



ENERGY MANAGEMENT CORPORATION COMPANIES



SALES DIVISION



SERVICE DIVISION



MANUFACTURING DIVISION

Salt Lake City:

501 West 700 South
Salt Lake City, Utah 84101
Phone: (801) 366-4100
Toll Free: (800) 433-4548
FAX: (801) 487-7437

Denver:

4905 B Ironton St.
Denver, Colorado 80239
Phone: (303) 574-9448
Toll Free: (800) 511-7734
FAX: (303) 574-9389

Visit us at: www.emcsolutions.com or www.vfds.com

Electric Motor Testing Field Testing

. All tests offered by CW Silver Industrial Services, Inc. are portable and can be accomplished on site. The tests provide operating condition assessment of the machinery, allowing maintenance personnel to perform overhaul repairs on machinery that requires it. This in turn eliminates unnecessary pulling and shipping of equipment to a repair facility. **Assuring reliability of your equipment**

R: Routine Maintenance
C: Complete Diagnostics & Reconditioning

R C

Record all motor and driven equipment name plate data (including bearing information)

Machinery Vibration Analysis (performed with motor on-line)

To determine:

- a. Rotor mechanical balance.
- b. Rotating equipment housing/bearing alignment and bearing problems.
- c. Gear problems
- d. Electrically excited problem.
- e. Motor resonance and structural problems.
- f. Hydraulic and Aerodynamic problems

Induction Motor Analysis (performed with motor on-line under normal load)

To determine:

- a. Rotor bar / cracked rotor end ring / high resistance joints and rotor eccentricity.
- Testing equipment used (SKF data collector)**

Voltage and Current Verification (performed with motor on-line under normal load)

To determine :

- a. Volts and Amp unbalance.
- Testing equipment used (Fluke Multimeter)**

Inductor test (performed with motor off line)

- a. Used to verify motor windings resistance.

Testing equipment used (Megger inductor and software

*"Your single source for **motors, drives, control & automation systems, service, and related equipment.**"*

Surge and Megger test (performed with motor off line)

- a. Used to verify motor windings are not grounded, shorted or open.

Testing equipment used (Baker Surge Tester and Megger)

AC/DC Polarization Index Test (performed with motor off line)

- a. Build-up of dirt or moisture.
- b. Gradual deterioration of the insulation.

Testing equipment used (Hipotronics PI Tester)

DC Hi Pot Test (performed with the motor off line)

Used to verify break down of motor insulation

Testing equipment used (Baker Hi Pot Test Set)

Visual Inspection

Visual inspect for loose, missing or broken parts

Leaks or loose bolts

Condition of wear parts (brushes, commutator, fans, impellers and coupling)

Cleaning

Inspect all air vents for proper cooling

Lubrication

Check lubrication schedule

Check lubrication condition

Check bearing seals for contaminant

Check for oil leaks

Test Report

Trained technicians will provide a completed test report on each unit.

.