

## 施工范例 Construction Cases



XZ3000在印度坎布尔穿越恒河2.2公里  
XZ3000 HDD works to get through Ganga River by 2.2Km Kanpur



XZ5000在马来西亚穿越卢穆特海湾  
XZ5000 works to get through Lumut Bay in Malaysia



XZ680A水平定向钻机在俄罗斯施工  
XZ680A HDD working in Russia



XZ420E水平定向钻机泰州电力管道项目施工  
XZ420E HDD is working for the electricity pipeline project in Taizhou City



XZ3600水平定向钻机在山东泰安施工  
XZ3600 HDD working in Ta'an Shandong



XZ450水平定向钻机在上海施工  
XZ450 HDD working in Shanghai



XZ960E江西管道项目施工  
XZ960E HDD is working for the pipeline project in Jiangxi Province



XZ13600河北唐山曹妃甸双龙河穿越工程施工  
XZ13600 HDD is working to get through Caofieldian Shuanglong River in Tangshan City



XZ200水平定向钻机在阿曼施工  
XZ200 HDD working in Oman



XZ360E水平定向钻机在河南郑州施工  
XZ360E HDD works in Zhengzhou City, Henan Province

随着技术进步产品将不断改进，样本的技术信息与实物可能存在差异  
实际产品的供货状态应以销售合同为准，样本仅供参考  
如果想获取相关产品的最新信息，请您保持与我们的及时联系

With the development of the technology, the product will improve on, and the difference may emerge between the material object and the technical information of the sample.  
The condition of the supply goods should go on with the sell contract. The sample only supplies the reference.  
If you need the most recent information of our product, please contract with us in time.

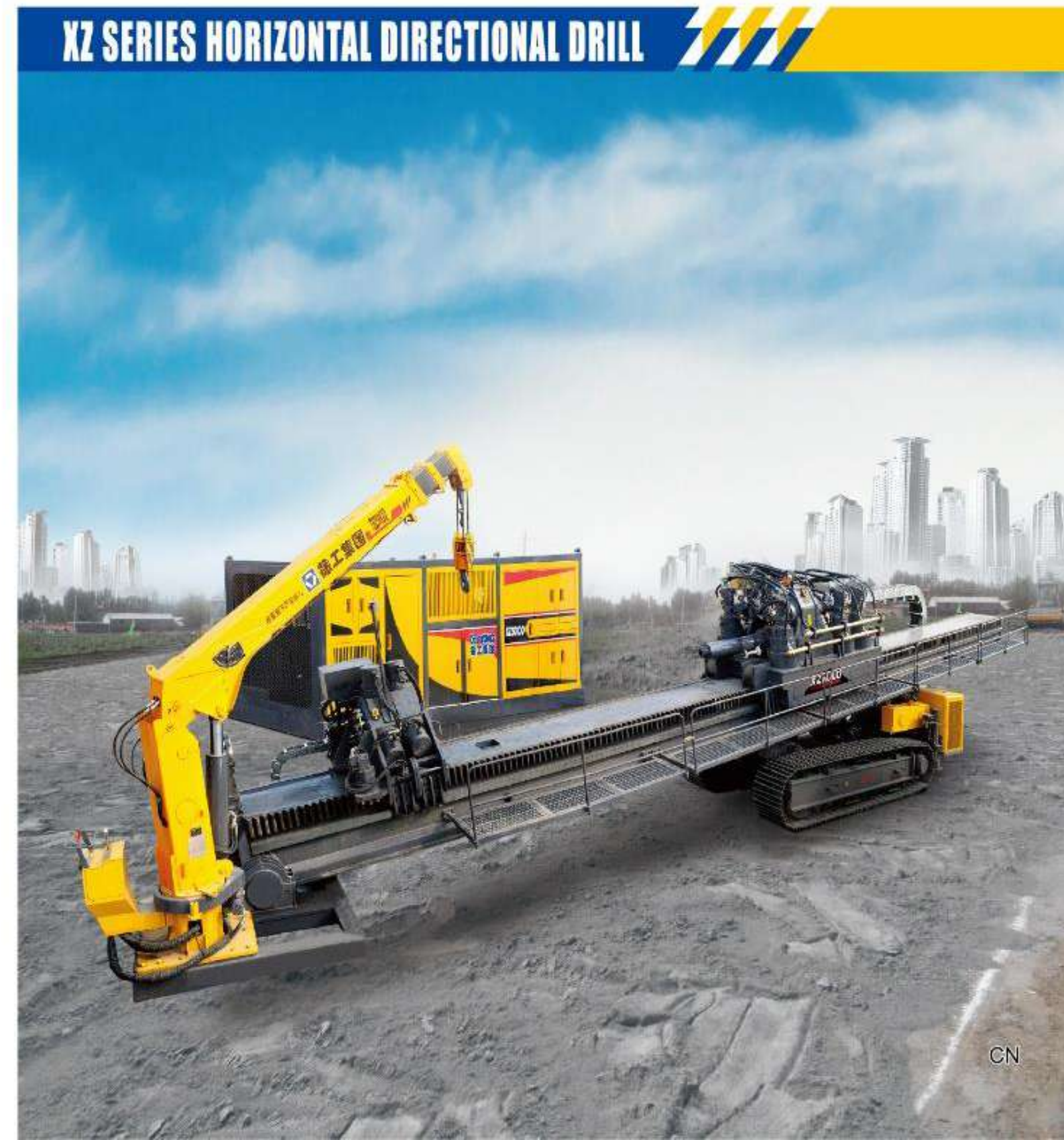


Web: machmall.com  
Tel: +86-516 8773 9797  
E: machmall@xcmg.com



# XZ系列 水平定向钻机

## XZ SERIES HORIZONTAL DIRECTIONAL DRILL



徐工基础工程机械事业部（简称徐工基础）于2019年8月成立，是徐工集团主机产品核心事业部之一，负责管理均在2010年培育成立的基础公司和铁装公司。徐工基础事业部是研制、生产、销售桩工机械、非开挖机械、煤矿掘进机械、能源钻采机械、山林隧道装备、铁路装备的专业化制造企业。目前拥有全球最大吨位的旋挖钻机和水平定向钻机，“徐工旋挖钻机、水平定向钻机”连续八年稳居国内市场第一，旋挖钻机智能制造车间为“江苏省示范智能车间”，产品出口至欧洲、美洲、非洲、东南亚等全球70多个国家和地区。

Established in August 2019, XCMG Foundation Construction Machinery Business Division (XCMG Foundation for short) is one of the core business divisions of XCMG main machine products. It is responsible for the management of the Foundation Company and Railway Equipment Company that were both established in 2010. XCMG Foundation Business Division is a specialized manufacturing enterprise that develops, produces and sells piling machinery, non-excavation machinery, coal-mine tunneling machinery, energy resource exploitation machinery, mountain tunnel equipment and railway equipment. At present, it owns the world's largest tonnage rotary drilling rig and horizontal directional drilling rig. The rotary drilling rig and horizontal directional drilling rig of XCMG have been in the first place in the domestic market for eight consecutive years, and the intelligent manufacturing workshop of the rotary drilling rig is the "Intelligent Demonstration Workshop of Jiangsu Province", with products exported to more than 70 countries and regions around the world including Europe, America, Africa and Southeast Asia.

事业部聚焦于地下工程领域，深耕地下岩土及资源的“钻、掘、采”产品和工法技术，不断优化成套产品板块群，成为全球最大的钻采类机械研发生产基地和综合服务提供商。

Focusing on the underground construction field, the business division industriously not only industriously researches the "drilling, excavation & exploitation" products as well as construction techniques of underground rock-soil and resources, but continuously optimizes the complete set of product group, making it the world's largest R&D and production base for drilling machinery and comprehensive service provider.

面向“十四五”，徐工基础正在实施“智能+生态”的千亩新型产业园方案，规划建设基础工程机械工业园区，提升桩工机械、煤矿、资源钻采机械等产品智能化生产能力和关键结构件制造能力。目前事业部正以高质量发展速度迈向百亿级企业、致力于打造世界桩工机械第一品牌。

Faced with the "14th Five-Year Plan", XCMG Foundation is implementing the "Intelligence + Ecology" 1000-mu new industrial park plan, planning to build the foundation construction machinery industrial park, and upgrading the intelligent production capacity of products such as piling machinery, coal mine machinery, as well as energy resource exploitation machinery & the manufacturing capacity of key structural components. At present, the business division is moving towards a ten-billion enterprise with high-quality development speed, and is committed to building the world's first brand of piling machinery.



### 技术特点

#### 小型水平定向钻机技术特点

- 虎钳、动力头双浮动专利技术能够极大地保护钻杆螺纹，提高钻杆使用寿命；
- 高低速推拉旋转系统，柱塞变量马达实现动力头推拉高低速，增大钻机工况适应能力，提升钻机施工效率；
- 配置灵活多样，整机可选配自动（半自动）钻杆装卸装置、双自动锚固装置、泥浆防冻、泥浆清洗等装置，也可选配更加环保、节能的东风康明斯欧III A排放发动机。

#### 大型水平定向钻机技术特点

- 数字式仪表，自动显示施工中的实际扭矩、推拉等施工主参数，操作简单；电子传感技术反应灵敏，能及时反馈瞬时超载，可靠地保护钻机。
- 钻架滑移依靠油缸推拉，结合前摇臂结构，入土角度调节操作简单、方便、安全。
- 双动力系统，任一发动机启动即可完成钻机的全部动作，结合专有多工况调速技术和旋转、推拉的多档控制技术，钻机适用范围广，可使用单机工作，施工成本。
- 负荷敏感、电液比例等先进控制技术，节能降耗、操作灵活舒适，关键液压、电器、传动元件均选用国际著名产品，质量可靠。

### Performance characteristic

#### Performance characteristic of small Horizontal Directional Drills

- Clamp and carriage use double floating patented technology can greatly protect the drill pipe thread, increase the service life of the drill pipe.
- High-speed sliding systems, variable motor to achieve high and low carriage sliding change, increasing the ability to adapt the drilling rig working conditions, improve the efficiency of the drilling rig construction.
- Support the diverse needs of customers, the machine can option configuration with the automatic (semi-automatic) drill pipe handling device, automatic anchoring system, cab, air conditioning wind, cold start, freezing mud, mud washing, mud throttling and other devices, can also be optioned more Eco saving Cummins with EU Stage III A.

#### Performance characteristic of large Horizontal Directional Drills

- Numerical meter display the working torque, push or pull force and so on parametric in working conditions. Electronic sensor has rapid reaction and can show overload immediately. It also endures accuracy and delay of the traditional hydraulic meter's indication. It solve the matter to depend the operator to calculate the torque and force by the equipment's switch directive.
- Drill frame slide by the cylinder. Combine with link weldment. It is easy safe and simple to adjust the entry angle of the equipment.
- Dual-engines are used. The HDD has all the motion on the condition of any engine starting. Multi-condition technology of adjusting the travel speed combining with the multi-speed control of rotation and push or pull make HDD be suitable to the complex geology. You can use one engine in the condition of small pipe diameter in order to reduce the project cost.
- Hydraulic pilot control, load sensing control help to save energy and operate flexibly. The main part of hydraulic and electric and transmission are made of world first-class brand products, good performance, good reliability.

### 主要技术参数 Main Technical Specification

型号Type	XZ120E	XZ200	XZ320D	XZ320E	XZ360E	XZ400	XZ420E	XZ450	XZ450Plus	XZ680A	XZ960E	XZ1000A	XZ1350	XZ1600	XZ2200	XZ2860	XZ3600	XZ5060	XZ6600	XZ8600	XZ10600	XZ13600			
发动机Engine	康明斯Cummins 4BTA3.9-C100	康明斯 CUMMINS QSB5.9-C150	康明斯 CUMMINS QSB5.9-C210	康明斯 CUMMINS QSB5.9-C210	康明斯 CUMMINS QSB5.9-C210	康明斯 CUMMINS QSC8.3-C240	康明斯Cummins QSC8.3-C240	康明斯 CUMMINS QSC8.3-C260	康明斯 CUMMINS QSC8.3-C260	康明斯 CUMMINS QSL8.9-C325	上柴 SDEC SC9DF300G3	康明斯 CUMMINS QSL8.9-C360	康明斯 CUMMINS QSL8.9-C360	康明斯 CUMMINS QSL8.9-C325	康明斯 CUMMINS QSL8.9-C325	康明斯 CUMMINS QSL8.9-C360	康明斯 CUMMINS QSL8.9-C360	康明斯 CUMMINS QSL8.9-C360	康明斯 CUMMINS QSL8.9-C360	康明斯Cummins QSL8.9-C360	康明斯Cummins QSL8.9-C360	康明斯Cummins QSL8.9-C360	康明斯Cummins QSL8.9-C360		
额定功率 Power rating (Kw/r/min)	74/2200	113/2200	154/2200	154/2200	154/2200	179/2200	179 / 2200	194/2200	194/2200	242/2100	221/2200	264/2100	264/2100	2 × 242/2100	2 × 242/2100	2 × 264/2100	2 × 264/2100	2 × 354/1900	2 × 410/1900	3 × 410/1900	3 × 410/1900	4 × 410/1900			
推力Thrust-Pull	Max pull / thrust force ( kN) 最大速度 Max pull / thrust speed(m/min)	133 39	225 32	320 22	345 36	370 32	400 28	420/500 42	480 42	960 28	725 32	970 50	1075 35	1795 27	1650 35	2200 35	2860 30	3600 30	5300 33	6600 32	8600 32	10600 32	13600 32		
旋转Rotation	扭矩Torque ( N · m) 最高转速 Max spindle speed ( r/min)	3000 230	6350 160	12000 140	12600 140	13200 140	14000 104	18500 145	23500 135	23500 135	31000 110	33000 120	43000 100	50500 89	75000 90	75000 90	100000 95	120000 76	160000 80	180000 90	240000 90	240000 90	260000 100		
泥浆泵Mud pump	最大流量 Max flow rate ( L/min) 最大压力 Max pressure ( Mpa)	100 4	250 8	320 8	320 8	400 8	450 8	450 8	600 10	600 10	600 10	600 10	800 10	外接 External connection	外接 External connection	外接 External connection	外接 External connection	外接 External connection	外接 External connection	外接 External connection	外接 External connection	外接 External connection	外接 External connection		
钻杆Pipe	直径 × 长度 Diameter × Length ( mm × m)	Φ52 × 1.8	Φ60 × 3	Φ73 × 3	Φ73 × 3	Φ73/83 × 3	Φ83 × 3	Φ83 × 3	Φ89 × 4.5	Φ89 × 4.5	Φ102 × 6	Φ102 × 6	Φ127 × 6	Φ127/114 × 6	Φ127 × 6	Φ127 × 6	Φ140 × 9.6	Φ140 × 9.6	Φ140/168 × 9.6	Φ168/194 × 9.6	Φ194 × 9.6	Φ194 × 9.6	Φ219/Φ254 × 9.6		
随车起重机 Loader Crane	起吊重量Lifting weight ( t) 起升力矩 Loading capacity ( t · m)	/	/	/	/	/	/	/	2	2	4	4	6.4	6.4	6.4	6.4	12.5	12.5	12.5	12.5	12.5	25			
最大入土角 Max inclination angle	( ° )	20	22	20	20	23	20	20	20	18	20	18	17	16	16	16	16	16	16	8-16	8-16	16			
最大回扩直径 Max backreamer diameter	( mm)	Φ400	Φ600	Φ800	Φ800	Φ900	Φ900	Φ900	Φ1000	Φ1000	Φ1000	Φ1200	Φ1300	Φ1400	Φ1400	Φ1600	Φ1600	Φ2000	Φ2000	Φ2500	Φ2500	Φ2500			
质量Weight	( t)	4.5	8.5	10	10	10.5	11.5	13.3	13.5	21	16.2	23	25	30	31	46	48	59	65	78	80	135			
外形尺寸(L × W × H) Dimension	( mm)	4500 × 1450 × 1800	5900 × 2250 × 2450	6500 × 2250 × 2450	6200 × 2240 × 2450	6200 × 2240 × 2450	7080 × 2450 × 2450	6500 × 2250 × 2450	8800 × 2280 × 2610	8800 × 2280 × 2610	11165 × 2840 × 3000	10650 × 2450 × 2600	11500 × 2900 × 3000	11680 × 2780 × 3540	12700 × 3030 × 3500	12700 × 3030 × 3500	17500 × 3200 × 3550	17500 × 3200 × 3550	20000 × 3400 × 3770	18700 × 3200 × 3600	19900 × 3200 × 3600	19900 × 3200 × 3600	20000 × 3400 × 4700		
选配 Optional configuration	/	海外专供 For overseas market only	1.全自动抓手（钻杆箱）；2.半自动抓手；3.双轴驱动；4.泥浆防冻；5.泥浆清洗；6.钻杆油路自动涂抹。 I. Full-automatic pipeloader; II. Semi-automatic pipeloader; III. Dual automatic anchor; IV. Mud antifreeze; V. Mud Cleaning; VI. Automatic thread oil daub.	7.驾驶室；8.冷暖空调；9.柱塞泵液压系统。 VII. Cab; VIII. Air-condition; IX. Piston pump hydraulic system.	7.驾驶室；8.冷暖空调；9.柱塞泵液压系统。 VII. Cab; VIII. Air-condition; IX. Piston pump hydraulic system.	1.双轴驱动；2.泥浆防冻；3.泥浆清洗。 I. Dual automatic anchor; II. Mud antifreeze; III. Mud Cleaning.	1.全自动抓手（钻杆箱）；2.半自动抓手；3.双轴驱动；4.泥浆防冻；5.泥浆清洗；6.钻杆油路自动涂抹；7.驾驶室；8.冷暖空调；9.柱塞泵液压系统。 I. Full-automatic pipeloader; II. Semi-automatic pipeloader; III. Dual automatic anchor; IV. Mud antifreeze; V. Mud Cleaning; VI. Automatic thread oil daub; VII. Cab; VIII. Air-condition;	1.全自动抓手（钻杆箱）；2.泥浆防冻；3.泥浆清洗。 I. Full-automatic pipeloader; II. Mud antifreeze; III. Mud Cleaning.	1.全自动抓手（钻杆箱）；2.泥浆防冻；3.泥浆清洗。 I. Full-automatic pipeloader; II. Mud antifreeze; III. Mud Cleaning.	1.全自动抓手（钻杆箱）；2.泥浆防冻；3.泥浆清洗。 I. Full-automatic pipeloader; II. Mud antifreeze; III. Mud Cleaning.	1.全自动抓手（钻杆箱）；2.泥浆防冻；3.泥浆清洗。 I. Full-automatic pipeloader; II. Mud antifreeze; III. Mud Cleaning.	1.全自动抓手（钻杆箱）；2.泥浆防冻；3.泥浆清洗。 I. Full-automatic pipeloader; II. Mud antifreeze; III. Mud Cleaning.	1.全自动抓手（钻杆箱）；2.泥浆防冻；3.泥浆清洗。 I. Full-automatic pipeloader; II. Mud antifreeze; III. Mud Cleaning.	1.全自动抓手（钻杆箱）；2.泥浆防冻；3.泥浆清洗。 I. Full-automatic pipeloader; II. Mud antifreeze; III. Mud Cleaning.	1.半自动抓手；2.分体式操作房 I. Semi-automatic pipeloader; II. Split type operating room.	1.半自动抓手；2.分体式操作房 I. Semi-automatic pipeloader; II. Split type operating room.	1.半自动抓手；2.分体式操作房 I. Semi-automatic pipeloader; II. Split type operating room.	1.半自动抓手；2.分体式操作房 I. Semi-automatic pipeloader; II. Split type operating room.	1.半自动抓手；2.分体式操作房 I. Semi-automatic pipeloader; II. Split type operating room.	1.半自动抓手；2.分体式操作房 I. Semi-automatic pipeloader; II. Split type operating room.	1.半自动抓手；2.分体式操作房 I. Semi-automatic pipeloader; II. Split type operating room.	1.半自动抓手；2.分体式操作房 I. Semi-automatic pipeloader; II. Split type operating room.	1.半自动抓手；2.分体式操作房 I. Semi-automatic pipeloader; II. Split type operating room.	1.半自动抓手；2.分体式操作房 I. Semi-automatic pipeloader; II. Split type operating room.	1.半自动抓手；2.分体式操作房 I. Semi-automatic pipeloader; II. Split type operating room.

