

## Tool and Equipment

April 2024

Prepared by Transportation Planning  
Missouri Department of Transportation

### Bridge Flusher



#### Description and Benefit

This innovation uses the truck hydraulics to power a pump to help us on our bridge flushing operations. We installed a camera to the front of the truck so one person can see without the need for another person. It is plumbed in the rear of the truck to allow hook up directly to a hydrant for easier loading. There are switches in the cab to allow us to switch from spring washing to fall flushing without having to get out of the truck. This was designed for us to adapt to changing TAs so we can eliminate boots on the ground and have this as a moving operation for worker protection. This innovation saves both on water and fuel costs from having to come back to the building for water and fuel less and uses hydraulics instead of the former gas powered motor we had been using. It saves labor hours by using less people for the operation.

#### For More Information Contact

Northeast District - Maintenance

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Northeast District – Maintenance

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| Quantity | Item Description              | Product Number  | Cost Each  | Total Cost |
|----------|-------------------------------|-----------------|------------|------------|
| 1        | Truck Wiring/ Install         |                 | \$250.00   | \$250.00   |
| 1        | John Blue Pump                | BUSP3345-PH     | \$2,839.00 | \$2,839.00 |
| 1        | Hydraulic Plumbing            |                 | \$300.00   | \$300.00   |
| 2        | 2" TeeJet 12v Valve           | TKEVX220        | \$400.00   | \$800.00   |
| 50       | 3" suction hose               | GDN645-3        | \$6.50     | \$325.00   |
| 1        | Thread Sealant                | RS28541         | \$30.25    | \$30.25    |
| 6        | 3" MPT X HB                   | TFSTV300        | \$16.60    | \$99.60    |
| 5        | 3"MPT x Female camlock        | EV B-3AL        | \$13.50    | \$67.50    |
| 4        | 3" MPT X Male camlock         | EV F-3AL        | \$14.80    | \$59.20    |
| 6        | 3" Black Pipe Tee             | USG631-3        | \$39.50    | \$237.00   |
| 4        | 3" Black Pipe 90 elbow        | US601-3         | \$24.20    | \$96.80    |
| 2        | 3" Black Pipe 45 elbow        | US620-3         | \$29.00    | \$58.00    |
| 4        | Black Pipe Wld Seam 3x6       | USG3x6          | \$40.00    | \$160.00   |
| 2        | Black Pipe Wld Seam 3x4       | USG3x4          | \$17.40    | \$34.80    |
| 4        | Black Pipe Wld Seam 3 CLS     | USGXClose       | \$13.00    | \$52.00    |
| 6        | Black Pipe 3x1 1/2bushing     | USG181 3 x 11/2 | \$11.00    | \$66.00    |
| 4        | Black Pipe Wld Seam           | USG2XCLOSE      | \$3.20     | \$12.80    |
| 8        | Black Pipe 3x2 bushing        | US G181 3x2     | \$14.10    | \$112.80   |
| 2        | 1 1/2" coupler                | USG676-1-1/2    | \$5.40     | \$10.80    |
| 3        | Blk Pipe Wld Seam 1.5x2       | USG1-1/2X2      | \$2.90     | \$8.70     |
| 3        | Blk Pip Wld Seam 1.5 x cls    | USG1-1/2xCLOSE  | \$3.20     | \$9.60     |
| 3        | Brass Ball Valve 11/2"        | EVFBV150        | \$38.00    | \$114.00   |
| 2        | 2" coupler                    | USG676 -2       | \$7.70     | \$15.40    |
| 12       | T-Bolt Clamp                  | TKTC338         | \$10.30    | \$123.60   |
| 1        | 3" x 20' channel              |                 | \$81.94    | \$81.94    |
| 1        | 2" x 20' angle                |                 | \$67.16    | \$67.16    |
| 1        | 6" x 1/8" flat                |                 | \$48.00    | \$48.00    |
| 1        | 1" Black Pipe Tee             | US241-1         | \$13.00    | \$13.00    |
| 1        | Pipe Bushing 3X1-1/4          | US181-1x1-1/4   | \$14.10    | \$14.10    |
| 1        | 90 Street Elbow 1-1/4"        | USG613-1-1/4    | \$5.90     | \$5.90     |
| 1        | 1-1/2 Female cam to 1-1/4 MPT | TK P150125B     | \$14.20    | \$14.20    |
| 4        | Pipe Nipple 1-1/4" close      | USG1-1/4xClose  | \$2.00     | \$2.00     |
| 6        | Cam Lever Adapter x FPT 2"    | EVA-2AL         | \$6.00     | \$48.00    |
| 8        | Cam Lever Coupling x FPT 2"   | EVD-2AL         | \$15.20    | \$121.60   |
| 1        | 3" Malleable cross            | US661-3         | \$59.00    | \$59.00    |
| 4        | 3" Cam lock cap               | EVDC-3AL        | \$22.00    | \$88.00    |

**Project Total:** \$6,445.75

Vendors Used: Dultmeier, Ahrens Steel, 4R-D

**LABOR:** 120hrs