

MixRite dosing pump

Tefen



The Tefen MixRite is a proportional dosing pump that enables fertilisers or chemicals to be easily mixed into a water flow. The pump requires no external power supply and operates with water pressure.

The pump operates proportionally, i.e. a set percentage of the product to be mixed is added, independently of the water flow. MixRites are available with a capacity from 20 litres to 25 m³/h.

APPLICATION

Dosing of fertilisers or pesticides, cleaning agents, animal medicines and metering of chlorine.

Various types / models are available, each model / type with its own specific application.

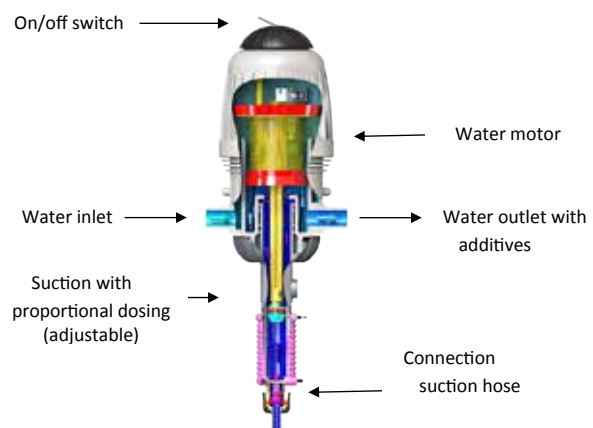
CHARACTERISTICS

- ✓ Simple operation and very quick to set up
- ✓ With manual ON/OFF button or manual air release
- ✓ Various adjustable intake capacities possible
- ✓ Metering capacity is proportional to the water flow and independent of the pressure
- ✓ Mixes pumped liquid with the water flow (except MixRite by-pass)
- ✓ Resistant to common fertilisers and pesticides used in agriculture and horticulture
- ✓ Special MixRites for aggressive chemicals are also available
- ✓ Made from high-quality plastic and UV-resistant
- ✓ Supplied complete with intake line and filter
- ✓ Simple maintenance, seals are easy to replace






TECHNICAL DATA

Connection	: ¾" ext. (12500/2500 - 2.5 m ³)
	: 1" ext. (TF-5)
	: 1½" ext. (TF-10)
	: 63 mm PE coupler (adaptor 2½")
Working pressure	: 1.5 - 6 bar
Maximum pressure	: 8 bar
Max. suction height	: 2.5 meter
Temperature range	: 4 - 50°C (with decreasing maximum pressure)
Head filtration	: 130 micron
Material casing	: Glass fiber reinforced PP
Material seals	: NBR (Standard)
	: EPDM/AFLAS
	(Industry and Internal
	: By-pass) Viton (CL)
	: NBR/EPDM (Livestock)
Option	: PVDF model for very aggressive chemicals for the MixRite 12500/2500 (2.5 m ³)

Working principle



Overview of MixRite applications and chemical resistance

			Standard STD	Industry C	Internal by-pass	Chlorine CL	Livestock PO
							
Indicative application			Adding of fertilisers to irrigation water	Adding of fertilisers to irrigation water	Sulphuric and hydrochloric acid up to 10%	Chlorine and acids up to 10%	Medicines, vitamins, etc. in livestock farming
Type	Metering*	Specificaties	Article No.				
2502	0,3 - 2%		76420-001000				76420-001042
2505	5% (fix)		76420-001200				
12500	0,2% (fix)	P = 0,2 - 8 bar Q = 7 - 2500 l/h	76420-000950				
12502	0,2 - 2%	DP 10% = 0,2 - 1,8 bar	76420-001050				
12504	0,4 - 4%	DP 4% = 0,2 - 1,6 bar	76420-001100				
12512	0,2 - 2%	DP 2% = 0,2 - 1,6 bar DP 0,2% (fix) = 0,2 - 1,2 bar		76420-001370		76420-001046	
12514	0,4 - 4%			76420-001109			
TF5	0,1 - 1%						
	0,2 - 2%	P = 1 - 8 bar Q = 0,2 - 5 m ³ /u DP = 0,1 - 0,8 bar	76420-000290			76420-000292	
	1 - 5%						
TF10	0,1 - 1%		76420-000357				
	0,2 - 2%	P = 1-8 bar Q = 0,5 - 10 m ³ /u DP = 0,1 - 0,9 bar	76420-000365			76420-000294	
	1 - 5%		76420-000375				
TF25	0,3 - 2,5%		76420-000480			76420-000435	
	1 - 5,5%	P = 1 - 8 bar Q = 2 - 25 m ³ /u DP = 0,2 - 1,5 bar	76420-000470				
Type	Concentration	Chemical resistance**					
Organic acids	All concentrations	-	-	o	-	+	
Animal medicines	All concentrations	-	o	o	-	+	
Ammonium nitrate	All concentrations	+	+	+	+	+	
Sulphuric acid	up to 10%	-	-	o	+	-	
	above 10%	-	-	-	-	-	
Hydrochloric acid	up to 10%	-	o	o	+	o	
	above 10%	-	-	-	-	-	
Nitric acid	up to 10%	-	-	o	+	o	
	above 10%	-	-	-	-	-	
Phosphoric acid	up to 10%	-	-	-	+	-	
	above 10%	-	-	-	-	-	
Hydrogen peroxide	up to 10%	-	+	+	+	+	
	above 10%	-	-	-	+	-	
MultiFertilizer NPK	All concentrations	+	+	+	+	+	

* A MixRite has a higher accuracy in the upper part of the dosing range

** Meaning: + = YES O = OK - = NO

The TF-5 and TF-10 are supplied with a plastic wall plate, the TF-25 with a stainless steel wall plate and plastic stand.

INSTALLATION & MAINTENANCE

Positioning

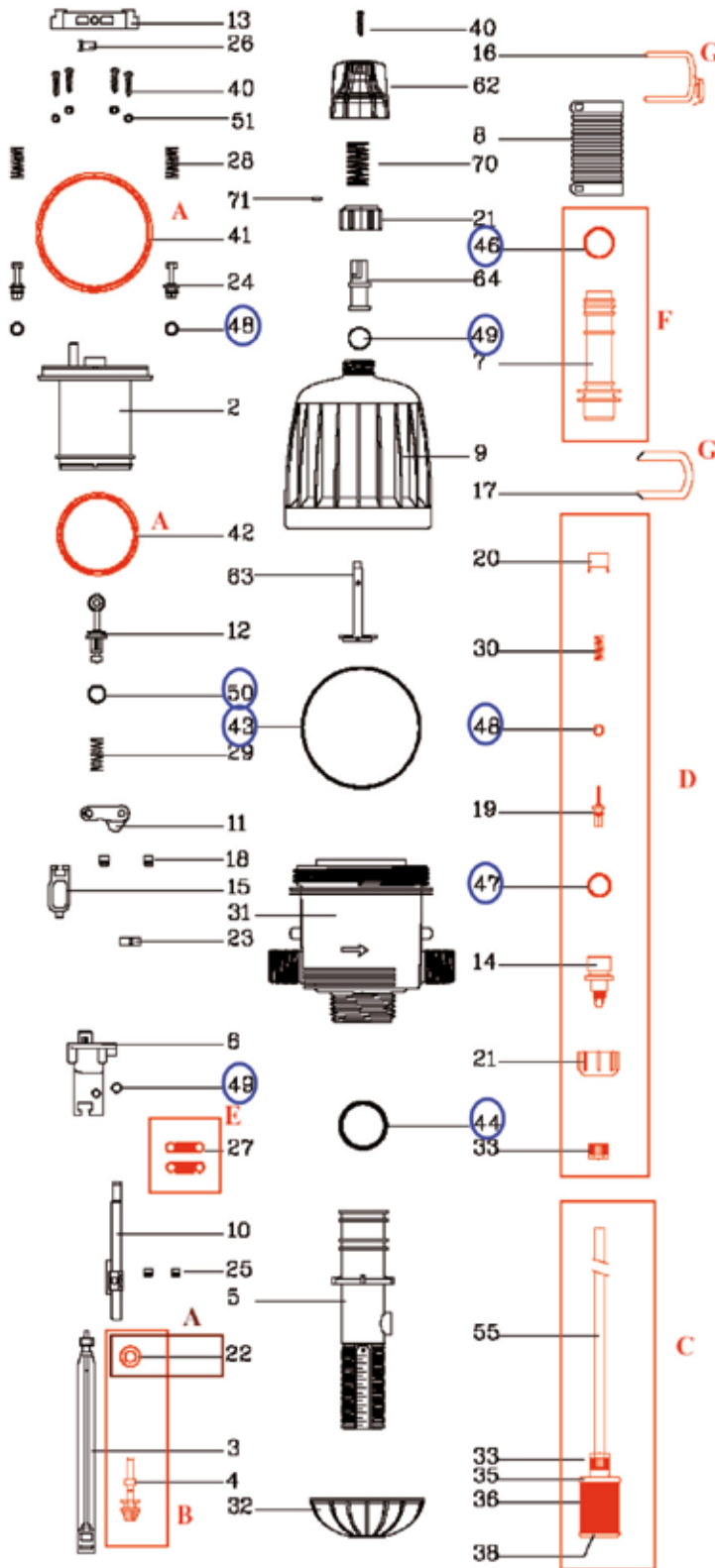
- ✓ The MixRite can be installed in the main flow or in a by-pass if the available flow is higher than the maximum permitted capacity.
- ✓ Avoid excessive resistance on the intake side (maximum intake height: ± 2.5 mwc).
- ✓ If the MixRite is installed in the by-pass, a possibility for reducing should be installed in the main flow such that the resistance through the MixRite (with the desired capacity) is equal to the resistance through the reducer in the main flow (note: maximum capacity by means of water meters).

Setting

- ✓ The intake capacity of the MixRite can be easily adjusted by turning the nut on the pump unit.
- ✓ After turning, the setting can be locked by means of a locking pin.

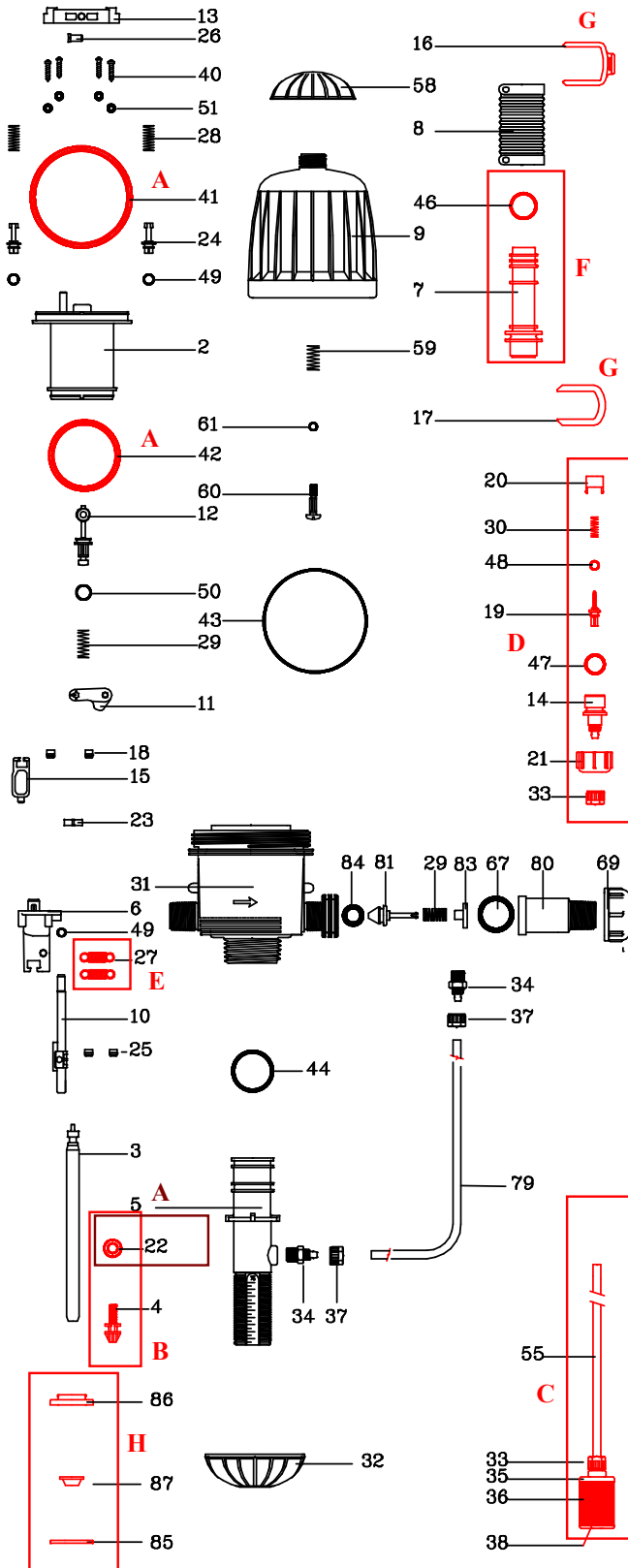
Maintenance

- ✓ If the MixRite is not used for a prolonged period, flush it well using clean water.
- ✓ The housing of the MixRite is impact-resistant (glassfibre-reinforced polypropylene). Do not use a (chain) wrench to loosen the cap.
- ✓ Proceed as follows to replace the seals: Remove the old seals using pliers, heat the new seals to be installed in hot water, fit the seals and then apply silicone grease. Allow the drive unit to protrude slightly to avoid damage to the seals during installation of the cap.

MIXRITE 12500 SERIES (2,5M³/H) PARTS

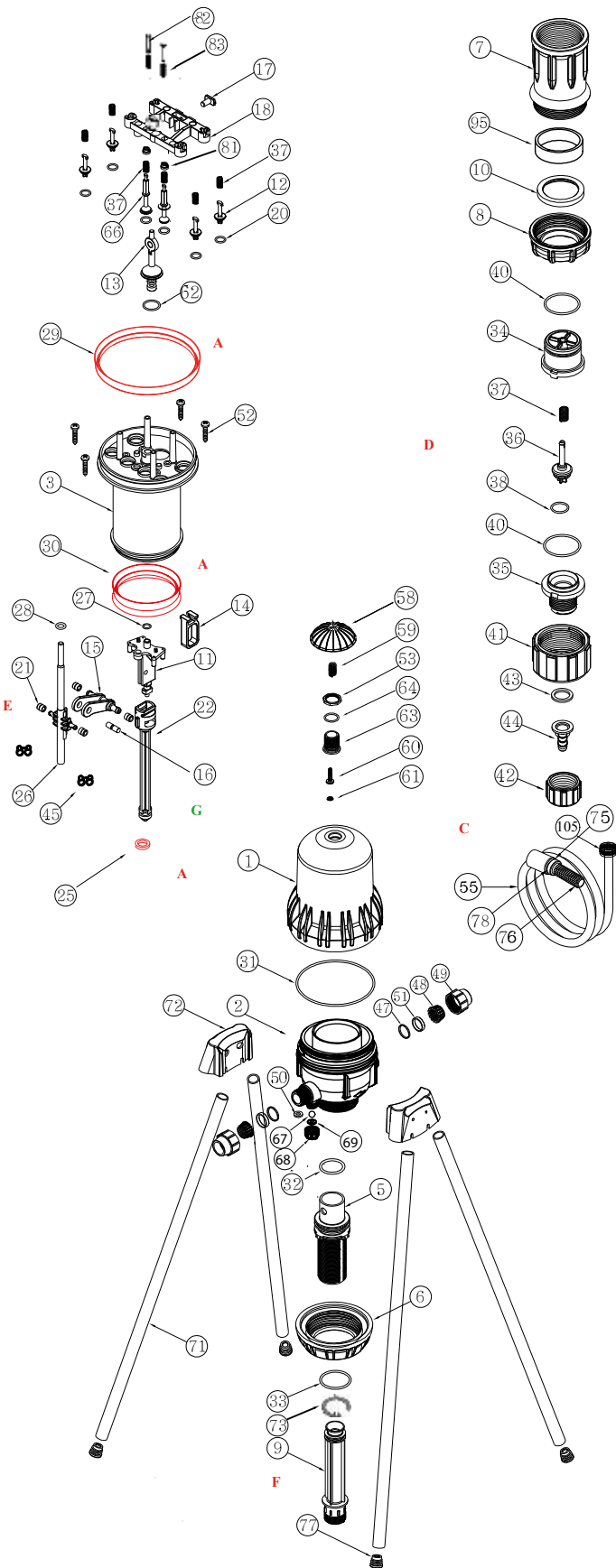
Compiled kits		
No.	Description	Art. No.
A	Kit: seal 2%	76420-006050
	Kit: seal 4%	76420-006100
	Kit: seal 5%	-----
B	kit: Suction Piston kit 2%	76420-003010
	kit: Suction Piston kit 4%	76420-003020
	kit: Suction Piston kit 5%	-----
C	Kit: suction tube 2%	76420-001610
	Kit: suction tube 4%	76420-001620
	Kit: suction tube 5%	-----
D	Kit: Suction checkvalve 0,2 - 2% STD	76420-003500
	Kit: Suction checkvalve 0,4 - 4% STD	76420-003240
E	Kit: Mechanism spring	76420-006150
F	Kit: Suction cylinder 2%	76420-002707
	Kit: Suction cylinder 4%	76420-002708
	Kit: Suction cylinder 5%	-----
H	Kit: Manual on/off	-----
G	Kit: U-latch	76420-002500
48	Kit: O-rings 0,2 - 2% STD	76420-003065
	Kit: O-rings 0,4 - 4% STD	76420-003070
	Water motor	-----

Loose parts		
No.	Description	Art. No.
10	Ejector Pin	76420-002420
11	Cylinder Toggle	76420-002485
12	Upper valve	76420-007010
18	Cylinder Toggle slide	76420-002487
23	Cylinder Axle	76420-002495
24	Lower Valve	76420-007040
25	Ejector Slide	76420-002430
26	Pin	76420-007110
28	Lower Valve spring 2	76420-001845
29	Upper valve spring 3	76420-001865
40	Screw Stainless Steel	76420-002470
51	Disc Stainless Steel	76420-007150
63	On/Off bar	76420-002220
71	Peg	76420-002450

MIXRITE 2500 SERIES (2,5M³/H) PARTS

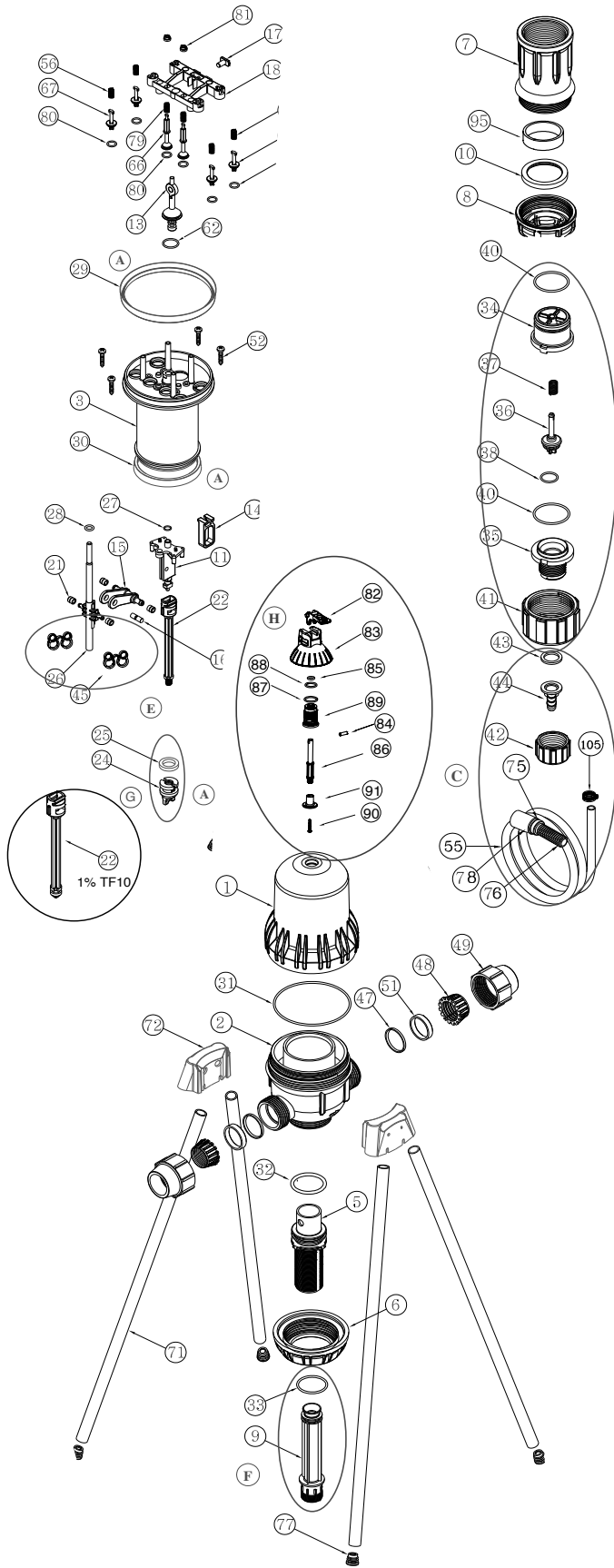
Compiled kits		
No.	Description	Art. No.
A	Kit: seal 2%	76420-006050
	Kit: seal 4%	76420-006100
	Kit: seal 5%	-----
B	kit: Suction Piston kit 2%	76420-003010
	kit: Suction Piston kit 4%	76420-003020
	kit: Suction Piston kit 5%	-----
C	Kit: suction tube 2%	76420-001610
	Kit: suction tube 4%	76420-001620
	Kit: suction tube 5%	-----
D	Kit: Suction check valve 0,2 - 2% STD	76420-003500
	Kit: Suction check valve 0,2 - 2% PO	76420-003508
	Kit: Suction check valve 0,2 - 2% CL	76420-003504
	Kit: Suction check valve 0,4 - 4% STD	76420-003240
	Kit: Suction check valve 0,4 - 4% Bypass	76420-003260
	Kit: Suction check valve 0,4 - 4% Bypass	76420-003260
E	Kit: Mechanism spring	76420-006150
F	Kit: Suction cylinder 2%	76420-002707
	Kit: Suction cylinder 4%	76420-002708
	Kit: Suction cylinder 5%	-----
H	Kit: Manual on/off	-----
G	Kit: U-latch	76420-002500
	Kit: O-rings 0,2 - 2% STD	76420-003065
48	Kit: O-rings 0,2 - 2% PO	76420-003060
	Kit: O-rings 0,4 - 4% STD	76420-003070
	Kit: O-rings 0,4 - 4% Bypass	76420-003075
	Kit: O-rings 0,4 - 4% Bypass	76420-003075

MIXRITE TF 5 PARTS



Compiled kits			
No.	Description	STD Art. nr	CL Art. nr
A	Kit: seal 0,1 - 1%	T 35200000001	T 35200000001
	Kit: seal 0,2 - 2%	76420-006133	76420-006133
	Kit: seal 1 - 5%	T 35200000005	T 35200000005
C	Kit: suction tube 1% & 2%	T 36000000021	T 36000000021
	Kit: suction tube 5%	T 36000000028	T 36000000028
D	Kit: Suction check valve	T 35200000004	T 36000000152
E	Kit: Mechanism spring	T 35100000045	T 35100000045
F	Kit: Suction cylinder 0,1 - 1%	T 35200000009	T 35200000050
	Kit: Suction cylinder 0,2 - 2%	T 35200000011	T 35200000051
	Kit: Suction cylinder 1 - 5%	T 35200000012	T 35200000052
G	kit: Suction Piston kit 0,1 - 1%	T 35200000019	T 35200000019
	kit: Suction Piston kit 0,2 - 2%	T 35200000020	T 35200000020
H	kit: Suction Piston kit 1 - 5%	T 35200000021	T 35200000021
	Kit: Manual on/off	T 35200000048	-----
I	Water motor	76420-006160	76420-006160

MIXRITE TF 10 PARTS



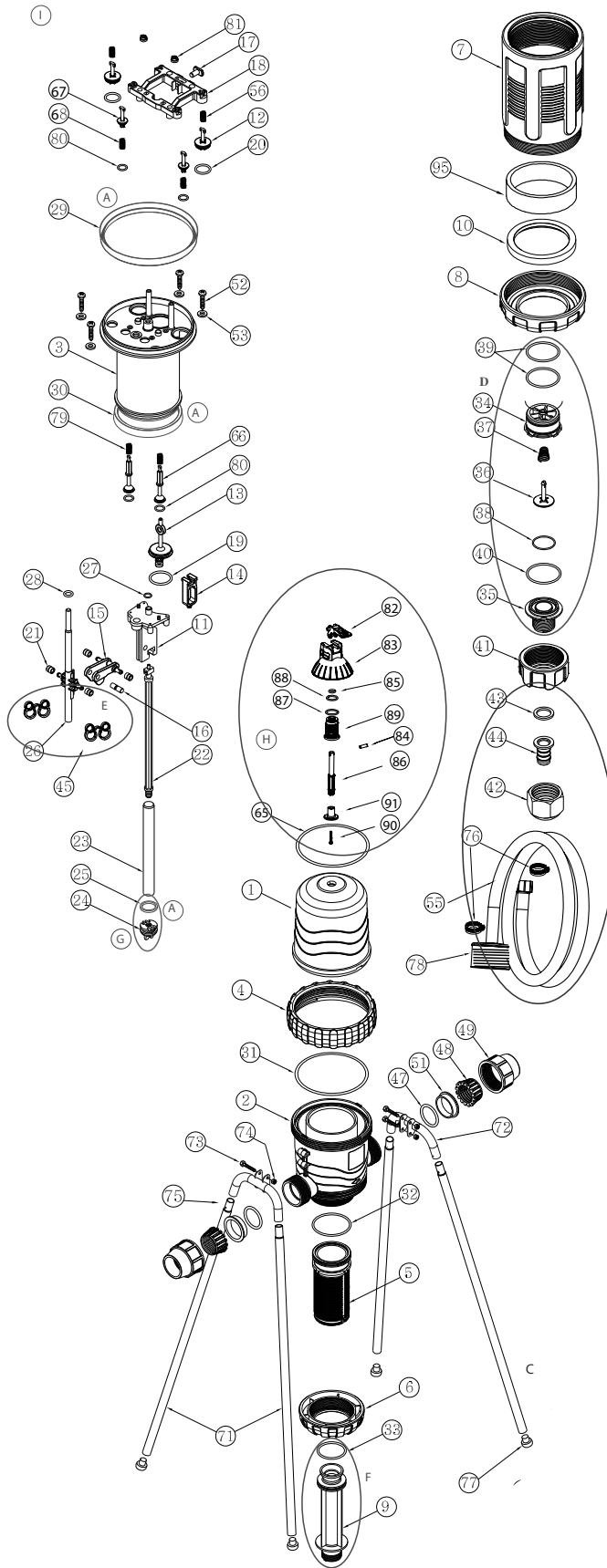
Compiled kits

No.	Description	STD Art. No.	CL Art. No.
A	Kit: seal 0,1 - 1%	T 35100000001	T 35100000001
	Kit: seal 0,2 - 2%	76420-006130	76420-006130
	Kit: seal 1 - 5%	76420-006120	76420-006120
C	Kit: suction tube 1-2-5%	T 36000000028	T 36000000028
D	Kit: Suction check valve	76420-003220	T 36000000152
E	Kit: Mechanism spring	76420-006170	76420-006170
F	Kit: Suction cylinder 0,1 - 1%	T 35100000009	T 35100000009
	Kit: Suction cylinder 0,2 - 2%	76420-006239	76420-006239
	Kit: Suction cylinder 1 - 5%	76420-006242	76420-006242
	kit: Suction Piston kit 0,1 - 1%	T 35100000019	T 35100000019
G	kit: Suction Piston kit 0,2 - 2%	76420-006238	76420-006238
	kit: Suction Piston kit 1 - 5%	T 35100000021	T 35100000021
H	Kit: Manual on/off	76420-006210	76420-006210
I	Water motor	76420-006230	76420-006230

Loose parts

No.	Description	Art. No.
8	Latch nut	76420-006255
10	Cylinder Support Spacer	76420-006855
12	Large Exit Valve 3	76420-006910
13	Central Valve 3	76420-006920
14	Toggle Frame	76420-006445
15	Toggle	76420-006465
16	Toggle Pin	76420-006448
17	Bridge Pin	76420-006930
21	Toggle Bearing	76420-006451
22	Piston Bar 0,2-2% and 1-5%	76420-006143
24	Suction Piston 0,2-2%	76420-006470
24	Suction Piston 1-5%	76420-006458
26	Operation Rod	76420-006458
31	O-ring 2-362	76420-006420
32	O-ring 2-334	76420-006092
43	Washer for swivel 3/4"	-----
52	Ejote screw WN1412	76420-006430
53	Washer St.St.	-----
56	Spring Large Valve	76420-006940
61	O-ring 2-107	76420-002905
64	O-ring 2-118	-----
66	Inner Valve	-----
67	Small Exit Valve	-----
68	Small Exit Valve Spring V7-engine	-----
79	Inner Valve Spring	76420-006066
81	Inner Valve Locker	76420-006079

MIXRITE TF 25 PARTS



Compiled kits

No.	Description	STD Art. No.
A	Kit: seal 0,1 - 1%	T 35000000008
	Kit: seal 0,3 - 2,5%	76420-005900
	Kit: seal 1 - 5,5%	76420-006000
C	Kit: suction tube 1% & 2% & 5%	T 35000000049
	Kit: Suction check valve 1% & 2%	76420-003218
D	Kit: Suction check valve 5%	76420-006010
	Kit: Mechanism spring	76420-001869
F	Kit: Suction cylinder 0,1 - 1%	T 35000000009
	Kit: Suction cylinder 0,3 - 2,5%	76420-006241
	Kit: Suction cylinder 1 - 5,5%	76420-006244
	Kit: Suction Piston kit 0,1 - 1%	T 35000000019
G	Kit: Suction Piston kit 0,3 - 2,5%	T 35000000020
	Kit: Suction Piston kit 1 - 5,5%	T 35000000021
H	Kit: Manual on/off	T 35000000048
	Water motor	76420-006240
I	stand-stainless steel	76420-005800
	Stainless steel wall plate	76420-002414
	Spanner Cover Nut	76420-006055

Loose parts

No.	Description	STD Art. No.
8	Latch nut	76420-006055
12	Large Exit Valve 3	76420-006078
13	Central Valve 3	76420-006500
14	Toggle Frame	76420-006550
15	Toggle	76420-006832
16	Toggle pin	76420-006830
17	Bridge pin	76420-006840
21	Toggle Bearing	76420-006236
22	Piston Bar 0,3-2,5% and 1-5,5%	76420-006145
24	Suction Piston 0,3-2,5%	76420-006820
26	Operation Rod	76420-006459
31	O-ring 2-370	76420-006095
32	O-ring 6x105	76420-006424
43	Seal 1"	76420-005620
44	Record body 25x1"	76420-005650
52	Eject screw WN1412	76420-006068
53	Washer St.St.	76420-006069
55	Suction tube 25mm 2,5 m	76420-006879
56	Spring Large Exit Valve	
61	O-ring 2-107	76420-002905
64	O-ring 2-118	
65	Dalrin ring	
66	Inner Valve V7-engine	76420-006560
67	Small Exit Valve V7-engine	76420-006570
68	Small Exit Valve Spring V7-engine	76420-006835
79	Inner Valve Spring V7-engine	76420-006580
81	Inner Valve Locker V7-engine	76420-006079