Tool and Equipment First-Round Winner

April 2017

Innovations Challenge

Prepared by Transportation Planning Missouri Department of Transportation

Indeck Applicator



Description

The Indeck Applicator is a sprayer that mounts to the back of a truck to apply indeck to a bridge deck. This sprayer eliminates the old way of sealing requiring two employees dumping out the indeck and four to six employees mopping it on with brooms. The Indeck Applicator takes the place of the pull-type sprayers that require significant maintenance and are difficult to back. The pull-type sprayer is also not easy to clean and the inside usually requires a costly professional cleaning.

Benefit

The Indeck Applicator sprayer saves money by decreasing man hours and reducing the number of employees it takes to complete the task. The cost of the sprayer is approximately \$1,500, compared to the pull type at \$13,000. This sprayer saves time by reducing the application process from one hour to a short five minutes per lane. Safety of the workers is improved by completely removing all employees from the danger of being struck by traffic. Two of the employees are protected by the cab, and the cage will be on the bridge. This process also eliminates the danger of slips and falls when applying the indeck.

Materials and Labor

20 hours of staff time with \$1,500 in materials. Materials list on back page.

For More Information Contact:

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Additional photos or videos can be seen by accessing the Innovations Challenge SharePoint page at: http://sharepoint/systemdelivery/TP/Documents/InnovationsChallenge.aspx.



Materials List

300 Gallon Tank x2
3-way Banjo Valve 1 ¹/₂
¹/₄ inch Spray Tips x6
¹/₂ Gate Valves x6
6 Elbows
¹/₂ x 2 Nipples x6
1 ¹/₂ Tee
20 feet of 1 ¹/₂ Suction Hose
2 Bulkhead Fittings 1 ¹/₂
4 Camlock Banjo Fittings 1 ¹/₂
2 Metal Caps 1 ¹/₂
9 feet of 1 ¹/₂ Metal Pipe
20 feet of 1 inch Tube
2 Tail Lights with Wiring and Plug
5 hrp Water Pump