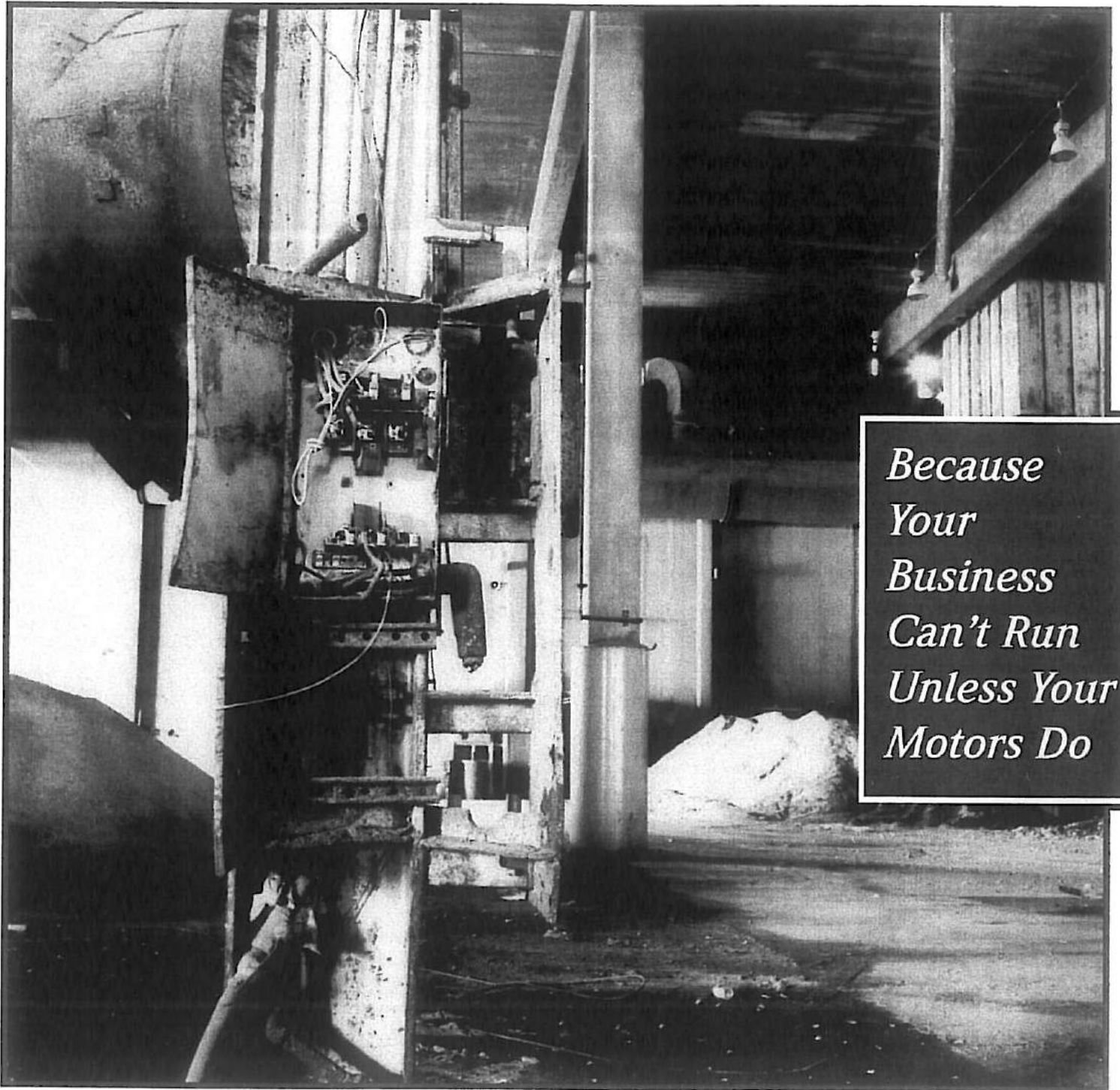


MCE™ MOTOR TESTING



*Because
Your
Business
Can't Run
Unless Your
Motors Do*

**Continental
Electric
Motor
Services**

YOUR SOLUTION: MCE™

The Most Powerful Addition to Your Motor Program

Complete your electrical maintenance program with the addition of motor circuit analysis — the single most powerful component in your “toolbox”. Once you’ve made that decision, the next choice is an easy one.

And that’s selecting PdMA’s MCE.

MCE provides more information in five minutes than any other single predictive technology; both for effective condition monitoring and assuring the quality of new motors. Use it for:

Quality Assurance

To prequalify motors upon receipt and/or evaluate quality before and after repair or cleaning;

Trending

To identify out-of-specification parameters and facilitate condition-based rather than time-based repairs; and

Diagnostics/Troubleshooting

To define problems, analyze data and isolate the root causes of failure in each motor.

YOUR BENEFITS:

Comprehensive

MCE tests all potential fault zones: stator, rotor, insulation, airgap and power circuit.

Versatile

MCE tests AC induction, synchronous, wound rotor, DC and specialty motors such as servo and spindle.

Convenient

MCE tests at the motor control center, local disconnect or directly at the motor.

Correlative

MCE correlates with most predictive technologies to refine or confirm your troubleshooting efforts.

Accurate

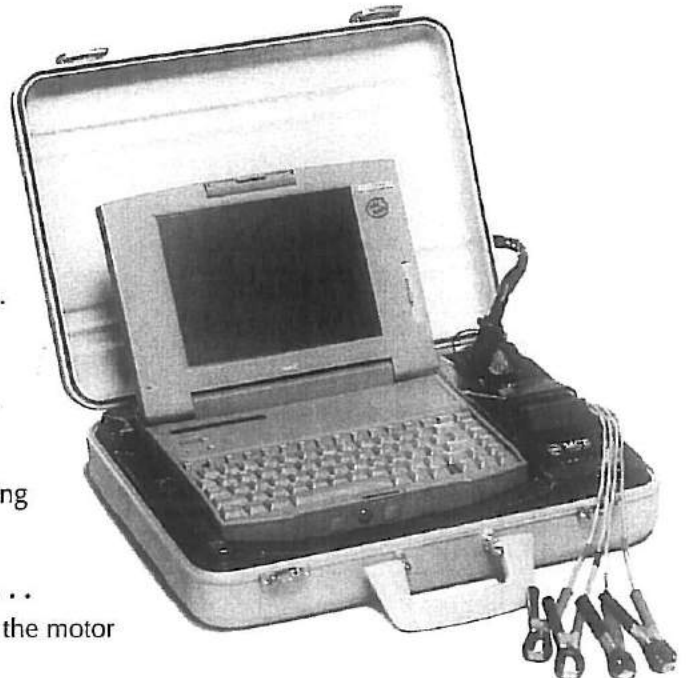
The proprietary software provides a precise and objective method of reviewing, tracking, trending and comparing data, as well as generating immediate reports.

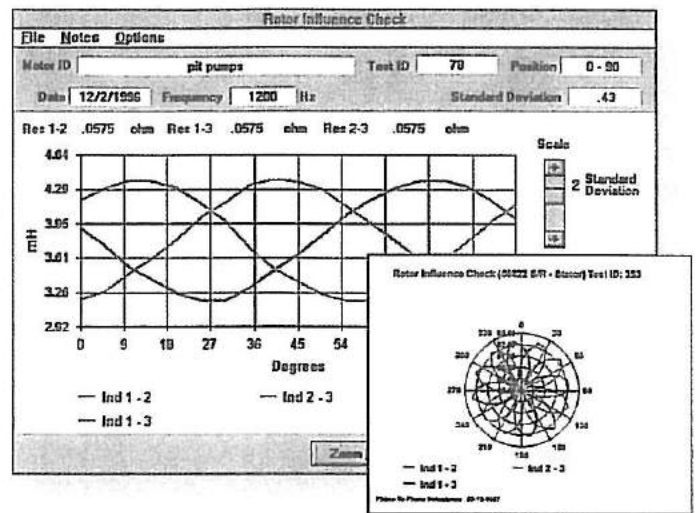
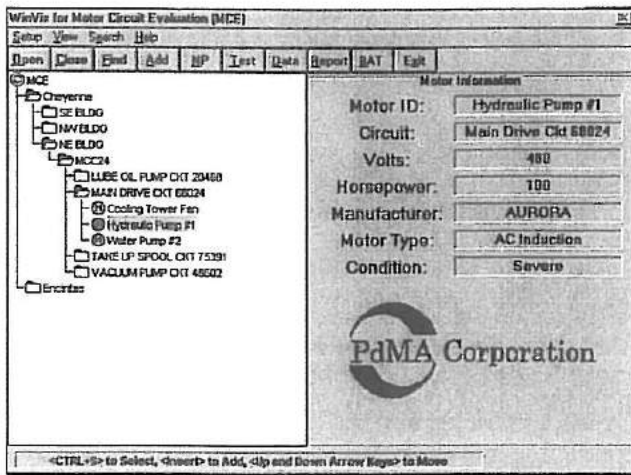
Safe

All MCE tests are nondestructive to the motor and circuits.

Portable

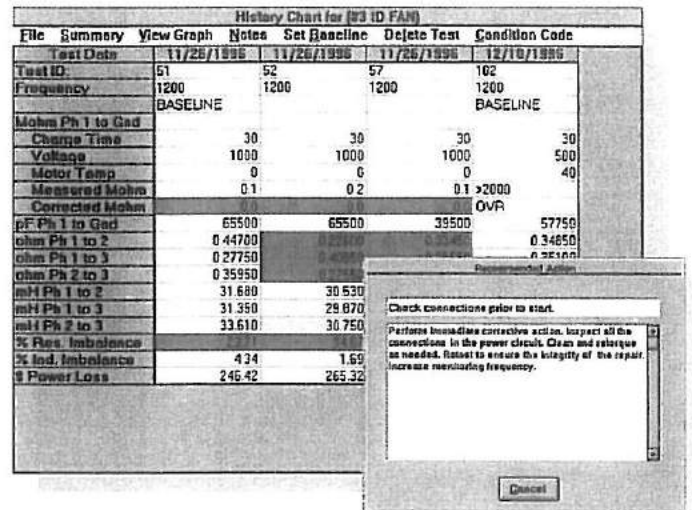
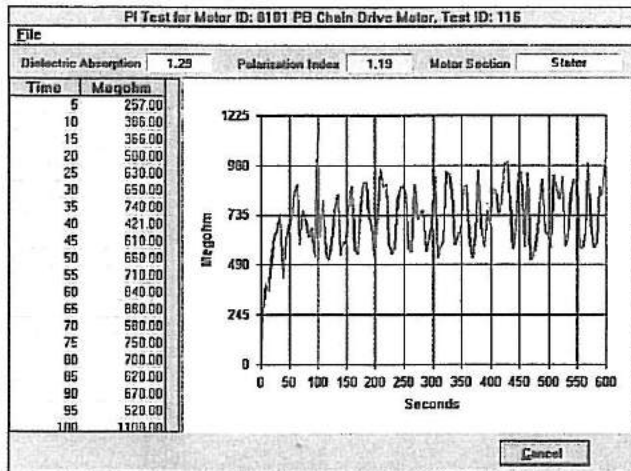
MCE is lightweight and battery-powered.





Manage and organize your motor data base with standard Windows™ interface

Rotor assessment through pattern recognition



More than just a ratio; PIP™ graphing gives the complete insulation picture

Instant field access to motor history and trends

THE MCE SYSTEM 3000

C.E.M.S. is pleased to announce the latest technology in the field of predictive maintenance and condition monitoring of electric motors and the circuits that feed them.

The MCE System 3000 Motor Circuit Evaluator is a battery powered, field portable, off-line device which applies high frequencies to precisely measure electrical parameters. The data is then stored in a digital format so that present and future projections of motor condition can be made. Please call for rates and more information.

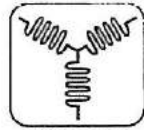
DON'T LET SHUTDOWN PASS YOU BY

Continental
Electric
Motor
Services

4710 - 80 Avenue S.E., Calgary, Alberta T2C 2Z1
Telephone: (403) 236-9428 Fax: (403) 279-6782

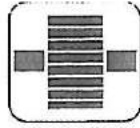
YOUR ASSURANCE:

The MCE provides precise measurements for QA, trending and troubleshooting of these fault zones:



STATOR

Phase to phase inductance and resistance measurements are used to assess the coil integrity of the stator. The *Rotor Influence Check (RIC)* is a collaborative test to confirm turn to turn or phase to phase current leak paths.



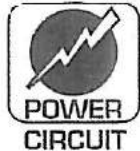
ROTOR

The RIC allows for rotor and stator condition assessment based on phase to phase inductance relative to rotor position. Displayed as a graph, it allows for determination of a variety of faults, including eccentricity, broken rotor bars, cracked end rings, uneven air gap, turn to turn or phase to phase current leak paths.



INSULATION

500 and 1000 volt test signals are available for insulation resistance (IR) testing. Capacitance and Resistance to ground measurements provide data for insulation system condition assessment. Temperature correction is provided for IR trending. *Polarization Index Profile (PIP)* provides a graphic representation of the IR vs. time for a more thorough assessment of the insulation system.



POWER
CIRCUIT

The power circuit condition is assessed when MCE testing is conducted from the motor control center. Phase to phase resistance and capacitance and resistance to ground measurements are used to identify loose and corroded connections and grounded cables.



MOTOR
CLEARED

MCE testing can clear the electric motor circuit by assessing it to be in good condition, thereby preventing unnecessary maintenance on motors. MCE is a valuable tool for determining the root cause in electric motor problems

YOUR OPTIONS:

Components of A Predictive Maintenance Program

A comprehensive predictive maintenance program requires going beyond testing for *mechanical* failures to include *electrical testing*. After all, that's where many of the root causes of motor failure lie.

Compare the capabilities of various electrical predictive maintenance technologies:

Task	MCA	MCSA	Hi-Pot	Surge	Infrared	Megger
Tests stator windings	<input type="checkbox"/>			<input type="checkbox"/>		
Tests squirrel cage rotor	<input type="checkbox"/>	<input type="checkbox"/>				
Tests power circuit	<input type="checkbox"/>				<input type="checkbox"/>	
Tests armature and synchronous rotor	<input type="checkbox"/>			<input type="checkbox"/>		
Tests insulation system	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Identifies air gap eccentricity	<input type="checkbox"/>	<input type="checkbox"/>				
Statistical analysis	<input type="checkbox"/>					
Quality assurance	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Troubleshooting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trending	<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>
Battery powered	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>

Clearly, Motor Circuit Analysis (MCA) is the best single testing vehicle.