

SOLUTIONS

Process equipment solutions for industrial, light industrial, municipal and commercial facilities.

OVERVIEW



| Boilers & Water Treatment | Motors & Drives | Measurement & Analytical
| Valves & Actuation | Panels & Buildings | Maintenance & Support



Founded in 1999, Tundra provides a variety of solutions to suit industrial, light industrial, municipal and commercial process applications.



Tundra specializes in measurement & analytical instrumentation, boilers & steam generation, water treatment, EV charging, electric motors & adjustable speed drives, valves & actuation, custom panels & buildings, and related solutions.

Tundra recognizes the need for support beyond standard working hours. Tundra offers 24/7 service to ensure clients are supported all day, every day.



BOILERS & WATER TREATMENT

In addition to world-class packaged boilers, Tundra offers burner and control upgrades to optimize and ensure combustion efficiency as well as CSA B149.3 compliance. Quality valves and steam traps are available for immediate delivery to keep your boiler room running. Tundra's team of factory trained technicians offer 24/7 service to ensure your system is never down. Take advantage of Tundra's "water in, steam out" process guarantee. Combine Veolia water treatment technology with Cleaver-Brooks steam generation to ensure safe, reliable, and efficient process operation.



COMMERCIAL

INDUSTRIAL

Tundra Process Solutions is the exclusive distributor for Cleaver-Brooks in Alberta and Saskatchewan. Cleaver-Brooks is leading the industry with research & development of commercial and industrial steam boiler technology and auxiliary equipment for any steam or hot water system. For the oil sands market, the large capacity Cleaver-Brooks forced-circulation oil sands steam generator (FC-OSSG) offers industrial users the benefits of traditional D-style watertube boilers and the ease of cleaning of once-through steam generators (OTSG).

Cleaver-Brooks sets the bar for industry-leading, energy efficient, low emission solutions. Whether it's a new boiler installation, a boiler retrofit, or a waste heat recovery unit (WHRU), Cleaver-Brooks offers fully integrated systems including boilers, burners, controls, and auxiliary equipment.

WATER TREATMENT

Veolia manufactures world-class water treatment plants and specializes in the Canadian Oil & Gas market. From raw water entering the facility to process water and waste stream management, Veolia products ensure environmental regulatory compliance, energy efficiency and production optimization.



- Comprehensive Water & Wastewater Solutions
- Unique De-oiling Technologies
- Evaporation & Crystallization Technology
- Advanced Filtration Treatment Solutions
- Full Service Water Management Solution



Boiler Solutions, Packaged Burner Systems, Controls and Boiler Parts

- Condensing, Firetube & Watertube Boilers
- Industrial Watertube Boilers, Burners & Heat Recovery Steam Generator (HRSG) Systems
- Ultra Low NOx, Energy Efficient Gas Burners
- FC-OSSG Boilers for Oil Sands
- CBCW Pre-engineered Fired Watertube Boiler



Combustion Gas, Oxygen Measurement
& Water Quality Analyzers



Boiler Rentals



MOTORS & DRIVES

Tundra Process Solutions sells and services all Toshiba low and medium voltage motors, adjustable speed drives, motor starters and custom control gear. Toshiba's reputation is founded on a 'no-compromise' philosophy for product design, manufacturing and after-sales service. With a large in-stock inventory of motors, drives and spare parts, Tundra is able to deliver a quick turnaround time on all products and services. In-house testing and repair services are available and factory trained technicians can be dispatched to site 24/7.



TOSHIBA LOW VOLTAGE MOTORS EQP GLOBAL SERIES

- EQP Global Severe Duty (SD), EQP Global 840 (Mill & Chemical) and EQP Global 841 (Petro-Chemical)
- NEMA Premium® Efficiency (1 - 500 HP)
- Low Voltage Motors (0.5- 1500 HP)
- 240/480/600 Volt
- Complete range of enclosures:
 - Totally Enclosed Fan Cooled (TEFC)
 - Totally Enclosed Explosion Proof (TEXP)
 - Open Drip Proof (ODP)
 - Totally Enclosed Air Over (TEAO)
 - Weather Protected (WPI & WPII)
- Global motor specifications including CE, NEMA and IEC
- Multi-mount on 140 through 445 and N449T frames

TOSHIBA MEDIUM VOLTAGE MOTORS

- HP Range 200 - 70,000 HP
- Complete range of enclosures:
 - Weather Protected (WPI & WPII)
 - Totally Enclosed Fan Cooled (TEFC)
 - Totally Enclosed Air-to-Air Cooled (TEAAC)
 - Totally Enclosed Water-to-Air Cooled (TEWAC)
 - Totally Enclosed Force-Ventilated (TEFV)
 - Open Drip Proof (ODP)
- Vertical and horizontal mounting
- Manufactured to meet worldwide standards
- API 541, 546, 547 general and special purpose
- Squirrel cage and wound rotor induction motors
- Synchronous motors

TOSHIBA DRIVES



TOSHIBA LOW VOLTAGE ADJUSTABLE SPEED DRIVES (ASD)

- Sizes from 0.5 to 1500 HP
- 240 to 690 Volt
- Outdoor installation (NEMA Type 3R, 4, 4X)
- Indoor installation (NEMA Type 1, 3, 12)
- Dual-frequency 50/60 Hz
- Low harmonic solutions

TOSHIBA MEDIUM VOLTAGE ADJUSTABLE SPEED DRIVES (ASD)

- Medium voltage drives to 11,000 HP
- 2400 V, 4160 V, 6600 V, 13.8 kV and REGEN
- Sync-XFER®/capture (multiple motors synchronized transfer and capture)
- Dual-frequency 50/60 Hz
- Enclosure NEMA Type 1 and 3R
- 24/36 pulse harmonic cancellation complies with IEEE-519

POWER APPARATUS & COMPONENTS (PAC)

- MV Switchgear and Control Gear
- Medium Voltage Motor Starters:
 - Full Voltage Non-Reversing (FVNR)
 - Full Voltage Reversing (FVR)
 - Reduced Voltage Autotransformer (RVAT)
 - Low Voltage Solid State Starter (SSS)
 - Uninterruptible Power Systems (UPS)
- Components: Contactors and Relays

TUNDRA INTEGRATED SOLUTIONS

- Outdoor installation (NEMA Type 3R, 4, 4X)
- Indoor installation (NEMA Type 1, 3, 12)
- Panel solutions:
 - Low Harmonic Panels
 - Pump Jack Panels (PJP)
 - Progressive Cavity Pump Panel (PCP)
 - Electric Submersible Pump Panels (ESP)
 - Buildings
 - Skids





MEASUREMENT & ANALYTICAL

Tundra Process Solutions is one of Canada's largest instrumentation, measurement and control solutions suppliers. Tundra specializes in selecting, sizing and supplying equipment to support analytical, flow, level, temperature, and pressure measurement. To support Tundra's valued clients, Tundra offers in-house factory trained service technicians and sales support to assist with any programming, troubleshooting or start-up and commissioning activity.



MEASUREMENT



ANALYTICAL



GAS & FLAME DETECTION



Flow, Pressure, Temperature, & Level Transmitters | Process Analytical incl. Chromatography, Continuous Gas, Continuous Emissions, Water, RVP & Combustion Analyzers | Process Controllers, Recorders & Indicators



Magnetic Level Gauges, Radar, Magnetostrictive & Laser Level Transmitters, Thermal Dispersion & Vibrating Fork Point Level Switches, Differential Pressure



Flow Computers and Remote Terminal Units (RTU)



Industry Canada Approved Liquid and Gas Flow Computers and Measurement Automation Software



V-Cone & Wafer-Cone Flow Meters



Ultrasonic Flow Metering including In-line & Clamp-on for Gas/Liquid Service, Flare Metering, Moisture & Gas Analyzers



Pre-Insulated, Heat-traced Tubing Bundle, Winterization Enclosures & Instrument Stands



Multiphase Flow Measurement



Fixed Combustible & Toxic Gas, Flame Detection, Turnkey PLC based Monitoring & Control Solutions



Combustible & Toxic Gas Detection, Flame Detection, Ultrasonic Gas Leak Detection, Control Systems



Horns, Beacons, Strobes



Calibration Gas & Maintenance Accessories



VALVES & ACTUATION

Tundra offers an extensive selection of valves for control and isolation applications, in addition to linear and rotary valve actuation. Tundra's full line of pressure management devices ensure personnel, facility and environment safety. Tundra offers a comprehensive selection of steam traps and certified technicians to perform facility steam audits and steam trap surveys to optimize plant efficiency and reduce unexpected maintenance. Tundra facilities, and on-site valve service trailer, are capable of valve assembly, service, testing and certification.



PRESSURE MANAGEMENT

CONTROL VALVES



Process, Steam & Specialty Relief
Valves Pressure Relief System



Rupture Discs



Pressure Vacuum Relief
Valves & Flame Arrestors



Control Valves & Actuation,
Pneumatic Level & Pressure Control



CHOKE, ISOLATION, INSTRUMENTATION, CONTROL & ACTUATION



Actuators & Positioners



Instrumentation Valves & Manifolds



Pigging and Pressure Isolation Valves
& Wellhead Pressure Switches



Flow Control Products



Municipal Valves for Water
Treatment and Distribution



Ball Valves, Gate, Globe & Check Valves



Flow Control Products



CSA B149.3 Approved Valves for Gas & Liquid
Shutoff, & Compliant Fuel Train Pkgs.



Trunnion DIB Ball Valves



Ball Valves, Gate, Globe, Check



Ball, Butterfly, Gate,
Globe, & Check Valves



Choke Valves



Solenoid Valves, Filter Regulators
& Quick Exhaust Valves



Choke Valves & Actuation



Model T3 Ball Valves



Forged Gate, Globe, Dual Plate Check,
Ball Valves & Through Conduit Gate Valves



Actuation Solutions for all Applications
Pneumatic & Hydraulic



High Efficiency Steam Traps, Pump-Traps, &
Prefabricated Condensate Drainage Packages



Valve Actuators & Accessories



Positioning & Position
Monitoring Devices



Trunnion & Floating Ball Valves



API6D Check Valves



PANELS & BUILDINGS

Tundra Process Solutions provides custom solutions including prefabricated panels, buildings and equipment.

Tundra works with clients and suppliers to provide high quality, turnkey indoor/outdoor designs that ensure long life and product performance.



VFD /ELECTRICAL BUILDINGS

- Tundra offers a full range of buildings, options and accessories for a variety of applications
- Packages include integration of Toshiba drives, Motor Control Centres, HVAC, and electrical
- Minimize customer resource requirements:
- Take advantage of Tundra's procurement, design and construction services
- Single point of contact for support

SCHNEIDER ELECTRICAL PARTNERSHIP

- Over 75 years of MCC (first Square D MCC was released in 1945)
- Canadian Manufactured – assembled in Edmonton, AB
- Nema 1, 3R and 12 enclosure ratings • Arc Flash Mitigation
- MCC Integration - Schneider MCCs provide unmatched reliability, safety and performance in industries such as oil & gas, petrochemical, and water/wastewater

MEASUREMENT & ANALYTICAL PACKAGES

- Truck, Train, & LACT Measurement
- Accurate daily accounting of received fluids with intuitive interface
- Regulatory body compliant metering packages
- API compliant net oil calculations
- LACT flow packages from 5 m3/hr to 300 m3/hr
- Booster pump & VFD integrated packages
- Analytical packages including: CEMS, Chromatography, Spectroscopy, Trace H2S



Schneider
Electric



CUSTOM PANEL SOLUTIONS

ELECTRIC SUBMERSIBLE PUMP (ESP), SCREW PUMP (PCP) & PUMP JACK

- Available voltages 230, 460, 575, 690 VAC
- Outdoor installations (NEMA Type 3R, 4, 4X)
- Indoor installations (NEMA Type 1, 3, 12)
- Compact design for reduced space requirements
- Reduces operating costs
- Reduces downtime
- Ability to start an ESP while motor is spinning
- Sequence-start for use on wells with stuck pumps
- Soft-start function
- Load-side, phase-to-phase, short-circuit protection
- Sine wave output filter
- Low harmonic option available
- Extend driven equipment life
- Increases pump efficiency
- Dynamic braking resistor

Options Prepackaged pad systems • Indoor self-contained building • Outdoor open grate skid mount



COMMUNICATION, CONTROLS & MARSHALLING PANELS

- Outdoor installations (NEMA Type 3R, 4, 4X)
- Indoor installations (NEMA Type 1, 3, 12)
- Custom panel sizes to suit any installation requirement
- Available as a standalone unit or a complete system package

RTU PANEL

- Outdoor installations (NEMA Type 3R, 4, 4X)
- Indoor installations (NEMA Type 1, 3, 12)
- Custom panel sizes to suit any installation requirement
- Available as a standalone unit or a complete system package
- Flow computer, well-optimization and remote monitoring integration
- Certified to CAN/CSA STD C22.2 for use in Class-1, Division-2 hazardous locations

CUSTOM PANEL SOLUTIONS

- Available voltages 230, 460, 575, 690 VAC
- Outdoor installations (NEMA Type 3R, 4, 4X)
- Indoor installations (NEMA Type 1, 3, 12)
- Low harmonic option available
- Custom panel sizes to suit any installation requirement
- Available as a standalone unit or a complete integrated package

LOW HARMONIC

- Available voltages 230, 460, 575, 690 VAC
- Outdoor installations (NEMA Type 3R, 4, 4X)
- Indoor installations (NEMA Type 1, 3, 12)
- Limits total current harmonic distortion to 8% TDD (<6% typical at full load)
- The LH Series ASD meets current distortion limits outlined in IEEE Std 519-1992 "IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems"
- Lower filter cost when compared with 12 & 18-pulse designs
- Decreased sensitivity to voltage imbalance when compared to 12 & 18-pulse designs
- Decreased sensitivity to line disturbances vs. Active Front End (AH) drive-based filters
- Uninterrupted operation; the ASD will continue to operate in the event of a filter shutdown



MAINTENANCE & SUPPORT

Tundra's Reliability, Maintenance & Support team can solve the most challenging maintenance and reliability issues. Tundra offers factory trained technicians that are available 24/7 to assist with start-up, commissioning, preventative maintenance programs, troubleshooting and repairs. Tundra holds a Certificate of Recognition (COR), and believes in safety as a core value.

THE TUNDRA GUARANTEE

TUNDRA OFFERS A 100% SATISFACTION GUARANTEE ON ALL PRODUCTS, PARTS AND SERVICES.
CONTACT US FOR MORE INFORMATION AT
1-800-265-1166 or info@TundraSolutions.ca



RELIEF VALVE SERVICES

Tundra's facility is National Board approved with the ability to handle individual valve repairs or complete facility turn-around requirements. As Western Canada's exclusive Farris representative and Farris Authorized Service Team (FAST) Centre, Tundra is available 24/7 with OEM parts and relief valve inventory to accommodate facility pressure safety requirements. Additionally, Tundra's 53 ft. Mobile Relief Valve Repair Facility is available for on site maintenance support.



TUNDRA SUPPLIES, ASSEMBLES AND SERVICES PRESSURE RELIEF, ROTARY & LINEAR CONTROL & CHOKE VALVES.



TUNDRA'S SERVICE DEPARTMENT PROVIDES:

- Certified factory trained technicians available on-call 24/7
- On-site service capabilities for industrial and commercial customers
- Remote troubleshooting and tech support
- Same-day response
- Emergency shipments available 24/7
- Long-term and short-term maintenance agreements
- Local Inventory and emergency shipments available 24/7
- Computerized inventory link system with over 6,000 additional parts ready for shipment
- Scheduled maintenance plans



VALVE, AUTOMATION & SERVICE

- Steam, Air, and Liquid Relief Valve Testing
- Pressure Relief Valve Supply w/Rush-Ship Inventory
- Rotary Valve Supply and Assembly
- Pneumatic, Electric & Hydraulic Actuation (including remote-site hydraulic power packs)
- Emergency Shut Down (ESD) Valve Packages
- CSA B149.3 Gas Safety Shutoff Valves
- Wellhead Choke Assemblies
- Control Valve Assemblies
- Valve Repair
- Surplus Management
- On Site Service Trailer
- Mobile PSV Service Trailer for on-site maintenance



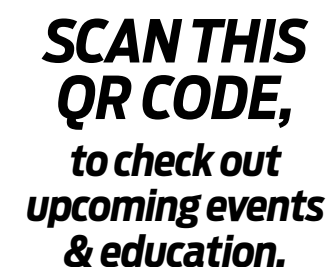


TUNDRA EDUCATION CENTRE

Via several multifunctional training locations, Tundra offers a curriculum that adapts to client needs, requests, and industry trends. We offer pre-scheduled classes, classes on-demand, on-site training, and virtual education sessions.



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NOTES



TUNDRA IS A WAJAX
COMPANY, AND WAJAX
BRANDS INCLUDE:

PROCESS INSTRUMENTATION
VALVES & ACTUATORS



 Yamatake America, Inc.			 by Honeywell	 A division of CIRCOR International, Inc.
			 A PRODUCT OF BURNER-RELIANCE	
				 An AMETEK Company
		 World Class Thermometers		

ACTUATED VALVES –
ELECTRIC & PNEUMATIC

- A-T CONTROLS
- ABZ VALVE
- ATKOMATIC
- +GF+ SIGNET

ANALYTICAL

- +GF+ SIGNET

FLOW

- AALANT
- AW LAKE
- AZBIL / YAMATAKE *
- DELTA M
- BADGER METER
- +GF+ SIGNET
- JACOBY TARBOX
- MID-WEST INSTRUMENT

FORCE GAUGES

- DILLON

GAS DETECTION

- BW TECHNOLOGIES
- BY HONEYWELL
- RAE SYSTEMS BY HONEYWELL

INSTRUMENT
VALVES & FITTINGS

- CIRCLE SEAL
- GO-REGULATOR
- HOKE GYROLOK
- MAC-WELD

LEVEL

- AMETEK PMT
- BINDER
- DELTA M

MANUAL VALVES

- A-T CONTROLS
- ABZ VALVE
- +GF+ SIGNET
- SUN VALVES
- MAC-WELD

PRESSURE

- AMETEK PMT
- AMETEK US GAUGE
- FIKE *
- MID-WEST INSTRUMENT
- UNITED ELECTRIC *

PROCESS CONTROL
& MONITORING

- AMETEK PMT
- PRECISION DIGITAL

TEMPERATURE

- AMETEK LAND
- AMETEK US GAUGE
- APPLIED SENSOR

TECHNOLOGIES *

- DELTA M
- TEL-TRU
- UNITED ELECTRIC *

CERTAIN BRANDS MAY NOT BE AVAILABLE IN ALL BRANCHES. FOR ALL OTHER BRANDS NOT LISTED, PLEASE CONTACT YOUR LOCAL BRANCH



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REGIONAL OFFICES CANADA

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LLOYDMINSTER, RED DEER, SASKATOON, VANCOUVER, FORT ST. JOHN

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