



搓管机 Tube rolling machine



无锡市北奕挖掘机配件制造厂

WUXI BEIYI EXCAVATOR PARTS MANUFACTURING PLANT



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搓管机 CASING OSCILLATOR

产品简介 Product Introduction

搓管机是全套管钻机的一种, 该设备通过夹持机构带动套管正反向来回扭动, 以减小沉拔套管的阻力, 并由油缸实现套管沉拔作业的套管驱动装置。

The casing oscillator is a type of full-casing drilling rig. This equipment uses a clamping mechanism to rotate the casing back and forth in both clockwise and counterclockwise directions, reducing the resistance during casing sinking and extraction. The driving of the casing for sinking and extraction operations is achieved through hydraulic cylinders.

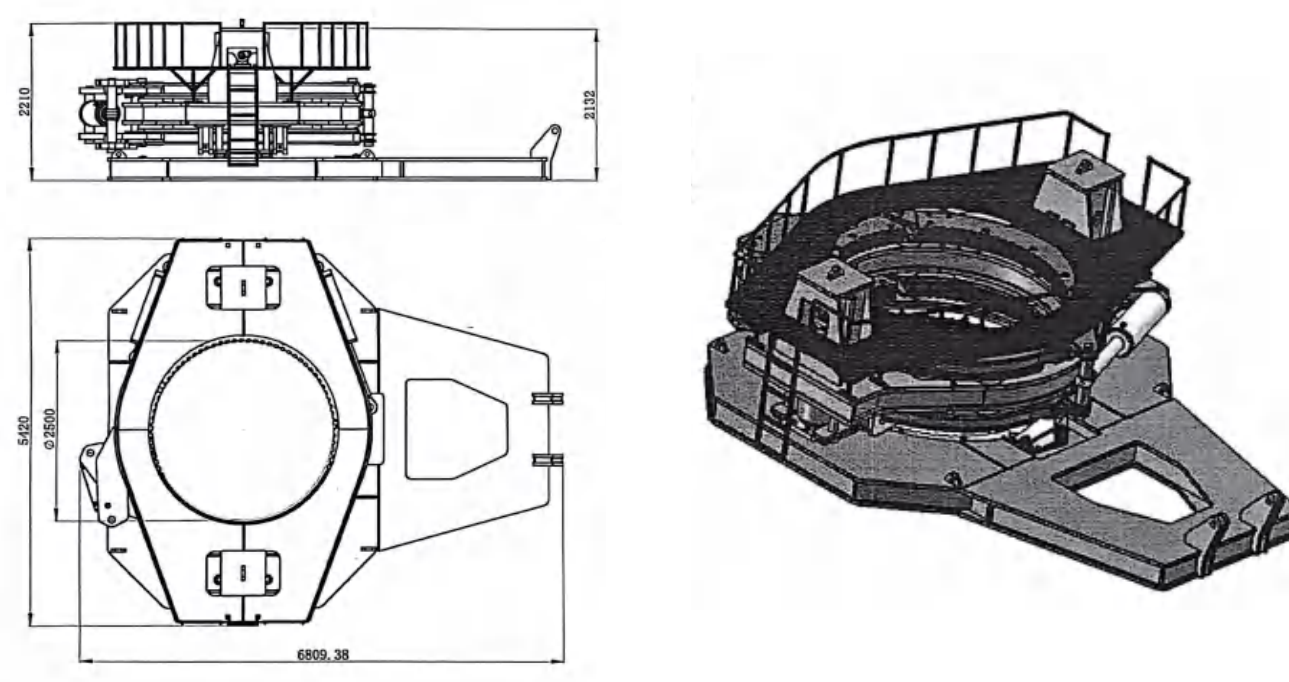
设备应用 Application of the Equipment

1、搓管机是主要应用于软土层、砂砾层、含砾土层等不稳定地层(土层) 施工的一种专用设备。该设备最大可以夹持直径3300mm的大直径套管, 使之以正、反时针方向转动或沿桩孔轴向上、下移动, 配合抓斗或螺旋钻具的应用, 实现跟管钻进。广泛应用在城市地铁地基、深基坑围护咬合桩、城市改造和清拔桩清障, 铁路、港口、道桥、江河、湖泊、高层建筑、水电水利施工钻孔灌注桩等特殊用途施工工程。

2、适合卵石、淤泥、流沙、粉细砂、破碎和溶洞发育、回填土、沼泽、湖泊、江河等泥浆无法正常护壁的复杂地层。

1. The casing oscillator is specialized equipment primarily used in construction on unstable strata, such as soft soil layers, gravel layers, and gravelly soil layers. This equipment can hold large-diameter casings up to 3300 mm in diameter, rotating them clockwise or counterclockwise or moving them up and down along the pile axis. Used in combination with grab buckets or augers, it enables casing-following drilling. It is widely applied in urban metro foundations, deep excavation retaining walls, interlocking piles for urban redevelopment, pile obstruction removal, and specialized projects such as railway, port, bridge, river, lake, high-rise building, and hydropower construction.

2. It is suitable for complex formations where slurry cannot effectively stabilize the walls, such as cobbles, silt, quicksand, fine sand, fractured rock and karst formations, backfilled soil, swamps, lakes, and rivers.



搓管机主要技术参数 parameter

型号	Model	单位Unit	BY200	BY250	BY300	BY330
最大口径	Max. casing dia	mm	Ø2000	Ø2500	Ø3000	Ø3300
搓管扭矩	Torque	kN·m	4110	9500	13500	19900
搓管角度	Rotation angle	°	21	21	21	24
套管起拔力	Lifting force	kN	2650	5150	9000	10820
压拔行程	Pulling stroke	mm	600	650	580	580
夹持力	Clamping force	kN	2150	3750	5100	5900
整机重量	Weight	ton	27	48	64	68
外形尺寸 长×宽×高	Overall dimension L×W×H	mm	7500×3200×1950	8800×4000×2580	9800×4500×2610	10665×4880×2500



专用阀组

专用阀组, 流量大、发热少, 兼顾搓管和辅助动作, 能量利用率高。

The equipment uses a specialized valve set, offering advantages such as high flow capacity, low heat generation, simultaneous operation of oscillating and auxiliary actions, and high energy efficiency.

辅助夹紧系统

配置辅助夹紧系统, 辅助夹紧夹持力大, 套管不偏心。

The equipment is equipped with an auxiliary clamping system, which provides strong clamping force and ensures the casing remains centered.

