益爵机械
Y·J MACHINERY

旋挖
桩基础全系列服务
Full Range of Services for Rotary Drilled Pile Foundations







武汉益爵腾达机械有限公司
WUHAN YIJUE TENGDA MACHINERY CO., LTD

Persistent Independent R&D · Self-Driven Innovation
Forging the Brand with Unrivaled Competitive Edge

坚持自主研发 自我创新
打造最具核心竞争力的品牌

益爵机械
YIJUE MACHINERY

CONTENT 目录

03
公司简介
Company Profile

05
企业文化
Corporate Culture

06
荣誉资质
Honors and Qualifications

07
企业优势
Enterprise Advantages

09
旋挖钻头系列
Drilling Buckets

35
截齿系列
Drilling Teeth

49
牙轮系列
Drilling Bits

59
旋挖配件系列
Rotary Drilling Accessories

71
益爵工厂
Yijue Factory

74
合作客户
Corporate Clients





公司简介 | COMPANY PROFILE

武汉益爵腾达机械有限公司自2010年成立以来，始终专注于桩基施工钻具和矿山凿岩钻具的研发、生产与销售。经过十五年的稳健发展，公司已发展成一家集研发、生产制造、营销推广于一体的综合性集团企业，业务遍布全国及海外，拥有3个生产基地、5个销售公司和8个货仓，形成了完善的产业链布局。

公司核心制造工厂——百益天成，坐落于金寨县斑竹园镇，占地面积达30000平方米，配备各类中大型先进机械设备，为产品质量和生产效率提供了坚实保障。

作为行业领先的桩基机械配件供应商，武汉益爵腾达机械有限公司主营产品包括旋挖截齿、钻头、牙轮、全跟进护筒等，同时提供专业的钻机租赁服务。公司产品已形成系列化、规模化生产体系，具备强大的成批配套供应能力，是三一重工、中联重科、山河智能等知名旋挖钻机生产厂家的长期战略合作伙伴。

凭借卓越的产品质量和完善的服务体系，公司产品在众多国家级重点工程中得到了广泛应用，包括武汉绿地广场、武汉京东方、深圳会展中心、港珠澳大桥、合肥先进计算中心、中国视界启动区、贵阳奥体中心、厦门新体育中心、翔安机场高速公路、深中通道、狮子洋通道，巴拿马运河桥梁、新加坡机场、大连机场等标志性项目，为地区基础设施建设作出了重要贡献。

未来，武汉益爵腾达机械有限公司将继续秉持"精益求精、追求卓越"的经营理念，不断推进技术创新，提升产品品质，致力于为客户提供更优质的产品和服务，推动桩基、矿业等施工行业的持续发展。









Wuhan Yijue Tengda Machinery Co., Ltd was founded in 2010 which has been dedicated to the research, production, and sales of pile foundation construction drilling tools and mining rock drilling tools. After over 15 years of steady development, the company has grown into a comprehensive group enterprise integrating R&D, production, manufacturing, and sales with operations spanning China and overseas. Currently operates 3 production bases, 5 sales companies, and 8 warehouses, forming a robust industrial chain layout.

The company's core manufacturing facility - Baiyi Tiancheng, is located in Banzhuyuan Town, Jinzhai County, covering an area of 30,000 square meters. Equipped with various medium and large advanced machinery, the facility ensures high product quality and production efficiency.

As a leading supplier of pile foundation machinery parts, Wuhan Yijue Tengda Machinery Co., Ltd. specializes in manufacturing rotary drilling teeth, drilling bits, roller cones, drilling casing , and other products, while also offering professional drilling rig rental services. The company has established a systematic and scalable production system with strong batch supply capabilities, serving as a long-term strategic partner for renowned rotary drilling rig manufacturers such as Sany Heavy Industry, Zoomlion, and Sunward Intelligent.

With excellent product quality and perfect service system, the company's products have been widely used in numerous national key projects, including: Wuhan Greenland Plaza, Wuhan BOE Optoelectronics Project, Shenzhen Convention and Exhibition Center, Hong Kong-Zhuhai-Macao Bridge, Hefei Advanced Computing Center, China Vision Innovation Zone, Guiyang Olympic Sports Center, Xiamen New Sports Center, Xiang'an Airport Expressway, Shenzhen-Zhongshan Channel, Shiziyang Channel, Panama Canal Bridge, Singapore Airport, Dalian Airport and other projects. These projects highlight the company's significant contributions to regional infrastructure development.

For future, Wuhan Yijue Tengda Machinery Co., Ltd. will continue to uphold the business philosophy of "keep improving and pursue excellence", continuously promote technological innovation, improve product quality, and strive to provide customers with better products and services, and promote the sustainable development of construction industries such as pile foundation and mining.

CORPORATE CULTURE

企业文化

使命
Mission

高端旋挖钻机配件生产智造商
Intelligent Manufacturing Leader in Premium Rotary Drilling Rig Components

愿景
Vision

打造最具核心竞争力的品牌
Forging the Brand with Unrivaled Competitive Edge

核心价值观
Core Values

品质为基 · 服务为本 · 创新为力 · 诚信为魂 · 品牌为峰
Quality Foundation · Service Excellence
Innovation Drive · Integrity Core · Brand Legacy

经营理念
Business Philosophy

以专业成就未来 以品质成就客户
Shaping the Future Through Expertise
Elevating Clients with Excellence





HONORS & CERTIFICATIONS

荣誉资质













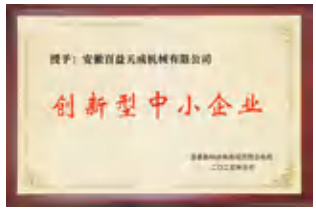


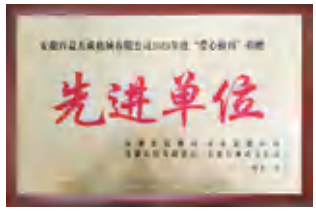














YIJUE ADVANTAGES

益爵优势

01 研发优势：以需求为导向的硬核创新

R&d Advantage: Demand-oriented Hard-core Innovation

▶ 产学研深度融合

与武汉理工大学、中国地质大学、武钢集团共建“钻具联合实验室”，专注钻具构造、超硬合金、耐磨涂层等前沿技术攻关。累计获得8项专利（含1项发明专利），其中“牙轮钻头轴承的双复合密封结构”专利显著提升深孔作业寿命。

▶ 场景化研发体系

地质数据库支撑：收集全国50+典型地层样本（淤泥、砂岩、花岗岩等），定制差异化钻齿方案。

数字化仿真验证：通过ANSYS力学模拟、CFD排渣分析，优化产品结构，新品开发周期缩短30%。

▶ Deep integration of industry

Academia and research Co-established a "drill tool joint laboratory" with Wuhan University of Technology, China University of Geosciences and Wuhan Iron and Steel Group, focusing on cutting-edge technologies such as drill tool structure, superhard alloys and wear-resistant coatings. A total of 8 patents (including 1 invention patent) have been obtained, among which the "double composite sealing structure of roller drill bit bearings" patent significantly improves the life of deep hole operations.

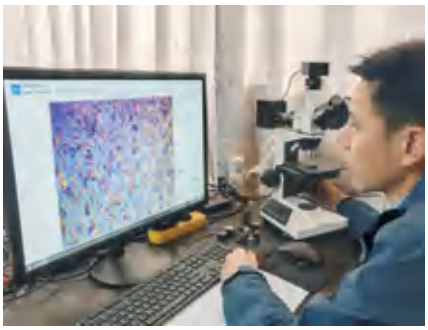
▶ Scenario-Based R&D System

Geological Database Support:

Collected 50+ typical stratum samples (soft soil, sandstone, granite, etc.) to develop customized drill bit solutions for diverse conditions.

Digital Simulation & Verification:

Optimized product structures through ANSYS mechanical simulation and CFD cuttings flow analysis, reducing new product development cycles by 30%.







02 生产优势：规模化与精密制造的双重保障

Production Advantages: Dual Guarantee Of Scale And Precision Manufacturing

▶ 智能生产基地

三大专业化工厂：金寨核心工厂（高精度数控机床集群）、武汉工厂、广东东莞工厂。

关键工艺：截齿采用真空钎焊工艺，无氧化层结合强度提升25%；

牙轮轴承装配恒温车间（±1℃温控），确保配合公差≤0.01mm。

▶ 严苛品控体系

全流程检测：从原材料光谱分析（确保合金成分）到成品台架测试（200小时连续冲击）。

零缺陷管理：关键工序良品率≥99.8%，通过三一重工、中联重科等头部厂商供应链审核。

▶ Smart Production Base

3 specialized factories

- Jinzhai core factory (high-precision CNC machine clusters)
- Wuhan factory
- Dongguan factory (Guangdong)

Key Processes:

Vacuum brazing for cutter teeth: Oxide-free bonding increases joint strength by 25%

Temperature-controlled bearing assembly workshop (±1°C): Ensures ≤0.01mm mating tolerance for roller cones

▶ Strict Quality Control System

Full-process inspection:

From raw material spectral analysis (ensuring alloy composition) to final product bench testing (200-hour continuous impact test)

Zero-defect management:

≥99.8% yield rate for critical processes

Passed supply chain audits by leading manufacturers (Sany Heavy Industry, Zoomlion, etc.)

03 售后优势：超越期待的全程护航

After-Sales Advantage: Comprehensive Protection Beyond Expectations

▶ 快速响应网络

8大仓储中心覆盖全国，紧急订单12小时内发货；

“1小时反馈”机制：技术工程师7×24小时在线，提供故障远程诊断。

▶ 增值服务体系

钻具翻新再制造：旧钻头合金齿更换、结构强化，成本较新品降低50%；

施工方案优化：根据地质报告推荐钻具组合，帮助客户提升进尺效率。

▶ Rapid response network

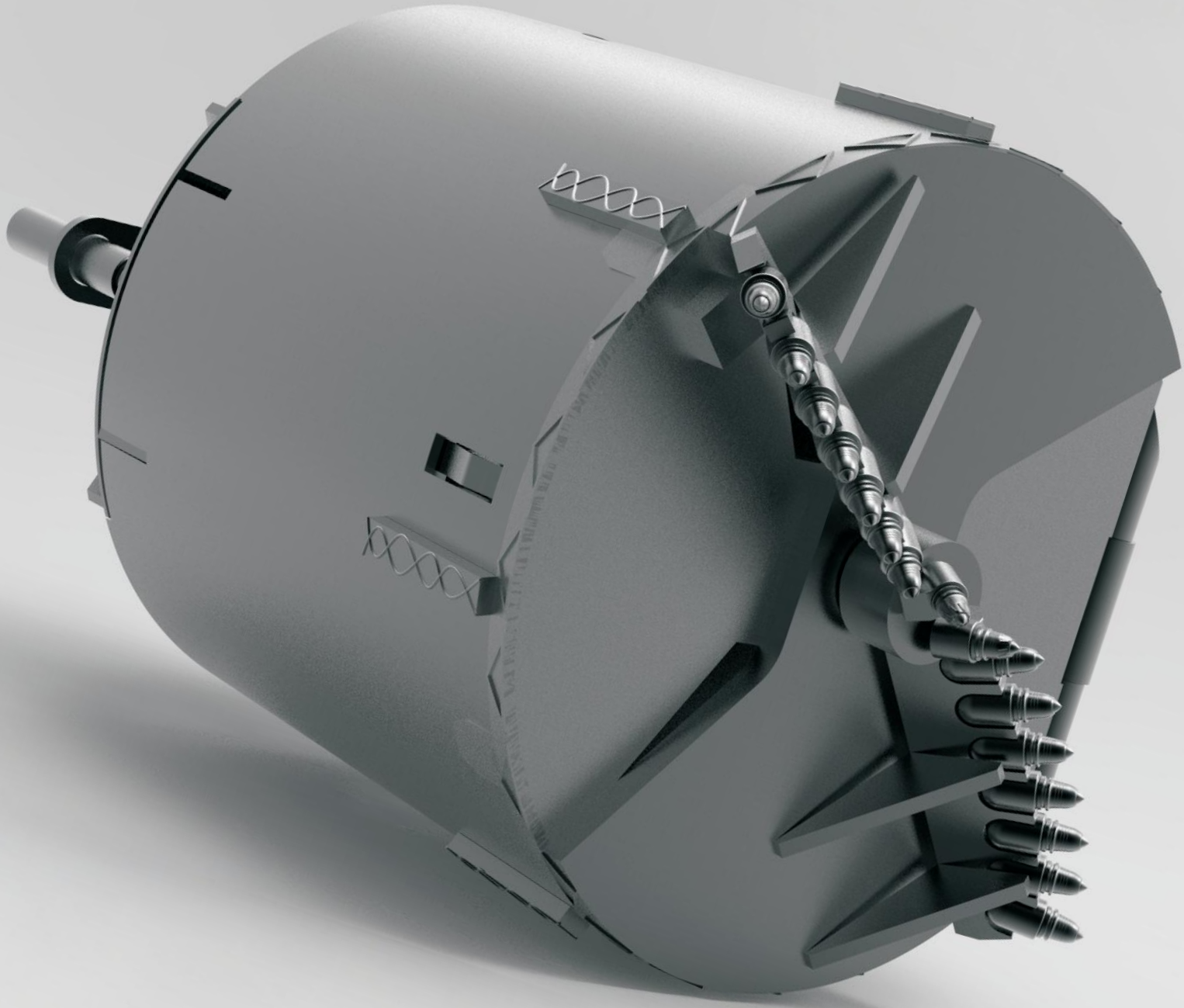
8 major storage centers cover the whole country, Guarantee 12-hour emergency order shipment;

“1-hour feedback” mechanism: technical engineers are online 7*24 hours for remote troubleshooting.

▶ Value-added service system

Tool refurbishment & remanufacturing: replacement of old drill bits with alloy teeth and structural reinforcement, with a cost reduction of 50% compared to new products;

Construction plan optimization: Customized tool combinations based on geological reports to enhance drilling efficiency.



01

旋挖钻头

DRILLING BUCKET

嵌岩双底截齿/斗齿钻头(锥筒/直筒)

DRILLING BUCKET WITH ROCK DRILLING TEETH CONICAL& STRAIGHT





型谱表 | Model List

切削直径 Cutting Dia.	筒体高度 Shell HIT.	筒体外径 Shell OD.	筒体壁厚 Shell THK.	固定底厚度 Fixed BottomTHK.	旋转底厚度 Rotate Bottom THK.	齿数 Teeth No.	重量 Weight
∅600	1200	550	20	40	50	6	654
∅800	1200	700	20	40	50	9	926
∅900	1200	800	20	40	50	10	1100
∅1000	1200	900	20	40	50	11	1206
∅1200	1200	1100	20	40	50	13	1510
∅1500	1200	1400	20	40	50	16	2035
∅1600	1200	1500	20	40	50	17	2400
∅1800	1000	1700	20	40	50	21	3370
∅2000	900	1900	20	40	50	22	3784
∅2200	900	2100	20	40	50	23	4311
∅2500	900	2400	20	50	50	27	5521
∅2800	900	2700	20	50	50	33	6100
∅3000	900	2900	20	50	50	35	7200

备注：所有度量单位为毫米（mm）；重量单位为千克（kg）.数据仅供参考
Note: All measurements are in millimeters (mm); weights are in kilograms (kg). Data is for reference only.

钻具特点 | Feature

内置防吸钻流水孔；
整体式中心锥，弧形导板布齿，大钻具双开锁底机构设计；
钻齿轨迹交错布置，全新面内交叉覆盖，相互制造自由面；
适用地层：砂层 卵石层 中风化及弱风化岩层。

Built-in anti-suction drilling water flow hole;
Integrated center cone, arc-shaped guide plate tooth arrangement, large drilling tool double-locking bottom mechanism design;
Drill tooth tracks are staggered, new surface cross-coverage, mutual creation of free surfaces;
Applicable formations: sand layer, pebble layer, moderately weathered and weakly weathered rock layer.

可定制项目 | Customizable Items

切削直径定制：根据客户需求设计切削直径，如∅950 、∅1050等，配合桩基施工使用；
筒体高度定制：根据客户需求设计筒体高度，如加高至1500、2000，增加单次钻量，提高施工效率；
关重结构加强定制：根据客户需求加强各个结构参数，如壁厚加厚，底板加厚等；
适进土口定制：单开门，双开门可依据客户需求定制；
单双底定制：单底，双底可依据客户需求定制；
方头尺寸定制：根据客户钻杆方头定制钻具尺寸，通常为：150*150、200*200、250*250等。

Customized cutting diameter: Design cutting diameter according to customer needs, such as ∅950、∅1050,etc, for use in pile foundation construction;
Customized shell height: Design cylinder height according to customer needs, such as increasing to 1500、2000, increase the single drilling volume, improve construction efficiency;
Customized key structure reinforcement: Strengthen various structural parameters according to customer needs, such as thickening wall thickness and bottom plate,etc;
Customized soil inlet: single open, double open can be customized according to customer needs;
Customized single & double bottom: single bottom,double bottom can be customized according to customer needs;
Customized square head size: Customized drilling tool size according to customer drill rod square head, usually: 150*150、200*200、250*250,etc.

产品细节 | Product Details





上导正双底捞砂斗
UPPER GUIDE DRILLING BUCKET WITH ROCK DRILLING TEETH



型谱表 | Model List

切削直径 Cutting Dia.	筒体高度 Shell HIT.	筒体外径 Shell OD.	筒体壁厚 Shell THK.	固定底厚度 Fixed BottomTHK.	旋转底厚度 Rotate Bottom THK.	齿数 Teeth No.	重量 Weight
∅600	1200	500	16	40	50	6	654
∅800	1200	700	16	40	50	9	926
∅900	1200	800	16	40	50	10	1100
∅1000	1200	900	16	40	50	11	1206
∅1200	1200	1100	16	40	50	13	1510
∅1500	1200	1400	16	40	50	16	2035
∅1600	1200	1500	16	40	50	17	2400
∅1800	1000	1700	20	40	50	21	3370
∅2000	900	1900	20	40	50	22	3784
∅2200	900	2100	20	40	50	23	4311
∅2500	900	2400	20	50	50	27	5521
∅2800	900	2700	20	50	50	33	6100
∅3000	900	2900	20	50	50	35	7200

备注：所有度量单位为毫米（mm）；重量单位为千克（kg）.数据仅供参考
Note: All measurements are in millimeters (mm); weights are in kilograms (kg). Data is for reference only.

钻具特点 | Feature

在常规捞砂斗方套部加导正筒，增加筒身高度，提高导向性，保证钻孔垂直度；
适用地层：易偏孔地层，超深桩施工。

Add a guide cylinder to the square sleeve of the conventional sand bailing bucket to increase the height of the cylinder, improve the guiding performance, and ensure the verticality of the drilling hole;
Applicable formations: formations prone to deviation of holes, ultra-deep pile construction.

可定制项目 | Customizable Items

切削直径定制：根据客户需求设计切削直径，如∅950、∅1050等，配合桩基施工使用；
筒体高度定制：根据客户需求设计筒体高度，如加高至1500、2000，增加单次钻量，提高施工效率；
关重结构加强定制：根据客户需求加强各个结构参数，如壁厚加厚，底板加厚等；
适进土口定制：单开门，双开门可依据客户需求定制；
单双底定制：单底，双底可依据客户需求定制；
方头尺寸定制：根据客户钻杆方头定制钻具尺寸，通常为：150*150、200*200、250*250等。

Customized cutting diameter: Design cutting diameter according to customer needs, such as ∅950、∅1050,etc, for use in pile foundation construction;
Customized shell height: Design cylinder height according to customer needs, such as increasing to 1500、 2000, increase the single drilling volume, improve construction efficiency;
Customized key structure reinforcement: Strengthen various structural parameters according to customer needs, such as thickening wall thickness and bottom plate,etc;
Customized soil inlet: single open, double open can be customized according to customer needs;
Customized single & double bottom: single bottom,double bottom can be customized according to customer needs;
Customized square head size: Customized drilling tool size according to customer drill rod square head, usually: 150*150、200*200、250*250,etc.

产品细节 | Product Details





截齿筒钻
CORE BARREL WITH BULLET TEETH



型谱表 | Model List

切削直径 Cutting Dia.	筒体高度 Shell HIT.	筒体外径 Shell OD.	筒体壁厚 Shell THK.	加强圈厚度 Stiffening Ring THK.	加强圈高度 Stiffening Ring HIT.	齿数 Teeth No.	重量 Weight
∅600	1200	500	16	40	200	6	520
∅800	1200	700	16	40	200	9	672
∅900	1200	800	16	40	200	10	750
∅1000	1200	900	16	40	200	11	847
∅1200	1200	1100	16	40	200	13	1010
∅1500	1200	1400	16	40	200	16	1370
∅1600	1200	1500	16	40	200	17	1493
∅1800	1000	1700	20	40	200	19	1841
∅2000	900	1900	20	40	200	21	1952
∅2200	900	2100	20	40	200	23	2329
∅2500	900	2400	20	40	200	27	2705
∅2800	900	2700	20	40	200	30	3200
∅3000	900	2900	20	40	200	32	3800

备注：所有度量单位为毫米（mm）；重量单位为千克（kg）.数据仅供参考
Note: All measurements are in millimeters (mm); weights are in kilograms (kg). Data is for reference only.

钻具特点 | Feature

筒体环切释放岩石压力;
截齿阶跃破碎兼研磨钻进;
小钻具取芯率高，大钻具分级配合破碎;
适用地层：硬岩 花岗岩 中风化及弱风化岩层。

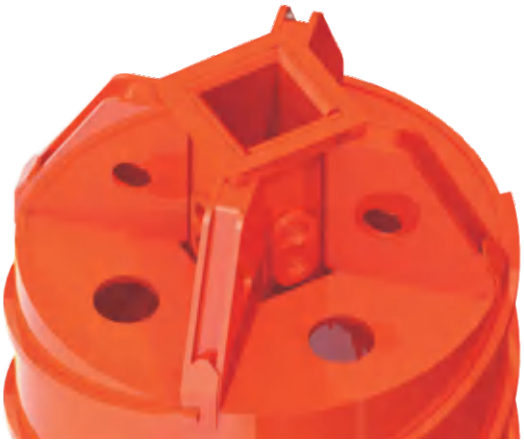
Cylinder ring cutting releases rock pressure;
Cut teeth step crushing and grinding drilling;
Small drills have high coring rate, large drills have graded and coordinated crushing;
Applicable formations: hard rock, granite, moderately weathered and weakly weathered rock formations.

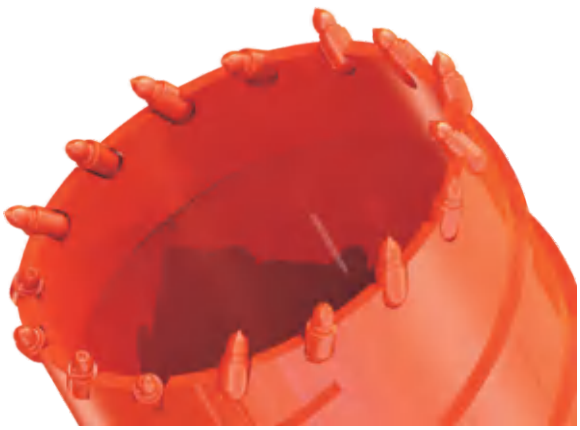
可定制项目 | Customizable Items

切削直径定制：根据客户需求设计切削直径，如∅950、∅1050等，配合桩基施工使用；
筒体高度定制：根据客户需求设计筒体高度，如加高至1500、2000，增加单次钻量，提高施工效率;
关重结构加强定制：根据客户需求加强各个结构参数，如壁厚加厚，底板加厚等;
方头尺寸定制：根据客户钻杆方头定制钻具尺寸，通常为：150*150、200*200、250*250等;
钻齿数量定制：根据客户需求对钻齿进行加密布置。

Customized cutting diameter: Design cutting diameter according to customer needs, such as ∅950、∅1050,etc, for use in pile foundation construction;
Customized shell height: Design cylinder height according to customer needs, such as increasing to 1500、 2000, increase the single drilling volume, improve construction efficiency;
Customized key structure reinforcement: Strengthen various structural parameters according to customer needs, such as thickening wall thickness and bottom plate,etc.;
Customized square head size: Customized drilling tool size according to customer drill rod square head, usually: 150*150、200*200、250*250,etc;
Customized drill teeth quantity: Drill teeth are arranged densely according to customer needs.

产品细节 | Product Details





牙轮筒钻
CORE BARREL WITH CONE BITS



型谱表 | Model List

切削直径 Cutting Dia.	筒体高度 Shell HIT.	筒体外径 Shell OD.	筒体壁厚 Shell THK.	加强圈厚度 Stiffening Ring THK.	加强圈高度 Stiffening Ring HIT.	齿数 Teeth No.	重量 Weight
∅600	1200	500	20	40	200	4	545
∅800	1200	700	20	40	200	6	725
∅900	1200	800	20	40	200	6	810
∅1000	1200	900	20	40	200	8	900
∅1200	1200	1100	20	40	200	9	1080
∅1500	1200	1400	20	40	200	10	1390
∅1600	1200	1500	20	40	200	10	1510
∅1800	1000	1700	25	40	200	12	1830
∅2000	900	1900	25	40	200	13	2050
∅2200	900	2100	25	40	200	14	2090
∅2500	900	2400	25	40	200	15	2420
∅2800	900	2700	25	40	200	16	3000
∅3000	900	2900	25	40	200	18	3500

备注：所有度量单位为毫米（mm）；重量单位为千克（kg）.数据仅供参考
Note: All measurements are in millimeters (mm); weights are in kilograms (kg). Data is for reference only.

钻具特点 | Feature

筒体环切释放岩石压力;
牙轮钻齿滚压研磨钻进，钻齿损耗小;
小钻具取芯率高，大钻具分级配合破碎;
适用地层：硬岩、花岗岩、中风化及弱风化岩层、超硬岩层。

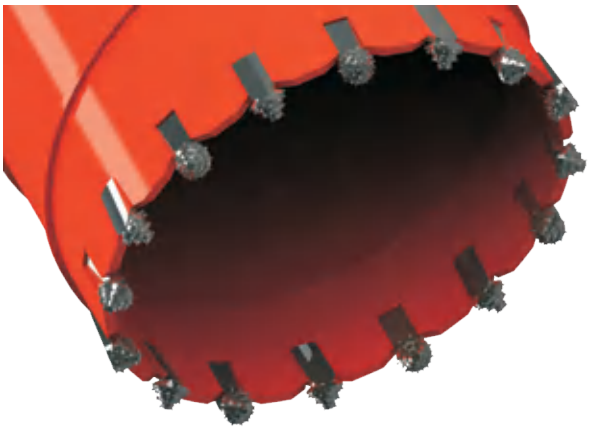
The cylinder ring cuts to release the rock pressure;
The roller drill teeth are rolled and ground for drilling, and the drill teeth wear is small;
The small drill tool has a high coring rate, and the large drill tool is graded and matched for crushing;
Applicable formations: hard rock, granite, medium-weathered and weakly weathered rock formations, and super-hard rock formations.

可定制项目 | Customizable Items

切削直径定制：根据客户需求设计切削直径，如∅950、∅1050等，配合桩基施工使用；
筒体高度定制：根据客户需求设计筒体高度，如加高至1500、2000，增加单次钻量，提高施工效率;
关重结构加强定制：根据客户需求加强各个结构参数，如壁厚加厚，底板加厚等;
方头尺寸定制：根据客户钻杆方头定制钻具尺寸，通常为：150*150、200*200、250*250等;
钻齿数量定制：根据客户需求对钻齿进行加密布置;
牙轮种类定制：全新硬岩牙轮，二手牙轮以及可拆卸牙轮，可依据客户需求定制。

Customized cutting diameter: Design cutting diameter according to customer needs, such as ∅950、∅1050,etc, for use in pile foundation construction;
Customized shell height: Design cylinder height according to customer needs, such as increasing to 1500、2000, increase the single drilling volume, improve construction efficiency;
Customized key structure reinforcement: Strengthen various structural parameters according to customer needs, such as thickening wall thickness and bottom plate,etc;
Customized square head size: Customized drilling tool size according to customer drill rod square head, usually: 150*150、200*200、250*250,etc;
Customized drill teeth quantity: Drill teeth are arranged densely according to customer needs;
Customized roller bits type: New roller bits, second-hand roller bits and detachable roller bits can be customized according to customer needs.

产品细节 | Product Details





上导正嵌岩筒钻
UPPER GUIDE CORE BARREL



型谱表 | Model List

切削直径 Cutting Dia.	筒体高度 Shell HIT.	筒体外径 Shell OD.	筒体壁厚 Shell THK.	加强圈厚度 Stiffening Ring THK.	加强圈高度 Stiffening Ring HIT.	齿数 Teeth No.	重量 Weight
∅1200	1200	1100	16	40	200	13	1080
∅1500	1200	1400	16	40	200	16	1390
∅1600	1200	1500	16	40	200	17	1510
∅1800	1000	1700	20	40	200	19	1830
∅2000	900	1900	20	40	200	21	2050
∅2200	900	2100	20	40	200	23	2329
∅2500	900	2400	20	40	200	27	2705
∅2800	900	2700	20	40	200	30	3200
∅3000	900	2900	20	40	200	32	3800

备注：所有度量单位为毫米（mm）；重量单位为千克（kg）.数据仅供参考
Note: All measurements are in millimeters (mm); weights are in kilograms (kg). Data is for reference only.

钻具特点 | Feature

常规筒钻方套部加长筒体，增加筒体高度保证桩径垂直度；
适用地层：易偏孔地层。

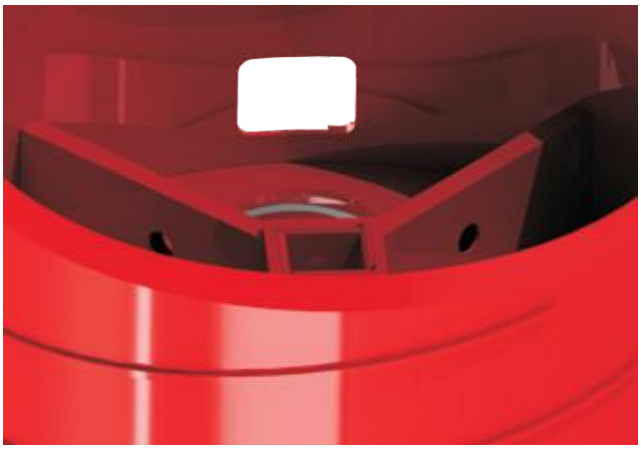
Conventional barrel drill square sleeve with lengthened barrel;
Applicable formations: In formations prone to deviating holes, increase the cylinder height to ensure the verticality of the pile diameter.

可定制项目 | Customizable Items

切削直径定制：根据客户需求设计切削直径，如∅1250、∅1550等，配合桩基施工使用；
筒体高度定制：根据客户需求设计筒体高度，如加高至1500、2000，增加单次钻量，提高施工效率；
关重结构加强定制：根据客户需求加强各个结构参数，如壁厚加厚，底板加厚等；
方头尺寸定制：根据客户钻杆方头定制钻具尺寸，通常为：150*150、200*200、250*250等；
钻齿数量定制：根据客户需求对钻齿进行加密布置。

Customized cutting diameter: Design cutting diameter according to customer needs, such as ∅950、∅1050,etc, for use in pile foundation construction;
Customized shell height: Design cylinder height according to customer needs, such as increasing to 1500、2000, increase the single drilling volume, improve construction efficiency;
Customized key structure reinforcement: Strengthen various structural parameters according to customer needs, such as thickening wall thickness and bottom plate,etc;
Customized square head size: Customized drilling tool size according to customer drill rod square head, usually: 150*150、200*200、250*250,etc;
Customized drill teeth quantity: Drill teeth are arranged densely according to customer needs;
Customized roller bits type: New roller bits, second-hand roller bits and detachable roller bits can be customized according to customer needs.

产品细节 | Product Details





破岩筒钻
RING CUTTING ROCK DRILLING BUCKET



型谱表 | Model List

切削直径 Cutting Dia.	筒体高度 Shell HIT.	筒体外径 Shell OD.	筒体壁厚 Shell THK.	加强圈厚度 Stiffening Ring THK.	加强圈高度 Stiffening Ring HIT.	齿数 Teeth No.	重量 Weight
∅600	1200	500	16	40	200	13	545
∅800	1200	700	16	40	200	19	725
∅900	1200	800	16	40	200	20	810
∅1000	1200	900	16	40	200	21	900
∅1200	1200	1100	16	40	200	25	1080
∅1500	1200	1400	16	40	200	27	1390
∅1600	1200	1500	16	40	200	30	1510
∅1800	1000	1700	20	40	200	36	1890
∅2000	900	1900	20	40	200	39	2100
∅2200	900	2100	20	40	200	42	2420
∅2500	900	2400	20	40	200	45	2820
∅2800	900	2700	20	40	200	48	3300
∅3000	900	2900	20	40	200	51	3900

备注：所有度量单位为毫米（mm）；重量单位为千克（kg）.数据仅供参考
Note: All measurements are in millimeters (mm); weights are in kilograms (kg). Data is for reference only.

钻具特点 | Feature

常规筒钻筒体内部加装破碎齿板;
适用地层：硬度不高岩层分级扩孔，裂隙发育坚硬岩层破碎。

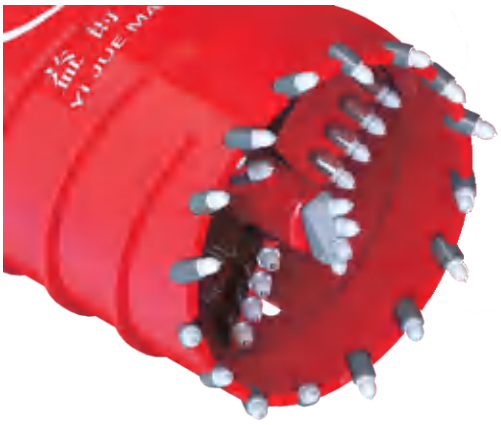
A crushing tooth plate is installed inside the conventional barrel drill;
Applicable formations: graded hole expansion of rock formations with low hardness, and crushing of hard rock formations with developed cracks.

可定制项目 | Customizable Items

切削直径定制：根据客户需求设计切削直径，如∅950、∅1050等，配合桩基施工使用；
筒体高度定制：根据客户需求设计筒体高度，如加高至1500、2000，增加单次钻量，提高施工效率;
关重结构加强定制：根据客户需求加强各个结构参数，如壁厚加厚，底板加厚等;
方头尺寸定制：根据客户钻杆方头定制钻具尺寸，通常为：150*150、200*200、250*250等;
钻齿数量定制：根据客户需求对钻齿进行加密布置。

Customized cutting diameter: Design cutting diameter according to customer needs, such as ∅950、∅1050,etc, for use in pile foundation construction;
Customized shell height: Design cylinder height according to customer needs, such as increasing to 1500、2000, increase the single drilling volume, improve construction efficiency;
Customized key structure reinforcement: Strengthen various structural parameters according to customer needs, such as thickening wall thickness and bottom plate,etc;
Customized square head size: Customized drilling tool size according to customer drill rod square head, usually: 150*150、200*200、250*250,etc;
Customized drill teeth quantity: Drill teeth are arranged densely according to customer needs;
Customized roller bits type: New roller bits, second-hand roller bits and detachable roller bits can be customized according to customer needs.

产品细节 | Product Details





抓取筒钻
GRABBING STYLE CORE BARREL



型谱表 | Model List

切削直径 Cutting Dia.	筒体高度 Shell HIT.	筒体外径 Shell OD.	筒体壁厚 Shell THK.	加强圈厚度 Stiffening Ring THK.	加强圈高度 Stiffening Ring HIT.	齿数 Teeth No.	重量 Weight
∅600	1200	500	16	40	200	6	520
∅800	1200	700	16	40	200	9	672
∅900	1200	800	16	40	200	10	750
∅1000	1200	900	16	40	200	11	847
∅1200	1200	1100	16	40	200	13	1010

备注：所有度量单位为毫米（mm）；重量单位为千克（kg）.数据仅供参考
Note: All measurements are in millimeters (mm); weights are in kilograms (kg). Data is for reference only.

钻具特点 | Feature

筒体内部加装连杆，上提抱抓合拢，下放张开；
适用地层：抓取漂石与回填石块，不可当筒钻直接钻进。

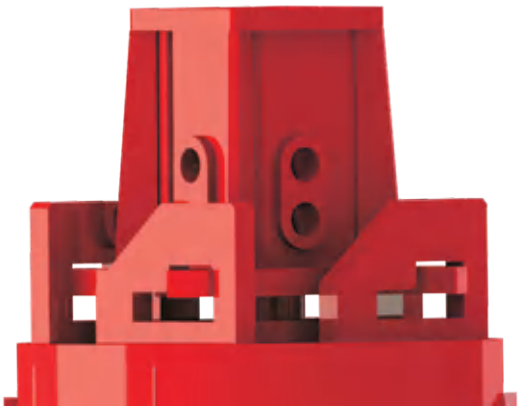
Connecting rods are installed inside the cylinder, which can be lifted up to grab and close, and lowered to open;
Applicable formations: Grab boulders and backfill stones, and cannot be used as a cylinder drill to drill directly.

可定制项目 | Customizable Items

切削直径定制：根据客户需求设计切削直径，如∅950、∅1050等，配合桩基施工使用；
筒体高度定制：根据客户需求设计筒体高度，如加高至1300、1500，增加单次钻量，提高施工效率；
关重结构加强定制：根据客户需求加强各个结构参数，如壁厚加厚，底板加厚等；
方头尺寸定制：根据客户钻杆方头定制钻具尺寸，通常为：150*150、200*200、250*250等；
钻齿数量定制：根据客户需求对钻齿进行加密布置。

Customized cutting diameter: Design cutting diameter according to customer needs, such as ∅950、∅1050,etc, for use in pile foundation construction;
Customized shell height: Design cylinder height according to customer needs, such as increasing to 1500、2000, increase the single drilling volume, improve construction efficiency;
Customized key structure reinforcement: Strengthen various structural parameters according to customer needs, such as thickening wall thickness and bottom plate,etc;
Customized square head size: Customized drilling tool size according to customer drill rod square head, usually: 150*150 、200*200、250*250,etc;
Customized drill teeth quantity: Drill teeth are arranged densely according to customer needs;
Customized roller bits type: New roller bits, second-hand roller bits and detachable roller bits can be customized according to customer needs.

产品细节 | Product Details





下导正扩孔筒钻
COR BARREL WITH BULLET TEETH





型谱表 | Model List

切削直径 Cutting Dia.	外筒体高度 Outer Shell HIT.	外筒体外径 Outer Shell OD.	内筒体高度 Inner Shell THK.	内筒体外径 Inner Shell OD.	筒体壁厚 Shell THK.	齿数 Teeth No.	重量 Weight
∅1000	1200	900	1400	550	20	17	1115
∅1200	1200	1100	1400	650	20	20	1323
∅1500	1200	1400	1400	750	20	24	1775
∅1600	1200	1500	1400	850	20	27	1965
∅1800	1000	1700	1100	950	20	29	2361
∅2000	900	1900	1100	1050	20	33	2690
∅2200	900	2100	1100	1150	20	36	2969
∅2500	900	2400	1100	1250	20	42	3318
∅2800	900	2700	1100	1450	20	46	3997
∅3000	900	2900	1100	1550	20	49	4633

备注：所有度量单位为毫米（mm）；重量单位为千克（kg）.数据仅供参考
Note: All measurements are in millimeters (mm); weights are in kilograms (kg). Data is for reference only.

钻具特点 | Feature

筒体采用三节子母筒体对接焊接，切削具为牙轮或是滚刀；
下筒钻进到终孔深度后，拆除下筒，继续用上筒扩孔至终孔深度，降低施工成本；
适用地层：硬岩钻进分级钻孔扩孔，保证大小桩径同心，提高桩孔垂直度与钻进效率。

The cylinder body adopts three sections of mother-and-child cylinder butt welding, and the cutting tool is a cone;
After the lower section drills to target depth, it is removed, and the upper section continues reaming to final diameter, reducing construction costs;
Applicable formations: hard rock drilling, graded drilling and hole expansion, to ensure the concentricity of large and small pile diameters, improve the verticality of pile holes and drilling efficiency.

可定制项目 | Customizable Items

切削直径定制：根据客户需求设计切削直径，如∅1050、∅1250等，配合桩基施工使用；
筒体高度定制：根据客户需求设计筒体高度，如加高至1500、2000，增加单次钻量，提高施工效率；
关重结构加强定制：根据客户需求加强各个结构参数，如壁厚加厚，底板加厚等；
方头尺寸定制：根据客户钻杆方头定制钻具尺寸，通常为：150*150、200*200、250*250等；
钻齿数量定制：根据客户需求对钻齿进行加密布置；
牙轮种类定制：全新硬岩牙轮，可拆卸牙轮以及滚刀，可依据客户需求定制；
双筒体间距定制：根据客户需求定制双筒体间距，环切释放岩石压力。

Customized cutting diameter: Design cutting diameter according to customer needs, such as ∅950、∅1050,etc, for use in pile foundation construction;
Customized shell height: Design cylinder height according to customer needs, such as increasing to 1500、2000, increase the single drilling volume, improve construction efficiency;
Customized key structure reinforcement: Strengthen various structural parameters according to customer needs, such as thickening wall thickness and bottom plate,etc;
Customized square head size: Customized drilling tool size according to customer drill rod square head, usually: 150*150、200*200、250*250, etc;
Customized drill teeth quantity: Drill teeth are arranged densely according to customer needs;
Customized roller bits type: New roller bits, second-hand roller bits and detachable roller bits can be customized according to customer needs.

产品细节 | Product Details







截齿两瓣钻
OPEN TYPE ROCK BUCKET



型谱表 | Model List

切削直径 Cutting Dia.	筒体高度 Shell HIT.	筒体外径 Shell OD.	筒体壁厚 Shell THK.	加强圈厚度 Stiffening Ring THK.	加强圈高度 Stiffening Ring HIT.	齿数 Teeth No.	重量 Weight
∅600	1200	500	25	40	300	7	815
∅800	1200	700	25	40	300	9	1237
∅900	1200	800	25	40	300	10	1500
∅1000	1200	900	25	40	300	11	1700
∅1200	1200	1100	25	40	300	13	2140

备注：所有度量单位为毫米（mm）；重量单位为千克（kg）.数据仅供参考
Note: All measurements are in millimeters (mm); weights are in kilograms (kg). Data is for reference only.

钻具特点 | Feature

大口径进土设计，体开式筒体结构，高效卸渣，提高钻进效率；
筒体，导板，加强筋强化设计，提升钻具使用寿命；
筒体周围布置导条，防止吸钻；
适用地层：粘土层，淤泥层，强风化岩层，鹅软石中型漂石。

Large-diameter soil entry design, open-body cylinder structure, efficient slag unloading, and improved drilling efficiency;
Cylinder, guide plate, and reinforcement ribs are designed to increase the service life of the drill;
Guide strips are arranged around the cylinder to prevent drilling suction;
Applicable formations: clay layer, silt layer, strongly weathered rock layer, goose soft stone medium-sized boulder。

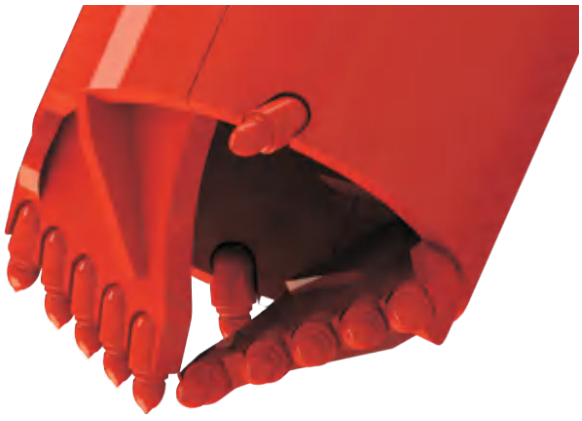
可定制项目 | Customizable Items

切削直径定制：根据客户需求设计切削直径，如∅950、∅1050等，配合桩基施工使用；
齿型定制：根据客户需求安装不同的齿型，可以安装截齿，B80、B72、V19、V20、25T等齿型；
筒体高度定制：根据客户需求设计筒体高度，如加高至1500、2000，增加单次钻量，提高施工效率；
关重结构加强定制：根据客户需求加强各个结构参数，如壁厚加厚，底板加厚等；
方头尺寸定制：根据客户钻杆方头定制钻具尺寸，通常为：150*150、200*200、250*250等。

Customized cutting diameter: Design cutting diameter according to customer needs, such as ∅950、∅1050,etc, for use in pile foundation construction;
Customized tooth type: different tooth profiles can be installed according to customer needs, including pick, B80、B72、V19、V20、25T and other tooth profiles;
Customized shell height: Design cylinder height according to customer needs, such as increasing to 1500, 2000, increase the single drilling volume, improve construction efficiency;
Customized key structure reinforcement: Strengthen various structural parameters according to customer needs, such as thickening wall thickness and bottom plate,etc;
Customized square head size: Customized drilling tool size according to customer drill rod square head, usually: 150*150、200*200、250*250,etc;

产品细节 | Product Details





分体式组合钻
OPEN SPLIT TYPE DRILLING BUCKET



型谱表 | Model List

切削直径 Cutting Dia.	筒体高度 Shell HIT.	筒体外径 Shell OD.	筒体壁厚 Shell THK.	加强圈厚度 Stiffening Ring THK.	加强圈高度 Stiffening Ring HIT.	齿数 Teeth No.	重量 Weight
∅600	1200	550	20	40	300	8	785
∅800	1200	720	20	40	300	10	1133
∅900	1200	800	20	40	300	11	1583
∅1000	1200	900	20	40	300	12	1650
∅1200	1200	1100	20	40	300	14	2015

备注：所有度量单位为毫米（mm）；重量单位为千克（kg）.数据仅供参考
Note: All measurements are in millimeters (mm); weights are in kilograms (kg). Data is for reference only.

钻具特点 | Feature

闭合式、钻进时桶体闭合，倒土时顶杆下压打开下底门卸土；
切削具可配截齿或斗齿；
进齿快，效率高，同时耐用，尖底不打滑；
适用地层：泥岩，泥质粉沙岩，强风化花岗岩，泥卵地层，密实卵石。

Large-diameter soil entry design, open-body cylinder structure, efficient slag unloading, and improved drilling efficiency;
Cylinder, guide plate, and reinforcement ribs are designed to increase the service life of the drill;
Guide strips are arranged around the cylinder to prevent drilling suction;
Applicable formations: clay layer, silt layer, strongly weathered rock layer, goose soft stone medium-sized boulder.

可定制项目 | Customizable Items

切削直径定制：根据客户需求设计切削直径，如∅950、∅1050等，配合桩基施工使用；
齿型定制：根据客户需求安装不同的齿型，可以安装截齿，B80、B72、V19、V20、25T等齿型；
筒体高度定制：根据客户需求设计筒体高度，如加高至1500，2000，增加单次钻量，提高施工效率；
关重结构加强定制：根据客户需求加强各个结构参数，如壁厚加厚，底板加厚等；
方头尺寸定制：根据客户钻杆方头定制钻具尺寸，通常为：150*150、200*200、250*250等。

Customized cutting diameter: Design cutting diameter according to customer needs, such as ∅950、∅1050,etc, for use in pile foundation construction;
Customized tooth type: different tooth profiles can be installed according to customer needs, including pick, B80、B72、V19、V20、25T and other tooth profiles;
Customized shell height: Design cylinder height according to customer needs, such as increasing to 1500、2000, increase the single drilling volume, improve construction efficiency;
Customized key structure reinforcement: Strengthen various structural parameters according to customer needs, such as thickening wall thickness and bottom plate,etc;
Customized square head size: Customized drilling tool size according to customer drill rod square head, usually: 150*150、200*200、250*250,etc;

产品细节 | Product Details





锥螺钻头
CONICAL DRILLING AUGER





型谱表 | Model List

切削直径 Cutting Dia.	螺旋高度 Shell HIT.	螺旋间距 Shell OD.	螺旋壁厚 Shell THK.	螺旋外径 Spiral OD.	中心管直径 Center Tube OD.	齿数 Teeth No.	重量 Weight
∅600	1000	400	30+30	550	219	12	523
∅800	1500	600	30+30	750	219	15	691
∅900	1500	600	30+30	850	219	20	774
∅1000	1500	600	30+30	950	219	23	853
∅1200	1500	600	30+30	1150	219	27	1023
∅1500	1500	600	30+30	1450	273	33	1310
∅1600	1500	600	30+30	1550	273	36	1730
∅1800	1500	600	30+30	1750	273	40	2190
∅2000	1500	600	40+40	1950	273	45	2580
∅2200	1500	600	40+40	2150	273	52	3150
∅2500	1500	600	40+40	2450	325	58	3850
∅2800	1500	600	40+40	2750	325	65	4500
∅3000	1500	600	40+40	2950	325	70	5150

备注：所有度量单位为毫米（mm）；重量单位为千克（kg）.数据仅供参考
Note: All measurements are in millimeters (mm); weights are in kilograms (kg). Data is for reference only.

钻具特点 | Feature

中心锥引导，锥形钻进，破碎岩石；
双头螺旋受力均匀，不宜偏孔；
双螺旋携渣土能力强，黏性地层时，单螺易于卸渣土；
适用地层：卵石层，泥岩，砂岩，强,中风化硬岩层。

Center cone guide, conical drilling, rock crushing;
Double-head spiral force is uniform, prevent hole deviation;
Double spiral has strong slag carrying capacity, and single spiral is easy to unload slag in viscous formation;
Applicable formation: pebble layer, mudstone, sandstone, strong and medium weathered hard rock layer;

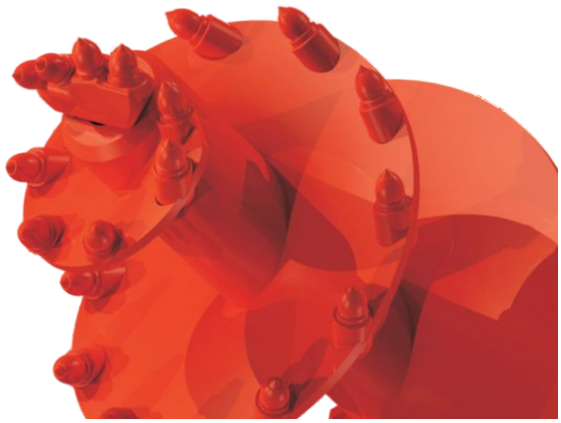
可定制项目 | Customizable Items

切削直径定制：根据客户需求设计切削直径，如∅950、∅1050等，配合桩基施工使用；
关重结构加强定制：根据客户需求加强各个结构参数，如壁厚加厚等；
方头尺寸定制：根据客户钻杆方头定制钻具尺寸，通常为：150*150、200*200、250*250等；
钻齿数量定制：根据客户需求对钻齿进行加密布置
螺旋高度定制：根据客户需求设计螺旋叶片高度，如加高至1500、2000，增加单次钻进量，提高效率，便于调整卸渣土能力等；
螺旋叶片间距定制：根据客户需求设计螺旋叶片间距，如400、500、600便于调整卸渣土能力等。

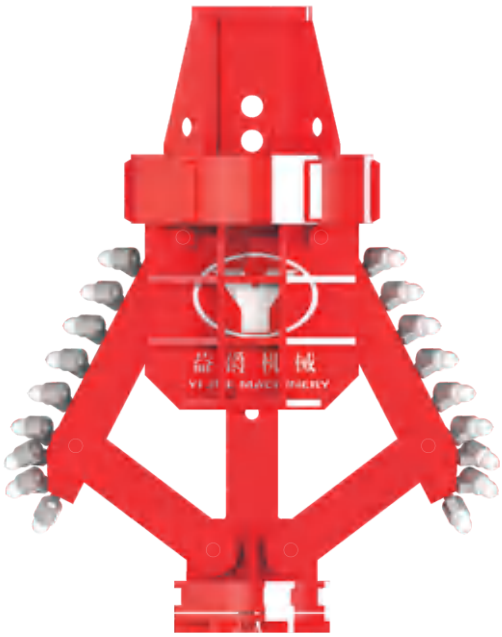
Customized cutting diameter: Design cutting diameter according to customer needs, such as ∅950、∅1050,etc., for use in pile foundation construction;
Customized key structure reinforcement: Strengthen various structural parameters according to customer needs, such as thickening wall thickness,etc;
Customized square head size: Customized drilling tool size according to customer drill pipe square head, usually: 150*150、200*200、250*250,etc;
Customized number of drill teeth: Drill teeth are arranged densely according to customer needs;
Customized spiral height: The spiral blade height is designed according to customer needs, 1500、2000, to increase the single drilling volume and improve efficiency, it is convenient to adjust the unloading capacity,etc;
Customized spiral blade spacing: The spiral blade spacing is designed according to customer needs, 400、500、600, which is convenient for adjusting the unloading capacity,etc.

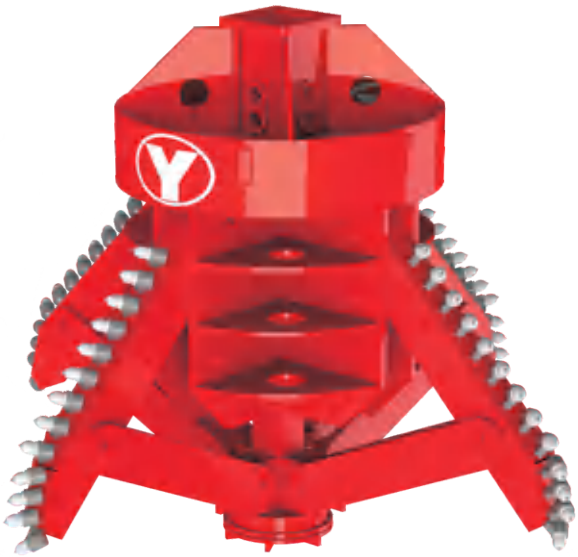
产品细节 | Product Details





两翼/四翼扩底钻
Double Wing and Four Wing Drilling Bucket





型谱表 | Model List

切削直径 Cutting Dia.	钻具高度 Tool HIT.	翼展数目 Swing No.	限位孔数量 Limit Hole No.	扩孔倍数 Reaming Multiples	齿数 Teeth No.	重量 Weight
∅600-1200	3100	2	2	1.5-2.0	32	1250
∅800-1600	3100	2	3	1.5-2.0	32	1340
∅900-1800	3100	2	3	1.5-2.0	32	1460
∅1000-2000	3100	2	3	1.5-2.0	34	1785
∅1100-2200	3100	2	4	1.5-2.0	34	1925
∅1200-2400	4050	2	4	1.5-2.0	34	2510
∅1500-3000	4350	2	4	1.5-2.0	38	3950

备注：所有度量单位为毫米（mm）；重量单位为千克（kg）.数据仅供参考
Note: All measurements are in millimeters (mm); weights are in kilograms (kg). Data is for reference only.

钻具特点 | Feature

可根据需求定制调节扩底直径；
配合捞砂钻头或清孔钻头一起使用；
箱式主体结构，结构简单，缩扩灵活，维护便捷；
适用地层：硬岩，冻土层，中软化岩层。

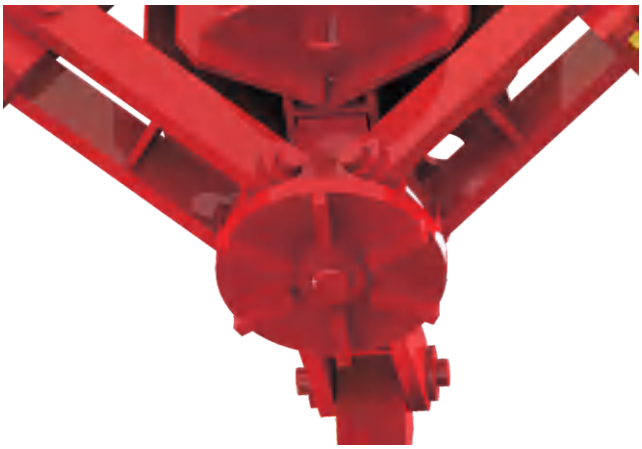
The bottom expansion diameter can be customized and adjusted according to needs;
Used with sand dredging drill or hole cleaning drill;
Box-type main structure, simple structure, flexible expansion and contraction, convenient maintenance;
Applicable formations: hard rock, frozen soil layer, medium softening rock layer.

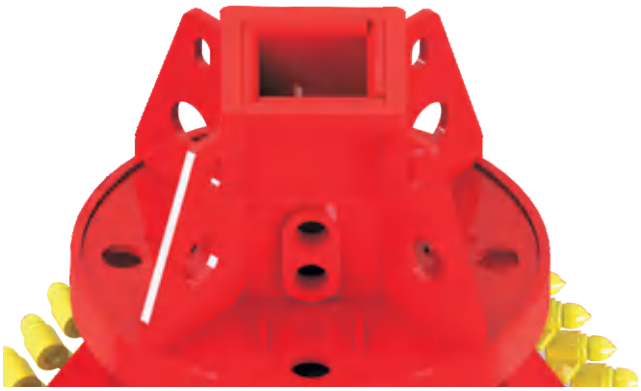
可定制项目 | Customizable Items

切削直径定制：根据客户需求设计切削直径，如∅950、∅1050等，配合桩基施工使用；
关重结构加强定制：根据客户需求加强各个结构参数，如壁厚加厚，底板加厚等；
方头尺寸定制：根据客户钻杆方头定制钻具尺寸，通常为：150*150、200*200、250*250等；
扩底双翼，三翼数目定制：可依据客户需求定制设计为双翼扩底钻，三翼扩底钻等；
限位孔数目定制：可依据客户需求设计多个限位孔，满足不同直径的扩底需求。

Customized cutting diameter: Design cutting diameter according to customer needs, such as ∅950、∅1050 ,etc, for use in pile foundation construction;
Customized key structure reinforcement: Strengthen various structural parameters according to customer needs, such as thickening of wall thickness, thickening of bottom plate, etc;
Customized square head size: Customized drilling tool size according to customer drill pipe square head, usually: 150*150、200*200、250*250, etc;
Customized number of double-wing and three-wing bottom expansion: It can be customized and designed as double-wing bottom expansion drill, three-wing bottom expansion drill, etc. according to customer needs;
Customized number of limit holes: Multiple limit holes can be designed according to customer needs to meet the needs of bottom expansion with different diameters.

产品细节 | Product Details







02

截齿

BULLET TEETH

截齿
BULLET TEETH

型号 Model List | 60-9T22

低钴特粗颗粒碳化钨主合金
Low Cobalt Extra Coarse Grain Tungsten Carbide Alloy

直径22mm，采用创新材料，相比传统合金，提升破岩能力，延长截齿寿命

Diameter 22mm, and the large alloy body is designed for hard rock. It uses innovative materials to improve rock breaking ability and extend service life compared to traditional alloys.

合金粉末冶金级焊接
Alloy Powder Metallurgical Welding

齿体头部、合金豆采用合金粉末焊接，增强齿体的耐磨、耐高温，更好的保护合金

The pick head and carbide inserts employ alloy powder welding to achieve metallurgical bonding. Improves wear/heat resistance and provides better alloy protection.

强韧坯体
High-Strength Tough Shank

坯体采用温挤压锻造，融合精密热处理技术,密度更高且耐磨，出厂标配防脱卡簧

The body is made by warm extrusion forging, integrating precision heat treatment technology, with higher density and wear resistance, and anti-dropping retaining spring is standard in the factory



低钴特粗颗粒碳化钨合金豆
Low Cobalt Extra Coarse Grain Tungsten Carbide Beans

采用耐磨原生料硬质9颗合金豆，抗冲击性强，保护齿体

Made of wear-resistant raw material, 9 hard alloy beans, strong impact resistance, protect the tooth body

动态平衡自旋翼
Dynamically Balanced Rotor

五个螺旋槽以及外沿五个凸台利于齿的旋转，减少齿体的偏磨

Five spiral grooves and five bosses on the outer edge facilitate the rotation of the teeth and reduce eccentric wear of the tooth body.

技术参数 | Technical Parameters

坯体尺寸 Blank Size	主合金直径 Main Alloy	合金材质 Alloy Material	合金HRC表现 Alloy HRC Performance	坯体HRC表现 Blank HRC Performance	强度范围 Typical Strength Range
30-60	∅ 22	钨钴合金 Tungsten-Cobalt Alloy	69-70	42-45	6000KPa-10MPa

适用地层 | Applicable Formations

强风化灰岩、中风化泥质灰岩、强风化白云岩、密质砂岩、强风化硅化灰岩、人工回填层。
Highly weathered limestone, moderately weathered argillaceous limestone, highly weathered dolomite. Compact sandstone, highly weathered silicified limestone, artificial backfill layers.

型号 Model List | 60-12T22

低钴特粗颗粒碳化钨主合金
Low Cobalt Extra Coarse Grain Tungsten Carbide Alloy

直径22mm，采用创新材料，相比传统合金，提升破岩能力，延长截齿寿命

Diameter 22mm, and the large alloy body is designed for hard rock. It uses innovative materials to improve rock breaking ability and extend service life compared to traditional alloys.

合金粉末冶金级焊接
Alloy Powder Metallurgical Welding

齿体头部、合金豆采用合金粉末焊接，增强齿体的耐磨、耐高温，更好的保护合金

The pick head and carbide inserts employ alloy powder welding to achieve metallurgical bonding. Improves wear/heat resistance and provides better alloy protection.

强韧坯体
High-Strength Tough Shank

坯体采用温挤压锻造，融合精密热处理技术,密度更高且耐磨，出厂标配防脱卡簧

The body is made by warm extrusion forging, integrating precision heat treatment technology, with higher density and wear resistance, and anti-dropping retaining spring is standard in the factory



低钴特粗颗粒碳化钨合金豆
Low Cobalt Extra Coarse Grain Tungsten Carbide Beans

采用耐磨原生料硬质12颗合金豆，抗冲击性强，保护齿体

Made of wear-resistant raw material, 12 hard alloy beans, strong impact resistance, protect the tooth body

动态平衡自旋翼
Dynamically Balanced Rotor

五个螺旋槽以及外沿五个凸台利于齿的旋转，减少齿体的偏磨

Five spiral grooves and five bosses on the outer edge facilitate the rotation of the teeth and reduce eccentric wear of the tooth body.

技术参数 | Technical Parameters

坯体尺寸 Blank Size	主合金直径 Main Alloy	合金材质 Alloy Material	合金HRC表现 Alloy HRC Performance	坯体HRC表现 Blank HRC Performance	强度范围 Typical Strength Range
30-60	∅ 22	钨钴合金 Tungsten-Cobalt Alloy	69-70	42-45	10MPa-30MPa

适用地层 | Applicable Formations

对齿体耐磨要求高的砂岩、泥岩、硅化灰岩。

Sandstone, mudstone and lithology with high requirements on tooth wear resistance.

截齿
BULLET TEETH

型号 Model List | 60-12T24

低钴特粗颗粒碳化钨主合金
Low Cobalt Extra Coarse Grain Tungsten Carbide Alloy

直径24mm，采用创新材料，相比传统合金，提升破岩能力，延长截齿寿命

Diameter 24mm, and the large alloy body is designed for hard rock. It uses innovative materials to improve rock breaking ability and extend service life compared to traditional alloys.

合金粉末冶金级焊接
Alloy Powder Metallurgical Welding

齿体头部、合金豆采用合金粉末焊接，增强齿体的耐磨、耐高温，更好的保护合金

The pick head and carbide inserts employ alloy powder welding to achieve metallurgical bonding. Improves wear/heat resistance and provides better alloy protection.

强韧坯体
High-Strength Tough Shank

坯体采用温挤压锻造，融合精密热处理技术，密度更高且耐磨，出厂标配防脱卡簧

The body is made by warm extrusion forging, integrating precision heat treatment technology, with higher density and wear resistance, and anti-dropping retaining spring is standard in the factory



低钴特粗颗粒碳化钨合金豆
Low Cobalt Extra Coarse Grain Tungsten Carbide Beans

采用耐磨原生料硬质12颗合金豆，抗冲击性强，保护齿体

Made of wear-resistant raw material, 12 hard alloy beans, strong impact resistance, protect the tooth body

动态平衡自旋翼
Dynamically Balanced Rotor

五个螺旋槽以及外沿五个凸台利于齿的旋转，减少齿体的偏磨

Five spiral grooves and five bosses on the outer edge facilitate the rotation of the teeth and reduce eccentric wear of the tooth body.

技术参数 | Technical Parameters

坯体尺寸 Blank Size	主合金直径 Main Alloy	合金材质 Alloy Material	合金HRC表现 Alloy HRC Performance	坯体HRC表现 Blank HRC Performance	强度范围 Typical Strength Range
30-60	∅ 24	钨钴合金 Tungsten-Cobalt Alloy	69-70	42-45	10MPa-30MPa

适用地层 | Applicable Formations

对齿体耐磨要求高的砂岩、泥岩、硅化灰岩。

Suitable for sandstone, mudstone, and silicified limestone formations demanding high wear resistance on the pick body

型号 Model List | 60-12T26

低钴特粗颗粒碳化钨主合金
Low Cobalt Extra Coarse Grain Tungsten Carbide Alloy

直径26mm，采用创新材料，相比传统合金，提升破岩能力，延长截齿寿命

Diameter 26mm, and the large alloy body is designed for hard rock. It uses innovative materials to improve rock breaking ability and extend service life compared to traditional alloys.

合金粉末冶金级焊接
Alloy Powder Metallurgical Welding

齿体头部、合金豆采用合金粉末焊接，增强齿体的耐磨、耐高温，更好的保护合金

The pick head and carbide inserts employ alloy powder welding to achieve metallurgical bonding. Improves wear/heat resistance and provides better alloy protection.

强韧坯体
High-Strength Tough Shank

坯体采用温挤压锻造，融合精密热处理技术,密度更高且耐磨，出厂标配防脱卡簧

The body is made by warm extrusion forging, integrating precision heat treatment technology, with higher density and wear resistance, and anti-dropping retaining spring is standard in the factory



低钴特粗颗粒碳化钨合金豆
Low Cobalt Extra Coarse Grain Tungsten Carbide Beans

采用耐磨原生料硬质12颗合金豆，抗冲击性强，保护齿体

Made of wear-resistant raw material, 12 hard alloy beans, strong impact resistance, protect the tooth body

动态平衡自旋翼
Dynamically Balanced Rotor

五个螺旋槽以及外沿五个凸台利于齿的旋转，减少齿体的偏磨

Five spiral grooves and five bosses on the outer edge facilitate the rotation of the teeth and reduce eccentric wear of the tooth body.

技术参数 | Technical Parameters

坯体尺寸 Blank Size	主合金直径 Main Alloy	合金材质 Alloy Material	合金HRC表现 Alloy HRC Performance	坯体HRC表现 Blank HRC Performance	强度范围 Typical Strength Range
30-60	∅ 26	钨钴合金 Tungsten-Cobalt Alloy	69-70	44-46	30MPa-60MPa

适用地层 | Applicable Formations

对齿体耐磨要求高的砂岩、泥岩、胶版岩。

Highly weathered limestone, moderately weathered argillaceous limestone, highly weathered dolomite. Compact sandstone, highly weathered silicified limestone, artificial backfill layers.

截齿
BULLET TEETH

型号 Model List | 60-26K

低钴特粗颗粒碳化钨主合金
Low Cobalt Extra Coarse Grain Tungsten Carbide Alloy

直径26mm，采用创新材料，相比传统合金，提升破岩能力，延长截齿寿命

Diameter 26mm, and the large alloy body is designed for hard rock. It uses innovative materials to improve rock breaking ability and extend service life compared to traditional alloys.



超高真空精密焊接
Ultra-High Vacuum Precision Welding

实现合金与坯体的高强度连接，避免碳化物析出与焊缝弱化，提升截齿在冲击载荷下的抗剥落性能。

Achieve high-strength connection between alloy and blank, avoid carbide precipitation and weld weakening, and improve the anti-stripping performance of pick under impact load

动态平衡自旋翼
Dynamically Balanced Rotor

五个螺旋槽以及外沿五个凸台利于齿的旋转，减少齿体的偏磨

Five spiral grooves and five bosses on the outer edge facilitate the rotation of the teeth and reduce eccentric wear of the tooth body.

强韧坯体
High-Strength Tough Shank

坯体采用温挤压锻造，融合精密热处理技术,密度更高且耐磨，出厂标配防脱卡簧

The body is made by warm extrusion forging, integrating precision heat treatment technology, with higher density and wear resistance, and anti-dropping retaining spring is standard in the factory

技术参数 | Technical Parameters

坯体尺寸 Blank Size	主合金直径 Main Alloy	合金材质 Alloy Material	合金HRC表现 Alloy HRC Performance	坯体HRC表现 Blank HRC Performance	强度范围 Typical Strength Range
30-60	∅ 26	钨钴合金 Tungsten-Cobalt Alloy	69-70	44-46	40MPa-60MPa

适用地层 | Applicable Formations

适用于强风化的花岗岩、大理岩、强风化化砂岩、胶板岩、硅化砂岩、玄武岩。

Suitable for highly weathered granite, marble, highly weathered sandstone, cemented slate, silicified sandstone, and basalt formations.

型号 Model List | 60-12T26K

低钴特粗颗粒碳化钨主合金
Low Cobalt Extra Coarse Grain Tungsten Carbide Alloy

直径26mm，采用创新材料，相比传统合金，提升破岩能力，延长截齿寿命

Diameter 26mm, and the large alloy body is designed for hard rock. It uses innovative materials to improve rock breaking ability and extend service life compared to traditional alloys.

超高真空精密焊接
Ultra-High Vacuum Precision Welding

实现合金与坯体的高强度连接，避免碳化物析出与焊缝弱化，提升截齿在冲击载荷下的抗剥落性能。

Achieve high-strength connection between alloy and blank, avoid carbide precipitation and weld weakening, and improve the anti-stripping performance of pick under impact load

强韧坯体
High-Strength Tough Shank

坯体采用温挤压锻造，融合精密热处理技术,密度更高且耐磨，出厂标配防脱卡簧

The body is made by warm extrusion forging, integrating precision heat treatment technology, with higher density and wear resistance, and anti-dropping retaining spring is standard in the factory



低钴特粗颗粒碳化钨合金豆
Low Cobalt Extra Coarse Grain Tungsten Carbide Beans

采用耐磨原生料硬质12颗合金豆，抗冲击性强，保护齿体

Made of wear-resistant raw material, 12 hard alloy beans, strong impact resistance, protect the tooth body

动态平衡自旋翼
Dynamically Balanced Rotor

五个螺旋槽以及外沿五个凸台利于齿的旋转，减少齿体的偏磨

Five spiral grooves and five bosses on the outer edge facilitate the rotation of the teeth and reduce eccentric wear of the tooth body.

技术参数 | Technical Parameters

坯体尺寸 Blank Size	主合金直径 Main Alloy	合金材质 Alloy Material	合金HRC表现 Alloy HRC Performance	坯体HRC表现 Blank HRC Performance	强度范围 Typical Strength Range
30-60	∅ 26	钨钴合金 Tungsten-Cobalt Alloy	69-70	46-48	40MPa-70MPa

适用地层 | Applicable Formations

对齿体耐磨要求高的石灰岩、砾岩、红砂岩、弱风化灰泥岩、回填混泥土、要求较高的研磨层。

Suitable for limestone, conglomerate, red sandstone, slightly weathered argillaceous limestone, backfilled concrete, and highly abrasive strata that demand exceptional wear resistance from the pick body.

截齿
BULLET TEETH

型号 Model List | 60-26KF

低钴特粗颗粒碳化钨主合金
Low Cobalt Extra Coarse Grain Tungsten Carbide Alloy

直径26mm，采用创新材料，相比传统合金，提升破岩能力，延长截齿寿命

Diameter 26mm, and the large alloy body is designed for hard rock. It uses innovative materials to improve rock breaking ability and extend service life compared to traditional alloys.

激光陶瓷等离子熔覆
Laser Ceramic Plasma Cladding

有效防止坯体磨损，延长截齿寿命

Effectively prevents blank wear and extends pick service life.

强韧坯体
High-Strength Tough Shank

坯体采用温挤压锻造，融合精密热处理技术,密度更高且耐磨，出厂标配防脱卡簧

The body is made by warm extrusion forging, integrating precision heat treatment technology, with higher density and wear resistance, and anti-dropping retaining spring is standard in the factory



超高真空精密焊接
Ultra-High Vacuum Precision Welding

实现合金与坯体的高强度连接，避免碳化物析出与焊缝弱化，提升截齿在冲击载荷下的抗剥落性能。

Achieve high-strength connection between alloy and blank, avoid carbide precipitation and weld weakening, and improve the anti-stripping performance of pick under impact load

动态平衡自旋翼
Dynamically Balanced Rotor

五个螺旋槽以及外沿五个凸台利于齿的旋转，减少齿体的偏磨

Five spiral grooves and five bosses on the outer edge facilitate the rotation of the teeth and reduce eccentric wear of the tooth body.

技术参数 | Technical Parameters

坯体尺寸 Blank Size	主合金直径 Main Alloy	合金材质 Alloy Material	合金HRC表现 Alloy HRC Performance	坯体HRC表现 Blank HRC Performance	强度范围 Typical Strength Range
30-60	∅ 26	钨钴合金 Tungsten-Cobalt Alloy	69-70	44-46	50MPa-70MPa

适用地层 | Applicable Formations

适用于强风化的花岗岩、大理岩、强风化化砂岩、胶板岩、硅化砂岩、玄武岩。

Suitable for highly weathered granite, marble, highly weathered sandstone, cemented slate, silicified sandstone, and basalt formations.

型号 Model List | 60-28K

低钴特粗颗粒碳化钨主合金
Low Cobalt Extra Coarse Grain Tungsten Carbide Alloy

直径28mm，大合金坯体专为硬岩设计，采用创新材料，相比传统合金，提升破岩能力，延长寿命

Diameter 28mm, and the large alloy body is designed for hard rock. It uses innovative materials to improve rock breaking ability and extend service life compared to traditional alloys.



超高真空精密焊接
Ultra-High Vacuum Precision Welding

实现合金与坯体的高强度连接，避免碳化物析出与焊缝弱化，提升截齿在冲击载荷下的抗剥落性能。

Achieve high-strength connection between alloy and blank, avoid carbide precipitation and weld weakening, and improve the anti-stripping performance of pick under impact load

动态平衡自旋翼
Dynamically Balanced Rotor

五个螺旋槽以及外沿五个凸台利于齿的旋转，减少齿体的偏磨

Five spiral grooves and five bosses on the outer edge facilitate the rotation of the teeth and reduce eccentric wear of the tooth body.

强韧坯体
High-Strength Tough Shank

坯体采用温挤压锻造，融合精密热处理技术,密度更高且耐磨，出厂标配防脱卡簧

The body is made by warm extrusion forging, integrating precision heat treatment technology, with higher density and wear resistance, and anti-dropping retaining spring is standard in the factory

技术参数 | Technical Parameters

坯体尺寸 Blank Size	主合金直径 Main Alloy	合金材质 Alloy Material	合金HRC表现 Alloy HRC Performance	坯体HRC表现 Blank HRC Performance	强度范围 Typical Strength Range
30-60	∅ 28	钨钴合金 Tungsten-Cobalt Alloy	69-70	44-46	30MPa-70MPa

适用地层 | Applicable Formations

适用弱风化的花岗岩、弱风化硅化灰岩、中硅化砂岩、玄武岩、弱风化石英岩。

Suitable for slightly weathered granite, slightly weathered silicified limestone, moderately silicified sandstone, basalt, and slightly weathered quartzite formations.

截齿
BULLET TEETH

型号 Model List | 60-30K

低钴特粗颗粒碳化钨主合金
Low Cobalt Extra Coarse Grain Tungsten Carbide Alloy

直径30mm，大合金坯体专为硬岩设计，采用创新材料，相比传统合金，提升破岩能力，延长寿命

Diameter 30mm, and the large alloy body is designed for hard rock. It uses innovative materials to improve rock breaking ability and extend service life compared to traditional alloys.



超高真空精密焊接
Ultra-High Vacuum Precision Welding

实现合金与坯体的高强度连接，避免碳化物析出与焊缝弱化，提升截齿在冲击载荷下的抗剥落性能。

Achieve high-strength connection between alloy and blank, avoid carbide precipitation and weld weakening, and improve the anti-stripping performance of pick under impact load

强韧坯体
High-Strength Tough Shank

坯体采用温挤压锻造，融合精密热处理技术,密度更高且耐磨，出厂标配防脱卡簧

The body is made by warm extrusion forging, integrating precision heat treatment technology, with higher density and wear resistance, and anti-dropping retaining spring is standard in the factory

动态平衡自旋翼
Dynamically Balanced Rotor

五个螺旋槽以及外沿五个凸台利于齿的旋转，减少齿体的偏磨

Five spiral grooves and five bosses on the outer edge facilitate the rotation of the teeth and reduce eccentric wear of the tooth body.

技术参数 | Technical Parameters

坯体尺寸 Blank Size	主合金直径 Main Alloy	合金材质 Alloy Material	合金HRC表现 Alloy HRC Performance	坯体HRC表现 Blank HRC Performance	强度范围 Typical Strength Range
30-60	∅ 30	钨钴合金 Tungsten-Cobalt Alloy	69-70	44-46	50MPa-80MPa

适用地层 | Applicable Formations

中风化灰岩、泥质灰岩、强风化白云岩、硅化灰岩、片岩。
Moderately weathered limestone, argillaceous limestone, highly weathered dolomite, silicified limestone, and schist.

型号 Model List | 60-10T30K

低钴特粗颗粒碳化钨主合金
Low Cobalt Extra Coarse Grain Tungsten Carbide Alloy

直径30mm，大合金坯体专为硬岩设计，采用创新材料，相比传统合金，提升破岩能力，延长寿命

Diameter 30mm, and the large alloy body is designed for hard rock. It uses innovative materials to improve rock breaking ability and extend service life compared to traditional alloys.

低钴特粗颗粒碳化钨合金豆
Low-Cobalt Extra-Coarse Tungsten Carbide Inserts

采用耐磨原生料硬质10颗合金豆，抗冲击性强，保护齿体

Made of wear-resistant raw material, 10 hard alloy beans, strong impact resistance, protect the tooth body

强韧坯体
High-Strength Tough Shank

坯体采用温挤压锻造，融合精密热处理技术,密度更高且耐磨，出厂标配防脱卡簧

The body is made by warm extrusion forging, integrating precision heat treatment technology, with higher density and wear resistance, and anti-dropping retaining spring is standard in the factory



超高真空精密焊接
Ultra-High Vacuum Precision Welding

实现合金与坯体的高强度连接，避免碳化物析出与焊缝弱化，提升截齿在冲击载荷下的抗剥落性能。

Achieve high-strength connection between alloy and blank, avoid carbide precipitation and weld weakening, and improve the anti-stripping performance of pick under impact load

动态平衡自旋翼
Dynamically Balanced Rotor

五个螺旋槽以及外沿五个凸台利于齿的旋转，减少齿体的偏磨

Five spiral grooves and five bosses on the outer edge facilitate the rotation of the teeth and reduce eccentric wear of the tooth body.

技术参数 | Technical Parameters

坯体尺寸 Blank Size	主合金直径 Main Alloy	合金材质 Alloy Material	合金HRC表现 Alloy HRC Performance	坯体HRC表现 Blank HRC Performance	强度范围 Typical Strength Range
30-60	∅ 30	钨钴合金 Tungsten-Cobalt Alloy	69-70	44-46	50MPa-80MPa

适用地层 | Applicable Formations

中风化灰岩、泥质灰岩、强风化白云岩、硅化灰岩、片岩。
Moderately weathered limestone, argillaceous limestone, highly weathered dolomite, silicified limestone, and schist.

截齿
BULLET TEETH

型号 Model List | 60-30NX

低钴特粗颗粒碳化钨主合金
Low Cobalt Extra Coarse Grain Tungsten Carbide Alloy

直径30mm，大合金坯体专为极硬岩设计，采用创新材料，相比传统合金，提升破岩能力，延长寿命

Diameter 30mm, and the large alloy body is designed for hard rock. It uses innovative materials to improve rock breaking ability and extend service life compared to traditional alloys.

碳化钨粉熔覆
Tungsten Carbide Powder Cladding

有效防止坯体磨损，延长截齿寿命

Effectively prevents blank wear and extends pick service life.

强韧坯体
High-Strength Tough Shank

坯体采用温挤压锻造，融合精密热处理技术,密度更高且耐磨，出厂标配防脱卡簧

The body is made by warm extrusion forging, integrating precision heat treatment technology, with higher density and wear resistance, and anti-dropping retaining spring is standard in the factory



超高真空精密焊接
Ultra-High Vacuum Precision Welding

实现合金与坯体的高强度连接，避免碳化物析出与焊缝弱化，提升截齿在冲击载荷下的抗剥落性能。

Achieve high-strength connection between alloy and blank, avoid carbide precipitation and weld weakening, and improve the anti-stripping performance of pick under impact load

动态平衡自旋翼
Dynamically Balanced Rotor

五个螺旋槽以及外沿五个凸台利于齿的旋转，减少齿体的偏磨

Five spiral grooves and five bosses on the outer edge facilitate the rotation of the teeth and reduce eccentric wear of the tooth body.

技术参数 | Technical Parameters

坯体尺寸 Blank Size	主合金直径 Main Alloy	合金材质 Alloy Material	合金HRC表现 Alloy HRC Performance	坯体HRC表现 Blank HRC Performance	强度范围 Typical Strength Range
30-60	∅ 30	钨钴合金 Tungsten-Cobalt Alloy	69-70	48-50	60MPa-90MPa

适用地层 | Applicable Formations

适用中风化的花岗岩、大理岩、弱风化硅化灰岩、硅化砂岩、玄武岩、中风化坚硬石英岩

Suitable for moderately weathered granite, marble, slightly weathered silicified limestone, silicified sandstone, basalt, and moderately weathered hard quartzite formations.

型号 Model List | 2K

低钴特粗颗粒碳化钨主合金
Low Cobalt Extra Coarse Grain Tungsten Carbide Alloy

直径22mm，采用创新材料，相比传统合金，提升破岩能力，延长截齿寿命

Diameter 22mm, and the large alloy body is designed for hard rock. It uses innovative materials to improve rock breaking ability and extend service life compared to traditional alloys.

强韧坯体
High-Strength Tough Shank

坯体采用温挤压锻造，融合精密热处理技术,密度更高且耐磨，出厂标配防脱卡簧

The body is made by warm extrusion forging, integrating precision heat treatment technology, with higher density and wear resistance, and anti-dropping retaining spring is standard in the factory



超高真空精密焊接
Ultra-High Vacuum Precision Welding

实现合金与坯体的高强度连接，避免碳化物析出与焊缝弱化，提升截齿在冲击载荷下的抗剥落性能。

Achieve high-strength connection between alloy and blank, avoid carbide precipitation and weld weakening, and improve the anti-stripping performance of pick under impact load

流体力学齿体设计
Hydrodynamic Pick Body Design

可以加快齿的旋转，减少齿的偏磨

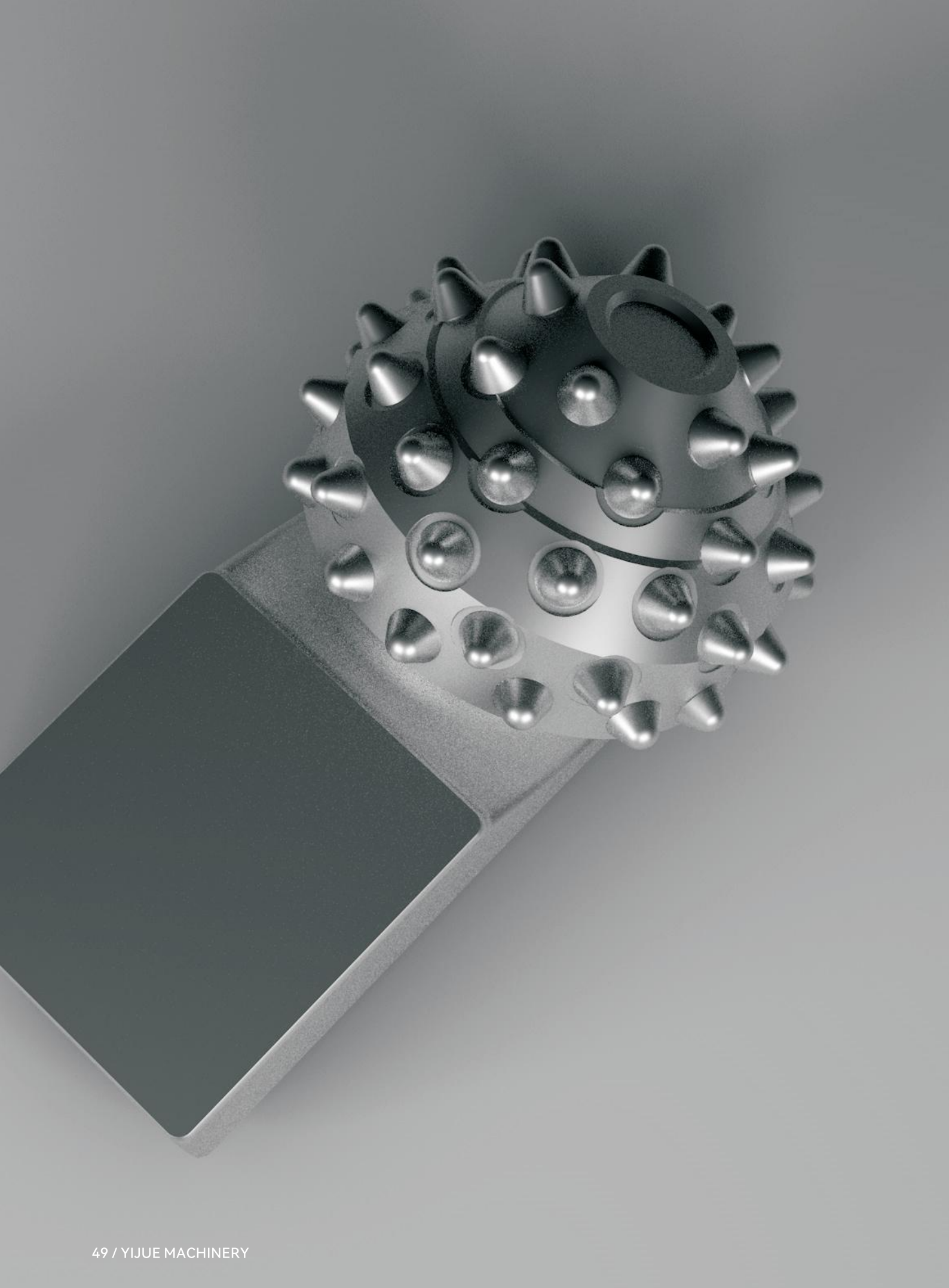
Speed up the rotation of the teeth and reduce the eccentric wear of the teeth.

技术参数 | Technical Parameters

坯体尺寸 Blank Size	主合金直径 Main Alloy	合金材质 Alloy Material	合金HRC表现 Alloy HRC Performance	坯体HRC表现 Blank HRC Performance	强度范围 Typical Strength Range
30-50	∅ 22	钨钴合金 Tungsten-Cobalt Alloy	55-58	49-52	800KPa-5MPa

适用地层 | Applicable Formations

适合用于对齿体耐磨要求高密致砂岩，泥岩，胶板岩。
Moderately weathered limestone, argillaceous limestone, highly weathered dolomite, silicified limestone, and schist.



03

牙轮

ROLLER BIT

单掌牙轮
ROLLER BIT

型号 Model List | 805





技术参数 | Technical Parameters

规格 Size	总重 G.w	合金齿数量 Carbide Tips Qty	齿高 Tips Height	凸齿数量 lug Tips Qty	切削结构 Cutting Structure
239*137*115mm	12kg	52颗 52pcs(∅14mm)	10mm	23颗 23pcs(∅10mm)	锥形结构 Conical Type

本体材质 Body Material	合金材质 Carbide Material	合金重量 Carbide Weight	合金密度 Carbide Density	轴承类型 Bearing Type	密封式 Sealed
合金钢 15MnNi4MoA	碳化钨 Tungsten Carbide	1.92kg	14.51g/cm*3	滑动轴承 Sliding Bearing	O型橡胶密封 O Type Rubber Sealed

适用地层 | Applicable Formations

适用于抗压强度90-120兆帕的中等强度、轻微风化岩层，包括花岗岩、凝灰岩、石灰岩、白云岩、砂岩等地质结构均匀的中低强度岩层。

Applicable for 90-120 MPa,medium, slightly， weathered granite, tuff, limestone, dolomite,sandstone, etc.Compression strength formations, geologically homogeneous with strong,medium and low formations

型号 Model List | 627





技术参数 | Technical Parameters

规格 Size	总重 G.w	合金齿数量 Carbide Tips Qty	齿高 Tips Height	凸齿数量 lug Tips Qty	切削结构 Cutting Structure
259*135*110mm	13.95kg	52颗 52pcs(∅14mm)	10mm	———	锥形结构 Conical Type

本体材质 Body Material	合金材质 Carbide Material	合金重量 Carbide Weight	合金密度 Carbide Density	轴承类型 Bearing Type	密封式 Sealed
合金钢 15MnNi4MoA	碳化钨 Tungsten Carbide	1.96kg	14.51g/cm*3	滑动轴承 Sliding Bearing	O型橡胶密封 O Type Rubber Sealed

适用地层 | Applicable Formations

适用于50-150兆帕抗压强度范围，可应对多种硬度岩层

Applicable for 50-150 Mpa,suitable for various hardness formations

单掌牙轮
ROLLER BIT

型号 Model List | 805H



技术参数 | Technical Parameters

规格 Size	总重 G.w	合金齿数量 Carbide Tips Qty	齿高 Tips Height	凸齿数量 lug Tips Qty	切削结构 Cutting Structure
239*137*115mm	12kg	52颗 52pcs(∅14mm)	10mm	23颗 23pcs(∅10mm)	锥形结构 Conical Type

本体材质 Body Material	合金材质 Carbide Material	合金重量 Carbide Weight	合金密度 Carbide Density	轴承类型 Bearing Type	密封式 Sealed
合金钢 15MnNi4MoA	碳化钨 Tungsten Carbide	1.92kg	14.51g/cm*3	滑动轴承 Sliding Bearing	O型橡胶密封 O Type Rubber Sealed

适用地层 | Applicable Formations

适用于抗压强度120兆帕的中等强度、轻微风化岩层，包括花岗岩、凝灰岩、石灰岩、白云岩、砂岩等地质结构均匀的中低强度岩层。

Applicable for 120 MPa,medium, slightly， weathered granite, tuff, limestone, dolomite,sandstone, etc.Compression strength formations, geologically homogeneous with strong,medium and low formations

钻具特点 | Feature

采用浮动轴承结构，浮动元件由高强度、高弹性、高耐温性、高耐磨性特点的新材料制成，表面经固体润滑剂处理。
同时减少摩擦面温升，能有效提高高转速工艺条件下的轴承寿命和可靠性;
采用高强度高韧性硬质合金齿，高精密度的车床工艺，冷压技术，不断提高了齿的抗冲击能力;
优化设计的齿排数、齿数、露齿高度和独特的合金齿外形，充分发挥了钻头切削能力和切削速度;
牙轮内孔镶焊减磨合金，提高轴承的抗咬合能力;
采用可耐260℃高温,低磨损的新型润滑脂,提高了钻头密封润滑系统耐高温的能力。

The floating bearing structure is adopted, and the floating element is made of a new material with high strength, high elasticity, high temperature resistance and high wear resistance, and the surface is treated with solid lubricant.
At the same time, the temperature rise of the friction surface is reduced, which can effectively improve the bearing life and reliability under high-speed process conditions;
Adopting high-strength and high-toughness carbide teeth, high-precision lathe technology, and cold pressing technology, the impact resistance of the teeth is continuously improved;
The optimized tooth row number, number of teeth, exposed tooth height and unique alloy tooth shape give full play to the cutting ability and cutting speed of the drill bit;
The inner hole is welded with anti-friction alloy to improve the anti-seizure ability of the bearing;
The use of a new type of grease that can withstand high temperatures of 260°C and has low wear improves the high temperature resistance of the drill bit sealing and lubrication system.

可定制项目 | Customizable Items

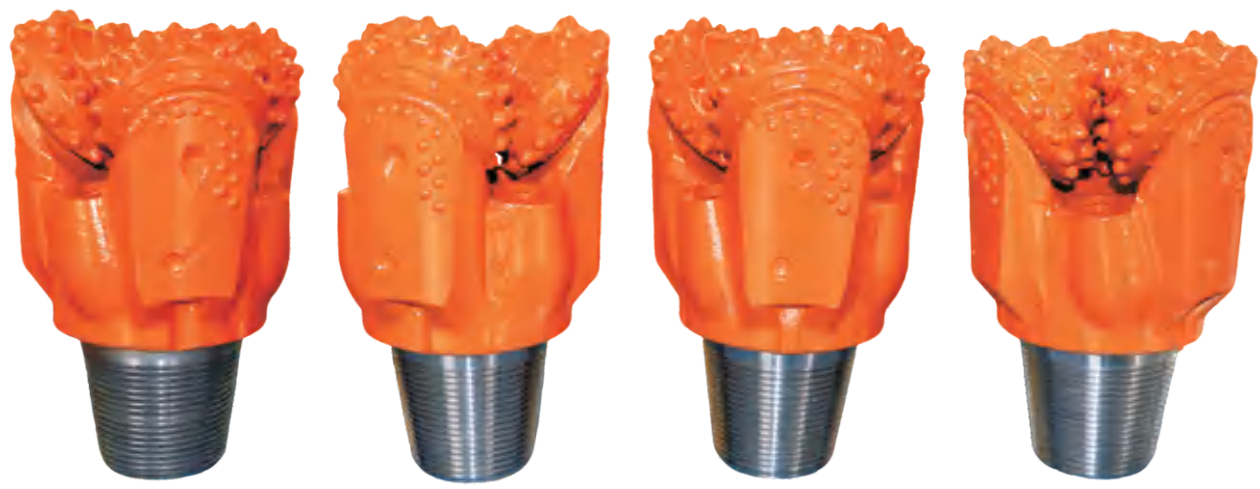
根据客户来样定制,同时具备自行开发新产品及生产能力，可根据客户来图来样定制非标产品;
Samples to customize, we have capacity to design the new products
Can design nonstandard products according to customer's drawing and sample;

应用图示 | Application





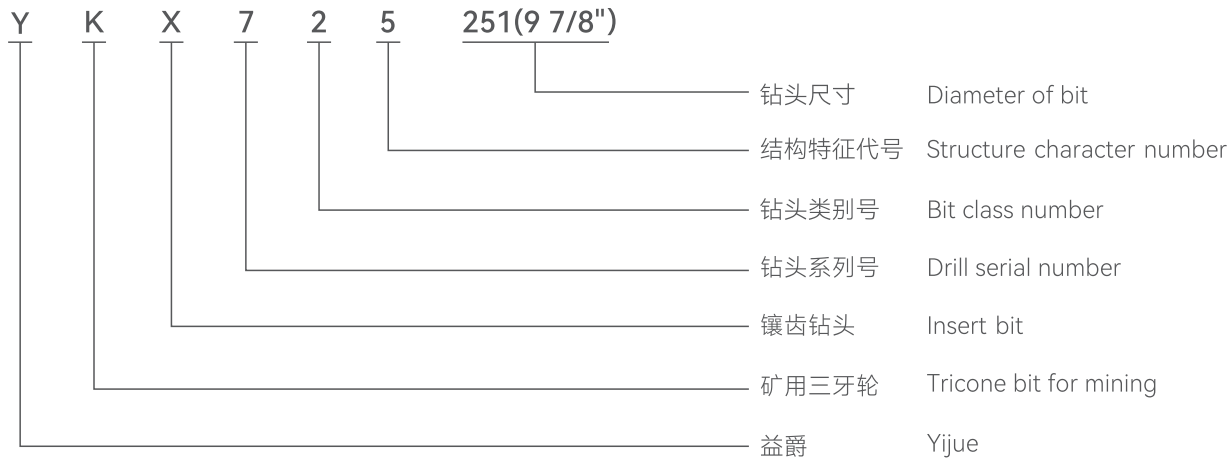
三牙轮钻头
TRICONE BIT



型号介绍 | Model Introduction

钻头直径 Diameter	系列号(轴承结构和密封类型) Series number (bearing structure and seal type)	IADC编号 IADC code	附加特征 Additional features
7 7/8"	YGA	745	GF
6 1/4"	YF	632	
6 3/4"	YF	532	
7 7/8"	YGA	545	R
7 7/8"	YGV	635	
8 1/2"	YGA	635	
9 7/8"	YGA	715	
9 7/8"	YGV	535	RF
11”	YGA	745	G
12 1/4"	YGA	835	R

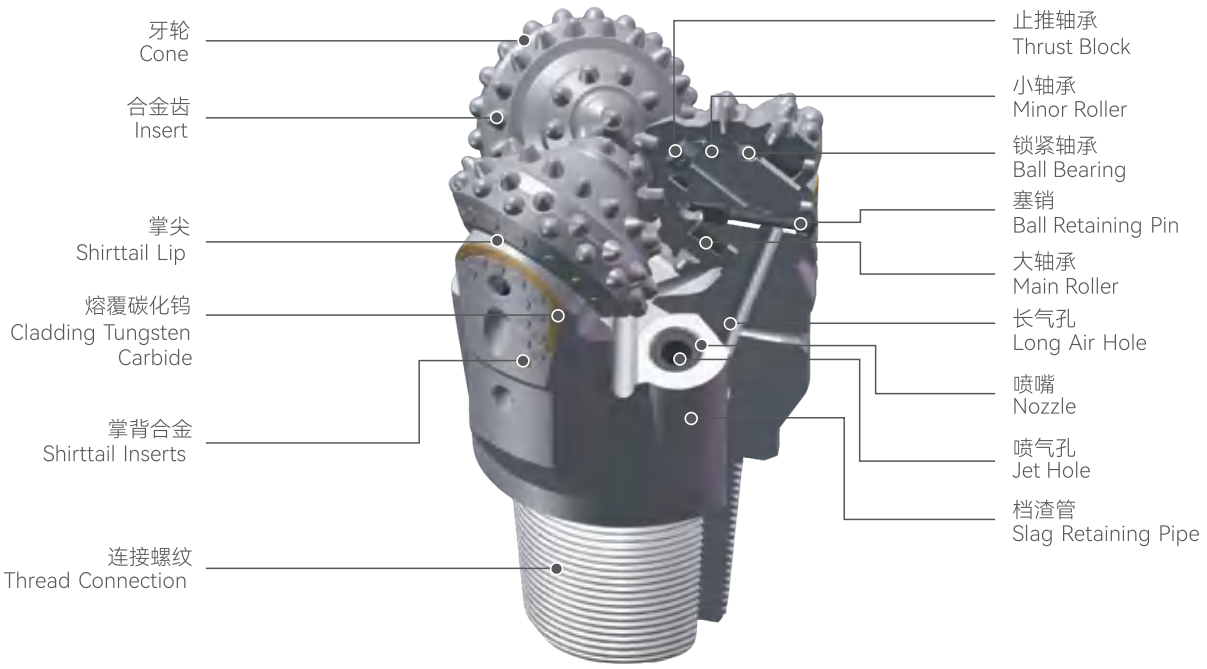
产品命名原则及示例 | Product Naming Principles And Examples



公司可根据客户要求设计制造各种牙轮钻头。

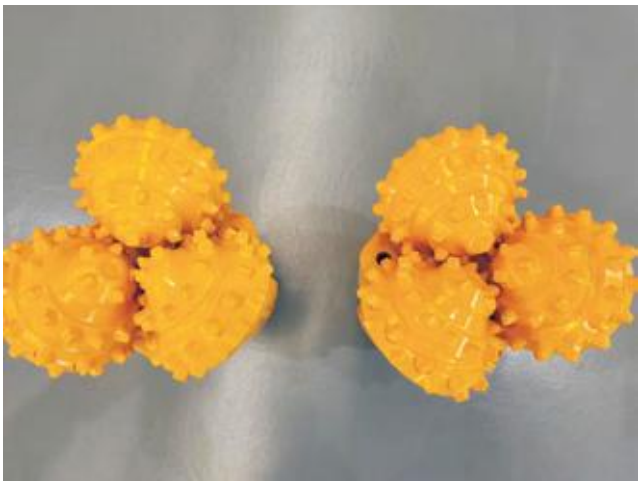
Design and manufacture various roller drill bits according to customer requirements.

三牙轮结构 | Basic Structure



三牙轮钻头
TRICONE BIT





牙轮钻头结构特点 | Structural Features of Rock Bits

适合高转速和高钻压钻井作业。该系列钻头除常规地层外，还适合在夹层多、冲击震动较大的非均质地层中钻进。

1、采用浮动轴承结构，浮动元件由高强度、高弹性、高耐温性、高耐磨性特点的新材料制成，表面经固体润滑剂处理。在降低轴承副相对线速度的同时，减少摩擦面温升，能有效提高在高钻压或高转速钻井工艺条件下的轴承寿命和轴承可靠性；

2、采用高精度的金属密封。金属密封由一副精心设计加工的金属密封环作为轴承轴向动密封，两个高弹性的橡胶供能圈分别位于牙掌和牙轮密封区域内作为静密封，优化的密封压缩量确保了两个金属环密封表面始终保持良好接触；

3、钢球锁紧牙轮，适应高转速；

4、采用可限制压差并防止钻井液进入润滑系统的全橡胶储油囊，为轴承系统提供了良好的润滑保证；

5、采用可耐250℃高温、抗磨损的新型润滑脂；

6、镶齿钻头采用高强度、高韧性硬质合金齿，优化设计的齿排数、齿数、露齿高度和合金齿外形，充分发挥了镶齿钻头高耐磨性和优异的切削能力。钢齿钻头齿面敷焊新型耐磨材料，在保持钢齿钻头高机械钻速的同时，提高了钻头切削齿寿命。

Suitable for high-speed and high drilling pressure drilling operations. In addition to conventional formations, this series of drill bits is also suitable for drilling in heterogeneous formations with many interlayers and large impact vibrations.

1. Adopting a floating bearing structure, the floating element is made of a new material with high strength, high elasticity, high temperature resistance, and high wear resistance, and the surface is treated with solid lubricants. While reducing the relative linear speed of the bearing pair, it reduces the temperature rise of the friction surface, which can effectively improve the bearing life and bearing reliability under high drilling pressure or high speed drilling process conditions;

2. Adopting high-precision metal seals. The metal seal is made of a pair of carefully designed and processed metal sealing rings as the axial dynamic seal of the bearing. Two highly elastic rubber energy supply rings are located in the tooth palm and the cone sealing area as static seals. The optimized sealing compression ensures that the two metal ring sealing surfaces always maintain good contact;

3. The steel ball locks the cone to adapt to high speed;

4. The full rubber oil storage bag that can limit the pressure difference and prevent drilling fluid from entering the lubrication system provides a good lubrication guarantee for the bearing system;

5. The new grease that can withstand high temperatures of 250℃ and resist wear is used;

6. The insert drill bit adopts high-strength and high-toughness carbide teeth, and the number of tooth rows, number of teeth, tooth height and alloy tooth shape are optimized to give full play to the high wear resistance and excellent cutting ability of the insert drill bit. The new wear-resistant material is welded on the tooth surface of the steel tooth drill bit, which improves the life of the drill bit cutting teeth while maintaining the high mechanical drilling speed of the steel tooth drill bit.

硬地层钻头特点 | Hard formation drill bit features

针对常规牙轮钻头在硬地层钻进时易出现断掉齿、牙齿磨损、轮尖磨损及钻头缩径等失效形式，开发出专门用于硬地层的钻头。钻头具有金属面密封、掌背加强结构特征，以适应硬地层钻进需求。

1.具有寿命长、可靠性高、机械钻速快和保径能力强等特点；

2.是坚硬地层、强研磨性地层中实现、钻进的理想选择；

3.尺寸范围7 7/8- 12 1/4 英寸；

4.钻头寿命长、可靠性高。

In view of the failure modes of conventional roller drill bits such as broken teeth, tooth wear, wheel tip wear and drill bit shrinkage when drilling in hard formations, a drill bit specially used for hard formations has been developed. The drill bit has metal face seal and palm back reinforcement structure to meet the needs of hard formation drilling.

1. It has the characteristics of long life, high reliability, fast mechanical drilling speed and strong diameter retention ability;

2. It is an ideal choice for drilling in hard formations and highly abrasive formations;

3. The size range is 7 7/8- 12 1/4 inches;

4. The drill bit has a long life and high reliability.

硬地层钻头工艺 | Hard formation drill bit technology

硬地层钻头的牙掌轴采用先进的全自动表面堆焊耐磨合金焊接技术，牙轮内孔剧镀第三代高性能复合固体润滑材料，提高了轴承承载能力，复合固体润滑材料和新型合成润滑脂有效改善轴承工作环境。这些轴承技术的运用使轴承能承受高钻压。

顶齿强化技术

硬地层钻头应用顶齿强化技术,减少钻头轮尖磨损，延长钻头使用寿命。

数值实验

利用先进的计算机三维仿真技术模拟实际钻井工况，并结合物理实验设计适应硬地层的切削结构。

优选齿形和齿材

根据地层岩石可钻性差异，合理匹配齿材与齿形，减少了断齿，提高了耐磨性，使得切削齿保持持久的攻击性。

The tooth palm shaft of the hard formation drill bit adopts advanced fully automatic surface surfacing wear-resistant alloy welding technology, and the inner hole of the cone is plated with the third generation of high-performance composite solid lubricant to improve the bearing bearing capacity. The composite solid lubricant and new synthetic grease effectively improve the working environment of the bearing. The use of these bearing technologies enables the bearing to withstand high drilling pressure.

Top tooth strengthening technology

The top tooth strengthening technology is applied to the hard formation drill bit to reduce the wear of the drill wheel tip and extend the service life of the drill bit.

Numerical experiment

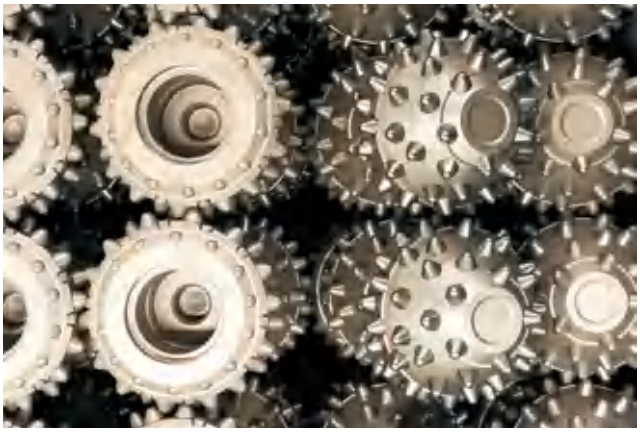
Use advanced computer three-dimensional simulation technology to simulate the actual drilling conditions, and combine physical experiments to design the cutting structure adapted to the hard formation.

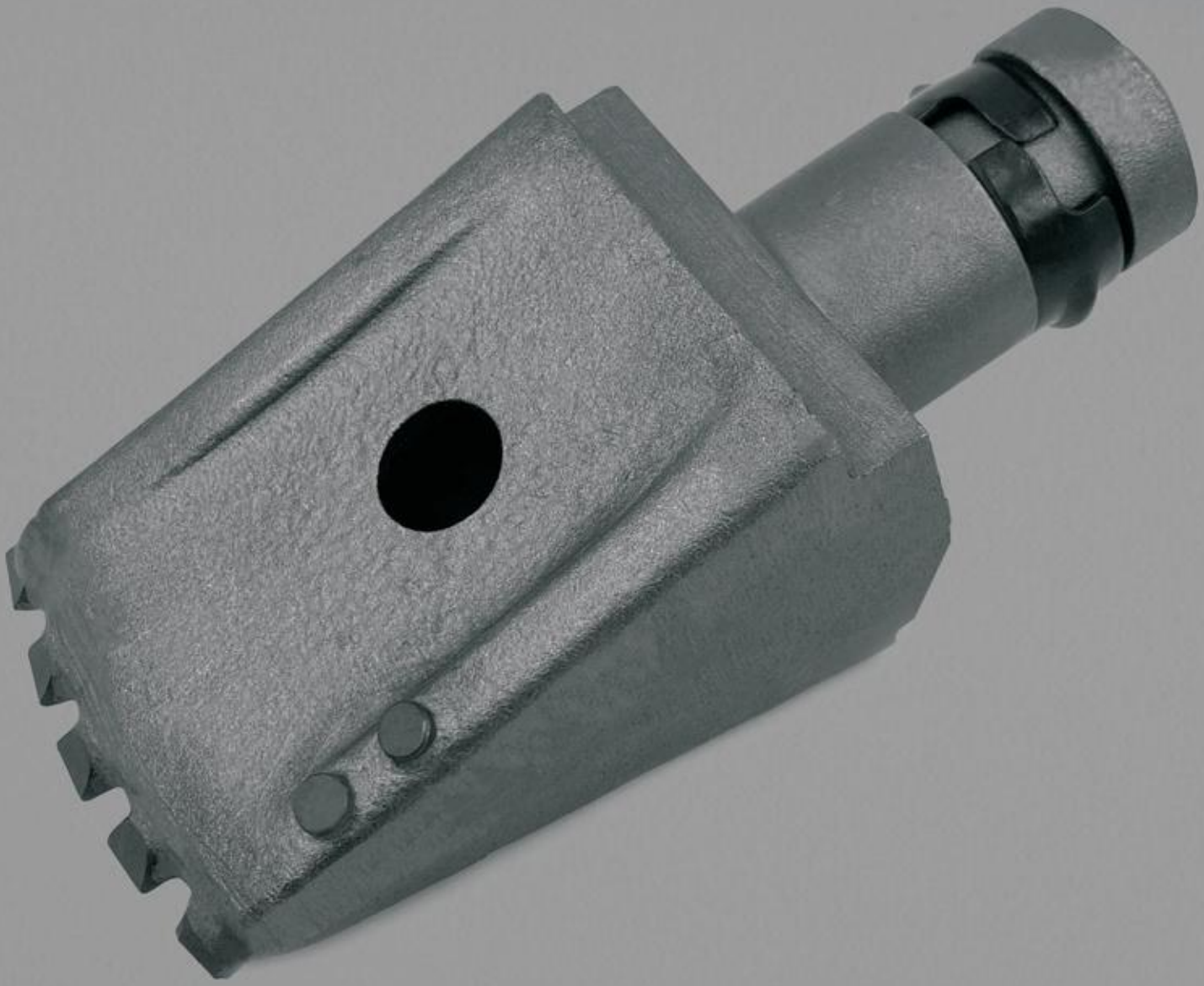
Optimize tooth shape and tooth material

According to the difference in the drillability of the formation rock, the tooth material and tooth shape are reasonably matched to reduce broken teeth, improve wear resistance, and keep the cutting teeth persistently aggressive.

产品细节 | Product Details







04

配件

FLAT TEETH

机锁杆加压钻杆
INTERLOCKING KELLY BAR



型谱表 | Model List

型号 Type	外径 Outer pipe diameter	层数*每节长度 No.oftubes*leng per section	钻孔深度 Drilling depth
∅377-4*14	∅377mm/∅1'3"	4*14/4*45'1"	52m/170'7.2"
∅445-4*14	∅445mm/∅1'5.5"	4*15/4*45'5"	56m/170'7.2"
∅470-4*15	∅470mm/∅1'6.5"	4*15/4*45'5"	56m/170'7.2"
∅508-4*15	∅508mm/∅1'8"	4*15/4*45'5"	56m/170'7.2"
∅508-5*15	∅508mm/∅1'8"	5*15/5*45'5"	70m/170'7.2"
∅530-4*17	∅530mm/∅1'8.9"	4*17/4*55'9"	63m/206'8"
∅580-4*17	∅580mm/∅1'10.8"	4*17/4*55'9"	63m/206'8"

钻杆特点 | Feature

机锁式加压钻杆是适用于硬地层钻杆。其外键结构一般由三键或六键组成，在钻杆的外键上一班由三组或N组大凹型加压部位，内键一般为三键或六键耐磨直条组成。该钻杆向钻具传递压力大，抗扭距能力大，适合钻进较硬地层。

he mechanically locked pressurized drill pipe is suitable for drilling in hard formations. Its external key structure generally consists of three or six keys, with three or N sets of large concave-shaped pressurized sections on the external keys of the drill pipe. The internal keys are usually composed of three or six wear-resistant straight bars. This drill pipe transmits high pressure to the drilling tool, has strong torque resistance, and is suitable for drilling in harder formations.

可定制项目 | Customizable Items

根据客户定制,同时具备自行开发新产品及生产能力，可根据客户来图来样定制非标产品;

According to customer requirements, we can customize non-standard products based on provided drawings or samples, while also possessing independent R&D and production capabilities for new product development.

产品细节 | Product Details





摩阻式钻杆
FRICTIINAL KELLY BAR





型谱表 | Model List

型号 Type	外径 Outer pipe diameter	层数*每节长度 No.oftubes*leng per section	钻孔深度 Drilling depth
∅377-4*14	∅377mm/∅1'3"	4*14/4*45'1"	52m/170'7.2"
∅440-5*15	∅440mm/∅1'5"	5*15/5*45'5"	70m/229'8"
∅470-6*15	∅470mm/∅1'6.5"	6*15/6*45'5"	83m/272'3.7"
∅508-6*16	∅508mm/∅1'8"	6*16/6*52'6"	89m/291'12"
∅530-6*18.7	∅530mm/∅1'8.9"	6*18.7/6*61'4"	110m/360'10.7"
∅580-6*18.7	∅580mm/∅1'10.8"	6*18.7/6*61'4"	110m/360'10.7"

钻杆特点 | Feature

摩阻式钻杆是外键由三键或六键耐磨直条组成，中间没有大凹型加压台的一种钻杆形式。改钻杆式是在钻杆转动时产生的圆周力及动力头加压时向下传递加压产生摩擦力进行加压。操作简单，钻孔深度大，适合钻进软土层或泥沙层。

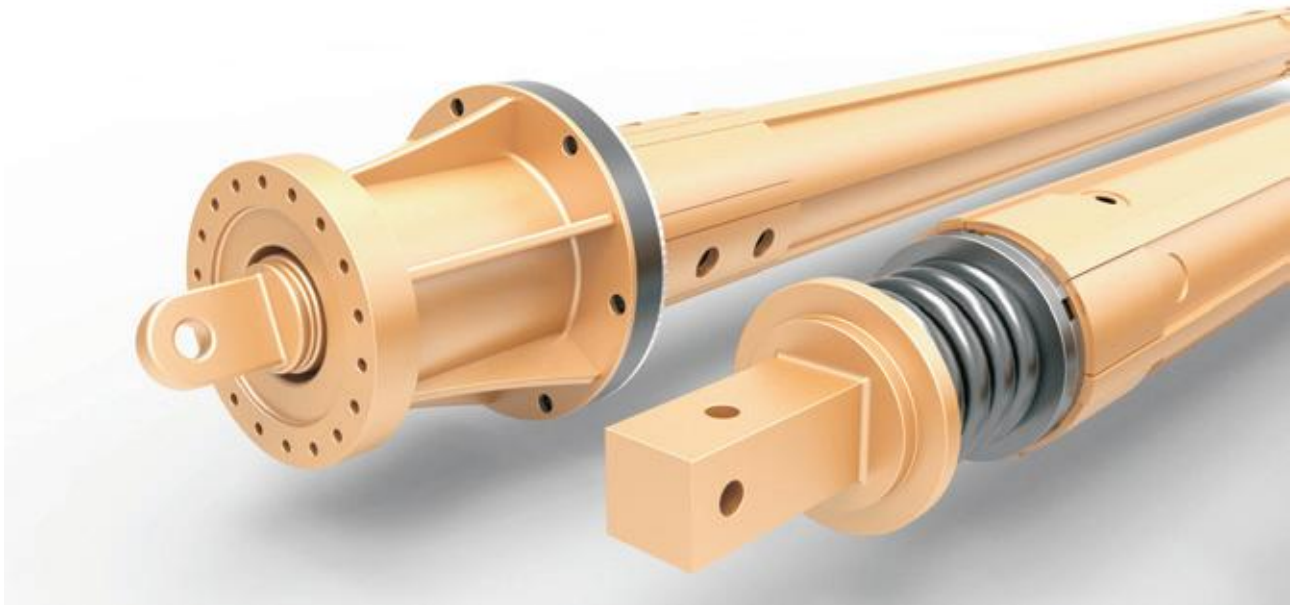
Friction-type drill pipe is a type of drill pipe whose external keys consist of three or six wear-resistant straight bars without large concave pressure platforms. This drill pipe generates pressure through the circumferential force produced during rotation and the friction created when the drill head applies downward force. It is simple to operate, allows for deep drilling, and is suitable for soft soil or sandy silt layers.

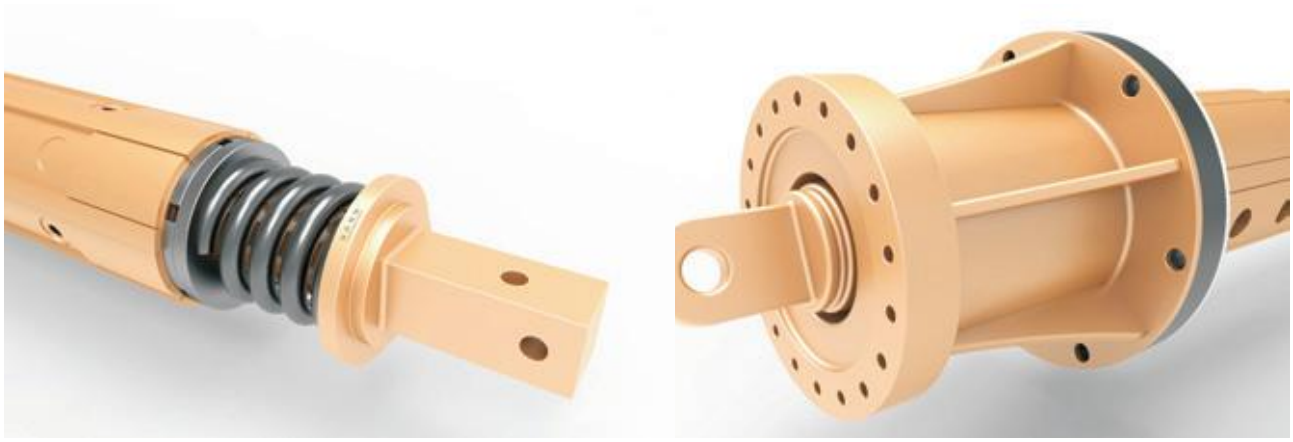
可定制项目 | Customizable Items

根据客户定制，同时具备自行开发新产品及生产能力，可根据客户来图来样定制非标产品;

According to customer requirements, we can customize non-standard products based on provided drawings or samples, while also possessing independent R&D and production capabilities for new product development.

产品细节 | Product Details





导管
CONDUIT



型谱表 | Model List

规格 Spec	LDC219	LDC260	LDC300
接头密封式 Seal type	双层O型密封圈 Type O seal ring	双层O型密封圈 Type O seal ring	双层O型密封圈 Type O seal ring
外径 Outside Diameter	&219	&260	&300
灌注深度 Depth	50	60	65
灌注直径 Diameter	&2	&2.5	&2.8
漏斗容积 Volume	0.8<1.2	1<1.5	1.2<1.5
灌注量 Perfusion	150	180	200
标配长度 Length	50	61	61

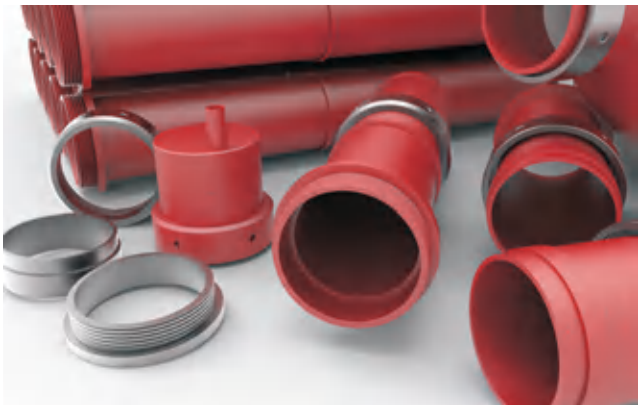
备注:所有度量单位为米(m)方;数据仅供参考
Remark:All measurements are in meters, Data are for reference only.

导管特点 | Feature

可根据需求定制直径;
导管材质标准为无缝管，板材CB/T912-Q235;
常规规格型号有300型，260型，219型;
整套导管有，底管，短节，标配，底管为4m，标配为3m，短节为0.5-2m。

The diameter can be customized as needed.
Standard material: Seamless pipe (CB/T912-Q235 steel plate).
Standard models: 300, 260, and 219.
The complete conduit assembly includes:Base pipe (4m),Short sections (0.5-2m),Standard pipes (3m).

产品细节 | Product Details








全跟进护筒
COMMON HOLDERS





护筒特点 | Feature

1.全跟进护筒优势：在桩机施工中具有成孔快、质量高、能缩短工地，提高经济效率等优点；
2.全跟进护筒适用的地层：卵石层砂壤土 黏土夹带卵石 粉土粉砂溶洞砂卵石回填土、淤泥、流沙等容易塌孔地层；
3.全跟进护筒使用范围：
（1)旋挖桩机适用使用护筒直径600-1000MM范围能下护筒30米左右；
（2)旋挖桩机适用使用护筒直径1000-1500MM范围能下护筒22米左右，钻机配备型号220-280以上机型。

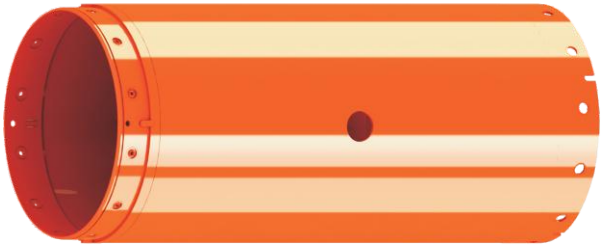
1.Advantages: Faster hole formation, higher quality, shorter construction time, and improved cost efficiency in piling.
2.Suitable Ground Conditions: Gravel layers, sandy loam, clay with gravel, silt, fine sand, karst cavities, sandy gravel backfill, soft soil, and quicksand (collapsible formations).
3.Specifications:
(1)For 600-1000mm diameter: Max. depth ~30m (rotary drilling rigs)
(2)or 1000-1500mm diameter: Max. depth ~22m (requires SR220/280+ rigs)

可定制项目 | Customizable Items

根据客户定制，同时具备自行开发新产品及生产能力，可根据客户来图来样定制非标产品；
According to customer requirements, we can customize non-standard products based on provided drawings or samples, while also possessing independent R&D and production capabilities for new product development.

产品细节 | Product Details





宝峨齿
FLAT TEETH



BFZ70



BFZ72



BFZ80



18T



25T



V19



V20

挖墙齿
DIAPHRAGM WALL DRILLING TEETH



左齿 L



中齿 M



右齿 R

齿座
COMMON HOLDERS



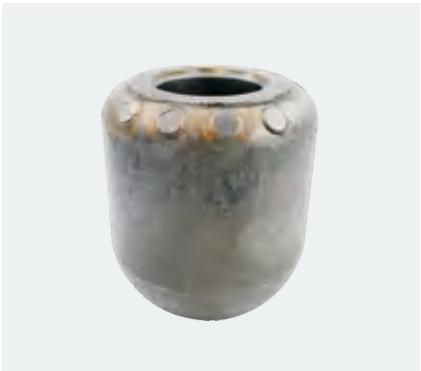
方座B43H



大圆座78/95



小圆座68/95



合金圆座B85/2



Pilot Bit



C30

切削齿
REPLACEABLE TEETH



WS39



WS46

耐磨块
WELD-ON TEETH



BA10



BA70-38



BA55-22



BA50-26.5



BA90-35



BA90-42

YIJUE FACTORY

益爵工厂

钻头车间 | Drilling Bucket Workshop











截齿车间 | Bullet Teeth Workshop











YIJUE FACTORY

益爵工厂

牙轮车间 | Cone Bit Workshop











CORPORATE CLIENTS

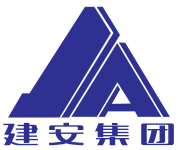
合作客户















































注：以上为益爵代表性合作客户及工程项目。
Note: The above are the representative cooperative clients and engineering projects of Yijue.







武汉总部:湖北省武汉市东西湖区德思远工业园三栋4楼
安徽工厂:安徽省六安市金寨县斑竹园
广东工厂:广东省东莞市东城街道丁平路5号
合肥分部:安徽省合肥市瑶海区瑶海工业园
厦门分部:福建省厦门市同安区瑶头村后巷里239

服务热线/Service Hotline
+86-027-8306 4508
邮箱/E-mail
info@yijuemachinery.com

（中文）Chinese Official Website
（英文）English Official Website

Headquarters (Wuhan):
4th Floor, Building 3, Desiyuan Industrial Park, Dongxihu District, Wuhan, Hubei Province
Anhui Factory:
Banzhuyuan, Jinzhai County, Lu'an City, Anhui Province
Guangdong Factory:
No. 5, Dingping Road, Dongcheng District, Dongguan City, Guangdong Province
Hefei Branch:
Yaohai Industrial Park, Yaohai District, Hefei City, Anhui Province
Xiamen Branch:
No. 239 Houxiangli, Yaotou Village, Tong'an District, Xiamen City, Fujian Province