

# Mincon Rotary Catalog



**“The Driller’s Choice”**

# Mincon XP Rotary Bits: Tough Bits for Tough Jobs!

Our **ROTARY TRICONE BITS** are manufactured using premium quality steel and tungsten carbide grades developed to suit the toughest applications. Computerized designs, manufacturing processes and controlled heat treatment ensure only consistent, high quality drill bits are shipped from our factory.

## All rock was not created equal!

Mincon provides a level of customisation unique to the industry to help customers reduce Total Drilling Cost by working with them to:

- **ASSESS** areas of improvement
- **IMPLEMENT** design and process changes, and
- **MONITOR** results to ensure effectiveness

Standard Bit Sizes:

7-7/8"	9"	9-7/8"	10-5/8"	12-1/4"	13-3/4"
200 mm	229 mm	250 mm	270 mm	311 mm	350 mm

For details on cuttings structures available for each size, please contact your Mincon representative

Nozzle Options:

Bit	7-7/8"	9"	9-7/8"	10-5/8"	12-1/4"	13-3/4"
Min Ø	3/8"	3/8"	3/8"	3/8"	1/2"	9/16"
Max Ø	7/8"	7/8"	1"	1"	1-1/8"	1-1/4"
Thru Bore	1"	1"	1-1/4"	1-1/8"	1-3/8"	1-3/8"

Bearings:

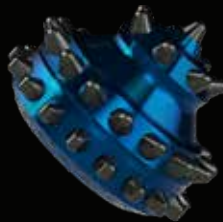
- XP: Air Bearing
- SR: Sealed Roller

**WEAR PROTECTION:**

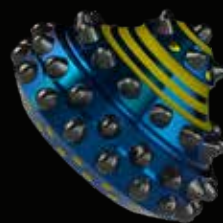


Extended Shirt tail

**NOSE WEAR PROTECTION:**



Case Hardened Steel



Nose Wear Buttons  
Hard Facing



**Mincon Rotary Tricone Bits are designed to provide drilling capabilities ranging from soft to very hard formations.**

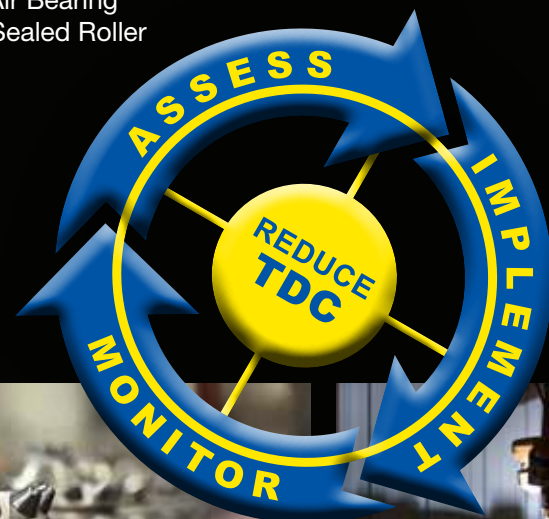
XP4 Series	XP5 Series	XP6 Series	XP7 Series
Weight on bit (lbs/inch) 1,000 to 5,000	3,000 to 6,600	4,000 to 7,000	5,000 to 8,000
rpm 50 to 140	50 to 120	50 to 110	50 to 80

### RECOMMENDED OPERATING PARAMETERS

low < <b>ROCK HARDNESS (UCS)</b> > high															
<b>SOFT</b>				<b>MEDIUM</b>				<b>HARD</b>				<b>VERY HARD</b>			
<17000 PSI 117 MPa				14500 - 32000 PSI 100 - 220 MPa				29000 - 44000 PSI 200 - 303 MPa				42000 - 60000 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 Limestone Siltstone Consolidated Sandstones Medium Shales				Consolidated Sandstones Medium Shales Tuff, Soft Schist Andesite, Rhyolite Quartzite (Sand Silt) Limestone, Marble Monzonite, Granite Gneiss Diorite Diabase Hard Shale, Slate Limestone, Dolomite				Andesite, Rhyolite Quartzite (Sand Silt) Limestone, Marble Monzonite, Granite Gneiss Diorite Diabase Hard Shale, Slate Limestone, Dolomite Basalt Tactite, Skarn Granodiorite Taconite Quartzite Senite Gabbro				Basalt Tactite, Skarn Granodiorite Taconite Quartzite Senite Gabbro  Banded Iron Formation Taconite Chert  Quartzite  Amphibolite Hornfels Hematite Ore "Lava" Basalt, Biwabac Quartzite			
Applicable Rock Type															



*"We work with customers on site to ensure we offer the best solution for the lowest total drilling cost"*



# 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 maximize the rate of penetration and reduce total drilling cost.

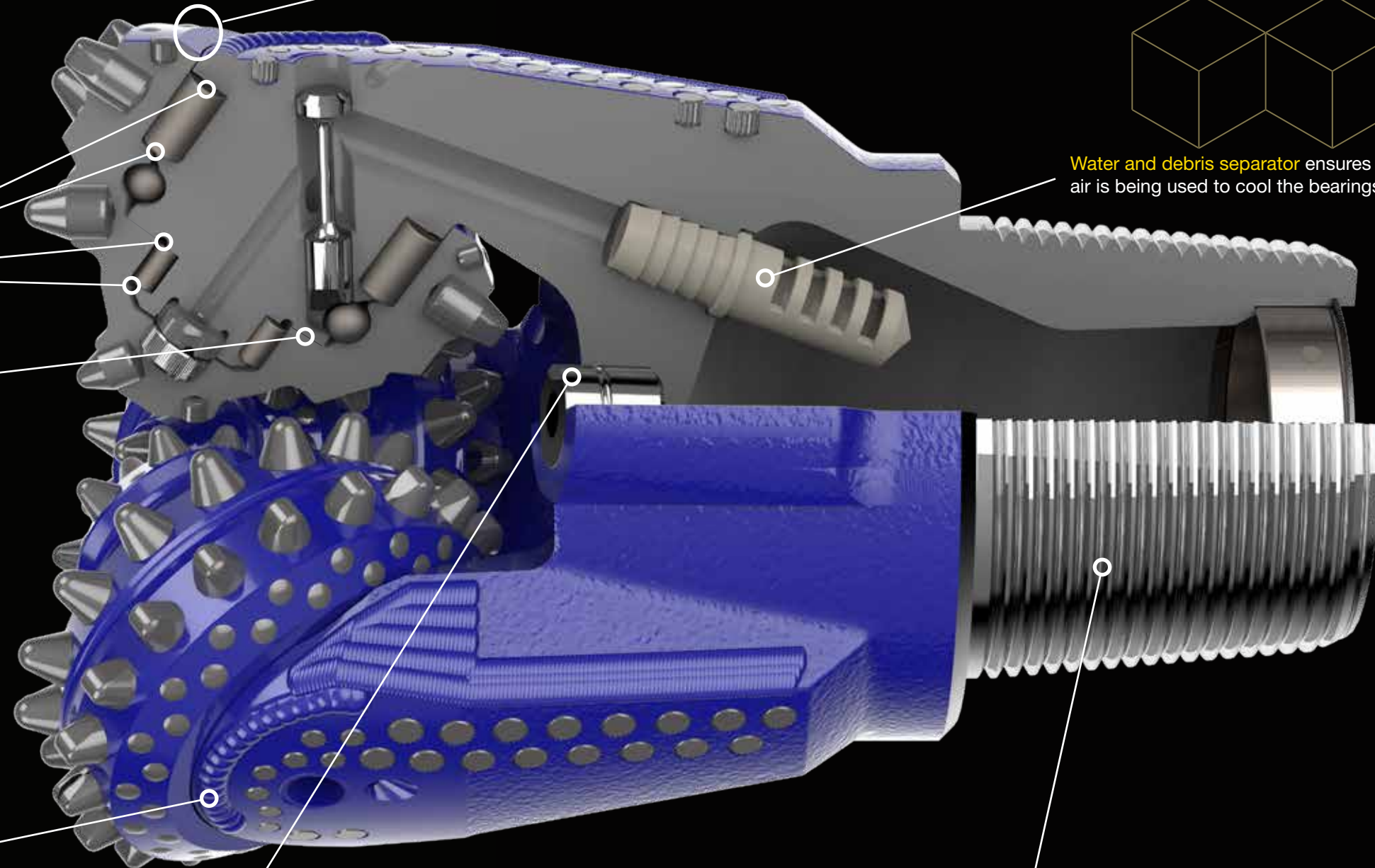


**Optimized shirttail gap** to hole wall reduces the strain and wear on the arms by reducing contact with hole wall. The optimized clearance also increases cutting bailing and improves the Rate Of Penetration.

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

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

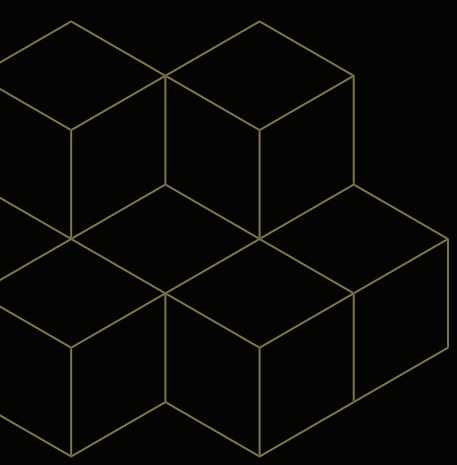
**New Hard Facing procedures and materials** are being used on the journal hard facing areas to increase lubrication on the steel and reduce wear and heat.



**Hard facing on the shirttail lip** helps protect the thinnest section on the shirt tail. Reducing wear in this section helps keep the bearings clean and free of debris.

**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

**Mincon Xtreme Performance** rotary bits are available with industry standard API or BECO threads.





# ROTARY DRILL PIPE



Mincon Blast Hole Drill Pipe is designed and manufactured with proprietary materials and processes to withstand the heaviest pull down forces and the most abrasive of ground conditions.

We offer a full range of rotary drill pipe to meet your requirements for outside diameter (O.D.), wall thickness, length, and specific drill rig wrenching configurations.

## FEATURES



Pin End Thread  
(Tool Joint)

Mid Body

Box End Thread  
(Tool Joint)

Outside Diameter	Wall Thickness	Recommended connection
7"	0.750"	4 1/2" BECO
7"	1.000"	5 1/4" BECO
7 5/8"	0.750"	5 1/4" BECO
7 5/8"	1.000"	5 1/4" BECO
8 5/8"	1.000"	6" BECO
8 5/8"	1.250"	6" BECO
8 5/8"	1.500"	6" BECO
9 1/4"	1.000"	6" BECO
9 1/4"	1.250"	6" BECO
10 3/4"	1.250"	8" BECO
10 3/4"	1.500"	8" BECO
11 3/4"	1.250"	8" BECO
11 3/4"	1.500"	8" BECO

Lengths to 50 feet measured shoulder to shoulder with thread connections and wrenching details to suit your specific drilling equipment.

Mincon's Helical Hard Banding (HHB) drill pipes are unique in the industry and deliver those extra meters needed to help lower drilling costs and keep drill rigs in production.

When Ordering, Please Provide the Following:

- Outside diameter (O.D.)
- Shoulder to shoulder length
- Wall thickness of tube portion
- Thread sizes (box - pin)
- Make & model of drill, (wrenching details)
- With or without helical hard band wear protection



# ADAPTERS



Mincon offers Adaptors in a wide range of sizes, lengths, wrenching, and thread configurations to suit our customer's needs. Adaptors are used in various positions within the drill string. A Bottom or Bit Sub Adaptor is used between the drill bit and drill pipe. Mincon Bit Sub adaptors are easily recognizable with the industry unique Helical Hard Banding profile and provides extended protection for the working end of the drill pipe to which it is attached.

Other Adaptors may be located elsewhere within the drill string to accommodate changes in thread to suit the applicable drill string components.

All Mincon adaptors are made from premium air craft quality heat treated steel and precision machined and gauged to ensure durability and long life.

## WHEN ORDERING PLEASE SPECIFY:

- Outside Diameter
- Shoulder to Shoulder length required
- Type or specific application of the Adaptor required
- Inside or bore diameter
- Size of upper thread connection (BECO or API)
- Size of lower thread connection (BECO or API)
- Wrenching details where applicable and any special features





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