



WATERWELL DRILLING

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 waterwell exploration drilling.

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. In particular, it enables drilling through variable rock formations in one run, directly reducing drilling costs.

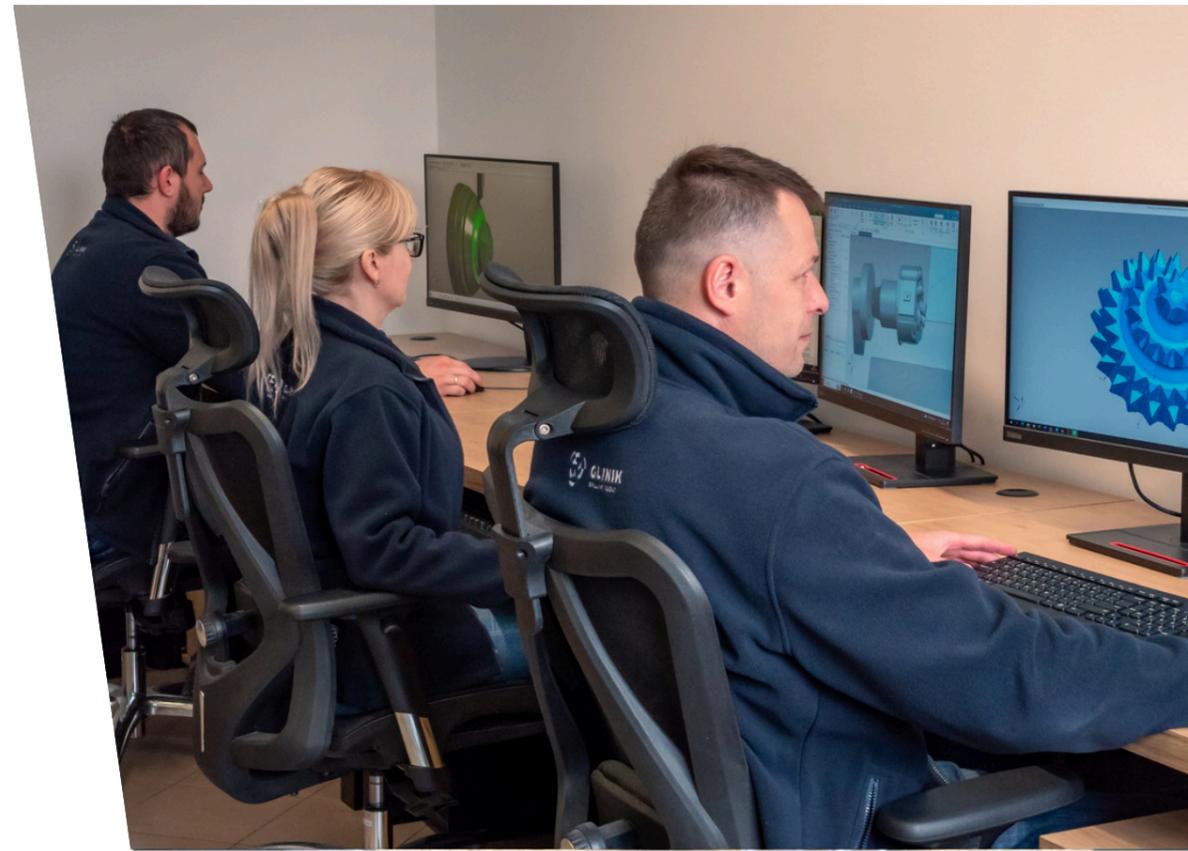
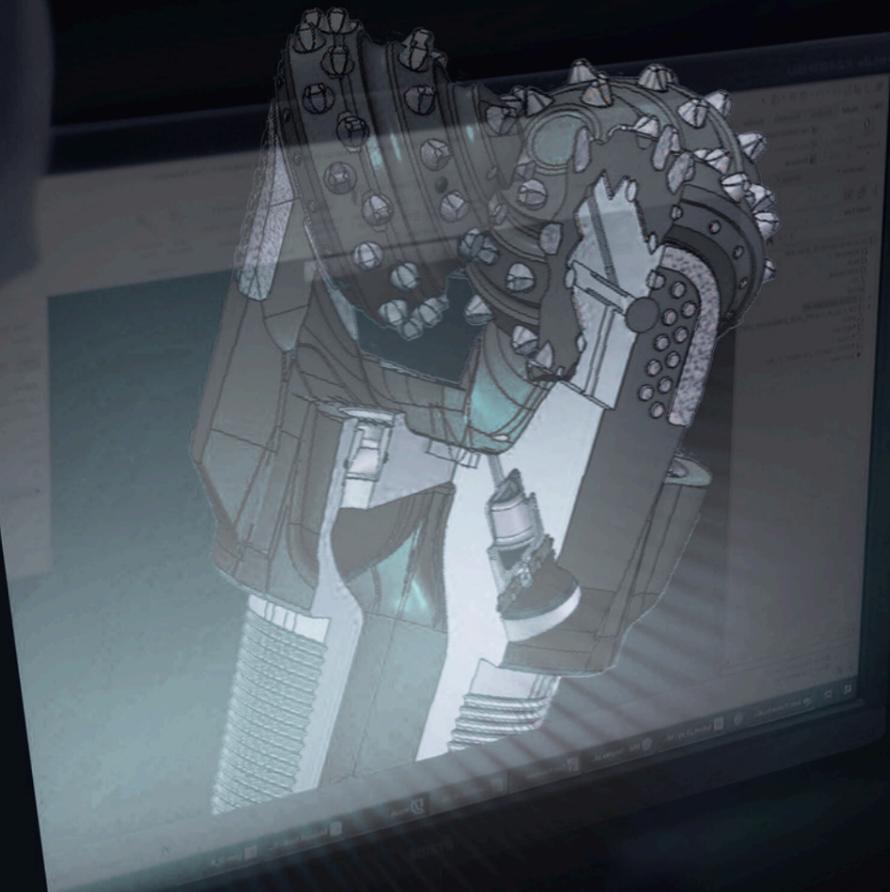
Depending on the client's preference, drill bits are offered with MT or TCI cutting structure, wear-resistant hardfacing in a wide range of diameters from 6" (152.4mm) to 36" (914.4mm).





TECHNICAL INNOVATION

Glinik's Design and Engineering Team develops drilling tools with a focus on precision, durability, and consistent performance. Each stage of production is optimized to ensure repeatable quality and operational reliability.



Glinik's Engineering Team drives continuous product development through advanced research and implementation of modern technologies in drilling tool design.

The team provides technical support in selecting optimal tools and drilling parameters tailored to specific customer applications.

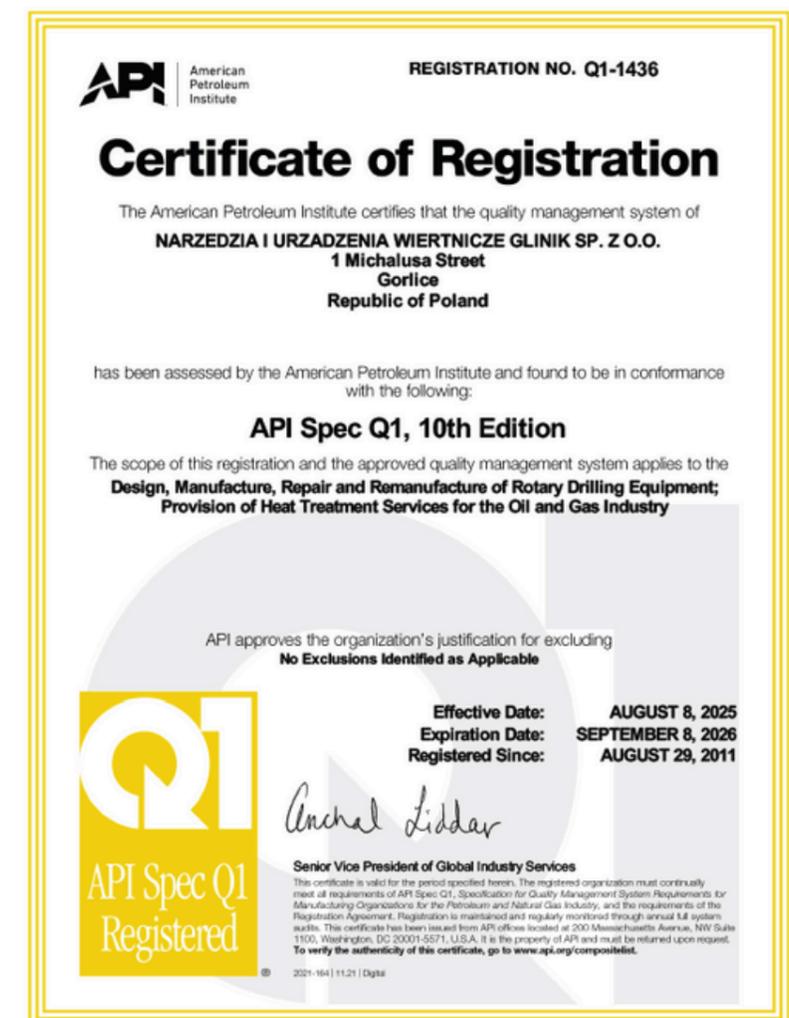
CERTIFICATES

With API Q1 and ISO 9001 certifications, Glinik operates under the most rigorous quality management standards, ensuring excellence at every stage — from design and manufacturing to repair and refurbishment of drilling tools. Our commitment to quality guarantees reliability and performance you can trust in every application.

Glinik holds the license to apply the API Monogram to stabilizers, threaded rotary connections, PDC bits, 3-cutter bits, and connectors — all fully compliant with API Q1 and Spec 7-1 requirements. This certification confirms our commitment to the highest industry standards and guarantees consistent quality, precision, and reliability of every product we deliver.



At Glinik, continuous process improvement within our advanced Quality Management System allows us to not only meet but consistently exceed the most demanding customer requirements—delivering products that combine precision, reliability, and superior performance.



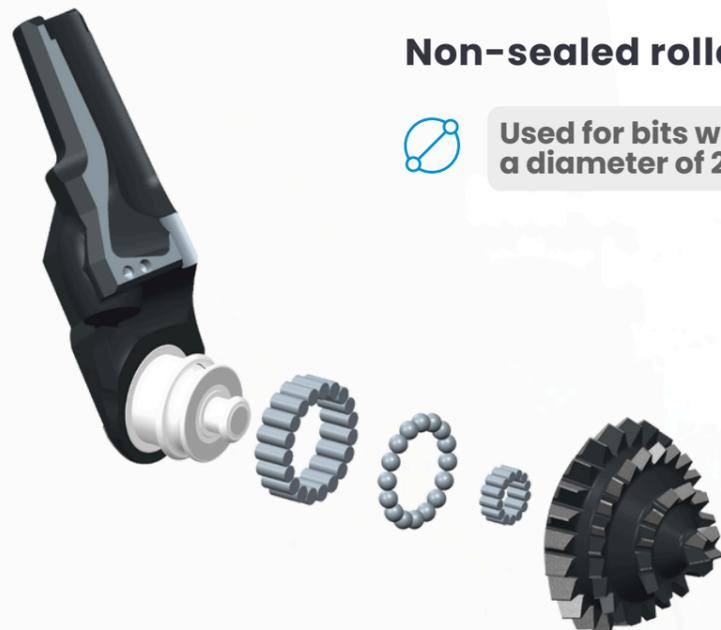
HYDRAULIC SYSTEM

Nozzle dimensions

Size of the drill bit		D	h	d	
mm	inch	mm	mm	mm	inch
139,7 ÷ 187,3	5-1/2" ÷ 7-3/8"	20	15,1	4,0; 4,8; 6,4; 7,9 8,9; 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.

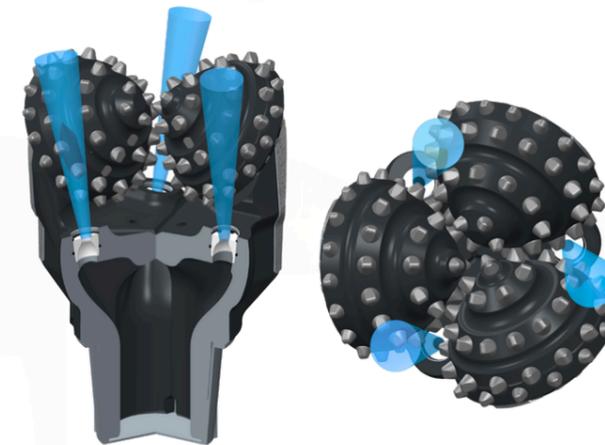


Non-sealed roller bearing

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



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



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



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

Center hydraulics

Central hydraulics are utilized in bits designed for hydrogeological and geoenvironmental drilling applications. In reverse circulation operations, the bit features a central hole with the largest possible diameter for the given threaded connection, ensuring optimal fluid flow, efficient cuttings removal, and maximum drilling performance.

3-nozzle hydraulics

An optimized nozzle layout and hydraulic flow provide efficient cleaning of both the cutting structure and borehole bottom, ensuring uninterrupted operation and maximum drilling progress.

Multi-nozzle hydraulics

An advanced hydraulic system featuring additional nozzles—beyond the standard 3-jet design—delivers superior cleaning of the cutting structure and borehole bottom. This ensures consistent removal of cuttings, stable operating parameters, and sustained high drilling performance.



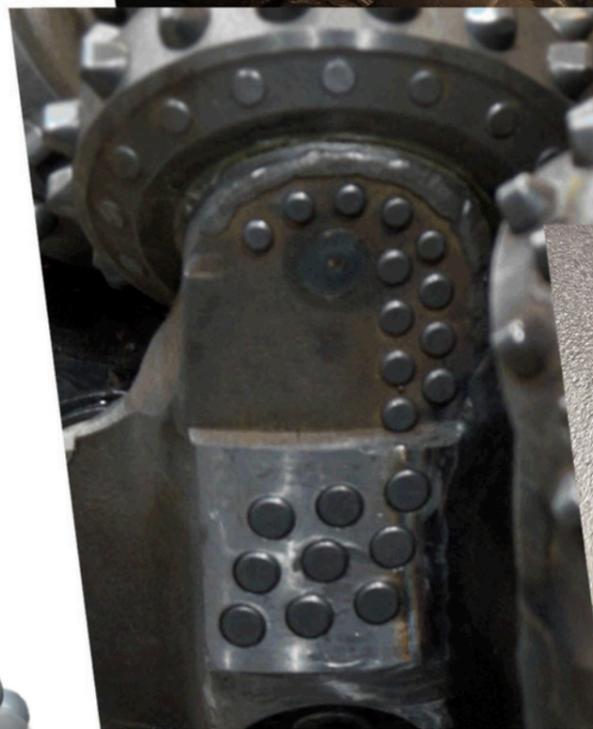
The patented compensation system continuously supplies grease to every bearing component, maintaining constant internal pressure for smooth, efficient, and reliable drill bearing performance throughout the entire drilling process.

Precisely engineered lubrication channels distribute grease to every rolling component, ensuring optimal bearing performance, while a high-quality seal prevents drilling fluid intrusion—protecting the bearings and eliminating the risk of bit seizure.



Drill bits are protected with materials of the highest abrasion resistance, applied using methods precisely matched to each surface to ensure maximum durability and extended tool life, even in the most demanding drilling conditions.

Plasma Transferred Arc Welding (PTAW) technology ensures consistent, high-quality bonding and exceptional wear resistance for extended tool life.



PROTECTION OF DIAMETER AND CUTTING STRUCTURE

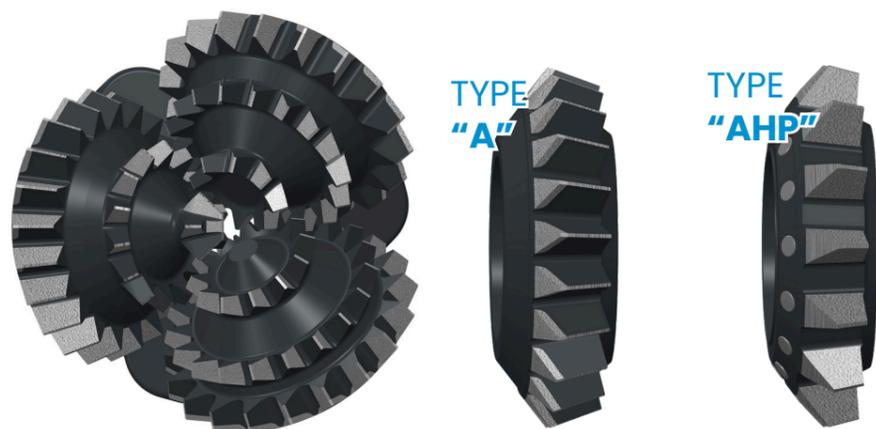
WATERWELL SAMPLE DRILL BITS



8-1/2"
IADC 211

CUTTING STRUCTURE

Drill bits engineered with medium-sized cutting elements, these bits ensure efficient penetration through formations of varying hardness. Their optimized geometry and robust design makes it possible to use a single bit type to reach the target hole diameter and full depth without replacement. This makes them an ideal solution for drilling in areas with uncertain or changing geological conditions.



TYPE
"A"

TYPE
"AHP"

 Bits customisation available

12-1/4"
IADC 633



LEG BACK PROTECTION TYPES

Glinik leg back type "2" with standard hardfacing.



TYPE
"2"



wide range of diameters 6" (152,4mm) to 36" (914,4mm)

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

CUTTING STRUCTURE:

Optimally engineered insert size and geometry ensure effective drilling through rock formations of variable hardness. The specialized bit design enables the use of a single bit type to reach the target hole diameter and full depth without the need for replacement. This makes it an ideal choice for drilling in areas with uncertain or heterogeneous geological conditions.

TYPE
"GYP"

TYPE
"GYH"



Tools consultation available

ROCK BIT 20" PERFORMANCE

DATE AUTUMN 2022

LOCATION CZECHIA

TYPE OF WELL WATER WELL

RPMS 50-60

WOB 4-5 tons

DRILL BIT

- Ø508.8 mm, IADC 135
- flange connection
- Leg back protection type: "4"
- Gauge protection AH
- Center jet Ø110mm.

DRILLING PERFORMANCE

- Total meters drilled: 690 m
- Drilling hours: 730
- Number of drilled wells: 8
- Average ROP: 0,5-0.8 m/h

The water wells project included 8 boreholes with approx. total depth of 85-90m each. Based on data provided by the customers (40 years old lithology documentation describing layers up to 60m), Glinik managed to offer the best bit solution with flange connection. Harder rock sections below 60 meters TVD caused the natural and regular wearing of bit's cutting structure.

grading after 85m (1 well)



grading after 260m (3 wells)



grading after 690m (8 wells)



ROCK BIT 24" PERFORMANCE

DATE	JUNE 2022
LOCATION	BOTSWANA
TYPE OF WELL	WATER WELL
RPMS	15-20
WOB	22 tons

Large diameter bits designed for reverse circulation drilling in very demanding geological conditions- Kimberlite Pipes which are including the diamond deposits.

The most important goal achieved was the reliability of the bits, what helped to finish the project in a safe and failure-free way.

DRILLING PERFORMANCE

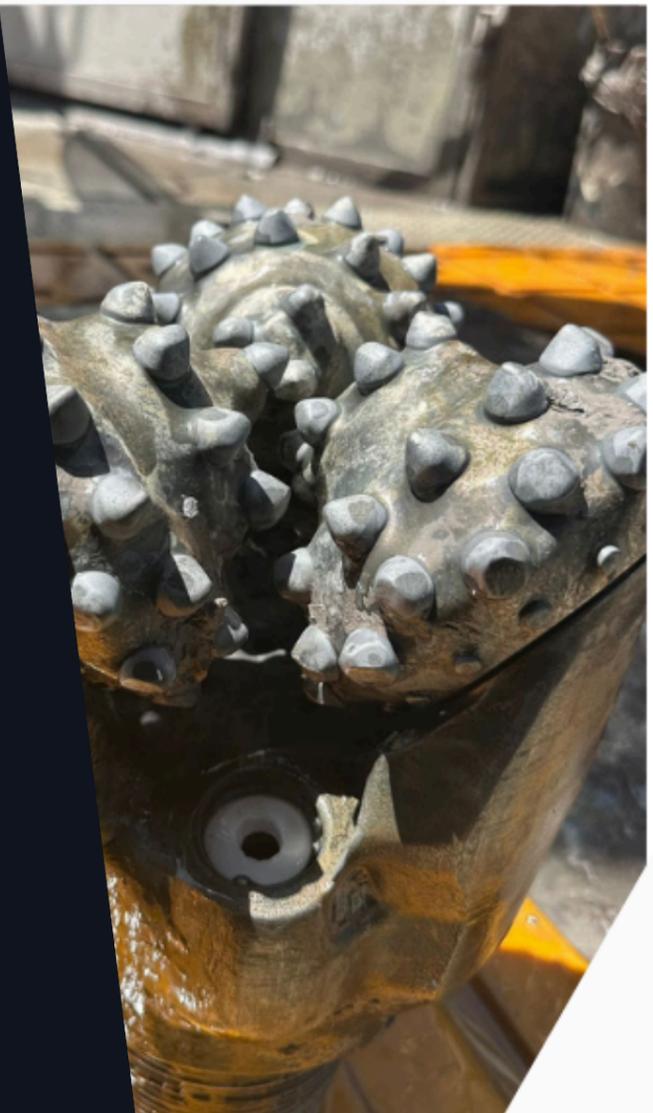
- total meters drilled: 350
- drilling hours: 262
- average ROP: 1,34 m/h





DATE	July 2025
LOCATION	Turkey
TYPE OF WELL	Vertical
RPMS	60-70
WOB	11-13 tons
ROP	3 m/h

**8-1/2" M3GSX
IADC 537**



DRILLING PERFORMANCE

DRILLING HOURS 254 h	TOTAL REVS 1069 k
BIT DULL GRADING	1-1-WT-0-N-G-TD
HYDRAULICS	3-jet nozzles
CONNECTION	4-1/2" Reg

In a field test, the 8.5" TCI bit delivered an impressive result: 254.6 hours of operation at a rotational speed of 60-70 RPM, which translated into over 1 000 000 revolutions - with no interruptions, loss of performance, or signs of critical wear.

After the run, the bit was evaluated with a dull grade of 1-1-WT-0-N-G-TD, confirming its high durability and stable performance parameters throughout the entire drilling cycle.

This result is more than just a number - it's a tangible value that directly translates into operational safety, cost predictability, and reliability on-site.



Narzędzia i Urządzenia
Wiertnicze Glinik Sp. z o.o.



e: niuw@glinik.com.pl

Sales Department



e: sales@glinik.com.pl



+48 18 35 49 706
+48 18 35 49 704



www.glinik.com.pl