

## Irrigation Materials for 1 farmer out of 15 farmers

### Greenhouse 0.1 ha /farmer (1 dunum)

Quantity	Item	Technical specifications
1	Saddle clamp	HDPE, 16 bar, 90mm – 2", with bolts and reinforcing ring, female threaded
2	Nipple	2" connector, male threaded
2	Steam Valve	2.0" brass ball valve, female threaded, 15 bar
5	Male adapter	HDPE, 2" - 63mm compression, min. 10 bar
1	Water meter	2" inlet & outlet male threaded, metal body, flanged female threaded, max. flow rate 6 cubic meter per hour, min. accuracy +/- 0.05%
2	Connector	2"-2", female threaded at both ends
1	Elbow	63mm, compression, 16 bar
2	Saddle clamp	HDPE, 16 bar, 63mm – 1", with bolts and reinforcing ring, female threaded
6	PVC pipes	High pressure 1" PVC pipe, 6 pieces (4 x 0.5 meter and 2 x 0.25 meter), male threaded
2	Steam valve	1" U-PVC ball valve, female threaded, 15 bar
2	Elbow	1" /1", female threaded from both ends, plastic PN 6 bar
1	Venturi fertilizer injector	1" inlet and outlet, PN 10 bar, injection rate not less than 2 cubic meters per hour, 0.5" barbed suction port, with a suitable suction pipe and foot valve-strainer combination
1	Fertilizer solution barrel	Plastic barrel, capacity not less than 100 liter
1	On-line Disc filter	Reinforced plastic body, 2" inlet & outlet, 120-150 disk mesh, male threaded, max. flow rate not less than 10 cubic meters/hr, 10 bar pressure
1	Female adapter	HDPE, 2" - 63mm compression, min. 10 bar
1	Terminal end line	HDPE, 63mm, 10 bar, compression
100 meter	Irrigation pipe 63mm	HDPE, PE100, PN 10 bar, black
16	Saddle clamp	HDPE, 16 bar, 63mm – 0.75", with bolts and reinforcing ring, female threaded
16	Male adapter	0.75"-20mm compression, 10 bar
1200 meter	GR drip line	20mm, 4 liters/hr drippers spaced 40cm, PC drippers (3 rolls of 400 meter)
50	End line	20 mm, double ring, PE

## Irrigation Materials for 1 farmer out of 20 farmers

### Open field (Vegetables) 0.5 ha /farmer (5 dunums)

Quantity	Item	Technical specifications
1	Connector	90mm, compression type, 15 bar
2	Steam Valve	3.0" brass ball valve, female threaded, 15 bar
4	Male adapter	HDPE, 3"-90mm compression, min. 10 bar
1	Water meter	3" inlet & outlet, flanged female threaded, metal body, max. flow rate 6 cubic meter per hour, min. accuracy +/- 0.05% , with all accessories needed to install
100 meter	Irrigation pipe 90mm	HDPE, PE100, PN 10 bar
2	Saddle clamp	90mm – 1.5 inch
2	Steam valve (U-PVC ball valve)	1.5 inch, female threaded
2	Elbow (PVC)	1.5 inch, female threaded
2.5 meters	PVC pipe (high pressure)	1.5 inch cut into 4 pieces each 0.5 meter long and 2 pieces each 0.25 meter long, male threaded from both ends
1	Venturi fertilizer injector	1.5 inch inlet and outlet supplied with suction tube foot valve and strainer, operating pressure range 1 – 9 bar, injection rate not less than 150 liter per hour, and fertilizer-solution barrel (100-150 liter size)
2	Female adapter	90mm -3 inch compression type, 16 bar
1	Double-Disc Filter stand unit	3 inch inlet and outlet, double painted with anti corrosion paint, with pressure gages and valves and 2 disc filters (120-150 mesh), and maximum flow capacity for each filter 45 cubic meter per hour
2	Saddle clamp	90mm – 2 inch
4	Male adapter	2 inch – 63mm compression type
4	Nipple	2" male threaded
2	Plastic steam valve	2 inch, female threaded
2	Elbow	63mm, compression, 16 bar
1	End line, 90mm	90mm, compression type
60	Saddle clamp	63mm x 0.5 inch
60	Male adapter	0.5 inch x 20mm, compression type
200	Irrigation pipe 63mm	HDPE, PE100, PN 10 bar
6	End line 63mm	63mm, compression type
2800 meter	GR Drip line	GR drip lateral pipes (20mm) with 4 liters per hour drippers spaced every 40cm
100	End line, 20mm	20 mm, double ring type