



HDF + RRF – Procedures

STEP 1 - PREPARATION

1. Verify:
 - a. Vent lines are not plugged.
 - b. Cooler tubes are not plugged.
 - c. The flush must be able to flow throughout the system.
2. Materials needed:
 - a. Enough **HDF** to fill the cooling system TWO TIMES.
 - b. **HDF** is ready to use and should *never* be diluted.
 - c. Enough **RRF** to fill the cooling system COMPLETELY.
 - d. **RRF** is ready to use and should *never* be diluted.
 - e. Enough DEIONIZED water to fill entire system THREE TIMES.
 - f. Two X 1" ball valves, one Installed on each side of block underneath rail.
 - g. Empty totes available to drain flush if needed.
 - h. Have new thermostats ready to install if needed.
 - i. Have new water pump ready to install if needed.
3. Record water pump pressure and all temps.

STEP 2 – DRAIN COOLANT & DISPOSE

1. Shutdown, LOTO, and Remove Surge/Day Tank Cap.
2. Drain and dispose of old coolant.
3. Install ball valves. (leave open)

STEP 3 – FILL WITH HDF (ROUND 1)

1. With Surge/Day Tank Cap removed, fill *SLOWLY* with **HDF** (Ready to Use) until overflow from Surge/Day Tank.
2. Record how much **HDF** is used to completely fill cooling system.
3. Replace Surge/Day Tank Cap.

STEP 4 – RUN AT FULL LOAD

1. Run Unit 168 hours (one week) to 336 hours (two weeks) at full load.
2. Record water pump pressure and all temps daily.

STEP 5 – RINSE SURGE/DAY TANK

1. Record water pump pressure and all temps.
2. Shutdown, LOTO, and Remove Surge/Day Tank Cap.
3. While still HOT and FULL, Power wash Surge Tank with **STH - Surge Tank Hose**.
4. Let particles overflow until water runs clear. (@15-20 min)

STEP 6 – DRAIN FLUSH & DISPOSE

1. With Surge/Day Tank Cap removed, drain Flush via ball valve on each side of block underneath rail. (dispose as you would old coolant)

STEP 7 – FILL WITH HDF (ROUND 2)

1. With Surge/Day Tank Cap removed, fill *SLOWLY* with **HDF** (Ready to Use) until overflow from Surge/Day Tank.
2. Record how much **HDF** is used to completely fill cooling system.
3. Replace Surge/Day Tank Cap.



STEP 8 – RUN AT FULL LOAD

1. Run Unit 168 hours (one week) at full load.
2. Record water pump pressure and all temps daily.

STEP 9 – RINSE SURGE/DAY TANK

1. Record water pump pressure and all temps.
2. Shutdown, LOTO, and Remove Surge/Day Tank Cap.
3. While still HOT and FULL, Power wash Surge Tank with [STH - Surge Tank Hose](#).
4. Let particles overflow until water runs clear. (@15-20 min)

STEP 10 – DRAIN FLUSH & DISPOSE

1. With Surge/Day Tank Cap removed, drain Flush via ball valve on each side of block underneath rail. (dispose as you would old coolant)

STEP 11 – FILL WITH RRF

1. With Surge/Day Tank Cap removed, fill *SLOWLY* with [RRF](#) (Ready to Use) until overflow from Surge/Day Tank.
2. Record how much [RRF](#) is used to completely fill cooling system.
3. Replace Surge/Day Tank Cap.

STEP 12 – RUN AT FULL LOAD

1. Run Unit 168 hours (one week) at full load.
2. Record water pump pressure and all temps.

STEP 13 – RINSE SURGE/DAY TANK

1. Record water pump pressure and all temps.
2. Shutdown, LOTO, and Remove Surge/Day Tank Cap.
3. While still HOT and FULL, Power wash Surge Tank with [STH - Surge Tank Hose](#).
4. Let particles overflow until water runs clear. (@15-20 min)

STEP 14 – DRAIN FLUSH & DISPOSE

1. With Surge/Day Tank Cap removed, drain Flush via ball valve on each side of block underneath rail. (dispose as you would old coolant)

STEP 15 – RINSE OUT ALL PARTICULATES

1. Fill *SLOWLY* with DEIONIZED water until overflow from Surge/Day Tank.
2. Run Unit until up to temp and thermostats open.
3. Continue to pump in deionized water (2 x volume) until overflowing from the top at the Surge/Day Tank and ball valve on other side until clean.

STEP 13 - DRAIN & DISPOSE

1. Shutdown/LOTO/Remove
2. With Surge/Day Tank Cap removed, drain and dispose of rinse water.

STEP 14 – INSPECTION

1. Inspect water pump and thermostats and replace if needed.



STEP 14 – FILL WITH COOLANT

1. NEVER LEAVE OR RUN WITH WATER ONLY!
2. Fill with 50/50 coolant mix to winterize
3. Fill with [CoolAint](#) to Summerize

STEP 15 – REMEMBER

1. Quarterly coolant sampling.