CASE HISTORY Cranberry Township, Penn.





CRANBERRY TOWNSHIP REDUCES ROCK SALT USAGE WITH AUTOMATED BRINE MAKER

Faced with a common problem of bounce and scatter into surrounding vegetation with their traditional rock salt, Cranberry Township decided it was time to investigate alternative ways to keep the roads clear of snow and ice. Having only used pre-wetting applications with magnesium chloride when the weather dropped below 20 degrees Fahrenheit, this costly solution prompted their investigation into brine making equipment.

During their extensive review of several different brine makers, they were introduced to the AccuBrine[®] automated brine maker from Cargill Deicing Technology. This state-of-theart system can produce approximately 5,000 gallons of brine per hour at accurate salinity concentrations all at the touch of a button.

"We were impressed with the footprint of the unit and several other features like the hourly production capability, remote operation feature, ease of cleaning the unit, and the use of keychain FOB's being issued per truck to track usage per route," said Bob Howland, manager – streets and fleet. "We purchased the AccuBrine[®] automated brine maker in 2012 and began using it that winter season."

Multiple operators were trained how to use the system and found that the fully automated controls dramatically limit the amount of time they need to spend making brine. "We know that the most important element in the operation is the accuracy of the salinity reading," said Howland. "The AccuBrine[®] automated brine maker accurately produces the right salt brine solution (23.3% salinity) which helps us reduce our rock salt usage."

Because their trucks already had pre-wetting equipment, the township was able to make better use of them by using the brine to pre-wet the salt at the spinner. "We were able to recognize a savings in rock salt usage on all routes," Howland said. "Our biggest savings were found on two specific routes where we were using two demo spreaders. Both of these units carried 465 gallons of liquid compared to our 100 gallon tanks on our other trucks and these spreaders recognized the greatest benefit of using the pre-wet salt brine process."

In addition to savings in rock salt, the township has been impressed with how easy the unit is to clean out. The AccuBrine[®] automated brine maker is also equipped with software that allows users to track monthly usage by routes or by customers that are purchasing brine as is the case with Cranberry Township.



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To meet their needs and their customers' needs, the brine is stored and loaded directly into trucks as needed. "We do both – load it directly into our trucks during production or into our 5,000 storage tank," said Howland. "We also have a 5,000 gallon blended tank with our 80/20 of brine and mag. Our Mag is stored in a 3,000 gallon tank in a separate building about 150 feet away and the unit is able to pull the mag from the tank and pump it into the blended tank without any issue."

Having the ability to create custom blends allows the township to still incorporate magnesium chloride when the temperature calls for it and the AccuBrine[®] automated brine maker can make custom blends with ease.

"We are responsible for 125 miles of roads here in the township which includes 298 cul-de-sacs," Howland said. "The primary reasons we chose to purchase the AccuBrine[®] automated brine maker were to reduce our rock salt usage, faster reaction time for rock salt to begin to work (added moisture), and also to help the environment. We have the confidence knowing that we are using a product that is not creating an icing situation as we use it."



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