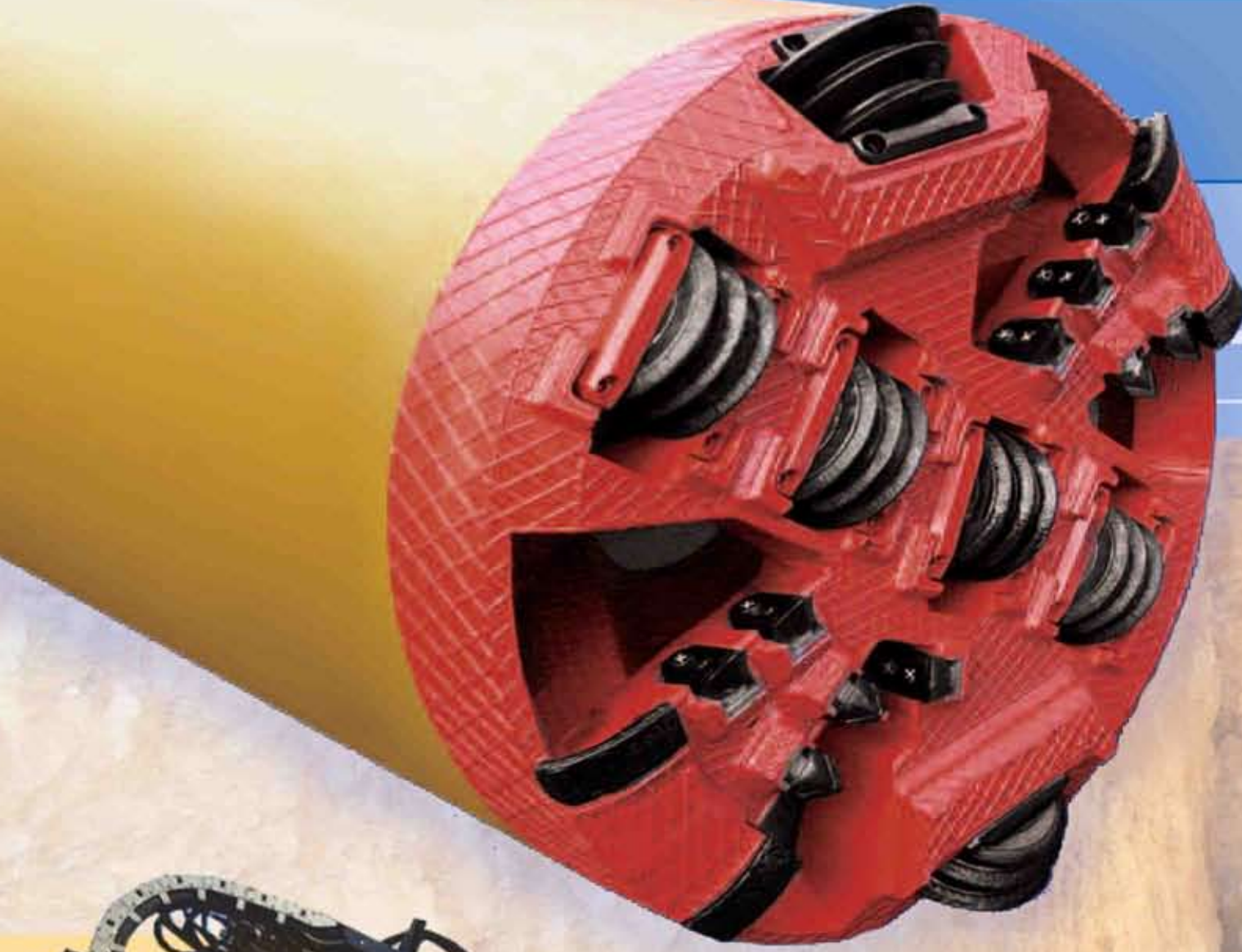




# شركة تقنية حفر الأنفاق THRUSTBORING TECHNOLOGY CONTRACTING CO.

*Expert in Thrustboring Services and Trenchless Technology*



**Expert Professionals  
High quality of Services**



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## Company Profile

Thrustboring Technology Contracting Company (TBT) is a privately held Engineering, Procurement and Construction (EPC) Company established in Dammam office, Kingdom of Saudi Arabia. It has since applied its specialized expertise in underground construction field, and directly managing microtunneling & thrustboring installations of various types of pipes in all ground conditions.

Inspired to meet the growing demand of trenchless technology in Saudi Arabia, TBT acquired sophisticated MTBM machines from one of the best microtunneling equipment manufacturers in the world, HERRENKNECHT and Horizontal Directional Drilling Machine (HDD) from the leading brand of DITCH WITCH.

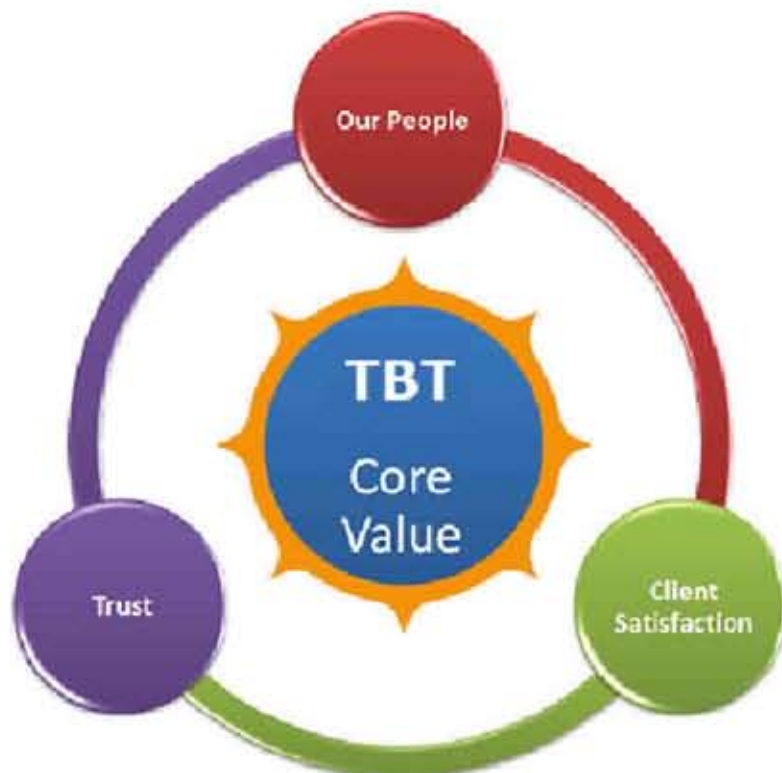
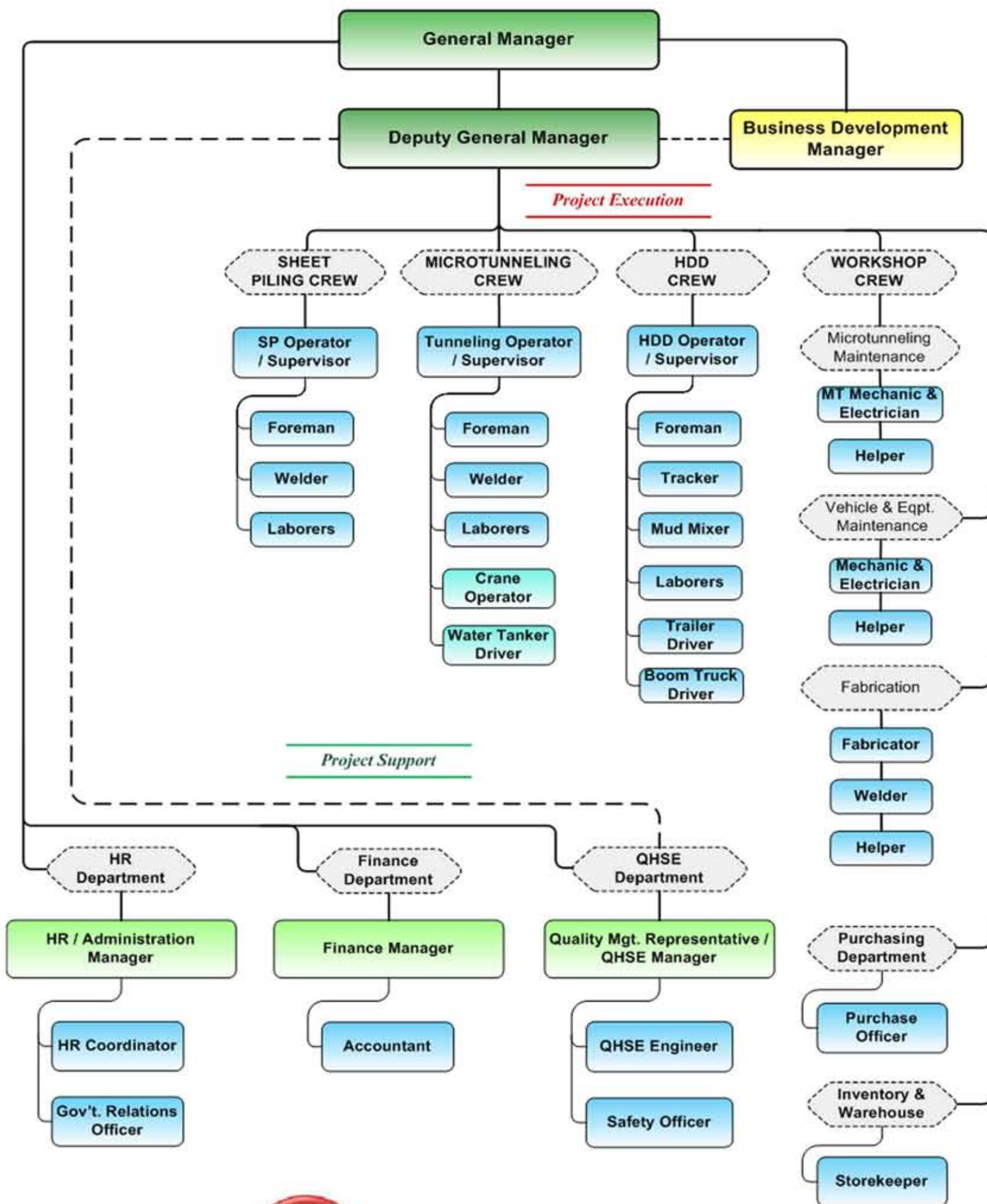
TBT strategies are to deliver quality end products, on time, to cost and to the satisfaction of all the stakeholders, and with environmental consciousness.



Today, we are one of the few companies in our sector featuring a complete products and services, We handle each individual phase of your project professionally and reliably.



# Organizational Chart



TBT strategy driven organizational accountability existed in all members of the workforce.

Individually and collectively, they act to consequentially promote the timely accomplishment of the organization's mission and vision.

### Microtunneling

Microtunneling is a process that uses a remotely controlled Tunneling Machine combined with pipe jacking technique to directly install product pipelines underground a single pass.

This process avoids the need to have long stretches of open trench for pipe laying, which causes extreme disruption to the community. Product pipes of a variety of materials can be used, but typically consist of steel concrete and GRP.



#### Our Services:

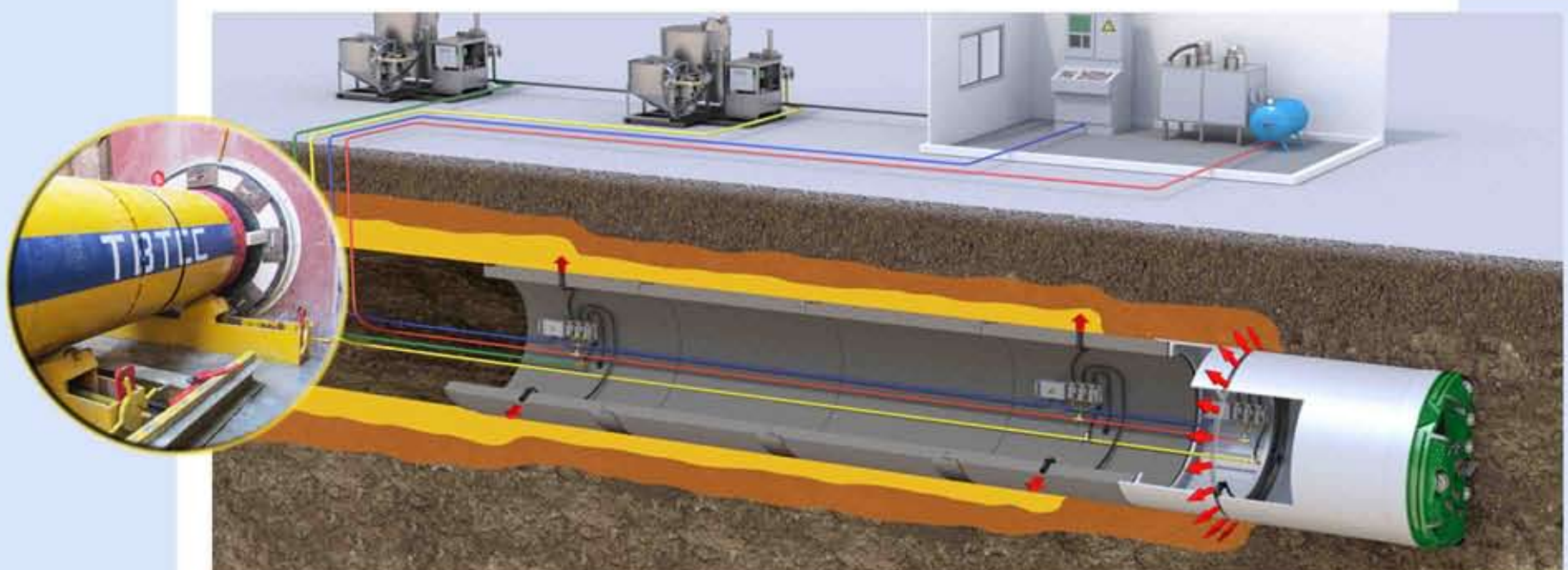
You too can reap the rewards of our full services in the field of microtunneling.

We offer you:

- structural analysis for pipes and shafts
- civil engineering for launch & reception shafts
- microtunnels
- carbon steel pipe supply
- building the concrete structures and shafts
- surveying
- quality control

#### Your advantages:

- Minimum civil engineering and surface work
- Reduction of the earth movement to a minimum
- Minimum annoyance for residents
- Conservation of the environment
- Work in ground water
- No lowering of the ground water level
- Short construction times



## Services Offered

### Horizontal Directional Drilling (H.D.D.)

Horizontal Directional Drilling (HDD) process starts with receiving hole and entrance pits. These pits allow the drilling fluid to be collected and reclaimed to reduce costs and prevent waste.

The first stage drills a pilot hole on the designated path, and the second stage (reaming) enlarges the hole by passing a larger cutting tool known as the back reamer. The reamer's diameter depends on the size of the pipe to be pulled back through the bore hole.

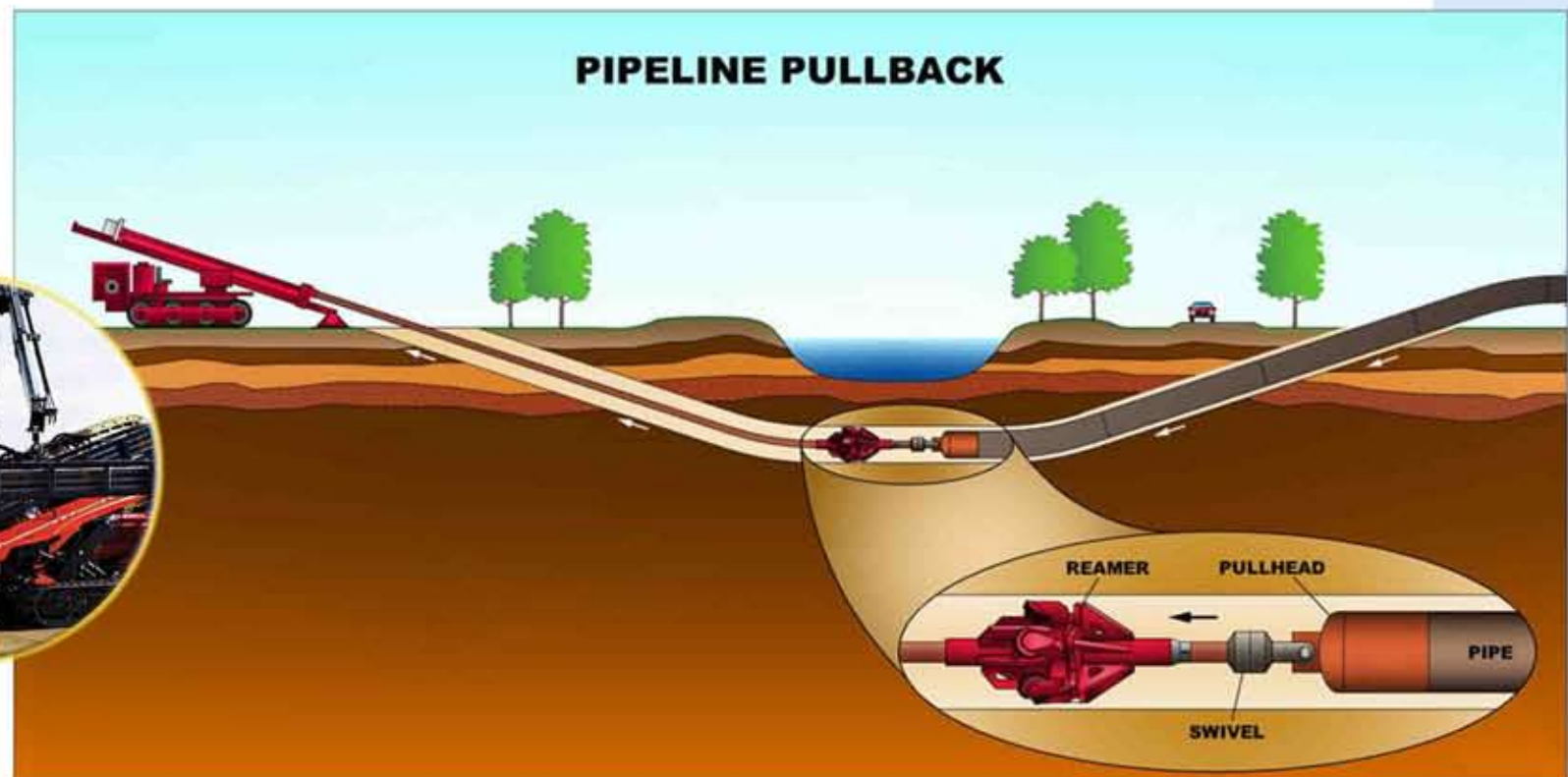


### Applications

This process is used for installing telecommunications and power cable conduits, water lines, sewer lines, gas lines, oil pipelines, and environmental remediation casings. It is used for crossing waterways, roadways, congested areas, environmentally sensitive areas and any area where other methods are expensive.

Directional boring is used in place of other technique for the following reasons:

- Less traffic disruption
- Lower cost
- Deeper installation possible
- Longer installation possible
- No access pit required
- Shorter completion times
- Directional capabilities
- Safer for the environment



## Services Offered

### Sheet Piling

Sheet pile retaining walls are usually used in soft soils and tight spaces. Sheet pile walls are made out of steel, vinyl or wood planks which are driven into the ground.

For a quick estimate the material is usually driven 1/3 above ground, 2/3 below ground, but this may be altered depending on the environment. Taller sheet pile walls will need a tie-back anchor, or "dead-man" placed in a soil a distance behind the face of the wall, that is tied to the wall, usually by a cable or rod.

Anchors are then placed behind the potential failure plane in the soil.



A vibro hammer is used to drive sheet piles or other elements into the soil by vertical vibrations. The adjacent soil particles are put into motion and thus soil is 'loosened'.

The dynamic weight of the hammer will drive the elements into the soil (extracting is done with a crane).



# Services Offered

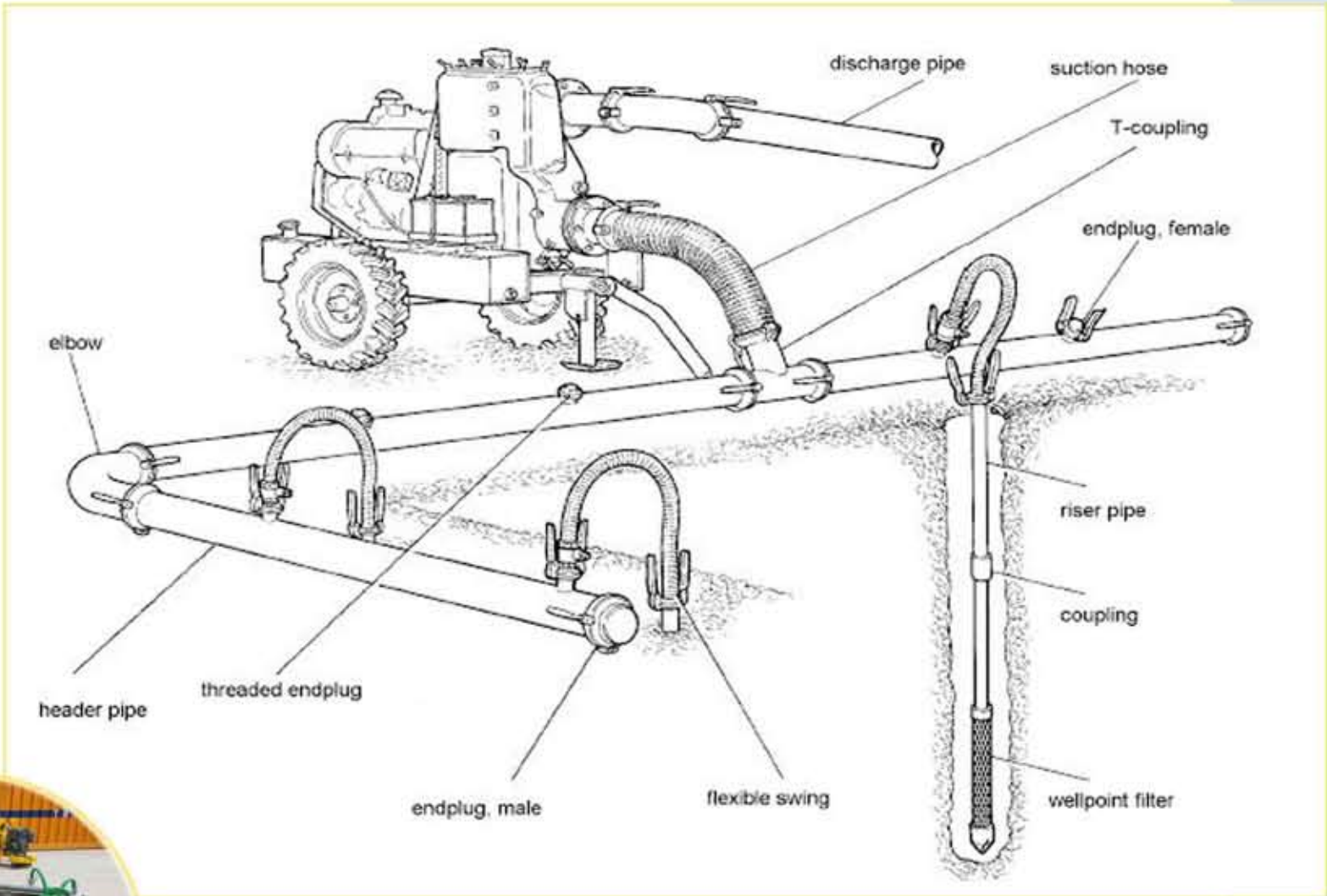
## Dewatering

Dewatering is the removal of water from solid material of soil by wet classification, centrifugation, filtration, or similar solid-liquid separation processes, such as removal of residual liquid from a filter cake by a filter press as part of various industrial processes.

Construction dewatering, unwatering, or water control are common terms used to describe removal or draining groundwater or surface water from a construction site, caisson, or mine shaft, by pumping or evaporation. On a construction site, this dewatering may be implemented before subsurface excavation for foundations, shoring, or cellar space to lower the water table.



### Typical setup of a vacuum wellpoint system



Wellpoint systems are broadly used and recognized in the construction of drainage systems for building trenches and excavations.

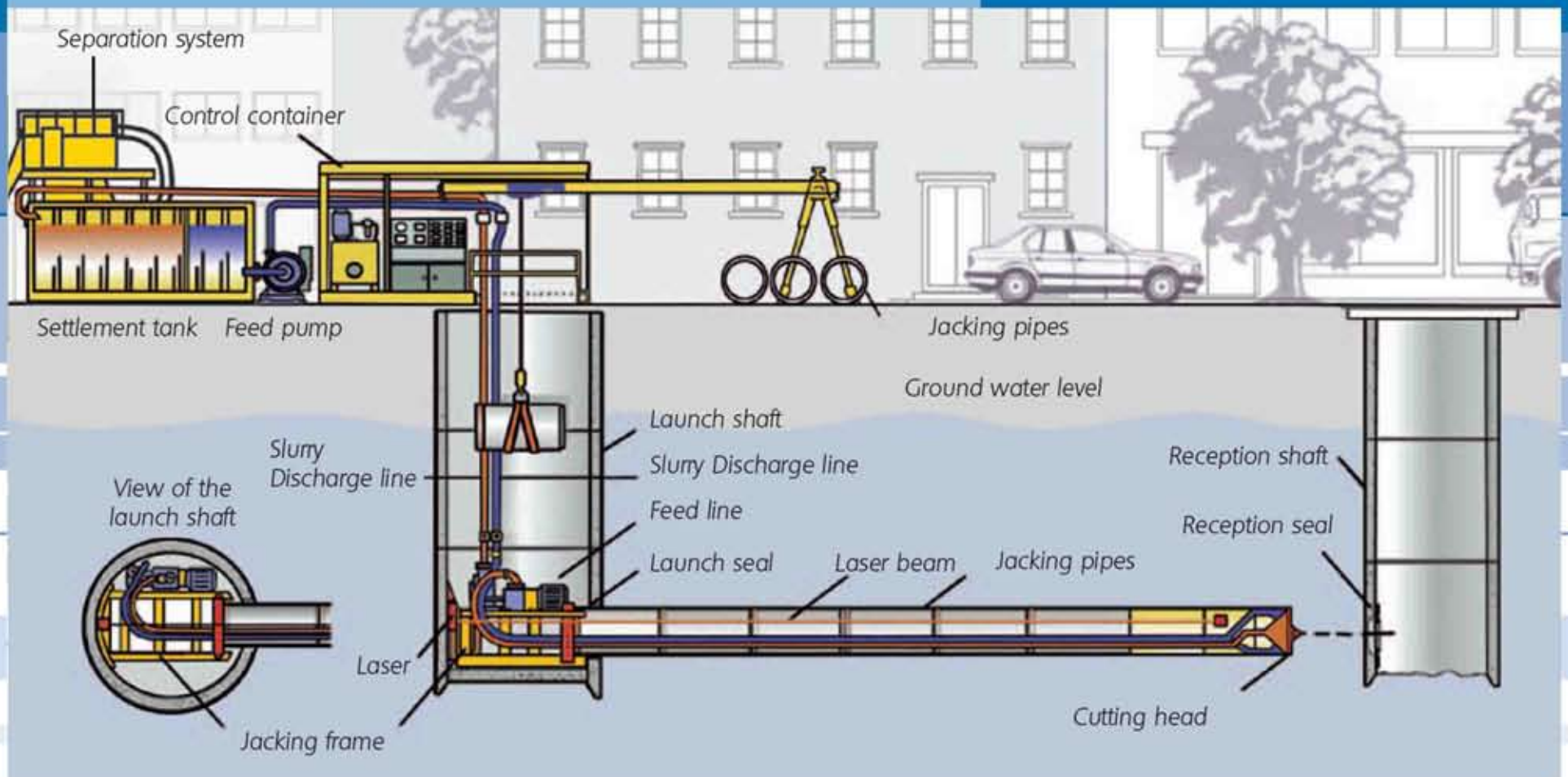
Well point systems are designed for draining fine-grained soils, which do not give water easily. Their characteristic feature is a system of densely spaced inlets with small cross-sections, connected in parallel via a suction header pipe with a pumping engine.





## Microtunneling Method

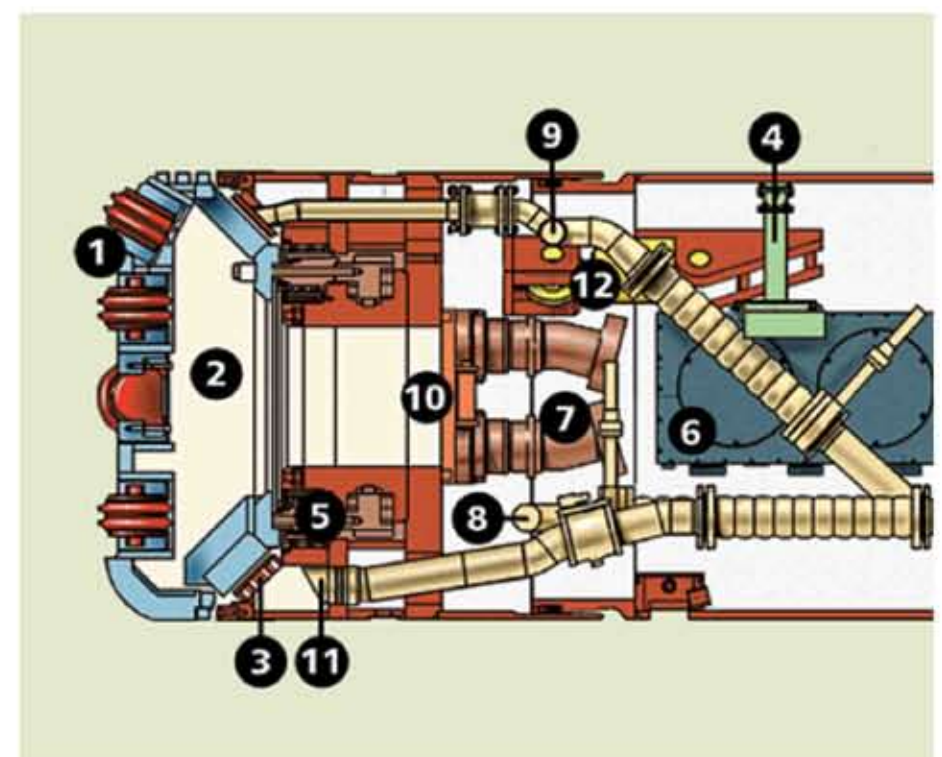
Microtunneling is a high-performance and environmentally friendly alternative to pipeline construction with trenches; it can also be used in the most demanding of circumstances; ground water and difficult geologies are no problem for microtunneling, and it has proven to be a very good method of avoiding obstructions in city centers.



The cutter head (1) removes with its tools (cutters, knives, chisels or discs) the surrounding soil. This is taken to the crusher chamber (2). This is where any stones are crushed (3).

The drilling suspension is initially pumped in a closed circuit into the crushing chamber, is accumulated with the soil there and then pumped back to the separation plant. The separating system then separates the drilling suspension from the soil. The soil is disposed and the drilling suspension is pumped back into the crushing chamber.

Using the hydraulic cylinders in the jacking frame, the pipe can be further pushed forward. A laser beam controls the location of the machine. The target board (4) reports the position of the laser point to the machine operator in the control container. Hydraulic cylinders (12) make possible steering the cutterhead and to correct the position.



- |                   |   |
|-------------------|---|
| 1 Cutter head     | 8 Distribution of the annular space nozzles |
| 2 Crusher chamber | 9 Distribution of the cutter head nozzles   |
| 3 Crusher         | 10 Manhole                                  |
| 4 Target board    | 11 Suction piece                            |
| 5 Main bearings   | 12 Control cylinder                         |
| 6 Switch cabinet  |   |
| 7 Drive motors    |   |



## Quality Policy



Thrustboring Technology Contracting Company is a specialized expert in providing services related to underground construction field and directly managing microtunneling & thrustboring installation of various types of pipe in all ground conditions.

We will meet the requirements of our internal and external customers by effectively applying our management systems to achieve the necessary quality results in the safest, most practical and reliable manner consistent with our customer needs and expectations. It is every employee's responsibility to ensure our quality and strategic business objectives are attained.

Our strategy and focus shall be demonstrated through the following commitments:

- Provide the necessary resources to establish, implement and maintain an effective Quality Management System based on the requirements of ISO 9001:2008 standard
- Understanding and fulfilling our customer requirements and will be striving to exceed customer expectations.
- Comply with applicable statutory and legal requirements
- Provide direction, training and supervision for our employees to increase awareness and competency.
- Periodic review of the Quality system and established objectives for continuing suitability

With conscientious, we continually improve the effectiveness of our Quality Management system that conforms with ISO 9001:2008 standards.

## Health, Safety & Environmental Policy



Thrustboring Technology Contracting Company is a specialized expert in providing services related to underground construction field and directly managing microtunneling & thrustboring installation of various types of pipe in all ground conditions.

TBT is committed to protecting the health and safety of its employees and others involved and the protection of the environment are also our primary concerns.

To deliver our commitments, we will:

- Establish and maintain HSE management system and ensure the management system and practices are incorporated into all aspects of company operations.
- Communicate company HSE policy and procedures to all employees and ensure they take personal responsibility to prevent injury to themselves, their colleagues and everyone else.
- Comply with applicable statutory, regulatory and legal HSE requirements
- Strive to anticipate and eliminate hazards that may result in personal injuries, illnesses damage to properties and environment.
- Continually improve HSE management system through regular audits, management reviews and site walk throughs
- Make it known that **"No activity is so important that we cannot take time to do it safely"**.

A handwritten signature in black ink, consisting of several loops and a long horizontal stroke.

General Manager

## ISO 9001:2008 Certification

Thrustboring Technology Contracting Company (TBT) has achieved ISO 9001:2008 Certification through ACM Limited- UK, which is one of the leading assessment, verification and certification bodies of the world.

This achievement is an important milestone for us as it brings us a step closer to our corporate goals. Through a process of continual improvement, we aim to deliver supreme quality services.



**ACM Limited, UK**

*Certificate of Registration*

This is to certify that the  
Quality Management System  
Of

**Thrustboring Technology Contracting Company**

Ibn Saud Mohd. District, King Khaled St.  
P.O. Box 6567, Dammam 31452  
Kingdom of Saudi Arabia

Has been independently assessed and is  
compliant with the requirements of:

**ISO 9001:2008**

For the following scope of activities:

Provision of Services related to underground construction field, microtunneling  
& thrustboring

Certificate Number:144095 A

Date of initial registration 27<sup>th</sup> February 2014  
Next Re-assessment Date 27<sup>th</sup> January 2015  
Certificate expiry (subject to the company  
Maintaining its system to the required standard) 25<sup>th</sup> February 2017

  
Authorized Signatory



  
245

This certificate is the property of ACM Limited and shall be returned immediately on request.  
ACM Limited, 4 Navigation Court, Harris Business Park, Hanbury Road, Stoke Prior, Bromsgrove, B60 4BD.



**TBT** is also pursuing to achieve Integrated Management System (ISO 9001:2008, OHSAS 18001:2007, & ISO 14001:2004) Certification and soon it will be realized.

## Our Scope of Services

We have been delivering exceptional and quality projects for so many years, satisfying our client's requirements, cornerstone in which we have built our reputation. Over the past few decades we have executed a range of projects that define our niche in business.

Our services include the following:

- Microtunneling & Pipejacking
- Horizontal Directional Drilling (HDD)
- Sheet Piling
- Dewatering

## What TBT offers....





## List of Completed Projects

### **Microtunneling Work in Dammam West Water Network (2013)**

*Client:* Sulieman Al-Qasoumi Contracting Company  
*Contract Type:* Subcontract of Microtunneling work as part of MOWE project.

### **Microtunneling Work in King Abdul Aziz Road, Dammam (2014)**

*Client:* Sulieman Al-Qasoumi Contracting Company  
*Contract Type:* Subcontract of Microtunneling work as part of MOWE project.

### **Sheet Piling & Dewatering Works in Area 97, Dammam (2014)**

*Client:* Sulieman Al-Qasoumi Contracting Company  
*Contract Type:* Subcontract of Sheet Piling and Dewatering as part of MOWE project.

### **Sheet Piling & Dewatering Works in Area 417, Dammam (2014)**

*Client:* Sulieman Al-Qasoumi Contracting Company  
*Contract Type:* Subcontract of Sheet Piling and Dewatering as part of MOWE project.

### **Microtunneling Works in Al-Manar Arabian Corporation, Riyadh (2014)**

*Client:* Al-Manar Arabian Corporation  
*Contract Type:* Subcontract of Sheet Piling and Dewatering as part of NWC project.

### **Sheet Piling & Dewatering Works in Jizan (2014)**

*Client:* Sulieman Al-Qasoumi Contracting Company  
*Contract Type:* Subcontract of Sheet Piling and Dewatering as part of MOWE project.

### **HDD Works in Qassim (2014)**

*Client:* International FEDAC Co. for Contracting  
*Contract Type:* Subcontract of HDD Works part of MOWE project.

### **HDD Works in Abu Hadiya & Safwa Airport Road, Dammam (2014)**

*Client:* Bin Delamah Contracting Company  
*Contract Type:* Subcontract of HDD Works part of Saudi Electricity Company (SEC) project.

### **Microtunneling Works in Dirab, Riyadh (2015)**

*Client:* Al-Manar Arabian Corporation  
*Contract Type:* Subcontract of Microtunneling works as part of NWC project.

### **HDD Works in Dirab, Riyadh (2015)**

*Client:* Al-Manar Arabian Corporation  
*Contract Type:* Subcontract of Microtunneling works as part of NWC project.

### **HDD Works in Khudariyah, Dammam (2015)**

*Client:* Sulieman Al-Qasoumi Contracting Company  
*Contract Type:* Subcontract of HDD works as part of MOWE project.

### **Sheet Piling Work in Khudariya, Dammam (2015)**

*Client:* Sulieman Al-Qasoumi Contracting Company  
*Contract Type:* Subcontract of Sheet Piling Works as part of MOWE project.

### **HDD Works in Samta, Jizan (2015)**

*Client:* Al Manjoof Contracting Company  
*Contract Type:* Subcontract of HDD Works as part of MOWE Project.

### **Microtunneling Work in Port Road, Dammam (2015)**

*Client:* North EMDAD Trading & Contracting Establishment  
*Contract Type:* Subcontract of Microtunneling Works as part of Al-Yamama & MOWE project.

### **Sheet Piling and Rental Works in Port Road, Dammam, (2015)**

*Client:* North EMDAD Trading & Contracting Establishment  
*Contract Type:* Subcontract of Microtunneling Works as part of Al-Yamama & MOWE project.

### **HDD Works in Jaddedatah Rd. & Sakaka Rd., Arar (2015)**

*Client:* Ibn Omairah Company  
*Contract Type:* Subcontract of HDD Works as part of MOWE Project

### **HDD Works in Al Badaya, Qassim (2015)**

*Client:* Link Technology Company  
*Contract Type:* Subcontract of HDD Works part of MOWE project.

### **HDD Works in Ayoun Al-Jawa, Qassim (2015)**

*Client:* Al Hadab Company for Trading & Contracting  
*Contract Type:* Subcontract of HDD Works

### **HDD Works in Keshal Rd. & King Fahad Rd., Qassim (2015)**

*Client:* Abdulali Al-Ajmi Company  
*Contract Type:* Subcontract of Microtunneling works as part of NWC project.

### **HDD Works in Al-Haqu, Jizan (2015)**

*Client:* Al-Jazea Company for Trading & Contracting  
*Contract Type:* Subcontract of HDD Works as part of MOWE Project.

## Saudi Aramco & SABIC Vendor Approvals



SAUDI ARAMCO  
Vendor Registration No: 10052902



SABIC  
Vendor Registration No: 507467

## Ministry Approvals (MOWE & NWC)



NWC Vendor approval obtained for the following services:

1. Tunneling/ Thrustboring works
2. Horizontal Directional Drilling

## Major Client Approvals & Registrations



## Contact Us.

### Head Office:

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Najm Business Center  
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Kingdom of Saudi Arabia

Tel: +966 13- 8339969

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email: [info@tbtcc.com](mailto:info@tbtcc.com)

website: [www.tbtcc.com](http://www.tbtcc.com)



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