

MA-1040 Analysis of Oil/ Water Coolant



BACKGROUND:

- Need for rapid measure of magnetic contaminants in coolant. Current testing takes 1 to 2 days.
- PPM level of metal particles determines when more water or oil needs to be added. Solution is about 97% water and 3% oil.
- PPM level of metal particles also determines if coolant needs changing and system purged.
- Instrument needs to be easy to operate and low cost.

PROCEDURE:

- Zero counter and make sure reading is stable.



- Enter 114 grams for weight, this is the average weight of the coolant samples with particles in suspension.



- Fill the sample tube with a clean particle free mixture of water and oil, then place the sample tube in the sample coil and take a reading and then record this reading.



- With the sample tube removed, adjust Reading on the display to the positive value of the reading taken with the sample tube filled with the clean mixture of water and oil.



- Fill the tube with a representative sample of the used coolant from the machines, then insert the sample tube into the sample coil and take

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a reading. Make sure to mix the sample before inserting into the unit, this will insure the particles are in a homogenous suspension before testing.



SUMMARY:

- The MA-1040 can read low levels of magnetic materials in water/oil coolant.
 - Low sample volume is required.
 - Minimal training required.
 - Low cost as compared to other test instruments.
 - Small foot print. Can be placed in lab or on production floor.
 - Quick turnaround testing. Means quicker response to changes in coolant, less down time and damaged products.
- The number displayed is the total PPM of magnetic material in the liquid.
 - For increased accuracy run 2 more test and take the average as the final result.
 - Sample must be mixed just before each test to make sure of homogenous suspension of particles.