

BUILT TO DRILL. ENGINEERED TO EXCEL.

PRECISION MANUFACTURING. DRIVING GLOBAL PERFORMANCE.



PRECISION
ENGINEERING



RELIABLE
QUALITY



GLOBAL
PARTNERSHIP



PRECISION ENGINEERING



RELIABLE QUALITY



GLOBAL PARTNERSHIP



ABOUT CHENGHUI

Company Introduction & Manufacturing Strength



1. WHO WE ARE

Chenghui is a professional manufacturer dedicated to delivering reliable drilling solutions for global partners. With years of industry experience and strong engineering expertise, we focus on precision manufacturing, consistent quality, and long-term cooperation built on trust.



2. WHAT WE DO

We specialize in the development and production of high-performance drilling tools designed to meet demanding working conditions. From material selection to machining and final inspection, every process is strictly controlled to ensure durability, stability, and dependable performance.



3. HOW WE WORK

Reliability is not a slogan — it is our standard. Our engineers, technicians, and quality control team work closely together to monitor each detail, optimize product structure, and continuously improve production efficiency.



4. OUR COMMITMENT

We emphasize transparent communication, fast response, and consistent support throughout the cooperation process. Our goal is not only to supply products, but to build long-term partnerships.



5. OUR CULTURE

At Chenghui, people come first. We foster a culture of respect, accountability, and collaboration. Technology drives us forward, quality defines us, and our united team stands behind every solution we deliver worldwide.



PRECISION MANUFACTURING

Engineered for accuracy and high performance.



STABLE QUALITY

Strict process control for consistent, reliable results.



FAST RESPONSE

Quick communication and efficient support.



LONG-TERM COOPERATION

Building trust and growing together for the future.

ROCK HARDNESS GRADING

FORMATION CLASSIFICATION	F1	F2	F3	F4	F5	F6-F7	F8-F9	F10-F11	F12
FIRMNESS	Loose Ground	Loose Rock	Soft Rock	Softer Rock	Harder Rock	Harder Rock	Hard Rock	Hard Rock	Hardest Rock
REPRESENTATIVE ROCK LAYER	Secondary loess Secondary laterite Soft sandy soil (free of gravel, breccia, diatomite)	Loess, Red earth Peaty argillaceous soil Sandy soil, Kaolin	Highly weathered shale, Slate, Schist Slightly consolidated sand	Shale, Sandy shale, Oil shale Carbonaceous shale, Calcareous shale Sand-shale interbedded shale, Limestone	Crushed rock & gravel, Avalanche rock Muddy slate, Sericite-chlorite slate Rock schist, Limestone, Marble Sand-shale interbedded shale, Limestone	Chlorite-mica slate, Schist, Silicified limestone Calcite marble, Sand-shale interbedded shale, Limestone	Silicified mica gneiss, Basalt, Diabase, Pyroxenite Quartz andesite, Porphyry, Calcite marble Sand-shale interbedded shale, Limestone	Granite, Granodiorite, Gneiss, Rhyolite Quartzite, Calcite marble Sand-shale interbedded shale, Limestone	Quartzite, Jasper rock, Hornstone Corundum rock, Quartzomite, Jasper

➤ **DIAMOND COMPOSITE SHEET (PDC)** is made of synthetic diamond with diamond under high temperature conditions

➤ **TUNGSTEN CARBIDE**
one-time synthesis of special superhard material, it not only has diamond high hardness, wear resistance and other advantages, but also has a strong impact resistance of cemented carbide.

➤ **WITH THE CHARACTERISTICS**
of large edge, using it as the blade of the drill can greatly improve the work of the drill

➤ **EFFICIENCY,**
ideal for drilling in medium and hard rock formations

➤ **THE STRENGTH**
of diamond composite sheet (PDC) bit is mainly determined by the strength of diamond composite sheet, and the current diamond composite sheet bit is mainly divided into ordinary type, reinforced type and super type

➤ **QUARTZITE JASPER**
rock isotypic suitable rock layer

➤ **GENERAL PDC BIT**
F<4 slightly softer rock
Medium hard rock with PDC bit F≤9 reinforced Strong PDC bit F≥11 hard rock

PRODUCT APPLICATION & PRECAUTIONS

Operating Guidelines & Maintenance Notes



Application Field

The current application field of diamond composite sheet bits is relatively broad, our company's diamond bits are all over the country coal field, oil drilling, geological exploration, water conservancy and hydropower, railway and highway, tunnel construction, geothermal energy, water Wells and other industries.



Maintenance Instructions for Suitable Rock Layers

- 1 During normal operation, it is strictly prohibited to suddenly reverse the direction of operation to prevent the composite bit from falling off.
- 2 In normal operation, the power of the drill cannot have a large fluctuation phenomenon, to ensure a stable enough power output, in order to extend the use of diamond.
- 3 When the new composite bit is used for the first time, it should be run in at a low speed for half an hour, and then gradually used normally.
- 4 In the geological harsh environment operation, to reduce the axial pressure and speed, to prevent the drill bit fracture.
- 5 In the normal drilling operation, if the drill bit needs to be replaced midway, it is necessary to strictly check whether there is debris in the hole, and ensure that the hole is clean before using the new composite bit.
- 6 In order to make the drill in the deep hole normal and stable work, regularly check whether the rod stabilizer wear smaller need to be replaced regularly.
- 7 When the new composite piece drill is used, pay attention to the cleaning of the punching part to prevent debris from affecting the normal use.
- 8 Before replacing the new drill, carefully check whether the thread and teeth are intact, and gently push the hand to try whether there is no problem. To ensure that there is no foreign matter in the interior, the water outlet is smoothed, the thread is lubricated, and the drill can be used after being connected by lifting and rotating.
- 9 It is strictly prohibited to use bent drill pipe, in order to avoid the damage of the drill due to uneven force, affecting the normal use time.
- 10 According to different circumstances to choose different drill bits, and operation methods.
- 11 Check each part carefully before drilling the composite bit to ensure that there is no problem with the bit before starting to use.
- 12 The composite bit should be reasonably stored, the drill should be installed in a special packaging box to avoid vibration collision with each other.
- 13 When using, remove the drill bit from the packaging box should be installed on the connecting device of the drill or replace the drill bit library, and then put back into the packaging box.



Stable Operation



Low-Speed Run-In



Clean Hole Before Use



Proper Storage

PDC CUTTER RAW MATERIALS

High-performance polycrystalline diamond compact cutters for PDC drill bit manufacturing.
Multiple cutter profiles available for different drilling formations and construction requirements.

A01



1305 Flat Cutter

A02



1305 Chamfer Cutter

A03



1308 Flat Cutter

A04



1308 Chamfer Cutter

A05



1613 Flat Cutter

A06



Mercedes Cutter Type 1

A07



Mercedes Cutter Type 2

A08



Corrugated Cutter

A09



Gear Cutter

A10



Helmet Cutter

A11



Scale Cutter

A12



Ridge Cutter

PRODUCT OVERVIEW



PDC cutters are the core raw materials used in PDC drill bit production. Different cutter geometries help optimize cutting efficiency, wear resistance, impact resistance and formation adaptability.

WIDE RANGE OF APPLICATIONS



Ideal for geological survey, water well drilling and medium-hard formations including rock, limestone, sandstone, shale, slate and more. Trusted performance in diverse drilling conditions.

CUSTOM SPECIFICATIONS SUPPORTED



Various sizes, geometries and grades available. Custom solutions can be provided to meet your specific drilling requirements.



Multiple cutter profiles available



High wear resistance



Stable cutting performance



Custom specifications supported

PDC CORE BIT SERIES

Efficient core drilling tools for geological survey, water well drilling and medium-hard formations.



Name	Size	Core Barrel	Cutters	Bit Type	Adaptive Bed / Formation	Weight (KG)
PDC core bit	75mm	73mm	5PCS/1004/1304	Mirror slices, spherical slices, granite slices, peach-shaped slices, other custom pieces.	Suitable for medium-hard rock, $F \leq 4 \sim \leq 8$. Select the corresponding PDC cutter according to construction conditions.	1.4
	91mm	89mm	6PCS/1004/1304			1.5
	113mm	108mm	8PCS/1004/1304			2.1
	133mm	127mm	10PCS/1004/1304			2.3
	153mm	146mm	12PCS/1004/1304			2.7
	171mm	166mm	14PCS/1004/1304			3.9
	200mm	197mm	16PCS/1304			4.9
	220mm	219mm	18PCS/1304			6.0
	245mm	245mm	20PCS/1304			8.6
	275mm	273mm	22PCS/1304			9.5
	325mm	325mm	24PCS/1304			11.5



APPLICABLE ROCKS

Red sandstone, mudstone, coal seam, backfill soil, limestone, crushed stone, slate, marble and other medium-hard formations ($F \leq 8$).



APPLICATION SCENARIOS

Geological survey, building foundation exploration, infrastructure construction exploration, water well construction, highway and bridge investigation, hydraulic and hydropower engineering exploration, coal mining and mineral resource exploitation.



Multiple size options from 75mm to 325mm



Suitable for medium-hard formations



Stable cutting performance and efficient core recovery



Custom cutter configurations available



ALLOY DRAG BIT

Durable alloy drag bit bit for grouting, gas drainage, water well and geothermal drilling.

Name	Size	Cutters	Bit Type	Adaptive Formation	Weight (KG)
alloy drag bit	113mm	3+6	Adopt high-quality virgin raw material cemented carbide YG6, as well as other customized alloy sizes or grades.	Suitable for soil and soft to medium-soft formations (FS4).	4.5
	133mm	3+9			5.5
	152mm	3+12			6
	165mm	3+12			6.6
	190mm	3+15			7.4
	215mm	3+15			8.1
	240mm	3+27			9.1



SPECIFICATIONS

110–325 mm (customizable sizes and thread connections upon request).



THREAD TYPES

2 3/8 REG, 2 7/8 REG, 3 1/2 REG, 4 1/2 REG, NC23, NC26, NC31, NC38, Z-50, and other customized types.



MAIN APPLICATIONS

Grouting holes, gas drainage holes, slope support, anchor cable construction, water wells, geothermal wells.



APPLICABLE FORMATIONS

Designed for soil and soft to medium-soft formations, including shale, sandy shale, oil shale, carbonaceous slate, calcareous slate, **interbedded sandstone** and mudstone, argillaceous limestone, etc.



CUSTOM SIZES AVAILABLE



MULTIPLE THREAD OPTIONS



HIGH-QUALITY YG6 CARBIDE



SUITABLE FOR SOFT TO MEDIUM-SOFT FORMATIONS

THREE/FOUR-WING PDC DRAG BIT

Durable PDC drag bit for grouting, gas drainage, water well and geothermal drilling.

Name	Size	Cutters	Bit Type	Adaptive Bed / Formation	Weight (KG)
Three-wing PDC drag bit	75mm	9PCS/1308	1. Flat and spherical inserts of standard type, for medium-hard rock with rock hardness coefficient $F \leq 6$	1. Slightly hard rock, $F \leq 6$	2.2
	91mm	12PCS/1308			3
	113mm	12PCS/1308			3.4
	133mm	15PCS/1308			4.6
	153mm	15PCS/1308	2. Reinforced PDC bits, for medium-hard rock with rock hardness coefficient $F \leq 8$	2. Medium hard rock, $F \leq 8$	5
	171mm	18PCS/1308			6
	200mm	21PCS/1308			10
	220mm	24PCS/1308			11



Four-wing PDC drag bit



Three-wing PDC drag bit (upright)



Three-wing PDC drag bit



SIZE
75–325 mm
(Custom sizes available upon request)



CONNECTION THREADS
Standard female connections of 42, 50, 76/60, 63.5 and 73 (variable-diameter male connections available)



MAIN APPLICATIONS
Grouting holes, gas drainage holes, slope support, anchor cables, water wells, geothermal wells



APPLICABLE FORMATIONS
Slightly soft formations including red sandstone, mudstone, coal seams, backfill, limestone, etc.



CUSTOM SIZES AVAILABLE



MULTIPLE THREAD OPTIONS



SUITABLE FOR $F \leq 6$ TO $F \leq 8$



FOR GROUTING, GAS DRAINAGE & WATER WELLS

THREE/FOUR/FIVE/SIX-WING PDC BIT

Durable PDC bit for grouting, gas drainage, water well and geothermal drilling.



Name	Size	Cutters	Bit Type	Adaptive Bed / Formation	Weight (KG)
Four-wing PDC bit	75mm	8PCS/1308+2PCS/1304	1. Flat and spherical inserts of standard type, for medium-hard rock with rock hardness coefficient Fs6 2. Reinforced PDC bits, for medium-hard rock with rock hardness coefficient Fs8	1. Slightly hard rock, Fs6 2. Medium hard rock, Fs8	2
	91mm	8PCS/1308+2PCS/1304			3
	113mm	12PCS/1308+3PCS/1304			4.4
	133mm	12PCS/1308+3PCS/1304			5
	153mm	16PCS/1308+2PCS/1304			7
	171mm	20PCS/1308+2PCS/1304			8
	200mm	20PCS/1308+2PCS/1304			9.2
	220mm	24PCS/1308+3PCS/1304			11.2
	245mm	28PCS/1308+3PCS/1304			14.6



SIZE

75–325 mm
(Custom sizes available upon request)



CONNECTION THREADS

Standard female connections of 42, 50, 76(60, 63.5 and 73 (variable-diameter male connections available)



MAIN APPLICATIONS

Grouting holes, gas drainage holes, slope support, anchor cables, water wells, geothermal wells



APPLICABLE FORMATIONS

Slightly soft formations including red sandstone, mudstone, coal seams, backfill, limestone, etc.



CUSTOM SIZES AVAILABLE



MULTIPLE THREAD OPTIONS



SUITABLE FOR $F \leq 6$ TO $F \leq 8$



FOR GROUTING, GAS DRAINAGE & WATER WELLS

SPIRAL FOUR WING ARC PDC BIT

Durable PDC bit for blasting holes, anchor cable drilling, slope support, foundation pit drilling, well drilling and geothermal drilling.



Name	Size	Cutters	Bit Type	Adaptive Bed / Formation	Weight (KG)
Four-Wing Arc PDC Bit	115mm	11PCS/1613+4PCS/1304	Mirror Plate Enhanced PDC Bit	1. Medium-hard rock, $F \leq 8$	5.9
	133/140mm	12PCS/1613+4PCS/1304			7.4
	152mm	14PCS/1613+4PCS/1304			8.3
	165mm	15PCS/1613+4PCS/1304	Super Diamond Super-Strong PDC Bit	2. Hard rock, $F \leq 11$	11.2
	200mm	19PCS/1613+4PCS/1304		2. Hard rock, $F \leq 11$	22
	250mm	25PCS/1613+4PCS/1304		2. Hard rock, $F \leq 11$	40



SIZE

115, 133, 140, 152, 165, 200, 250mm



DRILL PIPES

2 3/8 REG, 2 7/8 REG, 3 1/2 REG, 4 1/2 REG, NC23, NC26, NC31, NC38, Z-50, etc. Custom threads available for other types.



MAIN APPLICATIONS

Blasting holes, anchor cable drilling, slope support, foundation pit drilling, well drilling, geothermal drilling.



APPLICABLE FORMATIONS

Sandstone, backfill, mudstone, limestone, granite and broken formations.



MULTIPLE SIZES AVAILABLE



MULTIPLE THREAD OPTIONS



SUITABLE FOR $F \leq 8$ TO $F \leq 11$



FOR BLASTING, ANCHOR CABLE & GEOTHERMAL

FIVE WING SUPER ARC PDC BIT

Durable PDC bit for blasting holes, anchor cable drilling, slope support, foundation pit drilling, well drilling and geothermal drilling.

Name	Size	Cutters	Bit Type	Adaptive Bed / Formation	Weight (KG)
Five-Wing super Arc PDC Bit	152mm	20PCS/1613+26PCS1308+25PCS1005	Mirror Plate Enhanced PDC Bit	Medium Hard Rock $F \leq 8$	24
	165mm	18PCS/1613+29PCS/1308+25PCS1005	Mirror Plate Enhanced PDC Bit	Medium Hard Rock $F \leq 8$	28
	190mm	26PCS/1613+27PCS/1308+25PCS1005	Mirror Plate Enhanced PDC Bit	Medium Hard Rock $F \leq 8$	37
	216mm	23PCS/1613+33PCS/1308+25PCS/1005	Super Diamond Super-Strong PDC Bit	Hard Rock $F \leq 11$	48
	241mm	31PCS/1613+31PCS/1308+25PCS/1005	Super Diamond Super-Strong PDC Bit	Hard Rock $F \leq 11$	59
	269mm	37PCS/1613+31PCS/1308+25PCS/1005	Super Diamond Super-Strong PDC Bit	Hard Rock $F \leq 11$	74
	311mm	44PCS/1613+34PCS/1308+25PCS/1005	Super Diamond Super-Strong PDC Bit	Hard Rock $F \leq 11$	99



SIZE

6, 6-1/2, 7-1/2, 8-1/2, 9-1/2, 10-5/8, 12-1/4 (inch)



DRILL PIPES

2 3/8 REG, 2 7/8 REG, 3 1/2 REG, 4 1/2 REG, NC23, NC26, NC31, NC38, 2-50, etc. Custom threads available for other types.



MAIN APPLICATIONS

Blasting hole, anchor cable, slope, support, foundation pit, well, geothermal



APPLICABLE FORMATIONS

Sandstone, backfill, mudstone, limestone, (granite)... Broken formation



MULTIPLE SIZES AVAILABLE



MULTIPLE THREAD OPTIONS



SUITABLE FOR $F \leq 8$ TO $F \leq 11$



FOR BLASTING, ANCHOR CABLE & GEOTHERMAL



THREE/FOUR/FIVE WING ARC PDC BIT

Durable PDC coreless bits for grouting, slope support, anchor cable, water well and geothermal drilling.



THREE-WING ARC PDC BIT

- Alloy steel body
- Wear-resistant
- Matched to different rock hardness



Name	Size	Cutters	Bit Type	Adaptive Bed / Formation	Weight (KG)
Three-wing arc pdc bit	75mm	8PCS/1308	1308 flat pieces, bell pieces, regular PDC bit	Hard rock, $F \leq 6$	1.8
	91mm	10PCS/1308	1308 flat pieces, bell pieces, regular PDC bit	Medium hard rock, $F \leq 8$	2.9
	113mm	12PCS/1308	Enhanced PDC bit	Medium hard rock, $F \leq 8$	4.4
	133mm	13PCS/1308	Enhanced PDC bit	Medium hard rock, $F \leq 8$	5.5
Four-wing arc pdc bit	94mm	10PCS/1308	1308 flat pieces, bell pieces, regular PDC bit	Hard rock, $F \leq 6$	3.1
	113mm	12PCS/1308	Enhanced PDC bit	Medium hard rock, $F \leq 8$	4.8



SIZE

75, 94, 113,
133, 153, 171 mm



DRILL PIPE

42, 50, 63.5,
73, 76, 89



MAIN APPLICATIONS

Grouting hole, discharge hole,
slope support, anchor cable,
water well, geothermal



APPLICABLE FORMATIONS

Red sandstone, mudstone, coal seam,
backfill, weathered rock and
medium-hard broken strata



MULTIPLE SIZES AVAILABLE



MULTIPLE THREAD OPTIONS



SUITABLE FOR $F \leq 6$ TO $F \leq 8$



FOR GROUTING,
ANCHOR CABLE & GEOTHERMAL

TUNGSTEN CARBIDE SINTERED BODY FLAT TOP CORELESS DRILL

Durable coreless drill bit for grouting, water well and geothermal drilling.



Name	Size	Cutters	Bit Type	Adaptive Bed / Formation	Weight (KG)
Flat Top Coreless Bit Tungsten Carbide Sintered Body	65mm	5PCS/1308	General-type PDC bit	Medium hard rock, $F \leq 6$	1.4
	75mm	6PCS/ 1308	General-type PDC bit	Medium hard rock, $F \leq 6$	1.7
	91mm	7PCS/1308	General-type PDC bit	Hard rock, $F \leq 8$	3.1
	113mm	10PCS/1308	Enhanced PDC bit	Hard rock, $F \leq 11$	5.5
	133mm	13PCS/1308	Enhanced PDC bit	Hard rock, $F \leq 11$	6.5
	153mm	17PCS/1308	Super-strong PDC bit	Hard rock, $F \leq 11$	12



MATRIX MATERIAL

Tungsten carbide sintered body for strong wear resistance and long service life.



MAIN APPLICATIONS

Grouting holes, water wells and geothermal drilling.



APPLICABLE STRATA

Limestone, dolomite, white sandstone, coal seam and other medium-hard intact formations.



PRODUCT FEATURES

Matched to different rock hardness levels. Designed for hard and intact formations.



MULTIPLE SIZES AVAILABLE



TUNGSTEN CARBIDE MATRIX



SUITABLE FOR
 $F \leq 6$ TO $F \leq 11$



FOR GROUTING,
WATER WELL & GEOTHERMAL

INSERTED TEETH OF TRICONE BIT

Durable tricone bit for soft to medium-hard formations with reliable cutting structure and gauge protection.

IADC	Applicable Formations	Recommended Parameters	
		WOB kN/mm	RPM (r/min)
417/427/437	Extremely soft formations with low compressive strength and high drillability, such as shale, clay, sandstone and conglomerate.	0.35-0.90	140-70
447	Soft formations with low compressive strength and high drillability, such as shale, clay, sandstone, soft limestone, rock salt, gypsum, etc.	0.37-1.00	140-60
517	Soft formations with low compressive strength and high drillability, such as shale, clay, sandstone, soft limestone, etc.	0.37-1.05	120-50
527	Soft formations with low compressive strength such as shale, clay, sandstone, soft limestone, rock salt, anhydrite, etc.	0.35-1.05	
537/547	Low compressive strength, medium soft, with relatively hard abrasive interlayers, such as hard shale, anhydrite, soft limestone, sandstone, interbedded dolomite, etc.	0.5-1.05	110-40
617/627	High compressive strength, medium-hard rock formations containing thick hard interlayers such as hard shale, anhydrite, soft limestone, sandstone and dolomite	0.5-1.05	80-40
637/737	Formations with high compressive strength, medium hardness and high abrasiveness, such as limestone, dolomite, sandstone, chert, etc.	0.70-1.20	70-40



CUTTING STRUCTURE

Equipped with premium cemented carbide inserted teeth made via new formulas and processes to enhance the comprehensive mechanical properties of cutting teeth.



GAUGE PROTECTION

Multiple gauge protection structures are adopted, trimming teeth are embedded on the outer row teeth of the cone; cemented carbide teeth are inlaid on the cone back and inner wear-resistant alloy is hardfaced on the lug tip and front side, boosting the gauge holding capacity.



BEARING STRUCTURE

High-precision radial sliding and axial thrust bearings with steel balls are applied and locked in place. Wear-resistant alloy is welded on the journal of the bit leg, and special alloy with silver plating is used in the inner bore of the cone to enhance wear resistance and anti-seizure capacity.



PRODUCT APPLICATION

Metal-sealed drill bits provide highly reliable sealing performance and are suitable for downhole power drilling tools and rotary drilling with high penetration rates.



Reliable
cutting structure



Strong
gauge protection



Stable
bearing design



Suitable for soft to
medium-hard formations

Steel Teeth of Tricone Bit



IADC	Applicable Formations	Recommended Parameters	
		WOB(kN / mm)	RPM / (r/min)
116 / 117	Extremely soft formations with low compressive strength and high drillability, such as shale, clay and rock salt	0.35 - 0.90	180-80
126 / 127	Soft formations with low compressive strength and high drillability, such as shale, clay, rock salt, soft limestone, etc.	0.35 - 1.00	
136 / 137	Soft to medium-soft formations or soft rock strata with low compressive strength contain relatively hard interlayers, such as anhydrite, soft limestone and conglomerate.	0.37 - 1.05	130-60
216 / 217	Medium hardness with relatively high compressive strength and hard interlayers, such as hard shale, conglomerate, limestone, etc.	0.5 - 1.20	100-50



Cutting Structure

The tooth surfaces of steel-tooth drill bits are overlaid with a new wear-resistant alloy to improve the wear resistance of cutting teeth.



Gauge Protection Structure

Multiple gauge protection structures are adopted: trimming teeth are inlaid on the outer row teeth of the cone, cemented carbide teeth are embedded on the cone back and leg, and wear-resistant alloy is surfacing-welded on the leg tip and front skid, so as to enhance the gauge retention capacity of the drill bit.



Bearing Structure

Radial sliding and axial thrust bearings with high-precision fit are used and locked by steel balls. The surface of thrust bearings is surfacing-welded with wear-resistant alloy and treated for friction reduction, which improves the drill bit's capacity to bear axial loads and the anti-seizure performance of thrust surfaces.



Sealing and Lubrication

High-performance sealing rings are selected for bearing sealing with optimal sealing compression to effectively boost bearing sealing performance. Special high-performance lubricating grease for drill bits is applied.



Product Application

It can achieve high rotational speed under medium and low drilling pressure, and is suitable for drilling in various formations.

HOT-PRESSED DOUBLE-TUBE CORE BIT

Durable core bits for concrete piles, crushing, pebbles, backfill and related formations.



101mm Double tube
hot pressing drill bit



94mm Double pipe thickened
hot press bit with point



94mm Double tube curved
hot press drill bit



CH-drillmfg



101mm double tube hot pressing:
mainly used for core-pulling
concrete pile



94mm double pipe hot pressing:
mainly used for crushing, pebble,
backfill and other strata



Drill layer sintering hardness:
low, medium, high (according to
different formation rock selection)

Name	Size	Outside diameter / Inside diameter	Bit Type	Adaptive Bed / Formation	Weight (KG)
Hot pressed double core bit	75mm	75/49mm	Hot pressing process HRC (Low, medium, high)	Medium Hard Rock F $\leq$ 8	1.2
	97mm	94/68mm	Hot pressing process HRC (Low, medium, high)	Medium Hard Rock F $\leq$ 8	1.7
	101mm	normal: 101/83 Bottom spray: 101/81	Hot pressing process Concrete (C30/C40)	Medium Hard Rock F $\leq$ 8	1.4



**Multiple sizes
available**



**Suitable for
medium hard rock**



**Hot pressing
process**



**For concrete pile,
crushing & backfill**

HOT-PRESSED WIRELINE CORING BIT

Durable wireline coring bits for deep-hole rock sampling and geological exploration.

SIZE	BQ	NQ	NQ3	HQ	HQ3	PQ	PQ3	NTW	HTW
outside (mm)	59.6	75.3	75.3	95.6	95.6	122	122	75.5 Bottom spray (76)	95.5 Bottom spray (96)
inside (mm)	36.4	47.6	45.1	63.5	81.1	85	83.1	56 Bottom spray (54)	71 Bottom spray (96)



NQ hot press drill bit



HQ hot press drill bit



COMMON MODELS

AQ, BQ, NQ, HQ,
PQ, NTW, HTW



MAIN APPLICATION

Deep-hole drilling
and rock sampling



APPLICABLE STRATA

Suitable for soft,
medium and hard
formations



PROCESS FEATURE

Bottom injection type
is suitable for loose sand
formations and helps
reduce broken core rate

● Working layer sintering hardness: low, medium, high (selected according to formation).



Wireline hot press drill bit

Name	Size	Cutters	Bit Type	Adaptive Bed	Weight (KG)
Hot Press drill bit	NQ	8 tooth	Hot pressing process HRC (Low, medium, high)	Hard Rock F≤11	0.8
Hot Press drill bit	HQ	10 tooth	Hot pressing process HRC (Low, medium, high)	Hard Rock F≤11	1.8
Hot Press drill bit	PQ	12 tooth	Hot pressing process HRC (Low, medium, high)	Hard Rock F≤11	2.6
Hot Press drill bit	NTW	8 tooth	Hot pressing process Bottom jet bit HRC (Low, medium, high)	Hard Rock F≤11	0.8
Hot Press drill bit	HTW	10 tooth	Hot pressing process Bottom jet bit HRC (Low, medium, high)	Hard Rock F≤11	1.4



MULTIPLE SIZES AVAILABLE



SUITABLE FOR HARD ROCK



HOT PRESSING PROCESS



FOR DEEP-HOLE CORING & SAMPLING

ELECTROPLATED DIAMOND CORE BIT

Technical Parameters & Product Features



Name	Size	Cutters	Bit Type	Adpeive Bed	Weight (KG)
Electroplated diamond bit	75mm	8 Tooth	Domestic sand Ordinary electroplating drill bit	Hard rock F/5	0.9
	91mm	10 Tooth	Domestic sand Ordinary electroplating drill bit	Hard rock F/5	1.3
	113mm	12 Tooth	Domestic sand Ordinary electroplating drill bit	Hard rock F/5	1.6
	133mm	14 Tooth	Imported sand Enhanced electroplating drill bit	Medium Hard Rock F/6	2.2
	153mm	16 Tooth	Imported sand Enhanced electroplating drill bit	Medium Hard Rock F/6	2.4
	171mm	18 Tooth	L08 High strength electroplating bit	Hard Rock F/11	3.8
	200mm	20 Tooth	L08 High strength electroplating bit	Hard Rock F/11	4.4
	220mm	24 Tooth	L08 High strength electroplating bit	Hard Rock F/11	6.4

- **Mainly used for:** geological exploration, rock sampling, water wells
- **Suitable strata:** limestone, dolomite, shale, marble, gneiss, medium and hard intact strata
- Reinforced concrete (preferably electroplated diamond coring bit)



Rock
Sampling



Water Well
Drilling



High Strength
Electroplating



Multiple Sizes
Available



CUSTOMIZED DRILL BIT SOLUTIONS



Our drill bit products support customized services for multiple sizes, structures and cutter types.

01



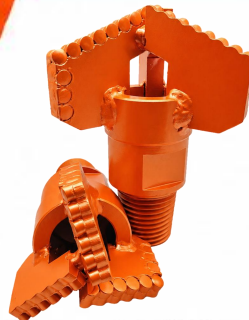
Three-wing PDC
concave drill bit

02



Four-wing PDC
concave drill bit

03



Three-wing PDC
drag bit

04



Three-wing alloy
drag bit

05



Custom drill bits

06



Custom cutter teeth

07



Three-wing arc
angle PDC bit

08



Five-wing arc
PDC bit

09



Six-wing arc
angle PDC bit

10



Blade pdc
drill bit

11



Tricone bit

12



PDC core bit



CUSTOM SIZES
AVAILABLE



CUSTOM CUTTER
OPTIONS



CUSTOM THREAD
CONNECTIONS



OEM / ODM
SUPPORT

PROFESSIONAL CUSTOMIZATION SERVICES

TAILORED SOLUTIONS FOR SUPERIOR DRILLING PERFORMANCE

We understand that every drilling condition is unique. Our professional engineering team provides customized drill bit solutions from structure design, material selection to manufacturing and testing, ensuring optimal performance, longer service life, and higher cost-efficiency for your drilling projects.



STRUCTURE DESIGN

Support various shapes, blade numbers, blade angles and overall structural optimization.



CUSTOM SIZES

Support customized diameters, lengths, threads and other dimensional parameters.



APPLICATION MATCHING

Suitable for water well, geothermal, mining, exploration, HDD and other scenarios.



R&D & TESTING

3D modeling > Prototype > Testing > Mass production payment.

CUSTOMIZATION PROCESS



Custom Design



3D Modeling



Engineering Optimization



Prototype Testing



Mass Production



Inspection & Delivery



CUSTOM PDC BIT SERIES



Multi-blade Bit 1



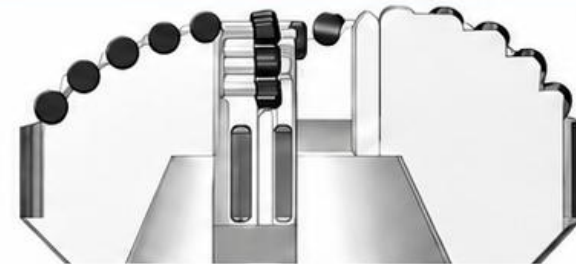
Multi-blade Bit 2



Multi-blade Bit 3



Multi-blade Bit 4



Cross Section View

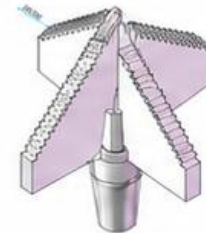
ENGINEERING DESIGN & DIMENSION REFERENCE



Blade Layout (Dim.)



Front View (Dim.)



Cross Section (Dim.)



Wing Structure (Dim.)

INSERT BIT SERIES



PDC drag bit



Alloy drag bit

**BUILT TO YOUR REQUIREMENTS,
DELIVERED FOR YOUR SUCCESS.**

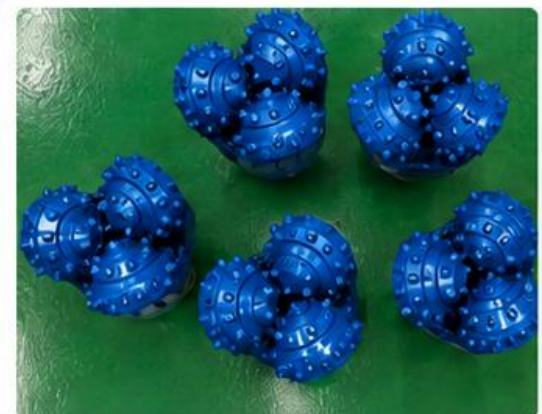
Let's build the best bit for your next project.



CH-drillmfg

Finished Goods Ready for Shipment

Secure packaging, organized storage, and efficient shipment preparation for global delivery.



DTH BIT

Design Concept & Product Advantages

Manufactured from premium alloy steel, our DTH drill bits are engineered for superior strength, outstanding wear resistance, and extended service life. Combined with advanced heat treatment, precision manufacturing, and stringent quality control, every drill bit delivers consistent performance and dependable drilling efficiency in the toughest conditions.



Convex



Flat



Concave



CH-drillmfg

cemented carbide	Diamond composite teeth
	
Suitable for hard rock formations	Suitable for hard and extremely hard formations

Bit Size Diam.	Face Design	Air Holes	Angle	Gauge Inserts	Face Inserts	Weight	Product Code
135mm	Convex (V)	2	35°	7×Φ18mm	6×Φ14mm	15.0kg	G130-F2Q7Y-P350
140mm	Convex (V)	2	38°	7×Φ18mm	6×Φ14mm	16.0kg	G140-V2Q7Y-P350
146mm	Flat (F)	2	35°	7×Φ18mm	7×Φ14mm	17.0kg	G146-F2Q7Y-P350
152mm	Flat (F)	2	35°	8×Φ18mm	7×Φ14mm	17.5kg	G152-F2Q8Y-P350
165mm	Concave (C)	3	35°	8×Φ18mm	8×Φ16mm	18.5kg	G165-C3Q9Y-P350

CH-F200 DRILLING RIG

Technical Parameters & Product Features

Technical Parameters

Maximum Drilling Depth	100–200 m
Drill Pipe Diameter	50 mm
Drill Pipe Length	1.5 m
Drilling Diameter	75–400 mm
Drill Rig Dimensions	1900 × 1000 × 2600 mm
Overall Machine Weight	500 kg (drill pipes not included)
Pipe Handling / Changing Method	Thread
Engine Power	26 kW / 35 hp
Drilling / Breaking Method	Impact Rotation
Water Pump	3-inch centrifugal water pump
Mast Height	2.7 m
Lifting Capacity	3000 kg

- ✓ Customizable engine horsepower and track drive available
- ✓ Suitable for water well drilling
- ✓ Wear parts and tools available for drilling rigs



100–200 m
drilling depth



75–400 mm
drilling diameter



26 kW / 35 hp
power



Trailer-mounted
compact design



CH-drillmfg



CH-F300 DRILLING RIG

Technical Parameters & Product Features



Technical Parameters

Maximum Drilling Depth	200–300 m
Drill Pipe Diameter	50 mm
Drill Pipe Length	1.5 m
Drilling Diameter	60–400 mm
Drill Rig Dimensions	2500 × 1600 × 2800 mm
Overall Machine Weight	900 kg (drill pipes not included)
Pipe Handling / Changing Method	Thread
Engine Power	16.4 kW / 44 hp
Drilling / Breaking Method	Impact Rotation
Water Pump	3-inch centrifugal water pump
Mast Height	2.8 m
Lifting Capacity	3000 kg

- ✓ Customizable engine horsepower and optional track drive
- ✓ Customized drilling towers available
- ✓ Suitable for water well drilling and geological exploration
- ✓ Consumable parts available for drilling rigs and drilling tools
- ✓ The number of drill pipes can be selected according to users' drilling depth requirements



200–300 m
drilling depth



60–400 mm
drilling diameter



16.4 kW / 44 hp
power



Trailer-mounted
compact design

CH-KT300 DRILLING RIG

Technical Parameters & Product Features



Technical Parameters

1. Maximum Drilling Depth	100–300 m
2. Drill Pipe Diameter	50 mm
3. Drill Pipe Length	2–3 m
4. Drilling Diameter	75–320 mm
5. Drill Rig Dimensions	2150 × 1030 × 1540 mm
6. Overall Machine Weight	800 kg
7. Pipe Changing Method	Thread
8. Engine Power	26 kW / 35 hp
9. Drilling / Breaking Method	Impact Rotation
10. Water Pump	3-inch centrifugal water pump
11. Mast Height	3 m
12. Lifting Capacity	4000 kg

- Customizable engine horsepower and optional track drive
- Customized drilling towers available
- Suitable for water well drilling and geological exploration
- Consumable parts available for drilling rigs and drilling tools
- Drill pipe quantity can be selected according to required drilling depth



100–300 m
drilling depth



75–320 mm
drilling diameter



26 kW / 35 hp
power



Crawler-mounted
compact design

CH-JG360

TECHNICAL PARAMETERS OF DRILLING RIG

High Performance • Reliable • Efficient



Powerful Engine

16.4KW-44 horsepower
strong power, high
efficiency



High Efficiency Drilling

Impact rotation drilling,
fast speed and
high efficiency



Stable & Durable

Sturdy structure,
suitable for various
working conditions



Easy Operation

Simple structure,
convenient operation
and maintenance

CH-JG360 Technical Parameters of Drilling Rig

	Maximum drilling depth	90-300m
	Drill Pipe Diameter	76mm
	Drill pipe length	2m
	Drilling diameter	90-400mm
	Drill Rig Dimensions	2500mm*1400mm*2800mm
	Overall machine weight	3000KG(Drill pipes not included)
	Rod replacement method	thread
	Engine power	16.4KW-44 horsepower
	Drilling Method / Breaking Method	Impact Rotation
	Water pump power	4-inch centrifugal water pump
	Improve the travel route / Increase the height	3.5m
	Improve capabilities / Enhancing power	6000KG



Customizable engine horsepower and track drive available



Suitable for water well drilling
and geological exploration



Wear parts and tools equipped for drilling rigs



CH-JH300 DRILLING RIG

Technical Parameters & Product Features



Technical Parameters

Maximum Drilling Depth	200–300 m
Drill Pipe Diameter	76, 89, 102 mm
Drill Pipe Length	3 m
Drilling Diameter	140–254 mm
Drill Rig Dimensions	4700 × 2150 × 2350 mm
Overall Machine Weight	5500 kg (drill pipes not included)
Pipe Changing Method	Thread
Engine Power	76/85 kW – 104/115 horsepower
Drilling / Breaking Method	Impact Rotation
Water Pump	4-inch centrifugal water pump
Mast Height	3.5 m
Lifting Capacity	10000 kg

- ✓ Customizable engine horsepower and optional track drive
- ✓ Suitable for water well drilling and geological exploration
- ✓ Wear parts and tools equipped for drilling rigs



200–300 m
drilling depth



140–254 mm
drilling diameter



4-inch
water pump



Heavy-duty
trailer-mounted design

CUSTOMIZED DRILLING RIG SOLUTIONS



CH-F200 Drilling Rig



CH-S450 Drilling Rig



CH-KT300 Drilling Rig



CH-JH300 Drilling Rig



CH-Z1000 Drilling Rig



CH-Z400 Drilling Rig



CH-F300 Drilling Rig

CUSTOMIZED DRILLING RIG ***ACCESSORIES SOLUTIONS***

Comprehensive customization for drill rods, core barrels, handling tools, and rig support components.



NQ / PQ / HQ Series Drill Rods



Custom Drill Rods in Various Sizes



Customized Core Barrel Casing



Customized Lifter



Customized Drill Pipe Wrench



Customized Breakout Device

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Manufacturing Base (Factory):

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Hunan, China



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DRILLING • INNOVATION • TRUST