

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 sizes up to 1000 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

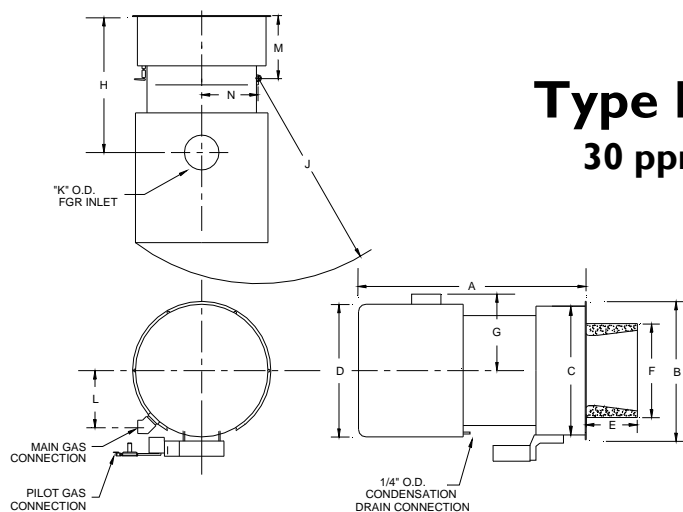
**The Johnson FD68-LN package provides Low NOx with Lower Costs!
Gas fired systems for 30-ppm NOx emissions.**

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	3/4-1725	5	30	100
1000	35,490	254	844	40	n/a	1-1150	5	30	100
1000SP	39,030	279	928	40	n/a	1-1150	7.5	30	100
1200	42,000	300	1000	60	n/a	1-1150	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% O₂. 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)



Type FD68-LN 30 ppm System

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
1200	100	40.50	38	48	16	30.25	26	64.5	93	12	20.25	20.75	21.5

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.

S.T. JOHNSON COMPANY

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