



Tool and Equipment

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Silane Bridge Sealant Sprayer [Video](#)



Description

The Silane Bridge Sealant Sprayer was created to improve the safety of bridge sealing operations. Before this innovation, MoDOT trucks pulled a trailer that carried a sealant tank, requiring the crew to find areas big and safe enough to turn around. The Silane Sprayer is a pump mounted to the platform designed to go in a receiver hitch. This allows bridge sealing products to be applied to any truck. The sprayer is small enough that it does not cause the drivers issues when looking for a place to turn around.

Benefit

This innovation helps saves time and money by improving the turnaround time on a bridge and making it much quicker with only a truck when we previously sprayed from a trailer. The amount of product that can be carried is now more than the 300-gallon limit on the previous trailer had, allowing for more work to be complete in one trip. Fewer trips back to the shop also show up in fuel savings and wear and tear to vehicles. The work is simplified with being able to hook directly to the containers the silane is shipped in rather than transferring the product to a separate tank. This innovation improves safety tremendously by not backing a trailer and removes the need for workers to transfer chemicals and being exposed to them.

Materials and Labor

The product was built with scrap steel around the shop but would be around \$250 dollars for the pump, and roughly \$200 in spray bars and tips. Reoccurring cost would be damaged items. With two employees working on building the platform, it would take about two hours of labor. Once the platform is built, it will take three people one hour to calibrate.

For More Information Contact

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Additional information, photos or videos can be seen by accessing Innovations Challenge SharePoint page at: <http://sp/sites/tp/planpol/SitePages/InnovationHome.aspx>

