

Canal Services



Design
Install
Maintain
Troubleshoot
Train

For almost a half a century Canal has provided electrical design, engineering and service around the clock to the merchant marine, naval and coastguard fleets in Canada, primarily in the Great Lakes Basin. From the heaviest Ice Breaker, the largest Bulker, Warships, Tugs and Research Vessels, Fish Boats, Cruise Vessels and Ferries and from the oldest to the newest, we have been there and kept them moving.

CUSTOM MARINE ELECTRICAL DESIGN AND ENGINEERING SERVICES FOR:

- Power – primary services & distribution
- Propulsion, generator and process control systems – (local & remote)
- ABB VFD Configuration
- Easy Power trained
- Feasibility Studies
- Human – Machine Interface solutions
- Instrumentation, alarm & monitoring systems
- Micro Grid and Peak Shaving Solutions
- Navigation & communication equipment configuration
- PLC Programming
- Predictive Service Plans
- System Integration
- Short Circuit Calculations
- Arc Flash Studies

INSTALLATION SERVICES

- Primary Switchgear and Transformer Installation
- Secondary Distribution and Machinery Control Centers including thrusters, ballast and loading systems
- Cable routing, rack, tray & conduit installation
- Emergency and back up power
- Grounding & Lightning protection
- Plant power & lighting cabling
- Radar, Terrestrial and Satellite Communications
- Sub floor ducts and top entry solutions
- Variable Frequency Drives

MAINTENANCE SERVICES

- Cleaning services for generators, motors switchboards & breakers, including rewinds & commutator replacement.
- Instrumentation calibration for: local and remote sensors and local and remote gauging
- Megger testing
- Navigation Equipment Annual Maintenance
- PLC re-programming
- Primary & secondary injection circuit breaker testing to class & code. Calibrated test equipment to 22,000 amps
- Thermal Scanning for hot spots – Full or restricted report Termination re-torquing



TROUBLESHOOTING - ROUND THE CLOCK *24 hours a day, 7 days a week & 365 days a year.*

With a combined knowledge base of over 100 years of experience, our highly trained, inter-provincially certified, electricians are available for large and small scale response.

IF IT THINKS OR BLINKS

- OEM trained technicians for:
 - ALARMS & INSTRUMENTATION: ANALOG & DIGITAL, SENSORS & LOGIC
 - CONTROL: DEF, NORIS, ALLEN BRADLEY, SIEMENS
 - D.C. & A.C. GENERATORS, EXCITERS, VOLTAGE REGULATORS, CURRENT LIMITERS
 - D.C. & A.C. MOTORS FROM FRACTIONAL TO 5,000 KW
 - RADAR, RADIO & NAVIGATION ELECTRONICS
 - STARTERS, SOFT STARTERS, VFDS
- Switchgear & Breakers. Testing up to 4,000 amps
- Problem solving on obsolete & obsolescent switchgear and systems as well as latest technologies

For more information, please contact us at 905-685-9293 or 1-844-814-0620



Canal Services

SURVEYS

- Arc Flash
- Load Analysis
- Breaker Coordination Studies
- Breaker Health
- Electrical Energy Audits
- Equipment Condition & Upgrade Surveys
- Harmonic Surveys & Coordination
- Radar, Terrestrial and Satellite Communications
- Thermographic Reports & Analysis

TRAINING

On site or in house training is available from our staff for:

- Alarm & Monitoring Systems
- Arc Flash
- Electronic Engine Controls
- PLC programming
- Radar & Radio operation
- Switchgear, Motor & Generator maintenance

EVERYTHING OLD IS NEW AGAIN

Long experience with fleets of all ages gives us the knowledge and experience to keep mature equipment working. Whether it is retrofit, mid life or vessel life extension projects we have the experience and skills to deliver success.

PARTS AND SUPPORT

Our procurement staff are expert at finding rare or scarce components.

RETROFIT SERVICES

- Across the line starters to soft start or VFD
- Cable rack, tray & conduit removal re-routing & replacement
- Low power consumption lighting refits
- Primary switchgear and transformer removal & replacement
- Radar & Navigation Equipment Renewal
- Radio Alignment & Re-certification to Lloyd's / ABS for TCMS
- Secondary distribution and machinery control centers
- Sub floor ducts to top entry solutions
- Telephone & Camera Systems
- Upgraded grounding & lightning protection
- VHF, Satellite and Cellular Communications
- Winch Control Systems



REPOWERS

Canal has provided custom engineering design, hardware, installation and commissioning for many of the Coast Guard and bulk fleet repowers in Canada and the US.

- Hardware: Custom designed Main and Emergency switchboards and Motor Control Centres



About Canal

Canal provides services to government, industrial, commercial and marine clients in Canada from our headquarters at the hub of the Great Lakes Region in St. Catharines, Ontario.

Want to learn more? Visit www.canal.ca

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