

### WhisperHeat™ UP-FLOW GAS FURNACES

### G20E(X)

Bulletin #210082  
November 1996  
Supersedes April 1995

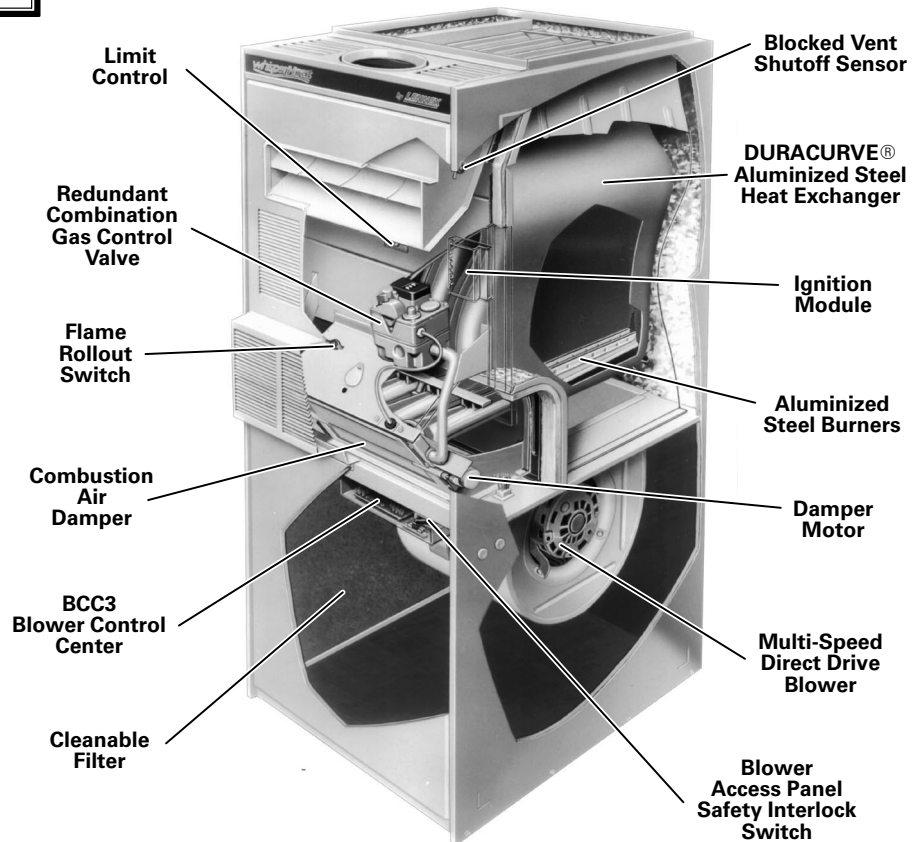
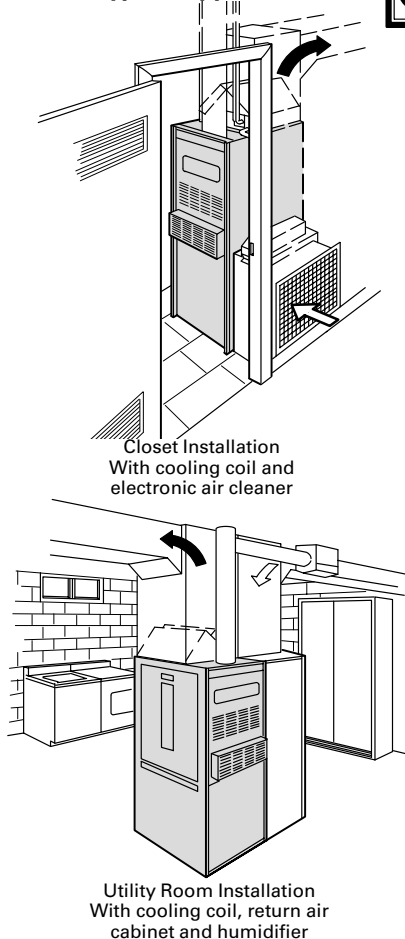
\*78.0% A.F.U.E.

48,000 to 150,000 Btuh (14.1 to 44.0 kW) Input  
1 thru 6 Tons (3.5 thru 21.1 kW) Nominal Add-On Cooling

\*Isolated Combustion System Rating For Non-weatherized Furnace



#### Typical Applications

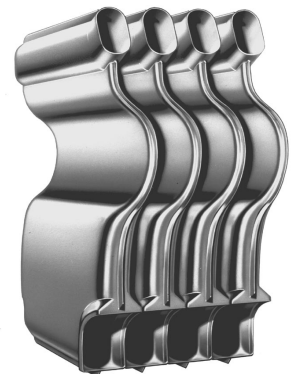


**Applications** — G20E series gas fired furnaces include ten models with input capacities of 50,000, 75,000, 100,000, 125,000 and 150,000 Btuh (14.7, 22.0, 29.3, 36.6 and 44.0 kW) and energy efficiencies (AFUE) of 78.0%. G20E models are available with either natural gas or LPG/Propane. G20X models are available with natural gas only. Compact cabinet will allow installation in a basement, closet, recreation or utility room. Lennox add-on evaporator coils, electronic air cleaners and power humidifiers can be easily added to the furnace. Units are shipped factory assembled. Each unit is factory test operated.

**Approvals** — Units are certified by A.G.A. and C.G.A. Laboratories and ratings are certified by GAMA. Units have been rated and tested in the Lennox Research Laboratory according to DOE test procedures and FTC labeling regulations. G20X models meet California Nitrogen Oxides (NO<sub>x</sub>) Standards and California Seasonal Efficiency requirements. Blower data is from unit tests conducted in the Lennox Laboratory air test chamber. Units are approved for conventional or horizontal (sidewall) venting.

**Equipment Warranty** — “DURACURVE” Aluminized Steel Heat Exchangers have a limited warranty for a full twenty years. All other covered components have a limited warranty for five years. Refer to the Lennox Equipment Limited Warranty certificate included with the equipment for details.

**Lennox DURACURVE® Aluminized Steel Heat Exchanger** — Lennox developed heat exchanger eliminates fatigue failure, ticking, resonance and cleanability problems. In the unique design of this heat exchanger the sides of the clam section form a flue restriction zone comprised of two concentric cylinders. As the sides grow, they expand and move, but in the same direction and at the same rate. The result is perfect combustion, proper venting and absolute freedom of movement for the metal. Design also results in high input to heat surface ratio, low resistance to air travel, reducing blower motor horsepower requirements and ease of cleaning. Heavy gauge aluminized steel construction provides long service life. Compact size of heat exchanger permits low overall design of furnace cabinet and smooth lines give minimum resistance to air travel. Laboratory life cycle testing proves long life of the heat exchanger.



## FEATURES

**Aluminized Steel Burners** — Each burner has four rows of practically continuous ports which result in quiet and clean combustion. A crossover igniter of actual burner ports, perpendicular to the main burner, carries a positive flame from burner to burner to achieve quiet and sure ignition. "X" models have stainless steel NO<sub>x</sub> rods.

**Electronic Pilot Ignition** — Solid-state electronic spark igniter provides positive ignition of pilot burner on each operating cycle. Pilot gas is ignited and burns during each running cycle (intermittent pilot) of the furnace. Main burners and pilot gas are extinguished during the off cycle. This system permits main gas valve to open only when the pilot burner is proven to be lit. Should a loss of flame occur, the main valve closes, shutting down the unit. Pilot is a fully automatic operation on demand for heat. Ignition control is factory installed on the vestibule panel. Also features Watchguard circuit. Solid-state control provides automatic reset of ignition controls after 1 hour of continuous thermostat demand after unit lockout.

**Automatic Gas Control** — Silent operating gas controls provide 100% safety shut off. 24 volt redundant combination gas control valve combines automatic safety pilot, manual shut off option (On-Off), pilot filtration, automatic electric valve (dual) and gas pressure regulation into a compact combination control. Dual valve design provides double assurance of 100% close off of gas to the pilot and main burners on each off cycle.

**Cabinet** — Constructed of heavy gauge cold rolled steel. Cabinet is subject to five station metal wash process resulting in a perfect bonding surface for a paint finish of baked-on enamel. The paint solution and metal are given opposite electrical charges resulting in positive adhesion and even coverage of the paint to the metal surfaces. Cabinet surface temperatures are low due to interior metal liners on each side of cabinet and foil faced fiberglass insulation on vestibule panel, side panels and on back panel. Draft hood is constructed of heavy gauge aluminized steel. Holes for leveling are provided in cabinet base, installer must furnish bolts and nuts. Complete service access is accomplished by removing furnace and blower compartment access panels. Blower assembly and filter may be completely removed from unit for service. Safety interlock switch located in the wiring junction box automatically shuts off power to the unit when blower compartment access door is removed. Gas piping and electrical inlet knockouts are provided in both sides of the cabinet. Return air entry is possible on either or bottom of cabinet.

**Combustion Air Damper** — Damper is factory installed in the aluminized steel burner box extension of the heat exchanger. Energy saving damper closes off combustion air flow through the heat exchanger during burner off cycle to prevent loss of heated air up the flue. Heavy gauge aluminized steel damper is gasketed for tight seal and rotates smoothly in nylon bearings. Equipped with a heavy duty synchronous spring return damper motor. Removable top on burner box allows access into the burner area for servicing and field conversion to LPG/Propane. Damper proving switch confirms that damper is open before allowing main gas valve to open.

**Flame Rollout Switch** — Manual reset switch is furnished as standard and is factory installed on the burner box. Switch prevents unit operation in the event combustion products passage through the flueway is reduced or blocked.

**Blocked Vent Shutoff Sensor** — Manual reset temperature sensor prevents unit operation in case of flue blockage and meets ANSI requirements. Sensor is furnished as standard and is factory installed on the draft hood.

**Limit Controls** — Factory installed and accurately located limit control gives protection against abnormal operating conditions.

**Wiring Junction/Control Box** — Power supply and thermostat connections are made at the wiring junction/control box which is located in the blower compartment. Box contains BCC3 Blower Control Center and control transformer.

**BCC3 Blower Control Center** — Furnished and factory installed in wiring junction/control box. Solid-state board contains all necessary controls and relays to operate furnace. Change in blower speed is easily accomplished by simple change on control board. Fan control consists of adjustable blower timed-off delay (90 to 330 seconds) and fixed blower timed-on delay (45 seconds). For air-conditioning applications, blower is automatically energized on thermostat demand for cooling. Provisions have been made for additional wiring connections required for power humidifiers and electronic air cleaners. Also included is a low voltage terminal strip for thermostat connections.

**Transformer** — 24 volt control transformer is furnished as standard equipment and is factory installed in wiring junction/control box. Transformer has fuse wired in series for added protection.

**Blowers** — Units are equipped with quiet multi-speed direct drive blowers. Each blower assembly is statically and dynamically balanced. Multiple-speed leadless motor is resiliently mounted. A choice of blower speeds is available on each blower. See blower performance tables.

**Cleanable Air Filter** — Washable or vacuum cleanable polyurethane filter is furnished as standard for return air applications on either side of cabinet. Filter is field installed in unit on support rails for quick and easy removal for servicing.

A bottom return air kit is required for bottom return air applications and must be ordered extra. See below and Specifications table.

♦ **High Altitude "H" Models** — Available for installation in high altitude areas. Units are modified at the factory to allow full input at high altitudes. See Specifications table for ratings and efficiencies.

### OPTIONAL ACCESSORIES (Must Be Ordered Extra)

**Continuous Low Speed Blower Kit (Optional)** — Field installed kit LB-63646A (67H91) is available to provide continuous low speed blower operation. Kit includes switch and all necessary wiring. Kit is not furnished and must be ordered extra. Not used if Twinning Kit is used.

**Furnace Twinning Kit (Optional)** — Field Installed kits are available to operate two furnaces simultaneously. Two kits are available — Twinning Kit For Continuous Low Speed Blower LB-63093C (35J93) or Twinning Kit For Non-Continuous Low Speed Blower LB-63093B (64H88). Kit consists of heavy gauge steel control box and two auxiliary limit controls. Control box has electrical inlet knockouts and contains low voltage and high voltage terminal strips, blower control relay, heat relays, door interlock relay and 24 volt control transformer. All controls are factory installed and wired. Limit controls are field installed in each furnace. Holes for mounting control box are provided. Box may be field installed in any convenient location adjacent to or on one of the furnaces.

**LPG/Propane Conversion Kit (Optional)** — For LPG/Propane models a conversion kit is required for field changeover from natural gas. Kit is not furnished and must be ordered extra. See specifications table for order number. Not available for "X" models.

**Bottom Return Air Kit (Optional)** — Kit is required for bottom return air applications and must be ordered extra. See Specifications tables for catalog numbers and filter sizes.

**Thermostat (Optional)** — Heating thermostat is not furnished and must be ordered extra. See Thermostats bulletin in Accessories Section. For all-season applications, heating and cooling thermostat is available with the condensing unit.

**Return Air Cabinets (Optional)** — Constructed of heavy gauge cold rolled steel with a baked-on enamel paint finish. Simplifies return air duct connection to the furnace. Shipped knocked down and must be field assembled. May be field installed on either side of furnace. Must be ordered extra. See specifications table. NOTE — Not available in Canada.

## SPECIFICATIONS

Model No.		G20Q2E-50(H) G20Q2X-50	†G20Q3E-50 G20Q3X-50	G20Q2E-75(H) G20Q2X-75	†G20Q3E-75 G20Q3X-75	†G20Q4E-75 G20Q4X-75	
Input – Btuh (kW)		48,000 (14.1)		75,000 (22.0)		75,000 (22.0)	
Output – Btuh (kW)		38,000 (11.1)		59,000 (17.3)		60,000 (17.6)	
★A.F.U.E.		78.0%					
California Seasonal Efficiency		72.3%	72.1%	73.9%	73.4%	73.0%	
Flue size connection – in. (mm) diameter (round)		4 (102)					
Temperature rise range – °F (°C)		20-50 (11–28)		35-65 (19–36)		25-55 (14–31)	
High static certified by A.G.A./C.G.A. – in wg. (Pa)		.50 (125)					
Gas Piping Size I.P.S. – in. (mm)		1/2 (12.7)					
Blower wheel nom. diameter x width – in. (mm)		9 x 7 (229 x 178)	10 x 7 (254 x 178)			10 x 8 (254 x 203)	
Blower motor hp (W)		1/4 (187)	1/3 (249)	1/5 (149)	1/3 (249)	1/2 (373)	
‡Number and size of filters – in. (mm)		(1) 16 x 25 x 1(1) 406 x 635 x 25					
Nominal cooling that can be added		Tons	1, 1-1/2 or 2	2-1/2 or 3	1, 1-1/2 or 2	2-1/2 or 3	
		kW	3.5, 5.3 or 7.0	8.8 or 10.6	3.5, 5.3 or 7.0	8.8 or 10.6	12.3 or 14.1
Shipping weight – lbs. (kg) 1 package		148 (67)	153 (69)	160 (73)	160 (73)	183 (83)	
Electrical characteristics		120 volts – 60 hertz – 1 phase (less than 12 amps) All models					
◆ Optional Accessories (Must Be Ordered Extra) ◆							
◆LPG/Propane kit		LB-62384DB (35J89) (All non “X” models)					
Continuous Low Speed Blower Kit		LB-63646A (67H91) (All models)					
Twinning Kits		Non-continuous Low Speed		64H88 (all models)			
		Continuous Low Speed		35J93 (all models)			
Bottom Return Air Filter Kit		Catalog No.		12J74	12J71		
		No. & Size of ‡Filters		in.		(1) 14 x 25 x 1	(1) 18 x 25 x 1
				mm		(1) 356 x 635 x 25	(1) 457 x 635 x 25
†Return Air Cabinet Model no. ship wt. – lbs. (kg)		RA10-16-49 54 (24)					

★Annual Fuel Utilization Efficiency based on U.S. D.O.E. test procedures and according to F.T.C. labeling requirements. Isolated combustion system rating for non-weatherized furnaces.

◆“X” models not available with LPG/Propane.

‡Cleanable polyurethane frame type filter.

†Not available in Canada.

## SPECIFICATIONS

Model No.		G20Q3/4E-100(H) G20Q3/4X-100	†G20Q5/6E-100 G20Q5/6X-100	G20Q3/4E-125(H) G20Q3/4X-125	†G20Q5/6E-125 G20Q5/6X-125	G20Q5/6E-150(H)	
Input – Btuh (kW)		100,000 (29.3)		125,000 (36.6)		150,000 (44.0)	
Output – Btuh (kW)		79,000 (23.1)		99,000 (29.0)		120,000 (35.2)	
★A.F.U.E.		78.0%98,000 (28.7)					
California Seasonal Efficiency		73.7%	72.5%	74.6%	73.7%	74.0%	
Flue size connection – in. (mm) diameter (oval)		5 (127)		6 (152)			
Temperature rise range – °F (°C)		35-65 (19–36)	25-55 (14–31)	45-75 (25–42)	35-65 (19–36)	40-70 (22–39)	
High static certified by A.G.A./C.G.A. – in wg. (Pa)		0.50 (125)	0.75 (185)	0.50 (125)			
Gas Piping Size I.P.S. – in. (mm)		1/2 (12.7)					
Blower wheel nom. diameter x width – in. (mm)		10 x 8 (254 x 203)	12 x 12 (305 x 305)	10 x 8 (254 x 203)	12 x 12 (305 x 305)		
Blower motor hp (W)		1/2 (373)	3/4 (560)	1/2 (373)	3/4 (560)		
‡Number and size of filters		in.		(1) 20 x 25 x 1			
		mm		(1)406 x 635 x 25 (1)508 x 635 x 25			
Nominal cooling that can be added		Tons	3, 3-1/2 or 4	5 or 6	3, 3-1/2 or 4	5 or 6	
		kW	10.6, 12.3 or 14.1	17.6 or 21.1	10.6, 12.3 or 14.1	17.6 or 21.1	17.6 or 21.1
Shipping weight (lbs.) 1 package		206 (93)	247 (112)	247 (112)	252 (114)	294 (133)	
Electrical characteristics		120 volts – 60 hertz – 1 phase (less than 12 amps) All models					
◆ Optional Accessories (Must Be Ordered Extra) ◆							
◆LPG/Propane kit		LB-62384DB (35J89) (All non “X” models)					
Continuous Low Speed Blower Kit		LB-63646A (67H91) (All models)					
Furnace Twinning Kit		Non-continuous Low Speed		64H88 (all models)			
		Continuous Low Speed		35J93 (all models)			
Bottom Return Air Filter Kit		Catalog No.		12J71	12J72	12J73	
		No. & Size of ‡Filters		in.		(1) 18 x 25 x 1	(1) 25 x 25 x 1
				mm		(1) 457 x 635 x 25	(1) 635 x 635 x 25
†Return Air Cabinet		Model No.		RA10-16-49	RA10-16-53		
		Shipping weight – lbs. (kg)		54 (24)	56 (25)		

★Annual Fuel Utilization Efficiency based on U.S. D.O.E. test procedures and according to F.T.C. labeling requirements. Isolated combustion system rating for non-weatherized furnaces.

◆“X” models not available with LPG/Propane.

‡Cleanable polyurethane frame type filter.

†Not available in Canada.

# BLOWER DATA

## G20Q2E(X)-50(ϕ H) BLOWER PERFORMANCE

External Static Pressure		Air Volume at Various Speeds							
		High		Medium-High		Medium-Low		Low	
in. w.g.	Pa	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s
0	0	1210	570	945	445	715	335	535	250
.05	13	1200	565	945	445	715	335	535	250
.10	25	1180	555	945	445	715	335	535	250
.15	37	1160	545	945	445	710	335	535	250
.20	50	1140	540	945	445	710	335	535	250
.25	62	1125	530	945	445	710	335	535	250
.30	75	1100	520	945	445	710	335	535	250
.40	100	1050	495	920	435	705	335	535	250
.50	125	1000	470	885	420	685	325	535	250
.60	150	915	430	840	395	650	305	535	250
.70	175	840	395	750	355	590	280	510	240

NOTE — All air data is measured external to unit with 1 in. (25 mm) cleanable filter in place. Also see Filter Air Resistance table.

## G20Q2E(X)-75(ϕ H) BLOWER PERFORMANCE

External Static Pressure		Air Volume at Various Speeds					
		High		Medium		Low	
in. w.g.	Pa	cfm	L/s	cfm	L/s	cfm	L/s
0	0	1185	560	920	435	755	355
.05	13	1180	555	915	430	750	355
.10	25	1175	555	915	430	750	355
.15	37	1170	550	910	430	740	350
.20	50	1165	550	900	425	735	345
.25	62	1150	545	895	420	725	340
.30	75	1145	540	885	420	715	335
.40	100	1110	525	865	410	695	330
.50	125	1070	505	835	395	655	310
.60	150	1015	480	800	380	625	295
.70	175	945	445	745	350	570	270

NOTE — All air data is measured external to unit with 1 in. (25 mm) cleanable filter in place. Also see Filter Air Resistance table.

## G20Q3E(X)-50 BLOWER PERFORMANCE

External Static Pressure		Air Volume at Various Speeds							
		High		Medium-High		Medium-Low		Low	
in. w.g.	Pa	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s
0	0	1475	695	1235	585	945	445	790	375
.05	13	1470	695	1240	585	950	450	790	375
.10	25	1465	690	1240	585	950	450	790	375
.15	37	1455	685	1235	585	955	450	790	375
.20	50	1440	680	1230	580	955	450	790	375
.25	62	1425	670	1225	580	955	450	790	375
.30	75	1405	665	1210	570	955	450	790	375
.40	100	1355	640	1180	555	940	445	780	370
.50	125	1290	610	1140	540	915	430	755	355
.60	150	1220	575	1080	510	875	415	695	330
.70	175	1145	540	1010	475	815	385	600	285

NOTE — All air data is measured external to unit with 1 in. (25 mm) cleanable filter in place. Also see Filter Air Resistance table.

## G20Q3E(X)-75 BLOWER PERFORMANCE

External Static Pressure		Air Volume at Various Speeds							
		High		Medium-High		Medium-Low		Low	
in. w.g.	Pa	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s
0	0	1480	700	1235	585	950	450	785	370
.05	13	1470	695	1230	580	945	445	775	365
.10	25	1455	685	1225	580	945	445	770	365
.15	37	1440	680	1220	575	940	445	770	365
.20	50	1420	670	1210	570	935	440	770	365
.25	62	1400	660	1200	565	930	440	770	365
.30	75	1375	650	1190	560	925	435	770	365
.40	100	1325	625	1155	545	905	425	760	360
.50	125	1255	590	1115	525	870	410	735	345
.60	150	1185	560	1055	500	830	390	690	325
.70	175	1100	520	980	460	770	365	610	290

NOTE — All air data is measured external to unit with 1 in. (25 mm) cleanable filter in place. Also see Filter Air Resistance table.

# BLOWER DATA

## G20Q4E(X)-75 BLOWER PERFORMANCE

External Static Pressure		Air Volume at Various Speeds							
		High		Medium-High		Medium-Low		Low	
in. w.g.	Pa	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s
0	0	1835	865	1650	780	1450	685	1165	550
.05	13	1805	850	1625	765	1435	675	1165	550
.10	25	1770	835	1600	755	1425	670	1165	550
.15	37	1740	820	1570	745	1410	665	1165	550
.20	50	1700	800	1545	730	1390	655	1165	550
.25	62	1675	790	1525	720	1370	645	1160	545
.30	75	1640	775	1500	710	1350	635	1150	545
.40	100	1575	745	1440	680	1315	620	1130	535
.50	125	1500	710	1380	650	1270	600	1085	510
.60	150	1420	670	1320	625	1230	580	1040	490
.70	175	1335	630	1240	585	1180	555	990	465

NOTE — All air data is measured external to unit with 1 in. (25 mm) cleanable filter in place. Also see Filter Air Resistance table.

## G20Q3/4E(X)-100(ΦH) BLOWER PERFORMANCE

External Static Pressure		Air Volume and Motor Watts at Specific Blower Taps									
		High		Medium-High		Medium		Medium-Low		Low	
in. w.g.	Pa	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s
0	0	1925	910	1650	780	1370	645	1120	530	920	435
.05	13	1885	890	1640	775	1360	640	1110	525	915	430
.10	25	1850	875	1635	770	1345	635	1100	520	910	430
.15	37	1810	855	1605	755	1335	630	1090	515	910	430
.20	50	1780	840	1590	750	1320	625	1085	510	905	425
.25	62	1735	820	1555	735	1305	615	1080	510	900	425
.30	75	1715	810	1535	725	1290	610	1070	505	895	420
.40	100	1635	770	1475	695	1250	590	1050	495	875	415
.50	125	1555	735	1405	665	1195	565	1025	485	845	400
.60	150	1465	690	1335	630	1150	545	985	465	800	380
.70	175	1375	650	1265	595	1090	515	920	435	740	350

NOTE — All air data is measured external to unit with 1 in. (25 mm) cleanable filter in place. Also see Filter Air Resistance table.

## G20Q3/4E(X)-125(ΦH) BLOWER PERFORMANCE

External Static Pressure		Air Volume and Motor Watts at Specific Blower Taps									
		High		Medium-High		Medium		Medium-Low		Low	
in. w.g.	Pa	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s
0	0	1855	875	1690	800	1450	685	1155	545	920	435
.05	13	1835	865	1670	790	1440	680	1155	545	920	435
.10	25	1800	850	1645	775	1420	670	1155	545	915	430
.15	37	1750	825	1615	760	1415	670	1150	545	915	430
.20	50	1720	810	1595	755	1400	660	1150	545	910	430
.25	62	1695	800	1575	745	1390	655	1150	545	905	425
.30	75	1670	790	1545	730	1375	650	1150	545	900	425
.40	100	1600	755	1490	705	1340	630	1140	540	885	420
.50	125	1530	720	1430	675	1295	610	1115	525	860	405
.60	150	1455	685	1365	645	1245	590	1075	505	815	385
.70	175	1370	645	1285	605	1180	555	1020	480	760	360

NOTE — All air data is measured external to unit with 1 in. (25 mm) cleanable filter in place. Also see Filter Air Resistance table.

## G20Q5/6E(X)-100 BLOWER PERFORMANCE

External Static Pressure		Air Volume and Motor Watts at Specific Blower Taps									
		High		Medium-High		Medium		Medium-Low		Low	
in. w.g.	Pa	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s
0	0	2650	1250	2365	1115	2125	1005	1900	895	1715	810
.05	13	2635	1245	2355	1110	2105	995	1885	890	1700	800
.10	25	2620	1235	2340	1105	2085	985	1870	880	1690	800
.15	37	2590	1220	2320	1095	2065	975	1855	875	1665	785
.20	50	2565	1210	2295	1085	2050	965	1840	870	1650	780
.25	62	2535	1195	2270	1070	2030	960	1825	860	1630	770
.30	75	2510	1185	2245	1060	2010	950	1810	855	1615	760
.40	100	2450	1155	2195	1035	1965	930	1770	835	1575	745
.50	125	2385	1125	2135	1010	1920	905	1730	815	1540	725
.60	150	2320	1095	2080	980	1875	885	1685	795	1495	705
.70	175	2250	1060	2020	955	1820	860	1630	770	1435	675
.80	200	2180	1030	1960	925	1760	830	1565	740	1340	630

NOTE — All air data is measured external to unit with 1 in. (25 mm) cleanable filter in place. Also see Filter Air Resistance table.

## BLOWER DATA

### G20Q5/6E(X)-125 BLOWER PERFORMANCE

External Static Pressure		Air Volume and Motor Watts at Specific Blower Taps									
		High		Medium-High		Medium		Medium-Low		Low	
in. w.g.	Pa	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s
0	0	2665	1260	2280	1075	2040	965	1825	860	1625	765
.05	13	2630	1240	2260	1065	2020	955	1795	845	1600	755
.10	25	2585	1220	2235	1055	2000	945	1775	840	1565	740
.15	37	2560	1210	2200	1040	1970	930	1740	820	1550	730
.20	50	2520	1190	2175	1025	1945	920	1710	805	1525	720
.25	62	2485	1175	2140	1010	1910	900	1675	790	1480	700
.30	75	2450	1155	2110	995	1880	885	1645	775	1450	685
.40	100	2365	1115	2035	960	1800	850	1570	740	1375	650
.50	125	2265	1070	1950	920	1720	810	1490	705	1285	605
.60	150	2160	1020	1860	880	1635	770	1405	665	1190	560
.70	175	2035	960	1770	835	1540	725	1310	620	1090	515

NOTE — All air data is measured external to unit with 1 in. (25 mm) cleanable filter in place. Also see Filter Air Resistance table.

### G20Q5/6E-150(ϕH) BLOWER PERFORMANCE

External Static Pressure		Air Volume and Motor Watts at Specific Blower Taps									
		High		Medium-High		Medium		Medium-Low		Low	
in. w.g.	Pa	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s
0	0	2720	1285	2350	1110	2080	980	1850	875	1645	775
.05	13	2690	1270	2330	1100	2060	970	1830	865	1640	775
.10	25	2660	1255	2305	1090	2040	965	1810	855	1630	770
.15	37	2625	1240	2280	1075	2020	955	1790	845	1615	760
.20	50	2595	1225	2255	1065	2000	945	1775	840	1600	755
.25	62	2565	1210	2230	1050	1980	935	1755	830	1575	745
.30	75	2530	1195	2200	1040	1960	925	1735	820	1550	730
.40	100	2465	1165	2140	1010	1910	900	1695	800	1490	705
.50	125	2390	1130	2080	980	1850	875	1630	770	1420	670
.60	150	2305	1090	2005	945	1780	825	1545	730	1350	635
.70	175	2205	1040	1920	905	1685	795	1425	670	1280	605

NOTE — All air data is measured external to unit with 1 in. (25 mm) cleanable filter in place. Also see Filter Air Resistance table.

### FILTER AIR RESISTANCE

cfm (L/s)	in. w.g. (Pa)
0 (0)	0.00 (0)
200 (95)	0.01 (0)
400 (190)	0.03 (5)
600 (285)	0.04 (10)
800 (380)	0.06 (15)
1000 (470)	0.09 (20)
1200 (565)	0.12 (30)
1400 (660)	0.15 (35)
1600 (755)	0.19 (45)
1800 (850)	0.23 (55)
2000 (945)	0.27 (65)
2200 (1040)	0.33 (80)
2400 (1130)	0.38 (95)
2600 (1225)	0.44 (110)

## HIGH ALTITUDE INFORMATION

### U.S. Installations

G20 series units are certified for U.S. installations from 0 to 4000 ft (0 to 1219 m) above sea level without modification. For installations from 4001 to 7500 ft (1220 to 2286 m) above sea level, a high altitude kit (**44H56**) must be installed. The kit contains special baffles used to replace factory installed baffles and is applicable to U.S. units only. No derate is required.

### Canadian Installations

G20 series units are certified for Canadian installations from 0 to 2000 ft (0 to 610 m) above sea level without modification. For installations from 2001 to 7500 ft (611 to 2286 m) above sea level, a dedicated G20H series unit is required. G20H series units have been factory adjusted for high altitude applications and require no field modifications.

## INSTALLATION CLEARANCES — inches (mm)

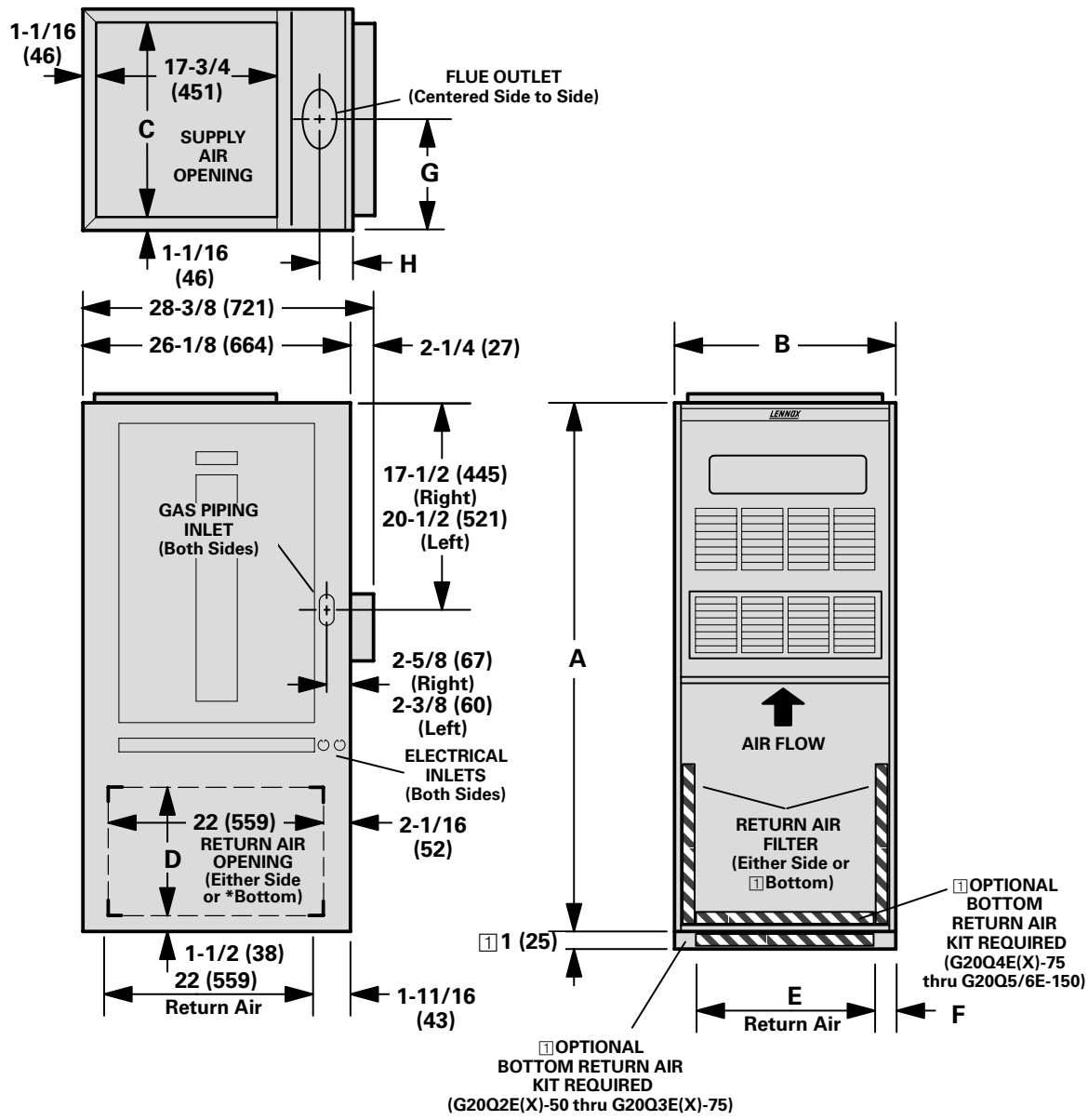
Sides	0 inches (0 mm)	
Rear	0 inches (0 mm)	
Top	1 inch (25 mm)	
□ Front	□ 6 inches (152 mm)	
Floor	Combustible	
Flue Pipe	Vertical	6 inches (152 mm)
	Horizontal	5 inches (127 mm)
	Type "B" pipe	1 inch (25 mm)
Service Clearance (Front)	36 inches (914 mm)	

NOTE—Air for supply air ventilation must conform to the methods outlined in American National Standard (ANSI-Z223.1) National Fuel Gas Code or National Standard of Canada CAN/CGA-149.1, & CAN/CGA-149.2 "Installation Code for Gas Burning Appliances".

NOTE—In the U.S. flue sizing must conform to the methods outlined in current GAMA/A.G.A. venting tables, American National Standard (ANSI-Z223.1) National Fuel Gas Code or applicable provisions of local building codes. In Canada flue sizing must conform to the methods outlined in National Standard of Canada CAN/CGA-149.1 and .2.

□ Measured from draft hood relief opening

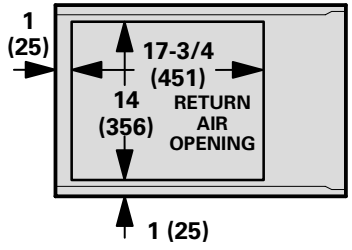
**DIMENSIONS — inches (mm)**



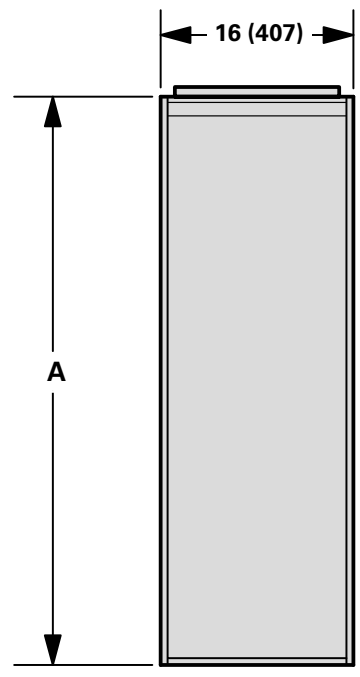
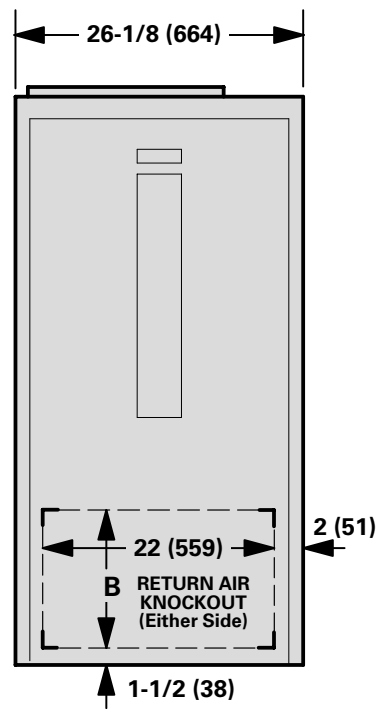
Model No.	A		B		C		D		E		F		G		H	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
G20Q2E(X)-50(H) G20Q3E(X)-50(H) G20Q2E(X)-75 G20Q3E(X)-75	49	1245	16-1/4	413	14-1/8	359	14	356	11	279	2-5/8	67	8-1/8	206	3-1/8	79
G20Q4E(X)-75 G20Q3/4E(X)-100(H)	49	1245	21-1/4	540	19-1/8	486	14	356	14	356	3-5/8	92	10-5/8	270	3-1/8	79
G20Q5/6E(X)-100 G20Q3/4E(X)-125(H) G20Q5/6E(X)-125	53	1346	26-1/4	667	24-1/8	613	18	457	21	533	2-5/8	67	13-1/8	333	3-3/8	86
G20Q5/6E-150(H)	53	1346	31-1/4	795	29-1/8	740	18	457	26	660	2-5/8	67	15-5/8	397	3-3/8	86

**RA10 SERIES RETURN AIR CABINETS**

**NOTE – Not Available in Canada.**



**NOTE – Return air cabinet shipped knocked down and must be field assembled.**



Model No.	RA10-16-49		RA10-16-53	
	in.	mm	in.	mm
A	49	1245	53	1346
B	14	356	18	457