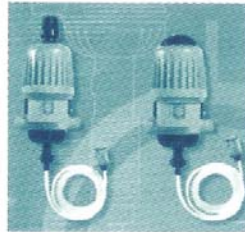


**On/Off
models**

MixRite 12500
MixRite 12501
MixRite 125HO



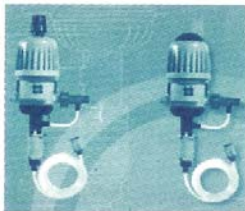
MixRite 12502
MixRite 12504
MixRite 12505



MixRite 12510



MixRite 12512
MixRite 12514



**Air release
valve models**

MixRite 2500
MixRite 2501

MixRite 2502P
(livestock feed)
MixRite 2502
MixRite 2504
MixRite 2505

MixRite 2510

MixRite 2512
MixRite 2514



**MixRite
Proportional Pump**

User Manual



TEFEN

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The **MixRite** is powered by water flow, with minimal loss of pressure. The water engine powers the proportioning unit. No external power is required.

The proportioning unit pumps liquid additives in direct relation to the amount of water that passes through the motor and injects the additives into the water system.

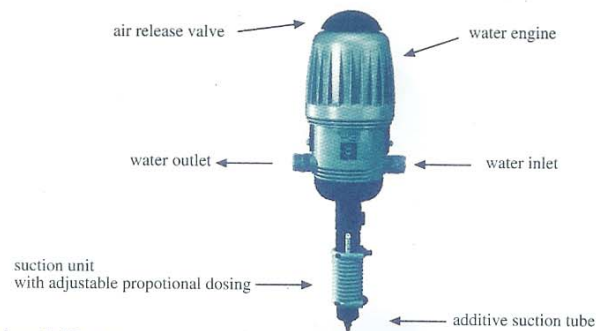
The water engine action :

The suction and proportioning unit is built from a piston connected to the water engine, from which it derives its movement. The piston moves within a cylinder with a non-return valve. The movement of the piston within the cylinder causes the water to be pumped and the required liquid additive to be drawn through a pipe inserted into a container. It is possible to regulate the supply ratio between the additive and the water passing through the pump in models:

2502,2504,2510,12502,12504,12510.

In models 2500,2501,2505,12500,12501,12505 the dosing is predetermined and can not be changed.

In models 2512,2514,12512,12514 The drawn additive is transferred through a bypass tube directly into the main water line, without contact with the water engine.



Technical Data

MixRite operates in the following conditions :

From a minimum flow rate of 20 L/H (5.3 Gal/H) and up to 2,500 L/H (660 Gal/H)

Temperature not lower than 4°C (39°F) and not higher than 40°C (104°F)

Water pressure between 0.2 Bar to 6 Bar (2.9 to 85 PSI)

The additive may be added to the water flow according to the required dosing percentage:

0.2% to 2% in models: 2502,12502,2512,12512,2502P

0.4% to 4% in models: 2504,12504,2514,12514

3 % to 10% in models: 2510,12510

Fixed dosage 0.2 % in models: 2500, 12500, 125HO

Fixed dosage 0.8 % in models: 2501, 12501

Fixed dosage 5 % in models: 2505, 12505

Water pressure loss:

Pressure loss in the lower flow rates 0.1 Bar and in the higher flow rates up to 1 Bar.

Models with 0.2%-2%: from 0.1 Bar up to 1 Bar in proportion to the water flow

Models with 0.4%-4%: from 0.2 Bar up to 1.2 Bar in proportion to the water flow

Models with 3%-10%: from 0.5 Bar up to 1.8 Bar in proportion to the water flow

The MixRite inlet and outlet are 3/4" BSPT male thread

The additive tank should be placed beneath the MixRite

Mounting the MixRite

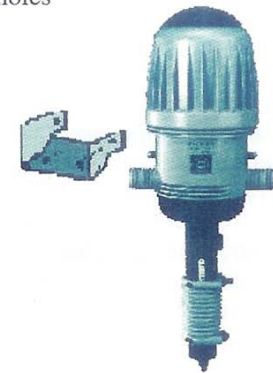
1. Prepare the MixRite site.

The MixRite intake and outlet must reach the intake and outlet pipes. The MixRite must be positioned above the liquid additives container.

2. Screw the MixRite bracket onto a wall or any stable vertical base.

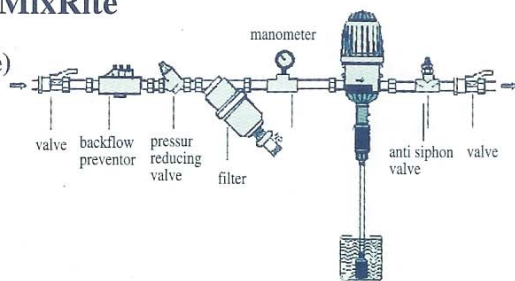
3. Press the MixRite onto the bracket.

The nipples on the MixRite must click into the holes in the side of bracket.



Installation of the MixRite

Installing the MixRite on a Direct Line (in line)

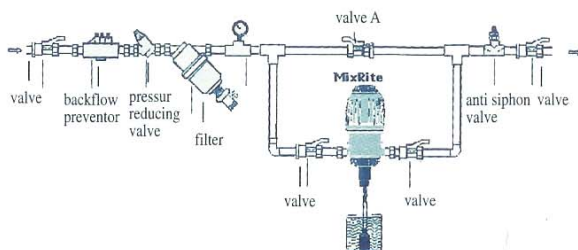


1. Install onto the water line using swivel connectors and ensure that the water flows into the MixRite in the direction indicated by the arrows printed on the MixRite.
2. Install a 50-75 mesh (250-300 micron) filter between the valve and the pump intake.
3. Valves have to be installed at the water line entry and exit; in order to stop the pump's action - you should close the Valve at the entry point.
4. Position the drawing pipe into the additive container. Ensure that the suction pipe filter is set several millimeters above the container's bottom. Check to ensure that the suction pipe is not bent or folded.

Installing the MixRite on a Bypass line (off line)

Where water is supplied at a higher flow rate, than the working flow rate of the pump or where the pump isn't needed for continuous operation, the MixRite must be installed on bypass line. The bypass provides the possibility to close the operation of the pump while water continues to flow through the line.

1. Install onto the water line using swivel connectors and ensure that the water flows into the MixRite in the direction indicated by the arrows printed on the MixRite.
2. Install a 50-75 mesh (250-300 micron) filter between the valve and the pump intake.
3. Valves have to be installed at the bypass entry and exit and on the main water line.
4. Position the liquid additive container beneath the pump. Check to ensure that the suction pipe is not bent or folded. Position the drawing pipe into the additive container. Ensure that the suction pipe filter is set several millimeters above the container's bottom.



4

Adjusting the MixRite

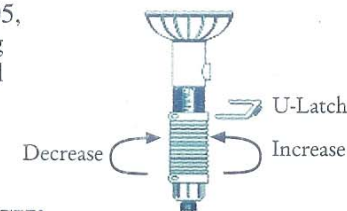
Every stroke of the MixRite moves a predetermined volume of water with a predetermined volume of liquid additive.

To adjust the volume of the liquid additive in models 2502, 2504, 2512, 2514, 12502, 12504, 12512, 12514:

1. Remove the upper U-latch from the Proportioning Lock Nut.
2. Preset the amount of additives according to the Percentage to Water Scale that is found on the proportioner.
 - Turn the proportioning Adjuster clock-wise to increase the amount of additives.
 - Turn the Proportioning Adjuster counter clock-wise to decrease the amount of additives.
3. The marking on the scale indicates the % of additive out of the total water flowing through the pump.
4. Turn the proportioning Adjuster slightly, until the U-latch holes of the Proportioning Lock Nut align with the notches in the proportioner.
5. Push the U-latch into the U-latch holes of Proportioning Lock Nut until it is firmly in place.

In models 2510, 12510 there is no U-latch and the adjustment is done by turning the adjustment sleeve to the desired %.

In models 2500, 2501, 2505, 12500, 12501, 12505, 125HO there is no possibility to adjust the dosing percentage, it is predetermined by the pump model (see page 3).



DO NOT REMOVE THE LOWER U-LATCH!!!
(For maintenance purpose only)

Rinsing and Cleaning the unit

After pumping
Rinse the unit by pumping clean water from the additives container.
Wash the external surface of the unit with clean water.

Warning: during pumping, ensure that the additive container is not completely empty.

5

Air-release Valve

In models 2500,2501,2502,2504,2505,2510,2512,2514.After initial operation of the MixRite, apply pressure to the cap (the air release valve) for several seconds to open valve that allows trapped air to escape. This air release is accompanied by a slight loss of water. Release the pressure on the cap to close the valve.

Press to release air



Air is released with a small amount of water

On/Off System

In Models 12500, 12501, 12502, 12504, 12505, 12510 ,12512, 12514.

ON position – the Knob should be in its high position, the pump is working & pumping.

OFF position – The knob is turned and pushed down to the cap, the water flow the pump continuous without the pumping action.

To Turn the dosage unit off and allow the free flow of water through the **MixRite**:

A: The handle must be turned and pushed in so that it is in the close state.
(see 1).

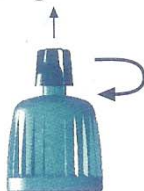
To Turn the dosage unit on and allow the pumping action **MixRite**:

B: The handle must be turned and pulled out so that it is in the opened state.
(see 2).

Diagram 1



Diagram 2



In Pumps with On/Off knob there is no air-release valve.

It is highly recommended to use the On/Off knob when the additive container is empty or there is no need at all in the additive but the water flow should continue.

Troubleshooting

Problem	Check	Solution
MixRite does not operate	Check that the intake and outlet valves are open	Open the valve
	Check that the water filter isn't clogged	Clean the filter
	Check that water is flowing in the line	Open main and outlet valve
	Check that springs are not broken	Open pump lid & remove piston
	Change the broken spring	
	Check that cylinder is not scratched	Change cylinder
MixRite does not draw	Check that piston seals are not damaged	Change the piston
	Dismantle the suction pump and check the suction seal for damage	Change the suction seal
The MixRite makes scratching noises	Check if there is liquid in the additive container	Add liquid to the container
	Check if suction pipe is immersed and not folded	Straighten or change the pipe
	Check suction filter to see if it is blocked and if it is immersed in the additive tank	Clean and rinse suction filter, Fill liquid into tank or cover filter

Correct installation will prevent damages and malfunctions of the MixRite

It is strongly recommended to install a back flow preventor before the pump on the main water line.

A vacuum release unit should be installed at the outlet of the MixRite in order to prevent undesired suction of additive when the water line is draining.

A master valve must be installed before the pump, to be opened only for the operation of the pump to prevent water hammer damage to the pump.