



**AW-LAKE**  
PROCESS FLOW MEASUREMENT



## APPLICATION SPOTLIGHT

Chemical Spraying – Anti-Icing & De-Icing Vehicles



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### APPLICATION:

During the winter months road safety operations will either apply an anti-icing agent or de-icing material to roadways, parking lots, and airport runways to keep pavement surfaces clear of snow and ice. Anti-icing is proactive approach in preventing ice from forming or bonding to pavement by spraying a chemical compound for pre-treating the pavement prior to icy conditions. De-icing is a reactive approach in which a chemical or material is added to already icy roads.

Calcium magnesium acetate (CMA) is one such anti-icing agent that can be used as an alternative to road salt. It is approximately as corrosive as normal tap water, and in varying concentrations can be effective in stopping road ice from forming down to around  $-27^{\circ}\text{C}$  ( $-17^{\circ}\text{F}$ ). Anti-icing chemical solutions are typically quite costly, so accurately monitoring usage is critical to conserve costs. When spraying an anti-icing agent, it is important to monitor how much of the chemical is being distributed to roadways and how much may runoff the pavement to ensure environmental regulation compliance. Similar spraying methods are also used on equipment when de-icing aircraft.

### PRODUCT SUPPLIED:

FlowStat ES with frequency output

### CHALLENGE:

The OEM needed a way to distribute the anti-icing solution evenly and efficiently to pavement at a low flow range of 0.2 to 20.0 GPM and track total product usage for compliance reports.

### SOLUTION:

AW-Lake worked closely with the OEM to find a suitable solution for the Anti-Icing application which utilized a FlowStat ES to track precise usage at flow rates as low as 0.2 gallons per minute. The FlowStat ES provided an economical solution, which met the flow rate, accuracy, fluid compatibility and output requirements demanded by the application.

