IRRIGATION UNLIMITED

made in SA

Afriq Water is the proud manufacturer of Afriq Drip's quality Pressure Compensating (PC) Dripline Irrigation made in South Africa. Their mission to irrigate for a greener tomorrow starts with this Water-Wise irrigation range.

Afriq Drip PC Dripline Irrigation

Afriq Water

Afriq Drip PC Dripline Benefits

Water-Wise PC Irrigation

PC Drip maintains a consistent flow rate of water regardless of pressure fluctuations.

Dripline delivers a higher yield without compromising precious water resources.

Dripline Irrigation Benefits

- Increased yield and quality by up
- Easy installation and dismantling
- Decreased water usage by up to 50%
- Prevents diseases on leaves, stems & crop
- Irrigates uniformly on most soil types
- Limited evaporation, wets soil not leaves
- Ideal for most crop types, from veggies to fruits
- Can be gravity-fed if topography allows
- Reduced weed growth as it wets only the beds

Pressure Compensating Dripline Benefits

- Anti-clogging
- Self-cleaning
- Pressure Compensating, controlled by a silicone diaphragm
- Uniform flow rates across different ratings pressure

Ideal PC Applications / Uses

- Long laterals, which cause pressure fluctuations at the end of a line
- Uneven terrain, which causes pressure fluctituons across dripline lines
- Greenhouses
- Orchads
- Pulse Irrigation (for Non-Drain emitters)
- Sub-surface (for Anti-Syphon emitters)

Pressure Compensating Dripline Definitions

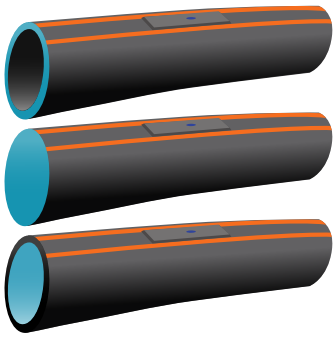
Dripline Irrigation

Also known as dripper lines or trickle irrigation

An irrigation system that delivers water directly to the root zone of the crop, in the form of single water droplets. Keeps roots moist, but not soaked, using less water than other irrigation methods.

Pressure Compensating Dripline Irrigation

PC Drip Irrigation utilizes unique emitters that maintains water flow across all emitters in a system, even when there are pressure variations along the lines or across the field. Non-PC drip uses a less complex emitter that has a consistent flow at 1 BAR, and is affected by pressure variations.



Wall Thickness (W/T)

The thickness of the dripline walls, in mm.

Outside Diameter (OD)

Measurement from one side of the pipe to the other, in mm.

Inside Diameter (ID)

The measurement from one side of the pipe to the other, on the inside, in mm.

Flow Rate

The litres of water emitted by the emitters, per hour.

PC Emitters

A small plastic device, used to control the flow rate and litres per hour of water from the system to the field. Welded to the inner walls of the dripline pipe during manufacturing. The design of each litre per hour emitter is unique, engineered to obstruct and control the movement of water to deliver a precise, accurate flow rate.

Emitter Spacing

The distance between two emitters, repeated across a roll of dripline.

Pre-Installed Emitters

Afriq Water manufactures driplines with pre-installed emitters, meaning that the emitters are melted to the inner walls of the dripline.

Anti-Syphon (AS) Emitters

An emitter option that is designed to prevent suction of dirt and impurities into the emitter. The AS Feature enables Afriq Drip PC to be installed underground, perfectly maintaining its irrigation charactistics.

Drain (D) Emitters

An emitter option that is designed to have the dripline line flush out water between watering sessions, ensuring the water won't freeze or heat up inside the pipe during extreme weather. This helps to prolong dripline pipe lifetimes.

Non-Drain (N) Emitters

An emitter option that is designed to have the dripline line keep water inside of the system between watering sessions, perfect for pulse irrigation methods. This allows farmers to put water on for a few minutes at a time, without waiting for system to fill with water first.

Afriq Drip PC Dripline Definitions

Afriq Drip Types of PC Dripline W/T

Types of Pressure Compensating Dripline

0.40mm Wall Thickness
Medium | Two-Year Dripline | 1 000m Roll
Firm, yet flexible dripline. Contains enough UV to make this a good economic choice that will last for longer than tape, ideal for farmers who need to consider their economic situation to decide what will work best for their crops and needs.

0.60mm Wall Thickness
Medium | Four-Year Dripline | 700m Roll
Thick, yet bendable dripline. Contains more UV than the 0.40mm, making it thicker and with a longer life expectancy, making it a long-term solution.

0.90mm Wall Thickness
Heavy | Five-Year Dripline | 500m Roll
Our second thickest dripline. Very thick, slightly unyielding and strong. With a high percentage of UV, this dripline is a very popular long-term solution.

1.00mm Wall Thickness
Heavy | Five-Year+ Dripline | 400m Roll
Our thickest, most durable dripline. Extremely thick, unyielding and strong. With a high percentage of UV, this dripline is a great long-term solution.

Customisation Options

Wall Thickness
Determined by the budget of the farmer in the case of Pressure Compensating dripline. 0.40mm recommended for water with lime.

Litres per hour
Determined by the crop's needs. 2 liters per hour is our most popular choice.

Emitter spacings
Determined by the crop spacing supplied by the seedling supplier.

	Wall Thickness	Roll Length
Afriq Drip Med	0.40mm	1 000m
	0.60mm	700m
Afriq Drip Heavy	0.90mm	500m
	1.00mm	400m

Flow Rate l/h emitters	Emitter Spacing in cm	Emitter Types
1	20 **	Anti-Syphon Emitter
1.5	30	Drain Emitter
2	40	Non-Drain Emitter ***
2.4 *	50	
3.8 *	60	
	75	
	90	
	100	
	120	

Customisations available

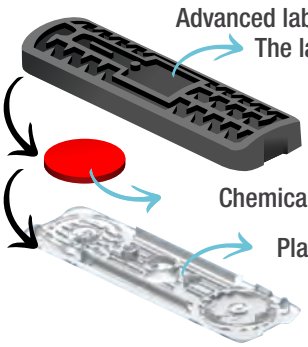
*2.4 and 3.8 l/h Emitters available per order, with longer lead times
**20 cm Spacing only available for 0.90 mm and 1.00 mm W/T PC Drip
***Non-Drain Emitters available per order, with longer lead times

Pressure Compensating Specs

PC Emitters incorporate a silicone membrane which enables the delivery of precise and equal amounts of water over a broad pressure range. PC Emitters are designed for precision irrigation needs, which enables accurate irrigation across large fields and inclines topography.

The only difference between PC and Non-PC dripline types is the emitters.

PC Emitters



Laser Welding Technology

By laser welding the two parts of the emitter together, leaks at extremely high temperatures are prevented, as well as in the event of opening of the emitter during installation and/or retraction of the dripline in the field.

Anti-Siphone (AS) Emitter Type

Includes a specially designed mechanism that **prevents suction of dirt and impurities into the emitter**. This allows for the Anti-Siphone PC dripline to be buried underground, perfectly maintaining its irrigation characteristics and its multi-year durability.

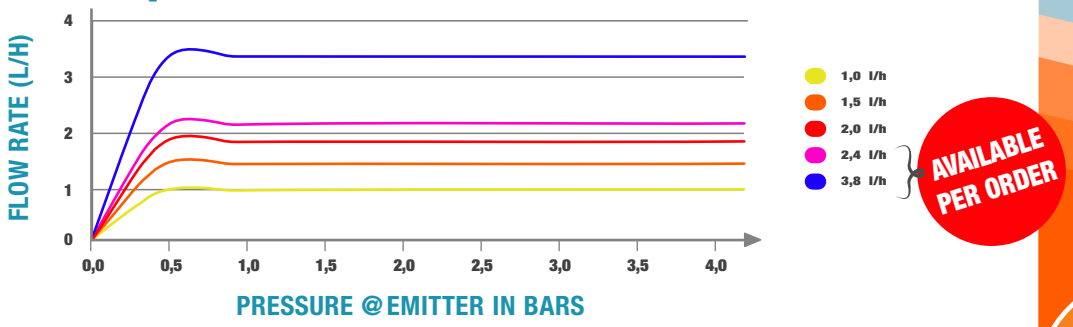
Drain Emitter Type

Drain PC dripline drains between irrigation sessions, perfect for places in S.A. or Southern Africa with extreme weather fluctuations.

Non-Drain Emitter Type

Non-Drain PC dripline does not drain between irrigation sessions, perfect for pulse irrigation methods.

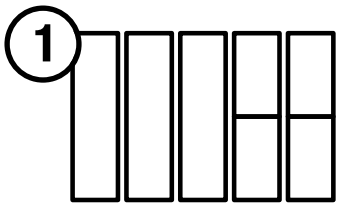
PC Emitter Specs across different BAR



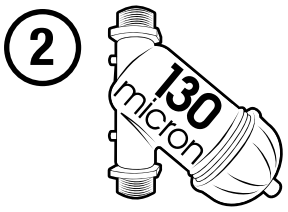
Afriq Drip PC Specifications

Afriq Drip How to Install

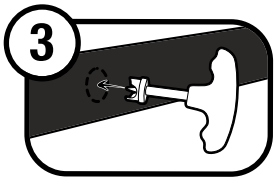
Installation Steps



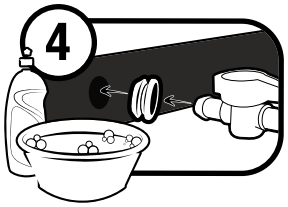
Plan your design layout



Add sufficient 130 micron filters
after water source and before every block

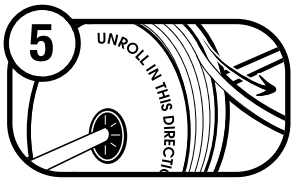


Install mainline
and punch holes
into mainline

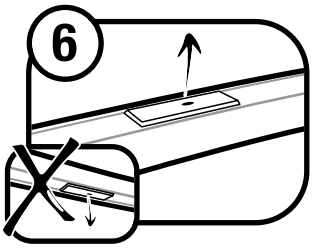


Insert sealing rubbers &
Off-Take Connectors

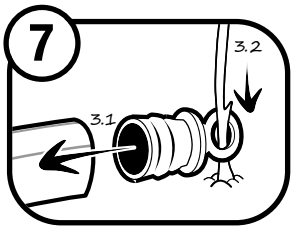
Tip: Use warm, soapy water to help this process



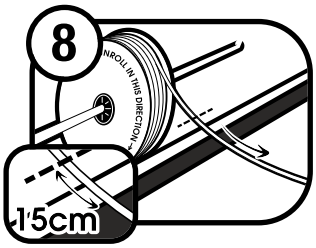
Unroll on spool in
line of the bed, at 90°
without bending



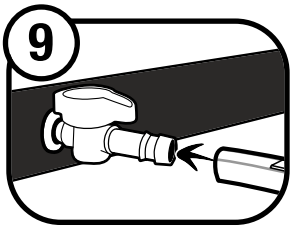
Drippers facing up



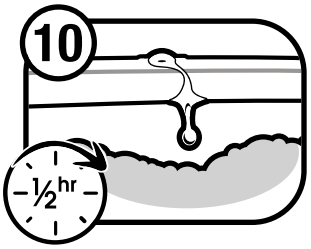
Anchor drip + end plug



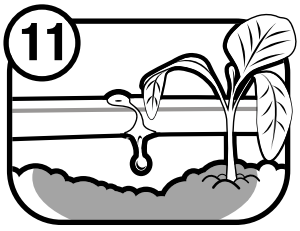
Cut 15cm
above mainline



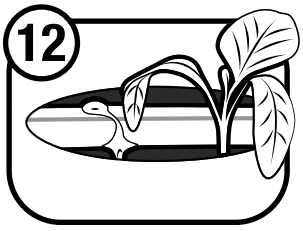
Connect drip
to fittings



Run and test the
system for 30 minutes



Plant seedlings
next to drippers

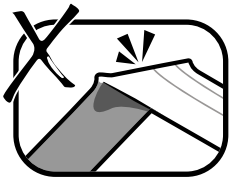


Mulch with hay,
bark or plastic

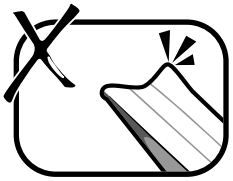
Step 13

Enjoy a bountiful harvest!

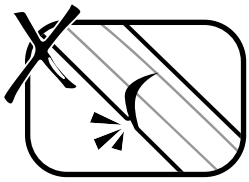
Installation Warnings



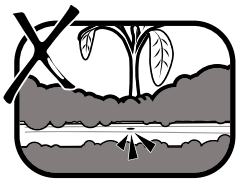
Do not twist



Do not bend

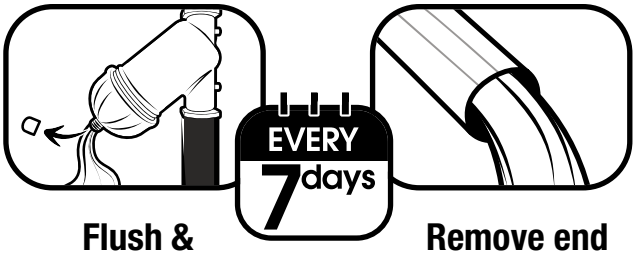


Do not cut



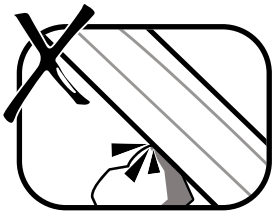
Only bury Anti-Siphon underground

Maintenance Guidelines

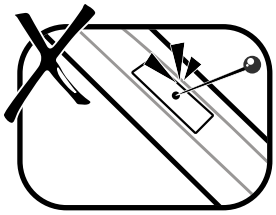


Flush & clean filter

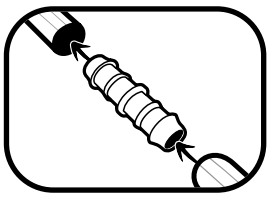
Remove end plug & flush lines



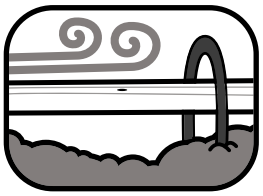
Remove rocks under drip



Do not unclog with a needle



Repair dripline with couplings



Anchor down in windy areas

Afriq Drip PC Maintenance

Afriq Drip Dripline Line Spacing

Ensuring Sufficient Irrigation with PC Drip

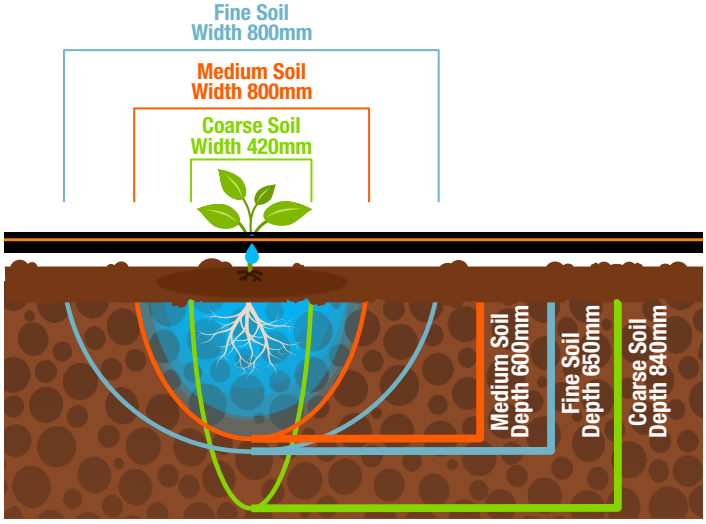
Choosing the Spacing between Your Dripline Lines

Take into consideration soil wetting patterns

For the purposes of general calculations, a conservative wetting pattern in a medium soil (orange line) is assumed with a wetting diameter of 800 mm.

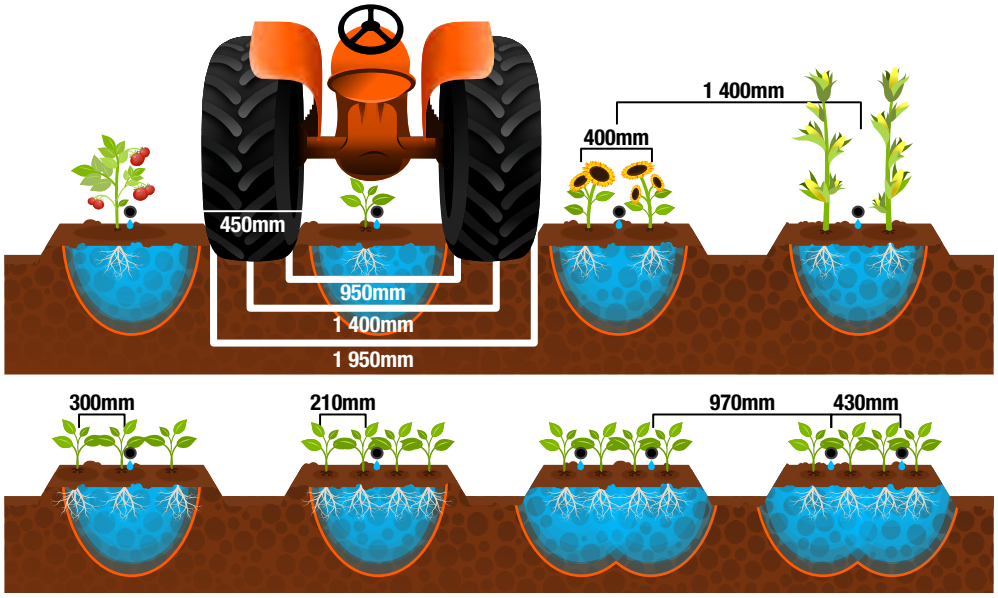
It is recommended that at least a third (30%) of the area should be wetted during irrigation in order to provide sufficient soil water capacity and to stimulate root development. The spacing and number of driplines are determined by the crop row spacing and the required wetted area.

Normally a single dripline will be sufficient, however it may be necessary for a second line where the surface area is not wetted sufficiently due to various factors. With coarse soils the percentage wetted areas will be less. Bigger wetted areas can be expected in fine textured soils.



Typical crop row and dripline line spacings with tractors

The spacing between dripline lines may vary between 1 400 mm and 1 600 mm depending on the size of the tractor used, if at all.

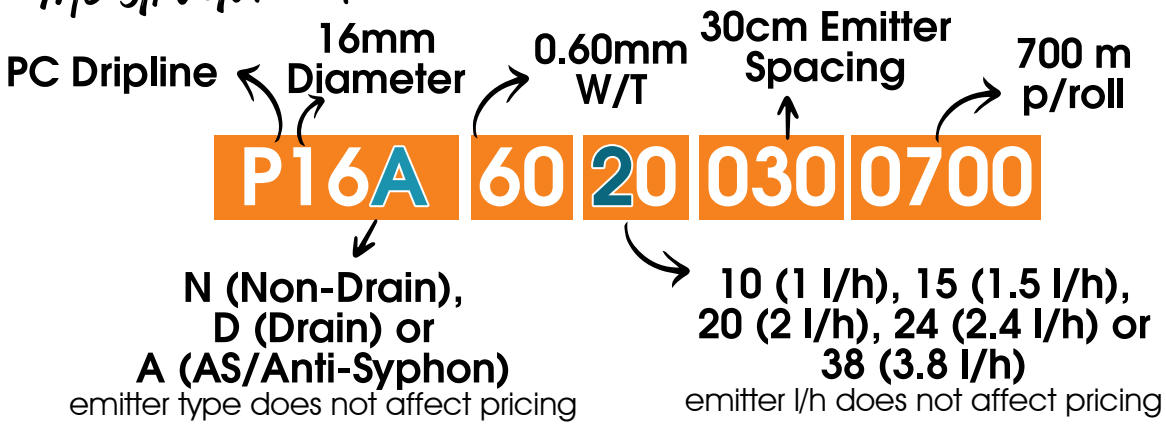


From the above information a decision can be made regarding the spacing and number of driplines required per hectare.

16mm Pressure Compensating Dripline Prices

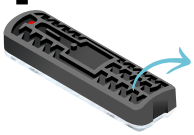
Does not include dripline fittings

The structure of our codes



THE TYPE OF PC EMITTER & L/H DOES NOT AFFECT PRICING

Afriq Drip PC Technical Specifications



- Excellent emission uniformity
- Excellent flow coefficient
- Excellent Coefficient of Variation (CV), less than 5%
- Low friction loss due to the ultra-slim design

16mm 0.40mm Wall Thickness Medium PC Dripline

Made to last 2 Years

	CODE	W/T	L/H	CM SPACING	EMIT. TYPE	M P/ ROLL	PRICE P/M	PRICE P/ROLL
	P16A40200301000	0.40mm	2	30	AS	1 000	R 6.50	R 6 500.00
*	P16A40200401000	0.40mm	2	40	AS	1 000	R 5.58	R 5 580.00
*	P16A40200501000	0.40mm	2	50	AS	1 000	R 5.03	R 5 030.00
*	P16A40200601000	0.40mm	2	60	AS	1 000	R 4.66	R 4 660.00
*	P16A40200751000	0.40mm	2	75	AS	1 000	R 4.29	R 4 290.00
*	P16A40200901000	0.40mm	2	90	AS	1 000	R 4.05	R 4 050.00
*	P16A40201001000	0.40mm	2	100	AS	1 000	R 3.92	R 3 920.00
*	P16A40201201000	0.40mm	2	120	AS	1 000	R 3.74	R 3 740.00

16mm 0.60mm Wall Thickness Medium PC Dripline

Made to last 4 Years

	CODE	W/T	L/H	CM SPACING	EMIT. TYPE	M P/ ROLL	PRICE P/M	PRICE P/ROLL
	P16A60200300700	0.60mm	2	30	AS	700	R 7.20	R 5 040.00
*	P16A60200400700	0.60mm	2	40	AS	700	R 6.28	R 4 396.00
*	P16A60200500700	0.60mm	2	50	AS	700	R 5.73	R 4 011.00
*	P16A60200600700	0.60mm	2	60	AS	700	R 5.36	R 3 752.00
*	P16A60200750700	0.60mm	2	75	AS	700	R 4.99	R 3 493.00
*	P16A60200900700	0.60mm	2	90	AS	700	R 4.75	R 3 325.00
*	P16A60201000700	0.60mm	2	100	AS	700	R 4.63	R 3 241.00
*	P16A60201200700	0.60mm	2	120	AS	700	R 4.44	R 3 108.00

Afriq Drip 16mm PC Dripline Price List

Afriq Drip 16mm PC Dripline Price List

16mm 0.90mm Wall Thickness Heavy / Durable Dripline

Made to last 5 Years

	CODE	W/T	L/H	CM SPACING	EMIT. TYPE	M P/ ROLL	PRICE P/M	PRICE P/ROLL
*	P16A90200200500	0.90mm	2	20	AS	500	R 10.80	R 5 400.00
	P16A90200300500	0.90mm	2	30	AS	500	R 8.96	R 4 480.00
*	P16A90200400500	0.90mm	2	40	AS	500	R 8.04	R 4 020.00
*	P16A90200500500	0.90mm	2	50	AS	500	R 7.49	R 3 745.00
*	P16A90200600500	0.90mm	2	60	AS	500	R 7.12	R 3 560.00
*	P16A90200750500	0.90mm	2	75	AS	500	R 6.76	R 3 380.00
*	P16A90200900500	0.90mm	2	90	AS	500	R 6.51	R 3 255.00
*	P16A90201000500	0.90mm	2	100	AS	500	R 6.39	R 3 195.00
*	P16A90201200500	0.90mm	2	120	AS	500	R 6.21	R 3 105.00

16mm 1.00mm Wall Thickness Heavy / Durable Dripline

Made to last 5 Years +

	CODE	W/T	L/H	CM SPACING	EMIT. TYPE	M P/ ROLL	PRICE P/M	PRICE P/ROLL
*	P16A10200200400	1.00mm	2	20	AS	400	R 10.85	R 4 340.00
	P16A10200300400	1.00mm	2	30	AS	400	R 9.12	R 3 648.00
*	P16A10200400400	1.00mm	2	40	AS	400	R 8.25	R 3 300.00
*	P16A10200500400	1.00mm	2	50	AS	400	R 7.73	R 3 092.00
*	P16A10200600400	1.00mm	2	60	AS	400	R 7.39	R 2 956.00
*	P16A10200750400	1.00mm	2	75	AS	400	R 7.04	R 2 816.00
*	P16A10200900400	1.00mm	2	90	AS	400	R 6.81	R 2 724.00
*	P16A10201000400	1.00mm	2	100	AS	400	R 6.69	R 2 676.00
*	P16A10201200400	1.00mm	2	120	AS	400	R 6.52	R 2 608.00

Does not include dripline fittings

IRRIGATION UNLIMITED

made in SA

Afriq Water is the proud manufacturer of Afriq Drip Dripline Fittings. They make a wide range of fittings to fit not only their pipes, but also most pipes available on the market. They offer fittings at low prices, without compromising quality.

Afriq Drip Dripline Fittings

Afriq Water

Afriq Drip Types of Dripline Fittings

Types of Dripline Fittings

Nut Fittings

Use with 0.40mm & 0.60mm W/T medium drip

Barbed Fittings

Use with 0.90mm & 1.00mm W/T heavy drip

Pipe Perforation Tool

Manually punches a 18mm hole into the LDPE mainline. The tool is easy to use, but very sharp, so beware.

Grooved Sealing Rubbers

Pushed into the hole that was created using the Perforation Tool, to prevent leaks, with an opening of 16mm. Always purchase equal amounts of Rubbers and Off-Take Connectors. Use with minimum 32mm LDPE.

Closed Sealing Rubbers

Pushed into the hole that was created using the Perforation Tool, to seal incorrectly punched holes/old holes. Use with minimum 32mm LDPE.

Off-Take Connectors

Connects dripline and mainline pipes. Inserted into the Sealing Rubber, with dripline pushed into place over the fitting. Available as Mini Valves also.

Couplings

Used to join two pieces of dripline that have been cut/damaged. Dripline is pushed over both sides of the fitting and fastened.

End Plugs

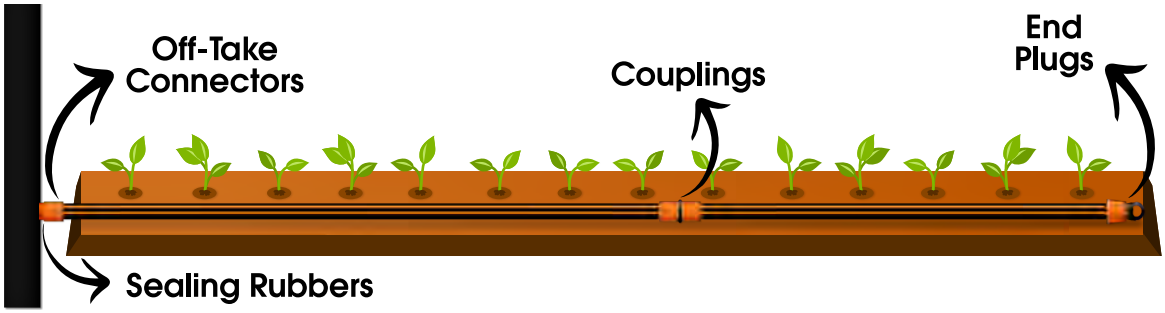
Used to end a line of dripline tightly for a leak-free seal. Dripline is pushed over the fitting and fastened.

Mini Valves

Used in places where controlling flow by opening/closing water to a line drip is desired. Some Mini Valves are Off-Take Connectors (for an entire line), others are fittings (for sections of a line).

Ring fittings available for Non-PC dripline. PC dripline uses nut (for 0.40mm and 0.60mm) and barbed (for 0.90mm and 1.00mm), and Non-PC does too

Dripline Fitting Prices



Tools & Rubbers

IMAGE	CODE	DESCRIPTION	PRICE
	A16MPPT	16mm Mainline LPDE Pipe Perforation Tool	R 71.81
	AOTG16GR	16mm Grooved Sealing Rubber	R 1.83
	AOTG16CL	16mm Closed Sealing Rubber	R 1.93

Off-Take Connectors

IMAGE	CODE	DESCRIPTION	PRICE
	AOTC16/17N-M	16mm x 17mm Off-Take Connector with Nut	R 3.67
	AOTC16/16B-H	16mm x 16mm Off-Take Connector Barbed	R 1.41
	AMVOTC16/17R-L	16mm x 17mm Mini Valve Off-Take with Ring	R 11.78
	AMVOTC16/16B-H	16mm x 16mm Mini Valve Off-Take Barbed	R 10.24

Couplings

IMAGE	CODE	DESCRIPTION	PRICE
	ACONN17/17N-M	17mm x 17mm Coupling with Nut	R 5.64

Refer to the Irrigation Unlimited Main/Vol. 1 Catalogue for Barbed Couplings

End Plugs

IMAGE	CODE	DESCRIPTION	PRICE
	AECN17PLUG-M	17mm End Plug with Nut	R 2.82
	AECB16PLUG-H	16mm End Plug Barbed	R 2.54

Afriq Drip Fitting Price List

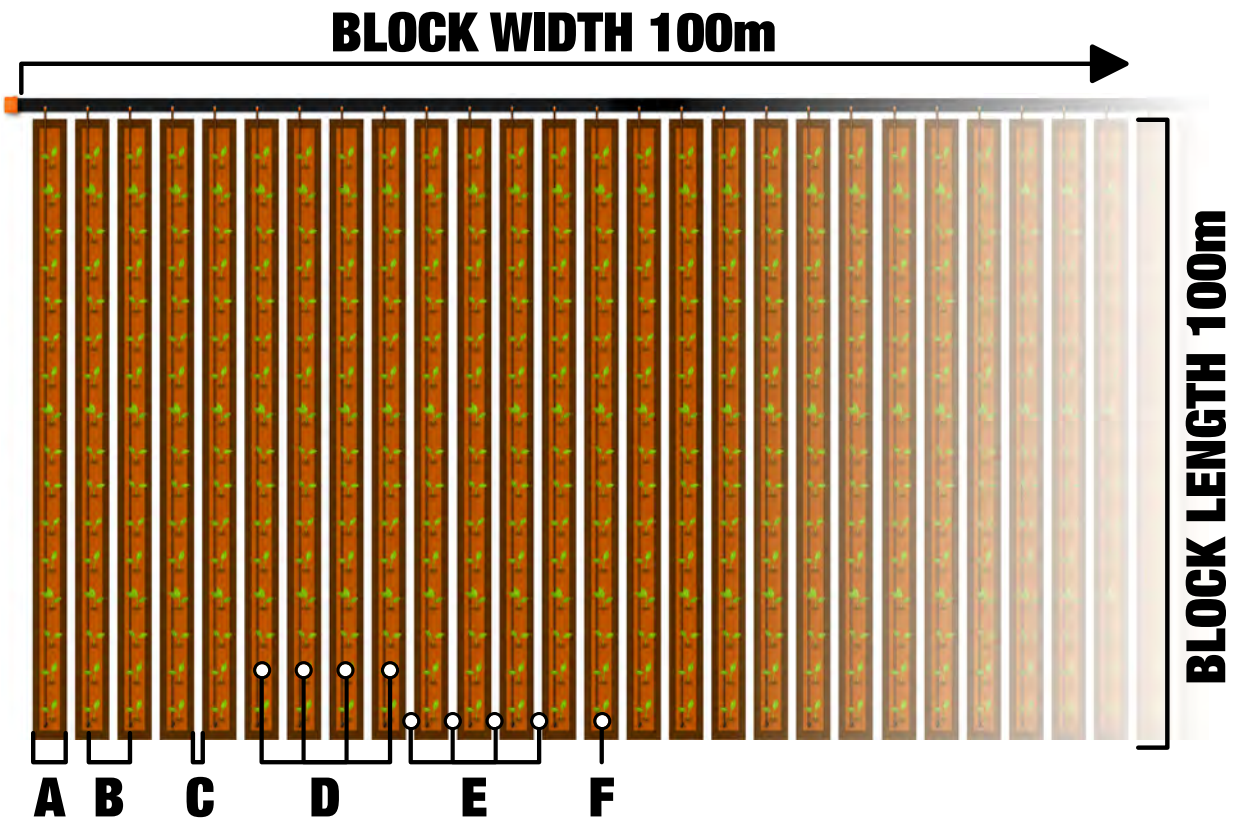
IRRIGATION UNLIMITED

Afriq Drip Hectare Designs

These are just some of the options for *Afriq Drip* PC hectare design options. With PC drip, you have less restrictions and more room for creative layouts than Non-PC drip.

Afriq Drip Hectare Design Option 1

1 HECTARE DESIGN | 1 LINE P/BED | IDEAL FOR AREAS WITH MORE WATER



A	Bed Widths	60cm
B	Distance between lines	1m
C	Walkway Width	40cm
D	Number of beds	100
E	Number of walkways	99
F	Lines p/bed	1

Fittings Required	QTY
Metres LDPE Pipe	100
Perforation Tool	1
Grooved Sealing Rubbers	100
Off-Take Connectors	100
Couplings	50
End Plugs	100
Metres dripline	10 000
130 Micron Filter At least 1 filter after water source & 1 filter before every block	2

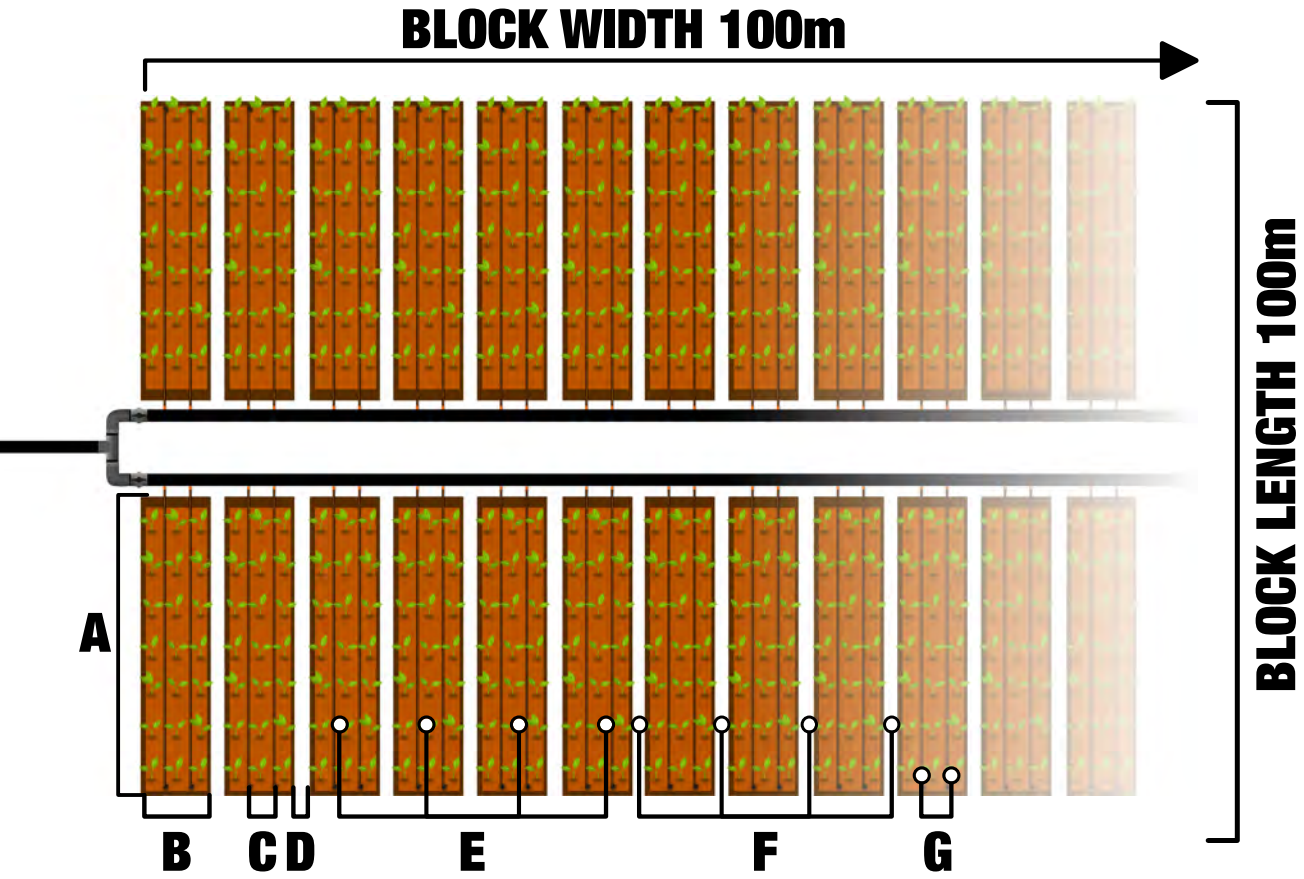
Consider the amount of dripline on each roll to determine rolls required:

0.40mm Wall Thickness comes in rolls of 1 000m, so for this design a farmer requires 10 rolls;
0.60mm Wall Thickness comes in rolls of 700m, so for this design a farmer requires 15 rolls;
0.90mm Wall Thickness comes in rolls of 500m, so for this design a farmer requires 20 rolls;
& 1.00mm Wall Thickness comes in rolls of 400m, so for this design a farmer requires 25 rolls.

Farmers need to choose the litres per hour on their emitters according to their soil requirements, and the spacing between emitters as required by their plant spacing.

1 HECTARE DESIGN I 1 LINE P/BED I IDEAL FOR AREAS WITH LESS WATER

Afriq Drip Hectare Design Option 2



A	Bed lengths	50m
B	Bed Widths	1m
C	Distance between line in bed	60cm
D	Walkway Width	40cm
E	Number of beds total	66
	Number of beds either side	33
F	Number of walkways total	64
	Number of walkways per side	32
G	Lines p/bed	2

Fittings Required	QTY
Metres LDPE Pipe	200+
Mainline Tee's	1
Mainline Valves	2
Perforation Tool	1
Grooved Sealing Rubbers	132
Off-Take Connectors	132
Couplings	66
End Plugs	132
Metres dripline	6 600
130 Micron Filter At least 1 filter after water source & 1 filter before every block	2

Consider the amount of dripline on each roll to determine rolls required:

0.40mm Wall Thickness comes in rolls of 1 000m, so for this design a farmer requires 7 rolls;
0.60mm Wall Thickness comes in rolls of 700m, so for this design a farmer requires 10 rolls;
0.90mm Wall Thickness comes in rolls of 500m, so for this design a farmer requires 14 rolls;
& 1.00mm Wall Thickness comes in rolls of 400m, so for this design a farmer requires 17 rolls.

Farmers need to choose the litres per hour on their emitters according to their soil requirements, and the spacing between emitters as required by their plant spacing.