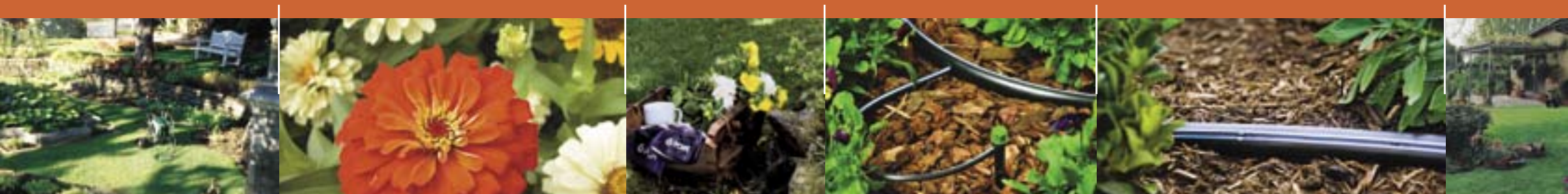




# POPE

## DIY GUIDE



DRIP IRRIGATION MADE SIMPLE

Drip Watering for Life



[www.popeproducts.com.au](http://www.popeproducts.com.au)

# Why Drip Irrigation?

## Using Drip Irrigation in your garden is EASY!

1

Work out what you're watering and any special needs you have, for example burying under mulch or new planting.

2

Decide what product best suits your needs.

3

Install your Pope water efficient drip watering system.

### Did you know?

Drip irrigation is a method of applying moisture directly to the desired plants and their root system. Water is distributed slowly and accurately, reducing water loss from wind or evaporation and minimising moisture wasted on weeds, unplanted areas or runoff.



## Advantages of Drip Irrigation

**Up to 70% savings in water usage** due to more efficient delivery and less run-off.



**Healthier, more bountiful plants** as a result of less over-watering or under-watering.



**Easy automated watering** by adding a timer or connecting to an underground irrigation system. Eliminates the chores of hand watering.



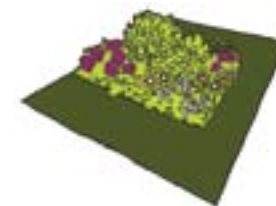
**Reduced weed growth** by limiting moisture to desirable plants only.



**Versatility** on flat terrain or sloping landscapes without wasteful run-off or erosion.



**Easy system expansion** to accommodate new planting areas or to retrofit an existing sprinkler system.











## Watering using a Drip System makes sense!

There are a wide range of drip watering products available to help you water your plants efficiently. These include:

<i>Individual Drippers</i>	<i>Inline Drippers</i> (Such as Drip Eze or Dripper Hose.)	<i>Tricklers</i>	<i>Weeping Hose</i>
			

- Each has their own unique features and uses.
- But no matter what you use, all drip watering systems work by releasing water slowly at targeted areas of the garden.
- Drip watering helps avoid water wastage that can happen through:



The following pages will help you select the product that will be best for you and your gardens' needs.



Look for these symbols:



Trees and Shrubs



Can be Covered with Mulch

**Drip Eze** - Has built in drippers already situated in the tube for an easy to use roll out system. Each dripper emits 2 litres of water per hour and each dripper is spaced 30cm apart. Connects just like regular poly pipe. 4mm Drip Eze is ideal for looping around trees, bushes, shrubs and hedges and connects easily to 13mm Drip Eze. Can be covered with mulch.



**Easy Clean Drippers** - Can be placed directly into 13mm poly pipe or used with 4mm poly pipe to get right to the base of the plant. Ideal where plants are spaced randomly. Available in 2, 4 and 8 litre per hour drippers. Can be easily taken apart for cleaning. Use when plants have similar watering needs.



**Ultra Drippers** - Can be placed directly in to 13mm poly pipe, 13mm Drip Eze or used with 4mm poly pipe to get right to the base of the plant. Ideal where plants are spaced randomly. Available in 2, 4 and 8 litre per hour drippers. Can be easily taken apart for cleaning. Suits slopes and can be covered with mulch. Use when plants have similar watering needs.

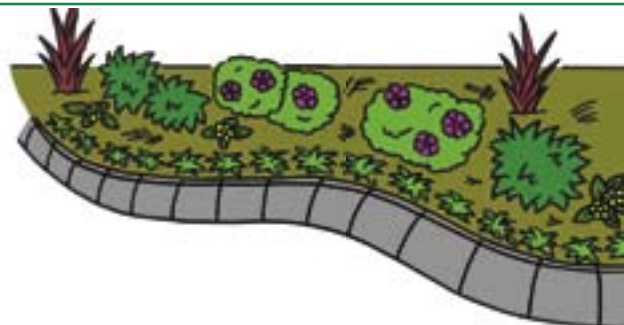


**Micro Drippers** - Can be placed directly into 13mm or 4mm poly pipe to get right to the base of the plant. Ideal where plants are spaced randomly. Available in 4 litre per hour. Use when plants have similar watering needs.



**Water Weeper** - Connects directly into a garden hose or poly pipe. Emits water through tiny pores in the hose. Application rate varies depending on water pressure. Can be covered with mulch. 4mm is most suited to looping around trees, bushes, shrubs and hedges.





**Micro Drippers** - Can be placed directly into 13mm or 4mm poly pipe to get right to the base of the plant. Ideal where plants are spaced randomly. Available in 4 litre per hour. Use when plants have similar watering needs.



**Water Weeper** - Connects directly into a garden hose or poly pipe. Emits water through tiny pores in the hose. Application rate varies depending on water pressure. Can be covered with mulch. Available in 4mm or 12mm diameter.



**Dripper Hose** - A simple roll out system with built in drippers. Drinker Hose expands when filled with water and is ideal for straight lines or gentle curves. Each dripper emits 1 litre of water per hour and each dripper is spaced 10cm apart. Comes in 7.5 or 15m coils. Connects to garden hose or poly pipe.



**Tricklers** - Offer variable water flow and wider area coverage than drippers. Can be placed directly into 13mm poly pipe or used with 4mm poly pipe. Ideal for use with plants that have different watering needs.



**Drip Eze** - Has built in drippers already situated in the tube for an easy to use roll out system. Each dripper emits 2 litres of water per hour and each dripper is spaced 30cm apart. Connects just like regular poly pipe. Use 13mm Drip Eze or 4mm Drip Eze - both can be used with existing 13mm poly pipe and can snake through the garden. Drip Eze can be covered with mulch.



**Variable Flow Drippers** - Offer variable water flow and a smaller coverage area than tricklers. Can be placed directly into 13mm poly pipe, or used with 4mm poly pipe. Ideal for use with plants that have different watering needs.



**Easy Clean Drippers** - Can be placed directly into 13mm or 4mm poly pipe to get right to the base of the plant. Ideal where plants are spaced randomly. Available in 2, 4 and 8 litre per hour drippers. Can be easily taken apart for cleaning. Use when plants have similar watering needs.



**Tricklers On Spike** - Offer variable water flow and wider coverage area. Use with 4mm poly pipe when the flow of water needs to be elevated.



**Ultra Drippers** - Can be placed directly into 13mm poly pipe, 13mm Drip Eze or used with 4mm poly pipe to get right to the base of the plant. Ideal where plants are spaced randomly. Available in 2, 4 and 8 litre per hour drippers. Can be easily taken apart for cleaning. Suits slopes and can be covered with mulch. Use when plants have similar watering needs.



Look for these symbols:



Beds and Borders



Slopes



Can be Covered with Mulch





Look for these symbols:



Pots and Baskets



Can be Covered with Mulch

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Look for these symbols:



Vegetable and Herb Gardens



Can be Covered with Mulch

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**Dripper Hose** - Has built in drippers for an easy to use roll out system ideal for straight lines or gentle curves. Each dripper emits 1 litre or water per hour and each dripper is spaced 10cm apart. Comes in 7.5 or 15m coils. Expands when filled with water. Connects to garden hose or poly pipe.



**Drip Eze** - Has built in drippers for an easy to use roll out system. Each dripper emits 2 litres of water per hour and each dripper is spaced 30cm apart. Connects just like regular poly pipe. 4mm Drip Eze can be used with existing 13mm poly pipe to snake through the garden. Can be covered with mulch.



**Variable Flow Drippers** - Offer variable water flow and a smaller coverage area than tricklers. Can be placed directly into 13mm poly pipe or used with 4mm poly pipe. Ideal for use with plants that have different watering needs.



**Tricklers On Spike** - Offer variable water flow and wider coverage area. Use with 4mm Poly Pipe when the flow of water needs to be elevated.





**Drip Eze** - Has built in drippers for an easy to use roll out system. Each dripper emits 2 litres of water per hour and each dripper is spaced 30cm apart. Connects just like regular poly pipe. 4mm Drip Eze can be used with existing 13mm poly pipe to snake through the garden. Can be covered with mulch.



**Drip Eze for slopes** - Specially designed for even water distribution on slopes. Each dripper emits 2 litres of water per hour and is spaced 30cm apart. Connects just like regular poly pipe. Can be covered with mulch.



**Ultra Drippers** - Can be placed directly into 13mm poly pipe, 13mm Drip Eze or used with 4mm poly pipe to get right to the base of the plant. Ideal where plants are spaced randomly. Available in 2, 4 and 8 litre per hour drippers. Can be easily taken apart for cleaning. Suits slopes and can be covered with mulch. Use when plants have similar watering needs.



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**Water Weeper** - Connects directly into a garden hose or poly pipe. Emits water through tiny pores in the hose. Application rate varies depending on water pressure. Can be covered with mulch. Available in 4mm or 12mm diameter.



Look for these symbols:



Slopes



Can be Covered with Mulch



# Selecting the right drip solution

## Drip Eze - 4mm and 13mm



Water  
Emission Rate

**2**

2 LITRES  
PER HOUR  
PER DRIPPER



Beds and  
Borders



Can be Covered  
with Mulch



Vegetable and  
Herb Gardens



### Advantages

- Easy to install.
- Suits most drip watering applications.
- Low water emission rate.



### Suitable for:

- All soil types including sandy, loamy and clay soils.
- Areas up to 50m long.
- Can be covered with mulch.
- Low water pressure.

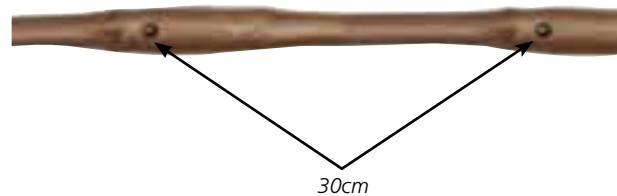


### Not suitable for:

- Non mains water tank connections / non-potable water.
- Pots or hanging baskets.
- Slopes.

### Drip Eze - 4mm

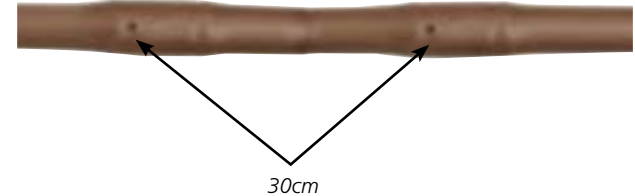
Distance between emitters



**Drip Eze - 4mm** works with poly pipe or 13mm Drip Eze and is most suitable for being looped around trees and shrubs to run from existing poly tube, or if replacing spray jets.

### Drip Eze - 13mm

Distance between emitters



**Drip Eze -13mm** can be connected to a tap or used with poly tube and is most suitable for garden beds, hedges, nature strips and vegetable gardens.

# Selecting the right drip solution

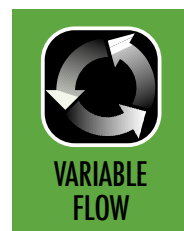
## Water Weeper - Water seeps through tiny pores

### Advantages

- Simple to install.
- Easy to use.
- Ideal for densely planted areas.



#### Water Emission Rate



#### Suitable for:

- Connecting to a garden hose.
- All soil types including sandy, loamy and clay soils.
- Garden beds, hedges and nature strips.
- Can be covered with mulch.
- Low water pressure.



#### Not suitable for:

- Non mains water tank connections / non-potable water.
- Pots or hanging baskets.
- Vegetable or herb gardens.
- Slopes.

### Water Weeper - 4mm

**Water Weeper - 4mm** connects to 13mm poly pipe. Emits water through tiny pores in the hose. Application rate varies depending on water pressure. Ideal for looping around trees and shrubs.



Beds and Borders



Trees and Shrubs



Can be Covered with Mulch

### Water Weeper - 12mm

**Water Weeper -12mm** connects directly into a garden hose or poly pipe. Emits water through tiny pores in the hose. Application rate varies depending on water pressure. Can be gently snaked through garden beds and borders.



Beds and Borders



Trees and Shrubs



Can be Covered with Mulch



## Dripper Hose



**Water  
Emission Rate**

**1**

**1 LITRE  
PER HOUR  
PER DRIPPER**



### Advantages

- Cost effective.
- Easy to use.
- Lowest water emission rate.
- Operates at very low pressure 100kPa.



### Suitable for:

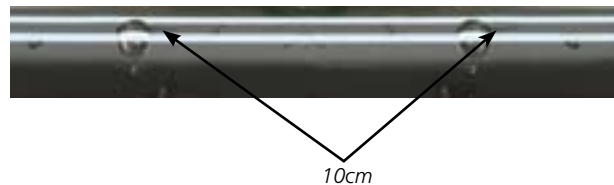
- All soil types including sandy, loamy and clay soils.
- Tap based or fixed irrigation systems.
- Densely planted gardens including hedges, flower beds and vegetables.
- Where straight lines or gentle curves are needed.
- Areas up to 15m long.
- Covering with mulch.
- Very low water pressure.



- Non mains water tank connections / non-potable water.
- Slopes.

### Dripper Hose 7.5m or 15m

*Distance between emitters:*



**Pope Dripper Hose** is packed flat and expands when filled with water to become a round tube. It comes fitted and ready to attach to a garden hose or poly pipe.



*Beds and Borders*



*Can be Covered with Mulch*



*Vegetable and Herb Gardens*



## Easy Clean Drippers / Ultra Drippers

### Easy Clean Dripper



**Easy Clean Drippers** connect straight into 13mm poly tube or can be used with 4mm poly tube.



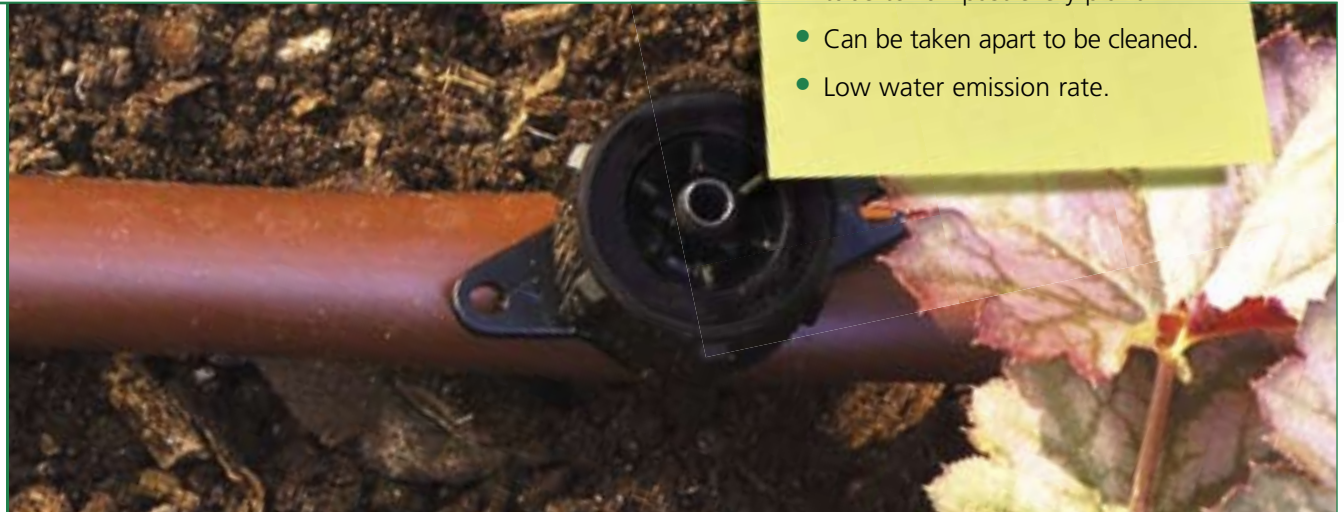
Beds and Borders



Vegetable and Herb Gardens



Pots and Baskets



### Advantages

- Can be placed exactly at each plant's root zone.
- Can be installed onto 4mm tube-reduces the need for poly tube to run past every plant.
- Can be taken apart to be cleaned.
- Low water emission rate.



**Ultra Drippers** connect straight into 13mm poly tube or Drip Eze and can be used with 4mm poly tube. They are suitable for sloping garden areas or to be covered in mulch. They also inhibit insects from entering and blocking the dripper.



Beds and Borders



Slopes



Can be Covered with Mulch

# 2

2 LITRES  
PER HOUR

- Ideal flow rate for most applications.
- Suits sandy soils.

# 4

4 LITRES  
PER HOUR

- Ideal flow rate for trees, shrubs, bushes and mid to large sized established plants.
- Suits loamy or clay soil.

# 8

8 LITRES  
PER HOUR

- Ideal flow rate for trees, shrubs, native gardens and any plants requiring infrequent but thorough soaking.
- Suits loamy or clay soil.

### Suitable for:



- Plants spaced randomly apart.
- Targeted and efficient watering at each plant's root zone.
- Pots or hanging baskets.
- Areas with low water pressure.
- Easy to take apart and clean.



- Non mains water tank connections .
- Non-potable water.

## Micro Drippers



**Micro Drippers** connect straight into 13mm poly tube or can be used with 4mm poly tube.



### Advantages

- Can be placed exactly at each plant's root zone.
- Can be installed onto 4mm tube-reduces the need for poly tube to run past every plant.
- Cost effective.



#### Suitable for:

- Plants spaced randomly apart.
- Targeted and efficient watering at each plant's root zone.
- Areas with low water pressure.
- Trees, shrubs, bushes and larger plants.



#### Not Suitable for:

- Non mains water tank connections.
- Non-potable water.
- Sloping gardens.
- Covering with mulch.



- Ideal flow rate for trees, shrubs, bushes and mid to large sized established plants.
- Suits loamy or clay soil.



*Beds and Borders*



*Trees and Shrubs*



*Pots and Baskets*



## Variable Flow Drippers and Tricklers

### Variable Flow Drippers



Connect straight into 4mm or 13mm poly tube.



Beds and Borders



Trees and Shrubs



Vegetable and Herb Gardens



Pots and Baskets

### Veri-Flow® Dripper adjusts from 0 - 60 litres per hour.

#### Low flow rate:

- Sandy soils.
- Potting mix.
- Plants that require less water.



#### Mid flow rate:

- Loamy or clay soils.
- Established bushes, shrubs and hedges.
- Vegetables and fruiting plants.



#### High flow rate:

- Heavy clay soils.
- Trees & large plants.
- Vegetables and fruiting plants.



### Variable Flow Tricklers



Connect straight into 4mm or 13mm poly tube.



Beds and Borders



Trees and Shrubs



Vegetable and Herb Gardens



Pots and Baskets



#### Veri-Flow® Trickler

- Adjustable flow rate 0-30 lph.
- Threaded inlet.
- Use with 4mm rigid poly tube.
- Ideal for pots and hanging baskets.
- Trickler action gives larger area coverage.



#### Adjustable Flow Trickler

- Adjustable flow rate 0-50 lph.
- Barbed inlet.
- Use with 13mm & 4mm poly tube.
- Trickler action gives larger area coverage.
- Ideal for shrubs.

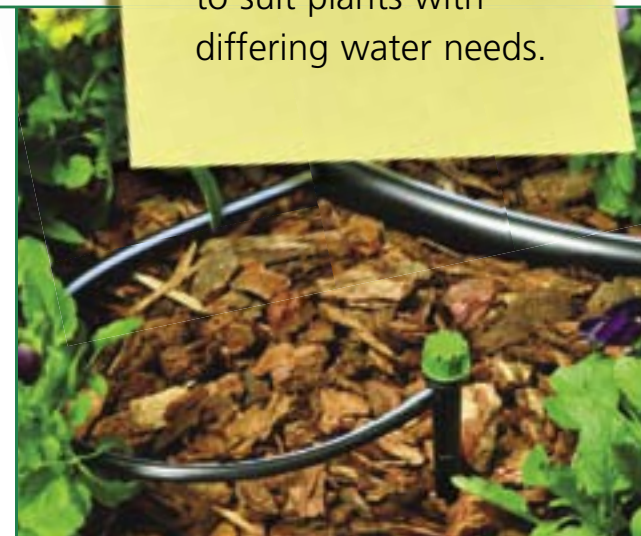


#### Inline Trickler on Spike

- Adjustable flow Trickler 0-100 lph.
- 100mm spike elevates trickler.
- Connect to 13mm poly using 4mm tube.
- Trickler action gives larger area coverage.

## Advantage

- Allows the flow of water to be adjusted to suit plants with differing water needs.



### Suitable for:

- Connecting to poly pipe.
- Plants with different watering needs.
- Pots or hanging baskets.
- Garden beds and borders.
- Hedges, shrubs, bushes & trees.
- Low water pressure.



### Not suitable for:

- Sloping garden areas.
- Covering with mulch.
- Non mains water tank connections/ non-potable water.



## The difference between Drippers and Tricklers

### Drippers

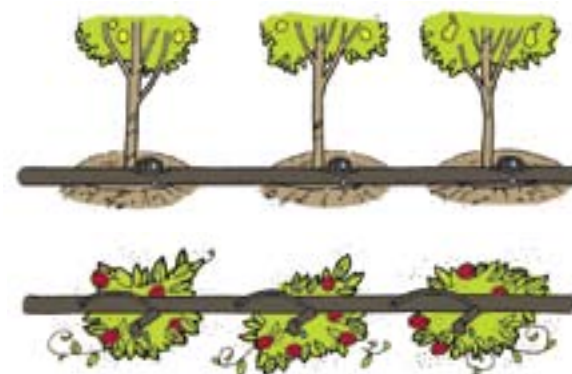
Drippers water a concentrated area.



### Fixed Discharge - Dripper Only

*Guaranteed to deliver water in an ecologically responsible and efficient manner when used correctly. Use when watering plants that are the same or require the same amounts of water.*

- Easy Clean and Ultra Dripper - 2, 4 and 8 L/hr
- Micro Dripper - 4 L/hr
- Drip-Eze - Built in drippers each emitting 2 L/hr
- Dripper Hose - Built in drippers each emitting 1 L/hr



### Tricklers

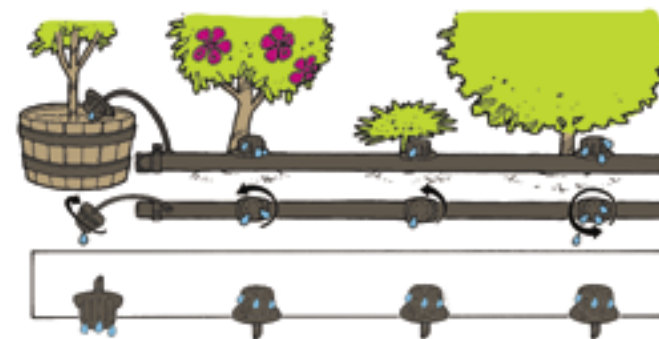
Tricklers water a wider area.



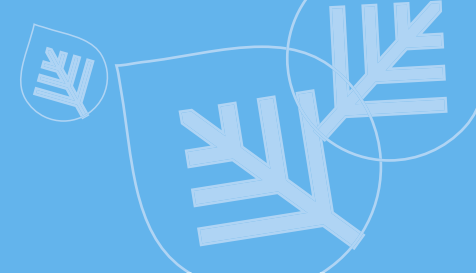
### Adjustable Discharge - Drippers and Tricklers

*Variable Flow Drippers and Tricklers are adjustable to suit the plant being watered. Just unscrew the cap to increase flow.*

- Veri-Flow® Dripper 0-60 L/hr
- Veri-Flow® Trickler 0-30 L/hr
- Adjustable Flow Trickler 0-50 L/hr
- Trickler on Spike 0-100 L/hr



# Installing Drip Eze - 13mm



## Connecting to a garden hose

### You will need:



Tap Ready Garden Hose



13mm Barb to Snap-on  
Hose Connector



13mm End Plug



13mm Loc-Sure Clamps

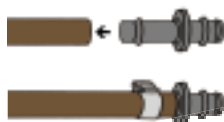
1

Roll out Drip Eze and place in area to be watered.



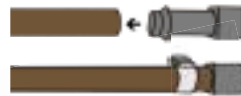
2

Insert the 13mm barb to snap-on hose connector at the end of the Drip Eze. Secure with 13mm Loc-Sure clamp.



3

Insert the 13mm end plug at the end of the Drip Eze. Secure with 13mm Loc-Sure clamp.



### TIP!

To customise your watering so that selected plants receive water right at the root zone, add 2 lph Ultra drippers to the Dip Eze. These can be placed as desired in the line. See instructions for installing drippers.

## Connecting to 13mm poly pipe

### You will need:



13mm Barbed Joiner



13mm End Plug



13mm Tees or Elbows



300kPa Pressure Reducer



13mm Loc-Sure Clamps



13mm Filter

1

Roll out Drip Eze and place in area to be watered.



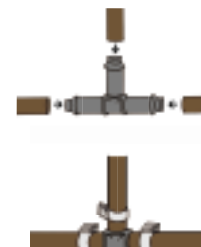
2

For poly pipe systems use a 13mm barbed joiner to connect to 13mm poly pipe or other 13mm Drip Eze. Secure with 13mm Loc Sure clamps.



3

For other watering patterns such as grid layouts, you can use 13mm tees and 13mm elbows to cover the desired watering area.



4

Insert a 13mm end plug at the end of the Drip Eze (if required) and secure with a 13mm Loc Sure clamp.



5

Ensure a 13mm filter has been fitted to the start of the line and if connected to a tap, use a 300kPa pressure reducer.



# Installing Drip Eze - 4mm

## Replacing existing spray watering systems OR running lengths of 4mm Drip Eze from the main line.

## Making loops around trees and bushes

### You will need:



Repair Plugs



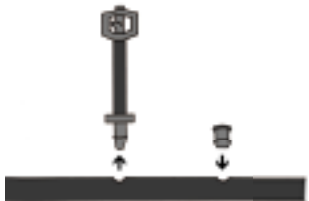
4mm Barbed Adaptors



Hole Punch

1

Remove existing spray products from your 13mm poly tube. If necessary, repair hole in poly tube with repair plugs.



2

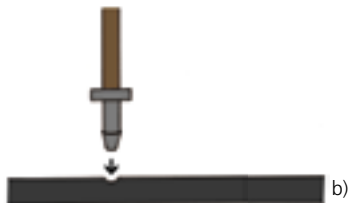
Insert the 4mm adaptor into the required length of 4mm Drip Eze. Push into existing hole left by spray system or make a new hole with a hole punch.



a)

3

Plug end of 4mm Drip Eze with a repair plug.



b)

### You will need:



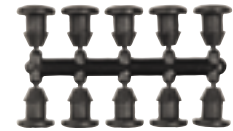
4mm Barbed Tees



4mm Barbed Adaptors



Hole Punch



Repair Plugs (in case of error)

1

Cut the required length of 4mm Drip Eze so it can circle the base of the plant and apply water to the root zone.



2

Join together using a 4mm barbed tee.



3

Cut another length of 4mm Drip Eze (or 4mm poly pipe) long enough to connect to the main poly or Drip Eze line.



4

Attach a barbed 4mm adaptor to the tail of the 4mm line.



5

Punch a hole in the main line.

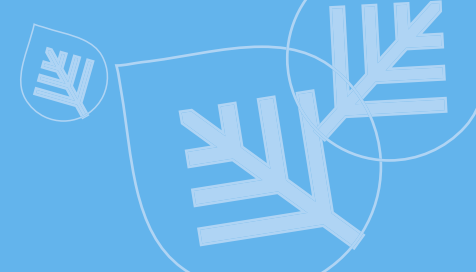


6

Connect the "tail" of the loop into the main line.







## Using 12mm Waterweeper

### You will need:



Tap Ready Garden Hose

1

Roll out the Water Weeper and place in area to be watered.



2

Connect to your garden hose.



### TIP!

- Use hold down stakes to keep the Water Weeper in place!
- Cover Water Weeper with mulch for greater water saving.
- For best results always turn the tap on slowly with each use until water slowly drips from the Water Weeper.

## Using 4mm Waterweeper

### You will need:



4mm Barbed Adaptor



Repair Plugs



4mm Barbed Tees



Hole Punch

1

Cut the length of 4mm Water Weeper required.



2

Insert a barbed adaptor into one end, and a repair plug in the other end.



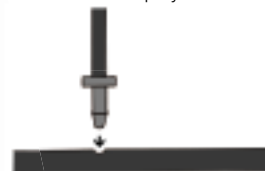
3

Punch a hole in existing 13mm poly tube.



4

insert the barbed end of the cut 4mm piece into the poly tube.



5

Lay 4mm Water Weeper in the area to be watered.



### TIP!

For looping around trees, cut the Water Weeper so it can circle the base of the plant and apply water to the root zone. Join together using a 4mm barbed tee. Connect to the poly tube using another length of water weeper and a barbed adaptor.

## Connecting to a garden hose

### You will need:



Tap Ready Garden Hose



100kPa Pressure Reducer

1

Roll out dripper hose and place in area to be watered.



2

Connect to garden hose fitted with snap on connector.



### Note:

Dripper Hose works at very low pressure. If you aren't using a 100kPa pressure reducer, you should ensure that when inflated with water, the drip tube can be easily squeezed together. If there is resistance or it is hard to push together, you should adjust your flow of water at the tap accordingly.

## Connecting to 13mm poly pipe

### You will need:



13mm Snap Sure Connector



13mm Inline Filter



13mm Poly Pipe



100kPa Pressure Reducer

1

Roll out dripper hose and place in area to be watered.



2

Use a snap on connector at the end of the 13mm poly pipe and connect to dripper hose.



### Note:

For new systems being connected to a tap you will need a 13mm inline filter and a 100kPa Pressure reducer connected to your tap.

# Installing Easy Clean Drippers / Ultra Drippers

## TIP!

To clean drippers unscrew the cap, rinse the dripper and clean debris and grit. Screw the dripper cap back in place.

## Placing drippers into 13mm poly tube OR placing Ultra Drippers into Drip Eze

### You will need:



Hole Punch

## TIP!

2 lph Ultra Drippers can be inserted into 13mm Drip Eze for extra watering or more localised application of water.

## Placing drippers into 4mm poly tube

### You will need:



4mm Poly Tube



4mm Barbed Adaptor



Hole Punch

1

Ensure that the 13mm poly tube is laid out in the best position in your garden.



2

Using the hole punch, pierce holes into the 13mm tube, getting as close as possible to the plant's root zone.



3

Push the dripper firmly into the poly tube (or Drip Eze for Ultra Drippers).



4

If you make an error or need to change the position of any drippers use repair plugs to patch the hole.



1

Cut the required length of 4mm poly tube so it can reach the base of the plant applying water to the root zone.



2

Fit the dripper to the end of the 4mm poly tube.



3

Fit the 4mm adaptor to the other end of the 4mm poly tube.



4

Punch a hole in the main line (the existing 13mm poly tube)



5

Push the 4mm barbed adaptor into the hole in the main 13mm poly line.





# Installing variable flow drippers and tricklers



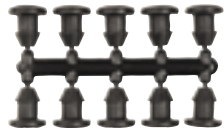
## Placing drippers or tricklers into 13mm poly tube

## Placing drippers or tricklers into 4mm poly tube

### You will need:



Hole Punch



Repair Plugs

1

Ensure that the 13mm poly tube is laid out in the best position in your garden.



2

Using the hole punch, pierce holes into the 13mm tube, getting as close as possible to the plant's root zone.



3

Push the trickler or dripper firmly into the poly tube.



4

If you make an error or need to change the position of any drippers or tricklers use repair plugs to patch the hole.



### You will need:



4mm Poly Tube



4mm Barbed Adaptor



Hole Punch

1

Cut the required length of 4mm poly tube so it can reach the base of the plant applying water to the root zone.



2

Fit the trickler to the end of the 4mm poly tube.



3

Fit the 4mm adaptor to the other end of the 4mm poly tube.



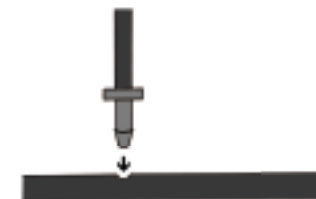
4

Punch a hole in the main line (the existing 13mm poly tube).



5

Push the 4mm barbed adaptor into the hole in the main line.



## Connecting to the water source - Using a garden hose based system from your tap

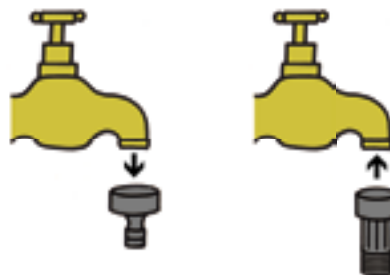
This method gives you the versatility of using your Tap Ready™ garden hose to connect to your system. This means you have flexibility to use your garden hose for many things, and you don't have to worry about burying pipes under paths or driveways.

This style of connection can be used with:

- 12mm Water Weeper
- 13mm Drip Eze
- 13mm Poly Pipe Systems
- Dripper Hose

1

Remove tap nut from tap (if one exists) and attach a pressure reducer to your tap. This will ensure the water pressure is low enough to correctly operate the drip system.



2

Connect a tap nut to the base of your pressure reducer.



3

**OR** Add a tap timer to the base of the pressure reducer for greater watering efficiency. (Your tap timer should be ready to use without attaching a tap nut.)



4

Snap your garden hose on to the tap timer.



5

Snap the end of your garden hose into your drip system. Water Weeper and Dripper Hose come ready to connect directly to the hose. If you're using 13mm Drip Eze or 13mm poly pipe, fit the start of the pipe with a 13mm barb to snap on hose connector and secure with a Loc-Sure clamp.



**Note:** If you're using 13mm Drip Eze or a 13mm poly pipe based system you should use a filter to minimise particles being deposited through the system and blocking the drippers. An inline filter has two barbed ends so it fits easily on the 13mm poly tube or 13mm Drip Eze. This can be situated anywhere in the line, but it must be before the drippers.

## Creating a system from your tap - The quick and easy way to install your drip system

1

Fit pressure reducer to the tap. This will ensure the water pressure is low enough to correctly operate the drip system and conserve water.



2

Attach a timer to the base of the pressure reducer for greater watering efficiency.



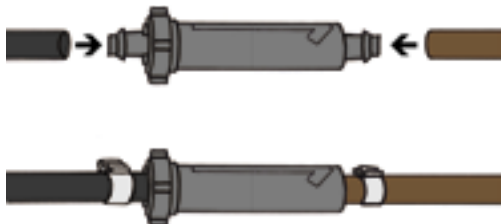
3

Connect a tap nut with 13mm barbed tail to the base of your pressure reducer or tap timer if using one. You can then connect your 13mm poly pipe or 13mm Drip Eze to the barbed outlet.



4

All systems should use a filter to minimise particles being deposited through the system and blocking the drippers. An inline filter has two barbed ends so it fits easily on to 13mm poly tube or 13mm Drip Eze. This can be situated anywhere in the line, but must be before the drippers. Secure with 13mm Loc-Sure clamps.



5

Attach poly tube or Drip Eze to the inline filter and lay in desired location in garden.

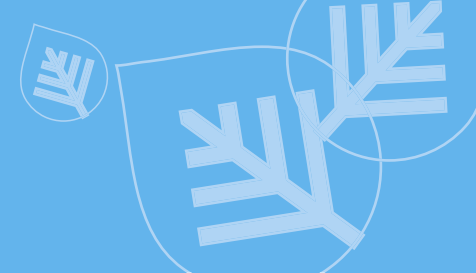


### TIP!

Consider using a two way tap to give you more versatility. Use one outlet for your drip system and another for your garden hose!



# Converting spray systems into drip systems




## Using Drippers or Tricklers

## Using 4mm Drip Eze or 4mm Water Weeper


**1**

Remove existing spray jets.




**2**

Repair holes with repair plugs (if not using existing positions).



**3**


Place drippers directly into existing holes (or use a hole punch to create new holes).



**OR**


**1**

Attach dripper to a length of 4mm poly tube.



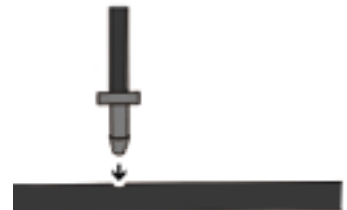
**2**

Insert a 4mm barbed adaptor into the other end of the 4mm poly pipe.




**3**

Push 4mm poly with adaptor into the new or existing hole.




**4**

Place dripper in required position.




**1**

Remove existing spray jets.



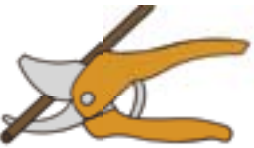
**2**

Repair holes with repair plugs (if not using existing positions).




**3**

Cut required lengths of 4mm Drip Eze or Water Weeper.



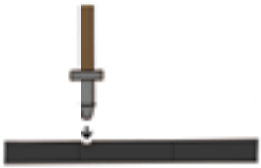
**4**

Add a 4mm barbed adaptor to one end of the 4mm Drip Eze or Water Weeper and place a repair plug at the other end.




**5**

Using the existing holes left by the spray system, insert the barbed end of the 4mm Drip Eze or Water Weeper into the existing line (or create a new hole in the existing poly line).



**6**

Place 4mm Drip Eze or Water Weeper in the required position throughout the garden.





## Watering using drippers and tricklers

### Using drip systems in your garden

Drip systems use low pressure from your tap. Always remember to use a filter with drip systems and a pressure reducer to ensure low operating pressure.

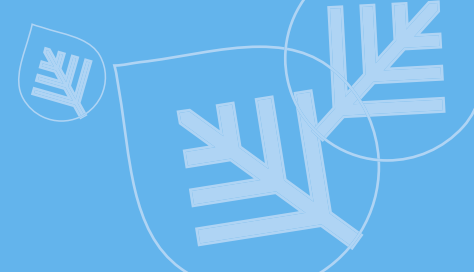
Use this table as a guide for watering your garden.	Drippers	Drippers	Drippers	Micro Dripper	Veri-flow® Dripper	Veri-flow® Trickler	Dripper Hose	Drip Eze	4mm Water Weeper	12mm Water Weeper
										
<b>flow rate per emitter</b>	2 lph	4 lph	8 lph	4 lph	0 - 60 lph	0 - 30 lph	1 lph	2 lph	120 lph per 10m	240 lph per 15m
<b>seedlings</b>	10 minutes	5 minutes	3 minutes	5 minutes	up to 5 minutes	up to 5 minutes	20 minutes	10 minutes	10 minutes	5 minutes
<b>small established shrubs</b>	30 minutes	15 minutes	10 minutes	15 minutes	up to 15 minutes	up to 15 minutes	1 hour	30 minutes	30 minutes	15 minutes
<b>larger shrubs</b>	45 minutes	25 minutes	15 minutes	25 minutes	up to 25 minutes	up to 25 minutes	90 minutes	45 minutes	45 minutes	25 minutes
<b>flower beds</b>	30 minutes	15 minutes	10 minutes	15 minutes	up to 15 minutes	up to 15 minutes	1 hour	30 minutes	30 minutes	15 minutes
<b>vegetables</b>	30 minutes	15 minutes	10 minutes	15 minutes	up to 15 minutes	up to 15 minutes	1 hour	30 minutes	30 minutes	15 minutes
<b>trees</b>	1 hour	30 minutes	15 minutes	30 minutes	up to 30 minutes	up to 30 minutes	not suitable	1 hour	1 hour	30 minutes

**Note:** Watering times highlighted above are based on operating pressure of 150kPa. Use as a guide only.

*Watering times will vary based on your soil type and weather conditions.*








Water sandy soil more frequently and water clay soil less frequently (refer to the diagram on page 28 to check what type of soil you have).





## Accessories you may need

To make your drip system the most effective, you may need to consider these products.

Use this table as a guide for what you may need for installing your drip irrigation system.	Loc-Sure Clamps	Locking Clamps	Repair Plugs	Pressure Reducer	Punch	Hold Down Stake	Inline Filter
							
Size	13mm or 19mm	13mm or 19mm	4mm	Fits 3/4" or 1" garden taps	Punches holes for drippers and 4mm fittings	For 13mm Poly Tube, Drip Eze or 12mm Water Weeper	13mm or 19mm
Use	Used to secure barbed fittings to poly pipe or Drip Eze. Loc-Sure Clamps are the most suitable clamps for drip systems.	Used to secure barbed fittings to poly pipe or Drip Eze. Easy to use, can be squeezed tight by hand.	Use when repairing holes in 13mm poly pipe or Drip Eze, or as an end peg for 4mm pipe or Drip Eze.	Lowers the available pressure from your garden tap to a suitable level for drip irrigation. Fits directly onto your garden tap.	Easily and quickly punches holes in 13mm poly pipe or Drip Eze to make inserting drippers or tricklers easy. Also used for inserting 4mm adaptors into 13mm tubing.	Secures tubing in place. Particularly useful when using bends and curves. Stakes ensure line does not lift or move so that water is distributed in the right place.	Should be used in every drip application to ensure that dirt or particles are filtered from the water before reaching the dripper system. Connects to 13mm or 19mm tubing with Loc-Sure or Locking Clamps.



← Look for products with this symbol.



## Sandy soil and potting mix

Sandy soil and potting mix have very fast drainage. This means you should use **drippers with lower emission rates** so the water seeps more slowly into the soil and water can be absorbed by the root zone, rather than bypassing the roots.

### Fast Water Emission Rate



### Slow Water Emission Rate



## Larger plants such as trees, shrubs & bushes

Established plants generally require more water than smaller or younger plants and they require it less frequently. Often, a good long soak is recommended.

Consider using **higher flow rate** products such as 4 or 8 litre per hour drippers and ensure coverage is around the root areas of the trunk.

**4**

4 LITRES  
PER HOUR

**8**

8 LITRES  
PER HOUR



### Where to Place Drippers



Drippers should be placed almost in line with the width of the tree.

### Loop around Trees

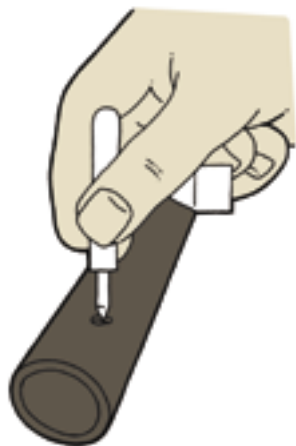


Drippers should be spaced evenly around the tree.



## More Handy Hints

Use a Punch to pierce holes in 13mm poly pipe.



For hanging baskets, use 4mm poly and a 4mm adaptor to apply water direct to basket.



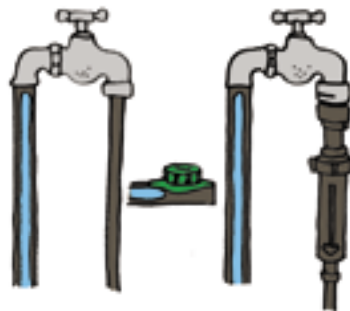
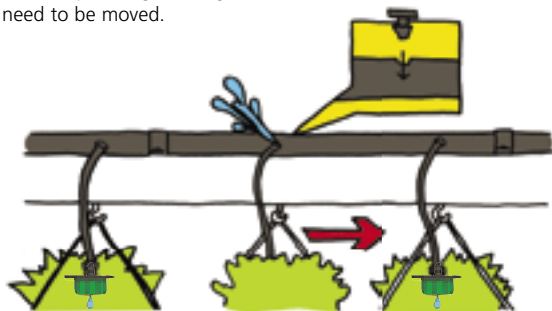
Using a pressure reducer lowers the available pressure from your garden tap to a suitable level for drip irrigation.



For potted plants use drippers, poly and a 4mm adaptor to water the base of the plant.



Use a Repair Plug if fittings need to be moved.



Always use a filter, to prevent particles from blocking drippers and clean out your filter regularly.





## How much water does your soil hold?

*Check your soil type to calculate how much water your soil will hold. This will help you understand how often you should water.*

- Grab a hand-full of soil and squeeze it gently with your fingers (don't do this when the soil is very wet or very dry). Open your fist and gently poke at the soil.



### Sandy Soil

If the soil falls apart completely you have sandy soil which allows water to run straight through and therefore plants don't get enough water and dry out quickly.



### Loam Soil

If the soil gently breaks into small clumps, you have loam which is the ideal soil. It contains a mix of particles, allowing water to move more slowly through the soil.



### Clay Soil

If the soil stays tightly in a clump, you have clay soil which doesn't allow water to flow through it therefore roots don't grow well, and plants get waterlogged.

*As a general rule sandy soil will need to be watered more frequently than loamy or clay soil which will hold more water.*

## Watersmart Checklist: Save water in your garden!

1

### Check the light

*How many hours of direct sun does each area of your yard get? This will influence how often you need to water.*

**1-4 hrs**

- 1 to 4 hours of sun or 3 to 6 hours of dappled sunlight means you have a **shade garden**.

**4-6 hrs**

- 4 to 6 hours of sun or 6 to 8 hours of dappled sunlight means you have **partial shade**.

**6+ hrs**

- More than 6 hours of sun a day means you have a **sun garden**.

2

### Check your compost levels

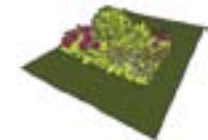
No matter what type of soil you have, adding organic matter allows for the **ideal flow of water through the soil**. You can easily make your own at home. By using compost or mulch in your garden you can stop water loss through evaporation and also prevent soil erosion. Mulching can prevent up to 73% of soil evaporation loss whilst it also restricts weed growth.



3

### Check your plants and placement

Select plants and grass suited to your climate, the amount of light, and soil type. Native plants are the best choices. Incorporate "hydrozones" within your landscape. **Hydrozones** are areas where you can group plants with similar water requirements.



4

### Check your garden is weed free

**Weed!** Be on top of your weeding in the garden. Weeds compete with the plants in your garden for water. Be water wise and don't water the weeds!







## Glossary of terms

### **Drip Eze**

Unlike standard poly pipe that must have drippers manually inserted, Drip Eze has emitters that are inserted inside poly pipe as it is being produced. The emitters are welded to the inside of the wall resulting in a hassle free rugged and economical watering solution. Installation is especially easy - just unroll the tubing, connect to the water source and you're done.



Drip Eze is available in 4mm and 13mm diameters, and is suitable for covering with mulch.

### **Drip Irrigation System**

A complete arrangement of products that when put together deliver water from the source to the garden. A system may include devices such as timers or controllers as well as other individual components.

### **Dripper**

A water emitting device that delivers a slow rate of water to the garden. Generally, drippers emit a precise amount of water that is controlled through some type of regulating device within the dripper itself.

### **Dripper Hose**

Dripper Hose is a cost effective and extremely water efficient method of drip watering. Dripper Hose comes flat but expands with water to become a round tube. Inside Dripper Hose, technically advanced dripper tape with in built emitters is welded to the inner wall of the hose and water flows through the emitter and beads from the precise laser cuts. Dripper hose comes fitted and can connect to garden hose or 13mm poly pipe.



### **Emission Rates**

The rate at which water is discharged, usually in litres per hour for drip related products, and litres per minute for pop-up sprinklers.

### **Emitter**

Any outlet device used to control the rate at which water is applied to specific areas is an emitter. An emitter is also sometimes referred to as a dripper.

### **Filter**

A filter is always recommended when using drip watering products. A filter will block dirt and other particles that may enter the drip system, blocking drippers and making them less effective. Filters should be cleaned of debris regularly and should always be installed before the first emitter in the system.

### **Fixed Flow (or discharge)**

A fixed amount of water that is emitted. For example, 2 litres per hour.

### **Inline Drippers**

Inline drippers are drip emitters that are pre - inserted into a hose or pipe system. Inline drip systems include Drip Eze and Dripper Hose.

### **kPa**

The abbreviation for kilopascals. This is a measure of pressure used with water flow. For example, 100 kPa would be typically considered low pressure, while 700 kPa or more would typically be considered high pressure. Pressure gauges can be used to accurately determine water pressure if required.

### **Loc-Sure Clamps**

Loc-Sure clamps are manufactured from a metal alloy and are recommended for use with all drip applications. They have a high resistance to corrosion, will not be damaged or become brittle with exposure to UV rays. This means that they are the most secure method for securing poly pipe or Drip Eze and fittings together. This is particularly beneficial for drip systems which may be run at higher pressures for longer periods than other fixed watering systems.

### **LPH**

The abbreviation for "Litres per Hour". LPH is used to measure flow or the rate of movement of water in drip irrigation systems.

### **Pressure Reducer**

A device that is fitted to the water source that restricts the flow of water to a predetermined level. In most drip applications 100kPa or 300kPa pressure reducers should be used.

### **Slopes**

Some drippers are designed to perform on sloping ground. In industry terms this is called "Pressure Compensation (PC)". PC emitters are specially designed to deliver the same precise amount of water regardless of their location in the installation. For example, a pressure compensating dripper will deliver the same amount of water as one located 10 metres downstream. Their consistent flow rate makes them ideal for sloping landscapes.

### **Spacing**

The distance between emitters or rows of emitters. Drip Eze contains pre-installed emitters spaced every 30cm while Dripper Hose has pre-installed drippers spaced every 10cm.

### **Ultra Drippers**

Drippers that provide optimum utility in the garden. They can be used on slopes, can be covered with mulch, resist the ingress of insects and can be easily taken apart and cleaned.

### **Variable Flow (or discharge)**

A variable amount of water that is emitted. This may be because the flow is manually adjustable or because the product has an imprecise delivery of water.

### **Water Pressure**

The "force" with which water is discharged for example from a tap, a water tank etc.






### **Weeping Hose**

Typically made of recycled rubber, weeping hose is constructed with thousands of tiny pores that allow small droplets of water to escape along the entire length and all around the hose. Unlike emitters with a controlled flow rate, weeping hose may have varying water emission rates, depending on the pressure under which they are operated and the length of the hose overall.



## Reference Guide

The packaging for Pope Drip Solutions has been coded to suit the needs of your garden. Look for the colour coded packaging which corresponds to your requirements when shopping for products at your local retailer. To save time use the handy parts guide below to make a list of what you need.

																	
Product	Code	Quantity	Product	Code	Quantity	Product	Code	Quantity	Product	Code	Quantity	Product	Code	Quantity	Product	Code	Quantity
7.5m Dripper Hose	1010273		13mm Drip Eze - 15m	1010264		Easy Clean Dripper	1010216		Easy Clean Dripper	1010217		12mm Water Weeper - 15m	1011546		13mm Tap Connection Kit	1010253	
15m Dripper Hose	1010274		13mm Drip Eze - 20m (Slopes)	1010280		Ultra Dripper	1010221		Ultra Dripper	1010223		12mm Water Weeper - 30m	1011547		Pressure Reducer 100kPa	1010088	
			13mm Drip Eze - 40m	1010276		Micro Dripper	1010251					4mm Water Weeper - 10m	1011543		Pressure Reducer 300kPa	1010089	
			13mm Drip Eze - 80m	1010277								Veri Flow® Dripper	1010200		13mm Inline Filter	1011111B	
			4mm Drip Eze - 20m	1010267								Veri Flow Trickler®	1010201		Loc-Sure Clamps -13mm	1010085	
			4mm Drip Eze - 50m	1010268								Adjustable Flow Trickler	1010225		13mm Locking Clamps	1010083	
			Easy Clean Dripper	1010215								Adjustable Flow Trickler on Spike	1010226		Repair Plugs	1010042	
			Ultra Dripper	1010219											Hole Punch	1010032	



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