

A major advance in drip irrigation using a clay pot

Dr Bernie Omodei
Measured Irrigation
5/50 Harvey Street East, Woodville Park SA 5011
Mobile 0403 935277
Email bomodei@measuredirrigation.com.au
Website www.measuredirrigation.com.au

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Subsurface clay pot



Unpowered drip irrigation controller using a clay pot

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1. Installation of the unpowered drip irrigation controller using a clay pot

- 1 Select a drip irrigation zone where all the plants in the zone have the same irrigation requirement.
- 2 Select a typical dripper and replace it with a subsurface clay pot.



- 3 Connect the clay pot to the unpowered drip irrigation controller.



- 4 Connect a dripper inside the unpowered drip irrigation controller.



- 5 Connect the water supply for the zone to the inlet of the unpowered drip irrigation controller (between 10 kPa and 800 kPa).



6 Connect the irrigation zone to the outlet of the unpowered drip irrigation controller.



7 Fill the unpowered drip irrigation controller with water until the float is partially covered.



8 Turn on the water supply and all the plants will be watered automatically without power.

2. How to use the unpowered drip irrigation controller

The unpowered drip irrigation controller allows you to automatically irrigate your garden using gravity feed from an elevated rainwater tank without using a pump and without power.

The unpowered drip irrigation controller can be used for surface and subsurface irrigation using either non pressure compensating (NPC) drippers or pressure compensating (PC) drippers.

The discharge from each dripper can be set to any value between 285 ml and 612 ml

Using PC drippers on sloping land or NPC drippers on flat land, the interval between irrigation events adjusts automatically to ensure that the discharge from each dripper during an irrigation event is the same as the on-demand discharge from the subsurface clay pot since the previous irrigation event.

You may wish to replace a number of drippers with subsurface clay pots. The number of drippers inside the unpowered drip irrigation controller should be the same as the number of subsurface clay pots. In this case the discharge from each dripper during an irrigation event is the same as the average on-demand discharge from the subsurface clay pots since the previous irrigation event.

3. Key features

1. Unpowered (no batteries, no solar panels, no electronics, no computers, and no WiFi)
2. Use for gravity feed or pressurised irrigation
3. Use for PC (pressure compensating) drippers or NPC (non pressure compensating) drippers
4. Use for subsurface or surface drip irrigation
5. Use for drip tube or drip tape
6. The water supply pressure should be between 10 kPa and 800 kPa
7. The water usage is controlled by the demand from the plants
8. The discharge from each dripper during an irrigation event is the same as the on-demand discharge from the subsurface clay pot since the previous irrigation event
9. The water usage increases significantly during a heat wave
10. With a continuous water supply, you can leave your irrigation application unattended for months on end