Tool and Equipment First-Round Winner

Innovations Challenge

April 2017

Prepared by Transportation Planning Missouri Department of Transportation

Centerline-Edgeline Chipper Attachment





Description

Centerline-Edgeline Chipper Attachment is a box pinned to the outside of a tailgate conveyor that catches sand or chip materials and spreads a two foot wide strip on the road surface. This process works by opening and shutting a gate at the bottom of the box, using air cylinders controlled from the cab of the truck. When using sand, a shaker system was installed by mounting a spinner motor to the side of the box with an offset weight attached to the shaft.

Benefit

Since the material is confined to the actual damaged roadway, there is less wasted materials which saves the department money. It simplifies work and saves time because the operation can be done in one continuous pass by one operator, and the spreading can be done at five to seven miles per hour resulting in less time to complete the project. Because less time is spent on roadways and fewer workers are needed in work area, the process improves safety.

Materials and Labor

10 hours of staff time with \$650 in materials.

Materials List

Box	\$300
Spreader Motor	\$200
Air Cylinders	\$100
Fittings	\$20
Air Hose	\$20
Pins (3)	\$10
Total	\$650

For More Information Contact:

Rick Allen at James. Allen@modot.mo.gov or (417) 766-2546.

MoDOT

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