



[www.mincon.com](http://www.mincon.com)



# DTH DRILL BITS 2023

The Driller's Choice



# CONTENTS

<b>Mincon Company Information</b>	<b>2</b>
<b>DTH Drill Bits</b>	<b>4</b>
<b>Bit Face Design</b>	<b>6</b>
<b>Mincon Carbide Inserts</b>	<b>7</b>
<b>Drill Bit Shanks</b>	<b>8</b>
3 inch to 5 inch shanks	9
5 inch to 7 inch shanks	10
8 inch to 12 inch shanks	11
12 inch to 34 inch shanks	12
<b>The Complete Package</b>	<b>13</b>



# 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.



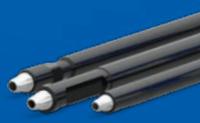
## SOLUTIONS FOR EVERY APPLICATION

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

## AFRICA REGION

African Continent

## ASIA PACIFIC

Australia, New Zealand,  
Pacific Islands

# 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.

# 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.



# DTH DRILL BITS

**Mincon offers one of the most comprehensive ranges of DTH drill bits in the industry, suited to all ground types and drilling conditions and for a wide variety of rock-drilling applications.**

Mincon DTH drill bits have a long history of performance enhancements, developed using customer feedback and decades of rock drilling experience in all types of rock formations and abrasion issues.

Our DTH drill bits are built from the ground up to withstand the most demanding drilling conditions. Order your Mincon drill bit with your required DTH shanks design; if we don't have it, we'll build it. Flat, convex, and concave face designs are just a few of the many profiles available. Carbide and diamond-grade button hardness and positioning, along with highly efficient exhaust chambers, contribute to longer bit life and the all-important meters-per-hour benchmark in percussion drilling.

Precision engineering, world-class heat treatment processes, and high-quality materials set Mincon DTH drill bits apart from lesser brands. All bits are manufactured at Mincon's state-of-the-art facilities around the world, ensuring in-stock availability and shorter lead times no matter where you are located.

In addition, our cutting-edge production processes and proprietary heat treatment ensure consistent quality, translating to reliable drilling consumables.

Lastly, we have perfected a proprietary tungsten carbide process at the Mincon Carbide facility in the UK, which uses the latest technology to manufacture tungsten carbide inserts in a high-performance portfolio of grades, profiles, and sizes.





# BIT FACE DESIGNS



Our DTH drill bits are available in three face designs – convex, concave, and flat – suited to the most common ground conditions for drilling.



## **CONVEX**

Suitable for most drilling applications. Convex designs are particularly effective in hard, abrasive rock, where they deliver a good combination of high penetration rates and long service life.

## **FLAT**

Traditionally used for general-purpose drilling, the flat-face design is considered effective in very broken ground; hard formations; and soft formations where there is a tendency to over-drill.

## **CONCAVE**

An excellent all-round bit design that is suitable for hard and soft formations. The cone-shaped face provides good stability during drilling, ensuring straightness and low vibration. Carbide placement enhances penetration rates in most ground conditions.



# MINCON CARBIDE INSERTS

Mincon drill bits are manufactured using high-quality raw materials from the bit body to the carbide inserts. Our stronger tungsten carbide inserts are available in grades, shapes, and sizes to fit your application.



## **DOME**

Tough shape for hard, abrasive rock and deep-hole drilling. Suitable for nearly all rock-drilling applications.

## **SEMI-BALLISTIC**

A combination design that provides a speed increase over the conventional domed button and higher longevity than the more-aggressive ballistic carbide design. Less suited for broken ground conditions.

## **BALLISTIC**

Ideal for less-abrasive sedimentary deposits where speed is vital. Not recommended for badly broken ground or extremely hard rock.

# DRILL BIT SHANKS

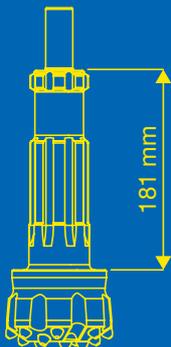
We manufacture DTH drill bits for all major shank types for 3 – 12-inch drill bits, as well as large-diameter shanks for hammers between 15 and 40 inches. We also offer each shank with a range of bit head sizes.



## FOOTVALVE SUPPORT

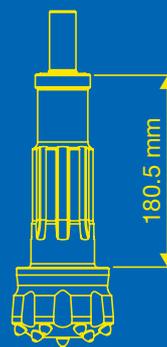
We offer DTH drill bits with and without footvalve support, depending on the application at hand and customer requirements. Standard shanks that support footvalves are offered with this insert and can also be ordered as an MQ version, which denotes the lack of a footvalve. We also offer Mincon-designed and third-party shanks that are designed to operate without a footvalve.

### DHD3.5



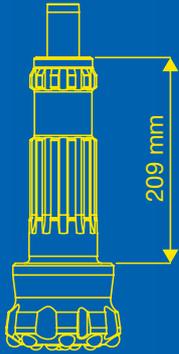
- Number of splines:** 8
- Drive pins required:** No
- Foot valve:** Yes
- Minimum bit size:** 85 mm (3.35 inch)
- Maximum bit size:** 105 mm (4.13 inch)

### MD3.5



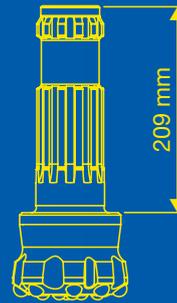
- Number of splines:** 8
- Drive pins required:** No
- Foot valve:** Yes
- Minimum bit size:** 95 mm (3.74 inch)
- Maximum bit size:** 105 mm (4.13 inch)

## TD40



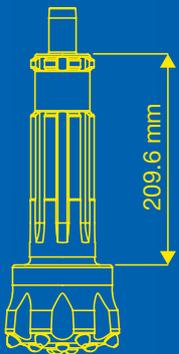
Number of splines: 12  
Drive pins required: No  
Foot valve: Yes  
Minimum bit size:  
110 mm (4.33 inch)  
Maximum bit size:  
130 mm (5.12 inch)

## MQ40



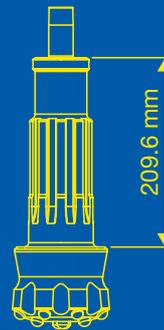
Number of splines: 12  
Drive pins required: No  
Foot valve: No  
Minimum bit size:  
110 mm (4.33 inch)  
Maximum bit size:  
130 mm (5.12 inch)

## DHD340



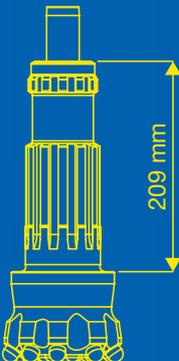
Number of splines: 8  
Drive pins required: No  
Foot valve: Yes  
Minimum bit size:  
105 mm (4.13 inch)  
Maximum bit size:  
130 mm (5.12 inch)

## MD4



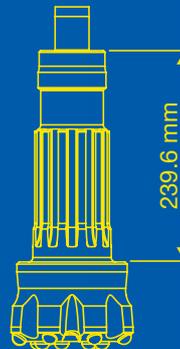
Number of splines: 10  
Drive pins required: No  
Foot valve: Yes  
Minimum bit size:  
110 mm (4.33 inch)  
Maximum bit size:  
130 mm (5.12 inch)

## MP40



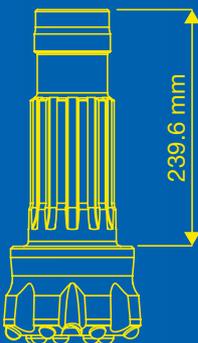
Number of splines: 12  
Drive pins required: No  
Foot valve: Yes  
Minimum bit size:  
110 mm (4.33 inch)  
Maximum bit size:  
130 mm (5.12 inch)

## QL50



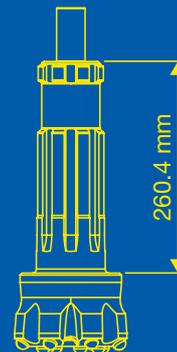
Number of splines: 12  
Drive pins required: No  
Foot valve: Yes  
Minimum bit size:  
130 mm (5.12 inch)  
Maximum bit size:  
152 mm (5.98 inch)

## MQ50



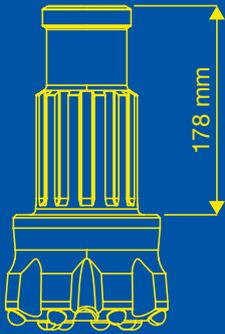
Number of splines: 12  
Drive pins required: No  
Foot valve: No  
Minimum bit size:  
130 mm (5.12 inch)  
Maximum bit size:  
152 mm (5.98 inch)

## DHD350



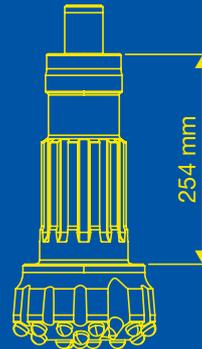
Number of splines: 8  
Drive pins required: No  
Foot valve: Yes  
Minimum bit size:  
130 mm (5.12 inch)  
Maximum bit size:  
152 mm (5.98 inch)

## MC51



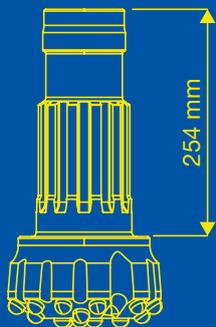
**Number of splines:** 12  
**Drive pins required:** No  
**Foot valve:** No  
**Minimum bit size:**  
130 mm (5.12 inch)  
**Maximum bit size:**  
152 mm (5.98 inch)

## QL60



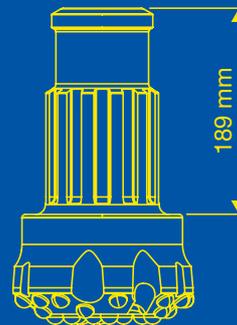
**Number of splines:** 12  
**Drive pins required:** No  
**Foot valve:** Yes  
**Minimum bit size:**  
152 mm (5.98 inch)  
**Maximum bit size:**  
203 mm (8 inch)

## MQ60



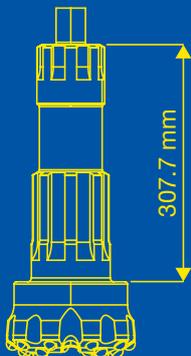
**Number of splines:** 12  
**Drive pins required:** No  
**Foot valve:** No  
**Minimum bit size:**  
152 mm (5.98 inch)  
**Maximum bit size:**  
203 mm (8 inch)

## MC61



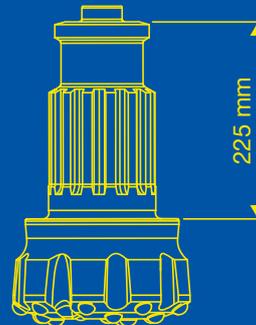
**Number of splines:** 12  
**Drive pins required:** No  
**Foot valve:** No  
**Minimum bit size:**  
152 mm (5.98 inch)  
**Maximum bit size:**  
203 mm (8 inch)

## DHD360



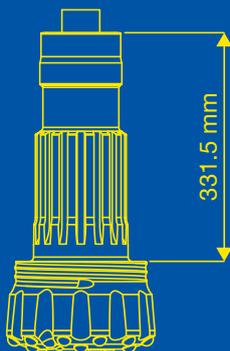
**Number of splines:** 8  
**Drive pins required:** No  
**Foot valve:** Yes  
**Minimum bit size:**  
152 mm (5.98 inch)  
**Maximum bit size:**  
203 mm (8 inch)

## MC71



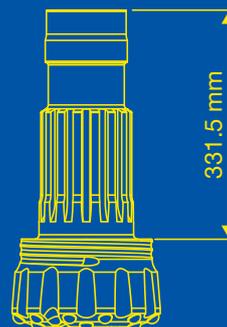
**Number of splines:** 14  
**Drive pins required:** No  
**Foot valve:** No  
**Minimum bit size:**  
193 mm (7.6 inch)  
**Maximum bit size:**  
228 mm (9 inch)

## QL80



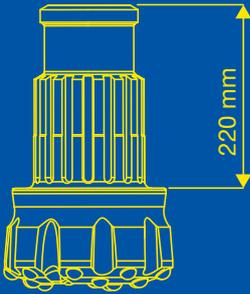
**Number of splines:** 16  
**Drive pins required:** No  
**Foot valve:** Yes  
**Minimum bit size:**  
200 mm (7.9 inch)  
**Maximum bit size:**  
254 mm (10 inch)

## MQ80



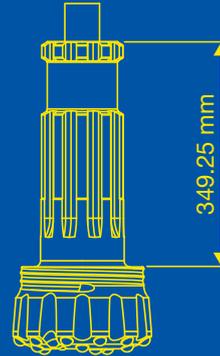
**Number of splines:** 16  
**Drive pins required:** No  
**Foot valve:** No  
**Minimum bit size:**  
200 mm (7.9 inch)  
**Maximum bit size:**  
254 mm (10 inch)

## MC81



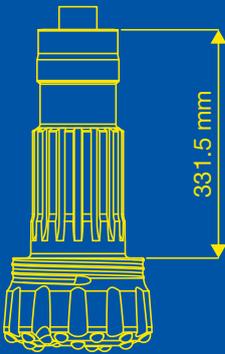
Number of splines: 16  
Drive pins required: No  
Foot valve: No  
Minimum bit size:  
200 mm (7.9 inch)  
Maximum bit size:  
254 mm (10 inch)

## DHD380



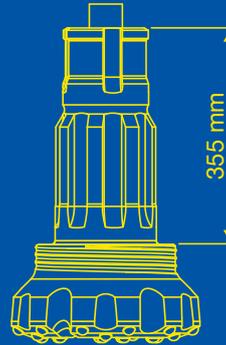
Number of splines: 10  
Drive pins required: No  
Foot valve: No  
Minimum bit size:  
200 mm (7.9 inch)  
Maximum bit size:  
254 mm (10 inch)

## TD90



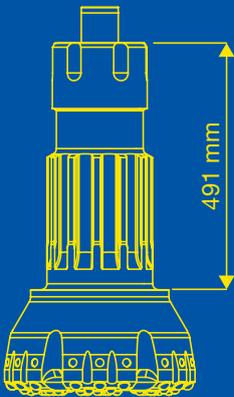
Number of splines: 16  
Drive pins required: No  
Foot valve: Yes  
Minimum bit size:  
200 mm (7.9 inch)  
Maximum bit size:  
254 mm (10 inch)

## SD10



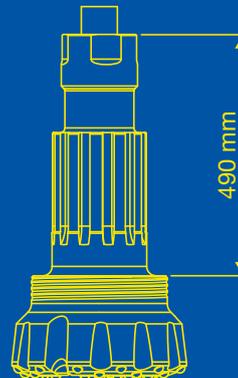
Number of splines: 8  
Drive pins required: No  
Foot valve: Yes  
Minimum bit size:  
254 mm (10 inch)  
Maximum bit size:  
330 mm (13 inch)

## QL120



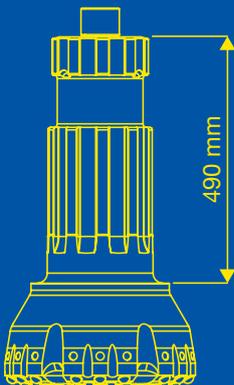
Number of splines: 12  
Drive pins required: Yes  
Foot valve: Yes  
Minimum bit size:  
305 mm (12 inch)  
Maximum bit size:  
381 mm (15 inch)

## N120



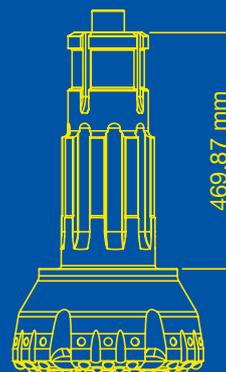
Number of splines: 12  
Drive pins required: No  
Foot valve: No  
Minimum bit size:  
305 mm (12 inch)  
Maximum bit size:  
381 mm (15 inch)

## N125



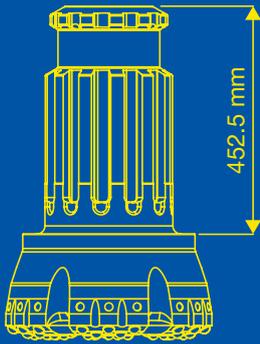
Number of splines: 10  
Drive pins required: Yes  
Foot valve: Yes  
Minimum bit size:  
305 mm (12 inch)  
Maximum bit size:  
381 mm (15 inch)

## SD12



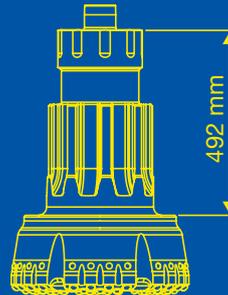
Number of splines: 12  
Drive pins required: Yes  
Foot valve: No  
Minimum bit size:  
381 mm (15 inch)  
Maximum bit size:  
457 mm (18 inch)

## MC150



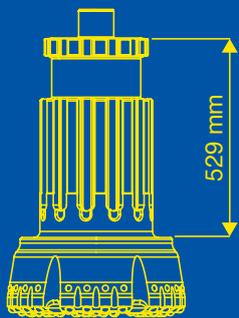
- Number of splines: 12
- Drive pins required: Yes
- Foot valve: No
- Minimum bit size: 381 mm (15 inch)
- Maximum bit size: 457 mm (18 inch)

## QL200



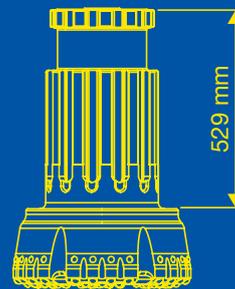
- Number of splines: 9
- Drive pins required: Yes
- Foot valve: Yes
- Minimum bit size: 457 mm (18 inch)
- Maximum bit size: 610 mm (24 inch)

## N180



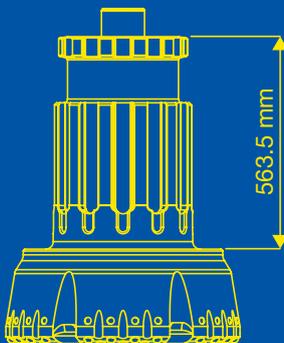
- Number of splines: 12
- Drive pins required: Yes
- Foot valve: Yes
- Minimum bit size: 457 mm (18 inch)
- Maximum bit size: 610 mm (24 inch)

## MQ180



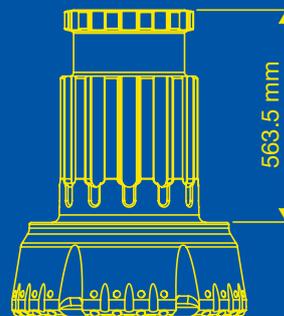
- Number of splines: 12
- Drive pins required: Yes
- Foot valve: No
- Minimum bit size: 457 mm (18 inch)
- Maximum bit size: 610 mm (24 inch)

## N240



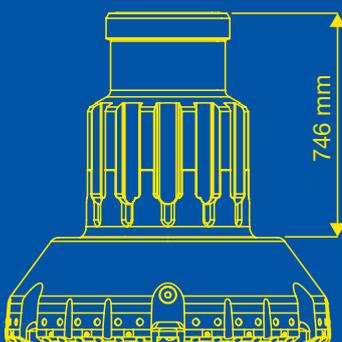
- Number of splines: 12
- Drive pins required: Yes
- Foot valve: Yes
- Minimum bit size: 610 mm (24 inch)
- Maximum bit size: 864 mm (34 inch)

## MQ240



- Number of splines: 12
- Drive pins required: Yes
- Foot valve: No
- Minimum bit size: 610 mm (24 inch)
- Maximum bit size: 864 mm (34 inch)

## MF34



- Number of splines: 12
- Drive pins required: Yes
- Foot valve: No
- Minimum bit size: 850 mm (33.4 inch)
- Maximum bit size: 1,450 mm (57.1 inch)

## ADDITIONAL SHANKS

Mincon offers support for all major shank types. Please contact your Mincon representative to discuss support for any shank not listed on these pages.

# 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](http://www.mincon.com).



**MINCON GROUP PLC**

Smithstown Industrial Estate,  
Shannon, Co. Clare, Ireland.

**E.** [sales@mincon.com](mailto:sales@mincon.com)

**W.** [mincon.com](http://mincon.com)