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## CETA Drippers

### Technical Specifications Sheet

#### CETA® PC Agricultural & Landscape Drippers

A take apart Pressure Compensating dripper incorporating a turbulent flow path and diaphragm for uniform flow rates over a wide range of operating pressures.

#### Performance features

- > Take-Apart for easy inspection and cleaning [CETA® - Compensating Emitter Take Apart]
- > Self-flushing cleaning action at low pressure
- > Insect baffle to deter insect entry
- > Low manufacturing coefficient of variation [CV] provides high performance [conforms to ISO 9261]
- > Constructed of high quality UV and chemical resistant materials
- > 4 mm Barbed dripper range: 2 L/h [Red], 4 L/h [Black] & 8 L/h [Green]
- > 4 L/h PC Spike & In-Line Spike with 4 mm inlet models to anchor CETA® at the plant

#### Application

##### CETA - Barb Inlet

- > Vineyards, Orchards and Landscape

##### CETA - Spike

- > Pots, planter boxes, balcony patio and landscape applications

#### Recommended use:

Product described above are designed and manufactured for micro irrigation use and therefore have a maximum recommended operating pressure.

The product must be used with suitable filtration (where applicable) to avoid blockage or damage to working components.



CETA4SPIKE



CETA2PC



CETA4PC

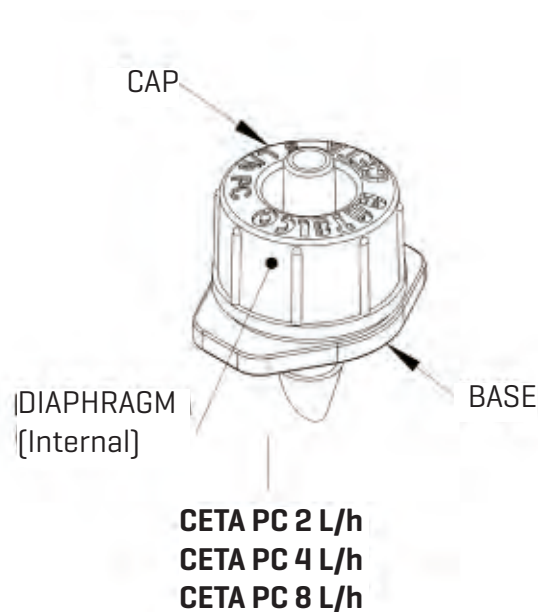
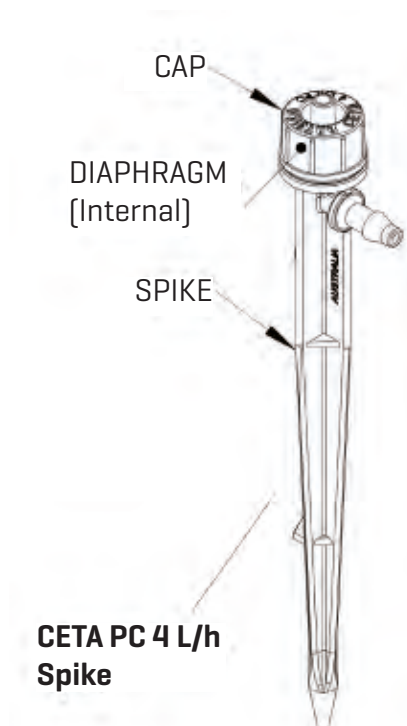


CETA8PC

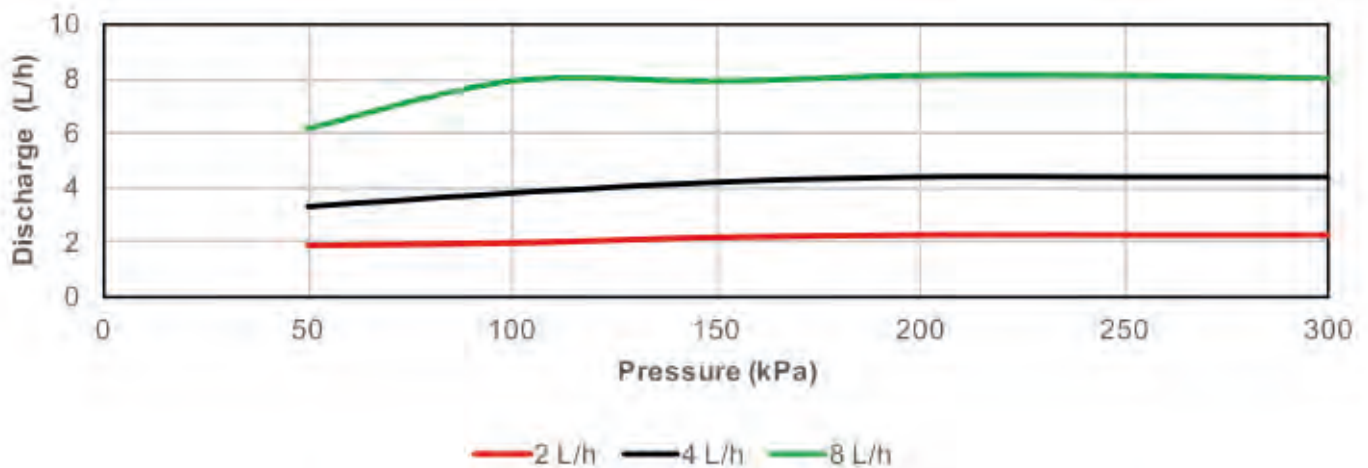
# CETA Drippers

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## Discharge rate



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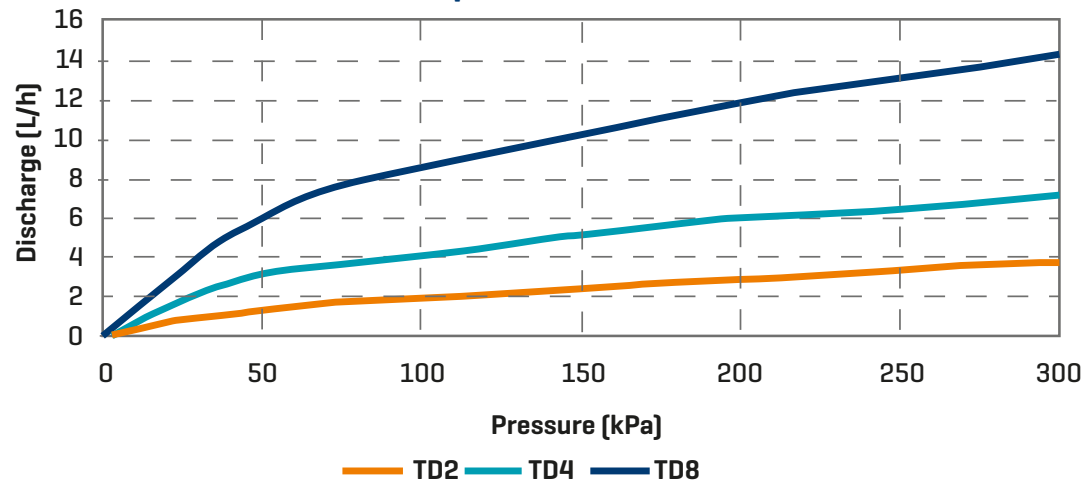
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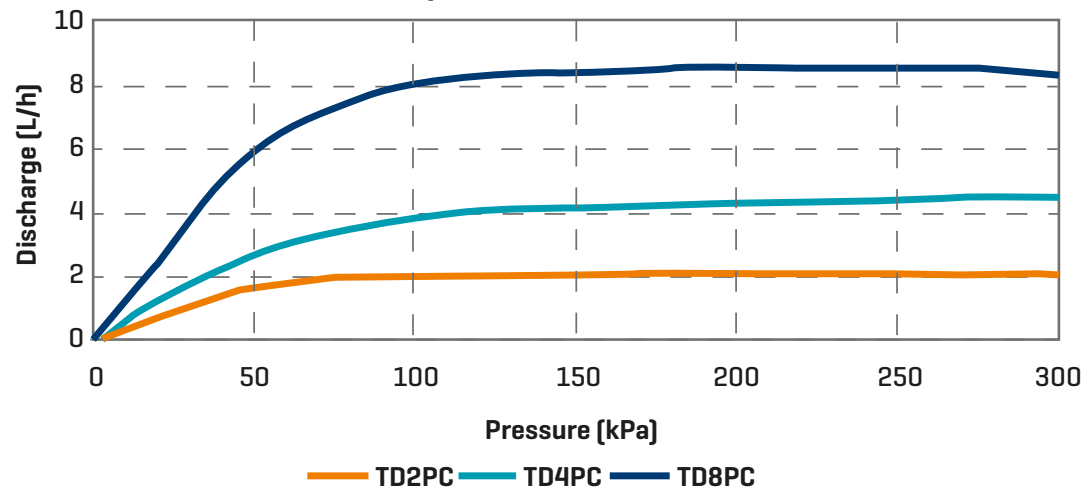
# True Drip Fixed Flow Drippers

## Technical Specifications Sheet

True Drip Performance



True Drip PC Performance



# True Drip fixed flow drippers

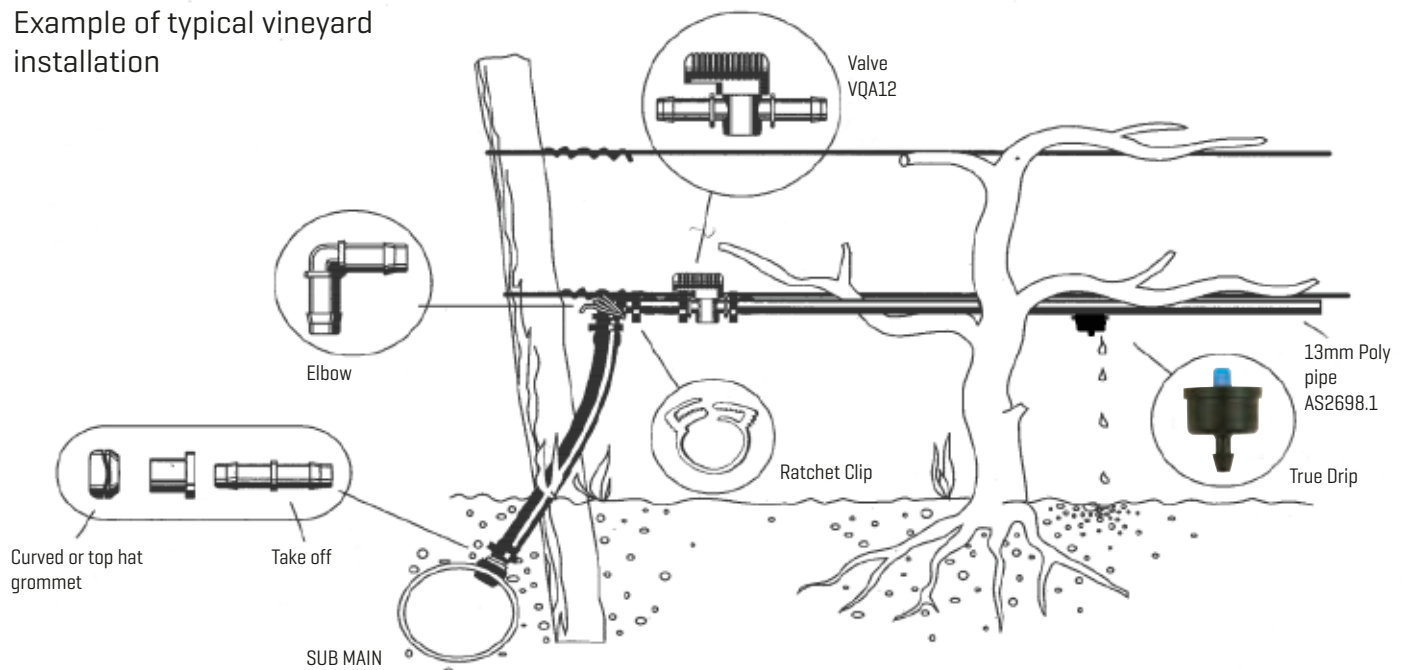


## Material Specifications

| CODE  | Description                                        | Colour | L/h             |
|-------|----------------------------------------------------|--------|-----------------|
| TD2   | True drip fixed flow - 4mm barbed inlet            | Blue   | 2 L/h @ 100 kPa |
| TD4   | True drip fixed flow - 4mm barbed inlet            | Green  | 4 L/h @ 100 kPa |
| TD8   | True drip fixed flow - 4mm barbed inlet            | Red    | 8 L/h @ 100 kPa |
| TD2PC | True drip pressure compensating - 4mm barbed inlet | Blue   | 2 L/h @ 100 kPa |
| TD4PC | True drip pressure compensating - 4mm barbed inlet | Green  | 4 L/h @ 100 kPa |
| TD8PC | True drip pressure compensating - 4mm barbed inlet | Red    | 8 L/h @ 100 kPa |

## Installation: True Drip fixed flow drippers

Example of typical vineyard installation



### RECOMMENDED USE:

Products described above are designed and manufactured for micro irrigation use and therefore have a maximum recommended operating pressure of 300kPa. The products must be used with suitable filtration (where applicable) to avoid blockage or damage to working components.

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## Sealing Grommets

### Technical Specifications Sheet

Self sealing rubber grommets, manufactured from EPDM material to ASTM D2000 which has a high resistance to a broad range spectrum of chemicals commonly used in agricultural irrigation. 50 Shore A hardness.

### Performance features

- > Select grommet and take-off to match the required flow rate and designed head loss [see overleaf].
- > Recommended maximum operating pressure 300kPa.

### Operation

- > Inserted into pre-drilled holes.
- > Can be used in PVC and HDPE (up to 2.8mm wall thickness) pipe.
- > For correct operation use only recommended take-off with the grommet [see overleaf].

### Application

- > To provide a seal for multiple lateral take off points [manifold] from sub-mains.



### Flow Rates - Double Flanged Rubber Grommets

| Headloss [kPa] | FLOW RATE THROUGH CONNECTION - LITRES PER HOUR |        |        |        |         |
|----------------|------------------------------------------------|--------|--------|--------|---------|
|                | GR56                                           |        | GR34   |        |         |
|                | T05612                                         | T03458 | T03434 | T03410 | T034114 |
| 5              | 270                                            | 1320   | 2160   | 2280   | 2490    |
| 10             | 348                                            | 1920   | 2970   | 3000   | 3300    |
| 15             | 420                                            | 2280   | 3510   | 3600   | 3900    |
| 20             | 486                                            | 2640   | 4080   | 4140   | 4500    |
| 25             | 552                                            | 3000   | 4470   | 4680   | 4920    |
| 30             | 600                                            | 3210   | 4920   | 4980   | 5400    |
| 35             | 648                                            | -      | -      | -      | -       |

### Flow Rates - Top Hat Grommets

| Headloss [kPa] | FLOW RATE THROUGH CONNECTION - LITRES PER HOUR |        |        |        |        |        |        |         |
|----------------|------------------------------------------------|--------|--------|--------|--------|--------|--------|---------|
|                | GR12TH                                         |        | GR58TH |        | GR34TH |        |        |         |
|                | T01212                                         | T01234 | T05812 | T05858 | T03458 | T03434 | T03410 | T034114 |
| 5              | 690                                            | 780    | 750    | 1230   | 1320   | 2580   | 2550   | 2610    |
| 10             | 924                                            | 1020   | 1020   | 1830   | 1860   | 3480   | 3330   | 3330    |
| 15             | 1110                                           | 1350   | 1320   | 2280   | 2310   | 4200   | 3960   | 3960    |
| 20             | 1320                                           | 1560   | 1530   | 2550   | 2640   | 4950   | 4650   | 4500    |
| 25             | 1410                                           | 1650   | 1650   | 2970   | 2940   | 5400   | 5100   | 4920    |
| 30             | 1620                                           | 1950   | 1920   | 3300   | 3180   | 6000   | 5640   | 5400    |
| 35             | 1710                                           | 2040   | 1980   | 3510   | -      | -      | -      | -       |

# Sealing Grommets

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## Material Specifications - Top Hat Grommets



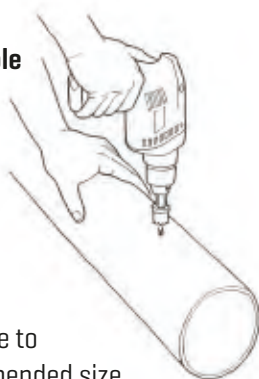
| CODE                                | GR12TH           | GR58TH           | GR34TH                                |
|-------------------------------------|------------------|------------------|---------------------------------------|
| To suit<br>Take-off code            | T01234<br>T01212 | T05812<br>T05858 | T03458<br>T03434<br>T03410<br>T034114 |
| Take-off material                   | Nylon 6          | Nylon 6          | Nylon 6                               |
| Internal dia. of grommet            | 13mm             | 16mm             | 19mm                                  |
| Drill size                          | -                | -                | -                                     |
| Hole saw size                       | 16mm             | 19mm             | 22mm                                  |
| For use with min. rec. pipe ID size | 40mm >           | 50mm >           | 50mm >                                |



| CODE                                | GR56    | GR34                                  |
|-------------------------------------|---------|---------------------------------------|
| To suit<br>Take-off code            | T05612  | T03458<br>T03434<br>T03410<br>T034114 |
| Take-off material                   | Nylon 6 | Nylon 6                               |
| Internal dia. of grommet            | 8mm     | 19mm                                  |
| Drill size                          | 11mm    | -                                     |
| Hole saw size                       | -       | 24mm                                  |
| For use with min. rec. pipe ID size | 25mm    | 50mm                                  |

## Installation: Top Hat Grommets

### Step 1. Drill Hole



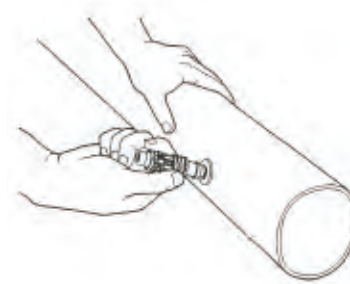
Drill hole to recommended size.

### Step 2. Insert Grommet



Remove all burrs.  
Place "TOP HAT" grommet firmly into hole with flange facing out.

### Step 3. Insert fitting



Insert and locate fitting firmly against flange of grommet and pull back slightly to seat the barb.

## Installation: Double Flanged Rubber Grommets

Drill required hole [see chart] and fit the grommet, chamfered side inside the pipe and groove to suit pipe form. then push the take-off firmly home.



### RECOMMENDED USE:

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## Microspin Mini Sprinklers

### Technical Specifications Sheet

#### Features & Benefits

- > The Strong "C" frame design allows for excellent water distribution uniformity.
- > Inverted Orbita Micro Sprinkler with barbed base.
- > Eight colour coded bases to choose from
- > Base colour identifies the flow rate.
- > During rotation the spinner is supported between two bearings.
- > The spinner on the inverted sprinkler has a cover that protects the bottom bearing from dust.

#### Operation

Mount standard model vertically by fitting the STO (landscape) spike on the frame bell, [see figure 2, page 3]. Suspend inverted model from overhead lateral with [approved quality] flexible tube or tap directly into lateral, [see installation, page 4]

#### Applications

Agricultural applications and greenhouses.



**Microspin**

MS13  
MS14  
MS16  
MS20



**Inverted  
Microspin**

IMS13  
IMS20

# Microspin and Inverted Microspin Sprinklers



## Performance data: Microspin Sprinklers

| Base colour and base outlet size                                                               | Pressure |      | Flow Rate |           | Radius   | Stream Height |
|------------------------------------------------------------------------------------------------|----------|------|-----------|-----------|----------|---------------|
|                                                                                                | kPa      | psi  | [L/hr]    | [US g/hr] | [Metres] | [Metres]      |
| MS13 - Blue   | 75       | 10.8 | 41        | 10.8      | 2.4      | 0.14          |
|                                                                                                | 100      | 14.5 | 51        | 13.4      | 2.6      | 0.20          |
|                                                                                                | 150      | 21.8 | 60        | 15.8      | 2.8      | 0.24          |
|                                                                                                | 200      | 29.0 | 69        | 18.2      | 3.0      | 0.36          |
| MS14 - Green  | 75       | 10.8 | 50        | 13.2      | 2.5      | 0.15          |
|                                                                                                | 100      | 14.5 | 59        | 15.5      | 2.9      | 0.19          |
|                                                                                                | 150      | 21.8 | 68        | 17.9      | 3.3      | 0.32          |
|                                                                                                | 200      | 29.0 | 82        | 21.6      | 3.5      | 0.40          |
| MS16 - Red    | 75       | 10.8 | 64        | 16.9      | 2.6      | 0.15          |
|                                                                                                | 100      | 14.5 | 73        | 19.2      | 3.0      | 0.20          |
|                                                                                                | 150      | 21.8 | 91        | 24.0      | 3.6      | 0.20          |
|                                                                                                | 200      | 29.0 | 102       | 26.9      | 3.7      | 0.34          |
| MS20 - Grey  | 75       | 10.8 | 83        | 21.9      | 3.3      | 0.25          |
|                                                                                                | 100      | 14.5 | 98        | 25.9      | 3.3      | 0.27          |
|                                                                                                | 150      | 21.8 | 120       | 31.7      | 3.9      | 0.31          |
|                                                                                                | 200      | 29.0 | 140       | 36.9      | 4.3      | 0.39          |

## Performance data: Inverted Microspin Sprinklers @ 1.2m elevation

| Base colour and base outlet size                                                                 | Pressure |      | Flow Rate |           | Radius   |
|--------------------------------------------------------------------------------------------------|----------|------|-----------|-----------|----------|
|                                                                                                  | kPa      | psi  | [L/hr]    | [US g/hr] | [Metres] |
| IMS13 - Blue  | 75       | 10.8 | 42        | 11.0      | 3.0      |
|                                                                                                  | 100      | 14.5 | 49        | 12.9      | 3.1      |
|                                                                                                  | 150      | 21.8 | 61        | 16.1      | 3.2      |
|                                                                                                  | 200      | 29.0 | 70        | 18.4      | 3.3      |
| IMS20 - Grey  | 75       | 10.8 | 86        | 22.7      | 3.4      |
|                                                                                                  | 100      | 14.5 | 99        | 26.1      | 3.5      |
|                                                                                                  | 150      | 21.8 | 124       | 32.7      | 3.7      |
|                                                                                                  | 200      | 29.0 | 82        | 37.5      | 3.8      |

## Performance data: Inverted Microspin Sprinklers @ 2.0m elevation

| Base colour and base outlet size                                                                 | Pressure |      | Flow Rate |           | Radius   |
|--------------------------------------------------------------------------------------------------|----------|------|-----------|-----------|----------|
|                                                                                                  | kPa      | psi  | [L/hr]    | [US g/hr] | [Metres] |
| IMS13 - Blue  | 75       | 10.8 | 42        | 11.0      | 3.5      |
|                                                                                                  | 100      | 14.5 | 49        | 12.9      | 3.6      |
|                                                                                                  | 150      | 21.8 | 61        | 16.1      | 3.6      |
|                                                                                                  | 200      | 29.0 | 70        | 18.4      | 3.7      |
| IMS20 - Grey  | 75       | 10.8 | 86        | 22.7      | 4.0      |
|                                                                                                  | 100      | 14.5 | 99        | 26.1      | 4.2      |
|                                                                                                  | 150      | 21.8 | 124       | 32.7      | 4.3      |
|                                                                                                  | 200      | 29.0 | 82        | 37.5      | 4.4      |

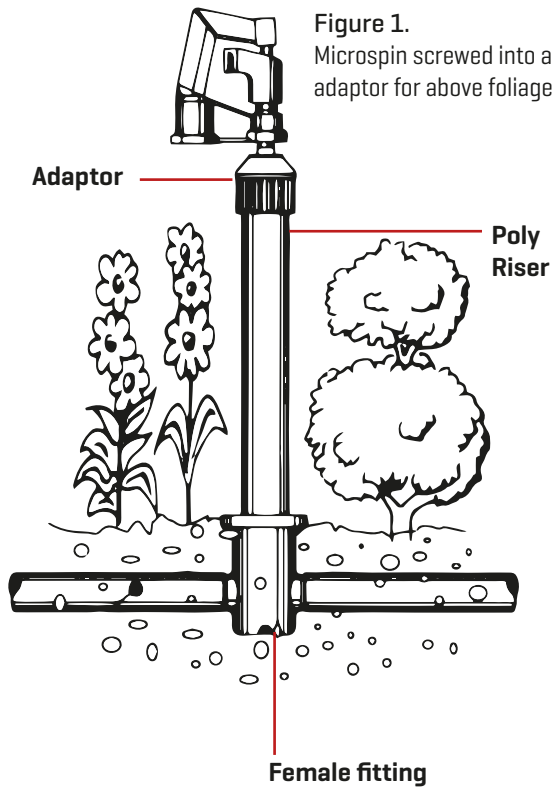
# Microspin Sprinkler

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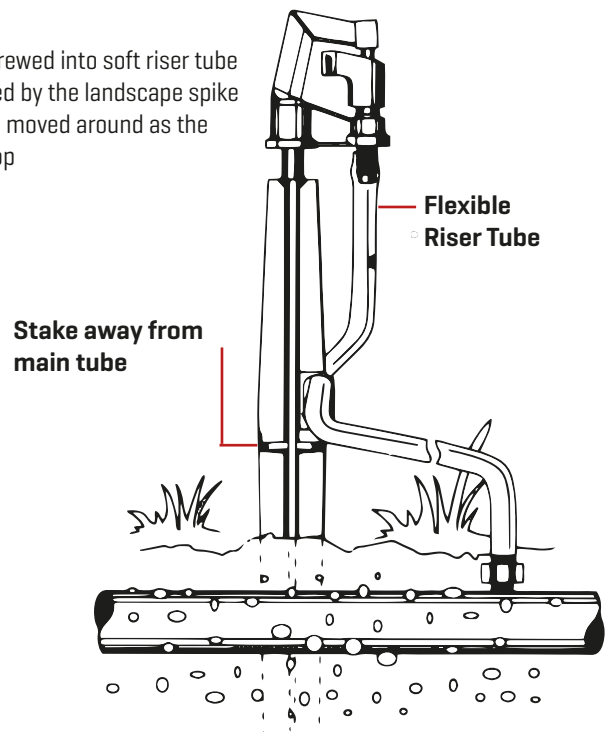
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## Installation

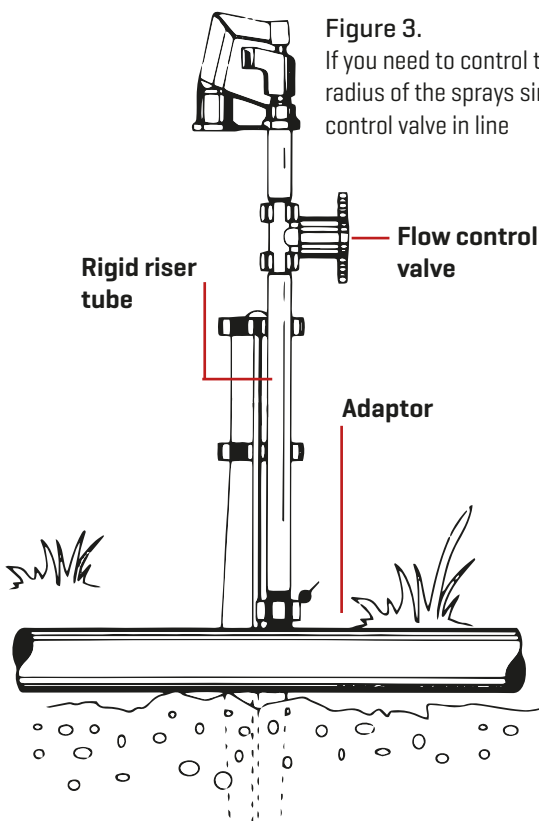
**Figure 1.**  
Microspin screwed into a poly riser adaptor for above foliage watering



**Figure 2.**  
Microspin screwed into soft riser tube and supported by the landscape spike which can be moved around as the plants develop

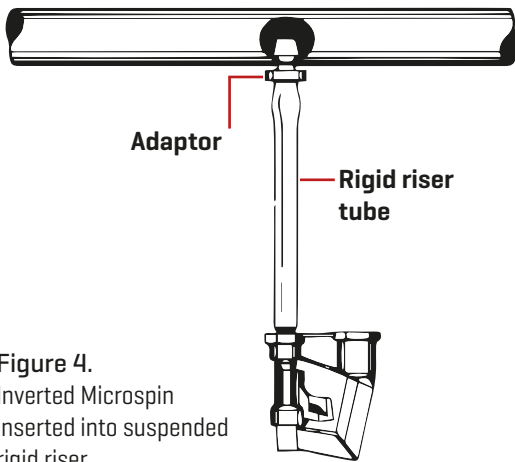


**Figure 3.**  
If you need to control the flow and radius of the sprays simply fit a flow control valve in line

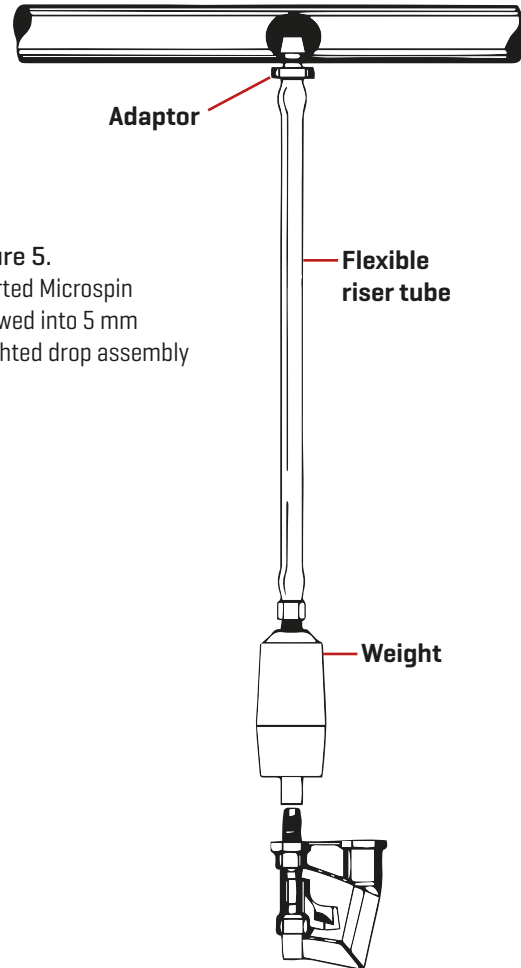


# Inverted Microspin Sprinkler

## Installation



**Figure 4.**  
Inverted Microspin  
inserted into suspended  
rigid riser



**Figure 5.**  
Inverted Microspin  
screwed into 5 mm  
weighted drop assembly

### RECOMMENDED USE:

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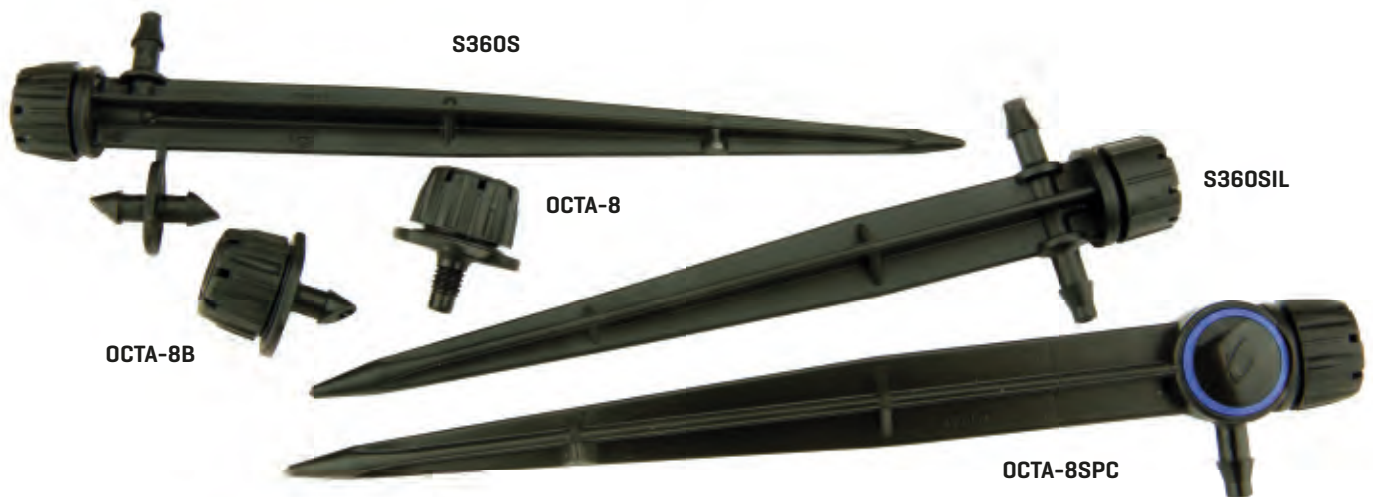
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## Octa-Emitters

Adjustable 8 outlet dripper with ratcheting actions

### Technical Specifications Sheet



#### Precision water deflecting jets

Multi purpose garden bed and agricultural crop deflector jets. Two piece frame and nozzle solid snap fit construction.

#### Operation

- > Rotate the cap to the desired flow. Each clicking action advances the discharge gradually from a low volume drip, to a high volume bubbler and finally to 8 gentle streams
- > The cap can be rotated to the closed position
- > Pressure compensating (PC) version is available with a nominal 40 L/h discharge and a pre-defined diameter of throw

#### Performance

- > Each click increases the flow and the diameter of the streams (see overleaf)
- > The stream trajectory is designed to clear localised interference from foliage

#### Versatility

- > Barbed inlet to suit LDPE
- > Threaded inlet to suit rigid risers

#### Application

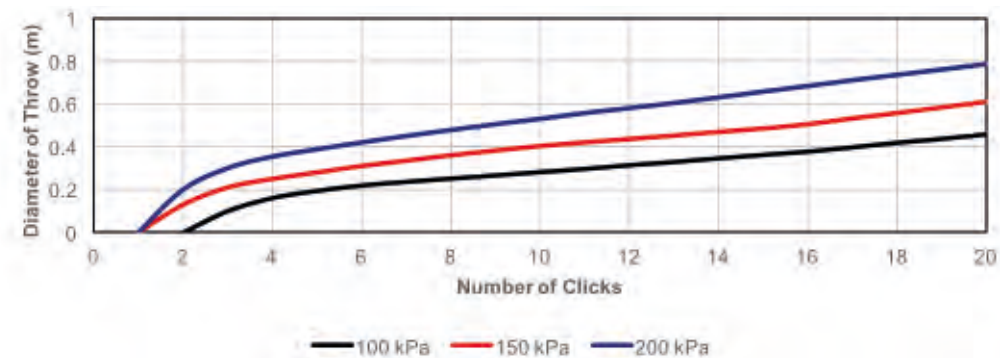
- > Small or large pot
- > Planter boxes
- > Hanging baskets
- > Garden beds
- > Landscape areas

## Specifications: Octa-Mitter

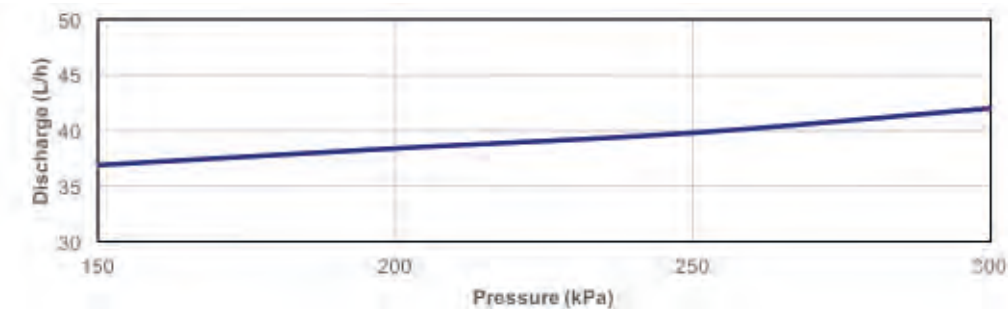
### FLOW RATE



### DIAMETER OF THROW



### FLOW RATE - BLUE PC



### DIAMETER OF THROW - 0.35m TO 0.36m

#### RECOMMENDED USE:

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## Orbitor & Challenger Micro Sprinklers

### Technical Specifications Sheet

#### Multi purpose, energy efficient irrigation

Matching sets of nozzle sizes, rotors, flippers and stakes ideally suited to oranges, mandarins, apples, pears, peaches, cherries, vines, tropical and exotic fruits, avacados, banana plantations, nut crops, nurseries, row crop vegetables, essential oil cultivation, frost control.



Orbitor Anti-Ant  
Micro Sprinkler  
3/8" BSP Base



Challenger MKII  
Micro Sprinkler  
3/8" BSP Base



Challenger MKII  
Micro Sprinkler  
1/2" BSP Base



### Filtration requirements\*

| Nozzle Colour       | White | Maroon | Green | Blue | Grey | Yellow | Red |
|---------------------|-------|--------|-------|------|------|--------|-----|
| Nozzle orifice [mm] | 1.1   | 1.3    | 1.4   | 1.6  | 1.8  | 2.1    | 2.4 |
| Mesh                | >75   | >75    | 75    | 75   | 50   | 50     | 50  |
| Microns             | >200  | >200   | 200   | 200  | 300  | 300    | 300 |

\* For non-colloidal water quality

# XL Jet+ Sprays



## Performance data: Orbitor & Anti-Ant



| Product Code        |     |      | OAA13   | OAA14   | OAA16    | OAA20    | OAA22    | OAA24    | OAA27    | Tested        |
|---------------------|-----|------|---------|---------|----------|----------|----------|----------|----------|---------------|
| Nozzle Colour       |     |      | White   | Maroon  | Green    | Blue     | Grey     | Yellow   | Red      | A92030/A92046 |
| Nozzle Orifice [mm] |     |      | 1.4     | 1.3     | 1.4      | 1.6      | 1.8      | 2.1      | 2.4      |               |
|                     | kPa | bar  |         |         |          |          |          |          |          | [psi*]        |
| Flow rate L/hr      | 100 | 1.0  | 46 [12] | 56 [15] | 72 [19]  | 101 [27] | 125 [33] | 153 [40] | 196 [52] | 14.5          |
| Flow rate L/hr      | 125 | 1.25 | 52      | 64      | 81       | 113      | 139      | 172      | 219      |               |
| Flow rate L/hr      | 150 | 1.50 | 55 [14] | 70 [18] | 90 [24]  | 125 [33] | 150 [40] | 185 [49] | 240 [63] | 21.8          |
| Flow rate L/hr      | 175 | 1.75 | 61      | 75      | 95       | 134      | 165      | 202      | 261      |               |
| Flow rate L/hr      | 200 | 2.00 | 65 [17] | 80 [21] | 101 [27] | 143 [38] | 176 [46] | 215 [57] | 278 [73] | 29.0          |
| Flow rate L/hr      | 225 | 2.25 | -       | -       | -        | -        | 187      | 227      | 295      |               |
| Flow rate L/hr      | 250 | 2.50 | -       | -       | -        | -        | 197      | 244      | 311      |               |
| Radius [metres]     | 100 | 1.0  | 1.9     | 2.0     | 2.0      | 2.3      | 2.5      | 2.7      | 3.0      |               |
| Radius [metres]     | 150 | 1.50 | 2.3     | 2.3     | 2.4      | 2.4      | 2.6      | 3.1      | 3.4      |               |
| Radius [metres]     | 200 | 2.00 | 2.4     | 2.3     | 2.4      | 2.7      | 2.6      | 3.4      | 3.6      |               |
| Stream Height [m]   | 150 | 1.50 | 0.08    | 0.08    | 0.09     | 0.09     | 0.09     | 0.10     | 0.10     |               |

## Performance data: Challenger & MKII



| Product Code        |     |      | SMB13   | SMB14   | SMB16    | SMB20    | SMB22    | SMB24    | SMB27    | Tested        |
|---------------------|-----|------|---------|---------|----------|----------|----------|----------|----------|---------------|
| Nozzle Colour       |     |      | White   | Maroon  | Green    | Blue     | Grey     | Yellow   | Red      | A92030/A92046 |
| Nozzle Orifice [mm] |     |      | 1.1     | 1.3     | 1.4      | 1.6      | 1.8      | 2.1      | 2.4      |               |
|                     | kPa | bar  |         |         |          |          |          |          |          | [psi*]        |
| Flow rate L/hr      | 100 | 1.0  | 46 [12] | 56 [15] | 72 [19]  | 101 [27] | 125 [33] | 153 [40] | 196 [52] | 14.5          |
| Flow rate L/hr      | 125 | 1.25 | 52      | 64      | 81       | 113      | 139      | 172      | 219      |               |
| Flow rate L/hr      | 150 | 1.50 | 55 [14] | 70 [18] | 90 [24]  | 125 [33] | 150 [40] | 185 [49] | 240 [63] | 21.8          |
| Flow rate L/hr      | 175 | 1.75 | 61      | 75      | 95       | 134      | 165      | 202      | 261      |               |
| Flow rate L/hr      | 200 | 2.00 | 65 [17] | 80 [21] | 101 [27] | 143 [38] | 176 [46] | 215 [57] | 278 [73] | 29.0          |
| Flow rate L/hr      | 225 | 2.25 | -       | -       | -        | -        | 187      | 227      | 295      |               |
| Flow rate L/hr      | 250 | 2.50 | -       | -       | -        | -        | 197      | 244      | 311      |               |
| Radius [metres]     | 100 | 1.0  | 1.9     | 2.0     | 2.0      | 2.3      | 2.5      | 2.7      | 3.0      |               |
| Radius [metres]     | 150 | 1.50 | 2.3     | 2.3     | 2.4      | 2.4      | 2.6      | 3.1      | 3.4      |               |
| Radius [metres]     | 200 | 2.00 | 2.4     | 2.3     | 2.4      | 2.7      | 2.6      | 3.4      | 3.6      |               |
| Stream Height [m]   | 150 | 1.50 | 0.08    | 0.08    | 0.09     | 0.09     | 0.09     | 0.10     | 0.10     |               |

Note: Shaded area denotes recommended operating pressure & discharge

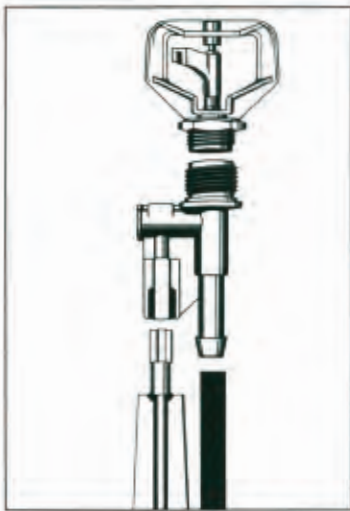
\* psi with [US Gallons/Hr]

# Orbitor & Challenger Micro Sprinklers

## Philmac

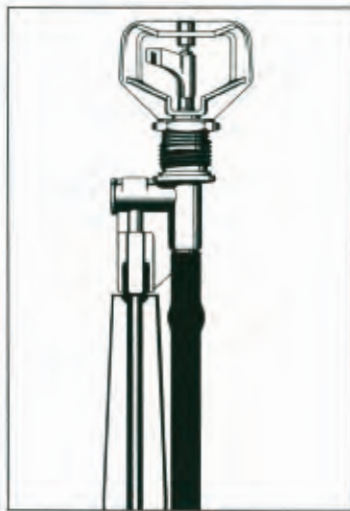
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### Installation



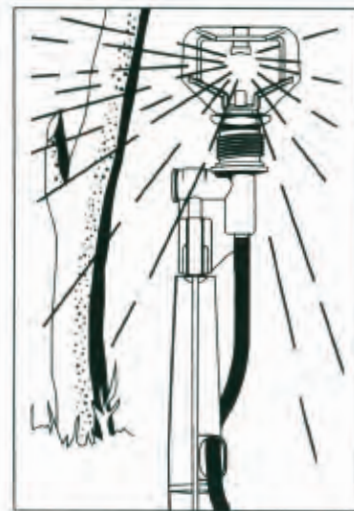
#### Threaded Stake Head and Combi Spike

5mm barbed bottom entry. Code HD5. Use with 5mm flexible riser tube connection to the lateral.



#### Combi Threaded Stake

5mm barbed bottom entry. Code ST05. Use with 5mm flexible riser tube connection to the lateral.



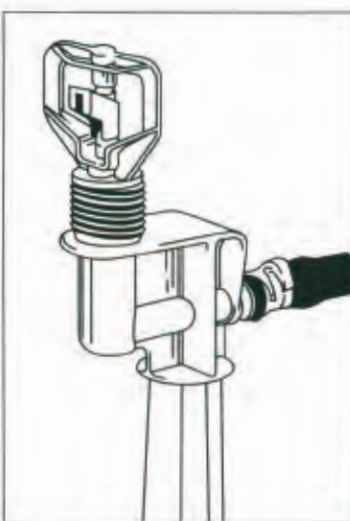
#### Deflectors

Remove nozzle by screwing a rigid riser and pulling. Removing the flipper push deflector stem into the frame. Re-insert nozzle Deflectors. Short range 360° on frame. Code SMD 360° long range. Code SMD 180° half circle.



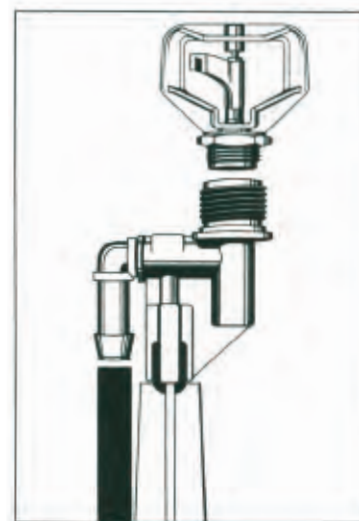
#### Threaded Stake Head and Combi Spike

5mm barbed side entry. Code HD10 & HD13. Use with 10mm or 13mm poly tube connection to the lateral.



#### Standard Threaded Stake Head

Barbed side entry. Code ST10. Use with 10mm poly tube connection to the lateral.



#### Swivel Elbow Stake

Code ST10S. Use with 10mm poly tube connection to the lateral. Swivel action elbow ensures vertical stake position, especially with above ground laterals.

### RECOMMENDED USE:

Products described above are designed and manufactured for micro irrigation use and therefore have a maximum recommended operating pressure of 300kPa. The products must be used with suitable filtration (where applicable) to avoid blockage or damage to working components.

Please note that the information, opinions, recommendations and advice given on this specification sheet are supplied only to provide an improved understanding of the technical aspects of Philmac products. So far as the law allows, Philmac Pty. Ltd. will not accept liability in respect of any loss or damage of any kind claimed to arise as result of reliance upon any information contained on this specification sheet. Please to our terms & conditions of supply: <https://www.philmac.com.au/terms-conditions-supply/>.

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PHI1728 08/24



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## Quick Action Shut Off Valves

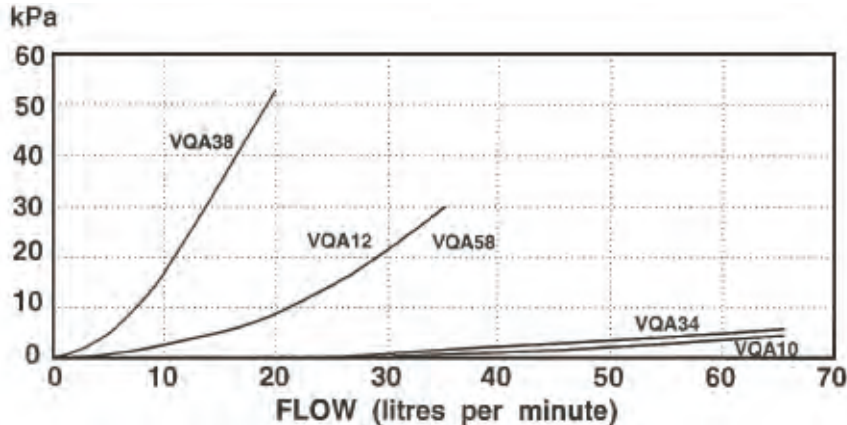
### Technical Specifications Sheet

For complete control over water, a Philmac Quick Action Shut Off valve allows water to be turned on or off with just a quarter turn.

#### Installation

Simply insert appropriate LDPE pipe manufactured to AS2698.1

#### Head Loss



### Specifications

| Code                     | VQA38 | VQA12 | VQA58 | VQA34 | VQA10 |
|--------------------------|-------|-------|-------|-------|-------|
| Inlet barb to suit pipe  | 10mm  | 13mm  | 16mm  | 19mm  | 25mm  |
| Outlet barb to suit pipe | 10mm  | 13mm  | 16mm  | 19mm  | 25mm  |
| Ratchet clip to suit     | CT13  | CT15  | CT19  | CT23  | CT29  |

NOTE: We recommend the use of ratchet clips with all valves.

#### Recommended use:

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13mm x  
3/4" BSP male



VT1234

19mm x 19mm



VQA34

25mm x 25mm



VQA10

### Features and Benefits

#### Ease of Use

Rapid quarter turn on/off control.

#### Versatile

Straight flow in both directions.  
Throttling ability with a partial turn of the handle.

#### Reliable

Fully tested to adverse environmental conditions.  
Weather Resistant.

### For more information

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PHI1730-08/24



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# Tape-lock

## Technical Specifications Sheet

### Heavy duty fittings and valves for drip tube connections

A comprehensive range of heavy duty fittings and valves which provide a positive and quick method of connecting most brands of 16mm ID (Nominal) drip tube and tape products.

### Performance features

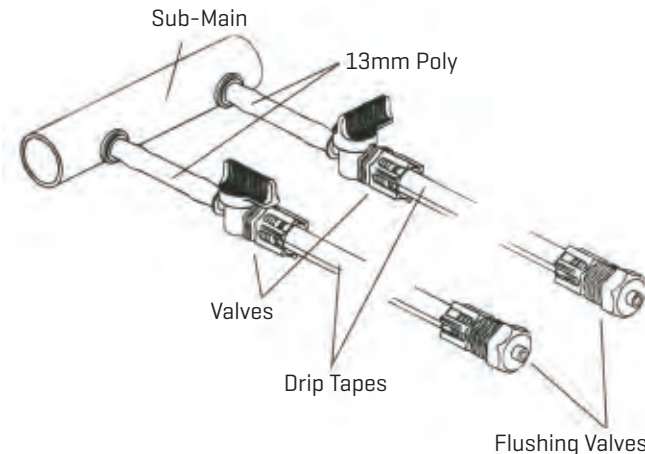
- > Heavy duty lock nut [easy on the fingers] - comfortable to work with..
- > Acme square thread for quick engagement with drip tube, locking it into position.
- > Chamfered interface has been designed between the locking nut and the barb to provide the best possible sealing action..

### Operation

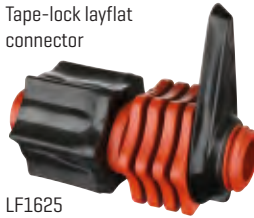
- > The drip tube slides over the leading ramp of the barb to butt against the internal wall. A half turn of the lock nut "seals" the tube against the face of the barb..

### Application

- > For use with compatible drip tube in vegetable row crops, vineyards and general horticulture.
- > Above ground and sub-surface connections
- > Connections from lay flat hose, PVC and PE pipe work systems



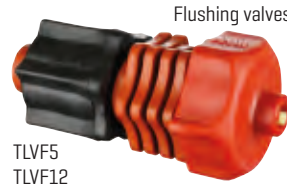
Tape-lock layflat connector



Tape-lock quick action valve



Flushing valves



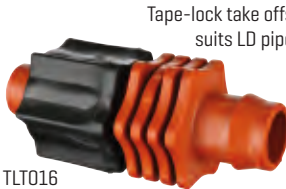
Tape-lock connector



Tape-lock tee



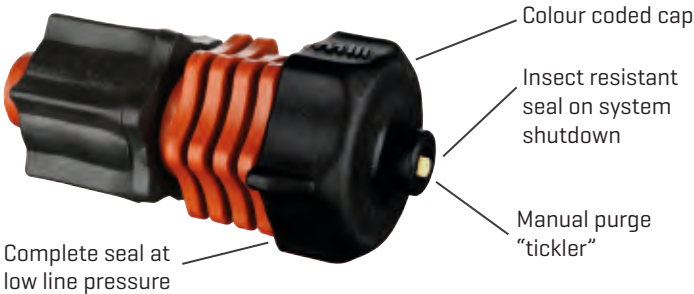
Tape-lock take offs suits LD pipe



### Tape-Lock Auto Flushing Valves

| Product Code | Cap Colour | Nominal Seal Rate |
|--------------|------------|-------------------|
| TLVF5        | RED        | 5 kPa             |
| TLVF12       | BLACK      | 12kPa             |

Manual purging of individual lines [if required] is done by pressing the "valve ticklet". The static line pressure must be minimum 36 kPa [approx. 5 psi] for manual purging.



### Recommended use:

Product described above are designed and manufactured for micro irrigation use and therefore have a maximum recommended operating pressure. The product must be used with suitable filtration [where applicable] to avoid blockage or damage to working components.

# Tape-lock

## Installation

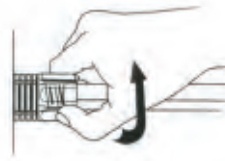
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### Tape assembly to fitting:



1. Ensure lock nuts are screwed back against the fitting shoulder. Slide drip tape over barb and push home to butt against the internal wall.

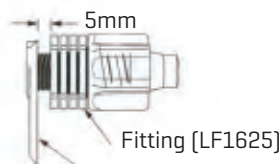


2. Hold the body and half turn locking nuts in a clockwise direction. Nip tight with a spanner, only if necessary.

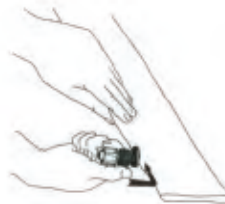
### Connection to lay flat hose:



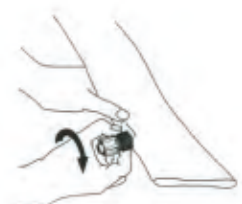
1. Punch hole using oval eye punch.



2. Loosen the tear drop to provide 5mm gap approximately.



3. Insert tear drop through punched hole in lay flat hose.

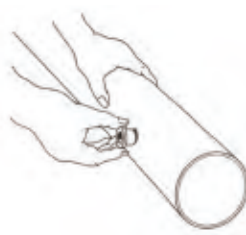


4. Hold wing of tear drop through lay flat hose and turn fitting clockwise. Nip tight with 3/8" allen key..

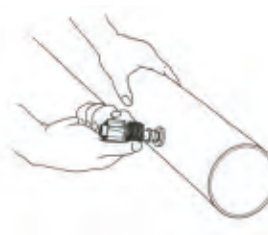
### Connecting to PVC or PE pipes:



1. Drill hole to recommended size.



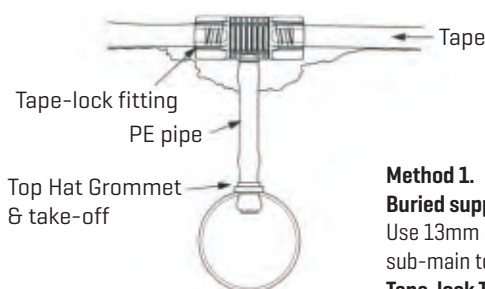
2. Place Philmac "Top Hat" Grommet firmly in hole with flange facing out..



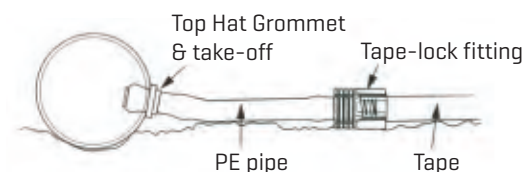
3. Insert and locate take-off firmly against flange of Grommet.

Refer to Philmac technical specification No. PHI1711

### Connecting PE pipe to tape/drip tube:



**Method 1.**  
**Buried supply sub-main**  
Use 13mm or 16mm pipe from sub-main to surface and **Tape-lock Tee TLT13 or TLT16**



**Method 2.**  
**Polyethylene pipe between Sub-main and drip tape.**  
Allow for desired length of pipe between sub-main and drip tape, use **Tape-lock TLT0 13 or TLT016**.

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PHI1709 08/24



# Philmac

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## XL Jet+ Sprays

### Technical Specifications Sheet

#### Precision water deflecting jets

Multi purpose garden bed and agricultural crop deflector jets. Two piece frame and nozzle solid snap fit construction.

#### Operation

- > 4mm threaded inlet provides a reliable snug fit into polytube soft riser and rigid risers.

#### Performance

- > Balanced, consistent coverage from matched precipitation discharge rates.
- > Three spray patterns to suit both landscape designs and agriculture.
- > Four calibrated and colour coded nozzles to suit hydraulic design parameters.
- > Spaced streaming trajectory designed for vineyard and orchard crops.
- > Mister best suited to greenhouse, nurseries, seedling propagation.

#### Application

- > Designed for use in both exposed and sheltered areas.
- > Soil types: All sands, loams and clays.
- > Plant types: Stream and feather pattern best suited to densely planted shrubbery, ground covers and bedding plants.



### Nominal performance at a glance

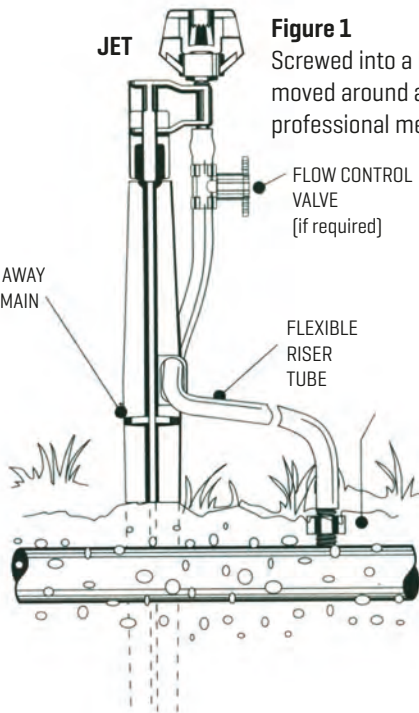
| Nozzle       | LPH @ 150 kPa | 360° S&F Radius | 180° S&F Radius | 90° S&F Radius | Strip Radius | 360° x 16 Radius | 360° x 12 Radius | Mister Diameter |
|--------------|---------------|-----------------|-----------------|----------------|--------------|------------------|------------------|-----------------|
| Black 0.9mm  | 35            | -               | -               | 2.1m           | -            | 2.1m             | 2.6m             | 2.4m            |
| Green 1.2mm  | 70            | -               | 2.0m            | -              | 3.2m         | 2.7m             | 3.5m             | -               |
| Red 1.4mm    | 90            | -               | 2.4m            | -              | 3.7m         | 2.8m             | 3.8m             | -               |
| Orange 1.7mm | 140           | 2.3m            | -               | -              | -            | 3.4m             | 4.5m             | -               |

# XL Jet+ Sprays

# Philmac

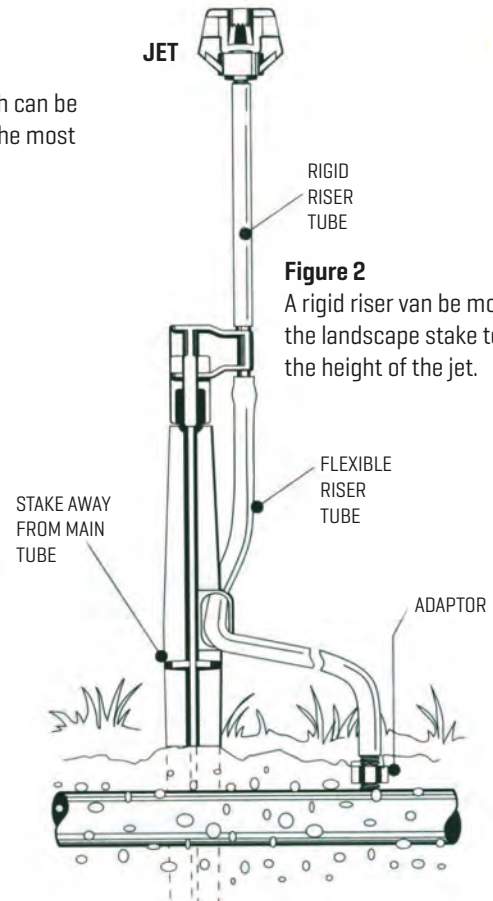
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## Installation: XL Jet+ Sprays



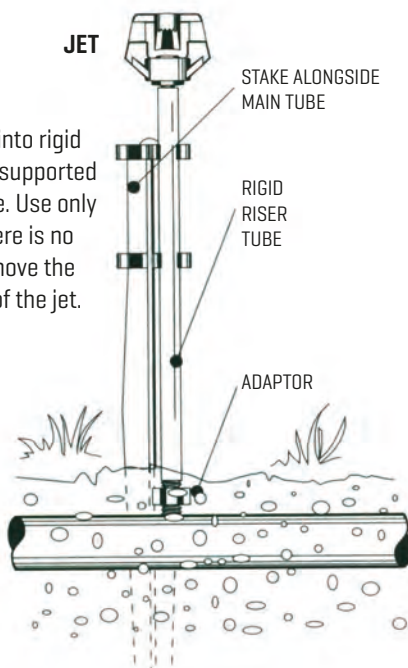
**Figure 1**

Screwed into a landscape stake (LST4A) which can be moved around as the plants develop. This is the most professional method of installation.



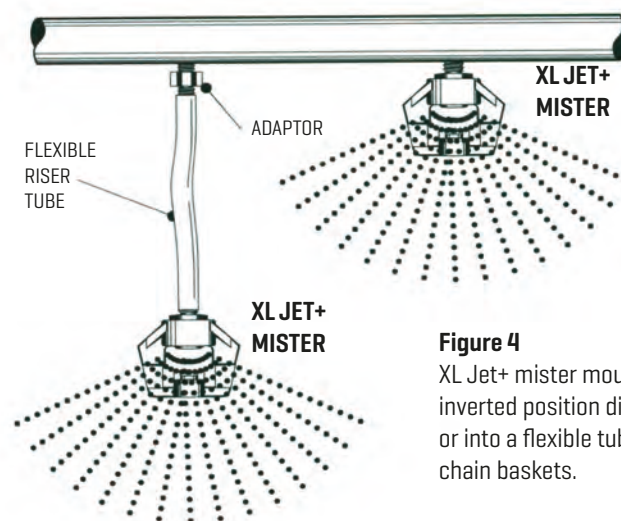
**Figure 2**

A rigid riser can be mounted on the landscape stake to increase the height of the jet.



**Figure 3**

Screwed into rigid riser and supported by a stake. Use only where there is no need to move the position of the jet.



**Figure 4**

XL Jet+ mister mounted in an inverted position directly into poly or into a flexible tube for hanging chain baskets.

## Specifications: XL Jet+ Sprays

| Nozzle Colour | Pressure kPa | Flow Rate LPH | 360° S&F Radius m | 180° S&F Radius m | 90° S&F Radius m | 360° x 16 Radius m | 300° x 12 Radius m | Strip Radius x width | 180° S&F Radius |
|---------------|--------------|---------------|-------------------|-------------------|------------------|--------------------|--------------------|----------------------|-----------------|
| SF9009        |              |               |                   |                   |                  |                    |                    |                      | MXL09           |
| Black         | 75           | 25            | -                 | -                 | 1.4              | -                  | -                  | -                    | 1.7             |
| 0.9mm         | 100          | 29            | -                 | -                 | 1.7              | -                  | -                  | -                    | 2.0             |
|               | 125          | 42            | -                 | -                 | 1.7              | -                  | -                  | -                    | 2.2             |
|               | 150          | 35            | -                 | -                 | 2.1              | -                  | -                  | -                    | 2.4             |
|               | 200          | 41            | -                 | -                 | 2.2              | -                  | -                  | -                    | 2.4             |
| SF1812        |              |               | 5301612           |                   | 5301212          |                    | SXL12              |                      |                 |
| Green         | 75           | 48            | -                 | 1.5               | -                | 1.8                | 2.5                | 2.5 x 0.8            | -               |
| 1.2mm         | 100          | 56            | -                 | 1.8               | -                | 2.1                | 3.0                | 3.2 x 0.9            | -               |
|               | 125          | 63            | -                 | 2.0               | -                | 2.5                | 3.3                | 3.0 x 1.0            | -               |
|               | 150          | 70            | -                 | 2.0               | -                | 2.7                | 3.5                | 3.2 x 1.1            | -               |
|               | 200          | 79            | -                 | 2.3               | -                | 2.9                | 3.8                | 3.4 x 1.2            | -               |
| SF1814        |              |               | 5301614           |                   | 5301214          |                    | SXL14              |                      |                 |
| Red           | 75           | 62            | -                 | 1.8               | -                | 1.6                | 3.2                | 2.9 x 0.9            | -               |
| 1.4mm         | 100          | 73            | -                 | 2.0               | -                | 2.0                | 3.5                | 3.2 x 1.1            | -               |
|               | 125          | 81            | -                 | 2.2               | -                | 2.4                | 3.8                | 3.5 x 1.2            | -               |
|               | 150          | 90            | -                 | 2.4               | -                | 2.8                | 3.8                | 3.7 x 1.3            | -               |
|               | 200          | 102           | -                 | 2.7               | -                | 3.2                | 4.3                | 4.1 x 1.4            | -               |
| SF1817        |              |               | 5301617           |                   | 5301217          |                    |                    |                      |                 |
| Orange        | 75           | 95            | 1.5               | -                 | -                | 2.3                | 3.5                | -                    | -               |
| 1.7mm         | 100          | 110           | 1.8               | -                 | -                | 2.6                | 3.8                | -                    | -               |
|               | 125          | 125           | 2.0               | -                 | -                | 3.0                | 4.3                | -                    | -               |
|               | 150          | 140           | 2.3               | -                 | -                | 3.4                | 4.5                | -                    | -               |
|               | 200          | 158           | 2.5               | -                 | -                | 3.8                | 4.8                | -                    | -               |

### RECOMMENDED USE:

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