



Tapping and Plugging Solutions.

Our Certified Technicians
Have Been Doing It
Better and Longer
Than Anybody Else.



TDW Services, Inc.

TDW MEANS TRUST.

Your Single Source For Piping Solutions.

When it comes to hot tapping, temporary line plugging and pipe freezing services, we do it better! Why? We're trained, staffed and equipped better! With our half-century of pipeline maintenance experience...and our 60 locations world-wide... you can trust TDW Services, Inc., to be your single source for tapping and plugging solutions, 24-hours a day, on a planned or emergency basis.

We offer you superior capabilities, highly skilled Certified Technicians, far greater engineering support, and the largest fleet of maintenance equipment, fittings and accessories in the world... all on a routine, contract basis.

With our commitment to quality, safety, integrity, customer service, and comprehensive package-pricing, we provide you many valuable extras without hidden costs! And we do not run off and leave you when the going gets tough! We strongly believe that's the only way to earn and keep your trust. Long term, we want to become your single source for cost-effective piping solutions. Trust us. Call us.



TDW Services, Inc.



TRANSMISSION PIPELINE



PETROCHEMICAL PROCESSING



REFINERIES



POWER GENERATION PLANTS



MINING



INDUSTRIAL PIPING



SUBSEA



GAS DISTRIBUTION

TDW
Your Single

Trust the True Pioneer and Leader in Hot Tapping and Line Plugging Techniques... ***TDW Services, Inc.***



Hot tapping and line plugging are field-proven methods for accessing the interior of an operating pipeline, while avoiding shutdown of the line. In fact, TDW Services, Inc., is the leading developer of such technical procedures and holds a myriad of patents on the specialized equipment used around the globe for hot tapping and plugging.

For example, in the early 1950s, TDW introduced its patented STOPPLE® Plugging System that today remains the most reliable and widely used method of isolating a section of pipeline. A half-century later, TDW continues its strong commitment as the world-wide leader in the development of engineered solutions, including pipe freezing services, to maintain maximum piping system productivity during scheduled maintenance, retrofitting, new construction, alterations and unplanned emergencies.



TDW Services, Inc., provides an unmatched level of piping system services and is 100% responsive to the ever-changing needs of its diverse customer base...ranging from transmission pipelines located on or offshore, to gas distribution systems, refineries, petrochemical processing facilities, power plants, industrial piping, mining, pulp and paper, and water and waste water systems.

TDW Services is prepared around the clock for your planned, emergency, or contract maintenance needs. We perform hot/wet/cold/and tank taps from 1/2" to 102" ... at operating pressures ranging up to 2,200 psi and at operating temperatures up to 700°F. When used in conjunction with temporary bypass lines, TDW's patented SHORTSTOPP® and STOPPLE® Plugging Systems are designed to serve as temporary block valves in pipe up to 120", without interrupting the service. TDW also offers freeze service plugging in lines through 48" O.D. for a wide variety of applications and products.

From drilling and tapping machines, to plugging equipment, fittings and accessory products... TDW Services has it all! And for your custom applications, we're backed by one of the largest, most experienced engineering staffs in the world. We have the expertise and technical support to design and fabricate your customized equipment and procedures. You can trust TDW to get your job done...on time and on budget!

ISO Certified 9002

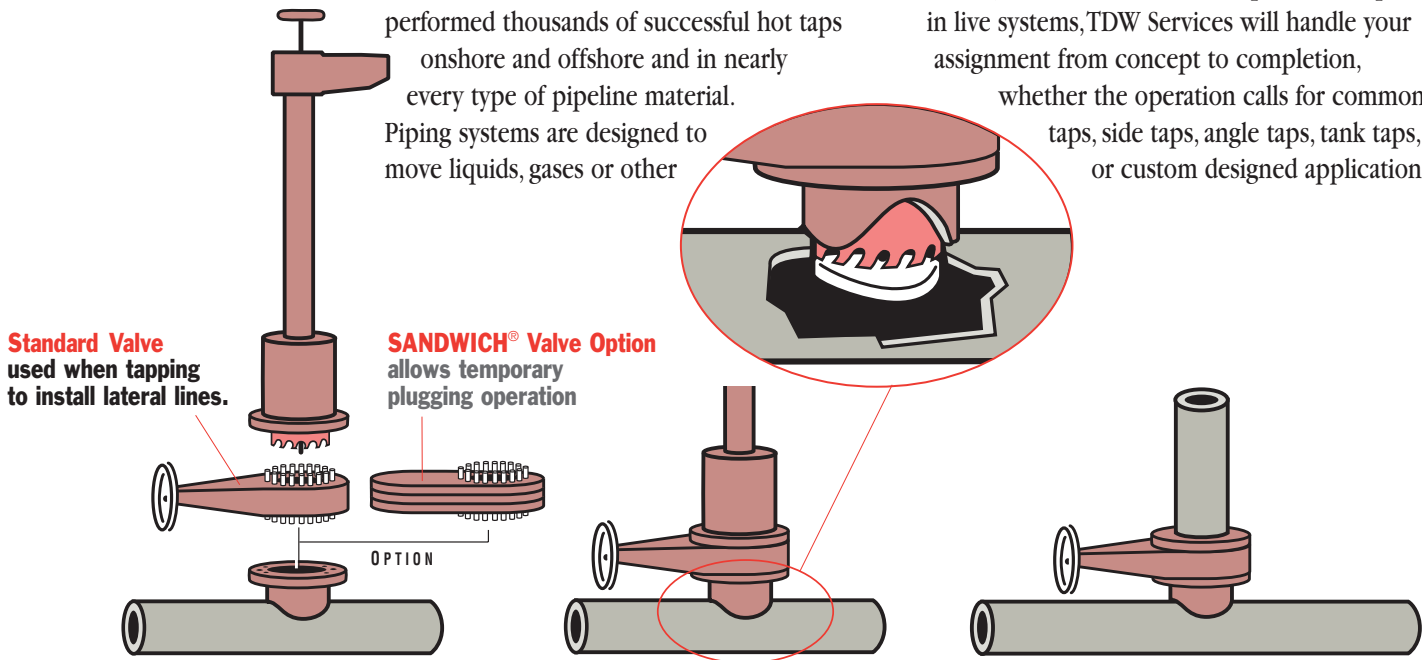
MEANS TRUST.
Source For Piping Solutions.

USA Toll Free: **1-800-828-1988**
TDW Services, Inc.

Hot / Wet / Cold Tapping *How It Works*

Tapping is the precise process of drilling a hole in an on-stream piping system without spilling its contents or interrupting its flow. Over the decades, TDW Services, Inc., has performed thousands of successful hot taps onshore and offshore and in nearly every type of pipeline material. Piping systems are designed to move liquids, gases or other

products in a continuous flow. Shutting down these essential systems, or even portions of them, can be extremely costly and time consuming. When alterations or repairs are required in live systems, TDW Services will handle your assignment from concept to completion, whether the operation calls for common taps, side taps, angle taps, tank taps, or custom designed applications.



- 1. A fitting is permanently secured to the line.
- 2. A permanent valve is installed on the fitting.

- 3. A TDW tapping machine is installed on the fitting, and the valve is opened. After pilot drill penetrates, the tapping machine fills with product, and air is purged from the housing. The tap is made through the line and the coupon is retained.

- 4. The valve is closed, and the tapping machine is removed. A branch connection is added, and the valve is opened. The new connection is ready to put into service. This field-proven TDW procedure is quick and precise.

Typical TDW Hot Tapping Procedure

MATERIALS, APPLICATIONS AND STANDARD SPECIFICATIONS

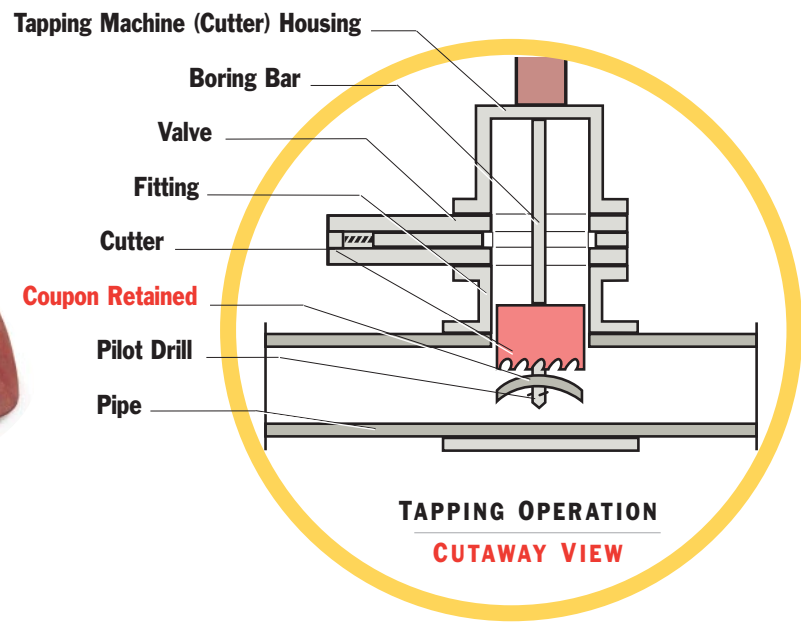
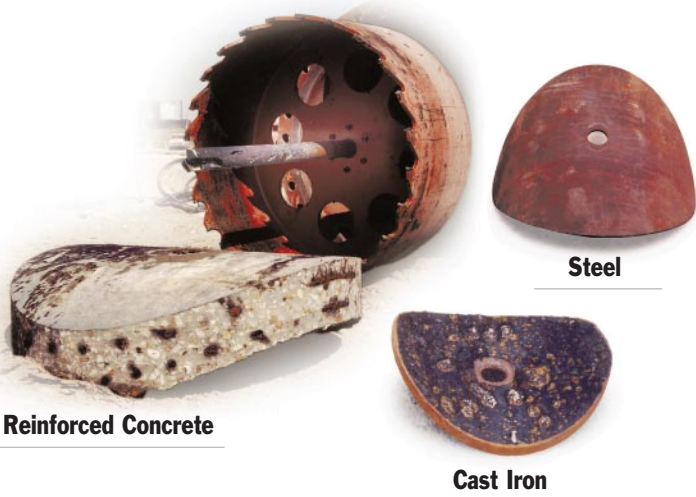
Materials: Steel, cast/ductile iron, stainless steel, concrete, asbestos cement, plastic and others.

Pipelines: Onshore, offshore, transmission, distribution, water/waste water, plant piping, refinery, chemical plants, steel mills, paper mills, power plants, steam lines, buildings, cooling systems and others.

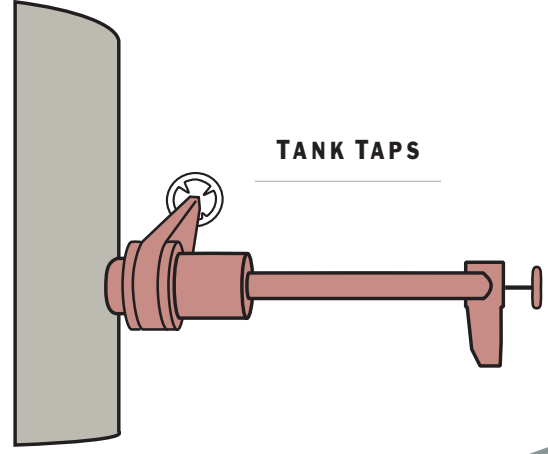
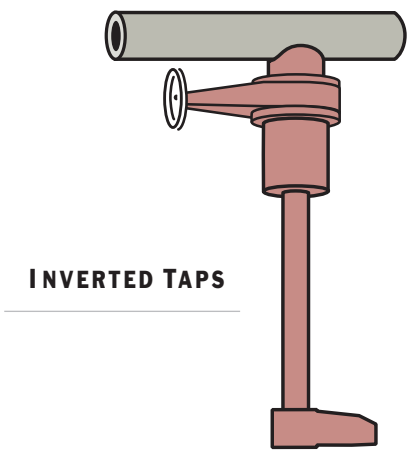
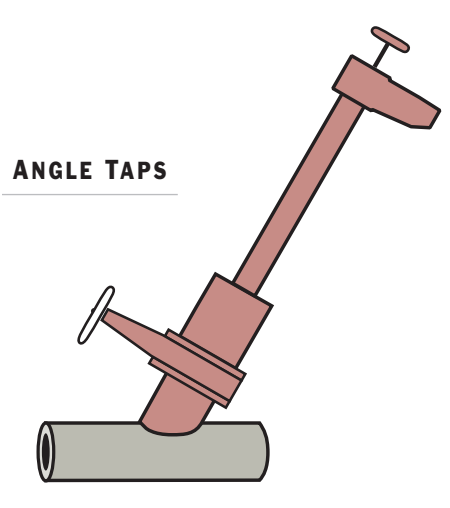
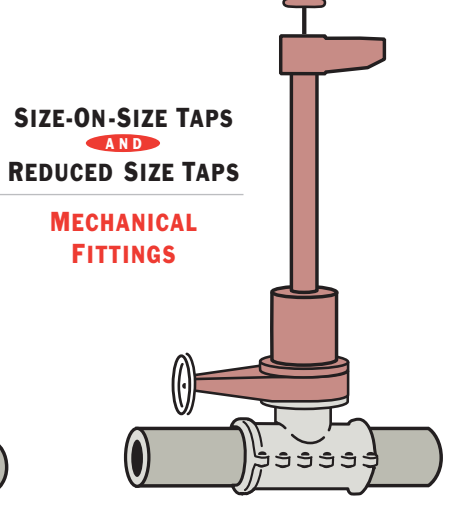
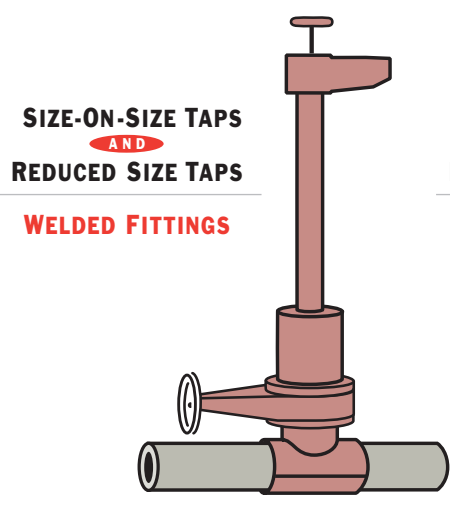
Specs: Diameters - 1/2" through 102".
 Operating Pressures - Up to 2,200 psi.
 Operating Temperatures - Up to 700°F.

Consult your TDW Service Center for innovative solutions for special requirements.

TDW Cutters Retain the Coupon



Typical Tapping Applications




Line Plugging / Stopping *How It Works*


A TDW plugging machine can temporarily stop the product in an operating pipeline, by acting as a block valve. When used in conjunction with a bypass line and another plugging machine, product can be rerouted around the isolated section of pipeline, while repairs, alterations, relocations and instrument installations are made to the piping system.

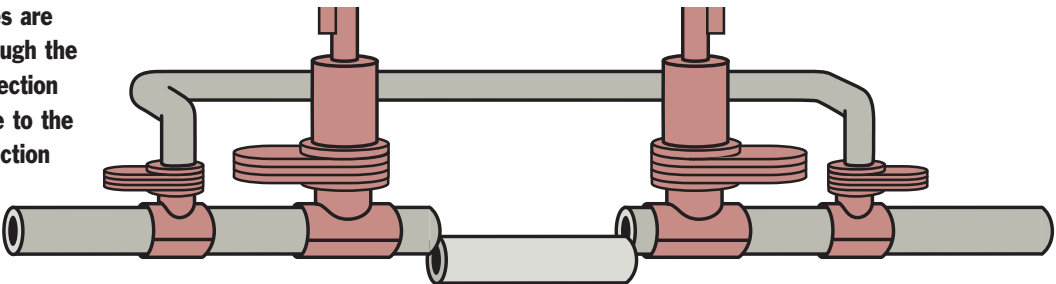
Typical Double STOPPLE® Line Procedure


[USING FOUR FITTINGS AND A BYPASS]

- 1.** The four fittings are permanently secured to the line.


- 2.** Temporary SANDWICH® Valves are installed on the fittings, and taps are made through the valves.


- 3.** Two STOPPLE® Plugging Machines are installed. Product is diverted through the temporary bypass. The isolated section is purged. Modifications are made to the isolated pipe section. The new section is purged and equalized, and the plugging heads are retracted.


- 4.** The temporary bypass is removed. LOCK-O are installed in the fittings with a tap. All equipment is then removed, and blind flanges are installed on the fittings to complete the job.

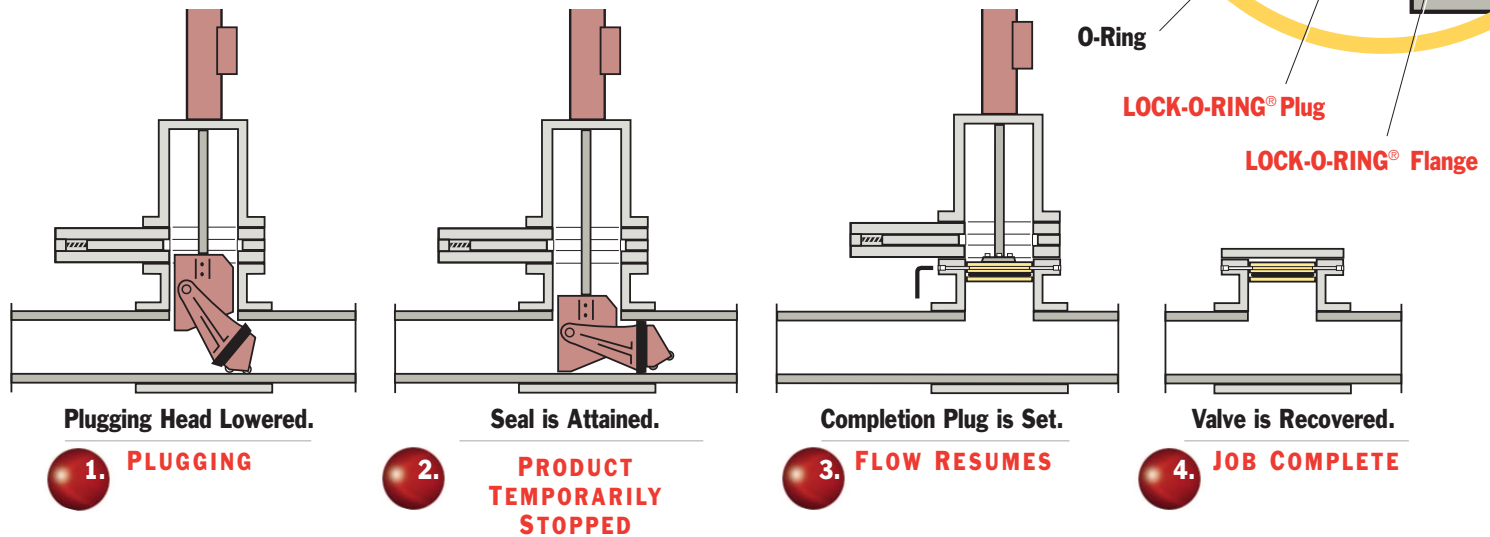


TDW's Folding Plugging Head

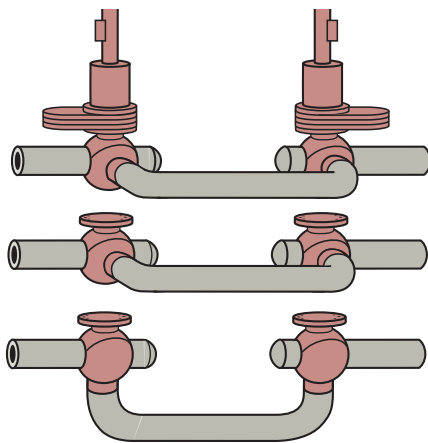
TDW's patented Folding Plugging Head technology allows smaller tap size— which means using less costly fittings and retaining more of the original integrity in your pipeline.



The TDW Plugging and Completion Plug Systems

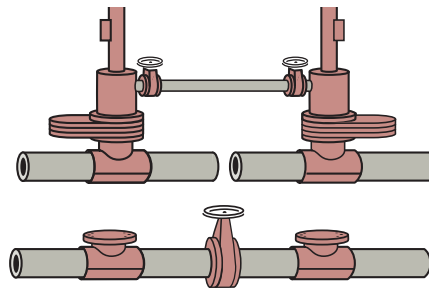


TDW STOPPLE® Procedure Options



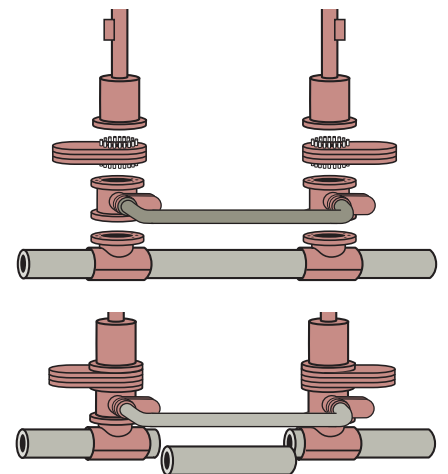
Double STOPPLE® Plugging Using a Spherical Tee

PERMANENT



Double STOPPLE® Plugging and Temporary Bypass

TEMPORARY



Double STOPPLE® Plugging Using a Spool Adapter and Temporary Bypass

TEMPORARY

MATERIALS, APPLICATIONS AND STANDARD SPECIFICATIONS

Materials: Steel, cast/ductile iron, stainless steel, concrete, asbestos cement, plastic and others.

Pipelines: Onshore, offshore, transmission, distribution, water/waste water, plant piping, refinery, chemical plants, steel mills, paper mills, power plants, steam lines, buildings, cooling systems and others.

Applications: New station tie-ins, repair or replacement of damaged lines or defective valves, relocation of lines and a variety of other needs.

Specs: Diameters - 1-1/4" through 120" pipe.
Operating Pressures - Up to 2,200 psi.
Operating Temperatures - Up to 700°F

Consult your TDW Service Center for innovative solutions for special requirements.

Pipe Freezing / Plugging *How It Works*

When line flow can temporarily be stopped for controlled freezing, and particularly where there is restricted work access at an industrial or commercial piping jobsite, TDW's pipe freezing services offer the perfect solution for 1/2" through 48" piping systems—with hot water lines up to 230°F. This proven technology can isolate the problem valve, or faulty meter, with solid freeze plugs by freezing the fluid within the line. It requires no drain down or refill and no loss of expensive process fluids. The procedure can be completed on a wide variety of pipe materials and product fluids. Then the plugs are simply thawed and the line is put back into operation immediately. Pipe freezing is an extremely economical temporary plugging technique in appropriate applications, cutting your line plugging costs in half.

Typical Pipe Freezing Services

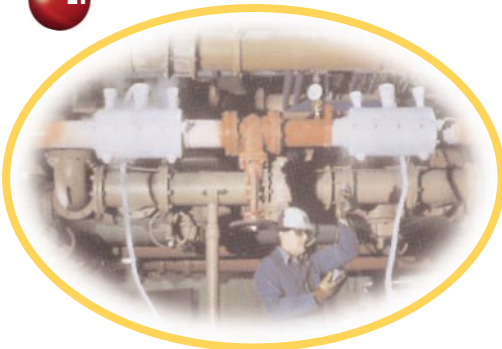
[WHEN LINE FLOW CAN BE STOPPED]

Two solid frozen plugs on either side of a faulty valve permit its easy replacement.

Internal view of pipe shows a solid freeze plug, capable of withstanding up to 8,000 psi. Maximum force capability is 225,000 lbs. of force.

Repairs can now be made on the isolated section of piping system. Once repairs are made, the ice plugs are allowed to thaw one at a time, permitting pressure testing of the new installation.

1.



2.



3.



MATERIALS, APPLICATIONS AND STANDARD SPECIFICATIONS

Materials: Carbon steel, cast/ductile iron, stainless steel, copper, aluminum, lead, titanium, coated and lined pipe and others (vertical/horizontal/inclined and out of round).

Systems: Water/waste water treatment, chemical/petrochemical plants, nuclear power plants, refineries, steel mills, paper mills, office buildings, hospitals, shopping centers, schools, fire protection systems and a variety of other applications. Technology can be used in the replacement or repair of valves; adding new valves to systems; extending or modifying systems; replacement of faulty meters; adding or replacing pumps; avoiding costly drain down; pressure testing; and control of hazardous materials.

Freeze: Water/waste water, brine, glycols, chemicals, oils and petroleum products, heavier hydrocarbons and slurries.

Specs: Pipe Diameters - 1/2" through 48" pipe.
Maximum Pressure Capability - Up to 225,000 lbs. of force.
Maximum Temperature Freeze Capability - Up to 230°F (Water).

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We Tap and Plug *Everywhere*

Transmission Pipeline and Gas Distribution



Alyeska Transmission Pipeline

The Atigun Pass maintenance project was a monumental job... replacing 8.5 miles of 48" main line through the rugged Brooks Mountain Range. After extensive planning, the job had to be executed with the least environmental impact, at a reasonable cost, and with minimal impact on the pipeline's throughput.

Big challenge? You bet, considering the harsh working environment! But the Alyeska Pipeline Service Company awarded the tapping and plugging contract to TDW Services, Inc. Why? Perhaps it had something to do with our reputation for being the best...and equally important, it had as much to do with that all-important factor called "trust"!

TDW performed eight, 48", hot taps for installation of STOPPLE Plugging Machines, with an average cutting time of 6.5 hours each. After the eight STOPPLE Plugging Machines were in place on both the permanent and abandonment sides of the tie-in areas, one of TDW's designed qualification programs included the use of ultrasonic proximity probes to verify positive contact of the STOPPLE Plugging Head with the bottom of the 48" main line.

Completion of the massive tie-in project went like clockwork. In fact, the scheduled temporary line shut-down, restart and filling procedures were accomplished in less time than had been projected.

Whether the job involves one of the most difficult transmission pipeline maintenance assignments ever awarded on the Alyeska Pipeline...or a routine expansion of a gas distribution system serving community businesses or homes...every TDW Certified Technician is backed by over 50 years of tapping and plugging experience. Our competitive pricing, attention to project specifications, quality assurance testing, advanced training, international service locations, custom equipment and engineered solutions...are all compelling reasons to choose TDW Services, Inc., for your next assignment.



Gas Distribution System Maintenance

TDW Services works daily with gas utility companies worldwide. A typical assignment was with the utilities construction division of a large city in Arizona to plug a 4" gas distribution main for maintenance.

A retired rural service line, connected to the main by a bolt-on tapping tee, had to be removed. The main provided service to several major industrial customers and could not be shut down while the service line was being removed.

TDW's SHORTSTOPP® II Plugging System, with its folding head plunger and 150 psi MWP, was utilized successfully on the job. The plugging system helped reduce costs and time, and eliminated the need for heavy-duty support equipment. The system was transported by a standard pickup truck; 3x4" reduced branch fittings were used, saving money and resulting in less weight on the line; and finally, far less tapping time was required.

Line pressure never wavered at the utility company's customer meters, and the repairs were made to the system and full line service was restored in four hours, less than half the anticipated time.

You Name The Place *We'll Be There*

Refineries and Industrial Plants



TDW Services technicians have extensive experience working in refineries, industrial plants and mills. Although the basic tapping and plugging procedures are the same, quite often engineering expertise and innovative solutions are required to be successful on these demanding jobsites. Many times, rigid regulations and physical space limitations represent major considerations. TDW Services, Inc., backed by our impressive staff of engineering professionals, will guide your project from concept through successful completion.

A Gulf Coast Refinery

At a major Gulf Coast refinery, two expansion loops were to be installed in a 48" relief header that led to a flare stack 35 feet above the ground. An existing expansion joint packing gland had developed a leak and needed replacement. Extreme temperature changes caused great expansion and contraction in the pipe, so the decision was made to replace the single expansion joint with two expansion loops about 300 feet apart. The refinery wanted to keep its processing units in service. Shutting down that part of the operating system would have resulted in a significant loss in revenue.

TDW Services was able to divert the flow, keeping the refinery up and running while the new expansion loops were installed. Our STOPPLE Plugging Machines remained in place for two weeks under the tough conditions associated with a flare line. The difficult project was completed successfully and shutdown of a major refinery was prevented.

A Nuclear Power Facility

A nuclear power plant faced a challenge when it needed to replace eight 24" control valves in a "safety-related heat exchanger" unit. The control valves were located on a series of 24" carbon steel pipelines that branched off a common 48" header. There were no valves at the junction of the header and each branch.

To keep the system in full operation, with a continuous flow of cooling water at approximately 100 psi, the power plant needed to install the valves without shutting down the 48" main line header.

TDW Services technicians installed special tapping fittings on each 24" header, then they made hot taps through the fittings and into the lines. Next, they installed a Folding Head STOPPLE Plugging Machine. The folding head permitted the plugging head to enter the line through a smaller opening.

The 48" main line header remained in service, feeding seven cells of the heat exchanger as, one by one, the eight 24" valves were replaced. The project was completed on time and within budget! TDW Services, Inc., has been serving the nuclear power industry since 1966.



USA Toll Free: 1-800-828-1988
TDW Services, Inc.

We Tap & Plug Water Systems *Without Shutdown*

Water & Waste Water Operations

1999 Another Industry Record, 102"



Southern Nevada Water Authority

The Southern Nevada Water Authority wanted to expand the capacity of the Las Vegas area potable water delivery system. The area had experienced phenomenal residential and commercial growth, placing ever-increasing demands on the water system. The strategy for accomplishing the basic expansion included the addition of one new 180" line to the existing 120" water main running from Lake Mead. A second water treatment plant was also to be built.

TDW Services, Inc., was selected to perform two record-breaking, 102" taps in the 120" I.D. / 142" O.D., steel reinforced concrete pipe with 11" wall thickness. This represented another first for TDW! It was a monumental task...one that had never been accomplished before.

The two 102" taps were performed routinely, using a TDW Model 2400 Tapping Machine, with each tap completed within a 16-hour period. The two huge 8,000 pound coupons were retained by the tapping machine and retrieved through the 102" holes.

When water system lines require relocation, repair or expansion...shutting down service can mean great inconvenience to customers who depend on water for critical services such as hospitals, schools, sanitation and fire protection. TDW Services, using our STOPPLE Plugging Machines, can temporarily plug a section of line, with normal flow maintained through a temporary bypass. A folding plugging head is used on water systems since it can be inserted through a smaller size tap, thereby reducing weight on the system and providing excellent cost savings through the use of reduced branch fittings.

1996 Another Industry Record, 96"



Baltimore Waste Water Facility

TDW plugged a 96" waste water line, composed of pre-stressed concrete pressure pipe with a steel cylinder, for the city of Baltimore, MD. This record-breaking project involved tying in their 96" Southwest Diversion waste water main into a new Grit Removal Facility at the Patapsco Waste Water Treatment Plant. The plant received an average daily flow of 70 MGD, at operating pressures between 10 and 14 psi. Shutting down the main while making the new connections was simply not feasible.

After successfully completing the 60" taps required, TDW Services installed two 60" x 96" folding head STOPPLE® Plugging Machines. The plugging heads, in their folded positions, were retracted into the housings and lowered down through the tapped holes into the pipe. As the guide wheels came into contact with the bottom of the pipe, the plugging heads opened...and the elastomer sealing elements, assisted by differential pressure, created positive seals against the walls of the pipe.

This highly effective line stopping system was used to isolate a 200-foot section of the 96" waste water line. A temporary 60" bypass was installed to maintain flow while the main was being tied into the new Grit Removal Facility. The Project Manager complimented TDW Services by saying, "We knew of their good reputation, and they deserved it on this job."

TDW MEANS TRUST.

Your Single Source For Piping Solutions.

We'll Even Go Underwater *Going Deep*

Standard Sub-Sea and Special Deep-Water Connections

Assisted by a diving contractor, TDW Services, Inc., uses its proven hot tapping and plugging technology to accomplish removal of damaged sections of pipe,

relocation of lines, install or change-out valves, tie-in new lines, abandonment, recovery of product from sunken vessels, and numerous other standard sub-sea operations.

Standard Offshore Operations



As with on-shore operations, sub-sea maintenance procedures can be accomplished without interrupting product flow. TDW has performed tapping and line plugging services for platform and sub-sea projects around the world. In fact, our service technicians performed the first underwater

STOPPLE Plugging job in the Gulf of Mexico.

Standard applications include SubSea 1000 Tapping Service with taps from 6" to 16", at pressures up to 2,200 psi, and the capability to work at depths down to 1,000 feet. More demanding sub-sea taps to 36", at 1,480 psi, are also available from TDW Services.

Gulf of Mexico, Crude Oil Tie-In



TDW Services was contracted to join a 16" sub-sea crude oil transmission line with a 24", where the two lines intersected. The 16" line would be tied into the larger line and the remaining 16" line purged and abandoned. TDW Services technicians used a Model 1200 Sub-Sea Tapping Machine to make the 16" taps required to tie the lines together.

A STOPPLE Plugging Machine isolated the section to be removed. TDW's specialized sub-sea equipment ensured reliable operation.

The finest equipment, combined with our experienced, Certified Technicians...are your keys to success in the harsh, unforgiving sub-sea environment!

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TDW Services, Inc.

Special Deep-Water Connections

To meet the huge challenges of performing deep-water hot taps at depths beyond 1,000 feet, TDW has entered into an alliance with Williams Energy Services, Oil States HydroTech Systems, and Oceanering International, Inc. The equipment and procedures being developed, called "Deep Tap Technology," will utilize remotely operated sub-sea vehicles to connect gathering lines to transmission pipelines in water depths to 10,000 feet. The new technology can be applied to lateral tie-ins up to 20" in diameter, ANSI class 1500, at operating pressures up to 3700 psi. This amazing deep-water technology will become yet another first for TDW.

We're All Around the World *For You*



Antafagasta, Chile - Copper Mine

At a major copper ore mine in the rugged mountains near Antafagasta, Chile, a proposed plant expansion required that a 20" main slurry line be cut and redirected, because it was in the way of the new construction site. However, since this plant produced \$52 million worth of copper ore daily, shutdown of the main slurry line was, without question, not an option!

TDW Services, Inc., was contracted to install triple STOPPLE Plugging Machines, so that the 20" slurry main could be rerouted around the new construction site. Initially, the project required two 20" hot taps, a 24" hot tap, and a single 10" STOPPLE Plugging operation. In addition to the line taps, six 10" hot taps had to be made into the stainless steel holding tanks that held the copper slurry before it was pumped miles down the mountainside, into the port, and onto ships to be transported to a copper smelter.

TDW Services was able to divert the flow, keeping the slurry line up and running while the new expansion was completed. The difficult project was completed successfully and the costly shutdown of a major copper mining operation was avoided.

Putrajaya, Malaysia - Municipal Water System

To allow for new construction, the Federal Government Administrative Centre of Malaysia found it necessary to reroute two 6.6-kilometer segments of two 72" water mains running 22 kilometers between a reservoir and a water treatment plant outside Putrajaya, Malaysia. Both 72" lines were steel with internal concrete linings.

Since the government agency wanted to avoid shutdown of this critical potable water supply, TDW Services, Inc., was contracted to perform the hot tapping and plugging operations. Four 48" hot taps were made in the two original 72" lines, and four 60" taps were accomplished on the new

From Mountain Tops, to Deserts, to Jungles

TDW Services technicians are "on-call" worldwide, supplying critical piping solutions on a daily basis. (See TDW Services Directory on back cover.)

From piping systems for mining and gas transmission projects in the mountains and jungles of Latin America... to municipal water, waste water, and gas distribution pipelines in the fast growing cities of Europe and the Far East... TDW Services, Inc., is your single source for piping solutions, wherever you need us.

72" permanent bypass lines. The 48" taps were completed in four hours each, while the 60" taps were finished in six hours each.

TDW Services technicians installed double STOPPLE Plugging Machines with 48" x 72" folding heads on the 48" taps. This strategy saved money and time through the use of smaller fittings, shorter tapping times, and resulted in reduced weight on the line. The 48" folding heads were inserted through the 48" taps, then opened up to successfully plug the big 72" water mains. TDW effectively completed its part of this water development supply project without inconvenience to the local Malaysian residents and customers.

We Have Fittings You Can Trust

TDW Fittings for Every Job

One of the most important benefits in using TDW Services for your maintenance solutions is the availability of a large variety of fittings. Installing the correct fitting helps keep your cost down, while completing the job more effectively.

TDW quality fittings are designed, tested and manufactured to be used on pipelines operating under the following codes: ANSI B31.8, ANSI B31.4, ANSI B31.3, DOT 192, DOT 195 and others.

Welding is performed at TDW per API 1104 and ASME Section IX. Welders and weld procedures are qualified to those standards. Weld inspection and acceptance criteria are also based on those same standards.

TDW fittings are designed using the “area replacement” method for reinforcement, as outlined in ANSI B31.8, B31.4 and B31.3. The fittings are available in a variety of materials including, Low CE, Crome Moly, Stainless Steel and others.

TDW SERVICES CAN SUPPLY A CHOICE OF FLANGES

1. **Standard Flanges for Tapping Applications.**
2. **LOCK-O-RING® and SHORTSTOPP® Flanges for plugging applications, which allow recovery of Tapping or Plugging Valves.**



REDUCED-BRANCH TAPPING® FITTING



CONCRETE STEEL CYLINDER FITTING



STOPPLE® FITTING



MECHANICAL TOP-SEAL FITTING



HIGH-TEMPERATURE FITTING



MECHANICAL FITTING



REDUCED-BRANCH PLUGGING FITTING



FULL-ENCIRCLEMENT 3-WAY TEE™



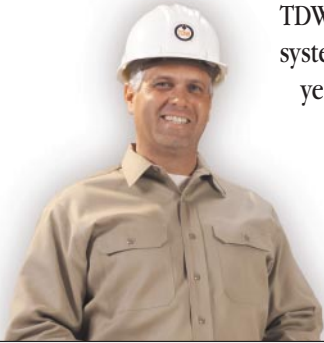
SPHERICAL SHORTSTOPP® 3-WAY TEE™



SHORTSTOPP® 3-WAY TEE™

The Single Source *Piping Solutions*

Our Hard Work...Our Good Word



TDW Services, Inc., is the undisputed world leader in providing quality piping system maintenance 24 hours a day, 365 days a year, around the globe! Our 50-year-old reputation for quality has been earned tap-by-tap and plug-by-plug, by our dedicated TDW Certified Technicians all over the world. Our strongest measure of success has been, and always will be, the quality of our hard work... and of our good word. Every day, we put our experience and our word on the line. Whether designing and engineering custom systems and service procedures...or simply providing project management support, we are committed to becoming the single source for your piping needs!

Comprehensive TDW Services Package Bids

An extremely important element in our valued relationships with our customers is the development of detailed, comprehensive, service package bids. We understand that if TDW is to build and maintain strong levels of trust with our clients...we must first be completely honest and forthright in all our dealings. That's why a TDW Services' package bid will not include "hidden costs"! After a half-century's experience in our industry, if we've learned anything, it's that our customers do not like, and do not deserve "cost surprises"... any more than we do! So, our service specialists spend a great deal of concentrated effort in preparing pricing bids for your service projects. We want to get it right the first time, and we insist that you fully understand all our pricing parameters.

We invite you to compare our experience levels with that of the competition...and to discuss the pricing issues completely with your nearest TDW Services, Inc., representative. The locations of our worldwide offices, and related phone and fax numbers, as well as our internet web-site address, are all listed on the back cover of this brochure.

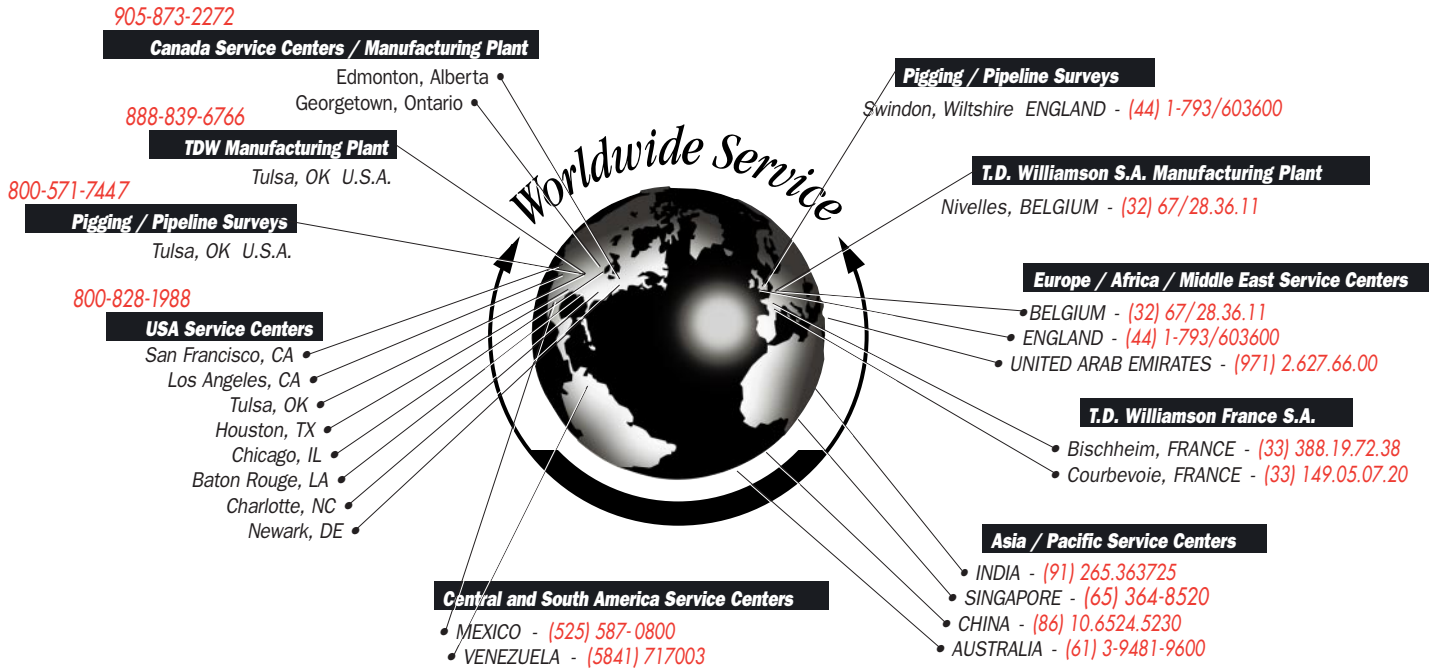
It is TDW's high level of commitment that is led to our many "FIRSTS" over the decades:

- **World's largest plugging equipment for a gas line in France - 1960s.**
- **Historic underwater tap in the Gulf of Mexico - 1960s.**
- **First underwater STOPPLE® Plugging job in the Louisiana Gulf - 1970s.**
- **Deepest sub-sea tap in the Gulf of Mexico, using an underwater power unit - 1980s.**
- **Largest folding plugging-head operation in the world - 1980s.**
- **Largest 1000 psi hot tapping & plugging equipment used in Eastern Europe - 1980s.**
- **Largest line plugging (96") waste water job in Baltimore, MD, USA - 1990s.**
- **Historic hot tapping & plugging operation performed above the Arctic Circle in Russia - 1990s.**
- **Largest hot tap (102") in the world - 1990s.**
- **Development of "Deep Tap Technology," permitting sub-sea hot taps to 10,000 feet depths - 2000s.**

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Your Single Source For Piping Solutions.

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TDW Services, Inc.



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TDW Services, Inc.

Trained For Success

As piping systems have become more complex with higher operating pressures and temperatures, larger diameters, and more volatile products...the requirement for highly skilled, trained technicians has also grown immensely. At TDW Services, Inc., we actually started our technician training program in 1974, the first of its kind! Then in 1992, we initiated a demanding follow-up program that requires each TDW Services technician to fulfill rigorous ongoing technical training and be tested and certified. As a result, our Certified Technicians can anticipate problems and provide on-site solutions to ensure the most efficient and safety-minded maintenance operations. They're required to stay abreast of recent regulatory and procedural changes.

Your Single Source

With the recent economic developments and governmental changes in regulations, many of TDW's customers have made the decision to out-source their hot tapping and line plugging maintenance requirements. TDW Services is globally positioned with Certified Technicians and huge fleets of equipment to handle your planned or emergency needs. With TDW's technical expertise and commitment to ongoing training that meets and surpasses all international standards...maintenance contracts provide a cost-effective solution for your current and future maintenance needs. Building your trust is extremely important to TDW Services, Inc., since our ultimate goal is to become your single source for piping solutions!



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