



Electric Operated Injection System Single System Application

Additive Systems Inc.

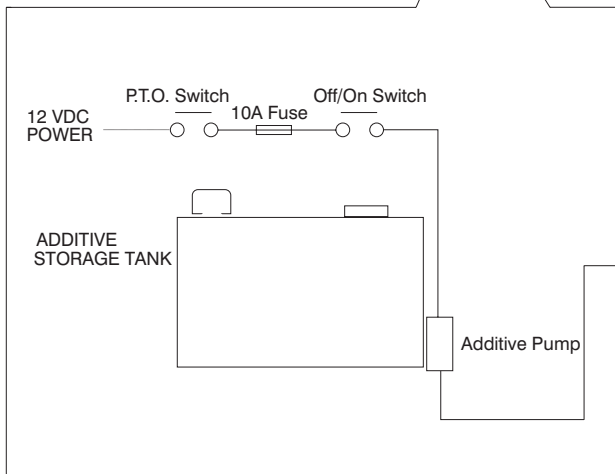
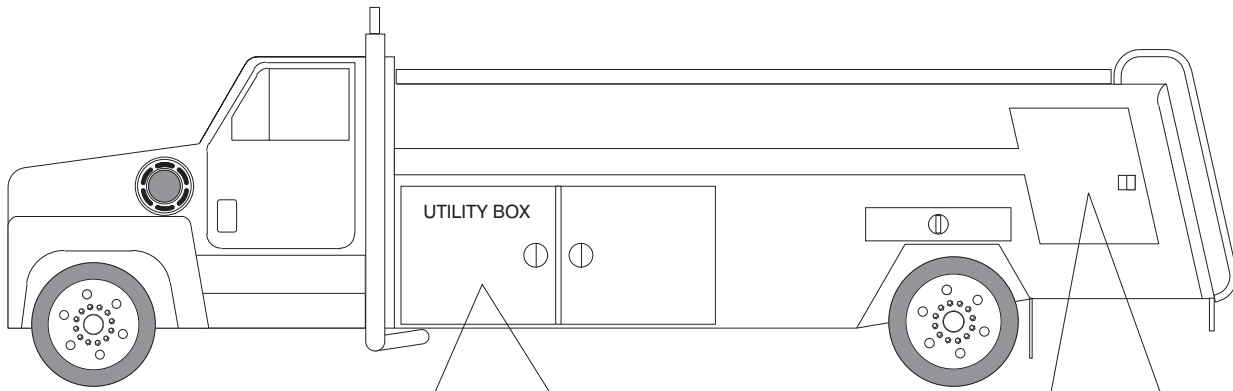
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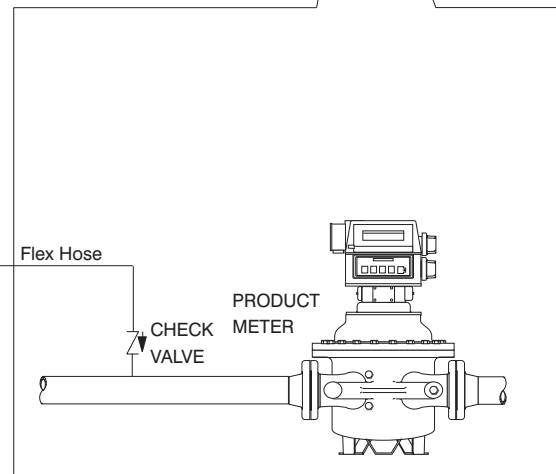
www.additivesystems.com



Tank/Pump

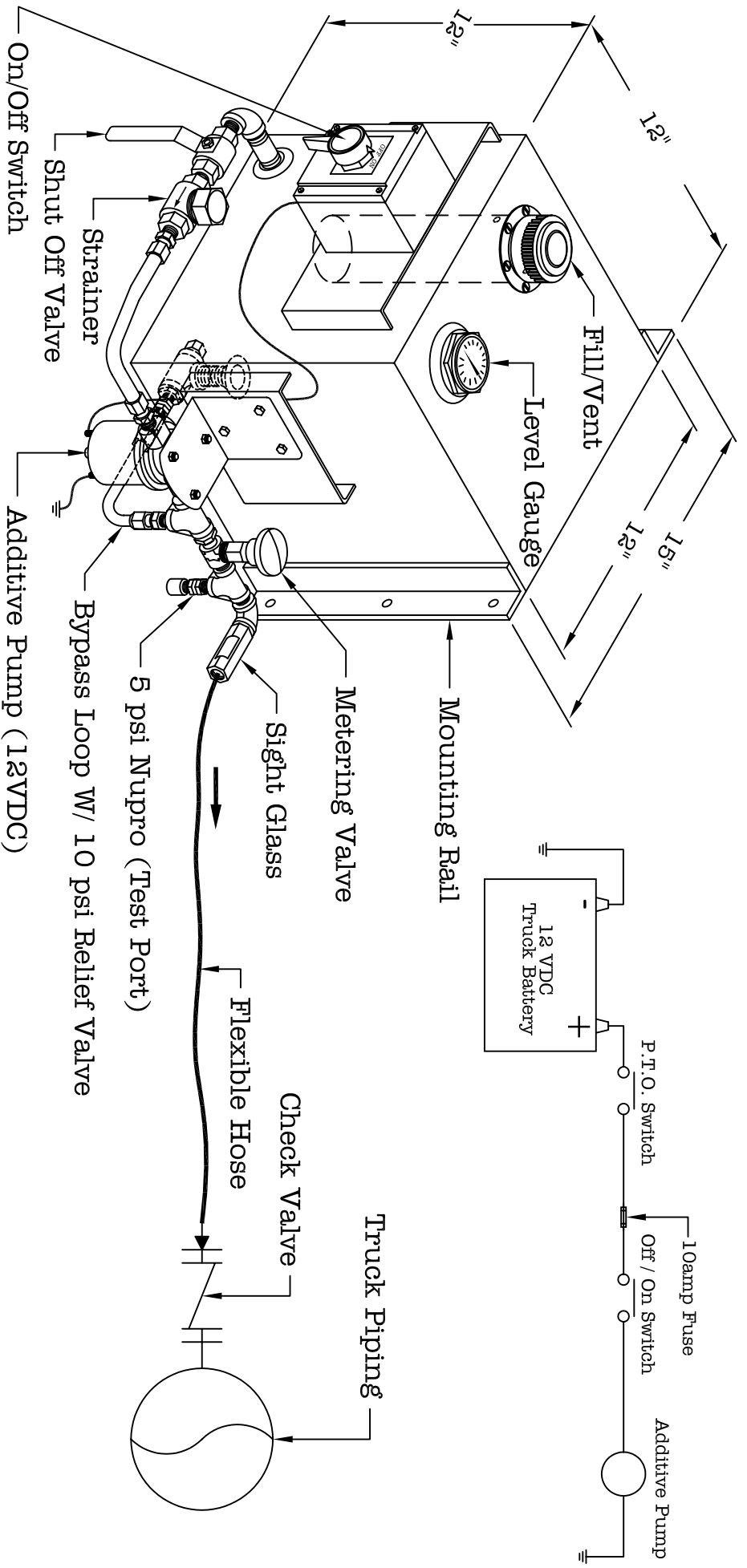
The tank / pump assembly is a DC electric operated system consisting of a tank fitted with necessary filling, venting, drainage and level gauge, A pump to supply pressurized Additive.

The system is paced by using a needle valve for calibration. 3/8" flex hose is recommended from the injector outlet to the injection point.



Injection Point

The additive injection point should be located as close to the product meter as possible to minimize product contamination. If the injection point is located downstream of the product meter, additive injection will not be counted by the product meter. A check valve should be installed to prevent back-flow of product into the additive supply. A check valve is required for the injection point (1 psi)



11ga. Carbon Steel
 Gloss Black Powder Coat

Truck Mount Injection System

7 Gal. Capacity

SCALE: None	DATE: 06/02/03	EDIT DATE:	DRAWN BY: J.F.
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REV.#	REVISIONS	DATE

ASI ADDITIVE SYSTEMS INC.
 BROKEN ARROW OKLAHOMA

DRAWING NUMBER **TMI_0603** REV.



Installation & Operation Manual

Electric Operated Injection System

Single System Application

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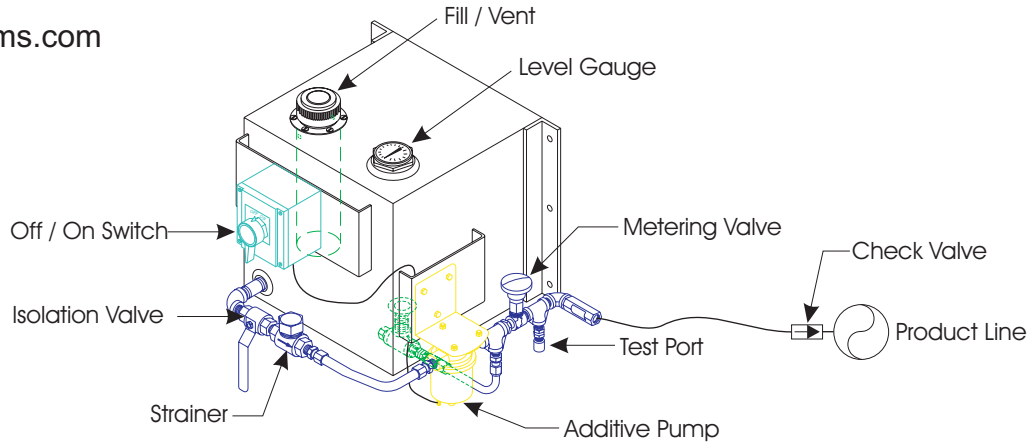
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1 Mounting:

Attach unit to frame or other area that will provide enough support to carry the weight of the unit when filled with additive.

Locate in an area that is protected from road debris and away from sources of heat.

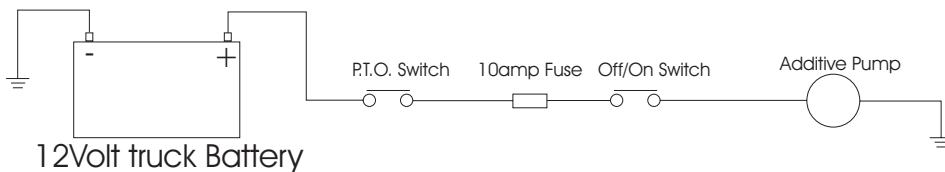
2 Electrical:

Unit may be activated by the P.T.O. Switch or by the manual switch on the unit.

A 10 amp in line fuse is included with the unit for overload protection.

The pump is for 12 volt DC only.

Minimum of 12awg. To be used.



3 Plumbing:

Route supply tubing along frame to injection point, avoid sharp bends or exposing tubing to potential Heat sources as well as road debris.

A 1 psi cracking pressure check valve is required at the injection point to avoid back flow of product Into the additive tank.

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4 Start up:

- * Verify electrical connections are correct.
 - * Fill tank with additive.
 - * Open isolation valve up stream of the strainer.
 - * Start pump and check for leaks. (Do not run pump dry)
 - * Uncap test port and place the calibrated cylinder under test port.
- Time flow for 60 seconds, read volume dispensed in cylinder and compare to target volume.
Adjust volume by turning needle valve in or out.
After calibration is complete cap the test port and then purge the line to the injection Point by letting the pump run.
This can be verified by removing line from injection point and discharging into a container.

5 Calibration:

The following is an example calculation for an injection rate of 1 gal. Per 20,000 gal.(50ppm)
And a flow rate of 70 GPM.

50 part per million = 1 gallon per 20,000 gallons
3785 CC's or ML = 1 gallon

Note:

1 cc = 1 ml.

$3785 = 20,000$ or a multiplier of .189

Flow rate:

Determining flow rate example:
185 gallons delivered in 2.64 minute = 70GPM

The volume of additive in cc's or ml. per minute are as follows:
 $70 \text{ gpm} \times .189 = 13.23 \text{ cc's}$
In a 1 minute calibration run the pump should dispense 13.23cc's of additive.

6 Maintenance:

- * Monthly
Check strainer screen for debris.
Verify calibration setting.

7 Spare Parts:

Additive Pump:
Carter # 152-876 (NAPA # P4601HP)
Off / On Switch:
Allen Bradley # 800T-HG11A