

# Afriq Drip

is a proud manufacturer of dripline irrigation in Southern Africa. With our expertise and state-of-the-art machines, we supply farmers with exceptional, professional-quality dripline and services

# Dripline Irrigation



Afriq Water Management Pty Ltd  
Reg No: 2015/103339/07

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# Water-Wise Irrigation

Water is delivered directly to the root zone of the plant, utilising every drop.

Dripline delivers a higher yield without compromising precious water resources.

## Dripline Benefits



Lower water consumption with limited water waste and evaporation



Ideal for all types of crops; from vegetables and flowers to tree crops



Prevents disease by reducing water contact with plants' leaves, stems, and fruit



High crop yields and quality



Easy installation and dismantling



Reduced weed growth



Lines can run with gravity if the topography allows, reducing energy costs



Efficient use of fertiliser, fungicide, and insecticide with no seeping



Irrigates uniformly on most topography and soil types, with precise water distribution

## Better than other methods?

Pivots and flood irrigation flood fields once every few days. Crops suffer bouts of drought that stunt their growth and quality with these systems, followed by watering that drowns them and deprives them of essential oxygen - often leading to root rot.

Dripline offers a steady, consistent application of water and nutrients to help plants grow fast and plentiful, without the danger of under- or overwatering.

## The Cost

Dripline can pay for itself in a relatively short period, ensuring higher profit further down the line. At *Afriq Water*, we pride ourselves in providing farmers with cost-effective irrigation solutions, making farming more accessible.



# Dripline Definitions

## Irrigation

Also known as watering

The supply of water to land or crops.

## Drip Irrigation

Also known as dripperlines, drip tape irrigation or trickle irrigation

An irrigation method or system that delivers water directly to the root zone of crop, in the form of single water droplets. The liters per hour is determined by the emitters on the inside of the dripline walls. This method keeps roots moist, but not soaked, all while using less water than other irrigation techniques.

## Drip Tape

Also known as disposable drip

Drip tape is a thin drip irrigation product. Afriq Drip manufactures 0.20mm and 0.30mm Wall Thickness drip irrigation that could be classified as drip tape. All driptape is drip irrigation, but not all drip irrigation is drip tape.



### Wall Thickness

Shortened to W/T

The thickness of the dripline walls, in mm.

### Outside Diameter

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

### Inside Diameter

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, at 1 BAR.

## Emitters

A small plastic device, used to control the flow rate or litres per hour of water (measured at 1 BAR) from the system to the emitter hole, welded to the inner walls of the dripline pipe during manufacturing. The design of each litres 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 line. This could be in cm or meters.

## Pre-Installed Emitters

Afriq Drip manufactures driplines with pre-installed emitters, meaning that the emitters are melted to the inner walls of the dripline, spaced evenly apart at the specified interval, as made when ordering, during the manufacturing process.

## Blanco Dripline

Dripline without emitters, simply called a Blanco Pipe.

## Area Covered

The surface area that can be irrigated with the system; subject to area design.



## Types of Dripline

### 0.20mm Wall Thickness

Light | Two-Season Drip Tape\* | 2 000m Roll  
We recommend this dripline to anyone who has lime in their water. Lime will clog any emitter, even if the pipe is strong enough to last for years to come.

### 0.30mm Wall Thickness

Light | One-Year Drip Tape\* | 1 250m Roll  
This dripline is typically used by tunnel or hothouse farmers.

### 0.40mm Wall Thickness

Medium | Two-Year Dripline\* | 1 000m Roll  
This dripline is ideal for farmers who want a medium term irrigation solution. Usually, farmers consider their operative and economic situation to decide what will be better for their crops and needs.

### 0.60mm Wall Thickness

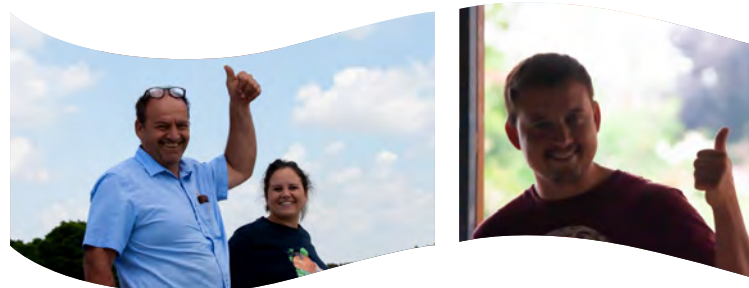
Medium | Four-Year Dripline\* | 700m Roll  
This dripline contains more UV giving it a longer life expectancy. Usually, farmers use the 0.60 mm Wall Thickness as a long-term solution.

### 0.90mm Wall Thickness

Heavy | Five-Year Dripline\* | 500m Roll  
This dripline is our second most durable dripline, infused with extra UV for durability and longevity even in full sun.

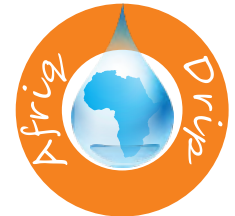
### 1.00mm Wall Thickness

Heavy | Seven-Year Dripline\* | 400m Roll  
This dripline is our most durable dripline, infused with the most UV for durability and longevity even in full sun. The pipe is unyielding and very tough.



\*Life expectancy only guaranteed if the following requirements are met:

- ◆ There is no lime content in water.
- ◆ There is sufficient filtration in place BEFORE the dripline system, preferably at every block.
- ◆ Dripline isn't handled carelessly during use or installation.
- ◆ Contact Afriq Water for the full warranty list.



# Manufacturing Dripline

Afriq Drip manufactures hundreds of thousands of metres of dripline in a year. Users benefit from reduced prices for professional dripline, as many additional costs are cut out when the rolls are manufactured on-site and distributed from the warehouse.

## Selection of Dripline Available from Afriq Drip

Determine what type of dripline will work best for your lands and crop.\*

Lime in your water? We recommend a disposable drip, as lime will clog any emitter, even if the pipe is strong enough to last for years to come.

### Wall Thickness

Seasonal drip tape is always ideal for water with lime, as the lime will clog the delicate emitter beyond repair, even if the pipe lasts years to come. Thicker, heavier dripline will last much longer under ideal circumstances.

### Litres per hour

Determined by plant needs. If, for example, 2 litres an hour (our most popular choice) is too much water per session, watering times can be reduced and so customised to the needs of the farmer.

### Emitter Spacing

Determined by the crop and the crop supplier, as different crops require different spacings between them.

Afriq Drip Type	Wall Thickness		Coil Length	Flow Rate Litres per hour of emitters	Emitter Spacing in cm
	0.20mm	0.30mm			
Afriq Drip Light	0.20mm	2 000m	1 250m	0.8	20
	0.30mm	1 250m			
Afriq Drip Medium	0.40mm	1 000m	700m	1	30
	0.60mm	700m			
Afriq Drip Heavy	0.90mm	500m	400m	1.3	40
	1.00mm	400m			
	Wall Thickness	Coil Length		1.6	60
				2	75
					90
					100
					120**
					Customisations available

\*We have Irrigation Designers available to assist with designs, but services might take longer due to high demand.

\*\*120cm Not available on 0.90mm or 1.00m W/T

Manufacturing Dripline



## Installation Guidelines

Dripline can be installed above the soil, or below ground, buried under mulch or subsurface, depending on Wall Thickness.

### Above-Ground Installation

- ◆ Do not exceed limitations on information sheet, i.e. max lateral lengths and max BAR
- ◆ Unroll in direction indicated on outer packaging
- ◆ Dripper outlet must face upwards
- ◆ Avoid damage during installation
- ◆ Do not twist or cut your dripline
- ◆ Use correct fittings to prevent leaking
- ◆ Tension should allow for expansion and contraction due to temperature fluctuations
- ◆ In windy conditions use an anchor/hoop over lines

### Under-Mulch Installation

- ◆ System should be put under pressure within 24 hours after installation
- ◆ If using bark mulch, ensure sufficient depth to prevent damage from working the ground with farming equipment, while keeping in mind that the water needs to reach the roots of the crop
- ◆ If using plastic mulch, each emitter hole should be placed at opening of plastic and stems of plant, to prevent water sticking to underside of plastic
- ◆ Utilise air relief valves to prevent a vacuum from forming inside the dripline/system
- ◆ Prevent root intrusion by using a suitable herbicide
- ◆ Regularly check flow at the end of the dripline to confirm water flow is consistent from the start to the end of the line
- ◆ An endcap can be replaced by a mini valve to flush out lines regularly



# Maintenance Guidelines

- ◆ Water must be clean - install a sufficient irrigation filter after water source, as well as in before every block, either screen or disc
- ◆ Rodents, roots and insects can damage the dripline, take proper preventative measures
- ◆ Flush the dripline and filtration system regularly by opening the end of the line and letting water flush through. This helps with blockages
- ◆ Use only water-soluble fertilizers and flush the system immediately after application
- ◆ Do not attempt to unblock outlet holes with a needle. Inside the walls are delicate emitters that will be damaged
- ◆ When removing the dripline from the field, use a spool and roll the dripline onto it. Do not bundle the pipe

## Technical Specifications

Afriq Drip manufactures dripline with 12 mm or 16 mm inside diameters, depending on the needs of the farmer.

DO NOT exceed 1 BAR as this will influence the flow rate and will void the warranty.

1 LITRE P/HOUR FLOW RATE				2 LITRE P/HOUR FLOW RATE				
W/T	Emitter Spacing (cm)	Max Lateral p/line (m)	No. of drippers & Inlet flow ℓ p/h p/line	W/T	Emitter Spacing (cm)	Max Lateral p/line (m)	No. of drippers p/line	Inlet flow ℓ p/h
0.20mm, 0.30mm & 0.40mm	20	135	675	0.20mm, 0.30mm & 0.40mm	20	60	300	600
	30	180	600		30	80	267	533
	40	220	550		40	100	250	500
	50	255	510		50	115	230	460
	60	285	475		60	130	217	433
	75	340	453		75	150	200	400
	90	385	428		90	175	194	389
	100	400	400		100	185	185	370
	120	450	375		120	210	175	350
0.60mm	20	125	625	0.60mm	20	55	275	550
	30	165	550		30	75	250	500
	40	210	525		40	95	238	475
	50	240	480		50	110	220	440
	60	270	450		60	125	208	417
	75	310	413		75	145	193	387
	90	350	389		90	160	178	356
	100	375	375		100	170	170	340
	120	425	354		120	195	163	325
0.90mm	20	105	525	0.90mm	20	45	225	450
	30	135	450		30	65	217	433
	40	170	425		40	80	200	400
	50	195	390		50	90	180	360
	60	225	375		60	100	167	333
	75	260	347		75	120	160	320
	90	300	333		90	135	150	300
	100	315	315		100	145	145	290
	120	360	300		120	165	138	272
1.00mm	20	100	500	1.00mm	20	40	200	400
	30	130	433		30	55	183	367
	40	165	413		40	65	163	325
	50	190	380		50	75	150	300
	60	220	367		60	85	142	283
	75	225	340		75	105	140	280
	90	290	322		90	125	139	278
	100	305	305		100	130	130	260
	120	350	292		120	145	121	242

Maintenance & Specs



# Dripline Fittings

**Ring Fittings**  
use for 0.20mm  
& 0.30mm W/T  
Drip Tape



**Nut Fittings**  
use for 0.30mm,  
0.40mm & 0.60mm  
W/T Dripline



**Barbed Fittings**  
use for 0.60mm,  
0.90mm & 1.00mm  
W/T Dripline



## Pipe Perforation Tool

Manually punches a 16mm 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**. Always purchase equal amounts of Rubbers and Off-Take Connectors.



## Closed Sealing Rubbers

Pushed into the hole that was created using the Perforation Tool, **to seal an incorrectly punched hole**.



## Off-Take Connectors

Connects dripline and mainline pipes together. 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. Lines are 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 fitting and fastened.



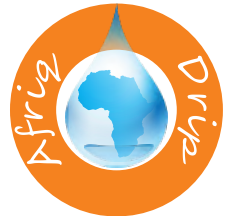
## Mini Valves

Used in places where controlling flow by opening / closing flow to the line is desired. Some Mini Valves are Off-Take Connectors (to control an entire line) or Couplings.



## Button Drippers & 3mm Perforation Tool

3mm Perforation Tool is used to punch a 3mm hole into an LDPE pipe. Button drippers inserted into the hole. Button Drippers can be adjusted.





## Dripline Irrigation Kits

Ideal for growing veggies & flower beds

Includes everything you might need, except for your mainline LDPE pipe and specialised drip fittings.

### Mini Garden Kit

Ideal for small vegetable and cut-flower gardens, and for use in raised beds.



Includes:

- ◆ 1 x Pipe Perforation Tool
- ◆ 25 x Grooved Sealing Rubbers
- ◆ 10 x Mini Valve Off-Take Connectors Barbed
- ◆ 25 x Off-Take Connectors Barbed
- ◆ 10 x Couplings Barbed
- ◆ 10 x Tee's Barbed
- ◆ 10 x Elbows Barbed
- ◆ 25 x End Plugs Barbed
- ◆ 100m Dripline Roll

Excludes filter (recommended) & mainline LDPE

W/T	Emitter Spacing	Flow Rate ℓ p/h p/emitter	Roll Length	Area Covered*
0.90mm	30cm	2	100m	180m <sup>2</sup>

### Vegetable & Garden Kit

Ideal for vegetable- and flower gardens.



Includes:

- ◆ 1 x Pipe Perforation Tool
- ◆ 1 x 20mm Disc Filter
- ◆ 50 x Grooved Sealing Rubbers
- ◆ 50 x Off-Take Connectors (nut/barbed)
- ◆ 10 x Couplings (nut/barbed)
- ◆ 50 x End Plugs (ring/glasses/barbed)
- ◆ Dripline Roll

Excludes mainline LDPE

W/T	Emitter Spacing	Flow Rate ℓ p/h p/emitter	Roll Length	Area Covered*
0.30mm	30cm	2	950m	1 710m <sup>2</sup>
0.60mm	30cm	2	450m	810m <sup>2</sup>
0.90mm	30cm	2	300m	540m <sup>2</sup>

### Vegetable Farmer's Kit

Ideal for vegetable gardens, plots and farms.



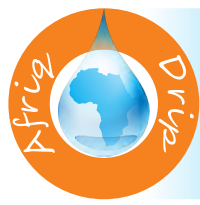
Includes:

- ◆ 1 x Pipe Perforation Tool
- ◆ 1 x 20mm Disc Filter
- ◆ 50 x Grooved Sealing Rubbers
- ◆ 50 x Off-Take Connectors (ring)
- ◆ 10 x Couplings (ring)
- ◆ 50 x End Plugs (ring)
- ◆ Dripline Roll

Excludes mainline LDPE

W/T	Emitter Spacing	Flow Rate ℓ p/h p/emitter	Roll Length	Area Covered*
0.15mm	30cm	2	2 500m	4 500m <sup>2</sup>
0.20mm	30cm	2	2 000m	3 600m <sup>2</sup>

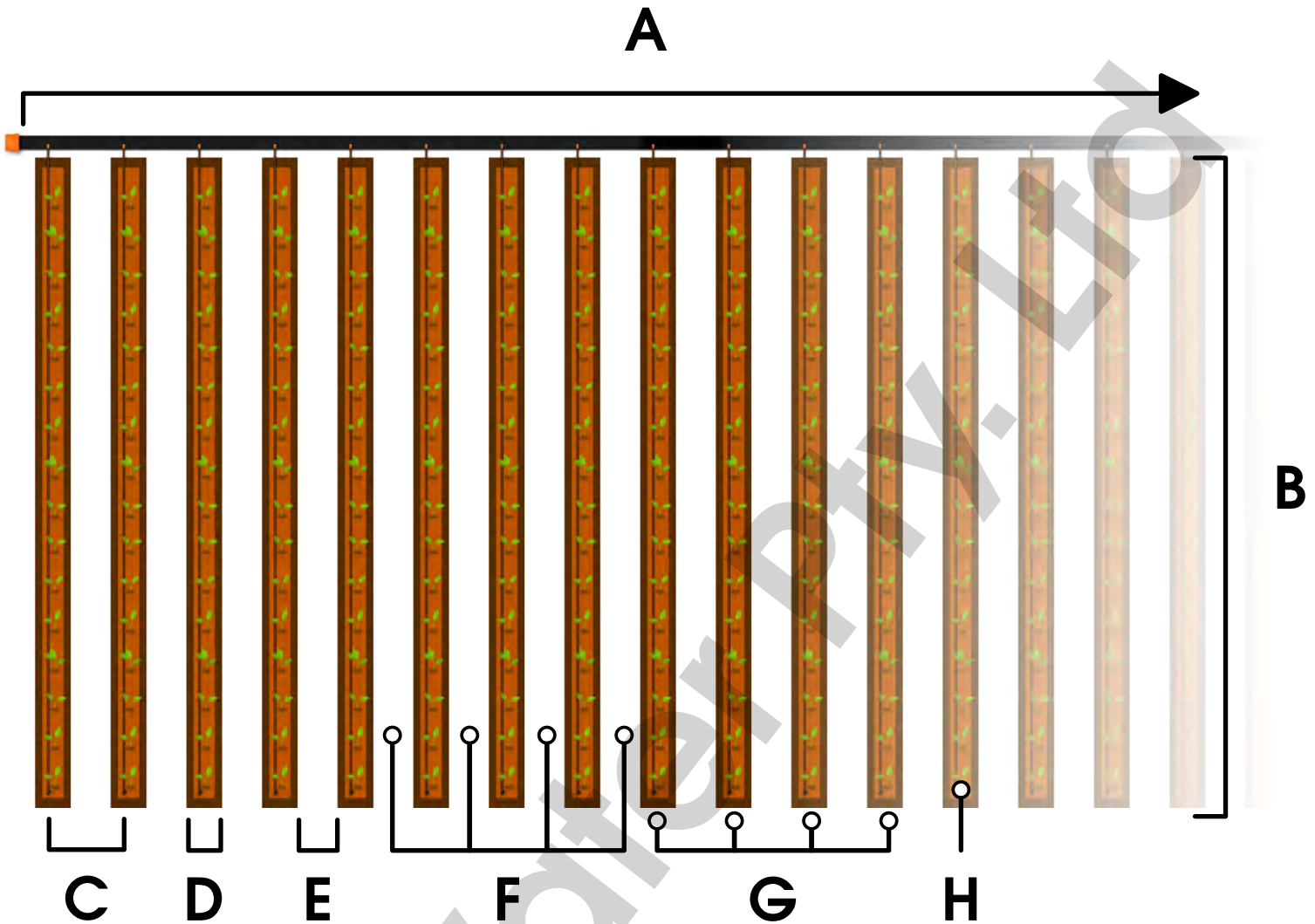




# 1 Hectare Design Option 1

100m x 100m

Designed with 1 line per metre



<b>A</b>	Width of block	<b>100m</b>
<b>B</b>	Dripline line length	<b>100m</b>
<b>C</b>	Distance between lines	<b>1m</b>
<b>D</b>	Bed width	<b>60cm</b>
<b>E</b>	Walkway width	<b>40cm</b>
<b>F</b>	Number of walkways	<b>99</b>
<b>G</b>	Number of beds	<b>100</b>
<b>H</b>	Lines per bed	<b>1</b>

Fittings needed	QTY
Metres LDPE Pipe	100
Perforation Tools	1
Grooved Sealing Rubbers	100
Off-Take Connectors	100
Couplings	50
End Plugs	100
Metres dripline*	10 000
130 Micron Filter Before every block & after water source	1+

\*Consider the amount of dripline on each roll & MAX lateral lengths of each variation

0,15mm Wall Thickness comes in rolls of 2 500m, so for this design a farmer requires 4 rolls;  
 0,20mm Wall Thickness comes in rolls of 2 000m, so for this design a farmer requires 5 rolls;  
 0,30mm Wall Thickness comes in rolls of 1 250m, so for this design a farmer requires 8 rolls;  
 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.

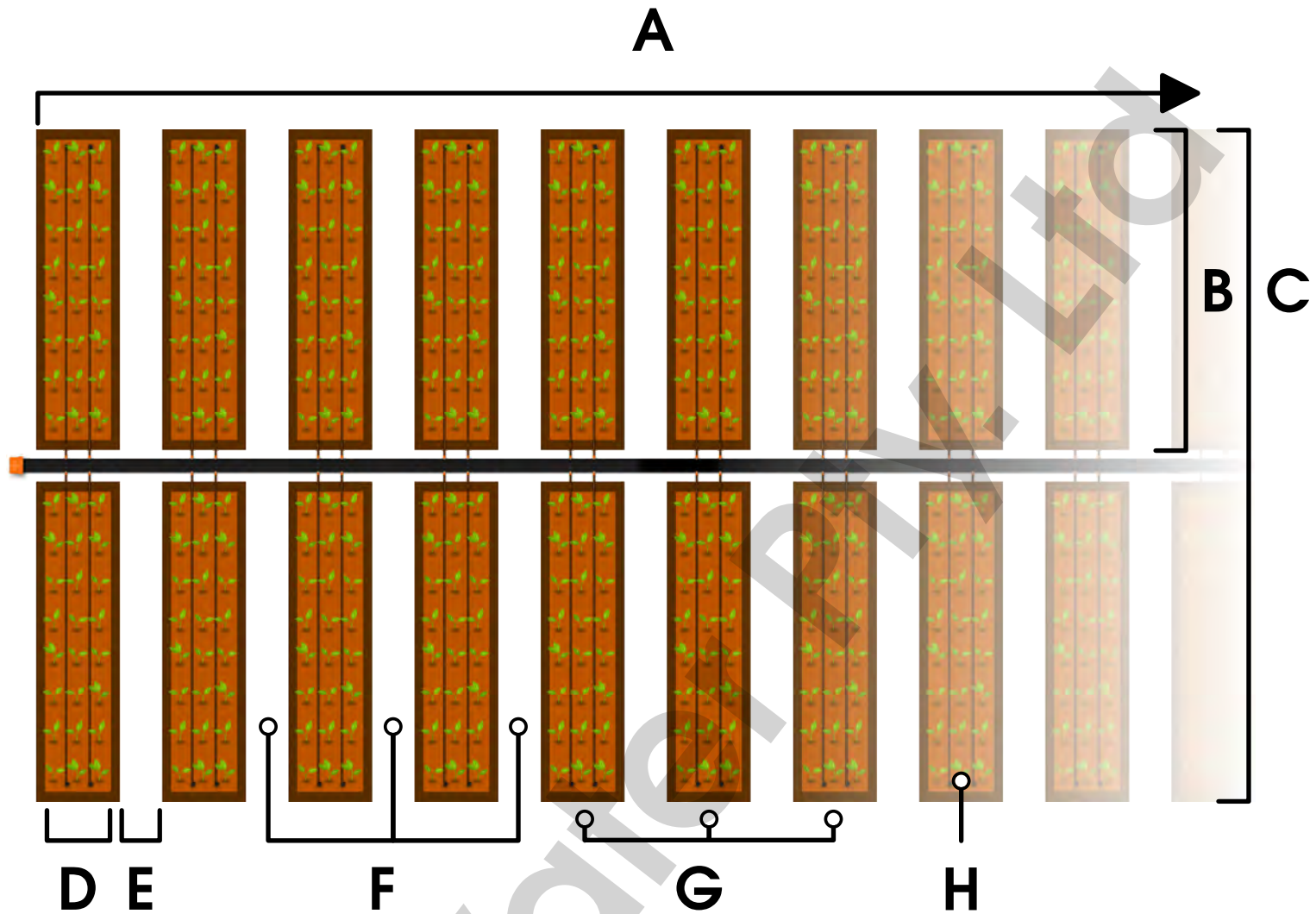
Farmers need to choose the litres per hour on their emitters according to their soil requirements, and the spacing between emitters as required by their plant spacing.



# 1 Hectare Design Option 2

100m x 100m

Designed with 2 lines per bed



<b>A</b>	Width of block	<b>100m</b>
<b>B</b>	Dripline line length	<b>50m</b>
<b>C</b>	Length of block	<b>100m</b>
<b>D</b>	Bed width	<b>2m</b>
<b>E</b>	Walkway width	<b>1m</b>
<b>F</b>	Walkways per side	<b>32</b>
	Walkways total	<b>64</b>
<b>G</b>	Beds per side	<b>33</b>
	Beds total	<b>66</b>
<b>H</b>	Lines per bed	<b>2</b>

Fittings needed	QTY
Metres LDPE Pipe	100
Perforation Tools	1
Grooved Sealing Rubbers	132
Off-Take Connectors	132
Couplings	66
End Plugs	132
Metres dripline*	6 600
130 Micron Filter Before every block & after water source	1+

\*Consider the amount of dripline on each roll & MAX lateral lengths of each variation

0,15mm Wall Thickness comes in rolls of 2 500m, so for this design a farmer requires 3 rolls;  
 0,20mm Wall Thickness comes in rolls of 2 000m, so for this design a farmer requires 4 rolls;  
 0,30mm Wall Thickness comes in rolls of 1 250m, so for this design a farmer requires 6 rolls;  
 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.

irrigating for a greener tomorrow

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**We do not do installations,  
we will try our best to refer you to  
experts in certain areas.**

Contact Us

