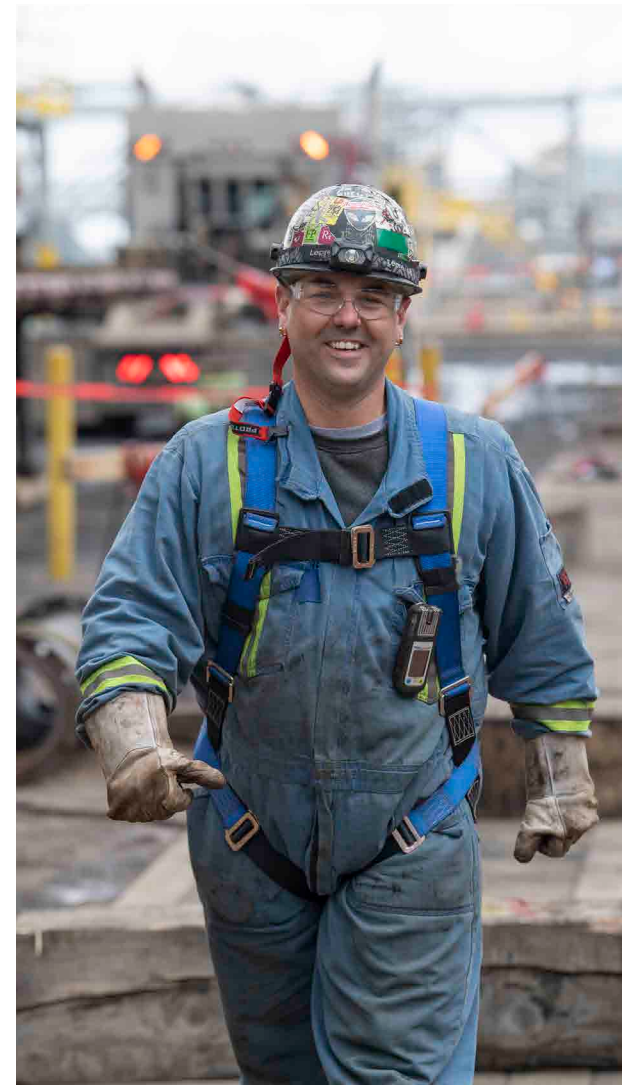
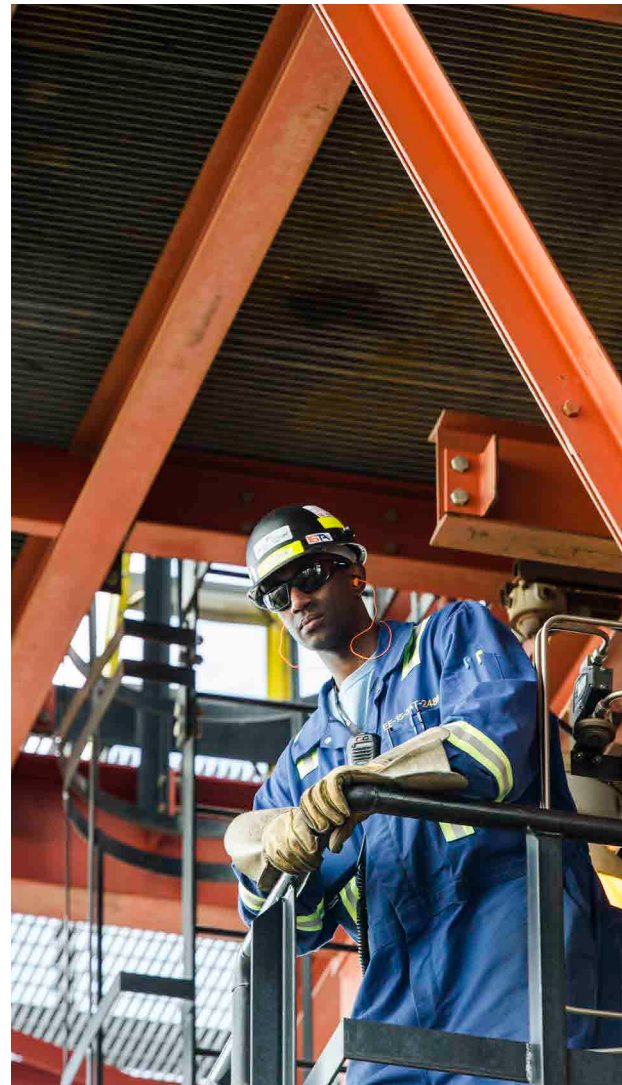




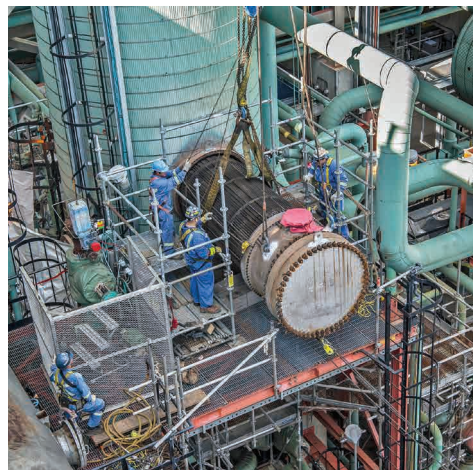
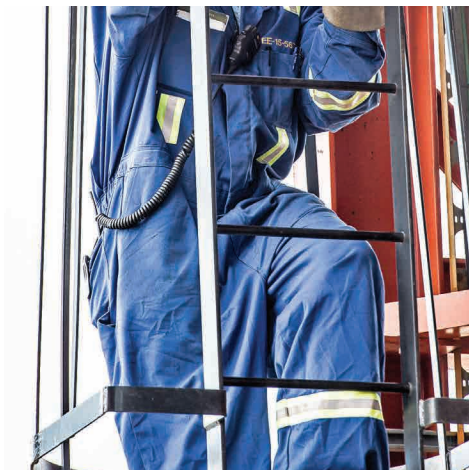
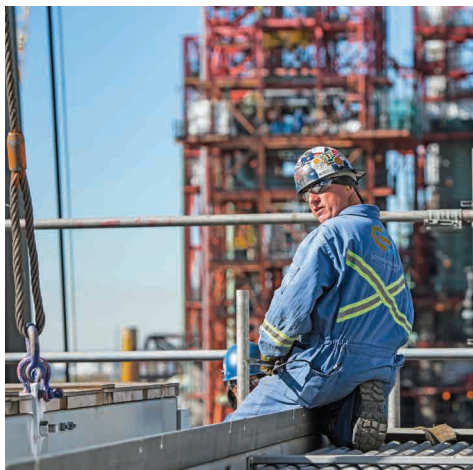
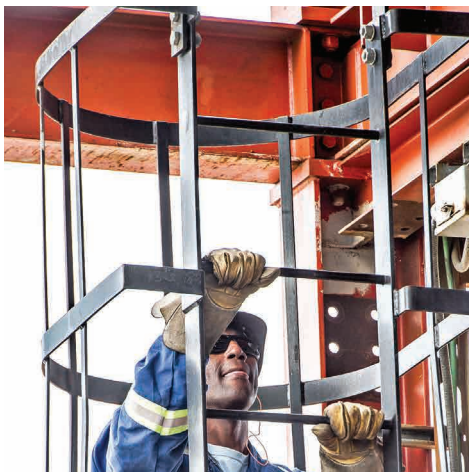
Field Services





EDMONTON EXCHANGER - FIELD SERVICES

Edmonton Exchanger was founded in 1975 and is over 1,000 employees strong. We are a multi-divisional company and feature a wide range of products and services for applications in industries that include oil and gas, petrochemical and power generation. These are our Field Services.



OVERVIEW OF SERVICES

PLANT MAINTENANCE SOLUTIONS SINCE 1975

With more than five decades of plant maintenance experience, Edmonton Exchanger provides on-site plant maintenance services for the petrochemical industry, refineries and fertilizer plants. Our services range from specialized field machining and controlled bolting, to complete turn-key plant and refinery shutdown projects.

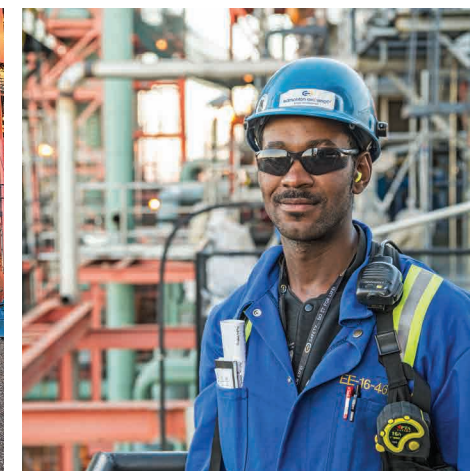
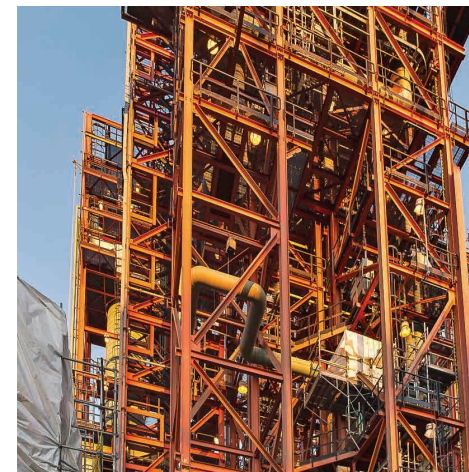
FIELD OPERATIONS + SUPPORT SERVICES = POWERFUL SOLUTIONS

When you team with us, you get more than just superb field operations. You're also connected to a vast network of support services that range from project management to steel fabrication, pipe fabrication, machining and heat exchanger fabrication and repair services.

EXPERTISE, DEDICATION, PROFESSIONALISM

Another advantage of working with Edmonton Exchanger is our genuine commitment. While our specialized tools, heavy equipment and resource network all contribute to our ability to meet your project needs, it is ultimately the technical expertise, dedication and professionalism of our employees that make our projects successful.

- Turn-key Shutdown Projects
- General Shutdown Services
- Heavy Lift Execution
- On-site Heat Exchanger Services
- Crane and Equipment Rentals
- Piping Projects
- Controlled Bolting
- Flange Facing
- Cold Cutting
- Specialized Welding
- Project Management
- Estimating
- Safety Management
- Procurement
- Subcontract Coordination
- Custom Fabrication and Repair
- Pipe Fabrication
- Quality Control
- Engineering
- Steel Fabrication Plant Support
- Steel Plate Services
- Large-scale Machining
- Heat Exchanger Fabrication and Repair



ON-SITE CAPABILITIES

EDMONTON EXCHANGER: FIVE DECADES OF ON-SITE EXPERTISE

You can count on us to take care of whatever on-site challenges you have, no matter what the size. We've been working at on-site locations for more than five decades.

Our on-site services include:

- Turn-key petrochemical plant and refinery shutdown services
- Furnace and boiler repair and erection
- Vessel erection / heavy lifts / general rigging
- Tray installation for towers and vessels
- Heat exchanger bundle pulling and pushing. Capacities range from small units, to over 100" diameter in size and over 100,000 pounds in weight.
- Heat exchanger repair, re-tubing and fabrication
- Custom tube bending
- Piping fabrication and repairs
- Crane and equipment rentals
- Strip cladding and weld overlay of vessel internals
- Controlled bolting
- Field machining
- Orbital welding
- Convection tube pulling



CORPORATE SAFETY POLICY

“Edmonton Exchanger believes that every employee and subcontractor has the right to a safe and healthy work environment. We are committed to providing and maintaining a safe, healthy and productive work environment and achieve this through comprehensive health and safety programs, continual learning and improvement strategies.

Our goal is and will always be to achieve and maintain an incident rate of zero. In fulfilling our commitment and achieving our goal, all management, supervisors, employees and subcontractors have the responsibility to adhere to, and comply with all applicable legislation, policies, procedures and safe work practices. This includes ensuring appropriate training and the competency of our workforce, and identifying and eliminating all foreseeable hazards which may result in personal injury or illness, property damage or accidental loss. Every effort will be made to care for the physical assets of Edmonton Exchanger, our clients and subcontractors.

Edmonton Exchanger management, supervisors, employees and subcontractors shall take reasonable care to protect and maintain the health and safety of themselves, fellow workers and others that may be present including the general public from injury, harm or loss including psychological, physical and social well-being.

Edmonton Exchanger recognizes that accountability is paramount to our continued success and will demonstrate this through visible commitment to safety, quality and productivity. We trust that you will join us in promoting a safety culture where all Edmonton Exchanger employees and subcontractors are committed to health, safety and well-being as a way of life.”

- Glenn Tardif, President, Field Operations
Edmonton Exchanger

 **SAFETY... DO IT FOR LIFE!**



SPECIALIZED FIELD SERVICES

STATE-OF-THE-ART CONTROLLED BOLTING

We use state-of-the-art bolt torquing and tensioning equipment. Equipment is available to provide bolt torquing up to a 6 1/8" nut size and bolt tensioning up to a 4 1/2" stud size.

CONVECTION TUBE PULLING

Edmonton Exchanger's Convection Tube Puller was custom designed and fabricated in-house, and is used on-site for heater convection tube pulling and pushing applications.

It measures 75 feet in length and features a 70 foot pulling length, a 60,000 pound pulling force and a 30,000 pound pushing force. It has the capacity to handle return bend tubes up to 12" in diameter in any orientation ranging from flat to fully vertical.

The Convection Tube Puller's "C-style" cradle allows for forklift loading and unloading without disconnect from a crane. It is operated via remote control and can be self-balanced in two directions. This is a significant advancement over the traditional method from a safety perspective.

Controlled Bolting



Convection Tube Puller

SPECIALIZED FIELD SERVICES

FLANGE FACING EQUIPMENT

Our flange facing equipment enables us to machine material ranging from 0" I.D. to over 200" O.D.

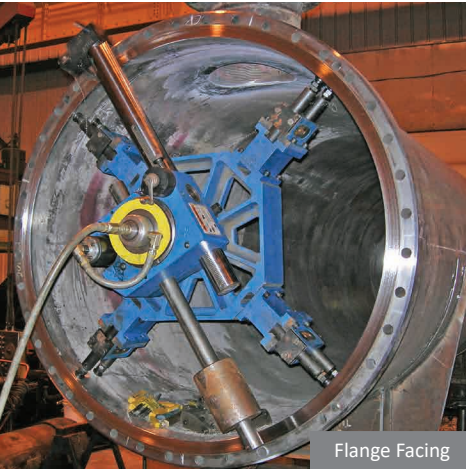
COLD CUTTING FROM 4" TO 86"

We are able to cut and custom bevel pipe from 0"- 86" in diameter.

SPECIALIZED WELDING:

OVER 1,250 ASME-CERTIFIED WELD PROCEDURES

We offer more than 1,250 ASME-certified welding procedures covering a wide range of materials, all backed by our highly experienced welding team. If a specific procedure isn't readily available, our experts can swiftly develop and implement one in-house to meet your project's unique requirements with precision and efficiency.



Flange Facing



Cold Cutting



Welding

WELD PROCEDURES INCLUDE:

- All types of Stainless Steel
- Chrome Moly Alloys
- Multiple Bi-metallic Procedures
- Titanium
- Incoloy(s)
- Monel(s)
- Nickel Alloys
- Hastelloy
- Inconel(s)
- Copper Nickels

HIGH TEMPERATURE CASTS:

- HK-40
- HP-40
- Paralloy
- Kubota

FIELD SUPPORT SERVICES

EDEX: YOUR ONE-STOP SHOP FOR INDUSTRIAL MANUFACTURING AND REFINERY MAINTENANCE

With more than 50 years of experience, Edmonton Exchanger (EDEX) has earned a reputation as one of North America’s most reliable industrial fabrication and on-site maintenance partners. From pressure vessel components to field services, machining, heat exchanger solutions, pipe fabrication, and custom fabrication and repair of pressure-related components, EDEX offers comprehensive capabilities under one roof.

END-TO-END SOLUTIONS WITH SEAMLESS DIVISION SUPPORT

What truly sets Edmonton Exchanger apart is how its specialized divisions work together to deliver cohesive, high-performance results. Each service area supports the next, allowing for:

- Faster turnaround times
- Streamlined project coordination
- Consistent quality control
- Reduced downtime for clients

From shop fabrication to fieldwork, we ensure your project is managed smoothly from start to finish, without the need to coordinate multiple vendors.

QUALITY CONTROL

Edmonton Exchanger’s Quality Control Manual outlines the Quality Control program and procedures used to assure compliance to the applicable ASME Code or Jurisdictional requirements for the certification process.

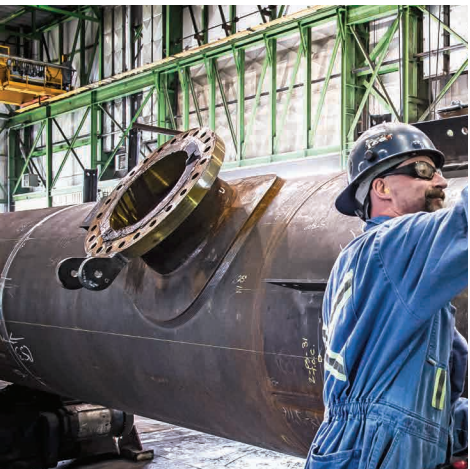
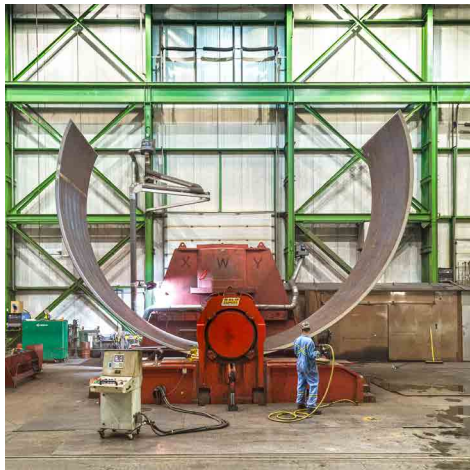
FIELD SUPPORT SERVICES

CUSTOM FABRICATION AND REPAIR

Edmonton Exchanger has extensive experience in the custom fabrication and repair of pressure related components. These include replacement vessels and exchangers on a “low volume” and urgent basis, often in support of our field operations.

In order to get a plant process back up and running, we can provide expedited fabrication and repair of large and small pressure related components such as pressure vessels, heat exchangers and other items on an “as needed” basis. We often receive requests to repair items such as heads and shell sections up to 20’ diameter, as well as replacement of nozzles and internals.

Many times these requests include material upgrades to deal with specific process requirements and prevent accelerated corrosion. We have extensive experience with different grades of stainless steel and alloys.





FIELD SUPPORT SERVICES

PIPE FABRICATION

Edmonton Exchanger's pipe fabrication facility constructs mechanical piping systems to ASME and client specifications.

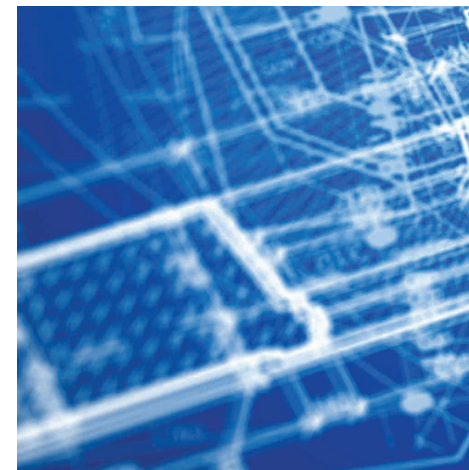
Because we hold over 1,000 weld procedures, we have welded most materials required in Alberta. We can accommodate a wide variety of materials ranging from carbon steel, stainless steel, low alloys and high alloy materials.

Fabrication certifications:

- Construct, Repair / Alter ASME B31.1 Power Piping and ASME B31.3 Process Piping in the field and shop
- ABSA Construct, Repair / Alter ASME B31.1 Boiler External Piping in the field and shop
- ABSA Manufacture, Repair / Alter Category 'A', 'B', 'C', 'D', 'E' & 'H' Fittings in accordance with CSA B51 in the field and shop
- Canadian Welding Bureau (CWB) certified to CSA Standard W47.1 for structural welding in Division 1
- ABSA Welder Testing

Once the project has been welded, our quality control staff who are CWB and CGSB qualified, perform LPI, NPI, Ferrite testing, hardness testing, PMI and UT.

Edmonton Exchanger field crews can field measure and verify drawings before fabrication to minimize field work. We can also provide the field support to install the piping system, start the system with operations and then provide continuing maintenance on those systems.



FIELD SUPPORT SERVICES

ENGINEERING EXPERTS ARE AT YOUR SERVICE

Do you require engineering support as well? Our high-tech engineering capabilities allow us to provide complete in-house engineering support to our field operations.

Additional support is provided for such applications as:

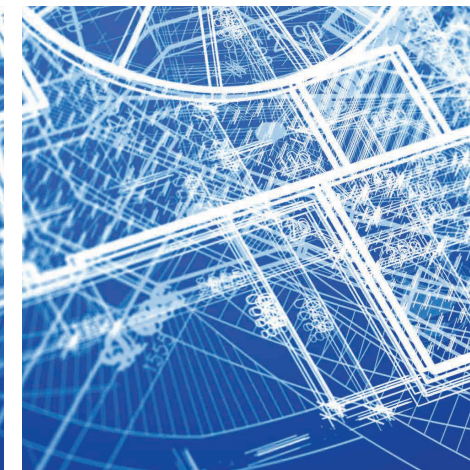
- Equipment Rigging Analyses
- Alterations to ASME Sec. VIII Div. 1 and 2
- Vessel Evaluations
- Vessel Re-rates

FINITE ELEMENT STRESS ANALYSES

Finite Element Stress Analyses are available for such uses as SIF, and allowable load and stiffness determinations for vessel nozzles and fittings. Additional comparisons to traditional verification methods are also offered.

ADDITIONAL FIELD SUPPORT SERVICES AVAILABLE:

- Nondestructive Examination
- Weld Mapping
- Turnover Documents



FIELD SUPPORT SERVICES

HEAT EXCHANGER FABRICATION AND REPAIR

Specializing in heat exchanger fabrication and repair, Edmonton Exchanger’s Heat Exchanger Services facility stocks a diverse inventory of materials and heat exchanger equipment that allows us to quickly adapt to your project’s specialized requirements and specifications.

This facility fully supports our field operations for all heat exchanger services required, and upon customer request, will schedule shop time in preparation for field projects in order to ensure an expedited turnaround time for field maintenance work.

HEAT EXCHANGER SERVICES: MANUFACTURE, REPAIR, REFURBISHMENT
Whatever shape or size your heat exchanger may be, we’re the ones for the job. At Edmonton Exchanger, we manufacture, repair and refurbish any size and type of heat exchangers including:

- Shell and Tube Bundles
- Straight-tubed Heat Exchangers
- U-bundle Heat Exchangers
- Coil-style Heat Exchangers
- Fin-fan Coolers
- Hairpin Exchangers (Repair Only)

QUALITY CONTROL INSPECTION PRIOR TO SHIPMENT

Prior to shipment, all of our manufactured components undergo thorough Quality Control inspection to ensure conformance to ASME codes Sec. VIII Div. 1 and 2.

CERTIFICATE OF COMPLIANCE

All materials are supplied with a Certificate of Compliance showing material type, size, order numbers, heat numbers, minimum thicknesses and Mill Certification Specifications.

FIELD SUPPORT SERVICES

TUBESHEET FABRICATION

CNC TUBESHEET DRILLING FOR DRILLING, SLOTTING, MILLING, BORING
Your search for versatile tubesheet drilling is over. Our QuickDrill 120 CNC enables us to offer a wide range of drilling, slotting, milling and boring services.

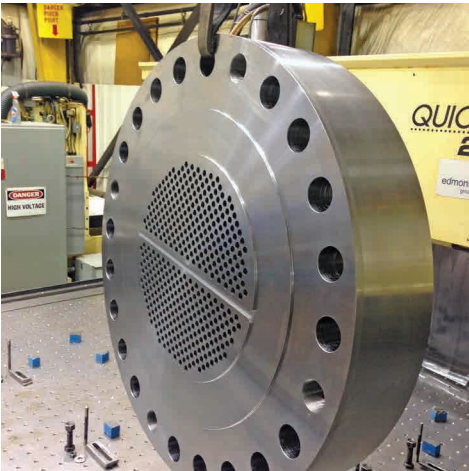
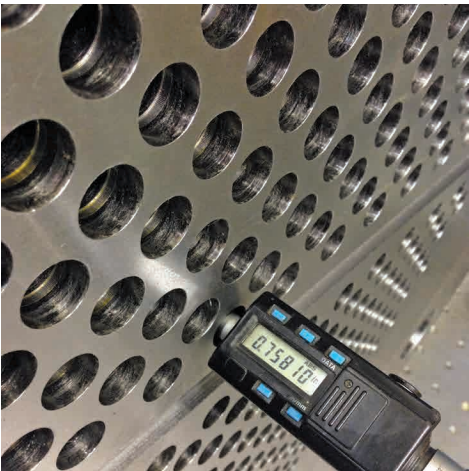
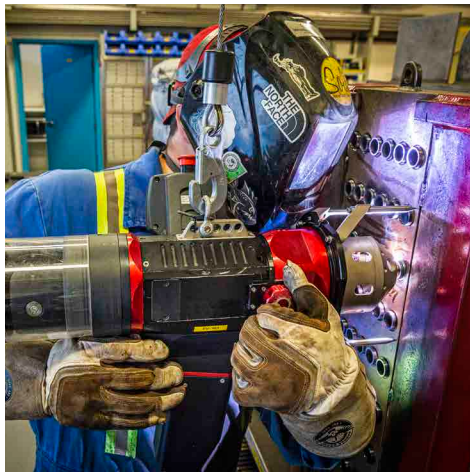
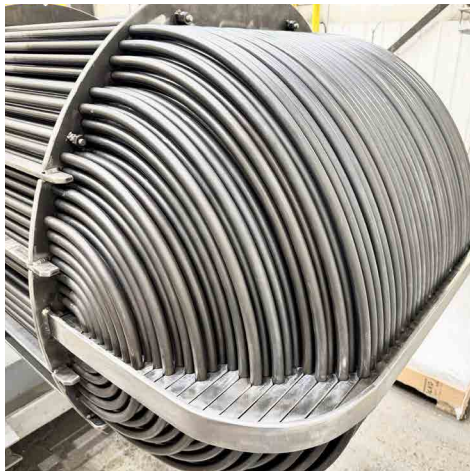
It boasts a machining envelope of 120” x 120” x 15” (3,048 mm x 3,048 mm x 381 mm), and can accommodate material up to 141” x 154” (3,581.40 mm x 3,911.60 mm) in size.

QUICKDRILL 200 CNC = CIRCULAR INTERPOLATE OFF CENTER

Does your project require tubesheet drilling with an added twist? Our QuickDrill 200 CNC not only features drilling, slotting, milling, and boring capabilities, it also enables us to circular interpolate off center.

It features a machining envelope of 200” x 120” x 30” (5,080 mm x 3,048 mm x 762 mm), and accommodates material up to 29” (736.60 mm) in height and a drilling capacity of up to 16” (406.40 mm) thick.

Additional CNC machines are also available to complement our full range of drilling capacities.





The Davi “Monster Rolls” machine can hot roll plate up to 12” thick. It’s not only the largest steel plate rolling machine at Edmonton Exchanger, it is one of the largest of its kind in North America.



FIELD SUPPORT SERVICES

PREFABRICATION PRESSURE VESSEL COMPONENTS

When required by a client, our Steel Fabrication plant will provide full support and emergency repair services to our field operations.

This facility features services such as head forming, plate rolling, profile cutting and custom stress relieving. It is supported by a large plate inventory of pressure vessel quality carbon steel, stainless steel and chromium molybdenum steel.

YOUR ONE-STOP HEAD FORMING AND SHELL ROLLING HEADQUARTERS

No matter what your pressure vessel component requirements are, Edmonton Exchanger has your solution. The fact is, our experienced professionals have the most extensive one-stop head forming and shell rolling capabilities in North America. So whatever your challenge, Edmonton Exchanger can tackle it.

HEAD FORMING TYPES FOR PRESSURE VESSELS AND TANKS

- Semi-Elliptical 2:1
- Torispherical Flanged and Dished
- Hemispherical
- Flanged Only and Dished Only

STEEL PLATE ROLLING

- Shells for Pressure Vessels and Tanks
- Eccentric and Concentric Cones
- Rolled Repads
- Rolled Rings for machining applications
- Custom Rolling

PROFILE CUTTING FOR MOST PATTERNS AND SHAPES

- Available for almost any pattern or shape imaginable from plate up to 17’-0” x 40’-0” in size (5,182 mm x 12,192 mm).



FIELD SUPPORT SERVICES

STEEL PLATE SERVICES

PLATELAND: OVER 30,000 METRIC TONS OF INVENTORY

You want steel plate selection? You've come to the right place. The quantity of steel plate inventory at Edmonton Exchanger is so immense (over 30,000 metric tons), it's commonly referred to as Plateland. All stocked steel plate complies with ASME code requirements and is accompanied by clearly legible Mill Test Certificates at time of shipment.

MASSIVE INVENTORY OF PRESSURE VESSEL PLATE

Welcome to one of the largest inventories of pressure vessel quality SA516-70 normalized plate in the world, ranging from $\frac{1}{4}$ " (6.35 mm) to 12" (304.8 mm) thick. SA 516-60, SA 537 CL1 and A572-50 (all normalized) are also available.

STAINLESS STEEL

We stock stainless steel in the following grades:

- SA 240-304
- SA 240-316
- SA 240-304L
- SA 240-316L

Plate ranges in thickness from $\frac{3}{16}$ " (4.76 mm) to 2 $\frac{1}{2}$ " (63.50 mm).

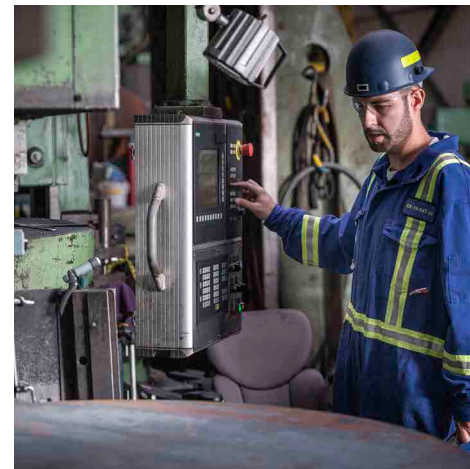


CHROMIUM MOLYBDENUM STEEL

We offer a large inventory of chrome moly steel (normalized & tempered) in the following grades:

- SA 387 Gr. 11 CL.2
- SA 387 Gr. 22 CL.2
- SA 387 Gr. 5 CL.2

Chrome moly steel plate is available from $\frac{1}{4}$ " (6.35 mm) to 2" (50.80 mm) thick.



FIELD SUPPORT SERVICES

LARGE-SCALE MACHINING

Tackle your project with the right machining solution. Edmonton Exchanger's large-scale machining facility is located in close proximity to our main plant and offers a wide variety of machining services. It was specially designed to handle large diameter components and boasts equipment that is some of the largest of its kind.

General machining equipment consists of a lathe and a drill press. Three vertical boring mills of various sizes are available, as well as a large-scale horizontal boring mill.

VERTICAL BORING MILLS FOR TURNING, FACING, BORING

We make boring exciting! Three machines are available for turning, facing and boring. Our smallest boring mill handles material up to 68" diameter x 5'-0" high (1,727 mm x 1,524 mm).

A larger machine will handle material up to 13'-0" diameter x 10'-0" high (3,962 mm x 3,048 mm). Our largest vertical boring mill also has drilling and slotting capabilities. It can handle material up to 24'-0" diameter x 10'-0" high (7,315 mm x 3,048 mm), and a weight of 50 tons.

HORIZONTAL BORING MILL FOR FACING, SLOTTING, BORING, DRILLING AND TAPPING

The horizontal boring mill has a travel of 156" vertical and 360" horizontal (3,962 mm V x 9,144 mm H). Its applications include facing, slotting, boring, drilling and tapping.

To support our large-scale milling equipment, a 50-ton overhead crane spans the entire length of the machining facility and thus enables transport of large components throughout the shop.



CONTACT

HEAD OFFICE / MAIN PLANT MAILING ADDRESS:

Edmonton Exchanger Group of Companies
5545-89 Street, Edmonton, Alberta,
Canada T6E 5W9

E-MAIL / WEBSITE:

Request a Quote:
equote@edmontonexchanger.com

General Inquiries:
sales@edmontonexchanger.com

Website:
www.edmontonexchanger.com

TELEPHONE:

Tel: 780.468.6722
Toll Free (Alberta Only): 1.888.343.4365

SOCIAL MEDIA:

