FD68 Gas and #2-6 Oil

High Performance Burner System

KEY FEATURES:

- Efficient gas and #2-6 oil combustion
- Burn multiple fuels with the flip of a switch
- High performance axial flow blower
- Swing-open housing for easy maintenance
- Proven reliability
- Quiet operation

FD68CA400LM installed on a new packaged boiler system.

DESCRIPTION:

Since its introduction as the first axial flow burner, the Johnson FD68 burner has been setting high standards in the commercial heating and industrial steam boiler markets throughout the world. Because of its unique design, the FD68 burner is widely used for new firetube, firebox, and watertube boilers, retrofits, and applications involving high furnace pressure, high altitude, and 50 cycle current.

Packaged systems are available in 14 sizes up to 1,000 HP for most boilers types and industrial process applications. Fuel capabilities include gas, No. 2 to 6 fuel oil, as well as many alternative fuels. Combination gas and oil burners change from one fuel to the other with the flip of a switch.

The axial flow blower and high performance combustion head combine to form a very compact and efficient burner with good turndown performance. The blower assembly includes either a triple-disc or vortex air shutter assembly with an integral air silencer. This results in the lowest noise levels of any packaged forced-draft system.

The hinged burner housing swings open without disconnecting any fuel piping or burner linkage. This unique feature allows easy inspection and maintenance of the firing head, diffuser, ignition assembly, flame detector and oil nozzle. Most internal burner components can be removed and serviced within minutes.

All packaged systems include a gas-electric ignition system, fuel safety valves and interlocks, control panel, and refractory burner tile. Oil systems include a remote mounted oil pump, basket strainer. Air atomizing systems include an air compressor set. Gas systems include a gas control valve and gas train components. Every burner is wired and tested prior to shipment.

FD68 burners are UL and cUL Listed, CSD-1 standard. IRI, FM, NYCBAR insurance and regulatory agency approved systems are available.

A FD68 burner retrofit gives serviceable boilers a new lease on life with better efficiency and reliability.

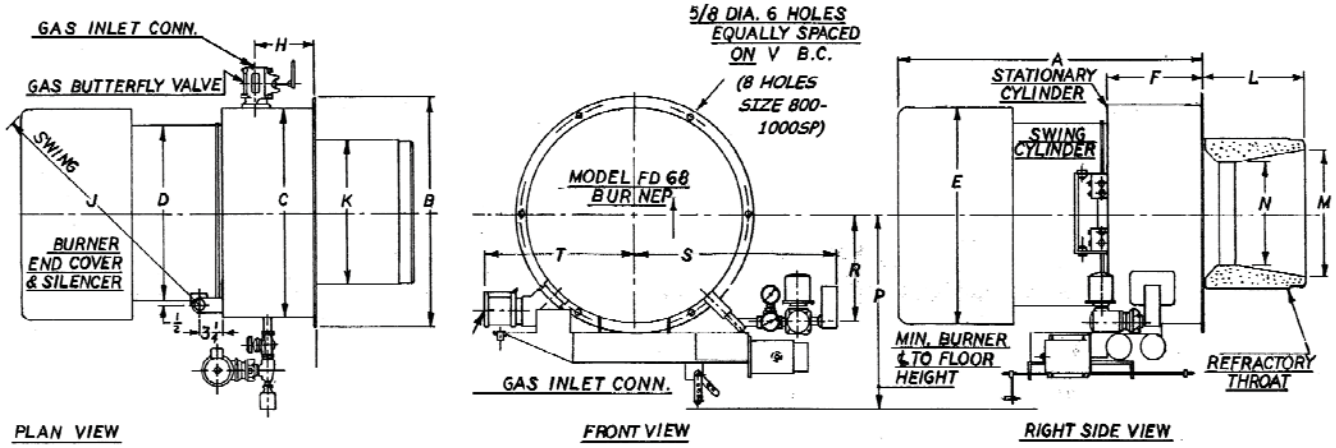
Johnson FD68: Dependably Efficient, Compact, and Quiet.

JOHNSON FD68 Capacities & Specifications

Burner Size	Burner Capacities (1)				Blower	Pump HP-RPM (2) (3)			Air Compr.	Gas Train	Oil Heater (4)	
	MBH Gas	GPH #2 Oil	GPH #6 Oil	Boiler HP	HP	Press. Atom. #2	Air Atom. # 2	Air Atom. #6	HP	Size	#4-5 oil (-MM)	#6 oil (-HM)
50	2,100	15	14	50	1/2	3/4-1725	1/3-1725	3/4-307	2	1 1/2	3	3
75	3,570	25	23	85	3/4	3/4-1725	1/3-1725	3/4-307	2	2	3	4
100	4,620	33	31	110	1 1/2	3/4-1725	1/3-1725	3/4-307	2	2	3	5
125	5,600	40	37	140	2	3/4-1725	1/3-1725	3/4-307	2	2 1/2	3	5
150	7,350	52	48	175	2	3/4-1725	1/3-1725	3/4-307	2	2 1/2	5	8
200	10,050	72	67	240	5	1-1725	1/3-1725	3/4-307	2	3	5	10
250	11,200	80	75	265	7 1/2	1-1725	1/2-1725	3/4-307	2	3	5	10
300	14,280	102	95	340	7 1/2	1 1/2-3450	1/2-1725	3/4-601	3	3	7	14
400	20,160	144	134	480	15	n/a	3/4-1725	3/4-601	3	4	10	20
500	24,150	172	160	575	20	n/a	3/4-1725	3/4-601	3	4	10	20
625	31,500	224	210	750	25	n/a	3/4-1725	1 1/2-601	5	4	10	20
800	33,600	240	224	800	25	n/a	3/4-1725	1 1/2-601	5	4	10	20
1000	42,000	300	282	1000	40	n/a	1-1725	2-800	7.5	4	10	20
1000-SP	45,150	322	301	1075	40	n/a	1-1725	2-800	7.5	4	10	20

(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) Optional Electronic Oil Metering System (EMS) uses 1/3 HP or ½ HP 90VDC motor (800 & up). Separate fuel oil supply pump is purchased separately.
(4) Electric oil trim heater capacity in combined kW. Most #6 oil units include two heaters.

Dimensions (in inches)



Burner Size	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T	U	V
50-125	31 ¾	22 ½	20	15 ¼	15 ¼	9 3/8	5 ½	5 5/8	24 ¾	16	12	13 ½	9 13/16	19	14	22 ¾	13 5/8	8 5/8	21 ¼
150-250	36 ¾	26 ½	24	19 3/8	19 ¼	10 ¼	5 ¾	6 5/8	30 ½	19 1/8	12 ¾	15 ¾	12 ¾	26	15 ½	24 3/8	17 ¾	10 ½	25 ¼
300	44 1/8	31 ½	29	24 3/8	28 ¾	13	6 ¾	8	41 ¼	20	13 ½	16 ½	13 ¾	28	17 5/8	26 7/16	19 ¾	12 ½	30 ¼
400	44 1/8	31 ½	29	24 3/8	28 ¾	13	6 ¾	8	41 ¼	22	13 ½	18 ½	15¾	28	17 5/8	26 7/16	19 ¾	12 ½	30 ¼
500	49	36 ½	34	28 7/8	35	13	6 ¼	8	48 ½	22 ¾	13 ½	19 ¼	16 ½	30	19 5/8	28 5/8	24	14 5/8	35 ¼
625	49	36 ½	34	28 7/8	35	13	6 ¼	8	48 ½	23 ¾	13 ½	20 ¼	17 ½	30	19 5/8	28 5/8	24	14 5/8	35 ¼
800	67 ½	41	38	32 7/8	39	17 ½	10 ½	10	59 7/8	23 ¾	15	20 ¼	17 ½	30	21	30 ¾	26	18	39 ½ (12)
1000-1000SP	67 ½	41	38	32 7/8	39	17 ½	10 ½	10	59 7/8	28	15	24	20 ½	30	21	30 ¾	26	18	39 ½ (12)

Note: All specifications and dimensions are subject to change without notice. Always consult factory for up to date changes and information.

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