



MixRite TF-25



MixRite TF 25 Proportional Dosing Injectors

We congratulate you on your purchase of one of MixRite's excellent products.

It is important to devote a few minutes to carefully reading the explanations and recommendations in this user's manual in order to get the most from the proportioning dosing injector.

Operation of the injector

The proportioning dosing injector is fitted on the water line. The flow of water passing through the injector activates it and causes the pumping of liquid additive and inserts it in a relative quantity into the water line.

The MixRite TF 25 proportioning dosing injector will operate in the following conditions:

The flow rate of the water passing through the MixRite TF 25 is between 2 and 25 m³/hour (530-6600 gal/hour).

The water pressure is between 1 and 8 bar (14-120 PSI).

Head loss for MixRite TF 25: Minimum flow 0.1 Bar – Maximum flow 1.5 Bar

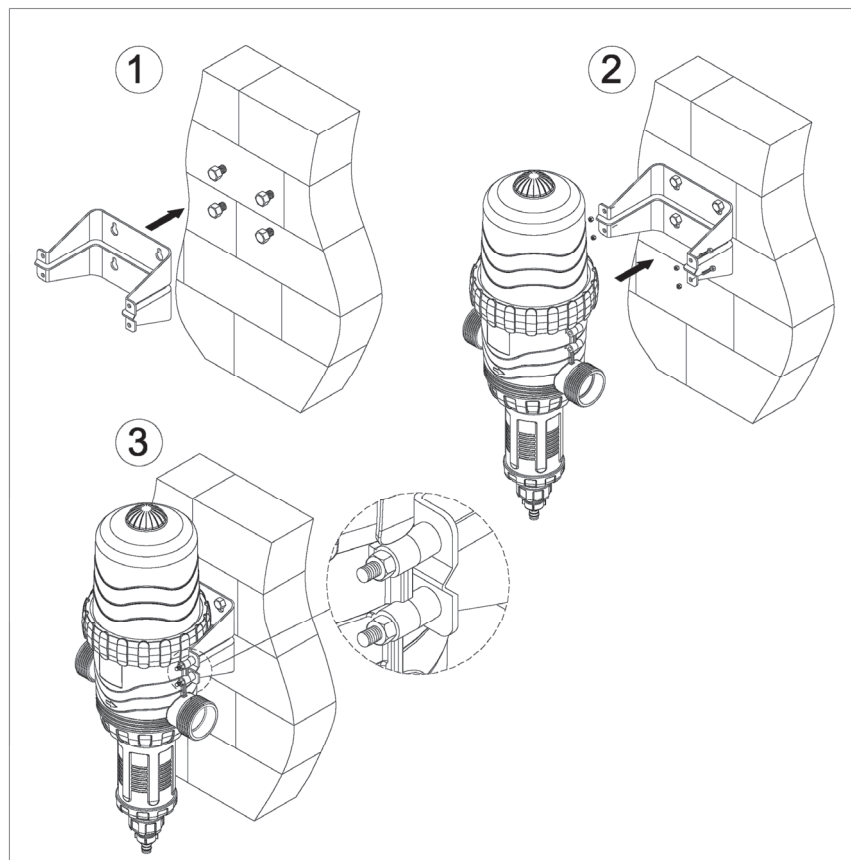
The water & air temperature are not less than 4°C (40°F) and not more than 40°C (104°F)

The flow rate of the additive can be adjusted relative to the flow rate of the water in the range of 0.1% to 1% for Model 001 and of 0.3% to 2.5% for Model 002 and in the range of 1% to 5.5% for Model 005.

Installation of the injector

Option A: Wall mounting bracket
(Supplied as standard)
The package should contain:

- A proportioning dosing injector to which are attached two couplings for a 63mm plastic pipe Or two 2" threaded couplings.
- A flexible suction tube to which is attached a flat 1" seal and a filter.
- A Bracket, 4 SS screws M8*45, 4 SS nuts M8.
- Spanner for TF cover nut.
- User's manual



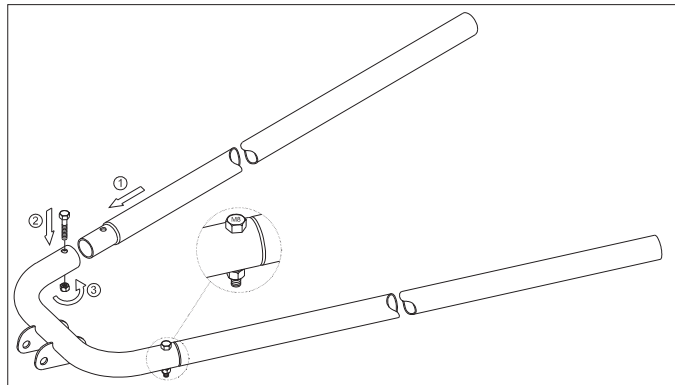
Option B: With stand

Installation of the injector (correct By Tefen) – OPTIONAL

The package should contain:

- A proportioning dosing injector to which are attached two couplings for a 63mm plastic pipe Or two 2" threaded couplings.
- A flexible suction tube to which is attached a flat 1" seal and a filter.
- A stand comprising 4 legs, 2 arched braces, 4 bolts with 8 mm nuts and 4 bolts with 6mm nuts.
- Spanner for TF cover nut.
- User's manual

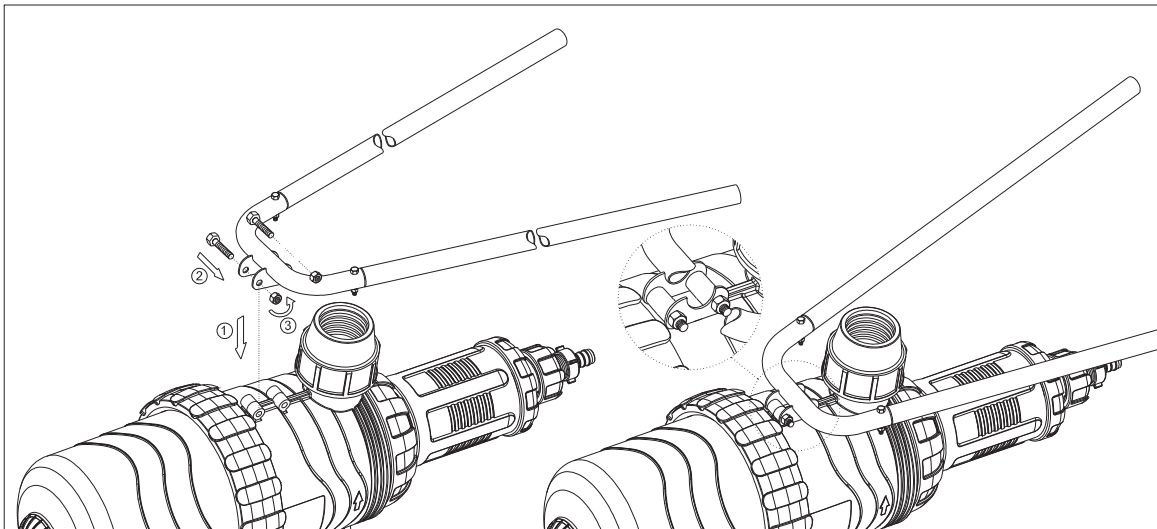
installation is with the stand supplied



To assemble the stand

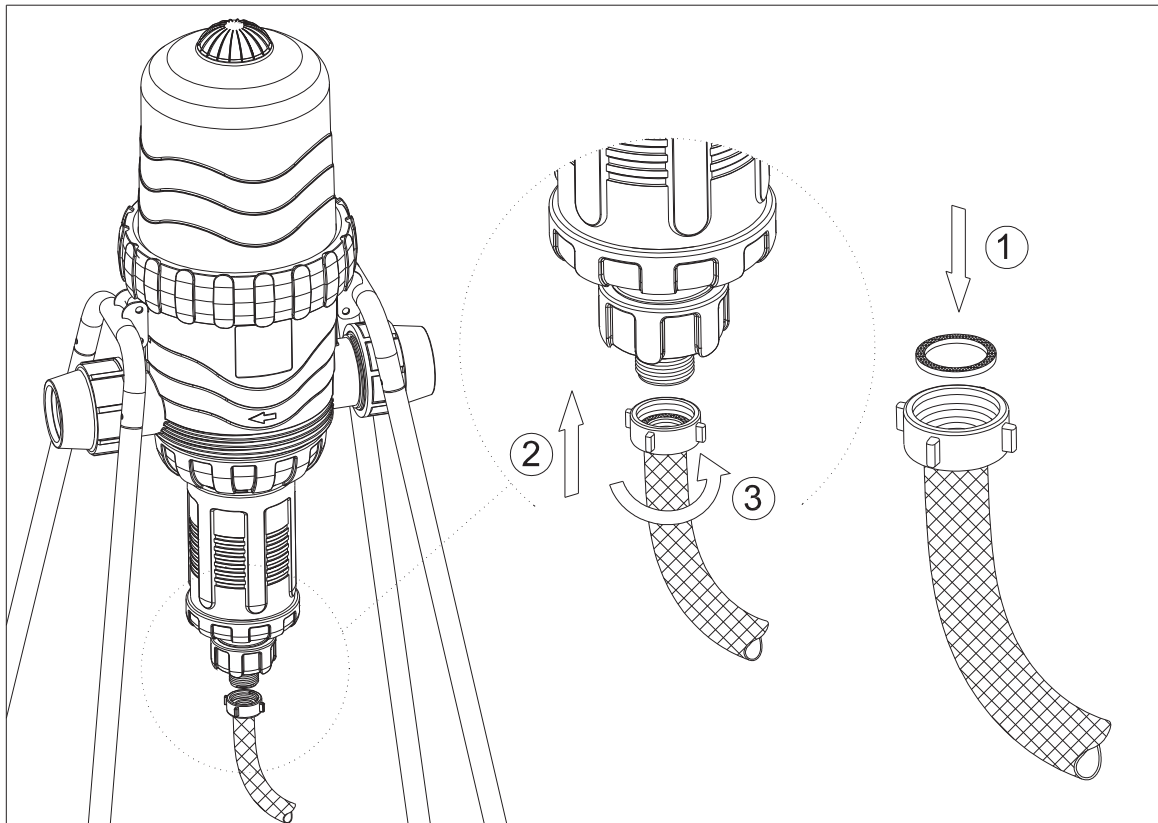
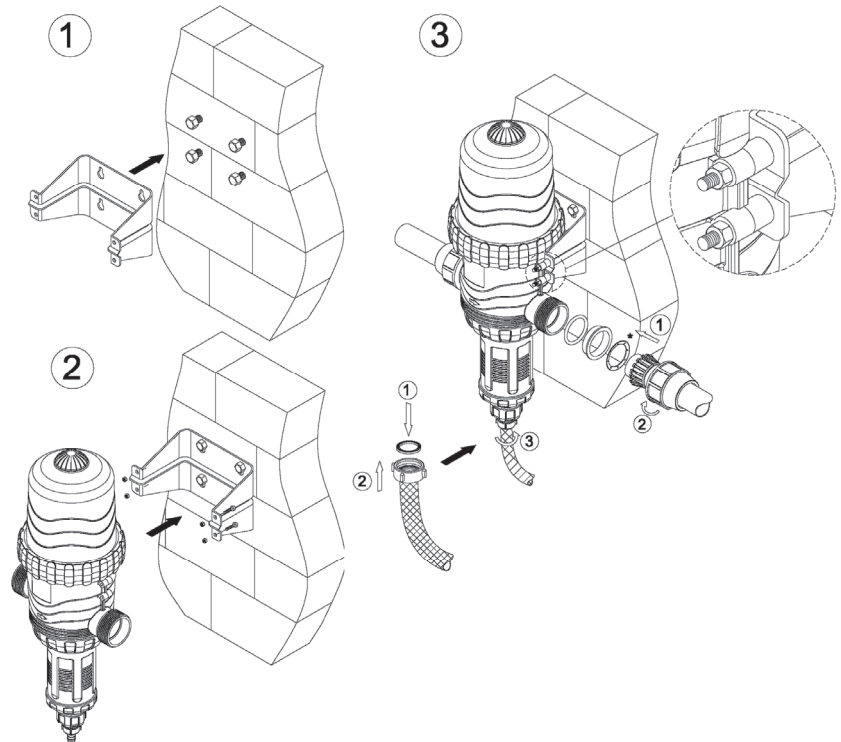
Insert the narrow part of the leg into the opening in the tube in the arched brace. Make sure that the holes in the leg are opposite the holes in the arched brace. Insert the 6mm bolt and tighten the nut. Repeat with the other legs.

Attach the arched brace to the body of the injector (1) with the 8 mm bolt (2) and tighten the nut (3). Repeat with the other arched brace.



Connection of the suction tube

Insert the flat seal into the nut of the coupling on the end of the tube (1). Thread and tighten the nut to the inlet valve on the underside of the injector. Make sure that the nut is threaded and tightened properly (2,3).



Connection of the injector to a 2" line

Note the direction of the water flow. Assemble the injector with the arrow stamped on the body of the injector pointing in the direction of the water flow. Connect the injector using the plastic couplings.

For a drinking water line all injectors must have a backflow prevention valve installed in front of the injector on the main water line, in accordance with local regulations.

Connection of the injector to a 63mm plastic pipeline

Note the direction of the water flow. Assemble the injector with the arrow stamped on the body of the injector pointing in the direction of the water flow.

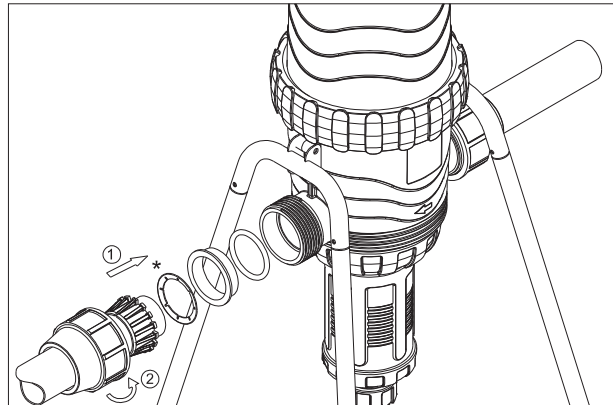
Cut and round the edges of the inlet and outlet pipes. The distance between the end of the inlet pipe and the end of the outlet pipe should be 22cm.

Remove the 63mm nut and the white ring from the injector, and fit them on to the pipe a short distance from the end.

Check that inside the injector there is the seal for 63mm accessories and that the bushing for the 63mm seal closes it from the outside.

Insert the pipe into the inlet and outlet opening and push hard so that the pipe penetrates, and passes the seal, and is stopped at the end of the route. To ease Insertion apply a little silicon grease to the end of the pipe.

Push the white ring until it contacts the threaded part, and tighten the nut. Repeat the process in order to connect the pump to the pipe on the other side.



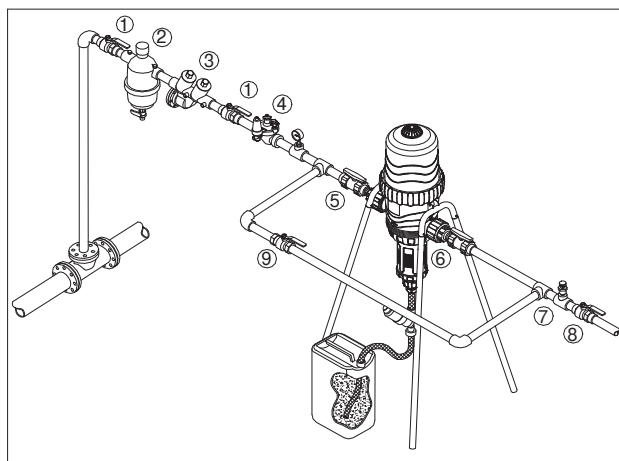
* Optional Special grip ring for P.V.C pipes

Installation of the injector on a direct line

It is recommended to fit a main valve at the beginning of the line (1), and a water filter of 200 mesh (2). A backflow prevention valve (3) must be fitted to a drinking water line, in accordance with local regulations, in order to prevent entry of chemicals into the drinking water. Then place the following pressure reducer (4),

to protect the injector from excess pressure; a valve before the inlet to the injector (5); a valve after the outlet (6); an anti vacuum valve (7) to prevent a siphon effect when the injector is not working; and operating valves (8) for the branch lines.

It is advisable to add a bypass pipe (9) that will permit diverting the water flow through the bypass pipe if there is a need for irrigation without any additives, or for dismantling the injector.



Installation of the injector on a bypass line

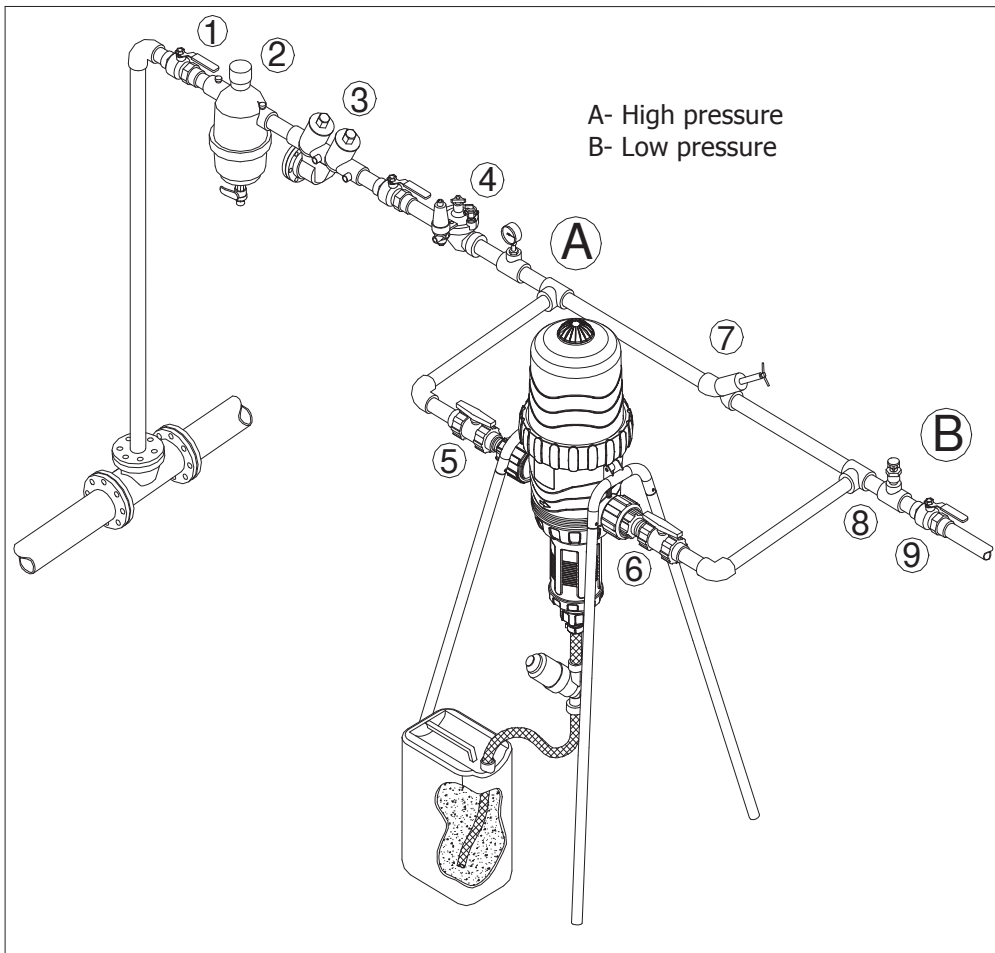
It is necessary to fit the proportional dosing injector on a bypass line when irrigating with a flow rate higher than 25 m³/hour. The bypass enables only part of the water flow to pass to the

Injector and activate it, while the rest passes through the main line. Using the choke valve on the main line, the flow of water passing through the main line is regulated so that only

A proportion of the flow passes through the bypass and activates the injector. The metering must be calculated in accordance with the flow rate passing through both lines.

It is necessary to fit a main valve at the beginning of the line (1), water filter of 200 mesh (2), backflow prevention valve (3) must be fitted to a drinking water line, according to local regulations, in order to prevent entry of chemicals to the drinking water. A pressure reducer (4), a T connection for diversion from the main line to the bypass, a valve (5) on the bypass before the inlet to the proportioning dosing injector, a valve (6) after the outlet from the injector on the bypass, and a T connector for the return to the main line. On the main line between the bypass junction and the return connection a choke valve should be fitted (7), preferably an angled valve, to regulate the flow rates between the main line and the bypass.

After the return connection from the bypass there should be fitted anti vacuum valve (8) and valves for the branch lines (9).

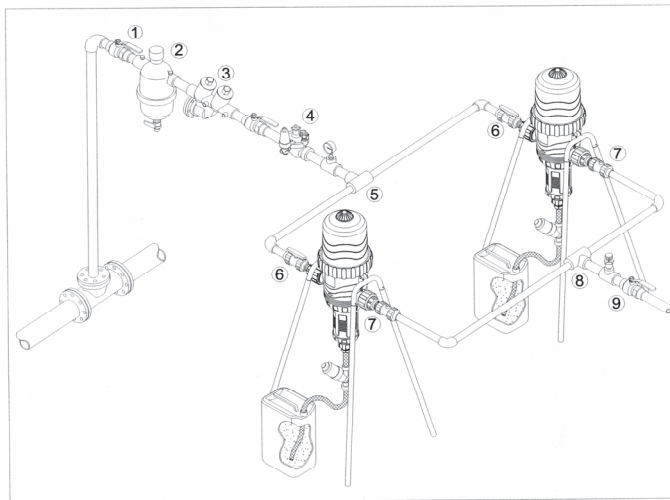


Installation of two injectors in parallel

When the water flow rate in the irrigation line is higher than the maximum nominal flow rate of the injectors, the water may be divided between two units. If the 2 injectors are used for pumping the same type of additive the scales should be adjusted in an identical manner to the same level of metering. Two different additives may be metered at different levels. The metering in each unit must be calculated for each flow rate passing through the two injectors.

It is necessary to fit a main valve at the beginning of the line (1), water filter of 200 mesh (2), backflow prevention valve (3) must be fitted to a drinking water line, according to local regulations, in order to prevent entry of chemicals to the drinking water. A pressure reducer (4), a T junction from the main line into 2 lines (5). On each branch there should be fitted a regulation valve (6), the injector, a non-return valve (7) after the outlet from the injector and a return connection to the main line (8) anti vacuum valve (9).

Both sides of the instillation must be identical.



Connection to the additive tank

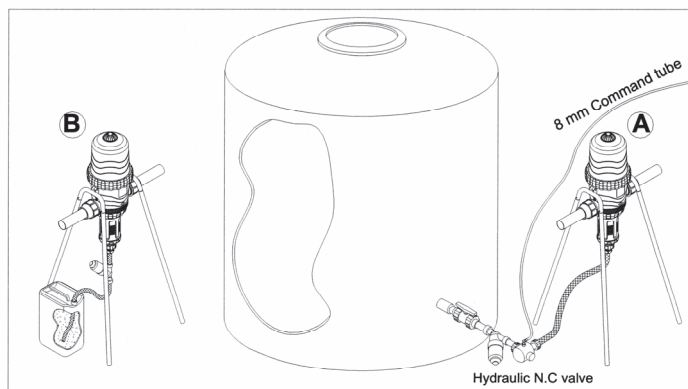
The suction tube should be connected to the additive tank (preferably about 5cm above the bottom) – diagram A. The liquid additive must pass through a chemical resistant filter of 200 mesh, which must be cleaned regularly.

When making the connection to a large additive tank, use a chemical resistant valve and a normally closed hydraulic valve to prevent a siphon effect.

The normally closed hydraulic valve should be connected to a hydraulic command tube.

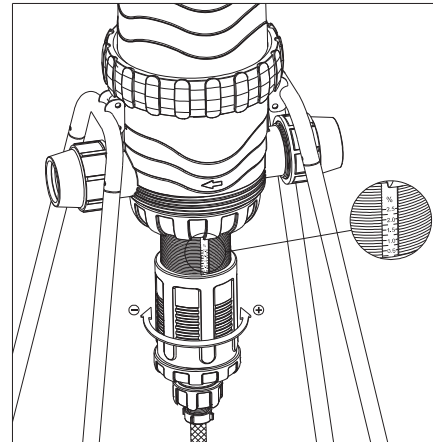
If the additive is pumped from inside an open tank (diagram B) a heavy weight should be attached to the end of the suction tube that will keep the opening of the suction tube inside the additive and prevent the tube from floating and falling outside the tank.

Make sure that the level of the additive is always below the injector. Otherwise uncontrolled flow of the additive may occur.



Adjustment of metering

On the metering cylinder there is a scale indicating the percentage of additives. When the injector is not operating and there is no pressure in the unit, turn the adjustment sleeve clockwise to increase the amount of additive or turn counterclockwise to decrease the amount of additive. The actual rate should be checked. If necessary, adjust by increasing or decreasing the adjustment sleeve.



Servicing

The water filter at the inlet to the injector and the additive inlet filter should be cleaned frequently.

* NOTE: If it is planned not to use the injector for a long time, it should be operated for a few minutes with the suction tube inside a tank of clean water, in order to flush away traces of additive from inside the injector and prevent them from adhering to it.

If there is a drop in temperature below 4°C (40°F) risk or a risk of freezing, the injector should be drained. In order to drain the unit, close the inlet and outlet valves properly. Unscrew and dismantle the 1" coupling nut that connects the suction tube, press on the non-return valve (insert your finger or a small rod) in order to drain all the water trapped in the unit, while pressing the air bleed valve at the top of the injector (with your other hand).

Suggested maintenance

Replace injection seals every 12 months:

Kit # 1- seals 0.1-1% (Catalog No. 35000000008)

Kit # 2-TF seals 0.2-2.5% (Catalog No. 35000000002)

Kit # 3-TF seals 1-5% (Catalog No. 35000000003)

Troubleshooting guide

Problem	Check	Solution
The injector does not work	The injector is fitted with the arrows in the opposite direction to the water flow direction.	Fit the injector with the arrows in the direction of flow.
	The inlet and outlet valves are closed.	Open the valves.
	The inlet filter is blocked.	Clean the filter.
	There is no water flow at the appropriate pressure.	Open the main valve.
The injector has stopped working	Open the nut locking the motor cover, remove the motor cover, and remove the mechanism. Check if the motor seals are defective.	Replace the motor seals.
	Check if the toggle springs are broken.	Replace the toggle springs.
	Check if the seals above the valves are defective or have been displaced.	Replace the seals.
	Check if one of the parts of the mechanism is broken.	Replace the broken part.
There is a leak from the injector	The leak is from the connection between the body and the cover.	Open and remove the motor cover, replace the seal, fit the cover, and thoroughly tighten the cover locking nut.
	The leak is from the connection of the suction tube.	Remove the suction tube, replace the defective seal and reconnect.
	The leak is from the non-return valve.	Dismantle the non-return valve and replace the defective seal.
There is no suction in the additive inlet	The suction filter is blocked.	Clean the filter.
	Dismantle the injector unit and check if the suction seal is defective.	Replace the suction seal.
	The non-return valve is defective.	Replace the non-return valve.

For advice, technical support and purchase of spare parts, contact the authorized sales representative in your area.

PARTS

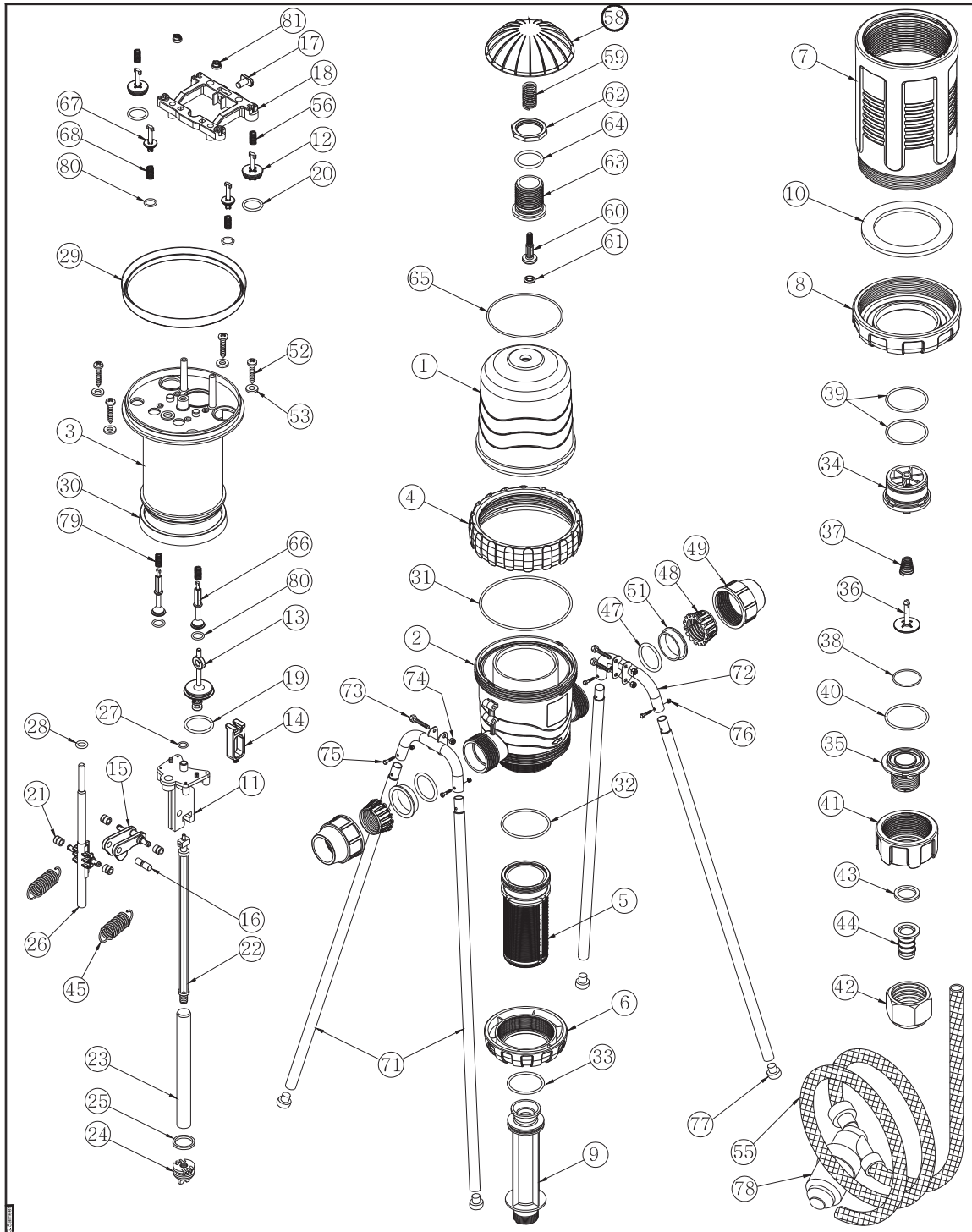
MIXRITE TF 25 - 001 28250100000

MIXRITE TF 25 - 002 28250200000

MIXRITE TF 25 - 005 28250500000

No.	COMPONENT NAME	COMPONENT CODE	No.	COMPONENT NAME	COMPONENT CODE
1	COVER TF	35001001301	36	CHECK VALVE PISTON	35025001136
2	BODY 63 TF	35002251302	37	CONICAL SPRING FOR CHECK VALVE	38000001137
3	PISTON TF	35003003103	38	O RING 2-211	38060221146
4	COVER NUT	35004001804	39	O RING 2-132	38021329239
5	CYLINDER SUPPORT	35005003305	40	O RING 2-134	38021349240
6	CYLINDER SUPPORT NUT	35006001806	41	CHECK VALAE NUT	35019003841
7	ADJUSTMENT NUT	35007001807	42	RECORD NUT 1"	35000003842
8	LATCH NUT	35008001808	43	1" SEAL	37245581600
9	CYLINDER 1% MIXRITE TF 25-001	35030016109	44	RECORD BODY 25X1"	35024003844
9	CYLINDER 2% MIXRITE TF 25-002	35009026109	45	SPRING 1 TF	38000001145
9	CYLINDER 5% MIXRITE TF 25-005	35010056109	47	PLASSON SEAL 63	38000639247
10	CYLINDER SUPPORT SPACER	35016003810	48	PLASSON 63 LOCK RING	38000635148
11	INSIDE BASE	35011005211	49	PLASSON 63 NUT	38000634249
12	LARGE EXIT VALVE 3	35012001112	50	R-35 CLIP	17090037002
13	CENTRAL VALVE 3	35012001113	51	63 SEAL HOLDER	35016003851
14	TOGGEL FRAME	35012001114	52	EJOTE SCREW WN-1412	38000001152
15	TOGGEL	35015001115	53	SS WASHER	38000001153
16	TOGGEL PIN	35012001116	55	SUCTION TUBE 25mm 4.5m	36030002555
17	BRIGE PIN	35012001117	56	LARGE EX. VALVE SPRING	38000001146
18	V7 BRIDGE	35029001118	58	AIR RELEASE	35016003858
19	O RING 35X4.5	38035459219	59	SPRING 5	38060000059
20	O RING 24X4	38024409220	60	AIR RELEASER SCREW	36030284360
21	TOGGEL BEARING	35021001121	61	"O" RING 2-107	38060210761
22	PISTON BAR 1%	36016111103	62	NUT 3/4"	35000003162
22	PISTON BAR 2%,5%	35013005222	63	ADAPTOR 3/4"	35000003863
23	PISTON SLEEVE	35014001123	64	O RING 2-118	38021189264
24	SUCTION PISTON 1% MIXRITE TF 25-001	35031014224	65	DALRIN RING	35032005179
24	SUCTION PISTON 2% MIXRITE TF 25-002	35017023124	66	V7 INNER VALVE	35027001160
24	SUCTION PISTON 5% MIXRITE TF 25-005	35017053124	67	SMALL EXIT VALVE	35027001150
25	SUCTION SEAL 1% MIXRITE TF 25-001	35000018225	68	SMALL EXIT VALVE SPRING	38000001147
25	SUCTION SEAL 2% MIXRITE TF 25-002	35000028225	71	EASEL LEG TF	38000001171
25	SUCTION SEAL 5% MIXRITE TF 25-005	35000058225	72	EASEL BRIDGE TF	38000001172
26	OPERATION ROD	35013005226	73	HEX SCREW SS M8x45	38000001173
27	"O" Ring 12X2	37005852002	74	NUT SS M8	38000001174
28	"O" RING 2-206	38022060084	75	HEX SCREW SS M6x35	38000001175
29	UPPER PISTON SEAL	35023002229	76	NUT SS M6	38000001176
30	LOWER PISTON SEAL	35024002230	77	EASEL LEG PLUG	38000003277
31	O RING 2-370	38023709231	78	FILTER 1" GREY	38000000173
32	O RING 6X105	38060610561	79	V7 INNER VALVE SPRING	38000001148
33	O RING 2-337	38023379233	80	O RING 2-112	38021129280
34	CHECK VALAE GUIDE	35018003334	81	V7 INNER VALVE LOCKER	35028001181
35	CHECK VALAE SEAT	35018003335			

MixRite TF 25 2" BSPT



PARTS

MIXRITE TF 25 - 001 28240100000

MIXRITE TF 25 - 002 28240200000

MIXRITE TF 25 - 005 28240500000

No.	COMPONENT NAME	COMPONENT CODE	No.	COMPONENT NAME	COMPONENT CODE
1	COVER TF	35001001301	34	CHECK VALVE GUIDE	3501800334
2	BODY 2" BSPT	35002151302	35	CHECK VALVE SEAT	35018003335
3	PISTON TF	35003003103	36	PISTON CHECK VALVE	350250001136
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11	INSIDE BASE	35011005211	50	R-35 CLIP	17090037002
12	LARGE EXIT VALVE 3	35012001112	52	EJOTE SCREW WN-1412	38000001152
13	CENTRAL VALVE 3	35012001113	53	SS WASHER	38000001153
14	TOGGEL FRAME	35012001114	54	2" FEMALE PIPE COUPLING	38005017722
15	TOGGEL	35015001115	55	SUCTION TUBE 25mm 4.5m	36030002555
16	TOGGEL PIN	35012001116	56	LARGE EX. VALVE SPRING	38000001146
17	BRIGE PIN	35012001117	58	AIR RELEASE	35016003858
18	VALVE BRIDGE PIN	35029001118	59	SPRING 5	38060000059
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MixRite TF 25 2" BSPT

