

58SX

61,000-102,000 Btuh Output
Natural Gas Only

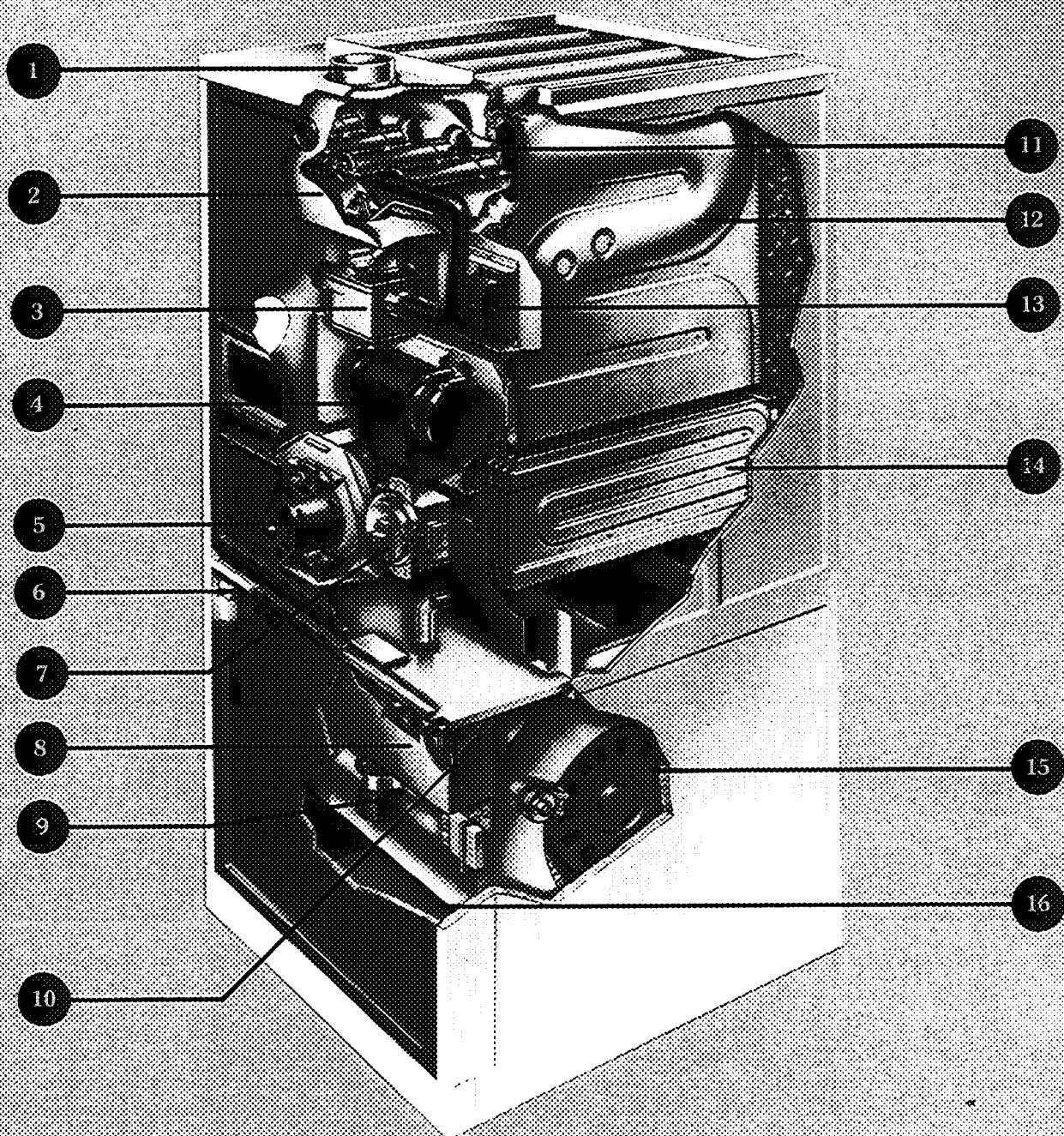
Carrier Deluxe Gas-Fired Condensing Furnace



The Deluxe Winter Weathermaker

Carrier

Features that spell top performance and long life



- 1 Combustion air inlet pipe connection
- 2 Burner enclosure
- 3 Redundant gas valve
- 4 Vent outlet box
- 5 Inducer fan and motor
- 6 Blower door safety switch
- 7 Pressure switch
- 8 Control box
- 9 Condensate drain trap

- 10 Printed-circuit control board
- 11 Burner assembly
- 12 Primary heat exchanger section
- 13 Spark generator
- 14 Condensing heat exchanger assembly
- 15 Blower and blower motor
- 16 Washable filter (filter and retainer may be on bottom or on side of unit.)

A breakthrough in condensing furnace technology

The 58SX condensing gas-fired furnace exemplifies the latest advances in furnace technology. Through design innovation and extensive testing in both the laboratory and the field, Carrier has matched ultra-high efficiency with dependable quality.

Unlike traditional furnace design, the 58SX has 2 types of heat exchangers which help boost its AFUE to over 90%. Primary, 4-pass heat exchangers are mounted upside down, with burners at the top. Flue gases move downward through the heat exchanger, while circulating air moves upward, creating a highly effective "counterflow" heat transfer.

The stainless steel condensing heat exchanger is located below the primary heat exchangers, directly over the circulating air blower outlet. This allows cold circulating air

to flow over the condensing cells, reducing the flue temperature and condensing moisture from the flue products.

Both heat exchangers are fabricated using a fold, hem and crimp process that forms a leak-tight joint/seal.

A "direct vent" sealed combustion system also sets the SX apart from traditional furnaces. By using outdoor air for combustion, the SX saves energy, reduces air infiltration, and minimizes the possibility of chloride contamination which can cause heat exchanger corrosion. In addition, this system makes the SX exceptionally quiet.

And Carrier's condensing furnace design is induced-draft. For greater safety and peace of mind, a negative pressure is maintained within the heat exchanger so flue products cannot enter the circulating airstream.

Accessories

Vent terminal kit — required (58SX900001 [2-in. pipe size] or 58SX900011 [3-in. pipe size].)

For vertical or side wall venting. Two kits are available to fit a variety of pipe sizes.

Cold air return plenum (knockdown) (58GA900051)

25 in. x 16 in. x 46-3/16 inches. Supplied with two 20-in. x 25-in. x 1-in. throwaway-type filters. May be mounted for return air on either side of furnace.

Side filter rack (58SE90013106 [6 pack, with filters field supplied] or 58GA900011 [with 2 filters, assembled])

Provides return air duct connection 14-1/2 in. high x 23-1/8 in. wide and accepts permanent, cleanable 16-in. x 25-in. x 1-in. filter or filters.

Analyzer (58SS900021)

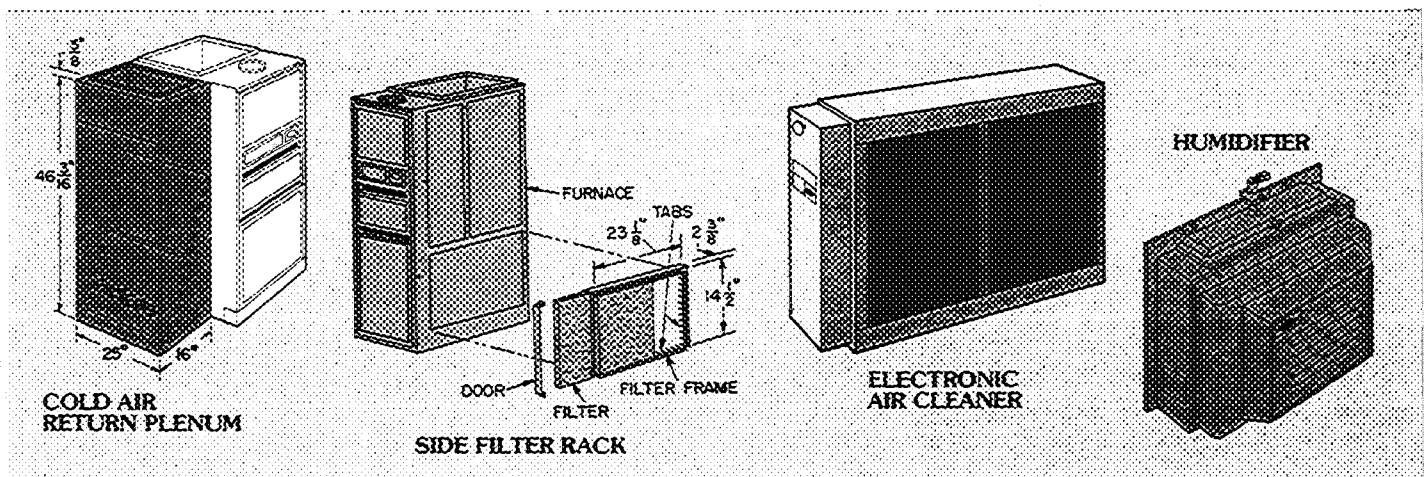
A diagnostic tool for start-up, check out, and troubleshooting.

Electronic air cleaner

Clears the air of smoke, dirt and many pollens most commonly found in the home. Saves decorating and cleaning expense.

Humidifier

By adding moisture to winter-dry air, a Carrier humidifier can often improve the comfort of the family and help keep furniture, rugs and draperies in better condition. Moisturizing household air may also help to retain normal body heat and keep you comfortable at lower temperatures.

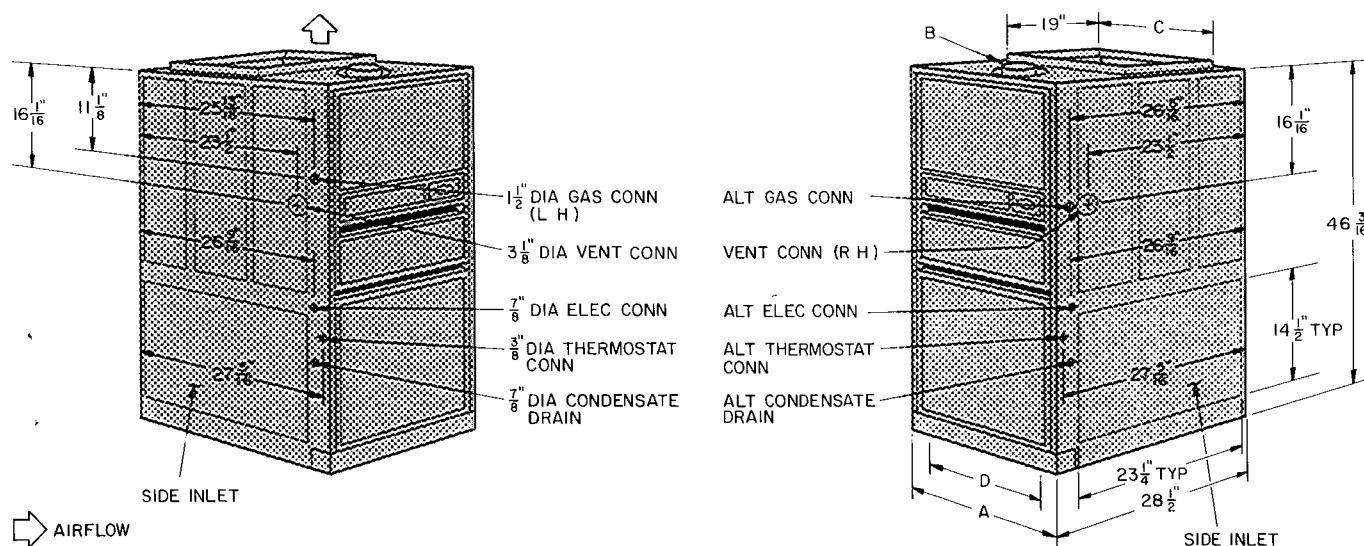


Physical data and dimensions

FURNACE MODEL 58SX	060-CC	080-BC	100-CC
SHIPPING WEIGHT (lb)	173	186	214
INPUT BUTH*	66,000	88,000	110,000
OUTPUT CAPACITY BTUH†	61,000	81,000	102,000
CERTIFIED TEMP RISE RANGE (F)	30-60	45-75	45-75
CERTIFIED EXT STATIC PRESSURE (in. wg)	0.5		
AIRFLOW CFM Heating	1125	1160	1460
Cooling	1205	1240	1670
DIMENSIONS (in.)			
Width A	17½	17½	21
Combustion Air/Vent Diameter B	1½ or 2	2 or 2½	2, 2½ or 3
Outlet Duct Opening {C x 19}	15⅝	15⅝	19⅝
Bottom Return Opening {D x 26}	15	15	18½
LIMIT CONTROL	SPST		
HEATING BLOWER CONTROL	Solid-State, Time Operated		
BURNERS (Monoport)	3	4	5
GAS CONNECTION SIZE	½-in NPT		
GAS VALVE (Redundant)			
Minimum Inlet Pressure (in. wg)	4.5		
Maximum Inlet Pressure (in. wg)	13.6		
PILOT SAFETY	Standard		

*Ratings shown are for elevations up to 2000 feet. For elevations above 2000 ft, rating should be reduced at the rate of 4% for each 1000 ft above sea level.

†Determined by U.S. Government tests.



CLEARANCES (in.)

FURNACE SIZE	060	080	100
PLENUM CLEARANCE TOP	1	1	1
Unit Clearance Back	0	0	0
Unit Clearance Side	0	0	0
Unit Clearance Front	3	3	3
Front Service Clearance	30	30	30
Vent Clearance	0	0	0

The 58SX delivers...maximum efficiency plus Carrier reliability

Carrier introduces Model 58SX Winter Weathermaker — the new deluxe gas-fired condensing furnace that combines ultra-high efficiency with long life and dependable service. These features of the Winter Weathermaker ensure top performance for your money:

Ninety percent plus AFUE — A superior Annual Fuel Utilization Efficiency means economical operation year after year.

Twenty-year limited warranty on both primary and condensing heat exchangers. Carrier backs the reliability of the 58SX furnace. See your dealer for complete details.

Direct vent sealed combustion system — The 58SX uses 100% outdoor air, which results in especially quiet

operation. Direct venting also minimizes the possibility of chloride contamination which can cause heat exchanger corrosion and reduces air infiltration into your home.

Negative pressure maintained in internal heat exchanger — Flue products cannot enter circulating airstream, as with some competitive furnaces.

Compact size — The Weathermaker's low height fits most installations. It's the ideal replacement furnace.

Easy, flexible installation — Either side wall or vertical venting is possible.* P.V.C. vent plus air intake lines, up to 35 ft each with up to five 90° elbows, simplifies installation.

*Must be used with AGA-approved vent terminal kit.

Carrier quality extras for exceptional value

Printed-circuit board control center — Factory installed with all internal wiring connections. Virtually eliminates the chance of wiring errors at installation. A low-voltage terminal board is provided on the bottom of the printed-circuit board for quick, easy control center connections, such as for accessory air conditioner, electronic air cleaner and humidifier. Installation time and costs are minimized with this factory-assembled and installed control system.

Sturdy casing — Welded wraparound casing construction minimizes casing vibration. Low profile design permits installation in restricted locations. Casing has a powder-coat paint finish.

Complete insulation — Foil-faced insulation in heat exchanger section of the casing minimizes heat loss. Coated insulation in blower section reduces operating sound levels.

Fully enclosed front — The front is fully enclosed for a more pleasing appearance and greater safety.

Blower assembly — A multi-speed, direct-drive motor with speed-tap selector, provides balanced airflow for heating and cooling. Highly efficient permanent split-capacitor blower motor for economical operation.

Solid-state blower control — adjustable off-timing — Timed blower operation stops annoying recycling, common with thermally activated blower controls.

Monoport inshot burners — Aluminized steel burners for years of dependable service. No field adjustment is necessary.

Spark ignition pilot — Pilot is electronically ignited by an electric spark each time the thermostat calls for heat. Standing pilot light is eliminated to save gas.

Redundant gas valve — Two internal valves in one body, operating in series for added safety

Inducer blower — Stabilizes combustion process and reduces flue heat loss during furnace off-cycles, thereby increasing efficiency. Also reduces heat loss during the on-cycle by eliminating need for a draft hood.

Blower performance data

FURNACE MODEL 58SX	060-CC	080-BC	100-CC
DIRECT-DRIVE MOTOR Hp (PSC)	1/3	1/3	1/2
MOTOR FULL LOAD AMPS	6.6	6.6	9.4
RPM (Nominal) — SPEEDS	1075 — 4		
BLOWER WHEEL DIAMETER WIDTHS (in.)	10 x 7	10 x 7	10 x 8
FILTER SIZE (in.) — (Washable)	15 3/8 x 27 3/4		19 1/2 x 27 3/4

AIR DELIVERY (Cfm)

FURNACE MODEL 58SX	SPEED	EXTERNAL STATIC PRESSURE (in. wg)							
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
060-CC	High	1430	1375	1335	1275	1205	1140	1060	935
	Med-High	1300	1260	1215	1175	1125	1065	980	865
	Med-Low	1095	1075	1055	1025	980	935	865	760
	Low	940	925	915	900	865	820	745	625
080-BC	High	1525	1460	1395	1320	1240	1145	1020	855
	Med-High	1410	1355	1300	1240	1160	1065	940	765
	Med-Low	1230	1200	1160	1110	1050	965	855	695
	Low	1095	1075	1050	1015	955	890	760	630
100-CC	High	1925	1855	1805	1735	1670	1575	1480	1310
	Med-High	1600	1565	1535	1500	1460	1385	1305	1215
	Med-Low	1285	1275	1275	1255	1230	1170	1105	1020
	Low	1045	1060	1070	1070	1055	1020	955	810

Electrical data

	ALL SIZES
VOLTS-PHASE-HERTZ	120-1-60
MINIMUM WIRE SIZE	14 AWG
MAXIMUM FUSE SIZE	15 Amps
TRANSFORMER (24 v)	40 VA
EXTERNAL CONTROL POWER AVAILABLE	HEATING COOLING
	24 VA 37 VA
AIR COND BLOWER RELAY	Standard