

## Start Up Procedure on MGE and HWC Series Magic-Pak Units

Completing this heating start up procedure will ensure that the tenant or home owner will receive the most efficient operation possible and identify any issues early so that they may be corrected. Please fill out the startup procedure completely to make sure of units proper operation.

- 1) **Gas Pressure**  
 Inlet pressure \_\_\_\_\_  
 Manifold pressure \_\_\_\_\_
- 2) **Temperature Rise**  
 Supply Temp \_\_\_\_\_ - Return Temp \_\_\_\_\_ = Temp Rise

3) **RATE**

**GAS METER CLOCKING CHART**

Unit	Seconds for One Revolution			
	Natural		LP	
	1 cu ft Dial	2 cu ft Dial	1 cu ft Dial	2 cu ft DIAL
-045	80	160	200	400
-070	55	110	136	272
-090	41	82	102	204
-110	33	66	82	164
-135	27	54	68	136

Natural-1000 btu/cu ft      LP-2500 btu/cu ft

$$\text{BTU/HR INPUT} = \frac{\text{Cubic Feet Per Revolution}}{\text{\# Seconds Per Revolution}} \times 3600 \times \text{Heating Value}$$

- Rate Calculation \_\_\_\_\_
- 4) **External Static Pressure**  
 Supply External Static \_\_\_\_\_  
 Return External Static + \_\_\_\_\_  
 Total External Static = \_\_\_\_\_
  - 5) **Volts** \_\_\_\_\_
  - 6) **Blower Motor Amps** \_\_\_\_\_
  - 7) **Flue Temp** \_\_\_\_\_
  - 8) **Combustion Analysis** CO \_\_\_\_\_ CO2 \_\_\_\_\_ Flue Temp \_\_\_\_\_

\*To measure combustion and flue temperature on MGE series, place the temperature probe at the end of flue vent thru louver from outside where possible. If this is not an option for your application, drill a hole in flue pipe from the inside where the probe can be placed in flue vent to obtain the measurements. When finished with your measurements cover the hole with high temperature tape .

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## Measuring Flue Temperature on HWC Series Magic-Pak Units

In applications where accessible, the flue temperature can be measured on the rear of the unit (at the louver). This is the preferred method of measuring the flue gas temperature. Where this is not an option the following procedure can be performed to get a flue gas temperature measurement.

1. Shut off all power to the unit.
2. Shut off and disconnect gas supply into valve.
3. Remove the burner tray by removing ground screw.
4. Remove the plate mounting screws (2) for the inducer.
5. Slide the inducer motor out.
6. Drill a hole on exhaust side of the inducer assembly for flue temperature measurement (sized for the temperature probe).
7. Re-install the inducer and connect gas supply.
8. Turn the power back on and put the unit back into operation.
9. When finished with the testing
  - disconnect power to the unit
  - repeat steps 2 thru 5 for removing inducer
  - cover the hole (high temp tape) created in step 6
10. Reassemble
11. Turn on power
12. Verify operation

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