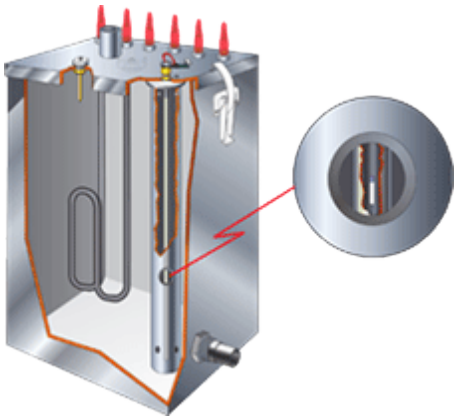
The "AFEC®" System

The unique "AFEC®" system has been designed to respond to a demand for:

1) maximizing the energy efficiency of humidifiers
2) increasing the safety level
3) reducing maintenance time and cost
4) increasing the abilities of the microprocessor control by usage of different types of sensors in the unit and providing an interactive LCD display
5) ability of the humidifier to operate in any type of water, including de-ionized water

Mode of operation

The level sensor, which is made of a teflon coated stainless steel probe, measures analogically the incoming mass of water in the evaporation container. The sensor operates perfectly in all environments such as very hard or de-ionized water. The sensor's teflon coating ensures very easy maintenance.



The most important characteristic of the AFEC® sensor is that it cannot be triggered by foaming in the container, a problem that plagues the conventional conductive sensors. Conductive sensors cannot recognize the difference between foam and water. When foaming occurs, there is a danger that the heating elements will work in foam rather than water creating a burn out and potential fire hazard. Some humidifier manufacturers use continuous bleeding or skimming of the boiling water to reduce the possibility of foam formation. This results in very significant energy loss and marked reduction of efficiency.

The humidifier has also a conductive foam sensor to drain only the water when foam has been detected. **This full feedback system is unique to SK humidifiers.**

The high limit electronic temperature sensor imbedded in the capacitive level probe is another unique feature to SK humidifiers. The electronic fast acting sensor is in close proximity to the heating elements ensuring a very fast response in an emergency situation. All competitors have only an external, slow acting bi-metallic sensor. (also standard on the SK units).

The three sensors acting as a system with the microprocessor and interactive LCD also give a wealth of information on other functional parameters of the humidifier, such as, problems with water supply, clogged water evacuation and overheating.

The **AFEC®** system is a powerful energy conservation, safety and diagnostic tool unique to the **SK** design (patent).