GREAT

反井刀盘 / Raise boring reaming head

格锐特可根据客户需求提供从0.6米到8米直径的高品质扩孔刀盘产品。平滑破碎曲线设计，确保滚刀合金齿所受到的冲击力和剪切力更均衡分布，提高钻进效率，减少综合成本。

GREAT can provide the premium quality reaming head with the sizes from 0.6m to 8m.Newly designed flat cutter profile allows more of the available thrust and torque to be applied to the working face, resulting in higher penetration, and reduced cost per raise.

格锐特反井扩孔刀盘包括两种主要的结构形式：
GREAT reaming heads for raise boring including two major different types:

整体式扩孔刀盘：可靠性，灵活性，耐久性被设计到每个刀盘里面。格锐特设计的整体扩孔刀盘降低了震动，增加滚刀使用寿命，所有颗粒及滚刀安装简单。整体扩孔刀盘可针对客户需求做针对性设计。

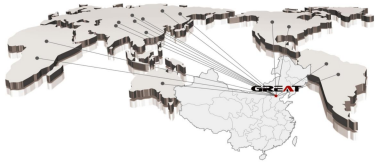
Fixed Heads. Reliability, flexibility and serviceability are engineered into each Fixed Head. The Fixed Head designs are light weight and low profile, reducing shock loads and heavy wear while reaming. Cuttings slots and holes are maximized to prevent cuttings build-up. Our GREAT’s Fixed Head Reamers are built and fabricated with latest welding techniques. Head Reamers are designed and manufactured for flexibilities for interchangeable stems and saddles. All roller cutters and saddles are replaceable and could easily mount with exact placements. Fixed Heads are customized for each customer’s raisebore applications.

扩展式扩孔刀盘：格锐特设计的扩展式扩孔刀盘可以简单的改变或者增加刀盘的直径。这种刀盘设计含一个与中心拉杆相配合的通用基础，可以实现通过添加刀翼来改变刀盘的直径。可拆装刀翼的设计极大方便了大直径刀盘在施工现场的运输与安装，并且能够更好的实现滚刀位置排布以获得更好的受力曲线。

Modular Heads. GREAT has designed new raise bore head reamers that simplifies roller cutter placements with enhanced diameter scalabilities. The multiple stage head reamer has a base, with the appropriate stem, and is designed to cover a range of reaming diameters. The wings are extensions which allows customers to selectively ream to a desired diameter. Modular wing allows better roller cutter placements, smaller base footprint, and assembly simplification to achieve diameter requirements. Modular heads are simple, versatile, and flexible beyond other standard reamer heads.

其他配件
ACCESSORIES

刀座 Saddles　　反井钻杆 Raise boring pipes



GREAT
格锐特钻头有限公司
GREAT DRILL BITS CO.LTD

沧州格锐特钻头有限公司
GREAT DRILL BITS CO.,LTD

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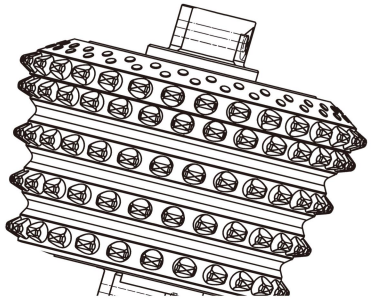
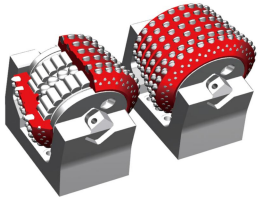


GREAT

反井滚刀 / Raise boring roller cutter

格锐特的反井滚刀采用先进的设计理念以及成熟的加工工艺，尺寸涵盖8”-15”，可适配国内外各类反井钻机机型，并能广泛适用于直径0.6米-12米的各种刀盘，满足各种反井/天井施工的需要。并可根据客户需求提供定制化服务。

GREAT rasie boring roller cutters manufacturing with the advanced design and the mature processing technology , the sizes are range from 8” to 15” ,and compatible with various types of raise boring drilling rigs at home and abroad. Suit to the reaming heads with the diameters ranging from 0.6m to 12m, and meet with a various requirements of raise boring drilling work. Also can provide the customized according to the customers’ requirements.



- 高性能的金属密封环，特殊材质的供能圈，严苛的注油工艺，有效保障了密封系统的可靠性，也极大提高了轴承在恶劣环境下的工作寿命。

  Mechanical (Metal face) Seals with special material oring and metal contacting seals are designed into our roller cutters. Mechanical Seals have proven to increase bearing life versus competitors under harsh environments and tough drilling conditions.

- 大直径的滚柱—钢球—滚柱轴承结构，合理的设计参数，极大化轴承承载能力，有效增加轴承寿命。特殊选择的润滑脂，能进一步减少轴承磨损。

  Maximum capacity bearing designs with premium ball and roller bearings, and integrated with Mechanical Seals, have proven to increased bearing life. Proprietary lubricants are used in our bearings to provide extended bearing life.

- 优化的切削结构，配合特殊的合金齿排号与外形，有效确保滚刀的破岩效率。

  Premium cutting structure design, specific carbide grade and shaped tungsten carbide inserts are selected for smooth drilling in tough conditions. Our roller cutters are designed for maximum penetration rate, even at lower powered raise drills.

GREAT

Introduction COMPANY

沧州格锐特钻头有限公司创立于2010年，专业致力于各类钻头及钻具等产品的研发、设计、生产与销售。公司生产基地位于河北河间省级开发区，注册资金1.15亿元，占地860,00㎡，拥有多台车铣复合、五轴联动设备，并引进了进口检测设备，严格控制产品质量。年生产能力十万只以上。

格锐特通过先进的设计手段，制造工艺，国际化的管理体系以及持续的技术创新，实现了产品的卓越品质，得到了国内外客户的高度认同。根据客户的施工工况，为客户提供最合适的产品、设计方案及优质的售后服务,产品远销美国、加拿大、韩国、东南亚、中亚、中东、南美、印尼等国家和地区。

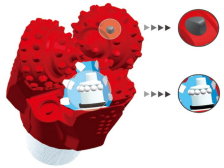
主要产品有：牙轮钻头、反井/天井滚刀，竖井滚刀，旋挖牙轮掌片，旋挖筒钻，扩孔器，PDC钻头，取芯钻头，偏心钻头，提速工具等。

GREAT Drill Bits Co.,Ltd, founded in 2010, specialized in processing R&D, production and sales of all kinds of drill bits, drilling tools and so on. We have a 86,000 ㎡ of production based in provincial development Zone,Hejian city, Hebei province,China. And with several international advanced production lines featured in turning-milling compound, five-axis linkage, special for high-performance product processing.And importing the inspection equipment to make sure the production quality. With the annual production capacity more than 100,000 pcs.

Depending on our advanced design tools, manufacturing process, international management system and continuous technological innovation, we got the highly degree recognition to our product quality from both the domestic and foreign customers. According to the customer’s construction conditions, provide customers with the most suitable products, design solutions and high-quality after-sales service. Our products also are exported to the USA, Canada, Korea, the southeast Asia, the central Asia, the middle East,South America, Indonesia and other countries and regions.

We mainly provide: The tricone bits(pilot bit), rasie boring roller cutters, shaft roller cutters,foundation roller cone cutters, foundation core barrels ,hole openers, PDC bits, PDC core bits, Bi-center bits, trok buster and so on.

镶齿系列 / TCI Tricone bits



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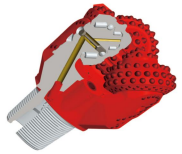
齿形包括：楔型齿，宽顶齿，勺型齿，锥球齿，球头齿，锥球金刚石复合齿，平头金刚石复合齿，根据不同的地层选择不同的齿型。

Tooth shape includes wedge-shaped tooth(X), wide top tooth(K), spoon type tooth(S), conical-ended shape tooth(Y), hemi-spherical ended shape tooth(Y1), gage protection by diamond enhanced cutters on cone(P), flat diamond tooth(P).Different tooth types are selected according to different strata.

镶齿系列 / TCI Tricone bits



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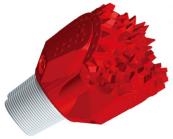
复合密封轴承设计，能够隔离轴承与外部环境，防止岩屑、空气和水进入轴承。密封轴承使得轴承处于润滑摩擦状态，减轻了轴承使用磨损，延长了轴承使用寿命。根据不同的地层选择不同的齿形。

Composite sealed bearing design, capable of isolating the bearing from the external environment,and prevents debris, air and water from entering the bearings. The sealed bearings keep the bearings in a lubricated and frictional state,reduced wear and tear of bearings, prolonged the bearing service life. And choose the different tooth types for the different formation.

钢齿系列 / Steel tooth bits



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适用于低抗压强度、高可钻性的极软地层，如粘土、泥岩、白垩等。

It is suitable for low compressive strength and high drillability in extremely soft strata, such as clay, mudstone, Cretaceous and so on.

适用于高抗压强度的中等地层，如中软页岩、硬石膏、中软石灰岩、中软砂岩和有硬夹层的中等地层。

it is suitable for medium strata with high compressive strength, such as medium soft shale, anhydrite medium soft imestone, medium soft sandstone and medium stratum with hard intercalation.

工程片系列 / Roller cone cutter

GFH 637

牙轮采用满布齿结构，牙掌部分采用快装式安装，底座采用热锻整体成型，经热处理后采用加工中心铣削内腔，牙轮合金齿采用镶球齿设计，提高了合金齿的耐磨性和抗冲击性。

The roller cone is filled with teeth and the palms are installed withquick mounting; The base is formed by hot forging, theinner cavityis milled by machining center after heat treatment;Thealloy teethof the gear are designed with conical ball teeth to improve the wear resistance and impact resistance.

GF 537

适用于高抗压强度的中硬地层，如虎风化花岗岩、砂岩、板岩、石灰岩等。

It is suitable for medium hard formaticns with high compressive strength,such as hard shale, limestne, sandstone,dolomite,etc.

扩孔钻头 / Hole opener

组装钻头，扩孔钻头由四个或更多牙轮组成，主切削齿为数倍新型耐磨合金的钢齿或优质硬质合金齿，领翼钻头为三牙轮钻头，适用于大直径条形钻井、矿山钻井及管道穿越等工程领域。

The assembly bit, hole opener is made up of four or more wheels. The main cutting tooth is a new type ofwear resistant alloy steel tooth or high quality carbidetooth. The collar bit is a three cone bit, which is suitablefor large-diameter surface drilling, mine drilling and pipeline crossing and other engineering fields.

旋挖筒钻 / Core barrel tools

可根据要求定制600mm~3000mm不同桩径需求的牙轮筒钻、截齿筒钻、捞沙斗等。 根据不同的地层匹配不同钻具。

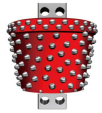
We can customized the core barrel with roller bits, core barrel with chisel, bucket tools and so on, the size from 600mm to 3000mm.

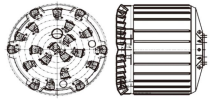
GREAT

竖井滚刀 / Shaft roller cutter

公司拥有一套先进的滚刀制造技术和一条工艺成熟的生产线，可为客户提供最优质的的竖井产品及其配套配件。竖井滚刀钻头适用范围广泛，能在各种反循环钻机、盾构机、全断面隧道掘进机等掘进设备上安装进用，并以最大的旋转效率来破岩，且润滑和密封良好，可在水中作业。镶齿硬质合金适用于砂石、石灰石、白云石、凝灰石、花岗岩等岩层。

We have the advanced manufacturing technology for roller cutters and a mature production line.And provide the premium quality roller cutters and accesssories to customers. The shaft roller cutters are widely used in RCD,TBM ect.It provides a max rotary efficiency of tunneling and break the rock. The good lubricating ability and metal sealed make the cutters can be used underwater.The tungsten carbide is feasible for hard rocks, such as the sandstone,limestone,dolomites,tuffs, granites.





竖井滚刀常用规格： Shaft Roller Cutter Specification:

序号 No.	规格 Size (英寸Inch/ mm)	合金齿形 (Shape of Tungsten Carbide)	适用岩层 (Stratum)	滚刀内部结构 (Internal Structure for roller cutter)
1	8”/φ218	锥型齿+球齿 (Conical-ended shape tooth+Hemi Spherical ended shape tooth)	硬岩 (Hardrock formation)	推力+滚柱结构 (Thrust and roller structure)
2	12”/φ280	锥型齿+球齿 (Conical-ended shape tooth+Hemi Spherical ended shape tooth)	硬岩 (Hardrock formation)	推力+滚柱结构 (Thrust and roller structure)
3	8”/φ260	铣齿 (Milled tooth)	软岩 (Soft to medium formation)	推力+滚柱结构 (Thrust and roller structure)
4	12”/φ325	铣齿 (Milled tooth)	软岩 (Soft to medium formation)	推力+滚柱结构 (Thrust and roller structure)
可根据客户需求定制 Customized acoording to the requirement.				

施工现场
ACCESSORIES