CARBER was built on safety and innovation and continues to be an industry leader through skilled employees and patented technologies.

CARBER is a privately owned global specialty industrial service company based in Houston, TX. We provide trained and experienced technicians and professional, timely services driven by a Health, Safety, and Environmental program that reflects our commitment to safety. Our services increase safety, decrease downtime, reduce environmental impact and provide cost savings.

CARBER was established in 1995 as CAR-BER Testing Services, headquartered in Canada. The original services included the CARBER Weld Test and CARBER Isolation services. Our first two services were built around patented technologies found in our Weld Test Tool and our Isolation Tool (U.S. Patent No. 5,844,127). Our customers benefited from our technology by saving time, increasing safety and reducing costs associated with traditional methods of testing new welds or isolating lines for hot work (e.g., tie-ins and revamps). As CARBER has grown, additional specialty services have been added in response to increased customer demand. These additional services combined with our cross-trained technicians enabled CARBER to become a complete service provider and increase the value we provide to our customers.

Safety is deeply embedded in the culture at CARBER. From the CEO to the employee we hired today, everyone within CARBER puts safety above all else. Our business was built on safety and efficiency as evidenced in our technology and in every CARBER employee.

CARBER has developed a set of core values that define who we are individually and as a company. These basic principles are the foundation of everyone within the organization.

**CARBER CORE VALUES:**

**Safety & Quality**  
First and foremost.

**Committed Leadership Through Collaboration**  
Leadership by example; corporately and individually. Progress occurs when courageous, skillful leaders seize the opportunity to change things for the better through collaboration with our customers and employees.

**Service Excellence**  
Service with superior value; to accept nothing but the best in ourselves, our products and our services.

**Integrity**  
We will be trustworthy, honest, genuine and loyal in every action.

**Innovation**  
Defines our past, propels us into the future and provides us with a strong market position through better technology and processes.
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CARBER has the manpower and equipment to cut & bevel lines anywhere in the world.

CARBER’s cold cutting method is the safest means available to cut existing pipe. No sparks or open flames are present at any time during the cutting & beveling process effectively eliminated risk of ignition of contents.

When utilizing this cutting method, the ID wall of the pipe is only penetrated in the last few seconds of the cutting process. This greatly reduces exposure of the contents of the pipe to personnel and environment.

Because there is no spark or flame produced, cold cutting does not require lines to be gas free. In most instances this also eliminates the need to obtain a hot work permit to simply cut a piece of pipe.

Our precision machining capabilities allow CARBER technicians provide fast, accurate cuts on lines that do not need to be gas-free.

Cold cutting & beveling is the first step in the CARBER Cut/Isolate/Test System for a quick and safe tie-in. By bundling these services, there is no need to hire multiple specialty contractors.

Reference Specifications:

Current Size Range: 0.75 in. up to 180 in. (19.05mm to 4572mm)

Wall Thickness: Up to 7.5 in. (190.5 mm)

Pipe Material: All

Bevel Type: All standard + custom bevels/landings & combination bevels

Power: Pneumatic or Hydraulic

Out of round pipe: Yes

Hot-work permit required: No in most cases
CARBER technicians perform thousands of cold-cuts every year in facilities around the world. Whether you need one cut made in an emergency situation or an entire plant cut for disassembly, CARBER is available to help keep your facility moving forward.

Cold cutting is recognized by the U.S. Department of Energy as a best practice cutting procedure; even in nuclear facilities.

Due to the physical dimensions and safety benefits, Cold Cutting is ideal in an offshore setting where space is limited and safety is critical. Tool design allows for operation in tight spaces and can easily operate within 6 in. of radial clearance. With notice the cutting machines can be modified to operate within 3 in. of radial clearance.

Benefits of cold cutting technology:

- Since no flames are used and no sparks are produced, potentially hazardous lines do not need to be gas-free; there is no risk of combustion.
- Cuts and bevels simultaneously.
- Ability to perform cuts under fresh air if lines are hazardous.
- Many sizes of cold cutting equipment are light and portable, eliminating the need for lifting equipment.
- Clamshell type assembly allows for easy installation onto existing pipe.
- Can be remotely operated from any distance.
- Ability to cut out-of-round pipe.
- Engineered step-down feature allows a machine to cut one size smaller pipe (e.g. 6 in. machine can also cut 4 in. pipe).
- Can cut out existing welds with minimal (only 1/8 in.) material loss.

No cut is too large or too small. Should you need a cut larger than 180 in., CARBER can engineer a solution to fulfill your needs.
The CARBER Isolation Service provides a better way to isolate pipes for hot-work than traditional methods.

The patented CARBER Isolation tool safely isolates a line for hot-work, guaranteeing safe keeping of property, equipment and personnel by creating a proven, 100% positive pressure vapor barrier against residual contents in the pipe. Installing a plumber’s plug or similar device and hoping for the best is never best practice.

CARBER technicians are ready to isolate your lines to make your hot-work project safe, allowing your project to be done quickly, at a lower cost and significantly reduced risk when compared to traditional methods.

Reference Specifications:

Current Size Range: 0.5 in. up to 72 in.(12.7mm to 1828.8mm)
Larger sizes can be custom built.

Pipe Material: All

CARBER Isolation Benefits

- Ability to monitor seal and ensure safety of hot-work.
- Triple vapor barriers; one is positively pressured.
- Vent upstream activity safely away from hot-work.
- Vent gauge to monitor upstream activity.
Creating and making CARBER Tools

All CARBER tools are manufactured in our state of the art ISO 9001:2008 certified manufacturing facility.

Each one of our tools pass a rigorous quality program which includes standard NDT on critical components. Engineering and manufacturing our tools to the highest standards from high-grade materials means our tools are ready for their job regardless of the application or environment.

The CARBER Isolation service can eliminate much of the prep-work associated with a tie-in such as:

- Numerous blinds/scaffolds can be eliminated
- Extensive steaming and cleaning can be eliminated, as lines do not need to be 100% gas free
- Can be installed under supplied air; supplied air not required while isolation is in place

Application Benefits

- Almost any non-flammable medium can be used for the isolation
- The CARBER tool can be used for a hydrodynamic isolation for high temperature procedures such as bake-outs, stress relief, or pre-heat
- Tool can accommodate a multi-schedule pipe design
- Can be used to isolate through elbows and tees
- The design of the tool requires a minimal length of pipe to allow proper installation
- Pitted pipe does not need to be made smooth for the CARBER Isolation tool to form a complete seal
- Lifting equipment is not needed for most sizes

The CARBER Isolation tool has been used globally to safely isolate lines with no hot-work incidents. This is why facilities around the world have written this tool into their procedures and best practices.

To ensure safety during an isolation, every CARBER technician has stop-work authority when monitoring an isolation that is in place.
The CARBER Weld Test Service utilizes patented technology for a safer, quicker, and cheaper way to hydrotest new welds.

Our proprietary weld testing technology allows a single weld to be isolated and hydrotested without the need to fill the entire line or system. Single welds are isolated during the hydrotest, significantly reducing the amount of test medium used. Most applications only require ounces of medium to complete a hydrotest.

The CARBER Weld Test service is fully capable of meeting ASME B31.1/B31.3 standards as well as ASME BPV V & VIII, API 510 & 570. Our weld test technology can hydrotest welds beyond 7000 psi.

**Reference Specifications:**

- **Current Size Range:** 0.5 in. up to 120 in. (12.7 mm to 3048mm) Larger sizes can be custom built.
- **Test Pressure:** Beyond 7000 psi (482.63 bar) - depending on size/application
- **Pipe Material:** All
- **Out of Round Pipe:** Yes
- **Testing Medium:** Any non-flammable liquid

![Image](72 in. out of round weld test using less than 0.33 gallons of water.)

![Image](CARBER Weld Test Tool testing a new tie-in weld.)

![Image](Testing a 36 in. weld with a 36 in. CARBER Isolation in place.)

Large weld? No problem.

The CARBER Weld Test tool can be custom manufactured to any diameter.

Pictured is a 102 in. weld test using a total of 1/2 gallon of test medium at 250 psi.

Setup and testing was completed faster than the line could have been filled for a traditional test.
Advantages of the CARBER Weld Test Service

- Perfect for testing tie-in welds on existing piping systems; eliminates installation of hydro blinds.

- Can test gasket faces; including newly machined surfaces.

- No post-hydro dry out phase required; nitrogen can be circulated through the tool to dry moisture.

- Ability to use test medium that is best for the system (e.g., glycol, mineral oil, peanut oil, etc.).

- Can be used simultaneously with CARBER Isolation for lines 8 in. (203.2 mm) and larger.

- Virtually no contained energy in the tool during testing due to small amounts of medium.

- Lightweight system eliminates the need for heavy lifting equipment (i.e., 42 in. XS tool is 242 lbs. with heaviest component only weighing 83 lbs.).

- Due to small amount of medium, there is minimal risk to environment during reclamation process of test medium.

Each one of our service centers has a full set of CARBER Isolation and CARBER Weld Test tools in the most common sizes. Our proven tools and experienced technicians are available on a 24-hour basis. Whether you have an emergency that needs attention quickly or a large turnaround spanning many months, CARBER is here to keep your facility in production.
The CARBER Weld Test Service can test many different piping systems and scenarios, including:

- Flanges (weld neck, socket-weld, slip-on, orifice)
- Branch Connections (o-lets, PI’s, TI’s, Instrument taps)
- Orifice flange root valves
- Wall thickness transitions
- Flange to elbow/reducer/tee
- Out of round pipe
- Butt-welds - within reach

Top Left: Hydrotesting a standard pipe and flange with CARBER Weld Test Tool.

Top Right: Elbow and flange during hydrotest with CARBER Weld Test Tool.

Bottom Left: Hydrotesting a branch connection with a CARBER Weld Test Tool.

Bottom Right: Hydrotesting a hazardous line with CARBER Isolation Tool in place (lines 8 in. and larger). The CARBER Isolation Tool remains in place to allow technicians to not be required to have supplied-air during the hydrotest of the new weld and flange.
The CARBER Cut/Isolate/Weld Test System can significantly reduce the time and cost associated with a tradition tie-in to an existing system.

To execute the proposed tie-in using traditional methods, the new line would be purged and cleaned for torch cutting. Then grinders would be used to bevel the pipe and a new flange welded into place. The new lines then need to be blinded and the entire system filled with test medium and pressurized to ensure integrity of the new welds.

The requirements for this series of operations could include blinding, scaffolding, lead/asbestos abatement, insulation removal, heat/steam tracing, etc., and the time required to fill the system for a hydrotest and post-hydro dry out.

CARBER technology can eliminate the time and cost associated with many of these operations.

**Step 1: Cold-cut & Bevel the line.** This saves time and lowers cost by reducing cleaning associated with hot-work and simultaneously cutting and beveling the pipe. Safety is increased through the elimination of hot-work.

**Step 2: Isolate line for hot-work.** This step also eliminates extensive cleaning traditionally associated with this task. Safety is increased through a constantly monitored 100% positive pressure vapor barrier present during the welding process.

**Step 3: Hydrotest the new weld.** Significant time and cost is saved during this step by avoiding filling the entire system with test medium and reclaiming it after the test is complete.
Planning steps for use of CARBER technology for installation of a tee fitting.

**Step 1: Layout the pipe to be cut.**

**Step 2: Simultaneously cut and bevel both sides of existing pipe for new fitting.** Our cold cutting system simultaneously cuts and bevels, leaving the pipe end prepped for welding without additional grinding.

**Step 3: Isolate both sides of existing pipe during weld procedure.** The CARBER Isolation tool can fit through turns as required for tee fittings. This allows easy removal of the tool once the isolation is complete.

**Step 4: Hydrotest all new welds on the fitting and the pipe.** The CARBER Weld Test tool is also capable of fitting through turns required for installation into a tee fitting. This allows CARBER to provide safe and quick hydrotests of the new welds that join your fitting to the pipe as well as the new flange on your tee.

The CARBER Cut/Isolate/Test system can be used for many applications and installations of various fittings. CARBER also offers assistance in planning your new tie-in to help eliminate many other processes that slow your schedule and keep facilities offline for longer periods of time.
Planning steps for use of CARBER technology for installation of an elbow fitting.

Step 1: Cold cut and bevel the pipe.

Step 2: Isolate the pipe for welding of elbow and flange. CARBER installs isolation tool while customer fits and welds elbow and flange.

Step 3: Hydrotest elbow to pipe weld. In long radius elbows the CARBER Weld Test tool can pass through the radius to complete a CARBER Weld Test from the fitting to the pipe.

Step 4: Hydrotest flange to elbow weld. The flange to elbow weld as well as the fitting and heat affected area is tested without blinding and filling the new system. This eliminates the need for large amounts of test medium.

For fittings on hazardous pipes 8 in. and larger the CARBER Isolation can remain in place while the new welds for the fitting and flange are tested. This reduces the need for supplied air during the hydrotesting process.

Once the new fitting is in place and has passed hydrotesting, CARBER can close your new connection using torquing or tensioning techniques for a proper closure.
Hydrotest open-end/plain-end pipes, spools or modules in as little as 1/3 the time and 1/3 the cost compared to welding caps and cutting them off.

CARBER offers an innovative solution that will decrease time and cost associated with any module or spool hydrotesting. Our Plain-End Test Service utilizes our patented tool that fits on the outside of the pipe and seals the open end, allowing the pipe to be pressurized and tested. Our technologies can even accommodate open-ended systems that end in fittings such as tees, socket-weld fittings, elbows and reducers.

Our service allows fabrication companies and their welders to focus on their most productive work and profitable core competency: fabrication. By not welding during the hydrotesting phase of the project, extensive quality control management is also omitted from the job. The CARBER Plain-End Test Tool significantly reduces the number of issues commonly found during post-installation hydrotesting, and in some cases completely eliminates post-installation hydrotesting from the scope of a project.

The CARBER Plain-End Test tool is O.D. mounted, eliminating any marking on the inside of the pipe. Use of the CARBER Plain-End Test system allows pipes to be coated, insulated, painted, traced, etc. prior to project or outage.

Reference Specifications:

Current Size Range: 0.5 in. up to 42 in. (12.7mm to 1066.8mm) Larger sizes can be custom built.

Test Pressures: beyond 4500 psi (310.26 bar) - depending on size/application

Pipe Material: All
Advantages of the CARBER Plain-End Test service over internal gripping plugs:

- Tests the entire length of pipe; internal gripping plugs will occupy space near the opening that is not hydrotested.
- Does not have teeth that will mark or score the inner pipe wall and accelerate localized corrosion.
- Can be used to test tees, 45° & 90° fittings, reducers, socket-weld fittings, etc.
- Can test out of round pipe, which may be difficult for round internal plugs.
- O.D. mount tooling eliminates potential jamming in the pipe.
- Engineered safety feature prevents tool from being ejected, unlike internal gripping plugs.

Advantages of the CARBER Plain-End Test service over welding caps:

- Time advantage means increased throughput for your facility.
- Installation and removal require as little as 1/3 of the time required to weld caps and cut and re-bevel after the hydrotest is complete.
- Cost savings through elimination of welding supplies (labor, rods, oxygen acetylene, etc.).
- Exotic and alloy piping does not require pre-heating.
- Metallurgy of the pipe is not changed due to elimination of welding.
- Because there is no cutting, dimensional accuracy is maintained, eliminating potential issues during installation.
- Eliminates the need to purchase and store a large assortment of welding caps.

Fabricators have found the CARBER Plain-End Test Service to be so cost-effective and efficient that they have turned over entire hydrotesting operations to CARBER.
CARBER provides world-class trained technicians and equipment to properly close connections on any piping system or equipment.

Whether you are performing a single tie-in or building a new unit, CARBER has the right bolting technique for your facility. A strict quality assurance program and a rigorous training regimen provide the foundation for our controlled bolting service. Each of our technicians receives training in the areas of theory, engineering, and dynamics of a bolted connection. Our Bolting Specialists are ASME certified.

CARBER has a large supply of torquing and tensioning equipment to preload standard industrial fasteners. Should specialized hydraulic tooling be necessary, CARBER can engineer and manufacture solutions for any need in our ISO 9001:2008 certified facility.

Reference Specifications:
- Minimum Size: N/A
- Maximum Size: 5 in. (127 mm)
- Maximum Torque: 80,000 ft. lbs. (108,465 Nm)

Bolting Services:
- Tensioning
- Torquing
- Package Development & Assembly
- Hot Bolting
- Ultrasonic verification
- Pre-Planning
- Quality Control (CCIS)

CARBER Controlled Bolting provides the latest in bolt tensioning and torquing technologies. Our system will greatly reduce the time necessary to properly load fasteners and close connections.
CARBER Controlled Bolting provides:

- Decreased fugitive emissions through uniform bolt loading.
- Ultrasonic measuring equipment to verify bolt preload.
- The ability to tension multiple bolts/fasteners simultaneously to achieve a uniform closure.
- Increased equipment life due to systematic flange rotation.
- Reduction in time required to properly close flanged connections.
- Increased productivity in process units.
- A proactive approach to joint integrity.
- Load, stress, and elongation printouts on-site.
- Closure certification and all required data.
- Compliance with ASME PCC-1 2010 - Guidelines for Pressure Boundary Bolted Flange Joint Assembly

Critical Closure? Close It...

- Properly - The CARBER Controlled Bolting system delivers the same load to every bolt in the pattern to ensure proper closure.
- Accurately - The CARBER Controlled Bolting system provides ± 10% of the target bolt load automatically, removing any guesswork from making a proper bolted connection.
- Quickly - Bolt tensioning equipment uses hydraulic power, not muscle power. The work is completed in less time and without fatigue.
- Safely - Hammers, cheater pipes, and dangerous slugging wrenches are eliminated, which helps prevent lost time incidents.
- Quietly - No vibration and elimination of impact help to reduce injuries associated with high noise impact wrenches.

CARBER Connection Inspector Software - CCIS

CARBER has developed a proprietary cloud based solution database to track and record bolting data. Unlike databases developed by bolting tool companies, the CCIS is capable of providing and capturing data for multiple tool manufacturers.

The CCIS also operates as a database to store critical information regarding your bolted connections. As connections are complete, all relevant data is entered into the database. The database is available at all times to provide previous connection calculations, utilized tools, and other essential data.

Benefits of using the CCIS:

- Provides torque values and load information for more than one brand of tool.
- Organizes historical data efficiently for quick retrieval during your next project or shutdown.
- Stores drawings, printouts and quality control documents associated with the connection.
- Data is secure and accessible anywhere in the world.
CARBER has the right tools and experienced machinists to decrease equipment downtime and keep your facility in production.

CARBER field machining provides on-site solutions to allow your equipment to be repaired in the field and avoid the time and cost associated with sending it for shop repair. Skilled craftsmen with the proper tools are strategically located within our network of service centers to access your facility as quickly as possible.

Our technicians are cross-trained to perform the other services offered by CARBER. This means fewer technicians on your job site doing more work, effectively reducing risk.

Field Machining Services:

- **Milling**
- **Flange Refacing** - up to 150 in. (3810 mm)
- **Line Boring** - 1.5 in. to 48 in. (38.1 mm to 1219.9 mm)
- **Counterboring**
- **Exchanger Work**
- **Stud Extraction** - up to 7 in. (177.8 mm)
- **Nut Splitting** - up to 6 1/8 in. (155.58 mm)
- **Drilling & Tapping**
- **Vessel Hole Cutting**
- **Transitioning**

CARBER can reface any flange whether standard or custom.

CARBER can reface any flange whether standard or custom.

Portable milling solutions for a variety of bases and casings.

CARBER Isolation in place during flange refacing.
CARBER also offers custom solutions to non-routine machining work. Our experienced engineers and machinists can help you find quick, cost-effective solutions to modify or maintain your equipment in the field.

CARBER Field Machining Services are ideal for:

- Pump Bases
- Motor Bases
- Compressor Casings/Bases
- Flange/Gasket Faces
- Exchanger Equipment
- Vessel Hole Cutting
- Turbine Casings
- Corroded Fasteners
- Instrument Installation
- Fin Fan Tubes

CARBER can cut any size hole in any size vessel to accommodate nozzle installations or tie-ins on large diameter pipelines. The patented CARBER Nozzle Test can hydrotest your new nozzle without filling the vessel.

CARBER Field Machining Services are designed to keep your project on-schedule and provide cost effective solutions. When your equipment needs modification or refurbishment, let CARBER provide a solution in the field and minimize equipment downtime.
CARBER combines experienced leak sealing technicians with best in class materials to provide onstream leak repair solutions to help prevent a shutdown.

CARBER offers on-site online leak repair that can help you avoid a shutdown and keep your facility producing. Our experienced leak sealing team can find a solution that will work for your facility whether it is a leak that needs a standard bar clamp or an exotic application that requires specialty engineering. Only industry proven techniques and materials are used by CARBER for all leak repairs.

Composite wraps are available to correct any piping irregularities (dents, cracks, corrosion, etc.) that may be present in your piping system. Utilizing a composite wrap can stop or prevent corrosion and extend the service life of your piping system without shutting down the system and interrupting production.

Composite wraps are not for piping systems alone, we can wrap tanks, vessels, and a variety of other system components to provide a permanent solution. Wraps are compatible with carbon steel, PVC fiberglass, stainless steel, exotic alloys and many more.

Reference Specifications:

LEAK REPAIR

Current Temperature Range: -20°F to 1500°F (-28.89°C to 815.56°C)

Current Pressure Range: Vacuum to 6000psi (Vacuum to 413.68 bar)

Leak Repair Types: All including custom solutions

COMPOSITE WRAP

Current Temperature Range: Up to 400°F (204.44°C)

Current Pressure Range: Vacuum to 2000psi (137.89 bar)

Composite wrap materials: Many different materials are available, please consult with a CARBER representative to help determine what is best for your application.
Leak repair and composite wraps are versatile applications for:

- All types of fittings including tees, elbows, flanges, reducers and a wide range of equipment.
- Power, petrochemical, refining, distribution, and many other industries.
- Critical equipment that cannot be removed from service.
- Pipes with corrosion, dents, pitting and other irregularities.
- Remaining compliant to safety regulations.
- Reducing risk associated with aging units.

If you have a complex leak CARBER can combine traditional leak repair with composite wrap to greatly increase the life cycle of your equipment and keep your equipment in production.

Our leak repair team specializes in custom solutions to solve even the most complex problems. Our skilled technicians and engineers are sure to find a solution for any leak issues that may arise.
CARBER Nozzle Testing is an innovative hydrotesting procedure for testing new nozzles on any vessel.

Our technicians can hydrotest your new nozzle connection without filling the entire vessel and without the need to weld a cap to the inside shell. Some vessels simply cannot withstand the complications and weight involved with filling to capacity and pressurization to perform a traditional hydrotest.

CARBER has a more efficient way to hydrotest nozzles with less test medium and at a fraction of the time.

The patented CARBER Nozzle Test tool is engineered for each vessel and meets the requirements for ASME Section VIII Division 1.

Reference Specifications:

Test Pressures:
- 1 in. to 4 in. - up to 1000 psi (25.4mm to 101.6mm - up to 68.95 bar)
- 6 in. and larger - up to 500 psi (152.4mm and larger - up to 34.47 bar)

Required from Customer:
- Vessel Diameter
- Nozzle Length & Diameter
- Vessel Entry Procedures
- Flange Rating
- Test Pressure
- Size of Vessel Entry Port

The CARBER Nozzle Testing Service significantly reduces downtime required to test nozzle connections by only testing the welded nozzle.

Low volume of test medium required assures accurate results and makes reclamation hazard free and cost efficient.
The CARBER Single-bolt Nozzle Test Tool is perfect for testing small nozzle connections. A seal is created on the inside vessel wall to allow the new nozzle to be filled with test medium and brought to pressure.

Advantages of CARBER Nozzle Testing:

- Significantly reduces downtime required to test nozzle connections by only testing the new nozzle.
- The entire vessel is not subject to undue pressure during hydrotesting.
- Small quantity of medium required provides a safe environment in which to conduct test.
- Lightweight tools reduce the need for heavy lifting equipment to put the testing equipment in place.
- Eliminates the need to fill the entire vessel.

The CARBER Multi-bolt Nozzle Test Tool allows for larger nozzles to be tested without filling the vessel. The multi-bolt design ensures the larger diameter seal is created against the vessel wall to allow pressurization.

CARBER also has a patented split-cap design nozzle test tool to accommodate man-ways. Testing man-ways requires that the test tool is larger than the actual opening to form a proper seal. Our split-cap tool is perfect for testing man-ways because it can be disassembled to allow entry into the vessel.

When testing the only man-way of a vessel, access to enter or exit during the hydrotest is required. CARBER has the technology to perform these tests. The patented Open Top Hat Nozzle Test Tool allows larger nozzles or man-ways to be tested much more efficiently while allowing access to the vessel.
Regardless of the material, CARBER has the experience and equipment necessary to fulfill your cold/hot tapping and line stopping needs.

CARBER offers in-house design, manufacturing, rebuilding and sales of fittings, equipment and materials to satisfy almost all hot tap and line stop needs without shutting down your operations.

From RTD or thermowell installation to putting an entire new branch connection on your existing piping, CARBER hot tap technicians have the experience and skills to safely tap into your lines and help prevent a shutdown.

CARBER Hot Tapping can tap many different pipe materials including:

- Carbon Steel
- Cast/Ductile Iron
- Exotic Alloys
- Polyethylene
- Reinforced Concrete Pipe
- Stainless Steel
- Nickel
- PVC
- Pre-stressed concrete cylinder pipe
- Subsea Pipe

Reference Specifications:

**HOT TAPS**
- **Current size range:** 0.5 in. to 48 in. (12.7mm to 1219.2mm)
- **Operating Temperature:** Up to 700 °F (371.11 °C)
- **Operating Pressure:** Vacuum to 2200 psi (151.68 bar)
- **Machine Travel:** 12 in. to 120 in. (304.8mm to 3048mm)

**LINE STOPS**
- **Current Size Range:** 0.5 in. to 36 in. (12.7mm to 914.4mm)
- **Operating Temperature:** Up to 700 °F (371.11 °C)
- **Operating Pressure:** Vacuum to 2200 psi (151.68 bar)
- **Line Stop Types:**
  - Pivoting Head
  - Folding Head
  - Cross-Line Stops
  - Bag Stops
  - Freeze Stops
  - Line Crimping

CARBER hot tap technicians are cross-trained to perform not only hot taps and line stops but other CARBER services as well, including cryogenic services such as freeze plugging.
CARBER can also provide a variety of line stops; from pivoting head and folding head to bag stops.

When hot-work is required downstream of a line stop, CARBER incorporates our patented Self-Restrained Isolation Tool as a safety contingency to guarantee that no contents in the line will be exposed to atmosphere/potential ignition source.

CARBER provides hot taps and line stops to a variety of lines including:

- Crude Oil
- Hydrocarbon
- Water
- Flare
- Condensate
- Kero
- C3
- H2S
- Liquors
- Natural Gas
- Brine
- Glycol
- Steam
- Methanol
- Propane
- Bitumen
- Diluate
- Fuel Gas

Non-standard taps provided by CARBER:

- Offset Tap
- Angle Tap
- Bend Tap
- Blind Tap
CARBER manufactures and sales rugged hot tapping equipment to suit your equipment needs day after day.

From a base hot tapping machine to all of the fittings and adapters, CARBER offers a full line of hot tapping equipment. A full line of accessories including cutters, pilot drills, adapters and more is available to provide a complete set of tools and help complete your project. CARBER hot tap technicians use this same equipment in the field everyday to ensure the job is not at risk of failing due to inadequate equipment.

Our hot tap equipment is as rugged as the environment in which it is used.

Our hot tap equipment and accessories are used in all corners of the globe by professionals that demand the best equipment to safely complete a project.

Contact us today to see how our equipment can help your project!

A variety of gearboxes are available for most machines.

Various fittings and adapters help you get the job done right.

C400 Series hot tap machine prepped for inspection.

Available Equipment
- Hot Tap Machines
- Hydraulic Power Units
- Diesel Motors
- Cutters
- Pilot Drills
- Line Stop Valves
- LS Housings
- Tapping Adapters
- Various Accessories
CARBER has several series of machines available and each series has multiple sizes. Our team can help you determine the best machine to fit your needs.

C100 Series Hot Tapping Machine

Maximum Operating Pressure: 1480 psi (102bar) at 100°F (37.7°C)

Maximum Operating Temperature: up to 700°F (371°C) at 700 psi (48.3bar) for severe service

Tapping Range: 0.5 in. up to 6 in. (12.7mm to 152.4mm)

Boring Bar Travel: up to 30 in. (1676.4mm)

Most machines will require a driver. CARBER has several drivers available including hydraulic power units and diesel motors.

CARBER hydraulic power units are engineered to be transported along with the hot tap machine in a single standard long bed truck, effectively eliminating the need to pull a trailer.

If you decide you are not ready to take on the task of performing hot taps, CARBER offers world class hot tapping and line stopping from every service center 24 hours a day.

C300 Series Hot Tapping Machine

Maximum Operating Pressure: 1480 psi (102bar) at 100°F (37.7°C)

Maximum Operating Temperature: up to 700°F (371°C) at 700 psi (48.3bar) for severe service

Tapping Range: 3 in. up to 20 in. (76.2mm to 508mm)

Boring Bar Travel: up to 66 in. (1676.4mm)

Boring Bar Travel (Autofeed): 0.003 in. (0.08mm/rev)

C400 Series Hot Tapping Machine

Maximum Operating Pressure: 1480 psi (102bar) at 100°F (37.7°C)

Maximum Operating Temperature: up to 700°F (371°C) at 700 psi (48.3bar) for severe service

Tapping Range: 12 in. up to 48 in. (304.8mm to 1524mm)

Boring Bar Travel: up to 120 in. (3048mm)

Boring Bar Travel (Autofeed): 0.004 in. (0.08mm/rev)

Our motors and power units provide the reliability needed by professionals day in and day out. Contact CARBER to find out which one will work best for your application.
CARBER can freeze lines to allow for safe equipment rehabilitation and piping modifications without mechanical work or permanent modification to your existing system.

CARBER cryogenic services are a safe and economical solution for isolating pipes to allow for work to be done. The absence of mechanical services equates to no lost product, no excessive venting and no transfer of bulk fluids.

Pipe freezing is suited for many different applications and industries including refining, petrochemical, power, and offshore.

Advantages of CARBER Cryogenic Services:

- No permanent modifications to existing system
- No welding or mechanical work
- Branch connections can be isolated without interrupting the main line
- No transfer or handling of potentially hazardous contents

CARBER offers freeze plugging as a cost effective and safe way to isolate lines for equipment installation or repair and piping modifications.

Reference Specifications:

Pipe Material:
- Carbon Steel
- Stainless Steel
- Cast Iron
- Alloy

Freeze During Flow: No

Freeze Plugging is ideal for:
- Process System Piping
- Water Lines (Cooling & Fire)
- Exchanger Lines
- Cooling Systems
- Hydrocarbon Lines
- Any product with a suitable freeze point
CARBER technicians have the right equipment and training from LOKRING to perform quality installations of all LOKRING products.

CARBER can install LOKRING products and also perform a hydrotest on the new equipment to comply with ASME B31.3, if the LOKRING is not a closure connection. LOKRING provides a cold-weld alternative to remove hot-work procedures and provide a permanent solution that is less costly than many other alternatives.

Our technicians are certified by LOKRING to provide safe and quick installations of LOKRING products. Installation is often completed in a matter of minutes, saving time and cost associated with manpower and materials required for hot-work welding.

LOKRING provides fittings that require no welds, have no threads and no leaks after installation. All fittings are made from the highest grade of materials for use in many different piping systems including sour service.

CARBER can install your LOKRING equipment safely and quickly. High quality fittings ensure years of reliable service.

LOKRING is suitable for:

- Plant, Instrument, Utility, Air
- Fuel (Diesel), Fuel Gas, Natural Gas
- Lube, Seal & Hydraulic Oil
- Open & Closed Drains
- Gas
- Process Vapor
- HP & LP Flare
- Flare (Sour)
- Process Fluids (Sour)
- Atmospheric Vents
- Steam & Condensate
- Gasses
- Inert Gas
- Hydrocarbons & LPG
- Distillates & Aromatics
- Chemical
- Methanol
- Sulphuric Acid (95-98% Conc)
- Heat Transfer Fluids
- Cooling, Utility, & Fire Water
- Crude & HP Storage LPG connection lines
CARBER provides turnkey solutions for conventional hydrotesting from small projects to entire units.

CARBER has the personnel and equipment required to execute total conventional hydrotesting projects. Our vast inventory of hydrotesting equipment includes filters, dryers, pumps, dead-weight and chart recorders, hot water systems, water recycling systems, pressure safety valves, slip blinds, conventional blinds, bolts, hydro gaskets and tank trailers that fill 12 lines at one time.

Our trained technicians are standing by and ready to help your project be successful. Adding the cost of non-production equipment is an unnecessary expense for any job; CARBER has a large inventory of hydro equipment ready to mobilize to your job site.

Pre-Hydro Activities:
- Coordination with client QA/QC Personnel
- Test Package Assembly
- Pre-Hydro Punch List Development
- Client Test Procedure Review
- Hydrotect Plan Development

Execution Activities
- Blinding & Isolating
- Provide all Hydrotest Equipment
- Provide all Experienced Hydrotest Technicians
- Manage & Execute Hydrotest Plan

Post-Hydro Activities
- System Dry Out/De-water
- Blind Removal & System Restoration
- System Completion & Sign-Off
- Release System to Client for Startup & Commissioning
### UNITED STATES:

<table>
<thead>
<tr>
<th>State</th>
<th>Location</th>
<th>Contact Details</th>
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<tbody>
<tr>
<td><strong>Texas</strong></td>
<td>Corporate/Deer Park</td>
<td>800-592-8378</td>
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<tr>
<td></td>
<td>Corpus Christi</td>
<td>Jake Kring: 832-696-6138</td>
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<tr>
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<td>La Porte</td>
<td>Chris Morrison: 281-837-8003</td>
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<td><strong>Colorado</strong></td>
<td>Denver</td>
<td>Jeff Robbins: 302-995-0100</td>
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<td><strong>Illinois</strong></td>
<td>Chicago</td>
<td>Mike Crowley: 815-941-0468</td>
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<td>815-942-2521</td>
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<tr>
<td><strong>Louisiana</strong></td>
<td>Denham Springs</td>
<td>Casey Dufour: 225-571-0390</td>
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<td>Offshore</td>
<td>Brent Veillon: 225-305-4046</td>
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<td></td>
<td>Sulphur/Lake Charles</td>
<td>Jake Kring: 832-696-6138</td>
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<tr>
<td></td>
<td>Westlake</td>
<td>Robbie Lamb: 409-682-2280</td>
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<tr>
<td><strong>Ohio</strong></td>
<td>Canton</td>
<td>Dustin Barwise: 810-689-0473</td>
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<td><strong>Minnesota</strong></td>
<td>Northern Great Lakes</td>
<td>Steve Gervais: 651-336-1336</td>
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<tr>
<td><strong>California</strong></td>
<td>Paramount</td>
<td>Eddie Montion: 562-531-2400</td>
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<td><strong>Services:</strong></td>
<td>Cold Cutting</td>
<td>Mark Farley: 361-331-1966</td>
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<td>Hot Tapping</td>
<td>Mark Clark: 651-216-4801</td>
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<td>Leak Sealing</td>
<td>Christopher Groome: 302-943-0798</td>
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<td><strong>CANADA:</strong></td>
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<td><strong>Ontario</strong></td>
<td>Wallaceburg</td>
<td>519-628-5279</td>
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For international inquiries please call +1 (800)592-8378.