

**RBI**®  
RELIABLE. BOLD. INNOVATIVE.



**FLEXCORE**®  
SYMMETRICAL FIRETUBE

**CK SERIES**

**Annual  
Preventative  
Maintenance  
Manual**

### Typical Items to bring with you during an annual maintenance check:

- Igniter Rod (16-0304)
- Spark Generator (16-0063)
- Long Pilot Assembly (75-0010-001) - 850, 1000, 1500, 3500 (1), 4500 (1)
- Short Pilot Assembly (75-0010-002) - 2000, 2500, 3000, 3500 (1), 4000 (2), 4500 (1), 5000 (2), 6000 (2)
- Pilot Assembly Gasket (05-0504-001) - After October 2021 use Part #05-0510-001.

Note: In all cases above, if the above items are in good working condition, you may not need to change them out.

### Visual Inspection:

**Ignitor** - Verify proper orientation, gap settings, clean electrode tips and no fractures in ceramic.

- Gap 1/8"
- Insertion depth flush to 1/16"

#### **Spark & Ground Cables -**

(44-0063) Ignition Cable

- Verify good condition & check inside raja connections to verify a snap fit to the ignition transformer and spark electrode. Also verify there is no moisture or signs of corrosion.

**System Pressure** - Verify minimum 20 psi (Glycol System 30 psi)

#### **Verify Proper System - Air Elimination**

- Should be on supply piping before expansion tank.
- Auto air vent on to of device is to be free and clear (operational) - Must be high Capacity Design.
- Perform bucket test for evidence of foam. Any foam should dissipate within 30 seconds.

**Air Filter** - Clean or replace (09-0494-001) 850-3000, (09-0494-0020) 3500-6000

**Air Intake & Vent System** - Inspect for any signs of blockage, corrosion or leakage.

**UV Flame Scanner** - (16-0009) Clean and verify 5ma volt signal at ignition.

**Air Pump for UV Scanner** - (12-0027) verify it's operational, air tubes are clear of moisture and kinks....there are 2 little filters in front of pump that may need cleaning or replacement. (Part #3312-0307)

#### **Verify H-Net Firmware Rev.**

- Load latest Firmware from heatnet.net for download to flash drive.

**Flow Meter Bypass** - Perform flush by opening lower shut off valve. Completed process is explained in the IOM.

**Dungs Gas Valve Filter** - Inspect and clean as necessary, if significantly dirty, check gas drip line.

(11-0651-002) Filter Element, MBC 1000

(11-0652-002) Filter Element, MBC 2500

(11-0653-002) Filter Element, MBC 4000

**Condensate Line** - verify lines to Condensate Trap and Neutralizer are free and clear with no kinks or blockage.

**Condensate Trap** - If clogged or excessively dirty, flush and refill with 50% water/glycol mix to prevent evaporation.

**Neutralizer** - Verify condensate is flowing free and clear, may also want to check PH discharge of Neutralizer to verify the limestone medium is still effective.

**Boiler Air Vent** - Free and clear of debris and in the open position.

**System Water Quality** - If glycol in use, verify proper concentration level and anti-foam agent. Refer to Mestek Water Quality document. Perform Bucket Test - Drain for evidence of foam. Note any water program - additives.

**Burner** - Inspect flame thru site glass verifying burner surface has no visible damage

- Accessing the burner compartment is not necessary during normal maintenance unless damaged or air box pressures don't meet specification
- (850-1500, 3500 (1), 4500 (1)) Small Gasket Kit Part #05-0501-001
- (2000, 3500, 4000 (2), 4500 (1), 5000 (2), 6000 (2)) Large Gasket Kit Part #05-0501-002

**Combustion Values** - Verify at High & Low Fire while referencing the Inlet Air Temperature & Pressure Tables in the Installation and Operation Manual.

- Check cycles and hours - beyond 6-7 cycles per hour is excessive.

**Heat Exchanger** - In the rare event that the heat exchanger becomes blocked on the water or fire side, consult factory for further instruction.

**Check all Safety Limits to make sure they are fully functional.**

**Low Water Cut-Off** - If probe type, remove and clean probe once a year. Run function test to verify proper operation.

**Flow Switch** - Verify contacts remain open when water flow is not present.

**Relief Valve** - Should not weep or discharge water at normal system pressure

- Verify minimum system pressure is 20 psi and 30 psi on glycol mixtures within closed loop.

**Water Meter** - Install if you suspect system leakage

**High Limit** - Functionality test