ENGINE COOLING COLUMN OPERATION MANUAL

OPERATIONAL STEPS FOR ENGINE COOLING COLUMN

1. Secure all water hosing
   
   **WARNING**: Hot engine coolant can cause operator injury, make sure all water lines are secure and tightened.

2. Fill cooling column & engine jacket
   
   Steps:
   
   1. Manual Drain Valve Status: Close the valve
   2. Bleed Valve Status: Open the valve
   3. Manual Fill Status: Open the valve
   4. Bleed Valve Status: When water overfills and exits out the Bleed Valve, Close the Bleed Valve

3. Start the engine

4. Run the engine at idle until all air is vented through the Bleed Valve

5. When all air is bled through the system complete the following steps:
   
   1. Manual Fill Valve Status: Close the Valve
   2. Bleed Valve Status: Close the Valve

6. Engine warm-up operation
   
   1. Engine Throttle & Engine Load: Continue onward to revving up the engine throttle, apply a very light load to the engine
   2. Temperature Control Valve: If necessary, adjust water coolant temperature setting on temperature control valve
   3. Pressure Control Valve: If necessary, adjust the water coolant pressure setting on the pressure control valve

7. Run engine under load

6. End of test
   
   1. Bleed Valve Status: Open the valve
   2. Manual Drain Valve Status: Open the valve
   3. Let the coolant fluid drain from the engine and all coolant lines
   4. If necessary, engine coolant lines can now be removed from engine

NOTE: GPM REQUIREMENT PER 100 HP IS AT AROUND 3.4 TO 3.6 GPM... GPM = 4.0 X HP / DELTA T
ENGINE COOLING COLUMN OPERATION MANUAL

OPERATIONAL STEPS FOR ENGINE COOLING COLUMN

- Coolant Return from Engine
- Temperature Control Valve
- Temp Controlled Water to Engine
- Manual Fill Valve
- Pressure Control Valve
- Coolant Temperature
- Coolant Pressure
- Coolant Temperature
- Coolant Temperature
- Bleed Valve
- Hot Water Discharge