

# 众城科技 工程机械润滑产品手册

CONSTRUCTION MACHINERY LUBRICANTS BROCHURE

长效守护 始终如一  
Long term protection remains consistent

郑州众城润滑科技有限公司  
Zhengzhou Zhongcheng Lubrication Technology Co., LTD



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智能润滑系统解决方案提供商  
INTELLIGENT LUBRICATION SYSTEM SOLUTION



用心润滑，让世界运转更美好

LUBRICATE WITH CARE, MAKE THE WORLD RUN

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## // 企业简介 COMPANY PROFILE

郑州众城润滑科技有限公司，是由宇通集团孵化成立的高新技术企业，以集中润滑系统、精密过滤系统和液压系统为主营业务。

公司传承了宇通集团的企业文化并按照各应用场景建立了产品开发和质量管理体系，已通过ISO9001、IATF16949等认证。

公司拥有现代化生产基地、研发中心和试验室，拥有100多项自主知识产权。产品广泛应用于工程机械、风力发电、商用车辆、港口、冶金等领域。作为润滑行业主流供应商之一，众城长期为包括宇通客车、金风科技等行业龙头企业提供配套服务。产品远销全球70多个国家和地区。

众城科技始终坚持“以技术创新为核心，以客户需求为导向”的企业经营理念，为全球客户提供安全可信赖的润滑解决方案。

Zhengzhou Zhongcheng Lubrication Technology Co., Ltd. is a high-tech enterprise established under the auspices of Yutong Group, specialising in centralised lubrication systems, precision filtration systems and hydraulic systems.

The company upholds Yutong Group's corporate culture and has established product development and quality management systems tailored to various application scenarios; it has obtained certifications including ISO 9001 and IATF 16949.

The company operates a modern production base, R&D centre and testing laboratory, and holds over 100 proprietary intellectual property rights. Its products are widely used in sectors such as construction machinery, wind power generation, commercial vehicles, ports and metallurgy. As one of the leading suppliers in the lubrication industry, Zhongcheng has long provided support services to industry leaders including Yutong Bus and Goldwind Science & Technology. Its products are exported to over 70 countries and regions worldwide.

Zhongcheng Technology consistently adheres to the business philosophy of 'taking technological innovation as the core and customer needs as the guide', providing safe and reliable lubrication solutions to customers globally.

70<sup>+</sup>

产品远销全球70多个国家和地区  
Our products are exported to over 70 countries and regions worldwide

100<sup>+</sup>

自主知识产权  
Proprietary intellectual property

## // 服务客户 SERVING OUR CUSTOMERS



\*排名不分先后  
\*Listed in no particular order



## // 荣誉及资质 AWARDS AND ACCREDITATIONS

100<sup>+</sup>

自主知识产权

Our products are exported to over 60 countries and regions worldwide

30<sup>+</sup>

申请超30多项发明专利

Has filed over 30 patent applications

知识产权  
Intellectual property



质量管理体系认证  
Quality Management System Certification



环境健康安全体系认证  
Environmental, Health and Safety  
Management System Certification



CE认证  
CE marking



郑州独角兽培育企业  
Zhengzhou Unicorn Incubation Programme



3A级信用企业  
3A-rated credit enterprise



企业荣誉证书  
Certificates of Honour





## // 技术研发实力 TECHNICAL R&D CAPABILITIES

致力于打造国际一流智能润滑系统解决方案提供商

DEDICATED TO DELIVERING WORLD-CLASS LUBRICATION SYSTEM SOLUTIONS.



### 「 技术团队 TECHNICAL TEAM

公司研发团队由业内机械、电气、液压领域的资深专家共同领衔，汇聚了多学科技术骨干，具备深厚的技术积淀、卓越的创新意识与扎实的执行能力。团队协同攻关，持续推动核心技术的突破与产品体系的迭代升级。

The company's R&D team is led by senior experts in the fields of mechanical, electrical and hydraulic engineering, bringing together key technical personnel from a range of disciplines. The team possesses a wealth of technical expertise, a strong innovative spirit and solid execution capabilities. Working collaboratively, the team continuously drives breakthroughs in core technologies and the iterative upgrading of the product range.



### 「 验证能力 VERIFICATION CAPABILITIES

公司设有专业研发实验室，具备集中润滑系统全系统验证能力，能够独立完成总成性能及关键零部件性能的各项实验验证。通过严密的测试体系与标准化的验证流程，确保每一款产品在推向市场前均经历充分考核，为长期稳定运行提供坚实保障。

The company operates a dedicated R&D laboratory equipped to conduct comprehensive validation of the entire range of centralised lubrication systems, enabling it to independently carry out all necessary testing and validation of both the assembly's performance and that of its key components. Through a rigorous testing regime and standardised validation procedures, we ensure that every product undergoes thorough evaluation before being launched onto the market, thereby providing a solid guarantee of long-term, stable operation.

### 产品成果 PRODUCT DELIVERABLES

通过多轮产品开发与优化，目前已搭建起品类丰富、结构完善的产品矩阵，基本实现了对市场所需各类产品类型的有效覆盖。

Following several rounds of product development and optimisation, we have now established a comprehensive product portfolio with a wide range of categories and a well-structured lineup, which effectively covers virtually all the product types required by the market.



### 「 创新技术 INNOVATIVE TECHNOLOGY

公司目前正在研发的新技术及产品包括新型精密过滤系统、自动换脂智能润滑系统和远程监控润滑系统。未来计划开发大数据设备 健康管理平台和风电在线精密过滤系统等新产品。

The new technologies and products currently under development by the company include a new precision filtration system, an automated grease-changing intelligent lubrication system, and a remote monitoring lubrication system. Future plans include the development of new products such as a big data-driven equipment health management platform and an online precision filtration system for wind turbines.





总成性能实验能力  
ASSEMBLY PERFORMANCE TESTING CAPABILITIES

压力排量测试  
Pressure-displacement test

电压电流测试  
Voltage and current testing

气密测试  
Leak test

噪音测试  
Noise testing

可靠性测试  
Reliability testing

电磁兼容测试  
Electromagnetic compatibility testing

紫外老化试验  
UV ageing test

高低温试验  
High and low temperature testing

湿热试验  
Damp-heat test

中性盐雾试验  
Neutral salt spray test

IPX7浸水试验  
IPX7 immersion test

振动试验  
Vibration testing

风电旋转试验  
Wind turbine rotational testing

IPX1-X6淋水试验  
IPX1-X6 water spray tests

IPX防尘试验  
IPX dust resistance test

胶管耐压测试台  
Hose pressure testing bench

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关键零部件性能实验能力  
TESTING CAPABILITIES FOR THE PERFORMANCE OF CRITICAL COMPONENTS

分配器流量测试  
Flow testing of the distributor

分配器压力测试  
Pressure testing of the distributor

分配器密封测试  
Distributor Seal Test

分配器漏损量测试  
Testing of distribution network losses

分配器寿命测试  
Distributor Life Test

电机功率曲线测试  
Motor Power Curve Testing

电机扭矩测试  
Motor torque testing

电机转速测试  
Motor Speed Test

绝缘电阻测试  
Insulation Resistance Test

控制器功能测试  
Controller Functionality Testing

泵芯总成打压测试  
Pressure test of the pump core assembly

泵芯可靠性测试  
Pump Core Reliability Testing

活塞密封测试  
Piston seal test

气动精密测量  
Pneumatic precision measurement

全自动影像测量  
Fully automatic imaging measurement

粗糙度测量  
Surface roughness measurement

弹簧拉压试验  
Spring Tensile and Compression Testing

洛式、邵式硬度检测  
Rockwell and Shore hardness testing

高低温试验  
High and low temperature testing

中性盐雾试验  
Neutral salt spray test

振动试验  
Vibration testing

金相分析  
Metallographic analysis

清洁度测试  
Cleanliness testing

三坐标测量  
Coordinate measuring

密封性测试  
Leak test

落球冲击测试  
Drop impact test

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// 生产制造实力 MANUFACTURING CAPABILITIES



润滑泵生产线  
LUBRICATION PUMP PRODUCTION LINE



分配器生产线  
DISPENSER PRODUCTION LINE



管线束生产线  
WIRE HARNESS PRODUCTION LINE



精密机加车间  
PRECISION MACHINING WORKSHOP



装配车间  
ASSEMBLY WORKSHOP



实验室  
LABORATORY



五轴走心式自动车床  
FIVE-AXIS THROUGH-SPINDLE  
AUTOMATIC LATHE



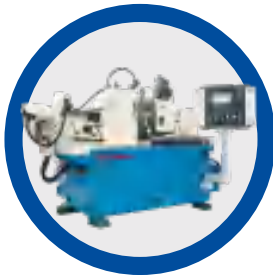
四轴加工中心  
FOUR-AXIS MACHINING CENTRE



外圆磨床  
CYLINDRICAL GRINDING MACHINE



7轴8工位立式珩磨机  
7-AXIS, 8-STATION VERTICAL HONING  
MACHINE



精密无心磨床  
PRECISION CENTRELESS GRINDING MACHINE



平面磨床  
SURFACE GRINDING MACHINE

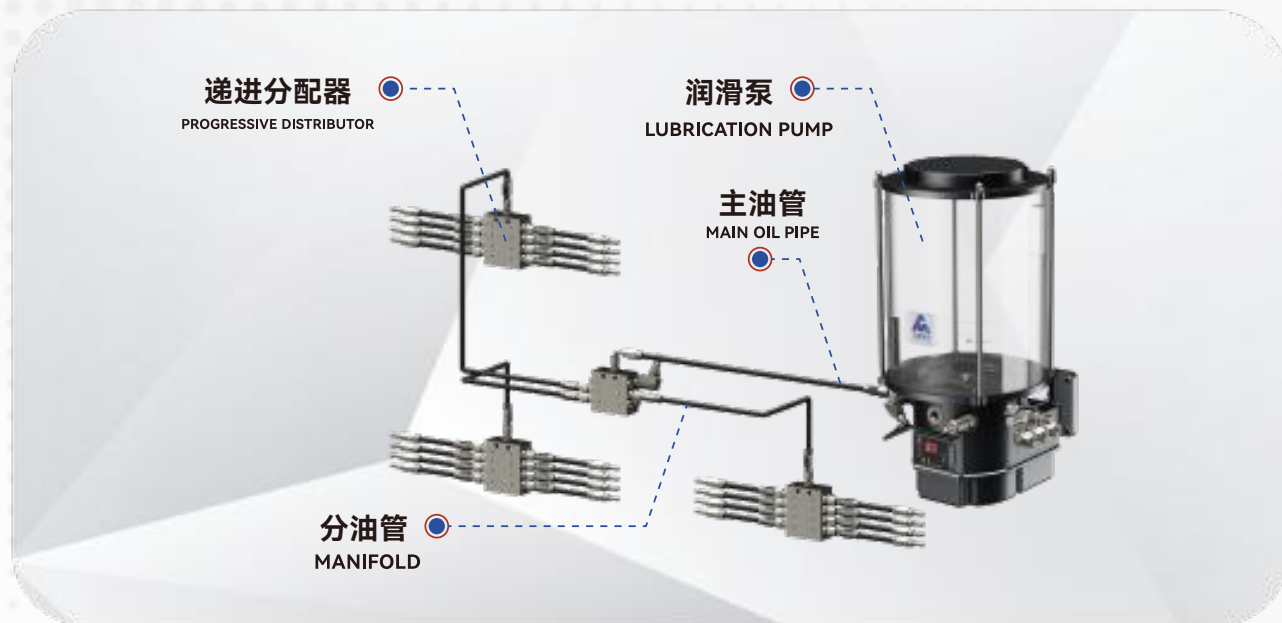


6160数控车床  
6160 CNC LATHE

目前实验室已建成具备总成系统、关键零部件等所需试验能力，并与武汉理工大学开展校企合作，加强基础理论研究能力。

The laboratory has now established the necessary testing capabilities for assembly systems and key components, and has entered into a university-industry partnership with Wuhan University of Technology to strengthen its capacity for fundamental theoretical research.

## 递进润滑系统 PROGRESSIVE LUBRICATION SYSTEM



**工作原理：**按预定程序运行，当休止倒计时结束时，润滑泵启动工作，油脂通过主管路输送到递进分配器，再通过分配器定量分配至各润滑点。当运行倒计时结束时，泵停止工作，供脂过程结束，系统进入下一个工作循环。

**Principle of operation:** The system operates according to the pre-set procedure. When the idle countdown ends, the lubrication pump starts up and grease is delivered via the main line to the progressive distributor, from where it is metered to each lubrication point. When the operational countdown ends, the pump stops, the grease supply process concludes, and the system enters the next operating cycle.



### 高性能适配 HIGH PERFORMANCE ADAPTATION

支持-40℃极端低温，高压输出30MPa，满足高寒地区需求。  
Withstands extreme temperatures as low as -40°C and delivers a high-pressure output of 30 MPa, meeting the requirements of high-altitude, cold regions.



### 智能化管理 INTELLIGENT MANAGEMENT

集成CAN模块，可接入车联网实现远程监控。  
Features an integrated CAN module, enabling connection to vehicle-to-everything (V2X) networks for remote monitoring.



### 长寿命设计 LONG LIFE DESIGN

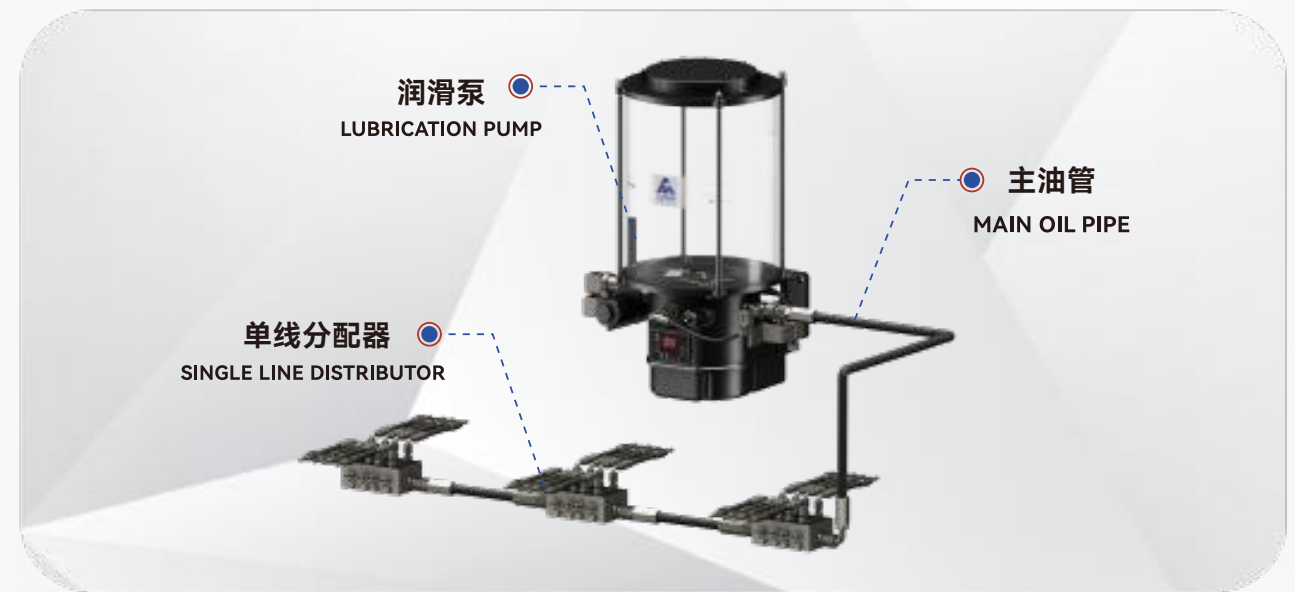
采用直流永磁减速电机，使用寿命长达12年；专利搅杆设计避免抽空，确保供脂稳定性；IP67防护等级，防水防尘能力突出。  
Features a DC permanent magnet gear motor with a service life of up to 12 years; a patented agitator design prevents cavitation and ensures a stable supply of fat; IP67 protection rating for outstanding water and dust resistance.



### 节能环保 ENERGY CONSERVATION AND ENVIRONMENTAL PROTECTION

定量供脂减少油脂浪费（节约80%用量），降低环境污染。  
Metered oil dispensing reduces oil wastage (saving 80% of the amount used) and minimises environmental pollution.

## 单线润滑系统 SINGLE-LINE LUBRICATION SYSTEM



**工作原理：**按预定程序运行，当休止倒计时结束时，润滑泵启动工作，油脂通过主管路输送到单线分配器，系统压力逐渐升高，油脂经由单线分配器定量分配到各润滑点，末端油压达到传感器的动作压力时，压力信号将反馈到监控器，润滑泵1min后停止工作，此时主管路泄压，单线分配器定量储油、供脂过程结束，系统进入下一个工作循环。

**Principle of operation:** Operating according to the pre-set programme, when the standby countdown ends, the lubrication pump starts up. Grease is delivered through the main line to the single-line distributor, and the system pressure gradually rises. The grease is then metered by the single-line distributor to each lubrication point. When the oil pressure at the end point reaches the sensor's actuation pressure, a pressure signal is fed back to the monitor. The lubrication pump stops operating after 1 minute. At this point, the main line is depressurised, and the process of metered oil storage and supply by the single-line distributor concludes, with the system entering the next operating cycle.



### 独立润滑 INDEPENDENT LUBRICATION

各支路注油器相互独立，局部润滑支路失效不影响其他支路正常工作。  
Each branch lubricator operates independently; a failure in one branch does not affect the normal operation of the others.



### 成本更低 LOWER COST

单线系统并联式结构，组合更便捷，降低维护成本。  
A single-line system with a parallel configuration, offering easier assembly and reduced maintenance costs.



### 长寿命设计 LONG LIFE DESIGN

泵芯材质和配合精度领先行业，寿命更高。  
The pump core material and fitting precision are industry-leading, ensuring a longer service life.



### 智能化 INTELLECTUALIZE

实时监测系统压力、液位、系统堵塞及电机工作状态。  
Monitor system pressure, liquid level, system blockages and motor operating status in real time.



## 单点泵润滑系统

### SINGLE-POINT PUMP LUBRICATION SYSTEM



**工作原理:** 按预定程序运行, 当休止倒计时结束时, 润滑泵启动工作, 通过可拆式锂电池带动电机, 驱动柱塞往复运动, 实现远距离泵油注脂。当运行倒计时结束时, 泵停止工作, 供脂过程结束, 系统进入下一个工作循环。

**Principle of operation:** Operating according to the pre-set procedure, when the standby countdown ends, the lubrication pump starts up. A removable lithium-ion battery powers the motor, driving the plunger in a reciprocating motion to deliver oil and grease over long distances. When the operational countdown ends, the pump stops, the lubrication process concludes, and the system moves on to the next cycle.



#### 高压工作 HIGH-PRESSURE WORK

柱塞泵结构, 工作压力4MPa。  
Plunger pump design, operating pressure 4 MPa.



#### 简洁便携 COMPACT AND PORTABLE

自带电池, 油罐可重复充脂, 无需外接电源。  
It comes with its own battery and a refillable grease reservoir, so no external power supply is required.



#### 高精度配合 HIGH-PRECISION FIT

可外接分配器多点供油。  
An external distributor can be connected to supply oil to multiple points.



#### 周期可调 ADJUSTABLE CYCLE

设1/3/6/12/24 (月) 周期, 满足多样润滑需求。  
Available in 1, 3, 6, 12 and 24-month cycles to meet a variety of lubrication requirements.

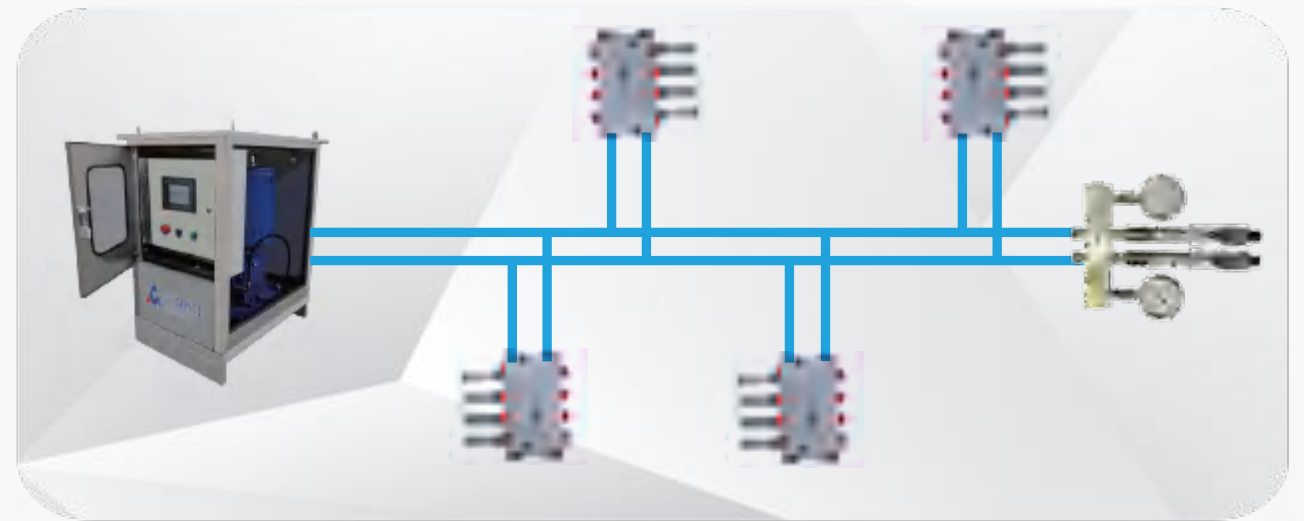


#### 多样容积 VARIOUS CAPACITIES

125mL/250mL/500mL可选。  
Available in 125ml, 250ml and 500ml sizes.

## ZCG7X 工业智能双线润滑系统

### ZCG7X INDUSTRIAL INTELLIGENT DUAL-LINE LUBRICATION SYSTEM



**工作原理:** 双线集中润滑系统采用PLC控制, 启动电动高压润滑泵, 通过两根主油路A和B建立压力, 首先A管路供油, B管路连通卸荷管路, 建立压力升至设定值后, 与A管路相对应的出油口完成注油, 随后通过换向阀切换管路, B管路开始供油, A管路通向卸荷管路, 建立压力升至设定值后, 与A管路相对应的出油口完成注油一个注油循环结束。

**Principle of operation:** The dual-line centralised lubrication system is PLC-controlled. It activates the electric high-pressure lubrication pump to build up pressure via two main oil lines, A and B. Initially, line A supplies oil, whilst line B is connected to the relief line. Once the pressure has risen to the set value, the outlet corresponding to line A completes the lubrication cycle. The system then switches lines via a directional control valve, Line B begins to supply oil, whilst Line A is connected to the relief line. Once the pressure reaches the set value, the outlet corresponding to Line A completes the lubrication process, marking the end of one lubrication cycle.

### 优势与特点 ADVANTAGES AND FEATURES

- 1、压力高, 允许采用较小的润滑管, 降低管线成本;  
High pressure allows for the use of smaller lubrication pipes, thereby reducing pipeline costs;
- 2、较小的润滑管道, 油脂容量低, 加快管道内油脂流动, 降低油脂老化的可能性;  
Smaller lubrication lines with a lower grease capacity accelerate the flow of grease within the lines, reducing the likelihood of grease deterioration;
- 3、各润滑点独立供油, 互不干扰, 油量分配简单可调;  
Each lubrication point is supplied with oil independently, without interfering with one another, and the oil flow rate is easily adjustable;
- 4、计算机监控, 多媒体语言报警, 独立调压, 运行稳定;  
Computerised monitoring, multimedia voice alerts, independent voltage regulation, and stable operation;
- 5、安装后可便捷调节排量, 系统配备计算机监控、多媒体语言、声光报警及独立调压, 运行稳定。  
Once installed, the flow rate can be easily adjusted. The system features computerised monitoring, multi-language support, audible and visual alarms, and independent pressure regulation, ensuring stable operation.

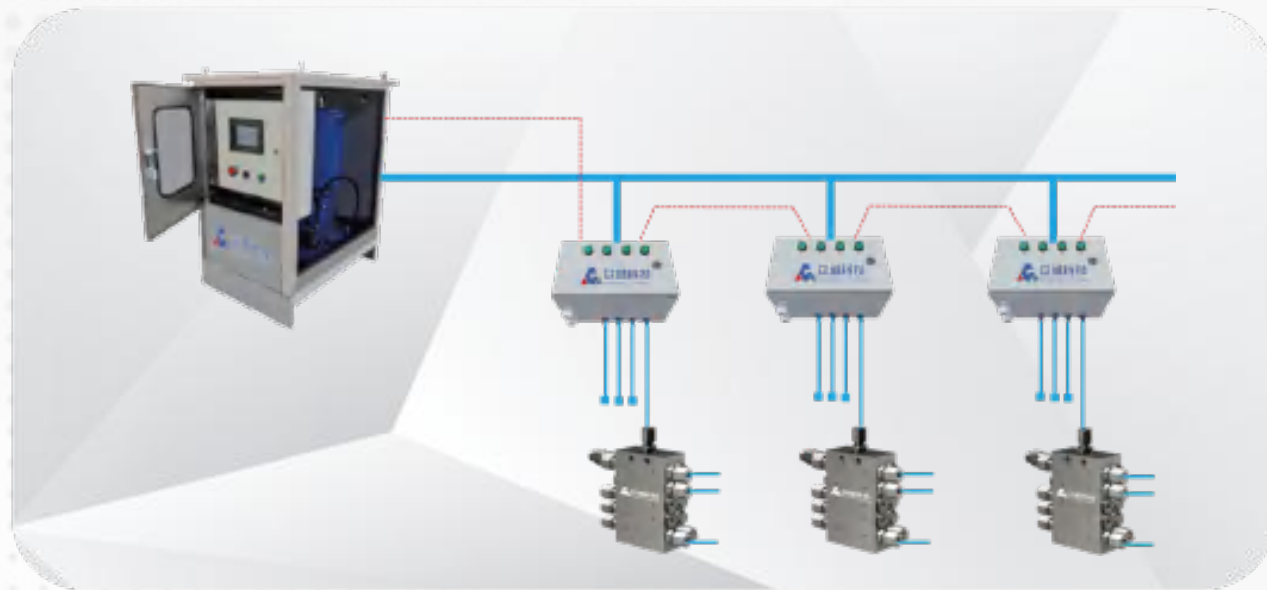
### 技术参数 TECHNICAL SPECIFICATIONS

| 公称压力<br>Nominal pressure | 额定排量<br>Rated displacement       | 油箱容积<br>Fuel tank capacity | 电动机功率<br>Motor power | 重量<br>Weight | 适用电源<br>Power supply requirements |
|--------------------------|----------------------------------|----------------------------|----------------------|--------------|-----------------------------------|
| 40MPa                    | 120ml/min、240ml/min<br>365ml/min | 30L/60L/100L               | 0.37/0.75/1.5KW      | 208kg        | AC380V/AC220V、50Hz                |



# ZCG7X 工业智能单线润滑系统

ZCG7X INDUSTRIAL INTELLIGENT SINGLE-LINE LUBRICATION SYSTEM



**工作原理：**智能集中润滑系统采用PLC控制，启动电动高压润滑泵，通过一根(或多根)主油路建立压力，压力升至设定值后，按照指令打开各电磁给油器开关，按照设定的参数(流量)给各润滑点供油，同时流量传感器进行检测，如有故障及时报警，直到所有的润滑点给油结束，系统进入循环等待时间，循环等待时间结束开始下一个给油过程。

**Principle of operation:**The dual-line centralised lubrication system is PLC-controlled. It activates the electric high-pressure lubrication pump to build up pressure via two main oil lines, A and B. Initially, line A supplies oil, whilst line B is connected to the relief line. Once the pressure has risen to the set value, the outlet corresponding to line A completes the lubrication cycle. The system then switches lines via a directional control valve, Line B begins to supply oil, whilst Line A is connected to the relief line. Once the pressure reaches the set value, the outlet corresponding to Line A completes the lubrication process, marking the end of one lubrication cycle.

## 优势与特点 ADVANTAGES AND FEATURES

- 1、各润滑点油量可调，范围广、精度高；  
The oil volume at each lubrication point is adjustable, offering a wide range and high precision;
- 2、支持多点独立定量供油；  
Supports multi-point independent metered oil supply;
- 3、实时监测压力、液位、温度及分配器，智能异常监测，缺脂预警，自适应调脂；  
Real-time monitoring of pressure, liquid level, temperature and dispensers; intelligent anomaly detection; low-fat alerts; and adaptive fat adjustment;
- 4、计算机监控，多媒体语言报警，独立调压，运行稳定。  
Computerised monitoring, multimedia voice alerts, independent voltage regulation, and stable operation.

## 技术参数 TECHNICAL SPECIFICATIONS

| 公称压力<br>Nominal pressure | 额定排量<br>Rated displacement       | 油箱容积<br>Fuel tank capacity | 电动机功率<br>Motor power | 重量<br>Weight | 适用电源<br>Power supply requirements |
|--------------------------|----------------------------------|----------------------------|----------------------|--------------|-----------------------------------|
| 40MPa                    | 120ml/min、240ml/min<br>365ml/min | 30L/60L/100L               | 0.37/0.75/1.5KW      | 208kg        | AC380V/AC220V、50Hz                |

# ZC7X润滑泵

ZC7X LUBRICATION PUMP

ZC7X系列柱塞泵由电机组件、泵芯组件、安全阀组件、搅杆组件、偏心轮组件及油箱组件等组成。

由控制器控制电机运行，通过传动主轴带动偏心轮，驱动柱塞活塞杆往复运动泵脂。搅杆能够360°持续搅动润滑脂，确保柱塞不抽空。油箱采用PC透明材质，便于观察油位和润滑泵运行状态。

该泵最多可驱动4个柱塞工作，泵送压力可达35MPa。

The ZC7X series plunger pump comprises a motor assembly, pump core assembly, safety valve assembly, agitator assembly, eccentric wheel assembly and reservoir assembly. The motor is controlled by a controller, which drives the eccentric wheel via the drive shaft, causing the plunger piston rod to move back and forth to pump the grease. The agitator continuously stirs the grease through a 360° rotation, ensuring the plunger does not run dry. The reservoir is made of transparent PC material, allowing easy observation of the oil level and the pump's operating status. This pump can drive up to four plungers, with a maximum pumping pressure of 35 MPa.



## 优势与特点 ADVANTAGES AND FEATURES

- 1、直流永磁减速电机扭矩大，电流小；低温性能优，泵送压力大；  
DC permanent magnet gear motors deliver high torque and low current; they offer excellent low-temperature performance and high pumping pressure;
- 2、透明油箱采用复合材料制作，油脂适应强，电磁阀与油脂分离故障少，泵芯寿命长；  
The transparent oil tank is made from composite materials, offering excellent compatibility with lubricants; there are few faults involving the separation of the solenoid valve from the lubricant, and the pump core has a long service life;
- 3、实时监测压力、液位、温度及分配器，智能异常监测，缺脂预警，自适应调脂；  
Real-time monitoring of pressure, liquid level, temperature and dispensers; intelligent anomaly detection;
- 4、高强度铸铝泵体稳定可靠，创新泵芯设计提升压力，材质与精度领先，更耐用。  
The high-strength cast aluminium pump housing is stable and reliable, whilst the innovative pump core design increases pressure; with superior materials and precision, it offers enhanced durability.

## 技术参数 TECHNICAL SPECIFICATIONS

| 型号<br>Model | 油箱容积<br>Fuel tank capacity | 控制模式<br>Control mode | 泵芯出油量<br>Pump core oil output | 输出压力<br>Output pressure | 功率<br>Power | 电压<br>voltage                      | 接插件<br>connectors                                  | 适用油脂<br>Suitable for fats and oils | 适应温度<br>Operating temperature | 防护等级<br>Protection rating |
|-------------|----------------------------|----------------------|-------------------------------|-------------------------|-------------|------------------------------------|----------------------------------------------------|------------------------------------|-------------------------------|---------------------------|
| ZC72        | 2L                         | 内置<br>Built-in       | 2mL/min                       | 30MPa                   | 30W<br>72W  | 12VDC<br>24VAC<br>110VAC<br>220VAC | 格兰头<br>Granthead<br>赫斯曼<br>Hersman<br>宾德<br>Binder | NLGI 000-2                         | -40~80℃                       | IP67                      |
| ZC75        | 4L                         |                      | 2.8mL/min                     |                         |             |                                    |                                                    |                                    |                               |                           |
| ZC76        | 6L                         |                      | 4mL/min                       |                         |             |                                    |                                                    |                                    |                               |                           |
| ZC78        | 8L                         |                      | 4.5mL/min                     |                         |             |                                    |                                                    |                                    |                               |                           |
| ZC710       | 10L                        |                      | 6mL/min                       |                         |             |                                    |                                                    |                                    |                               |                           |
| ZC712       | 12L                        |                      |                               |                         |             |                                    |                                                    |                                    |                               |                           |
| ZC715       | 15L                        |                      |                               |                         |             |                                    |                                                    |                                    |                               |                           |
| ZC720       | 20L                        |                      |                               |                         |             |                                    |                                                    |                                    |                               |                           |



## ZC5X 润滑泵

### ZC5X LUBRICATION PUMP

ZC5X系列柱塞泵由减速直流电机、泵芯组件、安全阀组件、偏心轮组件及油箱组件等组成。由控制器控制电机运行，通过传动主轴带动偏心轮，驱动柱塞活塞杆往复运动泵脂。

The ZC5X series plunger pump comprises a reduced-speed DC motor, a pump core assembly, a safety valve assembly, an eccentric wheel assembly and a reservoir assembly. The motor is controlled by a controller; the drive shaft drives the eccentric wheel, which in turn drives the plunger piston rod to move back and forth, pumping the grease.



### 优势与特点 ADVANTAGES AND FEATURES

- 1、性能优异，采用直流永磁减速电机，扭矩大，电流小；低温性能优，流量稳定，可靠性更高；低噪音，工作噪音 < 45分贝；

Excellent performance, utilising a DC permanent magnet gear motor, delivering high torque and low current; excellent low-temperature performance, stable flow rate and enhanced reliability; low noise, with operating noise levels below 45 decibels;

- 2、稳定可靠，泵芯采用高强度合金钢经特殊工艺处理，配合精度优化提升，耐磨性更好，寿命更高；油泵泵体采用高强度铝合金，重量轻，强度高；电磁阀与油脂分室运行，故障率低；

Stable and reliable, the pump core is made from high-strength alloy steel that has undergone special heat treatment, with optimised fitting precision for improved wear resistance and a longer service life; the oil pump housing is made from high-strength aluminium alloy, offering low weight and high strength; the solenoid valve operates in a separate chamber from the grease, resulting in a low failure rate;

- 3、环境适应性强，润滑泵防护等级IP67；防腐性能满足陆上、海上风电环境需求。

Highly adaptable to various environments; the lubrication pump has an IP67 protection rating; its corrosion resistance meets the requirements of onshore and offshore wind farm environments.

### 技术参数 TECHNICAL SPECIFICATIONS

| 型号<br>Model | 控制模式<br>Control mode                                | 油箱容积<br>Fuel tank capacity | 泵芯出油量<br>Pump core oil output                           | 输出压力<br>Output pressure | 功率<br>Power | 工作噪音   | 适用油脂<br>Suitable for fats and oils | 工作温度<br>Operating temperature | 防护等级<br>Protection rating |
|-------------|-----------------------------------------------------|----------------------------|---------------------------------------------------------|-------------------------|-------------|--------|------------------------------------|-------------------------------|---------------------------|
| ZC55        | 内置<br>(数码管监控器)<br>Built-in<br>(LED display monitor) | 4L                         | 2ml/min<br>2.8ml/min<br>4ml/min<br>4.5ml/min<br>6ml/min | 30Mpa                   | 30W<br>72W  | < 45dB | NLGI 000-2                         | -40~80℃                       | IP67                      |
| ZC58        |                                                     | 8L                         |                                                         |                         |             |        |                                    |                               |                           |
| ZC515       |                                                     | 15L                        |                                                         |                         |             |        |                                    |                               |                           |
| ZC520       |                                                     | 20L                        |                                                         |                         |             |        |                                    |                               |                           |
| ZC530       |                                                     | 30L                        |                                                         |                         |             |        |                                    |                               |                           |

## ZCSX单点泵

### ZCSX SINGLE-POINT PUMP

单点自动润滑泵为柱塞泵，动力源为可拆卸更换锂电池，由锂电池带动电机，驱动柱塞完成泵油功能。

油箱采用PC透明材质，便于观察油位和润滑泵运行状态。

泵送压力可达4MPa。

The single-point automatic lubrication pump is a plunger pump powered by a removable lithium-ion battery. The battery drives an electric motor, which in turn drives the plunger to perform the oil pumping function. The oil reservoir is made of transparent PC material, allowing easy monitoring of the oil level and the pump's operating status. The pumping pressure can reach 4 MPa.



### 优势与特点 ADVANTAGES AND FEATURES

- 1、简洁方便，可拆卸更换锂电池，无需外接电源，油罐可重复充脂；

Simple and convenient, with a removable and replaceable lithium battery; no external power supply required; the grease reservoir can be refilled;

- 2、采用柱塞式泵送结构，实现最大4MPa的工作压力；

It employs a plunger-type pumping mechanism to achieve a maximum operating pressure of 4 MPa;

- 3、可外接分配器实现多点供油，配合精度高；

It can be connected to an external distributor to enable multi-point oil supply, ensuring high precision;

- 4、可调节供油周期，设有1/3/6/12/24月不同使用周期，满足不同润滑需求；

The oil supply cycle is adjustable, with options for 1, 3, 6, 12 or 24 months to meet a range of lubrication

- 5、125ml/250ml/500ml，3种不同容积可供选择。

Available in three different sizes: 125ml, 250ml and 500ml.

### 技术参数 TECHNICAL SPECIFICATIONS

| 名称<br>Name                    | 参数<br>Parameters                                      | 名称<br>Name                    | 参数<br>Parameters         |
|-------------------------------|-------------------------------------------------------|-------------------------------|--------------------------|
| 控制模式<br>Control mode          | 内置控制器<br>Built-in controller                          | 出油口接头<br>Oil outlet fitting   | R3/8                     |
| 油箱容积<br>Fuel tank capacity    | 125ml/250ml/500ml                                     | 加油口<br>Filling port           | 压注油杯<br>Pressure oil cup |
| 泵芯出油量<br>Pump core oil output | 0.2ml/r                                               | 适用油脂<br>Suitable lubricants   | NLGI 00-2                |
| 输出压力<br>Output pressure       | 4MPa max                                              | 适用温度<br>Operating temperature | -20℃~60℃                 |
| 转速<br>Rotational speed        | 8r/min                                                | 防护等级<br>Protection rating     | IP65                     |
| 电池电压<br>Battery voltage       | 3.6V (可选外接24VDC)<br>3.6 V (optional external 24 V DC) | 产品尺寸<br>Product dimensions    | 185.5*98 (mm) (125ml)    |
| 调节周期<br>Adjustment cycle      | 1/3/6/12/24月                                          |                               | 210.5*98 (mm) (250ml)    |
| 电源形式<br>Power supply type     | 锂电池<br>lithium-ion battery                            |                               | 250.5*98 (mm) (500ml)    |



# ZCGF1 液动润滑泵

## ZCGF1 HYDRAULIC LUBRICATION PUMP

ZCGF1液动泵采用旋转驱动的液压马达与往复式泵管组合，将液压马达的旋转运动转换成泵管往复运动，实现油脂的泵送；采用高效的液压马达，大扭矩，低噪音，能够保证泵在高压下稳定输出润滑脂。集成流量调节阀，可灵活控制泵的流量及输出压力。

The ZCGF1 hydraulic pump combines a rotary-driven hydraulic motor with a reciprocating pump tube, converting the rotational motion of the hydraulic motor into the reciprocating motion of the pump tube to pump grease. It utilises a high-efficiency hydraulic motor characterised by high torque and low noise, ensuring stable grease delivery even under high pressure. An integrated flow control valve allows for flexible regulation of the pump's flow rate and output pressure.



### 优势与特点 ADVANTAGES AND FEATURES

- 1、采用液压驱动形式，动力稳定，安全可靠，能够实现高粘度油脂的远距离泵送；  
It utilises a hydraulic drive system, which provides stable power and is safe and reliable, enabling the long-distance pumping of high-viscosity greases;
- 2、流量高达360mL/min，且可实现流量连续性无极调节，方便客户根据需求匹配流量；  
The flow rate reaches up to 360 mL/min and can be continuously and infinitely adjusted, allowing customers to set the flow rate to suit their requirements;
- 3、泵芯采用高强度合金钢经特殊工艺处理，耐磨性更好，寿命更高，降低设备维护成本；  
The pump core is made from high-strength alloy steel that has undergone a special heat treatment process, offering improved wear resistance and a longer service life, thereby reducing equipment maintenance costs;
- 4、润滑泵结构紧凑，配备高低液位检测预警，日常维护方便；  
The lubrication pump is compact in design, equipped with high and low liquid level detection and warning systems, and is easy to maintain on a day-to-day basis;
- 5、采用成熟的密封形式，保证在高压环境中的良好密封；  
A tried-and-tested sealing design is employed to ensure a reliable seal in high-pressure environments;
- 6、全金属结构，宽工作温度范围，抗振、耐冲击、耐雨淋，适用于复杂的恶劣工况。  
All-metal construction, wide operating temperature range, vibration-resistant, shock-resistant and rain-resistant; suitable for complex and harsh operating conditions.

### 技术参数 TECHNICAL SPECIFICATIONS

| 名称<br>Name                                         | 参数<br>Parameters        |
|----------------------------------------------------|-------------------------|
| 液压油最大输入压力<br>Max. inlet pressure of hydraulic oil  | 200Bar                  |
| 液压油最大输入流量<br>Max. inlet flow rate of hydraulic oil | 16L/min                 |
| 液压油工作压力<br>Working pressure of hydraulic oil       | 2.5MPa-3.2MPa           |
| 最高工作压力<br>Max. operating pressure                  | 30MPa                   |
| 工作温度<br>Operating temperature                      | -30℃ ~ 65℃              |
| 流量<br>Flow rate                                    | 120-360ml/min           |
| 出口数量<br>Number of outlets                          | 1 unit                  |
| 适用油脂<br>Suitable oils and greases                  | NLGI 0 ~ 2              |
| 油桶容积<br>Oil drum capacity                          | 30L、40L、50L             |
| 出油口规格<br>Oil outlet specifications                 | 3/4NPTF                 |
| 防护等级<br>Protection rating                          | IP65                    |
| 驱动方式<br>Drive type                                 | 液压驱动<br>Hydraulic drive |

# ZCGF2 电动润滑泵

## ZCGF2 ELECTRIC LUBRICATION PUMP

ZCGF2电动泵采用电机驱动的控制方式，润滑泵的排量与电机转速成线性关系，通过调节电机转速实现润滑泵流量的无极调节。采用高效的无刷电机，输出扭矩大，泵送压力高，能够实现高粘度油脂的远距离泵送。润滑泵采用全金属结构，抗振、耐冲击、耐雨淋，适用于复杂的恶劣工况。

The ZCGF2 electric pump utilises a motor-driven control system, whereby the displacement of the lubrication pump is linearly proportional to the motor speed; this allows for stepless adjustment of the lubrication pump's flow rate by regulating the motor speed. It employs a high-efficiency brushless motor, delivering high output torque and high pumping pressure, enabling the long-distance delivery of high-viscosity greases. The lubrication pump features an all-metal construction, making it vibration-resistant, impact-resistant and weatherproof, and suitable for complex and harsh operating conditions.



### 优势与特点 ADVANTAGES AND FEATURES

- 1、采用高效的无刷电机，输出扭矩大，泵送压力高，能够实现高粘度油脂的远距离泵送；  
Equipped with a high-efficiency brushless motor, it delivers high torque and high pumping pressure, enabling the long-distance pumping of high-viscosity greases;
- 2、电机转速可调，可实现泵送流量连续性无极调节，方便客户根据需求匹配流量；  
The motor speed is adjustable, enabling continuous, stepless regulation of the pump flow rate, making it easy for customers to match the flow rate to their requirements;
- 3、泵芯采用高强度合金钢经特殊工艺处理，耐磨性更好，寿命更高，降低设备维护成本  
The pump core is made from high-strength alloy steel that has undergone a special heat treatment process, offering improved wear resistance and a longer service life, thereby reducing equipment maintenance costs;
- 4、维护方便：安装只须提供电源接口，配备高低液位检测预警，安装维护方便；  
Easy to maintain: Installation requires only a power supply connection; the unit is equipped with high and low liquid level detection and early warning systems, making it easy to install and maintain;
- 5、采用成熟的密封形式，保证在高压环境中的良好密封；  
A tried-and-tested sealing design is employed to ensure a reliable seal in high-pressure environments;
- 6、全金属结构，宽工作温度范围，抗振、耐冲击、耐雨淋，适用于复杂的恶劣工况。  
All-metal construction, wide operating temperature range, vibration-resistant, shock-resistant and rain-resistant; suitable for complex and harsh operating conditions.

### 技术参数 TECHNICAL SPECIFICATIONS

| 名称<br>Name                           | 参数<br>Parameters    |
|--------------------------------------|---------------------|
| 最高工作压力<br>Maximum operating pressure | 35MPa               |
| 工作温度<br>Operating temperature        | -40℃ ~ 65℃          |
| 流量可调<br>Adjustable flow rate         | 25-120mL/min        |
| 出口数量<br>Number of outlets            | 1 unit              |
| 适用油脂<br>Suitable oils                | NLGI 0 ~ 2          |
| 油桶容积<br>Oil drum capacity            | 30L、40L、50L         |
| 出油口规格<br>Outlet specifications       | 1/2 NPTF            |
| 防护等级<br>Protection rating            | IP65                |
| 驱动方式<br>Drive type                   | 电机驱动<br>Motor drive |



# ZCGU01/02 电动润滑泵

## ZCGU01/02 ELECTRIC LUBRICATION PUMP

ZCGU01/02 是高压大容量泵，可用于小型或中型双线系统或递进式系统。

根据不同的系统布置，这些电动泵可向50m范围内的润滑点提供润滑剂，最大运行压力为 400 bar。

The ZCGU01/02 is a high-pressure, high-capacity pump suitable for use in small or medium-sized dual-line or progressive systems. Depending on the system configuration, these electric pumps can supply lubricant to lubrication points within a range of 50 metres, with a maximum operating pressure of 400 bar.



### 优势与特点 ADVANTAGES AND FEATURES

- 1、泵芯采用转轨式配合，可靠性高；**  
The oil volume at each lubrication point is adjustable, offering a wide range and high precision;
- 2、润滑泵排量适中，泵芯排量可方便合并，通用性强；**  
The lubrication pump has a moderate displacement, and the displacement of the pump core can be easily combined, making it highly versatile;
- 3、可配置超声波液位监控。**  
Configurable ultrasonic level monitoring.

### 技术参数 TECHNICAL SPECIFICATIONS

| 名称<br>Name                           | 参数<br>Parameters          |
|--------------------------------------|---------------------------|
| 最高工作压力<br>Maximum operating pressure | Max. 40MPa                |
| 排量<br>Displacement                   | 800ml/h、1600ml/h、3200ml/h |
| 油箱容积<br>Fuel tank capacity           | 10L、30L                   |
| 电压<br>Voltage                        | 380VAC                    |
| 使用温度<br>Operating temperature        | -20°C~70°C                |
| 防护等级<br>Protection rating            | IP65                      |

# ZCG7X 电动润滑泵

## ZCG7X ELECTRIC LUBRICATION PUMP

ZCG7X 系列电动润滑泵适用于润滑频率高，配管长度大，润滑点密集的单、双线干稀油集中润滑系统中，作为供给润滑脂的输送装置。还可配备移动小车、胶管、油枪和电缆组成移动式电动润滑泵装置，适用于润滑频率低，润滑点少，给油量小，不便于采用集中润滑的单机设备，进行移动供脂润滑。

该系列润滑泵为电动高压柱塞式。工作压力在公称压力范围内可任意调整，有双重过载保护。贮油桶具有油位自动报警装置，润滑泵若配备电气控制箱能实现双线集中润滑系统全自动控制，并对系统实现监视。

The ZCG7X series electric lubrication pumps are suitable for use as grease supply units in single-line and dual-line centralised lubrication systems for both dry and thin oils, where lubrication frequency is high, pipework lengths are considerable and lubrication points are densely distributed. They can also be fitted with a mobile trolley, rubber hoses, grease guns and cables to form a mobile electric lubrication pump unit, suitable for mobile grease lubrication of individual machines where lubrication frequency is low, the number of lubrication points is small, the grease supply volume is high, and centralised lubrication is impractical. This series of lubrication pumps utilises an electric high-pressure plunger design. The operating pressure can be freely adjusted within the nominal pressure range, and the pumps feature dual overload protection. The grease reservoir is fitted with an automatic grease level alarm; when equipped with an electrical control box, the lubrication pump enables fully automatic control of dual-line centralised lubrication systems and provides system monitoring.



### 优势与特点 ADVANTAGES AND FEATURES

- 1、压力高，允许采用较小的润滑管，降低管线成本；**  
High pressure allows for the use of smaller lubrication pipes, thereby reducing pipeline costs;
- 2、较小的润滑管道，油脂容量低，加快管道内油脂流动，降低油脂老化的可能性；**  
Smaller lubrication lines, with a lower grease capacity, accelerate the flow of grease within the lines and reduce the likelihood of grease ageing;
- 3、各润滑点独立供油，互不干扰，油量分配简单可调；**  
Each lubrication point is supplied with oil independently, without interfering with one another, and the oil flow rate is simple to adjust;
- 4、计算机监控，多媒体语言报警，独立调压，运行稳定；**  
Computerised monitoring, multimedia voice alerts, independent voltage regulation, and stable operation;
- 5、安装后可便捷调节排量，系统配备计算机监控、多媒体语言、声光报警及独立调压，运行稳定。**  
Once installed, the flow rate can be easily adjusted; the system is equipped with computerised monitoring, multi-language support, audible and visual alarms, and independent pressure regulation, ensuring stable operation.

### 技术参数 TECHNICAL SPECIFICATIONS

| 名称<br>Name                           | 参数<br>Parameters              |
|--------------------------------------|-------------------------------|
| 最高工作压力<br>Maximum operating pressure | Max. 40MPa                    |
| 排量<br>Displacement                   | 120mL/min、240mL/min、365mL/min |
| 油箱容积<br>Fuel tank capacity           | 30L、60L                       |
| 电压<br>Voltage                        | 380VAC                        |
| 使用温度<br>Operating temperature        | -20°C~80°C                    |
| 防护等级<br>Protection rating            | IP65                          |



# ZCGU08/14/24 电动润滑泵

ZCGU08/14/24 ELECTRIC LUBRICATION PUMP

ZCGU08/14/24 泵最初用于双线系统或用作供油泵，最大运行压力为 400 bar (5,800 psi)。根据不同的系统布置，这些电动泵可向 120 米 或更大范围内的润滑点提供润滑剂。

ZCGU08/14/24 标准配置包括减压阀、止回阀、润滑剂过滤器以及压力表。性能稳健，并且由于集成了一个搅拌装置，可在 -20℃至+80℃ (-49°F至+176°F) 的温度范围内有效运行。

The ZCGU08/14/24 pumps were originally designed for use in dual-line systems or as oil supply pumps, with a maximum operating pressure of 400 bar (5,800 psi). Depending on the system configuration, these electric pumps can supply lubricant to lubrication points within a range of 120 metres or more.  
The standard configuration of the ZCGU08/14/24 includes a pressure-reducing valve, a non-return valve, a lubricant filter and a pressure gauge. It offers robust performance and, thanks to the integrated agitator, operates effectively within a temperature range of -20 °C to +80 °C (-49 °F to +176 °F).



## 优势与特点 ADVANTAGES AND FEATURES

- 1、泵芯采用转轨式配合，可靠性高；  
The pump core utilises a sliding-track fit, ensuring high reliability;
- 2、产品结构合理，易于维护；  
The product has a well-designed structure and is easy to maintain;
- 3、三种排量可选；  
Available in three engine capacities;
- 4、可配置超声波液位监控；  
Configurable ultrasonic level monitoring;
- 5、内置润滑油滤网。  
Built-in lubricating oil filter.

## 技术参数 TECHNICAL SPECIFICATIONS

| 名称<br>Name                           | 参数<br>Parameters                                     |
|--------------------------------------|------------------------------------------------------|
| 最高工作压力<br>Maximum operating pressure | Max. 40MPa                                           |
| 排量<br>Displacement                   | ZCHGU08 8000ml/h、ZCHGU14 14000ml/h、ZCHGU24 24000ml/h |
| 油箱容积<br>Fuel tank capacity           | 40L、100L                                             |
| 电压<br>Voltage                        | 380VAC                                               |
| 使用温度<br>Operating temperature        | -20℃~80℃                                             |
| 防护等级<br>Protection rating            | IP65                                                 |

# ZCILS 泵站

ZCILS PUMPING STATION

ZCILS智能润滑泵站是工业设备润滑管理领域的核心装备，通过融合物联网、人工智能和自动化控制技术，实现对设备润滑过程的精准监控与智能调控。

一般集成根据客户现场不同润滑量选择不同排量的电动润滑泵与控制系统集成在碳钢或者不锈钢柜子里面，实现防水保护泵和其他电气元器件的目的。整个泵站设有进线和出线口。

The ZCILS intelligent lubrication pump station is a key piece of equipment in the field of industrial equipment lubrication management. By integrating the Internet of Things, artificial intelligence and automated control technologies, it enables precise monitoring and intelligent regulation of the equipment lubrication process.

Typically, depending on the lubrication requirements at the customer's site, electric lubrication pumps of varying displacement are selected and integrated with the control system within a carbon steel or stainless steel cabinet to provide waterproof protection for the pump and other electrical components. The entire pump station is fitted with power input and output terminals.



## 优势与特点 ADVANTAGES AND FEATURES

- 1、集成供油单元和控制单元，可实现润滑系统的信号集成，包括注油时间、系统压力、油箱液位等信息；  
Integrates the oil supply unit and control unit to enable signal integration within the lubrication system, including information such as oil injection timing, system pressure and oil tank level;
- 2、可实现远程通讯，通过无线或有线方式，将信号传递至远程控制平台；  
It enables remote communication, transmitting signals to a remote control platform via wireless or wired means;
- 3、油箱容积和润滑泵排量可灵活选配；  
The oil tank capacity and lubrication pump displacement can be selected flexibly;
- 4、自带防护箱，防护可靠。  
Comes with its own protective case, ensuring reliable protection.

## 技术参数 TECHNICAL SPECIFICATIONS

| 名称<br>Name                           | 参数<br>Parameters                                                            |
|--------------------------------------|-----------------------------------------------------------------------------|
| 最高工作压力<br>Maximum operating pressure | Max. 40MPa                                                                  |
| 排量<br>Displacement                   | 120mL/min, 240mL/min, 365mL/min, 8L/h, 14L/h, 24L/h, 0.8L/h, 1.6L/h, 3.2L/h |
| 油箱容积<br>Fuel tank capacity           | 30L、40L、60L、100L                                                            |
| 电压<br>Voltage                        | 380VAC                                                                      |
| 使用温度<br>Operating temperature        | -20℃~80℃                                                                    |
| 防护等级<br>Protection rating            | IP65                                                                        |
| 防护柜材质<br>Enclosure material          | 碳钢喷塑/不锈钢<br>Powder-coated carbon steel / stainless steel                    |
| 电气控制<br>Electrical controls          | 采用触摸屏和PLC<br>Features a touch screen and PLC                                |
| 传感器<br>Sensors                       | 压力传感器，超声波液位传感器<br>Pressure sensor, ultrasonic level sensor                  |



# ZC316手动润滑泵

ZC316 MANUAL LUBRICATION PUMP

ZC316手动润滑泵是一种手动高压干油泵，  
可用于递进式润滑系统。

The ZC316 manual lubrication pump is a manual high-pressure grease pump suitable for use in progressive lubrication systems.



## 技术参数 TECHNICAL SPECIFICATIONS

| 名称<br>Name                           | 参数<br>Parameters |
|--------------------------------------|------------------|
| 最高工作压力<br>Maximum operating pressure | 31.5Mpa          |
| 出油口数量<br>Number of outlet ports      | 1                |
| 排量<br>Displacement                   | 2mL/cy           |
| 容积<br>Capacity                       | 1.6L             |
| 工作温度<br>Operating temperature        | -45°C~70°C       |
| 防护等级<br>Protection rating            | IP65             |

# 片式递进分配器

CHIP PROGRESSIVE DISTRIBUTOR

片式分配器由进油口接头、首片、中间片、尾片、出油口接头、堵头、O形圈、螺钉、铰接组件等组成。

片式递进分配器适用于主油路连续供油的递进润滑系统。

它是一种将润滑脂进行计量，并按照一定的顺序依次将润滑脂精确排出的润滑元件。

The disc-type distributor comprises an inlet fitting, a leading disc, intermediate discs, a trailing disc, an outlet fitting, a plug, O-rings, screws and a hinge assembly. The disc-type progressive distributor is suitable for progressive lubrication systems that require continuous oil supply to the main oil line. It is a lubrication component that meters the grease and dispenses it precisely in sequence.



## 优势与特点 ADVANTAGES AND FEATURES

- 1、精确计量，依次润滑；  
Precise metering, sequential lubrication;
- 2、整体式结构紧凑，耐高压；  
The integrated design is compact and capable of withstanding high pressure;
- 3、出油口相邻互通，排量配比灵活多样；  
The outlet ports are interconnected, allowing for flexible and varied flow rate configurations;
- 4、内置式出口单向阀；  
Built-in outlet check valve;
- 5、可视机械式循环指示器；  
Visual mechanical circulation indicator;
- 6、润滑循环计数（选配）。  
Lubrication cycle count (optional).

## 技术参数 TECHNICAL SPECIFICATIONS

| 工作温度<br>Operating temperature | 储存温度<br>Storage temperature | 最大压力<br>Maximum pressure | 排量<br>Engine capacity                                                                                                        | 适用油脂<br>Suitable for fats and oils |
|-------------------------------|-----------------------------|--------------------------|------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| -40°C~80°C                    | -55°C~80°C                  | 35MPa                    | 0.08mL/cy<br>0.16mL/cy<br>0.24mL/cy<br>0.32mL/cy<br>0.64mL/cy<br>1.28mL/cy<br>(同片\邻片可合并)<br>(Adjacent plots may be combined) | 最高可达 NLGI 2<br>Up to NLGI 2        |



# 块式递进分配器

BLOCK-TYPE PROGRESSIVE DISTRIBUTOR

块式分配器由进油口接头、分配器阀体、出油口接头、出油口堵头等组成。

递进分配器适用于主油路连续供油的递进润滑系统。它是一种将润滑脂进行计量，并按照一定的顺序依次将润滑脂精确排出的润滑元件。

A block-type distributor consists of an inlet fitting, a distributor valve body, an outlet fitting and an outlet plug.

A progressive distributor is suitable for progressive lubrication systems that require continuous oil supply to the main oil line. It is a lubrication component that meters the grease and dispenses it precisely in a specific sequence.



## 优势与特点 ADVANTAGES AND FEATURES

- 1、整体式结构设计，耐高压；  
Monolithic structural design, capable of withstanding high pressure;
- 2、体积小，重量轻，安装空间小；  
Compact, lightweight and requiring minimal installation space;
- 3、精确计量，可连续排油，效率高；  
Precise metering, continuous oil discharge, and high efficiency;
- 4、机械式指示杆，堵塞传感器，系统状态安全监测；防护等级达到IP67。  
Mechanical indicator rod, blockage sensor, system status safety monitoring; protection rating: IP67.

## 技术参数 TECHNICAL SPECIFICATIONS

| 工作温度<br>Operating temperature | 储存温度<br>Storage temperature | 最大压力<br>Maximum pressure | 排量<br>Engine capacity | 适用油脂<br>Suitable for fats and oils |
|-------------------------------|-----------------------------|--------------------------|-----------------------|------------------------------------|
| -40℃~80℃                      | -55℃~80℃                    | 35MPa                    | 0.2mL/cy              | 最高可达 NLGI 2<br>Up to NLGI 2        |

# 块式单线分配器

BLOCK-TYPE SINGLE-LINE DISTRIBUTOR

块式单线分配器由分配器阀体、阀芯、指示杆、堵头等组成。

单线分配器适用于主油路周期性供油的润滑系统，在主油路加压时将容腔内润滑脂排出，同时为下次储油充能；在主油路卸压时，通过弹簧复位，为下一次排油储油。

The block-type single-line distributor comprises a distributor body, a spool, an indicator rod, and plugs.

The single-line distributor is suitable for lubrication systems with periodic oil supply from the main oil line. When pressure is applied to the main oil line, it expels the grease from the chamber whilst simultaneously replenishing the reservoir for the next cycle; when pressure is released from the main oil line, the spring returns the spool to its original position, preparing the reservoir for the next discharge.



## 优势与特点 ADVANTAGES AND FEATURES

- 1、排量可调；  
Adjustable flow rate;
- 2、精确计量，各润滑点独立供油；  
Precise metering, with independent oil supply to each lubrication point;
- 3、主油路末端压力检测，系统状态安全监测；  
Pressure monitoring at the end of the main oil line; safety monitoring of the system status;
- 4、各排油口采用并联式结构，相互独立供油；  
Each oil outlet employs a parallel configuration, with each supplying oil independently;
- 5、集成式结构，体积小，重量轻，易于安装和维护；  
Integrated design, compact and lightweight, easy to install and maintain;
- 6、可视机械式排油指示器，集成式结构，体积小，重量轻，易于安装和维护，防护等级达到IP67。  
Visible mechanical oil level indicator with an integrated design; compact and lightweight, it is easy to install and maintain, and has an IP67 protection rating.

## 技术参数 TECHNICAL SPECIFICATIONS

| 工作温度<br>Operating temperature | 储存温度<br>Storage temperature | 最大压力<br>Maximum pressure | 排量<br>Engine capacity            | 适用油脂<br>Suitable for fats and oils |
|-------------------------------|-----------------------------|--------------------------|----------------------------------|------------------------------------|
| -40℃~80℃                      | -55℃~80℃                    | 35MPa                    | 0.2mL/cy<br>0.4mL/cy<br>0.6mL/cy | NLGI 0-2                           |



# ZCSLV 列式单线分配器

ZCSLV SINGLE-LINE DISTRIBUTION UNIT

ZCSLV列式分配器适用于单线高压集中润滑系统，分配与聚氨酯密封兼容的润滑剂，稠度最高可至NLGI 2。输出是外部可调的。指示针可实现目视检查分配阀的操作。单个分配阀可以很容易地拆卸下来进行检查或更换。每个 SL-V 分配阀包括一个透明的聚碳酸酯保护盖。

其特点和优势：随歧管从 1 到 6 个端口；输送输出量是外部可调的，指示针上方的透明聚碳酸酯保护盖可实现目视检查；操作简单，容易方便地拆除检查或更换。

The ZCSLV in-line distributor is suitable for single-line high-pressure centralised lubrication systems, dispensing lubricants compatible with polyurethane seals, with a viscosity grade of up to NLGI 2. The output is externally adjustable. An indicator needle allows for visual inspection of the distributor valve's operation. Individual distributor valves can be easily removed for inspection or replacement. Each SL-V distributor valve includes a transparent polycarbonate protective cover. Features and benefits: Available with manifolds featuring 1 to 6 ports; the delivery output is externally adjustable, and the transparent polycarbonate protective cover above the indicator needle allows for visual inspection; simple operation, with



## 优势与特点 ADVANTAGES AND FEATURES

- 1、配置1至6个端口的歧管；  
Configure manifolds with 1 to 6 ports;
- 2、排量输出可外部调节；  
The flow rate can be adjusted externally;
- 3、一目了然，指示器杆上的透明聚碳酸酯保护盖允许目视检查；  
At a glance, the transparent polycarbonate protective cover on the indicator rod allows for visual inspection;
- 4、易于检查或更换。  
Easy to inspect or replace.

## 技术参数 TECHNICAL SPECIFICATIONS

| 名称<br>Name                           | 参数<br>Parameters                    |
|--------------------------------------|-------------------------------------|
| 出口数量<br>Number of outlets            | 1~6 unit                            |
| 每一出油口排量<br>Flow rate per outlet      | 0.25-1.31ml/cy                      |
| 最大工作压力<br>Maximum operating pressure | Max.41.3bar                         |
| 最小工作压力<br>Minimum operating pressure | Min.12.8bar                         |
| 释放压力<br>Relief pressure              | 7MPa                                |
| 工作温度<br>Operating temperature        | -40℃~82℃                            |
| 润滑脂<br>Grease                        | NLGI-0~2                            |
| 主管道连接<br>Main pipe connection        | 3/8 NPTF (F)                        |
| 连接出口<br>Outlet connection            | 1/8 NPTF (F)                        |
| 尺寸<br>Dimensions                     | Max.203×222×35 mm Min. 63×222×35 mm |
| 材质<br>Material                       | 碳钢<br>Carbon steel                  |
| 防护等级<br>Protection rating            | IP67                                |

# ZCSL 列式单线分配器

ZCSL SINGLE-LINE DISTRIBUTOR

ZCSL是一种列式单线分配器，它是一种精确计量，各个润滑点独立供油的润滑元件。

有排量调节装置,可快速设定,精度高，且配有可视机械式排油指示器，易于外部观察。单口最大排量可达1.31ml/cy。

The ZCSL is a column-type single-line distributor, a lubrication component that provides precise metering and independent oil supply to each lubrication point. It features a flow rate adjustment mechanism that allows for quick and accurate setting, and is equipped with a visible mechanical flow indicator for easy external monitoring. The maximum flow rate per outlet is 1.31 ml/cycle.



## 优势与特点 ADVANTAGES AND FEATURES

- 1、配置1至6个端口的歧管；  
Configure manifolds with 1 to 6 ports;
- 2、排量输出可外部调节；  
The flow rate can be adjusted externally;
- 3、每个指示器杆都可目视检查喷油器的运行情况；  
Each indicator rod allows for a visual inspection of the injector's operation;
- 4、单个分配器易于拆卸检查和更换；  
Individual distributors are easy to remove for inspection and replacement;
- 5、配置备用出口，可安装进油管路。  
Provide a spare outlet for the installation of the inlet pipe.

## 技术参数 TECHNICAL SPECIFICATIONS

| 名称<br>Name                      | 参数<br>Parameters                   |
|---------------------------------|------------------------------------|
| 出口数量<br>Number of outlets       | 1~6 units                          |
| 单一出油口排量<br>Flow rate per outlet | 0.131~1.31 mL/cy                   |
| 工作压力<br>Operating pressure      | Max.24 MPa / Min.12.7 MPa          |
| 释放压力<br>Release pressure        | 4.1 MPa                            |
| 使用温度<br>Operating temperature   | -26℃~176℃                          |
| 润滑脂<br>Grease                   | NLGI- 0~2                          |
| 主管道连接<br>Main pipe connection   | 3/8 NPTF(F)                        |
| 连接出口<br>Outlet connection       | 1/8 NPTF(F)                        |
| 尺寸<br>Dimensions                | Max.203*179.4*32 / Min.63*179.4*32 |
| 材质<br>Material                  | 碳钢<br>Carbon steel                 |
| 防护等级<br>Protection rating       | IP67                               |



# ZCFSL/ZCFSG/ZCFSKH 双线分配器

ZCFSL/ZCFSG/ZCFSKH DUAL-LINE DISTRIBUTOR

ZCFSL/ZCFSG/ZCFSKH 分配阀采用耐用的镀锌钢制成，用于双线润滑系统，最大运行压力为 40 MPa (5 800 psi)。最多可达8个出口，每对出口均可配备机械指示杆或电子传感器，进行可视化监测。此外，ZCFSL/ZCFSG/ZCFSKH 分配阀可配备低磨损接近开关或活塞检测器，用以进行电气监测。ZCFSL/ZCFSG/ZCFSKH 的阀体材料不仅防锈而且耐酸

The ZCFSL/ZCFSG/ZCFSKH distribution valves are constructed from durable galvanised steel and are designed for use in dual-line lubrication systems with a maximum operating pressure of 40 MPa (5,800 psi). They feature up to eight outlets, each pair of which can be fitted with a mechanical indicator rod or an electronic sensor for visual monitoring. Furthermore, the ZCFSL/ZCFSG/ZCFSKH distribution valves can be equipped with low-wear proximity switches or piston detectors for electrical monitoring. The valve body material of the ZCFSL/ZCFSG/ZCFSKH is not only rust-resistant but also acid-resistant.



## 优势与特点 ADVANTAGES AND FEATURES

- 1、结构简单，运行可靠；**  
Simple in design and reliable in operation;
- 2、润滑点注油状态实时监控，可实现人工观察监控或传感器信号监控；**  
Real-time monitoring of the lubrication status at lubrication points can be carried out either through visual inspection or via sensor signals;
- 3、成对出油口的排量可方便调节；**  
The flow rate of the paired oil outlets can be easily adjusted;
- 4、拓展方便，可在润滑系统内任意加减布置双线分配器；**  
It is easy to expand, as dual-line distributors can be added or removed at will within the lubrication system;
- 5、压力高，可实现远距离多润滑点注油。**  
High pressure enables lubrication of multiple points over long distances.

## 技术参数 TECHNICAL SPECIFICATIONS

| 名称<br>Name                         | ZCFSL                                                                                                                                           | ZCFSG                                                                                                                                              | ZCFSKH                                                                                                                                         |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| 出口数量<br>Number of outlets          | 2~8                                                                                                                                             | 2~8                                                                                                                                                | 2~8                                                                                                                                            |
| 每一出口口排量<br>Flow rate per outlet    | 可调排量: 0~5ml/cyc<br>固定排量: 1.25、2.5、3、3.75.5ml/cyc<br>Adjustable displacement: 0~5 ml/cycle<br>Fixed displacement: 1.25, 2.5, 3, 3.75, 5 ml/cycle | 可调排量: 0~2.2ml/cyc<br>固定排量: 0.55、1.1、1.65、2.2ml/cyc<br>Adjustable displacement: 0~2.2 ml/cycle<br>Fixed displacement: 0.55, 1.1, 1.65, 2.2 ml/cycle | 可调排量: 0~1.5ml/cyc<br>固定排量: 0.3、0.6、1.2、1.5ml/cyc<br>Adjustable displacement: 0~1.5 ml/cycle<br>Fixed displacement: 0.3, 0.6, 1.2, 1.5 ml/cycle |
| 最大工作压力<br>Maximum working pressure | Max. 40MPa                                                                                                                                      |                                                                                                                                                    |                                                                                                                                                |
| 工作温度<br>Operating temperature      | -20~120℃                                                                                                                                        |                                                                                                                                                    |                                                                                                                                                |
| 材质<br>Material                     | 碳钢<br>carbon steel                                                                                                                              |                                                                                                                                                    |                                                                                                                                                |

# ZCU1 液压换向阀

ZCU1 HYDRAULIC DIRECTIONAL CONTROL VALVE

ZCU1 是一种液压换向阀，主要设计用于双线润滑系统。

这种换向阀交替排出由泵注入其中一条主油管之中的润滑剂。另一条油路则连接至泵的回油管接头。换向压力可调。

The ZCU1 is a hydraulic directional control valve designed primarily for use in dual-line lubrication systems. This directional control valve alternately discharges the lubricant injected by the pump into one of the main oil lines. The other oil line is connected to the pump's return line fitting. The directional control pressure is adjustable.



## 技术参数 TECHNICAL SPECIFICATIONS

| 名称<br>Name                                                              | 参数<br>Parameters                                                                                                                       |
|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| 功能原理<br>Principle of Operation                                          | 液压换向阀，二位四通阀<br>Hydraulic directional control valve, two-position four-way valve                                                        |
| 工作温度<br>Operating Temperature                                           | -20~80 °C                                                                                                                              |
| 润滑剂<br>Lubricant                                                        | 粘度等级达NLGI 3 的润滑脂，最低粘度为20 mm2/s的润滑油<br>Grease with a viscosity grade up to NLGI 3; lubricating oil with a minimum viscosity of 20 mm²/s |
| 流速<br>Flow Rate                                                         | 14 dm³/h                                                                                                                               |
| 工作压力<br>Operating Pressure                                              | 最大 350 bar<br>Max. 350 bar                                                                                                             |
| 转换压力<br>Conversion Pressure                                             | 最小 140 bar，最大 350 bar<br>Min. 140 bar, Max. 350 bar                                                                                    |
| 主管道接头线管路接头<br>Main Pipeline Connections and Branch Pipeline Connections | G 1/2 BSPP内螺纹<br>G 1/2 BSPP internal thread                                                                                            |
| 电气连接<br>Electrical Connections                                          | 最大 500 V, 25-60 Hz<br>Max. 500 V, 25-60 Hz                                                                                             |
| 防护等级<br>Protection Rating                                               | IP 67                                                                                                                                  |
| 各型号尺寸 Dimensions of each model                                          |                                                                                                                                        |
| 最小<br>Minimum                                                           | 195 x 190 x 100 mm                                                                                                                     |
| 最大<br>Maximum                                                           | 195 x 195 x 195 mm                                                                                                                     |
| 安装方式<br>Installation Method                                             | 任何位置均可<br>Can be installed in any position                                                                                             |



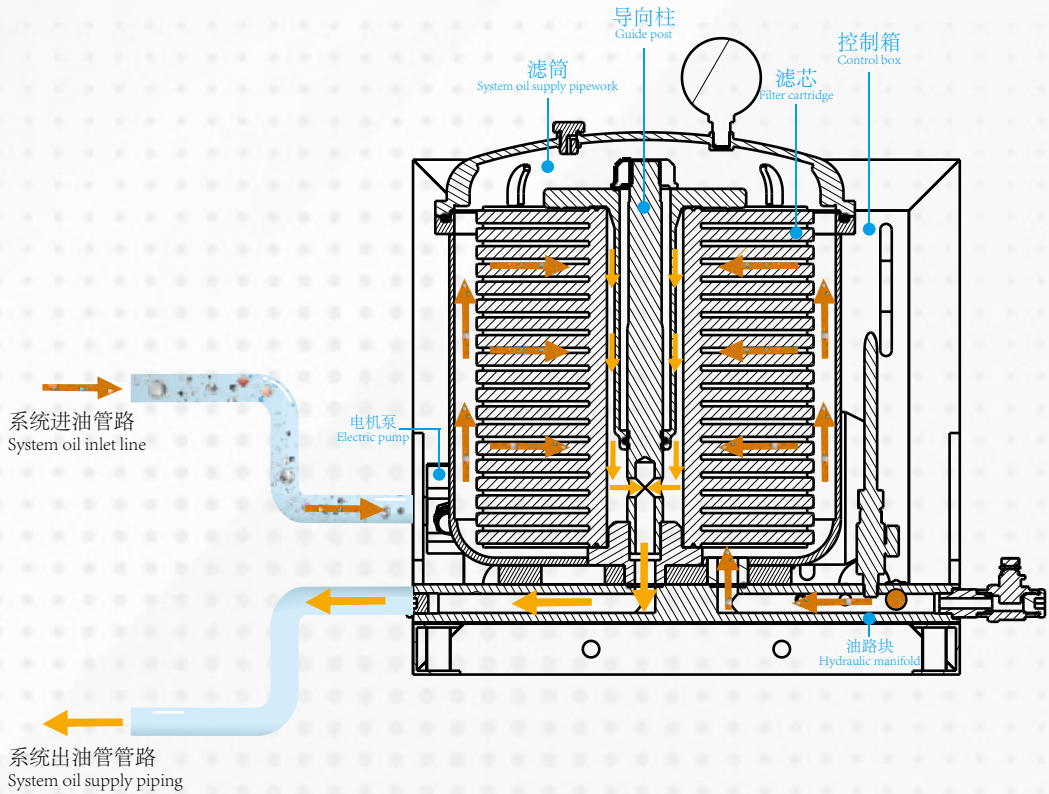
# ZL912PRO+ 油液在线监测和精密过滤系统

ZL912PRO+ ONLINE OIL MONITORING AND PRECISION FILTRATION SYSTEM



**工作原理:** 控制箱控制电机泵运转, 电机泵将齿轮箱油经系统进油管泵送至油路块, 经油路块管道进入过滤筒内部, 油液在滤筒内部 经滤芯过滤后压入滤芯中心槽孔并通过滤筒中心的导向柱流出滤筒, 最终通过油路块经系统出油管泵送回齿轮箱内部。

**Principle of operation:**The control box controls the operation of the motor pump, which pumps gearbox oil through the system's inlet pipe to the oil manifold. From there, the oil flows through the manifold's piping into the filter housing, where it is filtered by the filter element before being pressurised into the central bore of the filter element and flowing out through the guide pin at the centre of the filter housing. Finally, it is pumped back into the gearbox via the oil manifold and the system's outlet pipe.



## 优势与特点 ADVANTAGES AND FEATURES

- 1、过滤精度高(<3μm), 效果好, 适用油品粘度范围广;  
High filtration precision (<3 μm), excellent performance, and suitable for a wide range of oil viscosities;
- 2、旁路过滤设计, 不影响设备运行, 滤芯纳污量高且吸水性强;  
Bypass filtration design that does not affect equipment operation; the filter cartridge has a high dirt-holding
- 3、集成油路减少故障点, 系统可靠性高, 实时监控、在线检测油品状态与设备运行;  
The integrated hydraulic circuit reduces potential points of failure, ensuring high system reliability, whilst enabling
- 4、结构紧凑体积小, 安装便捷, 配备智能控制及显示系统。  
Compact and space-saving, it is easy to install and features an intelligent control and display system.

## 技术参数 TECHNICAL SPECIFICATIONS

| 名称<br>Name                                    | 参数<br>Parameters                                                                 |
|-----------------------------------------------|----------------------------------------------------------------------------------|
| 过滤精度<br>Filtration precision                  | 3μm                                                                              |
| 额定流量<br>Rated flow rate                       | 120L/h、240L/h                                                                    |
| 额定电压、频率<br>Rated voltage and frequency        | AC220V/AC380V、50Hz                                                               |
| 设计压力<br>Design pressure                       | 12bar                                                                            |
| 滤芯更换压力<br>Filter element replacement pressure | 3bar                                                                             |
| 外形尺寸<br>Dimensions                            | 502*430*430 (mm)                                                                 |
| 纳污量<br>Contaminant holding capacity           | 4kg                                                                              |
| 吸水量<br>Water absorption capacity              | 2L                                                                               |
| 电机功率<br>Motor power                           | 180W                                                                             |
| 工作温度<br>Operating temperature                 | 0℃~70℃                                                                           |
| 储存温度<br>Storage temperature                   | -40℃~80℃                                                                         |
| 适用粘度<br>Suitable viscosity range              | ≤320cst                                                                          |
| 过压保护<br>Overpressure protection               | 开关量信号<br>Digital signals                                                         |
| 温度保护<br>Temperature protection                | 模拟量信号<br>Analogue signals                                                        |
| 油液监测<br>Fluid monitoring                      | 污染度、水分、磨粒、粘度<br>Pollution level, moisture content, abrasive particles, viscosity |
| 通讯接口<br>Communication interface               | RS-485、CAN<br>RS-485, CAN                                                        |
| 通讯协议<br>Communication protocol                | MODBUS<br>MODBUS                                                                 |
| 流量计<br>Flow meter                             | 脉冲信号<br>Pulse signals                                                            |



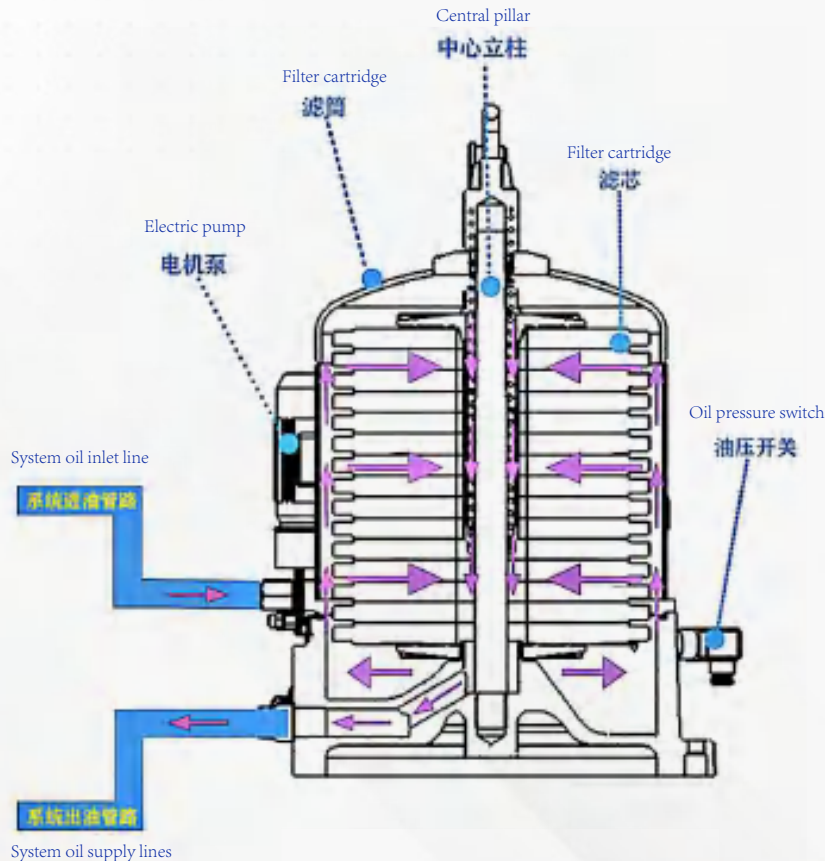
# ZL9XPRO精密过滤系统

## ZL9XPRO PRECISION FILTRATION SYSTEM



**工作原理:** ZL9XPro系列精密过滤系统由电机泵、滤筒、滤芯、压力开关、压力表、管路附件等组成。通过电机泵将齿轮箱内润滑油循环通过过滤系统，将油品中的不溶性颗粒物、油液降解物、水分等油液污染物过滤，从而改善油品质量，提高油品利用率，延长设备使用寿命，为客户创造更大价值。

**Principle of operation:** The ZL9XPro series precision filtration system comprises a motorised pump, filter housing, filter cartridge, pressure switch, pressure gauge and pipework fittings. The motorised pump circulates the lubricating oil from the gearbox through the filtration system, filtering out contaminants such as insoluble particulates, oil degradation products and moisture, thereby improving oil quality, enhancing oil utilisation and extending the service life of the equipment, thus creating greater value for customers.



## 优势与特点 ADVANTAGES AND FEATURES

- 1、在线旁路过滤：不影响设备运行，提高发电效率，同时保证油品的性能和使用寿命；**  
Online bypass filtration: does not affect equipment operation, improves power generation efficiency, whilst ensuring the performance and service life of the oil;
- 2、过滤精度、过滤效率高：选用高精度滤芯，过滤精度达3μm，一次性拦截效率高；**  
High filtration precision and efficiency: High-precision filter cartridges are used, with a filtration precision of 3 μm and high one-pass interception efficiency;
- 3、纳污量高、过滤介质范围广，纳污量为系统过滤的5-10倍；不仅可以过滤金属颗粒、磨屑，还能过滤油液中水分、油液降解物、油泥等杂质；**  
It has a high dirt-holding capacity and a wide range of filter media, with a dirt-holding capacity 5-10 times that of the system's filtration capacity; it can filter not only metal particles and grinding debris, but also impurities such as water, oil degradation products and sludge in the oil;
- 4、适用油品范围广，可过滤32cst至320cst粘度范围内油；**  
Suitable for a wide range of oils; capable of filtering oils with viscosities ranging from 32 cSt to 320 cSt;
- 5、安装方便，结构紧凑，体积小，便于安装。**  
Easy to install, with a compact design and small footprint, making it convenient to fit.

## 技术参数 TECHNICAL SPECIFICATIONS

| 名称<br>Name                      |                                               | 参数<br>Parameters                                                                 |  |
|---------------------------------|-----------------------------------------------|----------------------------------------------------------------------------------|--|
| 基础参数<br>Basic parameters        | 过滤精度<br>Filtration precision                  | 3μm                                                                              |  |
|                                 | 额定流量<br>Rated flow rate                       | 120L/h                                                                           |  |
|                                 | 额定电压、频率<br>Rated voltage and frequency        | AC380V、50Hz                                                                      |  |
|                                 | 设计压力<br>Design pressure                       | 12bar                                                                            |  |
|                                 | 滤芯更换压力<br>Filter element replacement pressure | 3bar                                                                             |  |
|                                 | 外形尺寸<br>Dimensions                            | 522*427*572（mm）                                                                  |  |
|                                 | 纳污量<br>Contaminant holding capacity           | 4kg                                                                              |  |
|                                 | 吸水量<br>Water absorption capacity              | 2L                                                                               |  |
|                                 | 电机功率<br>Motor power                           | 180W                                                                             |  |
|                                 | 工作温度<br>Operating temperature                 | 0℃~70℃                                                                           |  |
|                                 | 储存温度<br>Storage temperature                   | -40℃~80℃                                                                         |  |
|                                 | 适用粘度<br>Suitable viscosity range              | ≤320cst                                                                          |  |
| 选配参数<br>Optional specifications | 过压保护<br>Overpressure protection               | 开关量信号<br>Switching signal                                                        |  |
|                                 | 温度保护<br>Temperature protection                | 模拟量信号<br>Analog signal                                                           |  |
|                                 | 油液监测<br>Fluid monitoring                      | 污染度、水分、磨粒、粘度<br>Pollution level, moisture content, abrasive particles, viscosity |  |
|                                 | 通讯接口<br>Communication interface               | RS-485、CAN                                                                       |  |
|                                 | 通讯协议<br>Communication protocol                | MODBUS                                                                           |  |
|                                 | 流量计<br>Flow meter                             | 脉冲信号<br>Pulse signal                                                             |  |



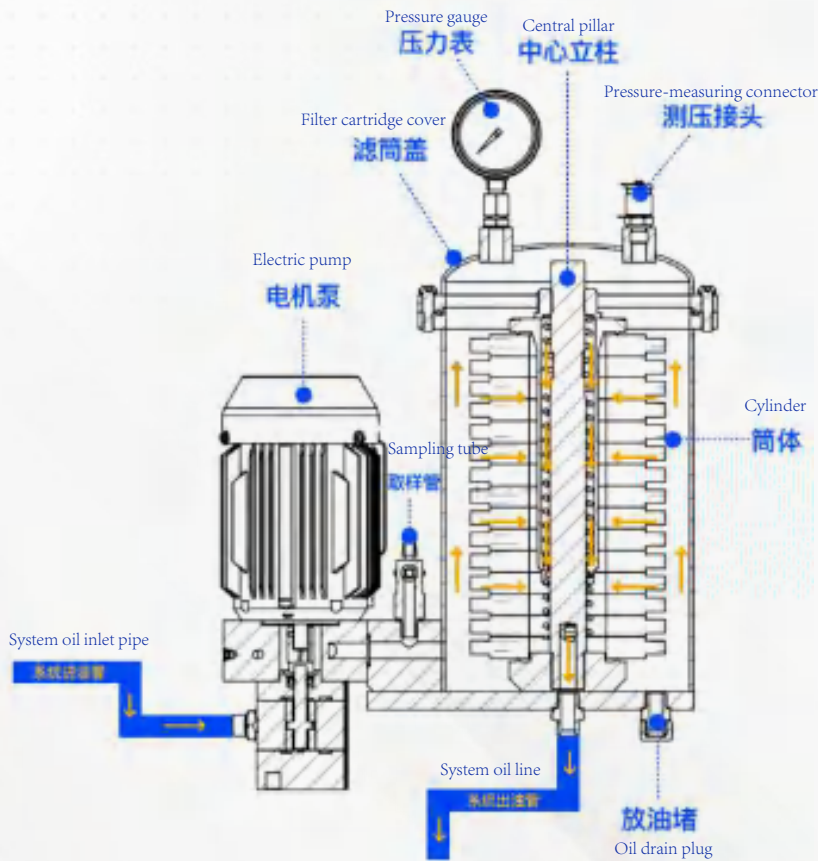
# ZL912MINI精密过滤系统

## ZL912MINI PRECISION FILTRATION SYSTEM



**工作原理:** 控制箱控制电机泵运转, 电机泵将齿轮箱油经系统进油管泵送至油路块, 经油路块管道进入过滤筒内部, 油液在滤筒内部经滤芯过滤后压入滤芯中心槽孔并通过滤筒中心的导向柱流出滤筒, 最终通过油路块经系统出油管泵送回齿轮箱内部。

**Principle of operation:** The control box controls the operation of the motor pump, which pumps gearbox oil through the system's inlet pipe to the oil manifold. From there, the oil flows through the manifold's piping into the filter housing. Inside the filter housing, the oil is filtered by the filter element, then pressurised into the central groove of the filter element and flows out through the guide pin at the centre of the filter housing. Finally, it is pumped back into the gearbox via the oil manifold and the system's outlet pipe.



### 优势与特点 ADVANTAGES AND FEATURES

- 1、过滤精度高(<3μm), 效果好, 适用油品粘度范围广;**  
High filtration precision (<3 μm), excellent performance, and suitable for a wide range of oil viscosities;
- 2、旁路过滤设计, 不影响设备运行, 滤芯纳污量高且吸水性强;**  
Bypass filtration design that does not affect equipment operation; the filter cartridge has a high dirt-holding capacity and excellent water absorption;
- 3、集成油路减少故障点, 系统可靠性高, 实时监控油品状态与设备运行;**  
The integrated hydraulic circuit reduces potential points of failure, ensuring high system reliability and enabling real-time monitoring of fluid condition and equipment operation;
- 4、结构紧凑体积小, 安装便捷, 配备智能控制及显示系统。**  
Compact and space-saving, it is easy to install and features an intelligent control and display system.

### 技术参数 TECHNICAL SPECIFICATIONS

| 名称<br>Name                      |                                               | 参数<br>Parameters                                                                 |  |
|---------------------------------|-----------------------------------------------|----------------------------------------------------------------------------------|--|
| 基础参数<br>Basic parameters        | 过滤精度<br>Filtration precision                  | 3μm                                                                              |  |
|                                 | 额定流量<br>Rated flow rate                       | 120L/h、240L/h                                                                    |  |
|                                 | 额定电压、频率<br>Rated voltage and frequency        | AC380V、50Hz                                                                      |  |
|                                 | 设计压力<br>Design pressure                       | 12bar                                                                            |  |
|                                 | 滤芯更换压力<br>Filter element replacement pressure | 3bar                                                                             |  |
|                                 | 外形尺寸<br>Dimensions                            | 383*234*540（mm）                                                                  |  |
|                                 | 纳污量<br>Contaminant holding capacity           | 1.5kg                                                                            |  |
|                                 | 吸水量<br>Water absorption capacity              | 0.75L                                                                            |  |
|                                 | 电机功率<br>Motor power                           | 180W                                                                             |  |
|                                 | 工作温度<br>Operating temperature                 | 0°C~70°C                                                                         |  |
|                                 | 储存温度<br>Storage temperature                   | -40°C~80°C                                                                       |  |
|                                 | 适用粘度<br>Suitable viscosity range              | ≤320cst                                                                          |  |
| 选配参数<br>Optional specifications | 过压保护<br>Overpressure protection               | 开关量信号<br>Switching signal                                                        |  |
|                                 | 温度保护<br>Temperature protection                | 模拟量信号<br>Analog signal                                                           |  |
|                                 | 油液监测<br>Fluid monitoring                      | 污染度、水分、磨粒、粘度<br>Pollution level, moisture content, abrasive particles, viscosity |  |
|                                 | 通讯接口<br>Communication interface               | RS-485、CAN                                                                       |  |
|                                 | 通讯协议<br>Communication protocol                | MODBUS                                                                           |  |
|                                 | 流量计<br>Flow meter                             | 脉冲信号<br>Pulse signal                                                             |  |



## 220V桶式加油机

220V DRUM-TYPE FUEL DISPENSER

这款下沉式黄油机采用活塞与电机一体设计，结构紧凑，出油迅速、桶内残留少，且操作非常简便。它配备纯铜大功率电机，输出动力澎湃，让注油过程更加轻松省力。同时，全密封吸盘可自由调节注射压力，适应不同需求，适用范围广泛。

This under-counter butter dispenser features an integrated piston and motor design, offering a compact structure, rapid dispensing, minimal residue in the container, and extremely simple operation. It is equipped with a high-power solid copper motor, delivering robust power to make the dispensing process effortless. Furthermore, the fully sealed suction cup allows for free adjustment of dispensing pressure to suit various requirements, making it suitable for a wide range of applications.



| 工作压力<br>Operating Pressure | 出油速度<br>Oil Flow Rate | 电源电压<br>Supply Voltage | 电机输出功率<br>Motor output power |
|----------------------------|-----------------------|------------------------|------------------------------|
| 0~40Mpa                    | 350g/min              | AC 220V                | 850W                         |

## 24V下沉式加油机

24V RECESSED FUEL DISPENSER

这款加脂设备由电源驱动，采用直流无刷电机带动泵内柱塞运动，从而将润滑脂以高压方式泵送出去。其优点在于安全可靠、排量大、操作简便。

This grease dispensing unit is powered by an electric motor, which drives a brushless DC motor to move the plunger within the pump, thereby dispensing grease at high pressure. Its advantages include safety, reliability, high output and ease of operation.



| 工作压力<br>Operating Pressure | 出油速度<br>Oil Flow Rate | 适配油桶容量<br>Suitable for oil drum capacities | 控制方式<br>Control method | 电源电压<br>voltage | 电机输出功率<br>Output power | 整机重量<br>Weight | 适配油桶内径<br>Suitable for the inner diameter of the oil drum |
|----------------------------|-----------------------|--------------------------------------------|------------------------|-----------------|------------------------|----------------|-----------------------------------------------------------|
| 0-60Mpa                    | 350/min               | 桶装12-18kg                                  | 压力控制                   | DC24V           | 600W                   | 8.5kg          | 280-320mm                                                 |

## 手动加油机

MANUAL GREASE GUN

由人工将润滑脂从油脂桶内输送到油脂泵储油罐中的工具，配有一个310标准桶桶盖，可以利用桶盖充脂器直接装入15KG标准油脂桶内，使用方便，并且带有压盘能有效减少注油吸空和清洁桶壁，避免了油脂的二次污染，同时有效的避免空气混入油脂中并避免油脂的污染。

A tool designed to manually transfer grease from a grease drum into the reservoir of a grease pump, fitted with a lid compatible with standard 310 drums. It can be inserted directly into a standard 15 kg grease drum using the drum lid greaser, making it convenient to use. It features a pressure plate that effectively minimises air entrapment during filling and cleans the drum walls, thereby preventing secondary contamination of the grease. At the same time, it effectively prevents air from entering the grease and avoids contamination.



| 排量<br>Engine capacity | 额定压力<br>Rated pressure | 连接方式<br>Connection method | 充脂范围<br>Filling range |
|-----------------------|------------------------|---------------------------|-----------------------|
| 50ml/cyc              | 1Mpa                   | 快插接头                      | NLGI 000-2            |

## 手推式加油枪

HAND-HELD FUEL NOZZLE

补脂枪容积  
Volume

500mL

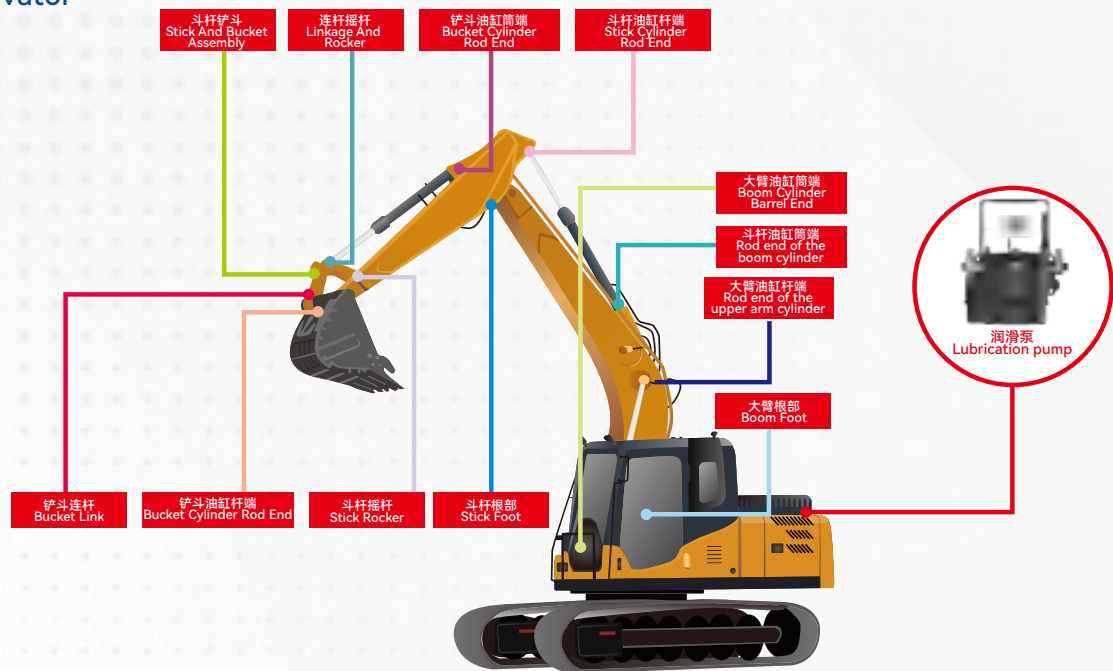
需配置专用补脂接头 A dedicated grease fitting must be fitted



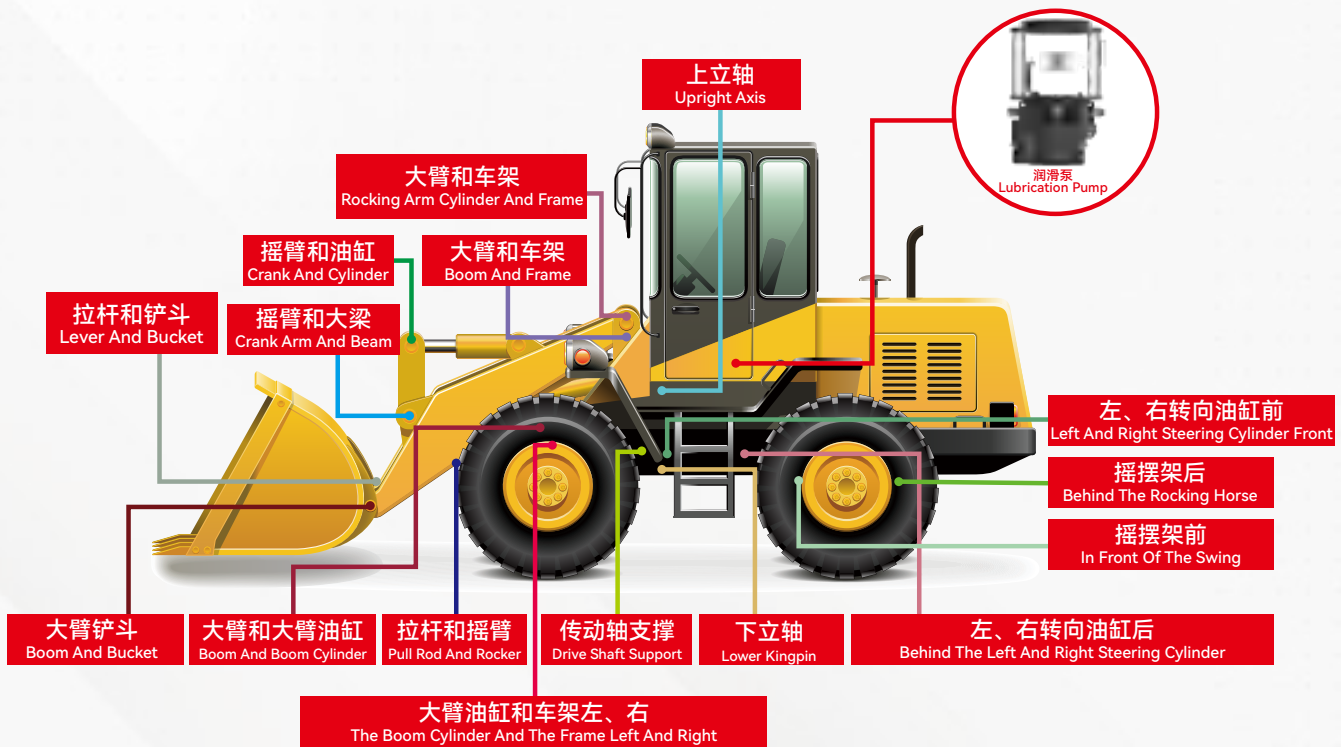
# 工程车辆集中润滑系统解决方案

## CENTRALISED LUBRICATION SYSTEM SOLUTIONS FOR CONSTRUCTION VEHICLES

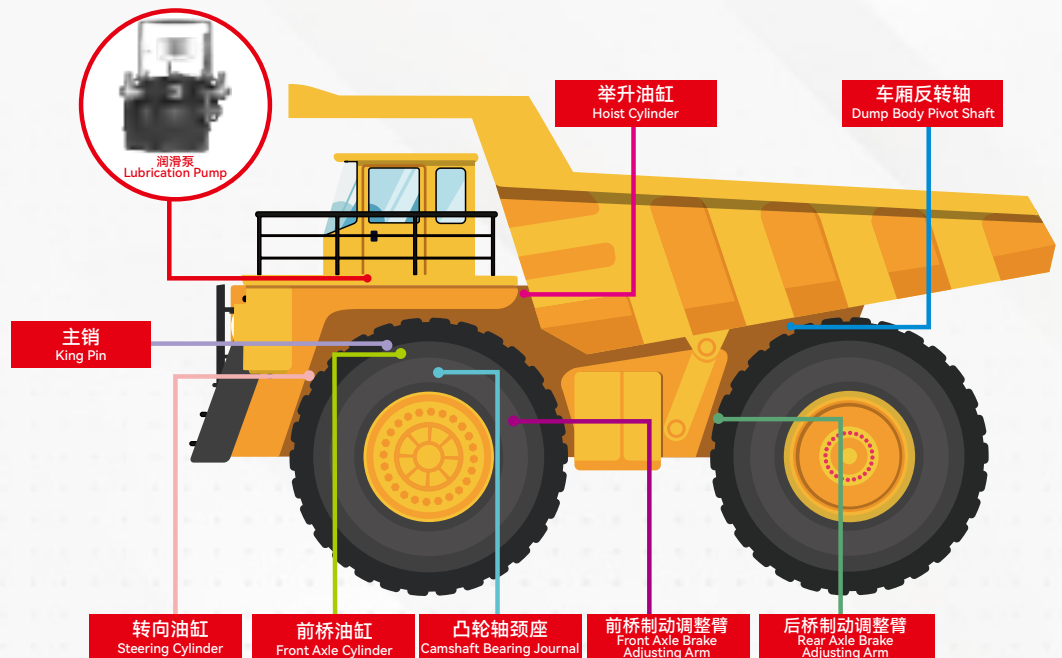
## 挖掘机



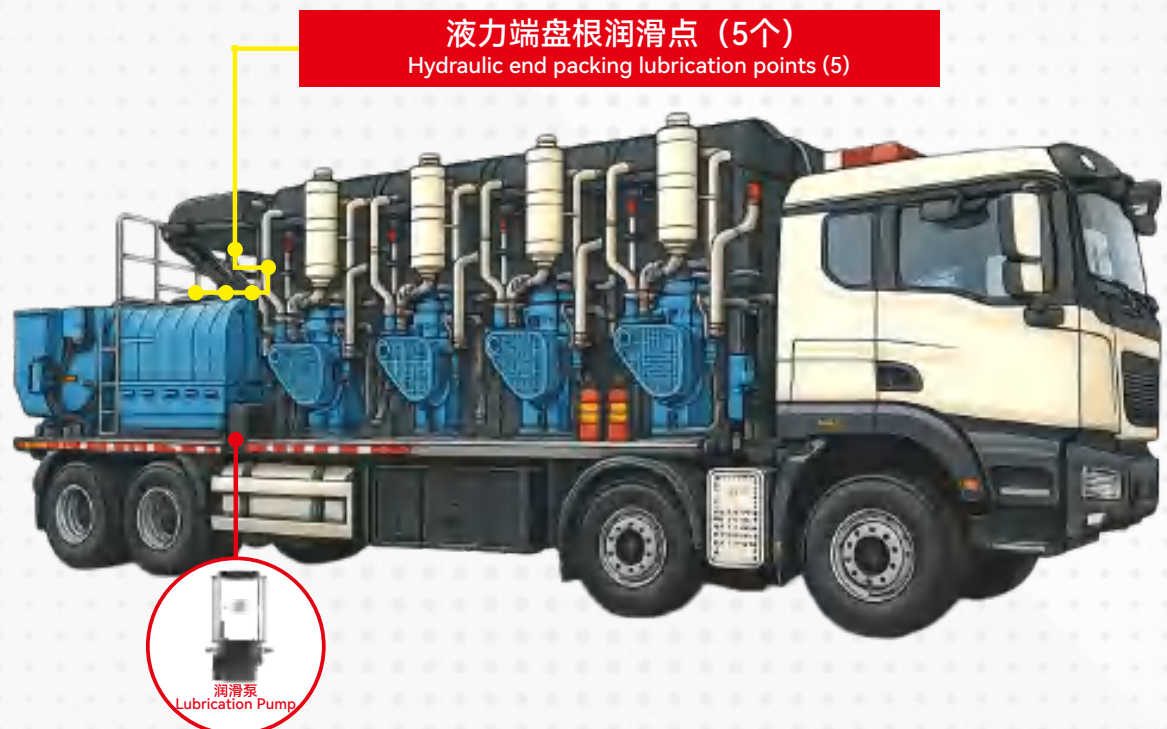
**装载机**  
Loader



// 矿卡  
Mining card



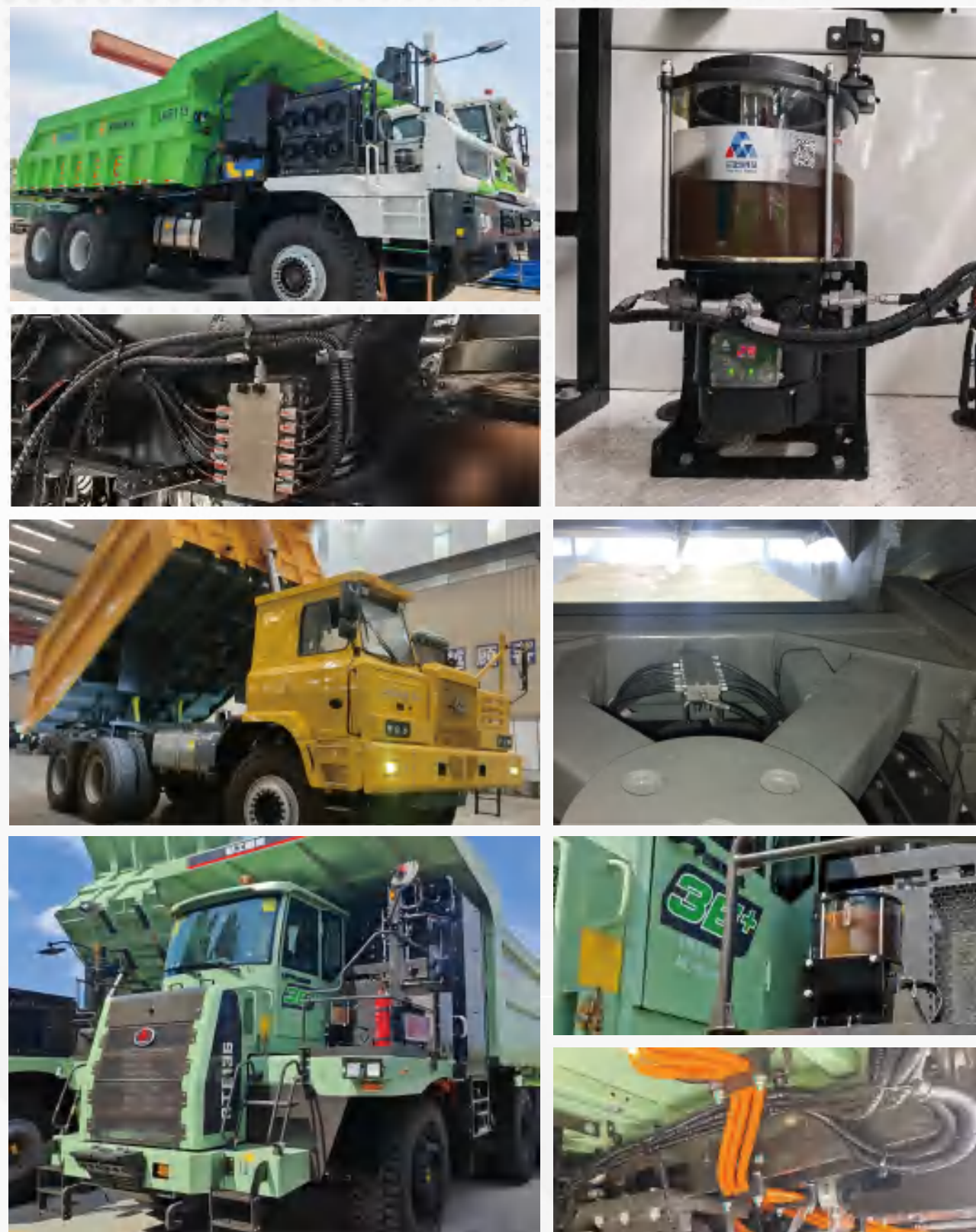
**压裂车**  
Fracturing truck





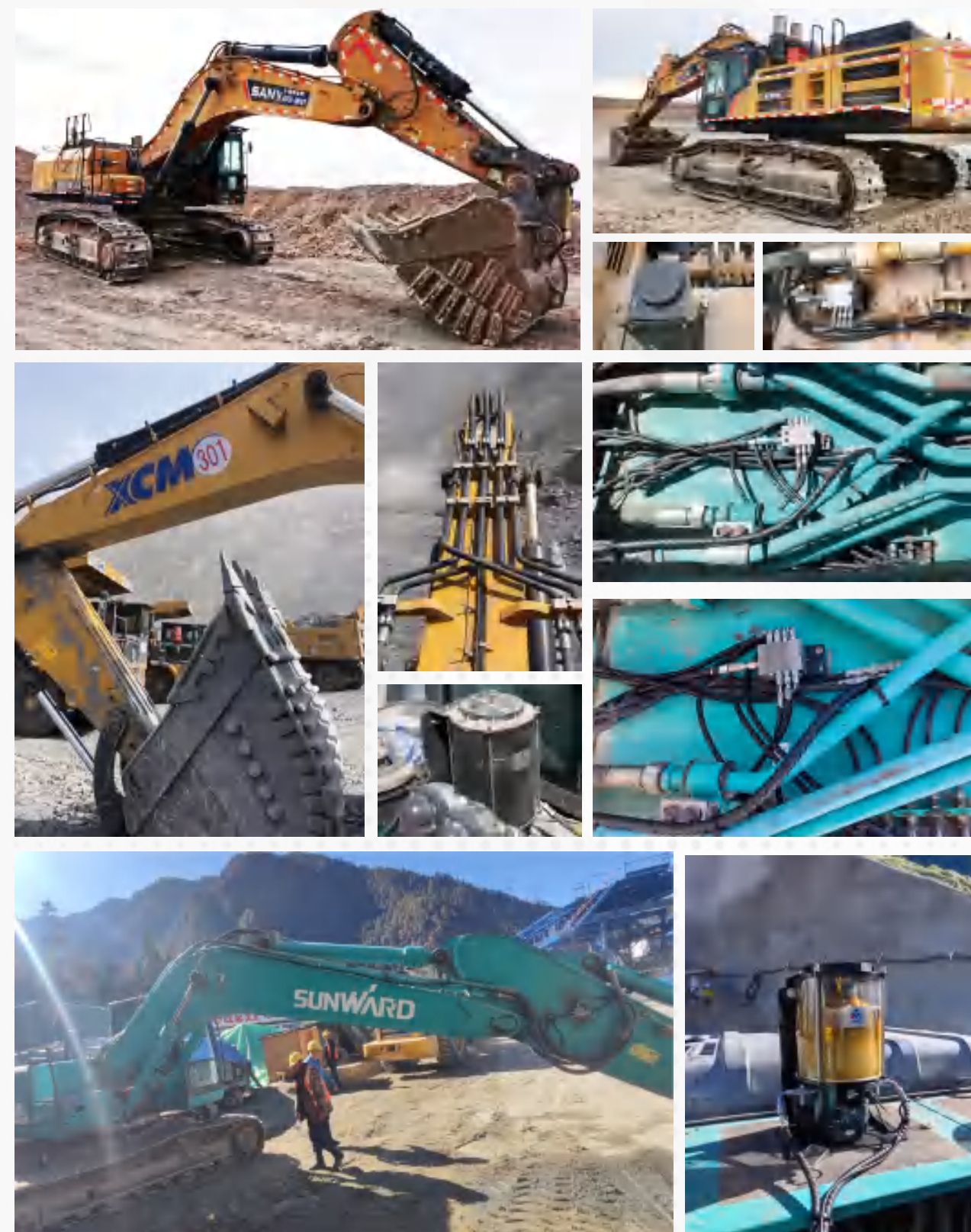
## 众城集中润滑系统在矿卡上的应用

THE APPLICATION OF ZHONGCHENG CENTRALISED LUBRICATION SYSTEMS ON MINING TRUCKS



## 众城集中润滑系统在挖掘机上的应用

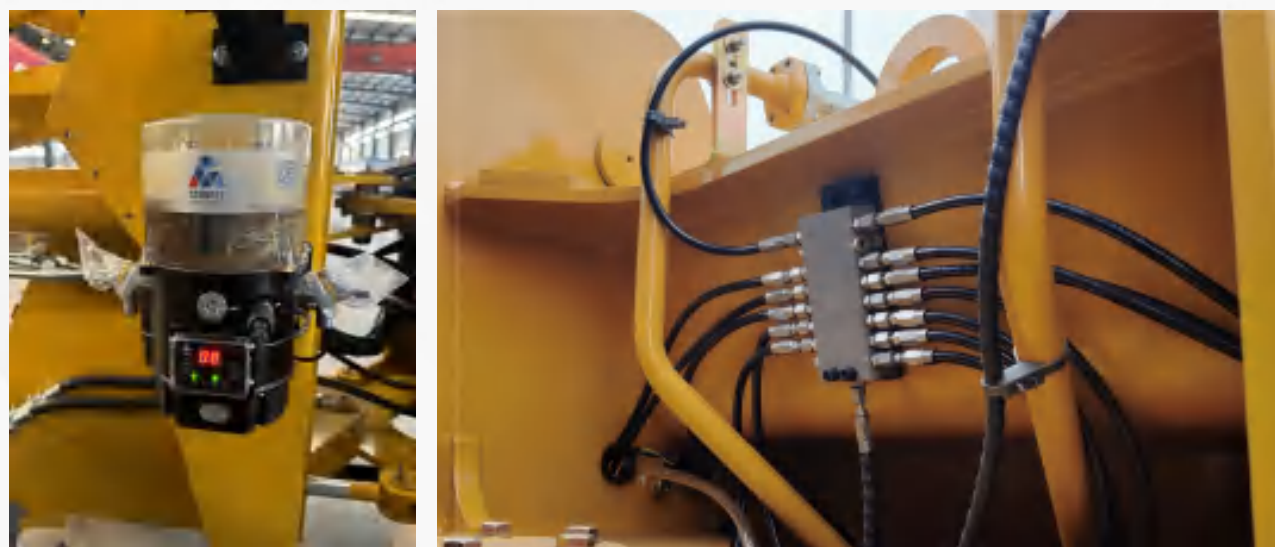
THE APPLICATION OF ZHONGCHENG CENTRALISED LUBRICATION SYSTEMS IN EXCAVATORS





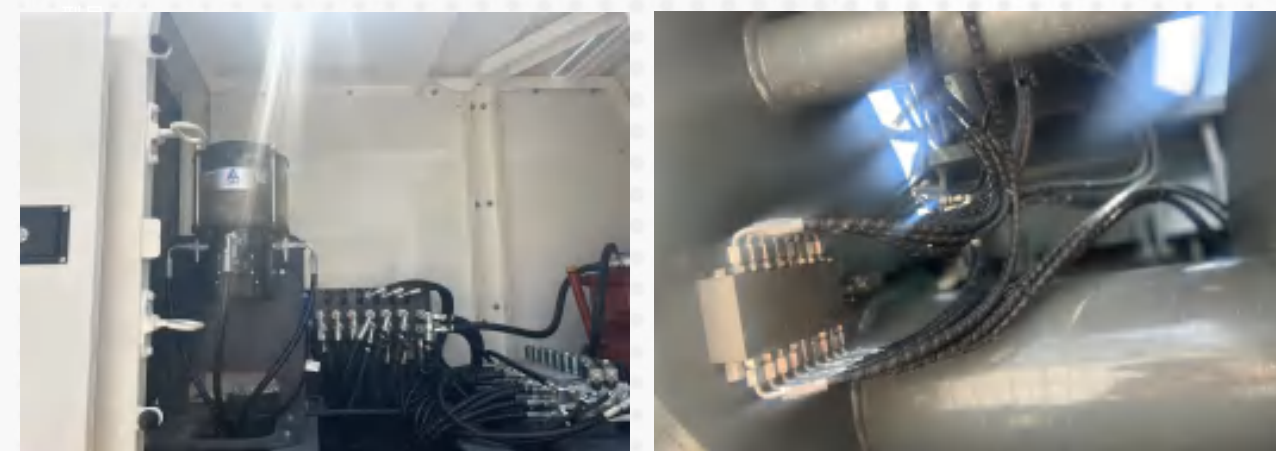
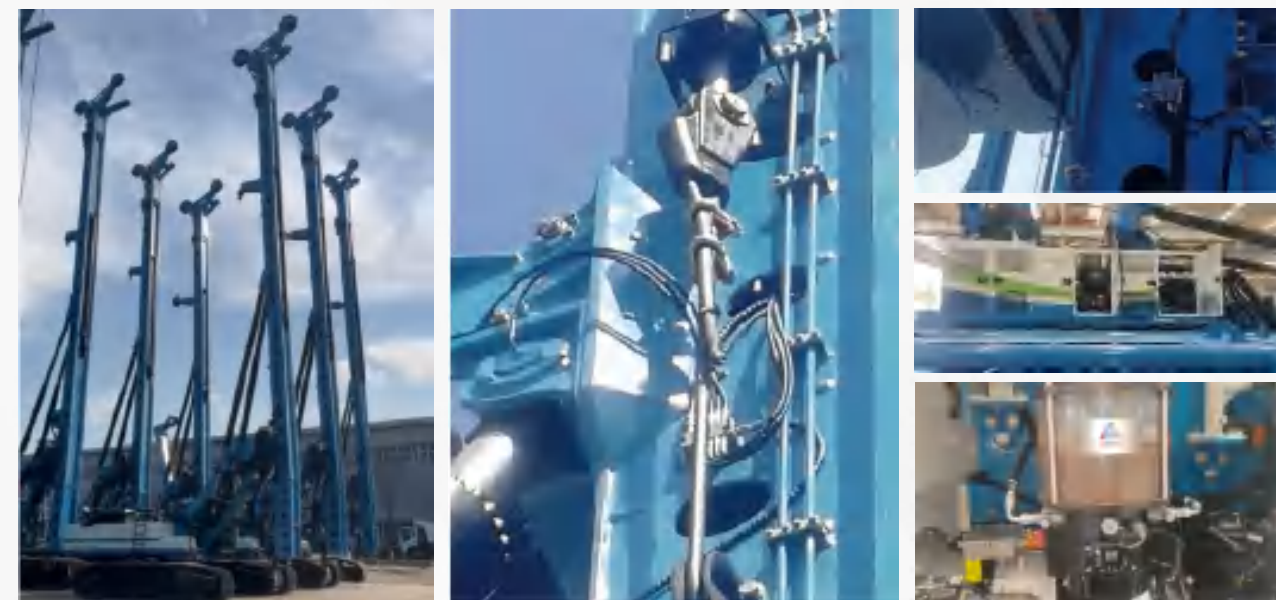
## 众城集中润滑系统在装载机上的应用

THE APPLICATION OF ZHONGCHENG CENTRALISED LUBRICATION SYSTEMS ON LOADERS



## 众城集中润滑系统在旋挖钻上的应用

THE APPLICATION OF ZHONGCHENG CENTRALISED LUBRICATION SYSTEMS ON ROTARY DRILLING RIGS





## 众城集中润滑系统在起重机上的应用

THE APPLICATION OF ZHONGCHENG CENTRALISED LUBRICATION SYSTEMS IN CRANES



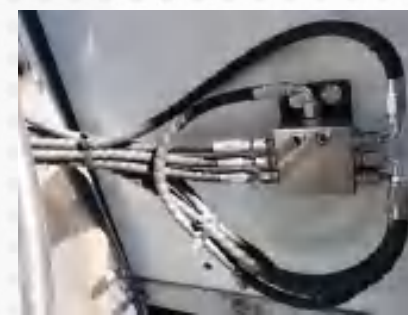
## 众城集中润滑系统在格栅排污机上的应用

THE APPLICATION OF ZHONGCHENG CENTRALISED LUBRICATION SYSTEMS ON GRATING DISCHARGE CONVEYORS



## 众城集中润滑系统在振动筛上的应用

THE APPLICATION OF ZHONGCHENG CENTRALISED LUBRICATION SYSTEMS ON VIBRATING SCREENS



## 众城集中润滑系统在破碎机上的应用

THE APPLICATION OF ZHONGCHENG CENTRALISED LUBRICATION SYSTEMS IN CRUSHERS







### 减少保养及故障维修次数

Reduce the frequency of maintenance and repairs



### 降低配件成本

Reduce the cost of components

## 我们的价值 OUR VALUE



### 增加设备运营时间

Increase equipment uptime



### 提升运营效率

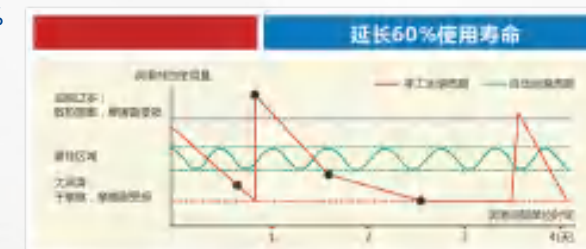
Improve operational efficiency

### 延长润滑部件寿命达60%以上

Extends the service life of lubricated components by over 60%

传统手工润滑注油量不易控制，且黄油嘴外漏，尘沙等污物易被带入摩擦而加重磨损，集中润滑系统油路全封闭，确保洁净润滑，其“定时、定量、高频”的工作特点有效延长润滑部件寿命达60%以上。

With traditional manual lubrication, it is difficult to control the amount of grease applied, and grease leaks from the grease nipples can allow dust, sand and other contaminants to enter the friction surfaces, thereby increasing wear. In contrast, centralised lubrication systems feature fully enclosed oil circuits, ensuring clean lubrication; their 'timed, metered and high-frequency' operation effectively extends the service life of lubricated components by more than 60%.

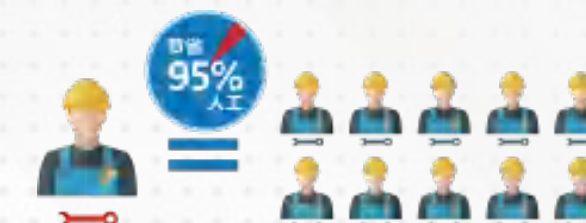


### 机械自动化，节省95%的人工，实现安全生产作业

Mechanical automation reduces the workforce by 95% and ensures safe production operations

现设备运行过程中的定时、定点、定量的自动润滑，可节省95%的人工；减少人员在设备较复杂工况下的作业，保障作业安全。

The system's automatic lubrication—which operates at set times, at specific points and in precise quantities whilst the equipment is running—can reduce manual labour by 95%; it also minimises the need for personnel to work in complex operating conditions, thereby ensuring operational safety.

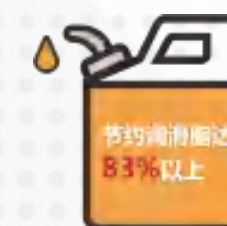


### 节能环保，节约润滑脂达83%以上

Energy-efficient and environmentally friendly, saving over 83% on grease consumption

传统手动润滑造成大量润滑脂浪费，而集中润滑系统能确保各润滑点定点、定时、定量精确获得洁净润滑脂，润滑效果有保障，减少润滑消耗达83%以上。

Traditional manual lubrication results in significant wastage of grease, whereas a centralised lubrication system ensures that each lubrication point receives clean grease at the correct location, at the correct time and in the correct quantity, guaranteeing effective lubrication and reducing grease consumption by over 83%.



- 强制润滑
- 定点润滑
- 定时润滑
- 定量润滑