



## UNIGREEN Integral Thick Wall Drip Line

Water is one of the most essential elements that support life on earth. However, if not managed properly, this invaluable resource could deplete at a very fast rate. That is why **UNIVERSAL** irrigation systems company takes up the initiative of bringing a various range of effective and innovative irrigation systems to the farming and landscaping .

### UNIGREEN Drip Line

Cylindrical integral drip-line for drip irrigation systems with cylindrical-shaped drippers, fused to the inner pipe wall .

**UNIGREEN** is clog resistant due to the unique flow path structure design.

**UNIGREEN** drip line grants an easy layout. **UNIGREEN** has low CV  $\leq 5\%$ .

**UNIGREEN** is manufactured in a range of different wall thicknesses.

**UNIGREEN** is manufactured from durable materials resistant to fertilizers commonly used in irrigation. Flow rates for wall thickness of 0.85 - 0.9 mm, OD 16 mm are 2.0, 3.4, 4.4, & 8.8, lph at 1.0 bar, For 0.9 mm, OD 20 mm is 3.8 at 1.0 bar . Flow rates vary according to wall thickness and inlet pressure.

**UNIGREEN** can be produced in one, dual or more water outlets holes & from both outlet sides of the dripper.

### Applications

Cost effective solution for all kinds of field row crops, vegetables, greenhouses, nurseries and fruit orchards.

**UNIGREEN** can be used in surface and subsurface irrigation systems.

### Diameter and wall thickness

Nominal outside Diameters are 16 mm & 20 mm. Wall Thickness, 0.5, 0.7, 0.8, 0.9 & 1.0 mm.

### Flow Rate

Flow rates vary according to wall thickness. Maximum operating pressure vary according to wall thicknesses.

Flow rates for a wall thickness of OD 16 mm pipe & wall thickness of 0.85 - 0.9 mm are 2.0, 3.4, 4.4, & 8.8 lph @ 1.0 bar.

And for OD 20 mm pipe and a wall thickness of 0.85 - 0.9 mm is 3.8 lph @ 1.0 bar .

### Technical Information

Type	Bar					Emitter's *	
	0.5	1.0	1.5	2.0	2.5	X	Kd
	Average Flow Rate ( LPH )						
Unigreen 16 mm - 2.0 lph	1.4	2.04	2.49	2.89	3.26	0.492	2.04
Unigreen 16 mm - 3.4 lph	2.30	3.43	4.17	4.80	5.32	0.482	3.43
Unigreen 16 mm - 4.4 lph	2.96	4.41	5.50	6.46	7.09	0.545	4.41
Unigreen 16 mm - 8.8 lph	5.94	8.77	10.87	12.61	13.72	0.529	8.77
Unigreen 20 mm - 3.8 lph	2.70	3.80	4.70	5.40	6.00	0.524	3.80

● Recommended Operating Pressure 1.0 Bar.

● Wall Thickness 0.85 mm for UGR16 mm

\* Two pairs of flow & pressure 1.0 & 1.5 bar

● Wall Thickness 0.90 mm for UGR20 mm



### Lateral Maximum Running Length

Type	Emitters Spacing in cm							
	20	25	30	40	50	60	75	100
	Max. Lateral Running Length in Meters							
Unigreen 16 mm - 2.0 lph	59	68	77	92	107	120	139	168
Unigreen 16 mm - 3.5 lph	41	47	53	64	74	83	96	116
Unigreen 16 mm - 4.4 lph	33	38	43	52	60	68	78	94
Unigreen 16 mm - 8.8 lph	22	25	29	35	40	45	52	62
Unigreen 20 mm - 3.8 lph	56	65	73	89	102	115	134	161

● Pipes Out Diameters 15.8 & 19.5 mm.

● Flow Variation 10%. ● Wall Thickness 0.85 mm for UGR16 mm & 0.9 mm for 20 mm

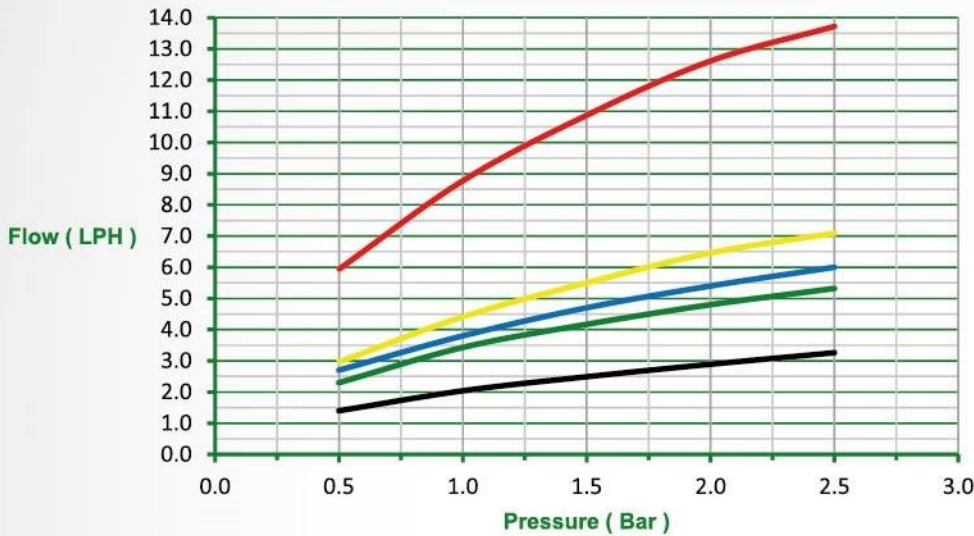
● Inlet Pressure 12.14, 12.2 m, 11.9 m, 11.97 m Respectively & 12.0 m for Unigreen 20 mm .

● Zero Slope





## Flow vs. Pressure Performance Curve



- 16 mm, 2.0 lph
- 16 mm, 3.4 lph
- 16 mm, 4.4 lph
- 16 mm, 8.8 lph
- 20 mm, 3.8 lph

## How To Order

Example :-  
UGR 16 09 44 25

- UGR : Unigreen Drip Lines ( GR )
- 16 : Pipe's Out Diameter 16 in ( mm )
- 09 : Pipe's Average Wall thickness 0.9 in ( mm )
- 4.4 : Emitter's Average Flow Rate 4.41 in ( lph ) @ 1.0 Bar.
- 25 : Emitters Spacing 25 in ( cm )



## UNIGREEN FITTINGS

Barbed type drip lines fittings are specifically produced according to the international standards to fit the products produced by Universal. They are manufactured in 16 & 20 mm OD and are suitable for connecting the UNIGREEN thick wall product. They are produced from quality polypropylene injection materials.

- |   |  |   |  |
|---|--|---|--|
|  | Elbow 16 mm<br>Elbow 20 mm                             |  | End Stop 16 mm<br>End Stop 20 mm                                 |
|  | Tee 16 mm<br>Tee 20 mm                                 |  | Off- Take W/ Rubber 13 X 16 mm<br>Off- Take W/ Rubber 13 X 20 mm |
|  | Coupling 16 mm<br>Coupling 20 mm                       |  | Mini Valve 16 X 16 mm<br>Mini Valve 20 X 20 mm                   |
|  | Reduced Tee 20 mm X 16 mm                              |  | Reduced Coupling 16 mm X 20 mm                                   |
|  | Ratchet Safety Clip 16 mm<br>Ratchet Safety Clip 20 mm |  | Rubber 16 mm<br>Rubber 20 mm                                     |