



北京振冲工程机械有限公司

BEIJING VIBROFLOTATION ENGINEERING MACHINERY CO.,LTD

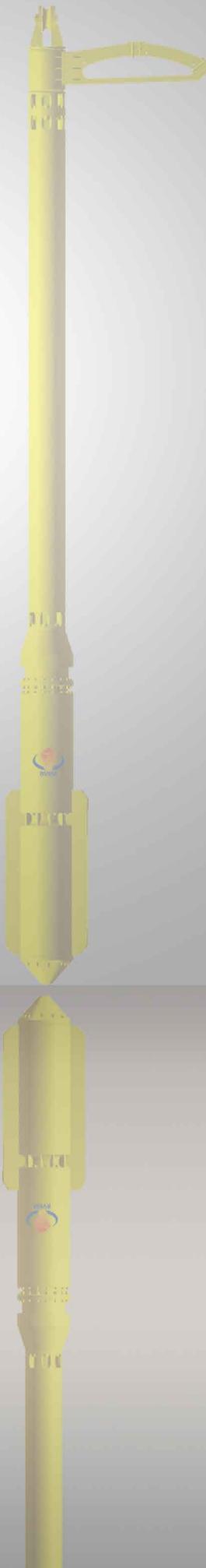
Tel: 86-010-89579272 Fax: 86-010-69592173

Web: [www.chinazcq.com](http://www.chinazcq.com)

Mail: [BVEMCHINA@hotmail.com](mailto:BVEMCHINA@hotmail.com)

Add: 北京市通州区宋庄镇小堡环岛往东500米

Songzhuang Country,Tongzhou District,Beijing,China



打造精品，为振冲人服务  
Outperform to serve vibroflotation

BVEM



北京振冲工程机械有限公司  
Beijing Vibroflotation Engineering Machinery Co.,Ltd.

# 打造精品 为振冲人服务

Outperform to Serve Vibroflotation



BVEM 1

## 公司简介 Profile

### 行业领导 Leadership

北京振冲工程机械有限公司是中国振冲行业的领导企业-北京振冲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 Beijing Vibroflotation 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

专注于振冲市场，形成以振冲技术为核心，以振冲成套设备研发生产与集成、振冲技术咨询与振冲成套设备销售和服务，以及地基处理工程施工承接为业务平台的经营模式。

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.

### 业务覆盖 Market Reach

业务范围覆盖广泛，涉及包含电力、交通、石化、港口、机场以及房建等多个行业的工程建设领域；在中国以外，公司业务已经延伸至世界范围的三十多个国家，是全世界振冲施工工程的重要参与者。

The business covers a wide range of engineering construction fields including power, transportation, petrochemical, port, airport and housing construction. Outside of China, BVEM's business has been extended to more than 30 countries worldwide, and it is an important participant in vibroflotation construction projects all over the world.

BVEM 2

## ○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

Foundation treatment construction undertaking, execution and management

## ○公司愿景 Company Vision

打造精品，为振冲人服务

Outperform to Serve Vibroflotation

## ○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

## 公司荣誉 Company Honor

总公司北京振冲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, BVEC 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

国内第一个底部出料振冲器的研发者及成套设备的供应商

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

Researcher and developer of vibroflotation whole process quality control and management

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

全世界三十多个国家的市场覆盖

More than 30 countries market coverage



# Vibroflot Classification

## 振动器分类 - 孔口填料振动器 Top Feed Vibroflot

### BJV-377 系列 BJV-377 Series

适用于孔口填料振动施工  
Used for top feed vibroflotation construction

采用获得国内专利的高性能、长寿命振动器专用电机  
Adopt the special motor for vibroflot with high performance and long life obtained national patent

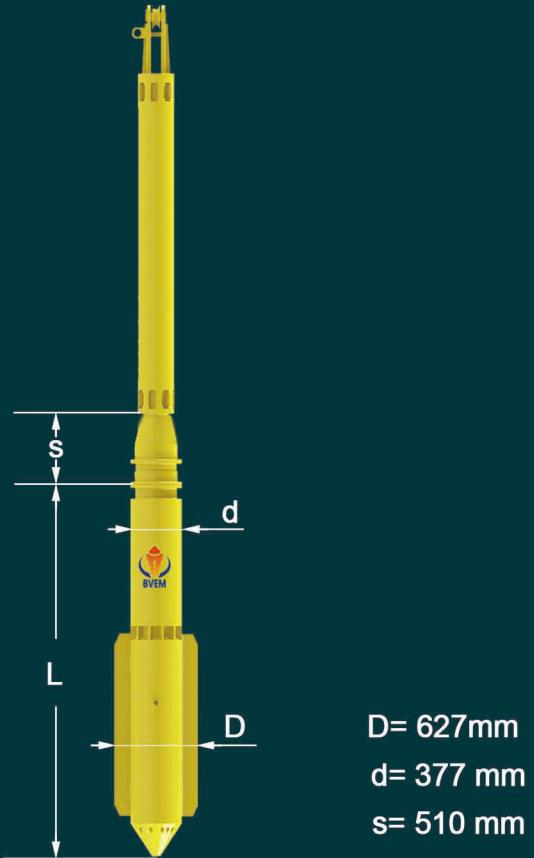
振动主体由强度高、韧性好的整体铸钢锻造  
The main body of vibroflot is forged by cast steel with high strength and good toughness

采用经热处理的整体锻件耐磨连接法兰  
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.

振动器外径为377mm  
Outside diameter of vibroflot is 377mm

常用于振动挤密施工和制桩直径范围700-1200mm的振动碎石桩施工  
It is often used in vibro-compaction and vibro-replacement construction with the diameter range of 700-1200mm



### BJV-426 系列 BJV-426 Series

孔口填料振动器BJV-426系列 Top Feed Electric BJV-426 Spec.								
型号/Mode	功率/Power (kW)	额定电流/Rated current (A)	最大转速/Max rotation speed (rpm)	最大振幅/Max amplitude (mm)	振动力/Vibration power (kN)	质量/Weight (kg)	外径/Outer diameter (mm)	长度/Length (mm)
BJV75E-426	75	148	1450	15	175	2045	426	2785
BJV100E-426	100	195	1450	17	195	2170	426	2885
BJV130E-426	130	255	1450	15	195	2250	426	2965
BJV180E-426	180	356	1450	23	280	2320	426	3020

适用于孔口填料振动施工  
Used for top feed vibroflotation construction

获得国内专利的高性能、长寿命振动器专用电机  
The special motor for vibroflot with high performance and long life obtained national patent

振动主体由强度高、韧性好的整体铸钢锻造  
The main body of vibroflot is forged by cast steel with high strength and good toughness

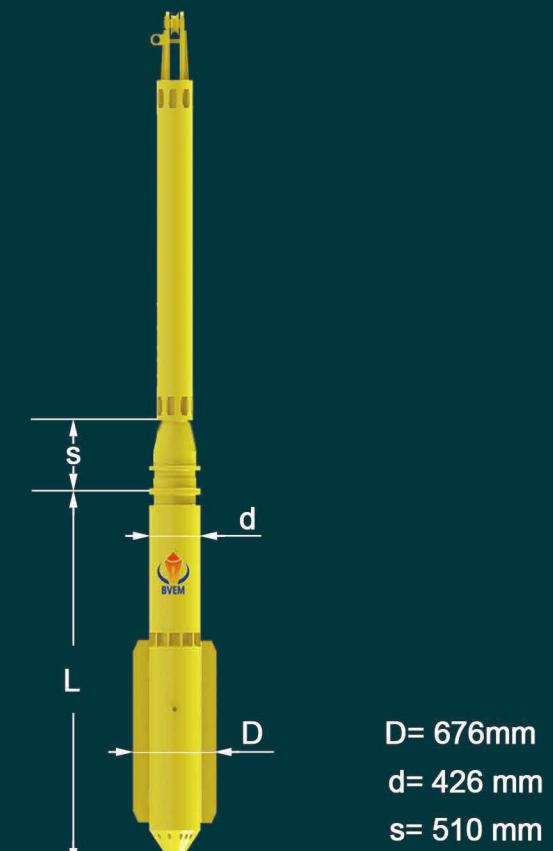
采用经热处理的整体锻件耐磨连接法兰  
Adopt the wear-resisting connection flange of integral forging after heat treatment

采用内嵌自锁式高强螺栓连接  
The high-strength bolt with embedded self-locking is adopted.

振动器外径为426mm  
Outside diameter of vibroflot is 426mm

常用于振动挤密施工和制桩直径范围800-1500mm的振动碎石桩施工  
It is often used in vibro-compaction and vibro-replacement construction with the diameter range of 800-1500mm

孔口填料振动器BJV-377系列 Top Feed Electric BJV-377 Spec.								
型号/Mode	功率/Power (kW)	额定电流/Rated current (A)	最大转速/Max rotation speed (rpm)	最大振幅/Max amplitude (mm)	振动力/Vibration power (kN)	质量/Weight (kg)	外径/Outer diameter (mm)	长度/Length (mm)
BJV75E-377	75	148	1450	16	175	1920	377	3000
BJV100E-377	100	195	1450	18	195	1980	377	3105
BJV130E-377	130	255	1450	17	195	2050	377	3245
BJV180E-377	180	356	1450	16	195	2150	377	3335



# Vibroflot Classification

## 振冲器分类 - 孔口填料振冲器 Top Feed Vibroflot

### 其他系列 Others Series

#### BJV260E-450

目前国内最大功率有成熟应用的电动振冲器

Mature electric vibroflot with maximum power in China

采用高性能进口轴承

High performance imported bearing

振冲挤密施工中更高的效率

Higher efficiency in vibro-compaction construction

振冲碎石桩施工时更强的土层穿透能力更大桩径的制  
桩能力

Stronger penetrating capacity and bigger diameter of stone  
column creating ability

BJV260E-450 振冲器 / BJV260E-450 Vibroflot Spec.

功率/Power (kW) 260

最大转速/Max rotation speed (rprn) 1450

最大振幅/Max amplitude (mm) 25

振动力/Vibration power (kN) 440

质量/Weight (kg) 2980

外径/Outer diameter (mm) 450

长度/Length (mm) 3310

### 其他系列 Others Series

孔口填料振冲器其他系列 Top Feed Electric Others Spec.

型号/Mode	功率/Power (kW)	额定电流/Rated current (A)	最大转速/Max rotation speed (rpm)	最大振幅/Max amplitude (mm)	振动力/Vibration power (kN)	质量/Weight (kg)	外径/Outer diameter (mm)	长度/Length (mm)	需定制/customization
BJV55E-325	55	108	1450	15.5	117	1240	325	2560	Y
BJV75E-325	75	148	1450	14	117	1368	325	2700	Y
BJV55E-377	55	108	1450	14	138	1560	377	2500	Y
BJV180E-402	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 Hanging 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 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 Vibration Damper

消除振冲器振动对导杆的振动影响。

Reduce the impact of vibration

4. 电机 Motor

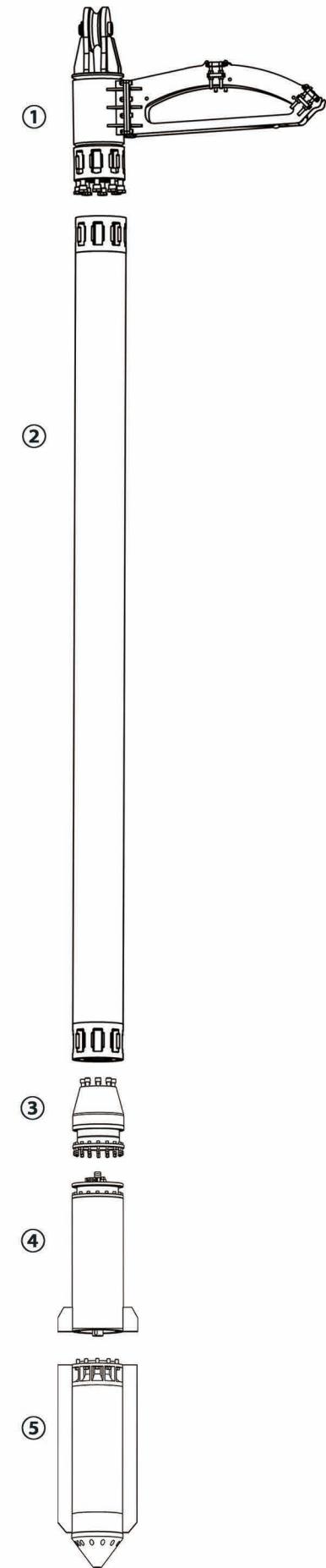
用于带动振冲器偏心块转动。

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，并通过加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



# Vibrofloat Classification

## 振动器分类 - 孔口填料振动器 Top Feed Vibrofloat

### 配件 Accessories

#### 1. 吊头 Hanging Head

同时具备起吊连接和挑线横拉杆的功能

Multiple function of lifting connection and cables/water pipes outrigger beamd at the top of the vibrofloat and can be connected with the crane hook

适用于多种振动器

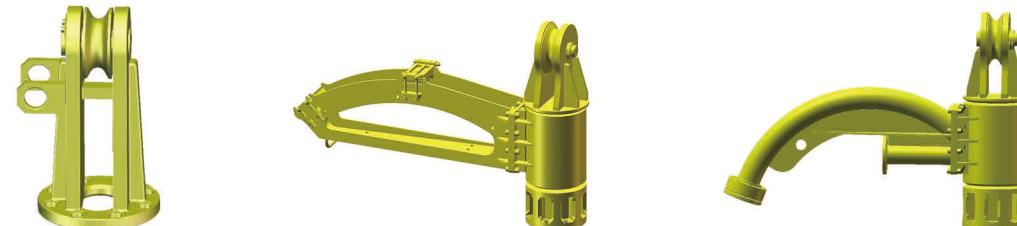
Applicable for different types of vibrofloat

独特的弧度设计有效减小对电缆和水管的磨损

Unique curved design reduces wear on cables and water pipes

可实现导杆直接充入高压水

Through it, The extension tube can be directly filled with high pressure water



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

#### 2. 导杆 Extension Tube

多种壁厚和直径，可满足不同需求

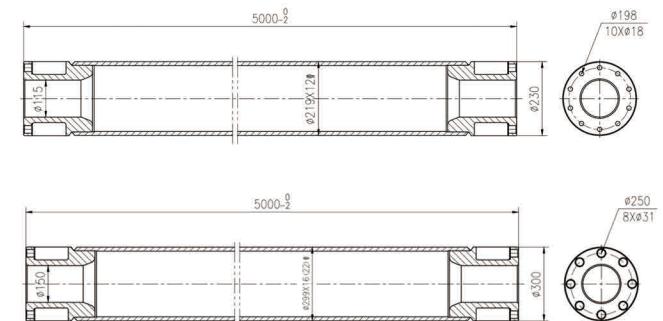
A variety of wall thickness and diameter, can meet different requirements

可定制多样化长度规格，灵活处理不同桩长的施工

Diversified length specifications can be customized to flexibly handle the construction with different pile lengths

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



Type/型号	H12	H16	H22
Size/尺寸 (mm)	Ø219*12*2m-7m	Ø299*16*2m-7m	Ø299*22*2m-7m

# Vibrofloat Classification

## 振动器分类 - 孔口填料振动器 Top Feed Vibrofloat

### 配件 / Accessories

#### 3. 减震器 Vibration Damper

高强度整体铸造

High strength integral cast steel forging

填充优质橡胶，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



Type/型号	377	X 130	260
Size/尺寸 (mm)	Ø377*Ø150*510	Ø426*Ø150*510	Ø450*Ø150*1190
Weight/ 重量(kg)	190	260	620

#### 4. 电控柜 Electrical Cabinet

使用优质电气元件装配，采用IP65防护等级

Use high quality electrical components assembly, IP65 protective grade

开放式对外电源和控制开关接口，可实现对多种设备(振动器、水泵)的启停控制和连接（数据记录仪）

Open-type interface for external power and control switch, can realize the start and stop control of a variety of equipment (vibrator, 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/供应系统	TN-S
Frequency/频率(Hz)	50Hz
Voltage/电压(V)	380V±5%



# Vibroflot Classification

## 振动器分类 - 底部出料振动器 Bottom Feed Vibroflot

### 底部出料振动器 BJZC-BFS-400-180



配套采用大功率180KW振冲器，在钻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方法

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 special circulating water cooling system can protect the motor to run normally for a longer 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

The Bottom Feed Electrical Vibroflot Spec. /底部填料电动振动器参数	
Type/型号	BJZC-BFS-400-180
Power/功率 (kW)	180
Frequency/频率 (Hz)	40-60
Rotation speed/转速 (rpm)	1200-1800
Working pile diameter/ 工作桩径(mm)	900-1200
System air pressure/系统压力 (bar)	6
Centrifugal force/激振力(kN)	200-300
Hopper capacity/料斗容积(m³)	1.2
Feeding pipe inner dia./下料管通径(mm)	DN250
Electrical control mode/控制形式	Inverter drive/变频控制
Cooling mode/电机冷却方式	Circulating water cooling/循环水冷
Air flow rate/配置空压机排量 (m³/min)	10
Vibrator size/振动器尺寸L/W/H (mm)	2600×600×700
Stock bin size/料仓尺寸L/W/H (mm)	4800×1300×1300
Extension tube size/导杆尺寸L/W/H (mm)	12000×300×600
Total weight (Standard part+Extension tube)/ 标配设备重量+导杆(ton)	9+1.3×n(pcs of tube)

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 type of bin valve ensures smooth blanking and reduces equipment failure

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

By the open-type external interface, multiple type of lifting machine including crane,rotary drilling rig,pile frame and excavator can be applicable.

### 底部出料成套设备的组成

#### Component of Complete Set of Vibroflot

##### 1. 料斗支架 Hopper Shelf

用于辅助提升料斗实现翻转操作。

Used to assist lifting hopper realize turnover operation

##### 2. 提升料斗 Lifting Hopper

##### 3. 料仓 Material Container

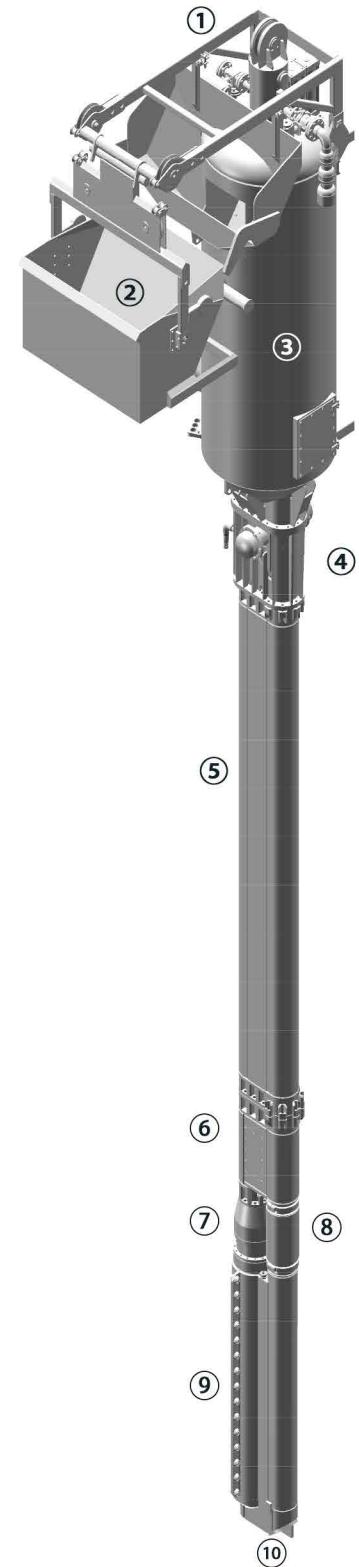
采用双锁压力仓。通过阀门控制，实现石料的存储和下落，同时使下料管中持续保持空气压力。

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.

##### 4. 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



##### 5. 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

##### 6. 接线盒 Electrical Connector

##### 7. 振冲器减震器 Damper via Vibrator

用于缓冲振动器振动时对导杆影响的阻尼装置。

A damping device used to reduce the impact of vibration to feeding tube

##### 8. 料管减震器 Damper via Feeding Tube

用于缓冲振动器振动时对下料管影响的阻尼装置。

Used to reduce the impact of vibration to feeding tube

##### 9. 振冲器 Vibrator

##### 10. 料管下料口 Feeding Head

# Vibroflot Classification

## 振冲器分类 - 底部出料振冲器 Bottom Feed Vibroflot

### 底部出料振冲器的定制化生产

#### Customization of Production for 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 offerable), 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 extension 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 open 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，以下通常不适用振冲法的情形也可以通过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, 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 or offshore stone column construction

#### 3. 对成桩直径有严格要求的工程

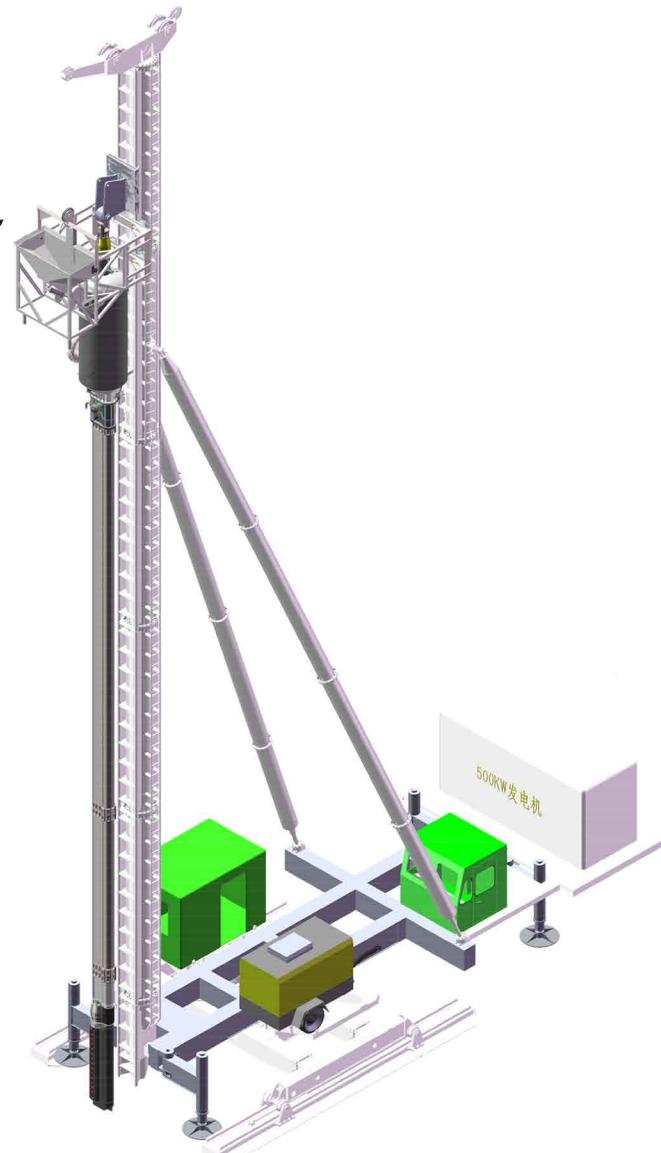
Projects under the strict controlling of pile diameter

#### 4. 限制大量使用水资源的区域

Place where the water resource are used in limitation

#### 5. 对污水排放有限制的区域

Place where the waste water are strictly prohibit to discharge



# Vibroflot Classification

## 振动器分类 - 底部出料振动器 Bottom Feed Vibroflot

### 控制系统 Electrical Control System

#### 1. 振动器变频控制柜 Inverter Control Technique

柜体安全防护等级IP65。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 IP65. 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

有效控制振动器启动过程中电流的平稳变化，在对振动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  
Facilitate the vibrator can be started in a relatively smooth acceleration curve, reduce the impact to power supply system while protect vibrator mechanical parts out of damage

可根据需要通过调整振动器工作频率，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



Technical spec./技术参数	Inverter control cabinet/变频控制柜
Cabinet protection grade/保护等级	IP65
Input/输入频率(Hz)	47~63Hz
Input/输入电压(V)	AC380V(-15%)~440V(+10%)
L/W/H(m)	1.1×9×1.7
Weight 重量/kg	500

#### 2. 料仓控制柜 MATERIAL CONTAINER Control System

柜体安全防护等级IP65，可在户外、海边等恶劣条件下长期使用  
Adopt IP65 protective grade, can be used in tough environment(out-door, sea-site)

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

为干法振动器电机提供高效降温，保障设备正常工作  
Providing efficient cooling for dry method vibroflot motor to guarantees the 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IP65  
Protective grade is IP65

# Whole Process Quality Control Data Recorder

## 全过程质量控制记录仪

### 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 starting and stopping operation of vibrator and water pump

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

Supporting data analysis software by which a group of visual data curves can be created

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

### 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 mode. Can be used within 100 meters scope

采用彩色触屏，操作直观方便快捷

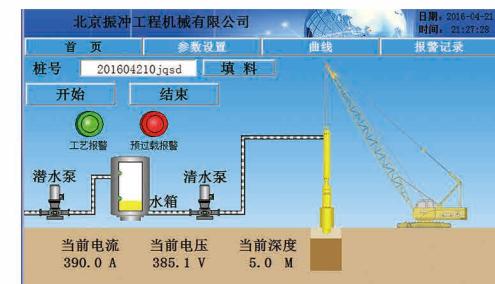
Adopt color touch screen to facilitate the intuitive and convenient operation

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



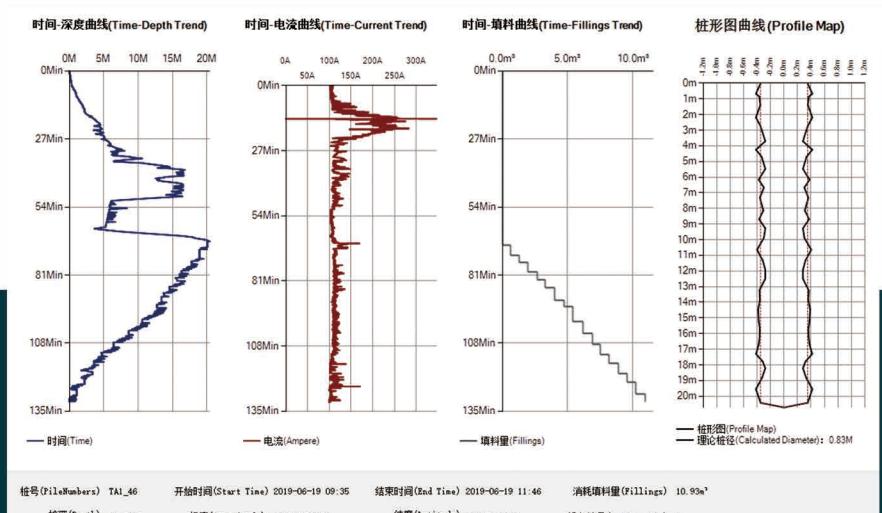
### 可视化数据处理 Visual Data Proceeding

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 created by a data processing software

可形成实际桩形图和平均桩形图

Actual pile shape graph and theoretical pile shape graph can be created.



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

# Typical Application Case

## 典型应用案例

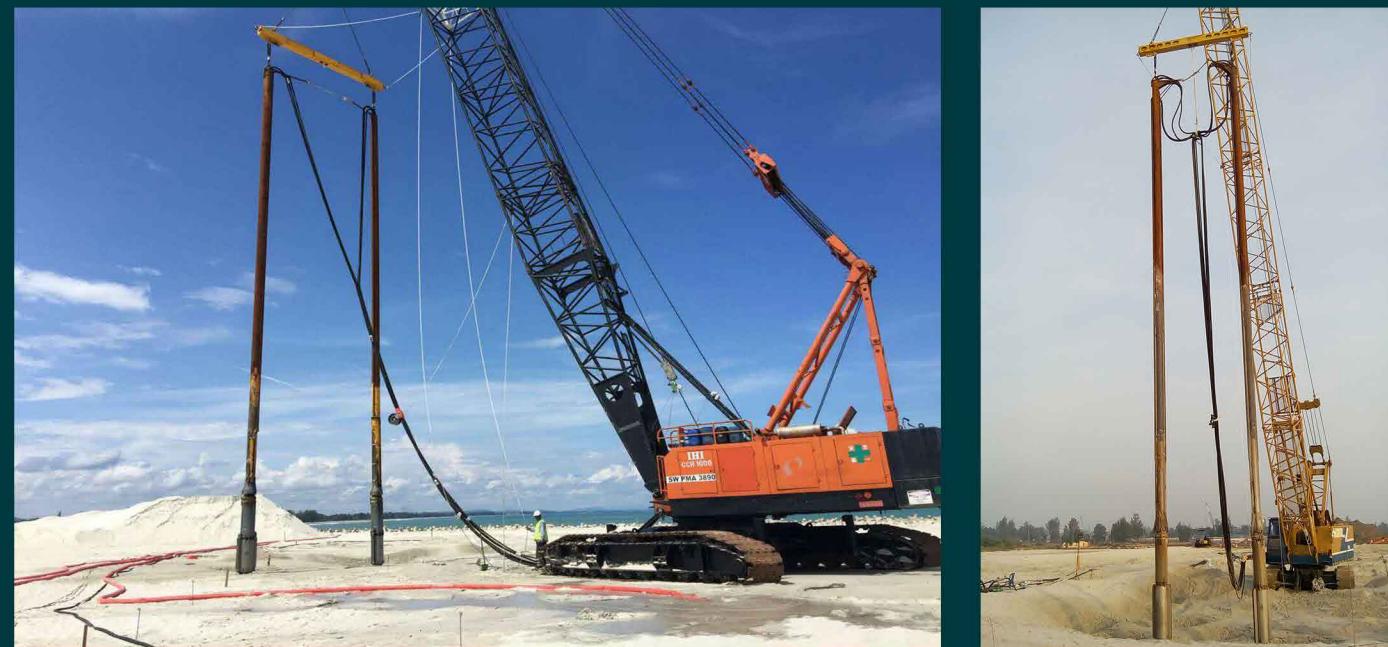
曹妃甸原油码头及配套设施振冲工程  
(2006年)

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



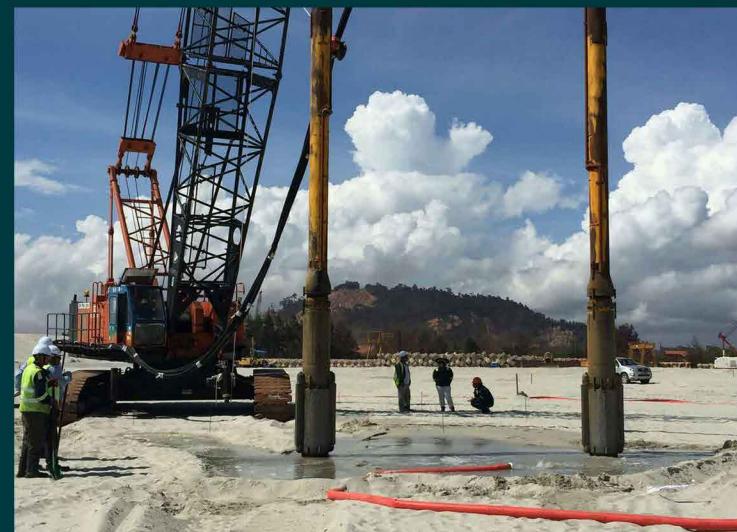
40套我公司生产的BJV75E-426型号振冲器用于本项目原油储油罐和堆场码头的振冲挤密地基处理工程，最大处理深度达到30米。

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, with the maximum treatment depth reaching to 30 meters.



马来西亚关丹码头人工填海工程 (2010年)  
Guantan Port, Malaysia, artificial Reclamation Project in 2010

我公司生产的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.





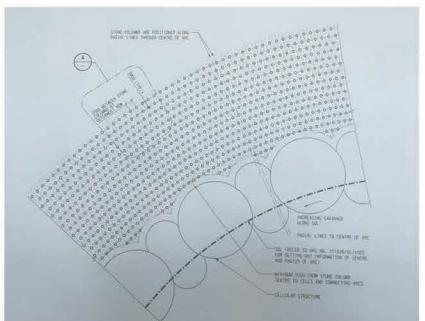
## Typical Application Case 典型应用案例

**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（2014年）  
Dry Method Bottom Feed Vibroflotation Construction In Hongkong Immigration artificial Island project of Hongkong -Zhu Hai- Macao Bridge in 2014**



国内首例使用干法底部出料振冲工艺施工的振冲工程，我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 seawall with a total length of 6296 meters, with a total length of 1.1 million linear 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

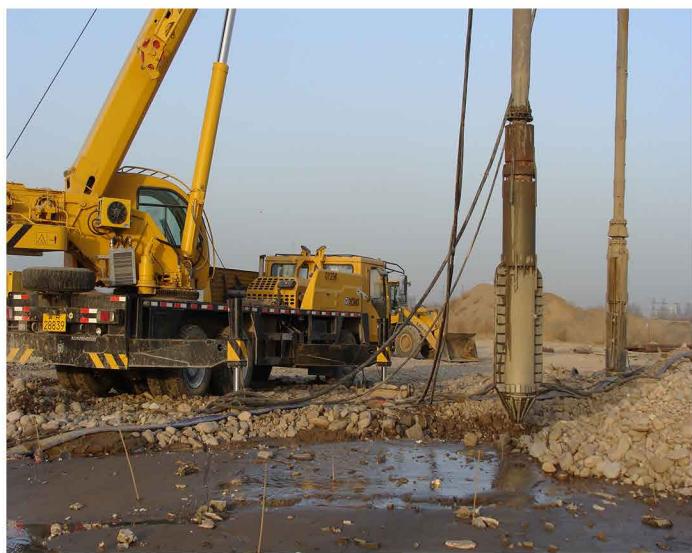
本项目是继港珠澳大桥香港人工岛工程和以色列阿什杜德港工程后，世界范围内第三个大规模海上底部出料振冲碎石桩工程。我公司研发和生产的BJZC-BFS-400-180干法底部出料成套振冲设备担当此次施工的核心设备。其中海上部分采用自动化振冲施工并实现振冲碎石桩的全过程数据记录。

This project is the third large-scale offshore bottom feed vibroflotation construction in the world after the Hong Kong Artificial Island Project of the Hong Kong - Zhuhai - Macao Bridge and the Ashdod Port Project of Israel. Dry method bottom feed vibroflot of BJZC-BFS-400-180 model, developed and produced by our company, were the core equipment for this construction. 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 Other Parts Application Case

1. 冀东油田1号构造2号人工岛工程地基处理工程  
Foundation Improvement Constructivon 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. 北京三海子郊野公园碎石桩工程  
Beijing Sanhaizi Country Park Vibroflotation Stone Column Construction
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 Cota
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

1 | 2  
3 | 4  
5 | 6 | 7



# Whole Process Sales Service 全方位振冲服务

## 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

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 vibroflotation.



## 专业桩工品牌联盟 Professional Piling Enterprise Alliance

全套管钻机行业标准制定者  
Maker of Casing Rotator Series Standards



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会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、领先的振动器制造商北京振冲、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。

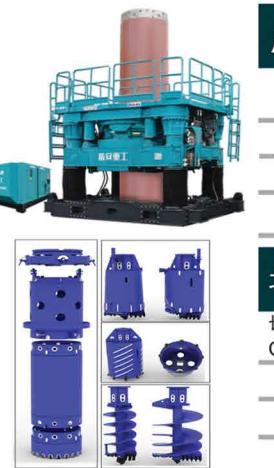
Alliance of Piling Industry Elites of China (APIE for short) was founded in Wuxi in December 2016. APIE was jointly initiated by six enterprises of Tysim Piling Equipment Company, Limited, Wenzhou Zhenzhong Foundation Construction Machinery Technology Co., Ltd., Xuzhou DunAn Heavy Industry Machinery 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 (kpm) 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
BVJ75E-426	75	148	1450	180
BVJ180E-426	180	350	1450	276
BVJ260E-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
---	--

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.
---	---