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# PERMAWICK

## The Industry Standard for Fractional Horsepower Motor Lubrication

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### Operation Manual

for the

**MT-1000**

**Permajector**

OPERATION MANUAL • MT-1000  
SINGLE STATION PERMAJECTOR

Ver. 1.1

## **Table of Contents**

Machine Setup/Power Connections	1
Electrical Diagram	2
Air System	3
Controls	4
Metering System	5
Permawick Hopper and Pump Unit	6
Service Policy	7

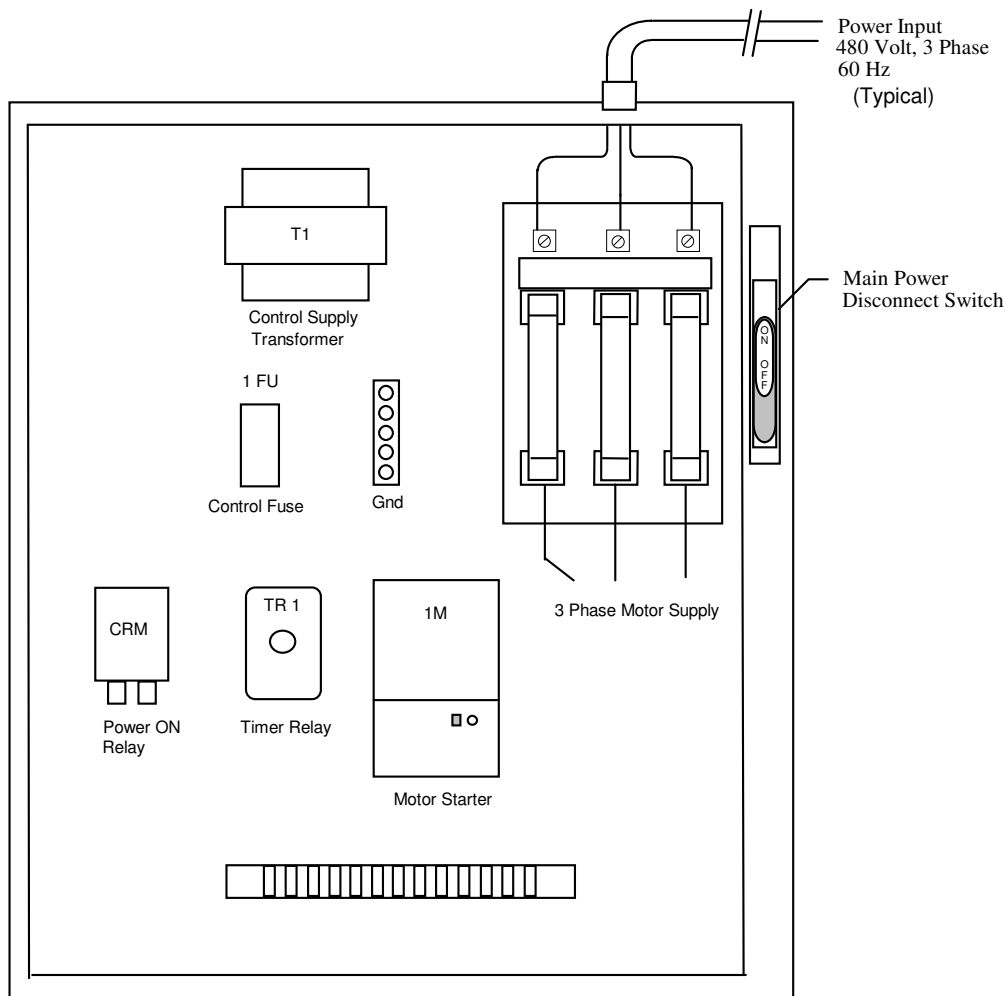
## Machine Setup and Electrical Connection

Remove the Permajector from shipping crate and place it level on the floor. It is not advised to use the shipping skid as a machine base.

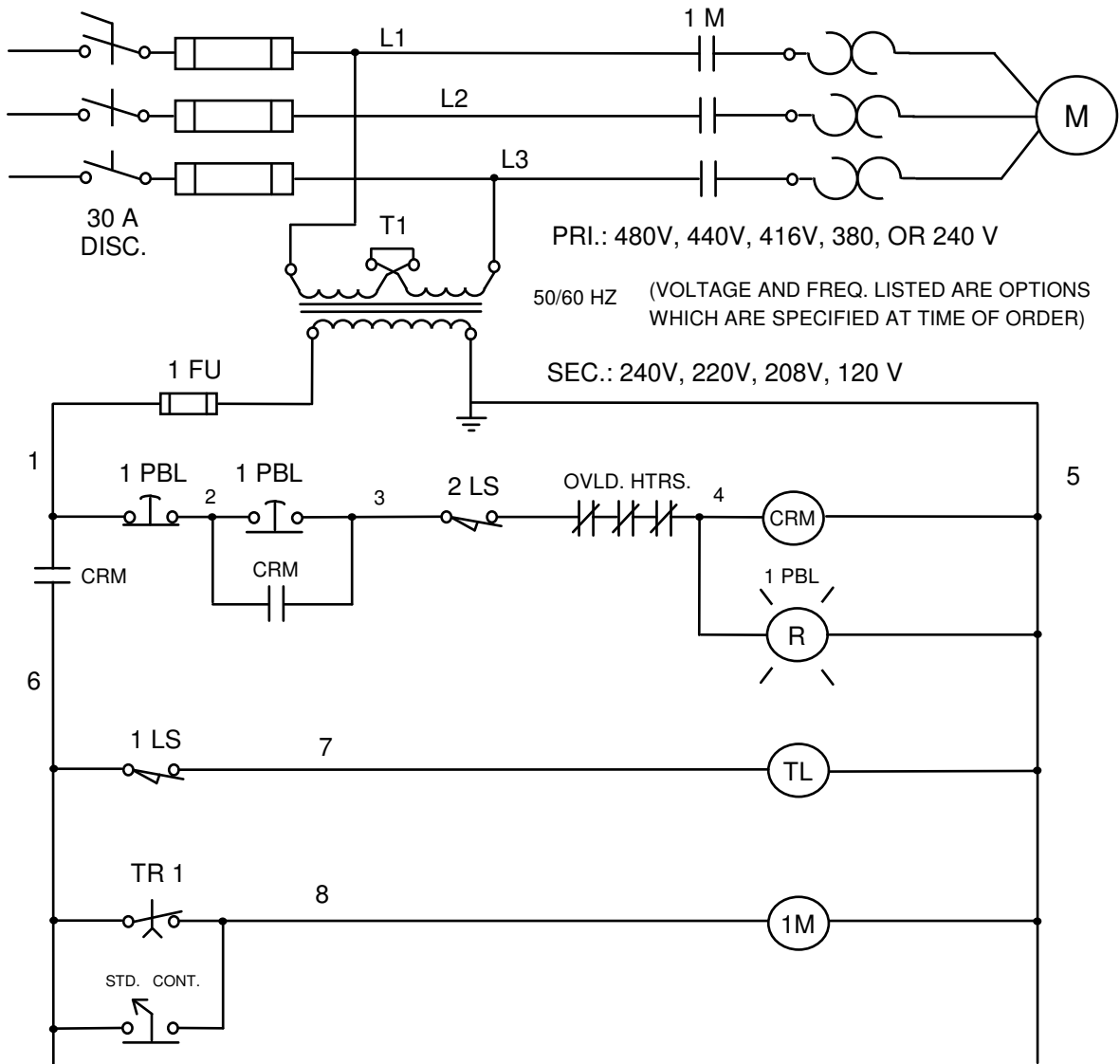
Connect air supply to the Filter-Regulator-Lubricator (see page 2) and maintain approximately 80 to 90 PSI. A fitting to adapt to your air system may be required.

Connect electrical supply. Power to supply the Permajector must match what the machine is configured for. Typically the machine will be set for 440/220V, 3 phase, 60 Hz (with a control voltage of 120V) unless a different configuration was specified.

Using one bucket of Permawick to start with, place the bucket upside down on the floor for 15 to 30 minutes before putting the Permawick in the hopper. This will provide even distribution of oil throughout the Permawick material.



# Electrical Diagram



- |                          |                           |                         |
|--------------------------|---------------------------|-------------------------|
| 1 FU - CONTROL FUSE      | 1 PBL - POWER ON/OFF      | TR 1, T L - TIMER RELAY |
| CRM - CONTROL RELAY      | 1 M - MOTOR STARTER       | 1 LS - INJECT RETURNED  |
| T1 - CONTROL TRANSFORMER | 2 LS - DOOR SAFETY SWITCH |                         |

## Air System Filtration

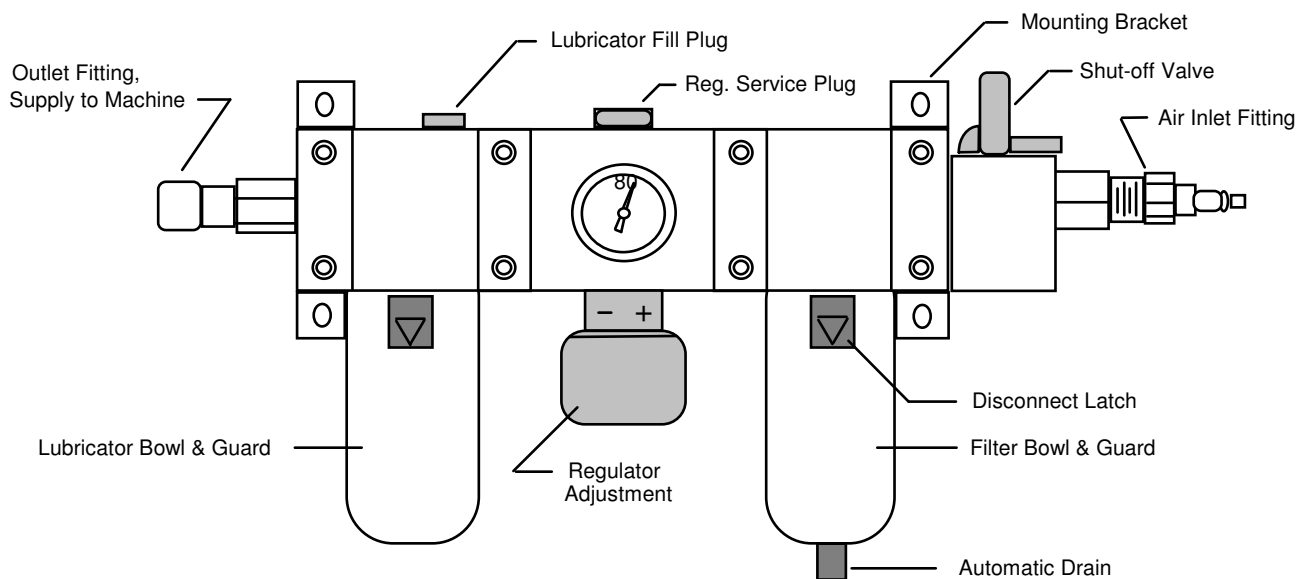
After connecting your air supply, turn the shut-off valve to the ON position. Proper air pressure (80-90 PSI) can be obtained using the regulator adjustment knob. When servicing the machine, the shut-off valve can be locked out in the off position.

**WARNING !** Before performing any maintenance to the F-R-L, turn valve to the OFF position, and vent any pressure in the system.

The Filter unit will separate contaminated liquids from the air, and will collect in the bowl. The Bowl will be cleared of liquids automatically by the Automatic Drain or, turn the air off and remove bowl to clean.

The Lubricator will continuously supply lubricant throughout the air system. Add oil to the Lubricator bowl as needed via the Fill Plug. Recommended oil is SAE-10 or similar light oil for air systems.

### Filter-Regulator-Lubricator

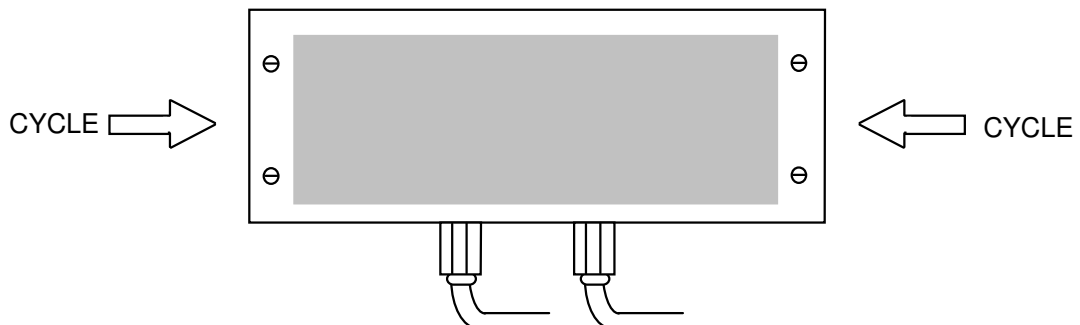
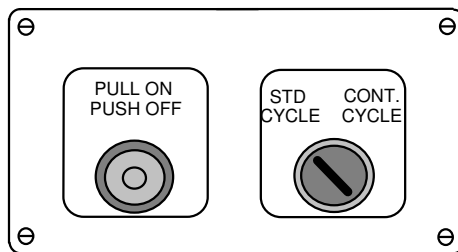


## Controls

After power is connected, turn the machine on, and operate in the CONTINUOUS CYCLE mode for 3 to 5 minutes. This cycle is also referred to as the MORNING START cycle; and should be repeated every time you add a new bucket of Permawick.

To operate the machine after the CONTINUOUS CYCLE is complete:

1. With no parts on the holding fixture, cycle the machine 3 times. Then clean nozzle and fixture. Do not re-use the Permawick material that has been injected.
2. Place the designated endshield and associated parts on the holding fixture; make sure they are properly oriented.
3. To operate, press both CYCLE buttons and hold momentarily, then release.
4. After the injection is complete, remove part from fixture and repeat.



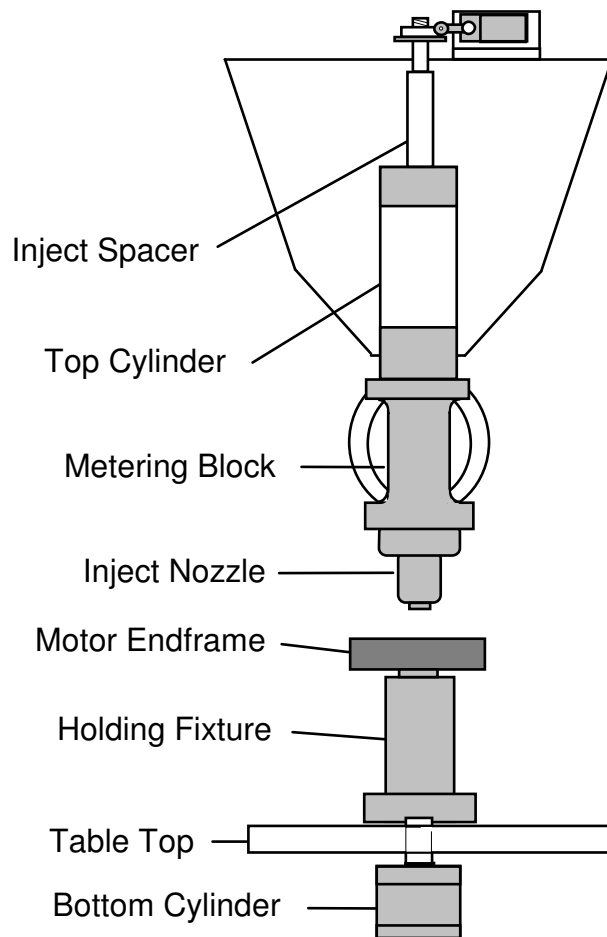
The cycle control is an anti-repeat/anti-tie down control, which prevents repeating the cycle and requires both buttons to be depressed to operate.

## Metering System

The Metering System Assembly controls the amount of Permawick that will enter the endshield cavity during the injection. The amount of Permawick to be injected can be regulated by the metering system injection spacer. For example: a thinner spacer would increase the shot amount of Permawick material injected.

The bottom air cylinder (#2) under the table will locate the part to be injected, to the injection nozzle, then the top air cylinder (#1) will extend and make the injection.

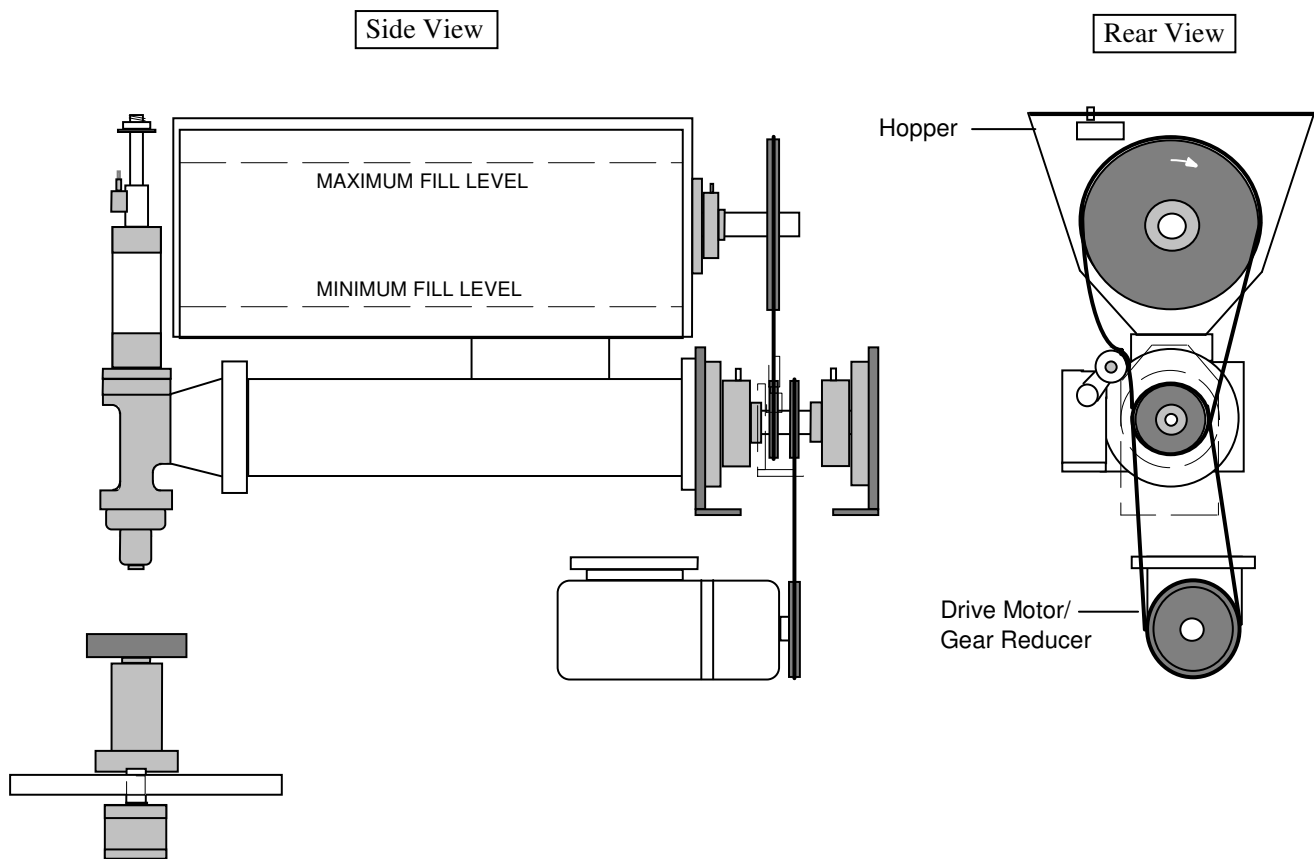
Holding fixtures and nozzles are individually designed per application to provide a suitable fit for parts to be properly positioned together. Usually a rubber seal will be used on the nozzle assembly and/or the fixture assembly to ensure Permawick is injected in the proper areas, and to permit proper bearing contact. Check these rubber seals for wear frequently. Replacements can be ordered from Permawick Company. See the tooling drawings for rubber seal part numbers.



Overall, the Permajector (all components included) requires minimal maintenance. However, listed below are some typical maintenance guidelines to follow.

**MAKE SURE THE ELECTRICAL AND AIR SUPPLY IS TURNED OFF AND LOCKED OUT BEFORE PERFORMING ANY TYPE OF MAINTENANCE TO THE MACHINE.**

1. Occasionally check the chains for wear and proper tension. Chain tension should not be overtightened, this could cause premature wear of bearings.
2. Grease fittings, apply a minimal amount as needed to auger shaft bearings, and idler gear.
3. Check lubricant level in the gear reducer.
4. Occasionally clean the inside of the Permawick Hopper, only if noticeable amounts of Permawick residue is sticking to the walls of the Hopper for long periods of time.



Components such as controls, air valves, air cylinders, limit switches, and the hopper motor, are all standard parts that can be easily obtained from industrial suppliers. Parts for the hopper assembly, transmission/pump, and metering system must be ordered from the Permawick Company.

Replacement parts for the hopper assembly and metering system will be covered under a 1 year warranty by Permawick. Standard and purchased components will be warranted by Permawick for 90 days. Warranties will be voided if the damaged assembly has been tampered with.

It is not recommended that a Permawick customer attempt major repairs to a metering system, or the transmission/pump assembly. Although they rarely require major repair, these units usually provide ample warning of impending failure. If it is determined that an assembly is in need of remanufacture, please contact a Permawick representative.

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**Ordering Information:  
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