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Advancing the Science of Irrigation

The Netafim Mission

Netafim's mission is to create a universal change in the application and use of water within the Green industry.

As the world leader in agrotechnology, Netafim has translated its vast knowledge and global experience into products and services that open new horizons of reliable, easy care for public parks, sports areas, landscapes and private gardens.

From the world's best drippers and dripperlines to electronic controllers for self-watering systems, Netafim offers a continually expanding range of high quality products and systems.

Netafim's pollution-minimizing, low volume products save water and reduce system costs. They are ideal where fresh water sources are limited and/or costly. Further, they are highly reliable, ensuring effective operation even under low pressure conditions.

Netafim's innovative irrigation system utilizes recycled water to keep gardens green and flourishing.

Whether it's for large scale landscape projects or modular needs, you can expect ecology-friendly,

individually tailored solutions, featuring Netafim's universally acclaimed high precision irrigation products and climate controllers.

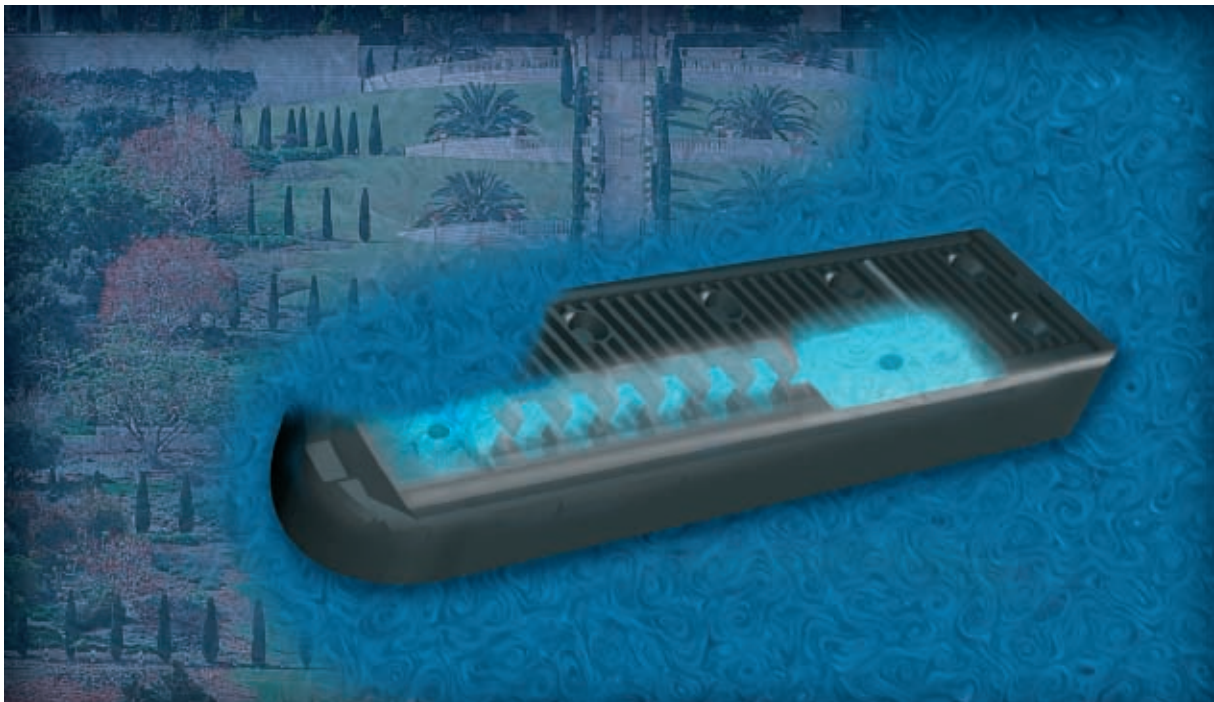
What's new!

In this latest catalog you will find many new products and improvements.

To mention a few:


- **UniTechline** (page 10) – The new generation of **Techline**® with even better features.
- **Aquapro** (page 34) – A smarter, one-station irrigation controller.
- **UniBioline**® (page 14) – The latest generation of purple color dripperline for effluent water.
- **Rotor Stainless Steel version** (pages 26-29) – Sprinklers for professional use.
- **Rotor nozzles** (page 26) – 14 newly designed nozzles for our durable P2000 pop-up rotor.

We hope you will enjoy reading this catalog. We'll be happy to receive any comments you may have at our email address, landscape@netafim.com.




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The Innovative Scheme

In 1965, Netafim was established at Kibbutz Hatzerim, and the world was introduced to the concept that is widely known today as DRIP IRRIGATION.

Due to an ambitious policy of continued development resulting in gradual improvements, Netafim's drip irrigation products and systems increasingly became the popular commercial option for irrigation applications.

And so what started as a simple idea for a product led Netafim's irrigation specialists into years of research and field tests, covering all 5 continents.

The outcome of this ongoing effort is a wide range of innovative products that offer highly effective solutions for any irrigation application.

Central to Netafim's product line are the internationally renowned dripperlines, headed up by the world's best selling drip product, the TECHLINE®.

With over 20 years of proven performance in both on-surface and sub-surface applications, TECHLINE® is an excellent example of what Netafim is all about, clearly demonstrating its three main characteristics:

- 💧 Innovation
- 💧 Durability
- 💧 Reliability

Today, Netafim is a global corporation with manufacturing facilities in 5 continents, 25 subsidiary companies, and a distribution network that stretches over 80 countries.

Netafim's irrigation products know no boundaries, and are always right at home wherever they are installed. Whether in Las Vegas, Paris, Tokyo, or Sydney, you can rest assured that Netafim irrigation products are just a drop away, perfectly merged with the surrounding landscape.

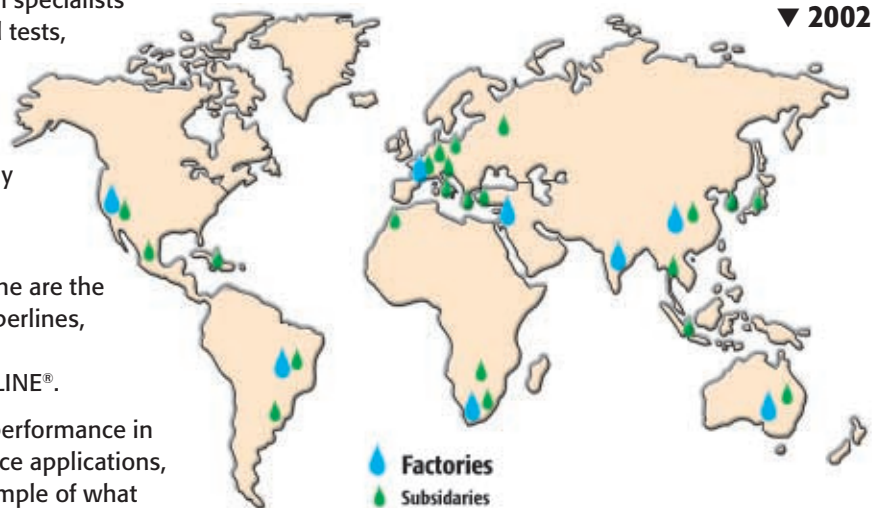
Regardless of water quality and climate conditions, Netafim's innovative irrigation products are designed to provide optimum solutions for both private and public applications, including sports fields and parks.

Keeping abreast and even ahead of the times in the 3rd millennium, Netafim's products effectively meet



▲ 1965

▼ 2002



the challenge of more complicated scenarios, such as the utilization of effluent water. They provide a broad spectrum of innovative irrigation solutions on any scale from small private applications, roof gardens and greenwalls, to large resorts and municipalities.

Netafim facts

- 💧 Netafim's manufacturing facilities are located in 8 countries, worldwide.
- 💧 Global sales exceeded US\$ 240 million in the year 2001.
- 💧 One third of Netafim's work force is comprised of irrigation specialists with international expertise.
- 💧 Netafim complies with ISO 9002 since 1995.
- 💧 Netafim's irrigation systems irrigate more than 2.5 million hectares all over the world, in both the landscaping and agricultural sectors.



Netafim and the Landscape

Traffic island



Public garden



Private garden



Public park



Roof garden





Netafim and the Landscape

Highway



Public garden



Historical site



Recreation center



Hotel





Sub-surface Irrigation Solutions

UniTechline® Techline®

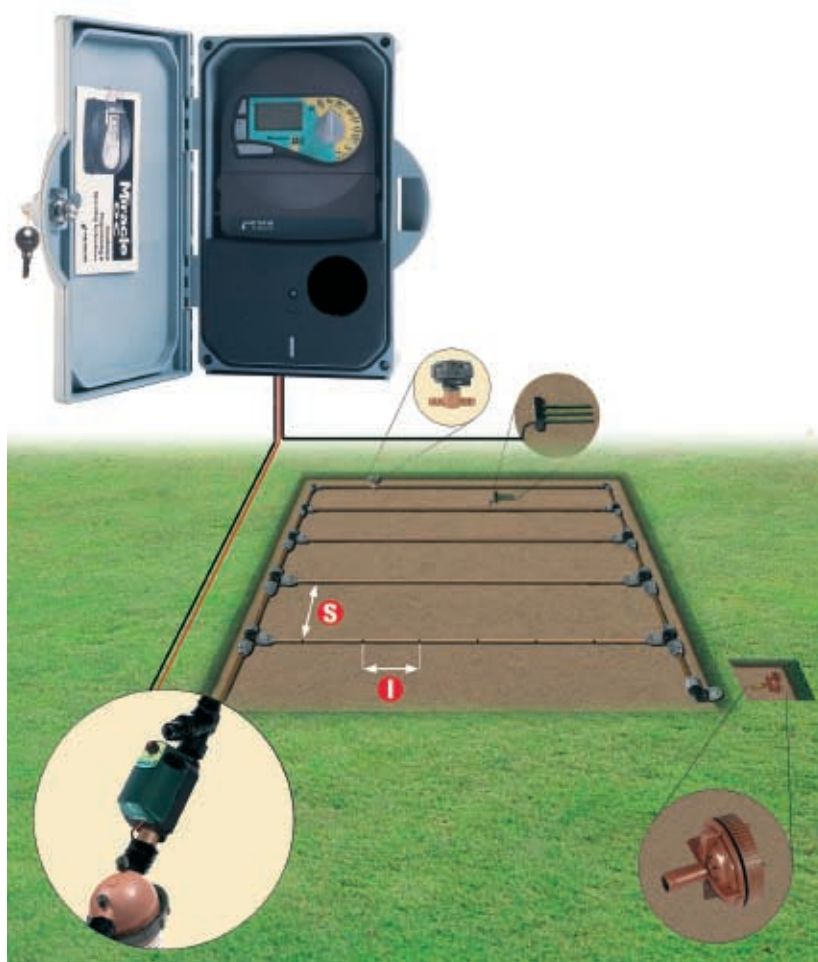
Sub-surface
installations

Grid layout method -
large or long zones in
9 simple steps

- 1** Select dripper flow according to table.
- 2** Check the longest lateral by using dripperline tables in catalog.
- 3** Total all dripperline lengths and calculate zone flow.
- 4** Measure the supply and exhaust headers. Use P.V.C. or P.E. piping.
- 5** Measure control valve.
- 6** Measure filter (use 120 mesh filtration).
- 7** Select and size the pressure regulator.
- 8** Locate vacuum relief valve at the high point(s) in the zone.
- 9** Locate flush valve in the exhaust header. Use one flush valve for every 56 l/min of zone flow.

UniTechline®, Techline®						
Row spacing recommendation table*						
	Turf			Shrub/ground cover		
Type of soil	Clay	Loamy	Sandy	Clay	Loamy	Sandy
Dripper flow (l/h)	2.3	1.6	1.6	2.3	2.3	1.6
Dripper interval (cm)	0.40	0.30	0.30	0.50	0.40	0.30
Lateral spacing (cm)	0.40-0.55	0.40	0.30	0.50	0.40	0.30
Application rate (mm/h)	14.4-10.5	13.3	17.8	9.2	14.4	17.8
Time to apply in min. (for 5 mm):	21-29	23	17	33	21	17

* These data, based on the use of UniTechline 17 and Techline® 17, may alter from country to country. Please consult your Netafim distributor for the data applicable to your location.



Irrigation control could be implemented by time schedule (Miracle® or Aquapro) or moisture sensing (Flori) or a combination of any of these.



On-surface Irrigation Solutions

Techline® On-surface installations

Grid layout method -
large or long zones in
10 simple steps

- 1** Select dripper flow according to table.
- 2** Check the longest lateral by using dripperline tables in catalog.
- 3** Total all dripperline lengths and calculate zone flow.
- 4** Measure the supply and exhaust headers. Use P.V.C. or P.E. piping.
- 5** Measure control valve.
- 6** Measure filter (use 120 mesh filtration).
- 7** Select and size the pressure regulator.
- 8** Locate flush valve in the exhaust header. Use one flush valve for every 56 l/min of zone flow.
- 9** Use soil staples every 75 cm to 1 meter for on-surface tubing installations, and two staples on fittings that change direction.
- 10** Cover area with mulch or wood chips to prevent evaporation, weeds and vandalism.



Irrigation control could be implemented by time schedule (Miracle® or Aquapro) or moisture sensing (Flori) or a combination of any of these.



Overhead Irrigation Solutions





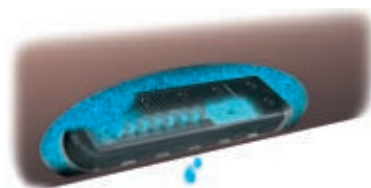
NEW

UniTechline® 16 & 17 mm

Anti-Siphon Mechanism

Sub-surface and on-surface

Pressure-compensating, continuously self-cleaning dripperline



Applications

- More than 500 m lateral installation (depending on spacing, inlet pressure and topography).
- Areas subject to vandalism.
- Slopes and high wind areas.
- Turf, shrubs, trees.
- Curved, narrow and unshaped planting areas.
- Roof gardens.

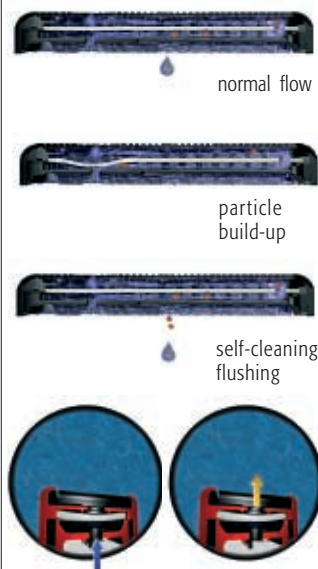
Specifications

- Dripper flow rates: 1.6 and 2.3 l/h.
- Pressure-compensating range: 0.5-4.0 bar.
- **Anti-siphon mechanism**
- Tubing Ø mm: O.D. 17.0, I.D. 14.6.
- Tubing Ø mm: O.D. 16.0, I.D. 13.7.

Features and Advantages

- **Anti-siphon mechanism** prevents contaminants from being drawn into the dripper.
- Self-compensating and self-cleaning.
- 100 % uniformity for more than 500 m length (depending on spacing, inlet pressure and topography).
- The location of the drippers in the dripperline prevents the entrance of sediments. The water is drawn from the stream center.
- High resistance to mechanical damage, root intrusion, clogging.
- Largest filter in each dripper.
- Widest water passages within the dripper.
- Unique turbulent flow path.
- Improved root barrier mechanism.
- UV-resistant dripperline.

Self-cleaning mechanism



Anti-siphon mechanism prevents contaminants from being drawn into the dripper.

UniTechline® 16 & 17 Hydraulic data

Max. lateral length (m) on level ground at 3.0 bar pressure

flow rate (l/h)	dripper spacing (m)			
	0.30	0.40	0.50	1.00
1.6	125 150	162 192	196 232	348 405
2.3	98 118	127 151	155 183	275 320

For maximal length at other inlet pressures, please consult your Netafim distributor or representative.
Other spacings can be supplied on request.

UniTechline® 16 & 17 Ordering guide

Product	Ø (mm)	flow rate (l/h)	spacing (m)	color	coil (m)
UniTechline® 16		1.6	0.30	brown	100
UniTechline® 17		2.3	0.33	dark brown	400
			0.40		
			0.50		
			1.00		
			blind		

Example:

UniTechline® 17, 1.6 l/h, 0.40 m, dark brown, 100 m.





UniTechline® CNL 16 & 17 mm

CNL – Compensated Non-Leakage

Sub-surface and on-surface

Pressure-compensating, continuously self-cleaning dripperline



Applications

- More than 500 m lateral installation (depending on spacing, inlet pressure and topography).
- Areas subject to vandalism.
- High wind areas.
- Turf, shrubs, trees.
- Curved, narrow and unshaped planting areas.
- Roof gardens.
- Soilless applications.

Specifications

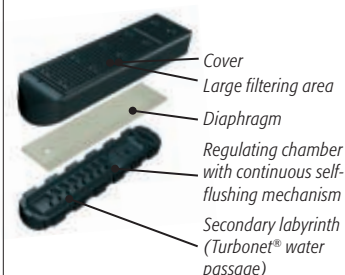
- Dripper flow rates: 1.6 and 2.3 l/h.
- **CNL – pressure sustaining mechanism, prevents drainage of the system when pressure is OFF or below 0.14 bar.**
- Pressure-compensating range: 1.0-4.0 bar.
- Tubing Ø mm: O.D. 17.0, I.D. 14.6.
- Tubing Ø mm: O.D. 16.0, I.D. 13.7.

Features and Advantages

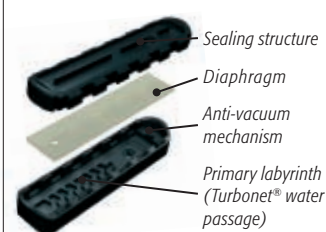
- **CNL – pressure sustaining mechanism for precise water distribution and pulse irrigation.**
- Self-compensating and self-cleaning.
- 100 % uniformity for more than 500 m length (depending on spacing, inlet pressure and topography).
- The location of the drippers in the dripperline prevents the entrance of sediments. The water is drawn from the stream center.
- High resistance to mechanical damage, root intrusion, clogging.
- Largest filter in each dripper.
- Widest water passages within the dripper.
- Unique turbulent flow path.
- Improved root barrier mechanism.
- UV-resistant dripperline.

Dripper structure

External top to bottom view



Internal top to bottom view



UniTechline® CNL 16 and 17 Hydraulic data

Max. lateral length (m) on level ground at 3.0 bar pressure

flow rate (l/h)	dripper spacing (m)			
	0.30	0.40	0.50	1.00
1.6	116 139	150 178	182 215	322 345
2.3	91 109	118 140	143 170	254 296

For maximal length at other inlet pressures, please consult your Netafim distributor or representative.

Other spacings can be supplied on request.

UniTechline® 16 & 17 CNL Ordering guide

Product	Ø (mm)	flow rate (l/h)	spacing (m)	color	coil (m)
UniTechline® CNL 16		1.6	0.30	brown	100
UniTechline® CNL 17		2.3	0.33	dark brown	400
			0.40		
			0.50		
			1.00		
			blind		

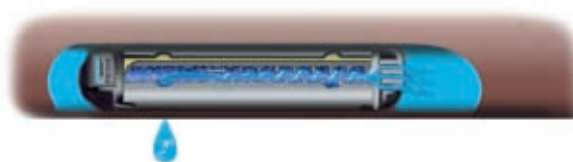
Example:

UniTechline® CNL 16, 2.3 l/h, 0.40 m, dark brown, 100 m.



Techline® 17 mm

Sub-surface and on-surface
Pressure-compensating, continuously self-cleaning dripperline



Applications

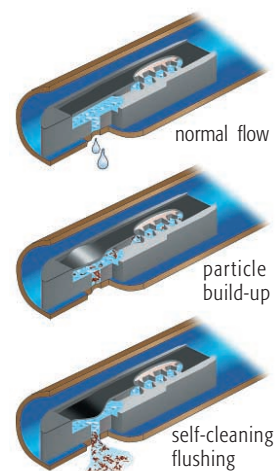
- Sub-surface and on-surface installations of long lines (due to low local head loss coefficient).
- Areas subject to vandalism.
- Recommended for projects following strict specifications.
- Intersections, highways and traffic islands.
- Slopes and high wind areas.
- Turf, shrubs, trees.

Specifications

- Dripper flow rates: 1.6, 2.3 or 3.5 l/h.
- Pressure-compensating range: 0.5-4.0 bar.
- Maximum system pressure: 4 bar.
- Tubing Ø mm: O.D. 17.0, I.D. 14.6.
- Recommended filtration: 120 mesh.

Features and Advantages

- High resistance to mechanical damage, root intrusion and clogging.
- The location of the drippers in the dripperline prevents the entrance of sediments. The water is drawn from the stream center.
- Pressure-compensating.
- 100 % uniformity for more than 400 m length (depending on spacing, inlet pressure and topography).
- Unique turbulent flow path.
- Continuous automatic flushing/cleaning design resists clogging.
- Flexible tubing adapts to any shape of planting area.
- UV-resistant dripperline.



Hydraulic data

Max. lateral length (m) on level ground at 1.5 and 4.0 bar pressure

flow rate (l/h)	dripper spacing (m)			
	0.30	0.40	0.50	1.00
1.6	113 172	143 220	172 265	297 462
2.3	88 135	113 173	136 209	234 365
3.5	67 103	86 132	103 159	179 278

For maximal length at other inlet pressures, please consult your Netafim distributor or representative.
Other spacings can be supplied on request.

Ordering guide

Product	flow rate (l/h)	spacing (m)	color	wall thickness (mm)	coil (m)
Techline® 17	1.6	0.30	brown	1.0	500*
	2.3	0.33	dark brown	1.2	400**
	3.5	0.40			100
		0.50			50
		1.00			25
		blind			

Example: █

Techline® 17, 1.6 l/h, 0.40 m, brown, 1.2, 100 m.

* 1.0 mm wall thickness only, ** 1.2 mm wall thickness only





Techline® 16 mm

On-surface and sub-surface
Pressure-compensating, continuously self-cleaning dripperline



Applications

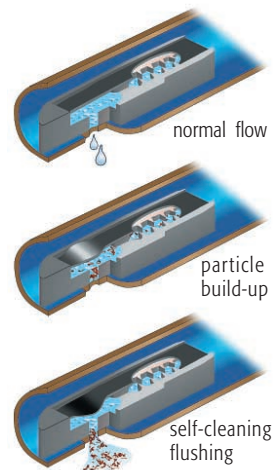
- Sub-surface and on-surface installations of long lines (due to low local head loss coefficient).
- Areas subject to vandalism.
- Recommended for projects following strict specifications.
- Intersections, highways and traffic islands.
- Slopes and high wind areas.
- Turf, shrubs, trees.

Specifications

- Dripper flow rates: 1.6, 2.3 or 3.5 l/h.
- Pressure-compensating range: 0.5-4.0 bar.
- Maximum operation pressure: 4 bar.
- Tubing Ø mm: O.D. 16.0, I.D. 14.0.
- Recommended filtration: 120 mesh.

Features and Advantages

- Pressure-compensating.
- 100 % uniformity for more than 300 m length (depending on spacing, inlet pressure and topography).
- The location of the drippers in the dripperline prevents the entrance of sediments. The water is drawn from the stream center.
- Unique turbulent flow path.
- Continuous automatic flushing/cleaning design resists clogging.
- Flexible tubing adapts to any shape of planting area.
- UV-resistant dripperline.



Hydraulic data

Max. lateral length (m) on level ground at 1.5 and 4.0 bar pressure				
flow rate	dripper spacing (m)			
(l/h)	0.30	0.40	0.50	1.00
1.6	92 140	118 182	143 220	254 393
2.3	72 111	93 143	113 174	201 310
3.5	55 84	71 109	86 132	153 236

For maximal length at other inlet pressures, please consult your Netafim distributor or representative.
Other spacings can be supplied on request.

Ordering guide

Product	flow rate (l/h)	spacing (m)	color	wall thickness (mm)	coil (m)
Techline® 16	1.6	0.30	brown	1.0	500*
	2.3	0.33	dark brown	1.2	400**
	3.5	0.40			100
		0.50			50
		1.00			25
		blind			

Example:

Techline® 16, 3.5 l/h, 0.50 m, brown, 1.2, 100 m.

* 1.0 mm wall thickness only, ** 1.2 mm wall thickness only





NEW

UniBioline® 16 and 17 mm

Sub-surface, recycled water

Pressure-compensating, continuous self-cleaning dripperline



Our society faces a constant challenge to maintain and preserve the environment for generations to come. A major issue in pollution control is the treatment and disposal of domestic and industrial wastewater. Netafim, the world's leading manufacturer of drip irrigation systems, has helped meet that challenge with the development of UniBioline sub-surface dripperline for recycled water and land treatment.

Applications

- For irrigation with recycled water.
- On-surface and sub-surface installations.
- Commercial and residential applications.
- Lawn, trees, shrubs, and flower beds.

Specifications

- Dripper flow rates: 1.6 and 2.3 l/h.
- Pressure-compensating range: 0.5-4.0 bar.
- **Anti-siphon mechanism**
- Tubing Ø mm: O.D. 17.0, I.D. 14.6.
- Tubing Ø mm: O.D. 16.0, I.D. 13.7.
- Purple dripperline.

Features and Advantages

- Self-compensating and self-cleaning.
- Largest filter in each dripper.
- Widest water passages within the dripper.
- Unique turbulent flow path.
- Anti-siphon mechanism prevents contaminants from being drawn into the dripper.
- Purple dripperline for visual indication.



UniBioline® 16 & 17

Hydraulic data

Max. lateral length (m) on level ground at 3.0 bar pressure

flow rate (l/h)	dripper spacing (m)			
	0.30	0.40	0.50	1.00
1.6	125 150	162 192	196 232	348 405
2.3	98 118	127 151	155 183	275 320

For maximal length at other inlet pressures, please consult your Netafim distributor or representative.

Other spacings can be supplied on request.

UniBioline® 16 & 17

Ordering guide

Product	Ø (mm)	flow rate (l/h)	spacing (m)	color	coil (m)
UniBioline® 16		1.6	0.30	purple	100
UniBioline® 17		2.3	0.33		400
			0.40		
			0.50		
			1.00		
			blind		

Example:

UniBioline® 17, 1.6 l/h, 0.40 m, purple, 400 m.





Landline 16 mm

On-surface Turbonet® flow



Applications

- On-surface installation: shrubs, flower beds and vegetable gardens.
- Under mulch.
- For flat irrigation zones.
- Narrow planting areas.

Specifications

- Dripper flow rate: 2.0, 4.0 l/h at 1.0 bar pressure.
- Uses Landline 16 mm fittings.
- Maximum operation pressure: 3 bar.
- Recommended filtration: 120 mesh.
- Tubing Ø mm: O.D. 16.0, I.D. 14.0.

Hydraulic data

Max. lateral length (m) on level ground at 1.0 and 2.0 bar pressure

flow rate (l/h)	dripper spacing (m)	
	0.30	0.50
2.0	57 69 86 105	
4.0	37 45 55 67	

For maximal length at other inlet pressures, please consult your Netafim distributor or representative.
Other spacings can be supplied on request.

Ordering guide

Product	flow rate (l/h)	spacing (m)	color	coil (m)
Landline 16	2.0	0.30	dark brown	500
	4.0	0.50		400
		blind		100
				50
				25

Example:

Landline 16: 2.0 l/h, 0.50 m, dark brown, 100 m.

Features and Advantages

- Large, efficient turbulent flow path.
- Easy installation.
- Tubing flexibility adapts to any shape of planting area.
- UV-resistant dripperline.
- Labor saving on-surface installation.
- Long lasting reliability and durability.





Landline 12 mm

On-surface Turbonet® flow



Applications

- On-surface installation: shrubs, flower beds and vegetable gardens.
- Under mulch.
- For flat irrigation zones.
- Narrow planting areas.
- Short laterals.

Specifications

- Dropper flow rate: 1.3, 1.9 l/h at 1.0 bar pressure.
- Uses Landline 12 mm fittings.
- Maximum system pressure: 3 bar.
- Recommended filtration: 120 mesh.
- Tubing Ø mm: O.D. 12.2, I.D. 9.4.

Features and Advantages

- Large, efficient turbulent flow path.
- Easy installation.
- Tubing flexibility adapts to any shape of planting area.
- UV-resistant dripperline.
- Labor saving on-surface installation.
- Long lasting reliability and durability.

Hydraulic data

Max. lateral length (m) on level ground at 1.0 and 2.0 bar pressure			
flow rate (l/h)	dropper spacing (m)		
	0.30	0.50	
1.3	58	60	85 88
1.9	46	46	66 68

For maximal length at other inlet pressures, please consult your Netafim distributor or representative.
Other spacings can be supplied on request.

Ordering guide

Product	flow rate (l/h)	spacing (m)	color	coil (m)
Landline 12	1.3	0.30	dark brown	25
	1.9	0.50		50
		blind		

Example:

Landline 12: 1.3 l/h, 0.50 m, dark brown, 50 m.





Landline 8 mm

On-surface Turbonet® flow



Applications

- On-surface installation: shrubs, flower beds and vegetable gardens.
- Under mulch.
- For flat irrigation zones.
- Narrow planting areas.
- Short laterals.
- Large pots and containers.

Specifications

- Dropper flow rate: 1.9 l/h at 1.0 bar pressure.
- Uses Landline 8 mm fittings.
- Maximum system pressure: 2 bar.
- Recommended filtration: 120 mesh.
- Tubing Ø 8 mm: O.D. 8.0, I.D. 6.0.
- Tubing material: linear low density polyethylene.

Hydraulic data

Max. lateral length (m) on level ground at 0.5 and 1.7 bar pressure			
flow rate (l/h)	dropper spacing (m)		
	0.15	0.30	
1.9	8	9	15 16

For maximal length at other inlet pressures, please consult your Netafim distributor or representative.

Other spacings can be supplied on request.

Ordering guide

Product	flow rate (l/h)	spacing (m)	color	coil (m)
Landline 8	1.9	0.15	dark brown	30
		0.30	brown	50
		blind		

Example:

Landline 8: 1.9 l/h, 0.30 m, dark brown, 50 m.

Features and Advantages

- Large, efficient turbulent flow path.
- Easy installation.
- Tubing flexibility adapts to any shape of planting area.
- UV-resistant dripperline.
- Labor saving on-surface installation.
- Long lasting reliability and durability.





17 and 16 mm Dripperline Fittings

Applications

- Fits Techline®, UniTechline®, UniBioline® and Landline dripperlines.
- 17 mm fittings – brown color.
- 16 mm fittings – black color.

17 mm fitting can be used with 16 mm dripperline.

16 mm fitting **should never be used** with 17 mm dripperline.

Features and Advantages

- Barbed fittings ensure secure fit without glue or bands.
- Maximum recommended usage pressure: 4 bar.
- UV-resistant.
- Easy to use.

				
Stabilizer 17 mm 32000-006500 16 mm 32000-006500	Stabilizer Ø 4 mm galvanized 32000-001600	Dripper plug 32000-006000	Insert coupling 17 mm 32500-003800 16 mm 32500-010700 17 mm purple 32500-003900	Insert T 17 mm 32500-004900 16 mm 32500-011300
				
Insert elbow 17 mm 32500-005900 16 mm 32500-012500	Insert cross 17 mm 32500-006300	1/2" male adapter 17 mm 32500-004400 16 mm 32500-010900	3/4" male adapter 17 mm 32500-004500 16 mm 32500-011000	3/4" male elbow adapter 17 mm 32500-006100 16 mm 32500-012800
				
3/4" male T adapter 17 mm 32500-004800 16 mm 32500-011800	3/4" male "Y" adapter 17 mm 32500-004600 16 mm 32500-011200	3/4" female T adapter 17 mm 32500-004700 16 mm 32500-011700	Shut-off valve 1/2" x ins 16 mm 76220-008200	Shut-off valve 3/4" x ins 17 mm 76220-008400 16 mm 76220-008500
				
Shut-off valve ins x ins 17 mm 76220-008800 16 mm 76220-008700	Rapid start for PE (Fits 8 mm hole) 17 mm 32500-006600 16 mm 32500-013750	Rapid start w/ seal (Fits 16 mm hole) 17 mm 32500-006620 16 mm 32500-013770	Start elbow w/o seal (Fits 16 mm hole) 17 mm 32500-007500 Seal only 32000-007000	Line end 16-17 brown 32500-013100 16-17 black 32500-013000



NEW



Gripper
Gripper+Punch 8 mm 45000-002070
Gripper handle only 45000-002030



Punch/Push 8 mm
Punch only 45000-002150














12 mm Dripperline Fittings








Features and Advantages

- Barbed fittings ensure secure fit without glue, tools or bands.
- Maximum recommended system pressure: 4 bar.
- UV-resistant.
- Easy on-site inspection of proper fitting installation.



					
Start (fits 8 mm hole) 12 mm 32500-003705	Insert coupling 12 mm 32500-002200	Insert T 12 mm 12 mm 32500-002500	Insert elbow 12 mm 32500-003200	1/2" male adapter 12 mm 32500-002300	3/4" male adapter 12 mm 32500-002400
					
1/2" male elbow 12 mm 32500-003300	3/4" male elbow 12 mm 32500-003400	1/2" male T 12 mm 32500-002310	3/4" male T 12 mm 32500-002800	17/12 mm coupling 12 mm 32500-004100	Line end 12 mm 32500-003500

8 mm Dripperline Fittings

						
Stabilizer 8 mm 32500-002150	Insert/Start coupling (Fits 3 mm hole) 8 mm 32500-002000	Insert elbow 8mm 32500-001900	Insert T 8mm 32500-002100	Mini filter 74020-007200	Converter 3/4"/F micro-tube connector 63000-001300	Male/barb 8 mm 74020-007300



NEW



Gripper
Gripper+Punch 3 mm 45000-002050
Gripper handle only 45000-002030



Punch/Push 3 mm
Punch only 45000-002100





Techflow

Pressure-compensating, continuously self-cleaning point source drippers with internal check valve and anti-drainage system

Applications

- Drip systems with high friction loss.
- May be used either on-surface or sub-surface.
- Planters, pots, baskets.

Specifications

- 3, 6, 12 or 25 l/h.
- 1.1-3.5 bar pressure compensating range.
- Closing pressure 0.3 bar.

Ordering guide

Product	flow rate (l/h)	outlet
Techflow CNL	3.0	nipple
Techflow CNL	6.0	flat
Techflow CNL	12.0	
Tech Bubbler	25.0	

Example: Techflow CNL, 6.0 l/h, nipple outlet

Features and Advantages

- Unique design regulates flow and provides self-cleaning action.
- 3 m internal check valve prevents low pressure drainage (up to 12 l/h).
- Anti-siphon operation prevents contaminants from being drawn into dripper.



Microtube 3/5 mm adaptor
For nipple outlet
32000-002000



Microtube 4/6 mm adaptor
For nipple outlet
32000-002100



Pressure-compensating flat dripper
Flow rate: 3•6•12 l/h



Pressure-compensating Tech Bubbler dripper
For tree and large shrub irrigation
Flow rate: 25 l/h
Barb connector



Pressure-compensating dripper w/ nipple outlet
Flow rate: 3•6•12 l/h

Multifim

Up to six dripper outlets in one unit for easy access to all irrigation zones

Applications

- Multiple outlet for use in terraces, flower beds, balconies etc.

Specifications

- 6 pressure-compensated drip outlets.
- Sub- or on-surface installation.
- 2, 4 or 8 l/h per each drip outlet.

Ordering guide

Product	flow rate l/h
Multifim stackable	2.0
Multifim non-stackable	4.0
	8.0

Example: Multifim non-stackable, 4.0 l/h.
(Plug tree included).

Features and Advantages

- Quick to install and easy to use.
- 0.5-4.0 bar range compensation
- Continuously self-cleaning drippers assure peak performance and accurate water distribution.
- Built-in secondary filter.
- Horizontal outlets provide a low profile for on-surface installations.
- Installed either above ground or in an emitter box.
- Stackable configuration provides versatility and expandability.
- 1/2" threads.
- Outlet plugs enable closure of drippers not in use. Plugs can be removed for future use.
- Recommended filtration: 120 mesh
- Use 3/5 or 4/6 mm micro-tubing.



MOPC's dripper plug tree



MOPC (stackable) on a stand



Techflow Junior

Pressure-compensating, point source
drippers with optional internal check valve

Applications

- Drip systems with high friction loss.
- May be used either on-surface or sub-surface.
- For hanging baskets, flower beds etc.

Specifications

- 2, 3, 4 or 8 l/h.
- 0.5-4.0 bar pressure-compensating range.
- C.N.L. 0.75-4.00 bar pressure-compensating range.
- Use 3/5 mm micro-tube for outlet, and 4/6 mm micro-tube for Techflow Junior Line inlet.

Hydraulic data

Max. dripper line length (m) on level ground at 2 l/h. Microtube I.D. 4 mm



inlet pressure (bar)	drripper spacing (m)			
	0.2	0.3	0.5	1.0
1.0	6.0	8.5	12.5	20.0
2.0	9.0	13.0	19.5	32.0
3.0	11.0	15.5	23.5	39.0

Ordering guide

Product	flow rate (l/h)	inlet	CNL	outlet
Techflow Junior	2.0	barb	w/	barb
	3.0	in-line	w/o	nipple
	4.0			
	8.0			

Example: Techflow Junior, 8.0 l/h, barb inlet CNL, nipple dripper

Features and Advantages

- Pressure-compensated, self cleaning dripper.
- Anti-siphon operation prevents contaminants from being drawn into dripper.
- Small body is inconspicuous in planting area.
- *Optional:* 0.08 bar internal non-leakage mechanism (CNL) prevents low pressure drainage.



**Techflow Junior dripper
barb outlet**



**Techflow Junior dripper
nipple outlet**



**Techflow Junior Line dripper
barb outlet**





Landflow

Point source drippers

Applications

- Planters, pots, walls, hanging baskets, balconies.

Specifications

- 1 l/h (yellow), 2 l/h (red), 3 l/h (purple), 4 l/h (black) or 8 l/h (green).
- 2.5 bar maximal pressure.
- Use 3/5 mm micro-tube for inlet/outlet.
- Filtration requirement: 120 mesh.

Ordering guide

	flow rate (l/h)	dripper inlet	outlet
Landflow	1.0	button (barb)	flat
	2.0	pot (screw)	barb*
	3.0		nipple
	4.0		M.O.D.*
	8.0		

Example: Landflow 2.0 l/h, pot, nipple outlet

* For Button (barb) inlet only

Features and Advantages

- Wide turbulent flow passage resists clogging.
- Barb inlet for easy mounting.



Button dripper



Button dripper nipple outlet



Button dripper barb outlet



Pot dripper nipple outlet



Button M.O.D. (Multi Outlet Dripper)



Pot dripper





Fittings & Accessories for Drippers

																
Flat Manifold for nipple drippers, 4 outlets Fits 3/5 mm tube 32000-002560	Flat Manifold for nipple drippers, 2 outlets Fits 3/5 mm tube 32000-002530	Flat Manifold for nipple drippers, 1 outlet Fits 3/5 mm tube 32000-002520	Manifold/tube adaptor 32000-001900													
																
Cap for Woodpecker drippers 32000-001400	5 mm T barb connector 32500-001500	5 mm T barb/self tapping connector 32500-001300	5 mm T self tapping connector 32500-001700	Manifold for drippers, 8 outlets 1/2" Fits 3/5 mm tube 32000-002300												
																
Stabilizer for pot dripper 32000-001500	Tube stake for 5 mm pipe 32000-001800	Elbow arrow dripper 2 l/h 22000-001300	3-way F connector 74020-007000	M connector self tapping for micro tube Ø 4/6 74020-006900												
																
			Mini filter 74020-007200	Converter 3/4"/F micro-tube connector 63000-001300												
Micro tubing 3/5 & 4/6.5 Ordering guide <table><tr><th>diameter I.D./O.D.</th><th>color</th><th>coil length (m)</th></tr><tr><td>3/5</td><td>dark brown</td><td>500</td></tr><tr><td>4/6.5</td><td>black</td><td>200</td></tr><tr><td></td><td>brown</td><td>100</td></tr></table> <p>Example: Micro tubing 4/6.5, dark brown, 200 m</p>		diameter I.D./O.D.	color	coil length (m)	3/5	dark brown	500	4/6.5	black	200		brown	100	 <p>Pot dripper</p> <p>Cap</p> <p>Stabilizer</p>		
		diameter I.D./O.D.	color	coil length (m)												
3/5	dark brown	500														
4/6.5	black	200														
	brown	100														
Punch/Push 3 mm Punch only 45000-002100	Gripper Gripper+Punch 3 mm Gripper handle only 45000-002050 45000-002030															





Sprays P200 Series

Innovative pop-up spray sprinklers for commercial and residential applications

Applications

- Parks, public and residential gardens.
- Standard spray includes a body, filter and an arc/radius adjustable nozzle (fixed brass nozzles on demand).

Specifications

- ½" female thread inlet w/ additional side inlet for P206, P212.
- Easy radius adjustment - w/o tools.
- Arc: 25° - 360°.
- Operating pressure: 1.4 - 2.8 bar.
- Color code for easy nozzle identification.
- Screen filter included with nozzle.
- Matched precipitation at every arc, trajectory and radius.
- Precipitation rate range: 33 - 57 mm/h.
- P200 nozzle performance:

Nozzle	Radius	Trajectory
10A (red)	3.0 - 3.7 m	10°
12A (green)	3.7 - 4.6 m	28°
15A (black)	4.3 - 5.2 m	28°
17A (grey)	4.9 - 5.8 m	28°
5518 (brass)	3.6 - 3.9 m	30°
5524 (brass)	4.3 - 5.2 m	30°

P200 Ordering guide

Model	nozzle	arc
P203	10A, 12A	adj.
P204	15A, 17A	90°
P206	5518	180°
P212	5524	360°

Example: P204, 5518, 180°

Features and Advantages








- 4 pop-up heights:

P203	7.6 cm
P204	10 cm
P206	15 cm
P212	30 cm
- P220 shrub adapter.
- Ratchet nozzle alignment.
- Rugged molded body with easy grab ribs to keep position in the ground.
- Pressure activated, high quality wiper seal.
- Stainless steel retract spring.
- T-flush cap ensures flushing and eases the pulling of the raiser.
- All parts serviceable from top of sprinklers.
- Color coded nozzles.
- Large spacing with brass nozzles.





Sprays P200 Series Performance Data







Arc	Pressure bar	Nozzle 10A Radius: 3.0m Trajectory: 10° Color Code: Red					Nozzle 12A Radius: 3.7m Trajectory: 28° Color Code: Green					Nozzle 15A Radius: 4.6m Trajectory: 28° Color Code: Black					Nozzle 17A Radius: 5.2m Trajectory: 28° Color Code: Grey				
		Radius m	Flow m³/h	Precip. ■	mm/h ▲		Radius m	Flow m³/h	Precip. ■	mm/h ▲		Radius m	Flow m³/h	Precip. ■	mm/h ▲		Radius m	Flow m³/h	Precip. ■	mm/h ▲	
	1.4	3.0	0.31	34	40	3.7	0.48	35	40	4.3	0.70	38	44	4.9	0.88	37	42				
	1.7	3.0	0.35	39	45	3.7	0.51	37	43	4.6	0.79	37	43	5.2	1.02	38	44				
	2.1	3.4	0.44	38	44	4.0	0.65	41	47	4.9	0.84	35	40	5.5	1.09	36	42				
	2.4	3.4	0.46	40	46	4.3	0.69	37	43	4.9	0.94	39	45	5.5	1.14	38	44				
	2.8	3.7	0.66	48	56	4.6	0.76	36	41	5.2	1.03	38	44	5.8	1.25	37	43				
	1.4	3.0	0.23	34	39	3.7	0.36	35	40	4.3	0.52	38	43	4.9	0.66	37	42				
	1.7	3.0	0.27	40	46	3.7	0.38	37	43	4.6	0.60	38	44	5.2	0.77	38	44				
	2.1	3.4	0.33	38	44	4.0	0.49	41	47	4.9	0.63	35	40	5.5	0.82	36	42				
	2.4	3.4	0.35	40	47	4.3	0.52	38	43	4.9	0.70	39	45	5.5	0.85	37	43				
	2.8	3.7	0.50	49	56	4.6	0.57	36	41	5.2	0.77	38	44	5.8	0.94	37	43				
	1.4	3.0	0.21	35	40	3.7	0.32	35	40	4.3	0.47	38	44	4.9	0.59	37	43				
	1.7	3.0	0.24	40	46	3.7	0.34	37	43	4.6	0.53	38	43	5.2	0.68	38	44				
	2.1	3.4	0.30	39	45	4.0	0.43	40	47	4.9	0.56	35	40	5.5	0.73	36	42				
	2.4	3.4	0.31	40	46	4.3	0.46	37	43	4.9	0.62	39	45	5.5	0.76	38	44				
	2.8	3.7	0.44	48	56	4.6	0.51	36	42	5.2	0.69	38	44	5.8	0.83	37	43				
	1.4	3.0	0.15	33	38	3.7	0.24	35	40	4.3	0.35	38	44	4.9	0.44	37	42				
	1.7	3.0	0.18	40	46	3.7	0.25	37	42	4.6	0.40	38	44	5.2	0.51	38	44				
	2.1	3.4	0.22	38	44	4.0	0.32	40	46	4.9	0.42	35	40	5.5	0.55	36	42				
	2.4	3.4	0.23	40	46	4.3	0.35	38	44	4.9	0.47	39	45	5.5	0.57	38	44				
	2.8	3.7	0.33	48	56	4.6	0.38	36	41	5.2	0.52	38	44	5.8	0.62	37	43				
	1.4	3.0	0.10	33	38	3.7	0.16	35	40	4.3	0.23	37	43	4.9	0.29	36	42				
	1.7	3.0	0.12	40	46	3.7	0.17	37	43	4.6	0.27	38	44	5.2	0.34	38	44				
	2.1	3.4	0.15	39	45	4.0	0.22	41	48	4.9	0.28	35	40	5.5	0.37	37	42				
	2.4	3.4	0.15	39	45	4.3	0.23	37	43	4.9	0.31	39	45	5.5	0.38	38	44				
	2.8	3.7	0.22	48	56	4.6	0.25	35	41	5.2	0.34	38	44	5.8	0.42	37	43				
	1.4	3.0	0.08	36	41	3.7	0.12	35	40	4.3	0.17	37	42	4.9	0.22	37	42				
	1.7	3.0	0.09	40	46	3.7	0.13	38	44	4.6	0.20	38	44	5.2	0.26	38	44				
	2.1	3.4	0.11	38	44	4.0	0.16	40	46	4.9	0.21	35	40	5.5	0.27	36	41				
	2.4	3.4	0.12	42	48	4.3	0.17	37	42	4.9	0.23	38	44	5.5	0.28	37	43				
	2.8	3.7	0.17	50	57	4.6	0.19	36	41	5.2	0.26	38	44	5.8	0.31	37	43				
	1.4	3.0	0.04	36	41	3.7	0.06	35	40	4.3	0.09	39	45	4.9	0.11	37	42				
	1.7	3.0	0.04	36	41	3.7	0.06	35	40	4.6	0.10	38	44	5.2	0.13	38	44				
	2.1	3.4	0.05	35	40	4.0	0.08	40	46	4.9	0.10	33	38	5.5	0.14	37	43				
	2.4	3.4	0.06	42	48	4.3	0.09	39	45	4.9	0.12	40	46	5.5	0.14	37	43				
	2.8	3.7	0.08	47	54	4.6	0.10	38	44	5.2	0.13	38	44	5.8	0.16	38	44				

■ Spacing at 50% of diameter

▲ Spacing at 55% of diameter

*Fixed arc nozzles (MRP) are also available on request.

Brazz nozzles, standard 30° trajectory, triangular spacing

Max. spacing 5.4 m				Max. spacing 7.2 m			
No.	Pressure bar	Radius m	Flow m³/h	No.	Pressure bar	Radius m	Flow m³/h
	1.4	3.6	0.77		1.4	4.3	0.70
	1.7	3.9	0.86		1.7	4.6	0.79
	2.1	3.9	0.95		2.1	5.2	1.03
	1.4	3.6	0.45		1.4	4.3	0.52
	1.7	3.9	0.52		1.7	4.6	0.60
	2.1	3.9	0.57		2.1	5.2	0.77
	1.4	3.6	0.23		1.4	4.3	0.47
	1.7	3.9	0.25		1.7	4.6	0.53
	2.1	3.9	0.27		2.1	5.2	0.69





Rotors P2000 Series

Innovative pop-up rotor sprinkler for commercial and residential applications



Applications

- Designed for small and medium size turf areas such as public parks, commercial sites, and residential gardens.
- P2002 model for shrub application.
- Available also in stainless steel for professional use.

Specifications

- Spacing: 8.6 m - 16.6 m.
- Trajectory angle: 26° standard, 13° low angle.
- Operating pressure: 2.5 - 4.5 bar.
- Flow: 0.18 - 3.39 m³/h.
- Precipitation rate range: 2.20 - 11.41 mm/h.
- Pop-up: 10.2 cm.
- Options: check-valve elevation 1.0 m.
- Inlet diameter: 3/4" female.
- The rotor includes body and a set of 14 nozzles.

Features and Advantages

- Part circle models adjust from 40° - 360°. Easy arc adjustment w/o tools. Anti-vandalism due to invisibility of adjustment ring from top.
- Standard integral rubber cover, thick and vandal resistant. Visible arrow indicates + or - arc adjustment.
- No fixed side limitation.
- Pressure activated wiper seal and strong stainless steel spring ensure clean head retraction.
- Large basket-type removable filter w/ high tech micro-filter to protect reversing mechanism.
- Wide range of nozzles including low angle and high flow.



P2000 nozzle performance:

Nozzles	Radius	Trajectory
1.0	9.8 - 10.1 m	26°
1.5	10.7 - 11.0 m	26°
2.0	10.7 - 10.7 m	26°
3.0	11.6 - 12.5 m	26°
3.5	12.5 - 13.1 m	26°
4.0	13.4 - 14.0 m	26°
6.0	13.7 - 14.3 m	26°
8.0	13.7 - 15.6 m	26°
2.0LA	8.8 - 10.4 m	13°
2.5LA	9.5 - 11.0 m	13°
3.5LA	9.5 - 11.3 m	13°
4.5LA	10.1 - 11.3 m	13°
9.0	15.3 - 16.8 m	26°
13.0	17.4 - 18.6 m	26°

P2000 ordering guide

Model	
P2000 adjustable	60000-001000
P2000 full circle	60000-001050
P2000 stainless steel	60000-001070
P2000 stainless steel, full circle	60000-001080
P2002 adjustable	60000-000950





Rotors P2000 Series Performance Data

Standard angle

Nozzle	Press. bar	Rad. m	Flow m³/h	mm/h ▲	mm/h ■
1.0	2.8	9.8	0.18	2.20	1.9
	3.5	10.1	0.20	2.33	2.0
	4.1	10.1	0.23	2.59	2.2
1.5	2.8	10.7	0.32	3.24	2.8
	3.5	11.0	0.36	3.48	3.0
	4.1	11.0	0.40	3.87	3.4
2.0	2.8	10.7	0.42	4.21	3.6
	3.5	10.7	0.43	4.37	3.8
	4.1	10.7	0.52	5.29	4.6
3.0	2.8	11.6	0.51	4.39	3.8
	3.5	11.9	0.54	4.45	3.9
	4.1	12.5	0.64	4.73	4.1
3.5	2.8	12.5	0.78	5.78	5.0
	3.5	12.8	0.84	5.91	5.1
	4.1	13.1	0.99	6.61	5.7
4.0	2.8	13.4	0.90	5.75	5.0
	3.5	13.7	0.98	5.98	5.2
	4.1	14.0	1.13	6.61	5.7
6.0	2.8	13.7	1.24	7.63	6.6
	3.5	14.0	1.43	8.39	7.3
	4.1	14.3	1.58	8.85	7.7
8.0	2.8	13.7	1.43	8.79	7.6
	3.5	14.3	1.70	9.57	8.3
	4.1	15.6	1.85	8.82	7.6

Low angle

Nozzle	Press. bar	Rad. m	Flow m³/h	mm/h ▲	mm/h ■
2.0LA	2.1	8.8	0.36	5.26	4.6
	2.8	10.1	0.44	4.99	4.3
	3.5	10.4	0.47	5.09	4.4
2.5LA	2.1	9.5	0.49	6.27	5.4
	2.8	10.7	0.58	5.89	5.1
	3.5	11.0	0.65	6.20	5.4
3.5LA	2.1	9.5	0.52	6.74	5.8
	2.8	10.7	0.64	6.49	5.6
	3.5	11.3	0.71	6.44	5.6
4.5LA	2.1	10.1	0.59	6.78	5.9
	2.8	11.3	0.71	6.44	5.6
	3.5	11.3	0.82	7.47	6.5

Flow +

9.0	3.5	15.3	2.15	10.70	9.3
	4.1	16.5	2.44	10.39	9.0
	4.8	16.8	2.66	10.94	9.5
13.0	3.5	17.4	2.81	10.72	9.3
	4.1	18.0	3.13	11.15	9.7
	4.8	18.6	3.39	11.31	9.8

■ Spacing at 50 % of diameter. ▲ Spacing at 55 % of diameter.

Nozzle install collar
60000-001150



Wrench key for nozzle fixation
60000-001450



Check valve washer for P2000
60000-001200



Nozzle tree 60000-001300





Rotors P2040 Series

Innovative pop-up rotor sprinkler for commercial, sport and residential applications



Applications

- Designed for parks, sports fields and various large turf areas.
- Available also in stainless Steel for professional use.

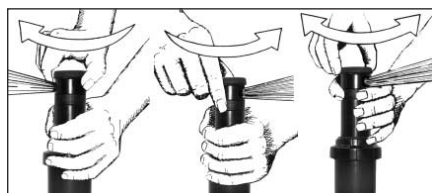
Specifications

- Spacing: 14.9 m - 22.6 m.
- Trajectory angle: 26°.
- Operating pressure: 2.8 - 6.2 bars.
- Flow: 1.84 - 6.36 m³/h.
- Precipitation rate range: 8.3 - 12.5 mm/h.
- 5 field changeable nozzles.
- Pop-up: 10.2 cm.
- Check valve included (standard) 4.6 m elevation.
- Option: stainless steel raiser.
- Inlet diameter 1" (f) BSP standard.
- The rotor includes body, check valve and a set of 5 nozzles.

P2040 nozzle performance:

Nozzle	Radius	Trajectory
71	14.9 - 17.0 m	26°
72	16.5 - 17.7 m	26°
73	17.4 - 18.6 m	26°
74	18.0 - 19.8 m	26°
75	20.1 - 22.6 m	26°

Easy adjustment w/o tools

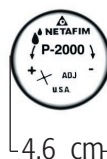


P2040 ordering guide

Model	
P2040 adjustable	60000-001100
P2040 full circle	60000-001120
P2040 stainless steel	60000-001130
P2040 stainless steel, full circle	60000-001140

Features and Advantages

- Part circle models adjust from 40° - 360°.
- Easy arc adjustment w/o tools.
- Anti-vandalism due to invisibility of adjustment ring from top.
- Standard integral rubber cover, thick and vandal resistant. Visible arrow indicates + or - arc adjustment.
- No fixed side limitation.
- Pressure activated wiper seal and strong stainless steel spring ensure clean head retraction.
- Large basket-type removable filter with specially developed micro-filter to protect reversing mechanism.
- Check valve included.



4.6 cm



P2040-S 1" inlet
P2040 1" inlet



Nozzle Tree for P2040
60000-001400



Rotors P2040 Series Performance Data

P2040/P2040-full

Max. operating pressure: 6.2 bar

Nozzle	Press. bar	Rad. m	Flow m³/h	mm/h ■	mm/h ▲
	2.8	14.9	1.84	8.3	7.9
	3.4	15.5	2.07	8.6	8.2
71	4.2	16.2	2.27	8.6	8.3
	4.8	16.8	2.50	8.9	8.5
	5.5	17.0	2.68	9.3	8.8
	3.4	16.5	2.43	8.9	8.5
	4.2	16.8	2.68	9.5	9.1
72	4.8	17.4	2.86	9.4	9.0
	5.5	17.7	3.13	10.0	9.5
	3.4	17.4	3.18	10.5	10.0
	4.2	17.7	3.48	11.1	10.6
73	4.8	18.3	3.82	11.4	10.9
	5.5	18.6	4.04	11.7	11.1

P2040/P2040-full

Max. operating pressure: 6.2 bar

Nozzle	Press. bar	Rad. m	Flow m³/h	mm/h ■	mm/h ▲
	4.2	18.0	3.77	11.6	11.1
	4.8	18.9	4.11	11.5	11.0
74	5.5	19.2	4.36	11.8	11.3
	6.2	19.8	4.63	11.8	11.3
	4.2	20.1	5.11	12.6	12.1
	4.8	20.4	5.61	13.5	12.9
75	5.5	21.9	6.02	12.6	12.0
	6.2	22.6	6.36	12.5	11.9

■ Spacing at 50 % of diameter.

▲ Spacing at 55 % of diameter.

Maximum radius reduction with diffuser screw is 25 %.





Supernet & Supernet Jet

Innovative pressure compensated micro-sprinkler

Applications

- Irrigation of shrubs, trees, flower beds and where high moisture level is required.
- Irrigation during turf germination phases.

Specifications

- A revolving 360° dynamic spray (Supernet) or static jet stream (Supernet Jet) for 180° and 90°
- Working pressures range:
Minimum pressure 1.5 bar.
Maximum pressure 4.5 bar.
At these pressure ranges the Supernet keeps the same flow and the same radius.

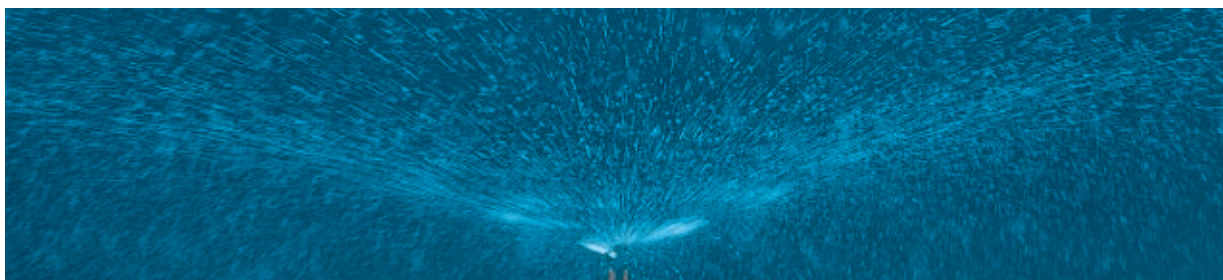
Features and Advantages

- Regulating sprinkler enables uniform irrigation. Every plant receives the same quantity of water and fertilizer, regardless of topography or length of supply lines to the area. Available for different flow rates at 360°, 180° and 90° dispersion.
- Supernet 360° dynamic breakable dispersion deflector enabling two wetted radius.
- Easy to use.

360° dynamic

180° static

90° static



Hydraulic data

Description	Flow rate (l/h)	Wetted radius* (m)
Supernet (w/ deflector)	70	0.9
Supernet (w/o deflector)	70	2.7

* 20 cm height above ground

Ordering guide

Supernet 70 l/h* 360°	64700-011000
Supernet Jet 70 l/h* 180°	64700-012000
Supernet Jet 70 l/h* 90°	64700-012200

*30, 40, 50, and 90 l/h also available.





Spray Net 360°

Innovative micro-sprayer for commercial and residential applications

Applications

- Irrigating trees, flower beds or a row (long, narrow rectangle).
- Irrigation during turf germination phases.

Specifications

- Water passes through the nozzle causing the needle to vibrate.
- This in turn breaks up the water jet into uniform droplets and spreads them evenly.
- Working pressures range:
Minimum pressure 1.0 bar.
Maximum pressure 3.0 bar.

Features and Advantages

- Constant cleaning of the nozzle prevents accumulation of salts or minerals. After operation, the cap on the needle seals the nozzle, preventing insects from entering and laying eggs.

Ordering guide

Spray Net 70 l/h 360° 64700-003600

Hydraulic data

Color code	Pressure (bar)	Flow rate (l/h.)	Wetted radius* (m)
070 Black	1.5	62	1.75
	3.0	87	2.00

* 20 cm height above ground



Strip Spray

Innovative micro-sprayer for commercial and residential applications

Applications

- Irrigation of long and narrow strips (close to walls, narrow flower beds etc.)

Specifications

- Widest regulating range.
- No moving parts.
- Working pressures range:
Minimum pressure 1.0 bar.
Maximum pressure 3.0 bar.

Features and Advantages

- Ideal micro-sprayer for precise irrigation of narrow strips. Can be used with one or two nozzles (plug nozzle color: black).

Ordering guide

Strip spray 46 l/h (2 active nozzles) + 1 plugged nozzle 64700-015000

Hydraulic data

Model	Pressure (bar)	Nom. flow (l/h)	Nozzle color	Wetted strip * length (m)	Wetted strip width (m)
One active nozzle	2.0 3.0	24 29	blue + black/plug	5.25 >	0.5
Two active nozzles	2.0 3.0	45 57	blue + blue	4.75 >>	0.5

* 20 cm high above the vegetation.

> Wetted strip on **one** side

>> Wetted strip on **each** side

The performance data has been recorded under ideal test conditions.





Miracle® Controller

6, 9 & 12 stations + mastervalue, AC/DC models

Applications

- Residential and commercial.
- Miracle® DC—stand alone, battery operated: recommended for areas w/o available power and for regions prone to lightning strikes or powercuts.

Specifications

- Miracle® AC:
 - Eur/Aus: in: 220VAC, 50Hz
out: 24VAC 830mA
 - American: in: 110VAC, 60Hz
out: 24VAC 830mA
- Miracle® DC: internal battery for operation 1x9V alkaline (1 year), 1x9V lithium (2 years) or 4 "C" size (3 years).
- Miracle® DC: optional external battery.
- Miracle® DC: ideal for controlling Netafim Aquanet DC valves or other 12VDC latching solenoid valves.
- UL & CE listed.

Features and Advantages

- One of the most versatile energy-saving irrigation controllers.
- 3 independent programs.
- 4 start times.
- Internal circuit board protection eliminates need for fuses or circuit breakers.
- 9V Battery back-up in AC model.
- Automatic self-diagnostic malfunction test of each station.
- Station run times: 1 minute to 9 hours, 59 minutes in 1 minute increments.
- 7 day schedule, calender or interval.
- 10%-200% water budgeting.
- Rain/Soil Moisture Sensor input.
- Up to 99 days rain delay.
- Manual start override.



Miracle® AC indoor



Miracle® DC indoor



Miracle® outdoor

Miracle® ordering guide

Model stations	Power	Cabinet	Transformer voltage	Transformer type
Miracle® 6	AC	indoor	220V	internal
9	DC	outdoor	220V-UK*	wallmount
12			110V	

Example: Miracle® 6, AC, outdoor, 220V, internal.

* For use in the UK only.

Wire connector (blue) – water resistant 36080-004300

Wire connector (red) – water resistant 36080-004400

Wire container w/ lubricant – water proof 36080-004200



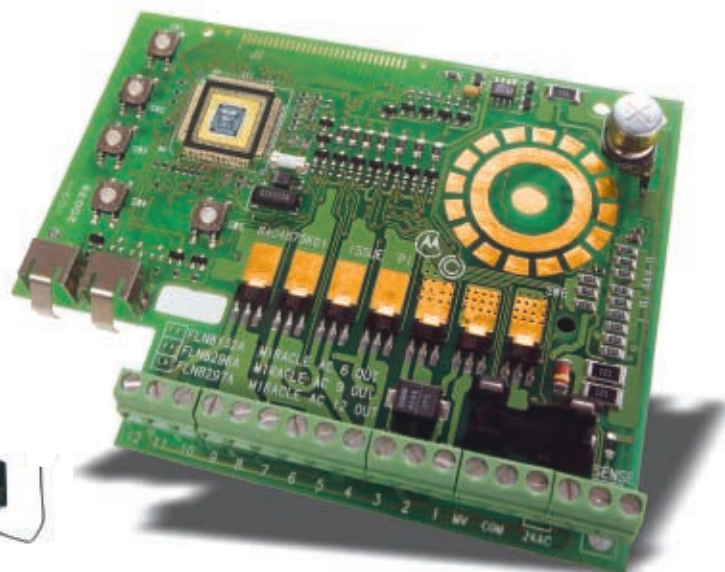
4 "C" batteries



Transf. int. 24VAC



Transf. ext. 24VAC



Miracle® AC/DC Controller Panel Description

1 Control dial – Select screen and function.

2 Command button – Select cursor position.

3 Command button – Set value or activate/deactivate function.

4 Command button

– Select program.

– Select a.m./p.m. or 24 h clock schedule.

5 Off – Discontinue all irrigation programs.

6 Rain Delay (per program)

Delay watering up to 99 days.
Automatic return to Auto-mode.

7 Run

– For automatic controller operation.

– Enables viewing of Miracle®'s status.

8 Set Time/Day To select the current time and day.

9 Active Days Select days of operation per program. Miracle® can be programmed to any calendar day of the week or by day interval cycles between irrigations.

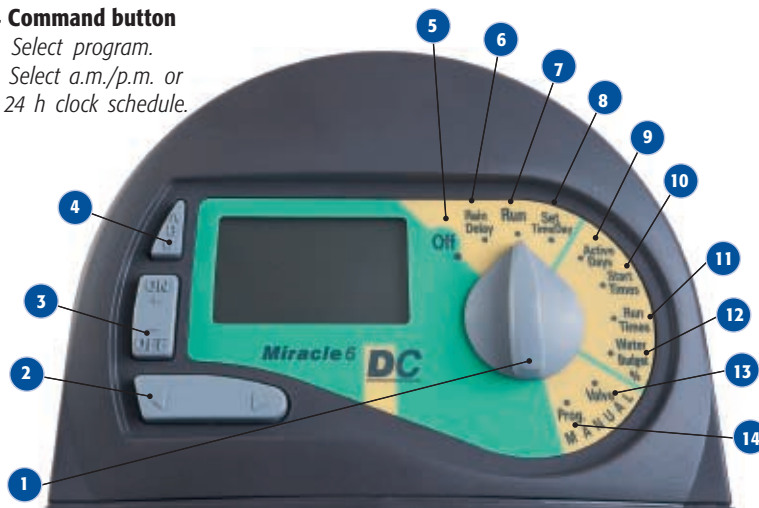
10 Start Times Enables programming of up to 4 start times/day per program.

11 Run Times (per station) Sets duration of irrigation from 1 minute up to 9 hours 59 minutes.

12 Water Budget Adjusts program Run times from 10% to 200% of their original programmed time.

13 Manual (Station) Manual operation of a single valve (station).

14 Manual (Program)
Allows manual operation of a complete program.



Miracle® Indoor and Outdoor Cabinets

6, 9 & 12 stations + mastervalue, AC/DC models

Indoor cabinet

- Plastic wallmounted cabinet for indoor mounting or outdoor use in sheltered location.
- Not to be used outside (limited IP55). Recommended locations indoors, on patio, or under a roof.
- Color: grey.
- Secured by padlock.



Indoor cabinet ordering guide

Grey	36100-002500
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Outdoor cabinet

- Fully resistant to all weather conditions and solar radiation.
- Non-corrosive, durable.
- Complies with the requirements of the international standard for cabinets (UL, CE, IP65).
- Includes lock & key.
- Color: grey
- Dimensions:
length: 23.0 cm
width: 25.0 cm
depth: 8.5 cm
- Weight: 1185 gr



Outdoor cabinet ordering guide

Grey	36100-002900
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NEW

AQUAPRO

Smart valve watering controller

Applications

- For residential or commercial applications.
- Where electricity is not available.
- When wiring is not applicable.
- When existing controller is fully used up.
- For any indoor and outdoor installation.

Specifications

Battery

- 1 x 9V alkaline (not included, replaceable)
- 2 x lithium 1.5V (included, built in)
- **Controller** body – ABS
- Standard – CE, IP67
- Large display - LCD. Size – 38 X 31mm
- Seals - Satoprene
- Voltage output – 13VDC
- Pulse width – 200 m/sec
- Capacity – 4700µF
- Compatible with AQUANET DC (¾", 1", 1½", 2") and CV 606 solenoids

DC Valve

- Size: ¾" or 1".
- Flow range: 25 – 7000 l/h (0.1 - 26 GPM).
- Pressure range: 0.2 – 10 bar (6 - 150 PSI).
- Thread: BSP or NPT.
- Body: reinforced nylon.
- Hydraulic three way control: open/auto/closed.
- Flow regulator included.
- Wet part: EPDM diaphragm, no metal parts.
- Cable: 0.6 m between controller and valve.
- Maximum extension between valve and controller when using 1.0 mm Ø cable: 100 m (330 feet).

Ordering guide

Aquapro with ¾" BSP Aquanet valve	37000-001000
Aquapro with 1" BSP Aquanet valve	37000-001500
Aquapro controller only *	37000-002000
Aquapro with ¾" NPT Aquanet valve	37000-001400
Aquapro with 1" NPT Aquanet valve	37000-001700

* For use with Aquanet DC 1 ½" and 2".

Features and Advantages

- Stand-alone battery operated.
- Easy to use.
- Three independent programs:
 - P1** Once a day at the same time every day.
 - P2** Once a day on selected days.
 - P3** Up to three start times per day on selected days.
- Two extra modes:
 - OFF** stops all irrigation activities.
 - Manual** start/stop a program manually.
- Available in ¾" and 1" BSP or NPT.
- Waterproof IP67.
- Available in various languages.



¾" / 1" set



When installed on Aquanet 1½" / 2"





FloriCom AC

Soil Moisture sensor for controller

Applications

- For efficient and precise irrigation.
- Where programming is a nuisance.
- For any outdoor installation.
- For connecting with any irrigation controller.

Specifications

- Powered by 24VAC, transformer excluded.
- Two wire output with dry contact mechanism.
24VAC output max. current - 1.0A.
- Operating temperature:
0° to 50°C (32°-122°F).
- Cable between controller & sensor:
5 m (16ft) - included.
- Maximum cable extension between
FloriCom and sensor: 30m (100 ft).

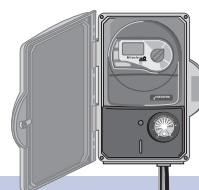
Ordering guide

FloriCom AC

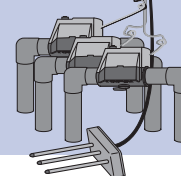
36020-001000

Features and Advantages

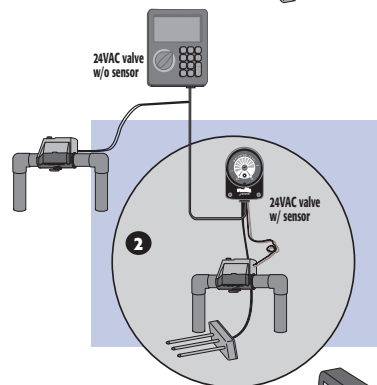
- Monitors and irrigates according to soil moisture level.
- Ensures desirable soil moisture level all year around.
- Easy programming - selects the soil moisture level from 1 "completely dry", to 10 "soaking wet".
- Can be combined with any irrigation controller, even old models without a sensor port.
- Durable under all weather conditions. Waterproof - IP67.
- **Can be used in three configurations:**
 - 1 Connections to irrigation controller w/ sensor input - as in the Miracle® AC.
 - 2 Upgrade w/ sensor to specific irrigation zone (single valve) already controlled by an AC irrigation controller (image).
 - 3 Connections to irrigation controller COMMON LINE (w/o sensor input).



1



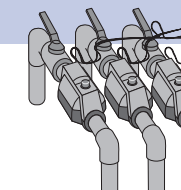
2



Standard control
output cable
0.85m (2.5 ft.)

3

Standard 24V
AC cable
0.85m (2.5 ft.)
Standard
sensor cable
5m (16.5 ft.)





Flori® 1 Station

Battery-operated, moisture sensor-activated, irrigation controller with valve

Applications

- For residential and commercial applications.
- For water conservation.
- Where electricity is unavailable.
- For maintenance-free applications.
- For indoor and outdoor installation.

Specifications

- **Controller** body: ABS.
- Standard: CE.
- Battery: 1 x unit 9V alkaline (not included).
- Battery life: 1 season or 1000 valve operations.
- Moisture sampling (preset):
 - Between irrigations – once every hour.
 - During irrigation – starts once every 2 min., then once every 10 min.
- Output voltage: 12.5V.
- Pulse width: 100 m/sec.
- Capacity: 4700 µF.
- Valve size: choice of 3/4" and 1" Aquanet DC.
- Valve cable: 0.6 m (2 ft) included.
- Maximum extension between the valve to the Flori® unit: 100 m (330 ft) - Ø1.0 mm cable.
- Flow range: 25-7000 l/h (0.1-26 GPM).
- Pressure range: 0.2-10 bar (6-150 PSI).
- Thread: BSP (standard) NPT (optional).
- Body: reinforced nylon.
- Wet part: EPDM diaphragm - no metal parts.
- Capacitance **sensor**.
- Analog measurements.
- Sensor cable: 5 m (16 ft) included.
- Maximum extension between the sensor and the Flori® unit: 30 m (100 ft) when using sealed connections.

Ordering guide

Flori® 1 w/ 3/4" Aquanet BSP	36020-002100
Flori® 1 w/ 1" Aquanet BSP	36020-002300
Flori® 1 w/ 3/4" Aquanet NPT	36020-002700
Flori® 1 w/ 1" Aquanet NPT	36020-002800

Features and Advantages

- Monitors the soil moisture level for precise irrigation according to plants' needs.
- Flori® 1 - Activates one electric valve (valve included).
- Stand-alone battery operated. One battery operates all components.
- Saves the need for seasonal adjustments to irrigation program.
- Waterproof (IP67), weather resistant.

Three operation modes:

Sensor mode:

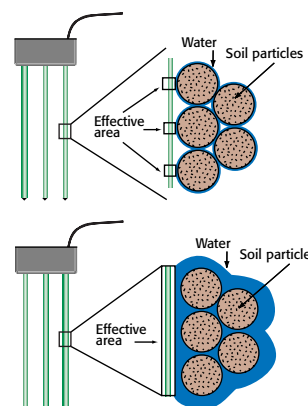
- Irrigates only when plants need it, with watering level choice.
- Moisture level choice, from 1 "completely dry", to 10 "soaking wet".
- Non-irrigation time window.

Time mode:

- Choose your irrigation frequency out of 10 preset programs.

Combination:

- Irrigation program stops when moisture reaches desired level.





Flori® 3 Stations

Battery-operated, moisture sensor-activated, irrigation controller for 3 valves

Applications

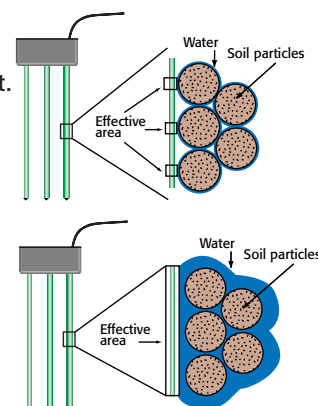
- For residential and commercial applications.
- For water conservation.
- Where electricity is unavailable.
- For maintenance-free applications.
- For indoor and outdoor installations.

Specifications

- **Controller** body: ABS.
- Standard: CE.
- Battery: 1 x unit 9V alkaline (not included).
- Battery life: 1 season or 1000 valve operations.
- Moisture sampling (preset):
 - Between irrigations – once every hour.
 - During irrigation – starts once every 2 min., then once every 10 min.
- Output voltage: 12.5V.
- Pulse width: 100 m.sec.
- Capacity: 4700 µF.
- Valve size: choice of 3/4" and 1" Aquanet DC.
- Maximum extension between the valve to the Flori® unit: 100 m (330 ft) - Ø1.0 mm cable.
- Capacitance **sensor**.
- Analog measurements.
- Sensor cable: 5 m (16 ft) included.
- Maximum extension between the sensor and the Flori® unit: 30 m (100 ft) when using sealed connections.

Features and Advantages

- Monitors the soil moisture level for precise irrigation according to plants' needs.
- Flori® 3 - Activates up to three electric valves (valves not included).
 - Sequential irrigation from station 1 to 3.
 - Valve 2 & 3 can be set to 40-220% of valve 1 irrigation time.
- Stand-alone battery operated. One battery operates all components.
- Saves the need for seasonal adjustments to irrigation program.
- Waterproof (IP67), weather resistant.
- Three operation modes:
 - Sensor mode:**
 - Irrigates only when plants need it, with watering level choice.
 - Moisture level choice, from 1 "completely dry", to 10 "soaking wet".
 - Non-irrigation time window.
 - Time mode:**
 - Choose your irrigation frequency out of 10 preset programs.
 - Combination:**
 - Irrigation program stops when moisture reaches desired level.



Ordering guide

Flori® 3 (valves not included)	36020-002850
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AQUANET® 3/4" & 1" Globe Series AC/DC Valves

Energy-saving & clog resistant

Applications

- Residential and commercial.
- Designed for use with any 24VAC controllers.
- 12 VDC latch designed for use where electricity is not available.
- Can handle low quality water applications.
- Operates between 0°C-66°C .
- Small and large applications.

Specifications

3/4" & 1" Globe

Flow:	0.025 – 7.0 m³/ h
Working pressure:	0.2 -10 bar
Max. pressure:	12 bar
Ambient temp. max:	66°C
Fluid temp. max:	60°C
Plastic parts:	Reinforced nylon
Diaphragms:	EPDM
Leads:	2x0.32 mmx80 cm

Electrical 24 VAC

Voltage:	24VAC
Inrush:	90 mA
Holding:	75 mA

Max. distance between Aquanet II AC and controllers

Cable gauge (Awg)	Diameter (mm)	Cross section (mm²)	Max. distance (m)
20	0.8	0.5	1250
18	1.0	0.8	2000
17	1.1	1.0	2500
16	1.3	1.3	3500
15	1.4	1.5	5000

Electrical DC Latch

Voltage:	12-40 VDC
Pulse width:	80-500 ms
Connections:	black wire - common red wire - power

Max. distance between Aquanet DC valves and controller (13.5 VDC, 100 ms, 4700 µF)

Cable gauge (Awg)	Diameter (mm)	Cross section (mm²)	Max. distance (m)
20	0.8	0.5	150
17	1.1	1.0	240
15	1.4	1.5	330

Features and Advantages

- Designed to operate with all types of water, including effluent water (2 mm Ø command orifice).
- Operates at very wide pressure and flow range.
- Hydraulic three way control with internal bleed.
- Chemically altered EPDM diaphragm for added resistance against chlorine and other chemicals used in irrigation.
- Working pressure: 0.2–10 bar.
- Maximum pressure: 12 bar.
- Flow control handle.
- Manual selector: CLOSE-AUTO-OPEN.
- Very low energy consumption (increases reliability).
- Maximum wiring distance.
- Maximum battery life in DC controllers.



3/4" – 1" AC&DC



Pressure loss (m)

Model	Flow m³/ h				
	1	2	3	4	6
3/4"	1.00	1.30	2.00	2.50	4.50
1"	1.00	1.30	2.00	2.40	4.00

Ordering guide

Electric type	Size (inch)	Thread type	Type
AquanetAC	3/4"	BSP	Globe
AquanetDC	1"	NPT	

Example: Aquanet DC, 1", BSP.



AQUANET® 1½" & 2" Globe Series AC/DC Valves

Energy-saving & clog resistant

Applications

- For commercial and residential irrigation systems.
- Where electricity is not available (DC models).
- Can handle low quality water applications.
- Operates between 0°C-66°C .

Specifications

1½" & 2" Globe & Angle

Flow: 0.1–20.0/24.0 m³/h
 Working pressure: 0.3–10 bar
 Max. pressure: 14 bar
 Ambient temp. max: 66°C
 Fluid temp. max: 60°C
 Plastic parts: Reinforced nylon
 Diaphragms: EPDM +
 Leads: 2 x 0.32 mm x 120 cm
 Pressure regulator: regulates 0.7-4.5 bar

Electrical 24 VAC

Voltage: 24VAC
 Inrush: 90 mA
 Holding: 75 mA

Max. distance between Aquanet II AC and controllers

Cable gauge (Awg)	Diameter (mm)	Cross section (mm²)	Max. distance (m)
20	0.8	0.5	1250
18	1.0	0.8	2000
17	1.1	1.0	2500
16	1.3	1.3	3500
15	1.4	1.5	5000

Electrical DC Latch

Voltage: 12-40 VDC
 Pulse width: 80-500 ms
 Connections: black wire - common
 red wire - power

Max. distance between Aquanet DC valves and controller (13.5 VDC, 100 ms, 4700 µF)

Cable gauge (Awg)	Diameter (mm)	Cross section (mm²)	Max. distance (m)
20	0.8	0.5	150
17	1.1	1.0	240
15	1.4	1.5	330

Features and Advantages

- Handles a wide range of pressure and water flow.
- Manual selector: CLOSE-AUTO-OPEN ❶
- Optional built-in pressure regulator in 1½" and 2" models ❷
- Lowest energy consumption for maximal wire distance.
- Flow Control Stem – standard in all models.
- Chemically altered EPDM diaphragm for increased resistance to chlorine and other chemicals.
- Compatible with most AC or DC (latch) controllers.



1½"-2" globe AC&DC w/ or w/o pressure regulator



1½"-2" angle AC&DC w/ or w/o pressure regulator



❶



❷



Ordering guide

Electric type	Size (inch)	Thread type	Type (m)	Pressure regulator
Aquanet AC	1½"	BSP	Globe	w/
Aquanet DC	2"	NPT	Angle	w/o

Example: Aquanet DC, 2", BSP, Angle w/ Pressure regulator





Line Flushing Valve

Optimizing system performance

Applications

- Drip irrigation systems.
- Clean water, or water containing particles and contaminants.

Specifications

- Flushing water volume: approx. 4.1 l/cycle.
- Maximal zone flow rate/flush valve: 3.5 m³/h.
- Minimum pressure required: 0.1 bar at line ends.
- Maximum recommended pressure: 3.8 bar at line ends.

Ordering guide

Model	
Line Flushing valve Threaded ½"	32000-007850
Line Flushing valve Ring conn.	32000-007900

Features and Advantages

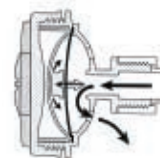
- Flushing reduces sediment build-up.
- Automatic cleaning operation at start of each irrigation cycle.
- Unique design reacts to flow, not pressure, enabling operation even at full pressure.
- Can be dismantled, allows for winterization "blow-out".



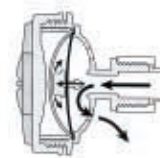
Line flushing valve w/ threaded connection.



Line flushing valve w/ fast connector.



Before irrigation starts, valve flushes out dirt particles.



After flushing, the valve closes. Normal system operation begins.

Air/vacuum Relief Valve

Eliminates excess pressure

Applications

- For sub-surface drip irrigation systems.

Specifications

- Operating pressure: minimum 0.5 bar maximum 5.0 bar
- ½" male thread.

Features and Advantages

- Eliminates vacuum that could draw contaminants into the drip system.
- Non-corrosive.

Ordering guide

Model	
Air/vacuum relief valve	32000-008400





Kinetic Air/Vacuum Valve

For improved air release in sub-surface installation

Applications

- Sub-surface irrigation system.
- Dynamic float allows air release under pressure differential of up to 0.7 bar.

Specifications

- Operating pressure:
minimum 0.2 bar
maximum 10.0 bar
- 3/4" male thread

Features and Advantages

- Reinforced polypropylene body provides high impact and corrosion-free airvent.
- Eliminates vacuum that could draw contaminants into the drip system.
- Non-corrosive.

Ordering guide

Kinetic Air/vacuum valve 3/4" BSP	70540-002100
Kinetic Air/vacuum valve 3/4" w/ p.p. BSP	70540-002200
Kinetic Air/vacuum valve 3/4" NPT	70540-001600
Kinetic Air/vacuum valve 3/4" w/ p.p. NPT	70540-001700
Pressure gauge	35500-001060



w/ pressure port Pressure gauge

Pressure Regulators

The only pressure regulators that can be dismantled without being removed from the manifold

Applications

- To maintain constant and stable water pressure for any irrigation system – protects piping and other components.

Specifications

Model	Min. flow rate (m ³ /h)	Max. flow rate (m ³ /h)
In-line 3/4" L/F	0.05	1.00
2000 3/4"	0.80	4.00
2000 1 1/2"	1.60	8.00
2000 2" x 4	3.20	16.00
2000 2" x 6	4.80	24.00

- Maximal pressure: 10 bar.
- Other models available up to 40 m³/h.

In-line low-flow ordering guide

Size	Pressure (bar)
3/4" In-line low-flow	1.1 1.4 1.8 2.5 3.0

Example: 3/4", 1.4.

2000 ordering guide

Size	Pressure (bar)
3/4" high-flow	0.6 0.8 1.1 1.4 1.8
1 1/2"	2.0 2.5 3.0 3.5 4.0
2" x 4	4.5
2" x 6	

Example: 1 1/2", 2.5.

Features and Advantages

- Easy in-line assembly.
- Built-in indicator shows when proper outlet pressure is achieved (3/4" high-flow to 2").



3/4" In-line
low-flow



3/4" high-flow
2000



Pressure Indicator

For use with drip irrigation systems

Applications

- For all Techline®, Landline® and point source drip systems.
- To be installed at the lowest pressure point.

Specifications

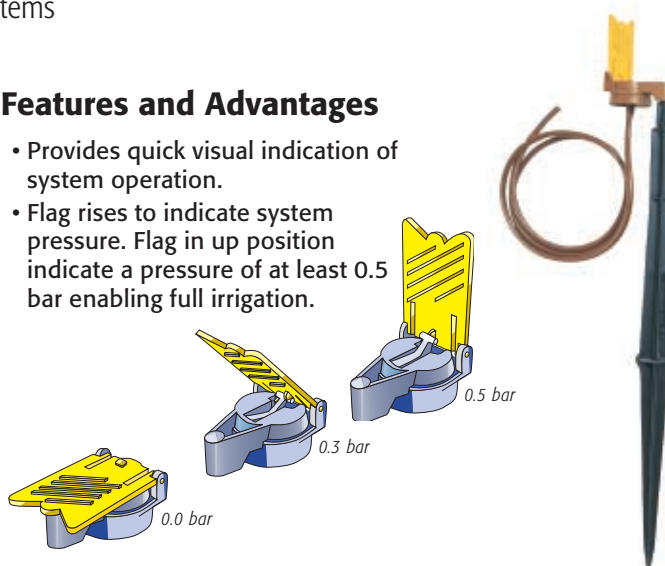
- When the valve is open, the system pressure begins to rise which causes the indicator flag to rise.

Ordering guide

Pressure indicator	32000-002800
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Features and Advantages

- Provides quick visual indication of system operation.
- Flag rises to indicate system pressure. Flag in up position indicate a pressure of at least 0.5 bar enabling full irrigation.



Valve Box

For underground installation of various irrigation components:
Irrigation valves, Air release valves, Flush valves,
Pressure gauges, Filters, and Fertilizer injectors.

Features

- Rigid, ensuring many years of outdoor usage.
- Aesthetic look with green top.
- Top-locking without tools.
- Various sizes to suit any application.

Specifications

- Made of structural foam molded polyofin plastic.
- UV-resistant.

15 cm (6") round valve box	
Height	23 cm
26 cm (10") round valve box	
Height	26 cm
30 cm (12") rectangle valve box	
Width (top)	27 cm
Length (top)	40 cm
Height	33 cm
Width (bottom)	34 cm
Length (bottom)	42 cm
50 cm (20") rectangle valve box	
Width (top)	38 cm
Length (top)	55 cm
Height	33 cm
Width (bottom)	43 cm
Length (bottom)	60 cm



Ordering guide

R1 15 cm (6") round valve box	76860-006500
R2 26 cm (10") round valve box	76860-006600
S1 30 cm (12") rectangle valve box	76860-006700
S1 50 cm (20") rectangle valve box	76860-006800



Techfilter Technology

S.P.U. (System Protection Unit)

The **guaranteed** root intrusion terminator



Applications

- Recommended for use with all UniTechline® or UniBioline® sub-surface dripperline installations.
- Where maximum precision and drip protection are required.

Specifications

- Prevents root intrusion.
- Delivers a low concentration (PPB) of trifluralin evenly to all drippers throughout the system.
- Cartridge must be changed at least every 2 years.

Features and Advantages

- Sealed packaging dramatically extends shelf life and adds to filter replacement convenience.
- Provides ultra-efficient water filtration with performance far superior to screen type filters.
- Renewable warranty, activated when filter cartridges are installed and registered, gives you and your customers lifetime protection.
- U.S.A. EPA approved.



3/4"



1" long



1 1/2" short



2"



Sealed Techfilter cartridge

Model	Max. flow rate (l/h)
3/4"	2000
1" court	6000
1" long	10000
1 1/2" court	16000
1 1/2" long	10000
2 "	18000

Ordering guide

3/4"	33500-001000
1" short	33500-001200
1" long	33500-001100
1 1/2" short	332500-001350
1 1/2" long	333500-001300
2"	33500-001400

Techfilter cartridge ordering guide

3/4" cartridge	33500-001600
1" short cartridge	33500-001700
1" long cartridge	33500-001500
1 1/2" short cartridge	33500-001700
1 1/2" long cartridge	33500-001500
2" cartridge	33500-001800





Landscaping at it's best



Central Control System

For large landscape applications - municipal areas, sports complexes and golf courses

Applications

- Complete management of the irrigation system. Two-way communication, including precise reporting.
- Plain wires, low voltage single wire, phone and radio communication options.
- User-friendly software with graphics.
- Can be linked to a weather station.
- For more information, please contact your nearest Netafim distributor/representative.



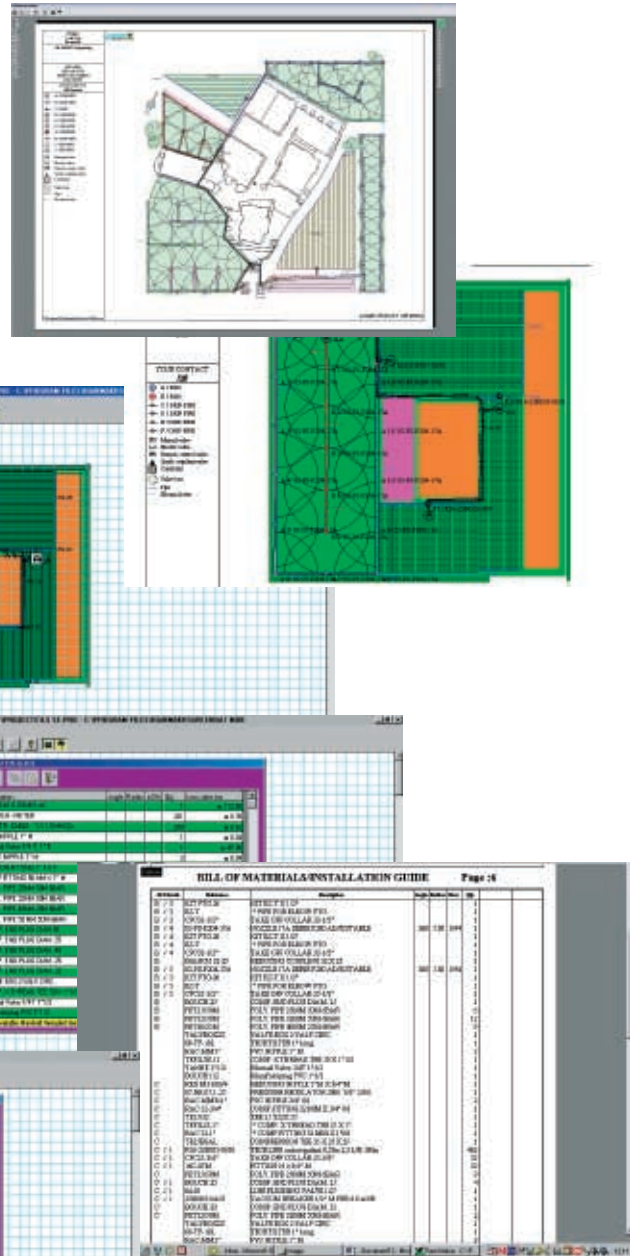
Rain Maker Design Software

Professional software for creating irrigation projects and to automatically build estimates. Delivered with a complete data base.

Software to aid in the design of residential gardens and limited commercial areas. Metric measurements. Available in English/French/German/Italian/Spanish/Portuguese. Supplied with Netafim products database.



- Product families for each irrigated area.
- Import scanned layout or Autocad file.
- Selection of lawn, tree, orchard, hedge, sidewalk, track, buildings.
- Selection of layout: polygon, circle by radius, circle by diameter, color and font.
- Initial pressure and available flow.
- Automatic dimensioning of pipes based on flow and speed limitation.
- Verification of each point of pressure, speed and flow.
- Graphic analysis of flow rate, by serie and by zone.
- Layout of electrical ducts, automatic selection of cables.
- Automatic positioning of trenches and calculation of total length.
- Display and editing of the installation guide/bill of material.
- Automatic calculation of the estimate.
- Product database.
- Client address database.



3rd Millennium Enviro

An electric power plant operated by huge amounts of coal does not have to look like it sounds.

The one in the photograph below is located within a beautiful landscape, created on top of the coal and ashes. The tranquil gardens attract people to walk through them as if the site

was a natural reservation rather than an electric power plant.

A combination of high- and low-flow irrigation components and a fully automated irrigation control center ensures easy care and maintenance of the landscape.

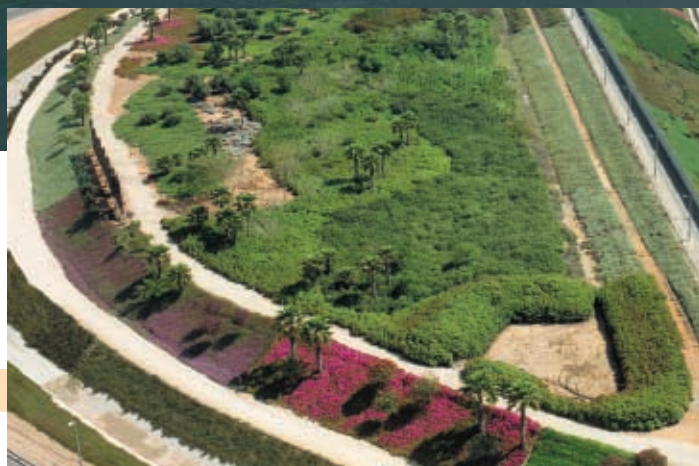


Environmental Landscaping



Project facts

- 💧 Irrigated area: 22 hectares.
- 💧 The plants have been planted on a mountain of coal ashes covered with 50 cm of top soil.
- 💧 Irrigation system:
 - More than 250,000 m of Techline®
 - Fertilized system
 - Radio-operated Central Control System



Basic NETAFIM Limited Warranty



All products including controllers

Netafim's products are warranted to be free from defects in material and workmanship under normal use and service, for the periods set out below in respect of each product, from the date of delivery.

Drippers are warranted to be free from defects in material and workmanship for two (2) years under normal use and service.

Techline® is warranted to be free from environment stress cracking for a period of seven (7) years under normal use and service.

P200/P2000 series are warranted to be free from defects in material and workmanship for a period of five (5) years under normal use and service.

Filters are warranted to be free from original defects in materials and workmanship for a period of five (5) years under normal use and service. This warranty specifically excludes gaskets, seals and O-rings, which are subject to the basic one (1) year warranty.

Valve bodies are warranted to be free from defects in materials and workmanship for a period of five (5) years under normal use and service. Valve diaphragms are warranted for a period of two (2) years.

All other Netafim products are warranted to be free from defects in material and workmanship for one (1) year under normal use and service.

If a defect in a Netafim product is discovered during the applicable warranty period, Netafim will repair or replace, at its sole option, the product or the defective part. To receive warranty benefits, customers should return defective product or part to the nearest Netafim distributor.

This warranty does not apply where equipment is not used or has not been installed in accordance with Netafim's specifications and users' manual, and does not extend to repair or replacement of a Netafim product or part that results from misuse, negligence, alteration, tampering, or improper installation or maintenance of the product. This warranty does not apply to failures caused by lightning, electrical power surges, or damage due to freezing or mechanical damage.

Netafim cannot and does not assume liability for defective parts, or damage caused by defective products, not manufactured or supplied by Netafim, even though such products may be used in conjunction with Netafim products.

NETAFIM'S OBLIGATION TO REPAIR OR REPLACE ITS PRODUCTS AS SET FORTH ABOVE IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY NETAFIM. THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. NETAFIM WILL NOT BE LIABLE TO ANY PARTY IN STRICT LIABILITY, TORT, CONTRACT, OR ANY OTHER MANNER FOR DAMAGES CAUSED OR CLAIMED TO BE CAUSED AS A RESULT OF ANY DESIGN OR DEFECT IN NETAFIM'S PRODUCTS, OR FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE.

This warranty extends only to the original installer of the Netafim product.

Netafim reserves the right to alter, modify or redesign its products, pricing and warranty at all times without creating any liability for the obsolescence of customer inventory or such parts or products.

This manufacture warranty policy may apply differently from one country to another. For more information, contact your NETAFIM distributor or NETAFIM, 161 Arlozorov st., 64992 Tel Aviv, Israel; Tel.: +972-3-691-9777, Fax.: +972-3-691-1962 e-mail: landscape@netafim.com

Registered trademark ® applies to main markets.

Marketing Tools

Netafim marketing tools include:

Product models

Printed and electronic media

- Posters
- Catalogs
- Data sheets
- Brochures
- Roll-up's
- CD's

Gadgets

- Cap
- Shirt
- Pen
- Mouse pad

Support

- Graphic studio
- Multi-media studio

Marketing Tools



NETAFIM network

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Netafim's internet department's daily updates to the Netafim website provide information about the wonderful world of Netafim and development of Netafim products. We also give advice and technical specifications for major Netafim products.

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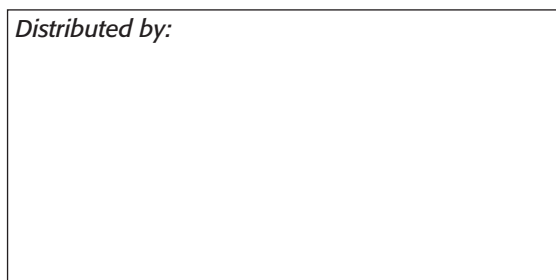




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