

CORPORATERESUME 2020

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

www.edmontonexchanger.com





1.0 CORPORATE OVERVIEW

Edmonton Exchanger Group of Companies is a private, Canadian owned corporation based in Edmonton, Alberta, Canada.

Edmonton Exchanger's Field Services division provides a wide variety of field services ranging from refinery construction and capital improvements, to turn-key refinery and petrochemical plant shutdown services. We have performed refinery maintenance shutdowns since our inception in 1975.

We are fully supported by the other divisions within the Edmonton Exchanger Group of Companies. These facilities perform heat exchanger fabrication and repair, pressure vessel component fabrication, pipe fabrication, custom fabrication and large-scale machining. We presently feature the most extensive pressure vessel head pressing and shell rolling capabilities in North America, as well as one of the largest pressure vessel quality steel plate inventories in the world.







1.1 SHIPPING FACILITIES

Rail: Rail Siding On-site

Truck: Full-scale Loading Facility

Air: Packaging available for Air Trave









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.

In the case of emergency maintenance requirements, we are capable of mobilizing a 1,500 person work force within a very short period of time.

2.1 MISSION STATEMENT

We strive to provide our field services division's clientele with the highest levels of quality on-site service achievable. We are committed to completing our projects on time and within budget while maintaining the highest levels of employee and client safety at all times. Edmonton Exchanger aims to offer our clients a full range of plant maintenance services and to be their preferred service provider.



2.2 DIVISION PROFILE

(2.2.1) MANPOWER

Field Labour: 30-2,000

Permanent Shop Labor (Total in all Divisions): 155-165

Administration: 50

Quality Assurance / Quality Control: 7 Engineering and Estimating: 10

Depending on union availability, Edmonton Exchanger can mobilize a field work force in excess of 400 persons on 48 hours notice.

(2.2.2) UNION AFFILIATIONS

Edmonton Exchanger is affiliated with, and has an excellent working relationship with all major trade unions.

(2.2.3) ACTIMS MEMBER

Edmonton Exchanger is affiliated with and is a participating member of ACTIMS (Alberta Council of Turnaround Industry Maintenance Stakeholders)









(2.2.4) STANDARDS AND PROCEDURES

General Standards and Procedures:

ASME, API, TEMA, ASTM, NBIC, ANSI and CWB DIVISION 2.

Testing:

- Ultrasonic and Magnetic Particle and Liquid Penetration: In-house
- Radiography: Contract
- Destructive Testing: Contract

Quality Assurance and Controls:

Our Quality Assurance and Quality Control manual is registered with the Alberta and Saskatchewan Boiler's Branches, and pertains to fabrication and repair in accordance with the following codes:

- Construction and Repair of Power Boilers & Power Piping per ASME Code Section I
- Construction and Repair of Pressure Vessels per ASME Code Section VIII, Division 1, Division 2, and per CSA B51
- Construction of Piping in accordance with ANSI / ASME codes B31.1 and B31.3
- Repair of Heating Boilers as per ASME Code Section IV
- Installation of Steel Structures per CSA W 47.1
- Manufacture of Fittings per CSA B51

(2.2.5) HEALTH & SAFETY MANAGEMENT

Edmonton Exchanger's comprehensive health and safety program has been recognized by the Partnerships In Injury Reduction and Certificate of Recognition programs since February 18, 2004.

We received the 2010 Health & Safety Leader Award presented by the Minister of Employment & Immigration and the Alberta Occupational Health and Safety Council. Edmonton Exchanger was also awarded the Suncor President's Operational Excellence Award for Personal and Process Safety - Contractor Individual / Team Category.

Edmonton Exchanger's health and safety programs and on-going safety performance have been reviewed and verified on an on-going basis by the following: ISNetworld, ComplyWorks, PICS Auditing, CQN Advantage.

(2.2.6) BASIC FIELD EQUIPMENT

- Bundle Pulling Equipment (Designed, manufactured, and patented by Edmonton Exchanger)
- Controlled Bolting Equipment (Bolt Scope / UT Machine)
- Cranes, Hoists
- Field Machining, Inspection, Welding and Tube Equipment
- Mobile Fully Stocked Tool Trailers
- Furnace Tube Puller









(2.2.7) KEY PERSONNEL

Edmonton Exchanger's Field Services leadership team provides stability and many years of industry experience to each of our projects.

Name	Position	Years with Firm	Name	Position	Years with Firm
Larry Gusse	President	37	Kelvin Enright	Site Manager	30
Glenn Tardif	V.P., Field Operations	30	Steve Zubryckyj	QC Manager	32
Glen Weiss, P.Eng.	Engineering Manager	29	Brad Peters	Site Manager	12
Darcy Raun, CPA, CMA, CIM	Chief Financial Officer	29	Scott Howard	Site Manager	17
Kevin Semenjuk, CPA, CA	Controller	15	Chris Sprott	Site Manager	15
Michael Spring	HSE Manager	21	Willis Whelan	Site Manager	20
Victor Green	Field Operations Manage	r 29	Randy Fenez	Site Manager	34
Troy Mearon	Site Manager	22			







2.3 FIELD SERVICES AND CAPABILITIES

- General Shutdown Services
- Piping Repairs
- Furnace / Boiler Repair and Erection
- Pipe Fabrication
- Tank Repair and Erection
- Controlled Bolting
- Tray Installation Towers and Vessels
- Flange Facing
- Vessel Erection / Heavy Lifts / General Rigging
- Cold Cutting
- Heat Exchanger Bundle Pulling and Pushing
- Field Machining
- Furnace Tube Pulling

2.4 TECHNICAL SERVICES

- Project Management
- Estimating
- Safety Management
- Procurement
- Subcontract Coordination
- Quality Control
- Engineering Support
- Field Machining Services
- Field Bolt Control Services







2.5 CORPORATE SAFETY POLICY

(2.5.1) PRESIDENT'S MESSAGE ON SAFETY

Safety... Do it for Life!

Edmonton Exchanger is proud to have experienced growth and excellence in our industry since 1975. With over 40 years experience in providing on-site plant and refinery maintenance services, and over 30 years of experience in custom steel fabrication, we've seen a positive evolution in our safety culture.

Safety, quality and productivity are interconnected and together equal success. This is what makes Edmonton Exchanger a leader in a unionized market.

Safety is about attitude and behaviour. We cannot achieve our vision of "Nobody Gets Hurt" with our safety policies and practices alone. It's about our employees making the commitment by taking the time to work safely, each and every day.

Our continued success is dependent on our employee's cooperation and support in preventing and reducing accidents. This is achieved by effectively identifying and controlling hazards, ensuring that workers have the right tools and training to do the job safely, and by their attitude, behaviour and commitment.

Each and every one of us at Edmonton Exchanger is committed to sending our employees home to their family and friends, safe and healthy each day. We will do our part, but our employee's commitment is the real key to our success

Everyone at Edmonton Exchanger strives for safety excellence and takes pride in what we do, individually and as part of a union team. That is our culture! We choose safety... for life!

Sincerely,

Larry Gusse, President

Edmonton Exchanger Group of Companies









2.6 PROJECT CAPACITY REPORT

Projects/Jobs	Procurement/ Fabrication	Installation/ Construction	Description
Construction		\$85,000,000.00	Upgrading Expansion
Construction		\$30,000,000.00	De-wax Project
Fired Heaters		\$4,000,000.00	Hydrogen Furnace Erection
Heat Exchangers	\$1,400,000.00		Heat Exchanger Repair / Re-tube
Heat Recovery Furnaces	\$8,000.000.00		Heat Recovery Furnace Erection
General Plant Maintenance		\$10,000,000.00	 Major Repair / Modifications on Shutdown
General Piping	\$2,000,000.00		Alloy Piping and Tubing
	\$1,000,000.00		Pressure Vessel Fabrication / Repair
		\$600,000.00	Field Erected Storage Tanks / Repair
Trays & Vessels		\$2,000,000.00	Field Tray Installation / Repair

^{*} These estimates are guidelines only and not necessarily project limitations.





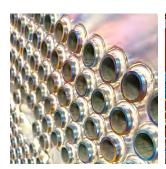




3.0 HEAT EXCHANGER SERVICES

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.







3.1 HEAT EXCHANGER SERVICES: MANUFACTURE, REPAIR, REFURBISHMENT

Whatever shape or size your heat exchanger may be, we're the ones for the job. Edmonton Exchanger can supply heat exchanger components in addition to supporting clients with their bundle fabrication. 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

3.2 DIVISION PROFILE

(3.2.1) MANPOWER

Permanent Shop Labour: 20-25 (Allocated to Heat Exchanger Services Division)

(3.2.2) KEY PERSONNEL

Name	Position	Years with Firm
Irvin Godina	Heat Exchanger Division General Manager	29
Peter Taschuk	Heat Exchanger Division Support	22
Chris House	Dayshift Shop Foreman	12
Sarath Ou	Night Shift Shop Foreman	22
Michael Godina	OGTAW Welding Supervisor	12
Mijo Renic	CNC Operator Lead Hand	
Randy McGlennon	CNC Mechanic / Shop Maintenance	

3.3 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. All heat exchangers can be certified to CSA, ABSA or ASME stamped.







3.0 HEAT EXCHANGER SERVICES

3.4 SPECIALIZED EQUIPMENT AND CAPABILITIES

Whatever the size or type of heat exchanger you need fabricated or repaired, Edmonton Exchanger features leading-edge heat exchanger equipment that enables us to adapt to your specialized specifications.



CNC DRILLED COMPONENTS (See Section 8.3)

We offer the following array of drilled components: tubesheets, baffles, flanges and other miscellaneous items.



MATEX ROLLING TECHNOLOGY

Computer controlled variable speed tube rolling with a Siemens drive reducing ligament fatigue during rolling.



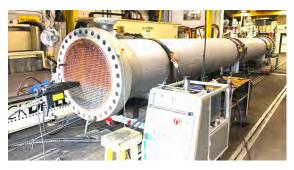
HIGH PRESSURE HYDRAULIC TUBE EXPANSION

Computer controlled technology enabling tubes to be fixed or molded to tubesheets using high pressure.



ORBITAL WELDING TECHNOLOGY

We utilize proprietary orbital welding technology in the fabrication of heat exchanger tube bundles.



RUN-PULL TECHNOLOGY

Maus run-pull technology allows for each tube to be automatically removed with a replacement installed immediately thereafter.



TUBE BUNDLE SAW TECHNOLOGY

Precise tube bundle cutting enables tubesheets to easily be removed from baffle cage with no burrs.



4.0 PIPE SPOOL FABRICATION

Edmonton Exchanger's pipe fabrication facility is located at our main plant location, and constructs mechanical piping systems to ASME and client specifications.







4.1 PIPE SPOOL FABRICATION CAPABILITIES

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
- $\bullet \ \ \text{Canadian Welding Bureau (CWB) certified to CSA Standard W47.1 for structural welding in Division 2}\\$
- 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.

4.2 DIVISION PROFILE

(4.2.1) MANPOWER

Permanent Shop Labour: 15-30 (Allocated to Pipe Fabrication Division)

(4.2.2) KEY PERSONNEL

Name	Position	Years with Firm	
Tim Gusse	Pipe Fabrication Shop Manager	11	
Trevor Rayner	Pipe Fabrication Shop Foreman	19	
Tony Hallonquist	General Foreman	11	
Katherine Langevin	Pipe Fabrication Shop Quality Control		
Chris Sturwold	Assistant Pipe Fabrication Manager	11	







5.0 CUSTOM FABRICATION AND REPAIR

Edmonton Exchanger's Custom Fabrication and Repair facilities are located at our main plant location.

5.1 CAPABILITIES

We offer 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, Edmonton Exchanger 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.









6.0 PRESSURE VESSEL COMPONENTS

6.1 MISSION STATEMENT

Edmonton Exchanger's mission is to consistently meet and exceed the expectations of our pressure vessel component division's customers by providing top quality custom fabricated steel products in a safe and timely manner. We endeavor to continually increase our production capacities and capabilities through innovative use of leading edge engineering and production technologies.







6.2 DIVISION PROFILE

(6.2.1) MANPOWER

Permanent Shop Labour: 108 - 112 (Allocated to Pressure Vessel Components Division)

(6.2.2) KEY PERSONNEL

Name	Position	Years with Firm
Larry Gusse	President	37
Ernest Reimer	Steel Plate Manager	30
Terry Rozak	V.P., Manufacturing	24
Michael Bussiere	Sales Manager	22
Jim Moore	Maintenance & Development Manager	
Ivan Gellert	Shop Superintendent	38
Barry Inglis	General Shop Foreman	26

6.3 OVERVIEW OF SERVICES

Head Forming

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

Steel Plate Rolling

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







6.0 PRESSURE VESSEL COMPONENTS

6.4 PRESSURE VESSEL HEAD FORMING

Hot Drawn Heads

With our 1,200 ton and 3,000 ton head presses (designed and constructed by Edmonton Exchanger), we are able to hot form heads up to 192" (4,877 mm) I.D. and up to 8" (203.20 mm) thick.

- Semi-Elliptical Heads: from 8 5/8" (219 mm) O.D. to 192" (4,877 mm) I.D.
- ASME Code Flanged and Dished Heads: from 48" (1,219 mm) I.D. to 96" (2,438 mm) I.D.
- Hemispherical Heads: from 8 5/8" (219 mm) O.D. to 144" (3,658 mm) I.D.
- Flanged Only Heads: from 31" (787 mm) O.D. to 76" (1930 mm) I.D.
- Dished Only Heads: from 10" (254 mm) O.D. to 120" (3,048 mm) O.D.



Dished and Spun Heads

Our dishing and spinning equipment enables us to cold form heads up to 134'' (31.75 mm) x 28'-6'' (8,687 mm) in diameter. Hot dishing and spinning allows us to manufacture heads up to 234'' (69.85 mm) thick.

- Semi-Elliptical Heads: from 96" (2,438 mm) O.D. to 288" (6,096 mm) O.D.
- ASME Code Flanged and Dished Heads: from 96" (2,438 mm) O.D. to 342" (8,687 mm) O.D.

- 80:10 Flanged and Dished Heads: from 90" (2,286 mm) O.D. to 330" (8,382 mm) O.D.
- Flanged Only Heads: from 72" (1,829 mm) O.D. to 168" (4,267 mm) I.D.
- **Dished Only Heads:** from 120" (3,048 mm) O.D. to 360" (9,144 mm) O.D.







6.0 PRESSURE VESSEL COMPONENTS

6.5 STEEL PLATE ROLLING

Our five sets of plate rolls enable us to roll plate into shells, rolled rings, cones (both eccentric and concentric), and repads. These components can be fabricated from our own plate inventory or from customer supplied material.

Dimensional Rolling Capacities

- Minimum Diameter: 16" (406 mm) I.D.
- Maximum Thickness: cold rolled 7" (177.80 mm), hot rolled 12" (304.80 mm)
- Maximum Length: 144" (3,658 mm)

The variables above are guidelines only. As diameters increase and lengths decrease, thicknesses can exceed those stated.

Shells are rolled to ASME code specifications and are usually rolled to our own head strappings, however, we will roll to customer supplied strapping dimensions. Shells can be supplied square cut, or beveled with long seams tack welded, or fully welded circumferential and long seams.

Concentric cones can be rolled up to a thickness of 4" (101.60 mm) and a length of 10'-0" (3,048 mm). Diameters can be from 24" (610 mm) O.D. to 168" (4,267 mm) O.D. They are rolled in one piece with only one long seam when plate layout allows it. We can provide the cones square cut, or beveled with long seams tack welded, or fully welded circumferential and long seams. Eccentric cones can be rolled up to a thickness of 1" (25.40 mm) and a height of 48" (1,219 mm).

Components rolled from our plate inventory are accompanied with Mill Test Certificates. In the case of hot rolled items, Furnace Heat Charts can be provided upon request.

Fully welded shells and cones come complete with necessary nondestructive examination and the applicable inspection forms.

6.6 QUALITY CONTROL

Prior to shipment, all manufactured components undergo thorough Quality Control Inspection to ensure conformance to ASME codes and/or other international codes and standards or specific customer requirements.

Heads, shells, and other components are supplied with a Certificate of Compliance showing type, size, material type, order numbers, heat numbers, and minimum thicknesses (where applicable). For heads, the Certificate of Compliance also includes visual inspections done on heads (ie. roundness, form conformity, surface conditions, etc.) and certifies that the heads are made to meet the applicable standards.

All material supplied from our plate inventory is checked for proper stamping of material type. Heat numbers are checked against original Mill Test Certificates on file to ensure compliance. Mill Test Certificates are provided at time of shipment.













7.0 STEEL PLATE SERVICES

Inspired by the immense quantity of steel plate, Edmonton Exchanger's plate inventory is 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.

7.1 CARBON STEEL PLATE

We stock one of the largest inventories of pressure vessel quality SA516-70 normalized 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.

Our extensive inventory includes plate with strict chemical requirements. Testing to various specifications can be performed upon request.







7.1.1 CHART OF TESTS PERFORMED UPON REQUEST

Ultrasonic Tests (for cracks and laminations)	Hydrogen Induced Cracking
Magnetic Particle Examination	Sulphide Stress Cracking
Microstructure Analysis	Brinell Hardness
Chemical Product Analysis	Charpy V-Notch
Corrosion Tests	Liquid Penetration

7.2 STAINLESS STEEL PLATE

We stock stainless steel plate ranging in thickness from $\frac{1}{8}$ " (3.17 mm) to $2\frac{1}{2}$ " (63.50 mm) in the following grades:

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

7.3 CHROMIUM MOLYBDENUM STEEL PLATE

We offer a large inventory of Chromium Molybdenum Steel plate ranging in thicknesses from ¼" (6.35 mm) to 2" (50.80 mm) in the following grades:

- SA 387 Gr. 11 Cl.2
- SA 387 Gr. 5 Cl.2

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• SA 387 Gr. 22 Cl.2

7.4 PROFILE CUTTING

- Almost any pattern or shape imaginable from plate up to 40'-0" x 16'-0" in size (12,192 mm x 4,877 mm).
- Discs and Rings for Flange production up to 12" (304.80 mm) thick.
- Plasma-cutting of stainless steel up to 3" (152.40 mm) thick.
- Oxy-fuel / plasma cutting of carbon steel up to 12" (304.80 mm) thick.
- Plasma-cutting of chromium molybdenum steel up to 6" (152.40 mm) thick.







8.0 MACHINING SERVICES

8.1 LARGE-SCALE MACHINING

Edmonton Exchanger's Large-scale Machining facility is located at our main plant and offers a wide variety of machining services. It was specially designed to handle large diameter components and features 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.

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.



Vertical Boring Mills

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 $13^\prime\text{-}0^\prime\prime$ diameter x $10^\prime\text{-}0^\prime\prime$ 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 $^\prime\text{-}0^\prime\prime$ diameter x $10^\prime\text{-}0^\prime\prime$ high (7,315 mm x 3,048 mm), and a weight of 50 tons.

Horizontal Boring Mill

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

General Machining

• Lathe: 32" x 108" • Di

• Drill Press: 72" (1,829 mm)













8.0 MACHINING SERVICES

8.3 CNC DRILLED COMPONENTS

Edmonton Exchanger offers the following array of drilled components: tubesheets, baffles, flanges and other miscellaneous items. These are fabricated for in-house use, and in addition they are supplied to our many other industry clients. All CNC-drills are annually calibrated. Calibration certificates are available upon request.

CNC Tubesheet Drilling

Edmonton Exchanger has seven CNC machines of various sizes and capabilities available for tubesheet drilling applications.







QuickDrill 200 CNC

Our QuickDrill 200 CNC features drilling, ring grooving, milling, and boring services and will also circular interpolate off center. It features a drilling footprint of 200" (5,080 mm) \times 120" (3,048 mm) \times 30" (762 mm), and accommodates material up to 29" (736.60 mm) in height. It has a maximum drilling hole depth of 11.625" (295.28 mm) deep in one cycle, and a maximum drilling hole depth of 22" (558.80 mm) deep in two cycles (flip drilled).

QuickDrill 120 CNC

Edmonton Exchanger has (2) QuickDrill 120 CNC machines available that offer a wide range of drilling, ring grooving, milling and boring services, and will also circular interpolate off center. They boast a drilling footprint of 120" (3,048 mm) x 120" (3,048 mm) x 15" (381 mm), and can accommodate material up to 141" (3,581.40 mm) x 154" (3,911.60 mm) in size. They have a maximum drilling hole depth of 11.625" (295.28 mm) deep in one cycle.



QuickDrill 96 CNC

Our QuickDrill 96 CNC machine features drilling, ring grooving, milling and boring services and will also circular interpolate off center. It offers a drilling footprint of 96'' (2,438.40 mm) x 96'' (2,438.40 mm) x 14.5'' (368.30 mm), and a maximum drilling hole depth of 11.625'' (295.28 mm) deep in one cycle.

QuickDrill 60 CNC

We also have (3) QuickDrill 60 CNC machines that feature drilling, ring grooving, milling and boring services and will also circular interpolate off center. They offer a drilling footprint of 60'' (1,524 mm) x 60'' (1,524 mm) x 14.5'' (368.30 mm), and a maximum drilling hole depth of 5'' (127 mm) deep in one cycle.