



Trane Building Advantage

Chiller fan adaptive control

Retrofit solutions to optimize your HVAC efficiency

TRANE
TECHNOLOGIES

Reduce your energy consumption

Businesses are under pressure from continuously rising energy costs while facing increasingly demanding productivity and environmental goals.

The chiller that maintains the comfort of your facility needs energy to operate. Trane adaptive control retrofit solutions are a simple and effective way to reduce your energy consumption.



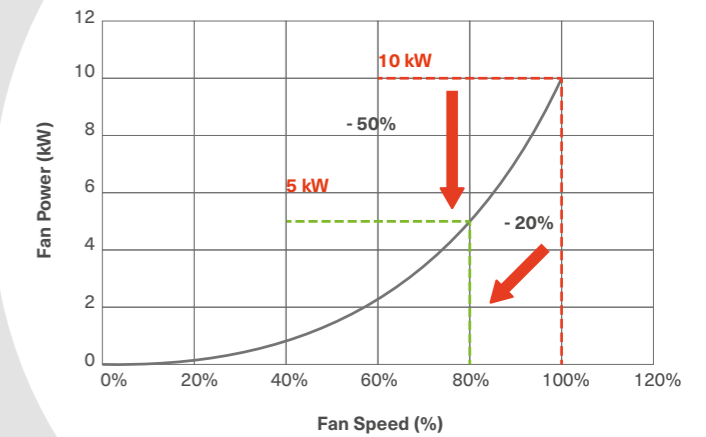
A chiller does not run constantly at full load. Capacity is adjusted to meet the building's needs by activating fans sequentially to match the chiller load. The energy consumed by this ventilation can be optimized.

With Trane fan chiller AFD retrofit solutions, all the fans are speed controlled simultaneously.

The benefits of AFD

- ✓ Reduction of chiller energy consumption. Because energy consumption varies with the cube of the speed, a 20% speed reduction means over 50% reduction in energy consumed.
- ✓ Efficiency optimization. When fans are activated sequentially, air is bypassed through the fans reducing its ability to cool the heat exchanger. This results in a reduction in chiller efficiency. With AFD fan speed, all fans work together to avoid air bypass and optimize airflow.
- ✓ Simple retrofit installation using original unit controller.

Fan law



Applications

Trane chiller fan AFD retrofit solution is ideally suited to applications where the load varies over the year. These include:

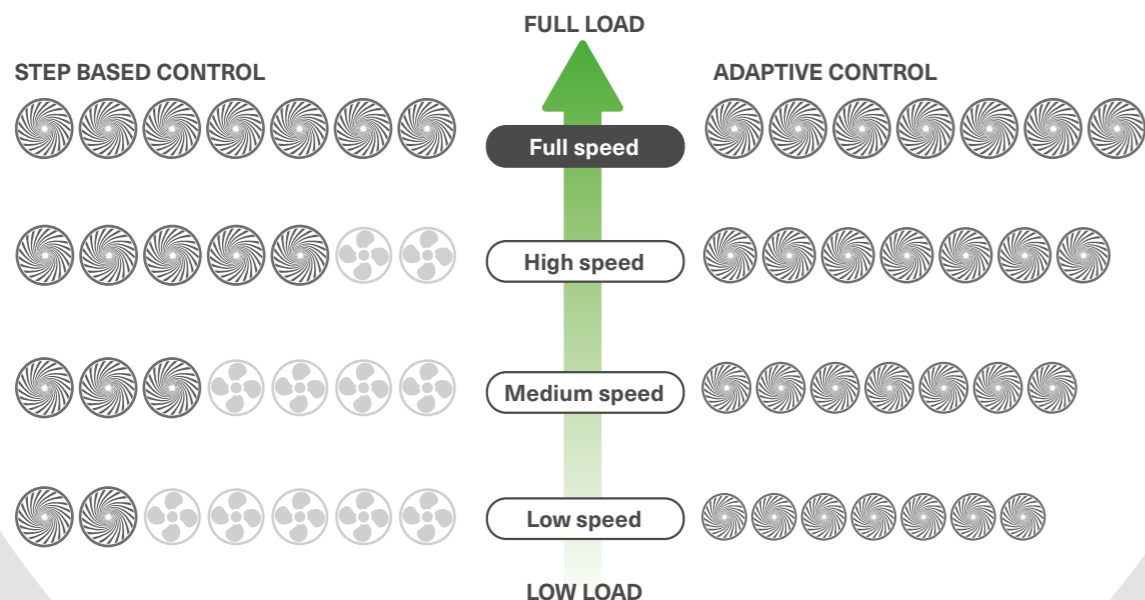
- Processes with non-constant load
- Warehouses
- Commercial buildings.

Trane chiller fan AFD is a simple but highly effective means of reducing energy consumption.

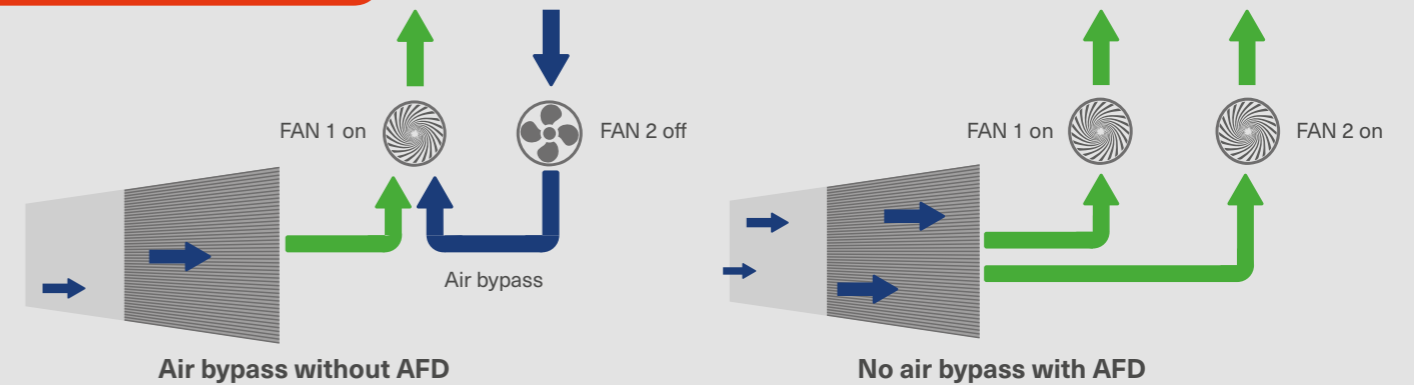
In addition, local authorities may offer financial incentives to promote the installation of energy saving solutions. In these cases, the return on investment is even faster.

Operating principle

The fans are driven by an electronic controller that adjusts their speed. If the building load reduces, the speed of all fans decreases. When the load increases, the speed increases progressively up to full speed as necessary. The speed of all fans is perfectly matched to the chiller requirements.



Airflow optimization



Fan speed energy saving evaluation

Trane can provide assistance in running load simulations taking into account the specific needs of your building. The evaluation will determine whether you can fully benefit from the savings generated by installing Trane chiller fan AFD retrofit solution.





Trane Services

The real expertise of a manufacturer



- Systems approach
- Dependable installations
- Energy saving solutions
- Operating cost optimization
- Chiller plant management solutions
- Chilled water production solutions.

At Trane, we are committed to providing a comprehensive portfolio of HVAC solutions throughout your system lifecycle.



Breakdown resolution

No one plans for breakdowns, but when they happen you need the right partner. Our expert Service Engineers use the latest diagnostic tools to guide you through your options to Repair, Renew, Replace or ReThink.



Secure operations

At every point during the lifetime of your equipment - installation, commissioning, maintenance or breakdown - Trane can offer an effective solution with commissioning, first-aid kits and service agreements.



System upgrade

Trane Building Advantage

Trane is committed to bringing the latest technological advantages to our customers through a wide portfolio of solutions which increase the Efficiency, Reliability and Sustainability of their HVAC plants. Our Service Engineers use their expertise together with the latest diagnostic tools to future-proof your system and make it “better than before”.



Equipment rental

For special events, exceptional needs or when you want to ReThink HVAC management, Trane Rental Services have the right solution. With our extensive fleet of equipment, we can perfectly match your temporary heating and cooling requirements.



Contact us

With over 1000 of the best trained sales engineers and service technicians in the industry, Trane is in the best position to serve your needs. Just call us and we will help you configure the Trane Free Cooling solution for your HVAC system.



Trane – by Trane Technologies (NYSE: TT), a global climate innovator – creates comfortable, energy efficient indoor environments through a broad portfolio of heating, ventilating and air conditioning systems and controls, services, parts and supply. For more information, please visit trane.eu or tranetechnologies.com.