

# FD68-LN Low NOx Burner With Induced FGR



## KEY FEATURES:

- Fuel efficient combustion with low NOx
- Energy efficient Axial-flow blower
- Swing-open housing for easy maintenance
- Multi-fuel firing capability
- Lower installation costs
- Proven reliable construction
- Quiet operation – lowest noise levels
- Optional Variable Speed Blower

## DESCRIPTION:

The Type FD68-LN burner combines high performance axial airflow design with low NOx burner technology to create a very compact, quiet, and energy efficient unit. Units are available in twelve sizes up to 900 HP firing natural gas, LP gas and #2 fuel oil. Other fuel firing capabilities are available.

All systems include an integral axial-flow blower assembly. Efficient airflow, in conjunction with the built-in silencing end cover, results in a lower blower HP requirement, and the lowest noise levels of any packaged forced-draft system.

The axial-flow design also gives the FD68-LN burner its sleek, inline appearance, and puts the “P” in performance with intimate mixing of the fuel, air and FGR. The innovative design features S.T. Johnson’s trademark swing-open housing allowing easy access to the firing head, ignition assembly, blower motor and flame detector. The pilot, firing head-diffuser assembly, and oil drawer can be easily removed individually, or as a complete unit within a few minutes.

The optional Variable Speed Blower (VSB) package provides additional energy and operating cost reductions, and reduces noise even further. With a 20 to 40% electricity cost reduction, the average VSB package pays for itself within a couple of years depending on motor size, load demand, and utility cost. This says nothing of the long-term savings generated by reduced wear and tear on the fan and motor.



300 HP firetube boiler application



150 HP natural gas & #2 oil flextube boiler application

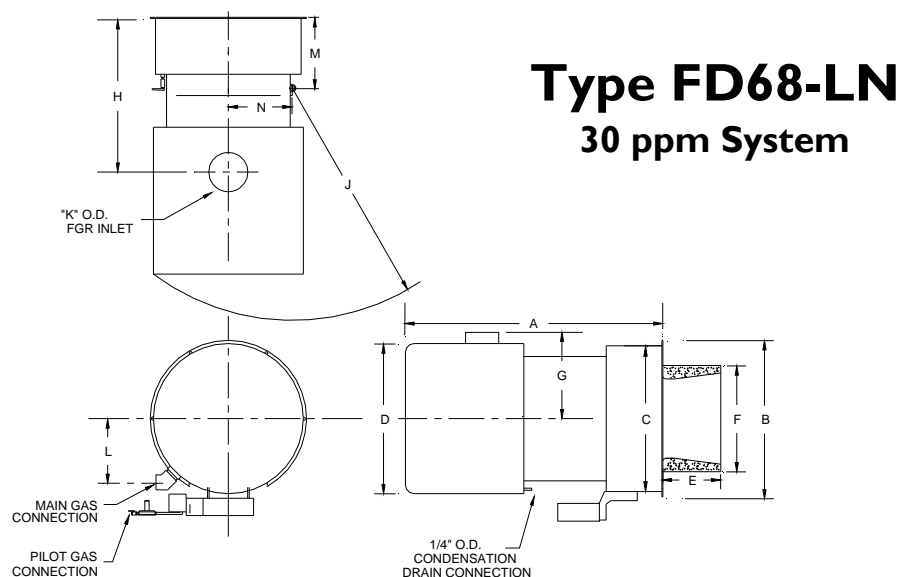
**The Johnson FD68-LN package provides Low NOx with Lower Costs!  
Gas fired systems for 30-ppm NOx emissions.**

# JOHNSON Type FD68-LN Low NOx Capacities & Specifications

Burner Size	Burner Capacities (1)		Boiler HP	Blower HP	Pump HP-RPM (2)		Air Compr. HP	Emissions (3)	
	MBH Gas	GPH #2 Oil			Press. Atom. #2	Air Atom. #2		NOx (ppmdv)	CO (ppmdv)
125	4,730	34	112	2	3/4-1725	1/3-1725	2	30	100
150	6,330	45	150	2	3/4-1725	1/3-1725	2	30	100
200	8,490	61	202	5	3/4-1725	1/3-1725	2	30	100
250	9,460	68	225	7.5	1-1725	1/3-1725	2	30	100
300	12,670	91	301	7.5	1 1/2-3450	1/2-1725	2	30	100
300SP	14,190	101	337	10	1 1/2-3450	1/2-1725	3	30	100
400	17,100	122	406	15	n/a	3/4-1725	3	30	100
400SP	18,250	130	434	15	n/a	3/4-1725	3	30	100
500	21,290	152	506	20	n/a	3/4-1725	3	30	100
500SP	22,300	159	530	25	n/a	3/4-1725	3	30	100
625	26,600	190	632	25	n/a	3/4-1725	5	30	100
800	28,390	203	675	30	n/a	1-1725	5	30	100
1000	35,490	254	844	40	n/a	1-1725	7.5	30	100
1000SP	39,030	279	928	50	n/a	2-1725	7.5	30	100

Notes: (1) Gas input based on 1,000 BTU/CF gas & 0.64 specific gravity. Oil input based on No. 2 CSG, 140,000 BTU/Gal. Boiler capacity based on minimum 80% combustion efficiency. Capacity rated against +0.75" w.c. furnace pressure. 60 cycle current at sea level. (2) Oil burner pumps and atomizing air compressor sets are remote mounted and direct-driven. (3) Typical emissions corrected to 3% O<sub>2</sub>. Capacities and specifications shown for 30 ppm NOx. Lower emissions may require a larger burner size and motor HP requirements. Control system selection, and boiler design and condition greatly affect emissions performance. Always consult with factory for emissions guarantee.

## Dimensions (inches)



Size	A	B	C	D	E	F	G	H	J	K	L	M	N
125-200	41.75	26.5	24	19.25	12.75	19.13	22.63	31.75	35.88	4	10.5	13.5	12.5
300-300SP	49	31.50	29	28.75	12.75	19.13	17.38	39.25	43.63	6	12.5	16.75	15
400-400SP	53.13	31.50	29	28.75	13.5	22	17.38	40.25	43.63	6	12.5	16.75	15
500-500SP	53.88	36.50	34	35	13.50	22.75	20.5	42.69	51	8	14.25	16.75	17.5
625	53.88	36.50	34	35	13.50	23.75	20.5	42.69	51	8	14.25	16.75	17.5
800	80.88	40.50	38	39	13.50	23.75	21.56	55.13	71.63	10	16.25	20.75	19.5
1000 & SP	80.88	40.50	38	39	15	28	21.56	55.13	71.63	10	16.25	20.75	19.5

Note: Specifications and dimensions are subject to change without notice. Certain dimensions and specifications may change according to the application and emission reduction goals. Always consult factory for current information.

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