



Ronds Wireless Condition Monitoring

Help You to Realize Predictive Maintenance

- Monitor your machinery real-time condition
- Predict machinery failure to avoid unplanned downtime
- Reduce Maintenance costs
- Provide data support for making maintenance plans
- Increase machinery life and enhance machinery reliability

RONDS Wireless Series

RH570,RH505&RH605

RW505(M)&RW605(M),RW625

Make Industry Better

www.ronds.com





ENHANCE RELIABILITY OF YOUR MACHINES

Ronds Wireless Condition Monitoring System is a condition monitoring based predictive maintenance solution for industrial enterprises, which is designed for scattered machines. It can measure both vibration and temperature signals.

WHY RONDS

INTELLIGENT

Integrate edge computing modules to automatically define data processing strategies on demand

HUGE LIBRARY OF FAILURE CASES

More than 20000 closed-loop cases, rich failures detection capability
Huge cases for accurate identification of equipment failures

EFFICIENT DELIVERY AND O&M

Fast installation without impacting production, and the sensors support the self-test function, grasping its own status in real time

STAGING AHEAD

The first listed company in Chinese industrial equipment intelligent O&M field

COVERING END-TO-END SOLUTIONS

Independent research and development of hardware and software to build complete technology solution for different application scenarios



RONDS Wireless System



Bearing Failure

Imbalance

Resonance

Electrical Failure

Misalignment

Shaft Bending

Coupling Failure

Gear Failure

Bad Lubrication

Mechanical Looseness

Shaft/Bearing Wear

Others



ADVANTAGES OF RONDS WIRELESS MONITORING SOLUTION

RONDS Wireless Monitoring Topology

EASY DEPLOYMENT&UPGRADE

Wireless deployment, easy to install. ATEX certification is available for hazardous industrial field. One key remote upgrade, system upgrade is quick, accurate, efficient and convenient.

WIDE FREQUENCY RANGE & SMART DATA ACQUISITION

Up to 20KHz frequency range can capture the machine fault at early stage. With cloud based software and preset DAQ strategy, complete data acquisition, processing and transmission of machines' vibration and temperature signal, achieve smart monitoring, ensure machine safety and continuous running.

LONG TRANSMISSION DISTANCE

Distance ranges between wireless gateway and sensors up to 300m line of sight

RELIABLE AND LONG TIME OF SENSOR

Battery of sensors can work for up to 5 years

HIGH COMPABILITY

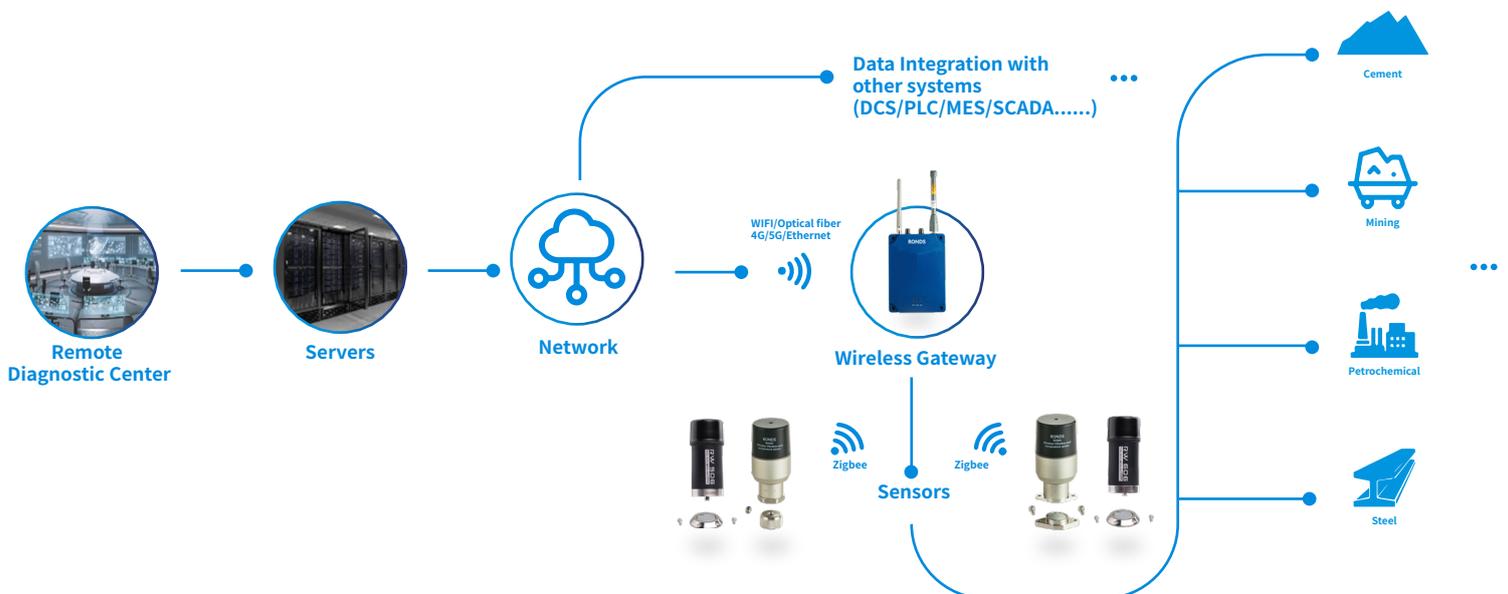
Integration with self-designed applications with free API, OPC, Modbus etc.

ALL CHANNEL SYNCHRONOUS ACQUISITION

Synchronously collect temperature and vibration signal, it increases machine safety through dual monitoring of vibration and temperature data. Each wireless gateway can work with 45 units wireless sensors maximally.

INTELLIGENT ALARM FOR ABNORMAL MACHINES

Adopting various kinds of intelligent alarm parameters like overall value, index, temperature, etc., ensure the accuracy and timeliness of alarm information.

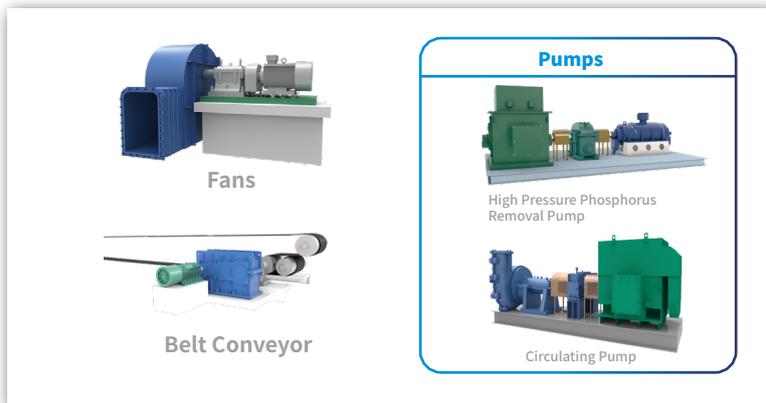


PETROCHEMICAL

Equipment: Simple structure, stable working conditions, wide distribution
 Solution: Wireless monitoring, reduce execution difficulty and cost

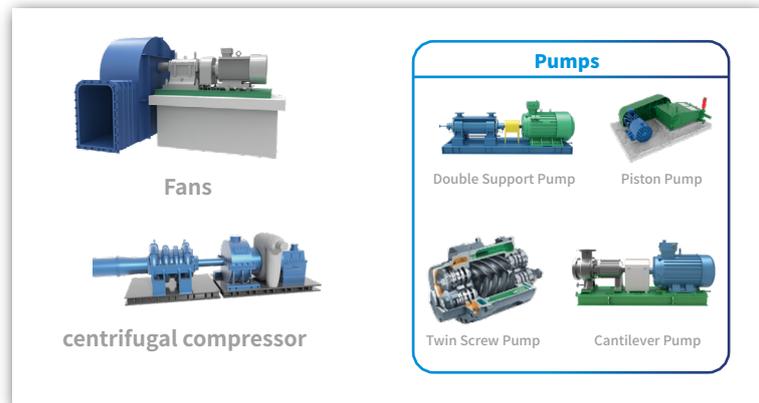
Pumps

STEEL



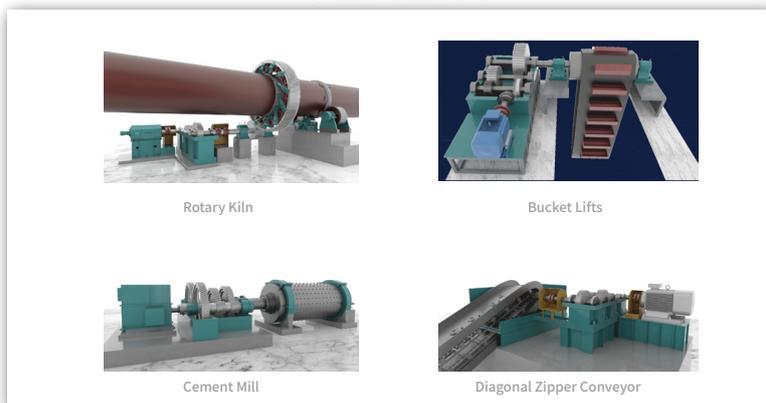
✓ Monitoring of steady-state high and low speed equipment such as belt conveyors, fans, and pumps

PETROCHEMICAL



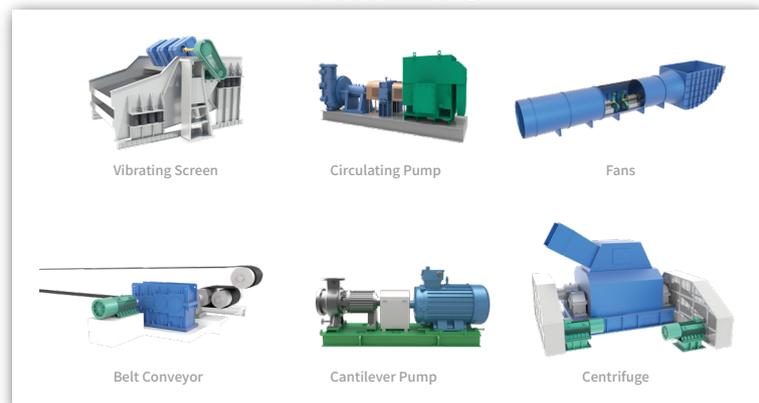
✓ Realize the monitoring of high and low speed equipment in steady state such as high-risk pumps

CEMENT



✓ Realize monitoring of steady-state high and low speed equipment such as bucket lifts, long belts, powder separators and pumps

MINING



✓ Full wireless monitoring of equipment in washing workshop of coal preparation plan

Integrate data collection of vibration, temperature and motor working conditons. Realize self-identification of temperature, speed, run up and coast down. Provide with accurate alarm and statistics of run up and coast down time in combination with working conditions.

- Edge computing of 100+ indicators, including bearing, power frequency, gear and other indicators.
- Intelligent alarm and diagnosis based on multi-index system, which can cover automatic monitoring of more than 20 kinds of faults such as bearings and power frequency.
- Support full wireless deployment, flexible network deployment according to site conditions.
- Support monitoring of steady-state equipment such as small and medium-sized pumps and fans in various industries.
- Widely used in: Water treatment, papermaking, pharmaceutical and food and beverage and etc.

SPECIFICATION



RH505 One Axial Vibration&Temperature Sensor RH605 Triaxial Vibration&Temperature Sensor

- Frequency range:
Piezo(Z) direction:2Hz~20KHz, $\pm 3\text{dB}$ (RH505&RH605)
MEMS(X,Y) directions:2Hz~1kHz, $\pm 3\text{dB}$ (RH605)
- Waveform length:
Piezo Z Maximal 128K (RH505&RH605)
Mems X,Y Maximal 16K (RH605)
- Spectrum lines:
Piezo 51200 lines (RH505&RH605)
MEMS 3200 lines (RH605)
- Range: Piezo: $\pm 50\text{g}$, MEMS: $\pm 16\text{g}$
- IP grade: IP68
- Battery: 8.5Ah



RW506 One Axial Vibration&Temperature Sensor RW606 Triaxial Vibration&Temperature Sensor

- Frequency range:
Piezo(Z) direction:2Hz~20KHz, $\pm 3\text{dB}$ (RW506&RW606)
MEMS(X,Y) directions:2Hz~1kHz, $\pm 3\text{dB}$ (RW606)
- Waveform length:
Piezo Z Maximal 256K (RW506&RW606)
Mems X,Y Maximal 16K (RW606)
- Spectrum lines:
Piezo 102400 lines(RW506&RW606)
MEMS 3200 lines (RW605)
- Range: Piezo: $\pm 50\text{g}$, MEMS: $\pm 16\text{g}$
- IP grade: IP68
- Battery: 19Ah
- RPM measurement: Optional,model RW506M&RW606M



RH570 Wireless Data Collector

- Low consumption, IP66
- Wireless data transmission distance:
300m line of sight
- Support maximal 60pcs sensors
- Ethernet, optic fiber, Wi-Fi, 4G, 5G communication method options



RW625 Wireless Transmitter

- Version 1: with 2 Ronds special low power vibration sensor
- Version 2: with 2 IEPE sensor
- Version 3: with 2 processing info channel
- Version 4: with 4 PT100
- Weight: 630g
- Ambient temperature: $-40^{\circ}\text{C}\sim 70^{\circ}\text{C}$
- Probe(vibration sensor): $-40^{\circ}\text{C}\sim 120^{\circ}\text{C}$
- Wireless transmission : 300m line of sight
- IP grade: IP67

RW625 is mainly used in some scenarios where the installation location is narrow, the signal is shielded by a metal cabinet or shell, and the temperature is high. The split design can solve the problem of poor signal quality at the installation location and narrow location.

It works with RH570 wireless gateway.

RONDS



ABOUT RONDS

Founded in 2007, Anhui Ronds Science & Technology Incorporated Company (RONDS, Stock Code: 688768.SH) is an AI-driven industrial services company dedicated to providing customers with the world's leading intelligent operation & maintenance solutions and subscription-based services for industrial equipment.

Ronds has always insisted on industrial innovation with scientific and technological innovation, combining cutting-edge artificial intelligence technology with real industry applications, and has completed the technical layout of sensor core components, wireless sensor systems, edge computing, industrial big data, intelligent algorithms, and industrial internet platforms, and formed diversified product systems, such as the scenario-based intelligent operation and maintenance solutions and PHMGPT industry big models, empowered the high-quality development of industrial enterprises with new productivity.

Ronds solutions has been successfully applied to wind power, petrochemical, metallurgy, mining, cement, and many other fields. It has linked more than 150,000 sets of key equipment, such as wind turbine, belt conveyor, compressor, rolling mill, mill, elevator, and various types of pumps, and has formed more than 20,000 closed-loop failure cases, Actively promote the transformation of equipment intelligent operation and maintenance industry. Ronds is highly praised by customers and business partners, our business covered Europe, South America, North America, Southeast Asia and other regions.

In the future, Ronds will deeply cultivate intelligent operation and maintenance of equipment. Based on industrial big data, driven by artificial intelligence, Ronds will provide customers with globally leading products and services and embrace the new era of industry!



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