

盛世中国 · 鼎力唐兴
TANGXING



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ANHUI TANGXING EQUIPMENT TECHNOLOGY CO., LTD

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隧道掘进机产品手册

**TUNNELLING BORING MACHINE
PIPE JACKING MACHINE**

**PRODUCTS
CATALOGUE**

COMPANY PROFILE 公司简介

安徽唐兴装备科技股份有限公司成立于2005年，作为行业知名的非开挖装备制造核心基地，公司不仅提供高质量产品，还致力于成为非开挖系统综合解决方案的服务商。

凭借在安徽省建立的企业技术中心和博士后科研工作站，唐兴科技不断推进新技术和新产品的研发，已有70余项发明专利、100余项实用新型专利及5项软件著作权。公司产品先后荣获“安徽省新产品”“安徽省首台(套)重大技术装备”“安徽省名牌产品”等多个荣誉。此外，公司还被评为国家高新技术企业和国家级专精特新“小巨人”企业。

公司拥有一支专业的研发团队和经验丰富的技术工人，成功开发了多类型的顶管掘进机，产品涵盖泥水、土压、浓泥、岩石等六大系列，产品实现了全土质、全管径的覆盖，工艺及质量在国内处于先进水平。唐兴科技的产品参与了西气东输、南水北调、武汉市轨道交通等多个重要工程，畅销于全国70多个大中城市，并出口至泰国、马来西亚、新加坡等东南亚国家，赢得了客户一致好评。

为了满足大基建市场的需求，推进产品多元化发展，在马来西亚设立子公司，致力于打造覆盖南亚、中亚及西亚市场的非开挖装备制造基地。此外，唐兴新建非开挖装备产业园，投产后预计将成为国际高水平的轨道交通盾构装备、地下管网铺设与维修装备的综合性产业基地。

唐兴科技始终坚持“盛世中国 鼎力唐兴”的企业梦想，努力推动非开挖装备的创新与发展，致力于成为全球卓越的行业先锋。

Anhui Tangxing Equipment Technology Co., Ltd., established in 2005, is a well-recognized manufacturing base for trenchless equipment. The company not only delivers high-quality products but also strives to be a comprehensive solution provider for trenchless systems.

With an Enterprise Technology Center and a Postdoctoral Research Station in Anhui Province, Tangxing Technology continuously advances the development of new technologies and products. It holds over 70 invention patents, more than 100 utility model patents, and five software copyrights. The company has received numerous honors, including “New Product of Anhui Province,” “First Set of Major Technical Equipment in Anhui Province,” and “Anhui Famous Brand Product.” It has also been recognized as a National High-Tech Enterprise and a National “Little Giant” Enterprise specializing in innovation.

Backed by a professional R&D team and skilled technicians, Tangxing Technology has successfully developed a wide range of pipe jacking machines across six major series, including slurry, earth pressure, high-density slurry, and rock types. These products cover all soil conditions and pipe diameters, with industry-leading craftsmanship and quality in China. Tangxing Technology’s equipment has been used in key projects such as the West-to-East Gas Pipeline, the South-to-North Water Diversion, and Wuhan Metro. Its products are sold in over 70 major cities across China and exported to Thailand, Malaysia, Singapore, and other Southeast Asian countries, earning widespread customer acclaim.

To meet the growing demand of large-scale infrastructure projects and expand product diversification, Tangxing has established a subsidiary in Malaysia, aiming to develop a trenchless equipment manufacturing hub serving South Asia, Central Asia, and the Middle East. Additionally, the newly constructed trenchless equipment industrial park is expected to become a world-class manufacturing base for tunnel boring machines, underground pipeline installation and maintenance equipment for rail transit.

Tangxing Technology remains committed to its vision of “Prosperous China, Vigorous Tangxing” continuously driving innovation and development in trenchless equipment, with the goal of becoming a globally outstanding industry leader.

SERVICE NETWORK 服务网络



顶管施工现场布局图

PIPE JACKING CONSTRUCTION SITE LAYOUT PLAN



- | | |
|-------------------------------|------------------------------|
| 1 顶管机
Pipe jacking machine | 8 操作房
Operation room |
| 2 水泥管
Pipe | 9 泵站
Pump station |
| 3 中继间
IJS | 10 泥水分离器
Separation plant |
| 4 油缸及油缸架
Cylinder & Frame | 11 注水泵
Charging pump |
| 5 后靠背
Back plate | 12 搅拌桶
Bentonite mixer |
| 6 导轨
Guidance rail | 13 注浆泵
Grouting pump |
| 7 排水泵
Discharge pump | |



安装始发井内组件
Install auxiliary equipment in starting shaft



安装顶管机主机
Installation, connection and debugging of pipe jacking machine



主顶油缸推动顶管机顶进
Jacking in pipe jacking machine



布工具管
Install construction pipes



长距离顶进，安放中继间
Install inter jack station



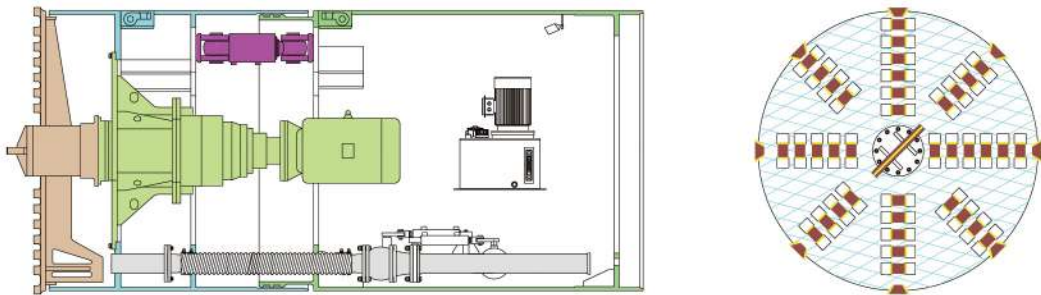
继续顶进，直至完成整个顶段
Install construction pipes and jacking

产品选型图

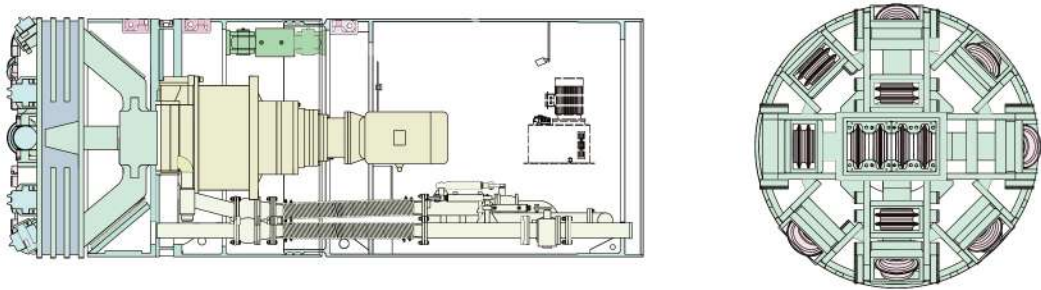
SELECTION FOR TANGXING PIPE JACKING MACHINE

泥水平衡式 SLURRY BALANCE SERIES

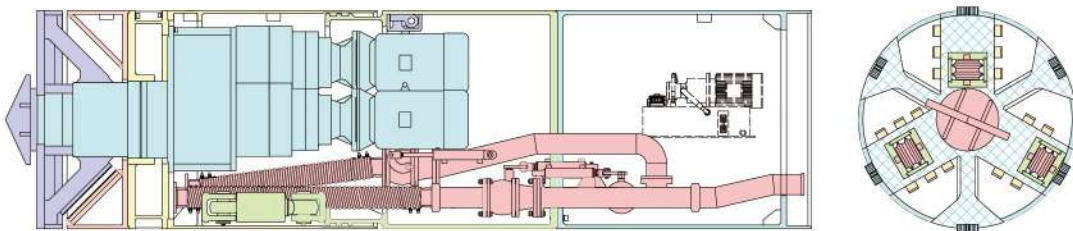
SPB系列(适用软质土层) SPB SERIES (FOR SOFT SOIL LAYER)



HRC系列(适用岩石地层) HRC SERIES (FOR ROCK LAYER)

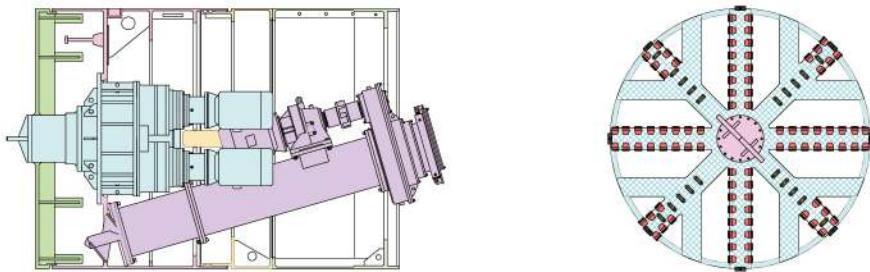


SRC系列(适用卵石地层) SRC SERIES (FOR GRAVEL, BOULDERS LAYER)

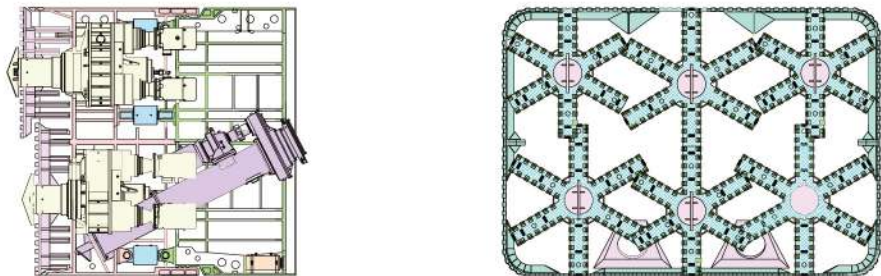


土压平衡式 EPB SERIES

EPB系列 EPB SERIES (WITH SCREW CONVEYOR)

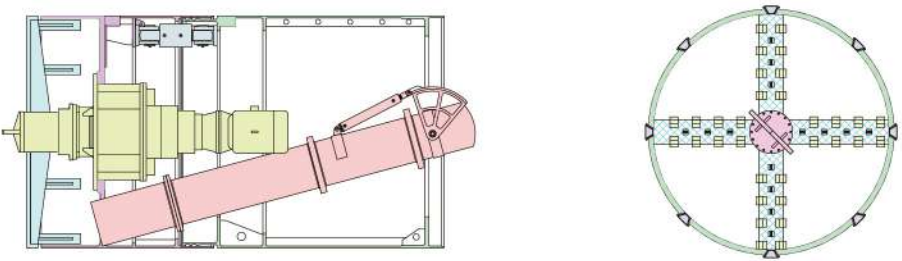


RPB系列 RPB SERIES (FOR RECTANGULAR PIPES)

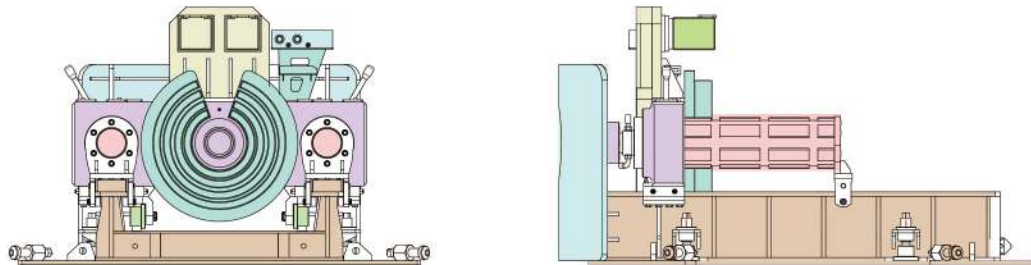


其他 OTHERS

浓泥加压系列(适用卵石地层) CONCENTRATED MUD PRESSURE SERIES (FOR PEBBLES& GRAVEL LAYER)

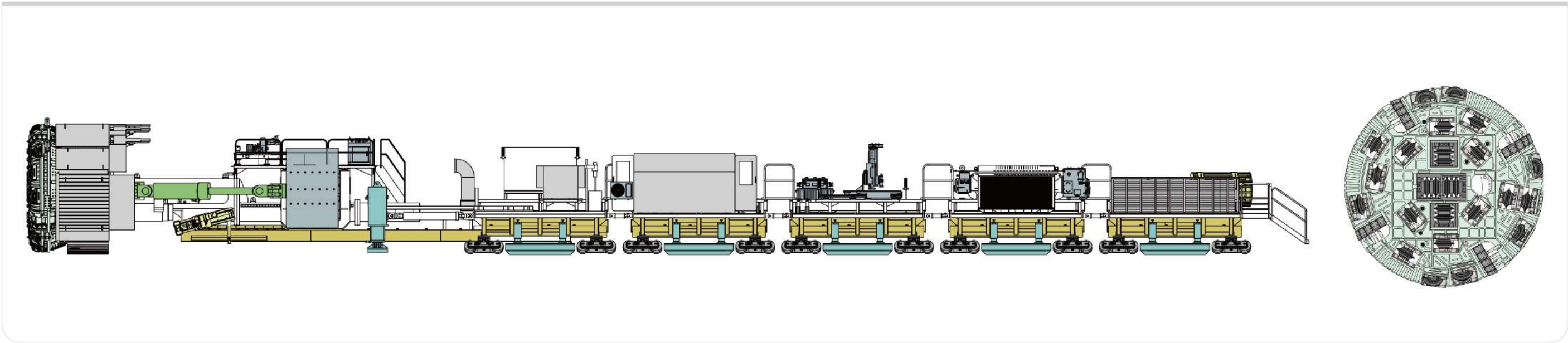


螺旋顶管机系列(适用软质地层) AUGER BORING SERIES (FOR SOFT SOIL LAYER)

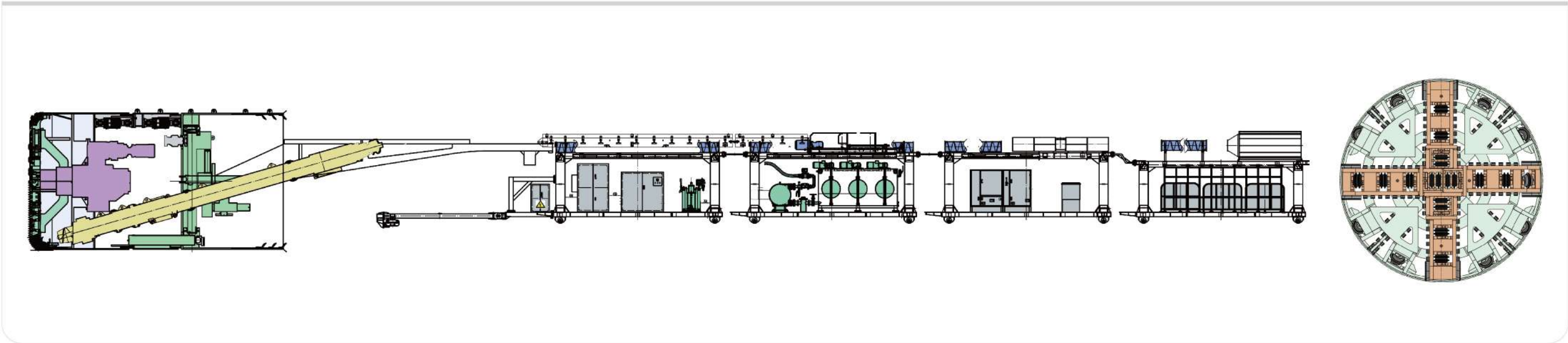


产品选型图
SELECTION FOR TANGXING PIPE JACKING MACHINE

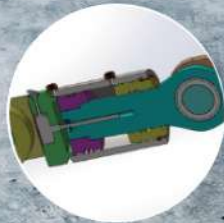
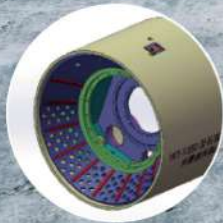
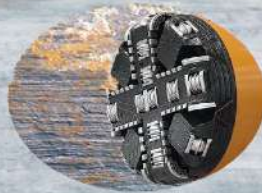
TBM系列 TUNNEL BORING MACHINE SERIES



盾构机系列 SHIELD TUNNEL BORING MACHINE SERIES



HRC系列产品
HRC SERIES



适用管径: 500-4000mm
Applicable diameter: 500-4000mm

适用地层: 岩石
Applicable geology: Rock

- * 适用于砂土层、砾石层、卵石层、漂石层、岩石层等;
 - * 采用中心主轴传动, 传动力距大;
 - * 维修人员在施工过程中可进入泥水仓, 更换维修切削滚刀;
 - * 滚刀一次破碎和扭腿剪切二次破碎;
 - * 能够进行长距离掘进;
 - * 采用计算机采集数据和控制。
- * Suitable for the sand layer, gravel layer, pebble layer, boulders layer, rock layer, etc.
 - * Adopted central shaft structure, large transmission torque force.
 - * Access to the chamber directly during the construction process to do maintenance and repair work.
 - * Cone crusher was equipped for a better crushing effect.
 - * Long distance jacking.
 - * Data collected and controlled by the computer.

技术参数表 TECHNICAL PARAMETER

型号 Model	顶管机尺寸(外径*长度) Machine dimension (OD*Length)	动力 Power (kW)	额定扭矩 Nominal torque(kN·m)	转速 RPM	纠偏推力 Steering thrust	进排泥管径 Slurry pipe Dia.(mm)
800	980×4400	30×1	62	4.6	38×4	100
1000	1220×4580	15×3	72	6	50×4	100
1200	1440×4500	22×2	93	0-4.5	63×4	100
1350	1640×4900	30×2	155	0-3.7	63×4	100
1500	1820×4810	37×2	190	0-3.7	80×4	100
1650	2000×4910	37×2	190	0-3.7	80×4	100
1800	2180×5250	30×4	310	0-3.7	80×8	100
2000	2420×5200	30×4	310	0-3.7	80×8	150
2200	2660×5300	37×4	565	0-2.5	80×8	150
2400	2920×5850	37×4	565	0-2.5	120×8	150
2600	3160×5850	30×6	747	0-2.3	120×8	150
2800	3400×5730	37×6	922	0-2.3	155×8	150
3000	3630×6000	37×8	1285	0-2.2	155×8	150

HRC系列产品

HRC SERIES

产品应用

PRODUCT APPLICATION

武汉市汤逊湖污水排江工程项目

——下穿亚洲最大“城中湖”

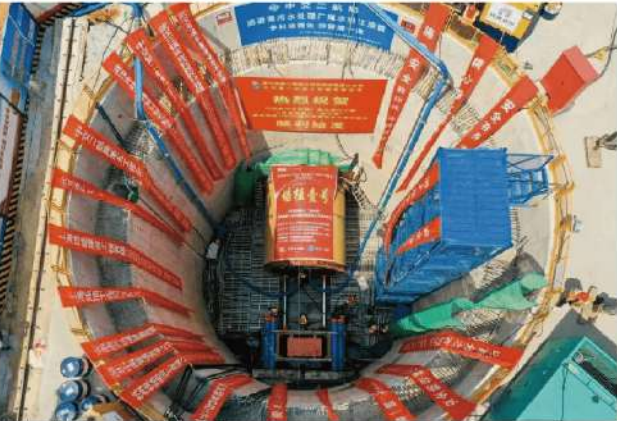
Sewage Drainage Project of Tangxun Lake in Wuhan
——Passing Through the Largest "City Lake" in Asia

HRC SERIES



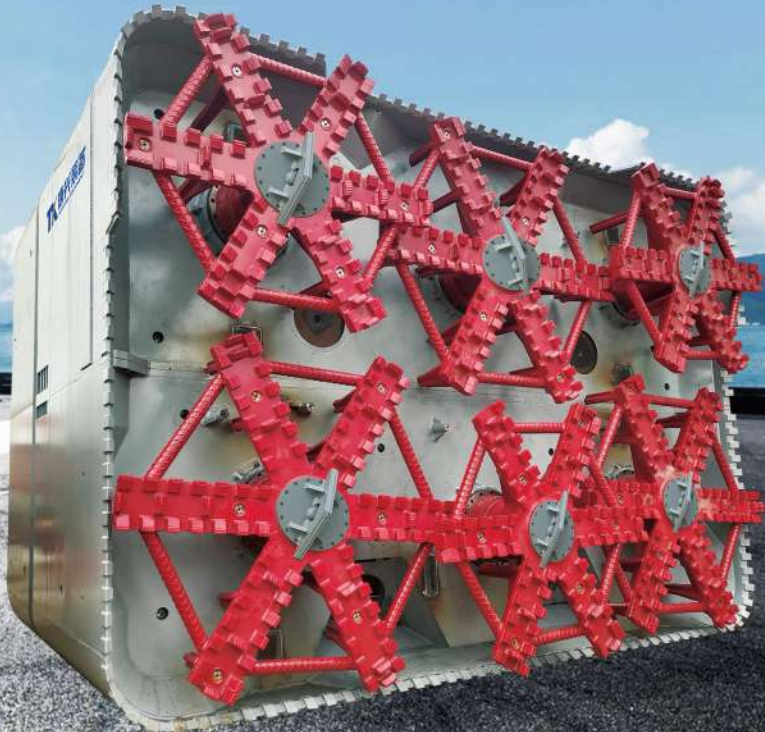
目标与挑战 GOALS AND CHALLENGES

设备 Equipment	岩石顶管机 Rock pipe jacking machine
型号 Model	4000mm
单顶长度 Single drive length	1600m
挑战 Challenge	顶管下穿亚洲最大“城中湖”——汤逊湖，其地质条件复杂，地层变化多样，超长顶段，施工难度极高。 The construction is extremely difficult: the pipe jacking passes through Tangxun Lake, the largest "City Lake" in Asia, with complex and diverse geological conditions and long jacking distance.



RPB系列产品

RPB SERIES



- * 土压平衡矩形顶管机可用于建造过街地道、高速公路穿越、地铁车站、水底隧道以及在闹市区、古文物保护区、电力、电讯、石油、天然气等管线的铺设等；
 - * 保持土压平衡，对周围土体扰动小；
 - * 空间利用率高，减少地下掘进面积；
 - * 不影响道路交通、水运以及地面的各类建筑；
 - * 施工时噪音小、无环境污染。
- * Designed for tunneling cross street, highway and downtown area, used for construction of subway station, gas and electrical power pipeline etc.
 - * Keeping earth pressure balance, low construction disturbance to surround soil.
 - * High space utilization rate, fewer construction area.
 - * No disturbance to the transportation and architecture on the ground.
 - * Low noise and environment pollution during the construction.

技术参数表 TECHNICAL PARAMETER

截面尺寸 Section size 高*宽(mm) Height*width	刀盘数量 Cutter head Qty	动力系统配置 Power	纠偏推力 Steering thrust	螺旋输送机 Screw conveyor		总功率 Total power (kW)
				功率 Power (kW)	总出土量 Total volume (m³)	
5400×7500	6	3×37kW×6	200t×18	45	200	771kW
5000×7000	6	3×37kW×6	200t×18	37	140	755kW
4900×6900	6	3×37kW×3/3×30kW×3	200t×18	37	140	692kW
4500×8200	7	3×37kW×3/2×37×4	200t×18	45	200	734kW
4500×7700	6	3×37kW×6	200t×18	37	140	755kW
4300×6000	6	3×30kW×6	200t×16	37	140	629kW
4200×6900	5	6×37kW/2×37kW×4	200t×16	37	140	607kW
4200×5000	5	6×37kW/1×30kW×4	200t×16	37	70	394kW
2700×2700	1	4×30kW	150t×8	22	40	146kW

RPB系列产品
RPB SERIES

产品应用
PRODUCT APPLICATION

南京南站南广场地下人行通道工程

Nanjing South Railway Station South Square Underground
Pedestrian Passage Project

RPB SERIES



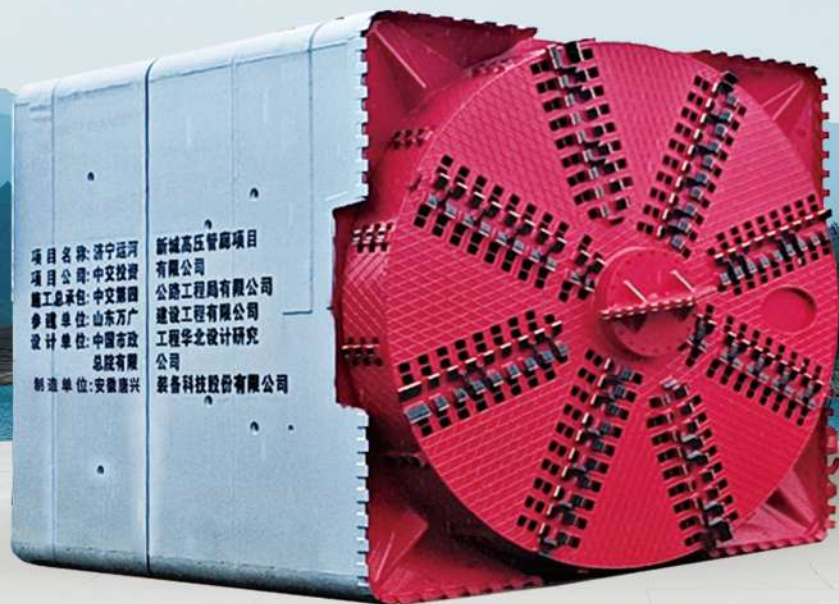
目标与挑战 GOALS AND CHALLENGES

设备 Equipment	矩形顶管机 Rectangular pipe jacking machine
型号 Model	5200mm×9800mm
顶进长度 Drive length	100m
地质 Geology	粉沙，粉土，强风化泥质砂岩地层 Silty sand, silty soil, strongly weathered argillaceous sandstone strata.



RSPB系列产品

RSPB SERIES



- * 泥水输送弃土为连续作业，提高推进速度，适用于长距离顶管；
- * 工作坑内环境良好，作业安全，无需搬运土方及吊装，适用于各种环境，避免地面沉降影响交通及公用管线安全。
- * Continuous slurry transportation for soil disposal enhances jacking efficiency, making it suitable for long-distance pipe jacking.
- * Provides a safe and well-controlled working environment without the need for soil transportation or lifting, ensuring adaptability to various conditions while preventing surface settlement from affecting traffic and utility lines.

技术参数表 TECHNICAL PARAMETER

设备 Equipment	RSPB 4000×4000（泥水平衡式） RSPB 4000×4000 (Slurry balance type)
刀盘切削外径 OD of cutterhead	4050mm
设备长度 Length	4997mm
设备重量 Weight	82t
掘进长度 Drive span	621m
挑战 Challenge	超长顶距，超深地下水压，复杂地层 Long-distance jacking, ultra deep groundwater level, complex strata.

产品应用 PRODUCT APPLICATION

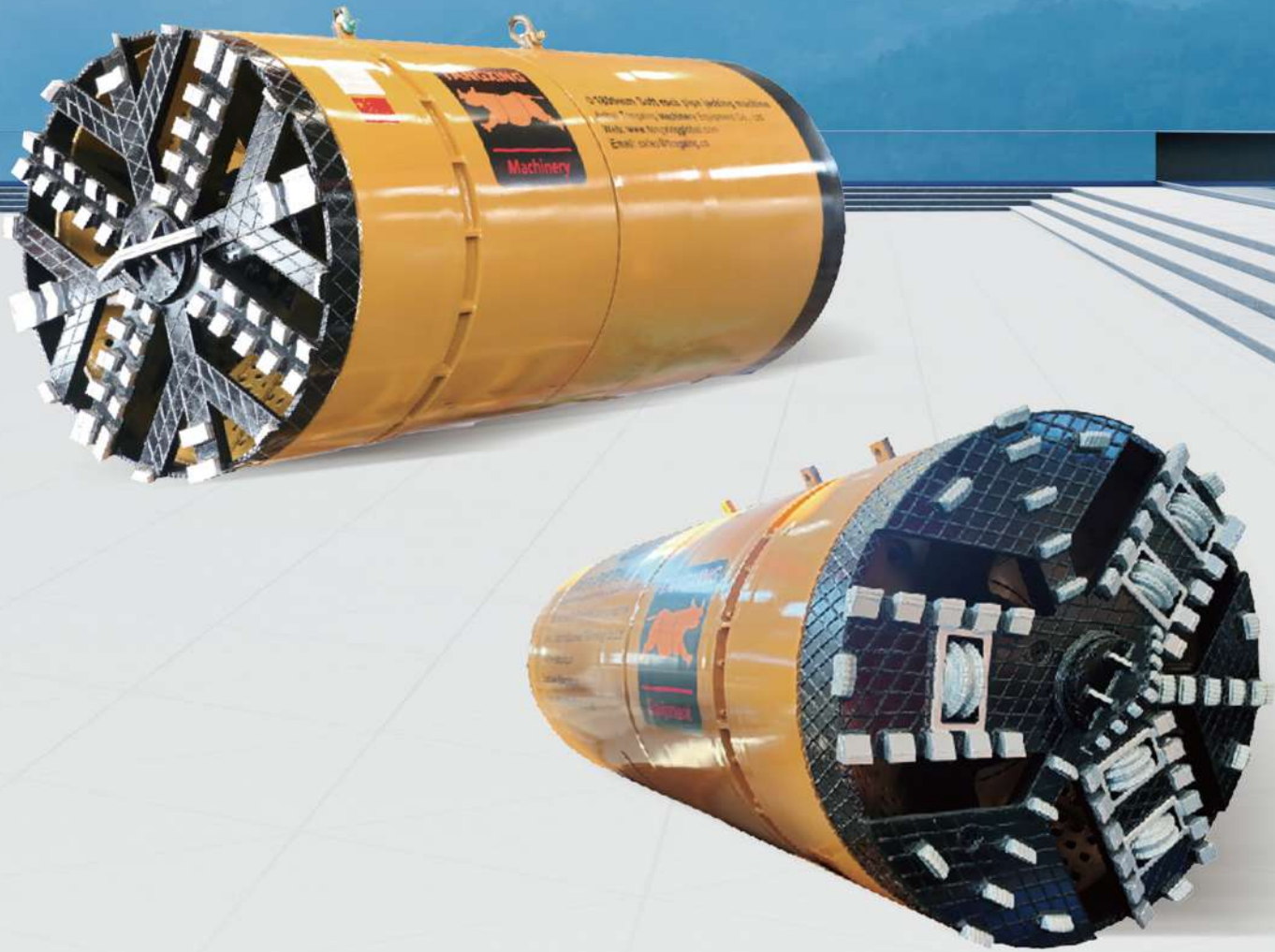
济宁市高压电力管廊穿越京杭大运河矩形顶管工程

Rectangular Pipe Jacking Project of Jining High Voltage Power Pipe Corridor Crossing the Beijing-Hangzhou Grand Canal



SRC系列产品

SRC SERIES



适用管径：400-4000mm
APPLICABLE DIAMETER:400-4000mm

适用地层：卵石，砾石
APPLICABLE GEOLOGY: Pebble, gravel

- * 独立的刀盘中心冲刷系统；
- * 可靠的变位空间剪切破碎结构；
- * 合理的刀盘设计有效控制卵石粒径；
- * 稳定安全的动力系统，为破碎卵石提供动力。
- * Independent cutter head center scour system.
- * Reliable displacement space shear crushing structure.
- * Reasonable cutter design makes the pebble particle size effectively controlled.
- * Stable and safe power system provides enough power for crush pebbles.

技术参数表 TECHNICAL PARAMETER

型号 Model	顶管机尺寸(外径*长度) Machine dimension (OD*Length)	动力 Power (kW)	额定扭矩 Nominal torque(kN·m)	转速 RPM	纠偏推力 Steering thrust	进排泥管径 Slurry pipe Dia.(mm)
800	980×4400	30×1	62	4.6	38×4	100
1000	1220×4580	15×3	72	6	50×4	100
1200	1440×4500	22×2	93	0-4.5	63×4	100
1350	1640×4900	30×2	155	0-3.7	63×4	100
1500	1820×4810	37×2	190	0-3.7	80×4	100
1650	2000×4910	37×2	190	0-3.7	80×4	100
1800	2180×5250	30×4	310	0-3.7	80×8	100
2000	2420×5200	30×4	310	0-3.7	80×8	150
2200	2660×5300	37×4	565	0-2.5	80×8	150
2400	2920×5850	37×4	565	0-2.5	120×8	150
2600	3160×5850	30×6	747	0-2.3	120×8	150
2800	3400×5730	37×6	922	0-2.3	155×8	150
3000	3630×6000	37×8	1285	0-2.2	155×8	150

SPB系列产品

SPB SERIES



适用管径：400-4000mm
APPLICABLE DIAMETER:400-4000mm

适用地层：砂土，粉土，粘土
APPLICABLE GEOLOGY: Silt, sand, clay

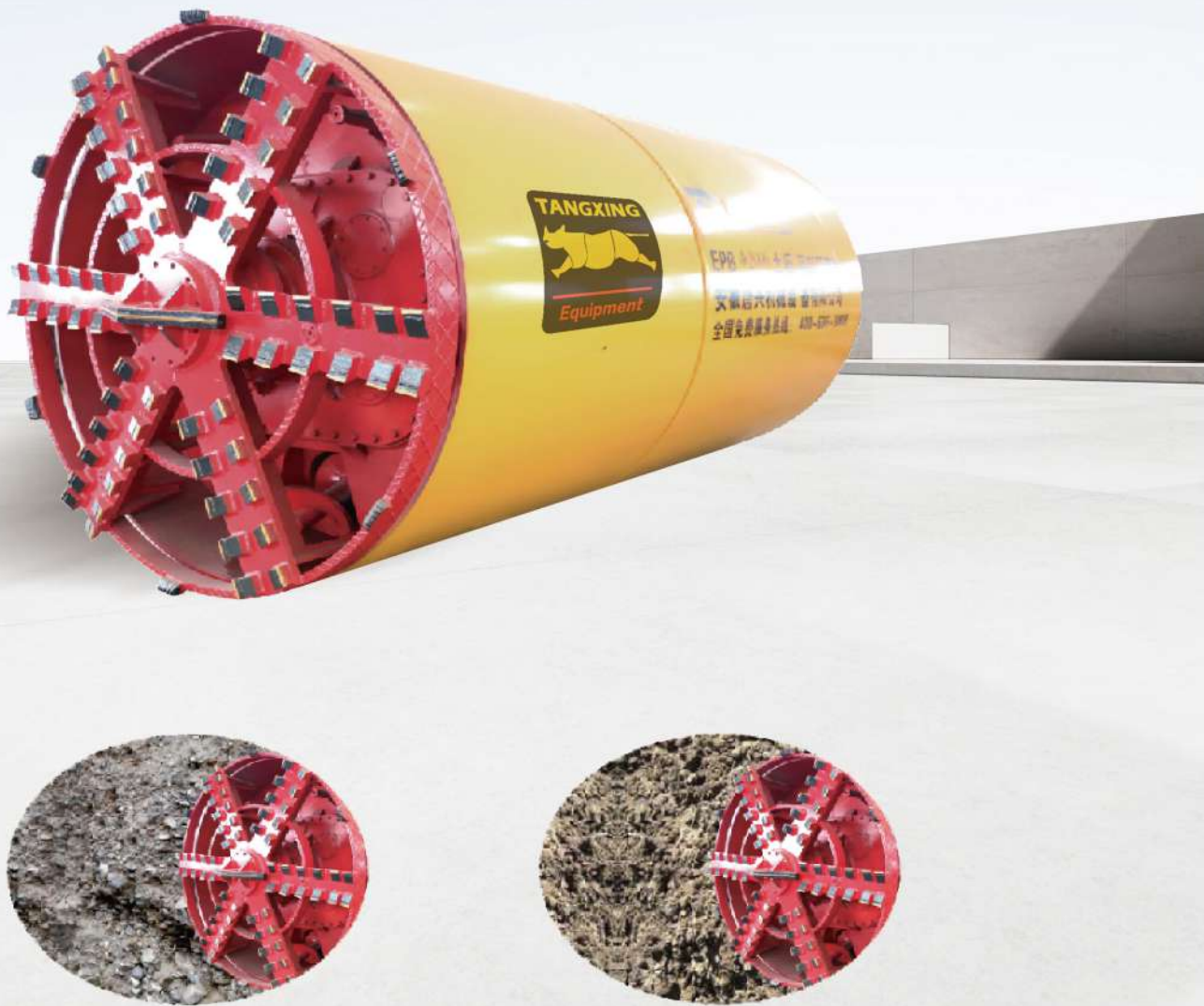
- * 适用土质范围广，特别适用于淤泥、砂层地质，尤其适用于地下水位较高及土质变化范围较大的地层；
 - * 施工挖掘面稳定，对所施工顶管周围土体扰动小，地面沉降非常小；
 - * 泥水传送弃土系统连续性强，顶进施工速度较快；
 - * 采用地面操作远程控制，机头内全自动化响应，操作更安全、规范、方便；
 - * 主轴密封可靠，使用寿命长。
- * Suitable for a wide range of soil condition, especially for silt, sand layers and formations with high groundwater levels and significant soil changes.
 - * Stable cutting surface, with minimal disturbance to the surrounding soil layer, and very slight ground settlement.
 - * The excavated soil is transported through slurry lines with strong continuity and fast jacking construction speed.
 - * Remote control via ground operation unit, fully automated response inside the machine head, realize a safer, more standardized and convenient operation.
 - * Reliable and safe spindle seal ensures longer service life.

技术参数表 TECHNICAL PARAMETER

管材内径 ID	尺寸 Dimension(mm)OD×L	动力 Power(kW×Qty)	额定扭矩 Nominal torque(kN·m)	转速 RPM	纠偏推力 Steering cylinder thrust(T×Qty)	进排泥管径 Piping in main machine(mm)
800	980×3600	22×1	40	5.2	38×4	100
1000	1220×3600	22×1	40	5.2	50×4	100
1200	1460×3600	15×2	66	4.3	63×4	100
1350	1640×3750	15×2	66	4.3	63×4	100
1500	1820×4080	30×2	220	2.6	80×4	100
1650	2000×4080	30×2	220	2.6	80×4	100
1800	2180×4200	22×4	422	1.99	80×4	100
2000	2420×4200	22×4	422	1.99	80×8	100
2200	2660×4200	22×4	422	1.99	80×8	100
2400	2900×4300	30×4	650	1.76	120×8	150
2600	3160×4700	30×5	906	1.58	120×8	150
2800	3350×5100	30×5	906	1.58	155×8	150
3000	3580×5400	30×6	1264	1.36	155×8	150

EPB系列产品

EPB SERIES



适用管径: 1500-4000mm
APPLICABLE DIAMETER: 1500-4000mm

适用地层: 砂土, 粉土, 粘土
APPLICABLE GEOLOGY: Silt, sand, clay

- * 有独立、完善的土体注水、注浆系统, 可对挖掘面土体进行改良, 从而扩大适用范围;
 - * 施工地面沉降小, 覆土层最小仅为管径的1.2倍;
 - * 采用螺旋输送机出土, 出土量高, 粒径大;
 - * 全断面切削, 超大开口率。
- Independent and perfect water injection and grouting system improve the excavation surface soil condition to expand the scope of application.
- The ground settlement is low, and the minimum soil cover depth is only 1.2 times the pipe diameter.
- Unearthed by the screw conveyor, with a large excavation amount and large particle size.
- Full-face cutting with extremely high opening ratio.

技术参数表 TECHNICAL PARAMETER

管材内径 ID	尺寸 Dimension(mm)OD×L	动力 Power(kW×Qty)	额定扭矩 Nominal torque(kN·m)	转速 RPM	纠偏推力 Steering cylinder thrust(T×Qty)	螺旋输送机功率 Screw conveyor motor power(kW)	螺旋输送机内径 Screw conveyor ID(mm)
1500	1820×4500	30×2	220	2.6	80×4	15	300
1650	2000×4500	30×2	220	2.6	80×4	15	300
1800	2420×4800	22×4	422	1.99	80×8	22	400
2000	2420×4800	22×4	422	1.99	80×8	22	400
2200	2660×4800	22×4	422	1.99	80×8	22	400
2400	2920×5000	30×4	650	1.76	120×8	30	520
2600	3160×5000	30×5	906	1.58	200×8	30	520
2800	3350×5100	30×5	906	1.58	200×8	30	520
3000	3580×5500	30×6	1264	1.36	200×10	30	520
3200	3820×5800	30×6	1264	1.36	200×10	37	700
3500	4160×5800	37×7	1902	1.36	200×12	37	700
4000	4840×5800	37×7	1902	1.36	200×12	37	700

盾构机 SHIELD TUNNEL BORING MACHINE

- * 开挖直径4.41米，总长88.85米，总重365吨；
- * 创新采用了多段复合式盾体、蜂窝型管片拼装技术和多模式填充等先进技术。
- * Excavation diameter—4.41m. Length—88.85m. Total weight—365t.
- * It features innovative technologies such as a multi-section composite shield body, honeycomb segment assembly, and multi-mode filling.



技术参数表 TECHNICAL PARAMETER

产品型号 Model	SMM3500A	功率 Power	8×37kW
管片内径 ID of segment	3500mm	后配套台车 Rear supporting trolley	9 sets
管片外径 OD of segment	4100mm	管片吊运 Segments lifting	单梁+双梁形式 Single & double beam
管片长度 Length of segment	1200mm	管片拼装机 Segment assembly system	中心回转式 Central rotary type
整机长度 Overall length	88.85m		

产品应用 PRODUCT APPLICATION

莒南县陡山水库至石泉湖水库水系连通工程 Water System Connection Project from Doushan Reservoir to Shiquan Lake Reservoir

隧道盾构段长约8000米，岩石硬度平均高达180兆帕；
The tunnel shield section extends approximately 8,000 meters, with an average rock hardness of up to 180 MPa.

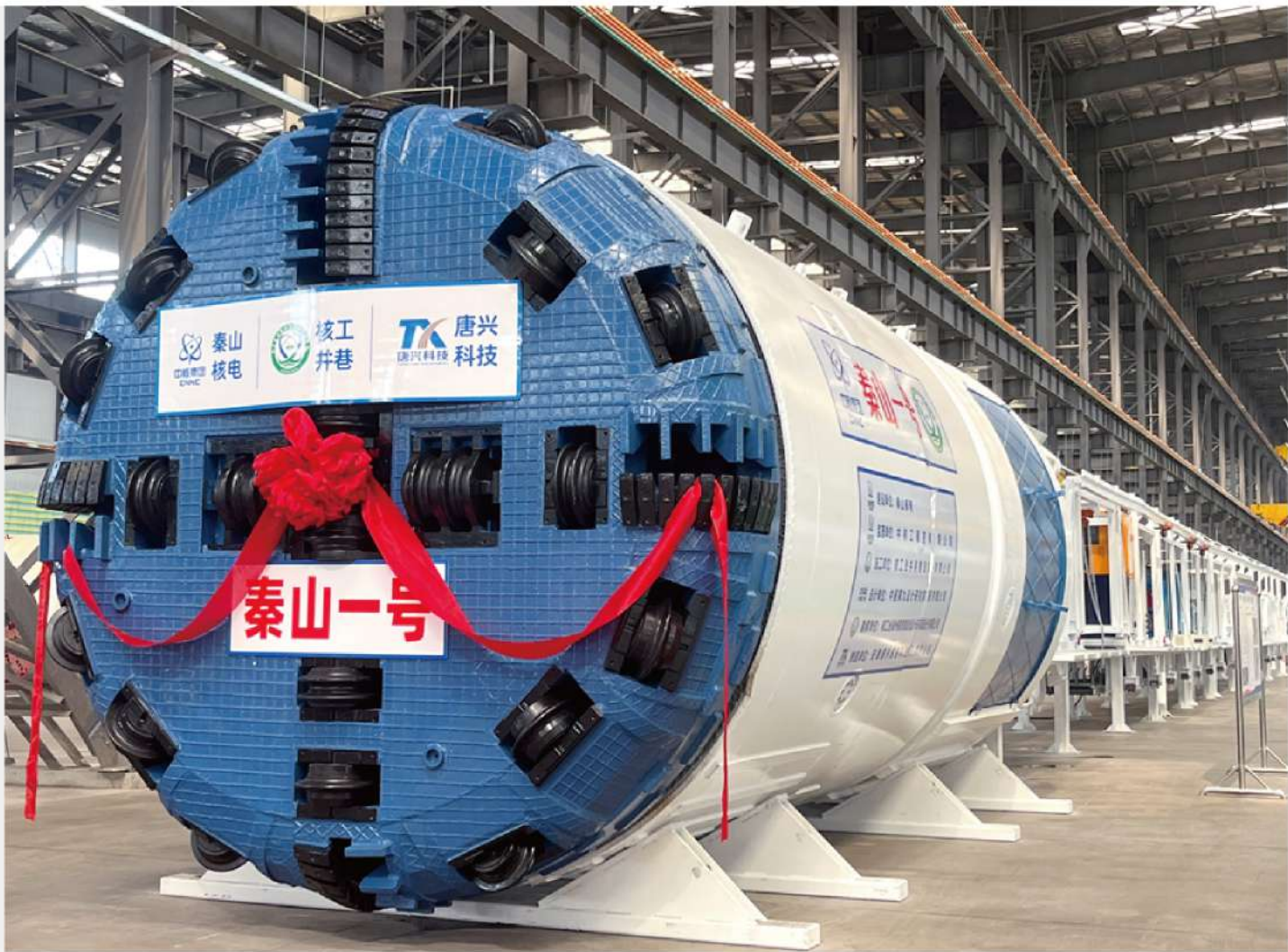
具有岩石硬度系数大、掘进距离长、技术条件复杂等特点，施工难度较大。
The project presents significant challenges due to high rock hardness, long excavation distance, and complex technical conditions.



隧道掘进机

TUNNEL BORING MACHINE (TBM)

- * TBM适用于硬岩地层，如山区隧道、引水隧洞，具有掘进效率高、环保性强、综合效益优越等优势；
- * 配备重载硬岩刀盘、多段式盾体、立体式出渣系统和可变式支护系统；
- * 隧道区间里程约1001.5米，穿越凝灰岩地层，岩石硬度达30-80兆帕。
- * TBMs are well-suited for hard rock formations, such as mountain tunnels and water conveyance tunnels. They offer high excavation efficiency, environmental benefits, and excellent overall performance.
- * Equipped with heavy-duty hard rock cutterhead, multi-section shield, three-dimensional mucking system and variable support system.
- * The tunnel is approximately 1001.5 meters long and passes through tuff strata with rock hardness of 30-80 MPa.



技术参数表 TECHNICAL PARAMETER

产品类型 Product type	全断面硬岩隧道掘进机 Full-face hard rock TBM	滚刀形式 Cutter type	盘形滚刀 Disc cutter
开挖直径 Excavation diameter	4000mm	步距 Stepover	1m
整机长度 Overall length	72.5m	总推力 Total thrust	800t
主驱动功率 Main drive power	6*45kW	出渣方式 Mucking method	下出渣 Downward mucking system

产品应用 PRODUCT APPLICATION

秦山核电辅助蒸汽联网项目隧道工程

Qinshan Nuclear Power Auxiliary Steam Networking Project Tunnel Project



TUNNEL BORING MACHINE (TBM)

顶盾设备 THE JACKING AND TUNNELLING MACHINE



施工原理 CONSTRUCTION PRINCIPLE

- * 顶盾设备吸取了传统顶管和盾构的优点，首先采用泥水平衡法开展顶管施工，当顶管施工各项参数达到极值后，启动顶管机后方的盾构设备，运用盾构法施工，推进管片安装，直至贯通。既能保证工程的顺利实施，又能合理节约工程投资，为今后城市长距离管道施工指明了方向。
- * The jacking and tunnelling machine has taken the advantages of traditional pipe jacking and tunnel boring machine. The slurry balance method is used for jacking firstly; when all parameter reach maximum, turn on the boring equipment at the rear of jacking machine, then use tunnel boring method to carry out construction, segment installation until penetration. It can not only ensure the smooth implementation of the project, but also reasonably save the project investment, and indicating the direction for the future urban long-distance pipeline construction.

产品应用 PRODUCT APPLICATION

郑东新区龙湖区域高压输电线路迁改工程（一期）

High Voltage Transmission Line Relocation and Reconstruction Project in Longhu District, Zhengdong New Area (Phase I)



设备：DN3500顶盾机
EQUIPMENT: SJTMM3500MM JACKING TUNNELLING MACHINE

单顶：900米
MAX. JACKING DISTANCE: 900m

浓泥加压系列产品 CONCENTRATED MUD PRESSURE SERIES



适用管径: 1500-4000mm
APPLICABLE DIAMETER: 1500-4000mm

适用地层: 高卵石含量, 卵石粒径300mm以下
APPLICABLE GEOLOGY: High pebble content, pebble particle sizes ≤ 300mm



螺旋顶管机

AUGER BORING MACHINE



适用工况：适用于城市地下雨、污排水管线、及热力管线等市政配套管线施工建设
Applicable working conditions: Construction of urban rain, sewage and drainage pipeline, municipal engineering supporting pipelines and thermal pipeline.

常用管材：钢筋混凝土管、玻璃钢夹砂管、树脂砼管以及球墨铸铁管
Applicable pipes: PCP/PCCP, FRP sand pipe, resin concrete pipe and nodular cast iron pipe

适用管径：DN300、DN400、DN500、DN600
Applicable pipe Dia.: DN300、 DN400、 DN500、 DN600

适用土质：软土、硬土、粘土、粉土、砂土、砂砾土、淤泥质土
Applicable soil: Soft soil, hard soil, clay, silt, sandy soil, gravel soil

建议单顶距离：60米(随土质变化，有所差异)
Max. length of a single drive: 60m (It varies with the soil quality)

导向方式：激光经纬仪实时靶面偏移显示、导向钻头旋转修正
Guidance mode: The laser theodolite is used to display the target surface in real time and rotate the guide bit for correction

- ※ 基坑占地面积小，属于微型化的施工设备，适应于狭小的工作场地；操作简单，对施工人员技能要求低；顶进速度快，施工效率高，综合造价低；
- ※ 施工期间对交通影响小：仅需封闭一个车道或者不封车道，即夜间施工，白天将井口用钢盖板封闭，即可保证白天道路交通的畅通；
- ※ 摇管沉井及管材顶进过程采用液压动力施工，无噪音污染，且排土为湿泥或干泥土，易于城市弃倒或回填利用。
- ※ It is a miniaturized construction equipment with small floor area of working shaft, which is suitable for narrow working site; Simple operation and low skill requirements for construction personnel.
- ※ Little impact on traffic during construction: only one lane needs to be closed or not closed, that is, construction at night, and the working shaft is covered with steel cover plate during the day to ensure smooth road traffic.
- ※ Hydraulic power is used in the process of rocking open caisson and pipe jacking, low noise pollution, and the discharged soil is wet mud or dry soil, which is easy to be dumped or backfilled in the city.

技术参数表 TECHNICAL PARAMETER

名称 Item		参数 Specification
顶推装置 Thrust device	外形尺寸 (mm) Dimension	2250*1500*1500
	油缸最大顶力 (T) Max. thrust force	160
	油缸最大拉力 (T) Max. pulling force	76
	油缸行程 (mm) Cylinder stroke	750-1500
	推进最快速度 (mm/min) Max. jacking speed	1200
动力系统 Power system	最大扭矩(N·m) Max. torque	12500
	最大转速(r/min) Max. rotation speed	26
	钻杆规格 (mm) Rod spec.	120
管材尺寸 (mm) Applicable pipe Dia		DN300/DN400/DN500/DN600
最小工作井直径 (mm) Min. working shaft size		2590
重量 (kg) Weight		3300

配套设备
COROLLARY EQUIPMENT

主顶油缸 CYLINDER



液压泵站 PUMP STATION



集成式推架 INTERGRATED JACKING BASE



技术参数表 TECHNICAL PARAMETER

型号 Type	STG-H280X2500	STG-H280X 3000	STG-H280X 3500
总长(mm) Total Length	2140	2421	2671
额定推力(t) Nominal Thrust	200	200	200
行程(mm) Stroke	2500	3000	3500
额定压力(MPa) Nominal Pressure	31.5	31.5	31.5
容积(L) Volume	154	185	215
重量(kg) Weight	1162	1342	1378

配套设备
COROLLARY EQUIPMENT

泥水分离器 SEPERATION PLANT



操作台/配电柜 OPERATION DESK/DISTRIBUTION CABINET



中继站 INTERJACK STATION



泥浆泵 SLURRY PUMP



型号 Type	流量(m³/h) Capacity	扬程(m) Head	功率(kW) Power	适用排泥管径 Discharge pipe Size	外形尺寸 (mm) Dimensions	进口(mm) Inlet size	出口 (mm) Outlet size	最大通过颗粒 (mm) Max. Diameter of flowed particle	重量 (kg) Weight
100TZG-PD	260	26	30/37	100-150mm	1860(1935)*735*770(800)	150	100	85	1050/1150
150TZG-PE	460	26	45/55	150-200mm	2265(2305)*870*930	200	150	130	2100/2156

泥浆池 SLURRY TANK



操作室 OPERATION ROOM



泥浆搅拌桶 BENTONITE MIXER



工程案例 PROJECT CASES

盾构系列 TBM SERIES

山东省国能费县热源长输供热管网工程 Long Distance Heat Supply Pipeline Project in Feixian County, Shandong Province

设备 Equipment	“沂蒙号”硬岩盾构机 Shield TBM Yimeng
型号 Model	3080mm
掘进长度 Drive span	1290m
挑战 Challenge	大埋深、高水压、强硬岩、强磨蚀、穿越沭河河底 Deep burial, high water pressure, strong hard rock, severe abrasion, and crossing the Beng River.



重庆市大渡口110千伏柏敖线7号至19号等线路迁改工程 The Power Line Relocation Project in Dadukou District, Chongqing

设备 Equipment	“大顺号”土压平衡盾构机 EPB Shield TBM Dashun
型号 Model	4840mm
掘进长度 Drive span	2806m
挑战 Challenge	隧道轴线起伏大，穿越地层复杂，覆土埋深浅，下穿高架桥，转弯半径小 The tunnel's alignment has significant undulations, passes through complex geological formations, has shallow overburden, crosses beneath an elevated highway, and features a small turning radius.



工程案例 PROJECT CASES

超长距离系列 ULTRA-LONG DISTANCE TUNNELLING SERIES

韩江榕江练江水系连通后续优化工程施工5标
Guangdong Han-Rong-Lian River Water System Connection Project

设备 Equipment	岩石顶管机 Rock pipe jacking machine
型号 Model	2400mm
最长顶段 Max. drive length	1292m
总顶段 Total drive length	3110m, 分5段顶进 3,110 meters, divided into five jacking spans
挑战 Challenge	上软下硬超硬岩地层，局部岩石强度超过200MPa，无接收井，需要弃壳处理 The ground conditions consist of extremely hard rock with a soft upper layer and a hard lower layer, with localized rock UCS exceeding 200 MPa. There is no reception shaft, requiring shield disposal.



武汉绣球山污水泵站及进出水管道工程
Sewage Pipeline Project in Wuhan

设备 Equipment	3500mm岩石顶管机 3500mm Rock pipe jacking machine	单顶长度 Single drive length	980m
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PROJECT CASES

武汉长江、沙湖水环境提升工程
Yangtze River and Shahu Lake Water Environment Improvement Project in Wuhan

设备 Equipment	3500mm泥水顶管机 3500mm Slurry pipe jacking machine	最长顶段 Max. drive	1442m
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工程案例 PROJECT CASES

湖北武汉高压改迁工程
Electrical Project in Wuhan, China

设备 Equipment	3000mm泥水平衡顶管机 3000mm Slurry balance pipe jacking machine	掘进长度 Drive span	单顶1218米曲线 1218m with curved jacking
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PROJECT
CASES

武汉长江、沙湖水环境提升工程
Yangtze River and Shahu Lake Water Environment Improvement Project in Wuhan

设备 Equipment	3500mm泥水顶管机 3500mm Slurry pipe jacking machine	最长顶段 Max.drive	1442m
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工程案例 PROJECT CASES

超硬岩系列 ULTRA-HARD ROCK TUNNELLING SERIES

董东线大山顶管工程
φ 1350mm Project in Shandong Province

设备 Equipment	岩石顶管机 Rock pipe jacking machine	型号 Model	1350mm	单顶长度 Single drive length	320m
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黎川县城南水厂改造扩建工程顶管工程
Lichuan County Chengnan Water Plant Renovation and Expansion Project

设备 Equipment	岩石顶管机 Rock pipe jacking machine	型号 Model	1200mm	掘进长度 Drive span	990m
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工程案例 PROJECT CASES

矩形系列 RECTANGULAR SERIES

珠江站进站道路电力管廊隧道工程

Guangzhou Pearl River Station Access Road Power Utility Tunnel Project

设备 Equipment	“珠江一号”泥水平衡矩形顶管机 “Pearl River No. 1” Slurry balance rectangular pipe jacking machine
型号 Model	RSPB 4400×3300mm
掘进长度 Drive span	720m
挑战 Challenge	地质条件复杂，穿越段多为淤泥质粉质黏土，毗邻珠江，极易发生漏水、涌水等风险 The complex geology consists mainly of silty clay, adjacent to the Pearl River, posing high risks of water leakage and inflow.



霸州北二环矩形顶管工程

Bazhou North Second Ring Rectangular Pipe Jacking Project

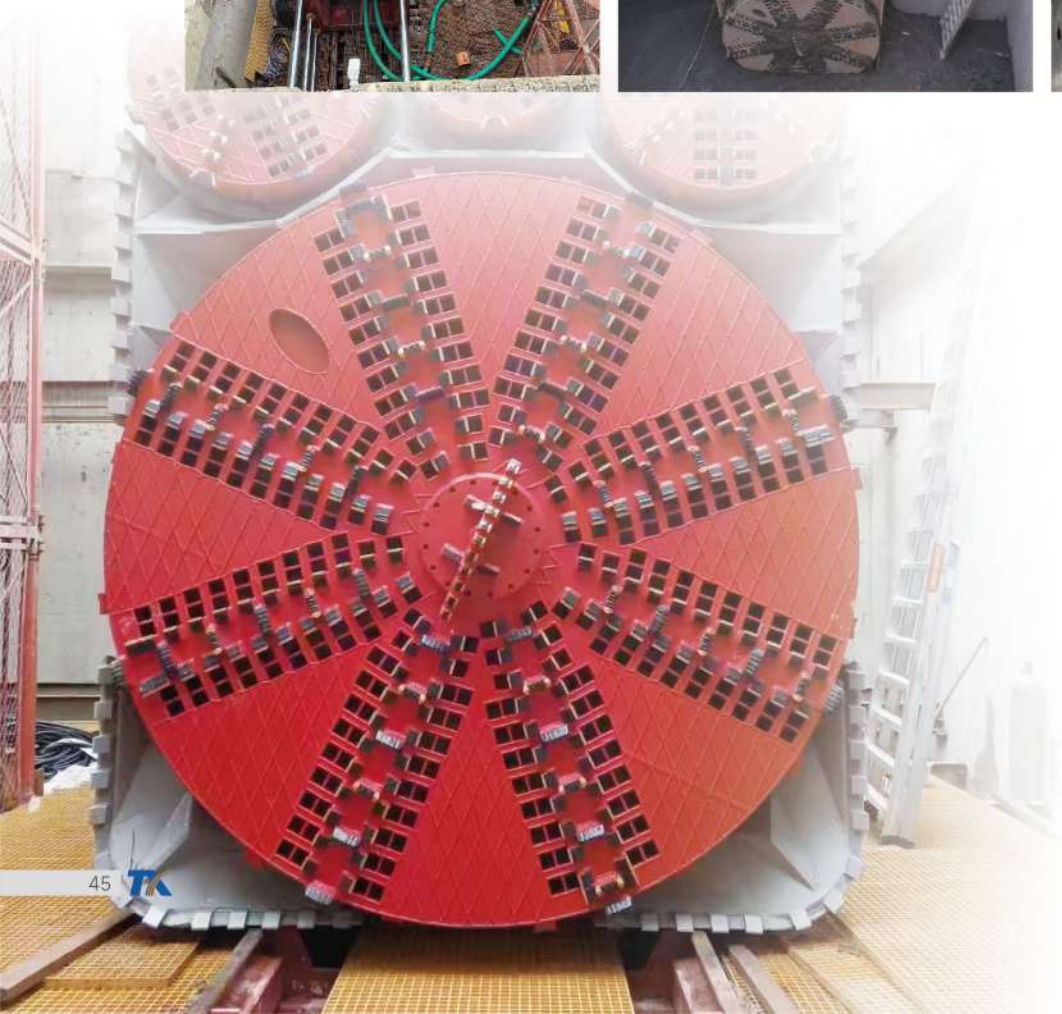
设备 Equipment	4800×5500mm矩形顶管机 4800×5500mm Rectangular pipe jacking machine	掘进长度 Drive span	300m
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长春市十一高人行过街地道

Changchun Pedestrian Underpass Pipe Jacking Project

设备 Equipment	4800×5500mm矩形顶管机 4800×5500mm Rectangular pipe jacking machine	掘进长度 Drive span	69m
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RECTANGULAR
SERIES



工程案例 PROJECT CASES

全球案例 GLOBAL PROJECTS

东马古晋污水处理系统第二工程

Kuching City Central Waste Water Management System Package 2

设备 Equipment	岩石顶管机 Rock pipe jacking machine
型号 Model	1500mm
单项长度 Drive span	240m
挑战 Challenge	工作井深35米，地下水丰富，具有覆土深度大、岩石硬度高等难点，且磨损系数大，对刀具刀盘的耐磨性要求高。 The work shaft is 35 meters deep with abundant groundwater, featuring challenges like deep overburden and hard rock, along with high abrasion, requiring high wear resistance for cutters and cutterhead.

GLOBAL
PROJECTS



菲律宾甲美地市政管网项目

Philippines Cavite Municipal Pipeline Laying Project

设备 Equipment	1400mm卵石顶管机 1400mm Soft rock pipe jacking machine
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印度尼西亚雅加达市政管网工程

Indonesia Jakarta Municipal Pipeline Laying Project

设备 Equipment	1500mm卵石顶管机 1500mm Soft rock pipe jacking machine
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越南永昂二期煤电厂海工工程
Vung Ang II Coal Power Plant Marine Works, Vietnam

设备 Equipment	3000mm 泥水平衡顶管机 3000mm Slurry balance pipe jacking machine
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乌兰巴托引水项目
Ulaanbaatar Water Supply Project

设备 Equipment	1200mm 岩石顶管机 1200mm Rock pipe jacking machine
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中国香港
Hong Kong, China

设备 Equipment	1200mm 岩石顶管机 1200mm Rock pipe jacking machine
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新加坡
Project in Singapore

设备 Equipment	1200mm 岩石顶管机 1200mm Rock pipe jacking machine
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