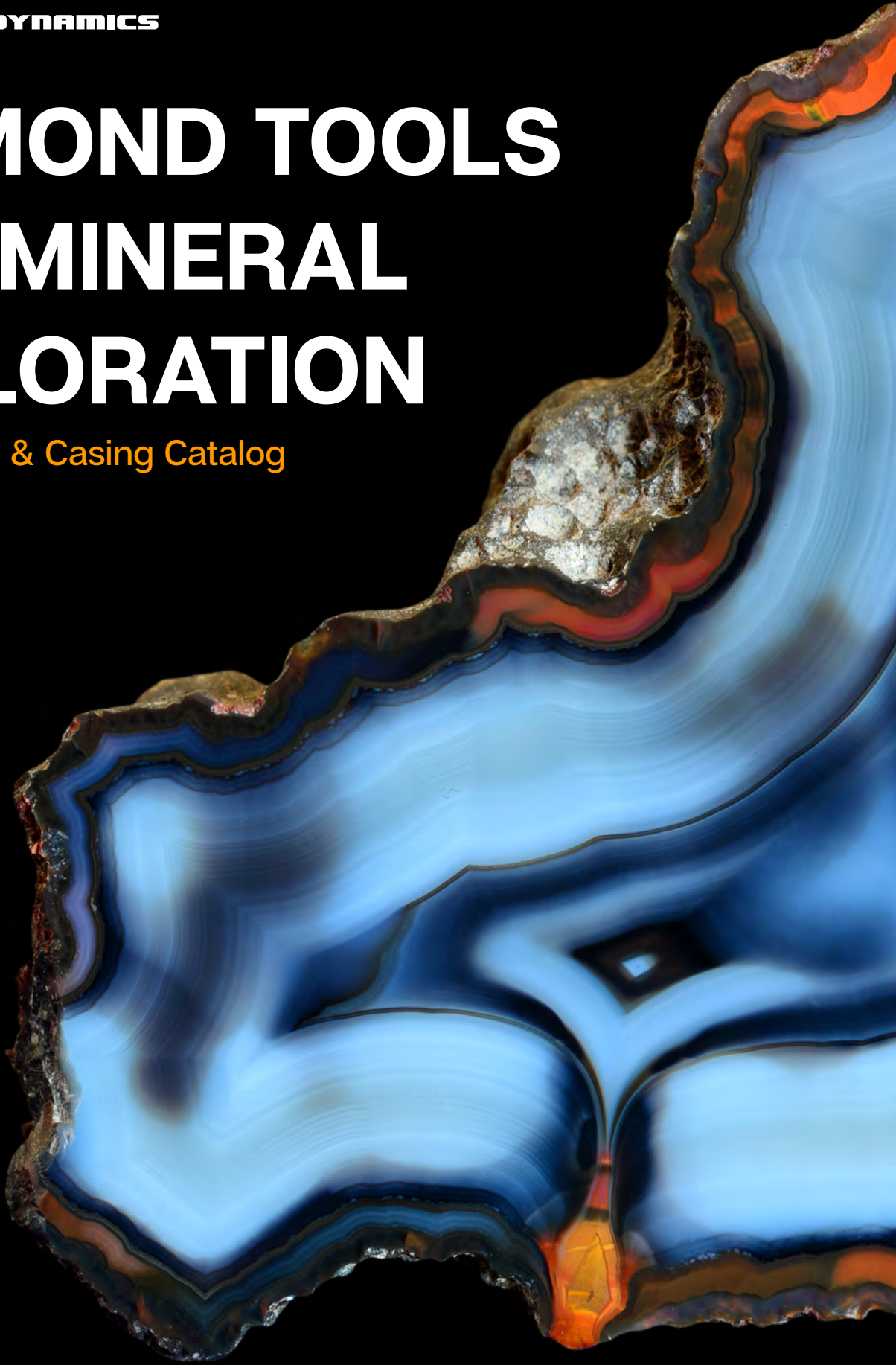




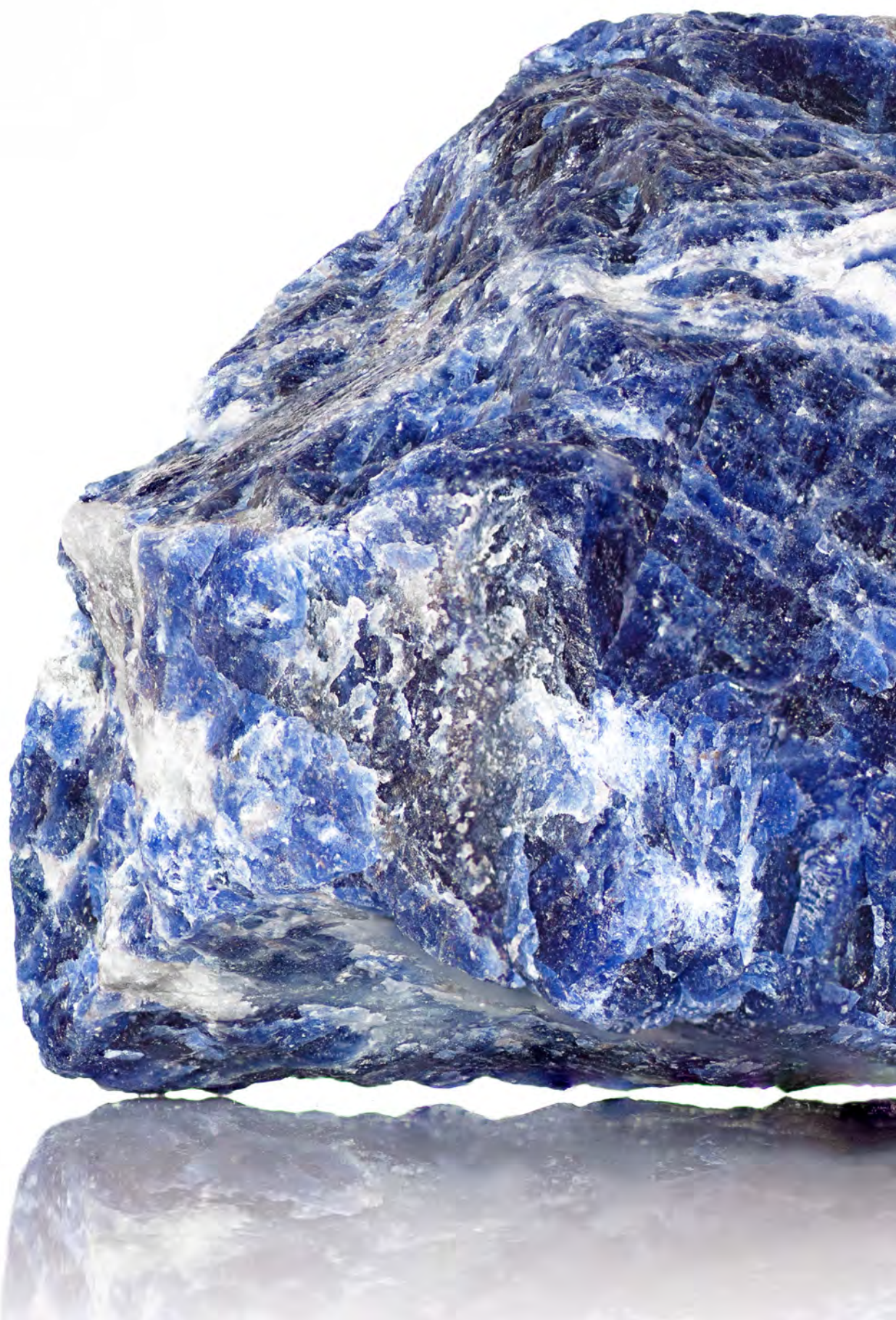
ORE DYNAMICS

DIAMOND TOOLS FOR MINERAL EXPLORATION

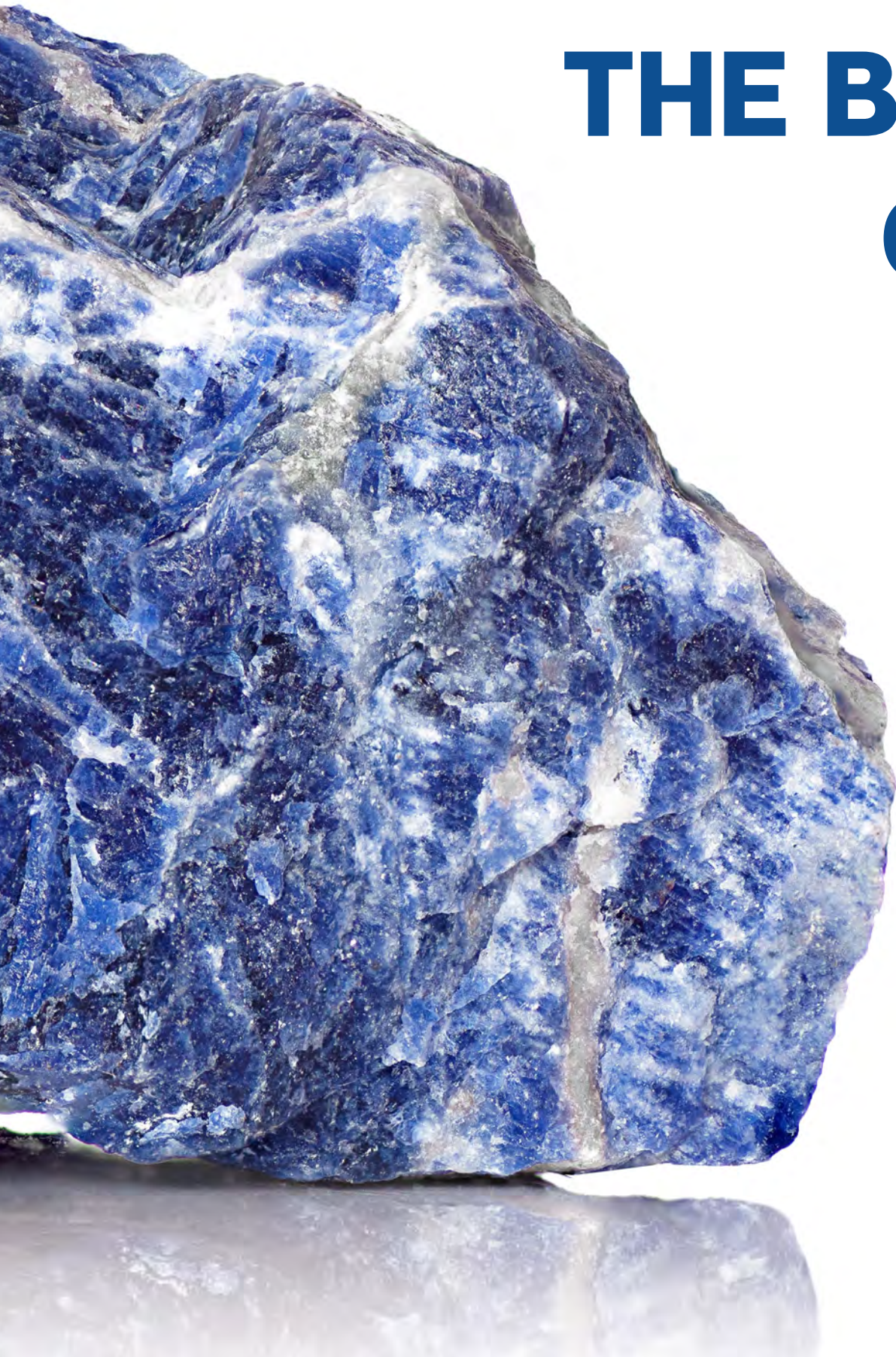
Diamond Bits & Casing Catalog



Future of Mining.



ALL ABOUT THE BLUE ORE





ABOUT ORE DYNAMICS

Ore Dynamics is a technology, engineering and manufacturing company which aims to transform the mining industry. Focused on the mineral exploration field of the mining industry, Ore Dynamics provides world class technical innovation, engineering, testing and manufacturing services to deliver energy efficient performance to customers. We design, develop and manufacture downhole drilling tools for the exploration drilling industry in high volumes; as well as low volume custom products and systems that are tailored to fit our customer needs.

Working in close collaboration with our customers and employing the power of advanced engineering, we help meet the engineering challenges of the 21st century, mining, sustainability and efficiency.

Ore Dynamics offers innovative solutions & high quality diamond tools and accessories for customers in mineral exploration drilling industries. We blend our mineral exploration drilling experience of over a decade, with the advanced manufacturing techniques to become a solution partner for our customers. At Ore Dynamics, we continuously develop our products & services to meet specific needs of the industry in order to meet one of our main goal of taking the industry forward.



ADVANCED MANUFACTURING



ORE DYNAMICS
Future of mining.



At Ore Dynamics; we design, develop and manufacture world-class tools, systems, machinery and technologies for the company's own projects and for the mining industry. Recently, we have designed one of the most reliable diamond tools for the exploration drilling industry. In addition to this we have also set up a state of the art manufacturing facility which is able to provide quality, sustainable and affordable standard and custom diamond tools. We use one of the latest manufacturing technologies to keep the product quality at highest and to develop custom tools. With our committed engineering team we continue to manufacture customized products with a mass-production capability for our customers upon request. These innovative manufacturing solutions help transforming the industry, making it smarter, safer and cleaner.





LET'S TALK ABOUT QUALITY





While your diamond tools are being manufactured at our facility, it follows through 5 different quality stations before the final delivery. These critical quality checks begin as soon as raw materials arrive at our factory and finalize with the product's paint control. Since diamond tools are mainly hand-made, quality check is one of the key point of our sucessful products. As one of the most innovative diamond tool manufacturing brand, we give high importance to quality. Because we know that diamond tool effects the overall drilling performance and economics.



**GO AHEAD,
CHOOSE YOUR
TOOL**







ONE BIT FOR ALMOST EVERY PROJECT

Legend Series is the proven drilling bit series designed and developed by Ore Dynamics. Success of the Legend Series is based on over 10 years of history. Legend bits hold record breaking success levels in terms of penetration rate and average bit life in North - South America, Africa and Europe.

Legend was born on the hands of drillers and continued its development on many different drilling sites all around the globe after long efforts, thanks to the participation and collaboration of legendary people. This is the secret behind the Legend drilling bits' "legendary drilling performance".

Applications Overview

For Legend Series, we offer 2 standard matrix heights of 9 and 13 mm, and 9 models covering from 3 to 8.5 Moh's Hardness Scale.

Applications:

- Soft to very hard formations
- Non-abrasive properties
- Suitable for both high-torque & high-rpm drilling units





LEGEND^{SERIES}

Multi-Purpose Diamond Core Drilling Bits



FULLY CUSTOMIZABLE

Legend diamond drilling bits has designed to cover variety of drilling conditions. However, we know that some projects require special design. For this reason, we offer custom design option for our customers upon request.

Other Designs / Applications

Based on the Legend Bit design, we offer other designs for specific applications.

- 01 Geotechnical Core Drilling (including Surface-Set, TSP, PDC, carbide bits)
- 02 Full-Face or Non-Coring Applications
- 03 Thin-Kerf Bits
- 04 Directional Drilling Bits

Customization Options

- 01 Matrix Height
- 02 Matrix Structure
- 03 Waterway Quantity
- 04 Waterway Configuration
- 05 Hole Size / Diameter
- 06 Core Size / Diameter
- 07 Bit Body Height
- 08 Threading

Development Achievements

%30 increase in feed rate

%21 increase in average bit life

Trophies

01 1427 meters of bit life

02 162 meter of daily drilling

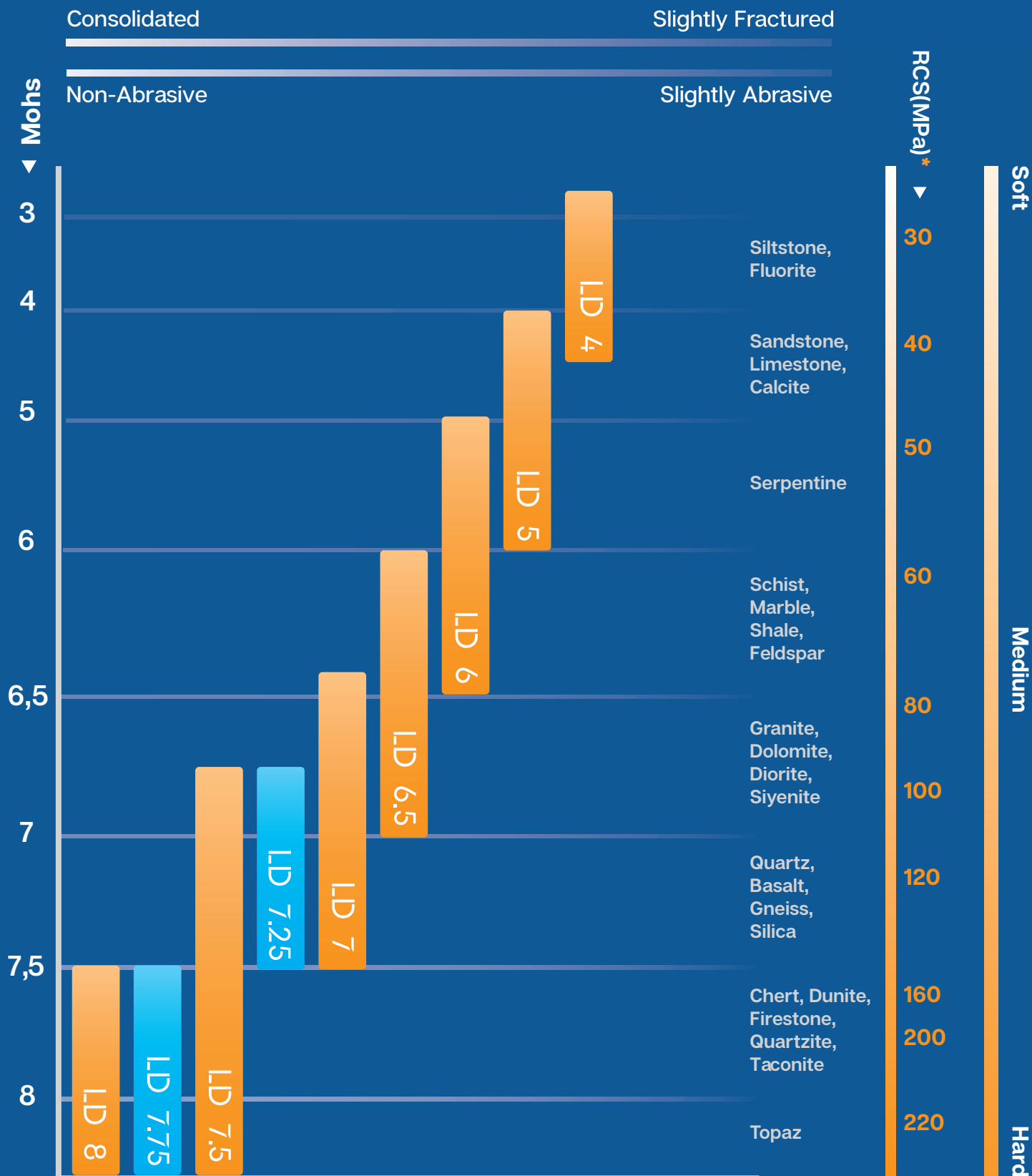
03 5 minutes per 3 meters

* See "Stories That Inspire" to learn more about success stories from Ore Dynamics.



LEGEND™ SERIES

Matrix Selection Chart



7 Standard models for Legend Series

2 Intermediate models with better cutting speed.

* Rock Compressive Strength





ENHANCED GAUGE PROTECTION

Raptor Series is an alternative version of Legend Series where it performs significantly better in abrasive and fractured drilling environments. Raptor's matrix structure completely designed from scratch, in order to respond to wild drilling conditions.

Raptor's unique crown design and enhanced matrix structure allows better gauge protection and offers longer bit life while drilling in wild environment. Although Raptor is suitable for both high-torque and high-rotational speed rotation units, we recommend high torque drilling units in order to get the best results.

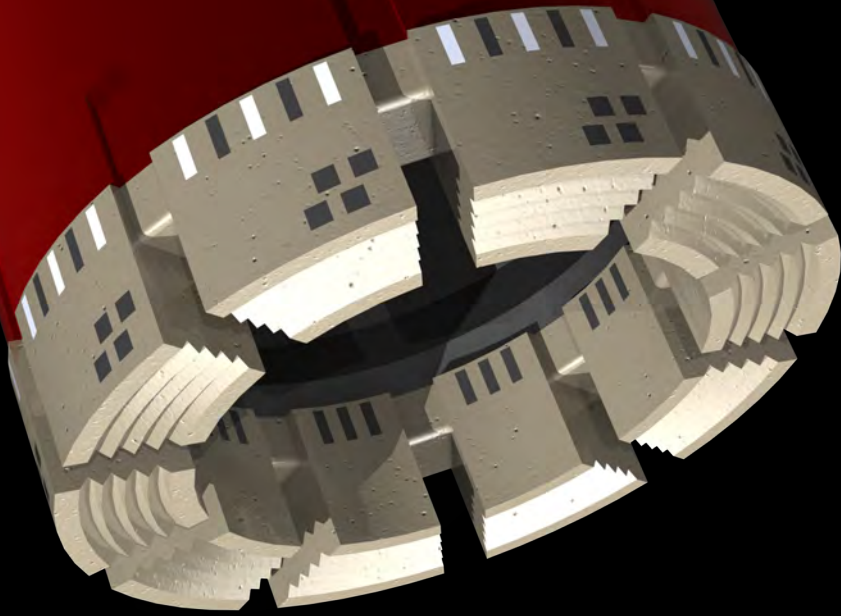
Applications Overview

For Raptor Series, we offer 2 standard matrix heights of 9 and 13 mm, and 7 models covering from 5 to 8.5 Moh's Hardness Scale.

Applications:

- Medium to very hard formations
- Fractured structure
- Abrasive properties
- Recommended for high-torque rotation unit





RAPTOR SERIES

Wear Resistant Diamond Core Drilling Bits





BORN WILD

Raptor was born and developed in one of the wildest, abrasive and broken formations in a mine located in Africa. With its reinforced matrix structure; Raptor Series offers longer bit life and better core recovery when compared with Legend Series.

Other Designs / Applications

Based on the Raptor Bit design, we offer other designs for specific applications.

01 Full-Face Drilling

Custom Options Available for Raptor

- 01 Matrix Height
- 02 Matrix Structure
- 03 Waterway Quantity
- 04 Waterway Configuration
- 05 Hole Size / Diameter
- 06 Core Size / Diameter
- 07 Bit Body Height
- 08 Threading

Development Achievements

%30 increase in feed rate

%21 increase in average bit life

Trophies

01 1427 meters of bit life

02 162 meter of daily drilling

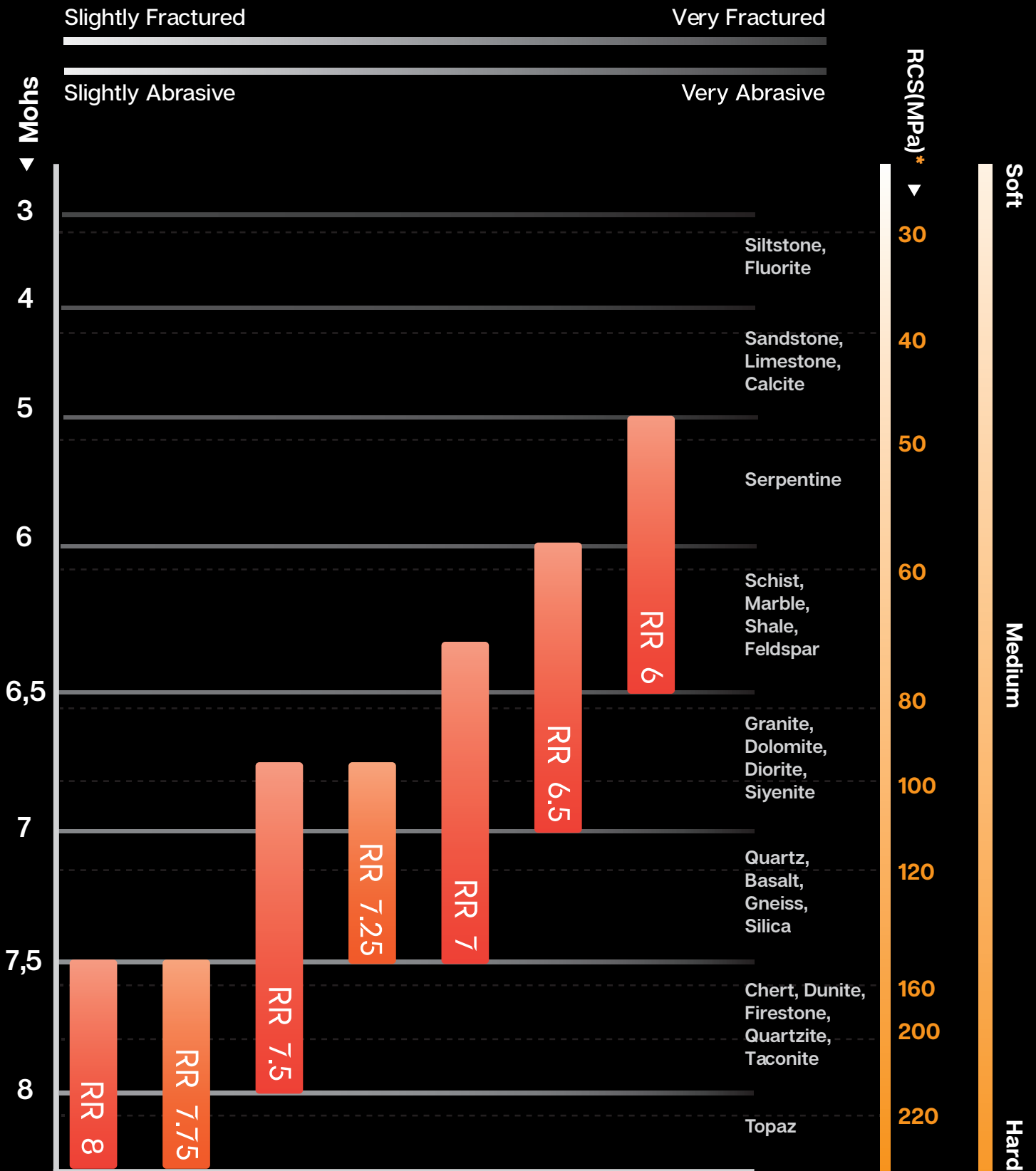
03 5 minutes per 3 meters

* See "Stories That Inspire" to learn more about success stories from Ore Dynamics.



Raptor™ Series

Matrix Selection Chart



5 Standard models for Raptor Series



2 Intermediate models with better cutting speed.

* Rock Compressive Strength



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ORE DYNAMICS

Future of Mining.



LESS ROUND TRIPS PER BIT

Rabbit diamond drilling bit series was designed and developed by Ore Dynamics, in order to increase drilling economics especially while working on deep holes. We know that deep wireline drilling can be messy and overwhelming, when round trips for bit changing is taken into account. Round trips do not only increase the drilling downtime but can also cause more wear of the drilling string. Thanks to its longer crown design, Rabbit series offers more drilling distance per bit, less round trips, less operational costs and more overall efficiency.

Although the matrix structure of the Rabbit series is based on the Legend diamond bits, we designed the crown from scratch in order to cope with uneven wear and gauge loss issues on the inner diameter of the crown which occurs due to long crown height.

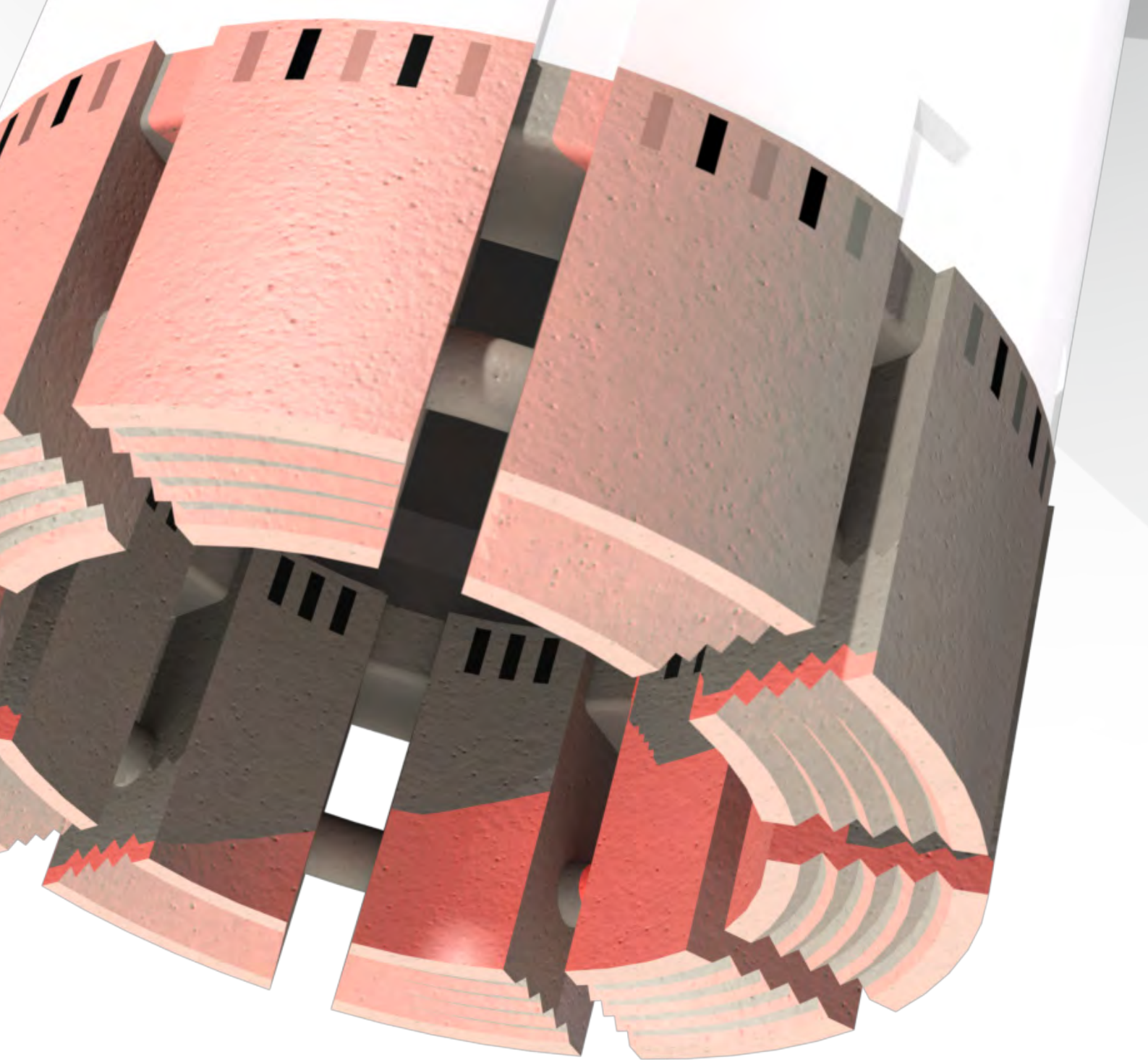
Applications Overview

For Rabbit Series, we offer 3 standard matrix heights of 18, 23 and 28 mm, and 7 models covering between 4-8.5 Moh's Hardness Scale.

Applications:

- Soft to hard formations
- Non-abrasive properties
- Deep holes
- Recommended for high-torque drilling units





RABBIT SERIES

Long Matrix Diamond Core Drilling Bits



FOLLOW THE WHITE RABBIT

With its proven longer crown design, it is possible to reduce risks, cut down operational costs and conduct more efficient, sustainable drilling job. Below is what you get when drilling with the Rabbit Series:

- Reduce well subsidence risk
- Reduce damage risk of the drill string
- Reduce safety risk that may occur during the round trips
- Reduce meter per bit cost and operational costs
- Drill more without changing the bit
- Increase productivity and overall drilling efficiency
- Obtain better drilling economics

Choose Rabbit series and see how deep the rabbit hole goes.

Custom Options Available for Rabbit

- | | |
|----|------------------------|
| 01 | Matrix Height |
| 02 | Matrix Structure |
| 03 | Waterway Quantity |
| 04 | Waterway Configuration |
| 05 | Bit Body Height |
| 06 | Threading |

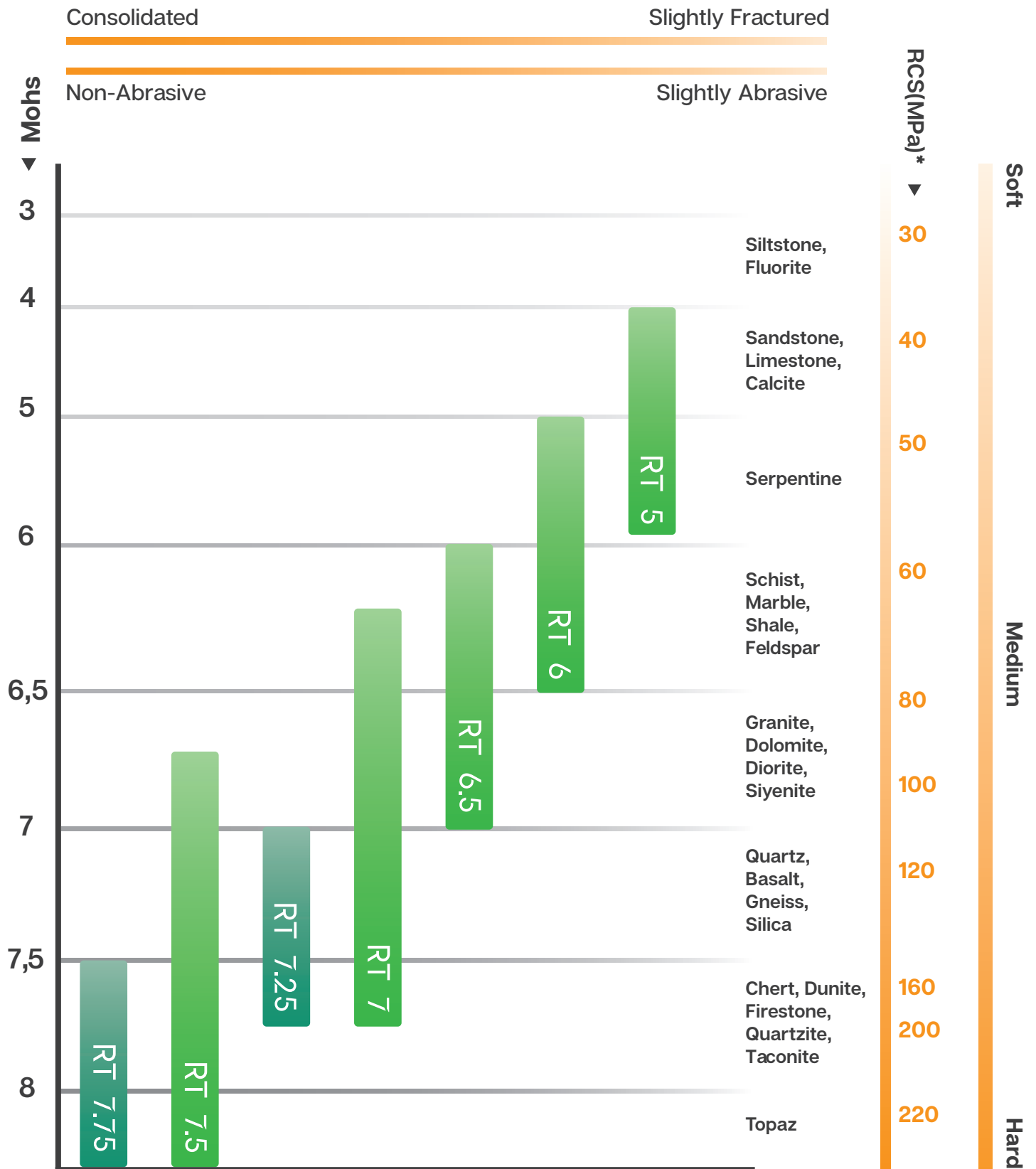
Development Achievements

%30 increase in feed rate

%21 increase in average bit life

RABBIT SERIES

Matrix Selection Chart



5 Standard models for Rabbit Series

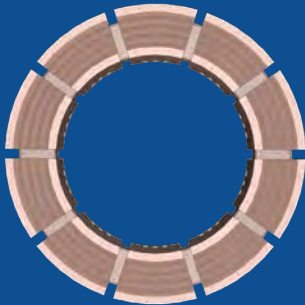
2 Intermediate models with better cutting speed.

* Rock Compressive Strength



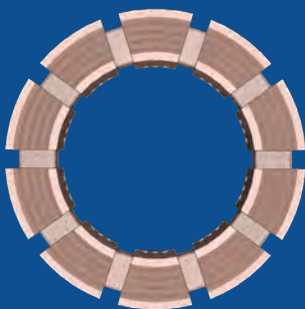


Standard Waterway Types



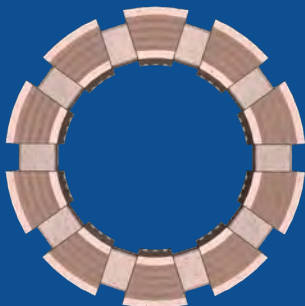
Wide (W) Waterway

Standard type waterway with a waterway width of 3 mm. Generally, it is recommended to be used while drilling in softer grounds or where flushing of cuttings is not critical.



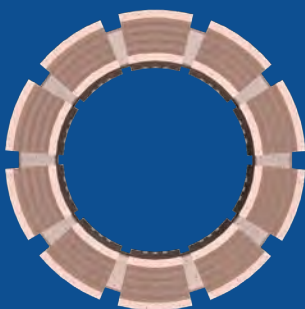
Extra Wide (XW) Waterway

XW offers wider waterway with a waterway width of 6 mm. It is recommended for hard formations where extra flushing of cuttings necessary as XW offers more water cycle.



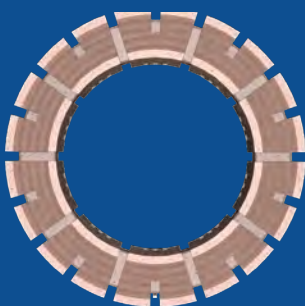
Extra Extra Wide (XXW) Waterway

XXW is the widest waterway type offered by Ore Dynamics, with a waterway width of 9 mm. It is recommended for hard formations where flushing of cuttings from the bit face is very critical.



Tapered (TP) Waterway

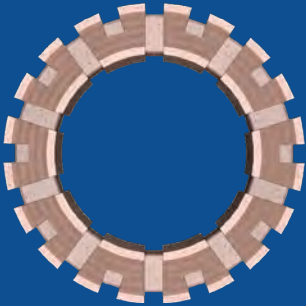
TP waterway has a tapered shape with 3 mm thickness on the inner diameter and 6 mm on the outer diameter of the crown. TP provides better feed rate on harder formations.



Turbo Wide (WTB) Waterway

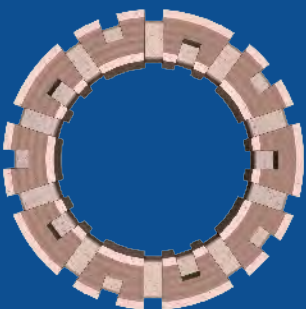
WTB type waterway is commonly used while drilling in solid or slightly broken formations. Cuttings (small to medium size) are easily removed from the bit face thanks to its crown design.





Extra Wide Turbo (XWTB) Waterway

XWTB is the wider option of WTB which offers 6 mm wide waterways on the outer diameters only. It is recommended to be used while drilling in slightly broken or broken formations. XWTB's proven crown design shows better performance while the removal of cuttings (medium to large size) from the bit face.



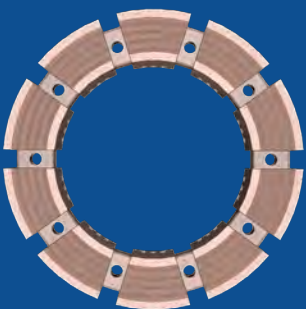
Cross Turbo (CTB) Waterway

Ore Dynamics offers proven Cross Turbo waterways with 3 mm and 6 mm thickness options. Turbo (TB) type waterways are placed on both outer diameter and inner diameter of the bit when compared with the WTB and XWTB. This design allows better ID and OD protection while drilling in slightly broken and broken formations, providing the most efficient flushing type for the mentioned drilling conditions.



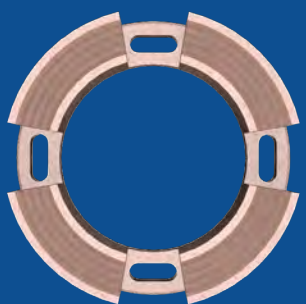
Vortex (VX) Waterway

VX is a special type waterway design which creates less water pressure on the well wall and prevents collapsing. It is recommended for soft formations.



Face Discharge (FD) Waterway

Face Discharging type waterways are generally used where core loss is a problem. FD and SFD designs create low water pressure on the cutting surface preventing core loss especially on softer formations.



Slot Face Discharge (SFD) Waterway

Face Discharging type waterways are generally used where core loss is a problem. FD and SFD designs create low water pressure on the cutting surface preventing core loss especially on softer formations. When compared with FD, SFD offers better workability with high viscosity drilling fluids.





IDEAL CASING DESIGN FOR MOST APPLICATIONS

Crust Casing Series represents both rod shoes and casing shoes. In order to reduce complexity, for diamond impregnated casings; we offer 3 standard matrix design and single 7mm matrix height option as standard for medium to hard rock type (covering from 5-8.5 Moh's Hardness). We also offer tungsten carbide casings for softer ground conditions. Thin-Kerf Impregnated Diamond Casing Bits are also available with the Legend Series matrix design only as standard. Both Rod and Casing Shoes are designed for use with the industry standard drill rods and casing tubes.





CRUST-X SERIES

Multi-Purpose Casings



ORE DYNAMICS

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