

技术协议

Technical agreement

协议名称：水带收卷系统技术协议

Protocol Name: Hose winding system technical protocol

甲方（买方） PartyA (Buyer):	
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邮政编码	Zip code:
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电子信箱	E-mail:
乙方（卖方） Party B (Seller):	
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经双方友好协商，甲方委托乙方生产水带敷设消防车的水带收卷系统达成如下技术协议。

After friendly negotiation between the two parties, Party A entrusts Party B to produce the hose winding system for laying fire trucks and reaches the following technical agreement.

一、技术规格及参数 Technical specifications and parameters

1. 规格、型号 Specifications and models

名称 name	型号 model	备注 remark
水带收卷系统 Hose winding system	ZISHU-LD300-L9500-0	

2. 主要构成 Main composition

水带收卷系统包括自动导带机构、自动收卷机构、水带清洗装置、液压动力及自动控制系统等。

The hose winding system includes automatic guide belt mechanism, automatic winding mechanism, hose cleaning device, hydraulic power and automatic control system.

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序号 serial number	名称 Name	规格型号、主要功能、主要构成品 Specifications and models, main functions, main components	备注 remark
1	自动收带/导带机构 Automatic retract/conduction mechanism	具备收带、导带功能，收带导带平顺； 具备自动收带、和压紧功能。 With the function of receiving belt and conducting belt, the receiving belt and conducting belt are smooth; It has automatic belt retraction and compression function	
	收带导带机移动机构 Retracting tape guide machine moving mechanism	具备纵向伸缩功能和横向平移功能，运动平 稳顺畅。 With longitudinal telescopic function and lateral translation function, the movement is smooth and smooth.	
2	摆带机 Pendulum machine	具备纵向移动和横向随动平移功能，运动平 顺； With longitudinal movement and lateral follow-up translation function, smooth movement;	
3	摆带机前后移动机架 The pendulum machine moves the frame back and forth	采用不锈钢材质制作，安装于水带厢顶部 Made of stainless steel, it is mounted on the top of the hose box	
4	水带清洗装置 Hose cleaning device	4个清洗喷头及其连接管路安装在收带机 上；液压驱动的高压清洗泵集成在液压模块 中，含500L水箱。 4 cleaning nozzles and their connecting pipes are installed on the tape receiver; The hydraulically actuated high-pressure cleaning pump is integrated in a hydraulic module with a 500L water tank.	
5	液压模块 Hydraulic modules	液压油箱、收摆带机控制阀、清洗用液压马 达和高压清洗泵。 Hydraulic oil tank, swing retractor control	

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		valve, hydraulic motor for cleaning and high-pressure cleaning pump.	
6	油泵传动系统 Oil pump drive system	液压油泵集成气动离合器，配备传动轴，离合器控制气路。 The hydraulic oil pump integrates a propeller shaft, and the clutch controls the air path.	
7	电控系统 Electronic control system	系统电压 24V；电控箱、无线遥控器、水带接口检测探头等。 System voltage 24V; Electric control box, wireless remote control, hose interface detection probe, etc.	
8	水箱厢内隔断 Partition in the water tank	配有钢管弯制后可安装在水带箱内的隔断，可将水带箱内从左到右分为 3 个区域，每个隔断分为三个弯管；其中最后一个弯管内嵌 PP 板，可使水带接头平顺敷设。 Equipped with a partition that can be installed in the hose box after bending the steel pipe, the hose box can be divided into 3 areas from left to right, and each partition is divided into three bends; The last of the elbows is embedded with PP plates, which allows the hose joint to be laid smoothly.	

3. 主要性能指标及技术参数

3. Main performance indicators and technical parameters

1) 回收水带速度 0~3km/h，施放水带速度 0~10km/h。

1) The speed of the recovery hose is 0~3km/h, and the speed of the casting hose is 0~10km/h.

2) 可自动回收水带，并可根据需要实时对水带进行局部清洗。

2) It can automatically recycle the water hose, and the water hose can be cleaned locally in real time as needed.

3) 工作温度：-40~70 °C（清洗功能应在零度以上温度下使用）。

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3) Working temperature: $-40\sim 70$ ° C (cleaning function should be used at temperature above zero).

4. 产品特点:

4. Product Features:

1) 自动导带机构从驾驶室前方收卷水带，保证水带回收时不卷曲、不扭转，实现平顺回收。

1) The automatic conduction belt mechanism winds the hose from the front of the cab to ensure that the hose is not curled or twisted during recycling, so as to achieve smooth recovery.

2) 水带收卷系统具有压紧机构，保证持续具有足够收卷力，具有接口自动感应功能。

2) The hose winding system has a pressing mechanism to ensure that it has sufficient winding force continuously, and has the function of automatic sensing of the interface.

3) 由液压动力单元、高压清洗系统、水箱、高压喷头等组成的水带清洗装置可在需要时对水带上下表面进行清洗，保证水带干净存放。

3) The hose cleaning device composed of hydraulic power unit, high-pressure cleaning system, water tank, high-pressure nozzle, etc. can clean the upper and lower surfaces of the hose when needed to ensure that the hose is stored cleanly.

4) 水带收卷系统由液压系统提供动力，操作轻便快捷。

4) The hose winding system is powered by the hydraulic system, which is light and fast to operate.

5) 水带收取速度可调，回收及摆放水带速度 $0\sim 3$ km/h。

5) The hose collection speed is adjustable, and the recovery and placement speed of the hose is $0\sim 3$ km/h.

6) 水带收卷系统可将水带整齐的自动摆放在水带厢内（收带过程中水带折叠不顺畅需要人员辅助）。

6) The hose winding system can automatically place the hose neatly and automatically in the hose compartment (the hose is not smoothly folded during the retracting process and requires personnel assistance).

7) 水带收卷系统可以遥控操作，可自动左右移动，同时带动水带摆放机构左右移动。

7) The hose winding system can be operated by remote control, which can automatically move left and right, and at the same time drive the hose placement mechanism to move left and

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right.

8) 水带厢隔断, 采用钢管弯制, 并在靠车尾的隔断弯管中嵌装入 PP 板, 可使水带接口平顺敷设。

The hose compartment partition is made of steel pipe bend, and PP plate is embedded in the partition bend at the rear of the car, which can make the hose interface lay smoothly.

9) 遥控器增加液压油温、油压、收带速度显示屏, 收带速度需要从底盘读取车速信号 (CAN);

9) The remote control increases the hydraulic oil temperature, oil pressure, and belt speed display, and the belt speed needs to read the vehicle speed signal (CAN) from the chassis;

10) 液压油泵排量为 108ml/r;

10) The displacement of the hydraulic oil pump is 108ml/r;

11) 清洗水箱按供方标准配置 500L 一次滚塑成型;

11) The cleaning water tank is equipped with 500L rotational molding according to the supplier's standard;

12) 前器材箱内隔层由需方自行加工并安装好。

12) The inner compartment of the front equipment box is processed and installed by the demander.

5. 产品的外形及主要尺寸

5. The shape and main dimensions of the product

详情见附件 1

For details, please refer to Annex 1

6. 设计规范及标准

6. Design codes and standards

本协议所述产品应至少但不限于符合以下规范及标准。

The products described in this Agreement shall at least but not limited to compliance with the following specifications and standards.

1) 所有操作开关、仪表均有符合规范的中文防水标识标注, 系统中涉及到的压力等仪器仪表的单位, 需符合中华人民共和国法定计量单位。

1) All operating switches and instruments have a Chinese waterproof mark that meets the specifications, and the units of instruments and meters such as pressure involved in the system must comply with the legal measurement units of the People's Republic of China.

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2) 系统性能符合 GB7956 《消防车性能要求及试验方法》的规定。

2) The system performance complies with the provisions of GB7956 "Fire Truck Performance Requirements and Test Methods".

3) 所有焊接牢固、光洁、平整、无锈迹，符合国家相关标准。

3) All welds are firm, smooth, flat, rust-free, and meet relevant national standards.

7. 安装、调试

7. Installation and commissioning

1) 甲方安装，乙方技术支持。

1) Party A installs, Party B technical support.

2) 在各系统安装之前，甲乙双方应对安装结构进行相互确认，确认可行后方可集成并进行安装。

2) Before the installation of each system, both parties shall mutually confirm the installation structure and confirm that it is feasible before integration and installation.

3) 甲方水带敷设消防车在工厂测试、型式检验、交付终端客户需要时乙方技术人员现场支持配合。

3) Party A's hose laying fire truck provides on-site support and cooperation when the factory test, type inspection, and delivery to the end customer need.

二、资料交割 Delivery of information

甲方提供下列资料：

Party A provides the following information:

1、底盘图纸，发动机飞轮取力器接口规格及位置；

1. Chassis drawings, engine flywheel power take-off interface specifications and positions;

2、车厢厢体骨架图；

2. Skeleton diagram of the carriage body;

3、液压模块、PE 一体成型水箱（500L）、油泵等的安装位置。

3. Installation position of hydraulic module, PE integrated water tank (500L), oil pump, etc.

乙方提供下列资料：

Party B provides the following information:

1、底盘技术要求及配置要求(在本协议生效三个工作日内提供)。

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1. Chassis technical requirements and configuration requirements (to be provided within three working days of the effective date of this agreement).

2、水带收卷系统总成图（CAD版）和三维图。

2. Hose winding system assembly drawing (CAD version) and three-dimensional drawing.

3、水带收卷系统产品手册。

3. Water hose winding system product manual.

4、易损件清单。

4. List of wearing parts.

5、产品合格证明。

5. Product qualification certificate.

四、质量担保条款及售后服务承诺

4. Quality guarantee clause and after-sales service commitment

1、乙方应在甲方进行系统设计、调试时对甲方进行指导，对甲方的需求及时响应，必要时至甲方公司现场指导。

1. Party B shall guide Party A when Party A carries out system design and commissioning, respond to Party A's needs in a timely manner, and go to Party A's company for on-site guidance when necessary.

2、配合甲方进行收带系统的安装调试、测试。

2. Cooperate with Party A to install, debug and test the take-off system.

3、配合甲方交车技术支持。

3. Cooperate with Party A's delivery technical support.

4、乙方负责对甲方的技术人员、现场安装人员、检验人员、售后人员在调试过程中进行培训，使受训人员熟练掌握设备性能，系统运行、操作和维护；产品交付最终用户时，乙方协助甲方进行验收交付和对最终用户的培训。

4. Party B is responsible for training Party A's technical personnel, on-site installers, inspection personnel and after-sales personnel in the debugging process, so that the trainees are proficient in equipment performance, system operation, operation and maintenance; When the product is delivered to the end user, Party B assists Party A

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in the acceptance delivery and training of the end user.

5、其条款参照商务合同。

5. Its terms refer to the commercial contract.

五、本协议涵盖事项如需改动，须经双方同意后方可实施，其它未尽事宜双方协商解决。

5. If any changes to the matters covered by this Agreement need to be made, they shall be implemented only after the consent of both parties, and other unspecified matters shall be resolved through negotiation between the two parties.

六、保密条款 Confidentiality Clause

1、未经披露方书面许可，接收方不得将本项目任何报告、方案、图纸、施工过程和单元图片、协议、会谈记录、往来函件、技术数据泄露给第三方使用或作其他用途。

1. Without the written permission of the disclosing party, the receiving party shall not leak any reports, plans, drawings, construction process and unit pictures, agreements, meeting records, correspondence and technical data of this project to a third party for use or other purposes.

2、接收方对披露方的商业秘密进行保密，未经披露方许可不得以任何形式外泄给第三方。

2. The receiving party shall keep the disclosing party's trade secrets confidential and shall not leak them to a third party in any form without the permission of the disclosing party.

七、知识产权 intellectual property

乙方应保证提供给甲方的产品自有知识产权，不侵犯第三方知识产权，若发生侵权，后果由乙方承担；若给甲方造成损失，应按实际损失进行赔偿。

Party B shall ensure that the products provided to Party A have their own intellectual property rights and do not infringe the intellectual property rights of third parties, and if infringement occurs, Party B shall bear the consequences; If losses are caused to Party A, compensation shall be made according to the actual losses.

八、本协议一式二份，甲方一份，乙方一份，签字后生效。

8. This Agreement shall be executed in duplicate, one copy for Party A and one copy for Party B, and shall take effect after signing.

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九、附件： 附后。

9. Annexes: attached.

甲方 FirstParty:

乙方 : 上海紫书实业有限公司

代表 Representative:

代表 :

日期 Date:

日期 : 2023 年 8 月 18 日