

Automated Roadway Pavement Marker Placement System



1 Versatile

This unit will fit on most flat bed stake trucks and has the ability to be adjusted to different heights of the bed.



2 Travel Position

To assure safe travel, the unit has a hinge system that allows for it to be winched upward to a safe ground clearance position.



3 The Brains

The Allen Bradley control is the brain for all the sensors, valves and motions of the machine. It is very user friendly and allows for a visual aid in testing and trouble shooting. This control is the other side of the wireless pendant and allows them to talk to each other.



4 Magazine Racks

There are eight magazines with the ability to hold over 500 markers at a time. In the system they are divided into 2 & 6 rows to allow for two separate color markers if needed and can be switched as needed by the operator/driver. Each magazine has its own sensor to recognize if there are markers present. Once one magazine empties the sensor tells the control to move to the next full magazine and so forth. These magazines can easily be re-loaded by one person in a matter of minutes.



5 Hydraulic System

Each magazine has a hydraulic cylinder that actuates back and forth to allow for one marker at a time to drop from the magazine. This hydraulic system is controlled by a series of electronic valves that are interfaced with the Allen Bradley control. These hydraulic lines have quick disconnects so the magazine sub-assembly can be removed easily for storage.



6 Marker Chute and Nest

The marker comes down a chute and lands in a specially designed nest that prepares the marker to be picked up with the suction cup and then ready for the operator to move it into position for placement. There is a sensor that identifies that the marker has made it to the nesting position and allows the operation to continue. If the marker does not land in the nest properly the machine will not advance and the control panel will identify the problem.



7 Pendant

This is a wireless control panel that the driver operates from inside the vehicle. The power is supplied to it with a plug that goes into the cigarette lighter. It has an automatic and manual mode. The operator/driver can control all movement and placement of the glue and marker. There is additional ability to abort the cycle, keep the glue line purged as needed and an emergency stop. There is an additional power port at the control panel. With the wireless ability, the pendant can be operated from inside the main vehicle, next to the machine for testing and troubleshooting or from a secondary vehicle following the main vehicle.



8 Installation

As the vehicle and machine travel down the road the driver stops near the position that the marker is needed. The operator manipulates the suction cup held marker and attached glue tip into position and pushes one button that then automatically places the correct amount of glue and the marker in place. It then will automatically travel back to a home position and retrieve the next marker.