## Power Flame Incorporated®





#### **PROCESS / HVAC BURNERS** Direct or Indirect Fired Air Heating Gas Burners

## **Type FD/FDM** GAS: 30,000 – 9,000,000 BTU

Welded Steel Construction for durability and reliable service

Fixed Air Damper simplifies operating system adjustment

The Power Flame<sup>®</sup> Type FD/FDM Burners are designed to fire process heating appliances or air handling systems that require direct or indirect heating of the air stream. The direct fired, fixed air Model FD is capable of firing either in lin or at 90° to the process air flow with turndowns of 40:1 or greater. The indirect fired, modulating air Model FDM is capable of maintaining on-rationcontrol over a 20:1 turndown.

Its reliable direct spark ignition, high combustion efficiencies and low maintenance make this burner suitable for a wide range of process and air heating applications. Prepiped and prewired gas trains are available as part of an integrated combustion package that can be configured to meet local/ national codes or customer specific requirements.



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# Power Flame

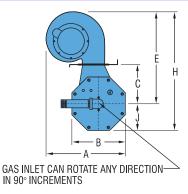
## STANDARD AND OPTIONAL EQUIPMENT

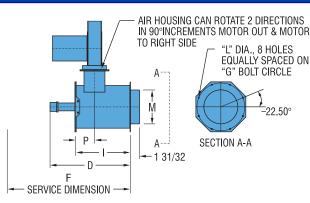
X-Standard O-Optional N/A-Not Applicable	FD	FDM
3450 RPM Fan Motor	Х	Х
Connections for Combustion Air Switch	Х	Х
Fixed Combustion Air Damper	Х	N/A
Modulating Combustion Air Damper	0	Х
Flame Rod	Х	Х
UV Scanner	0	0
Ignition Electrode	Х	Х
Modulating Butterfly Gas Valve	Х	Х
Ignition Transformer	0	Х
Modulating Motor	0	Х
Combustion Flow Air Switch	0	Х
Combustion Control System	0	Х
Prepiped and Prewired Gas Trains	0	0
Alternate Mode of Operation (On-Off, Low-High-Off, Low-High-Low)	0	0
Custom Control Panels	0	0
Wall Penetration Protection Sleeve (For High Velocity Air Streams)	0	0



Model FDM-modulating pie shaped dampers allow close control of air/fuel ratios over a 20:1 turndown for special gas fired air handling applications.

#### MODEL FD

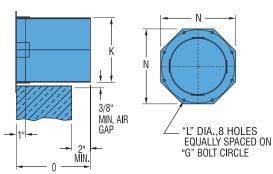




#### DIMENSIONS (Inches) Standard Models.

Note: FD Models are ETL Approved and FDM Models are UL Approved

#### OPTIONAL WALL PROTECTION SLEEVE



### **RATINGS & SPECIFICATIONS**

Burner Model	A	В	С	D	E	F	G	Н	I	J	к	L	М	N	0	Ρ	Blower Motor H.P. (3450 RPM)	Capacity (BTU/Hr) Natural Gas Max' FD Min FDM Min	Gas Pressure Required <sup>**</sup>
FD/FDM75	14¼ <sub>32</sub>	9 <sup>1</sup> / <sub>16</sub>	5 <sup>15</sup> / <sub>16</sub>	127/ <sub>8</sub>	15 <sup>23</sup> / <sub>32</sub>	25	8 <sup>7</sup> / <sub>8</sub>	20%	8	4% <sub>16</sub>	67/ <sub>8</sub>	7/_16	5 <sup>29</sup> / <sub>32</sub>	9 <sup>1</sup> / <sub>16</sub>	7 <sup>7</sup> / <sub>8</sub>	31/4	1/4	750,000 30,000 37,500	2.8" W.C.
FD/FDM150	16 <sup>3</sup> /8	11	67/ <sub>8</sub>	15 <sup>1</sup> / <sub>4</sub>	17 <sup>25</sup> / <sub>32</sub>	321/4	10 <sup>9</sup> / <sub>16</sub>	23%	9½	5½	87/16	7/_16	7¼	11	9 <sup>27</sup> / <sub>32</sub>	41/4	<sup>1</sup> / <sub>3</sub>	1,500,000 50,000 75,000	2.1" W.C.
FD/FDM225	17% <sub>16</sub>	13¾	9¼	17¼	201/ <sub>16</sub>	<b>36</b> <sup>15</sup> / <sub>16</sub>	13	26 <sup>3</sup> / <sub>4</sub>	12¼ <sub>16</sub>	6 <sup>11</sup> / <sub>16</sub>	10 <sup>5</sup> / <sub>8</sub>	7/	9 <sup>7</sup> / <sub>16</sub>	13¾	<b>11</b> <sup>13</sup> / <sub>16</sub>	4	1/2	2,250,000 75,000 112,500	2.0" W.C.
FD/FDM300	18 <sup>3</sup> / <sub>4</sub>	15½	11∛ <sub>16</sub>	187/ <sub>16</sub>	22 <sup>3</sup> / <sub>16</sub>	40 <sup>5</sup> / <sub>8</sub>	15	29 <sup>15</sup> / <sub>16</sub>	<b>13</b> <sup>15</sup> / <sub>16</sub>	7¾	12¾	1/2	11	15½	13 <sup>11/</sup> 16	7¾	3/4	3,000,000 90,000 150,000	2.4"W.C.
FD/FDM350	18 <sup>3</sup> / <sub>4</sub>	15½	11³/ <sub>16</sub>	187/ <sub>16</sub>	22 <sup>3</sup> / <sub>16</sub>	405/8	15	29 <sup>15</sup> / <sub>16</sub>	13 <sup>15</sup> / <sub>16</sub>	7¾	12³/ <sub>8</sub>	1/2	11	15½	13 <sup>11</sup> / <sub>16</sub>	7¾	11/2	3,500,000 105,000 175,000	3.7" W.C.
FD/FDM500	N/A	20 <sup>25</sup> / <sub>32</sub>	11 <sup>3</sup> / <sub>32</sub>	31 <sup>11</sup> / <sub>16</sub>	28	49 <sup>5</sup> / <sub>8</sub>	19 <sup>1</sup> / <sub>2</sub>	48 <sup>7</sup> / <sub>16</sub>	15 <sup>17</sup> / <sub>32</sub>	17 <sup>5</sup> / <sub>16</sub>	12 <sup>5</sup> / <sub>8</sub>	<sup>5</sup> /8	12 <sup>1</sup> / <sub>16</sub>	20 <sup>1</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>2</sub>	6	5	6,015,000	7.7" W.C.
FD/FDM700	N/A	20 <sup>25</sup> / <sub>32</sub>	11 <sup>3</sup> / <sub>32</sub>	31 <sup>11</sup> / <sub>16</sub>	28	49 <sup>5</sup> / <sub>8</sub>	19½	48 <sup>7</sup> / <sub>16</sub>	15 <sup>17</sup> / <sub>32</sub>	17 <sup>5</sup> / <sub>16</sub>	12 <sup>5</sup> / <sub>8</sub>	<sup>5</sup> / <sub>8</sub>	12 <sup>1</sup> / <sub>16</sub>	20 <sup>1</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>2</sub>	6	7 <sup>1</sup> / <sub>2</sub>	7,302,000	9.6" W.C.
FD/FDM900	N/A	24 <sup>25</sup> / <sub>32</sub>	13 <sup>1/</sup> 16	38 <sup>13</sup> / <sub>16</sub>	30	63 <sup>1/</sup> 8	22	51 <sup>3</sup> / <sub>4</sub>	17 <sup>15/</sup> 16	18 <sup>3</sup> /4	15 <sup>1</sup> / <sub>4</sub>	<sup>5</sup> /8	11 <sup>11/</sup> 16	23	12 <sup>1</sup> / <sub>2</sub>	5 <sup>3</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>2</sub>	9,371,000	10.9" W.C.

NOTES: \* PFI certified capacities listed are based on balanced (-0" W.C.) draft conditions. \*\* Pressure required at the gas inlet to the firing head to obtain maximum rate.



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