

专业服务 创造价值

Professional Solutions Create More Value

连续墙 钻孔机系列

Agitating Auger



百年历史积淀，孕育强大技术创新实力，产品屡次刷新行业施工能力纪录。筒式柴油打桩锤、全液压步履式打桩架、全液压履带式打桩架、多轴式连续墙钻机、TRD工法机、植桩工法钻机等一批产品领跑市场，已成为桩工机械行业的标杆。



上海工程机械厂有限公司（以下简称上工机械），成立于1921年。长期以来始终专注于地下基础施工领域，专业为高速公路、高层建筑、桥梁、地铁、机场、码头、电站等大型、特大型工程提供地下基础施工设备和整体解决方案，包括TRD工法机、静钻根植工法钻机、全回转套管钻机、DCM处理系统、双动力头钻机、多轴式连续墙钻机、全液压步履式打桩架、全液压履带式打桩架、筒式柴油打桩锤、电驱振动锤、液压打桩锤等多种产品系列。

Shanghai Engineering Machinery Co., Ltd. (SEMW)—founded in 1921. SEMW is specialized in design, manufacturing and distribution of pile driving and deep foundation equipment. SEMW currently produces Trench Cutting & Re-mixing Deep Wall Equipments, SDP110 Pre-bored Pre-cast Piling Equipment, CRD-200H Casing Rotator, Deep Cement Mixing System, Dual Power Drilling Rig, Multi-shaft Agitating Augers, Hydraulically driven Pile Driving Rigs, Hydraulic Walking Piling Rigs, D series Diesel Pile Hammers, Vibratory Hammers, Hydraulic Hammers. Our products are widely used on high profile and long term engineering projects, such as, expressways, skyscrapers, bridges, metro stations, airports, deep-water docks, and power stations.

上工机械始终坚持自主创新，不断推动地下基础施工行业的发展与进步。公司以研发部作为新产品研发平台，拥有一支专业知识扎实、开发经验丰富的技术研发团队。近年来，公司先后获得了上海市高新技术企业、上海市科技小巨人（培育）企业、上海市专利试点企业、上海市著名商标、上海市名牌产品、上海市科技进步一等奖、国家科技进步二等奖等荣誉称号。

SEMW has been dedicated to deep foundations. With years of independent research and development, specialized piling equipments have been produced and used in many big and Key projects of China. We built up a Research and Develop team of qualified specialists and experienced engineers. In recent years, SEMW products have been awarded "Shanghai New Hi-tech Achievement Transformation Project", "Shanghai Famous Trademark", "First prize of Shanghai Scientific and Technological Progress Award", "Second prize of national science and technology progress", etc.

With a hundred years of history, we have developed strong technological innovation strength our products repeatedly refresh the industry construction capacity record. Piles of products lead the market, such like Diesel Pile Hammer, Hydraulic Walking Piling Rig, Hydraulic Pile Driving Rig, Multi-shaft Agitating Auger, Trench Cutting & Re-mixing Deep Wall Equipments, Pre-bored Pre-cast Piling Equipment, have become a benchmark in the piling machinery industry.



你需要的不只是一台钻机，而是一个解决方案

WHAT YOU NEED IS NOT JUST A DRILLING RIG, BUT A TURNKEY SOLUTION.

作为地下基础施工整体解决方案提供商，上工机械始终坚持“专业服务，创造价值”的发展理念，力求为客户创造更大经济效益。追求更高客户满意度，是我们不懈的目标。

"Professional Solutions Create More Value." SEMW delivers on the promise of making more and more benefit for our customers and satisfying their needs. We will keep providing good products and better service.

选择上工机械的 6大理由

TOP 6 REASONS TO CONSIDER SEMW EQUIPMENTS



术业专攻 PROFESSIONAL MANUFACTURER

国内较早从事地下基础施工机械，专注地下基础施工机械设计制造数十载

SEMW used to be the first deep foundation equipment manufacturer in China. For now, we are dedicated to design and produce deep foundation machines for over a decade.



强势产品 GOOD PRODUCTS

产品性能优越，质量稳定可靠，产品始终是我们的核心竞争优势

Our products feature super power, high efficiency, and stability, which deliver excellent productivity for a variety of soil conditions.



市场地位 INCREASING MARKET SHARE

数十年来，市场占有率一直位列国内地下基础施工机械市场前茅，一直被模仿，从未被超越

For a decade, our increasing market share in domestic deep foundation industry never been surpassed by the competitors.



服务保障 BETTER SERVICE

提供从售前到售中、售后全方位的差异化增值服务，保障客户效益的更大化

Provide a comprehensive range of differentiated value-added services from pre-sale to in-sale and after-sale to maximize customer benefits.



案例保证 SUCCESSFUL CASES

施工案例遍布世界多个地区，广受客户好评

Our products are well received around the world with those successful cases.



优势资源 EXPANDED RESOURCES

完善的供应链资源，满足客户的各种需求

We have fully developed supply chain resources for better serving our customers.

上工机械3大系列8款钻机产品，总有一款适合你

ZLD系列、ZLD超强系列、ZLD超级系列多轴式连续墙钻孔机 是应用于SMW工法的新一代地基加固施工设备，达到国际先进水平，具有完全自主知识产权，拥有多项国家技术专利，可广泛应用于高层建筑、地铁车站的深基坑围护，江河堤坝的防渗加固和软土地基的改良加固等工程施工。

SEMW Agitating Augers of 3 ranges/ 8 product models, it is your best choice!

ZLD-M₂ series, ZLD-M₂-S series, ZLD-M₂-CS series, are new generation of SMW method equipment. The Auger with advanced technology owns completely independent intellectual property rights and several national patents. It is widely used in tall building, metro stations, dam and levee remediation, soft soil foundation reinforcement.



ZLD系列三轴式连续墙钻孔机

ZLD系列三轴式连续墙钻孔机是上工机械推出的适合于软地基施工的钻机系列，以其成熟的技术、卓越的性能和稳定的质量，为施工单位创造了良好的经济利益

ZLD series is suitable for soft soil foundation reinforcement. It features mature technology, high efficiency and stability.



技术性能特点 FEATURES:

1 采用三轴钻进方式，钻掘性能优异、作业效率高；
Drilling with three pipes, provide high performance and high efficiency.

2 采用特制恒功率电动机，起动转矩大、绝缘等级高、过载能力强；
Special design electric motor provides high torque and overload.

3 采用高强度结构设计，结构紧凑、自重轻、导向精度高、整机稳定性强，成槽精度高，地下连续墙垂直度在0.5%以下；
Compact structure, light in weight, highly precise and stable.





4

施工过程中无振动、低噪音、无泥浆污染，节能环保；
Low noise and environment friendly

5

采用短钻头结构，钻头维护更方便；
Short drill head and easy maintenance

6

通过钻杆叶片的强制搅拌，使连续墙上下墙体均匀、密实度一致，有利于墙体强度和防渗能力的提高；

Mixing while drilling through blades on the drilling tool, assures a high quality homogeneity wall. Highly impermeable.

7

可配置多种作业底盘，满足多弯道、小半径堤坝和普通地基的施工作业；

Suitable for various earth conditions, such as, job sites with corners, small radius dams, etc.

8

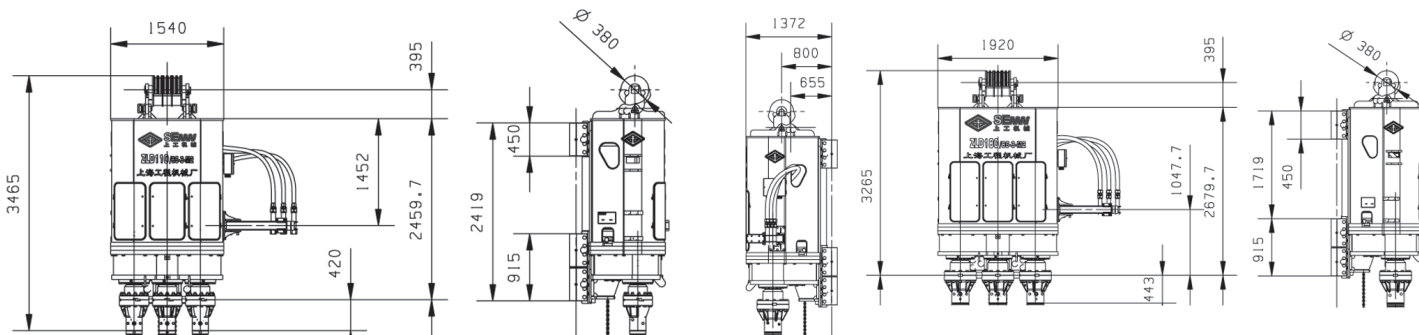
钻掘能力大，ZLD 180/85-3-M₂加固深度可达30m，
ZLD180/85-3-M₂成槽厚度达到850mm，
ZLD110/65-3-M₂成槽厚度达到650mm

High drilling capacity, SMW wall of ZLD 180/85-3-M₂ max depth of 30m,
width of 850mm (ZLD 180/85-3-M₂)
width of 650mm (ZLD 110/65-3-M₂)

产品技术参数 SPECIFICATIONS

项目 Item	单位 Unit	ZLD110/65-3-M ₂	ZLD180/85-3-M ₂
钻孔直径 Drilling diameter	(mm)	Φ650 × Φ650 × Φ650	Φ850 × Φ850 × Φ850
钻杆中心距 Center distance between drilling pipes	(mm)	450 × 450	600 × 600
最大钻孔深度 Max.drilling depth	(m)	30	30
钻杆额定转速 Rated speed of shaft	8P (r/min)	中19/外20.1 Middle:19/Lateral:20.1	中16.6/外19 Middle:16.6/Lateral:19
钻杆额定扭矩 Rated torque of shaft	8p (kN·m)	中18.4/外17.4 Middle:18.4/Lateral:17.4	中34.5/外30 Middle:34.5/Lateral:30
钻杆直径 Diameter of shaft	(mm)	Φ219	Φ273
钻杆基本长度 Basic length of shaft	(m)	3、6、9.3、9.8	3、6、9.3、9.8
标准配置钻具长度 Standard drill length	(m)	29.1	32.4
电动机额定功率 Rated power of motor	(kW)	110 (55 × 2)	180 (90 × 2)
导轨中心到钻杆中心距离 Center distance between guide and shaft	(mm)	840	940
导轨中心到滑轮中心距离 Center distance between guide and sheave	(mm)	655、800	655、800
导轨中心距 Center distance between guides	(mm)	600 × Φ102	600 × Φ102
钢丝绳直径 Diameter of wire rope	(mm)	Φ20	Φ20
滑轮个数 Number of sheaves	(个)	6	6
配用浆、气管内径 Inner diameter of cement and air hose	(mm)	50.4	50.4
配用浆、气管接头尺寸 Joint for cement and air hose		3-R,2	3-R,2
操纵方式 Operating control		电气控制 Electric control	电气控制 Electric control
总重量 Total weight	(t)	约23 About 23	约33 About 33
配套桩架 Supporting piling rig		不低于JB160A、SPR115 Same standard as SEMW JB160A、SPR115	不低于JB160A、SPR135 Same standard as SEMW JB160A、SPR135

技术参数的更改恕不另行通知。 Specifications are subjected to change without prior notice.



ZLD110/65-3-M₂

ZLD180/85-3-M₂

ZLD超强系列三轴式连续墙钻孔机

ZLD超强系列三轴式连续墙钻孔机是上工机械自主研发的钻机系列，拥有多项国家授权的专利技术，能够适应多种土质地基，是广大施工单位的理想选择。

ZLD-M₂-S series Agitating Auger is a new generation of SMW method equipment. The Auger has reached international advanced level and with completely independent intellectual property rights. It is suitable for foundation reinforcement in different soil conditions.



技术性能特点 FEATURES:

1 复杂地层适应能力更强

Super Bored Torque and High Capacity

- 采用大超载倍数恒功率电机。
- 加大了减速机的传递扭矩能力。
- 各齿轮轴、齿轮、轴承、齿轮箱箱体、输出法兰等都予以加强。
- 自动按照负载大小，分配扭矩输出，复杂地层穿透能力更强。
- 钻掘能力大，复杂地层钻孔深度ZLD220/85-3-M₂-S钻机可达35m。
- Super powerful generator with constant power.
- Special designed Reducer for transfer more torque.
- Reinforce the gears, bearings, gear boxes and flanges, etc.
- Smart control torque output according to the load.
- Big drilling capacity, with max 35m depth in hard soil conditions. (ZLD220/85-3-M₂-S)

2 品牌电气元件，性能更稳定

Stable electrical components

- 电气柜选用国际著名品牌“施耐德”电器元件。
- 电子控制元件采用欧洲原装进口器件，更稳定、可靠。
- Imported electrical cabinet—Schneider Electrical Control Unit
- Electronic Control Unit guarantees the proper working, more stable and reliable.

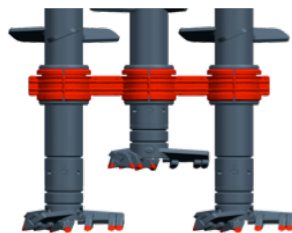
3 高强度钻杆，更可靠耐用 High-strength Structure Design and Light in Weight

- 钻杆内、外六角接头采用高强度耐磨材料，在高精度加工中心上完成制造，减少了工作应力，更耐磨持久，安装更方便。
- 钻杆总成采用专用定位工装焊接而成，直线度更高。
- 高强度合金钢钻杆，不易弯曲变形，寿命更长。
- Inner and outer hexagon joints of drill pipes are made of wear-proof materials. With fine machining, the spare parts ensure stability and ease of assembling.
- Drill pipe complete is welded with positioning fixtures, to assure accuracy of straightness.
- Alloy steel assures the drill pipe to keep its shape, and long service life.

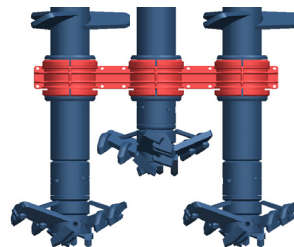
4 多种钻具可供选择 CHOOSE FROM A VARIETY OF DRILL

能满足各种地层的施工要求

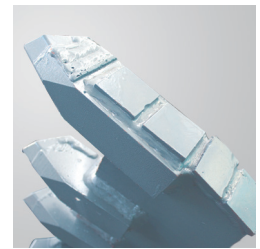
- 沙质土钻具，适合粘土、沙土土质施工。
- 硬沙土钻具，适合硬沙土、砾石层土质施工。
- 进口刀头和焊接进口耐磨钢板，更耐磨，维护成本更低。
- Flat blade drill for clay and sandy construction.
- Taper blade drill for hard sand and gravel construction.
- Drill head is made of wear-proof steel, easy for maintenance.



沙质土钻具
Sandy Soil Drilling Tool



硬沙土钻具
Cutterpick Drilling Tool



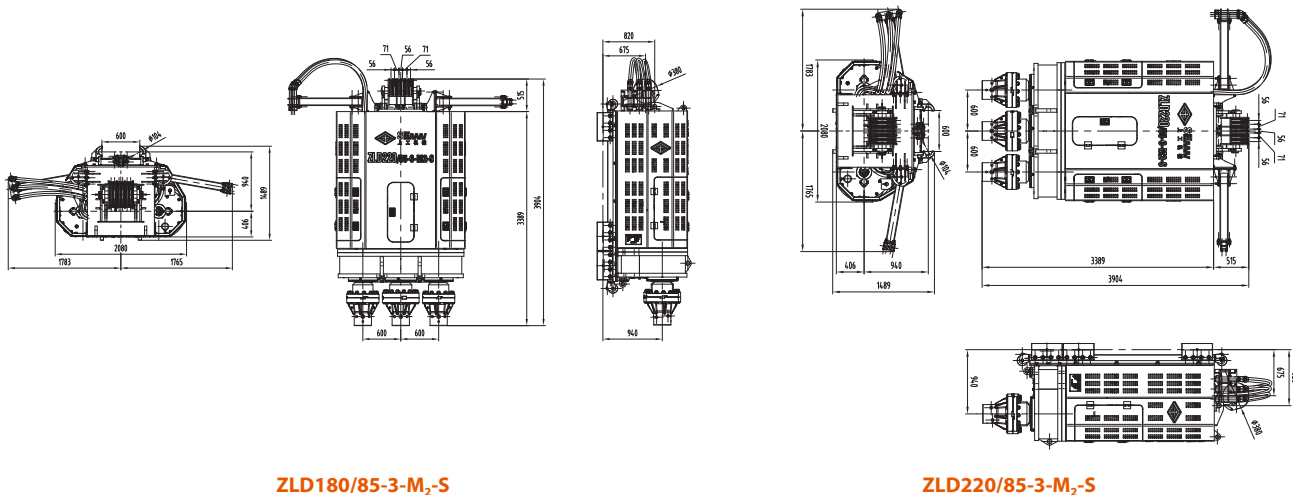
进口刀头、耐磨钢板
Drill head, wear-resisting steel plate



产品技术参数 SPECIFICATIONS

项目 Item	单位 Unit	ZLD180/85-3-M ₂ -S	ZLD220/85-3-M ₂ -S
钻孔直径 Drilling diameter	mm	Φ850 × Φ850 × Φ850	
钻杆中心距 Center distance between drilling pipes	mm	600 × 600	
最大钻孔深度 Max.drilling depth	m	35	46
钻杆额定转速 Rated speed of single drilling pipe	8P r/min	中16.6/外19 Middle:16.6/Lateral:19	中14.2/外14.2 Middle:14.2/Lateral:14.2
钻杆额定扭矩 Rated torque of single drilling pipe	8P kN-m	中34.5/外30 Middle:34.5/Lateral:30	中147.9/外49.3 Middle:147.9/Lateral:49.3
钻杆直径 Diameter of drilling pipe	mm	Φ273	
钻杆基本长度 Basic length of the drilling pipe	m	3、6、9.3、9.8	
标准配置钻具长度 Standard drill length	m	32.4	38.4
电动机额定功率 Rated power of motor	kW	180 (90 × 2)	220 (110 × 2)
导轨中心到钻杆中心距离 Center distance between guide and drilling pipe	mm	940	
导轨中心到滑轮中心距离 Center distance between guide and sheave	mm	655、800	675、820
导轨中心距 Center distance between guides	mm	600 × Φ102	
钢丝绳直径 Diameter of rope	mm	Φ20	
滑轮个数 Number of sheaves	个	6	
配用浆、气管内径 Inner diameter of suitable slurry&compressed air lube	mm	50.4	
配用浆、气管接头尺寸 Joint size of suitable slurry&compressed air lube		3-R ₁ 2	
操纵方式 Operating method		电气控制 Electrical Control	
总重量 Total weight		约35.3t About 35.3t	约38t About 38t
配套桩架 Supporting pile frame		不低于JB160A、SPR135 Same standard as SEMW JB160A、SPR135	
所需电源容量 Hole diameter		630kVA	

技术参数的更改恕不另行通知。 Specifications are subjected to change without prior notice.



ZLD180/85-3-M₂-S

ZLD220/85-3-M₂-S

ZLD超级系列三轴式连续墙钻孔机

ZLD超级系列三轴式连续墙钻孔机可应用于复杂地基的工程施工，是上工机械推出的高端钻机产品系列，能够满足客户对钻机产品高性能的苛刻需求，成为众多重大工程施工单位的钻机首选。

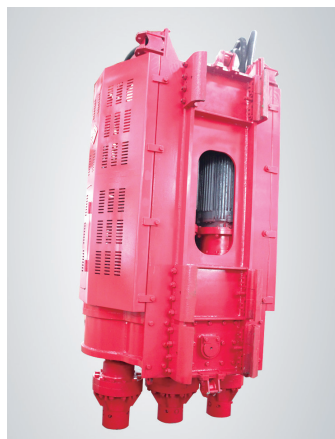
ZLD-M₂-CS series Agitating Auger is suitable for foundation reinforcement in all different soil conditions. It is our high-end product and is the best choice for high profile projects.



技术性能特点 FEATURES:

1 高强度传动单元，钻掘更强劲 Powerful drive unit

- 采用高强度传动单元，以及配置合理的传动系统速比，使得本机具有超强的钻孔扭矩。每根钻杆平均额定输出扭矩达到5.2/4.1/2.2吨·米。
- 自动按照负载大小，分配扭矩输出。可将所有扭矩合流后，用中轴一根轴输出动力，进行复杂地层先导引孔作业。
- 极强的超载能力，完全满足超深地下连续墙的施工需求。
- With powerful drive unit and reasonable transmission ratio, the auger delivers super powerful torque. Rated output torque for each drilling pipe is 5.2/4.1/2.2ton-m.
- Smart control torque output according to the load. Torques from different pipes converges on one pipe and leading drills on various soil conditions.
- Capacity of overload is suitable for drilling super depth continuous wall.



2 品牌电气元件，性能更稳定 Stable electrical components

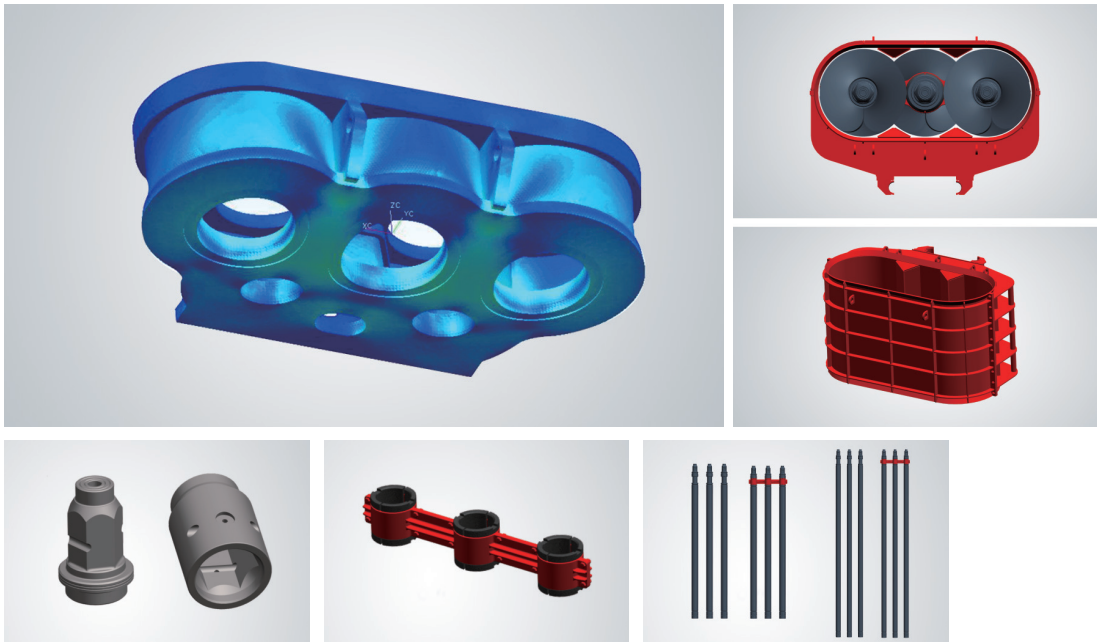


- 电气柜选用国际著名品牌“施耐德”电器元件。
- 电子控制元件采用欧洲原装进口器件，更稳定、可靠。
- Imported electrical cabinet—Schneider Electrical Control Unit
- Electronic Control Unit guarantees the proper working, more stable and reliable.

3 高精度导向装置，成墙更精准 Accurate guiding device

- 特殊结构的后部导向装置，定位面一次加工成型，导向板导向性能进一步提高，确保了成墙精度，并减少了打桩架导轨的磨损。
- Special rear structure guiding device ensures better guidance and accuracy, and lowers wear and tear for the Leader.

4 等强度结构设计，设备更安全 Uniform-strength & Safe Structure Design



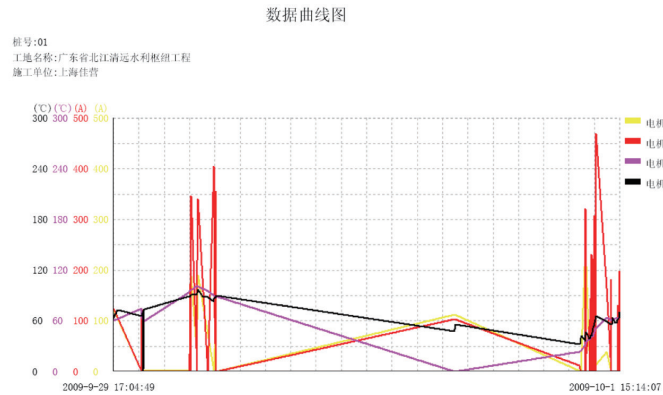
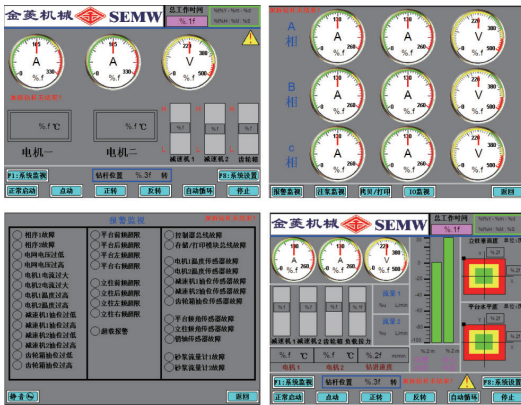
- 采用有限元计算，等强度、更优化设计的动力头重量与扭矩比，减轻自重。
- 钻杆内、外六角接头采用高强度耐磨材料，在高精度加工中心上完成制造，减少了工作应力，更耐磨持久，安装更方便。
- 钻杆总成采用专用定位工装焊接而成，直线度更高。
- 超级钻杆用上部保持架将三根钻杆相互连接，提高了钻杆的刚性，满足硬地层、超深孔的施工要求。
- FEM (Finite Element Method) Calculation and uniform strength in design optimize the ratio of weight and torque for power unit, as well as keep light weight.
- Inner and outer hexagon joints of drill pipes are made of wear-proof materials. With fine machining, the spare parts ensure stability and ease of assembling.
- Drilling pipes are welded with positioning devices, which ensures accuracy of straightness of the pipes.
- Retainers are used to connect three drilling pipes, and guarantee the stiffness of pipes. It is suitable for drilling in hard soil.

5 高精度传动系统，施工更环保 Accurate Transmission system

- 由于选用新型恒功率专用电动机及减速机，以及特殊设计的减速机，使噪音降至更低
- Special designed electrical Motor Reducer and makes a low noise compared with other model. Environment friendly.

6 智能化控制技术，施工更高效 CAN-BUS Intelligent Control System

- 采用CAN-BUS总线技术，通过人机界面显示当前状况，不需人为做出复杂判断，尽可能地减轻司机的工作强度，从而大大提高了施工效率。
- 对设备允许的操作范围有限制作用，防止设备因超作业范围而造成设备的倾翻或损坏。
- 充分考虑工程机械电气控制系统对防尘、防水、抗震动、高低温的要求，防护等级高。
- 减少因工人误操作的施工事故，有效保护施工现场工人的人身安全。
- 数据记录模块可连续记录各种施工数据，以便分析。
- Adoption of CAN-BUS control makes high reliability of electrical system, which could smartly calculate and customized the features as per different client and different job condition.
- Smart control for the workload, in case of rolling over or breaking down of the machine.
- Dust-proof, water-proof, anti-vibration, well control for temperature.
- Reducing mal-function caused by mis-operation, better protection for workers on site.
- Any job execution data can be recorded for analysis.

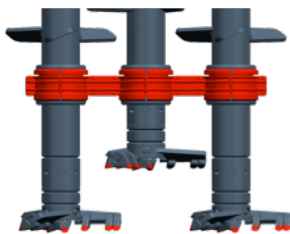


7 多种特殊设计的钻具形式 Different types of Drilling Tool for Soil Condition

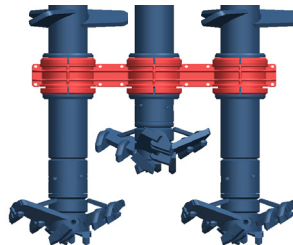
- 有标准超深钻具、沙质土超深钻具、硬沙土超深钻具、先导钻具等可供选择。具有更快的钻进速度及良好的使用寿命。
- SEMW provides different Drilling Tools as per specified soil condition for rapid drilling speed and keep long service life for Drilling Tools. Standard drill for general soil construction, flat blade drill for clay and sandy construction, taper blade drill for hard sand and gravel construction.



进口刀头、耐磨钢板
Drill head, wear-resisting steel plate



沙质土超深钻具
Sandy Soil Drilling Tool



硬沙土超深钻具
Cutterpick Drilling Tool

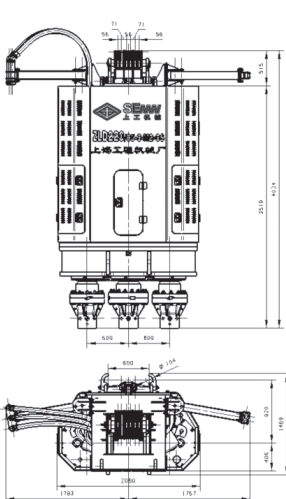


先导钻具
Cutterpick Drilling Tool
(one shaft continuous flight screw)

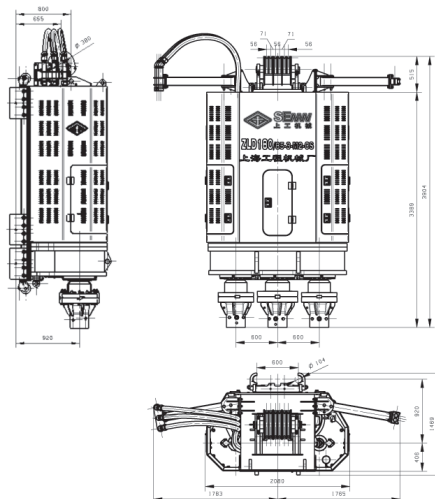
产品技术参数 SPECIFICATIONS

项目 Item	单位 Unit	ZLD220/85-3-M ₂ -CS Main Specification of ZLD110/65-3-M ₂ -CS		ZLD180/85-3-M ₂ -CS Main Specification of ZLD180/85-3-M ₂ -CS		ZLD110/65-3-M ₂ -CS Main Specification of ZLD220/85-3-M ₂ -CS	
		三轴 Three Shafts	一轴 (先导钻具) One Shaft for Pre-drilling Tool	三轴 Three Shafts	一轴 (先导钻具) One Shaft for Pre-drilling Tool	三轴 Three Shafts	一轴 (先导钻具) One Shaft for Pre-drilling Tool
		钻孔直径 Bored hole diameter	(mm)	Φ850 × Φ850 × Φ850		Φ850 × Φ850 × Φ850	
钻杆中心距 Distance between the Shafts center	(mm)	600 × 600		600 × 600		450 × 450	
最大钻孔深度 Max. Drill Depth	(m)	53		53		40	
钻杆额定转速 Speed of shaft, rated	8P (r/min)	13.8	中13.8 Middle:13.8	14.2	中14.2 Middle:14.2	16.5	中16.5 Middle:16.5
钻杆额定扭矩 Torque of shaft, rated	8P (kN·m)	50.6	中151.8 Middle:151.8	40.5	中121.4 Middle:121.4	21.1	中63 Middle:63
钻杆直径 Diameter of shaft	(mm)	Φ273		Φ273		Φ219	
钻杆基本长度 Basic length of shaft, section	(m)	3、6、9.3、9.8		3、6、9.3、9.8		3、6、9.3、9.8	
标准配置钻具长度 Standard drill length	(m)	38.4		38.4		29.1	
电动机额定功率 Power of Electrical Motor, rated	(kW)	220 (110 × 2)		180 (90 × 2)		110 (55 × 2)	
导轨中心到钻杆中心距离 Distance of Rod Center to Guide Center	(mm)	920		920		840	
导轨中心到滑轮中心距离 Distance of Pulley Center to Guide Center	(mm)	655、800		655、800		655、800	
导轨中心距 Guide Distance	(mm)	600 × Φ102		600 × Φ102		600 × Φ102	
钢丝绳直径 Guide Distance	(mm)	Φ20		Φ20		Φ20	
滑轮个数 Pulley Number	(个)	6		6		6	
配用浆、气管内径 Hose for cement grouting and air injection	(mm)	50.4		50.4		50.4	
配用浆、气管接头尺寸 Joint/Coupling for Cement and Air hose		3-R,2		3-R,2		3-R,2	
操纵方式 Operation Control		CAN-BUS总线、电气控制 CAN-BUS、Electrical Control					
总重量 Total Weight	(t)	约41.1 (钻杆长度38.4米) Appr.41.1t (Standard)		约40 (钻杆长度38.4米) Appr.40t (Standard)		约24.9 (钻杆长度29.1米) Appr.24.9t (Standard)	
配套桩架 Work with Pile-driving rig		不低于JB160A、SPR135 Same standard as SEMW JB160A、SPR135		不低于JB160A、SPR135 Same standard as SEMW JB160A、SPR135		不低于JB160A、SPR115 Same standard as SEMW JB160A、SPR115	
所需电源容量 Electrical Capacity requested	(kVA)	630		630		400	

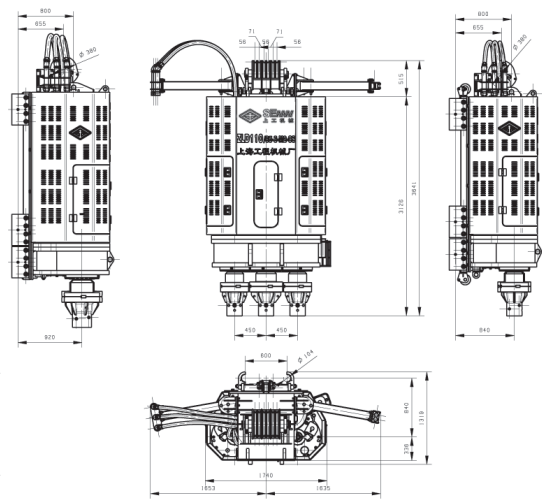
技术参数的更改恕不另行通知。 Materials and specification subject to chang without notice or obligation



ZLD220/85-3-M₂-CS



ZLD180/85-3-M₂-CS



ZLD110/65-3-M₂-CS

ZLD系列五轴式连续墙钻孔机

ZLD系列五轴式连续墙钻孔机是上海工程机械厂有限公司新研制开发的SMW工法施工设备，相较传统的三轴式连续墙钻孔机大大提高了施工效率，具有对周围地层影响小、抗渗性好、施工噪音小、无振动、废土产生量少、无泥浆污染、大壁厚、大深度、适用土质范围广、技术经济指标好等优点。

ZLD系列五轴式连续墙钻孔机钻杆轴设计为五根，较常规三轴工法机，其理论施工效率可提高100%；同样时间内，同样搅拌桩的深度，水泥的用量却仅为三轴的四分之三。

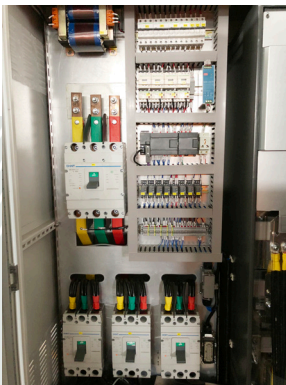
ZLD five-shaft agitating auger is a newly design Soil Mixing Wall equipment, produced in SEMW facility. Compared to ZLD three-shaft agitating auger, the five-shaft auger has the following advantages: more efficient, less effect on surroundings, water-proof, noiseless, vibration-free, no waste slurry, thicker and deeper bored holes, suitable for diverse soil conditions, etc.

Compared to ZLD three-shaft agitating auger, the five-shaft auger theoretically increases the efficiency of 100%.

To drill the same depth during the same time, five shaft auger consumes only 75% cement compared to that of three shaft auger.



技术性能特点 FEATURES:



1

工作更具智能化：电气控制箱采用变频器控制，工作启动时对电网冲击小，节能安全，且系统设有故障自检及自我保护功能；

Frequency converter minimizes the shocks on electric grid, it's low-consumption, safety and routine self-checking, makes auger works more intelligent.

2

安全可靠性好：变频器控制电箱采用知名品牌的英威腾变频器，极大地提高钻机的安全性；

With imported TNVT, safety and reliability is greatly improved.

3

动力分配性能好：三台电机并五轴联动，动力能均匀分布。ZLD330/85-5-M3-S钻机每根钻杆动力均在66KW以上，遇复杂地质可自动实行各钻杆间动力互补；

Five-shaft agitating augers ZLD330/85-5-M3-S are equipped with three electric motors and five drilling shafts. Power can be equally transmitted to each shaft, each shaft obtains more than 66kw energy. In some complicated soil conditions, it can automatically balance the energy among the five shafts, to assure each one get enough power to drive.



4

符合节能环保要求：可根据实际施工工况停用一台电机，采用两台电机工作，更环保节能；

It is possible to stop one motor working according reality construction condition, more energy-efficient.

5

使用寿命有保障：钻杆内、外接头采用高强度耐磨材料，在高精度加工中心上完成制造，减少了工作应力；钻杆采用高强度合金钢材料，不易弯曲变形；钻杆总成采用专用定位工装焊接而成，直线度更高，使得钻杆安装更方便，更耐磨，使用寿命更长；

Inner and outer joints of drill pipes are made of wear-proof materials. With fine machining, the spare parts ensure stability and ease of assembling. Drill pipe complete is welded with positioning fixtures, which ensures accuracy of straightness. Alloy steel assures the drill pipe to keep its shape, and long service life.

6

关键零部件高标准：动力头齿轮箱齿轮加工采用硬齿面工艺技术，齿面经渗氮处理和磨齿工序后，大大提高了齿面的硬度、耐磨性、疲劳强度、齿轮咬合性能和承载能力，使钻机传动更平稳、噪音更低，齿轮使用寿命更长；

After nitriding and grinding process the hardened gears of power unit greatly improves tooth surface's hardness, abrasion performance, fatigue strength, gear occlusion performance and load capacity. Transmit much more stable, lower noise and longer service life.

7

独特的系统设计：钻机动力头设有独特功能—专供齿轮箱分配润滑油的电机泵组机构，通过分配器分配润滑油，提高保证齿轮箱机油润滑的可靠性，提高齿轮箱轴承和齿轮的寿命；

PUnique function of power unit-motor pump unit exclusively distributes lubrication for gear box, improve reliability of lubricant, extend working life of bearings and gear.

8

多样化使用方式选择：可根据需要改为三轴、单轴钻机使用。

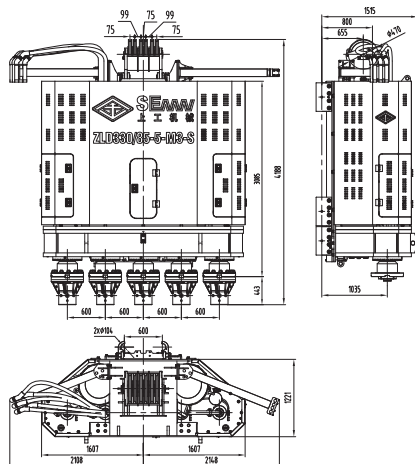
Five-shaft agitating auger can be converted to three-shaft or single-shaft auger, to meet the requirement of practical use.



产品技术参数 SPECIFICATIONS

项目 Item	单位 Unit	ZLD330/85-5-M ₃ -5
钻孔直径 Drilling diameter	(mm)	ø850 × ø850 × ø850 × ø850 × ø850
钻孔个数 Number of drilling	(个)	5
钻杆中心距 Center distance between drilling pipes	(mm)	600 × 600 × 600 × 600
最大钻孔深度 Max.drilling depth	(m)	40
钻杆额定转速 Rated speed of shaft	(r/min)	15.6
钻杆直径及壁厚 Diameter and thickness of shaft	(mm)	ø273 × 25
钻杆基本长度 Basic length of shaft	(m)	3、6、9.3、9.8
标准配置钻具长度 Standard drill length	(m)	32.4
钻杆额定扭矩 Rated torque of shaft	(kN·m)	40.5
电动机额定功率 Rated power of motor	(kW)	330 (110 × 3)
桩架导轨中心到钻杆中心距 Center distance between guide and shaft	(mm)	980
桩架导轨中心到滑轮中心距 Center distance between guide and sheave	(mm)	655/800
导轨中心距 Center distance between guides	(mm)	600 (× ø102)
钢丝绳直径 Diameter of wire rope	(mm)	ø22
滑轮个数 Number of sheaves	(个)	6
动力头总质量 Total weight of power unit	(kg)	≈19500
配套浆管内径 Inner diameter of cement hose	(mm)	50.4
配套浆、气管接头尺寸 Joint for cement and air hose		5-R ₁ 2
电机启动方式 Starting mode of motor		变频启动 Variable frequency starting
操纵方式 Operating control		电气控制 Electric control
配套桩架 Supporting piling rig		JB170≤30m、JB170A≤36m、JB180≤39m

技术参数的更改恕不另行通知。 Specifications are subjected to change without prior notice.





案例集锦

ZLD220/85-3-M₂-CS Case:



上海世博园工地
Shanghai Expo site



苏州东方之门工地
The Gate of the Orient, Suzhou

ZLD180/85-3-M₂-CS Case:



上海海伦路工地
Hailun Road, Shanghai



上海海伦路工地
Hailun Road, Shanghai



无锡工地
Wuxi, Jiangsu Province

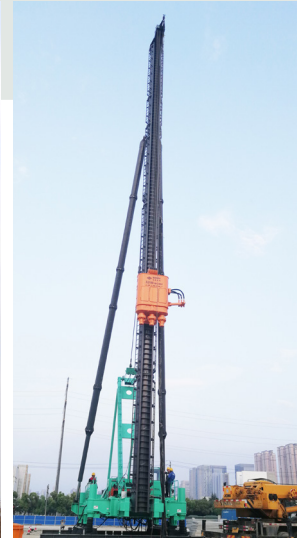
ZLD180/85-3-M₂-S Case:



上海世博园工地
Shanghai Expo Garden



上海虹桥枢纽工地
Hongqiao CBD, Shanghai



天津工地
Tianjin

ZLD220/85-3-M₂-S Case:



珠海工地
Zhuhai, Guangdong Province

ZLD180/85-3-M₂ Case:



江西南昌大厦工地
Nanchang plaza, Jiangxi province



马来西亚工地
Malaysia



浙江工地
ZheJiang



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We provide free-call center service for 24hours. For further information of SEMW products or after-sale service, please call us at+0086-21-4008881749. We will provide information or solutions you need.



2 咨询 方案 Consultancy & Solutions

- 施工过程中，如遇疑难问题，我们免费为您提供技术咨询；
- 我们拥有一支经验丰富的工程师团队，可根据您实际的施工要求、地质情况，为您量身定制更合理的解决方案。

Our professional team offers free consulting services according to different job sites, soil conditions and your requirements.



3 调试 培训 Testing & Training

- 免费指导安装调试产品，直至产品交付正常使用；
- 如有需要，我们可提供有偿现场施工工艺指导及培训，确保设备操作人员掌握设备的正确使用方法、保养要求及常见故障的正确诊断和排除方法。

SEMW is committed to free guidance of installation and testing, to make sure that you can make proper operations.

We will offer training on site if it is necessary, to make sure you know the correct way for maintenance, analysis and debugging of the malfunctions.



4 维修 保养 Maintenance & Repair

- 我们在全中国拥有多个售后服务网点，能满足您的维修、保养、配件供应需求。
- 易损件供货充足，服务响应速度快。
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