

2014 Second Place – Asphalt Spray Bar System: Colorado

CONTACT:

El Paso County Public Services
John McMinn
3275 Akers Dr.
Colorado Springs, CO 80922
719-520-6827
cltap@colorado.edu

PROBLEM STATEMENT:

Our problem developed during our asphalt patching operations. When patching larger areas, for example "blade patching" using a grader or backhoe bucket, we were using our truck mounted spray wands to apply the "tack oil" so the asphalt would adhere properly to the existing asphalt surface. Doing this by hand resulted in uneven application, the use of too much product, and on windy days, the operator getting covered with tack oil - ruining clothing, getting into the trucks and worse at times getting into eyes and faces of employees. Using a distributor truck for these relatively small jobs was "overkill" and was too problematic with the amount of tack oil involved.

SOLUTION:

A pair of our employee/operators came up with a simple, cheap, and effective solution. Using their own time and money for the prototype, they developed a "spray-bar" that hung on the back of the asphalt patch truck, on the lift arms for the patch roller. The hand wand can be quickly disconnected, and the hose attached to the spray-bar. The bar has several valves that can control the width of the area being sprayed and the roller lift can raise or lower the bar changing the thickness of the pattern. This can all be turned on and off from inside the cab while on the move.

LABOR/MATERIALS/COST:

Total cost was about \$40.

SAVINGS/BENEFITS TO THE COMMUNITY:

The effect on the job was immediate and dramatic, we were seeing a more even application of the tack oil, resulting in a better final product, using about a third less oil saving us money at the onset. To top it all off, our operators were no longer going home "wearing" a layer of tack oil, keeping it out of their eyes and off their clothes. The spray-bar project has proven to be a "win/win" for the county and the workers!

