

JILMIST



“JILMIST: The Future of HVAC System in the UAE”

JILMIST, a unit of OHMTS UAE, we specialize in advanced misting technology specifically designed to optimize the performance of HVAC system in the UAE market. Our mission is to provide high-efficiency misting solutions that enhance cooling performance, reduce energy consumption, and improve overall system reliability.

→ **EFFICIENCY**

lower energy consumption +30%



Go Green.

→ **Reduce your bills with our range of energy efficient solutions.**

JILMIST, a unit of OHMTS UAE, we specialize in advanced misting technology specifically designed to optimize the performance of HVAC system in the UAE market. Our mission is to provide high-efficiency misting solutions that enhance cooling performance, reduce energy consumption, and improve overall system reliability. By integrating cutting-edge misting technology, we ensure that your HVAC and chiller systems operate at their best, even in the most challenging environments.

OHMTS Technical Services, with over three decades of expertise in providing Mechanical, Electrical, and Plumbing (MEP) solutions, is one of the leading service providers in the UAE. Our team has executed numerous multimillion-dollar projects across the region, establishing us as a trusted name in the MEP industry. We take pride in maintaining the highest standards of ethics and professionalism, always working to ensure complete client satisfaction.

This year, as part of our continued commitment to innovation, we are excited to introduce JILMIST, a new division dedicated to advancing misting systems for HVAC system. As a unit of OHMTS UAE, JILMIST brings cutting-edge misting technology to the market, specifically designed to enhance the efficiency and performance of HVAC system in the UAE's challenging climate. Our high-performance misting solutions help optimize cooling, reduce energy consumption, and improve the overall reliability of HVAC systems, whether for industrial, commercial, or residential use.

With JILMIST, we are setting new standards in cooling efficiency, ensuring that HVAC systems operate at their best in the most demanding environments. Our solutions are tailored to meet the unique needs of each client, delivering comfort, efficiency, and long-term sustainability.

WHAT IS A MISTING SYSTEM?



A misting system in air-cooled condenser is a cooling enhancement technique used to improve chiller efficiency, particularly in high-temperature environments. It cools the air by spraying fine water droplets into the environment. The mist evaporates, absorbing heat and lowering the temperature. These systems are commonly used in outdoor spaces, gardens, and industrial settings for cooling and humidity control.

Misting systems offer a wide range of applications for enhancing the cooling performance of HVAC systems. They are especially beneficial in large-scale or energy-intensive environments where additional cooling or humidity control is required. Whether it's for commercial, industrial, or residential purposes, integrating misting with HVAC systems can provide significant benefits in terms of energy efficiency, cooling capacity, and overall comfort.

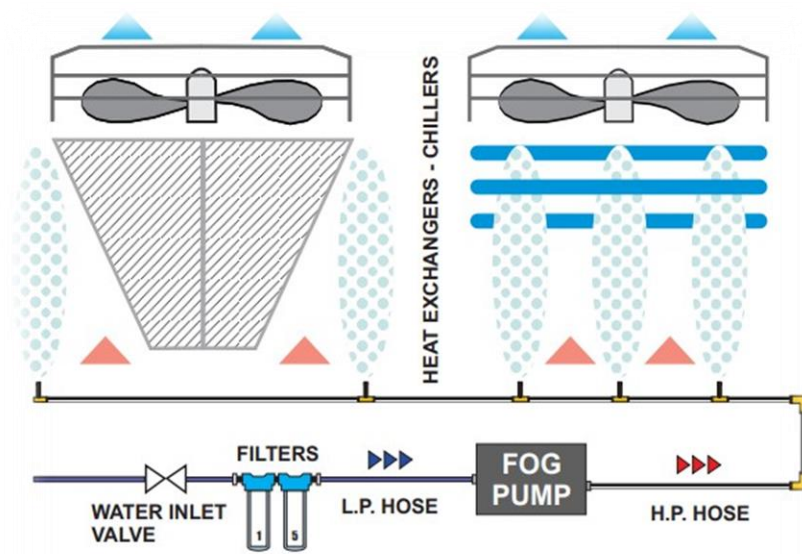
HOW DO MISTING SYSTEM WORKS?

Misting water onto the air intake or around the heat exchange coils, the ambient air temperature entering the condenser coil is reduced through evaporative cooling. This leads to lower condensing temperatures, making the chiller's compressor work less, which ultimately improves energy efficiency and reduces operational costs.

MISTING NOZZLES: Fine mist sprays around the condenser coil to prevent large droplets from affecting equipment.

EVAPORATIVE COOLING: As the mist evaporates, it absorbs heat from the surrounding air, lowering the air temperature around the chiller's coils. This reduces the thermal load on the compressor and other cooling components.

TEMPERATURE REDUCTION: The cooler air means that less energy is required to achieve desired cooling temperatures, as the system doesn't have to work as hard to reject heat.



Chillers & Heat exchangers mounting layout example

BENEFITS OF MISTING SYSTEM

Benefits of misting system are :

❖ IMPROVED COOLING EFFICIENCY

Misting systems can lower the air temperature around the condenser coils of air-cooled condenser and HVAC units. By introducing fine water droplets into the air, the mist evaporates, which can absorb heat from the surrounding environment and lower the temperature of the incoming air. This reduces the temperature of the refrigerant and allows the system to operate more efficiently.

❖ ENERGY SAVINGS

As misting helps cool the condenser more effectively, the chiller or HVAC unit may require less energy to maintain the desired output temperature. This can result in reduced energy consumption and lower operating costs.

❖ REDUCED EQUIPMENT STRAIN

By improving heat exchange efficiency, misting helps reduce the strain on air-cooled condenser and HVAC systems. This can extend the lifespan of the equipment, as it doesn't have to work as hard to maintain performance levels.

❖ ENHANCED COOLING CAPACITY

During hot weather, the effectiveness of air-cooled condenser and HVAC systems can decrease due to higher ambient temperatures. Misting units help maintain the performance and cooling capacity of the system even in hotter conditions by lowering the air temperature around the condenser.

❖ FASTER HEAT DISSIPATION

Misting units can enhance the rate at which heat is dissipated from the air-cooled chiller or HVAC unit. The process of evaporation helps draw heat away from the unit, improving overall performance.

❖ HUMIDITY CONTROL

In some cases, misting systems can also help control humidity levels around HVAC or chiller equipment, which may further optimize their functioning and prevent potential issues like corrosion or rusting of sensitive parts.

❖ REDUCED FOULING

Misting systems can also help reduce dust buildup and dirt accumulation on the coils of air-cooled condenser. This is particularly useful in environments with high levels of dust or pollutants, where contaminants can negatively impact the system's heat exchange efficiency.

❖ ECO FRIENDLY

Compared to mechanical cooling systems that may rely on refrigerants or high energy consumption, misting is a more environmentally friendly solution. It uses water as the cooling medium and can be integrated with existing systems without the need for major modifications

❖ MISTING IN CONJUNCTION WITH HVAC

Misting systems can lower the air temperature, thereby reducing the demand on HVAC systems. By improving overall cooling efficiency, HVAC systems don't have to work as hard, leading to energy savings.

❖ MISTING WITH CHILLERS

Chillers are responsible for removing heat from large areas or water. Misting systems help to cool the air before it reaches the chiller, making it easier for the chiller to maintain a lower temperature. This can increase the chiller's efficiency, leading to energy and cost savings.

TYPES OF MISTING SYSTEM

HIGH-PRESSURE SYSTEMS:

A high-pressure misting system for HVAC and chillers uses fine water droplets to enhance cooling efficiency. By spraying mist at high pressure, the system promotes rapid evaporation, which absorbs heat from the air and lowers the temperature. In HVAC and chiller applications, this helps improve system performance, reduce energy consumption, and enhance overall cooling capacity.



MID-PRESSURE SYSTEMS:

A mid-pressure misting system for HVAC and chillers operates at a moderate water pressure (typically around 500–1,000 psi) to generate fine water droplets. The mist helps cool the air by promoting evaporation, which absorbs heat and lowers the surrounding temperature. In HVAC and chiller applications, this system enhances cooling efficiency, reduces energy consumption, and improves overall performance.



LOW-PRESSURE SYSTEMS :

A low-pressure misting system operates at lower water pressures (typically around 100–200 psi) to create larger water droplets compared to high or mid-pressure systems. These systems are commonly used for cooling small outdoor areas, patios, or gardens.



“JILMIST: The Future of HVAC System in the UAE”

With JILMIST, we are setting new standards in cooling efficiency, ensuring that HVAC systems operate at their best in the most demanding environments. Our solutions are tailored to meet the unique needs of each client, delivering comfort, efficiency, and long-term sustainability.

HVAC pre-cooling through misting systems offers a practical and efficient approach to enhance energy efficiency and reduce electricity costs. By pre-cooling outdoor units, HVAC systems can operate more effectively, delivering optimal cooling performance and reducing demand spikes. Misting systems provide a cost-effective solution for minimizing the reliance on air conditioning and offering a more comfortable and inviting environment. Incorporating misting technology into HVAC systems opens up new opportunities for energy-conscious customers to optimize their operations and contribute to sustainable practices

CONTACT US

JILMIST

“Innovative, Efficient, and Sustainable Misting Systems for Every Need.”

OHMTS ELECTROMECHANICAL LLC

DUBAI INVESTMENT PARK-1



0501827368 , 0563328758



jilmist@ohmts.com



www.ohmts.com



Go Green.