



## Report of Materials and Equipment Acceptance Division

NYC Department of Buildings  
280 Broadway, New York, NY 10007  
Patricia Lancaster, FAIA, Commissioner  
(212) 566-5000, TTY: (212) 566-4769

Pursuant to Administrative Code Section 27-131, the following equipment or material has been found acceptable for use subject to the terms and conditions contained herein.

### MEA 125-08-E

**Manufacturer:** Burnham Commercial, P. O. Box 3939,  
Lancaster, PA 17604

**Trade Name(s):** Burnham Commercial

**Product:** Combination gas/oil, low-pressure, hot water  
heating boilers  
MEA Index #60-30 – Gas/Oil Fired Boilers

**Pertinent Code Section(s):** 27-800, 27-824, 27-826, RS 14-2 (ANSI Z223.1)

**Prescribed Test(s):** RS 14-16 (UL 795, UL 726, UL 296, ASME Code  
Section IV)

**Laboratory:** Underwriters Laboratories, Inc.

**Test Report(s):** MP3084, Volume 3, Section 5 dated May 13, 2008.

**Description:** Gas, oil and gas/oil-fired boiler assemblies, models **MPC4, MPC5, MPC6, MPC7, MPC8, MPC9, MPC10, MPC11, MPC12 MPC13, MPC14, MPC15, MPC16, MPC17** and **MPC18** are three-pass cast iron sectional low-pressure (250°F, 80 psig, maximum) hot water boilers, intended for commercial or industrial use. The final boiler assembly consists of a front, back and multiple center sections, varying, depending on the size of the boiler. These boilers are intended for use with a Listed, forced-draft burner which may or not be provided as part of the boiler assembly when shipped from the factory with the UL Listing mark. The oil-fired boiler assemblies and the oil-fired sections of the gas oil-fired boiler assemblies are designed for operation on fuel oils not heavier than ASTM D396 No. 2. The gas-fired assemblies and the gas-fired sections of all gas/oil- fired boiler assemblies are intended for use with natural gas. Each cast-iron boiler section is constructed, equipped, inspected, tested and marked in accordance with ASME Boiler and Pressure Vessel Code, Section IV. All boilers are stamped with the ASME symbol, "H". The boilers are equipped with a Listed burner and are provided with a proved gas pilot or direct spark for ignition of main flame and arranged for on/off, low/high/off, low/high/low, or full modulation operation firing pressure atomized oil not heavier than ASTM D396 No. 2 and natural gas.

All sizes of boilers are identical in design and location of components and vary only in physical size unless otherwise indicated herein.

A typical example of the complete boiler model designation is as follows:

$$\frac{F}{1} - \frac{MPC}{2} \frac{4}{3} - \frac{N}{4} \frac{P}{5}$$

The Model designation identifies the basic boiler design, the remainder of the suffixes denote the following:

1. F - Indicates factory assembled and fire tested.
2. MPC - Model series designation.
3. Number of cast iron sections provided:  
Between 4 to 18 for boilers suffixed -4 to -18, respectively.
4. Fuel, where:  
N - Natural Gas  
O - ASTM D396 No. 2 Oil  
C - Combination natural gas and ASTM D396 No. 2 oil
5. Burner - Denotes the manufacturer of the Listed burner intended to be provided on the boiler:  
P - Power-Flame Inc., Model C series burner  
J - Power-Flame Inc., Model J series burner  
B - R. W. Beckett Corp.

The following tables identify the boiler model designation and firing rate or range and the corresponding burners for which Listing has been established.

MPC Boilers with Power-Flame Inc. Burners						
Boiler Model	Burner Operation	Burner Model	Firing Rate Range			
			#2 Oil (GPH)		Natural Gas (MBH) x 1000	
			Min.	Max.	Min.	Max.
MPC4	ON/OFF	JR15A-10	N/A	N/A	300	500
		C1-G-10	N/A	N/A	300	500
		C1-GO-10	3.0	3.55	300	500
		C1-O	3.0	3.55	N/A	N/A
MPC5	LOW/HIGH/LOW or FULL MODULATION	JR30A-12	N/A	N/A	300	773
		C1-G-10	N/A	N/A	300	773
		C1-GO-10	3.0	5.5	300	773
		C1-O	3.0	5.5	N/A	N/A
MPC6	LOW/HIGH/LOW or FULL MODULATION	JR30A-12	N/A	N/A	300	995
		C1-G-12	N/A	N/A	300	995
		C1-GO-12	3.0	7.1	300	995
		C1-O	3.0	7.1	N/A	N/A
MPC7	LOW/HIGH/LOW or FULL MODULATION	JR30A-12	N/A	N/A	600	1,216
		C1-G-12	N/A	N/A	300	1,216
		C1-GO-12	3.0	8.7	300	1,216
		C1-O	3.0	8.7	N/A	N/A
MPC8	LOW/HIGH/LOW or FULL MODULATION	JR50A-15	N/A	N/A	650	1,438
		C2-G-15	N/A	N/A	750	1,438
		C2-GO-15	5.5	10.2	750	1,438
		C2-OA	5.5	10.2	N/A	N/A
MPC9	LOW/HIGH/LOW or FULL MODULATION	JR50A-15	N/A	N/A	650	1,660
		C2-G-15	N/A	N/A	750	1,660
		C2-GO-15	5.5	11.8	750	1,660
		C2-OA	5.5	11.8	N/A	N/A

Model MPC Boilers with Power-Flame Inc. Burners						
Boiler Model	Burner Operation	Burner Model	Firing Rate Range			
			#2 Oil (GPH)		Natural Gas (MBH) x 1000	
			Min.	Max.	Min.	Max.
MPC10	LOW/HIGH/LOW, FULL MODULATION	JR50A-15	N/A	N/A	650	1,881
		C2-G-20A	N/A	N/A	750	1,881
		C2-GO-20A	5.5	13.4	750	1,881
		C2-OA	5.5	13.4	N/A	N/A
MPC11	LOW/HIGH/LOW, FULL MODULATION	JR50A-15	N/A	N/A	650	2,103
		C2-G-20A	N/A	N/A	750	2,103
		C2-GO-20A	5.5	15.0	750	2,103
		C2-OA	5.5	15.0	N/A	N/A
MPC12	LOW/HIGH/LOW, FULL MODULATION	C2-G-20A	N/A	N/A	750	2,325
		C2-GO-20A	5.5	16.6	750	2,325
		C2-OB	5.5	16.6	N/A	N/A
MPC13	LOW/HIGH/LOW, FULL MODULATION	C2-G-20B	N/A	N/A	750	2,547
		C2-GO-20B	5.5	18.2	750	2,547
		C2-OB	5.5	18.2	N/A	N/A
MPC14	LOW/HIGH/LOW, FULL MODULATION	C2-G-20B	N/A	N/A	750	2,769
		C2-GO-20B	5.5	19.8	750	2,769
		C2-OB	5.5	19.8	N/A	N/A
MPC15	LOW/HIGH/LOW or FULL MODULATION	C3-G-20	N/A	N/A	900	2,991
		C3-GO-20	5.5	21.5	900	2,991
		C3-O	5.5	21.5	N/A	N/A
MPC16	LOW/HIGH/LOW, FULL MODULATION	C3-G-20	N/A	N/A	900	3,213
		C3-GO-20	7.4	23.0	900	3,213
		C3-O	7.4	23.0	N/A	N/A
MPC17	LOW/HIGH/LOW, FULL MODULATION	C3-G-20	N/A	N/A	900	3,435
		C3-GO-20	7.4	24.5	900	3,435
		C3-O	7.4	24.5	N/A	N/A
MPC18	LOW/HIGH/LOW, FULL MODULATION	C3-G-20	N/A	N/A	900	3,657
		C3-GO-20	7.4	26.0	900	36,57
		C3-O	7.4	26.0	N/A	N/A

Model MPC Boilers with R. W. Beckett Corp. Burners						
Boiler Model	Burner Model	Burner Operation	Firing Rate Range			
			#2 Oil (GPH)		Natural Gas (MBH) x 1000	
			Min.	Max.	Min.	Max.
MPC4	CG10.3	ON/OFF	N/A	N/A	300	500
	CF500	ON/OFF	1.75	3.55	N/A	N/A
MPC5	CG10.5	ON/OFF	N/A	N/A	300	773
	CF800	ON/OFF	3.0	5.5	N/A	N/A
MPC6	CG15.2	LOW/HIGH/LOW, FULL MODULATION	N/A	N/A	350	995
	CF1400	LOW/HIGH/LOW	4.0	7.1	N/A	N/A
MPC7	CG15.3	LOW/HIGH/LOW, FULL MODULATION	N/A	N/A	350	1216
	CF1400	LOW/HIGH/LOW	4.0	8.7	N/A	N/A
MPC8	CG25.1	LOW/HIGH/LOW, FULL MODULATION	N/A	N/A	550	1,438
	CF2300	LOW/HIGH/LOW	7.0	10.2	N/A	N/A
MPC9	CG25.2	LOW/HIGH/LOW, FULL MODULATION	N/A	N/A	550	1,660
	CF2300	LOW/HIGH/LOW	7.0	11.8	N/A	N/A
MPC10	CG25.3	LOW/HIGH/LOW, FULL MODULATION	N/A	N/A	550	1,881
	CF2300	LOW/HIGH/LOW	7.0	13.4	N/A	N/A
MPC11	CG25.4	LOW/HIGH/LOW, FULL MODULATION	N/A	N/A	550	2,103
	CF2500	LOW/HIGH/LOW	10.0	15.0	N/A	N/A
MPC12	CG50.1	LOW/HIGH/LOW, FULL MODULATION	N/A	N/A	730	2,325
	CF2500	LOW/HIGH/LOW	10.0	16.6	N/A	N/A
MPC13	CG50.2	LOW/HIGH/LOW, FULL MODULATION	N/A	N/A	730	2,547
	CF2500	LOW/HIGH/LOW	10.0	18.2	N/A	N/A
MPC14	CG50.3	LOW/HIGH/LOW, FULL MODULATION	N/A	N/A	730	2,769
	CF2500	LOW/HIGH/LOW	10.0	19.8	N/A	N/A

Model MPC Boilers with R. W. Beckett Corp. Burners						
Boiler Model	Burner Model	Burner Operation	Firing Rate Range			
			#2. Oil (GPH)		Natural Gas (MBH) X 1000	
			Min.	Max.	Min.	Max.
MPC15	CG50.3	LOW/HIGH/LOW, FULL MODULATION	N/A	N/A	730	2,991
	CF2500	LOW/HIGH/LOW	10.0	21.5	N/A	N/A
MPC16	CG50.3	LOW/HIGH/LOW, FULL MODULATION	N/A	N/A	730	3,213
	CF3500	LOW/HIGH/LOW	17.0	23.0	N/A	N/A
MPC17	CG50.4	LOW/HIGH/LOW, FULL MODULATION	N/A	N/A	730	3,435
	CF3500	LOW/HIGH/LOW	17.0	24.5	N/A	N/A
MPC18	CG50.4	LOW/HIGH/LOW, FULL MODULATION	N/A	N/A	730	3,657
	CF3500	LOW/HIGH/LOW	17.0	26.0	N/A	N/A

**Terms and Conditions:** The above-described units are accepted under the following conditions:

1. Boilers are constructed according to RS 14-4, ASME Boiler and Pressure Vessel Code, Section IV.
2. Boilers shall be installed on non-combustible flooring only. Clearances from combustible construction shall be in accordance with the standard clearances listed in reference standard RS14-15.
3. Units shall be fired with No. 2 fuel oil or natural gas only.
4. Approved chimney shall be in accordance with Subchapter 15 of the New York City Building Code.
5. This acceptance in no way includes the external piping, connection and appurtenances thereto, which are required to fully conform to applicable provisions of the law and have been used during the testing in conjunction with this application.
6. Approval of all electrical equipment, apparatus, materials and devices shall be obtained from the Department's Electrical Advisory Board.
7. Approval shall be obtained from the Department of Air Resources to show compliance with their rules and regulations for fuel oil burning equipment.
8. Units shall be used in compliance with the Energy Conservation Construction Code of New York State.
9. All shipments and deliveries of such equipment shall be provided with a metal tag, suitably placed, certifying that the equipment shipped or delivered is equivalent to that tested and accepted for use, as provided in Section 27-131 of New York City Building Code.

**NOTE:** In accordance with Section 27-131(d), all materials tested and accepted for use shall be subject to periodic retesting as determined by the Commissioner; and any material which upon retesting is found not to comply with Code requirements or the requirements set forth in the approval of the Commissioner shall cease to be acceptable for the use intended. During the period for such retesting, the Commissioner may require the use of such material to be restricted or discontinued if necessary to secure safety.

Final Acceptance July 7, 2008

Examined By Sean Derkshon