

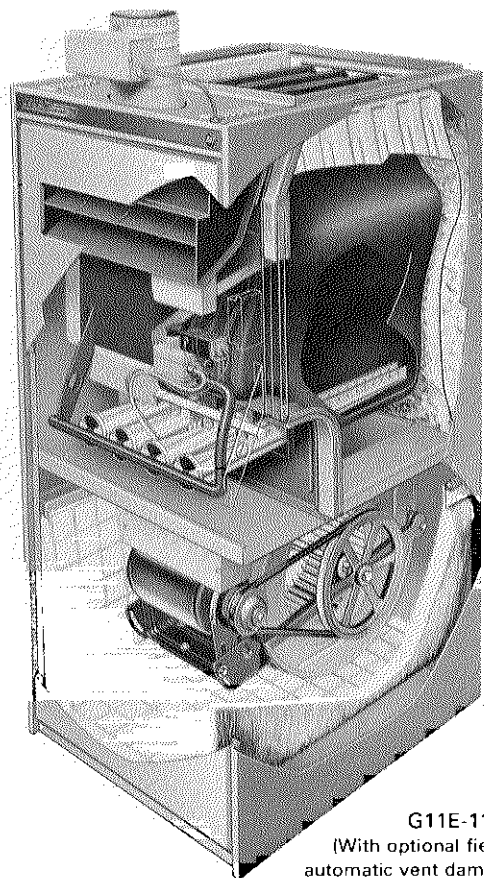
LENNOX

**CONSERVATOR™ GAS FURNACES — UP-FLO
G11E SERIES — BELT DRIVE BLOWERS
110,000 to 200,000 Btuh INPUT
Add-on Cooling — 2 Thru 5 Nominal Tons**

- DURACURVE® Heat Exchanger with LENNOX DURAGLASS II® Coating
- Sized For Air Conditioning
- Hammock Filter
- Continuous Port Steel Burners
- Complete Service Access



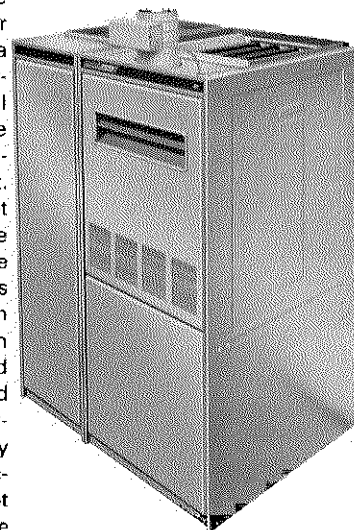
- Automatic HEATSAVER™ Vent Damper Option
- Electronic POWERLITE™ Pilot Ignition
- Crisp Cabinet Lines
- Return Air Choice



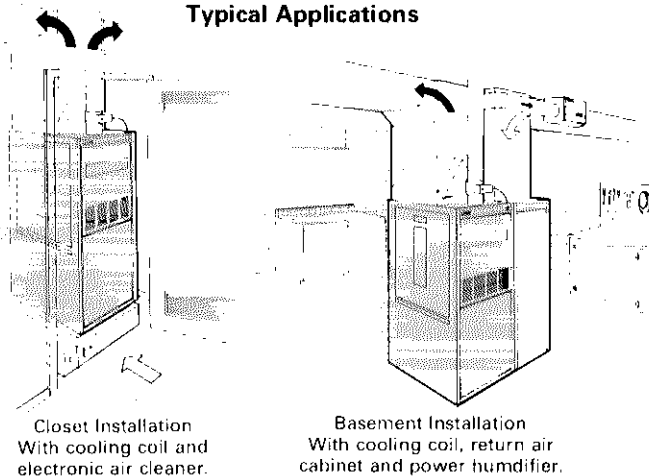
G11E-110V
(With optional field installed automatic vent damper assembly.)

**CONSERVATOR Gas Furnaces Feature Dependability,
Application Choice and Energy Savings**

The Lennox gas fired up-flo G11 series furnaces are equally applicable to residential and small business or commercial installations. The low height, quietness of operation and ultra modern cabinet design permits installation in a recreation or family room, basement utility room or closet. The low height of the furnace, due to the expert design features of the DURACURVE heat exchanger leaves plenty of room to add a cooling coil on top of the furnace cabinet. Attractive optional return air cabinets are available to simplify return air duct connection to the furnace cabinet. The matching return air cabinet may be installed on either side of the furnace. The high-style furnace and return air cabinets are trim and sheer looking with a furniture finish of baked-on enamel. Die formed panels and doors have a ruggedness and appearance unequalled. Furnaces are equipped with energy and cost saving automatic electronic pilot ignition system. Pilot gas is on only during furnace operating cycle. No need to shut off pilot during summer air conditioning season. Also available, as an option, is a heat and energy saving automatic vent damper assembly for field installation in the furnace vent pipe. Vent damper prevents the escape of heated air up the chimney after burners have shut off and also reduces chimney infiltrations to a minimum during furnace off cycle. Lennox direct expansion evaporator units and matching condensing units, electronic air cleaners and power humidifiers can be added to the furnace for a all season Total Comfort installation. Quiet operating blowers have sufficient capacity to handle air conditioning air volume requirements. The G11 series furnaces are design certified by A.G.A. Laboratories. In addition, units have been developed and thoroughly tested in the Lennox Research Laboratory. Each unit is test operated on the assembly line before shipment insuring proper operation. Blower data is from unit tests conducted in the Lennox Research Laboratory air test chamber. Units are shipped completely factory assembled (except for blower motor, motor pulley and belt) with all controls installed, piped and wired. Installer has only to mount thermostat, make duct, vent, gas supply and electrical connections to complete a low cost installation.



Typical Applications

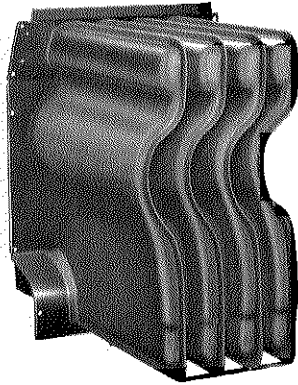


Closet Installation
With cooling coil and
electronic air cleaner.

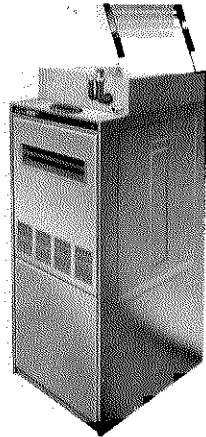
Basement Installation
With cooling coil, return air
cabinet and power humidifier.

FEATURES

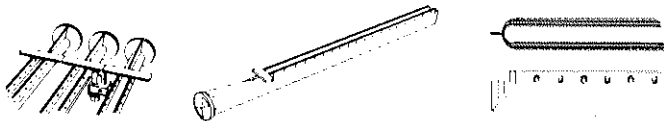
Lennox DURACURVE Heat Exchanger with DURAGLASS II Coating — Lennox developed heat exchanger eliminates fatigue failure, ticking resonance and cleanability problems. In the unique design of this heat exchanger the sides of the clam section form a flue restriction zone comprised of sections of two concentric 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 of heat exchanger will allow cleaning with a flexible cleaning tool. Compact construction permits low overall design of the furnace cabinet and smooth lines give minimum resistance to air flow. Life cycle test insures long life of heat exchanger. To insure maximum service life the heat exchanger is coated with Lennox DURAGLASS. Coating is fused to the entire heat exchanger inside and out.



Rugged Cabinet — Constructed of heavy gauge cold rolled steel. Cabinet surface temperatures are low due to interior metal liners on each side of the cabinet and foil covered fiberglass insulation on vestibule panel and on back panel. Draft diverter is DURAGLASS coated to resist corrosion and provide maximum service life. Leveling bolts and nuts are furnished and holes are provided in base to level unit. Complete service access is accomplished by removing furnace and blower compartment doors. Blower and filter assembly may be completely removed from unit for service. Gas piping and electrical inlets are provided in both sides of cabinet. Return air entry is possible on either side or bottom of cabinet. Matching add-on Lennox up-flo evaporator coils (2 thru 5 nominal tons) are available for all season applications.



Cabinet and Blower Paint Process — The cabinet and blower have a special "Electro Deposition" process paint finish. Metal preparation consists of a special 6 station wash metal process. 1 — Spray application of a strong alkaline cleaner. 2 — Spray water rinse. 3 — Spray application of a corrosion resistant, paint bonding iron phosphate compound. 4 — Spray water rinse. 5 — Spray application of a chromic acid. 6 — Spray rinse with "de-ionized" water. After the final rinse the cabinet and blower enter a drying oven and are completely dried before receiving the paint finish. They are then completely submerged in the paint vats where the electroplating paint finish is applied. The paint solution and metal are given opposite electrical charges resulting in positive adhesion and even coverage of the paint to the metal surfaces. This process completely covers the entire surfaces, inside and out, including the edges of assembly holes. Following the paint process the finished components enter a high temperature oven where the bonded finish is baked on.



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 burners, carries a positive flame from burner to burner to achieve quiet and sure ignition.

Sulky Blower — Units are equipped with belt drive sulky blowers. All moving parts are mounted on a rigid steel frame secured to blower housing on resilient rubber mounts assuring quiet operation. Motor mount design allows easy belt adjustment and pulley alignment. Blower wheels are statically and dynamically balanced. Adjustable motor pulley permits various speed adjustments. Bearings are rubber enclosed, self aligning, solid bronze grooved and graphite filled. Large grease cups are furnished for lubrication.

Wiring Junction Box — Power supply and thermostat wiring connections are made at the wiring junction box. Conveniently located in blower compartment for easy access. Provisions have been made in the box for additional wiring connections required for power humidifiers and electronic air cleaners. See wiring diagram inside blower compartment door.

Transformer — 30 VA control transformer is furnished as standard equipment and is factory installed in wiring junction box.

Fan and Limit Controls — Factory installed and accurately located fan and limit controls give protection against abnormal operating conditions and controls blower operation. Continuous blower operation may be accomplished by adjusting the fan control to the minimum temperature setting.

Blower Cooling Relay — Furnished as standard equipment and factory installed in the wiring junction box. Relay activates blower operation during cooling cycle.

Automatic Gas Controls & Electronic Pilot Ignition — Silent operation gas controls provide 100% safety shut off. 24V gas control valve combines a separate automatic safety pilot valve, pilot and bleed gas filtration, automatic electric valve and gas pressure regulation (deleted for propane usage) into a compact combination control. Solid-state electronic direct 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 and the pilot spark recurs immediately. Pilot ignition is a fully automatic operation on demand for heat.

Large Air Filter — Units are equipped with hammock wrap around type filter. Media is one inch thick oil impregnated fiberglass. Filter mounting rack design provides quick and simple replacement of media for servicing.

Thermostat (Not Furnished) — Heating thermostat is optional equipment and must be ordered extra. For all season applications heating-cooling thermostat is available with the condensing unit.

Automatic HEATSAVER Vent Damper Assembly (Optional) — Available as optional equipment and must be ordered extra. Energy saving automatic vent damper assembly field installs in the furnace vent pipe. Assembly consists of: damper actuator (24 volt), vent pipe collar with vent damper and round to oval transition fitting. The damper actuator electrically interlocks with the gas ignition system. The vent damper must be fully open before the spark ignition is energized and the gas valve opens. Timing in the actuator allows continued venting thru the vent pipe after the gas is shut off but before the damper completely closes. The damper actuator opens and closes the vent damper upon demand of the room thermostat. Damper is A.G.A. design certified in compliance with ANSI Z21.47 — 1965. See specification table for model numbers.

Fresh Air Inlet (Optional) — Fresh air inlet provides entry of outdoor air into return air system of installation. Equipped with internal mesh screen. Connects to 6 inch round pipe. Order number BM-3632.

Lennox Total Comfort System — Consists of central furnace with the air mover, central air conditioning system, air filter and humidifier. Air is circulated through these units (also the proper amount of outdoor fresh air, if desired) where it is heated or cooled, cleaned by the air filter and humidity added (in summer humidity is removed). The air mover (blower) operates constantly, gently and quietly 24 hours a day. This constant air circulation keeps even room temperature by continually mixing and recirculating the air.

SPECIFICATIONS

Model Number		G11E-110V	G11E-137V	G11E-165V	G11E-200V
Btuh input		110,000	137,000	165,000	200,000
Btuh bonnet output		88,000	109,600	132,000	160,000
Cfm for 100°F temperature rise		815	1015	1220	1480
Vent size (in.)		5 oval	6 oval	6 oval	7 oval
High static approved by A.G.A. (in. wg.)		.50	.50	.50	.50
Gas piping size (I.P.S. in.)	Natural	1/2	1/2	3/4	3/4
	*Propane	1/2	1/2	3/4	3/4
Blower wheel nominal diam. x width (in.)		10 x 8	12 x 9	12 x 12	12 x 12
Blower pulley bore x diam. (in.)		3/4 x 6 — O	1 x 7 — A	1 x 7 — A	1 x 7 — A
Blower motor & drives (shipped separately)		(Choice from drive kit selection table)			
Net filter area (sq. ft.) & cut size (in.)		6.6 — 40 x 28 x 1	9.2 — 54 x 28 x 1	9.7 — 58 x 28 x 1	9.7 — 52 x 28 x 1
Tons of cooling that can be added		2, 2-1/2 or 3	3, 3-1/2, 4 or 5	3, 3-1/2, 4 or 5	3-1/2, 4 or 5
Shipping weight (lbs.)		217	270	317	330
*Number of packages in shipment		2	2	2	2
Electrical characteristics		120 volts — 60 Hertz — 1 phase (All Models)			
Return Air Cabinet	Model No.	RA10-16-49	RA10-16-53	RA10-16-53	RA10-16-53
	Net weight (lbs.)	65	75	75	75
Vent Damper Assembly — Optional		AFD5	AFD6	AFD6	AFD7

*Package 1 consists of furnace and driven pulley. Package 2 consists of blower motor, motor pulley and belt.

†For Propane units a field changeover kit is required and must be ordered extra. Order number LB-33151CA for 110,000 Btuh input models and LB-33151CB for 137,000 thru 200,000 Btuh input models.

A.G.A. INSTALLATION CLEARANCES

Model No.	G11E-110V G11E-137V, G11E-165V	G11E-200V
Sides	1 inch	1 inch
Rear	1 inch	1 inch
Top	1 inch	1 inch
Front	6 inches	9 inches
Floor	Combustible	Combustible
*Vent	*6 inches	*6 inches

*This is clearance to all vent pipes except type "B". Type "B" vent clearance is as listed by U.L.

NOTE — Air for combustion and ventilation must conform to the methods outlined in American National Standard (ANSI-Z223.1) National Fuel Gas Code.

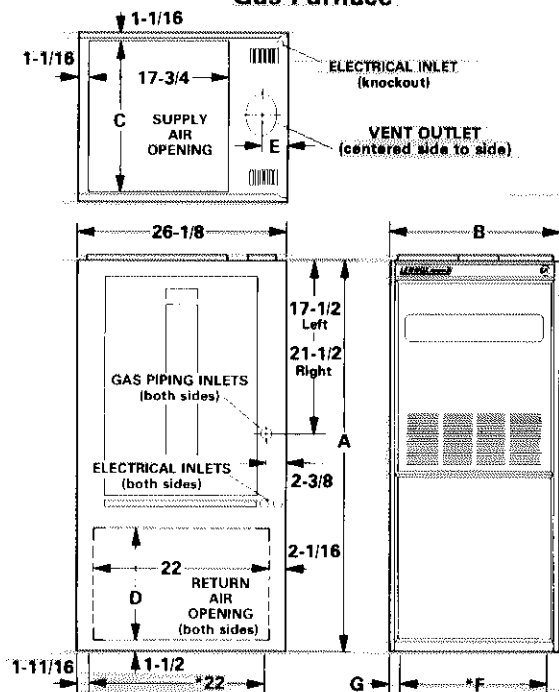
HIGH ALTITUDE DERATE

If the heating value of the gas does not exceed values listed in the table, derating of the unit is not required. Should the heating value of the gas exceed the table values, or if the elevation is greater than 6,000 feet above sea level it will be necessary to derate the unit. Lennox requires that derate conditions be 4% per thousand feet above sea level. Thus at an altitude of 4000 feet, if the heating value of the gas exceeds 1000 Btu/ft³, unit will require a 16% derate.

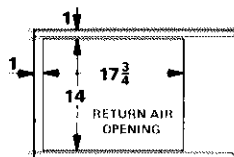
Elevation Above Sea Level (feet)	Maximum Heating Value (Btu/ft ³)
5001 — 6000	900
4001 — 5000	950
3001 — 4000	1000
2001 — 3000	1050
Sea Level — 2000	1100

DIMENSIONS (inches)

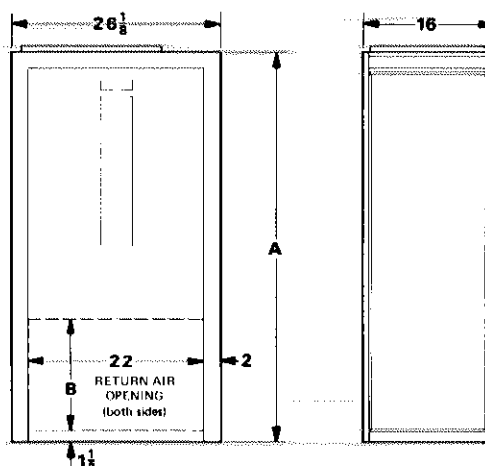
Gas Furnace



Return Air Cabinet



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



Model No.	A	B	C	D	E	F	G
G11E-110V	49	21-1/4	19-1/8	14	3-1/8	14	3-5/8
G11E-137V	53	26-1/4	24-1/8	18	3-3/8	21	2-5/8
G11E-165V, G11E-200V	53	31-1/4	29-1/8	18	3-3/8	26	2-5/8

Model No.	RA10-16-49	RA10-16-53
A	49	53
B	14	18

Heating Drive Kits

Furnace Model No.	Drive Kit Model No.	Motor hp	Motor Pulley (in.) & Groove	**Blower Pulley (in.) & Groove	*Rpm Range	Belt	Net Weight (lbs.) 1 package
G11E-110V	DK 1/4-1 (BM-5786)	1/4	1/2 x 3-3/4 — OA	3/4 x 6 — O	661-891	3L380	13
G11E-137V	DK 1/4-4 (BM-5789)	1/4	1/2 x 3-1/4 — OA	1 x 7 — A	470-715	4L410	18
G11E-165V	DK 1/4-4 (BM-5789)	1/4	1/2 x 3-1/4 — OA	1 x 7 — A	470-715	4L410	18
G11E-200V	DK 1/3-5 (BM-5790)	1/3	1/2 x 3-3/4 — OA	1 x 7 — A	590-835	4L410	11

*At 1725 rpm motor speed.

**Factory installed in furnace package and not included in drive kit.

Cooling Drive Kits

Furnace Model No.	Drive Kit Model No.	Motor hp	Motor Pulley (in.) & Groove	**Blower Pulley (in.) & Groove	*Rpm Range	Belt	Net Weight (lbs.) 1 Package
G11E-110V	2 tons	DK 1/4-1 (BM-5786)	1/4	1/2 x 3-3/4 — OA	3/4 x 6 — O	661 — 891	3L380 13
	2-1/2 tons	DK 1/4-2 (BM-5787)	1/4	1/2 x 4-1/8 — OA	3/4 x 6 — O	775 — 1000	3L380 15
	3 tons	DK 1/3-3 (BM-5788)	1/3	1/2 x 4-1/8 — OA	3/4 x 6 — O	775 — 1000	3L380 18
G11E-137V	3 tons	DK 1/3-5 (BM-5790)	1/3	1/2 x 3-3/4 — OA	1 x 7 — A	590 — 835	4L410 11
	3-1/2 & 4 tons	DK 1/2-6 (BM-5791)	1/2	5/8 x 4-1/8 — OA	1 x 7 — A	690 — 935	4L420 26
	5 tons	DK 3/4-7 (BM-5792)	3/4	5/8 x 4-1/8 — OA	1 x 7 — A	690 — 935	4L420 30
G11E-137V	3 tons	DK 1/3-5 (BM-5790)	1/3	1/2 x 3-3/4 — OA	1 x 7 — A	590 — 835	4L410 11
	3-1/2 & 4 tons	DK 1/2-6 (BM-5791)	1/2	5/8 x 4-1/8 — OA	1 x 7 — A	690 — 935	4L420 26
	5 tons	DK 3/4-7 (BM-5792)	3/4	5/8 x 4-1/8 — OA	1 x 7 — A	690 — 935	4L420 30
		DK-2007 (BM-7523)	†1	5/8 x 4-3/4 — OA	1 x 7 — A	840 — 1085	4L430 36
G11E-200V	3-1/2 & 4 tons	DK 1/2-6 (BM-5791)	1/2	5/8 x 4-1/8 — OA	1 x 7 — A	690 — 935	4L420 26
	5 tons	DK 3/4-7 (BM-5792)	3/4	5/8 x 4-1/8 — OA	1 x 7 — A	690 — 935	4L420 30
		DK-2007 (BM-7523)	†1	5/8 x 4-3/4 — OA	1 x 7 — A	840 — 1085	4L430 36

*At 1725 rpm motor speed.

**Factory installed in furnace package and not included in drive kit.

†Fan relay included in kit.

G11E-110V BLOWER PERFORMANCE

Air Volume (Cfm)	STATIC PRESSURE EXTERNAL TO UNIT (Inches Water Gauge)																							
	0		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00			
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP		
700	400	.07	515	.09	600	.11	685	.12	755	.14	830	.16	895	.19	955	.22	1015	.25	1070	.28	1125	.32		
800	460	.09	550	.12	640	.13	720	.15	785	.17	850	.19	915	.22	975	.25	1030	.28	1085	.32	1140	.36		
900	515	.11	600	.13	685	.15	755	.17	820	.19	880	.23	940	.26	1000	.30	1050	.33	1100	.36	1155	.41		
1000	575	.15	650	.17	725	.19	795	.21	860	.24	915	.27	975	.31	1025	.35	1075	.38	1125	.42	---	---		
1200	690	.22	755	.24	820	.27	880	.31	940	.35	990	.39	1040	.43	---	---	---	---	---	---	---	---		
1400	800	.31	860	.36	915	.40	970	.44	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

NOTE—All cfm is measured external to the furnace with the air filter in place.

G11E-137V BLOWER PERFORMANCE

Air Volume (Cfm)	STATIC PRESSURE EXTERNAL TO UNIT (Inches Water Gauge)																					
	0		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
900	310	.19	410	.22	490	.24	560	.26	620	.28	678	.31	730	.33	775	.36	825	.38	875	.42	925	.45
1200	425	.27	498	.32	565	.33	625	.35	680	.38	730	.42	775	.44	820	.48	865	.52	910	.55	950	.59
1400	490	.34	560	.38	620	.40	675	.44	722	.48	770	.51	815	.54	858	.58	903	.62	940	.66	980	.72
1600	560	.43	620	.46	675	.51	725	.54	770	.58	817	.63	860	.67	902	.71	940	.74	980	.81	1025	.89
1800	630	.54	680	.58	730	.62	778	.67	822	.72	865	.76	910	.80	943	.85	---	---	---	---	---	---
2000	700	.68	745	.72	790	.77	835	.82	880	.87	920	.92	---	---	---	---	---	---	---	---	---	---
2200	770	.83	815	.89	855	.94	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

NOTE—All cfm is measured external to the furnace with the air filter in place.

G11E-165V BLOWER PERFORMANCE

Air Volume (Cfm)	STATIC PRESSURE EXTERNAL TO UNIT—Inches Water Gauge																					
	0		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1100	340	.10	440	.15	520	.20	595	.24	650	.28	710	.33	765	.39	815	.44	860	.50	900	.55	945	.61
1200	375	.13	465	.17	540	.22	610	.27	670	.32	725	.38	775	.42	830	.49	875	.54	915	.60	955	.67
1400	440	.19	510	.23	585	.29	650	.34	710	.40	760	.46	810	.52	860	.59	900	.65	940	.72	980	.78
1600	500	.26	560	.31	630	.37	695	.44	750	.50	800	.56	845	.63	890	.70	935	.77	975	.85	1015	.93
1800	560	.35	620	.41	680	.47	735	.54	790	.61	835	.68	885	.77	925	.84	970	.93	1010	1.01	1050	1.09
2000	615	.45	675	.51	730	.60	785	.67	830	.75	880	.83	925	.91	970	1.01	1010	1.10	---	---	---	---
2200	685	.58	730	.65	790	.75	835	.83	885	.91	925	1.00	970	1.09	---	---	---	---	---	---	---	---
2400	755	.75	800	.84	840	.91	890	1.00	930	1.08	---	---	---	---	---	---	---	---	---	---	---	---
2600	825	.96	860	1.03	895	1.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

NOTE—All cfm is measured external to the furnace with the air filter in place.

G11E-200V BLOWER PERFORMANCE

Air Volume (Cfm)	STATIC PRESSURE EXTERNAL TO UNIT (Inches Water Gauge)																					
	0		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1400	460	.23	530	.29	600	.35	665	.41	725	.46	775	.51	830	.57	880	.66	920	.72	965	.79	1005	.86
1600	520	.31	590	.38	650	.43	715	.49	765	.56	815	.62	865	.71	910	.79	955	.86	995	.93	1035	1.0
1800	580	.40	650	.46	705	.53	760	.61	810	.69	860	.78	905	.86	950	.94	990	1.02	1030	1.09	---	---
2000	650	.51	705	.58	760	.67	815	.77	860	.86	905	.95	950	1.03	990	1.10	---	---	---	---	---	---
2200	715	.65	765	.74	820	.86	870	.96	910	1.04	950	1.12	---	---	---	---	---	---	---	---	---	---
2400	780	.85	825	.95	875	1.07	915	1.14	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2600	840	1.02	885	1.13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

NOTE—All cfm is measured external to the furnace with the air filter in place.