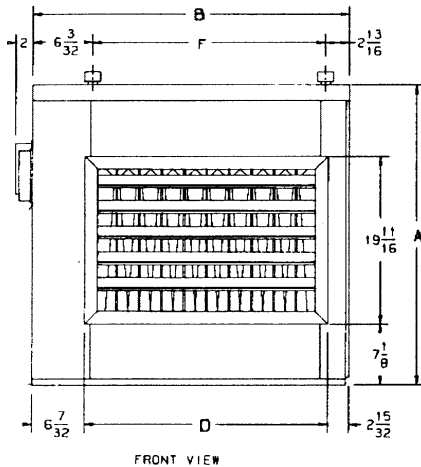
For venting arrangements, see pages 31 - 32.



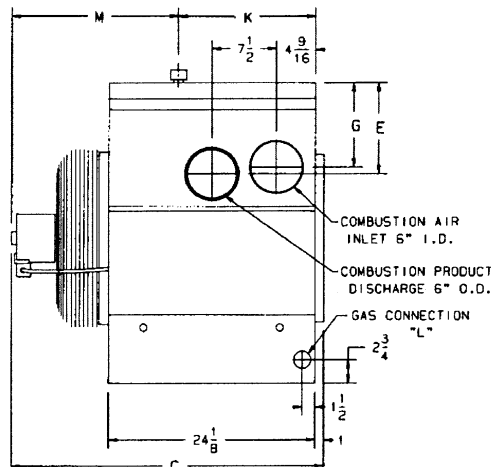
REAR VIEW OF SCA - 100 ONLY



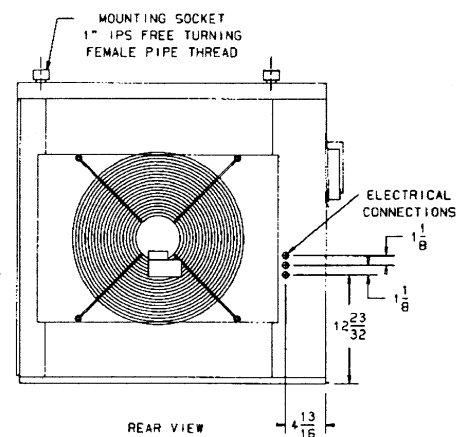
REAR VIEW OF SCA - 250; 300; 350; 400-3



FRONT VIEW



LEFT SIDE VIEW



REAR VIEW

Size	A	B	C	D	E	F	G	J	K	M
100	32-1/4	22-1/2	34	14-1/4	8-1/8	13-1/2	7	-	14	20
125	32-1/4	25-1/4	35-3/4	17	8-1/8	16-1/4	7	-	14	21-3/4
150, 175	32-1/4	30-3/4	36-1/2	22-1/2	8-1/8	21-3/4	7	-	14	22-1/2
200, 225	35-1/4	36-1/4	36-1/2	28	10-3/4	27-1/4	10	-	14	22-1/2
250, 300	35-1/4	44-1/2	36-1/4	36-1/4	10-3/4	35-1/2	10	17	14	22
350	35-1/4	50	36-1/2	41-3/4	10-3/4	41	10	20	14	22-1/2
400	35-1/4	55-1/2	36-1/2	47-1/4	10-3/4	46-1/2	10	22	14	22-1/2

Required Clearances

Sizes	100-400
Top	6"
Flue Connector	6"
Control Side	Width of Unit + 6"
Non-Control Side	6"
Bottom	6"