Energy Conservation Grand Praize The Energy Conservation Center, Japan Chairman's Award

High-efficiency Humidification Specialized Moist Processor

Product: Moist Processor (humidification specialized model) MPK9000SH and eight other models

Dyna-Air Co., Ltd. 3-4-2 Kandanishiki-cho, Chiyoda-ku, Tokyo (TEL: 03-3294-4566)

Reason for recognition

The award-winning Moist Processor is a liquid desiccant-based humidity control air conditioning system equipped with a heat pump. The device provides high-efficiency, high-volume humidification. Previously, steam type systems were commonly used by medical and nursing care facilities to meet large-volume humidification demands as well as strict requirements for controllability and cleanliness. However, steam humidifiers are incompatible with heat pumps. This lowers energy-saving performance. The Moist Processor overcomes this limitation. By using a liquid desiccant, it can perform humidification while heating the air. The product consumes less energy while offering the same level of humidifying capacity, controllability and cleanliness as a steam humidification system. It can reduce energy consumption by 75% compared to electric heating/electrode steam humidifiers.

The liquid desiccant humidification system offers stronger energy conservation at a lower cost.

The liquid desiccant method allows the user to easily control the temperature and concentration of liquid humidity control agents (liquid desiccants) and to accurately adjust the temperature and humidity of the air as they desire. This simple principle governs the liquid desiccant system, which exhibits uniquely powerful humidification/dehumidification effects. The liquid desiccant-based humidification/dehumidification system offers controllability, humidification/dehumidification capacity, energy-saving and cleanliness that is superior to any other system. However, its market penetration has previously been hampered due to higher prices. The issue has been resolved by the recent development of liquid desiccant humidifier. Focusing only on the humidification function allows for a simpler configuration, so the product has achieved a substantial cost reduction without compromising the advantage of the liquid desiccant method. We believe that with price competitiveness boosted significantly, the product will rapidly penetrate the broader market and be installed in many buildings where it will help reduce energy consumption and improve the global environment.





Moist Processor MPK9000SH



MPK9000SH installed in Sashiogi Hospital

