



**GLINIK**  
DRILLING TOOLS



## HYDROGEOLOGY

The current worldwide hydrological situation is driving a broader search for available groundwater deposits. To meet the growing customer requirements, Glinik has created tool product line dedicated to hydrogeology exploration drilling.

Our many years of experience and extensive testing of drilling tools has made it possible, to create a drill bit which fits perfectly into the current requirements of drilling companies. In particular, it enables drilling through variable rock formations in one run, directly reducing drilling costs. Depending on the client's preference, drill bits are offered with a milled tooth cutting structure, with wear-resistant hardfaced layers or cones reinforced with tungsten carbide inserts - in a wide range of diameters from 6" (152.4mm) to 36" (914.4m).



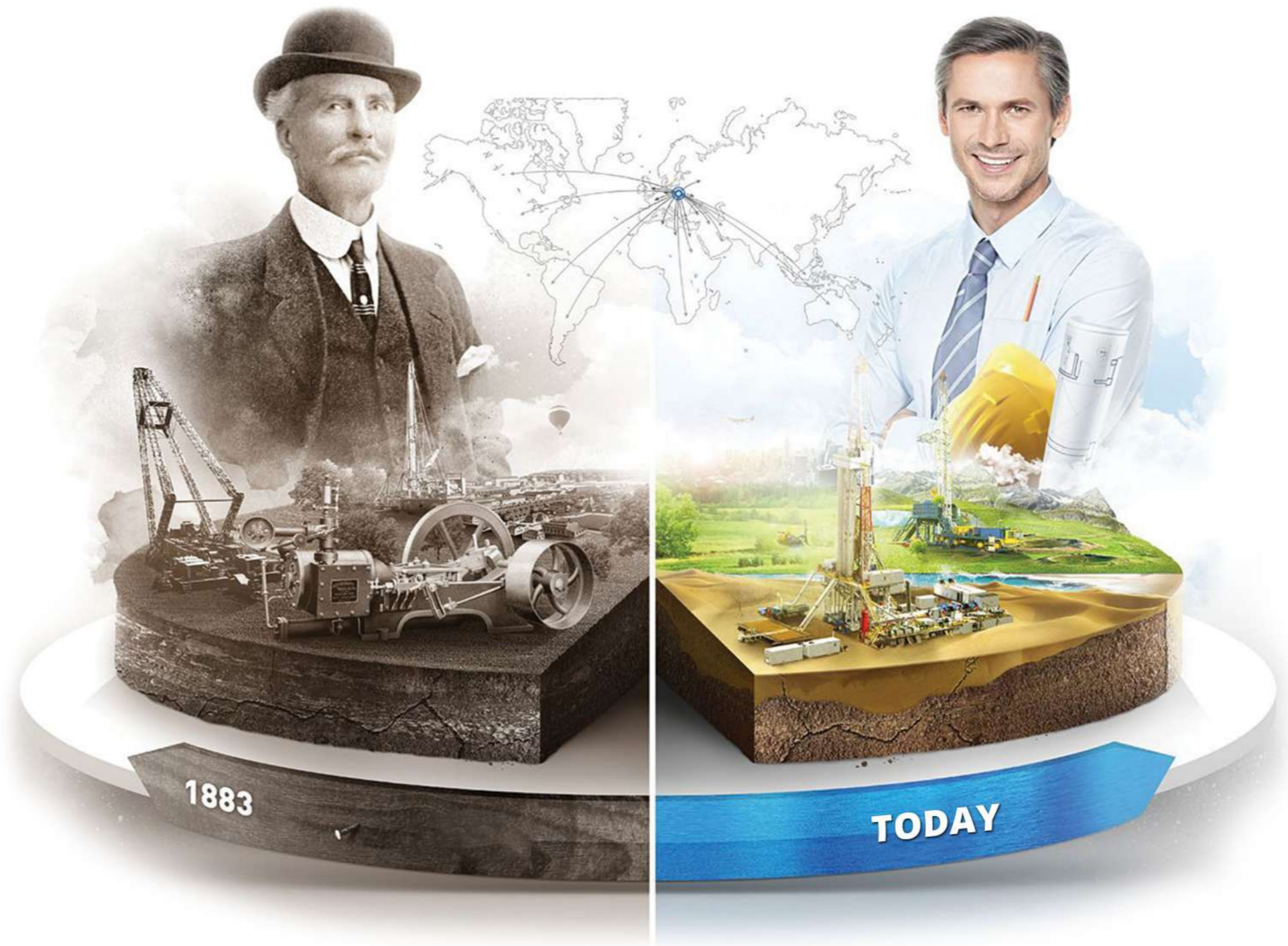


## Glinik core business is the production of Drilling Tools and Equipment

For 140 years in the drilling market, Glinik has produced innovative solutions, superior products and services. Our success is attributed to their quality, which has earned the respect of our customers helping establish long-term business relationships. As an International Manufacturer, we remain a sought-after contributor of top-quality products for the oil and gas, mining, geothermal, geotechnical, HDD and water-well drilling sectors.

Our People are our most valuable asset. They provide extensive knowledge, experience and passion for new challenges are the strongest assets and values at Glinik.

We have gradually increased our presence within the international marketplace through continuous innovative advancements. Glinik's development strategy is based on its expertise in engineering (including R&D), product manufacturing and launching of new solutions globally, with our own brand.



We make changes....  
**Determining the future.**

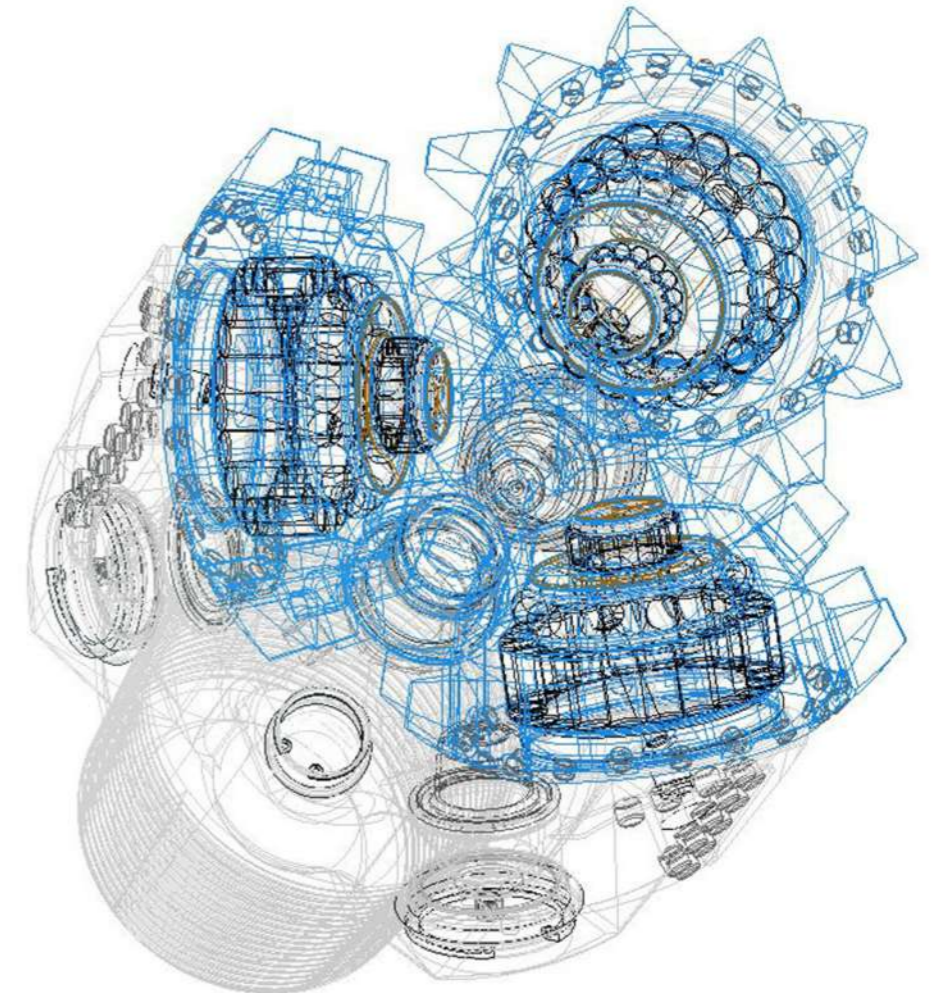
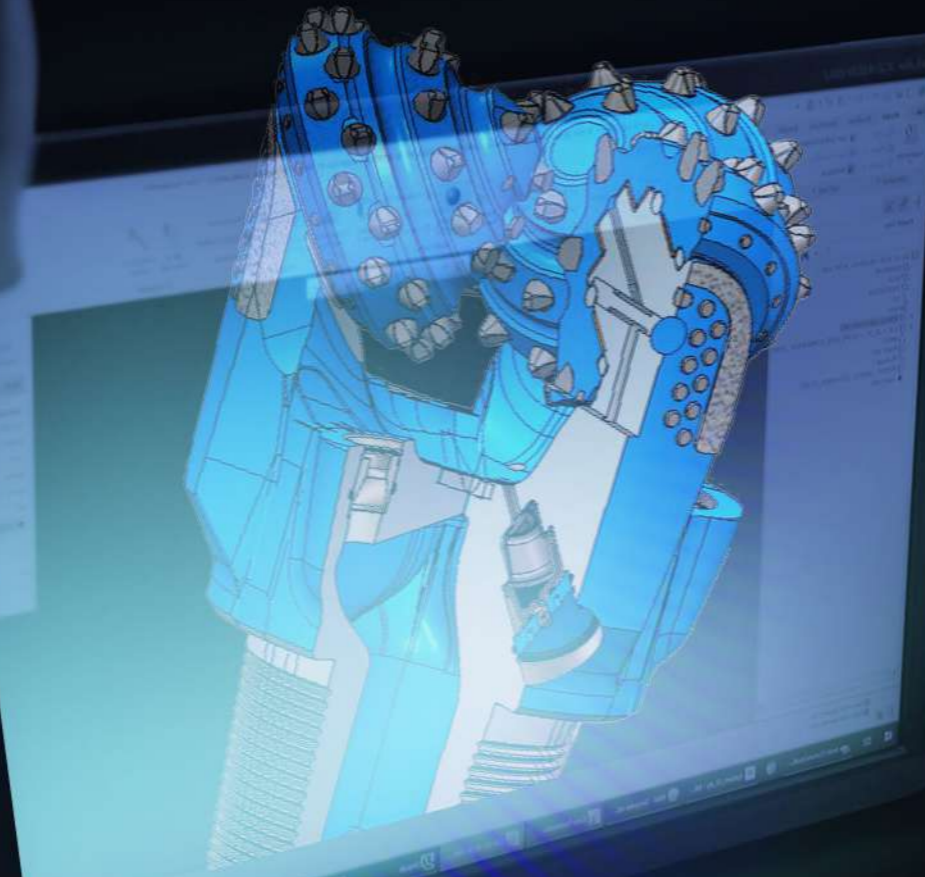


# TECHNICAL INNOVATION

Glinik's Professional Design and Engineering Team is responsible for innovative solutions in the design of broadly defined drilling tools, optimization of the production process to achieve the highest quality of the final product.

Dedicated engineering personnel is involved in advanced research and development projects, enabling continuous product innovation in the areas of design and implementation of the latest technological solutions.

Experienced experts at Glinik Engineering **provide professional support** to select the most effective tools and drilling parameters for Customer defined applications

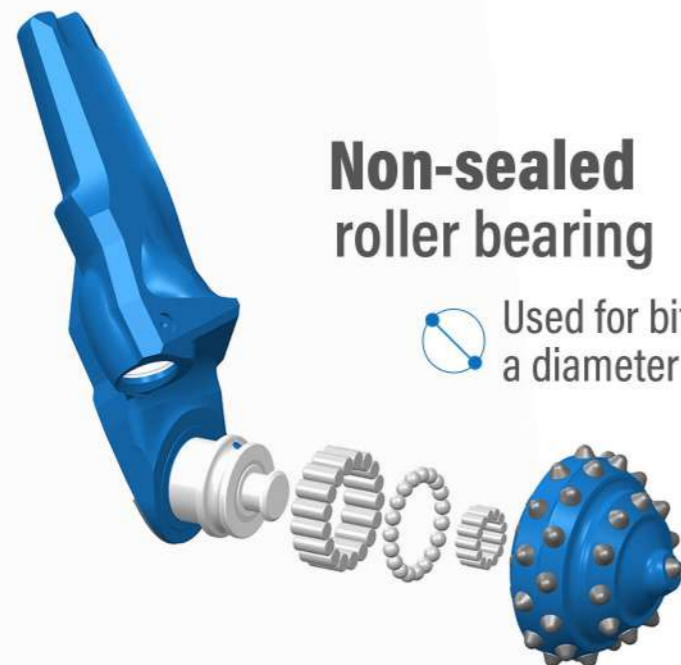


# FLUSHING SYSTEM

Size of the drill bit		Nozzle dimensions			
		D	h	d	
mm	inch	mm		mm	inch (1/32)
139,7÷187,3	5-1/2÷7-3/8	20	15,1	4,0; 4,8; 6,4; 7,9; 8,7; 9,5; 11,1; 12,7; 14,3	5; 6; 8; 10; 11; 12; 14; 16; 18
190÷1066,8	7-1/2÷42	33	27	11,1; 11,9; 12,7; 14,3; 15,9; 17,5; 19,0; 20,6; 22,2; 23,8; 25,4	14; 15; 16; 18; 20; 22; 24; 26; 28; 30; 32

# INNOVATIVE BEARING SYSTEMS

An ideal solution for clients looking for a tool to ensure adequate drilling efficiency at a competitive cost level. Recommended for drilling shorter intervals.

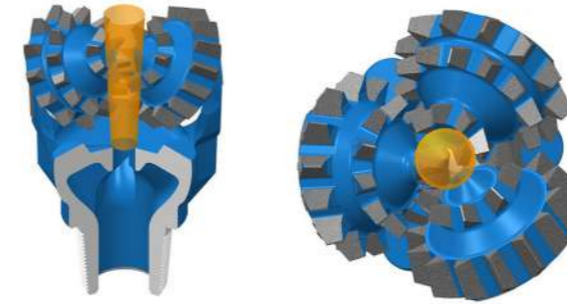


## Non-sealed roller bearing

Used for bits with a diameter of **2-3/8" - 42"**

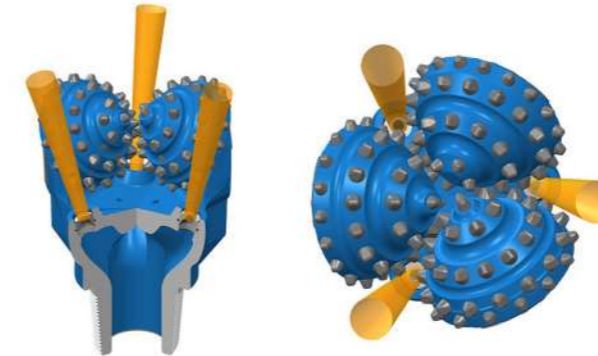
## Center flushing

Used for bits with a diameter of **2-3/8" - 42"**



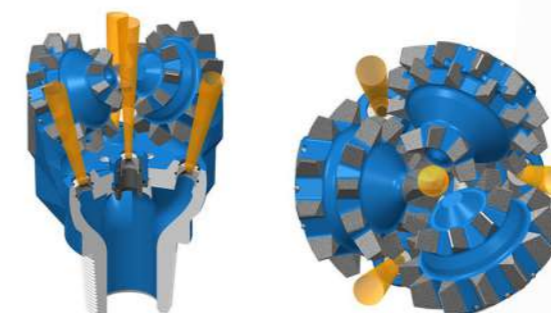
## 3-jet flushing

Used for bits with a diameter of **3-7/8" - 36"**



## Multi-jet flushing system

Used for bits with a diameter of **5-1/2" - 42"**



Central flushing is used for bits designed for hydrogeological and geoenvironmental drilling. For bits intended for drilling with reverse flush circulation, the design provides for the use of a central hole with the maximum diameter for a given threaded connection.

The arrangement of the nozzles and the direction of the flushing outflow allows for effective cleaning of the drill cutting structure and the bottom of the hole. This solution is designed to achieve maximum drilling progress.

The advanced flushing system extended by additional nozzles in relation to the 3-jet flushing system allows for more effective cleaning of the cutting structure and the bottom of the hole, and thus maintaining high drilling progress.

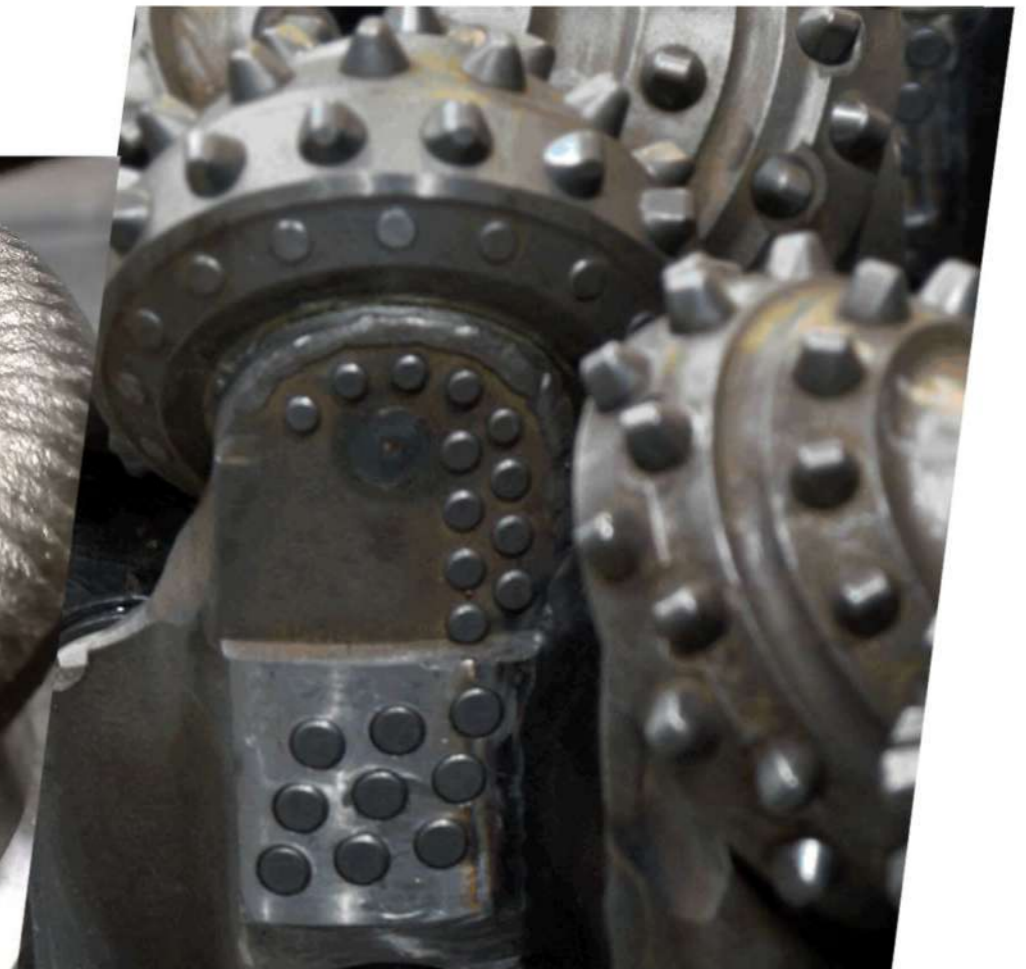


# PROTECTION OF DIAMETER AND CUTTING STRUCTURE



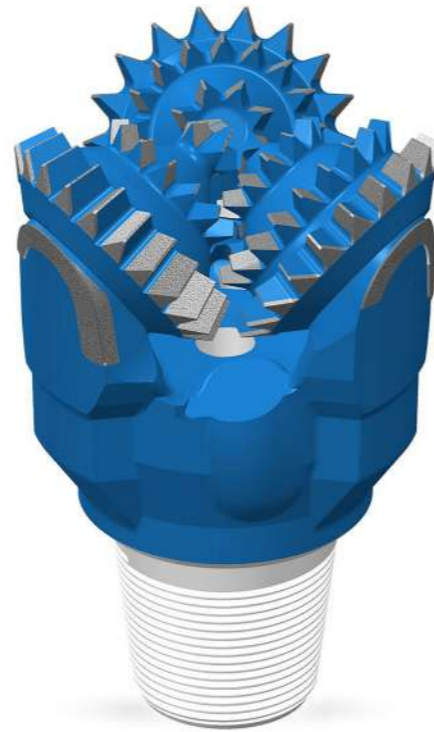
The protection of drill bits is accomplished using materials with the highest abrasion resistance. The protection is applied using various methods, depending on the surface material.

Plasma Transferred Arc Welding (PTAW) technology allows for repeatable and high quality adhesion and wear resistance.



# HYDROGEOLOGY DRILL BITS

**8-1/2"**  
IADC 211



Diameter inch \_\_\_\_\_ 8-1/2"  
Diameter mm \_\_\_\_\_ 215,9mm  
Drill bit type \_\_\_\_\_ S1  
IADC code \_\_\_\_\_ 2-1-1

## CUTTING STRUCTURE:

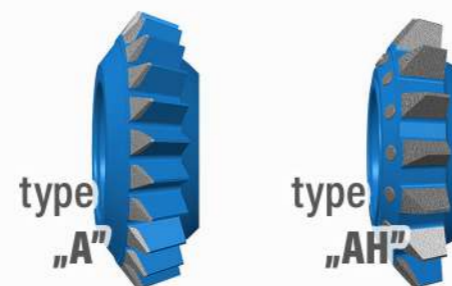
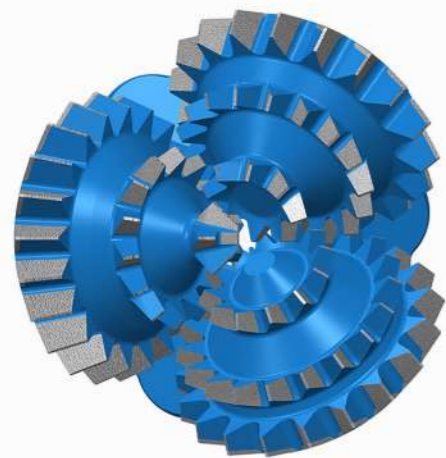
Medium sized teeth that allow drilling through variable hardness formations.

Special design enables use of one drill bit type to achieve the targeted diameter and full hole depth. This is an ideal solution for drilling in unknown rock formation areas.

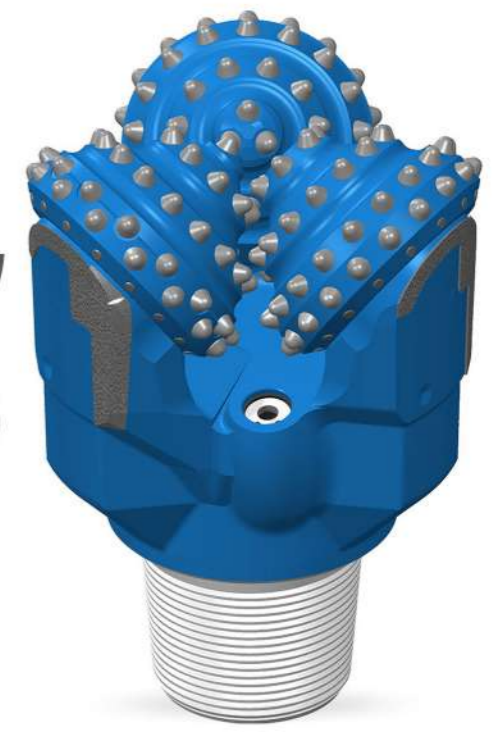
Drill bits intended for re-drilling and aquifers of variable hardness.

Drill bits are offered in a wide range of diameters from:

6" (152,4mm)  
to 36" (914,4mm)



**12-1/4"**  
633



Diameter inch \_\_\_\_\_ 12-1/4"  
Diameter mm \_\_\_\_\_ 311,1mm  
Drill bit type \_\_\_\_\_ S3GY  
IADC code \_\_\_\_\_ 6-3-3

## LEG BACK PROTECTION:

As standard, we offer TYPE "2" reinforcement with hardfacing on the outer surface of the segment.



Drill bits are offered in a wide range of diameters from:

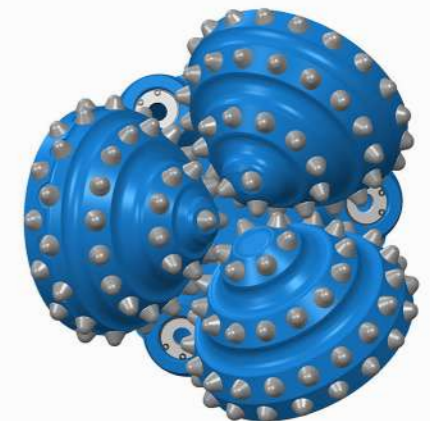
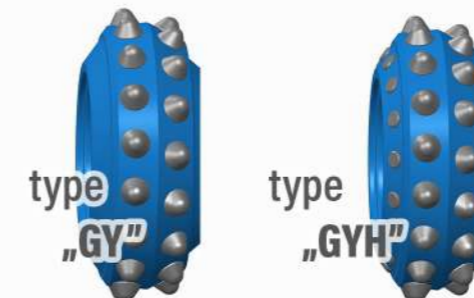
6" (152,4mm)  
to 26" (660,4mm)

## CUTTING STRUCTURE:

Optimally selected size and shape of the inserts allow drilling through the variable hardness rock formations.

Special design allows to use one type of drill bit to achieve the targeted diameter and hole depth.

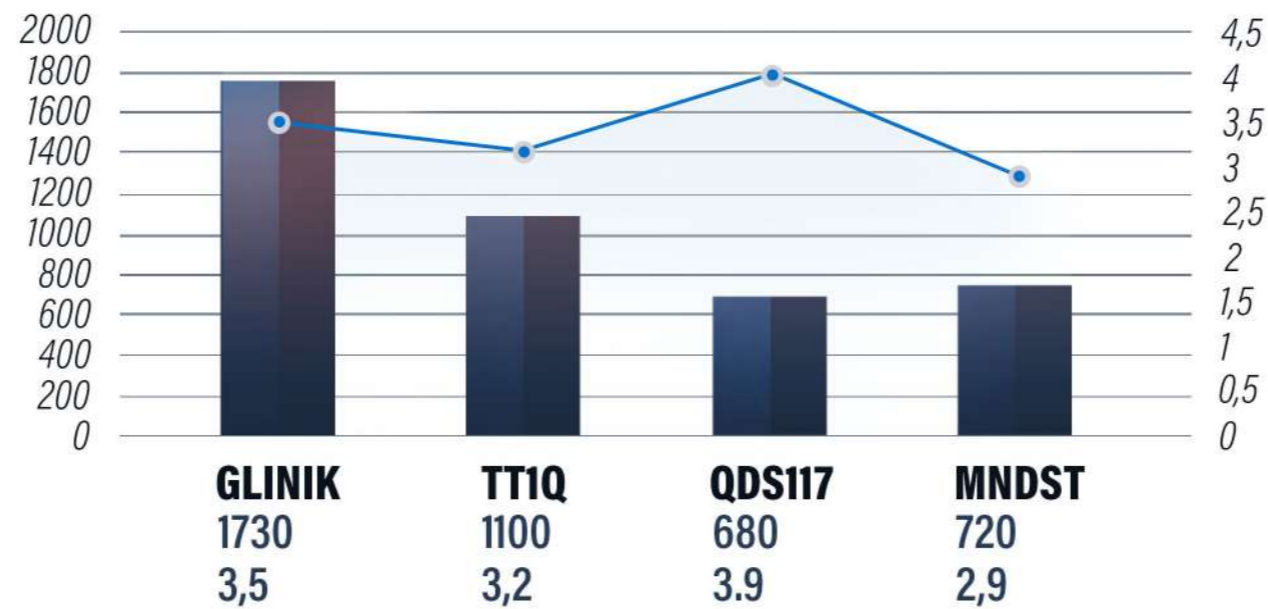
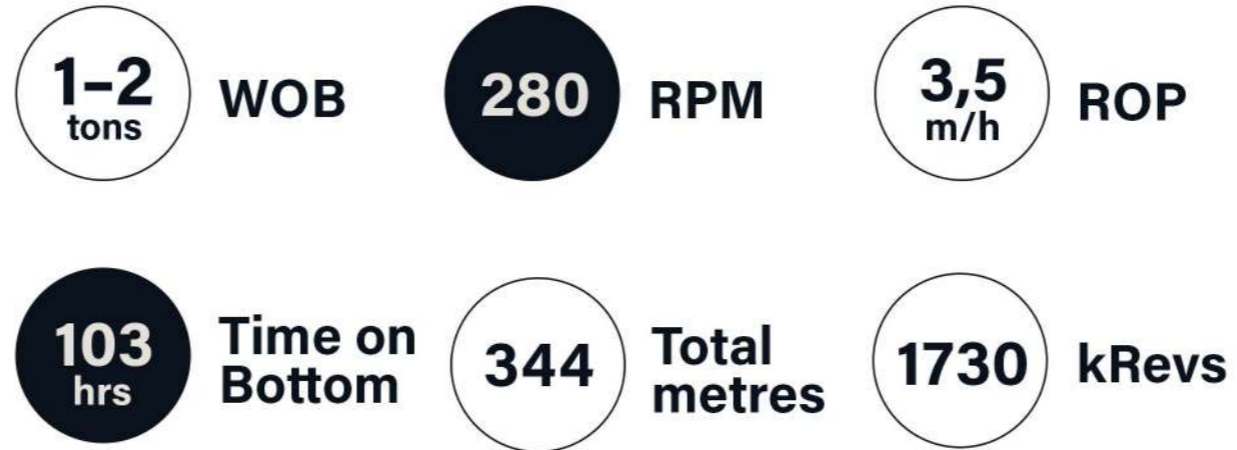
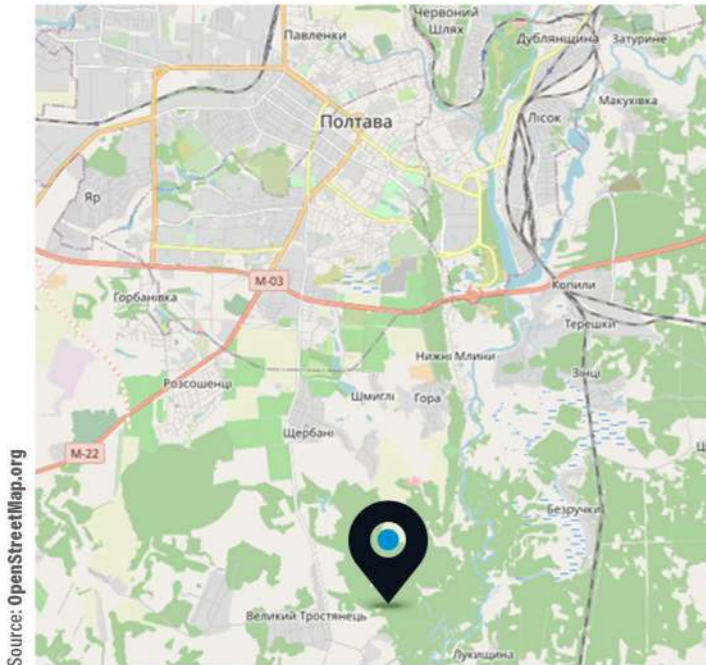
This is an ideal solution for drilling in unknown rock formation areas.



 We offer engineering consultancy in order to select the best possible solutions.

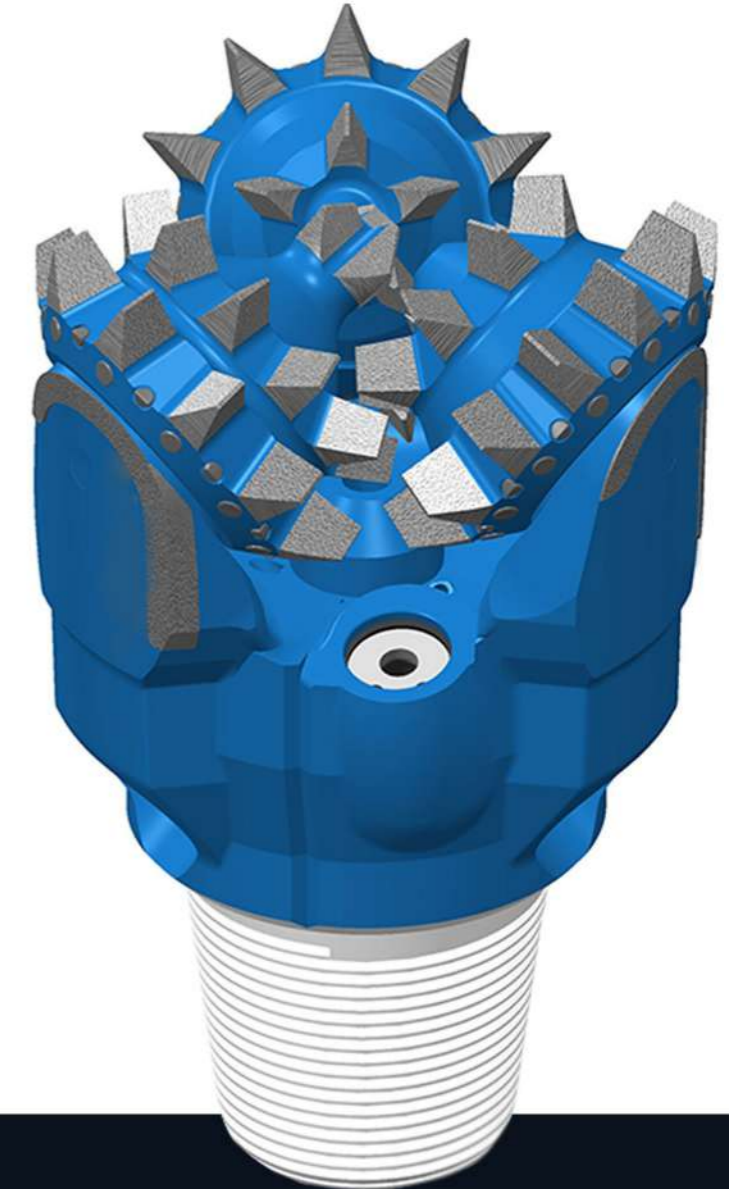
# CASE HISTORY

## UKRAINE



# 8-1/2"

IADC 113 BM1



### Customer Comments:

Very good performance and great bearing life.  
Bit drilled 18 holes in intervals 4 - 48 metres

### Formations:

Clay, limestone, sandstone, marl



EXCELLENT  
QUALITY



UNIQUE  
PRODUCTION  
TECHNOLOGY

NEARLY  
**140**

YEARS OF  
EXPERIENCE



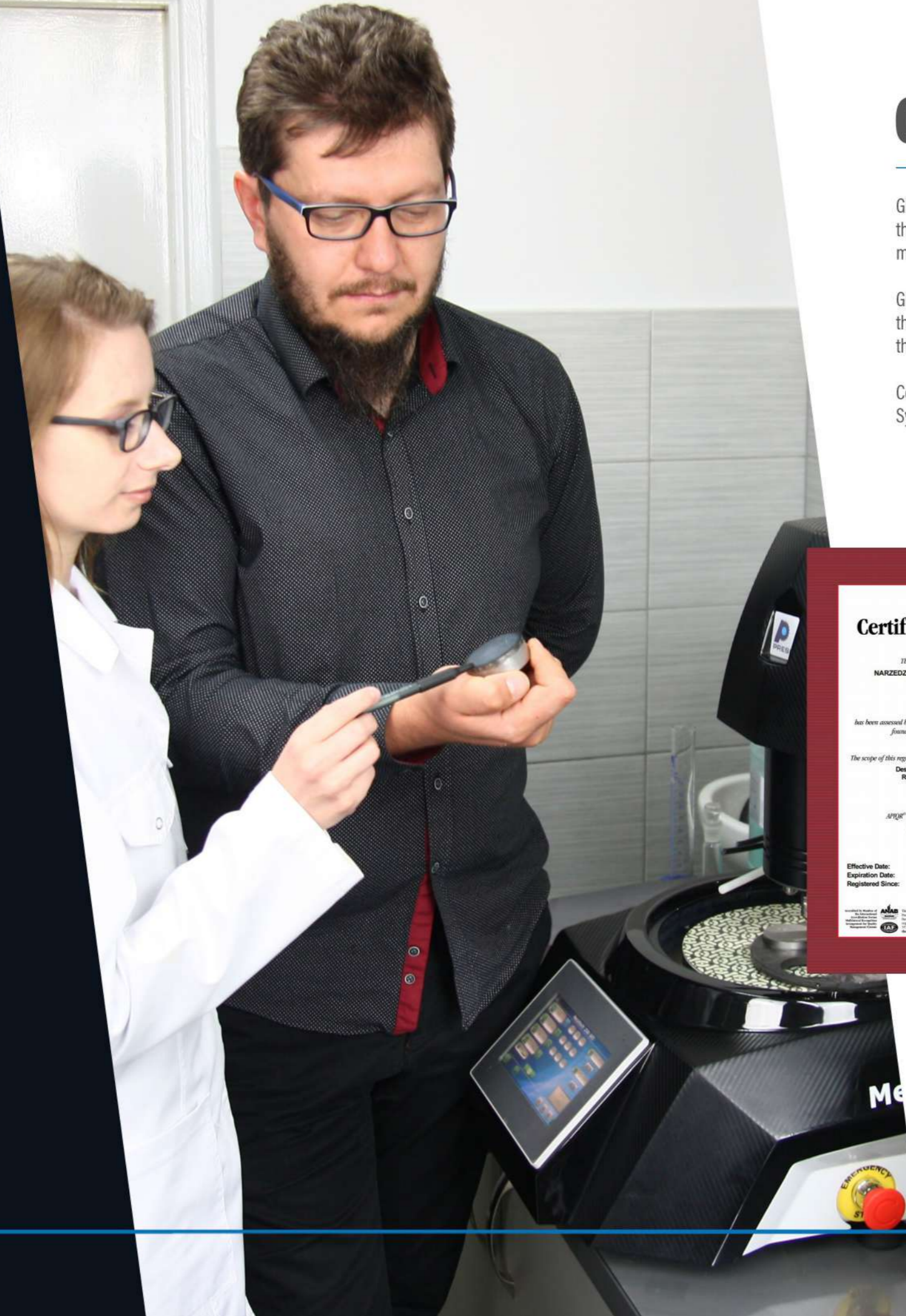
# QUALITY ASSURANCE

# RESEARCH LABORATORY

Maintaining the highest quality standards requires verification of chosen characteristics in a controlled environment.

Glinik runs its own laboratory and cooperates with accredited certification bodies.

Research domains include metallography analysis, material strength and chemical composition, using state-of-the-art laboratory equipment.

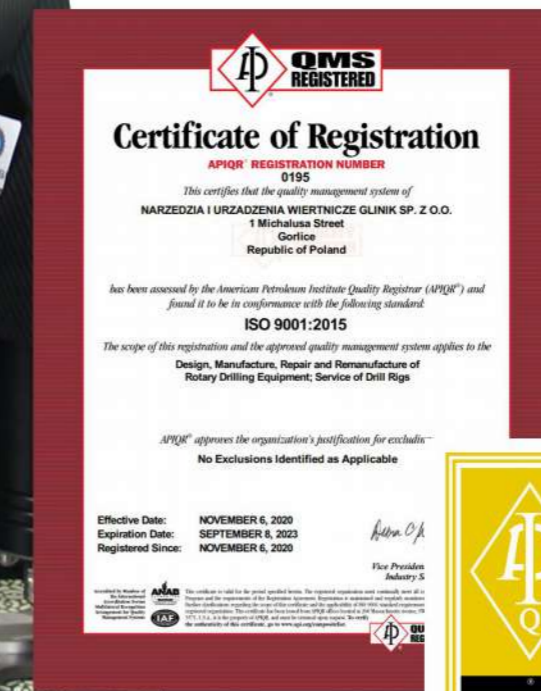


# CERTIFICATES

Glinik's API Q1 and ISO 9001 certification ensures our company operates under the most rigorous standards of a quality management system for the design, manufacturing, repair and refurbishment of drilling tools.

Glinik is licensed to apply the API monogram registered mark to its stabilisers, threaded rotary connections, PDC bits, 3-cutter bits and connectors meeting the API Q1 spec 1-7 requirements.

Continuous improvement of processes, inherent to our Quality Management System, ensures meeting the most stringent requirements of our Customers.







**NARZĘDZIA I URZĄDZENIA  
WIERTNICZE GLINIK SP. Z O.O.**

**[www.glinikdrillingtools.pl](http://www.glinikdrillingtools.pl)**



**e: [niuw@glinik.com.pl](mailto:niuw@glinik.com.pl)**

SALES DEPARTMENT:

**e: [sales@glinik.com.pl](mailto:sales@glinik.com.pl)**

**t: + 48 18 35 49 706**

**t: + 48 18 35 49 704**



**ul. Józefa Michalusa 1  
38-320 Gorlice**

**POLAND**