



**TAIRONE**

- **Environmentally-Friendly**
- **Healthy**
- **Economical**
- **Efficient**
- **Safe**



**AIRone**<sup>®</sup>

**AI Smart Cooling Tower System**  
Automatic cleaning equipment for cooling tower

# E.S.G Environmental Sustainability Business Responsibility

With E.S.G practice as the guideline

The last piece of puzzle in a environmentally-friendly green building

## E

Environment  
Sustainable Care

## S

Social Responsibility  
Impact

## G

Governance  
Corporation

The practice of ESG principles can greatly improve the company's business stability and corporate image.

The **"GREEN SUPPLY CHAIN"** can further improve business interests.



## Environmental Friendly - No Chemicals Used

The AI Smart Water Tower utilizes electrolysis technology to eliminate calcium, magnesium, and manganese from water, effectively addressing the issue of scaling. The electrolysis of ions with low solubility are effectively treated. This process induces a transformation in the water's quality by the precipitation of metal ions through electrolysis technology. As a result, the concentration of metal ions changes, facilitating the release of existing scale from the pipe walls. The scaling is then automatically dislodged and removed via the circulating water. Scale reduction significantly enhances heat exchange efficiency and with the use of AI Smart Water Tower system, ultimately leading to energy savings and a carbon-friendly operation.

# Cooling Tower Efficiency Optimization

## 5 Major Features



- Replace traditional drug administration
- Environmentally friendly without chemical



- Remove and prevent limescale effectively
- Destroy harmful bacteria in the human body
- Improved water quality in long term
- Improved ambient air quality pollution



- Operate without downtime
- Eliminate clogging / increase cooling tower efficiency
- Monitor water quality, temperature & maintaining efficiency



- Small investment / big savings
- Maintain good water quality / save electricity bills
- No-wash water tower / save labor / save water fee
- No risk of chemical lotion corrosion of the pipeline / extended pipeline equipment life

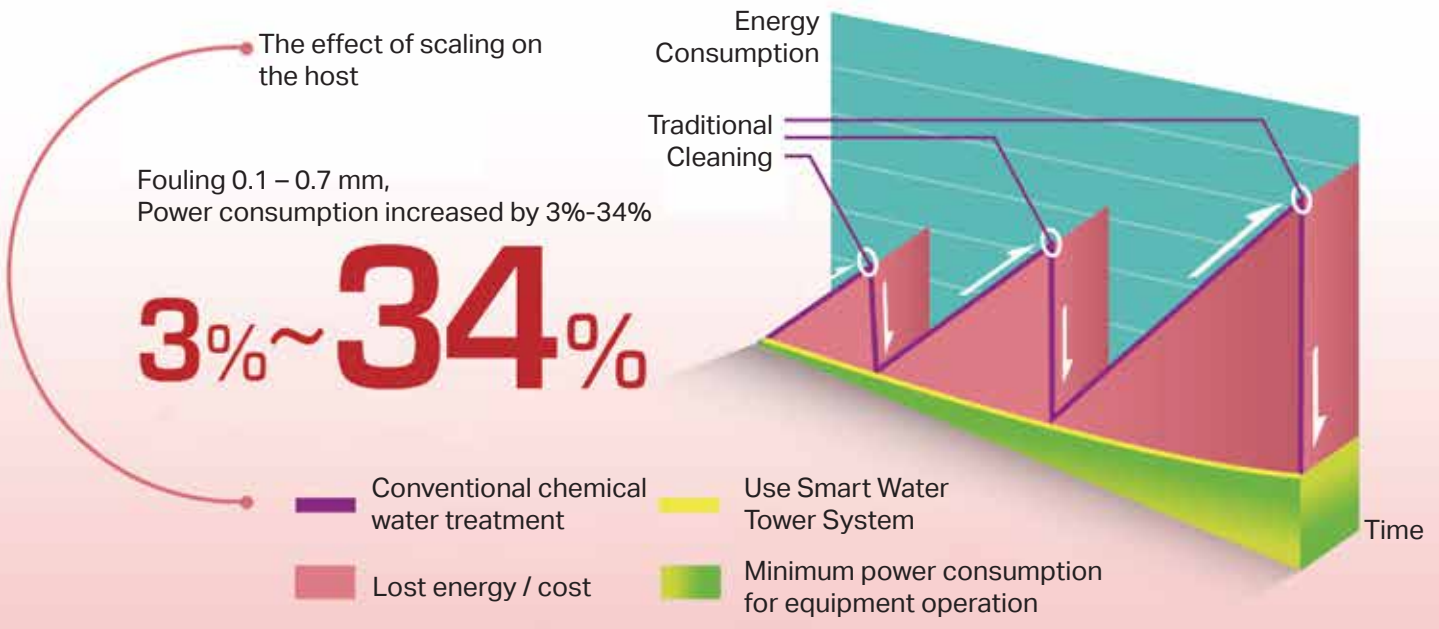


- Product Safety – ISO 9001:2015 Quality Certification
- Staff Safety – No manual climbing / No noise
- Installation requires no downtime / No cutting
- Intelligent descaling ensures that the air conditioner host operates safely without downtime

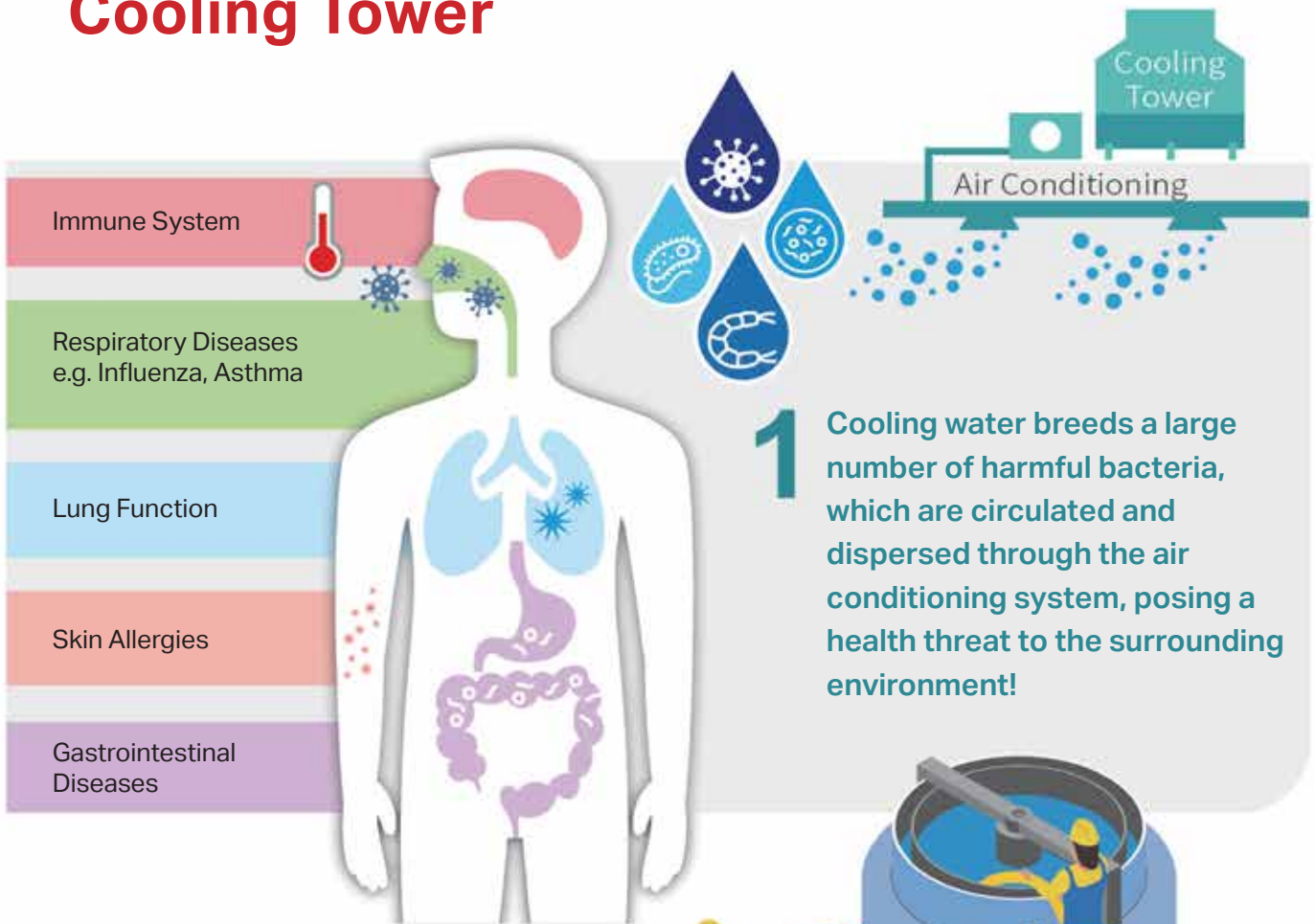
# Smart System Advantages

Tradition Chemical Descaling	VS	AI Smart Water Tower System
Manual labour cleaning	Management Monitoring	24-hour automatic intelligent operation, APP real-time information mastery
Chemical descaling, manual cleaning of dead corners	Cleaning Methods	Circulating water purification treatment system, automatic sensing, descaling, <b>silent operation</b>
Breeding harmful bacteria, legionella, Escherichia coli, algae, biofilms	Human Health	Eliminate the environment for long-term pathogen breeding, and improve the purified indoor circulating air quality
Chemical agents acids, alkalis, toxicity	Environmental Protection	In line with the world's green environmental protection trend
Need to administer medicine, consume water, consume electricity, consume labor	Savings Efficiency	No need to administer chemicals, save water, save electricity, save effort
High Costs	Equipment Efficiency	Lower Life Cycle Costs
Equipment and pipeline corrosion, service life shortening, function degradation	Cost	No equipment and pipelines corrosion, service life extension, optimal function maintenance

## Waste = Cost Loss



# Health and Environmental Effects of Cooling Tower



2 In the traditional cleaning process, chemical agents and bacteria are easily contact by the skin, and it is also easy to be inhaled through the body due to splashing which endangers health!



3 The traditional use of chemical agents to remove scale, detergent with the wastewater discharge of acid, alkaline and toxicity which damages to the environment!



\*The following content is only an overview of the distinctions between chemical dosing and non-chemical approaches

# Industry 4.0 Intelligent Cloud Platform Benefits



## IoT Intelligent Water Tower Monitoring System – Remote Monitoring

- The client does not need to install the server software and cloud service customers.
- Real-time water quality data analysis messages can be monitored via mobile APP or tablet.
- Water Tower monitoring points:
  - Ambient temperature and humidity – Water quality hardness – Water Tower intake water temperature
  - Outlet water temperature – Cooling water conductivity – Cooling water pH value
  - Water Tower tightening temperature
- Actively control / detect device operation.
- Support Modbus-TCP and supports the linking of data to the internet with NBIOT Technology.
- The platform is available in three languages: Traditional Chinese, Simplified Chinese, and English.

**Exceptional Warning**

**Temperature & Humidity**

**Water Quality Hardness**

**Conductivity pH Value**

**Intake/Outlet Water Temperature**

**Tightening Temperature**

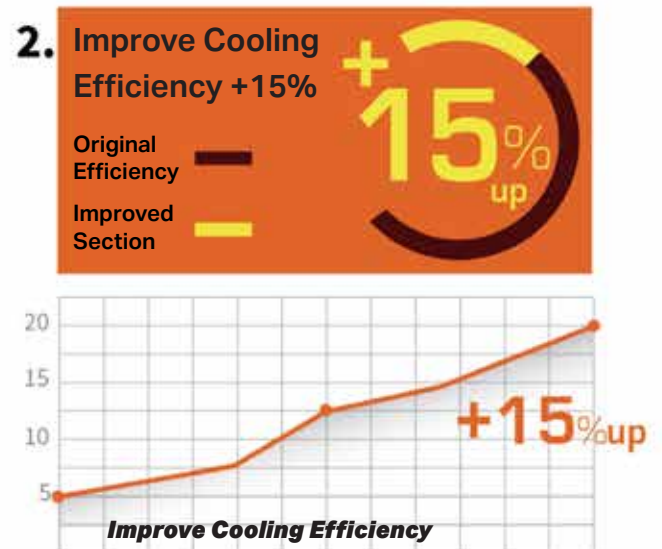
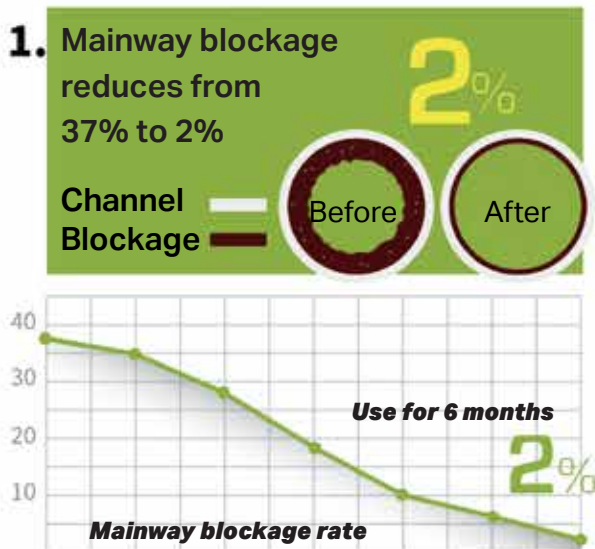


# AI Smart Tower System Specification

Machine Type (Cabinet)	Fully-automatic Economical (Single)	Fully-automatic Standard (Single)	Fully-automatic Exquisite (Single)	Fully-automatic Luxurious (Single)
Specification / Model	TR-W500S	TR-W1000S	TR-W2000S	TR-W3000S
Dimension (WxLxH)	760x760x1575mm	760x760x1575mm	760x760x1710mm	900x760x1845m
Rated Voltage	2∅ 220 VAC			
Rated Current	5A	8A	10A	16A
Output Power (max)	600W	1000W	2000W	3200W
Direct Current (max)	12A / 48V	20A / 48V	30A / 48V	40A / 60V
Circulating Water	135 LPM	135 LPM	135 LPM	275 LPM
Pipe Diameter	1" Inch	1" Inch	1" Inch	1.5" Inch
Ozone Antibacterial System	Selective	Ozone Concentration 2 g/hr	Ozone Concentration 4g/hr	Ozone Concentration 5g/hr
Water Quality Detection System	Selective	○ Standard	○ Standard	○ Standard
Platform Service Equipment	Selective	○ Standard	○ Standard	○ Standard
One-to-many Intelligent Controller	Selective	Selective	○ Standard	○ Standard
Remote Monitoring System	Selective	Selective	Selective	Selective
Filtration System	X	X	Selective	Selective

\*The company reserves the right to change specifications.

## Benefits

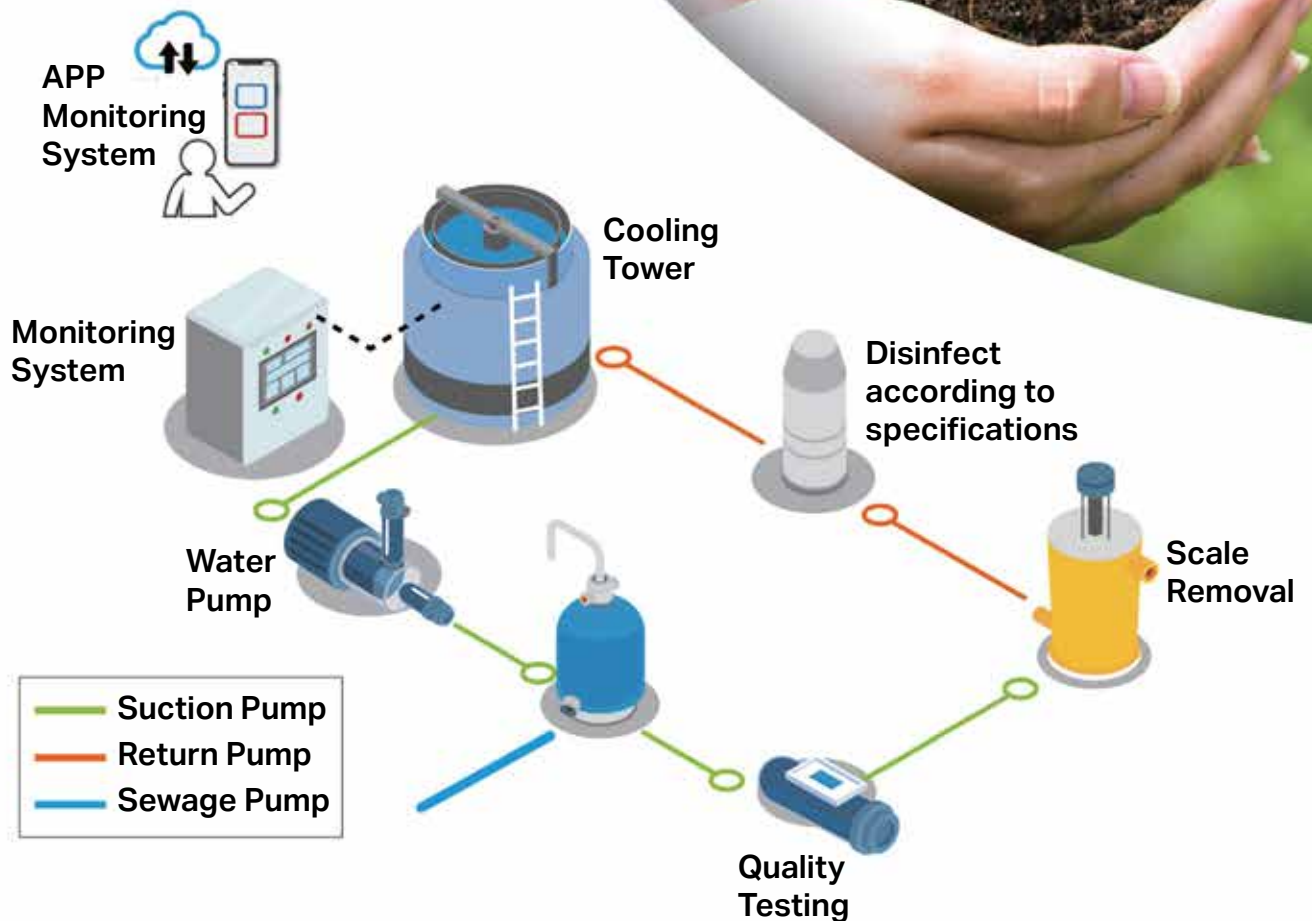


### 3. Energy-efficient and cost-effective



## Automatically measures these 4 parameters:

- pH
- Conductivity (TDS)
- Hardness
- Temperature



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