

Case studies

Electronics



"The Fog Engineers"

H. IKEUCHI & CO., LTD.

Process: Surface Mount Process

Water spray humidification system drastically reducing energy costs and lowering CO2 emission.

How are effects of installation of a water spray humidification system?

An automotive electronics manufacturer that replaced their conventional steam humidifiers with our Dry Fog Humidification System AirAKI® calculated its running costs and evaluated effects of the investment. It has estimated that the energy-saving effect (cost reduction) is over US\$90K a year that pays back the initial investment to the system in less than two years as well as it reduces CO2 emission by 300 tons a year.



Reducing cost, lowering CO2 emission and enabling precision humidity control.

Effects of the installation:

1. Annual cost reduction
(During 7 months from November to May)

Heavy fuel oil:	- \$101K
Water:	- \$13K
Electricity:	+ \$10K
Consumables:	+ \$5K
Sum:	- \$98K
CO2 emission:	- 300 tons

2. Humidity control level

- Control criterion: 35%
- Conventional Humidifiers (measured values):
The lowest 7%, the highest 50%
(- 28%/+ 15%)
- Dry Fog Humidification System (measured values):
The lowest 31%, the highest 40%
(within +/- 5%)



Dry Fog Humidification System AirAKI®

AirAKI®, an energy-saving humidification system spraying "Dry Fog" that does not wet products, equipment and people, prevents problems caused by static electricity and reduce defective products.

It also helps reduce the load on existing cooling systems.

Replacing humidifiers using heavy fuel oil with the system helps drastically reduce running costs.


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Contact



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