Technical Services



COMPANY CONTACT

E.S. Fox Limited — Technical Services www.esfox.com
1-866-914-1422 x5227

HEAD OFFICE

P.O. Box 1010 9127 Montrose Road

Niagara Falls, Ontario L2E 7J9 TELEPHONE: 905-354-3700 WEBSITE: www.esfox.com





SERVICES

- ENGINEERING
- FABRICATION
- STRUCTURAL STEEL FABRICATION
- STRUCTURAL STEEL ERECTION
- MILLWRIGHTING | RIGGING
- BOILERMAKING
- MECHANICAL SERVICES
- ELECTRICAL SERVICES
- SHEET METAL
- REFRIGERATION
- HVAC



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E.S. Fox Limited

CORPORATE OVERVIEW

Since 1934, E.S. Fox Limited (ESFL) has set the standard for safety and quality in the fabrication and construction industry. ESFL, a privately owned, Canadian, multi-trade company, providing a single source for Industrial, Institutional, Commercial and Power Generation projects. With over 3.0 million direct-hire man-hours last year, we self-perform Structural Steel Fabrication and Erection, Mechanical, Electrical, Sheet Metal, HVAC, Refrigeration, Millwright / Rigging, and Boiler Making.

The strength of our company stems from the vast experience of its people, the integration of a variety of skilled trades, and dedication to total control of construction through computerized planning and monitoring techniques.

ESFL has established a reputation for high quality workmanship, operational flexibility, efficiency, and timely project completion.

CONSTRUCTION CAPABILITIES

As a fully integrated, multi-trade construction firm, E.S. Fox Limited provides clients with a single source solution for their detail engineering, fabrication, construction, and maintenance needs. We are a solutions based provider that delivers a superior level of service from "cradle-to-grave," as we offer multi-trade, service oriented solutions for all your ICI and Power Generation projects.

FABRICATION CAPABILITIES

E.S. Fox Limited is proud to operate three state-of-the-art fabrication facilities across Ontario. At our main fabrication facility in Port Robinson, we offer over 83,000 square feet of production space. We work to the highest standards to produce Pipe Spools, Modules, Cryogenic Cold Boxes, and Pressure Vessels. With over 800 weld procedures and 40 quality certifications including nuclear, E.S. Fox Limited continues to be a leader and a symbol of Canadian strength and tradition in the supply of Quality Fabrication Services for the Industrial, Commercial, Institutional, and Power generation markets for over eight decades.

E.S. Fox Limited Affiliations:















Professional Engineers Ontario







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E.S. Fox Limited **Environmental Health and Safety**

SAFETY CULTURE

At ESFL, employee safety, protection of the environment, and work quality are the main focus of our safety culture. Both management and employees work together in an effort to further advance knowledge of safety and incident prevention. Together we work to ensure a safe work environment for all. Our employees believe in the fundamental principle that safety is everyone's responsibility.

One of our core values is to "Prevent the Event." Incident prevention is the integral part of every job with the safety and well-being of each individual the number one priority.

SAFETY PROGRAM KEY ELEMENTS

- Corporate Safety Manual
- Site Specific Safety Plans
- Orientation and Training
- Incident Investigation
- **Lessons Learned Bulletins**
- Job Safety Analysis
- Workplace Inspections
- Senior Management Review

- Safety First Attitude
- Trending and Analysis
- Setting Objectives and Targets
- Safety Workshops
- Mentoring Program
- J.H.S.C.
- **Strong Communication**
- Accountable Supervision
- Safety Meetings







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Quality Assurance



ISO

- ISO 9001:2015
- ISO 14001
- ISO 18001

CWB

Structural Steel CWB W47.1 Div. 1

Structural Aluminum CWB W47.2 Div. 1

CSA

- CSA N285.0 Nuclear Class 1,2,3, & 4 Parts, Components & Support (Shop & Field)
- CSA N285.0 Nuclear Material Supply Ferrous and Non-Ferrous (3 Locations)
- CSA N286-12 Nuclear
- CSA N299 1 2016
- CSA B51 Boiler, Pressure Vessels & Pressure Piping & Repairs (Shop & Field)
- CSA B51 Category A, B, C, E & H Type Welded Non-Welded Fittings (Shop & Field)
- CSA B51 Hot Tap & Line Stopping (Shop & Field)
- CSA Z7396. 1-17 Medical Gas Pipeline Systems Part 1

ASME

- National Board Registration for ASME Section III, R, VIII (Shop & Field)
- ASME Section III, Division 1: N, NPT, NA, NS
- ASME Section VIII, Division 1 & 2 Pressure Vessels (Shop & Field)
- ASME U, U2, S, & PP Stamps (Shop & Field)
- ASME U, UM Stamps: Edmonton Division (Shop & Field)
- ASME B31.1 Power Piping (Shop & Field)
- ASME B31.3 Process Piping (Shop & Field)
- ASME B31.5 Refrigeration Piping (Shop & Field)
- CSA B52 Mechanical Refrigeration Code









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Locations & Facilities

Head Office: Niagara Falls, ON —240,000 square feet

Branch Location	Capabilities		Square Footage
Darlington, ON	Construction		
Hamilton, ON	Construction	Fabrication	3,000 sq. ft.
Kingston, ON	Construction	Fabrication	17,000 sq. ft.
Port Robinson, ON		Fabrication	83,000 sq. ft.
Sudbury, ON	Construction		
Thunder Bay, ON	Construction	Fabrication	5,000 sq. ft.
Tiverton (Kincardine), ON	Construction		
Vaughan (Toronto), ON	Construction		
Oshawa, ON	Construction		
		Total Fabrication	108,000 sq. ft.



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E.S. Fox Limited Capabilities

CONSTRUCTION CAPABILITIES

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We provide the following construction services:

- Piping
- Electrical
- Structural Steel
- Ironworkers
- Millwrights
- Boiler Making
- Sheet Metal

- HVAC
- Instrumentation & Controls
- Operating Engineering
- Insulation
- Carpenters
- Labourers
- Refrigeration



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E.S. Fox Limited Capabilities

FABRICATION CAPABILITIES

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Modules and Vessels

- Process Modules and Equipment Skids
- Cryogenic Air Distillation Columns for: Oxygen, Nitrogen, and Argon
- Air Liquefaction / Separation
- Hydrogen Purification
- Catalyst Reclamation
- Oil/Water Purification

Pipe Fabrication

- Stand alone contracts & support of field projects and other fabrication projects
- Area of expertise is high alloy materials: Stainless Steel, Aluminum, Titanium, Chrome-Moly
- Carbon Steel up to 84" Diameter
- Victaulic—Roll Grooved Piping up to 48" Dia.
- Jacketed Pipe



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E.S. Fox Limited Capabilities

PORT ROBINSON SHIPPING

We are unique in that we have access to the Welland Canal at our Port Robinson facility. This includes our own loading docks, where we can ship oversized modules from up to 800 tons to any water accessible location in the world.

Transportation Access & Dock Facilities

- ◆ 1/2 mile from Highway 406 extension providing direct access to Queen Elizabeth Highway
- 1/4 mile from Canadian National Railroad line
- Heavy Barge Roll On/Roll Off Loading Dock extending into the Welland Ship Canal turning basin providing 10' draught and 400 ton capacity
- Heavy Lift Dock of 800 ton capacity, dock face 475 ft. draught 25 ft. The dock can accommodate maximum Seaway length vessels
- The site incorporates 5 acres of level, well compacted, crushed stone assembly area



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ICI & ENERGY MAINTENANCE SERVICES

ESFL's highly-qualified factory-trained technicians provide services on all types and brands of equipment encountered across all Industrial, Commercial, Institutional, and Energy markets. They are certified for specialized critical environments such as oil & gas (onshore, offshore, oil sands), nuclear, biopharmaceutical research, healthcare, data centres, museums, and art galleries.

ESFL offers maintenance agreements tailored to meet the specific needs of different systems and owner priorities.



WE OFFER SERVICES FOR:

- Heating, Ventilation, & Air Conditioning
- Mechanical Repairs
- Refrigeration
- Technical Services Building Analysis
- Energy Retrofit Projects

From HVAC and Controls to Design-Build systems, ESFL offers a wide range of technical services.

We are a single source solution for detail engineering, fabrication, construction, and maintenance needs.



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Technical Services

HVAC PREVENTATIVE MAINTENANCE SERVICES

Our Technical Services group creates high quality HVAC preventative maintenance programs for our programs for our clients providing optimum comfort, reliability, energy efficiency, and extended equipment life.

By designing a preventative maintenance program for our clients, we take a holistic approach that examines all costs associated with the ownership and operation of the mechanical systems in their facility.

- We show our clients the importance of considering repair costs, administration costs, energy costs, productivity losses, and replacement costs.
- Our preventative maintenance systems are designed to control every aspect of our activity as we service your facility. This includes proper documentation of our activities and findings from our task driven maintenance inspections.
- Our preventative maintenance programs begin with the very familiar Gold, Silver, and Bronze medal designations, but that does not preclude customization of a maintenance program where it is appropriate.
- By properly documenting our preventative maintenance activities and trends, recurring issues can be tracked and addressed.



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Technical Services

MECHANICAL REPAIR SERVICES

The E.S. Fox Limited Technical Services group creates high quality HVAC preventative maintenance programs for our clients' with the goals of providing optimum comfort, reliability, energy efficiency, and extended equipment life.

- Rooftop package heating and cooling systems
- Chilled water systems, both comfort and production
- Hydronic systems including steam boilers
- Ductless split air conditioning systems
- VRF (variable refrigerant flow) systems
- Ventilation systems
- Water source heat pump systems
- Energy recovery systems
- Make-up air equipment and systems
- Clean rooms and environmental chambers
- Computer room systems

- Hot water heating and domestic hot water boilers
- Cooling towers and fluid coolers
- Production burners and ovens
- Refrigeration systems
- Air balancing and Indoor Air Quality Testing
- Hot water and portable water systems
- Production process piping
- Electronic DDC control monitoring
- Backflow prevention testing and certification
- Chemical water treatment systems
- Sheet Metal Fabrication and Installations



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Technical Services

REFRIGERATION SERVICES

Broad experience with many different refrigeration applications.

Refrigeration systems are an important of our preventative maintenance programs and are generally critical systems used for food and pharma product storage.

The critical nature of these systems makes preventative maintenance very important so that reliability is optimized and untimely failures minimized.



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TECHNICAL SERVICES BUILDING ANALYSIS (TSBA)

A Technical Services Building Analysis is a complete assessment and analysis of the mechanical systems in your facility, documenting an inventory of equipment, its condition and the remaining service life of each piece of equipment.

Uses ASHRAE guidelines with respect to expected service life for all types of heating and cooling equipment.

Measures equipment against this industry standard helps facility managers budget for major repairs and equipment replacement in advance, helping to avoid unwelcome surprises.



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Technical Services

ENERGY RETROFIT PROJECTS

ESFL provides turnkey Design-Build solutions to problems associated with inefficient, obsolete mechanical systems.

It is not unusual for upgrade and modernization projects to produce savings that pay back the cost of the installation in a relatively short period of time.

Savings are achieved through energy cost savings, reduced repair costs, and improved productivity.

Where government and utility grants are applicable to installations, our project managers will assist in justifying and applying for the maximum grant available.



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Technical Services

DESIGN-BUILD INSTALLATIONS

E.S. Fox Limited is your best choice for Design-Build project development and management.

We provide turnkey solutions to problems related with your HVAC systems. Whether it is a response to a need for: rearranged or expanded space, equipment upgrades or an improvement for reliability and comfort.

Multi-trade forces available to give single source accountability which translates into tangible and intelligent cost reductions for your projects.



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