

Snow and Ice Control: Pre-Wet System

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Introduction

Our mechanics have created a pre-wetting system that can save local departments money. Performing the installation in-house has saved us a lot of money and continues to yield many benefits during the winter months.

This brief presentation will hopefully help other departments learn how to adopt our system to benefit their own snow and ice control operations.

Brief Summary



BEET HEET® is pumped from a storage tank to the back of the truck and sprays out of either one or two nozzles onto the salt right before the salt is applied to the roads.

We use 5 gallons of Beet Heet per ton of salt.

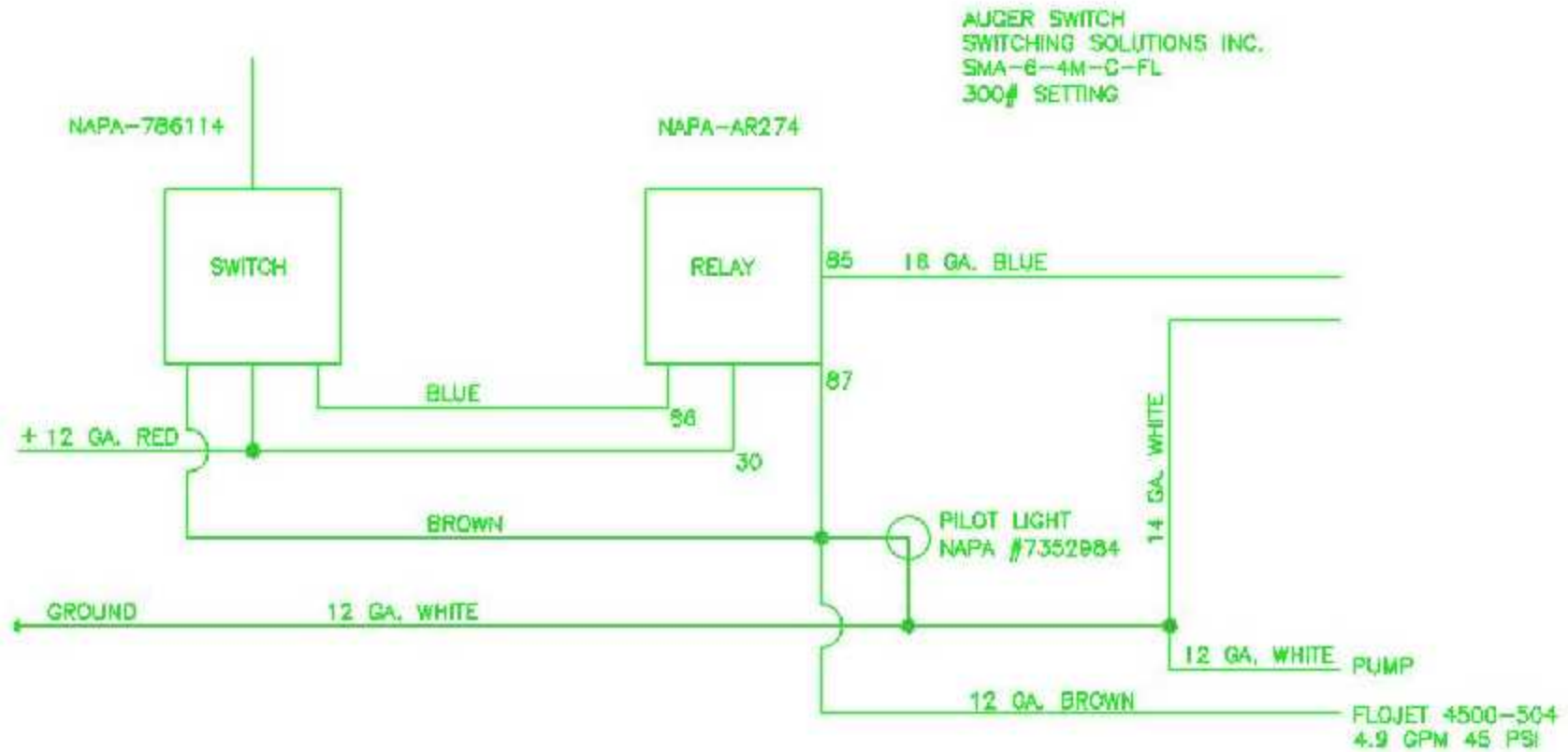
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BEET HEET Summary

BEET HEET® Concentrate is an organic based, corrosion inhibited, liquid pre-wetting agent, anti-icer/deicer containing 4 ice melting chlorides and 4 highly refined carbohydrates. BEET HEET® Concentrate is a ready-to-use salt pre-wetting agent developed to provide far superior ice melt capacity, anti-bonding and residual performance to that of 23.3% NaCl, 28% MgCl₂, and 32% CaCl₂ based deicers.

Design



Installation Procedure



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Installation Procedure



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In-Depth: Parts



Pumps
Sit right behind the storage tank. Pumps at 3.7 gal/min.



Filters
Use an 80-micron filter



Spray nozzles Depending on the truck, each system will either have one or two nozzles. The size of the nozzles also varies between trucks from size 3 or 4.

Installation Cost

- 1 80-gal liquid underbody mounted tank: \$386.25
- 2 BRN-63484 5" Lid w/ vent: \$9.99
- 1 Pump 400 – 9000106: \$129.42
- 1 Box 103392: \$32.40
- 4 Cans Coating DPL TR250: \$9.49
- Fittings: \$33.51

Total Material Expenses: \$601.06

Total Labor Expenses: 20 hours @ \$32.59 = \$651.80

Total Installation Cost: \$1,252.86

Storage: Trucks



Each truck is equipped with either an 80 gallon underbody mounted tank or 100 gallon behind cab mounted tank.

Storage: Bulk

A 2100-gallon storage tank is kept outside and it has plumbing that leads into the building so that the Beet Heet tanks on the trucks can be re-filled as the trucks are washed. There are two other different types of storage tanks on site that combine for a total storage of 5000 gallons. It's desirable to have a bulk storage capacity that's capable of storing an entire tanker to make deliveries more economical.



Questions?

**For more information please contact Todd
Bumgardner at 937-592-2791.**

**Parts were purchased from
Fertilizer Dealer Supply.
For more information about their products visit:
www.fertilizerdealer.com**