

The V/ 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. The VLG combination gas/oil burners change from one fuel to the other by simply flipping a switch. No burner modifications or re-adjustments are required when changing from one fuel to the other.

The V/ Series is listed by Underwriters Laboratory. CSD-1, Gap, F.M., NFPA-85 and other regulatory agency control options are available. Every burner is assembled, wired and tested at the factory.

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

	VLG-13	VLG-17	VLG-21	VLG-25	VLG-34	VLG-42	VLG-55	VLG-63	VLG-84	VLG-110	VLG-126	VLG-147	VLG-168
Flame Safeguard with U.V. Scanner w/ Limited Damper Purge	S ¹	S ¹	S ¹	S ¹	S ¹	S ¹	S ¹	S ¹	N/A	N/A	N/A	N/A	N/A
Flame Safeguard with U.V. Scanner w/ Open Damper Purge	O	O	O	O	O	O	O	O	S	S	S	S	S
On-Off Firing	S	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	S	S	S	S	S	S	S	N/A	N/A	N/A	N/A	N/A
Low-High-Low Firing	O	O	O	O	O	O	O	O	N/A	N/A	N/A	N/A	N/A
Full Modulation Firing	O	O	O	O	O	O	O	O	S	S	S	S	S
Directly Driven Oil Pump Set	S	S	S	S	S	S	S	N/A	N/A	N/A	N/A	N/A	N/A
Separately Drive Remote Oil Pump Set	O	O	O	O	O	O	O	S	S	S	S	S	S
Butterfly Rate Control Valve	O ²	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
Dual Ignition	O	O	O	O	O	O	O	O	N/A	N/A	N/A	N/A	N/A
Simplex Oil Nozzle	S	S	S	S	S	S	S	S	N/A	N/A	N/A	N/A	N/A
Return Flow Oil Nozzle	N/A	N/A	N/A	N/A	N/A	O ³	O ³	O ³	S	S	S	S	S

¹ Limited Damper Purge (60% air above 2,500 MBH to 6,300 MBH). <2,500 MBH, purge is at low-fire damper setting.

² Standard if Low/High or Full Modulation is chosen.

³ Standard if Full Modulation is chosen.

SPECIFICATIONS & DIMENSIONS

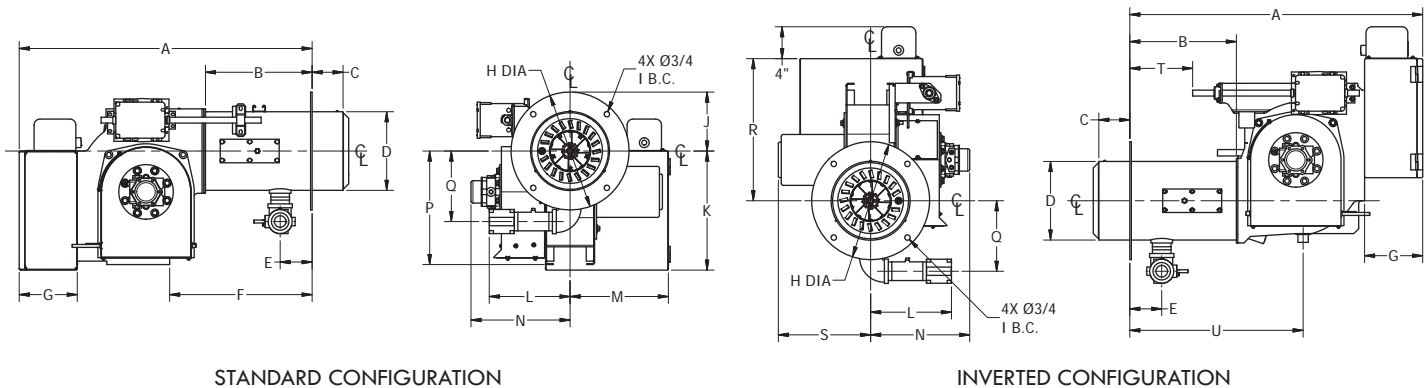
BURNER MODEL	FRAME SIZE	GAS INPUT (MBH)	OIL INPUT (GPH)	FURN. PRESS. ("W.C.)	BHP @ 80% EFF.	MOTOR HP ¹	MOTOR HP ²	REMOTE OIL PUMP MOTOR HP ³	BLOWER MOTOR VOLT/ PH 60 HZ.	GAS PRESSURE REQUIRED ("W.C.)
VLG-13	1	1,300	9.3	1.0	31	1/2	3/4	1/3	115/230/1	7.8 / *8.4
VLG-17	1	1,700	12.1	1.0	40	1/2	3/4	1/3	115/230/1	13.6 / *14.7
VLG-21	1	2,100	15.0	1.0	50	3/4	1	1/3	115/230/1	6.6 / *8.2
VLG-25	1	2,500	17.9	1.0	60	3/4	1	1/3	115/230/1	9.2 / *11.5
VLG-34	1	3,400	24.3	1.0	81	3/4	1	1/3	115/230/1	18.5
VLG-42	2	4,200	30.0	2.0	100	1 1/2	2	1/3	115/230/1	19.5
VLG-55	2	5,500	39.3	2.0	131	3	3	3/4	230/460/3	20.7
VLG-63	3	6,300	45.0	3.0	150	5	-	3/4	230/460/3	17.8
VLG-84	3	8,400	60.0	3.0	200	7 1/2	-	1	230/460/3	18.9
VLG-110	3	11,000	78.6	3.0	262	10	-	1 1/2	230/460/3	34.3
VLG-126	4	12,600	90.0	4.0	300	15	-	1 1/2	230/460/3	43.1
VLG-147	4	14,700	105.0	4.0	350	15	-	1 1/2	230/460/3	3 PSI
VLG-168	4	16,800	120.0	0.0	400	15	-	1 1/2	230/460/3	3 PSI

NOTES:

- Gas input based on natural gas at 1,000 Btu/cu.ft. and 0.60 gravity.
- Gas pressure based on zero furnace pressure. For total pressure at manifold, add furnace pressure.
- Oil input based on No. 2 oil at 140,000 Btu/gal.
- Boiler overall efficiency of 80% estimated.
- 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.
- Firing at higher furnace pressures de-rates the burner by approximately 5% per 1/2" of additional pressure, consult factory.
- High turndown on gas with combination gas/oil burners only available with Siemens SQM Mod Motor or parallel positioning.

MOTOR SELECTIONS:

- Motor ratings for gas only and remote oil pump burners.
- Motor ratings for direct drive oil pump burners.
- Remote oil pump is optional for all frame size 1-2. For frame size 3-4, a remote oil pump is standard.
- * Low-High / Full Modulation Minimum Gas Pressure



STANDARD CONFIGURATION

INVERTED CONFIGURATION

BURNER MODEL	A	B	C Std.	C Max.	D	E	F	G	H	I	J	K	L	M	N	P	Q	R	S	T	U
VLG-13	32 3/4	12 3/8	4	5	8 1/4	3 3/4	15	7 3/8	12 7/8	11 1/4	6 1/2	14 3/8	10	13	12	11 3/4	7 1/4	18 1/4	11 1/4	7 1/8	16 3/4
VLG-17	32 3/4	12 3/8	4	5	8 1/4	3 3/4	15	7 3/8	12 7/8	11 1/4	6 1/2	14 3/8	10	13	12	11 3/4	7 1/4	18 1/4	11 1/4	7 1/8	16 3/4
VLG-21	32 3/4	12 3/8	4	5	8 1/4	3 3/4	15	7 3/8	12 7/8	11 1/4	6 1/2	14 3/8	10	13	12	11 3/4	7 1/4	18 1/4	11 1/4	7 1/8	16 3/4
VLG-25	32 3/4	12 3/8	4	5	8 1/4	3 3/4	15	7 3/8	12 7/8	11 1/4	6 1/2	14 3/8	10	13	12	11 3/4	7 1/4	18 1/4	11 1/4	7 1/8	16 3/4
VLG-34	32 3/4	12 3/8	4	5	8 1/4	3 3/4	15	7 3/8	12 7/8	11 1/4	6 1/2	14 3/8	10	13	12	11 3/4	7 1/4	18 1/4	11 1/4	7 1/8	16 3/4
VLG-42	37 1/4	13 3/4	4	5	10	4	18 1/8	7 3/8	15	13 1/4	7 1/2	15 1/8	10 1/4	12 1/2	12 3/4	14 1/2	9	18 1/4	11 3/4	8	22
VLG-55	37 1/4	13 3/4	4	5	10	4	18 1/8	7 3/8	15	13 1/4	7 1/2	15 1/8	10 1/4	12 1/2	12 3/4	14 1/2	9	18 1/4	11 3/4	8	22
VLG-63	44 1/4	16	4	5	11 1/2	3 3/4	17 1/2	7 3/8	16 3/4	15 1/4	8 3/8	17 3/8	11 1/2	12 1/2	14 1/8	18 5/8	10 1/4	19 3/4	15 1/4	8 3/8	26 1/2
VLG-84	44 1/4	16	4	5	11 1/2	3 3/4	17 1/2	7 3/8	16 3/4	15 1/4	8 3/8	17 3/8	11 1/2	12 1/2	14 1/8	18 5/8	10 1/4	19 3/4	15 1/4	8 3/8	26 1/2
VLG-110	44 1/4	16	4	5	11 1/2	3 3/4	17 1/2	7 3/8	16 3/4	15 1/4	8 3/8	17 3/8	11 1/2	12 1/2	14 1/8	18 5/8	10 1/4	19 3/4	15 1/4	8 3/8	26 1/2
VLG-126	50 1/4	20	5	6	13 5/8	4	25 1/4	7 3/8	17 1/2	15 3/8	8 3/4	20 1/8	11 1/2	12 1/2	16	19 1/4	12 1/2	19 1/2	21 3/4	8 1/2	31 1/2
VLG-147	50 1/4	20	5	6	13 5/8	4	25 1/4	7 3/8	17 1/2	15 3/8	8 3/4	20 1/8	11 1/2	12 1/2	16	19 1/4	12 1/2	19 1/2	21 3/4	8 1/2	31 1/2
VLG-168	50 1/4	20	5	6	13 5/8	4	25 1/4	7 3/8	17 1/2	15 3/8	8 3/4	20 1/8	11 1/2	12 1/2	16	19 1/4	12 1/2	19 1/2	21 3/4	8 1/2	31 1/2

The V/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. The VG 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.

The V/Series is listed by Underwriters Laboratory. CSD-1, Gap, F.M., NFPA-85 and other regulatory agency control options are available. Every burner is assembled, wired and tested at the factory.

STANDARD EQUIPMENT

- ▶ 3450 RPM Blower Motor
- ▶ Panel Signal Lights: Power On, Main Fuel, Ignition, and Flame Failure
- ▶ 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

	VG-13	VG-17	VG-21	VG-25	VG-34	VG-42	VG-55	VG-63	VG-84	VG-110	VG-126	VG-147	VG-168
Flame Safeguard with U.V. Scanner w/ Limited Damper Purge	S ¹	S ¹	S ¹	S ¹	S ¹	S ¹	S ¹	S ¹	N/A	N/A	N/A	N/A	N/A
Flame Safeguard with U.V. Scanner w/ Open Damper Purge	O	O	O	O	O	O	O	O	S	S	S	S	S
On-Off Firing	S	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	S	S	S	S	S	S	S	N/A	N/A	N/A	N/A	N/A
Low-High-Low Firing	O	O	O	O	O	O	O	O	N/A	N/A	N/A	N/A	N/A
Full Modulation Firing	O	O	O	O	O	O	O	O	S	S	S	S	S
Butterfly Rate Control Valve	O ²	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

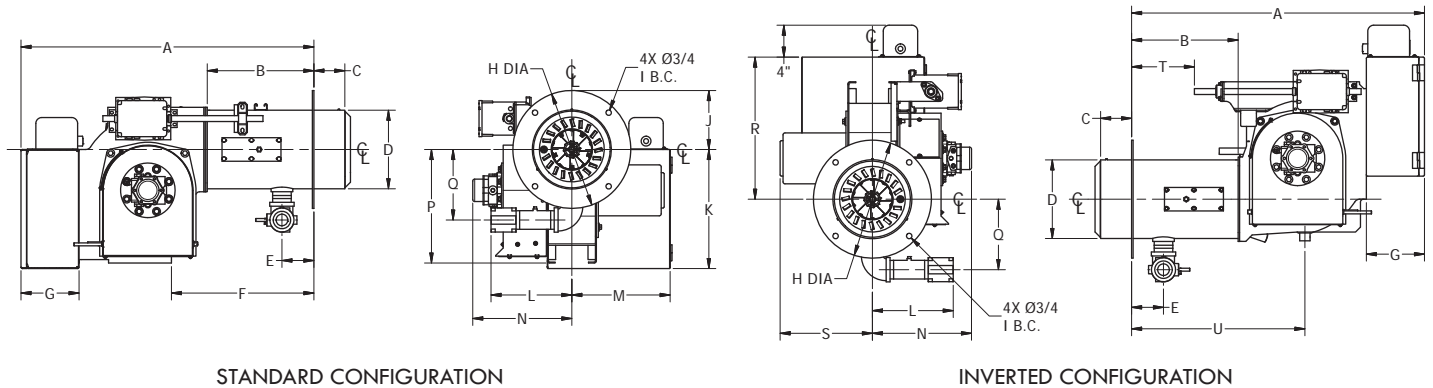
¹ Limited Damper Purge (60% air above 2,500 MBH to 6,300 MBH). <2,500 MBH, purge is at low-fire damper setting.

² Standard if Low/High or Full Modulation is chosen.

SPECIFICATIONS & DIMENSIONS

BURNER MODEL	FRAME SIZE	GAS INPUT (MBH)	FURN. PRESS. ("W.C.)	BHP @ 80% EFF.	BLOWER MOTOR HP	BLOWER MOTOR VOLT/ PH 60 HZ.	GAS PRESSURE REQUIRED ("W.C.)
VG-13	1	1,300	1.0	31	1/2	115/230/1	7.8 / *8.4
VG-17	1	1,700	1.0	40	1/2	115/230/1	13.6 / *14.7
VG-21	1	2,100	1.0	50	3/4	115/230/1	6.6 / *8.2
VG-25	1	2,500	1.0	60	3/4	115/230/1	9.2 / *11.5
VG-34	1	3,400	1.0	81	3/4	115/230/1	18.5
VG-42	2	4,200	2.0	100	1 1/2	115/230/1	19.5
VG-55	2	5,500	2.0	131	3	230/460/3	20.7
VG-63	3	6,300	3.0	150	5	230/460/3	17.8
VG-84	3	8,400	3.0	200	7 1/2	230/460/3	18.9
VG-110	3	11,000	3.0	262	10	230/460/3	34.3
VG-126	4	12,600	4.0	300	15	230/460/3	43.1
VG-147	4	14,700	4.0	350	15	230/460/3	3 PSI
VG-168	4	16,800	0.0	400	15	230/460/3	3 PSI

- NOTES:**
- Gas input based on natural gas at 1,000 Btu/cu.ft. and 0.60 gravity.
 - Gas pressure based on zero furnace pressure. For total pressure at manifold, add furnace pressure.
 - Boiler overall efficiency of 80% estimated.
 - 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.
 - Firing at higher furnace pressures de-rates the burner by approximately 5% per 1/2" of additional pressure, consult factory.
- * Low-High / Full Modulation Minimum Gas Pressure



STANDARD CONFIGURATION

INVERTED CONFIGURATION

BURNER MODEL	A	B	C Std.	C Max.	D	E	F	G	H	I	J	K	L	M	N	P	Q	R	S	T	U
VG-13	32 3/4	12 3/8	4	5	8 1/4	3 3/4	15	7 3/8	12 7/8	11 1/4	6 1/2	14 3/8	10	13	12	11 3/4	7 1/4	18 1/4	11 1/4	7 1/8	16 3/4
VG-17	32 3/4	12 3/8	4	5	8 1/4	3 3/4	15	7 3/8	12 7/8	11 1/4	6 1/2	14 3/8	10	13	12	11 3/4	7 1/4	18 1/4	11 1/4	7 1/8	16 3/4
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VG-25	32 3/4	12 3/8	4	5	8 1/4	3 3/4	15	7 3/8	12 7/8	11 1/4	6 1/2	14 3/8	10	13	12	11 3/4	7 1/4	18 1/4	11 1/4	7 1/8	16 3/4
VG-34	32 3/4	12 3/8	4	5	8 1/4	3 3/4	15	7 3/8	12 7/8	11 1/4	6 1/2	14 3/8	10	13	12	11 3/4	7 1/4	18 1/4	11 1/4	7 1/8	16 3/4
VG-42	37 1/4	13 3/4	4	5	10	4	18 1/8	7 3/8	15	13 1/4	7 1/2	15 1/8	10 1/4	12 1/2	12 3/4	14 1/2	9	18 1/4	11 3/4	8	22
VG-55	37 1/4	13 3/4	4	5	10	4	18 1/8	7 3/8	15	13 1/4	7 1/2	15 1/8	10 1/4	12 1/2	12 3/4	14 1/2	9	18 1/4	11 3/4	8	22
VG-63	44 1/4	16	4	5	11 1/2	3 3/4	17 1/2	7 3/8	16 3/4	15 1/4	8 3/8	17 3/8	11 1/2	12 1/2	14 1/8	18 5/8	10 1/4	19 3/4	15 1/4	8 3/8	26 1/2
VG-84	44 1/4	16	4	5	11 1/2	3 3/4	17 1/2	7 3/8	16 3/4	15 1/4	8 3/8	17 3/8	11 1/2	12 1/2	14 1/8	18 5/8	10 1/4	19 3/4	15 1/4	8 3/8	26 1/2
VG-110	44 1/4	16	4	5	11 1/2	3 3/4	17 1/2	7 3/8	16 3/4	15 1/4	8 3/8	17 3/8	11 1/2	12 1/2	14 1/8	18 5/8	10 1/4	19 3/4	15 1/4	8 3/8	26 1/2
VG-126	50 1/4	20	5	6	13 5/8	4	25 1/4	7 3/8	17 1/2	15 3/8	8 3/4	20 1/8	11 1/2	12 1/2	16	19 1/4	12 1/2	19 1/2	21 3/4	8 1/2	31 1/2
VG-147	50 1/4	20	5	6	13 5/8	4	25 1/4	7 3/8	17 1/2	15 3/8	8 3/4	20 1/8	11 1/2	12 1/2	16	19 1/4	12 1/2	19 1/2	21 3/4	8 1/2	31 1/2
VG-168	50 1/4	20	5	6	13 5/8	4	25 1/4	7 3/8	17 1/2	15 3/8	8 3/4	20 1/8	11 1/2	12 1/2	16	19 1/4	12 1/2	19 1/2	21 3/4	8 1/2	31 1/2

The V/Series straight oil 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. The VL oil burners incorporate a high pressure atomizing design using simplex or return flow nozzles. A directly driven fuel oil pump is burner mounted on sizes 13 through 55. A consistent fuel/air ratio is maintained regardless of firing rate.

The V/Series is listed by Underwriters Laboratory. CSD-1, Gap, F.M., NFPA-85 and other regulatory agency control options are available. Every burner is assembled, wired and tested at the factory.

STANDARD EQUIPMENT

- ▶ 3450 RPM Blower Motor
- ▶ Panel Signal Lights: Power On, Main Fuel, Ignition, and Flame Failure
- ▶ Combustion Air Proving Switch
- ▶ Ignition Transformer
- ▶ 120/1/60 Control Circuit



OPTIONAL FEATURES

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

	VL-13	VL-17	VL-21	VL-25	VL-34	VL-42	VL-55	VL-63	VL-84	VL-110	VL-126	VL-147	VL-168
Flame Safeguard with U.V. Scanner w/ Limited Damper Purge	S ¹	S ¹	S ¹	S ¹	S ¹	S ¹	S ¹	S ¹	N/A	N/A	N/A	N/A	N/A
Flame Safeguard with U.V. Scanner w/ Open Damper Purge	O	O	O	O	O	O	O	O	S	S	S	S	S
On-Off Firing	S	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	S	S	S	S	S	S	S	N/A	N/A	N/A	N/A	N/A
Low-High-Low Firing	O	O	O	O	O	O	O	O	N/A	N/A	N/A	N/A	N/A
Full Modulation Firing	O	O	O	O	O	O	O	O	S	S	S	S	S
Directly Driven Oil Pump Set	S	S	S	S	S	S	S	N/A	N/A	N/A	N/A	N/A	N/A
Separately Drive Remote Oil Pump Set	O	O	O	O	O	O	O	S	S	S	S	S	S
Gas-Electric Interrupted Pilot	O	O	O	O	O	O	O	S	S	S	S	S	S
Direct Spark Ignition	S	S	S	S	S	S	S	N/A	N/A	N/A	N/A	N/A	N/A
Simplex Oil Nozzle	S	S	S	S	S	S	S	S	N/A	N/A	N/A	N/A	N/A
Return Flow Oil Nozzle	N/A	N/A	N/A	N/A	N/A	O ²	O ²	O ²	S	S	S	S	S

¹ Limited Damper Purge (60% air above 2,500 MBH to 6,300 MBH). <2,500 MBH, purge is at low-fire damper setting.
² Standard if Full Modulation is chosen.

SPECIFICATIONS & DIMENSIONS

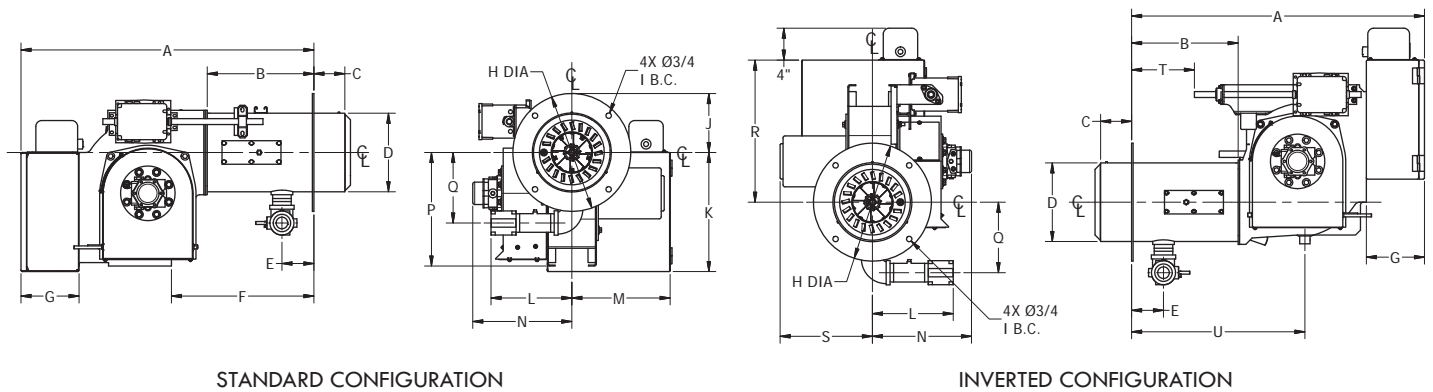
BURNER MODEL	FRAME SIZE	OIL INPUT (GPH)	FURN. PRESS. ("W.C.)	BHP @ 80% EFF.	MOTOR HP ¹	MOTOR HP ²	REMOTE OIL PUMP MOTOR HP ³	BLOWER MOTOR VOLT/ PH 60 HZ.
VL-13	1	9.3	1.0	31	1/2	3/4	1/3	115/230/1
VL-17	1	12.1	1.0	40	1/2	3/4	1/3	115/230/1
VL-21	1	15.0	1.0	50	3/4	1	1/3	115/230/1
VL-25	1	17.9	1.0	60	3/4	1	1/3	115/230/1
VL-34	1	24.3	1.0	81	3/4	1	1/3	115/230/1
VL-42	2	30.0	2.0	100	1 1/2	2	1/3	115/230/1
VL-55	2	39.3	2.0	131	3	3	3/4	230/460/3
VL-63	3	45.0	3.0	150	5	-	3/4	230/460/3
VL-84	3	60.0	3.0	200	7 1/2	-	1	230/460/3
VL-110	3	78.6	3.0	262	10	-	1 1/2	230/460/3
VL-126	4	90.0	4.0	300	15	-	1 1/2	230/460/3
VL-147	4	105.0	4.0	350	15	-	1 1/2	230/460/3
VL-168	4	120.0	0.0	400	15	-	1 1/2	230/460/3

NOTES:

- Oil input based on No. 2 oil at 140,000 Btu/gal.
- Boiler overall efficiency of 80% estimated.
- 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.
- Firing at higher furnace pressures de-rates the burner by approximately 5% per 1/2" of additional pressure, consult factory.

MOTOR SELECTIONS:

- Motor ratings for gas only and remote oil pump burners.
- Motor ratings for direct drive oil pump burners.
- Remote oil pump is optional for all frame size 1-2. For frame size 3-4, a remote oil pump is standard.



STANDARD CONFIGURATION

INVERTED CONFIGURATION

BURNER MODEL	A	B	C Std.	C Max.	D	E	F	G	H	I	J	K	L	M	N	P	Q	R	S	T	U
VL-13	32 3/4	12 3/8	4	5	8 1/4	3 3/4	15	7 3/8	12 7/8	11 1/4	6 1/2	14 3/8	10	13	12	11 3/4	7 1/4	18 1/4	11 1/4	7 1/8	16 3/4
VL-17	32 3/4	12 3/8	4	5	8 1/4	3 3/4	15	7 3/8	12 7/8	11 1/4	6 1/2	14 3/8	10	13	12	11 3/4	7 1/4	18 1/4	11 1/4	7 1/8	16 3/4
VL-21	32 3/4	12 3/8	4	5	8 1/4	3 3/4	15	7 3/8	12 7/8	11 1/4	6 1/2	14 3/8	10	13	12	11 3/4	7 1/4	18 1/4	11 1/4	7 1/8	16 3/4
VL-25	32 3/4	12 3/8	4	5	8 1/4	3 3/4	15	7 3/8	12 7/8	11 1/4	6 1/2	14 3/8	10	13	12	11 3/4	7 1/4	18 1/4	11 1/4	7 1/8	16 3/4
VL-34	32 3/4	12 3/8	4	5	8 1/4	3 3/4	15	7 3/8	12 7/8	11 1/4	6 1/2	14 3/8	10	13	12	11 3/4	7 1/4	18 1/4	11 1/4	7 1/8	16 3/4
VL-42	37 1/4	13 3/4	4	5	10	4	18 1/8	7 3/8	15	13 1/4	7 1/2	15 1/8	10 1/4	12 1/2	12 3/4	14 1/2	9	18 1/4	11 3/4	8	22
VL-55	37 1/4	13 3/4	4	5	10	4	18 1/8	7 3/8	15	13 1/4	7 1/2	15 1/8	10 1/4	12 1/2	12 3/4	14 1/2	9	18 1/4	11 3/4	8	22
VL-63	44 1/4	16	4	5	11 1/2	3 3/4	17 1/2	7 3/8	16 3/4	15 1/4	8 3/8	17 3/8	11 1/2	12 1/2	14 1/8	18 5/8	10 1/4	19 3/4	15 1/4	8 3/8	26 1/2
VL-84	44 1/4	16	4	5	11 1/2	3 3/4	17 1/2	7 3/8	16 3/4	15 1/4	8 3/8	17 3/8	11 1/2	12 1/2	14 1/8	18 5/8	10 1/4	19 3/4	15 1/4	8 3/8	26 1/2
VL-110	44 1/4	16	4	5	11 1/2	3 3/4	17 1/2	7 3/8	16 3/4	15 1/4	8 3/8	17 3/8	11 1/2	12 1/2	14 1/8	18 5/8	10 1/4	19 3/4	15 1/4	8 3/8	26 1/2
VL-126	50 1/4	20	5	6	13 5/8	4	25 1/4	7 3/8	17 1/2	15 3/8	8 3/4	20 1/8	11 1/2	12 1/2	16	19 1/4	12 1/2	19 1/2	21 3/4	8 1/2	31 1/2
VL-147	50 1/4	20	5	6	13 5/8	4	25 1/4	7 3/8	17 1/2	15 3/8	8 3/4	20 1/8	11 1/2	12 1/2	16	19 1/4	12 1/2	19 1/2	21 3/4	8 1/2	31 1/2
VL-168	50 1/4	20	5	6	13 5/8	4	25 1/4	7 3/8	17 1/2	15 3/8	8 3/4	20 1/8	11 1/2	12 1/2	16	19 1/4	12 1/2	19 1/2	21 3/4	8 1/2	31 1/2