



From Palm Fronds to Wind-Free™ Technology

South Africa – Nov. 30, 2017- The history of trying to keep cool in extreme temperatures is a long and interesting one – from slaves cooling royalty with palm fronds, to the latest digital air solutions which feature Wind-Free™ technology.

Modern air conditioning relies on the process of evaporation to cool and humidify the air at the same time. While this concept is constantly being improved upon, its roots extend back to ancient *Egypt, where reeds were hung in windows and moistened with trickling water. When wind blew through the window, the water evaporated and helped to bring down the searing Saharan heat. Later, in ancient Rome, water from aqueducts were circulated through the walls of some homes to cool them. In medieval Persia cisterns and wind towers were used to cool buildings during the hot season.

The first air conditioner resembling the system we know today was installed in a home in the United States of America in 1914. Inventors' understanding of scientific principles had grown in leaps and bounds between ancient Egypt and early 20th century US. The principle of evaporation remained intact, but the process was now achieved by driving air through water-cooled coils.

A little over a century after this invention, air conditioners are widely in use across the globe, in homes, businesses and cars. Most of the air conditioning systems in use today still rely on these methods.

Samsung's new Wind-Free™ Cooling technology represents a revolutionary shift in the way air conditioners work to make our lives more bearable. It has been designed to optimise airflow to bring new levels of comfort to our daily climate control requirements. Samsung's new air conditioners, which feature Wind-Free™ Cooling technology provides consistent temperatures without directly blasting users with air or creating unpleasant cold spots, offering value that you can feel at home and on your electric bill.

"Samsung uses its global network and innovation to create positive change for people across the world. We use design and innovation to provide people with new experiences and aspirational products such as Wind-Free™ technology," says Mike van Lier, Samsung Director Consumer Electronics.

In its vision of Wind-Free™ Cooling technology, Samsung aimed to create an air conditioning system that does not rely on strong blasts to cool a whole room. This required new ways of thinking about how the appliance vented air and regulated the strength of its breeze. The result: an air conditioning system that maintains consistent and ideal temperatures that keep them comfortable all day and all night, while also keeping its cool with the environment through a serious cut in energy expenditure.

* Bahadori, M. N. (1978). *Passive cooling systems in Iranian architecture*. *Scientific American*, 238(2), 144-155.