

PRODUCT WARRANTY



MIDWEST TECHNOLOGIES ILLINOIS, LLC (also known as Mid-Tech & TeeJet) warrants to the original purchaser that the product purchased shall be free of defect in material or workmanship. If the product proves to be defective within the warranty period the purchaser must return, freight prepaid, said product to Midwest Technologies within thirty (30) days after such defect is discovered. Upon inspection and examination by Midwest Technologies, and at its option, the product shall be repaired or replaced, with a new or comparable product. No product will be considered defective if it substantially fulfills the performance specifications. Purchaser shall be responsible for all required maintenance service in accordance with procedures outlined in Midwest Technologies' product operator manual or service bulletins.

All product(s) replaced or repaired under warranty shall carry the remainder of the warranty left on the original purchase. All out of warranty product(s) serviced for fee or goodwill will have ninety (90) days of warranty. The ninety (90) days shall begin on the date serviced by Midwest Technologies.

Warranty periods for Midwest Technologies products shall be:

- TeeJet and Mid-Tech Control Consoles – 2 ½ years
- Mid-Tech Switch Boxes – 2 ½ years (3, 5, 9 booms)
- All other products – 12 months (unless otherwise noted)

WARRANTY LIMITATIONS AND EXCLUSIONS

Midwest Technologies will have no warranty obligation hereunder if the product is subjected to abuse, misuse, improper or abnormal usage, acts of God, faulty installation, or improper maintenance as outlined in Midwest Technologies' product operator manual or service bulletins. Consumable items (items that are used during normal operation) such as light bulbs, batteries, etc., and expendable items (items which wear out in normal use) such as injection pump tubes, flow meter bearings, etc., will not be covered by warranty. For products that come in direct contact with chemical, the specific recommendations contained in Midwest Technologies product bulletins must be adhered to, or this warranty is void. Any repairs or alterations, other than those provided by Midwest Technologies and/or its authorized representatives, will void the warranty. Midwest Technologies neither assumes nor authorizes anyone to assume for it any other obligation or liability in connection with said product.

DISCLAIMER OF UNSTATED WARRANTY

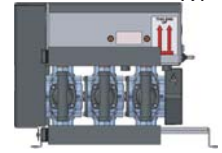
The warranty printed above is the only warranty applicable to this purchase. Midwest Technologies' warranty cannot be modified by any person or entity, including without limitation, any distributor or retailer of Midwest Technologies. All other warranties, express or implied, including but not limited to, the implied warranties of merchantability and fitness for a particular purpose, are disclaimed.

LIMITATION OF LIABILITY

It is understood and agreed that Midwest Technologies' liability, whether in contract, in tort, under any warranty, in negligence or otherwise, shall not exceed the return of the amount of the purchase price paid by purchaser and under no circumstances shall Midwest Technologies be liable for special, indirect or consequential damages. In particular, Midwest Technologies shall not be liable for damage to crops as the result of misuse or negligence in the application of chemicals or operation of Midwest Technologies products. The price stated for the equipment is a consideration in limiting Midwest Technologies' liability. No action, regardless of form, arising out of the transactions under this agreement may be brought by purchaser more than one year after the cause of action has occurred.



**Midwest Technologies
MT 600 PISTON INJECTION PUMP
INSTALLATION & SETUP**



INSTALLATION

MOUNTING

The MT 600 injection pumps must be located as close as possible to the point where the chemicals are injected into the main boom supply line. As close to the delivery point as possible is the preferred injection point. A consideration should be made to use check valves between the pump and injection point as well as ahead of the injection point in the main flow line (See the plumbing diagram on page 6). Another consideration is the location for the chemical containers must also be given, keeping the distance between the MT 600 pump and the chemical container to a minimum.

Once the location for the Legacy injection pump is selected, orient the assembly so that the pump cover is easily opened, allowing access for service. All sides of the pump may need to be accessible for service. The pump must be mounted upright.

5oz of SAE 10w 30 oil must be added to each pump head via the red cap port prior to operation. Oil should be visible and never overfilled above 1/2 of the viewing window.

Figures 1 and 2 provide measurements to help you place the mounting holes for the pumps.

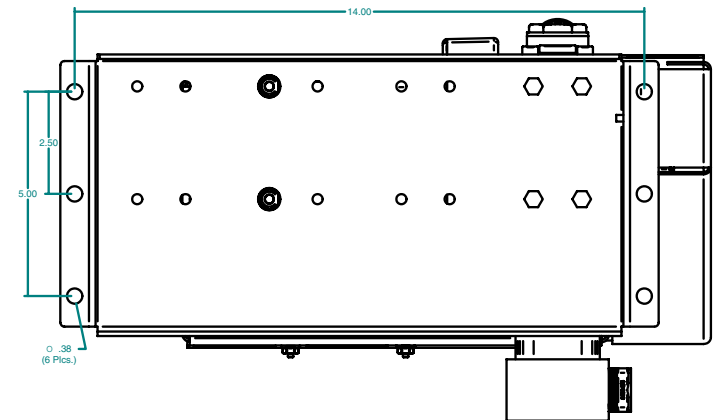


Fig. 1: Bottom Template

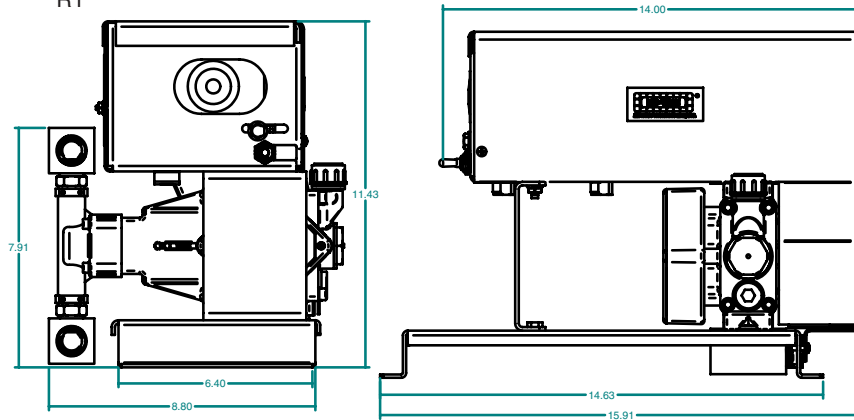


Fig. 2: Side Template

NOTES

NOTE: Secure each pump firmly to eliminate vibration and possible damage to the connecting hoses and cables.

PLUMBING

See the sample plumbing diagram on page 6 for suggestions on how to plumb the system.

CABLING

Each MT600 injection pump comes with two cables, a pump control cable and a pump power cable. See the sample system diagrams on pages 7 and 8 for suggestions on how the system should be connected.

Route all cables carefully, avoiding moving parts, excessive heat and exposure to tree limbs, stubble, or other debris. Allow enough slack at all pivot points to prevent pinching or stretching the cables.

Secure the cables in place with cable fasteners and/or cable clamps.

Pump Control Cables: When the injection pumps have been designated #1, #2, etc., Midwest Technologies suggests the cable tags be marked accordingly (use a permanent ink - water proof marker). Carefully route the cable to the console (TASC system) or Product Control Module (Legacy system).

Pump Power Cable: Route each power cable to the **vehicle battery (12 VDC only)**. Attach the red lead (fused) to the positive post and the black lead to the negative post of the battery.

CALIBRATION NUMBERS

Pumps:

1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____

Swath 1 - Booms:

1. _____ 3. _____ 5. _____ 7. _____ 9. _____

2. _____ 4. _____ 6. _____ 8. _____

Swath 2 - Booms:

1. _____ 3. _____ 5. _____ 7. _____ 9. _____

2. _____ 4. _____ 6. _____ 8. _____

Swath 3 - Booms:

1. _____ 3. _____ 5. _____ 7. _____ 9. _____

2. _____ 4. _____ 6. _____ 8. _____

Swath 4 - Booms:

1. _____ 3. _____ 5. _____ 7. _____ 9. _____

2. _____ 4. _____ 6. _____ 8. _____

Swath 5 - Booms:

1. _____ 3. _____ 5. _____ 7. _____ 9. _____

2. _____ 4. _____ 6. _____ 8. _____

DISTANCE: _____

FLOW METER: _____

SETUP

SELECTING PROPER PUMP SIZE

Use the following formula to determine the flow capacity requirements of the pump; then check the Pump Size Selection Chart (Fig. 3) for the proper pump size.

$$\text{Pump Cap.} = \text{Max. Boom Width} \times \text{Max. Speed} \times \text{Chemical Rate} \times (.00202)$$

$$(\text{Oz./Min.}) = (\text{Ft.}) \times (\text{MPH}) \times (\text{Oz./Acre}) \times (.00202)$$

Example: A sprayer with 35 ft. booms, traveling at a maximum speed of 14 mph and applying 1 quart of chemical per acre would require a maximum pump capacity of 31.67 Oz./Min. (i.e. 35 ft. x 14 mph x 32 oz./ac. x .00202 = 15.8 oz./min.). Referring to the Pump Size Selection Chart we find that a 1 Pump Head pump would be sufficient for this rate. However, if you needed to apply 100 oz./ac. of chemical, you should use the 2 Head pump; (35 ft. x 14mph x 100 oz./ac. x .00202 = 98.98 oz./min. exceeds the recommended range of the smaller 1 Head Pump).

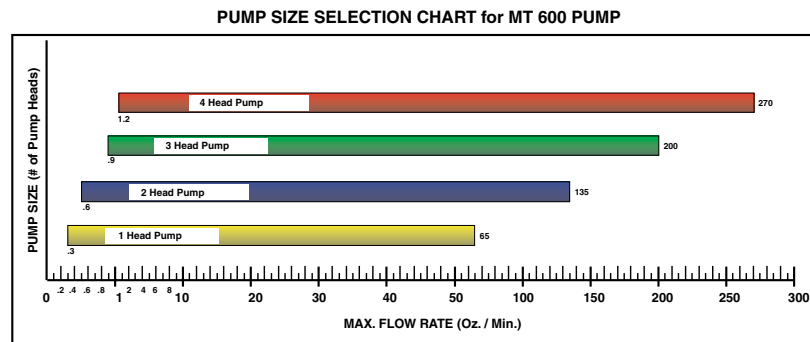


Fig. 3: Pump Size Chart

TYPICAL CALIBRATION NUMBERS

Typical calibration numbers for the various pump heads listed above are:

	TASC	Legacy
• 1 Pump Head	10.8	340
• 2 Pump Head	4.4	170
• 3 Pump Head	3.1	115
• 4 Pump Head	2.4	85

NOTE: When adding a pump head to an existing pump there are two types of heads. Contact your MID-TECH dealer to determine which head is needed.

Refer to your TASC 6300/6600, TASC 6500, or Legacy 6000 console user guide for specific calibration instructions related to your specific console. When you see a reference to placing a magnet on the motor control module or PCM (Product Control Module), press and hold the Calibrate switch on the MT 600 pump instead. You can record your system calibration numbers on page 10.

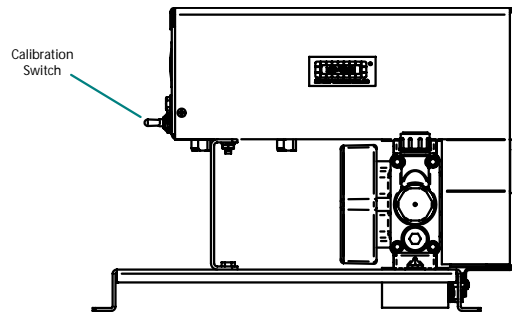


Fig. 4: Pump Calibration Switch

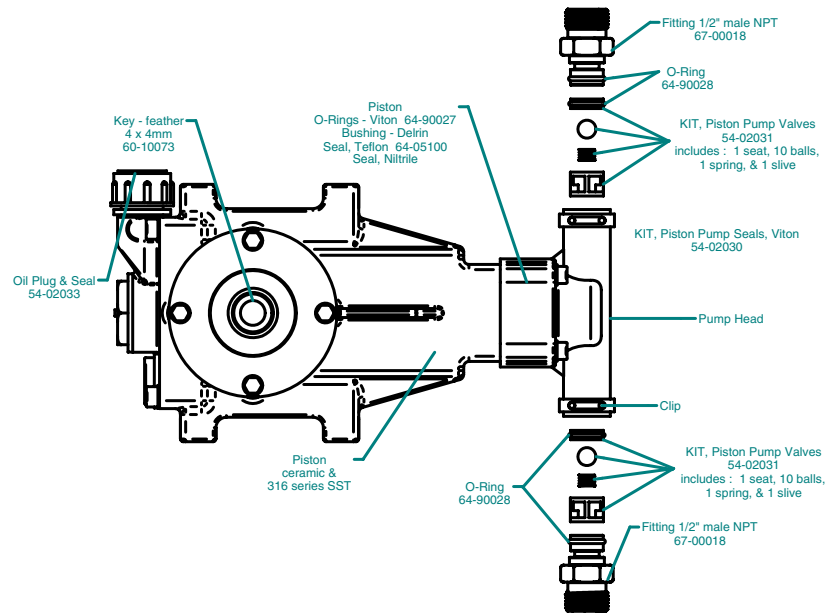


Fig. 5: Pump Diagram

MT600 PISTON PUMP GENERAL SPECIFICATIONS

Product Description :

Pump Type : Positive Displacement Piston Pump
Versatility : Modular, serviceable, and compatible with various controllers

Performance Characteristics :

Response : Chemical moves immediately when motor is driven
Motor Speed : 0 to 225 rpm at 12.5 Vdc

Pumped Media :

Fluids : Liquid chemicals only

Electrical :

Power : 30 to 120 watts typical (30amp Fused)
Voltage : 12 volt DC vehicle
Connection : 2 pin MetriPak 480 Tower-Sealed

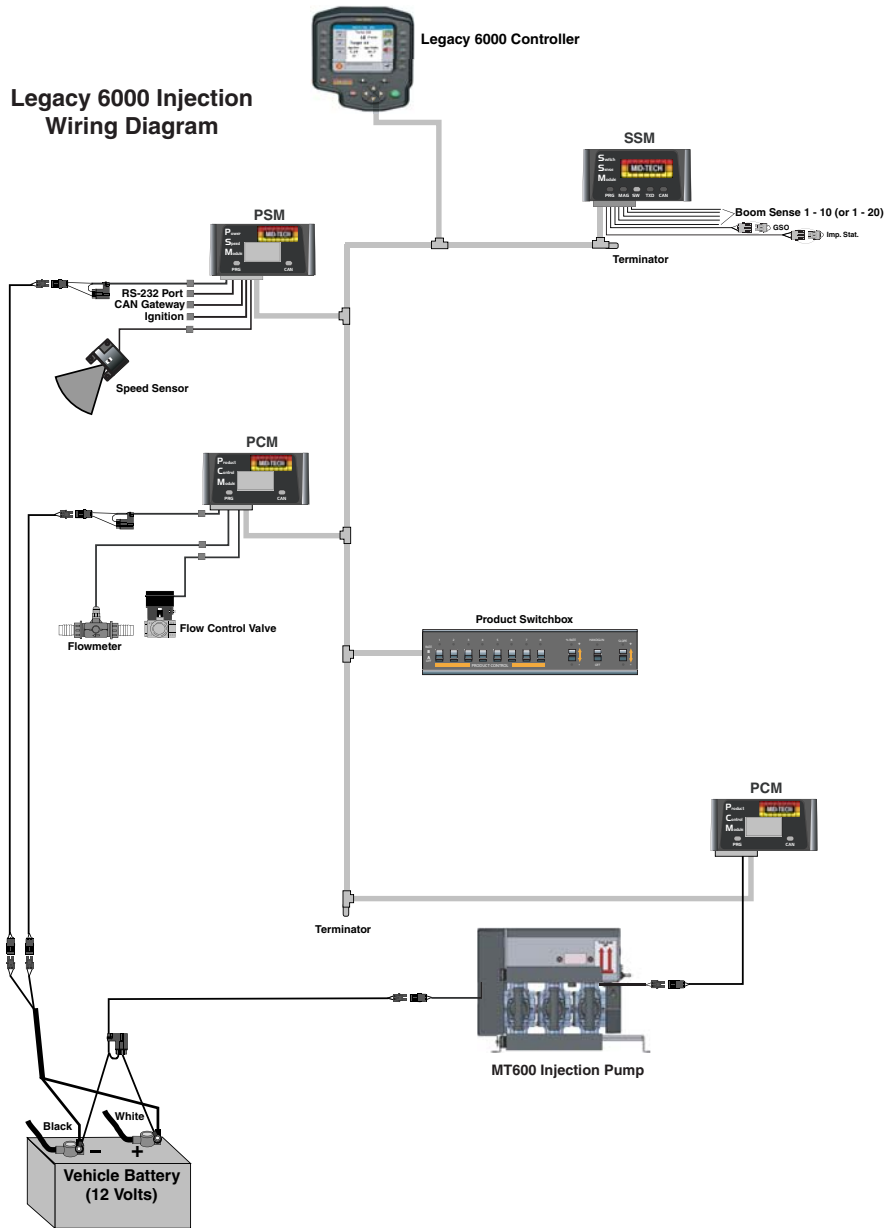
Physical Properties :

Dimensions : 11.5"H, 10"D, 116"W
Plumbing : 3/4" FPT Manifold 1/2" NPT
Weight : 1 Head 26lbs @ 650 ft above sea level
4 Head 46lbs @ 650 ft above sea level

Environmental :

Temperature : 34 degrees F. to 140 degrees F.
Humidity : Weatherproof (high humidity)
Vibration : N/A
Dust : N/A

TYPICAL LEGACY SYSTEM WIRING



MAINTENANCE

Midwest Technologies recommends the following maintenance to keep your system operating at peak efficiency.

FLUSHING AND CLEANING

Always refer to the chemical manufacturer's directions regarding cleaning and flushing

DAILY PUMP MAINTENANCE

Check pump head oil level. Oil level should be visible and never over-filled above 1/2 of the viewing window

Do not leave chemical in the pump or application lines overnight. The system should be flushed and cleaned at the end of each day's operation.

WEEKLY PUMP MAINTENANCE

Check the pump carefully for wear each week during frequent operations. Check for cracking, belt wear, or other signs of material fatigue. If any signs of deterioration are seen, that may need replaced immediately (contact your Mid-Tech dealer).

The pump calibration must be checked anytime the pump head is added or subtracted.

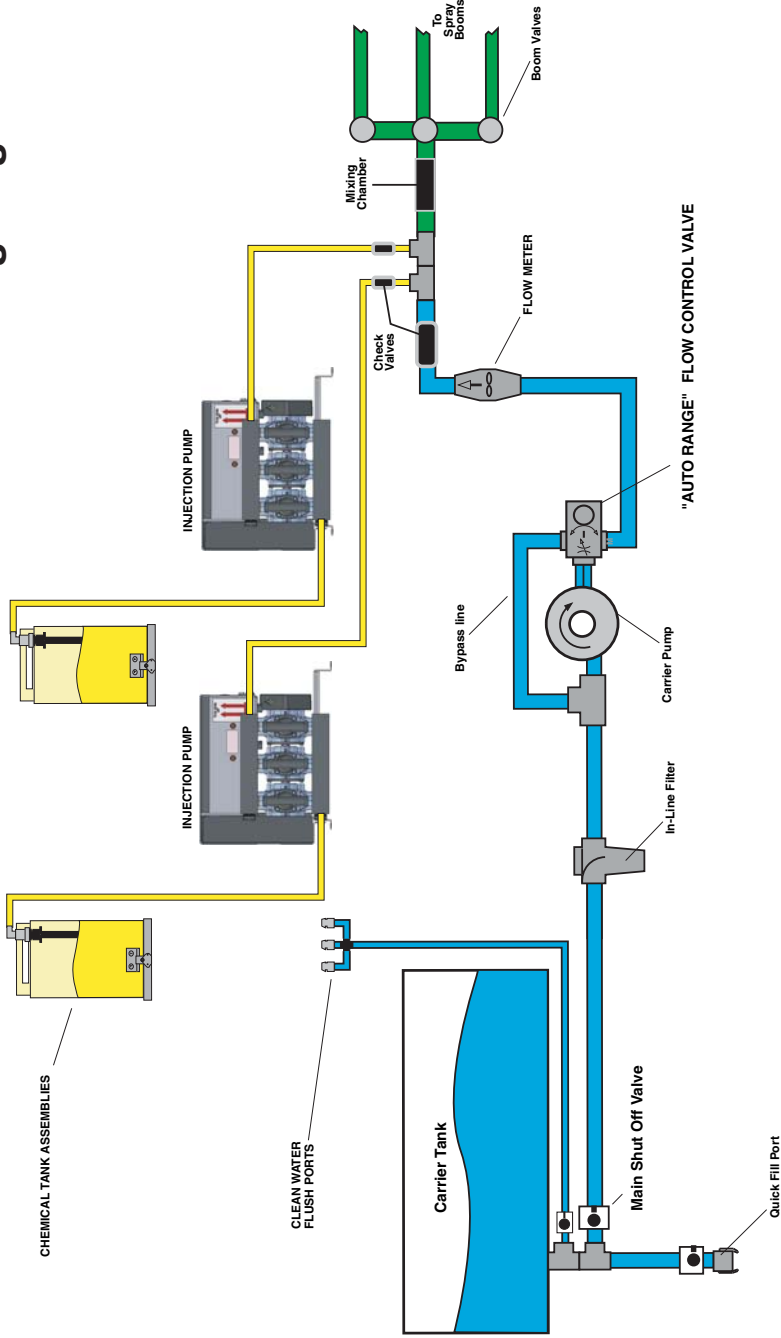
SEASONAL PUMP MAINTENANCE

Install ball and seat repair kit (Part# 54-02031) See Figure 5 above

The pump calibration must be checked at the begin of each season of operation and periodically throughout the year.

TYPICAL INJECTION SYSTEM PLUMBING

MT 600 Plumbing Diagram



TYPICAL TASC SYSTEM WIRING

TASC 6300 Injection Wiring Diagram

