

智慧泵房

二次供水运维管理系统

Smart pump room secondary water supply operation and management system

> 产品介绍 / Product description

国家四部委就加强和改进城镇居民二次供水设施建设与管理确保水质安全工作提出具体措施和要求，要求全面加强和改进二次供水设施建设与管理工作，做到科学规划建设二次供水设施和推进二次供水设施运行维护专业化。推动形成权责明晰、管理专业、监管到位的二次供水设施建设与管理工作新格局，解决好城镇供水“最后一公里”的水质安全问题。

为了提高供水质量及监控的综合管理水平，切实保障水泵的不间断安全有效运行，有必要建设一套对设备运行状态监控、日常运行维护的二次加压管控运维平台，对整个系统进行监护，预防潜在问题的发生，保障设备可靠稳定运行。

二次加压设备运维管理平台整合了传感器技术、物联网技术、互联网技术、无线通讯技术、云计算等多项前沿科技，通过一套系统实现对所有水处理站点设备状态集中监控，实现远程故障诊断与设备运维，同时结合移动客户端应用，实现与现场维护工作的高效协同。

本系统通过构建供水处理、互联网服务器平台、Web浏览器的整体智能化的远程监控云平台，使各种处理设备通过互联网，将数据传送到服务器平台，运维服务人员和用户能通过Web浏览器或者移动客户端获取设备实时数据，实现基于云平台的设备远程监控系统的互联互通与数据信息共享，实现二次加压供水设备“智能云运维”，从而达到以互联网云平台为依托，以设备运维为宗旨，达到减人力，减成本，减繁琐，增服务，增能效的目的。

The four state ministries have put forward specific measures and requirements on strengthening and improvement of construction and management of secondary water supply facilities in cities and towns with regard to the safety of water quality. It's required that the construction and management of secondary water supply facilities shall be overall strengthened and improved; that scientific planning shall be made for construction of secondary water supply facilities; that the level of professionalism in operation and maintenance of secondary water supply facilities shall be improved, so as to create a new chapter of construction and management of secondary water supply facilities characterized by clear division of rights and liabilities, professional management and adequate supervision and to solve the problem concerning the water quality of water supply in the last kilometer in cities and towns.

To improve the water quality and comprehensive management of monitoring and to truly safeguard constant, safe and valid operation of water pumps, it's necessary to establish a platform to perform monitoring of the operation and routine maintenance of equipment concerning the secondary boost pressure. The platform will monitor the whole system, prevent occurrence of potential problems and safeguard the reliable and stable operation of equipment.

The management platform for operation and maintenance of secondary boost pressure integrates several frontier technologies i.e. sensor technology, internet of things technology, internet technology, wireless communication technology, and cloud computing etc. The full set system is able to perform centralized monitoring of equipment in all water treatment sites and carry out remote fault diagnosis and equipment operation and maintenance. Furthermore, it can achieve efficient coordination with onsite maintenance work by combining mobile client application.

This system will construct a remote monitoring cloud platform for overall intellectualization of water treatment, internet service platform and Web browser. With this system, the data of various equipment will be transferred to the service platform through internet and both operation and maintenance service personnel and users are able to obtain the real-time data of equipment on the Web browser or mobile client application. In this way, interconnectivity and data sharing of cloud-platform-based remote equipment monitoring system is achieved, thus realizing the "smart cloud operation and maintenance" secondary boost pressure equipment. As a result, based on the internet cloud platform, it reduces the manpower, cost and trivial operations, increases services and improved efficiency with regard to operation and maintenance of equipment

韬博机电二次供水运维管理平台

Management platform of Taobo M.&.E Equipment for operation and maintenance of secondary water supply

平台通过制定软硬件标准解决供水设备、环境、安防等设备接入问题，再和用户一起制定统一的管理标准，通过运营中心、呼叫中心、数据中心、运维中心和应急中心这五个中心有机的结合起来，形成真正的“智慧供水”。

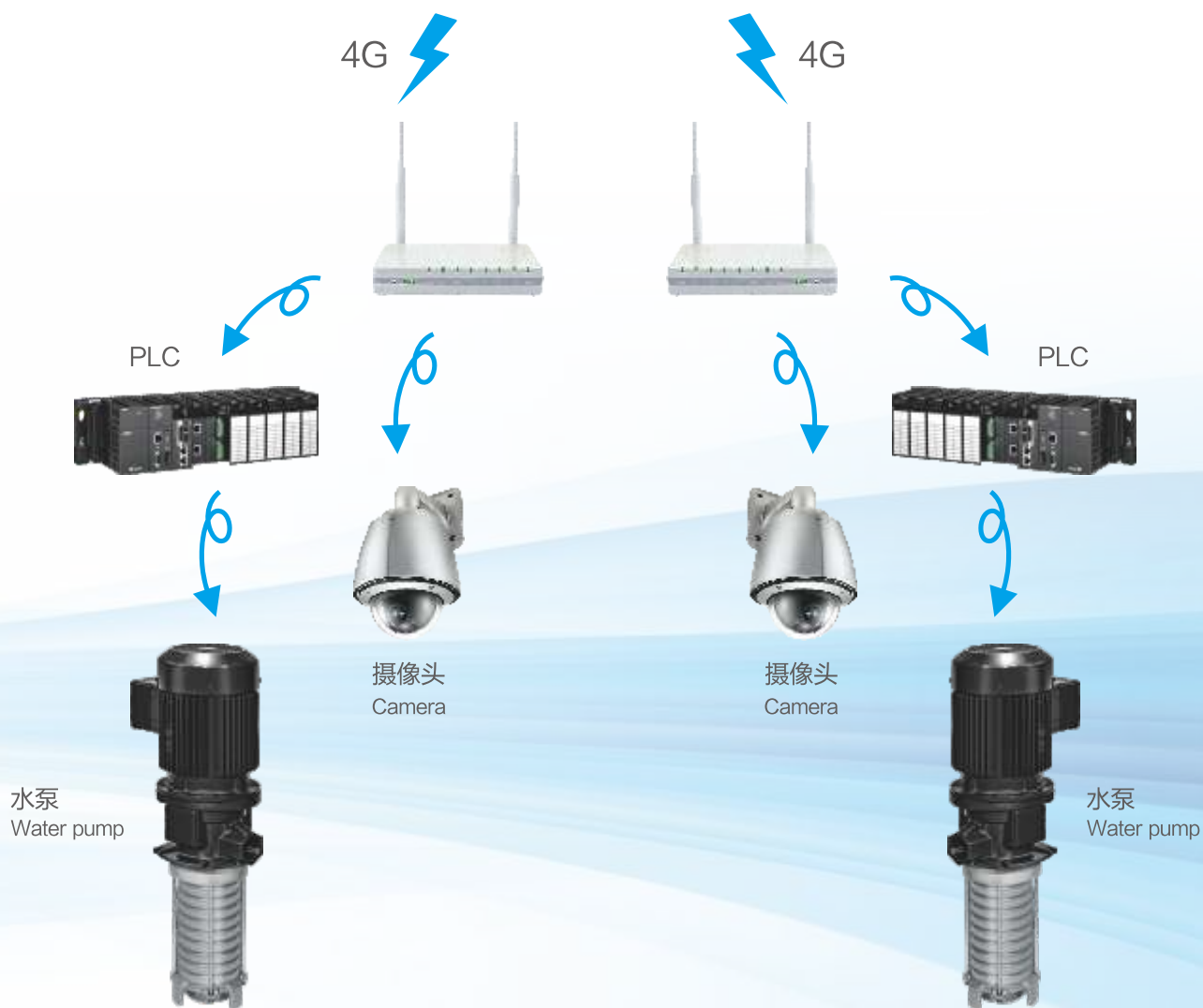
By establishment of standard on software and hardware, the platform has solved the problems relating to connection of equipment i.e. water supply equipment, environment-related equipment and security equipment etc. Furthermore, unified management standard is reached with users and organically combined with five centers i.e. operation center, call center, data center, maintenance center and emergency center to achieve real “smart water supply” .





韬博机电二次供水运维管理

Smart pump room secondary water supply
operation and management



> 01 视频模块 Video module

支持国内主流品牌的视频接入，用户可通过平台远程获取现场视频，方便用户24小时全方位监控泵房运行情况。

It supports the connection with videos of domestic main-stream brands. Users are able to obtain onsite videos through remote platform. Therefore, users are able to monitor the operation in the pump room on a 24-hour basis.



> 02 远程控制模块 Remote control module

设备故障后发送警报至运维平台，平台自动检查设备故障原因并分配工作人员上门维修。轻微事件可由工作人员于后台进行控制维修。

In case of failure of equipment, an alarm will be sent to the operation and maintenance platform. The platform will automatically check the causes of failure and designate a worker to carry out on-site repair. In case of a minor failure, the worker main control the maintenance at the background.



> 03 通讯模块 Communication module

采用GPRS无线模块/宽带网络接口/移动电话卡任选一种方式进行远程通讯，设备占用面积小，信号强，可及时查看和操控设备。

Remote communication is available through GPRS wireless module, or broadband internet interface or mobile phone card. The equipment takes little space but the signal is strong. It enables the user to time check and control the equipment.



> 04 报警模块 Alarm module

设备故障后即刻通过通讯网关发出报警信号至服务器，手机APP和网页端出现弹窗并报告具体工程和故障表现，直至故障排除或人工解除故障信号。

In case of failure of equipment, an alarm signal will be immediately sent from the communication gateway to the server. A window will pop up on the mobile App and the webpage to report the specific engineering and failure information, until the failure is solved or the failure signal is removed manually.



> 05 溢流保护模块 Overflow protection module

水池（箱）进水机械浮球阀损坏后，水位上升至溢流报警线，系统将自动关闭进水阀门并发出警报至APP和网页端，直至故障排除或人工解除故障信号。

If the mechanical inlet float valve of pool (tank) is broken, the water level will rise to the overflow alarming line. In this case, the inlet valve will be automatically closed and an alarm will be sent to APP and the webpage, until the failure is solved or the failure signal is removed manually.



> 06 门禁模块 Access control module

智慧泵房采集箱支持国内主流品牌的门禁接入，用户通过平台接收智慧泵房采集箱发送的数据，实时了解现场巡检维护人员进出泵房情况。

The collection device in the intelligent pump room supports the access control module of domestic main-stream brands. User may collect the data send from the collection device in the intelligent pump room through the platform to get a real-time understanding of access and exit maintenance personnel.



> 07 防火防雷模块 Fire protection and anti-thunder module

防雷电箱用于线路侵入的过电压保护，防止电位差超过安全电压产生的电击伤害/防止静电、防火、防尘，用于电线、电缆的孔洞封堵，防止向邻室蔓延，减少火灾损失。

The anti-thunder electricity box is used for protection against over voltage on the circuit, so as to prevent electric shock due to greater potential difference over safety voltage, static electricity, fire and dust; it is also used for blocking of holes of wires and cables to prevent spreading of fire to neighboring rooms, thus reducing the losses caused by fire.



> 08 温湿度控制模块 Temperature and humidity control module

温湿度控制器实时监控控制柜内温湿度，通过系统控制电控柜加热器，保障控制元件在合理的温度、湿度内进行安全运行。

The temperature and humidity controller performs real-time monitoring of temperature and humidity inside the control cabinet. The system will control the heater of electric control cabinet, so as to ensure all elements operate within reasonable temperature and humidity.

