



DRILL BITS

FACTORY:
KUNSHAN HAOJIANG DRILLING TOOLS CO., LTD
Add: Kunshan, Jiangsu Province, China

OFFICE:
HAOJIANG DRILLING SERVICE CO.,LTD
Add: Qingdao City, Shandong Province, China
Tel: +86 546 8300512
Email: info@hjdbits.com
Web: www.hjdbits.com



**HAOJIANG
DRILLING**



**IT'S
TIME TO
START YOUR
DRILL**

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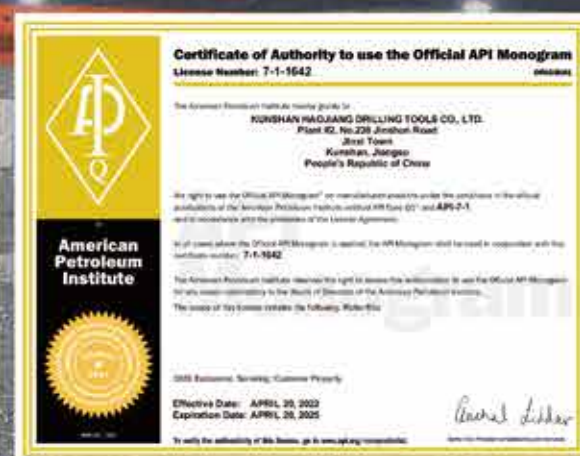


公司简介

昆山昊江钻井工具有限公司（简称：昆山昊江）前身为上海第一石油机械厂，成立于1956年，为中国第一家生产三牙轮钻头企业，后于1993年与香港宝利集团合资成立宝升钻井机械有限公司。1999年宝升钻井机械有限公司被国内生产三牙轮钻头龙头企业江钻股份有限公司收购，2004年应江钻股份有限公司要求于转制成立上海昊江钻井机械配件有限公司，并凭借稳定可靠的产品质量成为江钻股份有限公司重要的协作厂家。2014年在苏州市昆山市建设制造基地，成立昆山昊江钻井工具有限公司。随着公司的不断发展，昆山昊江钻井工具有限公司和东营东泰石油装备有限公司合资成立了青岛昊江钻井服务有限公司。

昆山昊江主要从事各种系列的石油牙轮钻头、矿用钻头的开发、研制、生产和销售，产品规格覆盖3 7/8"—26"。公司产品除用于国内市场外，还畅销日本、东南亚及北美地区，得到了国内外用户的高度赞誉和青睐。公司具有灵活的市场适应机制，可向国内、外客户及时提供质量稳定、性能可靠的产品，同时提供优良的售前、售后服务。昊江公司建成了以数控加工中心为主体的钻头柔性生产线，建立了完善的质量保证体系，公司通过了ISO9001和API 7-1认证。

昆山昊江遵循“诚信、专业、责任、创新”的企业理念，坚持用领先的设计彰显质量，用先进的工艺促进质量，用完善的管理保证质量，不断扩大国内国际市场，为石油钻井业提供优质产品。



HONEST SHARE WIN-WIN RESPONSIBILITY

COMPANY PROFILE

Haojiang Drilling Service Co., Ltd (referred to as HJD BITS) formerly known as Shanghai First Petroleum Machinery Factory, was established in 1956 and was the first enterprise in China to produce tricone bits. In 1993, it jointly established Baosheng Drilling Machinery Co., Ltd. with Hongkong Baoli International Group Corp. Limited. In 1999, Baosheng Drilling Machinery Co., Ltd. was acquired by Kingdream Public Limited Company a leading domestic manufacturer of tricone bits. In 2004, at the request of Kingdream Public Limited Company, Shanghai Haojiang Drilling Machinery Parts Co., Ltd. was established and became an important cooperative manufacturer of Kingdream Public Limited Company with its stable and reliable product quality. In 2014, the manufacturing base was built in Kunshan, Suzhou, and Kunshan Haojiang Drilling Tools Co., Ltd. was established. With the continuous development of the company, Kunshan Haojiang Drilling Tools Co., Ltd. and Sinotai Petroleum Equipment Co., Ltd jointly established Haojiang Drilling Service Co., Ltd.

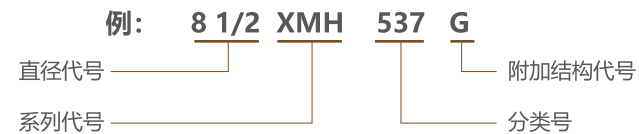
HJD BITS is mainly engaged in the research, development, production, and sales of various series of oil Roller Cone Bits and mining drill bits, with product specifications covering 3 7/8"-26". Besides being used in the domestic market, HJD BITS' products also sell well in Japan, Southeast Asia and North America, receiving high praise and favor from domestic and foreign customers. With flexible market adaptation mechanism, HJD BITS can provide stable quality and reliable oil products to domestic and foreign customers in a timely manner, while also providing excellent pre-sales and after-sales services. HJD BITS has built a flexible production line of drill bits mainly with CNC machining center, established a perfect quality assurance system, established a comprehensive quality assurance system, and passed ISO 9001 and API 7-1 certifications.

HJD BITS adheres to the corporate philosophy of "Honest, Share, Win-win, Responsibility", insists on showcasing quality with leading design, promoting quality with advanced technology, ensuring quality with perfect management, continuously expanding domestic and international markets.

HJD BITS will continuously strive to provide the best solutions for the drilling industry. Choose HJD BITS, choose the excellent fusion of quality and craftsmanship. Made in China, trusted by the Global.

产品命名方法

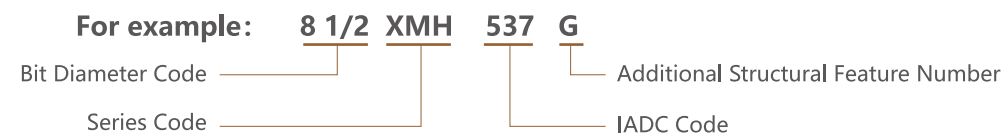
昊江牙轮钻头型号由钻头直径代号、系列代号、分类号和附加结构特征号四部分组成。



- 8 1/2为直径代号，表示钻头直径为8 1/2in、215.9mm。
- XMH为系列代号，表示滑动轴承橡胶密封系列。
- 537为分类号，表示IADC编码，低抗压强度、软到中硬地层的第3级镶齿钻头。
- G为附加结构代号，表示掌背镶嵌保径齿。

Product Naming Method

HJD BITS model consists of four parts: bit diameter code, series code,IADC code, and additional structural feature number.



- 8 1/2 is the bit diameter code, indicating that the diameter of the bit is 8 1/2in or 215.9mm.
- XMH is the series code, indicating that the rubber sealing series of journal bearing.
- 537 is IADC code, indicating that the 3rd level toothed bit with low compressive strength and soft to medium hard formations.
- G is an additional structural code, indicating that the palm back is embedded with diameter retaining teeth.



Bit Application Table

钻头应用表

钻头应用 Bit Application	XMH	XMG	XMW	XMK	XMJ	XME	XYM
小井眼 Slim Hole	▲						▲
中高速 Medium-high speed					▲		
一般地层 General Strata	▲	▲	▲	▲	▲	▲	▲
空气冷却 Air Cooling				▲			

Bit Structural Characteristics

钻头结构特征

钻头结构特征 Bit Structural Characteristics	XMH	XMG	XMW	XMK	XMJ	XME	XYM
滑动轴承 Journal Bearing	▲					▲	▲
滚动轴承 Roller Bearing		▲	▲	▲		▲	▲
浮动轴承 Floating Bearing					▲		
橡胶密封 Rubber Seal	▲	▲			▲	▲	▲
金属密封 Metal Seal						▲	

IADC 钻头分类

钻头类别	适用地层			结构特征						
	系列	岩性	分级	非密封滚动轴承	非密封空气冷却滚动轴承	非密封滚动轴承保径	密封滚动轴承	密封滚动轴承保径	密封滑动轴承	密封滑动轴承保径
				1	2	3	4	5	6	7
钢齿钻头	1	低抗压强度高可钻性的软地层	1	▲			▲	▲	▲	▲
			2	▲			▲	▲	▲	▲
			3	▲			▲	▲	▲	▲
			4							
	2	高抗压强度的中等到中硬地层	1	▲			▲	▲	▲	▲
			2					▲		▲
			3					▲		
			4	▲		▲	▲	▲		
	3	半研磨性及研磨性的硬地层	1						▲	▲
			2	▲		▲	▲			
			3							
			4							
镶齿钻头	4	低抗压强度高可钻性的软地层	1					▲		▲
			2							
			3					▲		▲
			4					▲		▲
	5	低抗压强度的软到中等地层	1					▲		▲
			2					▲		▲
			3		▲			▲		▲
			4		▲			▲		▲
	6	高抗压强度的中硬地层	1		▲			▲		▲
			2					▲		▲
			3		▲			▲		▲
			4		▲					▲
	7	半研磨性及研磨性的硬地层	1		▲					
			2		▲					
			3							▲
			4		▲					
	8	高研磨性的极硬地层	1							
			2							
			3		▲					▲
			4							

IADC Bit Classification

Bit Category	Applicable Strata			Structure Characteristics						
	Series	Lithology	Grade	Non-sealed Roller Bearing	Non-sealed Air-Cooled Roller Bearings	Non-sealed Roller Bearing Gauge Protection	Sealed Roller Bearing	Sealed Roller Bearing Gauge Protection	Sealed Journal Bearing	Sealed Journal Bearing Gauge Protection
				1	2	3	4	5	6	7
Steel Tooth Bit	1	Soft strata with low compressive strength and high drill ability	1	▲			▲	▲	▲	▲
			2	▲			▲	▲	▲	▲
			3	▲			▲	▲	▲	▲
			4							
	2	Medium to medium hard strata with high compressive strength	1	▲			▲	▲	▲	▲
			2					▲		▲
			3					▲		
			4	▲		▲	▲	▲		
	3	Semi-abrasive and abrasive hard strata	1						▲	▲
			2	▲		▲	▲			
			3							
			4							
Tungsten Carbide Insert Bit	4	Soft strata with low compressive strength and high drill ability	1					▲		▲
			2							
			3					▲		▲
			4					▲		▲
	5	Soft to medium strata with low compressive strength	1					▲		▲
			2					▲		▲
			3		▲			▲		▲
			4		▲			▲		▲
	6	Medium-hard strata with high compressive strength	1		▲			▲		▲
			2					▲		▲
			3		▲			▲		▲
			4		▲					▲
	7	Semi-abrasive and abrasive hard strata	1		▲					
			2		▲					
			3							▲
			4		▲					
	8	Highly abrasive and extremely hard formations	1							
			2							
			3		▲					▲
			4							

钻头尺寸与API连接螺纹

Bit Size and API Connection Thread

钻头尺寸 Bit Size		API连接螺纹 API Connection Thread	推荐上扣扭矩 Recommended Make-up Torque
英寸 (in)	毫米 (mm)	英寸 (in)	千牛·米 (KN.m)
3 7/8	98.43	2 3/8 REG	4.0-4.7
4 1/2	114.30		
4 5/8	117.48		
4 3/4	120.65	2 7/8 REG	6.0-7.5
5 1/8	130.18		
5 1/4	133.35		
5 3/8	136.53	3 1/2 REG	9.5-12.2
5 1/2	139.70		
5 5/8	142.88		
5 7/8	149.23		
6	152.40		
6 1/8	155.58		
6 1/4	158.75		
6 1/2	165.10		
6 5/8	168.28		
6 3/4	171.45		
7 1/2	190.50		
7 5/8	193.68		
7 7/8	200.03	4 1/2 REG	16.3-21.7
8 1/8	206.38		
8 3/8	212.73		
8 1/2	215.90		
8 3/4	222.25		
9	228.60		
9 1/2	241.30	6 5/8 REG	37.9-43.3
9 5/8	244.48		
9 7/8	250.83		
10 5/8	269.88		
11 5/8	295.28		
11 7/8	301.63		
12 1/4	311.15		
13 1/2	342.90		
13 5/8	346.08		
13 3/4	349.25		
14 3/4	374.65	7 5/8 REG	46.1-54.2
15 1/2	393.70		
16	406.40		
17 1/2	444.50		
18 7/8	479.43		
19 1/3	490.54		
20	508.00		
22	558.80		
24	609.60		
26	660.40		



API牙轮钻头公差

API Roller Cone Bits Tolerances

API牙轮钻头公差 (除矿用钻头外)
API Roller Cone Bits Tolerances (Excluding Mining Bit)

钻头直径尺寸 Bit Diameter Size		直径公差 Diameter Tolerance	
英寸 (in)	毫米 (mm)	英寸 (in)	毫米 (mm)
3 3/8-13 3/4	85.73-349.25	0-1/32	0-0.79
14-17 1/2	355.6-444.5	0-1/16	0-1.57
17 5/8-26	447.68-660.4	0-3/32	0-2.38

矿用牙轮钻头公差
Mining Roller Cone Bits Tolerances

钻头直径尺寸 Bit Diameter Size		直径公差 Diameter Tolerance	
英寸 (in)	毫米 (mm)	英寸 (in)	毫米 (mm)
3 3/8-4 3/4	85.73-120.65	0-1/16	0-1.57
5 1/8-6 3/4	130.18-171.45	0-5/64	0-1.98
7 1/2-9	190.5-228.6	0-1/8	0-3.18
9 1/2-17 1/2	241.3-444.5	0-5/32	0-3.97

喷嘴系列

Nozzle Series

喷嘴尺寸系列

Nozzle Dimension Series

喷嘴尺寸代码 Nozzle Size Code	钻头直径尺寸 Bit Diameter Size		喷嘴外径 Nozzle Outer Diameter	喷嘴长度 Nozzle Length	喷嘴出口直径尺寸 Nozzle Outlet Diameter Size
	英寸 (in)	毫米 (mm)	毫米 (mm)	毫米 (mm)	毫米 (mm)
S1	3 3/4-5 1/2	95.25-139.7	20.3	17.48	6-14mm, distance 1mm
S2	5 5/8-7 3/8	142.88-187.33	23.5	19.05	6-16mm, distance 1mm
S3	7 1/2-8 1/4	190.5-209.55	29.74	20.62	6-22mm, distance 1mm
S4	8 3/8-14 5/8	212.73-371.48	32.89	26.97	6-22mm, distance 1mm
S5	14 3/4-26	374.65-660.4	40.84	26.97	6-22mm, distance 1mm
SC2	8 3/8-12 1/4	212.73-311.15	23.5	26.0	6-16mm, distance 1mm
SC4	13 3/8-26	339.73-660.4	32.89	35.32	6-22mm, distance 1mm

注：加长喷嘴、特殊喷嘴可根据用户需求设计开发。

Note: Extended nozzles and special nozzles can be designed and developed according to user needs.



产品系列简介

昊江牙轮钻头根据轴承结构和产品结构命名钻头系列。

按轴承结构命名的钻头系列包括：XMH、XMG、XMW、XMK、XMF

按产品结构命名的钻头系列包括：XME、XMY

PRODUCT SERIES INTRODUCTION

HJD BITS is named according to their bearing structure and product structure.

Drill Bits series named according to the bearing structure includes: XMH, XMG, XMW, XMK, XMF

Drill Bits series named according to product structure includes: XME, XMY



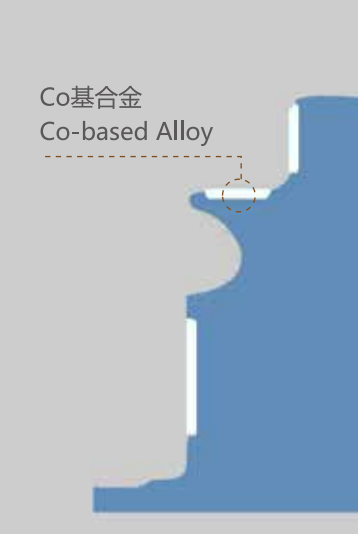
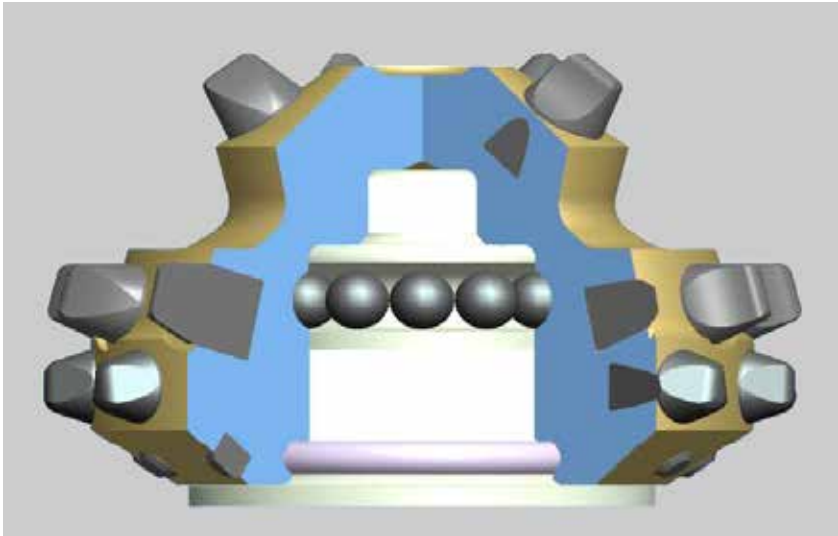


XMH 滑动轴承橡胶密封牙轮钻头

- XMH系列钻头为O型橡胶密封滑动轴承钻头，配合不同的切削结构，可以适应极软到极硬地层；
- 牙掌轴承表面堆焊耐磨合金层，牙轮轴承镀银，提高承载能力和抗咬合能力；
- 采用耐250度高温、抗磨损的新型润滑脂，提高密封润滑系统耐高温的能力；
- 镶齿钻头采用高强度高韧性硬质合金齿，提高齿的抗冲击能力，减少断齿率；
- 钢齿钻头齿面敷焊耐磨材料，进一步提高钻头的耐磨性。

XMH Journal Bearing Rubber Seal Roller Cone Bits

- XMH series bits are O-type rubber sealed journal bearing bits, matched with different cutting structures, which can adapt to extremely soft to extremely hard bottom layers.
- The surface of the tooth palm bearing is overlaid with a wear-resistant alloy layer, and the tooth wheel bearing is silver plated, improving its load-bearing capacity and anti-bite ability.
- The use of a new type of lubricating grease that can withstand high temperatures of 250 degrees and is resistant to wear has improved the high-temperature resistance of the sealing lubrication system.
- The inset bit adopts high-strength and high toughness hard alloy teeth, which improves the impact resistance of the teeth and reduces the rate of tooth breakage.
- Welding wear-resistant materials on the tooth surface of steel toothed drill bits to further improve the wear resistance of drill bits.



钻头尺寸 Bit Size		钻头型号 Bit Type
英寸 (in)	毫米 (mm)	
3 7/8	98.43	XMH117G. XMH127G. XMH137G. XMH537G. XMH617G. XMH637G
4 5/8	117.48	XMH117G. XMH127G. XMH137G. XMH537G. XMH617G. XMH637G
5 5/8	142.88	XMH117G. XMH127G. XMH137G. XMH537G. XMH617G. XMH637G
5 7/8	149.23	XMH117G. XMH127G. XMH137G. XMH537G. XMH617G. XMH637G
6	152.4	XMH117G. XMH127G. XMH137G. XMH537G. XMH617G. XMH637G
6 1/4	158.75	XMH117G. XMH127G. XMH137G. XMH537G. XMH617G. XMH637G
6 1/2	165.1	XMH117G. XMH127G. XMH137G. XMH537G. XMH617G. XMH637G
6 3/4	171.45	XMH117G. XMH127G. XMH137G. XMH537G. XMH617G. XMH637G
7 1/2	190.5	XMH117G. XMH127G. XMH137G. XMH537G. XMH617G. XMH637G
7 7/8	200.03	XMH117G. XMH127G. XMH137G. XMH537G. XMH617G. XMH637G
8 1/2	215.9	XMH116. XMH117G. XMH126. XMH127G. XMH136. XMH137G. XMH216. XMH217G. XMH437G. XMH447G. XMH517G. XMH537G. XMH547G. XMH617G. XMH637G
8 3/4	222.25	XMH116. XMH117G. XMH126. XMH127G. XMH136. XMH137G. XMH216. XMH217G. XMH437G. XMH447G. XMH517G. XMH537G. XMH547G. XMH617G. XMH637G
9 1/2	241.3	XMH117G. XMH127G. XMH137G. XMH217G. XMH437G. XMH517G. XMH537G. XMH547G. XMH637G
9 7/8	250.83	XMH117G. XMH127G. XMH137G. XMH217G. XMH437G. XMH517G. XMH537G. XMH547G. XMH637G
10 5/8	269.88	XMH116. XMH117G. XMH126. XMH127G. XMH136. XMH137G. XMH216. XMH217G. XMH437G. XMH517G. XMH537G
11 5/8	295.28	XMH116. XMH117G. XMH126. XMH127G. XMH136. XMH137G. XMH217G. XMH227G. XMH417G. XMH437G. XMH517G. XMH537G. XMH547G. XMH617G. XMH627G. XMH637G
11 7/8	301.63	XMH116. XMH117G. XMH126. XMH127G. XMH136. XMH137G. XMH217G. XMH227G. XMH417G. XMH437G. XMH517G. XMH537G. XMH547G. XMH617G. XMH627G. XMH637G
12 1/4	311.15	XMH116. XMH117G. XMH126. XMH127G. XMH136. XMH137G. XMH216. XMH217G. XMH437G. XMH517G. XMH537G. XMH617G. XMH637G
13 5/8	346.08	XMH117G. XMH127G. XMH137G. XMH437G. XMH517G. XMH537G
14 3/4	374.65	XMH117G. XMH127G. XMH137G. XMH437G. XMH517G. XMH537G
15 1/2	393.7	XMH117G. XMH127G. XMH137G. XMH437G. XMH517G. XMH537G
16	406.4	XMH117G. XMH127G. XMH137G. XMH437G. XMH517G. XMH537G
17 1/2	444.5	XMH117G. XMH127G. XMH137G. XMH437G. XMH517G. XMH537G

注：表中未出现的钻头尺寸型号，根据用户需求进行设计。

Note: The size and model of bits not shown in the table are designed according to user needs.

XMG
滚动轴承橡胶密封牙轮钻头

- XMG系列钻头为O形橡胶密封滚动轴承钻头，是较高钻速钻井的理想工具；
- 将圆柱滚动体置于牙轮体凹槽内，加大了轴颈尺寸，具有承受较高钻压和适应高转速的能力；
- 止推轴承副表面分别进行减磨及硬化处理，提高承载能力和抗咬合能力；
- 采用耐250度高温、抗磨损的新型润滑脂，提高密封润滑系统耐高温的能力；
- 镶齿钻头采用高强度高韧性硬质合金齿，提高齿的抗冲击能力，减少断齿率；
- 钢齿钻头齿面敷焊耐磨材料，进一步提高钻头的耐磨性。

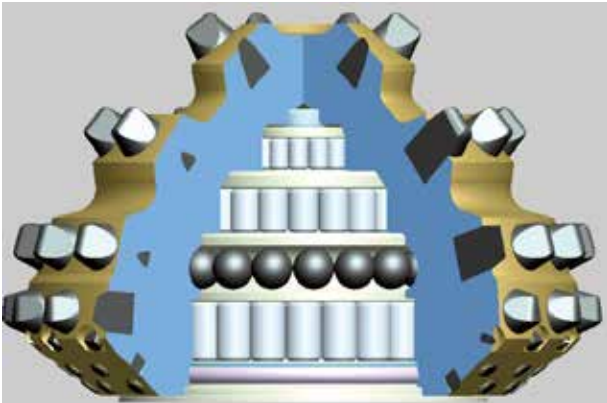


XMG
Roller Bearing Rubber Seal Roller Cone Bits

- The XMG series bit is an O-ring rubber sealed roller bearing bit, which is an ideal tool for high drilling speed drilling.
- Place the cylindrical rolling element in the groove of the tooth wheel body, increasing the size of the journal, and having the ability to withstand high drilling pressure and adapt to high rotational speeds.
- The surface of the thrust bearing pair is subjected to wear reduction and hardening treatment respectively, improving its load-bearing capacity and anti-bite ability.
- Adopting a new type of lubricating grease that can withstand high temperatures of 250 degrees and resist wear, improving the high-temperature resistance of the sealing lubrication system.
- The inset bit adopts high-strength and high toughness hard alloy teeth, which improves the impact resistance of the teeth and reduces the rate of tooth breakage.
- Welding wear-resistant materials on the tooth surface of steel toothed drill bits to further improve the wear resistance of the drill bit.

钻头尺寸 Bit Size		钻头型号 Bit Type
英寸 (in)	毫米 (mm)	
8 1/2	215.9	XMG114. XMG115G. XMG124. XMG125G. XMG134. XMG135G. XMG214. XMG215G. XMG234. XMG235G
9 1/2	241.3	XMG114. XMG115G. XMG124. XMG125G. XMG134. XMG135G. XMG214. XMG215G. XMG234. XMG235G
9 5/8	244.48	XMG114. XMG115G. XMG124. XMG125G. XMG134. XMG135G. XMG214. XMG215G. XMG234. XMG235G
9 7/8	250.83	XMG114. XMG115G. XMG124. XMG125G. XMG134. XMG135G. XMG214. XMG215G. XMG234. XMG235G
10 5/8	269.88	XMG114. XMG115G. XMG124. XMG125G. XMG134. XMG135G. XMG215G. XMG235G. XMG415G. XMG435G. XMG515G. XMG545G
11 5/8	295.28	XMG115G. XMG125G. XMG135G. XMG435G. XMG515G. XMG535G
12 1/4	311.15	XMG114. XMG115G. XMG124. XMG125G. XMG134. XMG135G. XMG215G. XMG235G. XMG415G. XMG435G. XMG515G. XMG545G
13 5/8	346.08	XMG114. XMG115G. XMG124. XMG125G. XMG134. XMG135G. XMG435G
13 3/4	349.25	XMG114. XMG115G. XMG124. XMG125G. XMG134. XMG135G. XMG435G
14 3/4	374.65	XMG114. XMG115G. XMG124. XMG125G. XMG134. XMG135G. XMG435G. XMG515G. XMG535G
15 1/2	393.7	XMG114. XMG115G. XMG124. XMG125G. XMG134. XMG135G. XMG435G. XMG515G. XMG535G
16	406.4	XMG114. XMG115G. XMG124. XMG125G. XMG134. XMG135G. XMG435G. XMG515G. XMG535G
17 1/2	444.5	XMG114. XMG115G. XMG124. XMG125G. XMG134. XMG135G. XMG215G. XMG235G. XMG435G. XMG515G. XMG535G
18 7/8	479.43	XMG114. XMG115G. XMG124. XMG125G. XMG134. XMG135G. XMG435G. XMG515G. XMG535G
19 1/3	490.54	XMG114. XMG115G. XMG124. XMG125G. XMG134. XMG135G. XMG435G. XMG515G. XMG535G
20	508	XMG114. XMG115G. XMG124. XMG125G. XMG134. XMG135G. XMG435G. XMG515G. XMG535G
22	558.8	XMG114. XMG115G. XMG124. XMG125G. XMG134. XMG135G. XMG435G. XMG515G. XMG535G
24	609.6	XMG114. XMG115G. XMG124. XMG125G. XMG134. XMG135G. XMG435G. XMG515G. XMG535G
26	660.4	XMG114. XMG115G. XMG124. XMG125G. XMG134. XMG135G. XMG435G. XMG515G. XMG535G

注：表中未出现的钻头尺寸型号，根据用户需求进行设计。
Note: The size and model of bits not shown in the table are designed according to user needs.



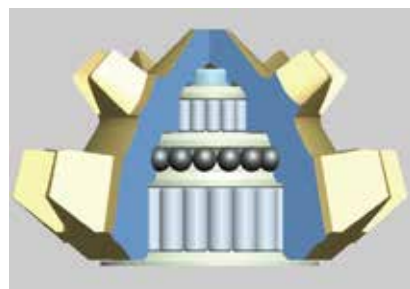


XMW 非密封滚动轴承牙轮钻头

- ⇒ XMW系列钻头为非密封滚动轴承钻头，对于高转速钻井、地热井钻井，它是理想而又经济的工具；
- ⇒ 钻头轴承无密封，钻井液直接进入轴承腔内冷却轴承，适合地热井钻井。

XMW Non-sealed Roller Bearing Roller Cone Bits

- ⇒ The XMW series bits are non-sealed roller bearing bits, which are ideal and economical tools for high-speed drilling and geothermal well drilling.
- ⇒ The bit bearing is non-sealed, and the drilling fluid directly enters the bearing cavity to cool the bearing, making it suitable for geothermal well drilling.



钻头尺寸 Bit Size		钻头型号 Bit Type
英寸 (in)	毫米 (mm)	
4 5/8	117.48	XMW211
5 7/8	149.23	XMW121. XMW211
6 1/4	158.75	XMW121. XMW211. XMW321
6 1/2	165.10	XMW121. XMW211. XMW321
6 3/4	171.45	XMW121. XMW211. XMW321
7 1/2	190.50	XMW121. XMW131. XMW211. XMW241
7 5/8	193.68	XMW121. XMW131. XMW211. XMW241
8 1/2	215.90	XMW111. XMW121. XMW131
9 1/2	241.30	XMW111. XMW121.. XMW131
11 5/8	295.28	XMW111. XMW121. XMW131
12 1/4	311.15	XMW111. XMW121. XMW131
14 3/4	374.65	XMW111. XMW121. XMW131. XMW211. XMW241. XMW321
15 1/2	393.70	XMW111. XMW121. XMW131
16	406.40	XMW111. XMW121. XMW131. XMW211. XMW241. XMW321
17 1/2	444.50	XMW111. XMW121. XMW131. XMW211. XMW241. XMW321
19 1/3	490.54	XMW111. XMW121. XMW131. XMW211. XMW241. XMW321
20	508.00	XMW111. XMW121. XMW131. XMW211. XMW241. XMW321
22	558.80	XMW111. XMW121. XMW131. XMW211. XMW241. XMW321
24	609.60	XMW111. XMW121. XMW131. XMW211. XMW241. XMW321
26	660.40	XMW111. XMW121. XMW131. XMW211. XMW241. XMW321

注：表中未出现的钻头尺寸型号，根据用户需求进行设计。

Note: The size and model of bits not shown in the table are designed according to user needs.



XMK 非密封滚动空气轴承矿用牙轮钻头

- XMK系列钻头为用空气冷却和清洁的非密封滚动轴承钻头，钻速快、强度高，用于露天煤矿、铁矿、有色金属矿的开发；
- 止推轴承采用高耐磨性、高硬度、耐高温的材料制成，提高承载能力；
- 空气冷却系统可改善轴承腔内的空气循环条件，降低轴承腔内温度；
- 切削结构采用圆弧的硬质合金球齿，提高抗压能力和耐磨性，减少断齿率；
- 掌背镶装硬质合金齿和敷焊耐磨合金，减少掌背的磨损，延长轴承寿命。

XMK Non-sealed Roller Air Bearing Mining Roller Cone Bits

- The XMK series bits are non-sealed roller bearing bits that are cooled and cleaned by air with fast drilling speed and good strength which are used for the development of open-pit coal mines, iron mines, and non-ferrous metal mines.
- The thrust bearing is made of materials with high wear resistance, high hardness, and high temperature resistance to improve its load-bearing capacity.
- The air-cooling system can improve the air circulation conditions in the bearing cavity and reduce the temperature inside the bearing cavity.
- The cutting structure adopts circular arc hard alloy ball teeth to improve compressive strength and wear resistance and reduce tooth breakage rate.
- The palm back is equipped with hard alloy teeth and welded with wear-resistant alloy to reduce wear on the palm back and extend bearing life.



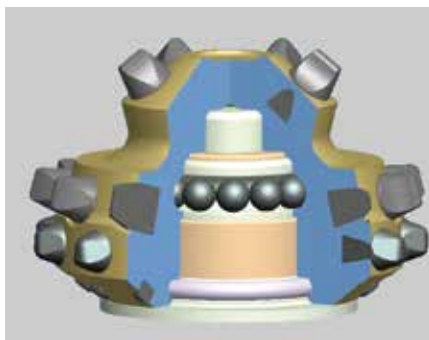
钻头尺寸 Bit Size		钻头型号 Bit Type
英寸 (in)	毫米 (mm)	
5 7/8	149.23	XMK532. XMK542. XMK612. XMK632. XMK642. XMK712. XMK722. XMK742. XMK832
6 1/4	158.75	XMK532. XMK542. XMK612. XMK632. XMK642. XMK712. XMK722. XMK742. XMK832
6 3/4	171.45	XMK532. XMK542. XMK612. XMK632. XMK642. XMK712. XMK722. XMK742. XMK832
7 7/8	200	XMK532. XMK542. XMK612. XMK632. XMK642. XMK712. XMK722. XMK742. XMK832
8 1/2	215.90	XMK532. XMK542. XMK612. XMK632. XMK642. XMK712. XMK722. XMK742. XMK832
8 3/4	222.25	XMK532. XMK542. XMK612. XMK632. XMK642. XMK712. XMK722. XMK742. XMK832
9	228.6	XMK532. XMK542. XMK612. XMK632. XMK642. XMK712. XMK722. XMK742. XMK832
9 7/8	250.825	XMK532. XMK542. XMK612. XMK632. XMK642. XMK712. XMK722. XMK742. XMK832
11	279.4	XMK532. XMK542. XMK612. XMK632. XMK642. XMK712. XMK722. XMK742. XMK832
12 1/4	311.15	XMK532. XMK542. XMK612. XMK632. XMK642. XMK712. XMK722. XMK742. XMK832
13 3/4	349.25	XMK532. XMK542. XMK612. XMK632. XMK642. XMK712. XMK722. XMK742. XMK832

注：表中未出现的钻头尺寸型号，根据用户需求进行设计。

Note: The size and model of bits not shown in the table are designed according to user needs.

XMF 浮动轴承橡胶密封牙轮钻头

- XMF系列钻头采用独特的浮动轴承结构，大幅降低轴承系统的摩擦升热和磨损，更适合高转速、高钻压以及中等转速、中等钻压，强化钻井工艺，大幅度提高轴承的寿命、可靠性和稳定性；
- 浮动元件由新材料制成，具有高强度、高弹性、高耐温性、高耐磨性的特点；
- 采用新型润滑剂和氢化丁腈橡胶，可耐250度高温、耐磨、抗磨损；
- 牙掌掌背镶有硬质合金齿，有效保护掌尖，防止掌背磨损和油杯脱落。



XMF Floating Bearing Rubber Seal Roller Cone Bits

- The XMF series bits adopt a unique floating bearing structure, greatly reducing the friction heat and wear of the bearing system. They are more suitable for high speed, high drilling pressure, and medium speed and medium drilling pressure, strengthening drilling technology, and greatly improving the service life, reliability, and stability of the bearings.
- The floating element is made of new materials and has the characteristics of high strength, high elasticity, high temperature resistance, and high wear resistance.
- With new lubricant and hydrogenated Nitrile rubber, it can withstand 250 °C high temperature, wear, and tear resistance.
- The back of the tooth palm is embedded with hard alloy teeth, effectively protecting the palm tip and preventing wear on the palm back and oil cup detachment.

钻头尺寸 Bit Size		钻头型号 Bit Type
英寸 (in)	毫米 (mm)	
8 1/2	215.90	XMF117G. XMF127G. XMF137G. XMF437G. XMF447G. XMF517G. XMF537G
9 1/2	241.30	XMF117G. XMF127G. XMF137G. XMF437G. XMF447G. XMF517G. XMF537G
12 1/4	311.15	XMF117G. XMF127G. XMF137G. XMF437G. XMF447G. XMF517G. XMF537G

注：表中未出现的钻头尺寸型号，根据用户需求进行设计。

Note: The size and model of bits not shown in the table are designed according to user needs.





XME 单片工程钻头

- 采用滑动轴承形式，牙掌轴承表面堆焊硬合金层，牙轮轴承镀银，提供了承载能力和抗咬合能力。根据使用条件不同选择合适的密封结构，金属密封轴承能够适用于更高的转速；
- 在牙掌掌背布满合金齿，在靠近储油孔部位使用露出较高的球头齿，在水平钻进中明显改善钻具工作状态，并有效保护牙掌和储油孔；
- 优化设计的齿排数、齿数、露齿高度的楔形齿或锥球齿，充分发挥了钻头切削能力和切削速度。

XME Single Piece Engineering Bits

- Adopting a journal bearing form, the surface of the tooth palm bearing is welded with a hard alloy layer, and the tooth wheel bearing is silver plated, providing load-bearing capacity and anti bite ability. Choosing a suitable sealing structure based on different usage conditions can make metal sealed bearings suitable for higher speeds.
- Alloy teeth are covered on the back of the dental palm, and high exposed ball head teeth are used near the oil storage hole to significantly improve the working condition of the drilling tool during horizontal drilling and effectively protect the dental palm and oil storage hole.
- The optimized design of the number of tooth rows, tooth numbers, and exposed height of wedge-shaped or conical spherical teeth fully utilizes the cutting ability and cutting speed of the drill bit.



钻头尺寸 Bit Size		钻头型号 Bit Type
英寸 (in)	牙轮最大直径 (mm) Max OD of Cone	
8 1/2	130	XME127GL XME537GL XME617GL XME637GL XMEJ537GL XMEJ617GL XMEJ637GL
9 7/8	150	XME127GL XME537GL XME617GL XME637GL XMEJ537GL XMEJ617GL XMEJ637GL
12 1/4	180	XME127GL XME537GL XME617GL XME637GL XMEJ537GL XMEJ617GL XMEJ637GL
13 3/4	205	XME127GL XME537GL XME617GL XME637GL XMEJ537GL XMEJ617GL XMEJ637GL
17 1/2	260	XME127GL XME537GL XME617GL XME637GL XMEJ537GL XMEJ617GL XMEJ637GL
20	300	XME127GL XME537GL XME617GL XME637GL XMEJ537GL XMEJ617GL XMEJ637GL

注：表中未出现的钻头尺寸型号，根据用户需求进行设计。

Note: The size and model of bits not shown in the table are designed according to user needs.



XMY 单牙轮钻头

- ✦ XMY系列单牙轮钻头主要以刮削破碎岩石，适应于高转速、高钻压下的老井开窗侧钻、老井加深等小井眼钻井作业；
- ✦ 牙轮和钻头体两级保径，钻头体上镶装主动切削保径齿和被动抗磨保径齿，有较好的保径作用和倒划眼功能；
- ✦ 轴承密封采用高饱和丁腈橡胶圈，优化密封压缩量，提高密封可靠性；
- ✦ 牙掌轴承表面堆焊硬合金层，牙轮轴承镀银，提高轴承工作能力。

XMY Single Cone Bits

- ✦ The XMY series single cone bits are mainly used to scrape and break rocks, suitable for small hole drilling operations such as sidetracking and deepening of old wells at high speeds and high drilling pressures.
- ✦ The cone and drill body have two levels of diameter protection, with active cutting diameter protection teeth and passive anti wear diameter protection teeth embedded on the drill body, which has good diameter protection and reverse reaming function.
- ✦ High saturated Nitrile rubber ring is used for bearing seal to optimize seal compression and improve seal reliability.
- ✦ The surface of the tooth palm bearing is welded with a hard alloy layer, and the tooth wheel bearing is silver plated to improve its working ability.



钻头尺寸 Bit Size		钻头型号 Bit Type
英寸 (in)	毫米 (mm)	
3 7/8	98.43	XMY537. XMY617
4 1/2	114.3	XMY517. XMY527. XMY537. XMY617
4 5/8	117.48	XMY437. XMY517. XMY527. XMY537
4 3/4	120.65	XMY437. XMY517. XMY527. XMY537
5 5/8	142.88	XMY517. XMY537. XMY617. XMY637
5 7/8	149.23	XMY517. XMY537. XMY617. XMY637
6	152.4	XMY517. XMY537. XMY617. XMY637
6 1/4	158.75	XMY517. XMY537. XMY617. XMY637
6 1/2	165.1	XMY517. XMY537. XMY617. XMY637

注：表中未出现的钻头尺寸型号，根据用户需求进行设计。
Note: The size and model of bits not shown in the table are designed according to user needs.



HDD 非开挖扩孔器

- HDD系列钻具是非开挖及穿越施工行业通用岩石扩孔钻具，我公司自主设计、生产牙轮掌片，可生产各类牙轮扩孔器,适用各种地层；
- 合理排布牙轮掌片，优化设计的齿排数、齿数、露齿高度和独特的齿型，提升钻头的切削能力和切削速度；
- 优化设计导流槽，更好地排出岩屑，防止重复破碎；
- 具有本体导向带，导向效果好，可以平稳接触井壁，减轻管道轨迹变线倾向；
- 优化焊接工艺，防止焊接过热对密封件的损伤。

HDD Hole Opener

- HDD Hole Openers are universal rock reaming drilling tools in the non-excavation and crossing construction industry. Our company independently designs and produces tooth wheel palms, which can produce various types of tooth wheel reamers suitable for various formations.
- Reasonable arrangement of tooth wheel palm piece, optimized design of tooth row number, tooth number, exposed tooth height and unique tooth shape to enhance the cutting ability and cutting speed of the drill bit.
- Optimize the design of the diversion channel to better discharge rock debris and prevent repeated crushing.
- Equipped with a proper guiding belt, the guiding effect is good, and it can smoothly contact the wellbore wall, reducing the tendency of pipeline trajectory change.
- Optimize the welding process to prevent damage to the sealing components caused by welding overheating.

扩孔器尺寸 HDD Hole Opener Size	钻头尺寸 Bit Size		钻头型号 Bit Type
	英寸 (in)	牙轮最大直径 (mm) Max OD of Cone	
11 4/5-63 in or 300-1600 mm	8 1/2	130	XME127GL XME537GL XME617GL XME637GL XMEJ537GL XMEJ617GL XMEJ637GL
	9 7/8	150	XME127GL XME537GL XME617GL XME637GL XMEJ537GL XMEJ617GL XMEJ637GL
	12 1/4	180	XME127GL XME537GL XME617GL XME637GL XMEJ537GL XMEJ617GL XMEJ637GL
	13 3/4	205	XME127GL XME537GL XME617GL XME637GL XMEJ537GL XMEJ617GL XMEJ637GL
	17 1/2	260	XME127GL XME537GL XME617GL XME637GL XMEJ537GL XMEJ617GL XMEJ637GL
	20	300	XME127GL XME537GL XME617GL XME637GL XMEJ537GL XMEJ617GL XMEJ637GL

注：表中未出现的钻头尺寸型号，根据用户需求进行设计。

Note: The size and model of bits not shown in the table are designed according to user needs.

XMR地热钻头 XMR Geothermal Drill Bits

- ⇒ XMR系列地热钻头用于国内不同的温度范围采集开发地热（包括热能、水和矿产）资源。
XMR series geothermal drill bits are used to collect and develop geothermal (including thermal energy, water and mineral) resources in different temperature ranges.

XMS水井钻头 XMS Water Well Drill Bits

- ⇒ XMS系列水井钻头用于国内地质普查勘探与水井钻探。
XMS series water well drill bits are used for geological survey exploration and water well drilling.

XMM煤层气钻头 XMM CBM Drill Bits

- ⇒ XMM系列煤层气钻头用于煤层气勘探、开发，具有轴承寿命长、耐磨性强、掌背保径效果好、可靠性高等特点。
XMM series CBM drill bits are used in coalbed methane exploration and development, and have the characteristics of long bearing life, strong wear resistance, good palm back diameter preservation effect and high reliability.

XMD冻结孔钻头 XMD Freeze-hole Drill Bits

- ⇒ XMD冻结孔钻头用于矿井建设中为了形成冻结壁，在待掘井筒周围钻凿冻结孔。
XMD freeze-hole drill bits are used in mine construction to drill frozen holes around the bore to be dug in order to form a freezing wall.



牙轮钻头附加特征

Roller Cone Bits Additional Features

序号 Serial No	代号 Code	附加结构特征 Additional Structure Features
1	C	中心喷嘴 Center Nozzle
2	G	掌背镶嵌保径齿 Back of palm inlaid with diameter retaining teeth
3	K	宽顶齿 Wide top tooth
4	L	掌背扶正块 Metacarpal support block
5	T	圆顶楔齿 (修边齿) Dome wedge tooth (trimming tooth)
6	X	凸顶楔形齿 Convex wedge-shaped teeth
7	Y	圆锥形齿 Conical tooth



C

C: 表示在钻头中心位置布置有喷嘴。中心喷嘴能够有效清洗牙轮，减少钻头的泥包现象，提高钻头的机械钻速，它适合极软到软地层的钻井。

C: Indicates that there is a nozzle arranged at the center of the bit. The central nozzle can effectively clean the cone, reduce the mud inclusion phenomenon of the bit, and improve the mechanical drilling speed of the bit. It is suitable for drilling in extremely soft to soft formations.



G

G: 表示钻头掌背用镶齿强化，它能够有效提高钻头的保径性能，延长钻头的使用寿命。

G: The back of the bit is reinforced with embedded teeth, which can effectively improve the diameter retention performance of the bit and extend its service life.



K

K: 表示在钻头上镶宽齿，主要是针对提高三牙轮钻头在硬塑性地层中机械钻速，它适合在中软至中硬地层的泥岩、砂岩等塑性地层钻井。

K: Insert wide teeth on the bit, mainly aimed at improving the mechanical drilling speed of tricone bit in hard plastic formations. It is suitable for drilling in plastic formations such as mudstone and sandstone in medium to medium hard formations.



L

L: 表示在掌背上上部镶齿强化，它有利于改善钻头工作状态，在定向井和水平井中钻井能有效保护牙掌和储油孔。

L: It indicates that the upper and middle parts of the palm back are reinforced with teeth, which is beneficial for improving the working state of the drill bit. Drilling in directional and horizontal wells can effectively protect the teeth and oil storage holes.



T

T: 表示牙轮特别保径。特别保径牙轮钻头在背锥齿与外排齿之间增加了一排楔形修边齿。它的增加既可提高钻头机械钻速和钻头保径能力，又可很好地修整井壁，改善钻井质量。适合软到中硬地层钻井；由于具有优异的侧切能力，配合适应高转速的轴承密封结构后，它是定向井、水平井钻井的理想工具。



T: Indicates that the teeth are specially sized. The special diameter maintaining cone bit adds a row of wedge-shaped trimming teeth between the back cone teeth and the outer row teeth. Its increase can not only improve the mechanical drilling speed and diameter retention ability of the bit, but also effectively trim the wellbore and improve drilling quality. Suitable for drilling in soft to medium hard formations; Due to its excellent lateral cutting ability, combined with a bearing sealing structure that adapts to high rotational speeds, it is an ideal tool for drilling directional and horizontal wells.

X

X: 表示牙轮主切削齿为低应力凸顶楔形齿或楔形齿，在软到中硬地层中可获得较高的钻速，具有较长的使用寿命。

X: The main cutting teeth of the tooth wheel are low stress convex wedge-shaped teeth or wedge-shaped teeth, which can achieve high drilling speed in soft to medium hard formations and have a long service life.



Y

Y: 表示在钻头上镶圆锥齿，它适合在硬塑性地层钻井。

Y: Indicates the insertion of conical teeth on the bit, which is suitable for drilling in hard plastic formations.



An aerial photograph of a vast open-pit mine. The mine is characterized by deep, terraced levels of earth and rock, creating a complex, stepped landscape. A winding road or conveyor path snakes through the various levels of the mine. In the foreground, a yellow excavator is visible on one of the lower levels. The surrounding area is flat and arid, with some industrial structures and a small body of water visible in the distance under a clear sky.

HJD BITS

**HONEST
SHARE
WIN-WIN
RESPONSIBILITY**