

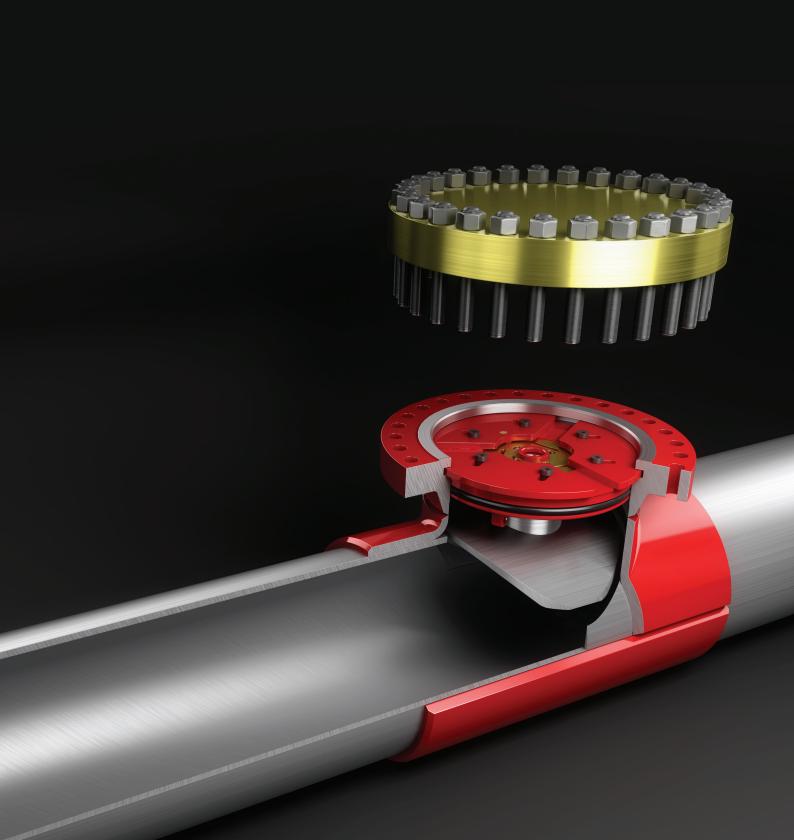
Pipeline Performance™





# STOPPLE® Plus System

Combined with a LOCK-O-RING® Plus completion plug, the STOPPLE® Plus fitting reduces installation time, simplifies the setting process, and eliminates potential segment screw leak paths.



## **Product & Service Solutions**

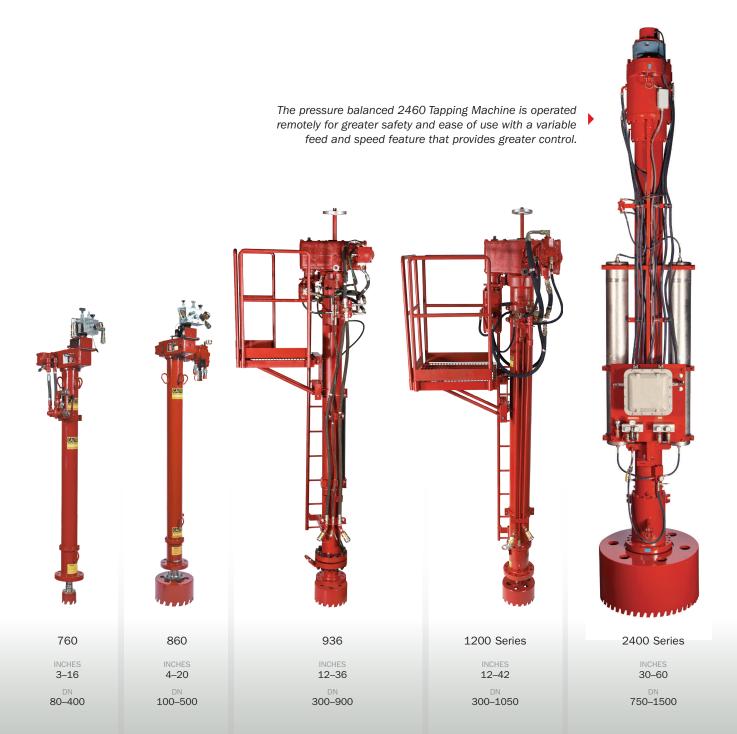
Since pioneering the first high pressure tapping machine in 1950, TDW has been at the forefront of intervention and isolation solutions developed to serve the unique specifications of our customers. Today, TDW sets a new industry standard for hot tapping and plugging solutions that safely and reliably improve pipeline performance and extend asset life. Globally positioned with a comprehensive fleet of tools, fittings and accessories, TDW is fully equipped to perform alterations or repairs on any live system, anywhere in the world.

TDW has performed **more than** 400,000 line interventions to date.



## **TDW Hot Tapping Systems**

Backed by decades of technical expertise and first-hand field experience, the next generation of TDW tapping machines is engineered to meet the most exacting industry standards. The latest generation of TDW tapping machines are pressure balanced and hydraulically operated to provide greater safety and ease of use, with a variable feed and speed feature for greater control. In addition, our ongoing commitment to operator safety is demonstrated by the recent development of remote controlled tapping operations designed specifically for extreme environments. All TDW equipment is continually tested and refined throughout the development and manufacturing process to ensure optimum safety and performance. For custom applications, our engineering team designs and delivers to exact specifications.





# STOPPLE® Train Plugging System With the development of the STOPPLE® Train plugging system, TDW has answered the industry's need for advanced safety in high pressure applications. A true innovation in plugging technology, the STOPPLE® Train system allows two plugging heads to be inserted through a single fitting. When the void between the heads is bled down, the seal on the secondary head provides double block and bleed at pressures up to 1,480 psi. This revolutionary design reduces fitting costs, welding time, potential leak paths and minimizes risk associated

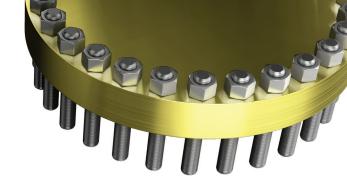
Advanced STOPPLE® Train technology provides double block and bleed, creating a Zone of Zero Energy.

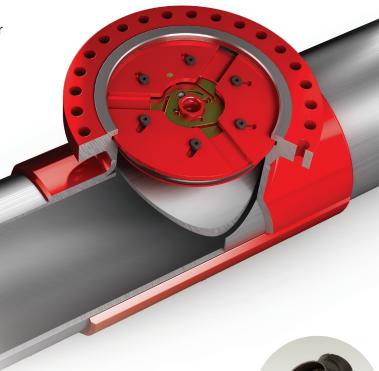
with pressurized piping systems.



# **TDW Fittings**

As a quality manufacturer of pipeline products for more than 90 years, TDW provides the fitting solutions operators trust. Our comprehensive line includes fittings for high pressure/transmission; plant processing; gas distribution (including polyethylene) systems and water pipelines. TDW fittings are available in a variety of materials, including Low CE, Chrome Moly, Stainless Steel and others, and are designed, tested and manufactured to meet a variety of global codes and guidelines.







## THREAD-O-RING™ Fitting

INCHES 2-3 DN 50-80



## THREAD-O-RING™ Flanged Fitting

INCHES 2 DN 50



#### Tapping Fitting

INCHES 4+ DN 100+



#### Reduced Branch Split Tee Fitting

DN 100+



Full Encirclement Reinforcing Saddle

#### Double Hub Fitting

DN 600+



No. 3 Branch Connection Fitting

INCHES 2+
DN
50+

Select TDW fittings are available with pig guide bars and flow-thru plug options. Contact your TDW sales representative for more information.



Trusted, quality fittings available for every application.



Spherical 3-WAY™ Tee

INCHES 4-24

DN 100-600



STOPPLE® Fitting

INCHES 4+

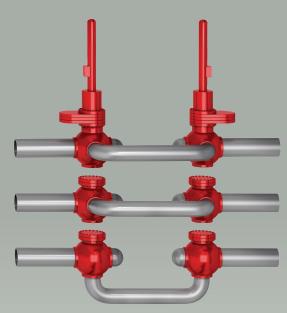
DN 100+



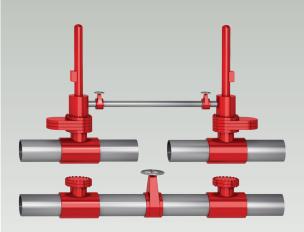
STOPPLE® Plus Fitting

INCHES 4+

DN 100+



Double STOPPLE® Plugging using Spherical Tees for permanent by-pass



Double STOPPLE® Plugging using housing-to-housing temporary by-pass



Double STOPPLE® Plugging using spool adapters on  $3\text{-WAY}^{\text{\tiny{TM}}}$  tees and temporary by-pass

## Safety to the Core

The STOPPLE® Plus completion plug system combines a STOPPLE® Plus fitting with a LOCK-O-RING® Plus completion plug for use in high pressure applications. Once all tapping equipment is removed, a blind flange is installed on the fitting, making re-entry into the line at a future date possible by removing the blind flange and completion plug.

Patented LOCK-O-RING® Plus completion plug with 760 Tapping Machine







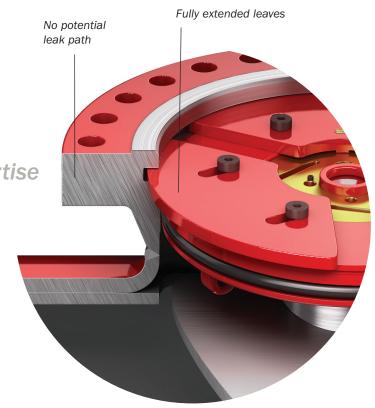


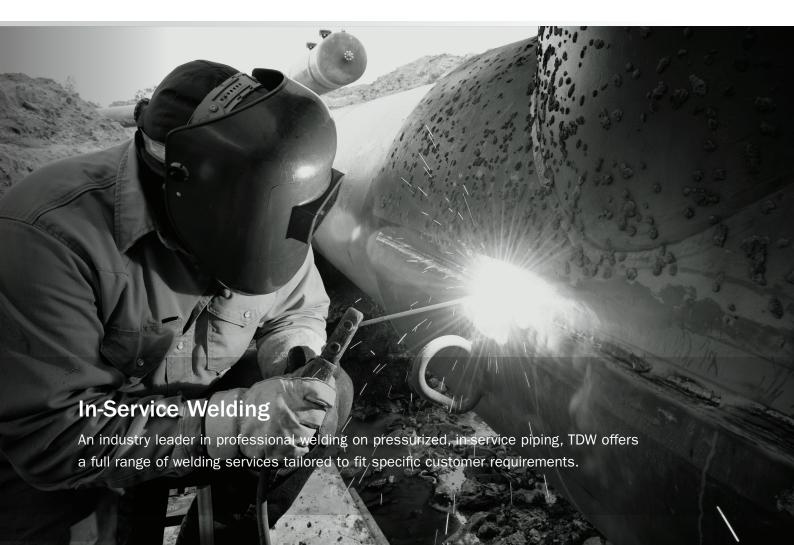
## The Differentiator

LOCK-O-RING® Plus completion plugs are designed with an interlock system to help eliminate potential leak paths for increased safety and efficiency. LOCK-O-RING® Plus completion plugs are engineered to ASME B31.3, B31.4 and B31.8 requirements.

Design / Engineering / Expertise

Exclusive interlock system provides positive indication LOCK-O-RING® Plus plug leaves are fully extended.



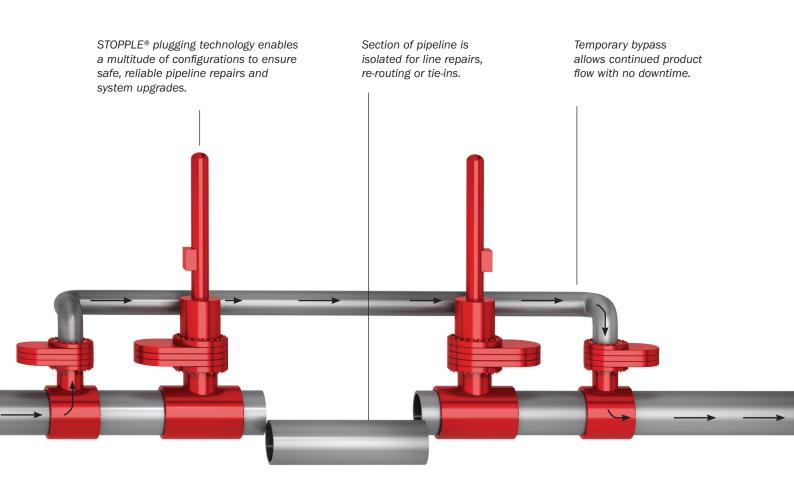


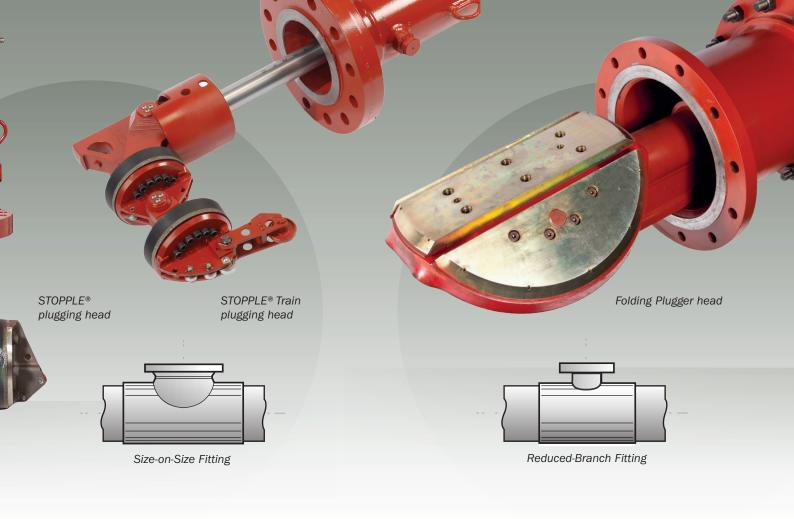
# The Benefits of Bypass

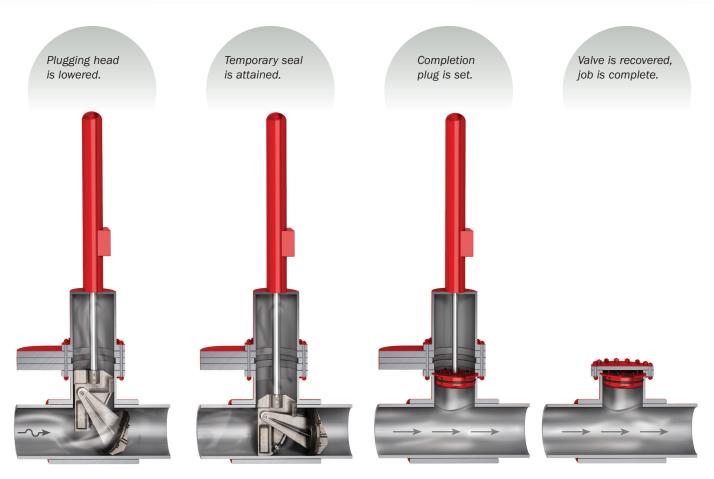
A TDW plugging machine can temporarily stop the product in an operating pipeline by acting as a block valve. When used in conjunction with a bypass line and another plugging machine, product is re-routed around the isolated section of pipeline, while repairs, alterations, relocations and instrument installations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

# Double STOPPLE® Line Procedure





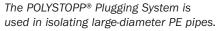




# **TDW Distribution Fittings**

TDW also delivers versatile, fully engineered hot tapping and plugging solutions for the maintenance, modification and repair of gas distribution systems – without interrupting service.

The SHORTSTOPP® PE Plugging System allows work in a smaller excavated area than is required for a typical squeeze set-up.











SHORTSTOPP®
Weld Fitting

INCHES 1 <sup>1</sup>/<sub>4</sub>–12 DN 32–300



SHORTS	STOPP®
$3\text{-WAY}^{\text{TM}}$	T-Stück

INCHES 1 <sup>1</sup>/<sub>4</sub>–12 DN 33–300



SHORTSTOPP® Flat-Bottom Tee

INCHES 1 <sup>1</sup>/<sub>4</sub>–12 DN 33–300



SHORTSTOPP® 300D Split Tee

INCHES 2-12 DN 50-300



SHORTSTOPP® 300D Full Encirclement 3-WAY™ Tee

INCHES 2-12 DN 50-300



SHORTSTOPP® Spherical 3-WAY™ Tee

INCHES 2-12 DN 50-300



SHORTSTOPP® 300D Spherical 3-WAY™ Tee

INCHES 2-12 DN 50-300

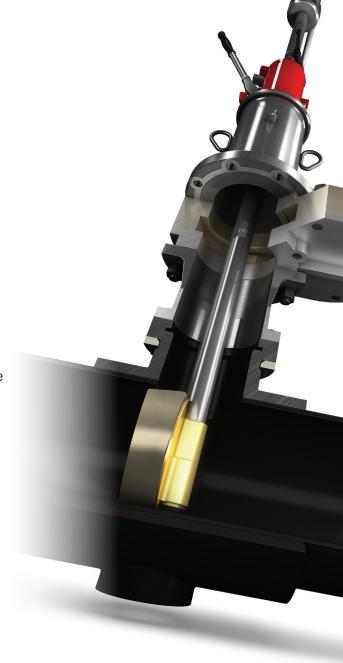


SHORTSTOPP® 740 Purge & Equalization Fitting

INCHES 2
DN 50

# SHORTSTOPP® PE & POLYSTOPP® **Plugging Systems**

Built on proven pressure control technology, the SHORTSTOPP® PE & POLYSTOPP® Plugging Systems are specifically designed for use on polyethylene gas pipelines. Both systems allow for the isolation of a section of pipe by installing folding plugging heads while maintaining gas supply through a bypass. Because the systems allow work to be conducted in a smaller area than is required for a typical squeeze set-up, less modification is required and pipeline integrity is maintained. The SHORTSTOPP® PE system is available in sizes 4- through 12-inch. The POLYSTOPP® system is available in sizes DN90 - 250 / 315 and 355 and can be used on PE 80 pipes as well as on PE 100 material.









SHORTSTOPP® Bolt-on Fitting	SHORTSTOPP® Bolt-on 3-WAY™ Tee
INCHES	INCHES
2-12	2-12
DN	DN
50-300	50-300



Mechanical SHORTSLEEVE™ Fitting	M-STOPP™ Fitting
INCHES	INCHES
2-12	3-12
DN	DN
50-300	80-300



SHORTSTOPP®
PE Plugging
Fitting
11101150
INCHES 4–12
100–300
100-300



HORTSTOPP®
PE Bottom
Outlet Fitting
INCHES

INCHES 4-12	
DN 100–300	



POLYSTOPP®
PE Plugging
Fitting
INCHES

DN 315-355



Branch Saddle Valve

SHORTSTOPP®

INCHES 4-12 DN 100-300

## Rehabilitation & Repair

Quick and cost effective, TDW steel repair sleeves and RES-Q® composite wrap are engineered for temporary to permanent repairs on most pipe diameters.



The TDW Steel Repair Sleeve allows repairs to be made without shut down and is available in sizes 2" - 48."

## **RES-Q®** Composite Wrap

#### For Pipeline

Flexible in-service alternative to clamps, welded sleeves and pipe replacement for liquid and gas pipelines.

#### For Process Piping

Flexible in-service alternative to repair clamps, welded sleeves and pipe replacement for high temperature process piping systems, refineries, power plants.

#### FORMULA

High-strength bi-directional carbon fabric provides superior structural reinforcement in the hoop and axial directions. Meets international composite standards ASME PCC-2 and ISO 24817.

Carbon fabric and two-part epoxy resin create a monolithic composite that is capable of repairing pipes operating up to 271° F (132° C). Meets international composite standards ASME PCC-2 and ISO 24817.

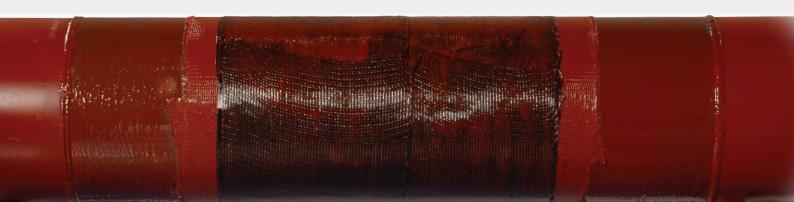
#### USE

External corrosion, gouges, grooves, arc burns and dents. Restores pipeline to its design pressure without shutting down operation.

Internal or external corrosion, galvanic corrosion, weld defects and other defects, including thinned wall sections and thru-wall defects.



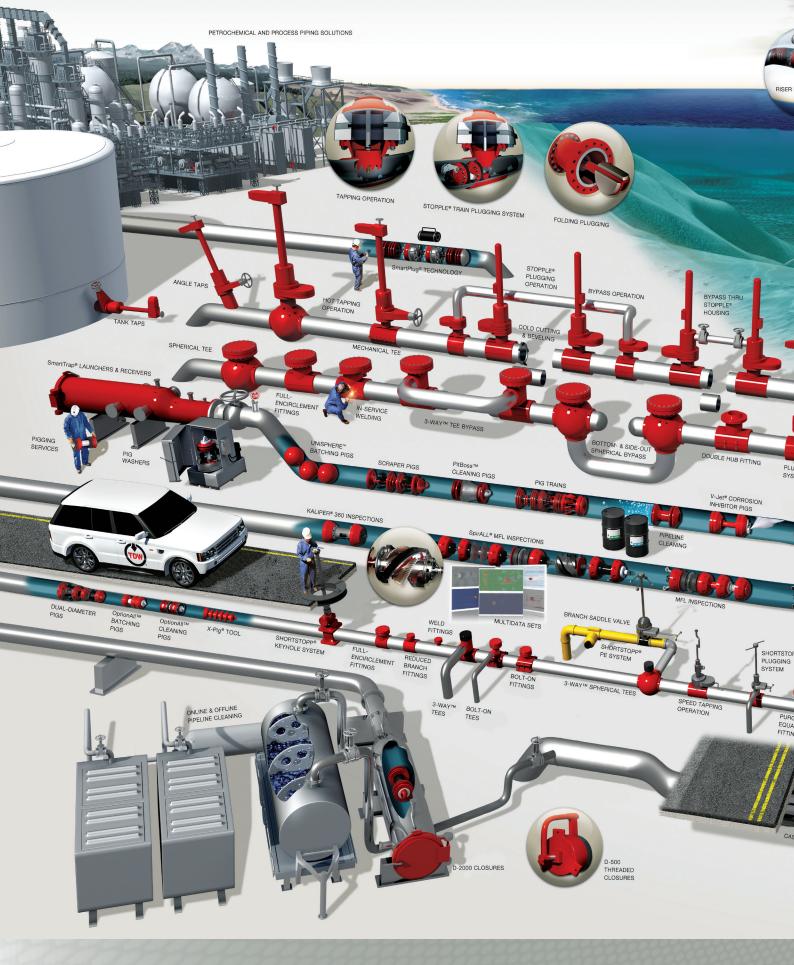
Fully compliant with ISO 9001 Quality Assurance; ASME B31Q Personnel Qualification; ASME PCC-2 and API Recommended Standards e.g. API 570.



# Safety first ... and last.

As piping systems become more complex, with higher operating pressures and temperatures, larger diameters and more volatile products, the need for uniquely skilled technicians is more than important − it's imperative. TDW provides the most comprehensive hot tapping and plugging instruction available. Our certified operators are required to complete LineMaster™ training that includes classroom time, written exams and rigorous, hands-on performance verifications to exceed the latest regulatory and procedural requirements, and to provide the safest, most reliable service solutions possible.







www.tdwilliamson.com

T.D. Williamson

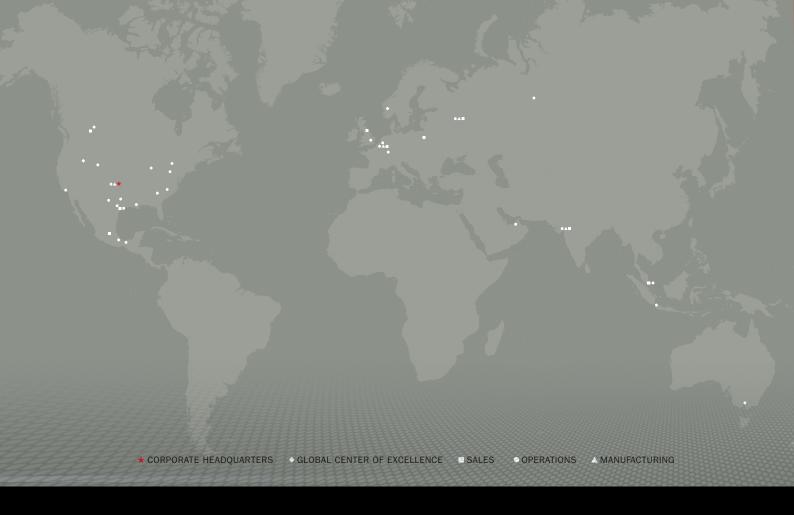


North and South America +1 918 447 5000 Europe/Africa/Middle East +32 67 28 3611

Asia Pacific +65 6364 8520

Offshore Services +1 832 448 7200





## www.tdwilliamson.com

North and South America +1 918 447 5000 Europe/Africa/Middle East +32 67 28 3611 Asia Pacific +65 6364 8520

Offshore Services +1 832 448 7200

