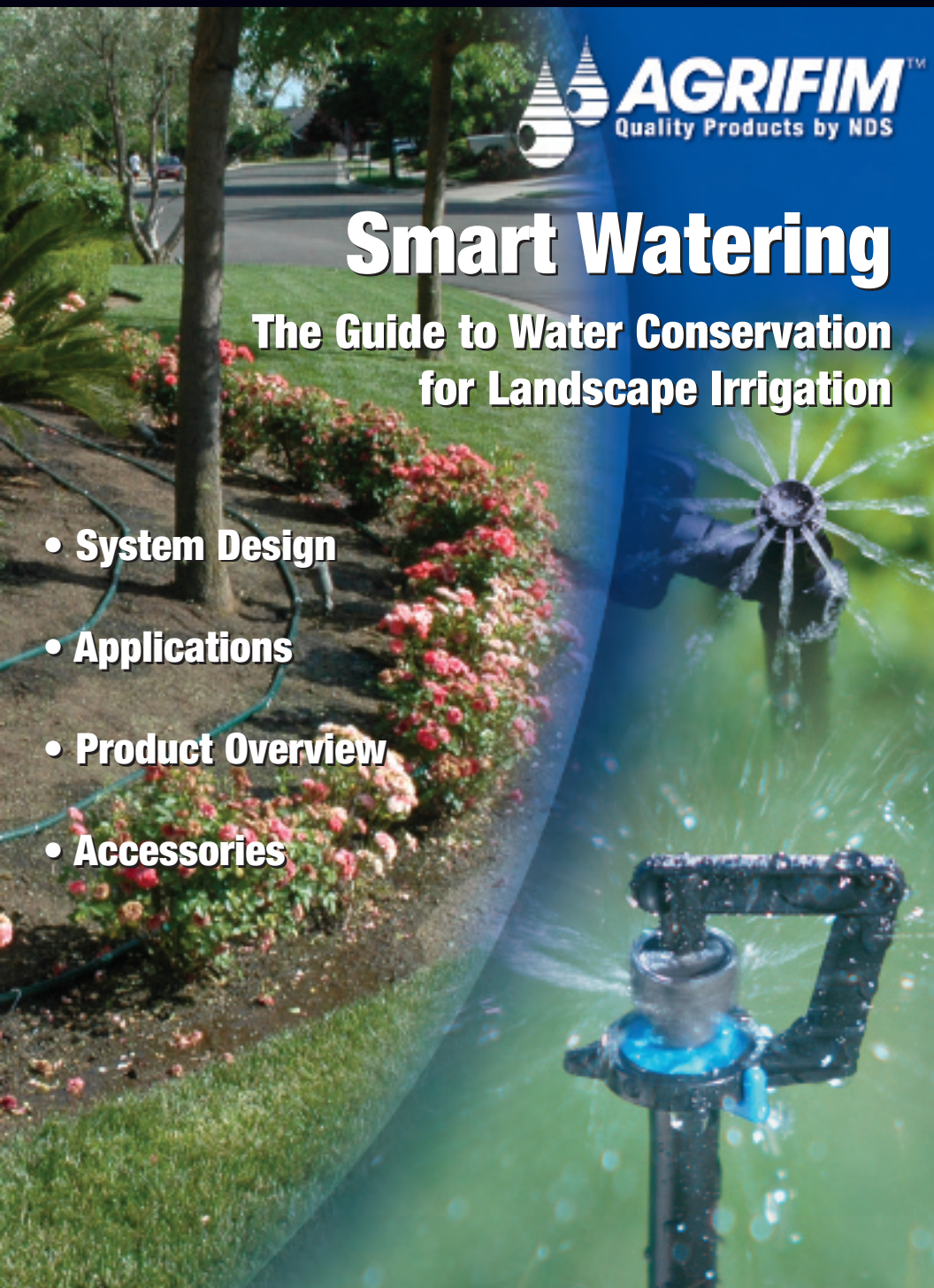
NDS™
WE PUT WATER IN ITS PLACE



AGRIFIM™
Quality Products by NDS

Smart Watering

The Guide to Water Conservation for Landscape Irrigation

- System Design
- Applications
- Product Overview
- Accessories

CONTENTS

INTRODUCTION 1

SYSTEM DESIGN
- Water Source Connections 2-3
- PVC Pipe System 4
- Polyethylene Tubing System 4
- Mixed PVC/Polyethylene System 4
- Components 5-6

APPLICATION 7

DRIP EMITTERS
- DRIP STAR™ Emitters 8-9
- ISO-FLO™ Emitters 10
- PC PLUS™ Emitters 10
- SUPER-FLO™ Emitters 11
- DIAL-A-FLO™ Emitters 12-15
- UNI-FLO™ Emitters 16
- Design Guide for Drip Emitters 17

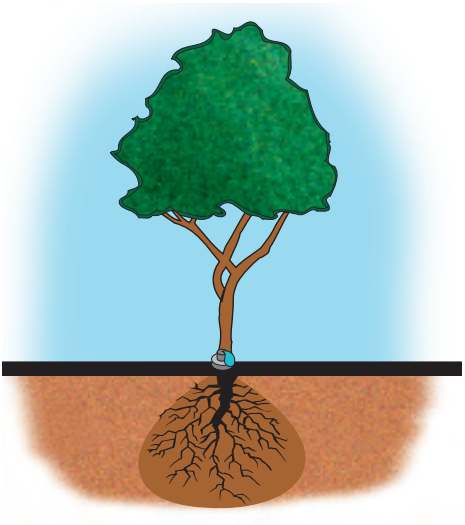
MISTERS
- TURBO-FLO™ Mister 18-19
- MISTI-FLO™ Mister 20
- Mister Maintenance 20

BUBBLERS
- MAXI-FLO™ Bubblers 21-23
- HYDROPORT™ Bubblers 24-25
- CUATRO-FLO™ Bubblers 26-27
- POWER-FLO™ Bubblers 28-29

MICRO-SPRAYS
- HYDRO-FLO™ Jets 30-31
- TRI-FLO™ Spray Stick 32
- MICRO-FLO™ Micro-Sprinkler 33
- Stake Assemblies 33
- HYDRO-POP™ Pop-up Riser 34
- Installation Options 35

DRIPPERLINE
- DURA-FLO™ JR Dripperline 36
- MINI-FLO™ Emitterline 37
- DURA-FLO™ PC Dripperline 38-40
- DURA-FLO™ Dripperline 41-42

ACCESSORIES 43-44



What is Drip Irrigation?

The theory of drip irrigation (low volume/micro-irrigation) is simple. Water is delivered on a slow, frequent and accurate basis directly to the root zone of the plant. The root zone is kept moist but never saturated with water. The end result is that the plant always maintains the ideal balance between water and air.

Benefits of the AGRIFIM™ System.

Water Savings

Drip irrigation can save up to 70% over conventional sprinkler irrigation. Sprinklers tend to waste water because of wind scattered spray, evaporation, run-off or deep leaching.

Reduce Weed Growth

Because drip irrigation only covers a relatively small part of the soil's surface around the plant, weed growth is reduced.

Automation

Drip systems can easily be automated by hooking the system into conventional electric valves and timers.

New or Retrofit Systems

A drip system can be installed in any new area or can be used as a retrofit to replace an existing sprinkler system.

Fertilization

Water soluble plant food can easily be applied through the filter, to the drip system, directly to the plant root zone.

Use on Slopes

Drip irrigation can be used on flat terrain or hill sides. Sprinklers often create wasteful run-off when used to water upper slopes of hills. Drip irrigation applies the water slowly enough to allow all the moisture to soak directly into the soil.

Above or Below Ground

Drip irrigation tubing can be buried or left above ground. Mulching is often used to conceal the drip system.

Healthier Plants

The ideal soil moisture level minimizes plant stress, resulting in faster growth, and healthier, more beautiful plants.

Water Source Connections

Water source connections vary greatly. To ensure a trouble free drip system, the water must be relatively clean and the pressure within the prescribed limits of the emitters. A back flow prevention device is required on every irrigation system to protect the water supply.

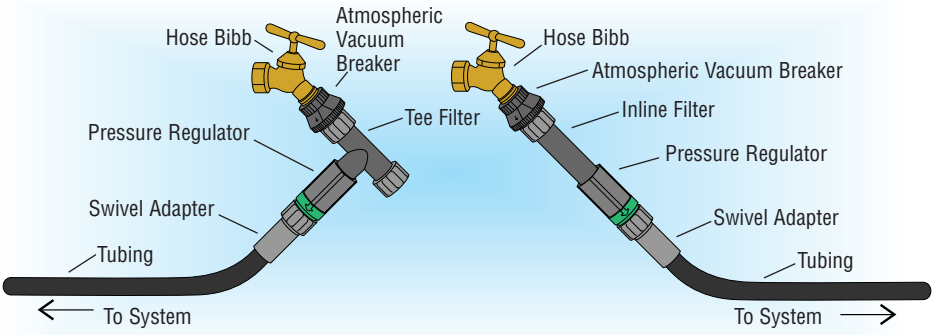
Clean Water

Pressure Regulation

Back Flow Prevention

Two typical connections are shown.

A. A residential hookup directly to the hose bibb.



Atmospheric Vacuum Breaker*
This is an anti-siphon device which creates an air gap to prevent water from flowing back into the water supply.

Inline Filter - FIL75
Filters out all dirt to prevent plugging of the emitters. Filter element can be removed for cleaning.

Tee Filter - FTEE 150
This is very similar to the Inline filter and may be used instead. Filter can be cleaned by removing the flush cap.

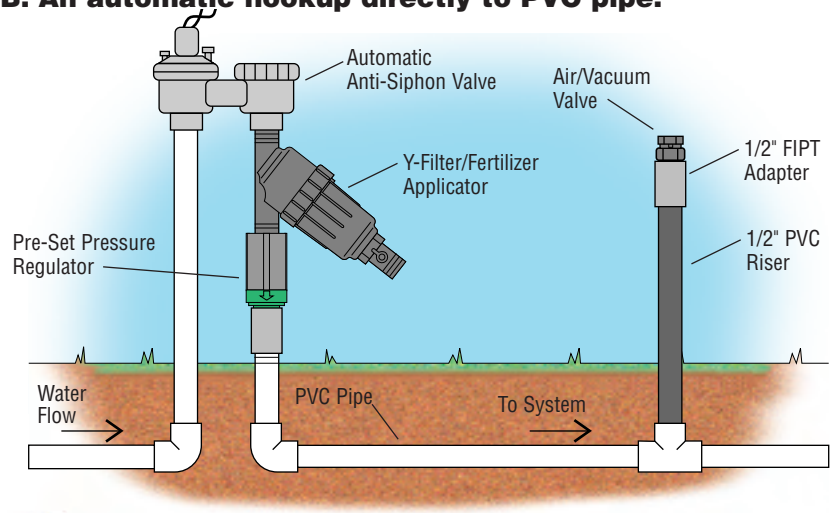
Pre-Set Hose Thread Pressure Regulator PRH10/15/20/25/30/40
The purpose of the regulator is to reduce the water pressure to the recommended operating pressure of the system. (see chart at right) Available in 10, 15, 20, 25, 30 and 40 psi pressure ratings.

Swivel Adapter - CSA700
Adapts from the regulator to the tubing.

Emitter	Operating Pressure Range
PC PLUS™	10-40 PSI
SUPER-FLO™	10-30 PSI
DIAL-A-FLO™	20-40 PSI
UNI-FLO™	10-40 PSI
MAXI-FLO™	20-80 PSI
CUATRO-FLO™	20-80 PSI
MAXI-FLO™(adjustable)	20-40 PSI
POWER-FLO™	20-80 PSI
HYDRO-FLO™	15-30 PSI
TRI-FLO™	15-30 PSI
MICRO-FLO™	15-30 PSI
HYDRO-POP™	15-45 PSI
TURBO-FLO™ (TUR)	30-100 PSI
TURBO-FLO™ (TURU) (TURB)	30-60 PSI
MISTI-FLO™	15-45 PSI
DURA-FLO™ JR	10-30 PSI
Laser drilled hose	10-20 PSI
MINI-FLO™	10-25 PSI
DURA-FLO™ PC	10-60 PSI
DURA-FLO™	10-45 PSI

*Not supplied by Agrifim

B. An automatic hookup directly to PVC pipe.



Automatic Anti-Siphon Valve*
A combination automatic valve and anti-siphon device enables the system to be operated by a timer and will also prevent water from flowing back into the water supply.

Air/Vacuum Release Valve - AVRV 50
This is an important component of a system. They should be generously used throughout the system (specifically at all the high points). They have a dual function. 1) They vent out air in the system at start-up. 2) They prevent a vacuum forming in the system at shut-down.

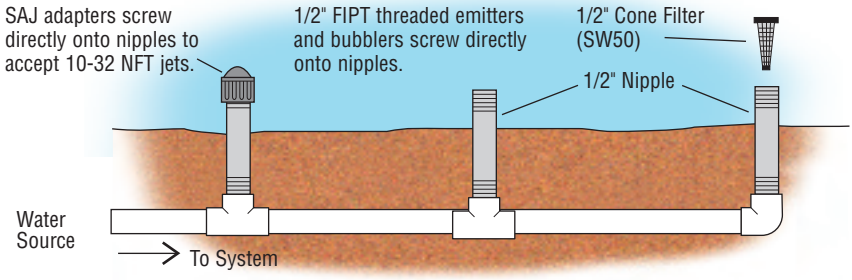
Y-Filter/Fertilizer Applicator - YS75, YSV75
The filter traps all dirt and prevents plugging of the emitters. A 150 mesh screen is recommended. This screen should be periodically removed for cleaning.
Water soluble plant food tablets may be introduced into the system through the filter.

Pre-Set Pipe Thread Pressure Regulator - PRP10/15/20/25/30/40
The purpose of the regulator is to reduce the water pressure to the recommended operating pressure of the system.
Available in 10, 15, 20, 25, 30 and 40 psi pressure ratings.

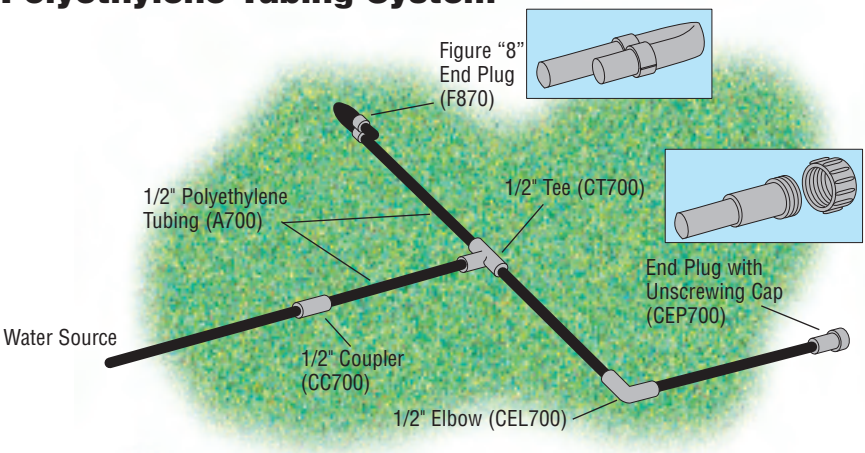
**Not supplied by Agrifim*

There are various ways to lay out the distribution network of a system. This system may comprise rigid PVC or flexible polyethylene tubing or could be a combination of both of these. This network may be buried or above ground according to your preference.

PVC Pipe System

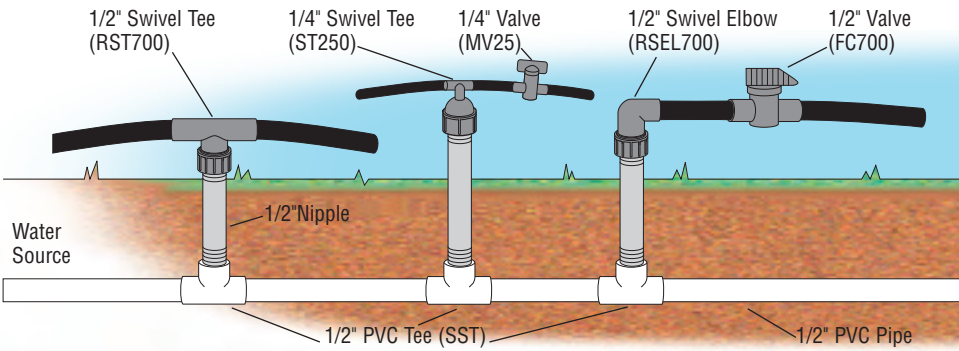


Polyethylene Tubing System



Recommended Practice: To more easily insert tubing into connector, cut the tubing at an angle.

Mixed PVC/Polyethylene System



Components

1/2" Polyethylene Tubing - A700
This black, flexible tubing is used to transport water to the planted areas. (.600" ID x .700" OD)

1/4" Polyethylene Tubing - A250
This black flexible tubing feeds the water to the emitters. (.170" ID x .250" OD)

1/2" Coupler - CC700
Used to splice together the 1/2" polyethylene tubing.

1/2" Elbow - CEL700
Used to make a 90 degree turn in the 1/2" tubing.

1/2" Tee - CT700
Used to split the 1/2" tubing into two different directions.

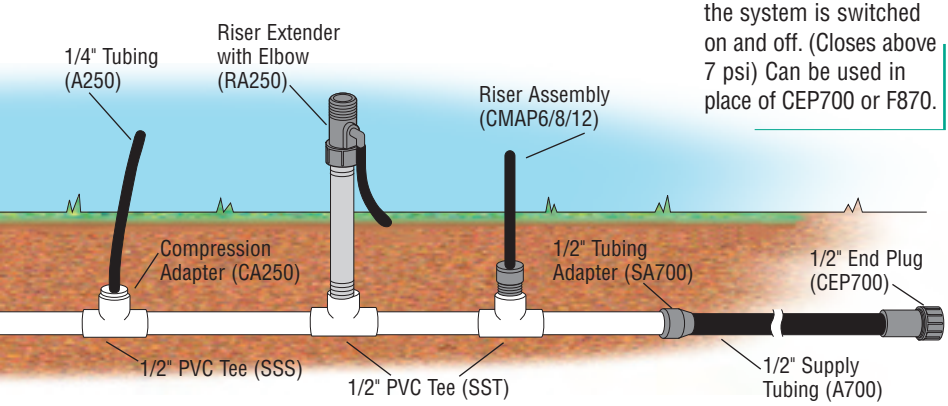
1/2" Swivel Tee - RST700 (w/screen)
Screwed onto a 1/2" nipple allowing the 1/2" tubing to split into 2 directions. Contains a backup filter element which, because of the swivel joint, can be removed for cleaning.

1/2" Swivel Elbow - RSEL700 (w/screen)
Same as above except it allows for 1/2" tubing in one direction only.

1/2" End Cap - CEP700
Used to close off the end of the 1/2" tubing. The unscrewing cap should be periodically removed to flush dirt out of the system.

1/2" Figure "8" Plug - F870
An alternative to the 1/2" end cap.

Automatic Flush Valve- FVA700
Attaches to the end of the 1/2" supply tubing. Purges out sediment each time the system is switched on and off. (Closes above 7 psi) Can be used in place of CEP700 or F870.



Components (cont.)

1/4" Micro-Valve - MV25
A shut-off/flow control valve used with 1/4" distribution tubing.

1/2" Valve - FC700
A shut-off/flow control valve used with 1/2" polyethylene tubing.

1/4" Swivel Tee - ST250
An adapter from the 1/2" nipple to split into two 1/4" distribution tubes.

1/4" Swivel Elbow - SEL250
An adapter from the 1/2" nipple to 1/4" distribution tubing.

Shrub Adapter - SAJ
An adapter that is screwed directly onto a 1/2" nipple. All 10-32 NFT jets and micro-sprays are screwed directly into this adapter.

Compression Adapter - CA250
An adapter that is glued into any 1/2" slip PVC fitting. 1/4" tubing (A250) is attached directly to this adapter.

1/2" Tubing Adapter - SA700
Glues (with regular PVC glue) over standard 1/2" PVC pipe. Used to adapt from 1/2" PVC pipe to 1/2" polyethylene tubing.

1/2" Cone Filter - SW50
A 100 mesh stainless steel screen element as a backup filter. Fits into a 1/2" nipple.

Riser Extender w/elbow - RA250
An adapter that is screwed onto an existing 1/2" nipple. 1/4" tubing is then attached to the barbed outlet.

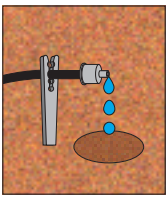
Rigid Riser Assembly - CMAP 6/8/12
A 1/4" rigid riser with 1/2" MIPT adapter that screws directly into a 1/2" FIPT PVC fitting. Available in lengths of 6", 8" and 12".

Low volume or micro-irrigation is ideal for virtually all landscaping applications. It is used extensively throughout the world and is suitable for both small residences and large commercial projects. Some typical applications are as follows:

- Trees and Shrubs
- Ground Cover
- Patio & Container Plants
- Vegetable Gardens
- Flower Beds
- Medians & Pathways
- Island Planters
- Indoors
- Hanging Baskets
- Hedges

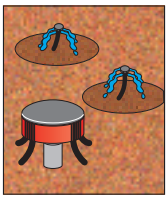
Low volume/micro-irrigation may be broken into 5 categories.

Drip



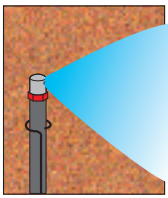
Drip emitters are the most precise option, delivering water directly to the soil at the root zone at very slow application rates. Drip emitters are suited to shrubs, trees, hanging baskets, etc. Because of the low discharge rate, the watering cycle is usually longer.

Bubbler



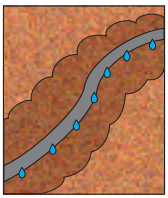
Bubblers are most often used for shrubs and trees. With their higher discharge rates, they have short watering cycles. Because bubblers can operate at high pressures, they are particularly useful for conversion from conventional sprinkler to low volume systems.

Micro-Spray



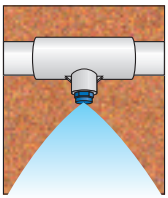
Micro-Spray is the suggested method of irrigating when low volume overhead irrigation is desired. Ground covers, ice plant, etc. are often irrigated with micro-spray emitters. Also, plants like ferns, which prefer some humidity, will benefit from this method.

Dripperline



Dripperline is best suited for watering closely spaced plants, hedges, vegetable gardens, etc. New plantings of ground cover could also use this dripperline. Other applications include planter boxes and rings for large pots and containers and loops around large trees.

Mister



Misters are ideal for watering hanging baskets and for creating humidity. They are normally used in the inverted position and spray downwards. Another growing application is for outdoor cooling. The immediate evaporation of the mist can dramatically reduce the air temperature.

These 5 options can be combined in any application, but keep in mind that each method may have different watering cycles. Hence, it is generally recommended that the different methods be put on separate circuits and operated independently, either manually or through a multi-station timer.

DRIP STAR™ Emitters

DS 10
1 gph
(RED)

DS 20
2 gph
(GREEN)

DS 30
3 gph
(BLUE)

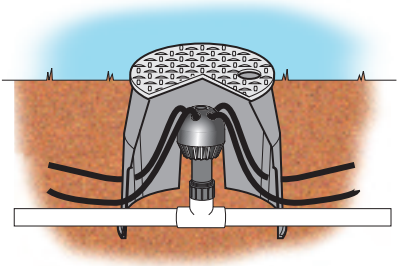
The Drip Star™ is the six outlet micro irrigation emitter that gives the convenience of watering multiple plants from one device while utilizing the water savings benefits of drip irrigation.

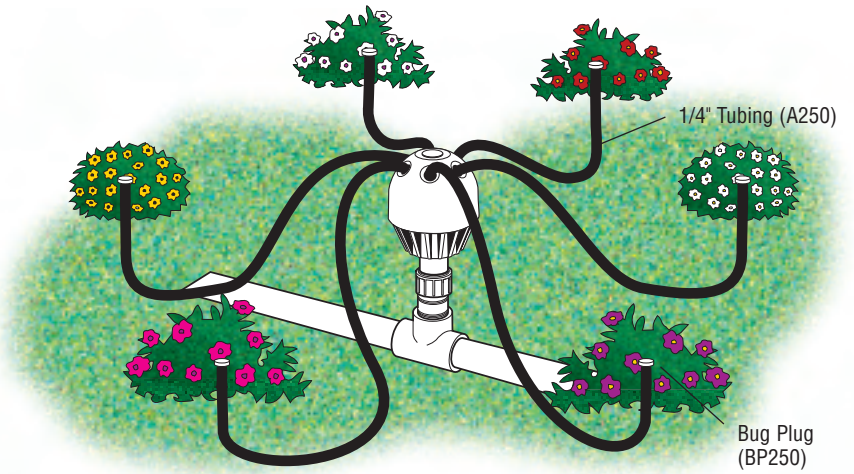
- Pressure compensating
- Unique inset ports prevent tubing kinks and outlet damage

Part #	Flow Rate	Color Code	20 psi	40 psi	60 psi	80 psi
DS 10	1 gph	red	1.0 gph	1.2 gph	1.4 gph	1.2 gph
DS 20	2 gph	green	1.7 gph	2.2 gph	2.5 gph	2.1 gph
DS 30	3 gph	blue	3.0 gph	3.8 gph	3.6 gph	3.0 gph

Flow rate per outlet

The Drip Star™ can be installed, either at above grade or below grade applications in conjunction with an access box (EB 6) and riser swivel filter (RSF100).





DRIP STAR™

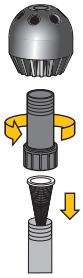
For extra protection the riser swivel filter (RSF100) is available. It prevents small particles from entering the emitter. The filter element can be easily removed for cleaning.

Riser Swivel Filter (RSF100)

1/2" Nipple

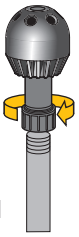
1/2" Female pipe thread inlet allows for retrofitting a sprinkler system to a drip system. Easily installed on any 1/2" sch. 80 threaded nipple/riser.

The installation of the DRIP STAR™ is extremely simple. Follow the instructions below.



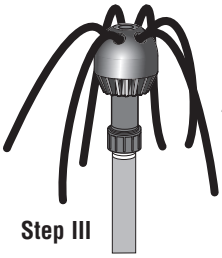
Step I

Screw the riser swivel filter into the base of the DRIP STAR™. Insert the screen into the 1/2" riser.



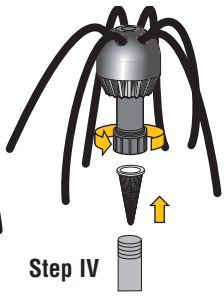
Step II

Hand tighten the swivel on to the riser.



Step III

Attach the tubing to the outlets.



Step IV

To remove the DRIP STAR™ to clean the screen, unscrew the swivel and remove the screen.

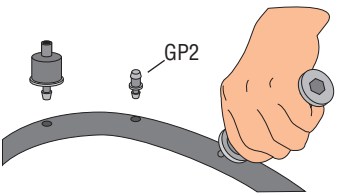
PC PLUS™ Emitters

PCP5 1/2 gph (RED)
PCP10 1 gph (BLACK)
PCP20 2 gph (GREEN)

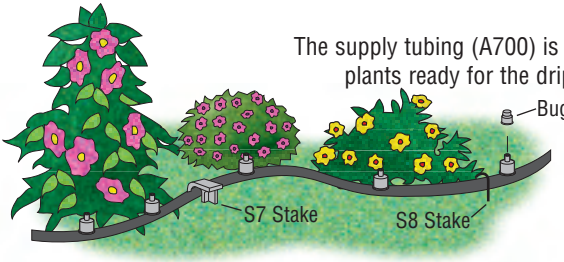
The PC PLUS™ emitters are available in 3 different flow rates and will maintain their discharge rate from 10 to 40 psi.

How many emitters on 1/2" tubing?

1/2 gph	1 gph	2 gph
200	140	90



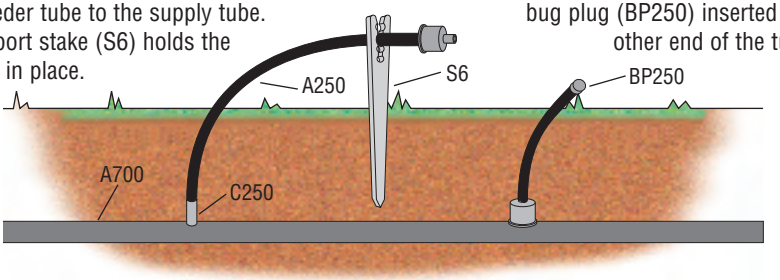
A hole punch (HP100) or the punch pal (PPT) is used to make a hole in the tubing. The ISO-FLO™ emitter is then inserted into the hole. Should the hole ever need to be sealed off, a "goof" plug (GP2) is simply inserted for a leak proof seal. The PC PLUS™ emitter has a self piercing barb. It can be pushed directly into the supply tubing without pre-punching a hole.



The supply tubing (A700) is rolled out on the ground next to the plants ready for the drip emitter to be installed. To hold the supply tubing in place, a wire stake (S8) or a plastic stake (S7) may be used.

The emitter may also be placed at the end of the 1/4" tubing. A 1/4" connector (C250) links the feeder tube to the supply tube. A support stake (S6) holds the tubing in place.

Distribution tubing (A250) can be attached to the outlet nipple and a bug plug (BP250) inserted at the other end of the tubing.



The supply tubing may be buried, but it is generally recommended that the emission point be above the surface.

SUPER-FLO™ Emitters

TAE10
1 gph
(black)

TAE20
2 gph
(green)

TAE40
4 gph
(yellow)

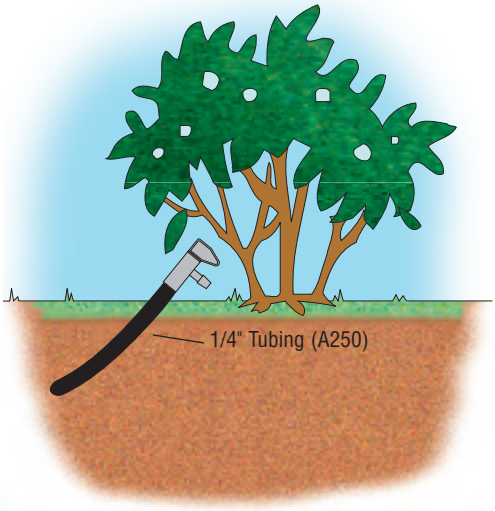
It is available in 3 different flow rates. The SUPER-FLO™ can operate in the 10 to 30 psi range. Handle must point in same direction as barbed outlet.

How many emitters on 1/2" tubing?

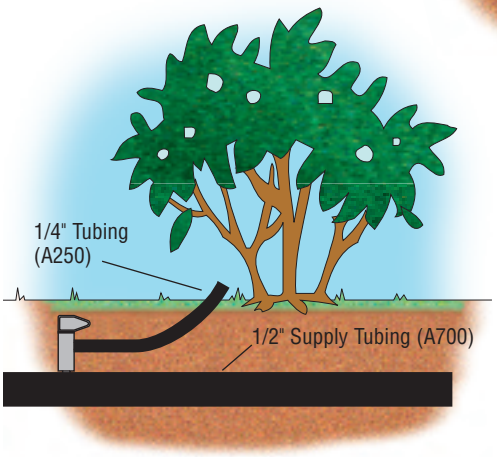
TAE10	TAE20	TAE40
100	60	40

The Super-Flo™ emitter is unique in that it is designed to be taken apart simply by twisting. It has a standard 1/4" barbed inlet at the base, plus a 1/4" barbed outlet on the side. 1/4" distribution tubing (A250) will be securely held by the barbed inlet or outlet.

	15 psi	20 psi	25 psi
TAE10	1.0 gph	1.2 gph	1.3 gph
TAE20	2.0 gph	2.3 gph	2.6 gph
TAE40	4.3 gph	5.0 gph	5.3 gph



The emitter can be used above or below ground.



TAKING APART FOR CLEANING

1. Rotate handle 45 degrees counter clockwise.
2. Pull apart and clean.
3. After cleaning, re-assemble and rotate so that handle points in same direction as outlet.

DIAL-A-FLO™ Emitters (Adjustable)

The DIAL-A-FLO™ is an adjustable emitter available in a variety of configurations and spray patterns. The cap is calibrated so that as it is rotated, the flow rate and the radius changes.

DAFB
1/4" Barbed Inlet

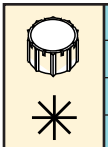
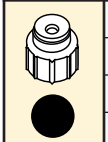
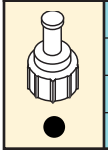
DAFT
1/4" Threaded Inlet

DAFU
1/2" FIPT Inlet

The DIAL-A-FLO™ is available with either a barbed or threaded inlet, and with a barbed inlet on a stake.

The DIAL-A-FLO™ on a stake is suitable when you want to mount the emitter a few inches above ground level.

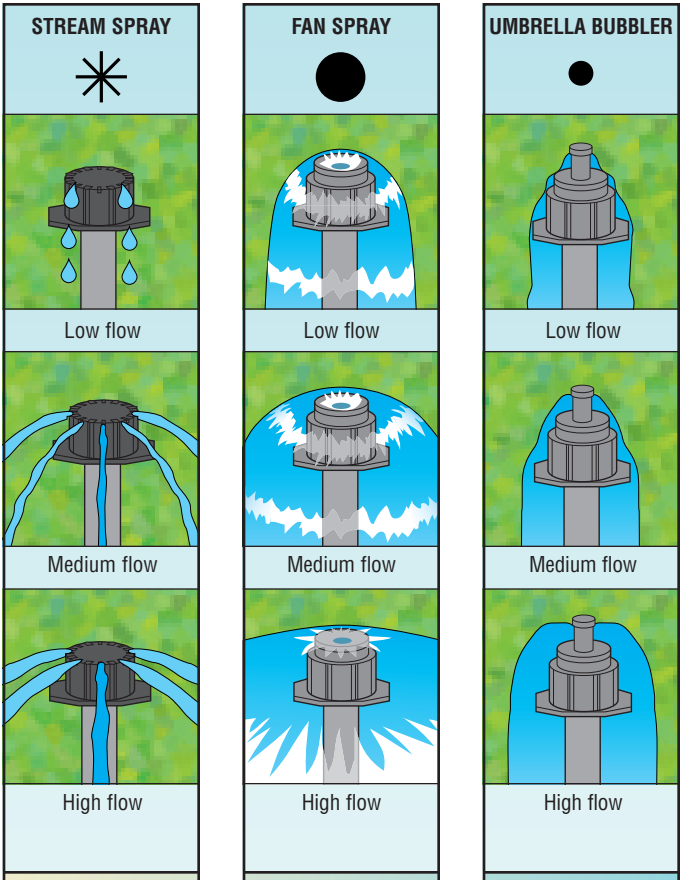
DAFS
1/4" Barb
on 6" Stake

	**DAFB 360**	360° stream spray, 1/4" barbed inlet
	DAFT 360	360° stream spray, 10-32 NFT inlet
	DAFS 360	360° stream spray, 1/4" barbed inlet on 6" stake
	DAFU 360	360° stream spray, 1/2" FIPT inlet
	**DAFB FAN**	360° fan spray, 1/4" barbed inlet
	DAFT FAN	360° fan spray, 10-32 NFT inlet
	DAFS FAN	360° fan spray, 1/4" barbed inlet on 6" stake
	DAFU FAN	360° fan spray, 1/2" FIPT inlet
	**DAFB BUB**	Umbrella bubbler, 1/4" barbed inlet
	DAFT BUB	Umbrella bubbler, 10-32 NFT inlet
	DAFS BUB	Umbrella bubbler, 1/4" barbed inlet on 6" stake
	DAFU BUB	Umbrella bubbler, 1/2" FIPT inlet

The DIAL-A-FLO™ comprises a cap and a base which can be completely taken apart should it plug. Simply clean it out and screw back together.

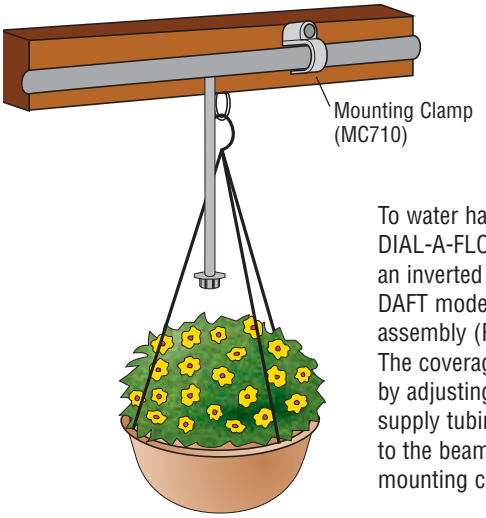
The cap is calibrated so that as it is rotated, the flow rate and the radius change.

The DIAL-A-FLO™ is available in 3 spray patterns.



Position	Discharge	Radius	Discharge	Radius	Discharge	Radius
0	0 gph	0"	0 gph	0"	0 gph	0"
1	2.3 gph	0"	5.0 gph	0"	5.0 gph	0"
2	3.1 gph	0"	8.2 gph	12"	8.2 gph	0"
3	3.9 gph	2"	12.4 gph	24"	12.4 gph	0"
4	4.8 gph	3"	13.6 gph	30"	13.6 gph	1"
5	5.7 gph	4"	14.8 gph	36"	14.8 gph	1"
6	6.5 gph	6"	15.6 gph	42"	15.6 gph	2"
7	7.2 gph	7"	16.5 gph	48"	16.5 gph	2"
8	8.1 gph	9"	17.1 gph	52"	17.1 gph	3"

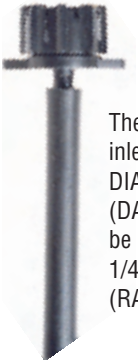
Above data at 30 psi.



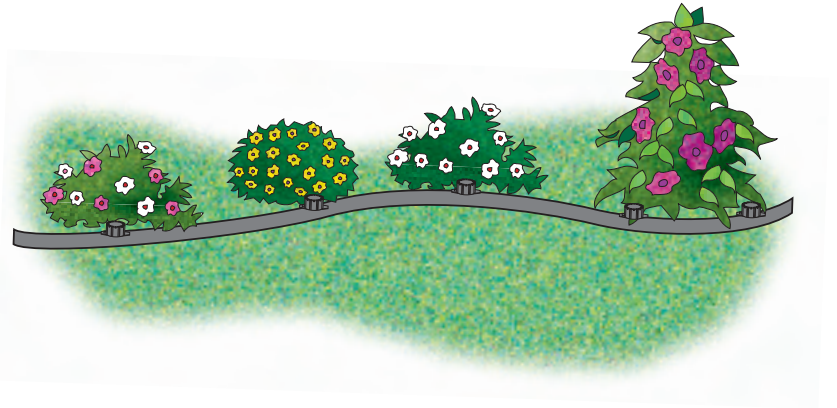
The DIAL-A-FLO™ (Model DAFU) can be screwed onto any 1/2" nipple.

To water hanging baskets, the DIAL-A-FLO™ can be used in an inverted position. Insert the DAFT model into a rigid riser assembly (RABT6/8/12/18). The coverage can be controlled by adjusting the cap. The supply tubing can be secured to the beam by using a mounting clamp (MC710).

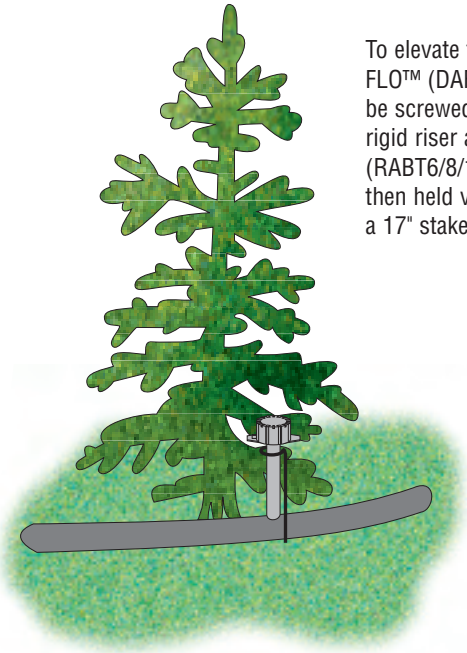
As with any clip-on emitter, a hole is punched into the supply tubing and the DIAL-A-FLO™ (DAFB) is inserted.



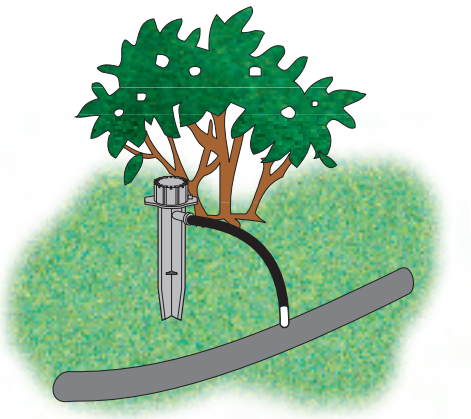
The threaded inlet on the DIAL-A-FLO™ (DAFT) allows it to be screwed into a 1/4" rigid riser (RABT6/8/12/18).



The DIAL-A-FLO™ (DAFT) is shown mounted on a 1/4" riser with adapter (RABT6/8/12/18) which is pushed into the supply tubing. A wire stabilizer stake (S14) keeps it vertical.



To elevate the DIAL-A-FLO™ (DAFT), it can be screwed into a rigid riser assembly (RABT6/8/12/18) and then held vertically by a 17" stake (S17).



The DIAL-A-FLO™ on a stake (DAFS) has a side barbed inlet which allows it to be attached to the supply tubing via 1/4" feeder tubing (A250).

UNI-FLO™ Emitters

UF5
1/2 gph
(Brown)

UF10
1 gph
(Black)

UF20
2 gph
(Green)

The UNI-FLO™ is a pressure compensating emitter with a 1/2" female threaded base. It is available in 1/2 gph, 1 gph and 2 gph discharge rates. These discharge rates remain fairly constant over the 10-40 psi pressure range. A bug cap (BC250) can be installed on the outlet. It will not affect the discharge rate.

How many emitters on 1/2" PVC Pipe?

1/2 gph	1 gph	2 gph
200	140	90

The UNI-FLO™ can be screwed directly onto any 1/2" nipple.

UNI-FLO™ CLASSIC

UFC10
1 gph

UFC20
2 gph

UFC10	1 gph	Black
UFC20	2 gph	Green

The UNI-FLO™ CLASSIC is a pressure compensating emitter with a 1/2" female threaded base. It is available in 1 gph and 2 gph discharge rates.

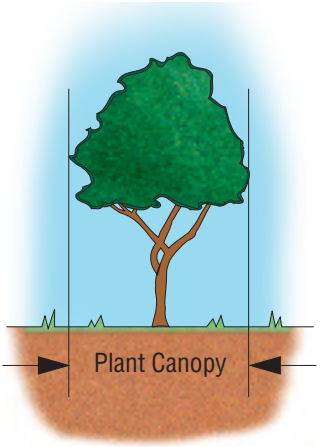
UNI-FLO™ CLASSIC has a lower profile and is less likely to be vandalized. The emitter does not have a barbed outlet and the water just streams from the discharge hole on the upper portion of the emitter.

DESIGN GUIDE FOR DRIP EMITTERS

Emitter Discharge Selection

Soil Type	Heavy clay	Loam	Sandy
Discharge	1/2 gph	1 gph	2 gph

If in doubt, use a 1 gph emitter.

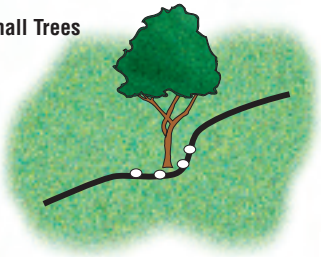


No. of Emitters/Plant

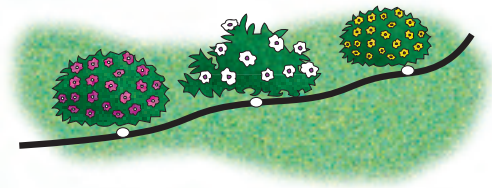
Canopy	1'-2'	3'-4'	5'	6'-7'	8'-9'	10'	11'-12'	13'-14'	15'
No. of Emitters	1	2	3	4	5	6	7	8	9

TYPICAL LAYOUT

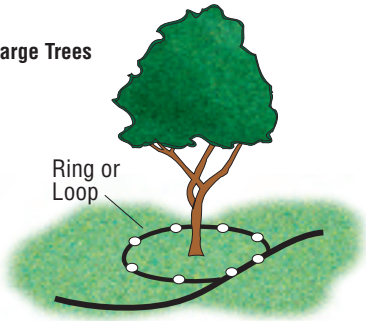
Small Trees



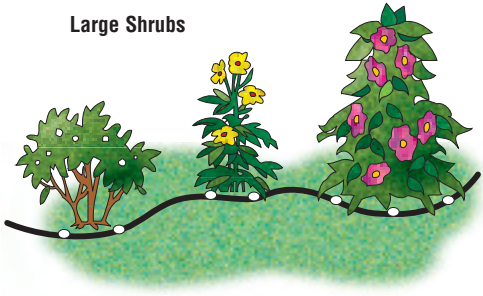
Small Shrubs



Large Trees



Large Shrubs



TURBO-FLO™ Misters

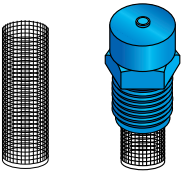
The TURBO-FLO™ is an extremely low flow mister with a very small droplet size. Besides being used as a misting/humidifying device, its major use is for outdoor cooling. The immediate evaporation of the mist can reduce the air temperature by as much as 20°F. The hotter and drier the air, the greater the cooling effect.

TUR 5 1/2 gph (WHITE)

TUR 7 3/4 gph (BLACK)

TUR 10 1 gph (TAN)

TUR 16 1-1/2 gph (BLUE)



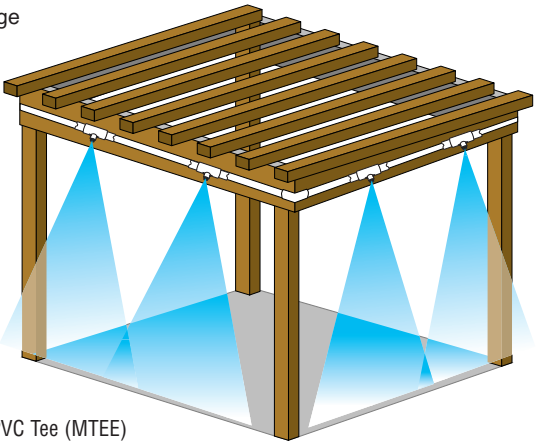
Removable 100 mesh filter

Filtration is very important. The TURBO-FLO™ has a removable strainer which needs to be periodically cleaned. Inlet is 1/8" MIPT which screws directly into the reducing tee (MTEE).

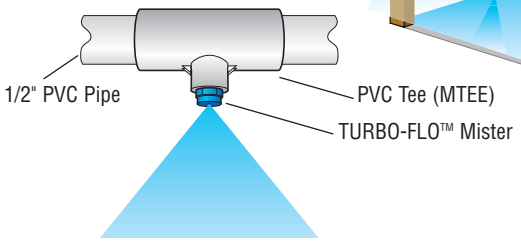
Part #	Color	Cone Angle	Pressure					
			30 psi	40 psi	50 psi	60 psi	80 psi	100 psi
TUR 5	White	70°	0.5 gph	0.6 gph	0.7 gph	0.8 gph	0.9 gph	1.0 gph
TUR 7	Grey	90°	0.7 gph	0.8 gph	0.9 gph	1.0 gph	1.2 gph	1.3 gph
TUR 10	Tan	70°	1.0 gph	1.2 gph	1.4 gph	1.6 gph	1.9 gph	2.1 gph
TUR 16	Blue	70°	1.3 gph	1.5 gph	1.7 gph	1.9 gph	2.2 gph	2.5 gph

Recommended operating range

Air temperature reduced up to 20°F.



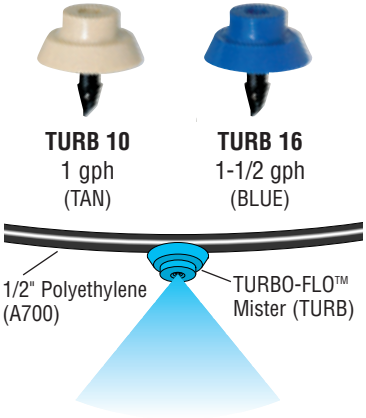
The mister is screwed into the special tee (MTEE).



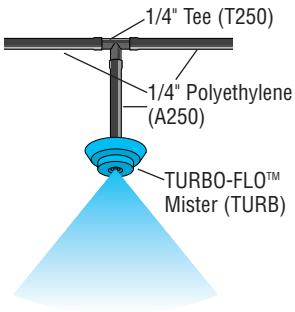
PVC Pipe Installation

Misters should be at least 10' above the ground and be spaced at about 2' intervals.

The TURBO-FLO™ is also available in a 1/4" barbed and 1/2" FIPT inlet.



1/2" Polyethylene Tubing Installation



1/4" Polyethylene Tubing Installation

Model TURB can be pushed directly onto 1/2" polyethylene tubing (A 700) or used with 1/4" polyethylene tubing (A 250) and 1/4" barbed fittings.

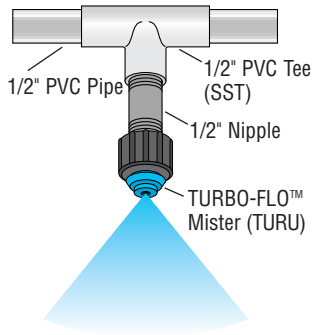
Part #	Color	Cone Angle	Pressure			
			30 psi	40 psi	50 psi	60 psi
TURB 10	Tan	70°	1.0 gph	1.2 gph	1.4 gph	1.6 gph
TURB 16	Blue	70°	1.3 gph	1.5 gph	1.7 gph	1.9 gph

CAUTION
Filtration is very important. A minimum of 150 mesh filtration is required.

TURU 10
1 gph
(TAN)

TURU 16
1-1/2 gph
(BLUE)

Model TURU has a 1/2" female inlet (FIPT) and can be screwed onto any 1/2" MIPT nipple or fitting.

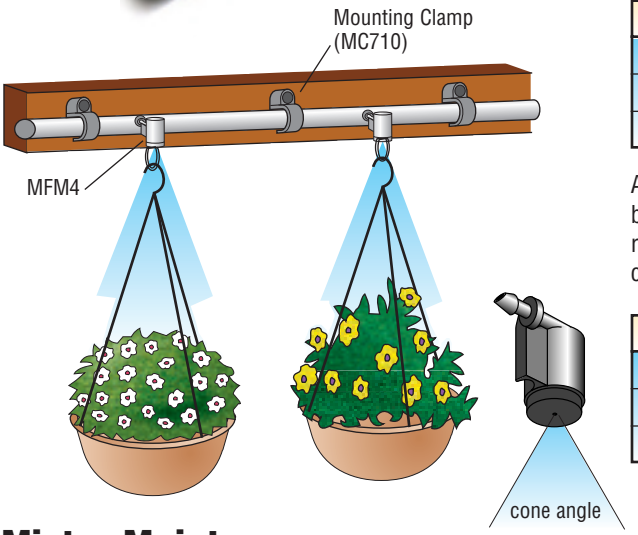


PVC Pipe Installation

Part #	Color	Cone Angle	Pressure			
			30 psi	40 psi	50 psi	60 psi
TURU 10	Tan	70°	1.0 gph	1.2 gph	1.4 gph	1.6 gph
TURU 16	Blue	70°	1.3 gph	1.5 gph	1.7 gph	1.9 gph

MISTI-FLO™ Misters

The MISTI-FLO™ offers a fine mist at a discharge rate of 4 gph. It has a 1/4" barbed inlet so that it is directly inserted into the 1/2" supply tubing (A700). It is ideal for watering hanging baskets and for humidifying hot houses.



pressure	discharge
20 psi	4.4 gph
30 psi	5.0 gph
40 psi	5.5 gph

Although the mister can be used at 20 psi, best results are achieved closer to 40 psi.

cone angle	pressure
20°	20 psi
30°	30 psi
40°	40 psi

Mister Maintenance

The TURBO-FLO™ and MISTI-FLO™ Misters have very small orifices because of the low discharge rates, which makes them very susceptible to clogging.

Clogging can be caused by impurities in the water and by chemical deposits associated with using “hard” water. A white crust on the orifice indicates a calcium build-up due to the water quality.

For the above reasons, filtration is very important. A “Y” filter (YS75) is recommended.*

If the mister plugs, do not stick any sharp object into the orifice — it will cause damage. Remove the mister and tap gently — the dirt may be dislodged. If the clogging is caused by calcium, soak the mister in a dilute acid (vinegar or swimming pool acid) until the calcium dissolves.

*For very poor quality water, a 200 mesh “Y” filter (YS75-200) is recommended.

MAXI-FLO™ Bubblers

The MAXI-FLO™ Bubbler is a six outlet, pressure compensating emitter. Water is then transferred to the plant through distribution tubing (A250). The MAXI-FLO™ has a 1/2" female threaded base and screws onto a standard 1/2" nipple. The discharge rate/outlet remains constant regardless of how many outlets are used. Each outlet has a barbed horizontal connection making it extremely simple to attach the tubing after installation.

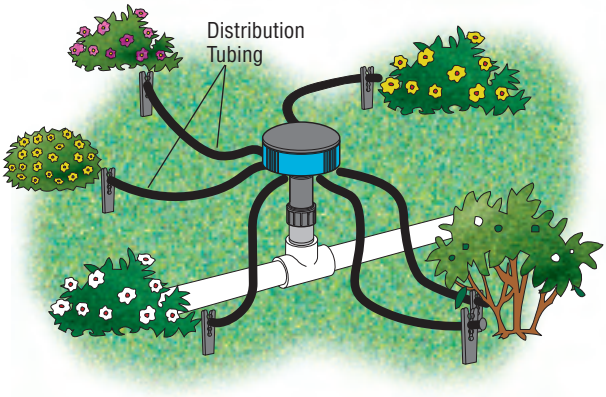
MFBL2
2 gph
(BLUE)

MFBL6
6 gph
(BLACK)

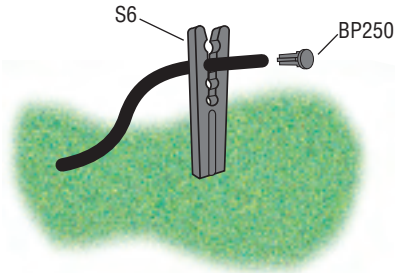
MFBL10
10 gph
(RED)

MFBL20
20 gph
(GREEN)

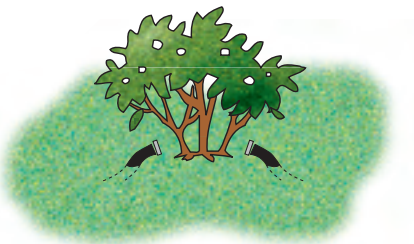
Distribution tubing, (A250) is simply pushed over the barb. For unused outlets, insert a port cap (PC250) over the barb.



All the MAXI-FLO's™ can be used for new installations or for retrofits. The 1/2" FIPT inlet allows it to easily attach to a 1/2" nipple in an underground PVC system. The MAXI-FLO™ can be used with distribution tubing (A250) or DURA-FLO™ JR Dripperline or a combination of both.



The end of the tubing may be secured by a support stake (S6). The bug plug (BP250) prevents insects from entering the tubing.



The distribution tubing (A250) can also be buried with just the emission point and the optional bug plug above the surface.

The MAXI-FLO™ is pressure compensating and can be used in the 20 to 80 psi range.

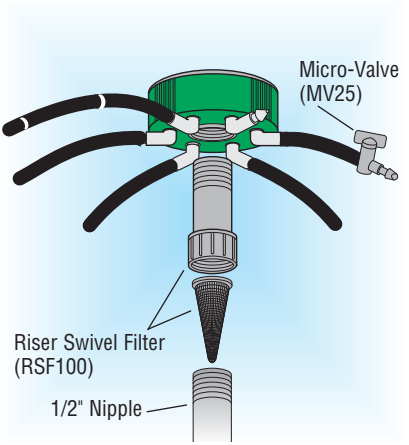
Discharge Rates/Outlet

	(BLUE)	(BLACK)	(RED)	(GREEN)
	MFBL2	**MFBL6**	**MFBL10**	**MFBL20**
20 psi	2.2 gph	5.7 gph	9.0 gph	16.4 gph
30 psi	2.4 gph	6.9 gph	10.4 gph	19.0 gph
40 psi	2.5 gph	7.7 gph	11.6 gph	22.1 gph
50 psi	2.6 gph	8.4 gph	13.1 gph	25.0 gph
60 psi	2.6 gph	9.1 gph	14.1 gph	26.7 gph
70 psi	2.6 gph	9.4 gph	14.8 gph	27.4 gph
80 psi	2.6 gph	9.5 gph	15.3 gph	28.2 gph

Tubing Length Recommendation

Distribution Tubing (A250)	25' max.	25'max.	25' max.	25' max.
DURA-FLO™ JR (12")	4' min. 10' max.	7'min. 15' max.	9' min. 18' max.	10' min. 22' max.
DURA-FLO™ JR (6")	2' min. 5' max.	3'min. 8' max.	5' min. 9' max.	5' min. 11' max.

When attaching the DURA-FLO™ JR Dripperline to the MAXI-FLO™, check the above chart for minimum and maximum length of run. The end of the DURA-FLO™ JR is sealed with a Goof Plug (GP2).



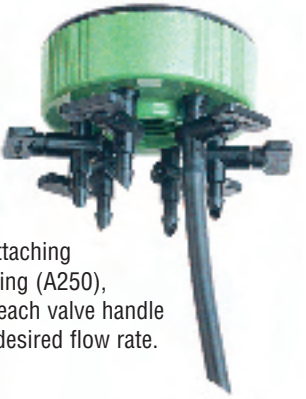
The riser swivel filter (RSF100) has a 100 mesh screen for dirty water applications. It's swivel connection allows attachment or removal from the nipple without having to rotate the MAXI-FLO™ and distribution tubing. A micro-valve (MV25) may be used to reduce the discharge on any outlet.

MAXI-FLO™ Adjustable Bubblers

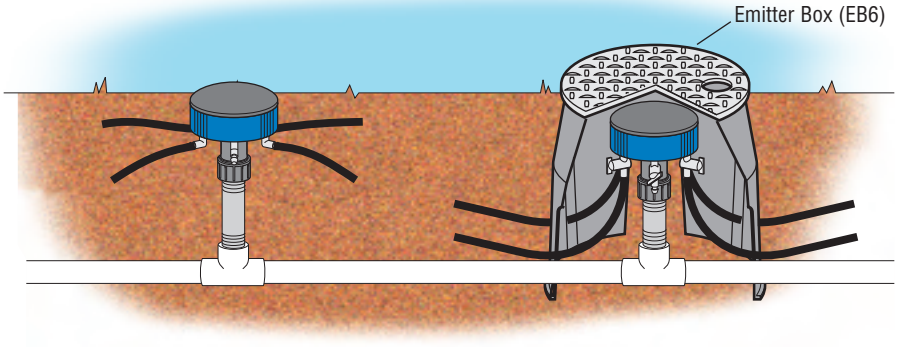
The adjustable MAXI-FLO™ (MFBA) allows each outlet to be varied independently to achieve the optimum flow rate to a specific plant. The flow can be adjusted from 0 gph (shutoff) to a maximum of 20 gph.

fully open | partially open | closed

MFBA
(0-20 gph)

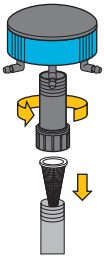


After attaching the tubing (A250), adjust each valve handle to the desired flow rate.



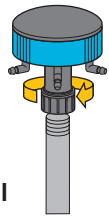
The MAXI-FLO™ can be installed in many ways, either at grade or below grade. Below grade applications are often used in conjunction with an emitter access box (EB6). The MAXI-FLO™ can be used with or without the riser swivel filter (RSF100).

The installation of the MAXI-FLO™ is extremely simple. Follow the instructions below.



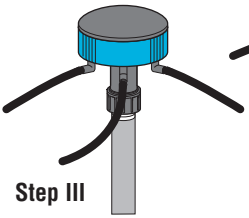
Step I

Screw the riser swivel filter into the base of the MAXI-FLO™. Insert the screen into the 1/2" riser.



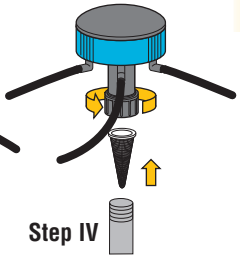
Step II

Hand tighten the swivel on to the riser.



Step III

Attach the tubing to the outlets.

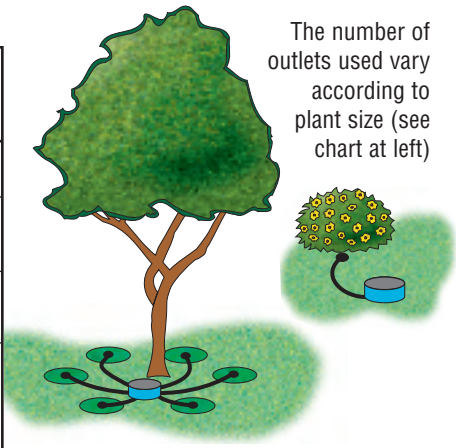


Step IV

To remove the MAXI-FLO™ to clean the screen, unscrew the swivel and remove the screen.

MAXI-FLO™ Selection Chart

RECOMMENDED MODEL	CANOPY DIAMETER	NUMBER OF OUTLETS PER PLANT
MFBL2 (BLUE)	2 FT	1
MFBL6 (BLACK)	3 FT 4 FT	1 2
MFBL10 (RED)	5 FT 6 FT	2 3
MFBL20 (GREEN)	7-9 FT 10-12 FT 13-15 FT 16-20 FT	3 4 5 6



The number of outlets used vary according to plant size (see chart at left)

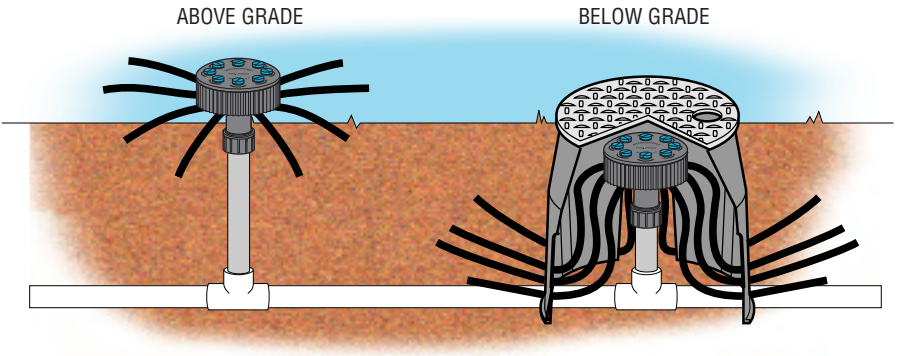
HYDROPORT™ Bubblers

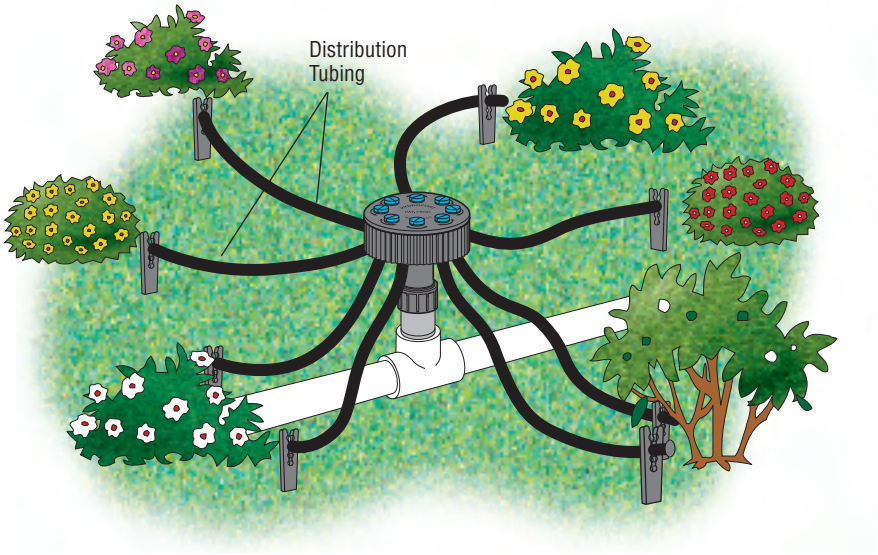
The Agrifim Hydroport™ is a micro irrigation watering manifold that delivers water up to eight different plants with independently adjustable flows per outlet. It allows you to convert an underground sprinkler system to a drip system. The Hydroport™ has a 1/2" female threaded base and screws onto a standard 1/2" nipple. The discharge rate/outlet is adjustable from 0-20 GPH. The water flow of each port can simply be controlled with a coin. Each outlet has a barbed horizontal connection making it extremely simple to attach the tubing after installation. Two models are offered to suit various watering needs.

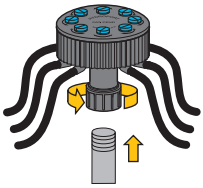
HPAM8

HPAM4

Part #	Product Description
HPAM 4	Hydroport™ 4 Port Drip Manifold
HPAM 8	Hydroport™ 8 Port Drip Manifold





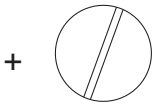


Unit installs easily even when 1/4" tubing is already connected to outlets.

Hand tighten the swivel on to the riser.

Water flow of each port can be controlled with a coin.

Counterclockwise + increases flow



Clockwise – decreases flow and to off

CUATRO-FLO™ Bubblers

The CUATRO-FLO™ Bubbler is very similar to the MAXI-FLO™ bubbler, except that it has 4 outlets. There are two basic varieties — the CFL model which has a 1/2" FIPT inlet and barbed swivel outlets and the CF model which has a 3/4" MIPT inlet and compression outlets.

CF2
2 gph
(Blue)

CF6
6 gph
(Black)

CF10
10 gph
(Red)

CF20
20 gph
(Green)

CFL2
2 gph
(Blue)

CFL6
6 gph
(Black)

CFL10
10 gph
(Red)

CFL20
20 gph
(Green)

CUATRO-FLO™ Selection Chart

RECOMMENDED MODEL	CANOPY DIAMETER	NUMBER OF OUTLETS PER PLANT
CF2/CFL2	2 FT	1
CF6/CFL6	3 FT 4 FT	1 2
CF10/CFL10	5 FT 6 FT	2 3
CF20/CFL20	7-9 FT 10-12 FT	3 4

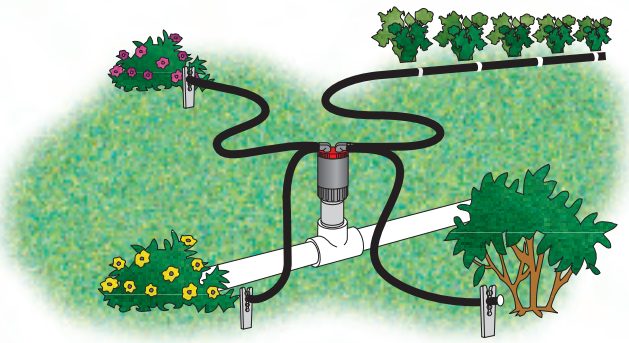
The outlet elbows can be swiveled to allow the 1/4" tubing (A250) to go in any direction.

An Outlet Plug (OP250) can be used to plug off up to 2 outlets.

Outlet Plug
OP250

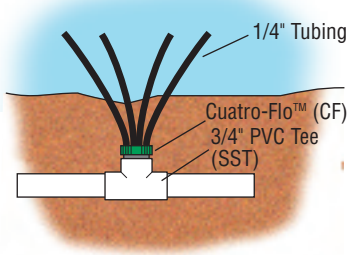
A Port Cap (PC250) can be used to plug off any unused outlets.

Port Cap
PC250



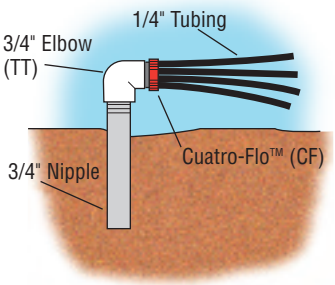
The Cuatro-Flo™ (CFL) model screws directly onto a 1/2" nipple. 1/4" tubing (A250) or DURA-FLO™ JR Dripperline is then attached to the barbed outlets.

The CUATRO-FLO™ (CF) can be buried or used above ground. 1/4" distribution tubing (A250) or DURA-FLO™ JR Dripperline is pushed directly into the CF outlets.



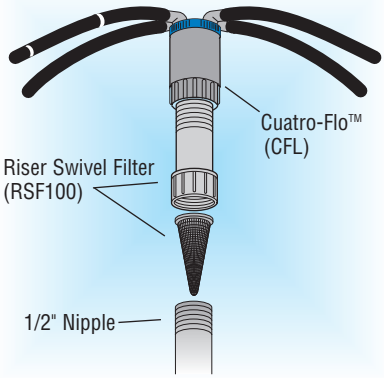
Discharge Rates/Outlet

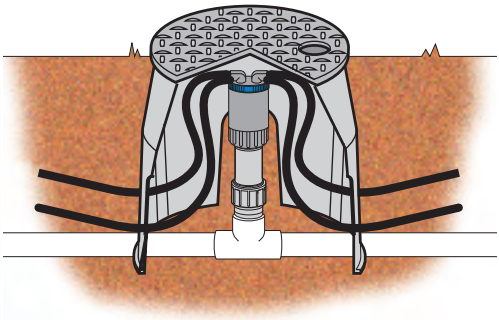
	CF2/ CFL2	CF6/ CFL6	CF10/ CFL10	CF20/CFL20
20 psi	1.8 gph	5.7 gph	7.6 gph	13.7 gph
40 psi	2.2 gph	7.8 gph	11.0 gph	18.8 gph
60 psi	2.5 gph	8.9 gph	13.3 gph	22.2 gph
80 psi	2.5 gph	10.0 gph	15.0 gph	25.3 gph



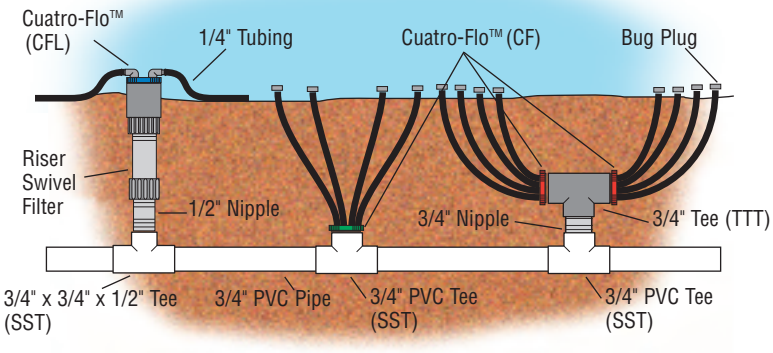
Tubing Length Recommendation

Distribution Tubing (A250)	25' max.	25'max.	25' max.	25' max.
DURA-FLO™ JR (12")	4' min. 10' max.	7'min. 15' max.	9' min. 18' max.	10' min. 22' max.
DURA-FLO™ JR (6")	2' min. 5' max.	3'min. 8' max.	5' min. 9' max.	5' min. 11' max.





The CUATRO-FLO™ can be installed in many ways, either at grade or below grade. Below grade applications are often used in conjunction with an emitter access box (EB6). The CUATRO-FLO™ can be used with or without the riser swivel filter (RSF100).



POWER-FLO™ Bubblers

PF 2
2 gph
(BLUE)

PF 6
6 gph
(BLACK)

PF 10
10 gph
(RED)

PF 20
20 gph
(GREEN)

The POWER-FLO™ Bubbler is an eight outlet pressure compensating bubbler with 1/4" barbed swivel outlets. It can be disassembled for cleaning or to change flow rates of certain ports. The POWER-FLO™ Bubbler can operate in the 20 to 80 psi pressure range.

The POWER-FLO™ Bubbler is available in 2, 6, 10 and 20 gph/outlet flow rates.

The flow rate of each port may be changed to meet the plants requirements. A plug is also available if a port is not going to be used.

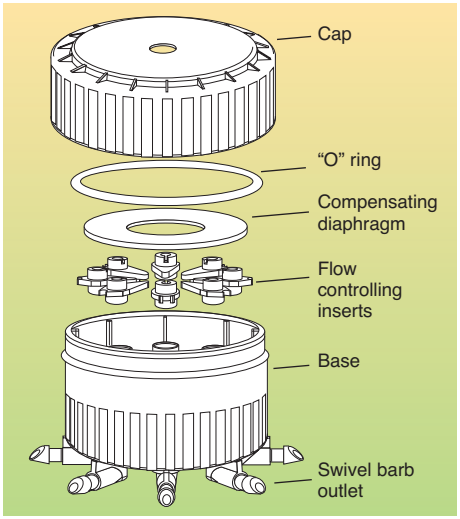
PFFC 0
shut-off plug
(WHITE)

PFFC 2
2 gph
(BLUE)

PFFC 6
6 gph
(BLACK)

PFFC 10
10 gph
(RED)

PFFC 20
20 gph
(GREEN)



Features:

- 1/2" threaded inlet for ease of installation.
- Pressure compensating from 20 to 80 psi.
- Cap can be unscrewed for cleaning or to change flow controlling inserts.
- 1/4" barbed swivel elbows for use with standard 1/4" tubing (A 250 or A 250V)
- Can be used above grade or with an emitter access box (EB 6) below grade
- Cap is color coded (same as flow controlling inserts) for easy flow rate identification
- Unique built-in filter system

Changing flow rates:

1. Unscrew cap and remove pressure compensating diaphragm.
2. Extract flow controlling insert from port that needs to be changed.
3. Install desired flow controlling insert.
4. Replace diaphragm and screw cap back on.

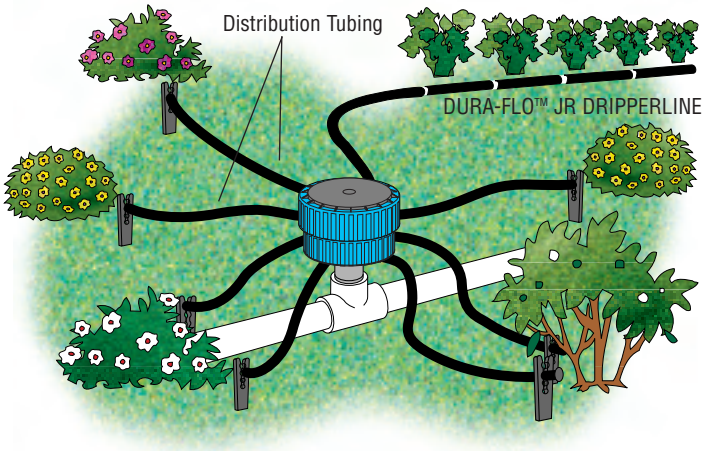
Discharge Rates/Outlet

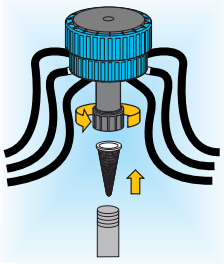
	PF 2	PF 6	PF 10	PF 20
20 psi	2.2 gph	5.7 gph	9.0 gph	16.4 gph
30 psi	2.4 gph	6.9 gph	10.4 gph	19.0 gph
40 psi	2.5 gph	7.7 gph	11.6 gph	22.1 gph
50 psi	2.6 gph	8.4 gph	13.1 gph	25.0 gph
60 psi	2.6 gph	9.1 gph	14.1 gph	26.7 gph
70 psi	2.6 gph	9.4 gph	14.8 gph	27.4 gph
80 psi	2.6 gph	9.5 gph	15.3 gph	28.2 gph

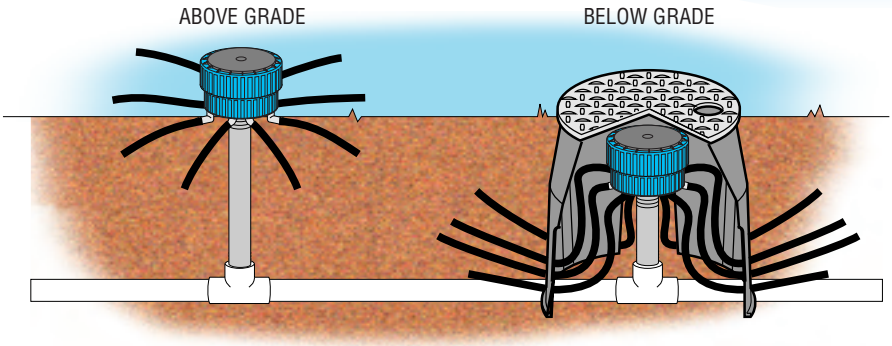
Tubing Length Recommendation

Distribution Tubing (A250)	25' max.	25'max.	25' max.	25' max.
DURA-FLO™ JR (12")	4' min. 10' max.	7'min. 15' max.	9' min. 18' max.	10' min. 22' max.
DURA-FLO™ JR (6")	2' min. 5' max.	3'min. 8' max.	5' min. 9' max.	6' min. 11' max.

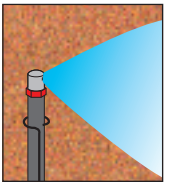
Application:
Can be used for trees and shrubs. When used for ground cover or planter boxes, can be used in conjunction with DURA-FLO™ JR Dripperline.

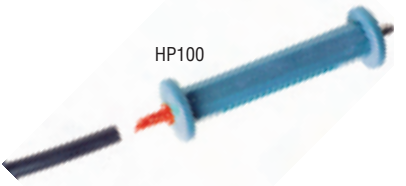






HYDRO-FLO™ Jets

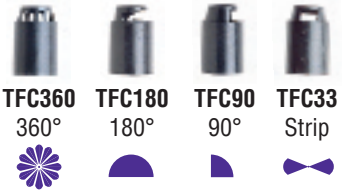




The handle of the hole punch (HP100) and the side of the Punch Pal (PPT) has a hexagonal socket designed to screw or unscrew the jets into the rigid riser (RABT6/8/12/18) or adapter.

2 Piece Jets

CAPS



TFC360 360°

TFC180 180°

TFC90 90°

TFC33 Strip

VF
adjustable

Cap and base snap together to form a complete jet.

VF90/180/360
Cap and adjustable base (VF) snap together to form an adjustable jet.

BASES

TFB30 .030" (BLACK)

TFB40 .040" (BLUE)

TFB50 .050" (GREEN)

TFB60 .060" (RED)

TFB70 .070" (WHITE)

The two-piece jet comprises a base (TFB) and a cap (TFC) which are then snapped together. The orifice in the base determines the discharge rate. Five fixed orifice bases are available and are color coded. An adjustable base is also available for full control of the discharge rate and throw. The caps determine the pattern.

Fixed Orifice Jet

		TFB30	TFB40	TFB50	TFB60	TFB70
20 psi	discharge	5.5 gph	10.4 gph	15.8 gph	23.3 gph	37.6 gph
	radius	6 ft.	8 ft.	9 ft.	9 ft.	10 ft.
30 psi	discharge	6.8 gph	12.9 gph	19.5 gph	28.9 gph	46.6 gph
	radius	8 ft.	9 ft.	10 ft.	11 ft.	12 ft.

Adjustable Jet

Radius	Discharge		
	VF90	VF180	VF360
3'	12 gph	9 gph	8 gph
5'	16 gph	12 gph	13 gph
7'	20 gph	17 gph	17 gph
9'	25 gph	26 gph	21 gph

1 Piece Jets

The one-piece jet is the most economical version. It is available in a 90°, 180° and 340° spray pattern.

.03" Orifice (Black) **.04" Orifice** (Blue) **.05" Orifice** (Green) **.06" Orifice** (Red)

	Pattern	Color	Discharge (25 psi)	Radius (25 psi)
TF336		Black	6 gph	5.0 ft.
TF436		Blue	12 gph	5.5 ft.
TF536		Green	18 gph	6.0 ft.
TF636		Red	26 gph	6.0 ft.
TF318		Black	6 gph	4.0 ft.
TF418		Blue	12 gph	4.5 ft.
TF518		Green	18 gph	5.0 ft.
TF618		Red	26 gph	5.5 ft.
TF39		Black	6 gph	5.5 ft.
TF49		Blue	12 gph	5.5 ft.
TF59		Green	18 gph	6.0 ft.
TF69		Red	26 gph	6.0 ft.

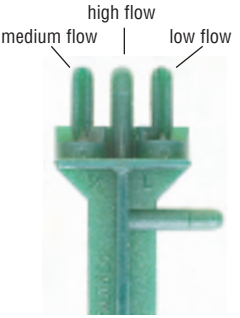
TRI-FLO™ Spray Sticks

TFS 9
(90° pattern)
(BLUE)

TFS 16
(160° pattern)
(GREEN)

Two spray patterns are available. The TFS 9 (color coded blue) has a 90° pattern while the TFS 16 (color coded green) has a 160° pattern.

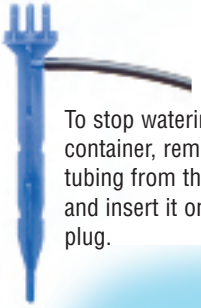
The TRI-FLO™ Spray Stick is specifically designed to water container grown plants. It can be used for residential use and for full scale commercial nurseries. It gives a gentle 90° or 160° fan spray with an adjustable throw.



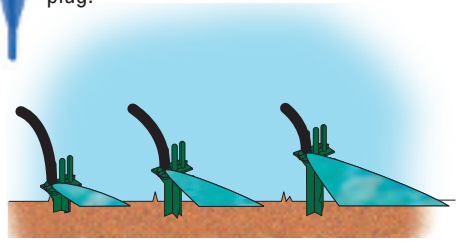
Each TRI-FLO™ Spray Stick has three watering nodes - a high flow, medium flow and a low flow. Simply insert the feeder tubing (A185) over a node to achieve the ideal discharge rate.

Discharge Rates

	15 psi		20 psi	
flow node	TFS 9	TFS 16	TFS 9	TFS 16
low	4.8 gph	7.1 gph	5.3 gph	7.9 gph
medium	7.1 gph	9.5 gph	7.9 gph	10.6 gph
high	9.5 gph	14.3 gph	10.6 gph	15.9 gph



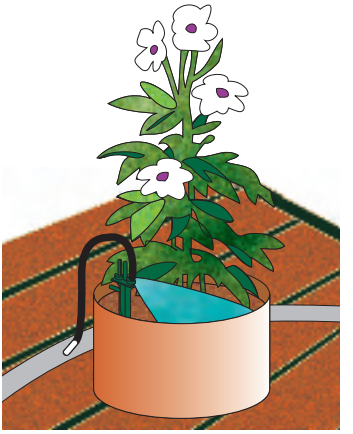
To stop watering a particular container, remove the feeder tubing from the watering node and insert it onto the shut-off plug.



The throw can be varied by adjusting the depth to which the TRI-FLO™ is inserted into the soil. The further it is pushed in, the shorter the throw.

Maximum Throw

	15 psi		20 psi	
flow node	TFS 9	TFS 16	TFS 9	TFS 16
low	1.0 ft.	1.5 ft.	1.5 ft.	2.0 ft.
medium	1.5 ft.	2.5 ft.	2.0 ft.	3.0 ft.
high	3.0 ft.	3.5 ft.	3.5 ft.	4.0 ft.



The TRI-FLO™ is usually positioned at the outer edge of the container and sprays inwards. The feeder tubing (A185) attaches to the supply tube using an 1/8" adapter (C125).

MICRO-FLO™ Micro-Sprinklers

MF35
(ORANGE)

MF40
(BLUE)

MF50
(GREEN)

MFA
adjustable

The MICRO-FLO™ Micro-Sprinkler offers full circle coverage with a very uniform wetting pattern. It is available in 3 different flow rates and can be installed in various configurations. It is also available with a flow controlling valve (MFA) so that the radius and discharge rates can be adjusted. It can be taken apart for cleaning. The base of the MICRO-FLO™ has a 10-32 NFT inlet so that it can be screwed directly into a SAJ adapter or into a rigid riser (RABT6/8/12/18).

		MF35	MF40	MF50
20 psi	discharge	7.7 gph	10.0 gph	16.0 gph
	radius	7 ft.	8 ft.	9 ft.
30 psi	discharge	9.4 gph	12.4 gph	19.7 gph
	radius	8 ft.	9 ft.	10 ft.

RADIUS (feet)	DISCHARGE (gph)
1 ft	—
2 ft	—
3 ft	4.7 gph
4 ft	6.6 gph
5 ft	8.2 gph
6 ft	9.8 gph
7 ft	11.3 gph
8 ft	13.2 gph
9 ft	14.8 gph
10 ft	16.4 gph

Stake Assemblies

Various stake assemblies are available in a pre-assembled form. The 1/4" connector (C250) on the end of the vinyl tubing is simply attached to the supply tubing (A700) and the system is ready to go.

TA 24-1
(2 piece HYDRO-FLO™ jet)

TA 24-2
(1 piece HYDRO-FLO™ jet)

TA 24-3
(Adjustable HYDRO-FLO™ jet)

TA 24-5
(DIAL-A-FLO™ emitter)

TA 24-6
(Adjustable MICRO-FLO™ sprinkler)

HYDRO-POP™ Pop-up Risers

The HYDRO-POP™ is a pop-up sprinkler for micro-irrigation jets and sprinklers. It is designed specifically for low volume irrigation. Hence, it can operate at very low pressures. Simply screw the head of your choice into the hexagonal riser.

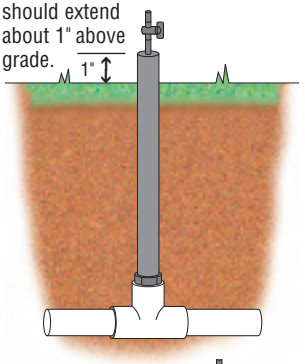
The HYDRO-POP™ is available with either a 5" or 9" riser extension height.

Any of the following spray heads can be screwed into the top of the HYDRO-POP™ riser.

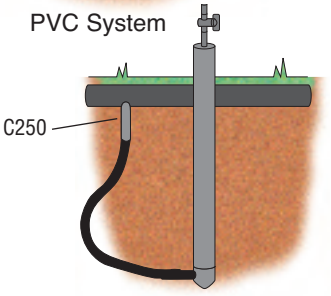
- DIAL-A-FLO™ (DAFT)
- MICRO-FLO™ (MF)
- Adjustable MICRO-FLO™ (MFA)
- One-piece HYDRO-FLO™ (TF)
- Two-piece HYDRO-FLO™ (TFB/TFC)
- Adjustable HYDRO-FLO™ (VF)

The HYDRO-POP™ just requires 15 psi pressure to extend it fully. Once the system is switched off, it immediately retracts.

Two inlet connections are available — a 1/2" MIPT that screws directly into a PVC tee or with a compression fit that accepts 1/4" polyethylene tubing (A250).

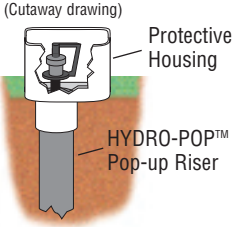


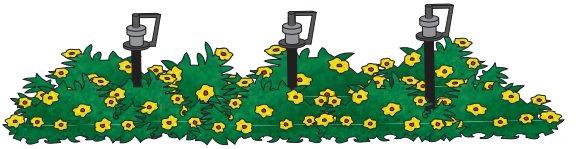
PVC System



Polyethylene System

The protective housing (PUPT or PUPS) option is used to protect the spray head when not in the extended position. The housing is simply pushed over the top of the HYDRO-POP™.





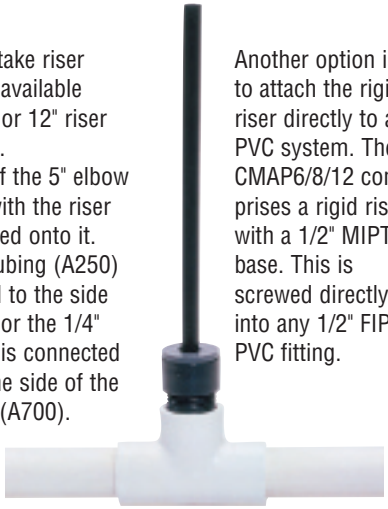
Part #	Description
HYP 500	9" pop-up riser with 1/2" MIPT inlet
HYP 250	9" pop-up riser with 1/4" tubing inlet
HYPJ 500	5" pop-up riser with 1/2" MIPT inlet
HYPJ 250	5" pop-up riser with 1/4" tubing inlet

Installation Options

There are numerous options to install the jets and micro-sprays.

A shrub adapter (SAJ) can be screwed onto any 1/2" nipple. The outlet of this adapter is threaded to accept all of the jets.

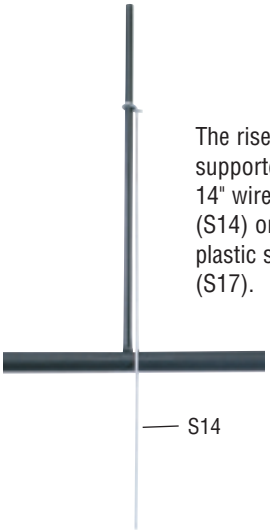
The elbow stake riser assembly is available with a 6", 8" or 12" riser (S5R6/8/12). It consists of the 5" elbow stake (S5) with the riser pre-assembled onto it. Either 1/4" tubing (A250) is connected to the side barbed inlet or the 1/4" barbed inlet is connected directly to the side of the supply tube (A700).



Another option is to attach the rigid riser directly to a PVC system. The CMAP6/8/12 comprises a rigid riser with a 1/2" MIPT base. This is screwed directly into any 1/2" FIPT PVC fitting.

A 6", 8", 12" or 18" long rigid riser with a barbed adapter is available (RABT6/8/12/18). The barbed adapter is inserted into a hole in the supply tubing. The jet is screwed into the top of the rigid riser.

1/4" tubing (A250) can also be used with the 12" plastic stake (S12) to support the jet.



The riser can be supported by a 14" wire stake (S14) or a 17" plastic stake (S17).

DURA-FLO™ JR Dripperline

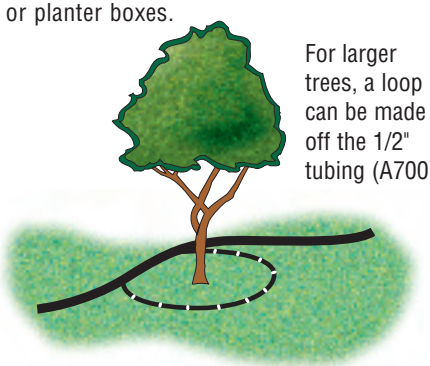
The DURA-FLO™ JR Dripperline comprises a drip emitter pre-inserted into the 1/4" tubing at either 6" or 12" intervals.
Do not exceed the maximum recommended length of run.

The emitter is self-cleaning with built-in filter slits to minimize clogging. It is permanently bonded to the inside of the tubing during the extrusion process. Dual exit holes, 180° apart, are standard.

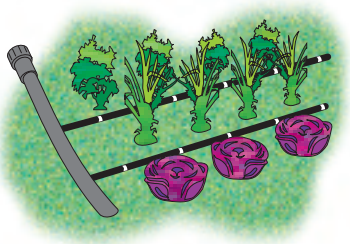
MODELS			MAXIMUM LENGTH OF RUN (FEET)						
BROWN TUBE	BLACK TUBE	SPACING	SLOPE						
			+ 3%	+ 2%	+ 1%	0%	- 1%	- 2%	- 3%
SFJR-BR-06	SFJR-BL-06	6"	20 feet	20 feet	19 feet	19 feet	19 feet	18 feet	18 feet
SFJR-BR-12	SFJR-BL-12	12"	36 feet	35 feet	34 feet	33 feet	32 feet	31 feet	30 feet
positive (+) slope = downhill, negative (-) slope = uphill									

The turbulent flow path and unique inlet slit greatly reduces the risk of clogging. DURA-FLO™ JR Dripperline is ideal for use as a soaker hose in ground cover, small shrubs, vegetable gardens or planter boxes.

Pressure	10 psi	15 psi	20 psi	25 psi	30 psi
Discharge of Emitter	.39 gph	.47 gph	.56 gph	.63 gph	.69 gph

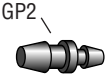


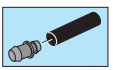
For larger trees, a loop can be made off the 1/2" tubing (A700).



Parallel lines of DURA-FLO™ JR are shown watering a small vegetable garden. 1/4" connectors (C250) are used to connect the DURA-FLO™ JR to the supply tubing.

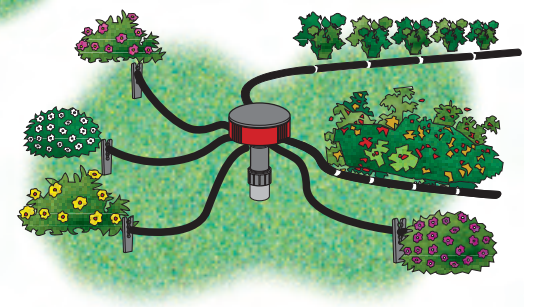
GP2





The ends of the DURA-FLO™ JR are closed off with a Goof Plug (GP2).

1/4" connectors (C250), 1/4" tees (T250) and 1/4" elbows (EL250) can be used with the DURA-FLO™ JR Dripperline.



The DURA-FLO™ JR can be attached to the MAXI-FLO™ bubbler. For recommended length of runs see page 20.

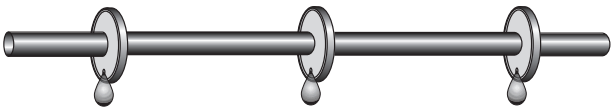
MINI-FLO™ Emitterline

MIL 5
1/2 gph
(RED)

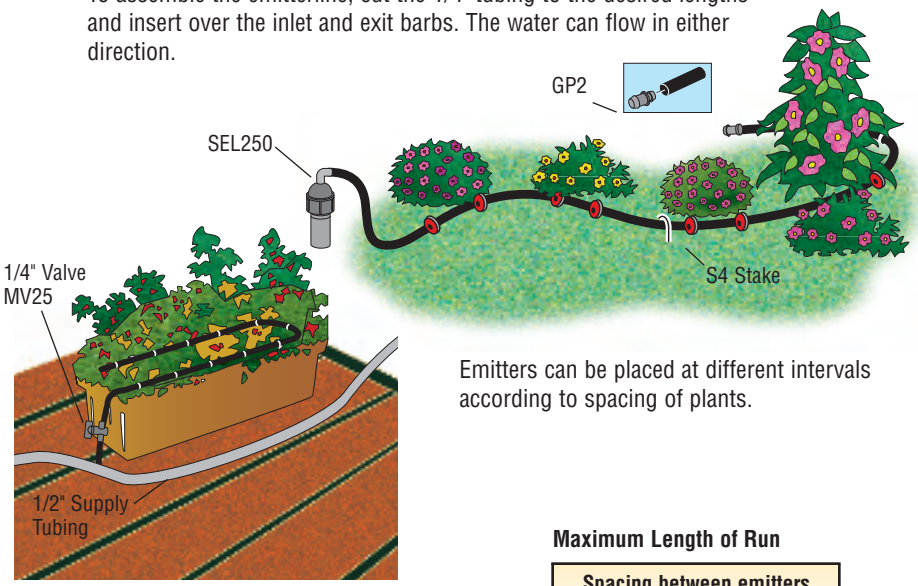
MIL10
1 gph
(BLACK)

The MINI-FLO™ is an inline emitter that is assembled into a 1/4" emitterline using 1/4" tubing (A250). Its application is very similar to the DURA-FLO™ JR except that it can be custom assembled at irregular spacing between emitters.

		10 psi	15 psi	20 psi	25 psi
AFBB5	red	.5 gph	.6 gph	.7 gph	.8 gph
AFBB10	black	.9 gph	1.1 gph	1.2 gph	1.4 gph
AFBB20	green	1.6 gph	2.0 gph	2.3 gph	2.6 gph



To assemble the emitterline, cut the 1/4" tubing to the desired lengths and insert over the inlet and exit barbs. The water can flow in either direction.



Emitters can be placed at different intervals according to spacing of plants.

Planter boxes and pots can be watered with the MINI-FLO™ or DURA-FLO™ JR. The micro-valve (MV25) can be used to adjust the discharge rate or to isolate certain pots. Standard 1/4" fittings, couplers (C250), elbows (EL250) and tees (T250) can be used.

Maximum Length of Run

	Spacing between emitters		
	12"	18"	24"
MIL 5	20 ft.	25 ft.	30 ft.
MIL10	12 ft.	15 ft.	18 ft.

DURA-FLO™ PC Dripperline

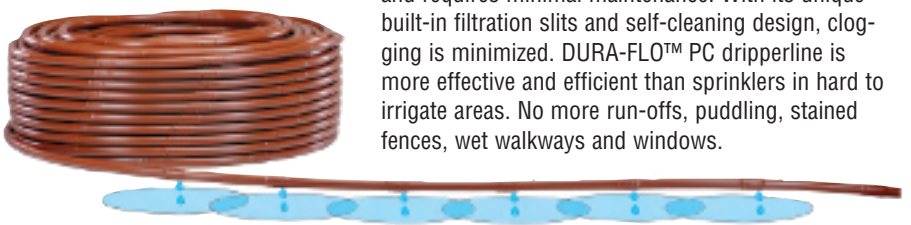
Pressure Compensating (Series 600/700)

IDEAL FOR ELEVATION CHANGES, LONG RUNS AND HIGHER PRESSURE

The DURA-FLO™ PC is a pressure compensating 1/2" dripperline with drip emitters pre-inserted into the tubing at either 12", 18" or 24" spacing. The emitters are bonded inside the tubing giving the DURA-FLO™ PC a very streamlined profile. DURA-FLO™ PC is available in (series 600) using green fittings or in (series 700) using black fittings. The (series 700) is slighty larger in tube diameter, which allows longer runs.

Pressure compensating dripperline operates in a pressure range from 25-45 psi with outstanding emission uniformity. This wide pressure range makes the DURA-FLO™ PC dripperline ideal for the installation in areas of large elevation changes and, or long lengths of run.

DURA-FLO™ PC dripperline is the ideal product for your commercial and residential landscape watering needs. It is easy to install, delivers water uniformly and requires minimal maintenance. With its unique built-in filtration slits and self-cleaning design, clogging is minimized. DURA-FLO™ PC dripperline is more effective and efficient than sprinklers in hard to irrigate areas. No more run-offs, puddling, stained fences, wet walkways and windows.



DURA-FLO™ PC dripperline is available in black or brown tubing. The black tubing is more economical and ideal where it is to be installed under a layer of mulch. The brown tubing can be installed above the surface and is less visible due to its color. It can also be covered with a layer of mulch if desirable.

DURA-FLO™ PC Dripperline

Pressure Compensating (Series 600/700)

PRODUCT SELECTION CHART			
SOIL TYPE	**CLAY**	**LOAM**	**SANDY**
Emitter Discharge Rate	1/2 gph	1 gph	2 gph
Emitter Spacing	24"	18"	12"'
Nominal Dripperline Spacing	20"	16"	14"
Application Rate	.24"/hr	.80"/hr	2.74"/hr
Time to apply 1/4" water	62 mins	19 mins	6 mins
Time to apply 1/10" water	25 mins	8 mins	3 mins

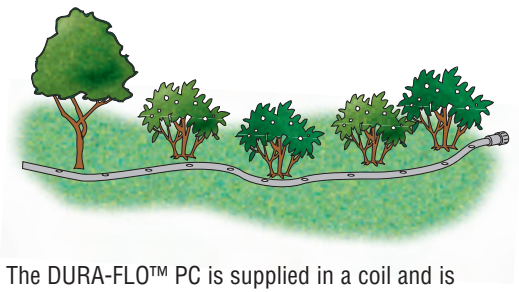
	Series 600 Pressure Compensating Dripperline Tubing size: .550" ID x .640" OD, wall = .045"			**Series 700 Pressure Compensating Dripperline** Tubing size: .600" ID x .700" OD, wall = .050"		
SPACING	**12"**			**12"**		
Discharge Per Emitter	**1/2 GPH**	**1 GPH**	**2 GPH**	**1/2 GPH**	**1 GPH**	**2 GPH**
Models Available						
Black Tubing	SFPC-BL-6212	SFPC-BL-6412	SFPC-BL-6812	SFPC-BL-7212	SFPC-BL-7412	SFPC-BL-7812
Brown Tubing	SFPC-BR-6212	SFPC-BR-6412	SFPC-BR-6812	SFPC-BR-7212	SFPC-BR-7412	SFPC-BR-7812
Maximum Length						
25 psi	265 ft.	195 ft.	125 ft.	315 ft.	230 ft.	150 ft.
35 psi	325 ft.	240 ft.	150 ft.	380 ft.	280 ft.	180 ft.
45 psi	365 ft.	265 ft.	170 ft.	430 ft.	315 ft.	200 ft.

SPACING	**18"**			**18"**		
Discharge Per Emitter	**1/2 GPH**	**1 GPH**	**2 GPH**	**1/2 GPH**	**1 GPH**	**2 GPH**
Models Available						
Black Tubing	SFPC-BL-6218	SFPC-BL-6418	SFPC-BL-6818	SFPC-BL-7218	SFPC-BL-7418	SFPC-BL-7818
Brown Tubing	SFPC-BR-6218	SFPC-BR-6418	SFPC-BR-6818	SFPC-BR-7218	SFPC-BR-7418	SFPC-BR-7818
Maximum Length						
25 psi	380 ft.	280 ft.	180 ft.	450 ft.	330 ft.	215 ft.
35 psi	460 ft.	335 ft.	215 ft.	540 ft.	395ft.	255 ft.
45 psi	520 ft.	380 ft.	250 ft.	610 ft.	450 ft.	290 ft.

SPACING	**24"**			**24"**		
Discharge Per Emitter	**1/2 GPH**	**1 GPH**	**2 GPH**	**1/2 GPH**	**1 GPH**	**2 GPH**
Models Available						
Black Tubing	SFPC-BL-6224	SFPC-BL-6424	SFPC-BL-6824	SFPC-BL-7224	SFPC-BL-7424	SFPC-BL-7824
Brown Tubing	SFPC-BR-6224	SFPC-BR-6424	SFPC-BR-6824	SFPC-BR-7224	SFPC-BR-7424	SFPC-BR-7824
Maximum Length						
25 psi	485 ft.	355 ft.	230 ft.	570 ft.	420 ft.	270 ft.
35 psi	580 ft.	430 ft.	270 ft.	685 ft.	505 ft.	320 ft.
45 psi	660 ft.	485 ft.	305 ft.	775 ft.	570 ft.	360 ft.

DURA-FLO™ PC Dripperline

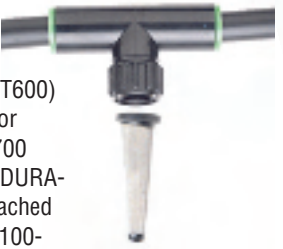
Pressure Compensating (Series 600/700)



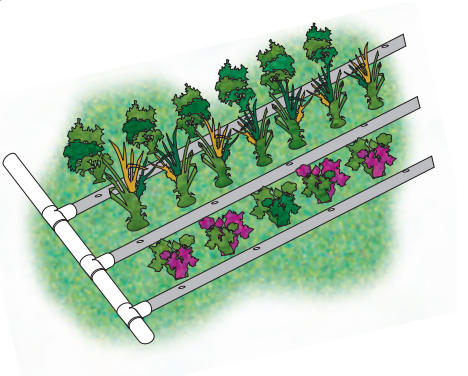
The DURA-FLO™ PC is supplied in a coil and is easily rolled out and run along long rows of trees or shrubs. The end of the line is shut-off with either a Figure "8" plug (F870) or an end plug (CEP600) for the 600 series or (CEP700) for the 700 series. Periodic flushing of these lines will reduce the risk of emitter plugging.

Typical Applications

Residential

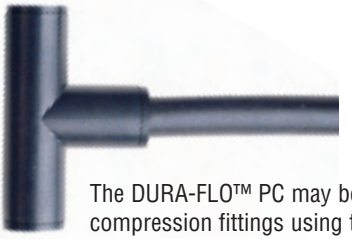


The swivel tee (RST600) for the 600 series or (RST700) for the 700 series enables the DURA-FLO™ PC to be attached to a 1/2" nipple. A 100-mesh screen is included to prevent dirt from entering the drip emitters.



For larger vegetable areas, the DURA-FLO™ PC may be laid in parallel lines. The dripperline is attached to either a rigid PVC or polyethylene header.

For applications, where the DURA-FLO™ PC runs in one direction only, a swivel elbow is suggested (RSEL600) for 600 series or (RSEL700) for 700 series.



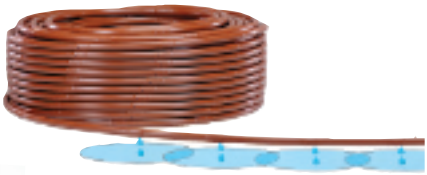
The DURA-FLO™ PC may be used with all compression fittings using the green adapter (series 600) and black adapter (series 700). The tubing is wiggled in for a strong, water tight seal.

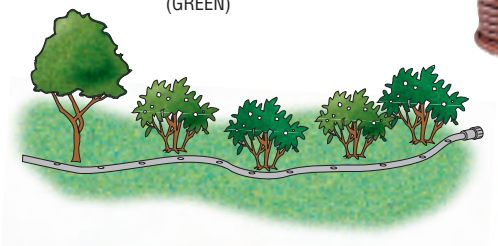
DURA-FLO™ Dripperline

Turbulent Flow (Series 600/700)

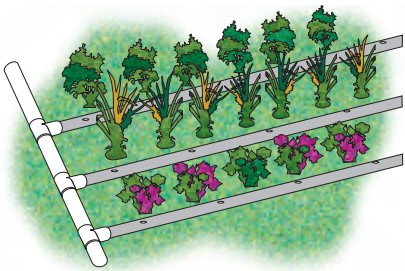
IDEAL FOR FLAT TERRAIN AND SHORT RUNS

DURA-FLO™ Dripperline is a turbulent flow, 1/2" Dripperline with the drip emitters pre-inserted into the tubing at 12", 18" or 24" spacings. The emitters are bonded inside the tubing giving DURA-FLO™ a very streamlined profile. DURA-FLO™ Dripperline is manufactured with turbulent flow emitters that is ideal for flat terrain and short lengths of run.

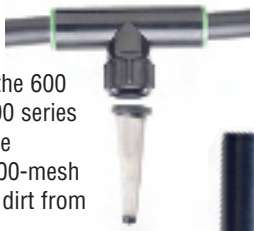




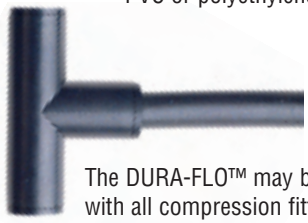
The DURA-FLO™ is supplied in a coil and is easily rolled out and run along long rows of trees or shrubs. The end of the line is shut-off with either a Figure "8" plug (F870) or an end plug (CEP600) for the 600 series or (CEP700) for the 700 series. Periodic flushing of these lines will reduce the risk of emitter plugging.



For larger vegetable areas, the DURA-FLO™ may be laid in parallel lines. The dripperline is attached to either a rigid PVC or polyethylene header.



The swivel tee (RST600) for the 600 series or (RST700) for the 700 series enables the DURA-FLO™ to be attached to a 1/2" nipple. A 100-mesh screen is included to prevent dirt from entering the drip emitters.



The DURA-FLO™ may be used with all compression fittings using the green adapter (series 600) and black adapter (series 700). The tubing is wiggled in for a strong, water tight seal.

For applications, where the DURA-FLO™ runs in one direction only, a swivel elbow is suggested (RSEL600) for 600 series or (RSEL700) for 700 series.

DURA-FLO™ dripperline is available in black or brown tubing. The black tubing is more economical and ideal where it is to be installed under a layer of mulch. The brown tubing can be installed above the surface and is less visible due to its color. It can also be covered with a layer of mulch if desirable.

DURA-FLO™ Dripperline

Turbulent Flow (Series 600/700)

PRODUCT SELECTION CHART			
SOIL TYPE	**CLAY**	**LOAM**	**SANDY**
Emitter Discharge Rate	1/2 gph	1 gph	2 gph
Emitter Spacing	24"	18"	12"'
Nominal Dripperline Spacing	20"	16"	14"
Application Rate	.24"/hr	.80"/hr	2.74"/hr
Time to apply 1/4" water	62 mins	19 mins	6 mins
Time to apply 1/10" water	25 mins	8 mins	3 mins

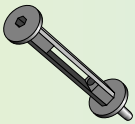
NOMINAL FLOW PER 100 FEET					
	PRESSURE (PSI)				
NOMINAL FLOW RATE	**20 psi**	**25 psi**	**30 psi**	**35 psi**	**40 psi**
0.5 gph	.56	.66	.75	.81	.86
1.0 gph	1.01	1.19	1.35	1.46	1.56
2.0 gph	1.98	2.22	2.44	2.64	2.82

	Series 600 Pressure Compensating Dripperline Tubing size: .550" ID x .630" OD, wall = .040"			**Series 700 Pressure Compensating Dripperline** Tubing size: .620" ID x .710" OD, wall = .045"		
SPACING	**12"**			**12"**		
Discharge Per Emitter	**1/2 GPH**	**1 GPH**	**2 GPH**	**1/2 GPH**	**1 GPH**	**2 GPH**
Models Available						
Black Tubing	SF-BL-6212	SF-BL-6412	SF-BL-6812	SF-BL-7212	SF-BL-7412	SF-BL-7812
Brown Tubing	SF-BR-6212	SF-BR-6412	SF-BR-6812	SF-BR-7212	SF-BR-7412	SF-BR-7812
Maximum Length	180 ft.	130 ft.	95 ft.	240 ft.	180 ft.	120 ft.

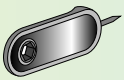
SPACING	**18"**			**18"**		
Discharge Per Emitter	**1/2 GPH**	**1 GPH**	**2 GPH**	**1/2 GPH**	**1 GPH**	**2 GPH**
Models Available						
Black Tubing	SF-BL-6218	SF-BL-6418	SF-BL-6818	SF-BL-7218	SF-BL-7418	SF-BL-7818
Brown Tubing	SF-BR-6218	SF-BR-6418	SF-BR-6818	SF-BR-7218	SF-BR-7418	SF-BR-7818
Maximum Length	250 ft.	170 ft.	125 ft.	340 ft.	240 ft.	150 ft.

SPACING	**24"**			**24"**		
Discharge Per Emitter	**1/2 GPH**	**1 GPH**	**2 GPH**	**1/2 GPH**	**1 GPH**	**2 GPH**
Models Available						
Black Tubing	SF-BL-6224	SF-BL-6424	SF-BL-6824	SF-BL-7224	SF-BL-7424	SF-BL-7824
Brown Tubing	SF-BR-6224	SF-BR-6424	SF-BR-6824	SF-BR-7224	SF-BR-7424	SF-BR-7824
Maximum Length	300 ft.	210 ft.	150 ft.	420 ft.	300 ft.	190 ft.

HP100 - Hole Punch/Wrench - punches hole into supply tubing for drip emitters and micro-fittings. Socket at end allows micro-spray jets to be screwed into adapters or risers.



HP125 - Hole Punch/Wrench - punches hole into supply tubing (A700) for MULTI-FLO™ (MPB) emitter.



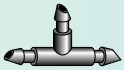
PPT - Plastic Punch/Wrench Tool - punches hole into supply tubing for barbed drip emitters and micro-fittings. Hexagonal hole allows micro-spray jets to be screwed into adapters or risers.

BP250 - Bug Plug - inserts into end of 1/4" tubing (A250) to keep out insects. Does not effect discharge rate.

OP250 - Outlet Plug - plugs up to 2 unused outlet ports on CUATRO-FLO™ (CF) bubbler.

PC250 - Port Cap - fits over barbed elbows on MAXI-FLO™ (MFBL) and CUATRO-FLO™ (CFL) bubbler. Used to seal off outlets not being used.

C250 - 1/4" Connector - attaches 1/4" tubing (A250) to 1/2" supply tubing (A700) or splices together 1/4" tubing, DURA-FLO™ JR and MINI-FLO™ emitterline and laser drilled soaker hose.



T250 - 1/4" Tee - to split 1/4" tubing (A250) or DURA-FLO™ JR and MINI-FLO™ emitterline and laser drilled soaker hose. Also, to attach a loop in planter boxes.

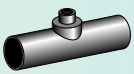
EL250 - 1/4" Elbow - to make a sharp 90° turn in 1/4" tubing (A250) or DURA-FLO™ JR and MINI-FLO™ emitterline and laser drilled soaker hose.

GP2 - 1/4" Plug - plugs holes in supply tubing (A700) and seals off end of DURA-FLO™ JR and MINI-FLO™ emitterline and laser drilled soaker hose.

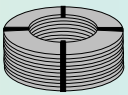
C125 - 1/8" Connector - attaches 1/8" tubing (A185) for TRI-FLO™ spray stick to supply tubing.

SAJ - Shrub Adapter - adapts all micro-spray jets and DIAL-A-FLO™ (DAFT) to 1/2" nipples.

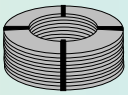
RSF100 - Riser Swivel Filter - a 1/2" swivel adapter with 100 mesh filter.



MTEE - Mister Tee - a PVC tee (1/2" slip x 1/2" slip x 1/8" FIPT) into which the TURBO-FLO™ mister is screwed.



A250 - Micro-Tubing - A250 is 1/4" feeder or distribution tubing for all drip emitters, bubblers and micro-spray jets.



A185 - Micro-Tubing - A185 is 1/8" feeder tubing for TRI-FLO™ spray stick.

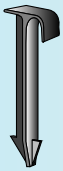
RABT 6/8/12/18 - Riser with Adapter - a 6", 8", 12" or 18" rigid riser with barbed adapter.

S5R6/8/12 - Elbow Stake Riser - a 6" plastic stake with a 1/4" side barbed inlet and a 6", 8" or 12" rigid riser.

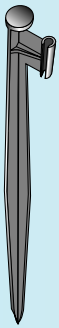
S4 - 5" Wire Stake - prevents 1/4" tubing, DURA-FLO™ JR emitterline and 1/4" laser drilled soaker hose from drifting.

S8-8" Wire Stake - prevents 1/2" supply tubing from drifting.

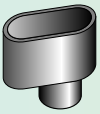
S14-14" Stabilizer Stake - to hold the RABT6/8/12/18 assembly vertical.



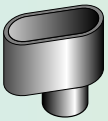
S7 - 7" Plastic Stake - prevents supply tubing (A700) from drifting.



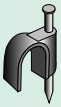
S17 - 17" Plastic Stake - elevates and supports rigid risers (RABT6/8/12/18).



PUPS - HYDRO-POP™ Protector Sleeve - protects jets and micro-sprinklers, [except adjustable MICRO-FLO™ (MFA)], on HYDRO-POP™ pop-up riser.



PUPT - HYDRO-POP™ Protector Sleeve - protects adjustable MICRO-FLO™ Sprinkler (MFA).



MC250 - 1/4" Tubing Mounting Clamp - used to attach 1/4" tubing (A250) to wood beams or posts.

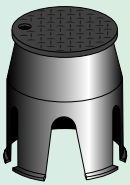
MC710 - 1/2" Tubing Mounting Clamp - used to attach 1/2" supply tubing (A700) to wood beams or posts.

S6-6" Support Stake - holds 1/4" tubing in place.

S12 - 12" Support Stake - used to hold 1/4" tubing (A250) in vertical position.

FVA - 600 Automatic Flush Valve - automatically purges system at start and end of irrigation cycle. Attaches to end of supply tubing (A620). Flushes when pressure is below 7 psi.

FVA - 700 Automatic Flush Valve - automatically purges system at start and end of irrigation cycle. Attaches to end of supply tubing (A 700). Flushes when pressure is below 7 psi.



EB6 - 6" Emitter Access Box - protects and allows easy access to buried bubblers.

AGRIFIM™ focuses all its efforts on producing the finest quality water conserving products for the landscape industry. We enjoy the reputation for being the leader in drip and micro-irrigation products to the green industry.

Our products can be used by both the professional contractor and Do-It-Yourself home owners.

You will find the widest, most complete line of water conserving products ranging from drip emitters, with adjustable and fixed discharge rates, to multi-outlet bubblers, fixed flow and adjustable micro-sprays, misters and pre-assembled emitter lines. To complete the system, we provide a full range of tubing, fittings, stakes, regulators, valves, filters and fertilizer applicators.

We are committed to continue to expand our product range and improve our technology. If you have any suggestions or comments, we would love to hear from you.

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