

E.S. Fox Limited

Technical Services



COMPANY CONTACT

E.S. Fox Limited — Technical Services

www.esfox.com

1-866-914-1422

HEAD OFFICE

P.O. Box 1010
9127 Montrose Road
Niagara Falls, Ontario L2E 7J9
TELEPHONE: 905-354-3700
WEBSITE: www.esfox.com



TECHNICAL SERVICES

PORT ROBINSON
HAMILTON
SARNIA
TORONTO
MILLARTON
OSHAWA
KINGSTON
THUNDER BAY



Founder - Edward (Ted) Fox

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 Energy projects. With over 3.5 million direct-hire person-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 Energy 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 Energy markets for over eight decades.

SERVICES

- ENGINEERING
- FABRICATION
- CONSTRUCTION
- NUCLEAR
- STRUCTURAL STEEL
- BRIDGES
- TECHNICAL SERVICES

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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



E.S. Fox Limited - Safety and Quality Assurance Certifications

ISO	CSA	ASME
<ul style="list-style-type: none"> ISO 9001:2015 ISO 14001 ISO 45001 	<ul style="list-style-type: none"> CSA N285.0 Nuclear Class 1, 2, 3, & 4 Parts, Components & Support 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 CSA B51 Category A, B, C, E & H Type Welded Non-Welded Fittings CSA B51 Hot Tap & Line Stopping CSA B52 Mechanical Refrigeration Code CSA Z7396. 1-17 Medical Gas Pipeline Systems Part 1 	<ul style="list-style-type: none"> ASME Section III, Division 1: N, NPT, NA, NS ASME Section VIII, Division 1 & 2 Pressure Vessels ASME U, U2, S, & PP Stamps ASME B31.1 Power Piping ASME B31.3 Process Piping ASME B31.5 Refrigeration Piping National Board Registration for ASME Section I, III, VIII 
CWB		COR
<ul style="list-style-type: none"> Structural Steel CWB W47.1 Div. 1 Structural Aluminum CWB W47.2 Div. 1 		<ul style="list-style-type: none"> COR and Infrastructure Health and Safety Association Certification 

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Locations & Facilities

Head Office: Niagara Falls, ON —250,000 square feet

Branch Location	Capabilities		Square Footage
Darlington, ON	Construction		
Hamilton, ON	Construction	Fabrication	10,000 sq. ft.
Kingston, ON	Construction	Fabrication	17,000 sq. ft.
Port Robinson, ON		Fabrication	83,000 sq. ft.
Thunder Bay, ON	Construction	Fabrication	5,000 sq. ft.
Tiverton (Kincardine), ON	Construction		
Vaughan (Toronto), ON	Construction		
Oshawa, ON	Construction		
Sarnia, ON	Construction		
Total Fabrication			115,000 sq. ft.



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Affiliations:



ONTARIO REFRIGERATION &
AIR CONDITIONING
CONTRACTORS
ASSOCIATION



Professional Engineers
Ontario



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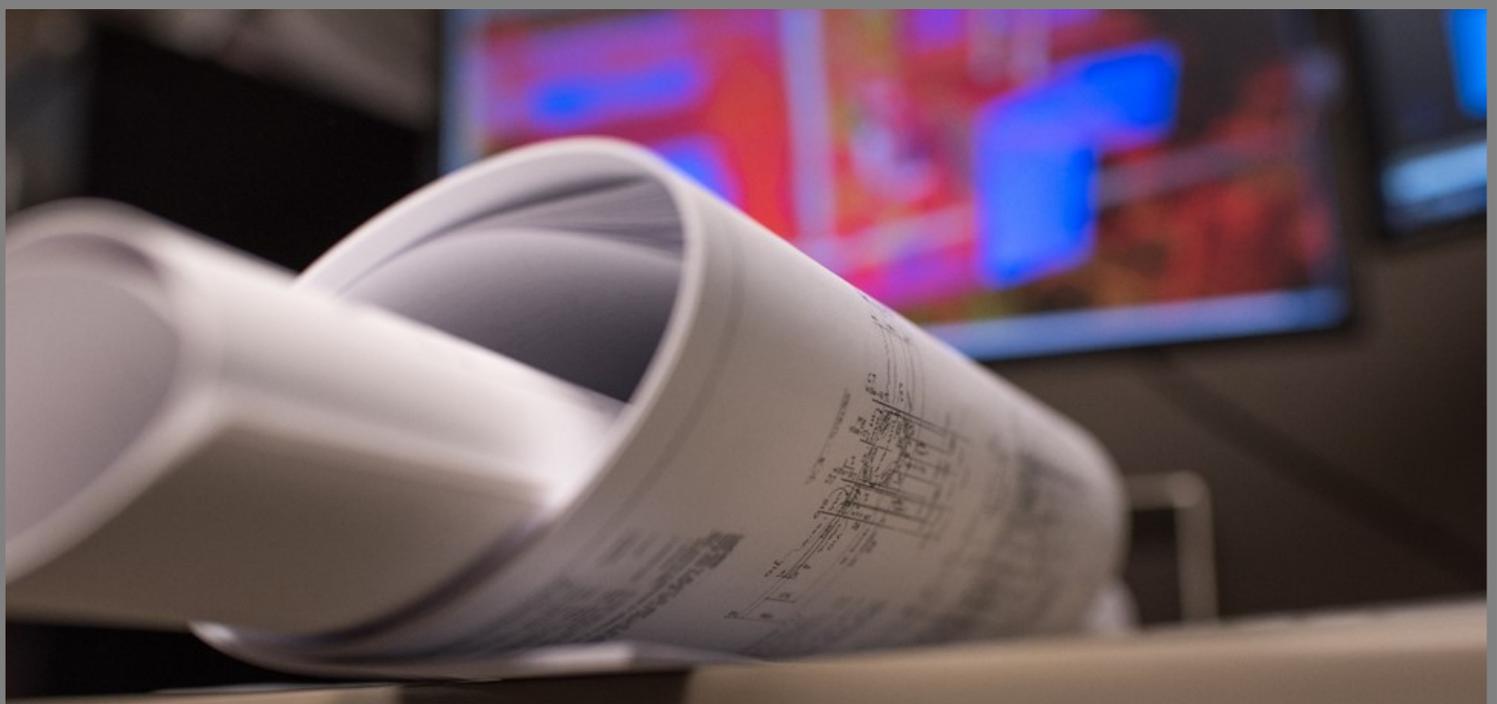
Capabilities

ENGINEERING CAPABILITIES

E.S. Fox Limited has extensive engineering experience relating to quality programs such as ISO 9001, CSA N299/Z299, and CSA M285.0/MCA-4000; ranging from conventional piping to Class 1 Nuclear components. Our Engineering team's commitment and goal is not just to complete the project on time, but also to add value to your project in the most efficient manner possible.

E.S. Fox Limited Engineering provides the following services but not limited to:

- ◆ Design Engineering
- ◆ Virtual Construction
- ◆ Total Station Services
- ◆ CAD Services
- ◆ Welding, Manufacturing, and Metallurgical Engineering



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FABRICATION CAPABILITIES

At our main fabrication facility in Port Robinson, Ontario, we offer over 83,000 square feet of production space. We work to the highest standards required to produce Cryogenic Cold Boxes, Pipe Spools, Modules, and Pressure Vessels. With more than 800 weld procedures, we fabricate:

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



Pressure Vessel



Cryogenic Cold Box

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CONSTRUCTION CAPABILITIES

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We provide the following Construction Services:

- ◆ Construction Management
- ◆ Piping
- ◆ Electrical
- ◆ Structural Steel
- ◆ Ironworking
- ◆ Millwrighting
- ◆ Boiler Making
- ◆ Sheet Metal
- ◆ HVAC
- ◆ Instrumentation & Controls
- ◆ Operating Engineering
- ◆ Insulation
- ◆ Carpentry
- ◆ Refrigeration



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NUCLEAR SERVICES

E.S. Fox Limited is a people-first, environmentally conscious, socially responsible EPC provider in the Nuclear sector with every aspect of its development. E.S. Fox Limited's Nuclear Services contributed millions of hours in support of Ontario's safe and reliable Nuclear power industry. We provide our clients with a streamlined solution for their detailed engineering, fabrication, construction, and maintenance needs. As the Nuclear power generation sector evolves from large Nuclear reactors to Small Modular Reactors, we are primed to support the transition.

We provide the following Nuclear Services:

- Safety & Quality Control
- Nuclear Fabrication
- Project Management
- Engineering, Procurement, & Construction (EPC)
- Indigenous Relations



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STRUCTURAL STEEL AND BRIDGE DIVISION

E.S. Fox Limited's Structural Steel & Bridge Division operates as a fabrication and erection service provider throughout Canada. With our highly skilled team of erectors and supervision, E.S. Fox Limited has distinguished itself through our dedication to quality and excellence in all phases of Structural Steel construction. From Commercial and Industrial projects to Bridges and Roller Coasters, E.S. Fox Limited continues to be an industry leader focused on organizational excellence through principles such as Safety, Quality, and Service.

We provide the following Structural Steel and Bridge Services:

- Architecturally Exposed Structural Steel
- Commercial and Industrial Steel
- Institutional Steel
- Bridges
- Themed Entertainment



Bay of Quinte Bridge

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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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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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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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REFRIGERATION SERVICES

Broad experience with many different refrigeration applications.

Refrigeration systems are an important part 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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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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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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