

LIMITING ORIFICE GAS VALVE



WESMAN

COMBUSTION EQUIPMENT

SERIES 1807

1807 LIMITING ORIFICE VALVES are used to set the air/gas ratio on a nozzle-mix burner, and provide fine tuning for air/gas ratio adjustment. The valve has a V-port plug that can be adjusted sensitively and accurately with a screwdriver. Turning the screw counter-clockwise increases flow. A cap conceals adjustment and discourages tampering with the setting. If an adjustment is needed, replace top cap on valve body to reduce air or gas leaks. The V-port adjustment is in a removable gas cartridge assembly, simplifying inspection or replacement.



1807 valves have brass internals; 1807-K valves have iron internals for coke gas and other gases corrosive to brass.

Limiting Orifice Valves are not designed for shutting off gas. Use an approved plug valve or cock.

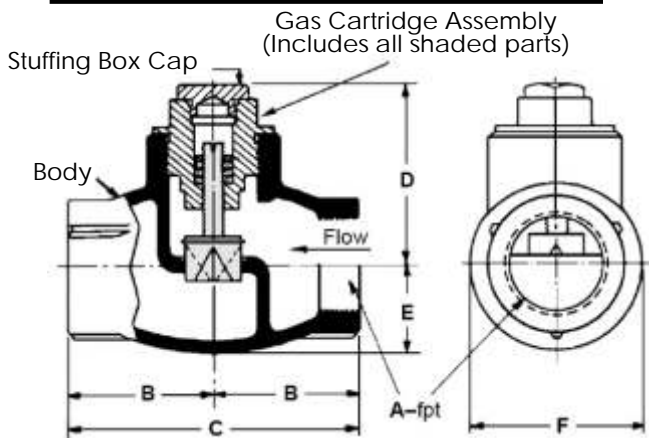
Install 1807 Valve as close as possible to burner. Normal practice is to select limiting orifice valve pipe size same as ratio regulator, or as burner gas connection if several burners are fed by one regulator. There is no performance advantage in using the smallest possible 1807 for the flow and pressure drop available.

Capacity scfh	Valve designation and pipe size							
	1807-01 1/2"	1807-0 3/4"	1807-1 1"	1807-2 1 1/4"	1807-3 1 1/2"	1807-4 2"	1807-5 2 1/2"	1807-6 3"
0.1	86	121	222	327	414	990	1494	2600
0.2	122	172	315	470	584	1400	2110	3675
0.3	149	210	386	564	715	1720	2560	4500
0.4	172	243	446	650	830	1980	2982	5250
0.5	192	272	500	730	925	2230	3340	5820
1.0	272	385	705	1030	1310	3150	4720	8220
2.0	384	542	990	1460	1850	4450	6660	11590
3.0	470	665	1210	1780	2270	5440	8200	14220
4.0	544	770	1410	2060	2620	6300	9400	16440
5.0	610	860	1580	2320	2930	7040	10560	18400
6.0	666	940	1720	2550	3210	7700	11570	20150

SPECIFIC GRAVITY	CAPACITY FACTOR
0.4	1.22
0.6	1.00
0.8	0.866
1.5	0.632
2.0	0.547

Capacities shown with 1 psi inlet pressure ■ Maximum Pressure: 25 psig

DIMENSIONS Inches



MODEL	DIMENSIONS IN INCHES						WEIGHT KG
	A	B	C	D	E	F	
1807-01	1/2	1 11/16	3 3/8	2 11/32	7/8	1 3/4	0.7
1807-0	3/4	1 11/16	3 3/8	2 11/32	1	2	0.8
1807-1	1	2 1/8	4 1/4	2 21/32	1 5/32	2 5/16	1.2
1807-2	1 1/4	2 7/16	4 7/8	2 7/8	1 7/16	2 7/8	1.9
1807-3	1 1/2	2 5/8	5 1/4	3 3/16	1 5/8	3 1/4	2.5
1807-4	2	2 15/16	5 7/8	3 11/16	1 7/8	3 3/4	3.4
1807-5	2 1/2	3 7/8	7 3/4	4 7/32	2 7/16	4 7/8	5.7
1807-6	3	4 7/8	9 3/4	5 9/16	2 15/16	5 7/8	9.0