



# *Trane Automatic Tube Cleaning*

*Optimizes system efficiency and minimizes costs*



# Enable your HVAC system to work at peak efficiency

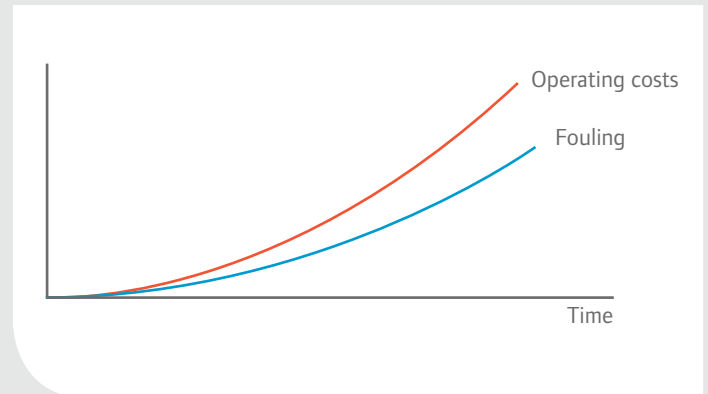
Over time, water-cooled units suffer from fouling of their heat exchanger surfaces. Efficiency is lost causing compressors to operate at a higher temperature and pressure leading to increased energy use and higher operating costs.

Just a 1 °C increase in condenser temperature can mean a 2 % increase in operating costs.

Trane automatic tube cleaning system operates continuously to keep heat exchanger surfaces free from fouling. System capacity and efficiency are maintained at peak levels and energy consumption is minimized.

In addition, periodic HVAC shut-downs for tube cleaning are no longer needed, saving you both time and money.

## Fouling and Operating costs

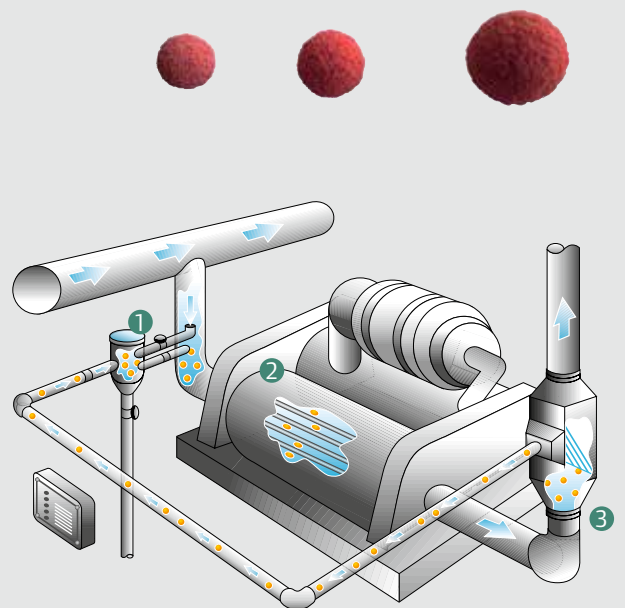


## A choice of two technologies

Trane automatic tube cleaning system is offered in two configurations:

### Ball tech system

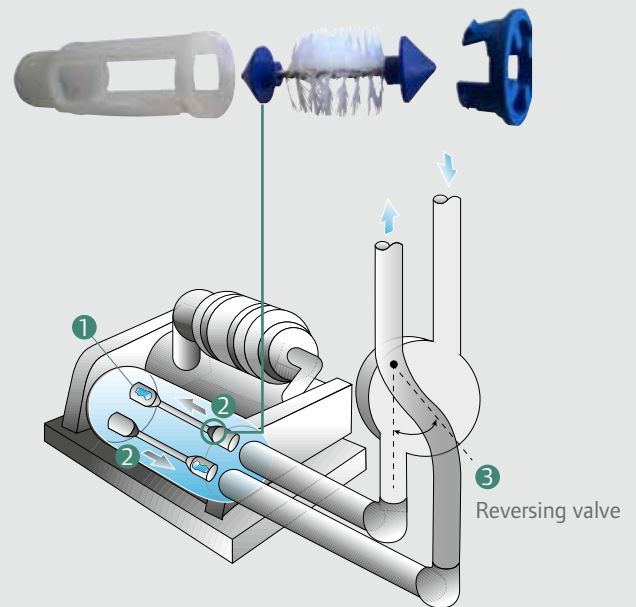
- 1 Sponge balls are regularly injected at the exchanger inlet.
- 2 Balls are carried by the water flow through the condenser tubes, removing scale and fouling and keeping the tubes clean.
- 3 Balls are trapped at the outlet and driven back to the inlet to start a new cleaning cycle.



## Brush system

- 1 Every condenser tube is fitted with baskets on each side containing one brush.
- 2 The brush is driven from one end of the tube to the other by the water flow. A reversing valve switches the flow direction to drive the brush back.
- 3 The flow direction returns to normal at the end of the cycle.

With both the ball and the brush methods, tubes are kept perfectly clean maximizing heat transfer and guaranteeing peak system performance.



## The benefits of Trane automatic tube cleaning system

- **Adaptable:** Our solutions suit all tube-in-shell heat exchangers. They are supplied fully programmed, with settings for varied water quality.
- **Improved operating efficiency:** When cleaned, your chiller will operate at maximum efficiency, leading to lower energy use and consequent cost reduction.
- **Extended chiller life cycle:** Your compressor will never operate beyond its design criteria and condenser tube fouling will be eliminated.
- **No chiller downtime:** Costly and inconvenient downtime is avoided by continuously cleaning the condenser tubes during chiller operation.
- **Low maintenance solution:** The sponge balls and brushes have a long service life and are the only consumables.
- **Reduced water treatment costs:** Water treatment is only required to prevent scaling of ancillary equipment, leading to cost savings of up to 50% on chemicals.
- **Zero environmental impact:** Trane automatic tube cleaning uses no chemicals and so creates no waste or pollution.

## Contact us

We can help you select the right tube cleaning system for your specific needs.

Our experts will listen carefully to your needs and propose the best solution to keep your equipment clean and operating at peak efficiency.



# High Performance Buildings

Your Mission. Realized.

Efficient systems

Controls

Services

## Services portfolio

### Trane Elite Start™



- Validate installation
- Engineering checklist for optimal start-up
- Verify and record design operational parameters

### Trane Select™ Agreements



- Comprehensive service contracts for HVAC systems
- Improve reliability and efficiency
- Improve cost of ownership

### Trane Extended Start



- Foundation for high performance buildings
- Benchmarking baseline parameters
- Monitor and adjust system critical parameters

### Trane Controls Services



- Solutions for sustainable high performance buildings
- Maintain system fitness
- Optimize system performance

### Genuine Parts and Repair Services



- Comprehensive OEM parts
- State-of-the-art logistics
- Factory authorized technicians

### Trane Building Advantage



- Extract key data from your system to make informed decisions
- Achieve optimum operation of your existing equipment
- Use targeted interventions with the latest technology to update your system

### Trane Chiller Health Check Program



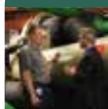
- Inspect chiller operating conditions
- Evaluate basic and critical parameters
- Recommend upgrade and improvement solutions

### Trane Intelligent Services



- Remote monitoring with professional advantage
- Address key operational challenges
- Critical alarm management and event log

### Trane Service Agreements



- Planned maintenance
- Minimize downtime and extend equipment life
- Reduce operating costs

### Trane Rental Services



- Temporary cooling solutions
- Reliable equipment and fast service
- All building purposes



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