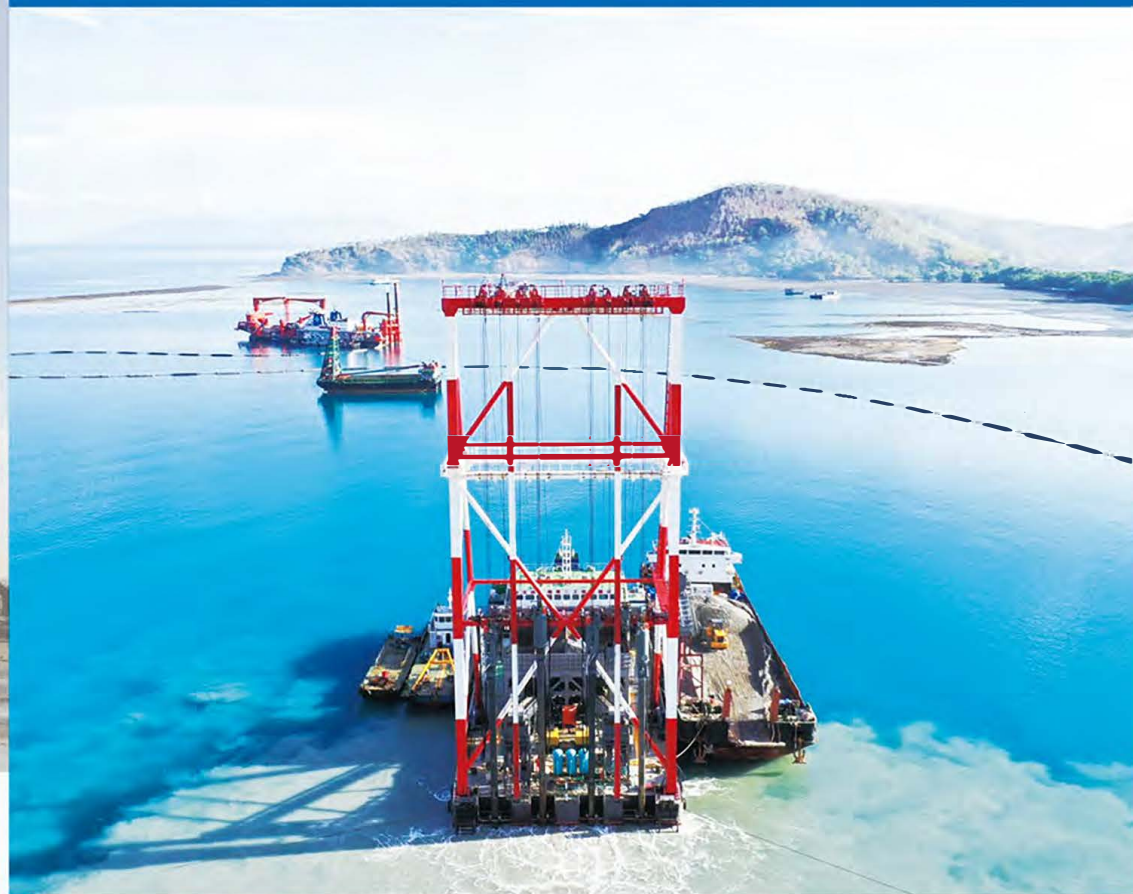




北京振冲工程机械有限公司

BEIJING VIBROFLOTATION ENGINEERING MACHINERY LIMITED COMPANY



北京振冲工程机械有限公司

BEIJING VIBROFLOTATION ENGINEERING MACHINERY CO.,LTD.

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打造精品 为振冲人服务

Creating High-quality Products Serving the Vibroflotation Industry



研发 · 制造 · 销售 · 施工

打造精品 为振冲人服务

Creating High-Quality Products, Serving the Vibroflotation Industry



公司简介 Company Profile

行业领军 Industry leader

北京振冲工程机械有限公司是中国振冲行业的领军企业-中电建振冲建设工程股份有限公司的控股子公司。作为国内振冲施工成套设备研发和生产的领先者，北京振冲工程机械有限公司拥有国内最大规模电动振冲器的生产线，是电动振冲器生产制造标准的主编单位，也是一个面向世界的中国品牌，为全世界的振冲工程施工者提供高品质的振冲施工成套设备。

Beijing Vibroflotation Engineering Machinery Co. Ltd (BVEM) is a subsidiary of PowerChina Vibroflotation Construction Engineering Co. Ltd., a leading company in China's vibroflotation industry. As the domestic leader of the complete sets of vibroflot equipment development and production, BVEM has the largest domestic production line of electric vibroflot. She is the chief-editor of the Chinese electric vibroflot manufacturing standard, is also a Chinese brand facing the world to provide the high quality complete sets of vibroflot equipment for users all over the world.

市场专注 Concentration

我们专注于振冲市场，构建了以振冲技术为基石的经营模式。此模式不仅涵盖了振冲成套设备的研发、生产与集成，还包括振冲技术咨询、振冲成套设备的销售与服务，以及地基处理工程施工的承接。同时，我们也致力于为客户提供全方位的振冲技术解决方案，实现技术与市场的深度融合。

BVEM focus on the vibroflotation market, and form a clear business model that takes vibroflotation as the core, R&D, production and integration of complete vibroflot equipment, vibroflotation technical consultation and sales & service of vibroflot, and foundation treatment engineering construction as the business platform. At the same time, we are also committed to providing customers with a full range of vibroflotation technology solutions to achieve deep integration of technology and market.

业务覆盖 Business Coverage

业务领域覆盖广泛，涉及电力、交通、石化、港口、机场以及海上岛屿等多个行业。公司业务已经延伸至六十多个国家，是全世界振冲工程的重要参与者。

The business covers a wide range of industries, including power, transportation, petrochemical, port, airport and offshore islands. BVEM's business has been extend to more than 60 countries worldwide, and it is an important participant in vibroflotation projects all over the world.

○主营业务 Main Business

振冲器以及振冲施工配套设备的研发生产和集成
R&D, production and integration of vibroflot and vibroflotation supporting equipment

振冲施工技术咨询及全过程销售服务
Vibroflotation construction technical consultation and service for whole sales process

地基处理工程的承接、实施和管理
Undertaking, implementation, and management of foundation treatment projects

○公司愿景 Company Vision

打造精品，为振冲人服务
Creating high-quality products, serving the vibroflotation industry

○公司目标 Company Goal

成为国内振冲产品的领导者和具有国际影响力的振冲行业的参与者
To be the leader of domestic vibroflotation products and the participant of vibroflotation with international influence

○核心价值 Core Value

产品领先 Product Leadership
客户导向 Customer Orientation
优秀运营 Excellent Operation

○企业文化 Corporate Culture

忠诚 Loyalty
信任 Trust
担当 Responsibility

公司荣誉 Company Honor

总公司中电建振冲建设工程股份有限公司是中国振冲行业的引进者和领导者
The parent company, Power China Vibroflotation is an initiator and leader of China's vibroflotation industry

中国电动振冲器制造标准的主编单位
Chief-editor of China's electric vibroflot manufacturing standard

拥有70余项专利技术
Possesses over 70 patent technologies

国内第一个底部出料振冲器的研发者及成套设备的供应者
Domestic first complete set of bottom feed vibroflot R&D and supplier

中国长江三峡工程、港珠澳大桥工程等数十个国内重大项目的参与者和技术攻关者
China Three - Gorge Project, Hong kong-Zhuhai-Macao Bridge and dozens of other major domestic projects participants and technical breakthroughs

振冲施工全过程质量控制技术的研发和推广者
The developer and promoter of quality control technology for the entire process of vibroflotation construction

国内桩工领域联盟《桩工陆英会》理事会成员
Members of the board of directors of "Alliance of Piling Industry Elites", national famous association of piling industry

全世界六十多个国家的市场覆盖
More than 60 countries market coverage



公司荣誉 Company Honor

专精特新“小巨人”企业
Specialized in special new "little giant" enterprises

北京市专精特新中小企业
Beijing Specialized, Refined, Unique, and Innovative Small and Medium Enterprises

中关村高新技术企业
Zhong Guan Cun High-tech enterprise

中国地基联盟振冲工法研究会会长单位
Presidential unit of "China Intellectual Property Union for Foundation Technology Innovation - Research Association of Vibroflotation"

振冲工法实训基地
Vibroflotation Construction Method Training Base

北京市级企业科技研究开发机构
Beijing Municipal Enterprise Science and Technology Research and Development Institution

高新技术企业
High-tech enterprise

国家知识产权优势企业
National intellectual property advantage enterprise

北京市新技术新产品
Beijing new technology and new products

知识产权管理体系
Intellectual property management system

职业健康、质量、环境管理体系
Occupational health, quality and environment management system

企业资信AAA级证书
Enterprise credit AAA certifiact

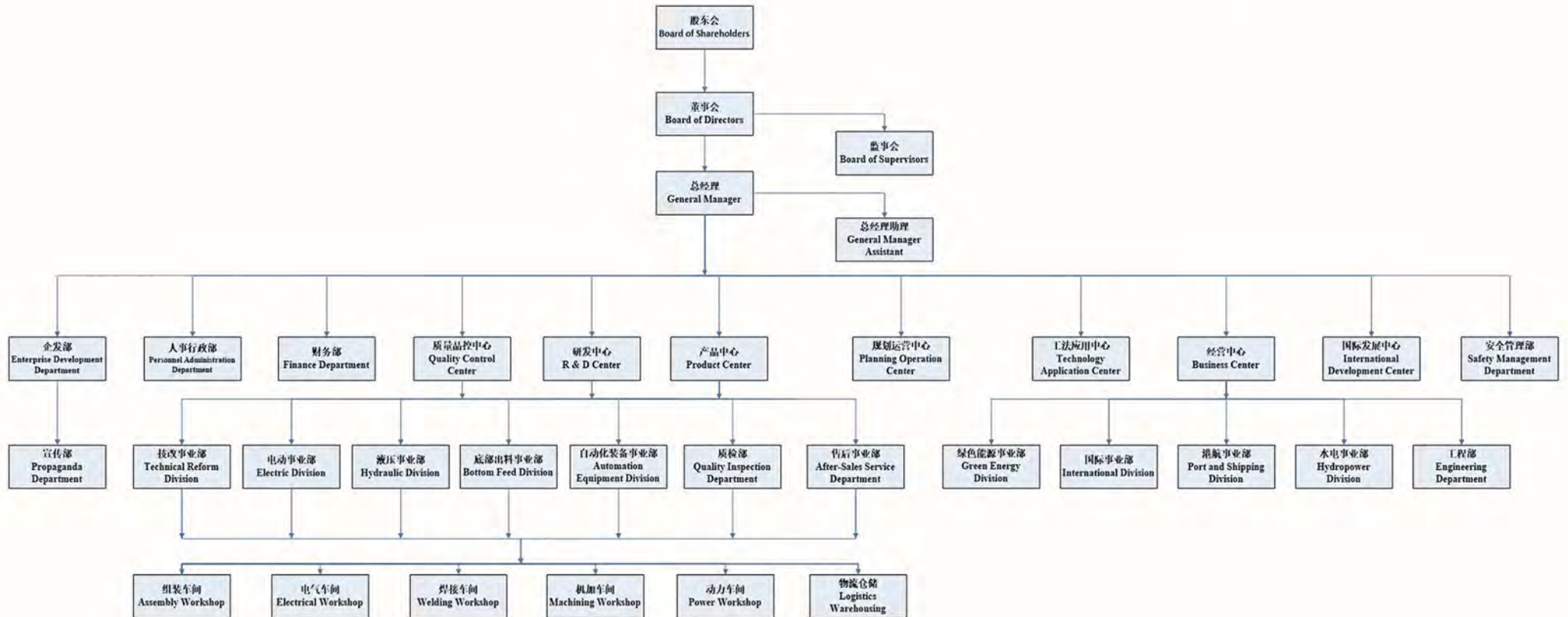
北京市用户满意评价证书
Beijing consumern satisfaction evaluation certificate

安全生产标准化
Work safety standardization

建筑业企业资质
Construction enterprise qualification



组织机构 Organizational Structure



总经理致辞 General manager speech



**与客户共享成功、与员工共求发展、与社会共同进步。
用我们的实力推动振冲事业的发展。**

Share success with customers, seek common development with employees and make common progress with society. Use our strength to promote the development of vibroflotation career.

北京振冲工程机械有限公司总经理：

General manager of BVEM Co.,LTD:

Zhang Guangbiao

公司团队 Company team

目标一致、相互信任、同心合力的团队。

A team with consistent goals, mutual trust and concerted efforts.



厂区 Plant area

公司拥有标准化生产、制造车间。

The company has standardized production and manufacturing workshops.



智能化生产装备 Intelligent production equipment

公司积极引进国内外先进设备及技术，拥有规模化、数控自动化生产流水线。

The company actively import advanced equipment and technology in domestic and abroad, and has large-scale, CNC automatic production lines.



产品分布 Product distribution

国内产品的销售主要分布于澳门、香港、西藏、新疆、四川、云南、陕西、内蒙、广西、广东、福建、江苏、山东、河北、吉林、辽宁、上海、海南等地，占国内市场的70%以上。

The sales of domestic products are mainly distributed in Macao, Hong Kong, Tibet, Xinjiang, Sichuan, Yunnan, Shaanxi, Inner Mongolia, Guangxi, Guangdong, Fujian, Jiangsu, Shandong, Hebei, Jilin, Liaoning, Shanghai, Hainan and other places, accounting for more than 70% of the domestic market.



国外产品的销售主要分布于菲律宾、马来西亚、越南、柬埔寨、斯里兰卡、马尔代夫、印度、印度尼西亚、缅甸、东帝汶、巴布亚新几内亚、孟加拉、安哥拉、阿尔及利亚、索马里兰、尼日利亚、沙特、迪拜、黎巴嫩、委内瑞拉、巴拿马、厄瓜多尔、智利等国。

The sales of foreign products are mainly distributed in the Philippines, Malaysia, Vietnam, Cambodia, Sri Lanka, Maldives, India, Indonesia, Myanmar, Timor Leste, Papua New Guinea, Bangladesh, Angola, Algeria, Somaliland, Nigeria, Saudi Arabia, Dubai, Lebanon, Venezuela, Panama, Ecuador, Chile and other countries.



振冲器分类 Vibroflot Classification

- 孔口填料振冲器 Top Feed Vibroflot

BJVE-377 系列 BJVE-377 Series

适用于孔口填料振冲施工

Used for top feed vibroflotation construction

采用获得国内专利的高性能、长寿命振冲器专用电机

Adopt the special motor for vibroflot with high performance and long life obtained national patent

振冲主体由强度高、韧性好的合金钢锻造

The main body of vibroflot is forged by alloy steel with high strength and good toughness

采用经热处理的整体锻造耐磨连接法兰

Adopt the wear-resisting connection flange of integral forging after heat treatment

采用内嵌自锁式高强螺栓连接

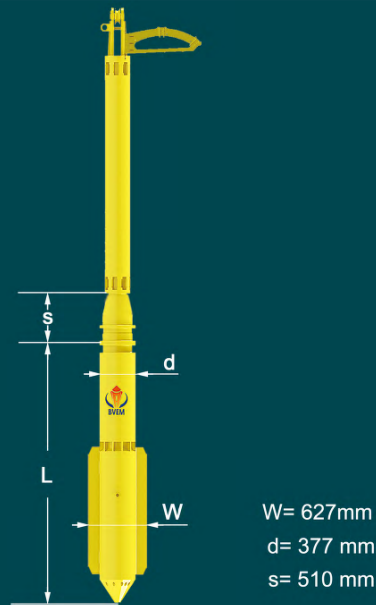
The high-strength bolt with embedded self-locking is adopted

振冲器外径为377mm

Outside diameter of vibroflot is 377mm

常用于振冲挤密施工和制桩直径范围700-1200mm的振冲碎石桩施工

It is often used in vibro-compaction and vibro-replacement construction with the diameter range of 700-1200mm



W= 627mm
d= 377mm
s= 510mm

孔口填料振冲器BJVE-377系列 Top Feed Vibroflot BJVE-377 Spec.

型号/Model	功率/Power (kW)	额定电流/Rated current (A)	额定转速/Rated speed (rpm)	最大振幅/Max amplitude (mm)	激振力/Centrifugal force (kN)	质量/Weight (kg)	外径/Outer diameter (mm)	长度/Length (mm)	需定制/customization
BJVE-377-55	55	108	1450	14	138	1560	377	2500	Y
BJVE-377-75	75	148	1450	16	175	1920	377	3000	N
BJVE-377-100	100	195	1450	18	175	1980	377	3105	Y
BJVE-377-130	130	255	1450	17	195	2050	377	3245	N
BJVE-377-180	180	356	1450	16	195	2150	377	3335	N

BJVE-426 系列 BJVE-426 Series

孔口填料振冲器BJVE-426系列 Top Feed Vibroflot BJVE-426 Spec.

型号/Model	功率/Power (kW)	额定电流/Rated current (A)	额定转速/Rated speed (rpm)	最大振幅/Max amplitude (mm)	激振力/Centrifugal force (kN)	质量/Weight (kg)	外径/Outer diameter (mm)	长度/Length (mm)	需定制/customization
BJVE-426-75	75	148	1450	16	175	2050	426	2785	N
BJVE-426-100	100	195	1450	17	175	2170	426	2885	Y
BJVE-426-130	130	255	1450	17	195	2250	426	2965	N
BJVE-426-180	180	356	1450	22	280	2320	426	3020	N

适用于孔口填料振冲施工

Used for top feed vibroflotation construction

获得国内专利的高性能、长寿命振冲器专用电机

The special motor for vibroflot with high performance and long life obtained national patent

振冲主体由强度高、韧性好的合金钢锻造

The main body of vibroflot is forged by alloy steel with high strength and good toughness

采用经热处理的整体锻造耐磨连接法兰

Adopt the wear-resisting connection flange of integral forging after heat treatment

采用内嵌自锁式高强螺栓连接

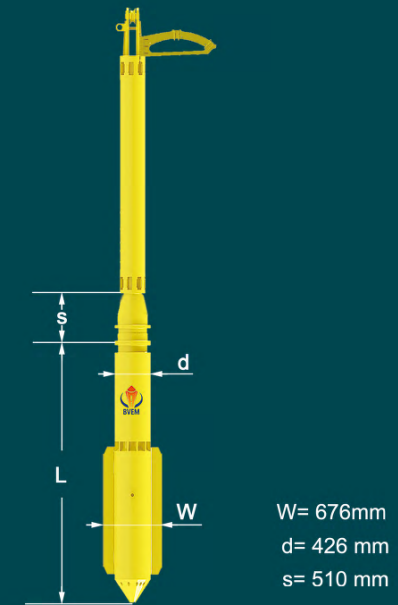
The high-strength bolt with embedded self-locking is adopted

振冲器外径为426mm

Outside diameter of vibroflot is 426mm

常用于振冲挤密施工和制桩直径范围800-1500mm的振冲碎石桩施工

It is often used in vibro-compaction and vibro-replacement construction with the diameter range of 800-1500mm



W= 676mm
d= 426mm
s= 510mm

振冲器分类 Vibroflot Classification

- 孔口填料振冲器 Top Feed Vibroflot

BJVE-450系列 BJVE-450 Series

目前国内有成熟应用的大功率电动振冲器
Mature electric vibroflot with maximum power in China

振冲主体由强度高、韧性好的合金钢锻造
The main body of vibroflot is forged by alloy steel with high strength and good toughness

采用专用轴承
Using the professional bearings

更高的施工效率
Higher construction efficiency

更强的土层穿透能力
Stronger penetration capacity

孔口填料振冲器BJVE-450系列
Top Feed Vibroflot BJVE-450 Spec.

型号/Model	BJVEF- 450-225	BJVE- 450-260	BJVEF- 450-300
功率/Power (kW)	225	260	300
额定电流/Rated current (A)	405	510	526
额定转速/ Rated speed (rpm)	1740	1450	1740
最大振幅/Max amplitude (mm)	20	26	22
激振力 /Centrifugal force(kN)	520	440 (520)	570
质量/Weight (kg)	2950	2980 (3280)	3256
外套外径/Outer diameter of water jacket (mm)	480	450	480
长度/Length (mm)	3150	3310	3550

其他系列 Other Series

孔口填料振冲器其他系列 Top Feed Vibroflot Other Spec.

型号/Model	功率 /Power (kW)	额定电流 /Rated current (A)	额定转速/ Rated speed (rpm)	最大振幅 /Max amplitude (mm)	激振力 /Centrifugal force (kN)	质量 /Weight (kg)	外径 /Outer diameter (mm)	长度 /Length (mm)	需定制 /customization
BJVE-325-55	55	108	1450	15.5	117	1240	325	2560	Y
BJVE-325-75	75	148	1450	14	117	1368	325	2700	Y
BJVE-402-180	180	356	1450	21	270	2200	402	3180	Y

孔口填料成套振冲器的组成 Component of Complete Set of Vibroflot

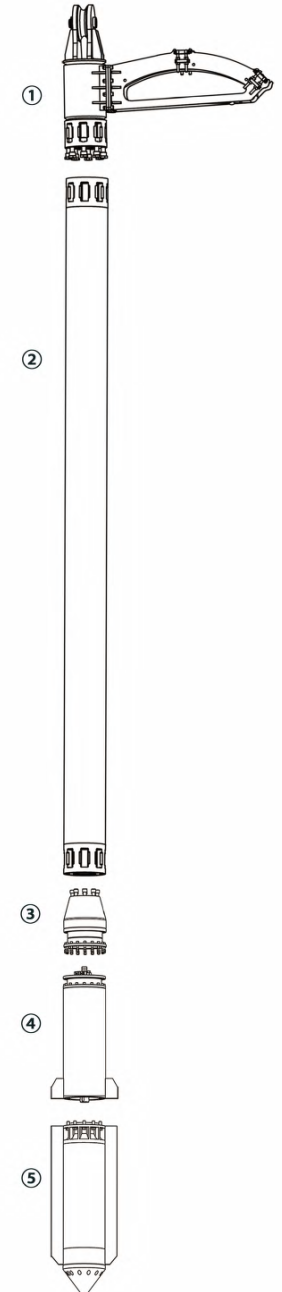
1. 吊头 Head
用于整套振冲器保证安全施工的重要部件，安装在最顶端，与起重机吊钩连接
A key part to guarantee the safety construction of the whole vibroflot. It should be installed at the top of the vibroflot and can be connected with the crane hook

2. 导杆 Extension Tube
制桩过程中导向作用，同时起到保护电缆、水管的作用。需求水量较大时可直接作为水管使用
Used for protecting the the cable and water pipe. It also can be used directly as a water pipe when the demand of water supplying is large

3. 减震器 Isolator
消除振冲器振动对导杆的振动影响
Reduce the impact of vibration

4. 电机 Motor
用于驱动振冲器偏心块转动
Used to drive eccentric block rotation of vibroflot

5. 激振体 Vibration Body
传递水平振动力，冲击土壤，并通过填料或挤密形式形成密实桩体
Transmit horizontal vibration force, impact soil, and form into compacted pile body through feeding or compaction effect



振冲器分类 Vibroflot Classification

- 液压振冲器 Hydraulic Vibrator



- 1.0-2600rpm无极变速
0-2600rpm infinitely variable speed
- 2.可在0-43Hz超广频率段施工
Capable of construction within an ultra-wide frequency range of 0-43Hz
- 3.体积更小、激振力更大
Smaller size, greater centrifugal force
- 4.应用地层广泛、穿透力更强
Extensive application of strata, stronger penetration
- 5.可持续大激振力，高功率输出
Sustainable high centrifugal force and high power output
- 6.高适配性，可搭载专用泵站、旋挖钻机、挖机等
High adaptability, equipped with special pump station, rotary drilling rig, excavator, etc

BJVH-350-105 液压振冲器/Hydraulic Vibrator		
参数名称/Main Parameters	单位/Unit	具体参数/Numerical Value
偏心力矩/Eccentric moment	Nm	29
油量/Oil level	lpm	208
重量/Weight	kg	1200
长度/Length	mm	2150
功率/Power	kW	105
频率/Frequency	Hz	43
转速/Rotational speed	r/min	2600
激振力/Centrifugal force	kN	214
外径/Outer diameter	mm	350
含水道外径 /Outer diameter of the water channel	mm	626
制桩直径/Pile diameter	mm	500-800
发动机功率/Engine power	kW	176

- 液压站 Hydraulic Station

- 1.液压振冲器专用闭式液压系统
Dedicated closed hydraulic system for hydraulic vibratory compactors
- 2.精确控制，高效输出
Precise control, efficient output
- 3.多项智能监测，搭载内嵌式施工辅助系统
Multi-intelligent monitoring with integrated construction assistance system



BJVH-350-105 液压站/Hydraulic Station		
参数名称/Main Parameters	单位/Unit	具体参数/Numerical Value
功率/Power	kW	176
外形尺寸 (长x宽x高) /Size (L*W*H)	mm	3100*1450*2100
主系统流量/Main System Flow	L/min	270
最大工作压力 /Max. Working Pressure	bar	350
重量/Weight	kg	3600

振冲器分类 Vibroflot Classification

- 底部出料振冲器 Bottom Feed Vibroflot



配套采用大功率180KW振冲器，在造孔和制桩过程中动力性能优越
Equipped with a high-power 180KW vibrator. It has superior dynamic performance in the process of drilling and compaction

独特的旁通管道设计可实现干法、水法以及水气联动法等多种施工工法
The unique design of bypass pipeline can realize multiple construction methods including: dry method, water method and water-air linkage method

特有的电机循环水冷系统可保护电机在干法施工中长时间正常运转
The unique circulating water cooling system can protect the motor to operate normally for a long time during dry method construction

最优下料管径设计使石料适用粒径范围更大，确保下料通畅
The optimal parameters design of feeding tube makes the stone applicable to a larger range of particle size with ensuring of smooth discharge

独特的料仓阀门型式，在保障落料顺畅的同时，减少设备故障的发生
Unique material bin ensures smooth material discharge while reducing equipment failures

开放式对外接口，可实现与汽车吊、旋挖钻机、桩架以及挖掘机等工程起吊设备的配套使用
Open external interface, can be used with mobile cranes, rotary drilling rigs, pile frames, excavators and other engineering lifting equipment

底部出料电动振冲器参数 / Bottom Feed Vibroflot Spec.		
型号/Model	BVVE-400-180-D	BVVE-400-180-DZ
功率/Power(KW)	180	
频率/Frequency(Hz)	45-55	
转速/Rotation speed (rpm)	1340-1640	
工作桩径/Working pile diameter(mm)	900-1200	
激振力/Centrifugal forcer(kN)	225-275	
系统压力/System air pressure (bar)	6	
料斗容积/Hopper capacity (m³)	1.2	
下料管通径/Feeding pipe inner diameter(mm)	DN325	
控制形式/Electrical control mode	变频控制/Inverter control	
电机冷却方式/Cooling mode	循环水冷/Circulating water cooling	
配置空压机排量/Air flow rate(m³/min)	10/20	
振冲器尺寸/Vibrator size L/W/H(mm)	3030*835*450	
料仓尺寸/Stock bin size L/W/H(mm)	4400*1630*2010	
导杆尺寸/Extension tube size L/W/H(mm)	11500*730*455	
	5800*730*455	
总重量 (标配设备+导杆) Total weight (Standard part+ Extension tube)(ton)	9+n	10+n

底部出料成套设备的组成 Whole Set Composition of Bottom Feed Vibroflot

- 料斗支架 Hopper Shelf**
用于辅助提升料斗实现翻转操作。
Used to assist in lifting the hopper to achieve the tipping operation
- 提升料斗 Lifting Hopper**
- 料仓 Material Container**
采用双锁压力仓。通过阀门控制，实现石料的存储和下落，同时使下料管中持续保持空气压力。
Double locked air-pressure cavity designed. Through valves control the storage and falling of stone can be realized, and the air pressure in the feeding tube can be maintained continuously.
- 料位计接头 Material Level Gauge Connector**
用于安置料位计的装置。
A box to set material level gauge
- 导杆和下料管 Extension Tube/Feeding Tube**
导杆是制桩过程中用于导向以及保护电缆和水管的装置；下料管是石料从料仓落入孔底的通道。
Extension tube is a unit for drilling direction guidance and cable/water pipe protection. Feeding tube is the passageway of stone from material container to bore-hole
- 接线盒 Junction Box**
- 振冲器减震器 Isolator via Vibrator**
用于缓冲振冲器振动时对导杆影响的阻尼装置。
A damping device used to cushion the impact of vibrator vibration on the extension tube
- 料管减震器 Isolator via Feeding Tube**
用于缓冲振冲器振动时对下料管影响的阻尼装置。
A damping device used to cushion the impact of the vibrator's vibration on the feeding tube
- 振冲器 Vibrator**
- 料管下料口 Feeding Head**



振冲器分类 Vibroflot Classification

- 底部出料振冲器 Bottom Feed Vibroflot

底部出料振冲器的定制化生产

Customized Production of Bottom Feed Vibroflot

由于工程条件的多样性，底部出料振冲器通常需要按以下模块定制化生产

Due to the diversity of engineering condition, bottom feed vibroflot commonly need to be customized for production according to following modules

定制化生产模块组成 Customized Production Module Composition

1. 振冲器系统 Vibroflot System

振冲器类型（目前只提供电动振冲器）、导杆长度和数量、电机循环水冷系统

Vibroflot model(Currently only electrical vibroflot offer-able), length and quantity of extension tube, circulating water cooling system for motor

2. 下料管道系统 Feeding Tube System

下料管道直径、数量和长度

Diameter, quantity and length of feeding tube

3. 料仓系统 Material Container System

双锁压力仓系统、单仓系统

Double locked air pressure container system, Single cavity container system

4. 上料系统 Material Supply System

卷扬式提升料斗、滑轨式提升料斗

Winch lift hopper, slide rail lift hopper

5. 控制系统 Control System

振冲器控制系统、料仓控制系统

Vibrator Control System, Material Container Control System

6. 起吊设备 Lifting Equipment

可为汽车吊、旋挖钻机、桩架及挖掘机提供开放式接口

Providing accessible interface for crane, rotary drilling rig, pile frame and excavator

底部出料振冲法简介

Profile of Bottom Feed Vibroflotation

底部出料振冲法是振冲技术的延伸，底部出料工艺的出现使振冲法的适用范围得到进一步扩大。由于底部出料振冲法的施工特点，以下通常不适用于孔口填料振冲法的情形也可以通过底部出料振冲法来进行地基的加固处理：

As a extension of vibroflotation technique, bottom feed method created a larger range of vibroflotation application. In terms of its feature, bottom feed vibroflotation can be conducted to treat the foundation in those projects even under following situation:

1. 不排水抗剪强度小于20Kpa的淤泥或淤泥质土
Silty or silty clay soil with undrained shearing strength less than 20Kpa
2. 水下振冲碎石桩施工
Underwater vibroflotation stone column construction
3. 对成桩直径有严格要求的工程
Projects under the strict controlling of pile diameter
4. 限制大量使用水资源的区域
Restricting areas where water resources are used extensively
5. 对污水排放有限制的区域
Areas with restrictions on sewage discharge



多功能桩机 Multifunctional Pile Driver

1.可分别实现旋挖钻机、振冲桩机双功能

The dual functions of rotary drilling rig and vibro pile driver can be realized respectively

2.旋挖钻机与振冲桩机双机具组合施工

Combined construction with rotary drilling rig and vibro pile driver

3.在振冲工况下，可满足孔口填料，底部出料双工艺要求

Meet the requirements of top feed method and bottom feed method under the vibro working condition

4.可选配水气联动等辅助成桩系统

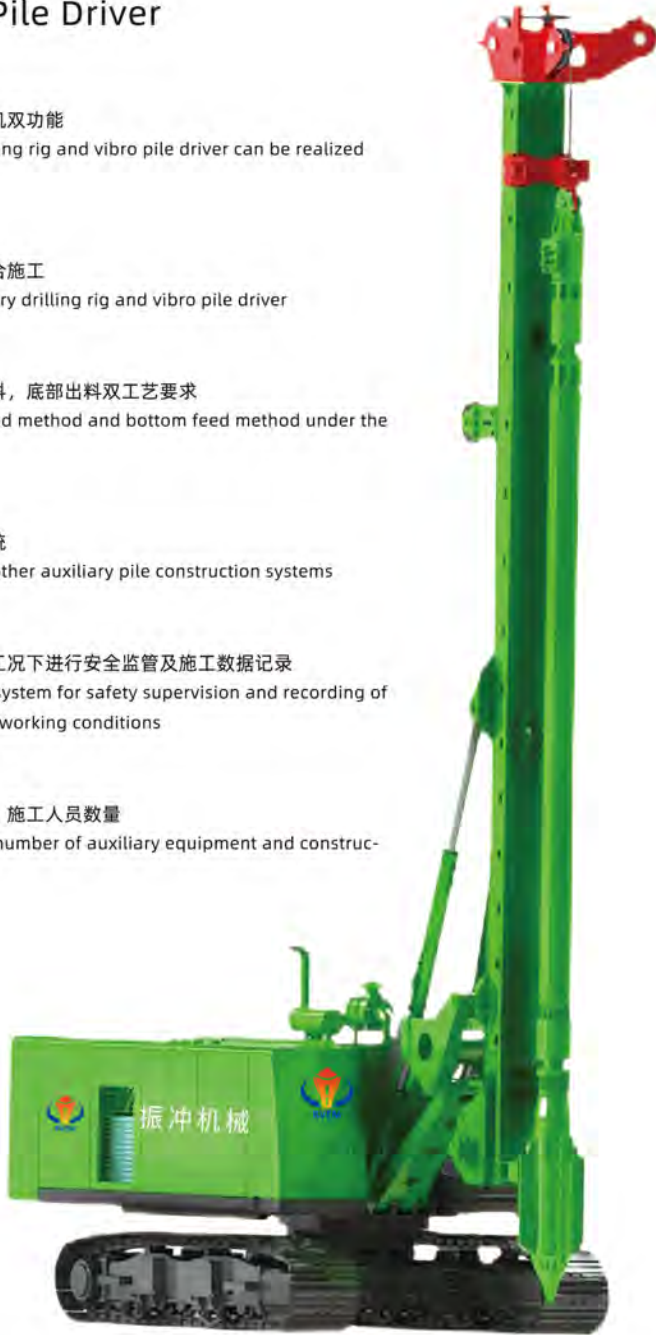
Optional water-air linkage and other auxiliary pile construction systems

5.内嵌式施工辅助系统，可在各工况下进行安全监管及施工数据记录

Built-in construction assistance system for safety supervision and recording of construction data under various working conditions

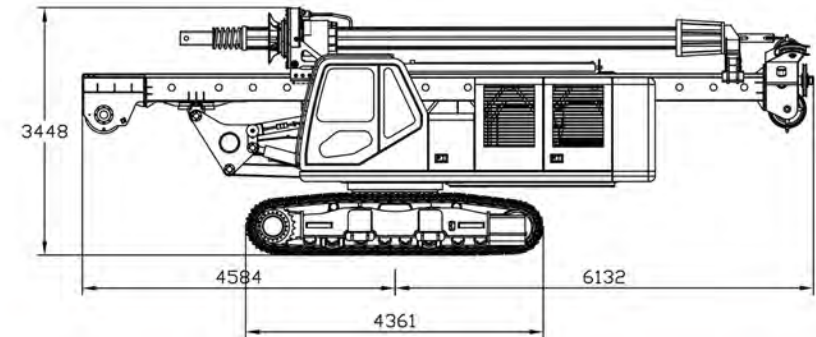
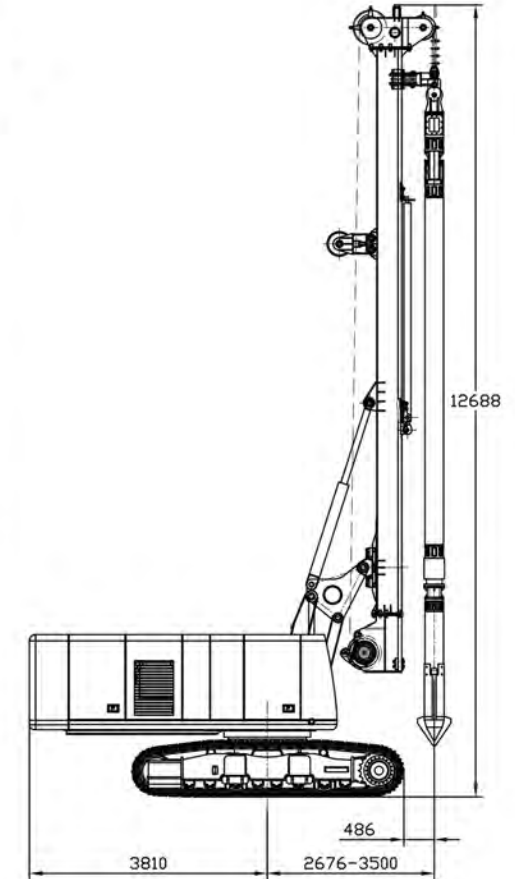
6.高度集成，降低现场辅助机具、施工人员数量

Highly integrated, reducing the number of auxiliary equipment and construction personnel on site



技术参数 Technical Parameter

主要参数 /Main Parameter	参数/Parameters	单位 /Unit	规格型号 /Numerical Value
底盘/Chasis	发动机品牌/Engine Brand		潍柴/Weichai
	发动机功率/Engine Power	kW	176
	履带展开宽度/Track Width	mm	3800
动力头 /Rotary Drive	牵引力/Traction	kN	247
	最大输出扭矩/Max. Output Torque	kN·m	85
	动力头转速/Rotary Speed	rpm	6-25
	最大加压力 /Max. Pull-Down Piston Push	kN	110
	最大提升力 /Max. Pull-Down Piston Pull	kN	110
	加压油缸行程 /Max. Pull-Down Piston Strike	mm	2760
主卷扬 /Main Winch	最大提升力 /Max. Pulling Force	kN	90
	最大提升速度 /Max. Pulling Speed	m/min	28
	钢丝绳直径 /Wire Rope Diameter	mm	20
副卷扬 /Auxiliary Winch	最大提升力 /Max. Pulling Force	kN	90
	最大提升速度 /Max. Pulling Speed	m/min	28
	钢丝绳直径 /Wire Rope Diameter	mm	20
振冲/Vibroflot	成孔深度/Penetration Depth	m	9
	成孔直径/Penetration Diameter	mm	500-800
钻孔/Drilling Hole	最大钻孔直径 /Max. Drilling Diameter	mm	1000
	最大钻孔深度 /Max. Drilling Depth	m	25
主机 /Main Machine	旋挖工作状态整机重量 /Rotary Working Weight	t	36
	振冲工作状态整机重量 /Vibro Working Weight	t	35
	运输状态整机重量 /Transportation Weight	t	33
	运输状态(Lx宽x高) /Transporting State Size	mm	10716x2900x3448
钻杆型号 /Drill Pipe Models	作业状态(Lx宽x高) /Working State Size (L*W*H)	mm	6925x3800x12688
	摩擦杆 /Friction Rod		299-4x7
	机锁杆 /Machine Lock Lever		299-3x7



配件 Accessories

1. 吊头 Head

具备起吊连接和引出电缆固定横拉杆的功能

It has the function of lifting, connecting and leading out the cable to fix the tie rod

适用于多种振冲器

Suitable for various types of vibroflots

独特的弧度设计有效减少对电缆和水管的磨损

Unique are design effectively reduces wear on cables and water pipes

可实现导杆直接冲入高压水

The extension tube can be directly filled with high-press water



299



T299A



T299B

型号/Model	尺寸/Size (L*W*H) (mm)	重量/Weight (kg)
299	300*350*600	88
T299A	1550*300*1050	280
T299B	1550*300*1050	295

2. 导杆 Extension Tube

多种壁厚和直径，可满足不同需求

A variety of wall thickness and diameter, can meet different requirements

独特的内嵌自锁式螺栓固定，拆装方便，连接可靠

Unique embedded self-locking bolt fixed to facilitate the easy assembly/dis-assembly and reliable connection

梅花杆可有效加快造孔速度，提高工效与降低成本

The plum blossom tube effectively speed up the hole-making process, enhance work efficiency, reduce costs

梅花杆可有效防止硬层施工中的抱管现象

The plum blossom tube effectively prevents the pipe gripping phenomenon during construction in hard layers

梅花杆的设计保证施工的连续性和物料的顺畅下落

The design of the plum blossom tube ensures the continuity of construction and the smooth descent of materials



标准导杆/Standard tube



梅花杆/Plum blossom tube

型号/Model	尺寸/Size (m)
Φ 219*12	
Φ 299*16	5/6/7/10
Φ 299*22	

配件 Accessories

3. 减震器 Isolator

高强度整体碳素钢加工而成
Processed from high-strength integral carbon steel

填充优质天然橡胶，减震效果良好，使用寿命长
High quality rubber filling facilitate to good shock absorption and long serve life

独特结构设计可确保在橡胶损坏时也能保持可靠连接
Unique structural design ensures reliable connection even when rubber is damage



377 / X130



260

型号/Model	尺寸/Size (mm)	重量/Weight (kg)
377	∅377*∅150*510	190
X130	∅426*∅150*510	260
260	∅450*∅150*1000	520

4. 电控柜 Electrical Cabinet

使用优质电气元件装配，采用IP54防护等级
Assemble with high-quality electrical components and adopt IP54 protection level

开放式对外电源和控制开关接口，可实现对多种设备(振冲器、水泵)的启停控制和连接（数据记录仪）
Open external power supply and control switch interface, enabling start-stop control of various equipment (vibrator, water pump) and connection (data recorder)

过载保护功能设计，保证设备的安全使用
Overload protection function design to ensure the safe use of equipment

Electric Cabinet/电控柜	Technical Spec./技术参数
Power supply system/供电系统	TN-S
Frequency/频率(Hz)	50Hz
Voltage/电压(V)	380V±5%



控制系统 Electrical Control System

1. 振冲器变频控制柜

Vibratory impactor frequency conversion control cabinet

柜体安全防护等级IP43。控制操作采用24伏低压设计，增设保护地线，提高操作工作的安全性
The protective grade of cabinet body is IP43. DC24V power supply is adopted for its operation .
Protective ground wire is added to the cabinet to assure the working safety

总电源由电源总断路器控制，方便维修的同时能够有效提高安全性能
The power supply circuit breaker generally control the power supply of the cabinet to facilitate maintenance and improve safety protection

有效控制振冲器启动过程中电流的平稳变化，在对振冲器机械部件提供可靠保护的同时，减少对供电电源的不利冲击

Effectively control the smooth change of current during the start-up process of the vibrator, while providing reliable protection for the mechanical parts of the vibrator and reducing the adverse impact on the power supply

可根据需要通过调整振冲器工作频率，改变激振力的输出，达到更佳施工效果

The output of vibration force can be changed by adjustment of working frequency of vibrator in terms of situation need, to achieve a better construction effect

操作面板采用数字仪表，操作方法简单、直观

The operation panel adopts digital instrument for easy and intuitive use



技术参数/Technical Spec.

型号/Model	ECF-180
保护等级/Protection class	IP43
频率/Frequency (Hz)	50/60
输入电压/ Input voltage (V)	AC380±5%
尺寸/Size (L*W*H) (mm)	1100*770*1580
重量/Weight (Kg)	340

2. 料仓控制柜 Material Container Control System

柜体安全防护等级IP51，可在户外、海边等恶劣条件下长期使用

The cabinet has an IP51 safety protection level and can be used for a long time in harsh conditions such as outdoors and at the seaside

提供AC220V和DC24V两种供电模式

Adopt alternative AC220V and DC24V power supply mode

提升料斗限位提醒功能设计，指导施工人员准确安全的进行施工操作

Lifting hopper limit reminder function can facilitate construction to be done in accuracy and safety

操作面板显示功能直观简洁，实时显示各仓门的位置和工作状态、空压机供气状态，以及排气阀的启闭状态

Operation panel display function is intuitive and simple, real-time display of the position and working state of each container cavity door, air supply state of air compressor, and open and close state of exhaust valve

实时显示上料仓和下料仓的空气压力数值

Real-time display of the air pressure value of the top cavity and the bottom cavity of material container

采用微波料位传感器实时监控料仓是否处于缺料状态

Microwave material level sensor is used to monitor whether the material container is in shortage



3. BJZC-CS-4P循环水冷控制系统

BJZC-CS-4P Circulating Water Cooling Control System

为干法振冲器电机提供高效降温，保障设备正常工作

To provide efficient cooling for dry method vibrator motor in order to ensure normal operation of the equipment

系统采用380V/50HZ供电电源

Adopt 380V/50HZ power supply for system proceeding

安全防护等级为IP55

Protective grade is IP55



全过程质量控制记录仪

Whole Process Quality Control Data Recorder

简介 Profile

远程控制包括振冲器、高压水泵等振冲施工设备的启停操作

Remote control of the start and stop of vibratory construction equipment including vibrators, high-pressure water pumps, etc.

实时记录振冲施工质量控制和效率控制参数，包括工作电流、深度、电压、填料量和时间，实现隐蔽工程全过程施工监控

Real-time recording of vibroflotation construction quality control parameters and efficiency control parameters, including working electricity current, depth, voltage, filling volume and time, to realize the whole process construction monitoring of concealed engineering.



支持数据的存储、导入、输出
Support data storage, import and output

系统配套数据分析软件，可形成可视化的数据曲线
The system is equipped with data analysis software, which can form a visual data curve

有利于提高施工效率，简化施工人员
Facilitate to improve the construction efficiency and simplify construction personnel

Remote Control Monitor Spec./参数

Type/型号	ZJ-C104-I-B
Voltage/电压(V)	DC 24
L/W/H(mm)	305×280×100
Weight/重量(kg)	3

ZJ-C104-I-B 数据记录仪特点 ZJ-C104-I-B Data Record Characteristics

无线远程连接方式，有效操作距离100米
Wireless remote connection, effective operating distance 100 meters

采用彩色触屏，操作直观方便快捷
Adopt color touch screen to facilitate the intuitive and convenient operation

中英文两种语言界面
Bilingual interface between Chinese and English

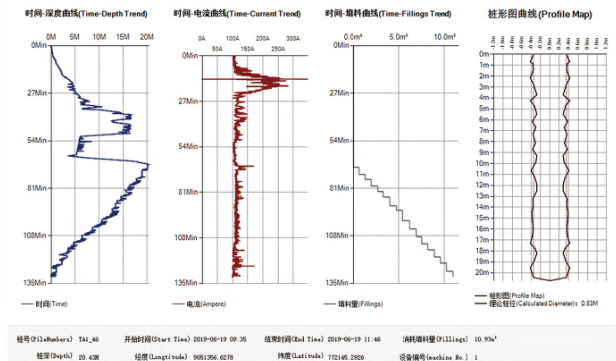
自带64M存储空间，同时可通过USB接口实时导出/入数据
With 64M storage space, the data can be export /import in real time via USB interface



可视化数据处理 Visual Data Proceeding

可通过功能强大的数据处理软件形成数据曲线和图像
The data curves and images can be formed through powerful data processing software

可形成实际桩形图和平均桩形图
The system can be generated actual column shape diagram and average column shape diagram



典型应用案例

Typical Application Cases

曹妃甸原油码头及配套设施振冲工程（2006年）

Cao Fei Dian Crude Oil Terminal and Supporting Facilities Vibroflotation Project in 2006

40套公司生产的BJV75E-426型号振冲器用于本项目原油储油罐和堆场码头的振冲挤密地基处理工程。

40 sets of BJV75E-426 vibroflot manufactured by our company are used in the vibro-compaction foundation treatment project of crude oil storage tank and storage yard wharf.



马来西亚关丹码头人工填海工程（2016年）

Guantan Port, Malaysia, Artificial Reclamation Project in 2016

公司生产的BJV180E-426型号振冲器顺利完成60万平米海上吹填砂的振冲挤密地基处理工程，平均处理深度为15米。

The type of BJV180E-426 vibroflot produced by our company successfully completed the vibro-compaction foundation treatment project of 600,000 square meters of offshore blown sand, with an average treatment depth of 15 meters.

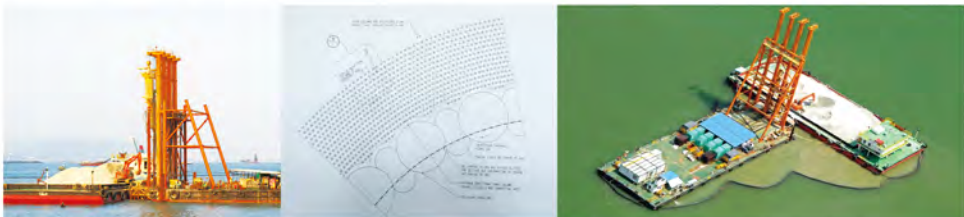




典型应用案例 Typical Application Cases

港珠澳大桥香港入境口岸人工岛海上干法底部出料振冲施工 (2012年) Dry Method Bottom Feed Vibroflotation Construction In Hongkong Immigration Port Artificial Island project of Hongkong - Zhu Hai-Macao Bridge in 2012

国内首例使用干法底部出料振冲施工工艺施工的振冲工程，公司生产的第一代干法底部出料振冲器顺利完成总长度6296米海堤沿线46,000根振冲碎石桩的海上施工，总进尺110万延米。
The first vibroflotation project using dry method bottom feed vibroflotation technology in China, the first generation of dry method bottom feed vibroflot produced by our company successfully completed the offshore construction of 46,000 vibroflot stone columns along the 6,296-meter seawall, with a total penetration of 1.1 million meters.



东帝汶帝巴湾新集装箱码头干法底部出料振冲施工 (2019年) Dry Method Bottom Feed Vibroflotation Construction in New Container Port Project of Tibar Bay, Timor Leste in 2019

本项目是继港珠澳大桥香港人工岛工程和以色列阿什杜德港工程，世界第三个大规模海上底部出料振冲碎石桩工程。公司研发和生产的BJZC-BFS-400-180干法底部出料成套振冲装备是此次施工的核心设备，其中海上部分采用自动化振冲施工并实现振冲碎石桩的全过程数据记录。

This project is the third large-scale offshore bottom feed vibroflotation construction after the Hong Kong Artificial Island Project of the Hong Kong - Zhuhai - Macao Bridge and the Ashdod Port Project of Israel in the world. Our company has developed and manufactured the BJZC-BFS-400-180 complete set of bottom feed equipment is the core product for this construction project. The offshore part adopted automatic vibroflotation proceeding and realized the whole process data recording of vibroflotation construction.



本项目设备顺利穿透SPT值50击的硬质地层并实现底部出料工艺的碎石桩制桩施工。
In this project, the stiff soil layer with SPT value of more than 50 blows were quickly penetrated and stone columns were successfully created by bottom feed method.





其它部分应用案例 More Application Construction Cases

1. 冀东油田1号构造2号人工岛工程地基处理工程
Foundation Improvement Construction for No.2 Artificial Island of No.1 Part of Jidong Oil Field
2. 迪拜德拉群岛开发振冲挤密工程
Vibro-Compaction Construction for Deira Islands Development Project, Dubai
3. 拉哇水电站上游围堰地基处理振冲碎石桩项目
Vibroflotation Gravel Pile Project for foundation treatment of upstream cofferdam of Lawa Hydropower Station
4. 以色列阿什杜德港地基处理振冲施工项目
Israel Ashdod Port Vibro-Compaction Construction
5. 菲律宾薄荷岛公路拓宽地基处理振冲碎石桩施工项目
Philippine Bohol Island Highway Widening Project Vibroflotation Stone Column Construction
6. 澳门路氹建筑物料堆填区堤堰建造工程
Vibro-replacement Construction for Burrock Construction Project of Materials landfill Area in Macao Cotai
7. 印度国家电力公司火电项目振冲碎石桩地基处理
India Chennai NTPC (National Thermal Power Corporation) Project Stone Column Construction
8. 缅甸振冲挤密工程
Vibro-compaction project in Myanmar
9. 厦门翔安国际机场工程
Xiamen Xiang'an International Airport Project
10. 墨西哥ENSENADA码头扩建项目
ENSENADA Terminal expansion project in Mexico
11. 香港三号飞机跑道工程
Hong Kong NO.3 runway project

1	2	3
4	5	6
7	8	9
10	11	

全方位振冲服务

Whole Process Sales Service

地质情况分析 Geological Analysis

公司拥有岩土技术的专家，协助客户对土质情况进行专业分析，并给出专业的岩土建议。
Giving the suggestion of feasible solution of foundation treatment

振冲方案辅助设计 Vibroflotation Design

通过岩土分析和计算，协助客户制定振冲法的设计方案，包括振冲桩的布置、桩深、桩径、填料数量等设计参数，以及质量控制和检测方式等振冲要点。

Formulation of vibroflotation design scheme, quality control method and testing method

振冲设备选型 Equipment Selection

根据工程的具体情况，结合技术要求、成本要求以及施工工期等因素，为客户推荐性价比最高的振冲设备型号和相关配套设备。

Recommendation of vibroflots model

施工组织方案 Construction Scheme

根据工程具体情况，协助客户制定可行的施工组织方案，包括施工机组的数量、施工阶段的设计以及施工顺序的设计。

Formulation of the feasible construction organization scheme



设备安装和调试服务 Installation & Commissioning Service

现场工程师抵达客户工地现场，指导设备的安装，并对设备进行调试，确保设备的正常运营。
Guiding the installation and commissioning of equipment

施工指导 Construction Guiding

具有丰富施工经验的现场工程师在工地对客户施工人员进行实际操演示和培训，协助客户施工人员了解振冲施工方法和质量控制方法。

Demonstration and training for the operation of vibroflot



专业桩工品牌联盟 Professional Piling Enterprise Alliance



中国桩工陆英会，简称陆英会，于2016年12月在无锡成立，是由泰信机械、振中机械、盾安重工、格雷安环保、北京达夫、北京振冲六家企业联合发起的以客户信息共享、联合市场推广为宗旨的国内专业桩工公司联盟。

陆英会是为响应中国桩工机械行业协会秘书长黄志明、郭传新等领导“融合共享、抱团发展”的号召和鼓励，集合桩工行业各细分产品的领先企业而成立。首次参加2016上海宝马工程机械展便取得了良好的效果和行业内的广泛关注。

目前会内企业分别是：小型旋挖钻机的领先品牌泰信机械、全回转钻机的领导品牌盾安重工、三十年振动锤制造商振中机械、领先的振冲器制造商北京振冲、泥浆处理器专业品牌格雷安环保、专业钻具品牌北京达夫、无锡鑫良钻具与阳谷昊泉机械制造。

Alliance of Piling Industry Elites of China (APIE for short) was founded in Wuxi in December 2016. PIEU was jointly initiated by six enterprises of Tysim Piling Equipment Company, Limited, Wenzhou Zhenzhong Foundation Construction Machinery Technology Co., Ltd., Xuzhou DunAn Heavy Industry Machinery Manufacture Co., Ltd., Xuzhou Greenan Environmental Equipment Co., Ltd., Beijing Tuff Equipment And Technology Co., Ltd., and Beijing Vibroflotation Engineering Machinery Limited Company. At present, the APIE is a corporate alliance for professional pile works within China and focuses on customer information sharing and joint marketing.

The APIE was founded through gathering leading enterprises in segmentation products of pile works industry as a result of responding to encouragement and inspiration from "Fusion Shared and Unified Development" put forward by leaders such as Huang Zhiming and Guo Chuanxin etc. of Branch Association of Pile Works under China Construction Machinery Association. The APIE received good effects and wide attention from the industry when it participated in Bauma Shanghai 2016 for Construction Machinery for the first time.

The APIE currently includes the following enterprises: the leading brand of Tysim Piling Equipment specialized in small rotary drilling rigs, the leading brand of DunAn Heavy Industry specialized in full-rotating drills, Zhenzhong Foundation Construction Machinery specialized in manufacturing vibratory hammers for 30 years, the leading manufacturer of Beijing Vibroflotation specialized in vibroflotation devices, the professional brand of Greenan Environmental Protection Equipment specialized in mud treaters, the professional brand specialized in drilling rigs, including Beijing Tuff, Wuxi Xinliang, and Yanggu Haoquan Machinery Manufacturing Co., Ltd.

桩工陆英会

Alliance of Piling Industry Elites



盾安重工-全套管全回转钻机 Dunan heavy industry -Casing Rotator

型号 Type	钻孔直径 (mm) Diameter of drill hole	扭矩 (kN.m) Rotary torque	回转速度 (rpm) Rotary speed	发动机功率 (kW/rpm) Engine Power
DTR1605H	Ø800-Ø1600	1525/906/512瞬时1744	1.3/2.2/3.9	201/2000
DTR2106H	Ø1000-Ø2100	3085/1823/1030瞬时3505	0.9/1.5/2.7	272/1800
DTR2605H	Ø1200-Ø2600	5292/3127/1766瞬时6174	0.6/1.0/1.8	410/1800

北京达夫-嵌岩捞砂斗 BJTUFF-Rock Drilling Bucket

切削直径 (mm) Cutting Dia	筒体高度 (mm) Shell HIT	筒体壁厚 (mm) Shell THK	齿数 Teeth No	重量 (kg) Weight
φ800	1200	16	9	950
φ1500	1200	20	16	2250
φ2500	800	20	27	5600

振中机械-JZB240多轴钻孔机 Zhenzhong piling equipment -JZB240 multi-shafts drill rig

桩架高度 (mm) Height of pile frame	立柱导轨中心距 (mm) Center distance of mast guide rail	最大拔桩力 (kN) Max. Pulling force	平台回转角度 (°) Swing angle of platform	桩架总质量 (t) Total weight of pile frame
42000	600/φ102	700	±10°	138

泰信机械-全液压力式旋挖钻机 Tysim Piling Equipment-Rotary Drilling Rig

型号 Type	最大输出扭矩 (kN.m) Max.torque	最大钻孔直径 (mm) Max.drilling diameter	最大钻孔深度 (m) Max.drilling depth	主卷扬最大提升力 (kN) Main winch pull force
KR90C	90	1000/1200	36/28	90
KR125A	125	1300/1500	43/37	110
KR220C	220	1800/2000	64/51	230

振冲机械-振冲器 BVEM-Vibroflot

型号 Type	功率 (kW) Power	额定电流 (A) Rated Current	最大转速 Max rotation speed	振动力 (kN) Vibration power
BJV75E-426	75	148	1450	180
BJV180E-426	180	350	1450	276
BJV260E-450	260	500	1450	520

格雷安环保-RMT250D泥浆净化装置 Greenan Environmental-RMT250D Desander

最大泥浆处理量 (m³/h) Max. capacity	装机总功率 (kW) Total power	主泵电机功率 (kW) Main pump motor power	振动电机功率(单台) (kW) Vibration motor power	设备运输尺寸(L×B×H) (m) Transportation dimension
250	58	55	1.5x2	4.16×2.29×2.52

阳谷昊泉-桩工旋挖截齿 Yanggu Haoquan-Piling rotary cutter bits

特点	1、合金：超粗颗粒低压烧结硬质合金； 2、耐磨层：超硬耐磨层 HRC:60-65 3、专利设计，加速齿体旋转，延长使用寿命； 4、高强度卡簧，坚固耐用不易脱落； 5、专利号：ZL 2010 2 0196489.1	1.carbide :coarse particle low pressure cemented carbide; 2.wearing layer:Superhard wear layer; 3.Patented Design,Accelerate tooth rotation,increase of service life; 4.High strength clamp spring,Strong and durable, not easy to fall off. 5.patent number:ZL 2010 2 0196489.1.
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鑫良-旋挖钻头，截齿，护筒及全套管 Xinliang-Rotary drill bit, pick, casing and full casing

特点	1、采用高强度管线钢，耐磨钢及其他特种材料； 2、钢材屈服强度在500-1200之间，抗扭能力强； 3、95%数控下料，精度高； 4、可以根据不同地层设计钻具，从而提高施工效率。	1.High-strength pipeline steel, wear-resistant steel and other special materials are used; 2.The yield strength of the steel is between 500-1200, and the torsion resistance is strong; 3.CNC makes 95% processing, achieving high precision; 4.Drilling tools can be designed according to different strata to improve construction efficiency.
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