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XP+ ROTARY DRILL BITS

The Driller's Choice

2025



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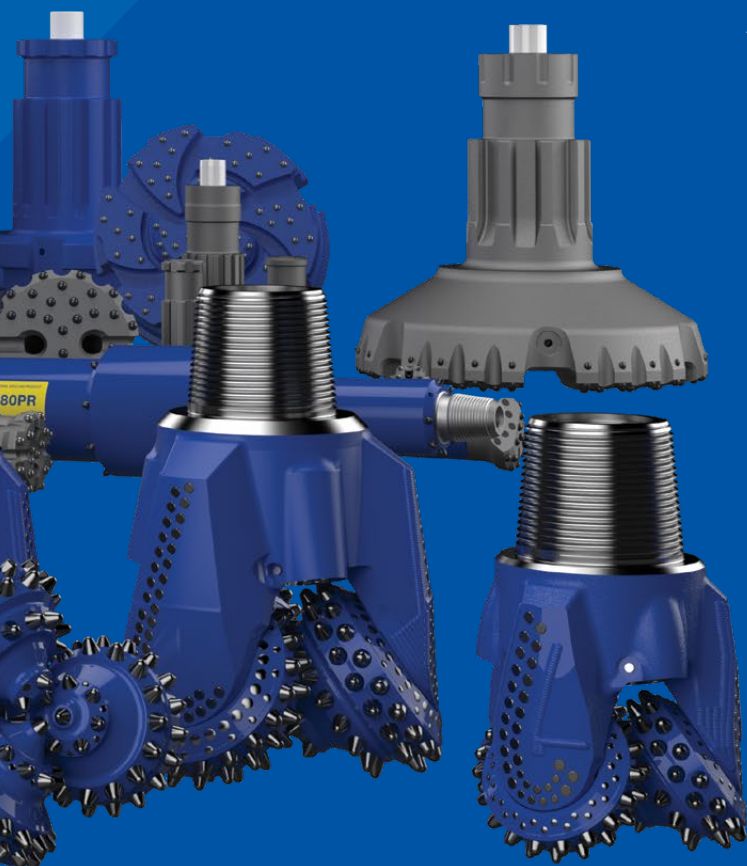
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MINCON, EST. 1977

Mincon has earned its reputation as The Driller's Choice thanks to nearly five decades of developing world-class rock drilling solutions for a wide range of applications.



EXPERTS ON SITE

Our rock-drilling expertise doesn't stop at manufacturing. Around the world, our highly qualified teams work closely with customers to tailor their requirements to available drilling platforms and ground conditions, while also accounting for application-specific requirements. Importantly, feedback from every drill site is provided to our design engineers, informing the cycle of continuous improvement.



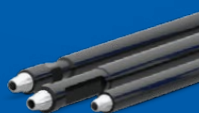
SOLUTIONS FOR EVERY APPLICATION

Our products can be found on drill sites around the world, in the blasthole, exploration, geotechnical, water-well, and geothermal industries. At each of those projects, drillers have insisted on using Mincon tools for their superior reliability, durability, performance, and efficiency.



ENGINEERED EFFICIENCY

For us, efficiency means drilling faster while using less fuel and maintaining productivity throughout the useful life of a product. We want our customers to get the best performance out of their drilling solution. We achieve this with our own, proven designs; precise manufacturing; and proprietary heat-treat processes, all of which result in components that have tight tolerances, as well as tailored surface and material properties that ensure longer life.



EUROPE AND MIDDLE EAST REGION

All European Countries
Middle East Countries

AMERICAS REGION

North and South America

POINTS OF PRESENCE

With nine global factories, a growing network of Mincon customer service centres, and more than 200 distributors, we have the international presence that our customers need. We manufacture within region to meet local customer demand, while providing service and support to ensure customers achieve optimum productivity from their assets.

ASIA PACIFIC

Australia, New Zealand,
Pacific Islands

AFRICA REGION

African Continent

COMPREHENSIVE PRODUCT RANGE

Our ambition is always to offer customers a comprehensive range of drilling tools that will drill faster and last longer. Individually, Mincon products offer incremental savings. Together, a complete Mincon drill string will deliver tangible savings through higher penetration rates, unparalleled durability, rock-solid reliability, and reduced strain on ancillary components.



XP-SERIES ROTARY BITS

For our XP+ rotary drill bits, Mincon engineers worked tirelessly to incorporate customer feedback to develop a next-generation rotary drill bit that can deliver dependable performance in the most gruelling ground conditions in the world.

Durability is the core philosophy for our XP+ rotary drill bits. Each XP+ bit – from 7 7/8" to 12 1/4" – features our XP+ hardening package: a crucial set of durability upgrades that help to mitigate wear. This includes our novel Hard 7 tungsten-based welding application on the shirrtails, which are subject to abrasive rock chips when flushing.

All XP+ bits are designed and manufactured at our world-class rotary bit facility in Canada, where engineers continuously optimise performance using field tests and data from drill sites around the world. This factory has uses state-of-the-art manufacturing processes, as well as our proprietary heat-treatment processes, to deliver premium drill bits.

All of this is backed up by Mincon's unparalleled service, with customers enjoying on-site expertise from technical teams who help fine-tune drilling operations to ensure a lower total cost of drilling.

PRECISION ENGINEERING

Mincon's XP+ bits feature a premium hardening package that has been fine-tuned to extend bit life while delivering dependable performance. The XP+ package features:

- » Innovative Hard 7 tungsten-based welding application for shirrtail wear protection
- » High durability bearing package featuring tighter tolerances for improved wear resistance
- » Double back row carbides (9 7/8" upward)
- » Lug wear carbides
- » Extra wear-resistant carbide grade
- » Optional Center Flush feature to mitigate build-up of cuttings

BIT SIZES FOR YOUR APPLICATION

- 7 7/8"
- 9"
- 9 7/8"
- 10 5/8"
- 12 1/4"
- 13 3/4"

low < ROCK HARDNESS (UCS) > high															
SOFT				MEDIUM				HARD				VERY HARD			
<17,000 PSI 117 MPa				14,500 - 32,000 PSI 100 - 200 MPa				29,000 - 44,000 PSI 200 - 303 MPa				42,000 - 60,000 PSI 289 - 414 MPa			
4.1	4.2	4.3	4.4	5.1	5.2	5.3	5.4	6.1	6.2	6.3	6.4	7.1	7.2	7.3	7.4
Claystone, Mudstone Chalky Limestone Soft Shale Semi Consolidated Sandstone Lime Siltstone Consolidated Sandstones Medium Shales				Consolidated Sandstones Medium Shales Tuff, Soft Schist Andesite, Rhyolite Quartzite (Sand Silt) Limestone, Marble Monsonite, Granite Gneiss Diorite Diabase Hard Shale, Slate Limestone, Dolomite				Andesite, Rhyolite Quartzite (Sand Silt) Limestone, Marble Monsonite, Granite Gneiss Diorite Diabase Hard Shale, Slate Limestone, Dolomite Basalt Tactite, Skam Granodiorite Taconite Quartzite Senite Gabbro				Basalt Tactite, Skam Granodiorite Taconite Quartzite Senite Gabbro Banded Iron Formation Taconite Chert Quartzite Amphibolite Hornfels Hematite Ore "Lava" Basalt, Biwabig Quartzite			
Applicable Rock Type															

THE COMPLETE PACKAGE

Mincon aims to offer comprehensive product range, allowing drillers to tailor a complete Mincon drilling solution for their application and drilling platform.

Our range includes DTH hammers, DTH drill bits, rotary drill bits, geotechnical and foundation drilling systems, reverse circulation systems for exploration drilling, horizontal directional drilling systems, and drill pipes. Each of these offerings has been designed in-house by Mincon and is manufactured at our state-of-the-art factories around the world.

In addition to our class-leading tools and solutions, we offer customers ancillary equipment for the operation and maintenance of their drill string. This equipment can be installed at customer sites or accessed through Mincon service centres.

We also offer a range of drilling fluids, including Mincon Envirosafe rock drilling oil which ensures the correct lubrication to prolong the service life of DTH hammers. The range includes Envirosafe Foamer and Hole Control, designed to stabilise boreholes in specific ground conditions.

Additional information on the complete Mincon product range can be obtained from your Mincon service centre, distributor, or by visiting www.mincon.com.



A look inside the improvements to the **XP+ ROTARY BIT**

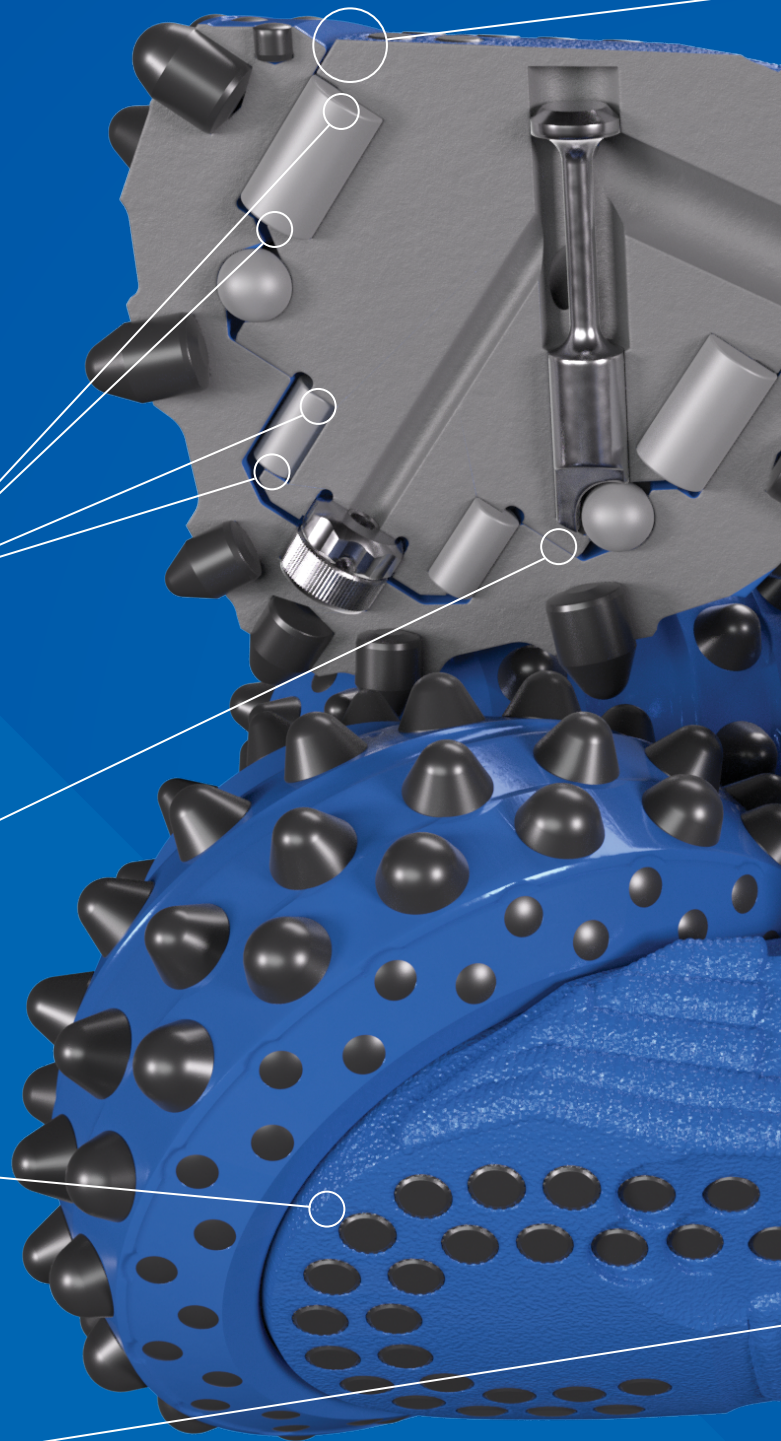
Our **Rotary Tricone Bits** have been improved in a number of ways to provide the driller with the best drill bits that maximise the rate of penetration and reduce total drilling cost

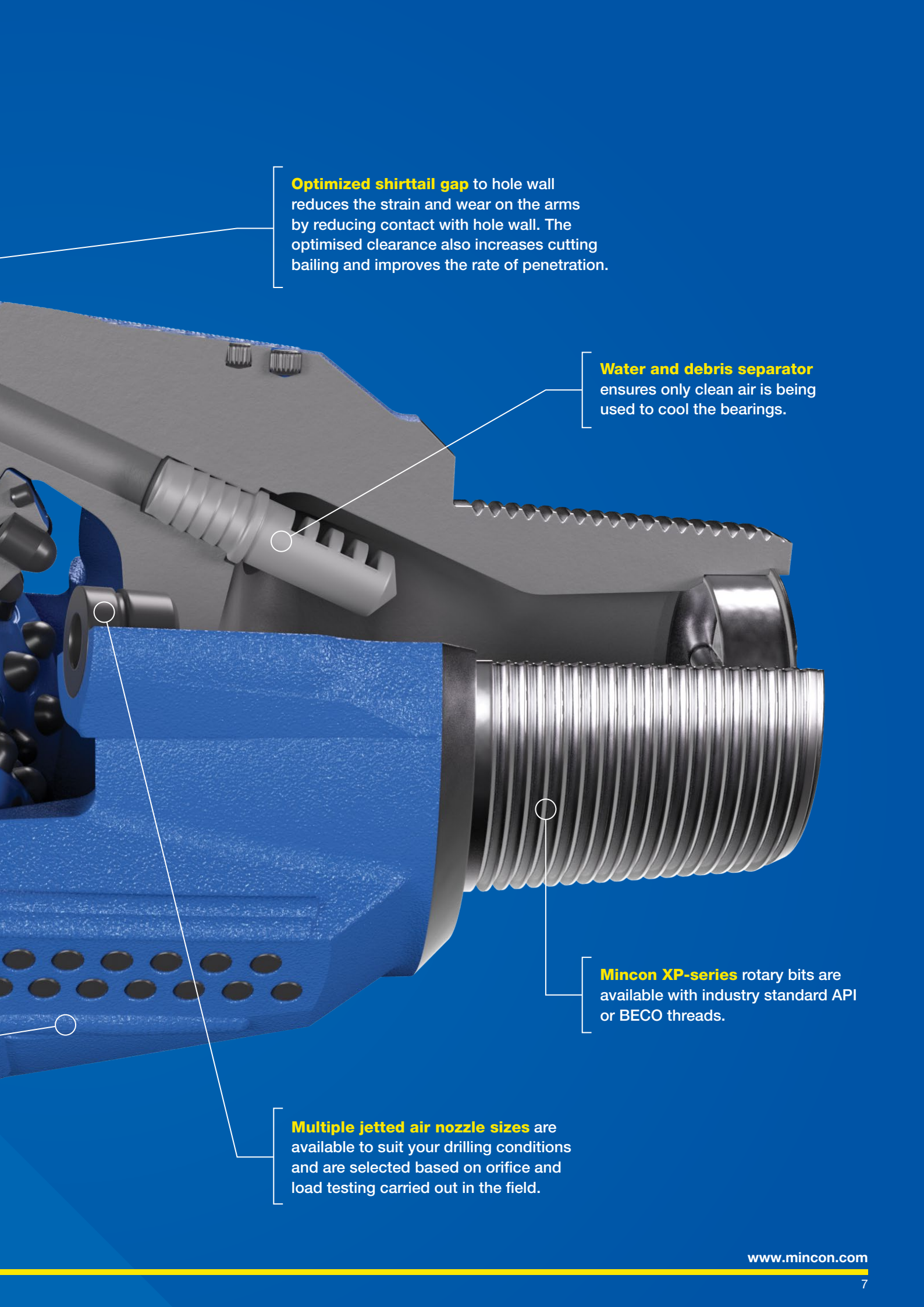
Improved tolerance control around the bearing rollers reduces wear and unwanted movement when loaded.

New processes and materials are used on hard-facing areas, allowing for improved lubrication while reducing heat generation and wear.

Protection on the thinnest section of the shirrtail reduces wear and helps keep the bearings clean and free of debris.

XP+ hardening package includes our innovative Hard 7 tungsten-based welding, improving shirrtail durability.





Optimized shirttail gap to hole wall reduces the strain and wear on the arms by reducing contact with hole wall. The optimised clearance also increases cutting bailing and improves the rate of penetration.

Water and debris separator ensures only clean air is being used to cool the bearings.

Mincon XP-series rotary bits are available with industry standard API or BECO threads.

Multiple jetted air nozzle sizes are available to suit your drilling conditions and are selected based on orifice and load testing carried out in the field.

XP+ 7⁷/₈" ROTARY DRILL BIT

Model	IADC Code	Total Rows	Insert Count	Gauge Insert	Inner Insert	Bearing	Features
XP+43	432	11	106	CO (44)	CO (62)	Air Cooled	Extended shirrtail, XP+ hardening, nose wear button, single back row
XP+51	512	11	110	WE (47)	CO (63)	Air Cooled	Extended shirrtail, XP+ hardening, single back row
XP+61	612	12	134	SS (50)	CO (84)	Air Cooled	Extended shirrtail, XP+ hardening, single back row
XP+71	712	12	141	SS (53)	CO (88)	Air Cooled	Extended shirrtail, XP+ hardening, single back row, optional cone hard facing

Conical = CO / Offset conical wedge = OW / Spherical = SP / Semi-spherical = SS / Wedge = WE / Wedgecrest = WC / Flat-top conical = FT / Ogive = OG



XP+ 9” ROTARY DRILL BIT

Model	IADC Code	Total Rows	Insert Count	Gauge Insert	Inner Insert	Bearing	Features
XP+43	432	12	121	SS (46)	CO (75)	Air Cooled	Extended shirttail, XP+ hardening, nose wear button, single back row, optional cone hard facing
XP+51	512	12	131	SS (50)	CO (81)	Air Cooled	Extended shirttail, XP+ hardening, single back row
XP+61	612	12	143	SS (53)	CO (90)	Air Cooled	Extended shirttail, XP+ hardening, single back row
XP+63	632	13	170	SS (58)	CO (112)	Air Cooled	Extended shirttail, XP+ hardening, single back row

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XP+ 9 7/8" ROTARY DRILL BIT

Model	IADC Code	Total Rows	Insert Count	Gauge Insert	Inner Insert	Bearing	Features
XP+43	432	13	150	CO (52)	FT (23) / CO (75)	Air Cooled	Extended shirttail, XP+ hardening, nose wear button, double back row
XP+53	532	13	156	WC (55)	FT (21) / CO (80)	Air Cooled	Extended shirttail, XP+ hardening, nose wear button, double back row
XP+62	622	12	145	SS (57)	SS (4) / CO (84)	Air Cooled	Extended shirttail, XP+ hardening, nose wear button, double back row
XP+63	632	13	163	SS (56)	CO (107)	Air Cooled	Extended shirttail, XP+ hardening, nose wear button, double back row
XP+71	712	13	165	SS (57)	CO (36) / SS (72)	Air Cooled	Extended shirttail, XP+ hardening, nose wear button, double back row, optional cone hard facing
XP+72	722	13	164	SS (57)	CO (23) / SS (84)	Air Cooled	Extended shirttail, XP+ hardening, nose wear button, double back row

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XP+ 10⁵/₈" ROTARY DRILL BIT

Model	IADC Code	Total Rows	Insert Count	Gauge Insert	Inner Insert	Bearing	Features
XP+43	432	12	135	WE (51)	CO (84)	Air Cooled	Extended shirttail, XP+ hardening, nose wear button, double back row
XP+51	512	12	141	OW (53)	CO (88)	Air Cooled	Extended shirttail, XP+ hardening, nose wear button, double back row
XP+53	532	12	142	SS (54)	CO (88)	Air Cooled	Extended shirttail, XP+ hardening, nose wear button, double back row, optional cone hard facing
XP+54	542	12	138	SS (53)	CO (9)/ FT (76)	Air Cooled	Extended shirttail, XP+ hardening, nose wear button, double back row
XP+62	622	13	155	SS (55)	SS (4) / CO (96)	Air Cooled	Extended shirttail, XP+ hardening, nose wear button, double back row, optional cone hard facing
XP+64	642	13	160	SS (57)	SS (59) / CO (44)	Air Cooled	Extended shirttail, XP+ hardening, nose wear button, double back row, optional cone hard facing
XP+71	712	13	169	SS (57)	CO (112)	Air Cooled	Extended shirttail, XP+ hardening, nose wear button, double back row

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XP+ 12¼" ROTARY DRILL BIT

Model	IADC Code	Total Rows	Insert Count	Gauge Insert	Inner Insert	Bearing	Features
XP+43	432	12	141	CO (53)	CO (88)	Air Cooled	Extended shirrtail, XP+ hardening, nose wear button, double back row
XP+52	522	12	146	SS (54)	CO (92)	Air Cooled	Extended shirrtail, XP+ hardening, nose wear button, double back row, optional cone hard facing
XP+54	542	12	142	SS (54)	SS (5) / CO (7) / FT (76)	Air Cooled	Extended shirrtail, XP+ hardening, nose wear button, double back row, optional cone hard facing
XP+63	632	15	193	SS (54)	CO (139)	Air Cooled	Extended shirrtail, XP+ hardening, nose wear button, double back row, optional cone hard facing
XP+64	642	15	208	SS (61)	CO (147)	Air Cooled	Extended shirrtail, XP+ hardening, nose wear button, double back row
XP+71	712	15	205	SS (59)	CO (146)	Air Cooled	Extended shirrtail, XP+ hardening, nose wear button, double back row
XP+74	742	15	230	SP (66)	OG (164)	Air Cooled	Extended shirrtail, XP+ hardening, nose wear button, double back row
XP+83	832	16	260	SP (72)	SP (25) / OG (163)	Air Cooled	Extended shirrtail, XP+ hardening, nose wear button, double back row

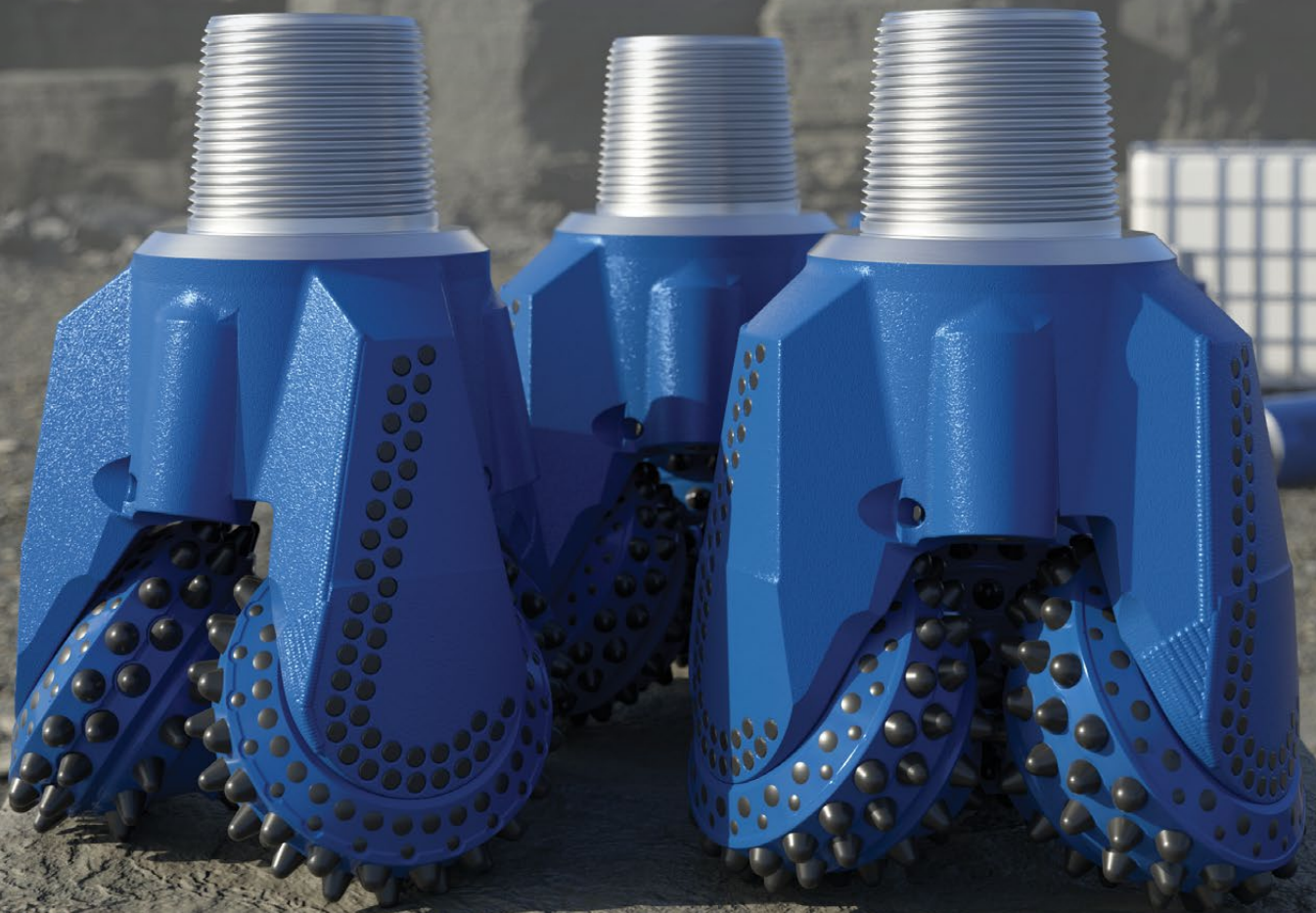
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APS 13³/₄" ROTARY DRILL BIT

Model	IADC Code	Total Rows	Insert Count	Gauge Insert	Inner Insert	Bearing	Features
APS51	512	13	181	SS (62)	SP (2) / CO (117)	Air Cooled	Extend shirttail, nose wear button, double back row
APS63	632	15	202	SS (57)	CO (145)	Air Cooled	Extend shirttail, nose wear button, double back row
APS71	712	15	215	SS (61)	CO (154)	Air Cooled	Extend shirttail, nose wear button, double back row

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