



Field Assembly Instructions for Components of MIDCO Make-Up Air Burners Model - HMA-1

When assembling Make-Up air burners, a few simple but very important assembly procedures must be followed to insure proper burner performance. **READ AND UNDERSTAND THIS BULLETIN THOROUGHLY BEFORE STARTING. ONLY A TRAINED EXPERIENCED TECHNICIAN SHOULD ATTEMPT THIS PROCEDURE.**

IMPORTANT: Furnace cement must be used to join and seal all burner casting joints, metal to metal baffle sections and to affix all gaskets to the castings. Use 10-24 x 3/8" stainless steel screws, washers, nuts or steel rivets. Under no circumstances should standard grade hardware or aluminum rivets be used.

1. Prepare a mixture of furnace cement thinned to the consistency of a heavy cream.
2. Apply a thin coat of furnace cement to the casting prior to attaching the gasket..
3. Affix the gasket to the burner casting, making sure that all gasket ends are firmly butted together without overlapping and leaving no gaps. Pay special attention to the angular gasket joining on all El and Tee sections. It is critical that these gasket ends butt tightly. If a space is evident, fill it with furnace cement.
4. When joining the baffle sections to the burner casting and gasket do not snug up until the entire unit is assembled. Furnace cement need not be applied between the gaskets and the baffles.
5. Snug up all screws before final tightening to insure proper alignment and avoid contact gaps.
6. Complete snugging-up process before the furnace cement begins to harden.
7. Apply a thin coat of furnace cement to both mating surfaces of castings and baffles prior to joining with fasteners. Apply cement as you go as cement should not dry before assembling mating metal surfaces.
8. Wipe excess cement or **squeeze-out** from baffles and low fire zone of castings, making sure not to clog any gas or low fire air ports.
9. After all baffle plate screws are tightened, check for potential air leaks in the gasket surface and between baffle joints, particularly in the low fire zone. No light will show through a good joint.
- 10 . Failure to seal baffle joints will allow air leakage which will result in a **saw-tooth** flame pattern and may result in traces of CO (carbon monoxide).

