

Mineral Exploration Tooling

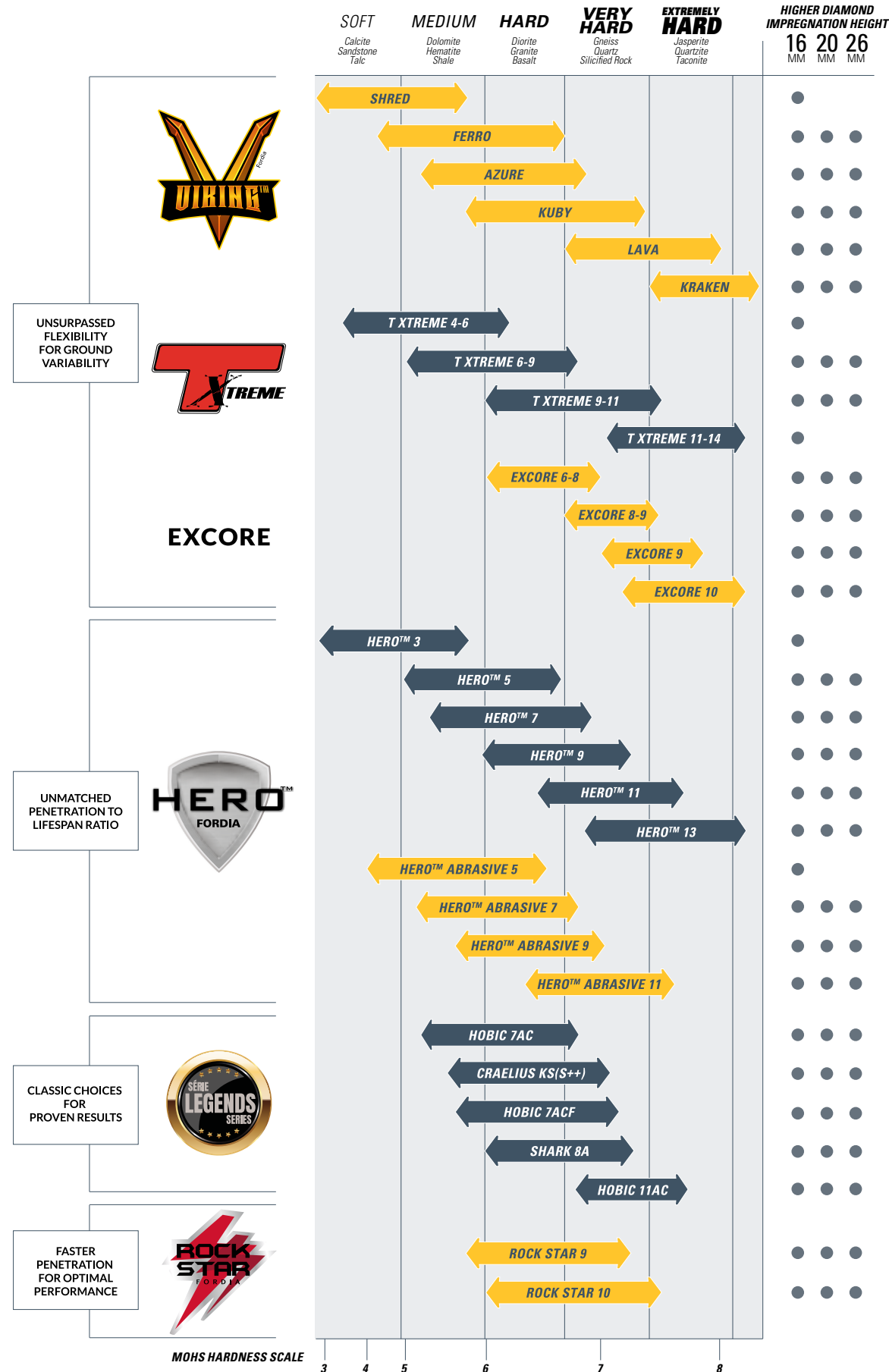
Diamond tools | ITH | Tubular | Additives



FORDIA®

Powered by Epiroc

MATRIX SELECTION CHART



DIAMOND TOOLS

LEGENDS Core Bits



The Legends core bit series is a new line that honours classical matrices developed by Fordia powered by Epiroc, used for tens of years. These bits are still very popular among experienced drillers and are behind some of the most significant drilling stories. They have withstood the test of time and they continue to deliver great results.

- Proven performance, historical success
- Includes : Hobic 7AC, Hobic 7ACF, Hobic 11 AC, Craelius KS(S++), Shark 8A

HERO™ Core Bits

HERO core bits are manufactured individually to provide an unmatched penetration to lifespan ratio. The HERO line allows drillers to achieve excellent drilling performance in ground with rock hardness ranging from 3.5 to 8 on Mohs scale, and is also suitable for softer, abrasive ground.

- Standard diamond impregnation height of 13 mm
- Available in all standard diameters and waterway options
- Includes : HERO™ 3, HERO™ 5, HERO™ 7, HERO™ 9, HERO™ 11, HERO™ 13



HERO™ Abrasive Core Bits

Developed specifically for abrasive ground conditions, HERO Abrasive core bits feature a matrix made of special alloys and diamonds. All matrices in this line come in standard 13-mm diamond impregnated height.

- Individually reinforced segments help preserve internal and external diameters
- Wider waterways allow rock cuttings to be flushed out easily le forage souterrain.
- Includes : HERO™ Abrasive 5, HERO™ Abrasive 7, HERO™ Abrasive 9, HERO™ Abrasive 11



EXCORE Core Bits

Canadian and Swedish engineering leveraged years of experience in diamond matrix development to bring customers this series. Following years of enhancements to adjust to driller needs, the result is a line of versatile and free-cutting matrices.

- Includes : EXCORE 6-8, EXCORE 8-9, EXCORE 9, EXCORE 10





ROCKSTAR™ Core Bits

The ROCKSTAR line of products takes versatility and performance to a new level. By adjusting drilling parameters, drillers can increase the penetration rate without sacrificing bit life.

- Works well even in abrasive grounds
- Resists polishing of diamonds
- Provides optimum performance in underground drilling
- Includes : ROCKSTAR™ 9, ROCKSTAR™ 10

T XTREME Core Bits

Manufactured using polycrystalline diamonds coated with in titanium to protect the tool's cutting abilities during the furnacing process.

- Ideal for more complex rock formations
- Greater flexibility and great wear resistance
- Includes : T-XTREME 4-6, T-XTREME 6-9, T-XTREME 9-11, T-XTREME 11-14



VIKING™ Core Bits

Developed with drillers and for drillers, the Viking series includes flexible matrices designed to conquer all types of ground, in all regions of the world. This series comprises the following matrices:

- Shred: developed for the abrasive ground
- Ferro: optimized for iron ore exploration drilling
- Azure: ideal for medium-hard ground
- Kuby: a great choice for hard-very hard ground
- Lava: perfect for cutting through very hard ground



GATOR Casing Shoes

GATOR casing shoes are designed to reach the rock quickly so you can start coring quickly. The matrices are impregnated with diamonds and have tungsten carbide inserts to reinforce their internal and external diameters.

- Ideal for drilling through sand, boulders, gravel and even clay – all the way to the bedrock
- Manufactured with quality synthetic diamonds
- Available with flat surfaces or “V” crowns

Locking Adaptors

Locking couplings help to stabilize the upper section of the core barrel and minimize hole deviation.

To make sure you get the right one for your project, Fordia offers conventional, hexagonal and heavy duty locking couplings.



Reaming Shells

RS++ Reaming Shells, these premium reaming shells are reinforced with natural and synthetic diamonds to allow optimal reaming of the bore hole while maintaining precise gage control. The RS++ reaming shell use high technology to imbed pellets of refractory metals in its matrix.

The **RS++** features proprietary wear indicator bands that tell the driller when to change the reaming shell, resulting in better hole control and straightness.

WHITE RHINO reaming shells feature a highly durable matrix embedded with high-quality natural and synthetic diamonds. Made from friction-resistant tungsten carbide, they have a larger active surface to help control deviation. These products are available in 6 inch, 10 inch and 18 inch sizes.

DRILLING ADDITIVES AND ACCESSORIES

Fordia distributes a wide range of environmentally safe drilling fluid additives and lubricants based on high-performance vegetable oil technology. These products help reduce re-drills, avoid downhole problems, improve performance standards and reduce drilling costs.



VISCOSITY CONTROL
DD-2000
DD-955
ULTRAVIS
CORE WRAP

FLUID CONTROL
SLO-FREEZE ES

TORQUE REDUCER
TORQUELESS

STABILIZER
DD X-PAND
SAND DRILL



XPRESS DRILLING ADDITIVES
DD XPRESS
SAND XPRESS

Drilling Additives Mixer

Having a mud mixer on the job is a must to get a smooth and consistent mix of drilling additives and water. Fordia offers a sturdy hydraulic mud mixer built tough for durability and reliability.

- 5 gal/min @ 2,000 rpm hydraulic motor
- 5 HP strength
- Maximal pressure of 2,000 psi



AIR DRILLING ADDITIVES
RDO 302 ES
ES THREAD COMPOUND
HOLE CONTROL



Aider les foreurs à améliorer leur performance.

LUBRICANTS

Drill Rod Grease

Available in regular and biodegradable versions, **BLACK WIDOW** is an extra sticky drill rod grease that provides optimal performance even in the worst conditions.

- Excellent adhesive properties, even in difficult conditions
- Withstands all climates
- Protects rods with a residual film that lasts



MULTI-PURPOSE GREASE

EP/MP-1004 multi-purpose grease is a high-performance, Canadian product that provides the best protection against water washout on the market.

- Prevents wear inside core barrels
- Can be used to lubricate all grease points on a drill rig
- Excellent adhesion and exceptional mechanical stability



THREAS COMPOUND

Z-50 Pipe Dope thread compound provides maximum thread protection when an anti-seize compound is required.

- Prevents wear and galling
- Resistant to water washout, rust and corrosion
- Recommended for rods and casing

DOWN THE HOLE TOOLS



Prism Directional Wedge

Save time and money by wedging quickly and getting back to drilling faster. By using Fordia's **Prism Directional Wedge**, you can quickly and easily deflect a drill hole to a predetermined direction. The one-trip directional wedge system comes in all standard N and H hole sizes.

- Saves time by reducing the number of trips required down the hole
- Reduces drilling downtime by quickly deviating a hole
- Provides a strong locking device to firmly keep your wedge in position allowing you to deviate the hole accurately

Prism Core Bit Profile

Exploration diamond drilling will often require the use directional tools, such as a wedge, to help steer the borehole. Once the wedge is in the bore hole, care needs to be taken with all the down hole tooling especially the diamond bit, as it can suffer damage to the tip of the crown or worse, drill through the wedge. Our PRISM60 crown profile provides the perfect solution.

- Optimized waterways for better cooling of the crown at the contact of the wedge blade
- Improved outer gauge protection
- Superior angle of attack on the face of the bit for successful drilling past a wedge
- More reinforcement at the shoulders with carbide strips to maintain gage
- Comes in a choice of matrices according to ground hardness



AQUAGUARD

Safely cross zones of high groundwater flow during drilling operations and still obtain good core recovery with **AQUAGUARD** water pressure limiter.

When inserted into the rods, its check valve limits water from pressurized in-flow zones making drilling operations safer. **AQUAGUARD** also reduces operating time by up to 30%. Using **AQUAGUARD** makes adding rods and changing the inner tube safer and more efficient while improving core recovery across groundwater flow zones.

- Improves working conditions on the drill site
- Allows better mine water management
- Patented technology



HEAD ASSEMBLIES



DiscovOre & Arrow 3S Surface Head Assembly

The **DiscovOre Surface** head assembly and the **Arrow 3S** auto-lock overshot combine to create a revolutionary new core barrel system that provides safety, speed and simplicity. The new design has eliminated the weak and potentially hazardous components of a standard core barrel, the spearhead and spring pins.



DiscovOre & Arrow 3S Underground Head Assembly

The **DiscovOre underground** head assembly provides the same safety features and reliability as the DiscovOre surface version, but with a shorter overall assembly for easier handling in underground operations.



ExcORE Surface Head Assembly

When you need productivity, choose ExcORE head assemblies. They allow for safe and efficient insertion or removal of inner tube assemblies. They feature a unique piston latching mechanism that indicates when the system is ready to drill, as well as double seals in front of the latches.



ExcORE Underground Head Assembly

Drillers looking for improved drilling performance choose ExcORE head assemblies. ExcORE allows for safe and efficient insertion or removal of inner tube assemblies. The ExcORE head assembly allows you to quickly switch from from pump in to downhole drilling using the same head assembly keeping inventory down. It also features a unique latching mechanism that indicates when the system is ready to drill.

DRILL RODS & CASING



OWL L-Latch Surface Head Assembly

The **OWL L-Latch surface** head assemblies are suitable for all ground conditions. The L-Latch head assembly provides an additional option to drillers who are familiar with a link style latch system.



OWL Standard Surface Head Assembly

Fordia's **OWL Standard surface** head assembly is a proven head assembly system that easily integrates into your existing projects and is renowned as the industry standard in head assemblies. With its robust design, this system is ideal for all surface drilling projects.



OWL Standard Underground Head Assembly

The **OWL Standard Underground** head assembly is available in every diameter used in the industry. Known and chosen for its durability, it is ideal for drilling against gravity.

Its unique design and its compatibility with different manufacturers' parts make it easy to repair, even in the most remote locations.



EXCORE EX II Safety Overshot

Excure EX II Safety overshoot was developed with both safety and performance in mind. The safety mechanism of this overshoot, unlike competing products, is automatic and does not require direct intervention from the drill crew to engage. This overshoot simplifies the process and maximizes the speed of each core recovery cycle resulting in increased productivity levels.

Core Lifter Assembly

The core lifter assembly includes three key parts that allow you to firmly grip the core sample so that it can be broken and brought to the surface.



Consistent quality for consistent performance

All rods offered by **Fordia Powered by Epiroc** drill rods are made of 1541-grade steel and casing is made of 1026-grade steel according to stringent quality standards. They provide a tight mechanical seal for better performance, rod after rod.

All our tubular products are made in state-of-the-art-facilities in Canada.

To provide drillers with more options, Epiroc drill rods with R threads are now available. These rods feature excellent durability and quality craftsmanship.

WORLD CLASS MANUFACTURING	
Intelligent production	Automated manufacturing Data recording ISO 9001 certification
Strict quality control	Frequent sampling Validation of steel structures Geometric measurement of threads Complete traceability
Complete finishing	Phosphate coating on male threads in certain sizes Rust protection on tubes Cardboard thread protectors Surface hardening

RODS			
BO	BT	BR	ATW
NO	NT	NR	BTW
HO	HT	HR	NTW
-	PT	-	HTW

CASING	
Straight	Tapered
AW	-
BW	-
NW	NWT
HW	HWT
PW	PWT

Other sizes and various lengths are available. Please contact your sales representative.



PUMPS

The **ELEPUMP KF** pump series is well known for its performance and easy maintenance, but is mostly selected for its outstanding durability. The **KF-30** and **KF-40** plunger pump model is best suited for clean water while the **KT-45** and **KF-50M** piston pump model will perform best when there is mud, sediment, bentonite or cement in the water.



KF-50M
Piston pump



KF-40
Plunger pump

MUD PUMPS				
	FLOW RATE		PRESSURE	
KT-45	74 L/min	19,6 GPM	50 bar	750 psi
KF-50M	109 L/min	28,8 GPM	70 bar	1 000 psi

WATER PUMPS				
	FLOW RATE		PRESSURE	
KF-30	106 L/min	28 GPM	200 bar	2 9000 psi
KF-40	170 L/min	45,0 GPM	110 bar	1 600 psi



Fordia offers a large selection of pump assemblies for both water and mud pumps.

Any **Elepump** can be combined with your choice of hydraulic, diesel or gas motor. Many additional options are available, including power and speed configurations.

EDDY WATER TREATMENT SYSTEM



Environmentally friendly practices

The recovery of drill water on a drill site must be managed in way that is not detrimental to operations. Managing used drill water can be complicated and costly for entrepreneurs and the solutions available on the market are often ill-suited for the needs of a drill site or core shack. EDDY, a water treatment system from Fordia, was designed for exploration drill sites and core shacks. It treats drill water in order to separate the cuttings.

- Lower environmental impact
- Compliance with current environmental standards
- Re-use of the majority of drill water
- Lower costs of supplying water
- Improved safety for workers



Reverse Circulation Hammers

Secoroc RC hammers were developed for all types of exploration drilling, such as grade control and deep hole applications. Our RC hammers give you superior performance, exceptional reliability and dependable support whether you are exploring potential sites or operating an existing mine.

RC50

The Secoroc RC50 features high frequency combined with a high mass piston provide a high output of power, ensuring cutting edge performance and an excellent rate of penetration.

- 15 to 20 % higher penetration compared to equal RC hammers
- Long-term, low-maintenance endurance
- Proven design and easy servicing

COP RC45 HD

With the same features and benefits as the Secoroc COP45, this heavy-duty version is ideal for conditions that are extra demanding conditions. The HD version apart leverages the best material and the best heat treatment available.

- Longer service life
- Higher productivity

Reverse Circulation Bits

Our bits for Reverse Circulation (RC) drilling are produced according the highest quality control standards.

Our concave bits are available with a patented Trubbnos buttons for longer life and enhanced rate of penetration (ROP) and improved sample quality.

Our RC drilling bits are also made from premium grade tungsten carbide.



Pipes and Adaptors

Reverse Circulation (RC) pipes are available in both lightweight and robust design. Our DR rods are cold drawn and are friction welded for stronger joints.

Made of quality steel that is heat treated according to our specifications, our DR rods are approximately 23% lighter in weight and can go up to 23% deeper.

All our rods and adaptors are manufactured according to strict quality control standards for longer life.



When You Need Help

Get Advice from Our Technical Experts

The members of Fordia's technical team have all been diamond drillers, so they understand the job. They all have vast and varied experiences that provide them with an expertise ideally suited to help Fordia customers across the globe.

Let them work with you to find solutions that will increase your productivity and lower your costs.





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