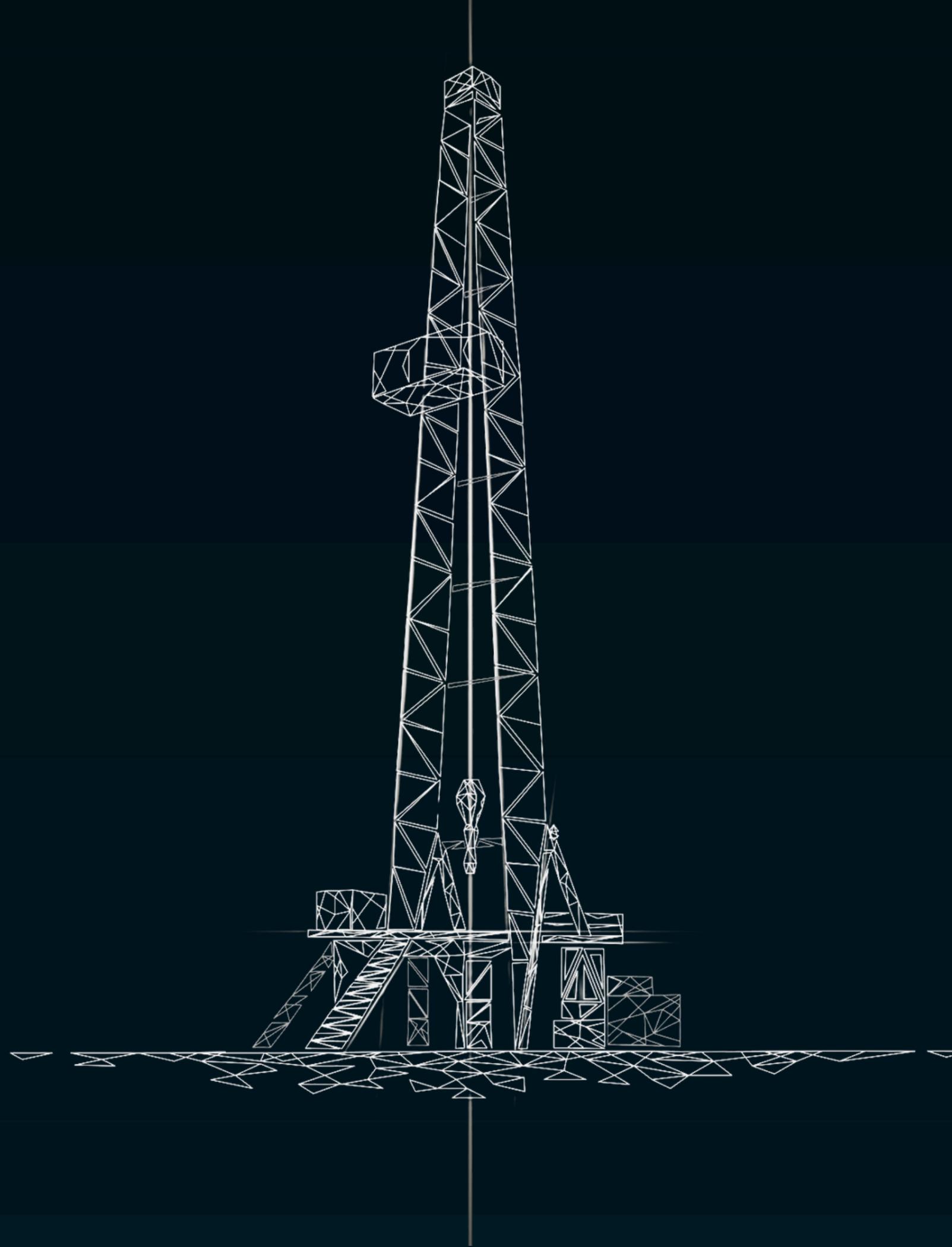


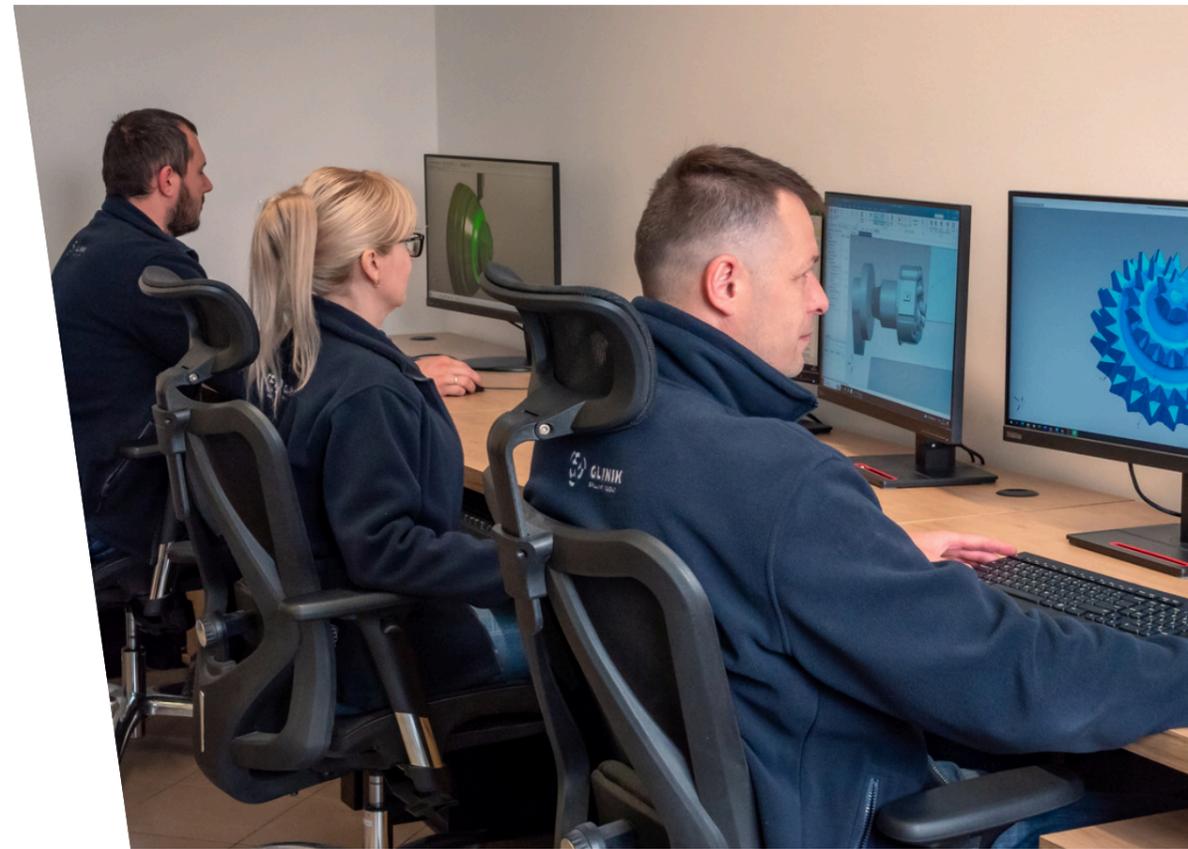
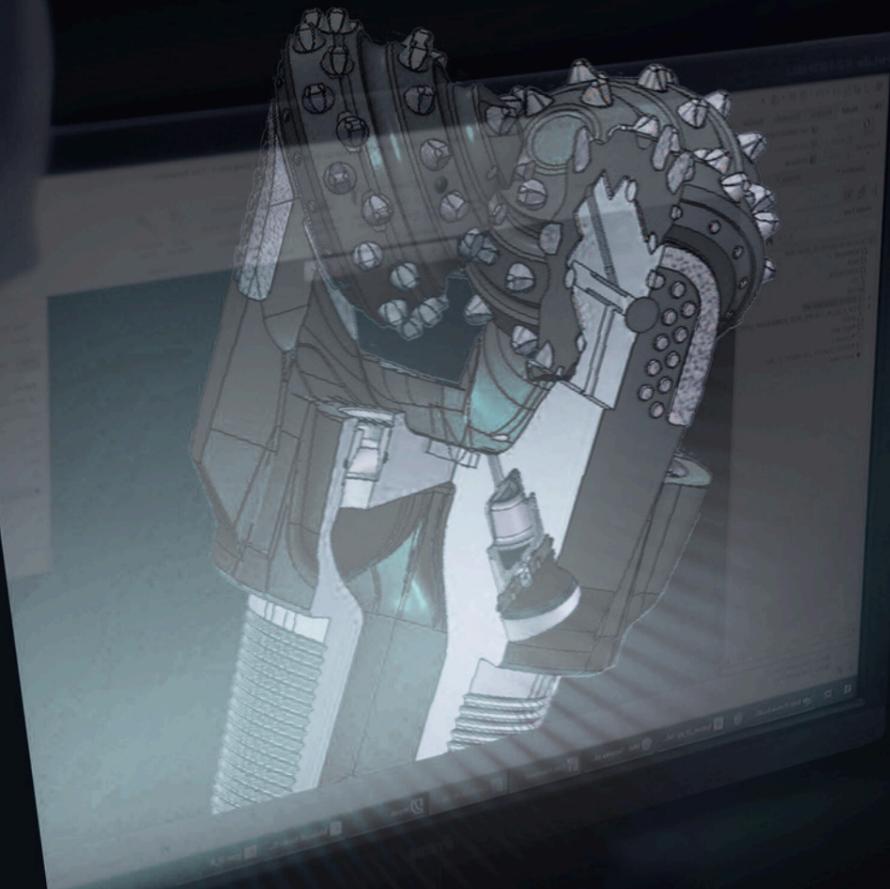
Glinik Drilling Solutions – Bits Overview





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.

Advanced technical support is provided to select optimal tools and drilling parameters tailored to specific customer applications.

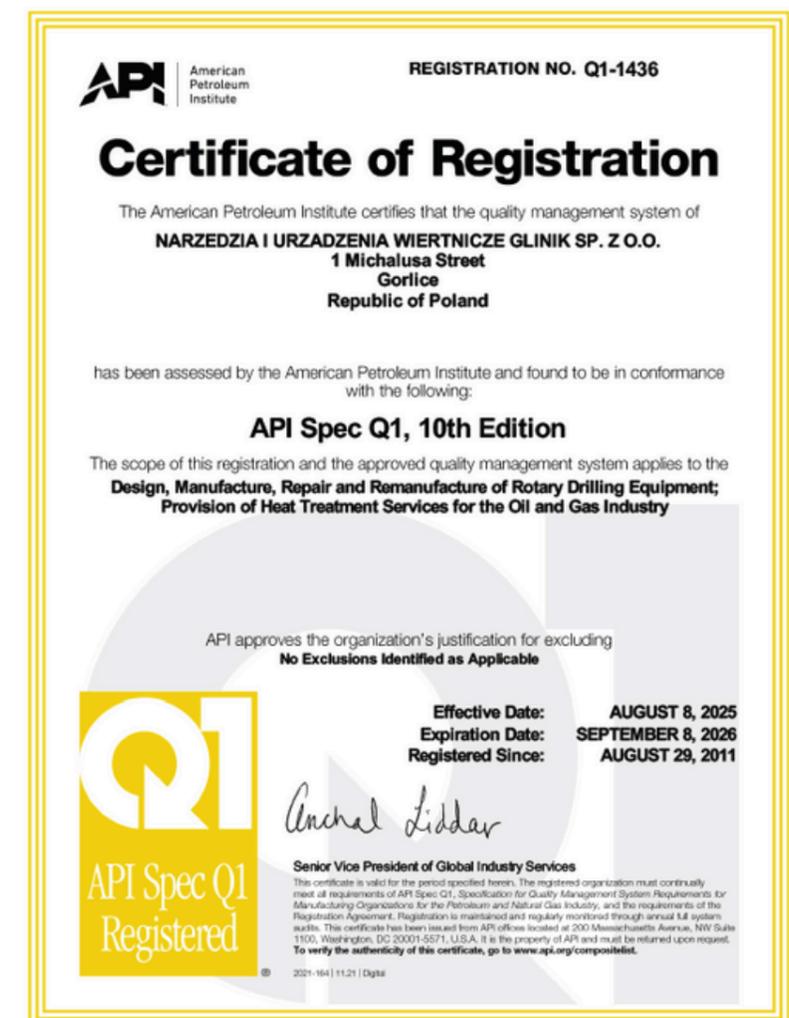
CERTIFICATES

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.





ENERGY

The API certificate confirms that Glinik's manufacturing processes meet the highest industry standards for drilling tool production. Manufacturing is carried out under controlled technological procedures, quality assurance systems, and strict compliance with international standards. This approach ensures parameter consistency, reliability, and operational safety.

With extensive experience in the design and production of drilling tools, Glinik maintains stable relationships with energy sector Clients worldwide, supporting demanding oil and gas projects with proven technical competence.

BEARING SYSTEMS FOR DRILL BITS

Non-sealed roller bearing

Used for bits of 2-3/8" - 42"

A cost-optimized solution designed to deliver stable drilling parameters and full control over operational costs.

Perfect for shorter hole sections where mechanical efficiency and tool cost-effectiveness are key to maximizing performance and profitability.



Sealed roller bearing

Used for bits of 5-7/8" - 28"

High-end sealing and lubrication system with pressure compensation extends operating life by effectively protecting the bearings from drilling fluid contamination and debris.

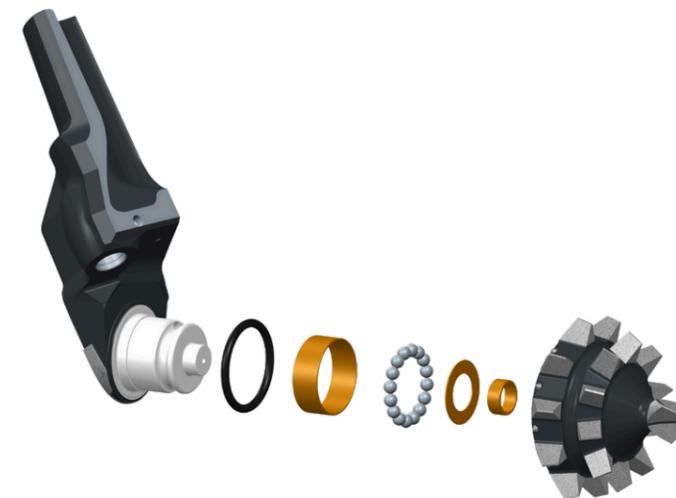
This ensures smooth operation, reduced maintenance, and longer tool service intervals.



Sealed journal bearing

Used for bits of 3-7/8"-17-1/2"

Sealed bits engineered for the toughest drilling conditions, combining exceptional wear resistance with a compensation-based lubrication system to ensure long-lasting, reliable performance even in the most demanding environments.



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



HYDRAULIC SYSTEMS FOR DRILL BITS

Central jet hydraulics

Used for bits of 2-3/8" - 42"

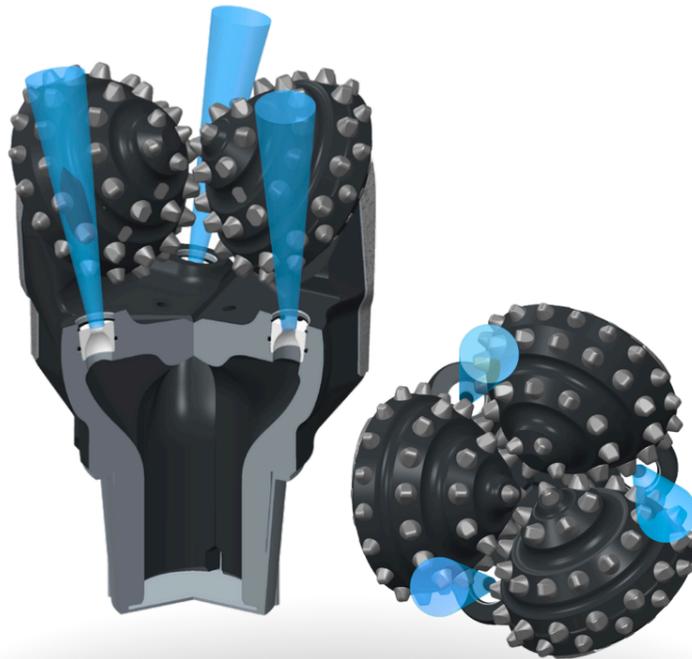
Central jet hydraulics is utilized in bits designed for hydrogeological and geoenvironmental drilling applications. In reverse circulation operations, the bit features a central hole with the largest possible diameter for the given threaded connection, ensuring optimal fluid flow, efficient cuttings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



3-nozzle hydraulics

Used for bits of 3-7/8" - 36"

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



Multi-nozzle hydraulics

Used for bits of 8-1/2"-42"

An advanced hydraulic system featuring additional nozzle—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.



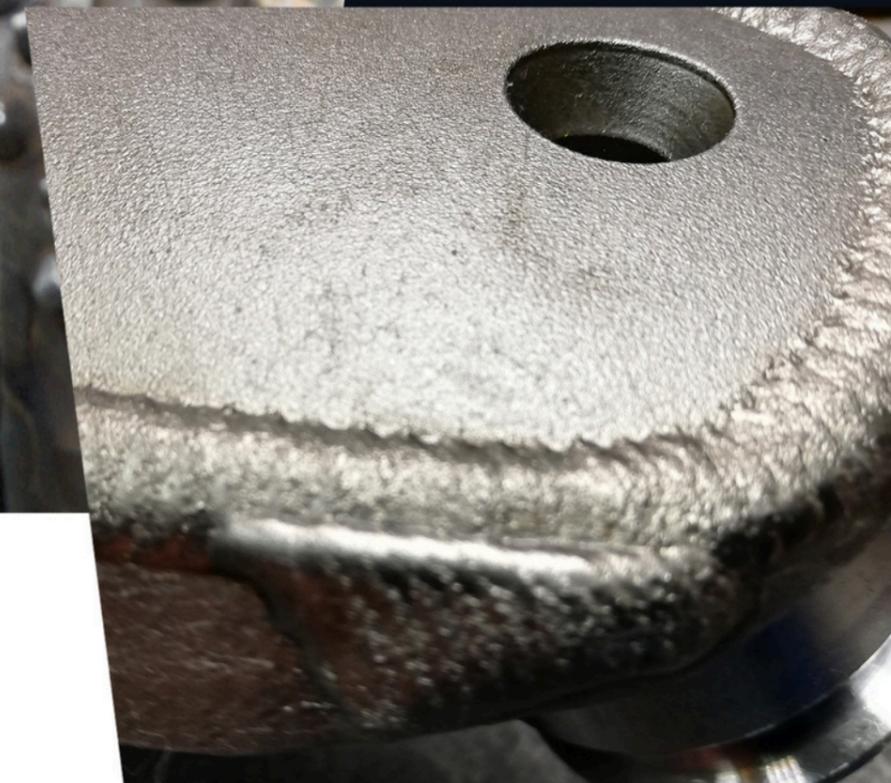
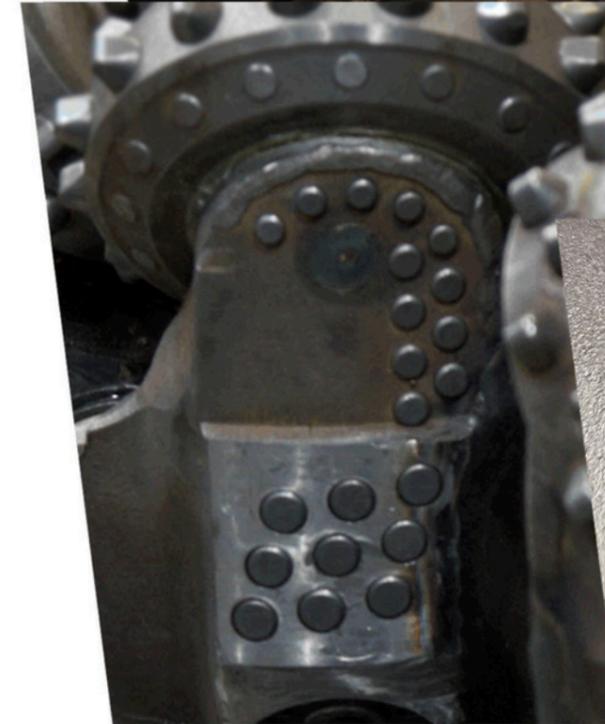
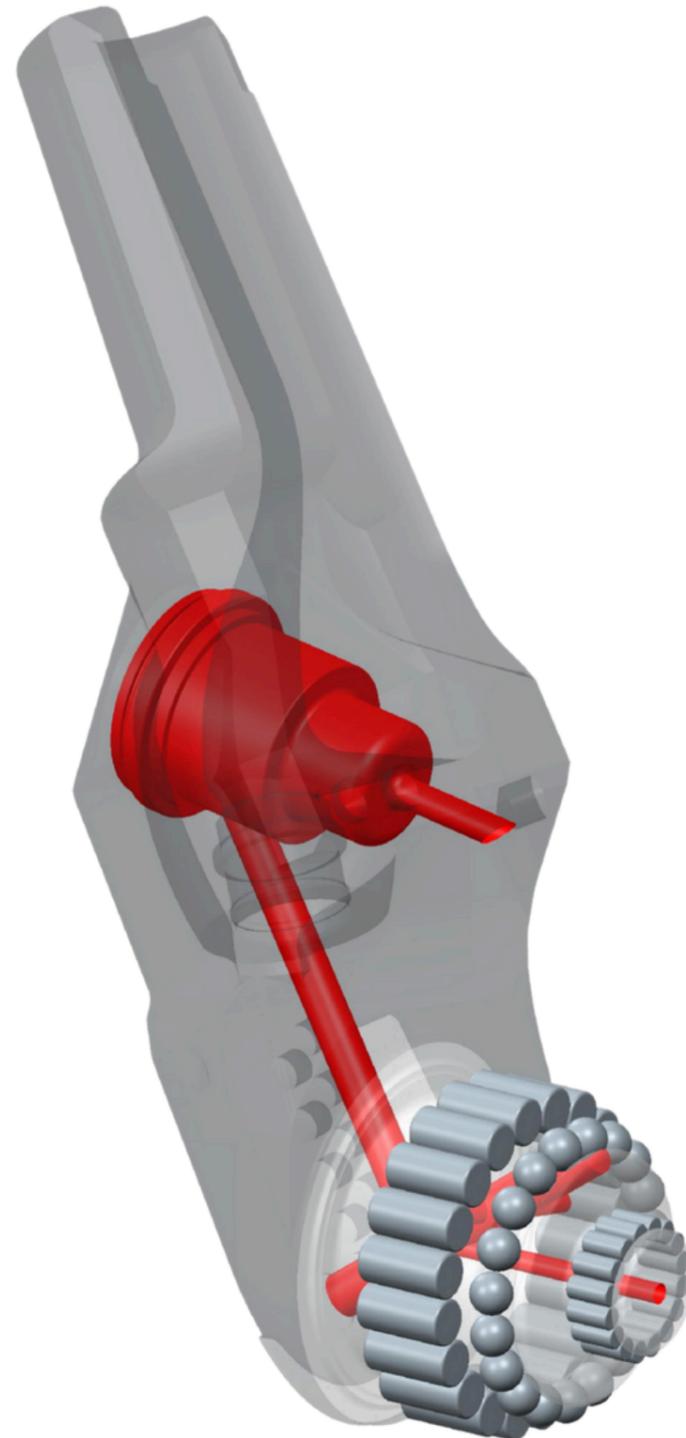
Drill bits are protected with materials of the highest abrasion resistance, applied using methods precisely matched to each surface to ensure maximum durability and extended tool life, even in the most demanding drilling conditions.

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



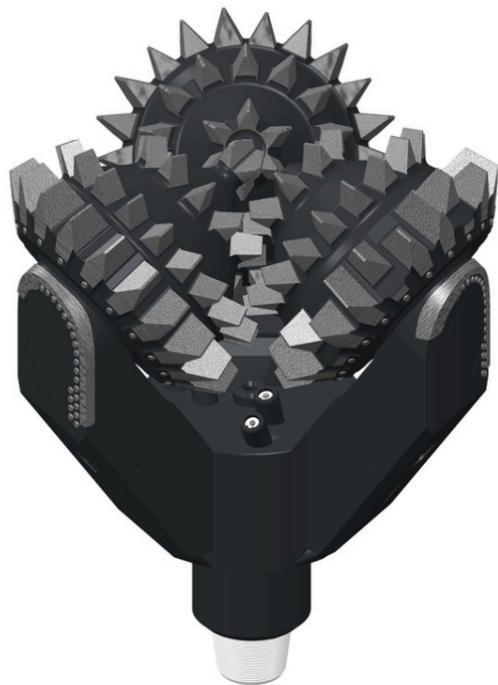
The patented compensation system continuously supplies grease to every bearing component, maintaining constant internal pressure for smooth, efficient, and reliable drill bearing performance throughout the entire drilling process.

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 failure.



PROTECTION OF DIAMETER AND CUTTING STRUCTURE

SOFT FORMATION SAMPLE DRILL BITS



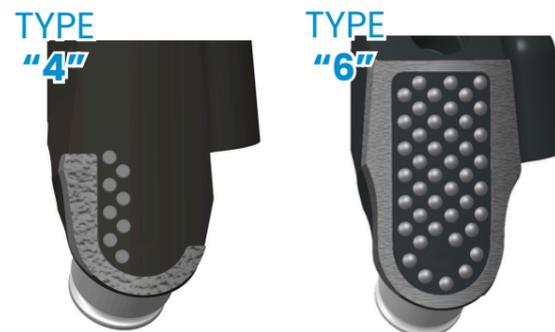
42"
IADC 115

CUTTING STRUCTURE

High prismatic posts with precisely positioned inserts enable faster drilling of long intervals with outstanding stability. A wide selection of inserts allows for optimal customization of cutting structure, while bit geometry is refined through advanced 3D simulation to achieve maximum efficiency and penetration rate.

LEG BACK PROTECTION TYPES

Glinik leg back type "4" and type "6" design for extended tool life, and reliable performance in abrasive formations.



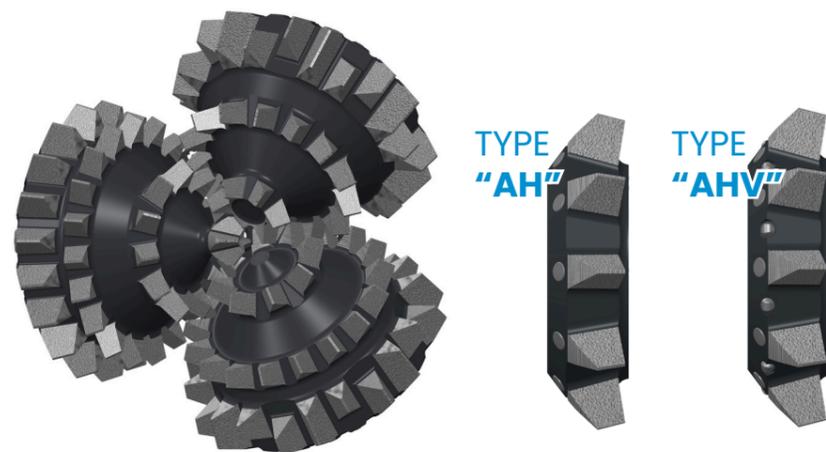
 wide range of diameters 4" (101,6mm) to 42" (1066,8mm)

12-1/2"
IADC 437



CUTTING STRUCTURE

The bit features tall teeth with a small sharpening angle, their placement and geometry optimized through 3D simulation. Tungsten carbide hardfacing provides wear protection, while additional carbide inserts on the bit surface prevent diameter loss. Optimized nozzle layout and drilling fluid flow ensure effective cleaning of the cutting structure, delivering maximum rate of penetration (ROP).



TYPE "AH"

TYPE "AHV"

 Bits customisation available



TYPE "GH"

TYPE "G"

TYPE "GHV"

 Tools consultation available

MEDIUM FORMATION SAMPLE DRILL BITS



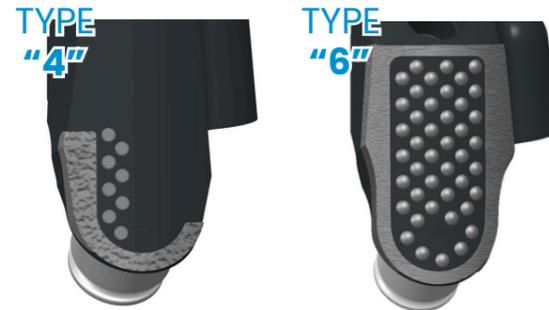
17-1/2"
IADC 215

CUTTING STRUCTURE:

A cost-efficient solution designed to deliver stable drilling performance and full control over operational expenses. Ideal for shorter hole sections where mechanical efficiency, durability, and tool cost-effectiveness are key to achieve maximum productivity and reduced total drilling costs.

LEG BACK PROTECTION TYPES

Glinik leg back type "4" and type "6" design for extended tool life, and reliable performance in abrasive formations.



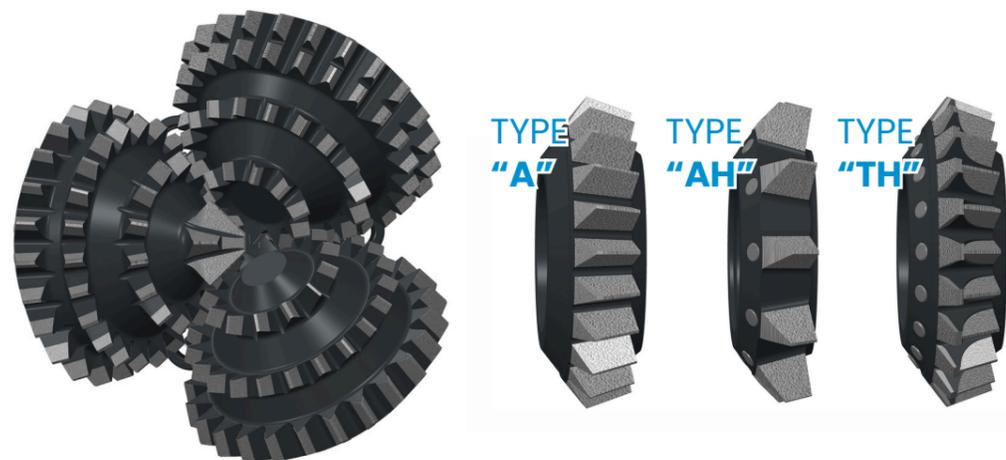
 wide range of diameters 4" (101,6mm) to 42" (1066,8mm)

8-1/2"
IADC 637



CUTTING STRUCTURE:

High prismatic inserts with increased height and diameter, combined with a significant bit axis offset, deliver exceptional mechanical drilling speed and cutting efficiency. The large sharpening angle reinforces the cutting structure, minimizing the risk of insert breakage and maintaining the bit's outer diameter –ensuring consistent performance and extended service life.



 Bits customisation available



 Tools consultation available

HARD FORMATION SAMPLE DRILL BITS



9-7/8"
IADC 315

CUTTING STRUCTURE:

Short teeth with a large sharpening angle and tight spacing ensure efficient, aggressive cutting in hard formations. The border flange teeth are equipped with calibration surfaces and tungsten carbide inserts, delivering exceptional durability and protecting the bit from diameter loss and maintaining consistent performance even in highly abrasive rock conditions.

LEG BACK PROTECTION TYPES

Glinik leg back type "4" and type "6" design for extended tool life, and reliable performance in abrasive formations.



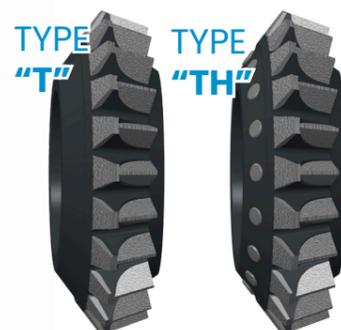
 wide range of diameters 4" (101,6mm) to 42" (1066,8mm)

8-1/2"
IADC 737

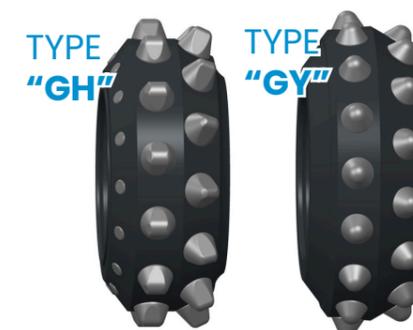


CUTTING STRUCTURE:

A high number of low posts, a wide sharpening angle, and short insert spacing create optimal conditions for efficient hard rock drilling. Minimal bit axis displacement reduces stress on the inserts, preventing breakage, while reinforced bit surfaces with multiple carbide inserts ensure exceptional durability and maintain diameter stability throughout the bit's entire service life.



 Bits customisation available



 Tools consultation available



KEY FEATURES OF PDC DRILL BITS

Shock bumpers for improved impact resistance, torque limitation & reduced vibration

Optimal **cutters layout & force balancing** for high stability and ROP

LaserC Robot Hardfacing for improved erosion resistance confirmed with field testing

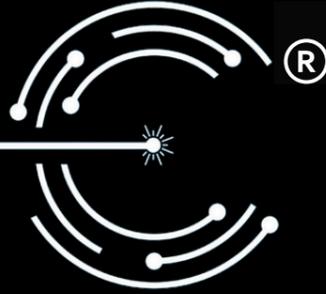
Nozzle placement for optimized hydraulics

HF and TC inserts for strong gauge protection

Steel body with high open face volume for optimized cleaning





LASER 

LASER METAL DEPOSITION TECHNOLOGY

LaserC[®] is modern additive manufacturing process, successfully implemented by Glinik Drilling Tools. Utilizing a high-power laser, metallic or metal-ceramic powder is precisely melted and deposited to create exceptionally durable and accurate structures.

This advanced technology enables the production of highly abrasion-resistant coatings that significantly enhance the bit's durability and performance.

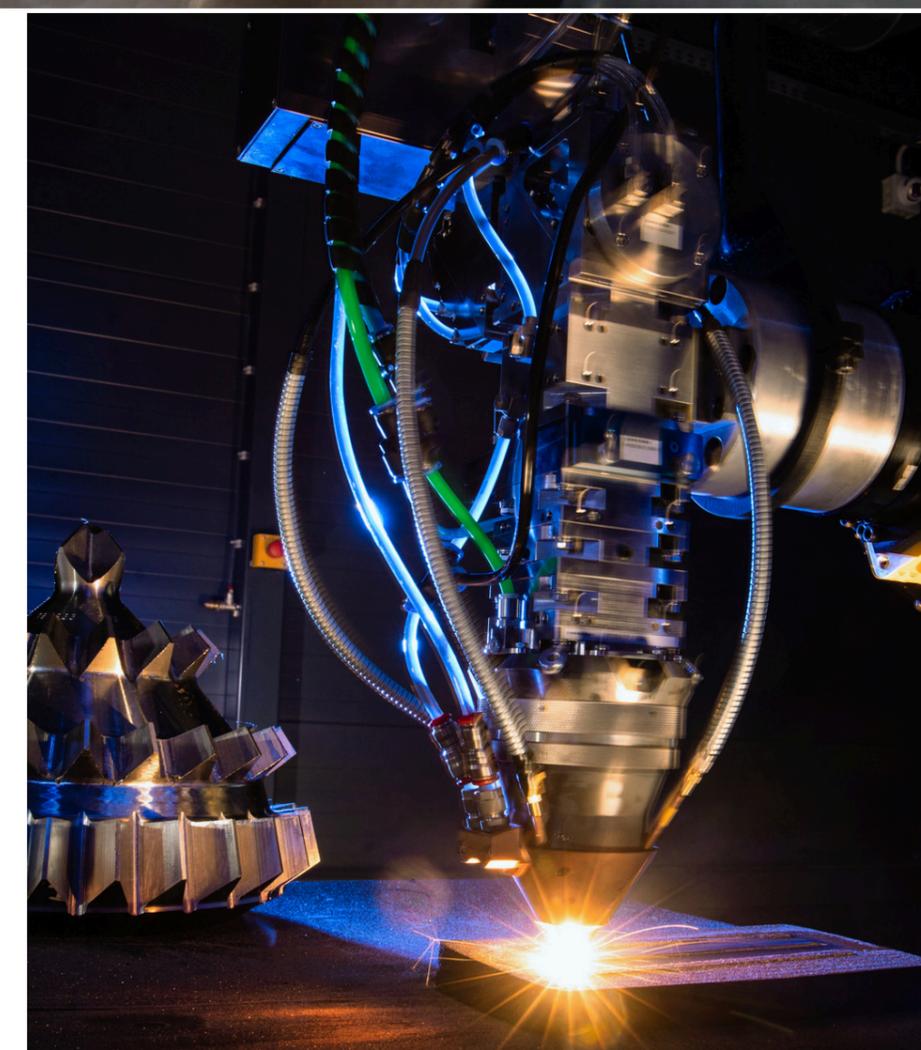
Applying this protective layer also allows for effective regeneration of worn parts, restoring full operational capability and extending their service life far beyond standard limits.





LASER TECHNOLOGY ALONG WITH PRECISE PROCESS PARAMETER CONTROL

- ✓ Precise welding of components with complex geometries, including those with small cross-sections and intricate shapes.
- ✓ The ability to utilize a wide range of materials such as metals, metal alloys, and metal-ceramic composites.
- ✓ Multi material technology.
- ✓ 3D modeling-based process simulation, enabling detailed planning, easy implementation of design modifications, and greater flexibility in introducing new projects to production.
- ✓ A high level of process automation, repeatability and 4x more abrasion resistant hard facing than manually applied one



KEY HIGHLIGHTS 12¼" PDC DRILL BIT – FRANCE

5-blade, single-row PDC bit Steel body construction

Application

- Salt brine extraction campaigns
- Engineered to excel in formations such as clays, silts, and limestones, with occasional mica, pyrite, and ochre inclusions

Technical Achievements

- Fulfilled directional objectives
- Drilled full section from shoe to TD
- With notable ROP of 26,5 m/h on average

TOTAL METERS DRILLED

1622

DRILLING HOURS

61,3

BIT DULL GRADING

3-2-BT-N/S-X-I-WT-TD

Operational Challenge

- Drill-out of cement plug with float shoe
- Lower WOB hence ROP limited due to hole cleaning issues
- Local appearance of pyrite throughout section

Follow-up Action

- Prepared for reuse in the next well



KEY HIGHLIGHTS 12¼" PDC DRILL BIT – LIBYA

New Performance Benchmark in Elsharara Field, Block NC186

Application

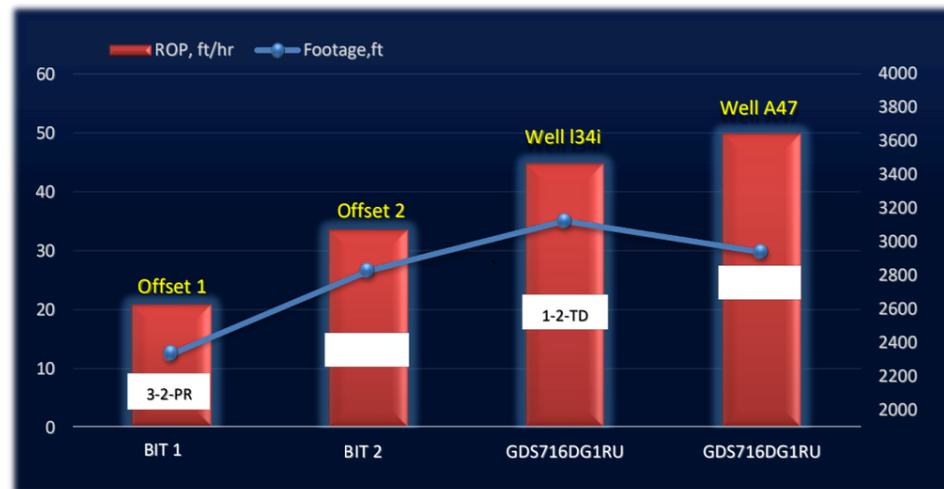
The geological diversity of the Libyan terrain includes a wide range of formations such as Dembaba, Assedjefar, Upper & Lower Marar, Awaunat Wanin, BDS II, BD Shale, BDS I, Tanezzuft, Mamuniyat, and Melez Shugran. Such heterogeneity requires drilling operations to use tools with high wear resistance and precisely optimized operating parameters.

Objectives:

- To improve performance in the field.
- To reach planned TD in one run.
- Maintain and keep the bit in good condition.

Challenges:

- Expected of lateral vibration.
- Low ROP while drilling in interbedded formation.
- Limited rig pump capacity.
- Torque limitations.



Results:

- Drilled to TD in one run (2999 drilled feet).
- New ROP performance benchmark; ROP 49.9 ft/hr.
- Bit pulled out in excellent condition; 1-1-WT-G-X-CT-TD.
- Both ROP and dull grading showed clear improvement after the second run of our PDC bit, that indicating better overall efficiency.
- 10.4% ROP improvement vs previous run.
- 33% ROP improvement vs best offset top.
- Bit can be re-run to drill new section.
- 2000



22" BM1HXC, IADC 115

An emergency call-off for the RC bit to the O&G running project. Despite the balling effect the bit reached the final depth with very low degree of wear-off. After the work the RC bit remains in re-runable shape.

DRILLING PERFORMANCE

- Total meters drilled: 892 m
- Drilling hours: 77.1
- Bit dull grading: 1-1-WT-A-0-I-BU-TD

DRILL BIT

- \varnothing 558.08 mm, BM1HXC
- Thread 7-5/8" Reg. API
- Leg back protection type: "4"
- Gauge protection AHV
- 4 jet- hydraulics 20/32" nozzles

NOV. 2023

DATE

POLAND

LOCATION

EXPLORATION

TYPE OF WELL

60-100

RPM

3300-4400 l/m

FLOW RATE



23" IADC 115

DATE APRIL-MAY 2022

LOCATION THE NETHERLANDS

TYPE OF WELL DIRECTIONAL
J-SHAPE

RPM 50-190

FLOW RATE 1500-3800 l/m

DRILLED METERS

1127 M

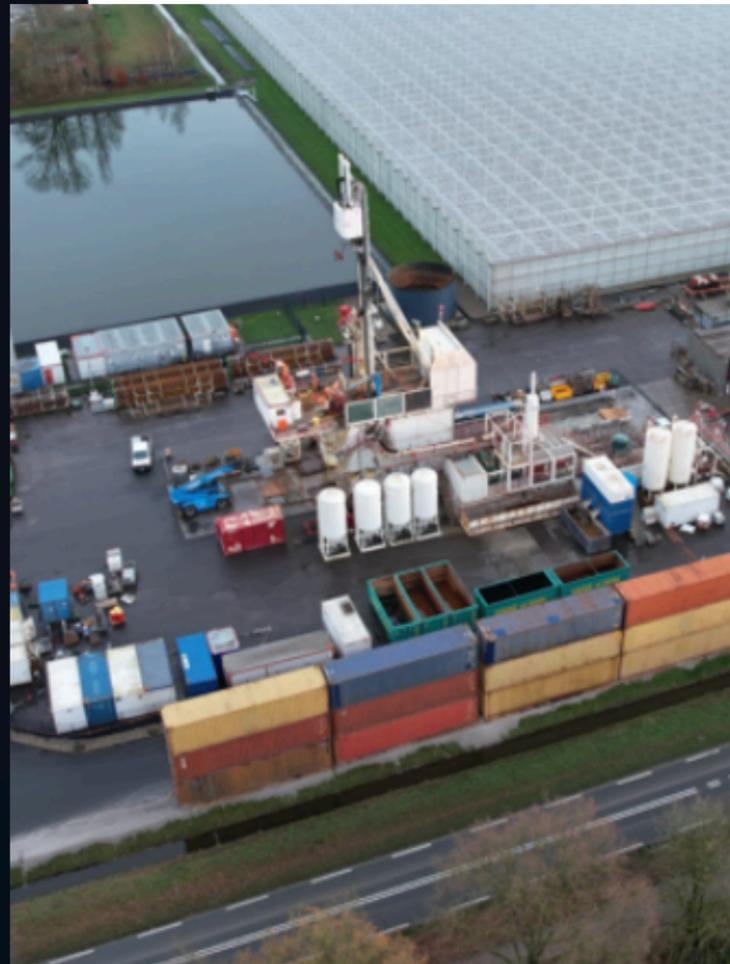
AVERAGE ROP

14,1 M/H

BIT DULL GRADING

1-1-WT-A-E-0-NO-TD

Total depth achieved with one run thanks to Glinik bit with effective bearing and premium gauge and leg back protection. Drill bit equipped in 4 jet hydraulics allowed for smooth, constant drilling with no bearing overheating risk. No wearing signs on hardfaced surface.





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).



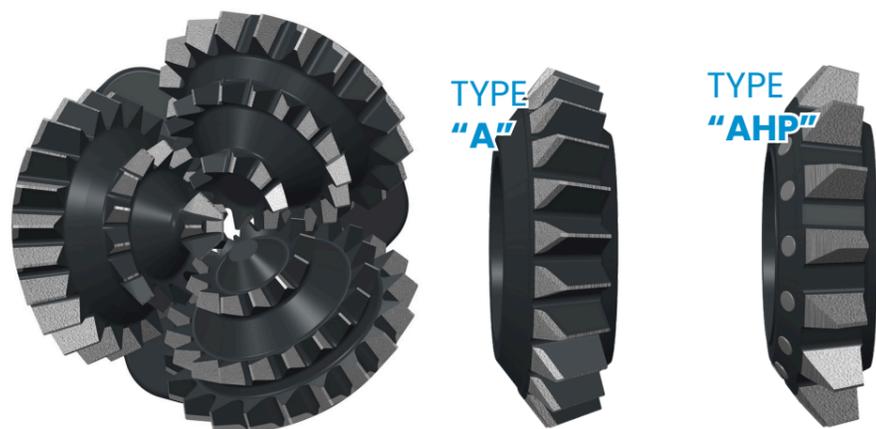
WATERWELL SAMPLE DRILL BITS



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.



 Bits customisation available

12-1/4"
IADC 633



LEG BACK PROTECTION TYPES

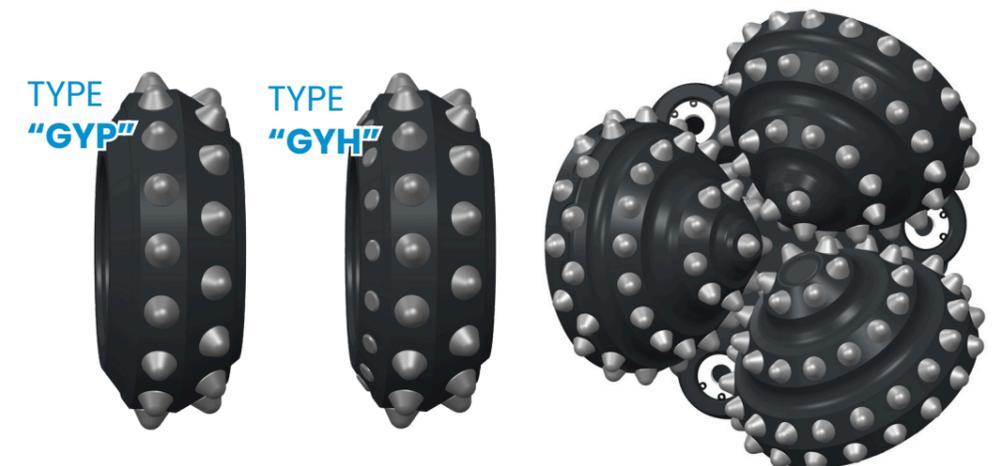
Glinik leg back type "2" with standard hardfacing.



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.



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

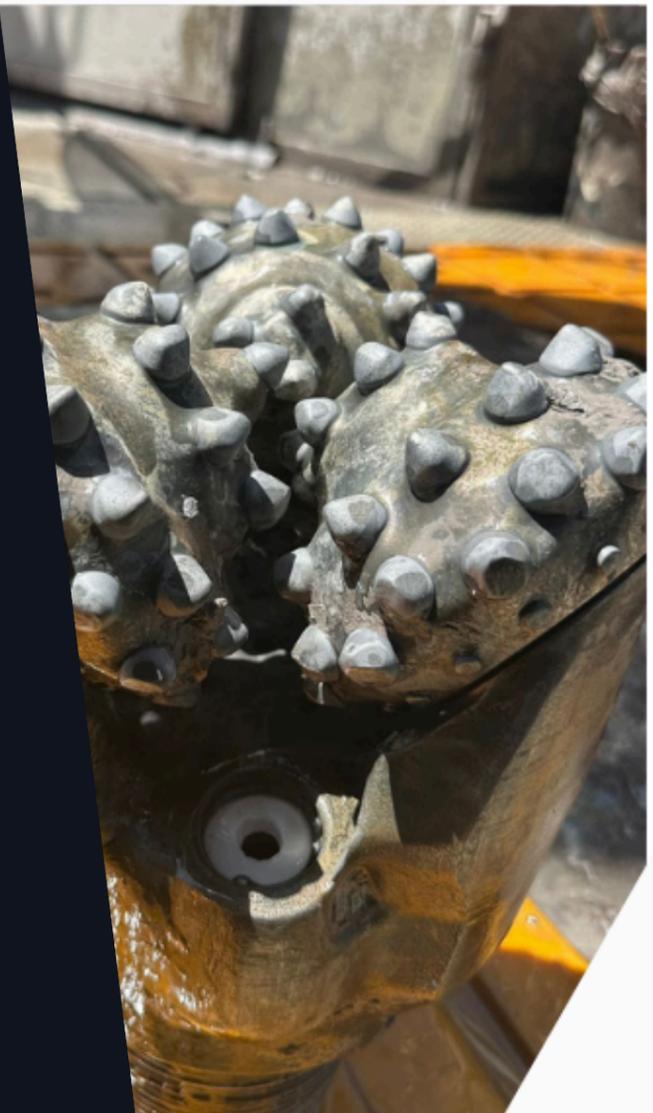
- total meters drilled: 350
- drilling hours: 262
- average ROP: 1,34 m/h





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.



GLINIK
DRILLING TOOLS



MINERALS & MINING

In order to meet the client's expectations, Glinik is working on the implementation of new solutions supporting the exploration of minerals.

The offer includes ready-made solutions for underground drilling of various types of pilot holes and inter-level ventilation, dewatering and other technological boreholes.



MINERALS AND MINING SAMPLE DRILL BITS



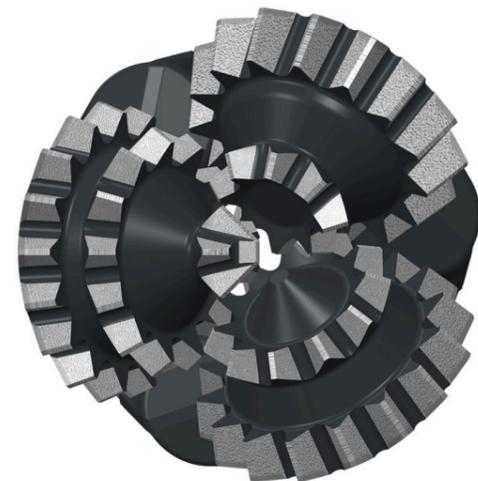
4-1/2"
IADC 211

CUTTING STRUCTURE

Medium-sized teeth enable efficient drilling through rock formations of variable hardness.

The specially engineered design allows the use of a single drill bit type for a wide range of geological conditions, ensuring efficient and reliable drilling performance.

An ideal solution for operations in unknown or mixed formations.



TYPE
"A"



TYPE
"AHP"



 Bits customisation available

2-15/16"
IADC 633



CUTTING STRUCTURE:

Optimally selected insert size and geometry ensure efficient drilling through rock formations of variable hardness.

The specially engineered design allows the use of a single drill bit type to achieve the target hole diameter and full depth.

An ideal solution for drilling in unknown or unpredictable geological formations.

LEG BACK PROTECTION TYPES

Glinik leg back type "2" design for extended tool life, and reliable performance in abrasive formations.

TYPE
"2"

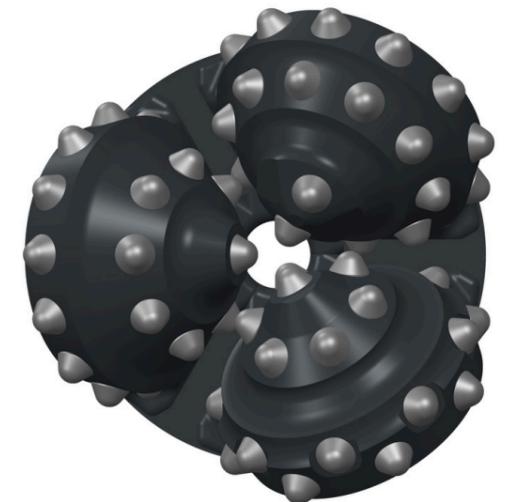


wide range of diameters 2-1/2" (63,5mm) to 36" (914,4mm).

TYPE
"GY"



TYPE
"GYH"



 Tools consultation available

BLASTING DRILL

9-7/8" IADC 642



CUTTING STRUCTURE:

Using uniquely designed channels inside the drill bit, bearings receive additional cooling, supporting increased tool life. The unique design of the bearing, through the use of compressed air supply channels, allows cooling of rolling components and prevents drilled materials from entering the bit, ensuring trouble-free drilling operations while optimizing the performance of the drill rig.

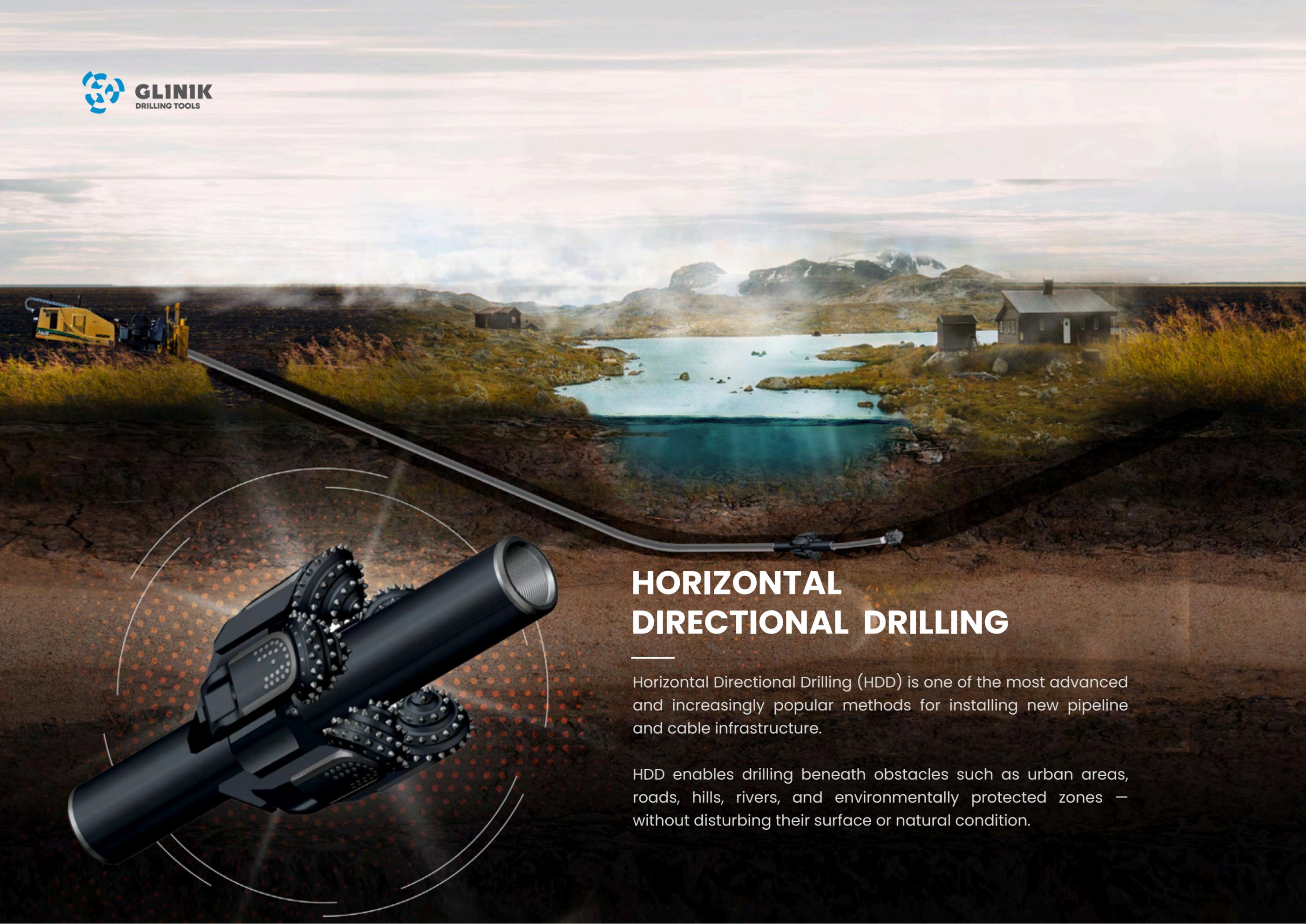
LEG BACK PROTECTION TYPES



CUTTING STRUCTURE:

Optimal cutting structures and the highest quality outside surface wear protection of the tool, minimizes the need of drill bit changes and increases drilling performance.





HORIZONTAL DIRECTIONAL DRILLING

Horizontal Directional Drilling (HDD) is one of the most advanced and increasingly popular methods for installing new pipeline and cable infrastructure.

HDD enables drilling beneath obstacles such as urban areas, roads, hills, rivers, and environmentally protected zones — without disturbing their surface or natural condition.

SOFT FORMATION SAMPLE DRILL BITS



12-1/4"
IADC 115



8-1/2"
IADC 435

LEG BACK PROTECTION TYPES

Glinik leg back type "6" design for extended tool life, and reliable performance in horizontal drilling.



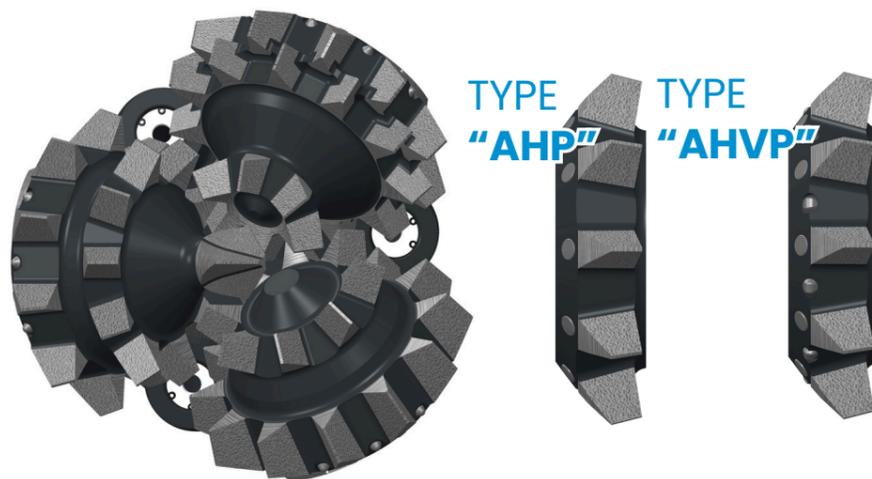
wide range of diameters 5-1/2" (139,7mm) to 17-1/2" (444,5 mm)

CUTTING STRUCTURE

Optimized tooth and cone design, developed through 3D simulation, ensures efficient cutting and drilling stability. Tungsten carbide hardfacing protects the teeth from wear during horizontal drilling, while carbide inserts on the bit face prevent diameter loss. Optimized nozzle placement improves cleaning and maximizes rate of penetration (ROP). Compatible with mud motors for faster drilling performance.

CUTTING STRUCTURE

Tall prismatic inserts ensure efficient cutting and extended bit life. The optimized insert placement and precise cone positioning enable the bit to drill long intervals in a relatively short time. A wide selection of insert types allows for tailoring the cutting structure to achieve maximum drilling efficiency under various formation conditions.



Bits customisation available



Tools consultation available

MEDIUM FORMATION SAMPLE DRILL BITS



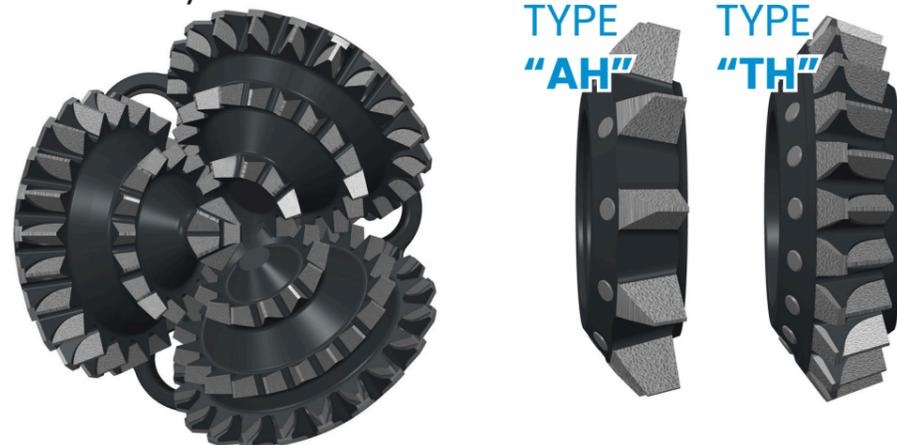
8-1/2"
IADC 235

CUTTING STRUCTURE:

A higher number of teeth combined with an increased blade angle delivers improved performance in variable medium to medium-hard formations.

The cone surface row is reinforced with carbide inserts, protecting the bit from diameter loss and extending its service life.

Additionally, the optimized nozzle placement and drilling fluid flow direction ensure faster cleaning of both the cutting structure and borehole bottom, enabling maximum drilling speed and efficiency.



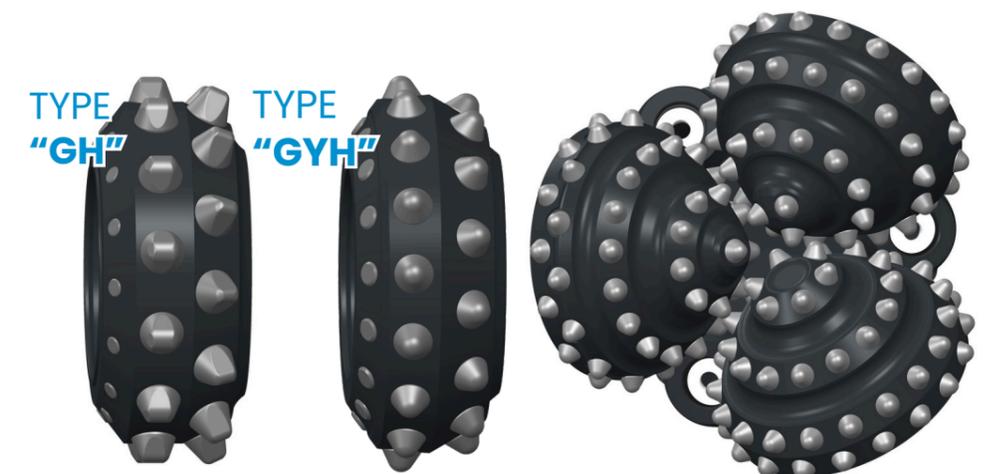
 Bits customisation available

12-1/4"
IADC 637



CUTTING STRUCTURE

High prismatic inserts with increased height and diameter, combined with relatively large offset between the cone axis and the bit axis, ensure high mechanical rate of penetration. The large sharpening angle of cutting edges protects the inserts from chipping and provides maximum resistance to wear and secures outer diameter.



 Tools consultation available

LEG BACK PROTECTION TYPES

Glinik leg back type "6" design for extended tool life, and reliable performance in horizontal drilling.



 wide range of diameters 5-1/2" (139,7mm) to 17-1/2" (444,5 mm)

HARD FORMATION SAMPLE DRILL BITS



12-1/4"
IADC 315

CUTTING STRUCTURE:

Short teeth with a wide sharpening angle and narrow spacing ensure efficient rock cutting.

The border flange teeth feature calibration surfaces and are reinforced with tungsten carbide inserts, providing high durability and protecting the bit from diameter loss when drilling in hard formations.

LEG BACK PROTECTION TYPES

Glinik leg back type "6" design for extended tool life, and reliable performance in horizontal drilling.



wide range of diameters 5-1/2" (139,7mm) to 17-1/2" (444,5 mm)

12-1/4"
IADC 735



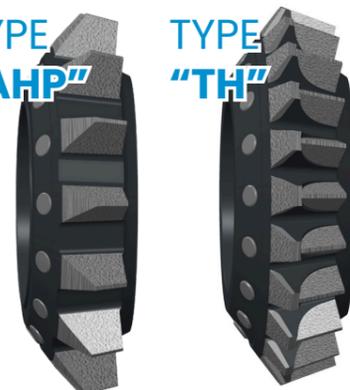
CUTTING STRUCTURE:

A large number of inserts with reduced height and wide sharpening angles, combined with narrow spacing, ensure optimal performance in hard rock drilling. The minimal offset between cone axis and bit axis protects inserts from breakage, while the reinforced cone face with multiple carbide inserts maintains bit's full diameter throughout its entire service life.



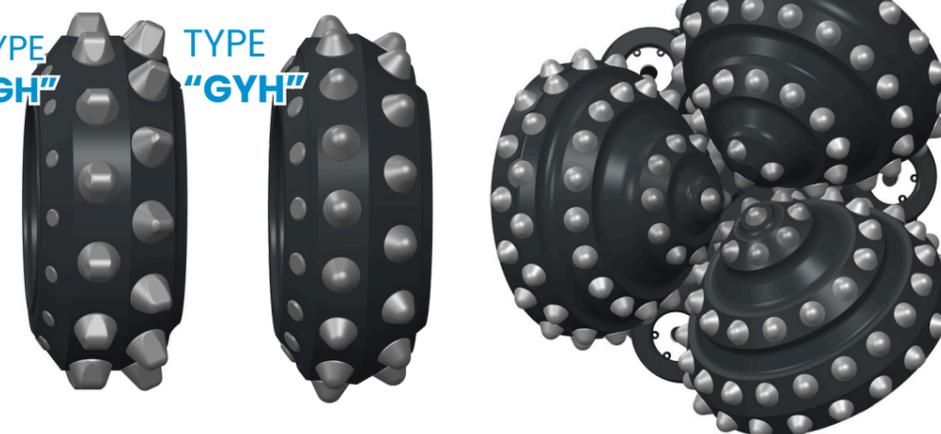
TYPE
"AHP"

TYPE
"TH"



TYPE
"GH"

TYPE
"GYH"



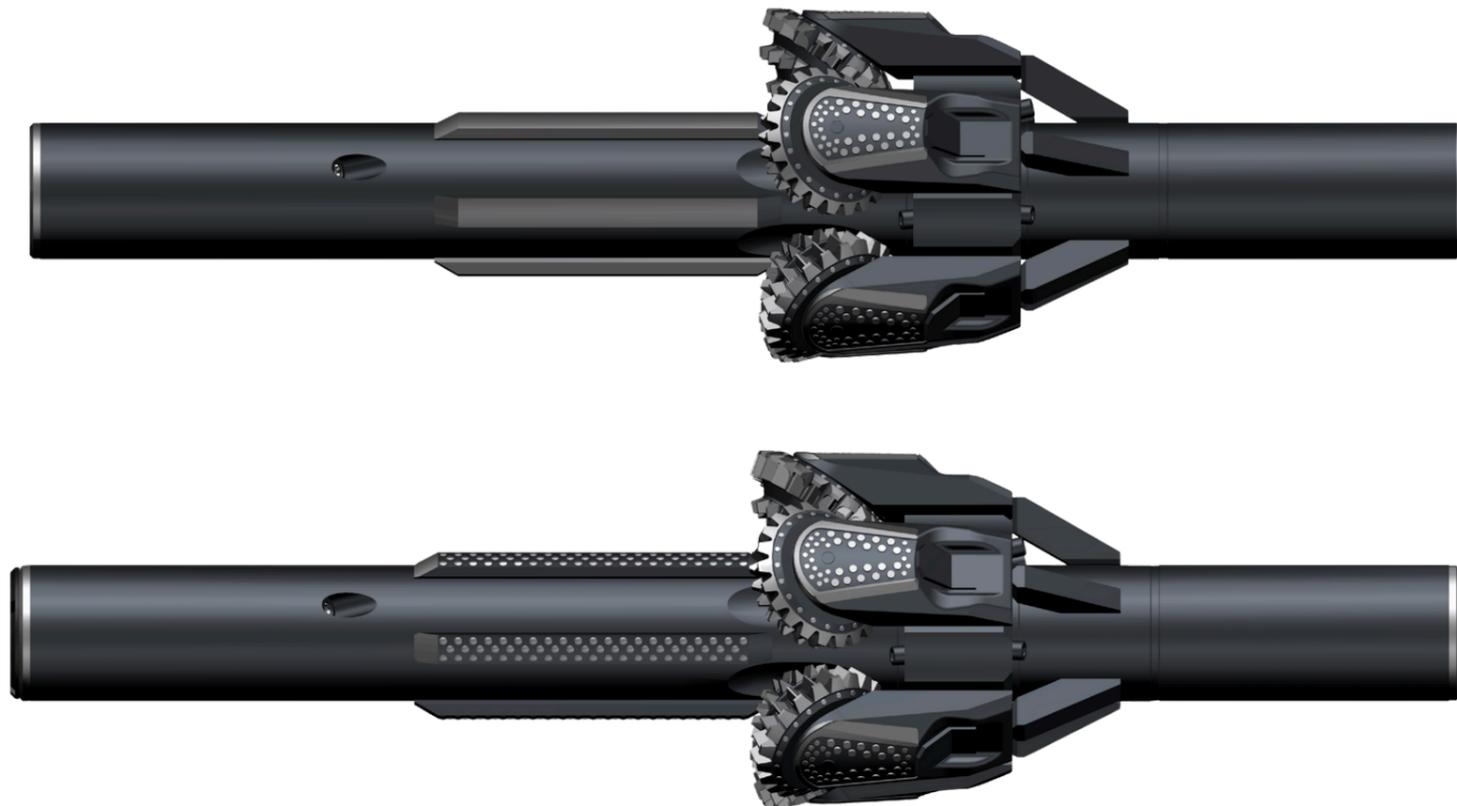
Bits customisation available



Tools consultation available

HOLE OPENERS

X-ENLARGE TYPE "S"



PILOT SIZE

9-7/8", 12-1/4"

**CUTTING
STRUCTURE**

MT & TCI

OPENING SIZE

24" - 26"



Design Highlights

Engineered for strength and precision – the heavy-duty welded arm design with stabilizing blades ensures perfect hole centralization, even in the most demanding ground conditions.

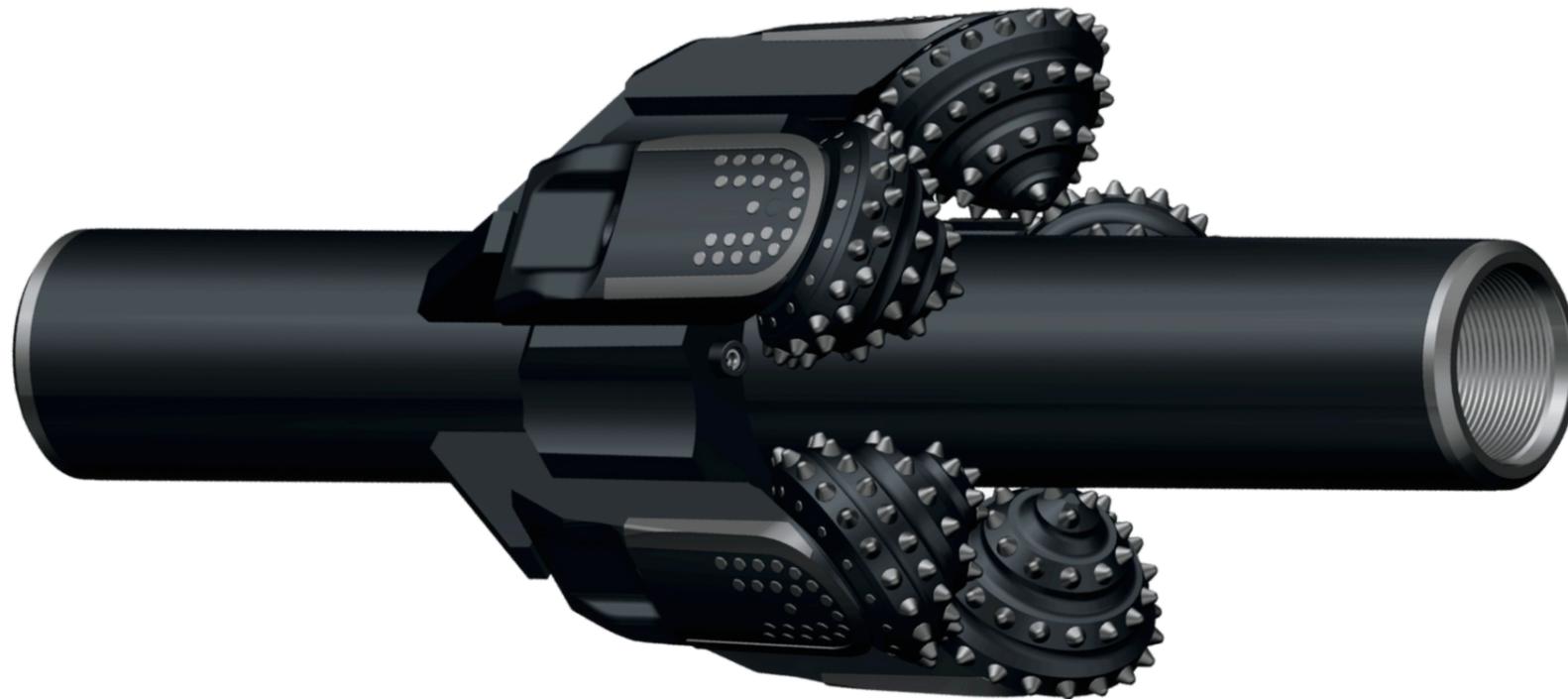
The next-generation flushing system provides optimal cutting efficiency, improved debris removal, and extended tool life.

Available with FH, REG, and NC connections for full compatibility with industry-standard drilling equipment.

Fast turnaround: 5–6 weeks for standard designs, and from 10 weeks for fully customized solutions.

HOLE OPENERS

X-ENLARGE TYPE "C"



PILOT SIZE

9-7/8", 12-1/4"

CUTTING STRUCTURE

MT & TCI

OPENING SIZE

24" - 26"

Design Highlights

Built for strength and performance – the heavy-duty welded arm design ensures maximum durability and stability, even in the most demanding drilling conditions.

The technologically advanced flushing system delivers superior debris removal, optimal cutting efficiency, and extended tool life.

Available with FH, REG, and NC threads for full compatibility with industry-standard equipment.

Fast turnaround: 5–6 weeks for standard designs, and from 10 weeks for fully customized solutions.

HOLE OPENERS

X-ENLARGE TYPE "J"



PILOT SIZE

9-7/8", 12-1/4"

CUTTING STRUCTURE

MT & TCI

OPENING SIZE

24" - 26"



Design Highlights

Built for strength and precision, the heavy-duty welded arm design ensures exceptional durability and drilling stability, even in the most demanding ground conditions.

The advanced flushing system delivers superior debris removal, optimized cutting performance, and extended tool life.

Compatible with FH, REG, and NC threads, providing full integration with industry-standard equipment.

Fast delivery: 5-6 weeks for standard models and from 10 weeks for fully customized solutions.

G-Reamer GR4



BODY

Body	Min pilot hole	Connection	No of rollers
GR4	4-1/2"	2-7/8" IF BxB	3

ROLLER CUTTERS OPENING RANGE

Body	AAA	BBB	CCC
GR4	8-1/2"	10"	12"

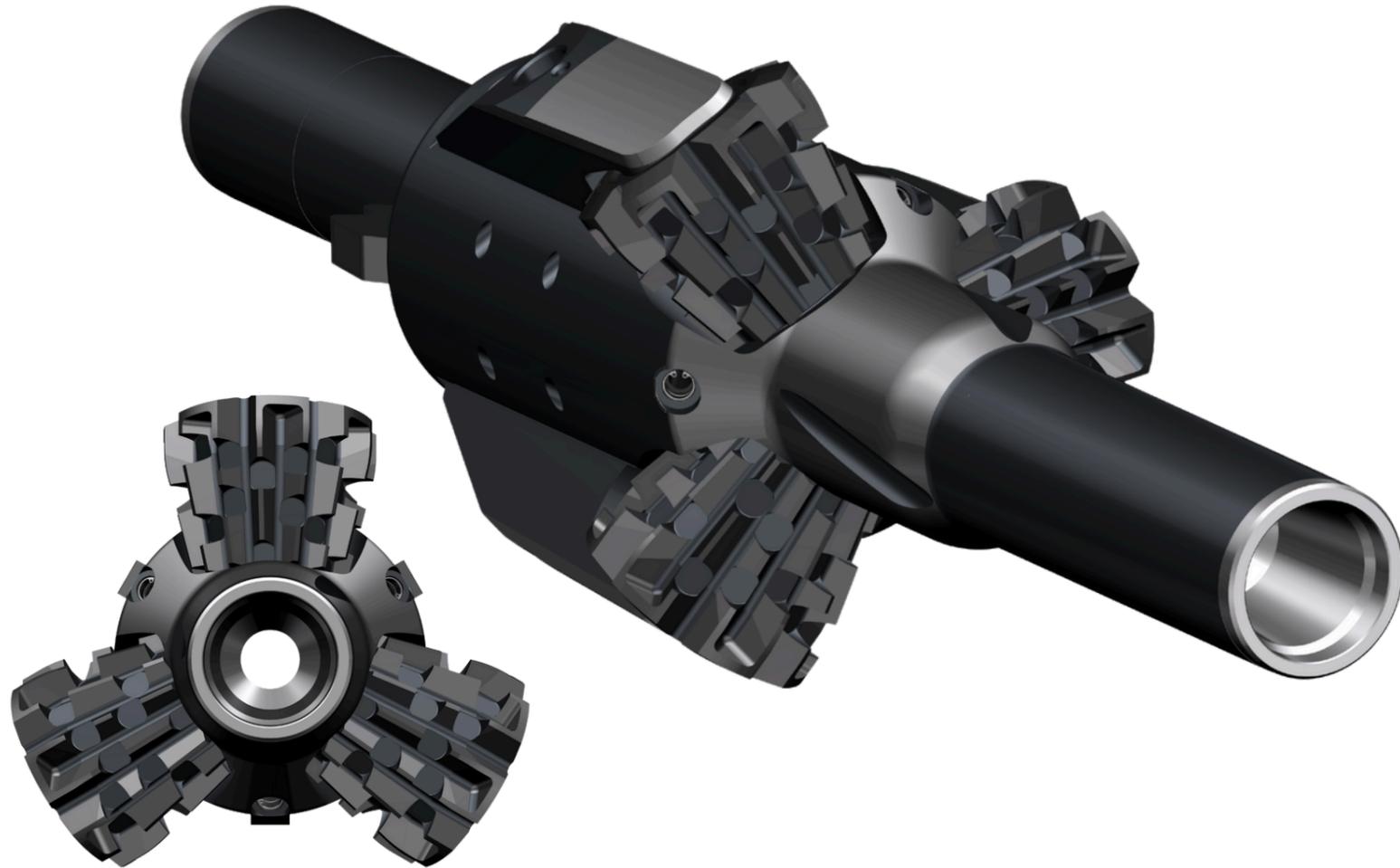
Our MT and TCI roller cutters ensure long service life, reliable performance, and high operational efficiency. Improved hydraulics through 6 nozzles helping to clean the tool and borehole optimally.

Available from stock, offered for both purchase and rental. G-Reamer provides flexibility with field exchangeable cutters and arms. Reliable greasing system ensures longevity of bearings and tool performance.



AAA — size — DDD

G-Reamer GR6



Our MT and TCI roller cutters ensure long service life, reliable performance, and high operational efficiency. Improved hydraulics through 6 nozzles helping to clean the tool and borehole optimally.

Available from stock, offered for both purchase and rental. G-Reamer provides flexibility with field exchangeable cutters and arms. Reliable greasing system ensures longevity of bearings and tool performance.



BODY

Body	Min pilot hole	Connection	No of rollers
GR6	6-1/2"	3-1/2" IF BxB	3

ROLLER CUTTERS OPENING RANGE

Body	AA	BB	CC	DD
GR6	12"	14"	16"	18"

AA — size — DD

G-Reamer GR8, GR10, GR17

BODY

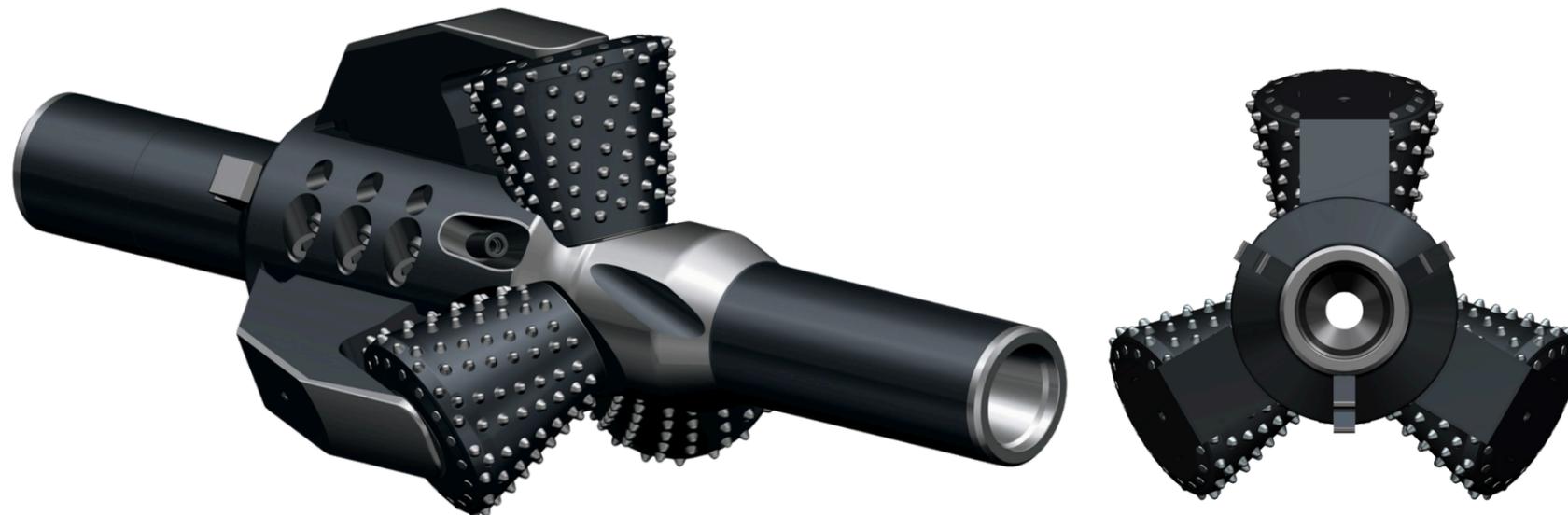
Body	Min pilot hole	Connection	No of rollers
GR8	9-7/8"	4-1/2" IF BxB	3
GR10	12-1/4"	6-5/8" FH BxB	3
GR17	17-1/2"	6-5/8" FH BxB	3

ROLLER CUTTERS OPENING RANGE

Body	A	B	C	D	E	F
GR8	16"	18"	20"	22"	24"	26"
GR10	18"	20"	22"	24"	26"	28"
GR17	24"	26"	28"	30"	32"	34"

Our MT and TCI roller cutters ensure long service life, reliable performance, and high operational efficiency. Improved hydraulics through 6 nozzles helping to clean the tool and borehole optimally.

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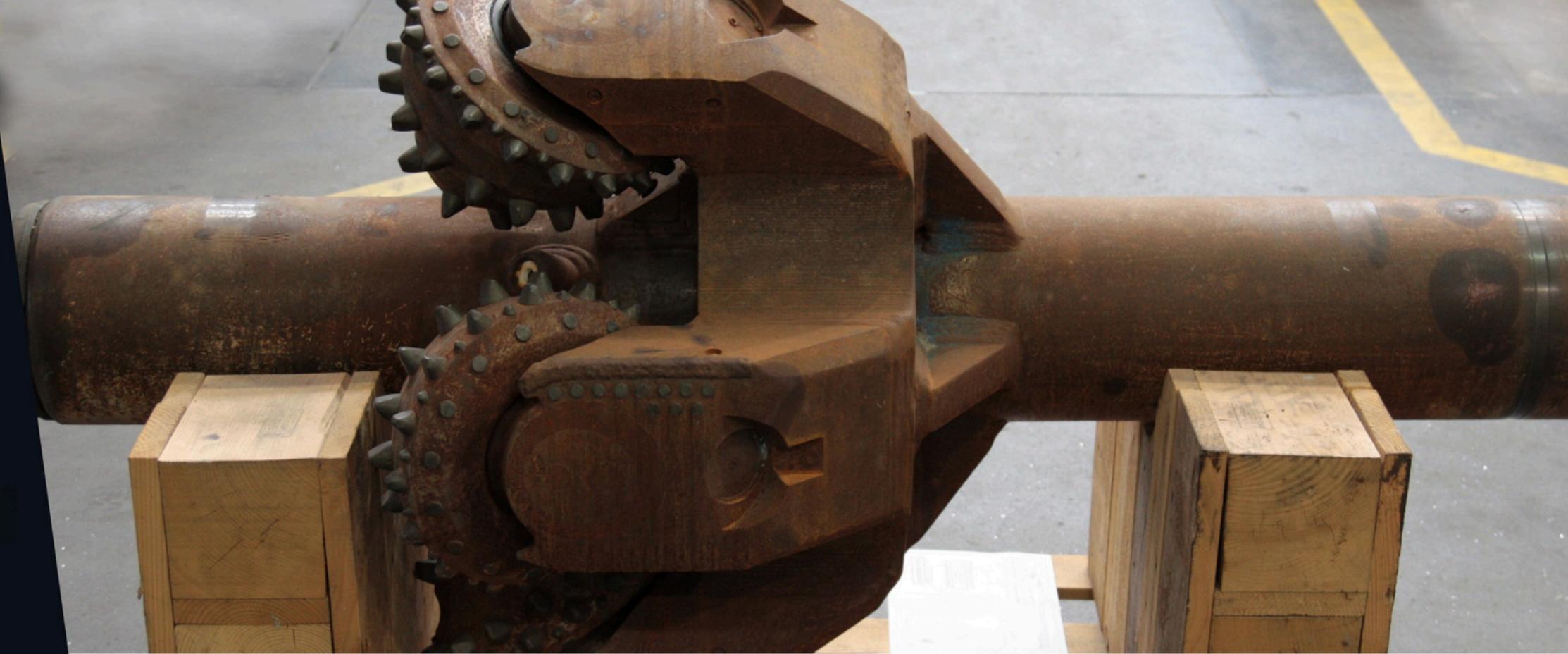




REFURBISHMENT OF HOLE OPENERS

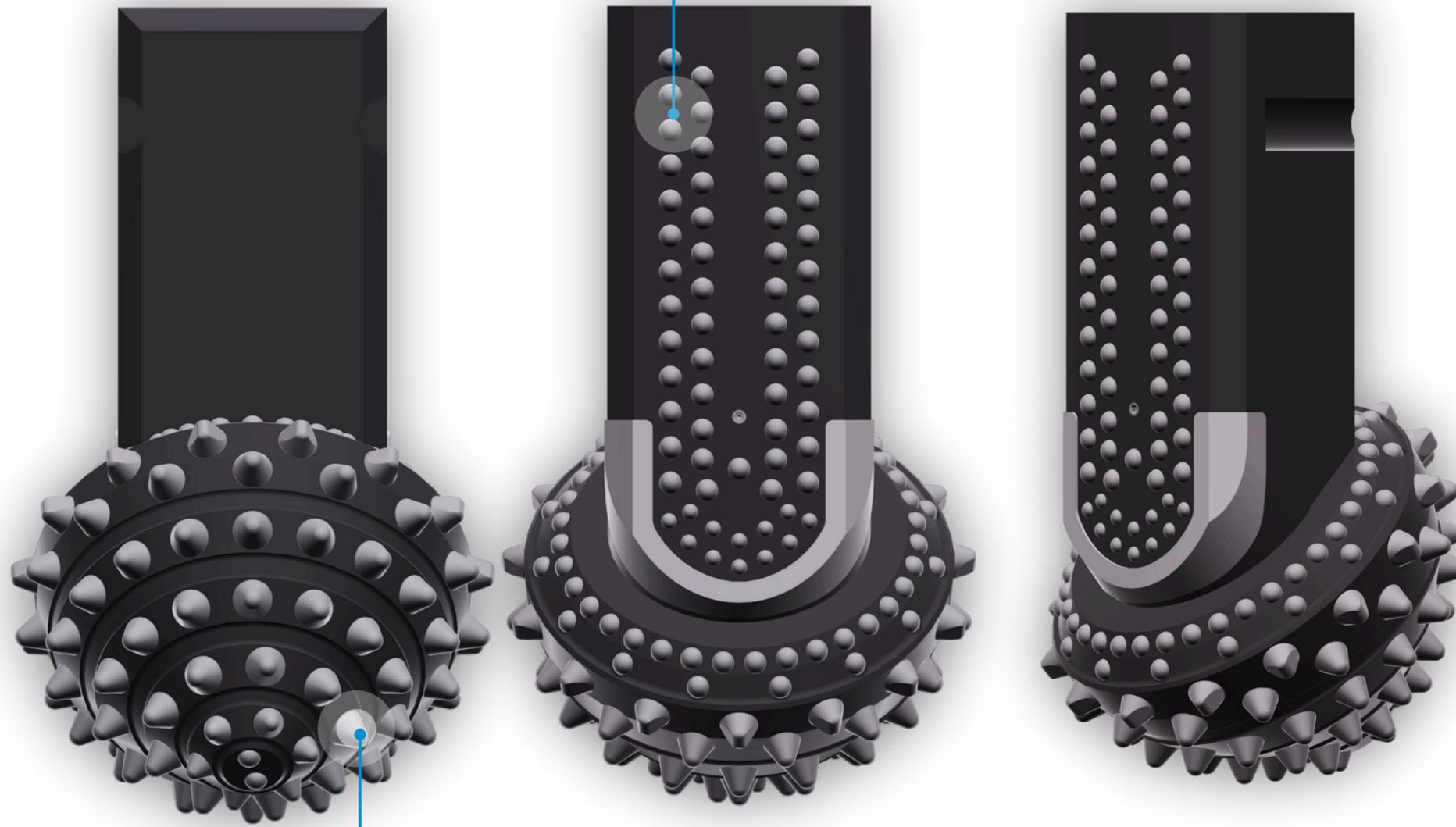
Glinik offers professional regeneration and repair services for drilling tools to reduce the overall cost of customer operations.

- Detailed assessment of technical condition incl. micro cracks examination.
- Confirmation of scope, cost and leadtime of refurbishment.



SPARE CUTTERS FOR HOLE OPENERS REFURBISHMENT

extended leg back protections for optimal abrasion resistance in horizontal drilling



densely spaced inserts for enhanced performance



Spare TCI cutters for hole openers' refurbishment available in various sizes.

SECOND LIFE FOR YOUR HOLE OPENER

We are ready to repair drilling tools manufactured by Glinik, as well as those of other manufacturers.

Each tool delivered for regeneration is verified for hidden defects. It is subject to a detailed technical condition assessment. Based on this assessment, the scope of repair work is determined. After extensive analysis, the customer is contacted with full information about the scope, cost and timeline of the regeneration work.

Hole opener regeneration is a cost-effective and environmentally friendly approach that offers financial saving and promotes environmental sustainability.

Glinik offers professional regeneration and repair services for drilling tools to reduce the overall cost of customer operations.

BEFORE



AFTER



HORIZONTAL DRILLING PROJECT

HOLE OPENER 9-7/8"-16" IADC 537

DATE	May 2024
LOCATION	Switzerland
TYPE OF WELL	Horizontal
RPMS	20-25
ROP	12 m/h
CONNECTION	PIN & BOX 6-5/8" API Reg.
TOTAL METERS DRILLED	751 m

Swiss Alps Titlis mountain station rebuilding has planned the 800 m borehole connecting the sky view point Ice Flyer with 3.028 m Klein Titlis station. Since the supply pipes were finished, they will direct fresh and sewage water, as well as electricity and data cables to and from mountain station. After finishing of 12-1/4 GLINIK pilot drilling, our hole opener 9-7/8"-16" IADC 537 has perfectly done the opening job, with minor wear in abrasive formations.



HORIZONTAL DIRECTIONAL DRILLING PROJECT

G-REAMER

DATE SEPTEMBER 2025

LOCATION GERMANY

TYPE OF WELL HORIZONTAL

RPMS 42-45

ROP 13 m/h

CONNECTION B X B NC50

TOTAL METERS DRILLED 325

On the section no. 8 of the strategic German infrastructure project called SuedLink, which links and secures renewable high-voltage network, the GLINIK RR8 rock reamer showed good performance offering average of 13 m/h rate of penetration with no sign of wear-off. Second-stage of reaming pass by pulling the string was done from 12" to 18". There were no issues from the part of the reaming tool and consequently the RR8 reamer body and all replaceable parts remain in perfect condition for further activities.





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