MixRite™

WATER TREATMANET

TEFEN
FLOW & DOSING TECHNOLOGIES

MixRite

About TEFEN

Tefen is a leading manufacturer of environmental friendly, non-electric volumetric equipment and flow products since 1973.
Tefen's MixRite proportioning dosing pumps, line, are used to ensure precise additive injection directly into the water or fluid line. For many reasons this is the right choice for you.

Applications

- Chlorination
- Sanitation
- Water Disinfection

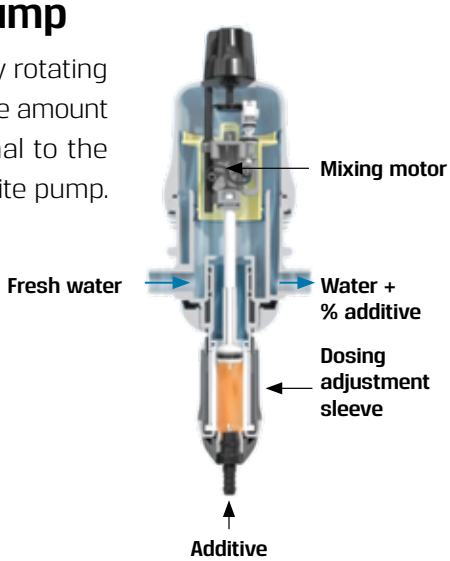
The Tefen MixRite water powered dosing pump is user friendly and ingenious system that has demonstrated its value in over 90 countries.
Tefen is certified by ISO 9001 2015

Advantages of using MixRite

- Hydraulic, volumetric and non-electric.
- Dosing proportional to water flow rate.
- Excellent dosing repeatability and homogeneity.
- Easy dosing adjustment.
- Easy to install, operate and maintain.

Adjusting the MixRite pump

The injection rate is set up manually by rotating the sleeve to the desired proportion. The amount of injected concentrate is proportional to the amount of water flowing into the MixRite pump.



Chlorination for rural areas or emergencies:

- It is estimated that 2.6 billion people do not have satisfactory access to drinking water
- The production of drinking water in rural areas or emergencies requires reliable equipment that is suitable for extreme conditions such as lack of electricity or local constraints
- Typical concentration and dosing:
  - Sodium Hypochlorite: 0.3 - 5 PPM
  - Chlorine Dioxide: 0.3 – 5 PPM
  - Hydrogen Peroxide: 1 PPM and above
- All concentration and dosing levels refer to the water content.

PH Control

- For PH Control there is a wide range of acids that are being used, such as: Sulphoric acid, Chloric Acid, Phosphoric acid, Nitric Acid

Sanitization and Disinfection

MixRite proportional dosing pumps are widely used for Sanitation and Disinfection of water lines.

Industries under this application:

- Food processing and sanitation
- Beer line cleaning
- Operating theaters - surface cleaning and disinfection
- Cleaning and Sanitary additives to be dosed and injected including glutaraldehyde and organic acids such as:
  - peracetic acid, formic acid, etc.
  - quadranary ammoniums, etc.

MixRite

MixRite Dosing pumps

MixRite 2.5 Series Low Flow Rate

0.1-0.9%, 0.3-2%, 0.4-4%

Water pressure	0.2 - 8 bar (2.9 - 120 psi)
Flow Rate	10 - 2500 l/h (1.85 - 660) gal/h
Weight	1.8 kg (4 pound)
Coupling	3/4"

MixRite 3.5 Series

0.03-0.2%, 0.1-0.9%,
0.3-2%, 0.5-5%, 1-10%

Water pressure	0.2 - 8 bar (2.9 - 120 psi)
Flow Rate	10 - 3500 l/h (2.65 - 930) gal/h
Weight	1.8 kg (4 pound) *
Coupling	3/4"

* 1-10% - 3.6 kg

MixRite TF-5

0.1-1%, 0.2-2%, 0.5-5%

Water pressure	1 - 8 bar (14.7 - 120 PSI)
Flow Rate	0.1 - 5 m3/h (0.8 - 22 GPM)
Weight	5 kg (11 pound)
Coupling	1" or 32 mm

* Legs available upon special request

MixRite TF-10

0.1-1%, 0.2-2%, 1-5%

Water pressure	1 - 8 bar (14.7 - 120 PSI)
Flow Rate	0.1 - 10 m3/h (2 - 45 GPM)
Weight	7.3 kg (16.27 pound)
Coupling	1.5" or 50 mm

* Legs available upon special request

Spec \type	Model	Flow rate Range	Dosage rate	Min-max injection Rate per Hour
MIXRITE 1	0.1% - 1%	20-1000 l/h	1:1000 - 1:100	0.02 - 10 l/h
	0.2% - 2%	20-1000 l/h	1:500 - 1:50	0.04 - 20 l/h
	0.4% - 4%	20-1000 l/h	1:250 - 1:25	0.08 - 40 l/h
MIXRITE 2.5	0.1% - 0.9%	10-2500 l/h	1:1000 - 1:111	0.01 - 22.5 l/h
	0.3% - 2%	10-2500 l/h	1:333 - 1:50	0.03 - 50 l/h
	0.4% - 4%	10-2500 l/h	1:250 - 1:25	0.04 - 100 l/h
	0.3% - 2% by-pass	20-2500 l/h	1:333 - 1:50	0.06 - 50 l/h
	0.4% - 4% by-pass	20-2500 l/h	1:250 - 1:25	0.08 - 100 l/h
	0.3% - 2% Internal by-pass	20-2500 l/h	1:333 - 1:50	0.06 - 50 l/h
	0.4% - 4% Internal by-pass	20-2500 l/h	1:250 - 1:25	0.08 - 100 l/h
MIXRITE 3.5	0.03% - 0.2%	10-3500 l/h	1:3333 - 1:500	0.003 - 7 l/h
	0.1% - 0.9%	10-3500 l/h	1:1000 - 1:111	0.01 -31.5 l/h
	0.3% - 2%	10-3500 l/h	1:333 - 1:50	0.03 - 70 l/h
	0.5% - 5%	10-3500 l/h	1:200 - 1:20	0.05 - 175 l/h
	1% - 10%	50-3500 l/h	1:100 - 1:10	0.5 - 350 l/h
	1%-10% Internal by-pass	50-3500 l/h	1:100 - 1:10	0.5 - 350 l/h
TF 5	0.1 - 1%	0.1-5 m^3/h	1:1000 - 1:100	0.1 - 50 l/h
	0.2 - 2%	0.1-5 m^3/h	1:500 - 1:50	0.2 - 100 l/h
	0.5 - 5%	0.1-5 m^3/h	1:200 - 1:20	0.5 - 250 l/h
TF 10	0.1 - 1%	0.1-10 m^3/h	1:1000 - 1:100	0.1 - 100 l/h
	0.2 - 2%	0.1-10 m^3/h	1:500 - 1:50	0.2 - 200 l/h
	1 - 5%	0.1-10 m^3/h	1:100 - 1:20	1 - 500 l/h

Drinking Water Purification

MixRite

Watch Guard - Ultra Lean Dilution

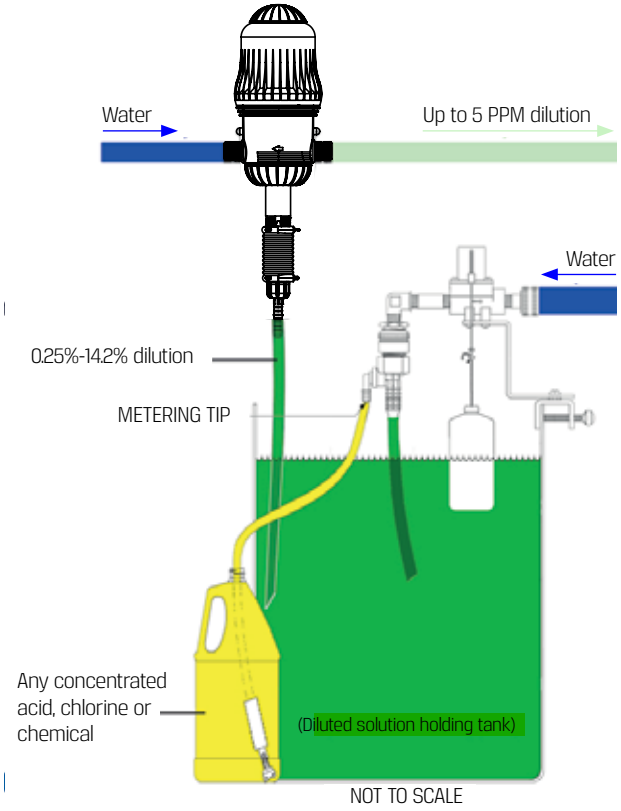
Watch Guard Reservoir Float System and MixRite Water Driven Injectors

Watch Guard is the premier reservoir float valve dilution system designed to deliver diluted solutions into any drum, tote or other reservoir. Attached to a standard water supply, Watch Guard automatically activates and keeps the reservoir filled ensuring a constant supply of diluted solution for the MixRite system.

MixRite water driven injectors attach in-line to the water supply and use water pressure to accurately dilute solutions regardless of flow or pressure changes.

When the Watch Guard is used in combination with any MixRite, ultra-lean dilutions as low as 5 parts per million are achievable..

- Achieve accurate ultra-lean dilution in 2 easy steps
- Effective with acid, chlorine and most any chemical
- Watch Guard is simple to mount on any drum, tote or other reservoir
- Automatically activates to keep reservoir full of diluted solution
- Metering tip included for dilutions from 0.25% to 14.2%
- Includes ASSE 1055B approved action gap backflow preventer
- MixRite attaches in-line to the water supply
- Delivers accurate proportioning regardless of water flow or pressure changes
- Multiple models available for injection rates from 1% to 10% and water flow from 227 - 25000 liter per hour



Induction Ratios for Vicosities Shown

Metering Tip Color	1 cps	75 cps	200 cps
Tan	0.26%	0.20%	0.09%
Orange	0.33%	0.23%	0.14%
Turquoise	0.39%	0.26%	0.15%
Pink	0.61%	0.43%	0.24%
Clear	0.68%	0.52%	0.26%
Brown	0.78%	0.57%	0.29%
Red	1.08%	0.71%	0.35%
White	1.19%	0.78%	0.38%
Green	1.35%	0.95%	0.41%
Blue	1.67%	0.99%	0.42%
Yellow	2.38%	1.33%	0.44%
Black	3.57%	1.56%	0.45%
Purple	5.88%	1.89%	0.46%
Gray	7.69%	2.00%	0.49%
No tip	14.29%	2.50%	0.53%

MixRite Dilution Ratios when combined with Watch Guard unit

What is the dilution ration you are trying to achieve											Set Mixrite to the following ratio / precentage
	ppm	5	8	16	22	33	154	286	0.2%	500-1	
	ppm	8	12	23	32	50	231	429	0.3%	333-1	
	ppm	13	20	39	54	83	385	714	0.5%	200-1	
	ppm	50	31	61	84	130	601	1116	0.8%	128-1	
	ppm	26	39	78	108	167	769	1429	1.0%	100-1	
	ppm	32	49	98	134	208	962	1786	1.3%	80-1	
	ppm	39	59	118	163	253	1166	2165	1.5%	66-1	
	ppm	45	69	137	189	292	1350	2506	1.8%	57-1	
	ppm	52	78	156	215	333	1538	2857	2.0%	50-1	
Use Watch Guard with corresponding tip		Tan	Turquoise	Brown	Red	Blue	Gray	No Tip	Precentage	Ratio	

Final Dilution with PPM is of the total chemical injected, not the active ingredient in chemical.
For example, if chemical is 10% active ingredient and final dilution is 100 PPM, then active ingredient PPM is 10.

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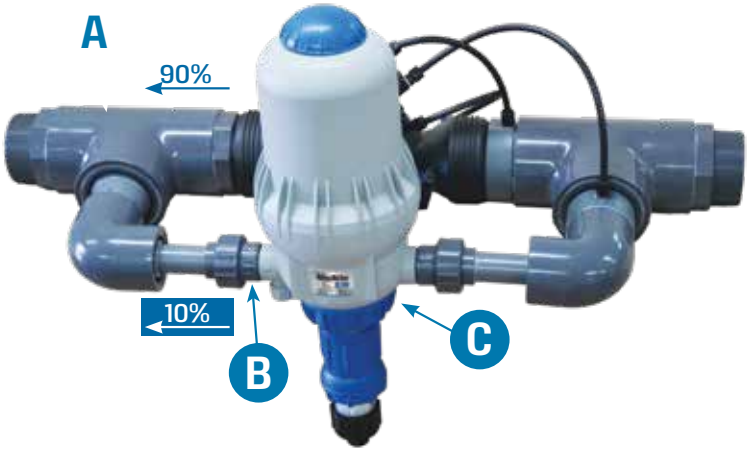
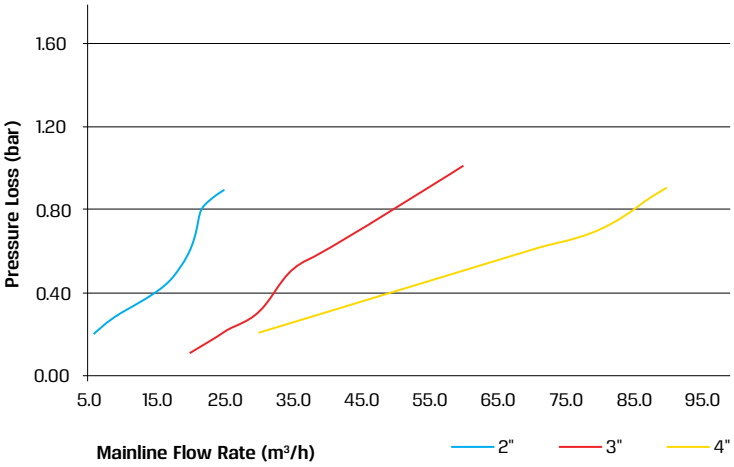
TreatRite™ - Water Treatment Line

Proportional and Automatic Bypass System



The TreatRite™ system provides a proportional method between the mainline (A) and the sub-mainline (B), supported by a sophisticated innovative hydraulic system.
The MixRite™ pump is a volumetric, proportional unit. The combination between the MixRite™ Dosing Pump and the By-Pass unit creates a fully proportional dosing system. This concept provides its user a perfect solution for water treatment. The end user of the TreatRite™ system can dose common additives for water treatment, such as: Sodium Hypochlorite, Chlorine Dioxide, and Hydrogen Peroxide.
The TreatRite™ system can be operated in various ranges as shown:

Pressure Loss VS. Flow Rate



Flow Range m3/h	Dosage Range		A	B	C
	(%)	L/h			
6-25	0.003-1	0.18-250	2"	3/4"	MixRite™ 2.5/3.5
15-50	0.01-0.5	1.5-250	3"	1"	MixRite™ TF5
30-100	0.01-0.5	3-500	4"	1 1/2"	MixRite™ TF10

MixRite range:

2.5

3.5

TF-5

TF-10

Operating Principle:

- The pilot operating valve samples the pressure level at multiple points, and controls the opening condition of the diaphragm.
- This operation governs the flow rates to generate a stable 1:10 ratio between lines.

Case Study (Water Treatment)

- Total water flow rate: 67.3 m3/h
- Desired dosage rate: 0.1%
- Additive amount: 67.3 x 0.1% = 0.0673 m3/h
- Relevant configuration: 4", 1.5"
- Main line water flow: 67.3 x 0.9 = 60.57 m3/h
- By-Pass water flow: 67.3 x 0.1 = 6.73 m3/h
- Relevant injector: TF10 0.2%-2%
- Dosage setting on injector: 0.0673 / 6.73 = 1%

Features and Benefits

- Keeps constant proportional flow rate
- Hydraulic, Volumetric and non-electric
- Dosing proportional to flowrate
- Precision: surface quality optimized with no waste
- Flow rate between main line and sub-main line will remain 10:1 at wide flow rates
- Working pressure up to 8 bar (116 PSI)
- High UV resistance
- High chemical resistance
- Supplied pre - set. No need for calibration
- Excellent dosing repeatability and homogeneity
- Easy to install, operate and maintain, with no electricity risk

MixRite

Water treatment

Water treatment is any process that improves the quality of water to make it more acceptable for a specific end-use. The end use may be drinking, industrial water supply, irrigation, river flow maintenance, water recreation or many other uses, including being safely returned to the environment.

As one of the world's leading suppliers of industrial piping products; Tefen Flow Products offers a comprehensive range of integrated solutions to meet the needs of water and wastewater facilities. Superior to the competition, the Tefen system consisting of Fittings, Valves, and Pipes ensures uniform performance throughout treatment facilities Noncorroding properties ensure long-term performance coupled with low maintenance costs Tefen Flow Products are NSF certified as well as WRAS approval.

PVDF FITTINGS




WATER PRE-FILTER


VALVES


QUICK RELEASE SOCKET

EDITION 05 EN 09/21 now-branding.co.il

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