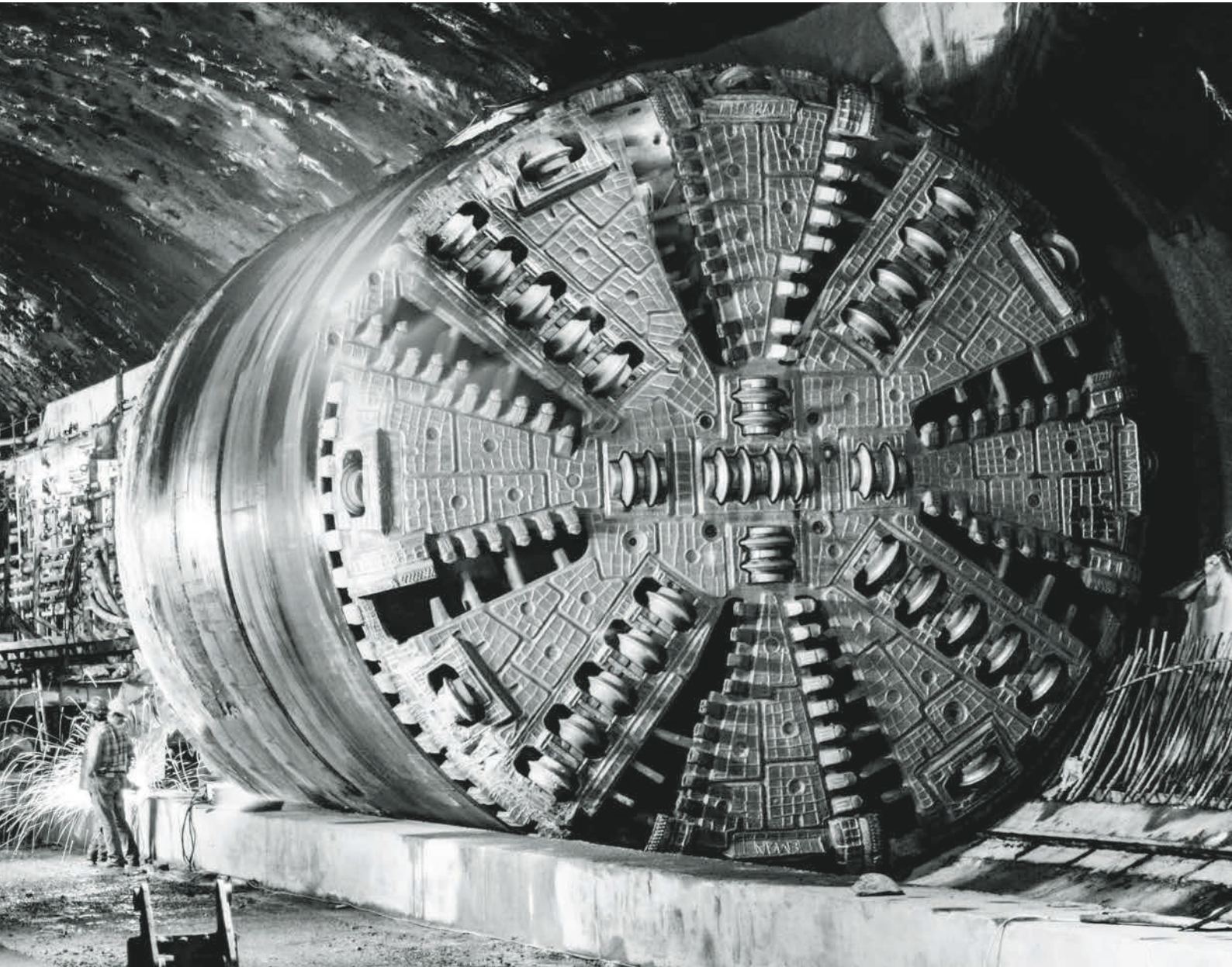
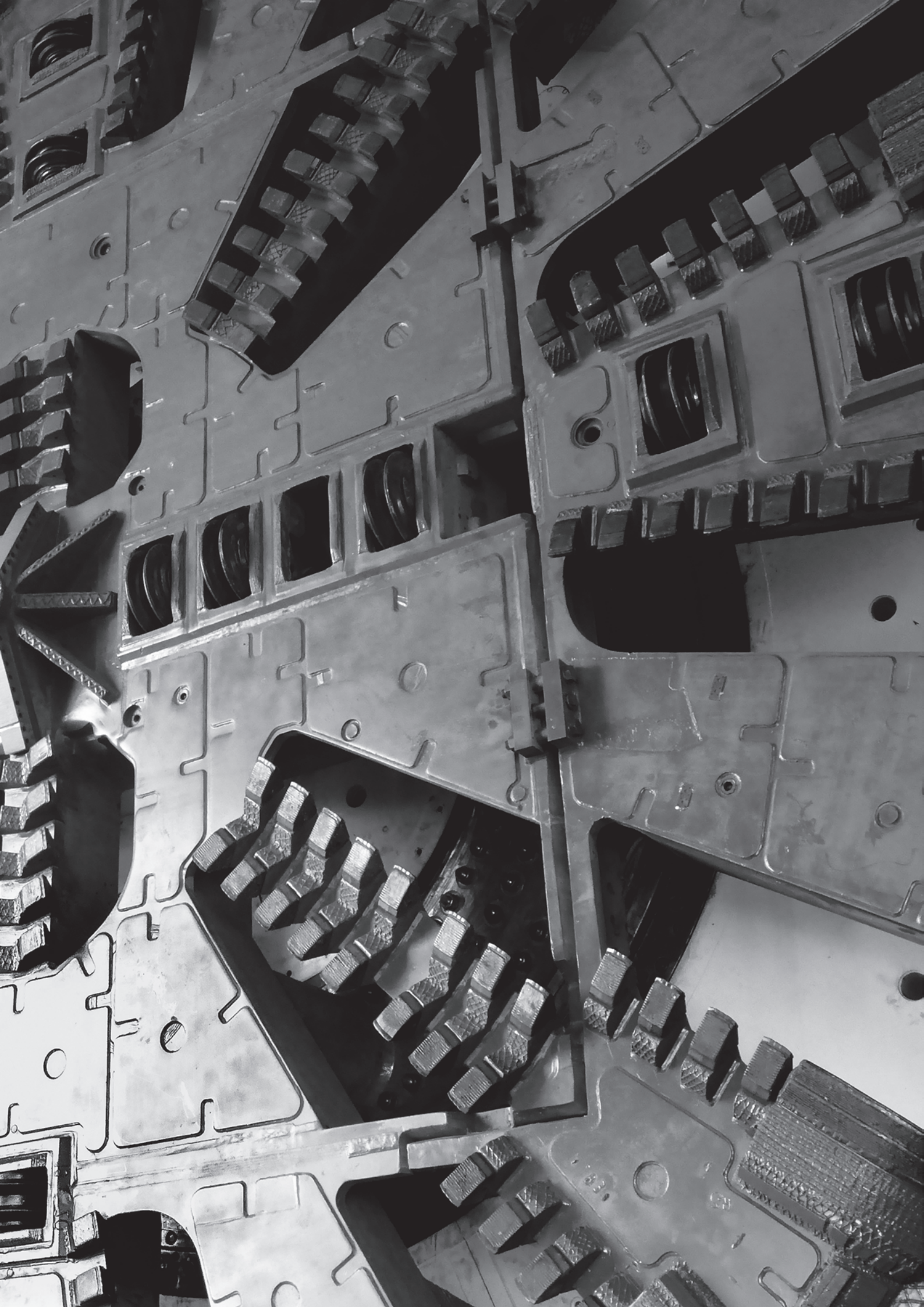


TUNNEL SAZ MACHINE



DESIGN, MANUFACTURING
CONSULTING & EQUIPMENT SUPPLY



CONTENT

About Us	2
Our Services	3
Design & Manufacturing	3
Technical & Engineering Services	4
Landmark Projects	6
Chabahar Desalination Project	7
Ahwaz Sewage Network	8
Qatar Sewage Network	9
Machinery & Equipment	12
Tunnel Boring Machine (TBM)	12
Micro Tunnel Boring Machine (MTBM)	13
Upsize Packages	15
Cutting Wheel	15
Control Cabin	16
Jacking Frame	17
Interjack Station	18
Power Pack	18
Mechanical Parts	19
Electrical Parts	19
Cutting Tools	20



About Us

«**TUNNEL SAZ MACHINE**» is a leading company that has been actively involved in the tunneling and mechanized drilling industry for the past 20 years. We specialize in the design, development, and manufacturing of state-of-the-art tunnel boring machines (TBMs) as well as operation and field service provision in this field.



Tunnel Saz Machine company has established a strong reputation for delivering innovative and high-quality solutions for tunneling projects worldwide. With more than two decades of experience, the company has gained extensive expertise and technical know-how in the field. We have successfully completed numerous projects across various industries, including transportation, infrastructure, mining, and energy.



Over 20 Years of Experience
in the Tunneling Industry



Over 60 Companies have
already trusted us with
providing machinery and
technical services

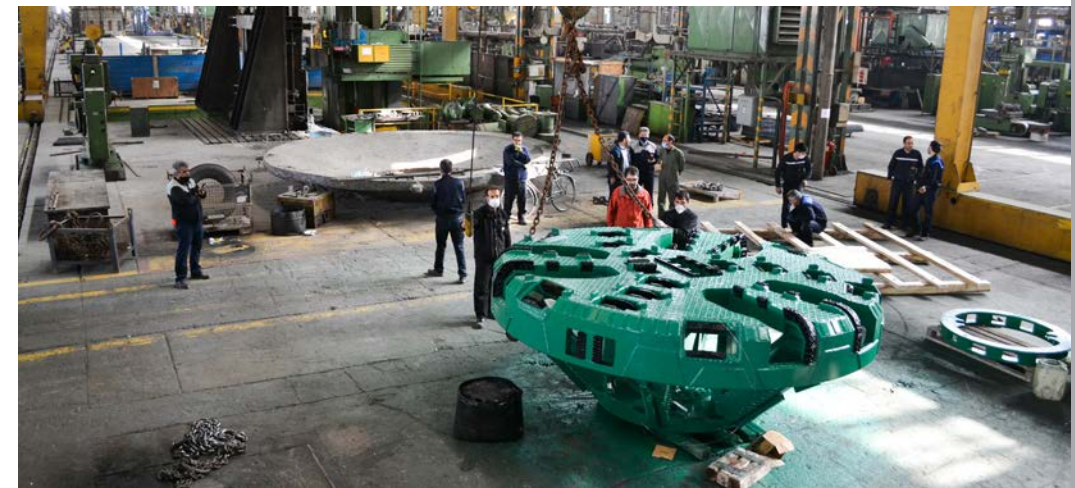
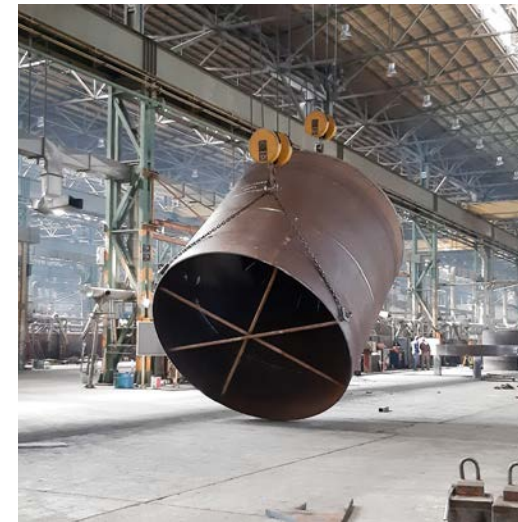


Worked with more than
10 countries worldwide in
tunneling projects

Our Services

DESIGN & MANUFACTURING

At Tunnel Saz Machine, we take immense pride in the fact that our tunnel boring machines (TBMs) are entirely designed and manufactured in-house. We have complete control over the design and production process, ensuring that our TBMs meet the highest quality, reliability, and performance standards. Every step, from the initial concept and engineering drawings to the final manufacturing stages, is meticulously executed under our watchful eyes.



In this regard, our team of highly skilled engineers and technicians will focus on the following areas:

1. Design and manufacture of TBM and MTBM mechanized boring machines
2. Design and construction of locomotives and equipment for Rolling Stock
3. Design and manufacture of cutting tools

TECHNICAL & ENGINEERING SERVICES

In addition to manufacturing tunnel boring machines (TBMs), Tunnel Saz Machine Company provides comprehensive services to its clients. We offer consultancy, project management, and training services to assist our customers throughout the entire tunneling process.



ASSEMBLING, REFURBISHMENT, COMMISSIONING & OPERATION

The company's extremely talented crew of engineers and technicians work closely with clients to understand their requirements and provide tailored solutions that meet their specific needs.



CONSULTATION & TRAINING

Tunnel Saz Machine places a strong emphasis on research and development, continuously striving to improve its products and develop cutting-edge technologies. We collaborate with industry experts, research institutions, and academic partners to stay at the forefront of innovation in the tunneling and mechanized drilling sector.



Landmark Projects

With a strong commitment to quality, customer satisfaction, and safety, Tunnel Saz Machine has become a trusted partner for tunneling projects globally. Our track record of successful projects, technical expertise, and dedication to excellence have solidified our position as a leading manufacturer in the tunneling and mechanized drilling industry.

Desalination Plant for Chabahar Petrochemical Dam Project

The tunnel drilling operation with the microtunneling method under the seabed is a part of the Negin Mokran Petrochemical Water Treatment Project in the Chabahar region, considered as one of the most challenging mechanized excavation projects in the world, which is implemented for the first time in Iran by Tunnel Saz Machine Company, using a Slurry type TBM equipped with an Air Lock system.



AHWAZ SEWAGE NETWORK

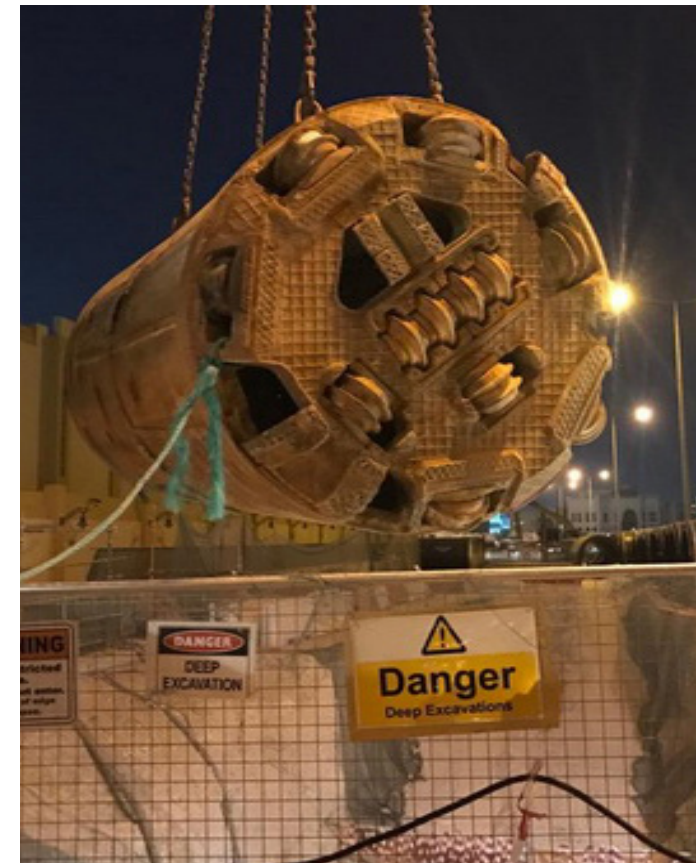
A 14 km sewage line establishment in Ahwaz has been sealed to be accomplished. For the time being, parts of it are under construction. In the event of the successful completion of the current project, it will be expanded to stretch the sewage line to other neighborhoods within the city to maintain a stable sewage system for Ahwaz Megacity.



Ahwaz Sewage Network

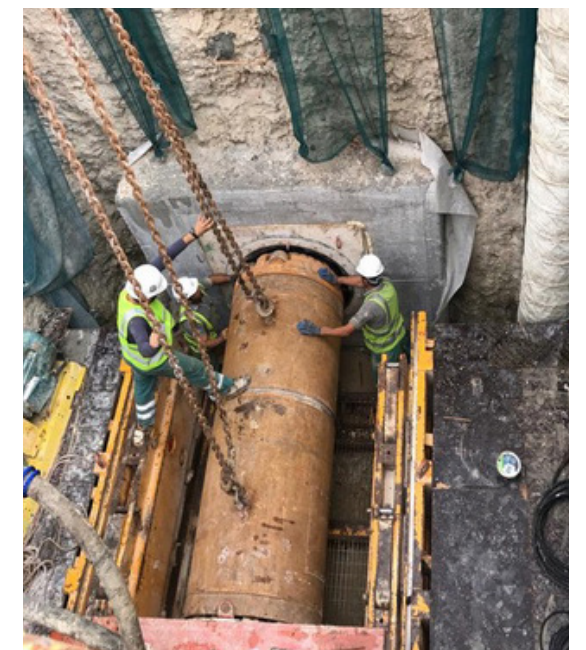


Qatar Sewage Network



QATAR SEWAGE NETWORK

Tunnel Saz Machine Company has been actively involved in Qatar's wastewater and surface water transportation projects. We have successfully excavated more than 3,000 meters of tunnels of various sizes. Nevertheless, we intend to sign new contracts, start new projects, and continue to promote our excavating activities in Qatar.





SUPPLY
MECHANIZED EQUIPMENT

Machinery & Equipment

Tunnel Saz Machine's tunnel boring machines are eminent for their cutting-edge technology, precision engineering, and efficiency. These machines are designed to excavate tunnels of different sizes and geological conditions, ensuring optimal performance and reduced construction time. They are also equipped with advanced features such as automated control systems, real-time monitoring, and safety mechanisms to enhance productivity and ensure workforce safety.



Tunnel Boring Machine (TBM)

2200 MICRO GRIPPER

The 2200 Micro Gripper is a highly efficient solution for fast mechanized tunneling in hard rock conditions. It has been specifically designed to work in hard and stable rock formations and has a boring diameter of the Micro TBM range. Its unique working principle allows it to build up to 4 km of tunnels in one shot. This machine would be an excellent solution for projects with high overburdens.

TECHNICAL DATA

- Machine Type: Micro Gripper 2200
- Excavation Diameter: 2265 mm
- Total Length: 54 m
- Front Shield (diameter): 2225 mm
- Front Shield (length): 2180 mm
- Center Shield (diameter): 2175 mm
- Center Shield (length): 1500 mm



Micro Tunnel Boring Machine (MTBM)

AUTOMATIC SLURRY MACHINE (ASM) 800 - 1400

Tunnel Saz Machine's ASM production line includes various sizes of slurry-type tunneling machines with electric or hydraulic drives that are able to operate in different geological conditions with minimum impact on urban surface activities and foundations.

TECHNICAL DATA

- Machine Type: Automatic Slurry Machine (ASM)
- Excavation Diameter: 1150-1790 mm
- Total Length: 3.2 - 6.4 m
- Front Shield (diameter): 1505 - 1740 mm
- Front Shield (length): 969 -1726 mm



ASM 2000 MICRO TUNNELING MACHINE

A Micro Tunneling Machine specially manufactured and equipped with an Air Lock system while providing the ability to perform hyperbaric operations under the seabed for the Chabahar Desalination Plant Project.



TECHNICAL DATA

- Machine Type: Automatic Slurry Machine {ASM}
- Excavation Diameter: 2161 mm
- Total Length: 6.6 m
- Front Shield (diameter): 2200 mm
- Front Shield (length): 3641 mm



Upsize Packages

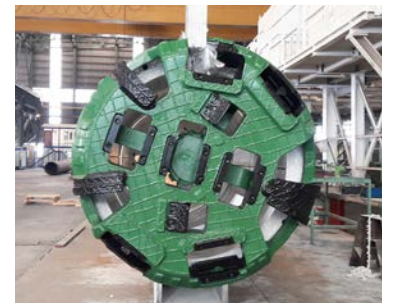
EXTENSION KITS FOR MICRO TUNNELING MACHINES



Cutting Wheel

800 TO 1200 CUTTING WHEEL FOR MICRO TUNNELING MACHINES

Designed to work in 100 - 150 MPa rock hardness
Adaptable to Herrenknecht, MTS, Palmieri, and so forth MTBMs.



Control Cabin

- Able to operate different ranges of MTBMs
- Compatible with different kinds of micro tunneling machines like Herrenknecht, MTS, Iseki, Rasa, etc.
- PLC programming and Visual designing are all done exclusively by TSM Group
- Operators' modules are designed according to the needs and the available space of the cabin
- Able to connect remotely via cellphone to check and guide the machine
- Able to control two machines at the same time



Jacking Frame

COMPACT JACKING FRAME

Compact design allows jacking from shafts not much longer than the tunneling machine.



TELESCOPIC JACKING FRAME

Telescopic compact Jacking frame integrated with high-pressure power pack to push micro tunneling CR pipes with 1800 to 2200 mm 1D size



Interjack Station

An intermediate jacking station is used when jacking forces on the complete drive are expected to exceed the capacity of the main jacks due to the soil conditions or drive lengths. This station allows the entire pipeline to be divided into more easily jackable sections for better management and control.



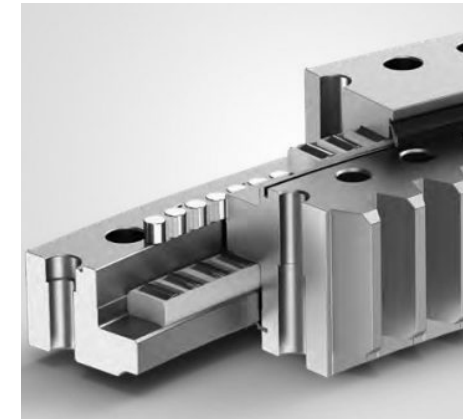
Power Pack

TSM power unit systems are engineered to manage variable speeds, making them highly adaptable. The electric motors are rated for continuous duty to ensure a long-lasting, reliable system. These power packs are interchangeable with a control cabin for pushing and rejack purposes.



Mechanical Parts

Guaranteed new and used stock ready to ship from Rexroth, Linde, Danfoss, Zitron, Hagglunds, SKF, and FAG.



Electrical Parts

Ready to send out stock of brand new and used equipment from Schneider, ABB, Elin, IFM, and Turck.



Cutting Tools

Cutter Rings are manufactured from high-alloy tool steel with the right balance of hardness and strength to ensure a long lifetime. The alloy steels provide the appropriate toughness in addition to the hardness.





TSM

OUR MISSION
IS BEING
WITH YOU TILL
BREAKTHROUGH

Central Office: Unit12, 4TH Floor, No.18, Second Dead End,
Ahmad Qasir (Bukharest) St. Argentina Sq, Tehran, Iran
Tel: +98 (21) 88 53 46 30 - 1 | Fax: +98 (21) 88 73 90 49

Factory: Qazvin - Tehran 20 Km Freway, Qazvin, Iran
www.tunnelsazmachine.com | info@tunnelsazmachine.com



TUNNEL-SAZ-MACHINE-CO



@TUNNELSAZMACHINE



@TUNNELSAZMACHINE

