

The LNV/ Series gas/oil combination burner is a forced draft packaged burner system. A balanced blower wheel mounted in a fabricated housing provides combustion air for various furnace pressures or high altitude applications. LNVLG burners burn gas under a controlled gas/air pressure mix. Gas is emitted from jets surrounding the air stream, producing a turbulent mixture which burns quietly and efficiently. Oil firing features a high pressure atomizing design using simplex or return flow nozzles and a separately driven, two stage remote oil pump. A consistent fuel/air ratio is maintained regardless of the firing rate.

Flue gas recirculation (FGR) is drawn through the burner blower assembly properly sized for the required NOx emission levels. An FGR control valve is positioned by the FGR system to provide FGR at all firing rates. An FGR shutoff valve is placed in the FGR line as part of a safety system. This shutoff valve prevents combustible gases from being drawn into the boiler furnace prior to pilot and main flame ignition.

The LNV/ Series is listed by Underwriters Laboratory. CSD-1, Gap, F.M., NFPA-85 and other regulatory agency control options are available.

STANDARD EQUIPMENT

- ▶ 3450 RPM Blower Motor
- ▶ Panel Signal Lights: Power On, Main Fuel, Ignition, and Flame Failure
- ▶ Fuel Changeover Switch
- ▶ Combustion Air Proving Switch
- ▶ Ignition Transformer
- ▶ 120/1/60 Control Circuit
- ▶ Safety Shutoff Valve(s) with 2 Gas Shutoff Cocks
- ▶ Gas-Electric Interrupted Pilot



OPTIONAL FEATURES

S = STANDARD
O = OPTIONAL
N/A = NOT AVAILABLE

	LNVLG-13	LNVLG-17	LNVLG-21	LNVLG-25	LNVLG-34	LNVLG-42	LNVLG-50	LNVLG-55	LNVLG-63	LNVLG-84	LNVLG-90	LNVLG-105	LNVLG-126	LNVLG-147
Flame Safeguard with U.V. Scanner	S	S	S	S	S	S	S	S	S	S	S	S	S	S
On-Off Firing	O	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Low-High-Off Firing	O	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Low-High-Low Firing	O	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Full Modulation Firing	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Separately Driven Remote Oil Pump Set	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Butterfly Rate Control Valve	S ¹	S	S	S	S	S	S	S	S	S	S	S	S	S
High & Low Gas Pressure Interlocks	O	S	S	S	S	S	S	S	S	S	S	S	S	S
Dual Ignition	O	O	O	O	O	O	O	O	O	N/A	N/A	N/A	N/A	N/A
Simplex Oil Nozzle	S	O	O	O	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Return Flow Oil Nozzle	N/A	S	S	S	S	S	S	S	S	S	S	S	S	S

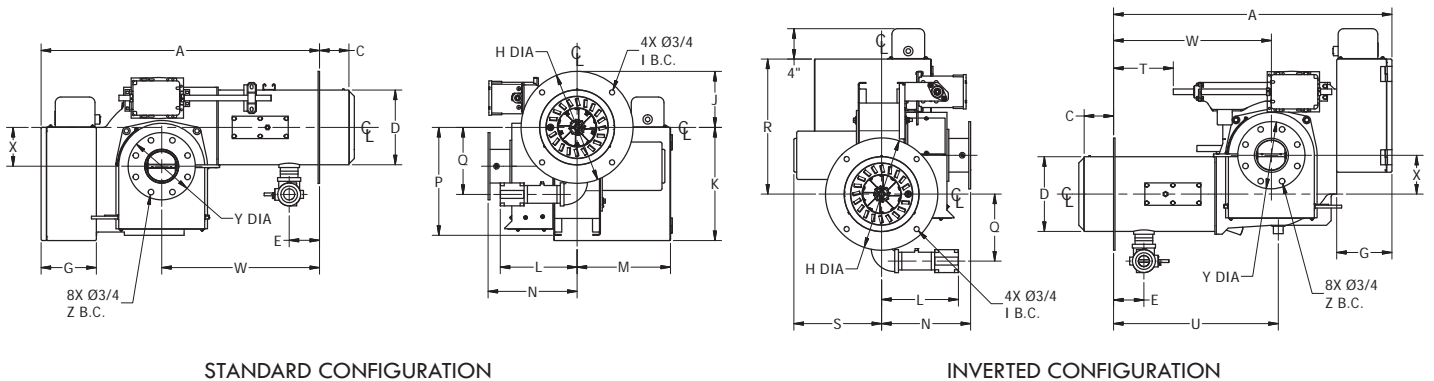
¹ Not offered if On-Off Modulation is chosen.

SPECIFICATIONS & DIMENSIONS

BURNER MODEL	FRAME SIZE	GAS INPUT (MBH)	OIL INPUT (GPH)	F.G.R. LINE PIPING SIZE (IN.)	FURN. PRESS. ("W.C.)	BHP @ 80% EFF.	BLOWER MOTOR HP	REMOTE OIL PUMP MOTOR HP	BLOWER MOTOR VOLT/PH 60 HZ.	GAS PRESSURE REQUIRED ("W.C.)
LNVLG-13	1	1,300	9.3	3	1.5	31	3/4	1/3	115/230/1	8.4
LNVLG-17	1	1,700	12.1	3	1.5	40	3/4	1/3	115/230/1	14.7
LNVLG-21	1	2,100	15.0	3	1.5	50	3/4	1/3	115/230/1	7.7
LNVLG-25	1	2,500	17.9	3	1.5	60	3/4	1/3	115/230/1	10.7
LNVLG-34	2	3,400	24.3	4	2.5	81	3	1/3	230/460/3	13.2
LNVLG-42	2	4,200	30.0	4	2.5	100	3	1/3	230/460/3	20.8
LNVLG-50	2	5,000	35.7	4	2.5	119	3	1/3	230/460/3	18.9
LNVLG-55	3	5,500	39.3	4	3.5	131	5	3/4	230/460/3	14.2
LNVLG-63	3	6,300	45.0	4	3.5	150	5	3/4	230/460/3	18.7
LNVLG-84	3	8,400	60.0	4	3.5	200	7 1/2	1	230/460/3	18.6
LNVLG-90	3	9,000	64.3	4	3.5	214	7 1/2	1	230/460/3	17.7
LNVLG-105	4	10,500	75.0	6	4.5	250	15	1 1/2	230/460/3	27.5
LNVLG-126	4	12,600	90.0	6	4.5	300	15	1 1/2	230/460/3	43.9
LNVLG-147	4	14,700	105.0	6	4.5	350	15	1 1/2	230/460/3	3 PSI

NOTES:

1. Gas input based on natural gas at 1,000 Btu/cu.ft. and 0.60 gravity.
2. Gas pressure based on zero furnace pressure. For total pressure at manifold, add furnace pressure.
3. Oil input based on No. 2 oil at 140,000 Btu/gal.
4. Boiler overall efficiency of 80% estimated.
5. Blower wheel and motor HP is based on altitude up to 2,000 ft. above sea level. For higher altitude or 50 Hz. applications, consult factory.
6. Firing at higher furnace pressures de-rates the burner by approximately 5% per 1/2" of additional pressure, consult factory.
7. High turndown on gas with combination gas/oil burners only available with Siemens SQM Mod Motor or parallel positioning.



BURNER MODEL	A	C Std.	C Max.	D	E	G	H	I	J	K	L	M	N	P	Q	R	S	T	U	W	X	Y	Z
LNVLG-13	32 3/4	4	5	8 1/4	6 1/2	7 3/8	12	11 1/4	6 1/2	14	9 3/4	13	11 3/8	11 3/4	7 1/4	18	11 1/4	7 1/8	16	18	4	9	7 1/2
LNVLG-17	32 3/4	4	5	8 1/4	6 1/2	7 3/8	12	11 1/4	6 1/2	14	9 3/4	13	11 3/8	11 3/4	7 1/4	18	11 1/4	7 1/8	16	18	4	9	7 1/2
LNVLG-21	32 3/4	4	5	8 1/4	6 1/2	7 3/8	12	11 1/4	6 1/2	14	9 3/4	13	11 3/8	11 3/4	7 1/4	18	11 1/4	7 1/8	16	18	4	9	7 1/2
LNVLG-25	32 3/4	4	5	8 1/4	6 1/2	7 3/8	12	11 1/4	6 1/2	14	9 3/4	13	11 3/8	11 3/4	7 1/4	18	11 1/4	7 1/8	16	18	4	9	7 1/2
LNVLG-34	37 1/4	4	5	10	7 1/8	7 3/8	15	13	7 1/2	15	10	12	12	14	9	18	11 3/4	8	22	21	5 1/4	9	7 1/2
LNVLG-42	37 1/4	4	5	10	7 1/8	7 3/8	15	13	7 1/2	15	10	12	12	14	9	18	11 3/4	8	22	21	5 1/4	9	7 1/2
LNVLG-50	37 1/4	4	5	10	7 1/8	7 3/8	15	13	7 1/2	15	10	12	12	14	9	18	11 3/4	8	22	21	5 1/4	9	7 1/2
LNVLG-55	44 1/4	4	5	11 1/2	8	7 3/8	16	15	8 3/8	17	12	12	14	18	10	19	15	8 3/8	26	25	7 7/8	9	7 1/2
LNVLG-63	44 1/4	4	5	11 1/2	8	7 3/8	16	15	8 3/8	17	12	12	14	18	10	19	15	8 3/8	26	25	7 7/8	9	7 1/2
LNVLG-84	44 1/4	4	5	11 1/2	8	7 3/8	16	15	8 3/8	17	12	12	14	18	10	19	15	8 3/8	26	25	7 7/8	9	7 1/2
LNVLG-90	44 1/4	4	5	11 1/2	8	7 3/8	16	15	8 3/8	17	12	12	14	18	10	19	15	8 3/8	26	25	7 7/8	9	7 1/2
LNVLG-105	50 1/4	5	6	13	8 1/4	7 3/8	17	15	8 3/4	20	12	12	17	19	12	19	21	8 1/2	31	30	7 1/8	11	9 1/2
LNVLG-126	50 1/4	5	6	13	8 1/4	7 3/8	17	15	8 3/4	20	12	12	17	19	12	19	21	8 1/2	31	30	7 1/8	11	9 1/2
LNVLG-147	50 1/4	5	6	13	8 1/4	7 3/8	17	15	8 3/4	20	12	12	17	19	12	19	21	8 1/2	31	30	7 1/8	11	9 1/2

The LNV/ Series straight gas burner is a forced draft packaged burner system. A balanced blower wheel mounted in a fabricated housing provides combustion air for various furnace pressures or high altitude applications. LNVG gas burners, burn gas under a controlled gas/air pressure mix. Gas is emitted from jets surrounding the air stream, producing a turbulent mixture which burns quietly and efficiently.

Flue gas recirculation (FGR) is drawn through the burner blower assembly properly sized for the required NOx emission levels. An FGR control valve is positioned by the FGR system to provide FGR at all firing rates. An FGR shutoff valve is placed in the FGR line as part of a safety system. This shutoff valve prevents combustible gases from being drawn into the boiler furnace prior to pilot and main flame ignition.

The LNV/ Series is listed by Underwriters Laboratory. CSD-1, Gap, F.M., NFPA-85 and other regulatory agency control options are available.

STANDARD EQUIPMENT

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- ▶ Ignition Transformer
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- ▶ Safety Shutoff Valve(s) with 2 Gas Shutoff Cocks
- ▶ Gas-Electric Interrupted Pilot



OPTIONAL FEATURES

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O = OPTIONAL
N/A = NOT AVAILABLE

	LNVG-13	LNVG-17	LNVG-21	LNVG-25	LNVG-34	LNVG-42	LNVG-50	LNVG-55	LNVG-63	LNVG-84	LNVG-90	LNVG-105	LNVG-126	LNVG-147
Flame Safeguard with U.V. Scanner	S	S	S	S	S	S	S	S	S	S	S	S	S	S
On-Off Firing	O	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Low-High-Off Firing	O	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Low-High-Low Firing	O	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Full Modulation Firing	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Butterfly Rate Control Valve	S ¹	S	S	S	S	S	S	S	S	S	S	S	S	S
High & Low Gas Pressure Interlocks	O	S	S	S	S	S	S	S	S	S	S	S	S	S

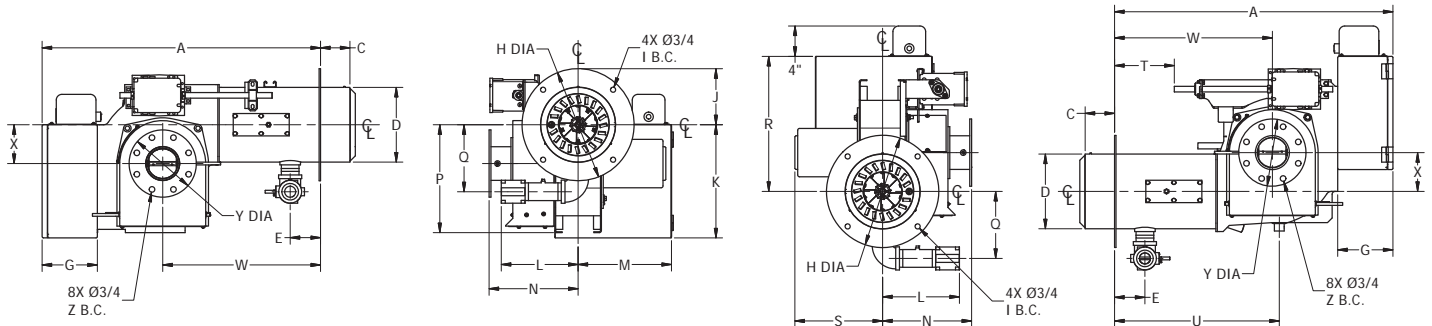
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LNVG-13	1	1,300	3	1.5	31	3/4	115/230/1	8.4
LNVG-17	1	1,700	3	1.5	40	3/4	115/230/1	14.7
LNVG-21	1	2,100	3	1.5	50	3/4	115/230/1	7.7
LNVG-25	1	2,500	3	1.5	60	3/4	115/230/1	10.7
LNVG-34	2	3,400	4	2.5	81	3	230/460/3	13.2
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LNVG-126	4	12,600	6	4.5	300	15	230/460/3	43.9
LNVG-147	4	14,700	6	4.5	350	15	230/460/3	3 PSI

NOTES:

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4. Boiler overall efficiency of 80% estimated.
5. Blower wheel and motor HP is based on altitude up to 2,000 ft. above sea level. For higher altitude or 50 Hz. applications, consult factory.
6. Firing at higher furnace pressures de-rates the burner by approximately 5% per 1/2" of additional pressure, consult factory.



STANDARD CONFIGURATION

INVERTED CONFIGURATION

BURNER MODEL	A	C Std.	C Max.	D	E	G	H	I	J	K	L	M	N	P	Q	R	S	T	U	W	X	Y	Z
LNVG-13	32 3/4	4	5	8 1/4	6 1/2	7 3/8	12	11 1/4	6 1/2	14	9 3/4	13	11 3/8	11 3/4	7 1/4	18	11 1/4	7 1/8	16	18	4	9	7 1/2
LNVG-17	32 3/4	4	5	8 1/4	6 1/2	7 3/8	12	11 1/4	6 1/2	14	9 3/4	13	11 3/8	11 3/4	7 1/4	18	11 1/4	7 1/8	16	18	4	9	7 1/2
LNVG-21	32 3/4	4	5	8 1/4	6 1/2	7 3/8	12	11 1/4	6 1/2	14	9 3/4	13	11 3/8	11 3/4	7 1/4	18	11 1/4	7 1/8	16	18	4	9	7 1/2
LNVG-25	32 3/4	4	5	8 1/4	6 1/2	7 3/8	12	11 1/4	6 1/2	14	9 3/4	13	11 3/8	11 3/4	7 1/4	18	11 1/4	7 1/8	16	18	4	9	7 1/2
LNVG-34	37 1/4	4	5	10	7 1/8	7 3/8	15	13	7 1/2	15	10	12	12	14	9	18	11 3/4	8	22	21	5 1/4	9	7 1/2
LNVG-42	37 1/4	4	5	10	7 1/8	7 3/8	15	13	7 1/2	15	10	12	12	14	9	18	11 3/4	8	22	21	5 1/4	9	7 1/2
LNVG-50	37 1/4	4	5	10	7 1/8	7 3/8	15	13	7 1/2	15	10	12	12	14	9	18	11 3/4	8	22	21	5 1/4	9	7 1/2
LNVG-55	44 1/4	4	5	11 1/2	8	7 3/8	16	15	8 3/8	17	12	12	14	18	10	19	15	8 3/8	26	25	7 7/8	9	7 1/2
LNVG-63	44 1/4	4	5	11 1/2	8	7 3/8	16	15	8 3/8	17	12	12	14	18	10	19	15	8 3/8	26	25	7 7/8	9	7 1/2
LNVG-84	44 1/4	4	5	11 1/2	8	7 3/8	16	15	8 3/8	17	12	12	14	18	10	19	15	8 3/8	26	25	7 7/8	9	7 1/2
LNVG-90	44 1/4	4	5	11 1/2	8	7 3/8	16	15	8 3/8	17	12	12	14	18	10	19	15	8 3/8	26	25	7 7/8	9	7 1/2
LNVG-105	50 1/4	5	6	13	8 1/4	7 3/8	17	15	8 3/4	20	12	12	17	19	12	19	21	8 1/2	31	30	7 1/8	11	9 1/2
LNVG-126	50 1/4	5	6	13	8 1/4	7 3/8	17	15	8 3/4	20	12	12	17	19	12	19	21	8 1/2	31	30	7 1/8	11	9 1/2
LNVG-147	50 1/4	5	6	13	8 1/4	7 3/8	17	15	8 3/4	20	12	12	17	19	12	19	21	8 1/2	31	30	7 1/8	11	9 1/2