

LIMITING ORIFICE VALVES



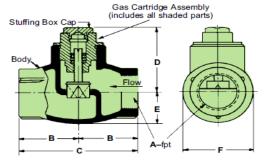
An 1807 Limiting Orifice Valve is used to set air/gas ratio on a nozzlemix burner. It has a V-port plug that can be adjusted sensitively and accurately with a screwdriver. Turning the screw counter clockwise increases flow. A cap conceals the adjustment and discourages tampering with the setting. If 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 others corrosive to brass; 1807- -TK Valves are for hot gases.

CAPACITIES: scfh Natural Gas (0.6 s.g.)

Valve designation and pipe size											
Capacity, scfh —		1807-01 1/2"	1807-0 3/4"	1807-1 1"	1807-2 11/4"	1807-3 1 ¹ / ₂ "	1807-4 2"	1807-5 2 ¹ / ₂ "	1807-6 3"	Specific Gravity	Capacity Factor
Pressure drop, osi	0.1 0.2 0.3	86 122 149	121 172 210	222 315 386	327 470 564	414 584 715	990 1400 1720	1 491 2 110 2 580	2 600 3 675 4 500	0.4 0.6 0.8 1.5 2.0	1.22 1.00 0.866 0.632 0.547
	0.4 0.5 1.0	172 192 272	243 272 385	446 500 705	650 730 1030	830 925 1310	1980 2230 3150	2 982 3 340 4 720	5 200 5 820 8 220		
	2.0 3.0 4.0	384 470 544	542 665 770	990 1210 1410	1460 1780 2060	1850 2270 2620	4450 5440 6300	6 660 8 200 9 440	11 590 14 220 16 440		
	5.0 6.0	610 666	860 940	1580 1720	2320 2550	2930 3210	7040 7700	10 560 11 570	18 400 20 150		

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

DIMENSIONS



Valve	dimensions in inches							
designation	Α	В	C	D	E	F	lb	
1807-01	1/ ₂	1 ¹¹ / ₁₆	3 ³ / ₈	2 ¹¹ / ₃₂	7/8	1 ³ / ₄	1 ¹ / ₂	
1807-0	3/ ₄	1 ¹¹ / ₁₆	3 ³ / ₈	2 ¹¹ / ₃₂	1	2	1 ³ / ₄	
1807-1	1	2 ¹ / ₈	4 ¹ / ₄	2 ²¹ / ₃₂	1 ⁵ /32	2 ⁵ / ₁₆	2 ³ / ₄	
1807-2	1 ¹ / ₄	2 ⁷ / ₁₆	4 ⁷ / ₈	2 ⁷ /8	1 ⁷ / ₁₆	2 ⁷ / ₈	4 ¹ / ₄	
1807-3	1 ¹ / ₂	2 ⁵ / ₈	5 ¹ / ₄	3 ³ / ₁₆	1 ⁵ / ₈	3 ¹ / ₄	5 ¹ / ₂	
1807-4	2	2 ¹⁵ / ₁₆	5 ⁷ / ₈	3 ¹¹ / ₁₆	1 ⁷ / ₈	3 ³ / ₄	7 ¹ / ₂	
1807-5	2 ¹ / ₂	3 ⁷ / ₈	7 ³ / ₄	4 ⁷ / ₃₂	2 ⁷ / ₁₆	4 ⁷ / ₈ 5 ⁷ / ₈	12 ¹ / ₂	
1807-6	3	4 ⁷ / ₈	9 ³ / ₄	5 ⁹ / ₁₆	2 ¹⁵ / ₁₆		20	

DIMENSIONS SHOWN ARE SUBJECT TO CHANGE. PLEASE OBTAIN CERTIFIED PRINTS FROM NORTH AMERICAN MFG. CO. IF SPACE LIMITATIONS OR OTHER CONSIDERATIONS MAKE EXACT DIMENSION(S) CRITICAL.

1807 and 1807- -K (All Iron Valve) PARTS LIST

		Valve designation							
Part Nan	1807-01	1807-0	1807-1	1807-2	1807-3	1807-4	1807-5	1807-6	
	1807-01-K	1807-0-K	1807-1-K	1807-2-K	1807-3-K	1807-4-K	1807-5-K	1807-6-K	
Body		2-3618-3	2-1676-3	2-1702-3	2-1677-3	2-1680-3	2-1682-3	2-3465-3	2-3468-3
Gas Cartridge Assem.	① (1807)	4-6063-01	4-6063-0	4-6063-1	4-6063-2	4-6063-3	4-6063-4	4-6063-5	4-6063-6
	(1807K)	4-6064-01K	4-6064-0K	4-6064-1K	4-6064-2K	4-6064-3K	4-6064-4K	4-6064-5K	4-6064-6K
Stuffing Box Cap ^②	(1807)	4-6085-1	4-6086-1	4-6086-1	4-6086-1	4-6086-1	4-6087-1	4-6087-1	4-6087-1
	(1807K)	4-6085-2	4-6086-2	4-6086-2	4-6086-2	4-6086-2	4-6087-2	4-6087-2	4-6087-2

TO ORDER COMPLETE VALVE, SPECIFY Valve designation Example: 1807-3 Valve

TO ORDER PARTS, SPECIFY: Part number, part name, and valve designation

Example: 4-6063-2 Gas Cartridge Assembly for 1807-2

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Recommended spare part.
Included in Gas Cartridge Assembly, or can be ordered separately.