

SMART WATER USE

DRIP IRRIGATION





SAVE MONEY AND APPLY WATER ONLY WHERE IT'S NEEDED

Netafim has been manufacturing drip irrigation products and providing solutions to some of the world's largest irrigation projects for over 50 years.

Netafim can provide your garden with a smart drip system that:

- Uses less water than conventional irrigation systems;
- Applies water directly to the soil/plant root zone;
- Minimises water loss through wind drift, over spray and run-off;
- Offers maximum efficiency and reliability;
- Approved under the Smart WaterMark scheme;
- Complies with most water restrictions (check with your local authority);
- Operates on both potable (mains) and non-potable (recycled, bore & rain) water.



SMART DRIP SYSTEMS

Netafim Smart Drip systems release water at a slow and uniform rate so that your gardens soil can soak up every drop of water.

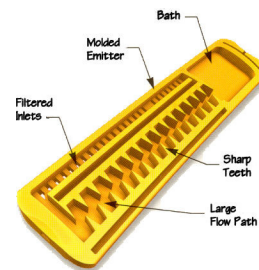
Water penetrates deeper into the soil profile so that it can be readily taken up by your plants root system. Water efficiency can be further increased by installing drip systems either below mulch in garden beds or below the surface in lawns so that they only apply water where it is needed, at the plant root zone.

Applying water from below the surface is not only more efficient but also keeps dripperlines hidden from view.

HOW DOES A DRIPPER WORK?

Water enters the dripper and is forced through a regulating passage. The regulating passage uses turbulence and friction to slow the water flow and reduce pressure down to a slow consistent drip.

Netafim drippers use the patented TurboNet™ water passage which has been designed to maximise turbulence through the dripper. As a result TurboNet™ drippers have passages that are wider, deeper and shorter and offer more resistance to clogging than conventional drippers.



WHICH NETAFIM DRIPPER DO I NEED?

Both On-line and In-line Drippers are available in four dripper types:

- Non Pressure Compensating (Non PC) – designed for flat gardens
- Pressure Compensating (PC) – designed for sloping ground
- Anti-Siphon (AS) - designed for under mulch and sub-surface installations
- Compensating Non Leakage (CNL) – designed for Water Re-use dispersal systems and sloping sites.

MORE PRECISION LESS WASTE

DRIPPER/DRIPPERLINE SELECTION GUIDE

The table below can be used to determine which dripper or dripperline will best suit your requirements.

AREA	MAINS WATER (POTABLE WATER)	NON POTABLE (RECLAIMED, RAIN OR BORE WATER)
GARDEN BEDS		
SMALL FLAT GARDEN BEDS	LANDLINE - 8MM	LANDLINE PURPLE - 13MM
MEDIUM / LARGE GARDENS	TECHLINE AS - 13MM	TECHLINE AS PURPLE - 13MM
LARGE / PUBLIC GARDENS	UNITECHLINE AS - 16MM	UNIBIOLINE CNL - 16MM
INDIVIDUAL PLANTS		
SHRUBS / GROUNDCOVERS	PCJ LCNL DRIPPERS	PCJ WOODPECKER DRIPPERS
TREES	PCJ LCNL DRIPPERS	PCJ WOODPECKER DRIPPERS
POT PLANTS	SPRAY STAKES	PCJ WOODPECKER DRIPPERS
LAWN		
SMALL - MEDIUM LAWNS	TECHLINE AS - 13MM	TECHLINE AS PURPLE - 13MM
LARGE - PUBLIC LAWNS	UNITECHLINE AS - 16MM	UNIBIOLINE CNL - 16MM

MAXIMUM DRIPPERLINE RUN LENGTH

While dripperline can be run in multiple rows/grids you will need to ensure maximum run lengths, outlined below, are not exceeded to ensure that uniformity of discharge is maintained.

DRIPPERLINE	DRIP DISCHARGE		DRIP SPACING	MAXIMUM RUN LENGTH
	L/H		M	M
LANDLINE - 8mm	2.0		0.15	8
LANDLINE - 8mm	2.0		0.3	15
TECHLINE AS - 13mm	1.6		0.3	100
TECHLINE AS - 13mm	1.6		0.4	130
TECHLINE AS - 13mm	3.0		0.3	67
UNITECHLINE AS - 16mm	1.6		0.3	100
UNITECHLINE AS - 16mm	1.6		0.4	129
LANDLINE PURPLE - 13mm	8.0		0.3	20
TECHLINE AS PURPLE - 13mm	1.6		0.4	100
TECHLINE AS PURPLE - 13mm	3.0		0.3	67
UNIBIOLINE CNL - 16mm	1.6		0.3	100
UNIBIOLINE CNL - 16mm	1.6		0.4	129
UNIBIOLINE CNL - 16mm	2.3		0.3	80
UNIBIOLINE CNL - 16mm	2.3		0.4	101



DRIPPER & DRIPPERLINE SPACING

On-line drippers are usually placed alongside the plant that is to be watered. Densely planted areas are best watered with dripperline but how far apart should the drippers and dripperlines be placed?

This question can be answered by determining what the soil type is like in your garden. Soils have different properties which will determine the correct dripper/dripperline spacing.

The table below will give you a guide as to the correct drip discharge, dripper and dripperline spacing.

Heavy (clay) soils do not allow water to drain through readily where light (sandy) soils are coarse and allow water to drain through quickly.

As a result a lower drip discharge and larger drip/dripperline spacing is recommended for clay soils where a higher drip discharge and smaller drip/dripperline spacing is recommended for lighter soils.

If watering a garden bed with sandy soil the table below would recommend a medium/high discharge dripper (2.0L/H – 3.0L/H) spaced 0.3m apart and dripperline rows 0.3m apart.

If watering turf with sub-surface drip irrigation in loamy soil the below table recommends a low drip discharge (1.6L/H – 2.0L/H) spaced 0.4m apart and dripperline rows 0.4m apart. The table also recommends that the dripperline should be buried at least 75mm – 100mm below the surface.

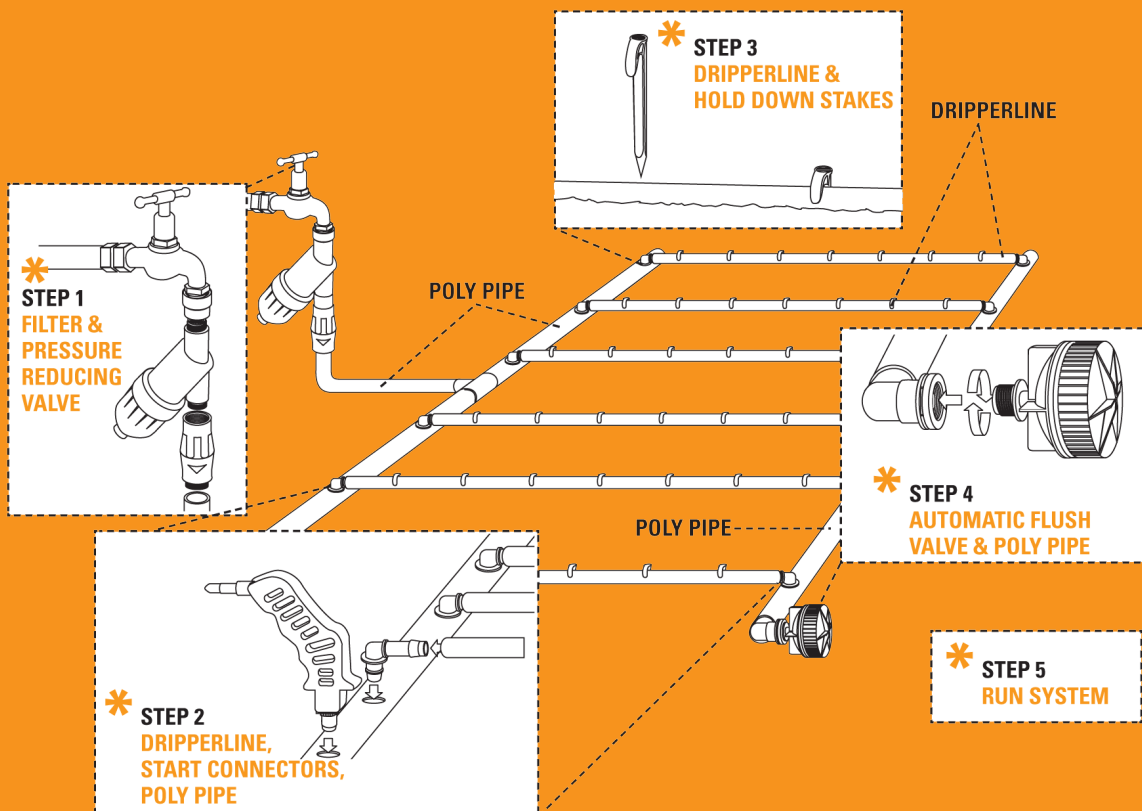
SOIL TYPE	SAND (LIGHT)	LOAM (MEDIUM)	CLAY (HEAVY)
DRIPPER DISCHARGE RATE	MEDIUM/HIGH	LOW	LOW
DRIPPER SPACING	0.3m	0.4m	0.4m
DRIPPERLINE ROW SPACING	0.3m	0.4m	0.4m - 0.5m
DEPTH OF BURIAL (GARDEN)	ON-SURFACE - COVER WITH MULCH		
DEPTH OF BURIAL (LAWN)	5 - 50mm	75 - 100mm	100 - 150mm

WHAT ELSE DO I NEED?

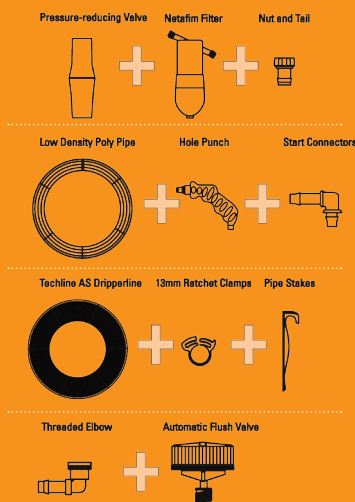
Netafim have all the right products for you to create your own Smart Drip System.

 FILTERS	 TECHFILTER FOR SDI	 PRESSURE REDUCING VALVES	 AUTOMATIC & MANUAL FLUSH VALVES	 AIR RELEASE VALVES
 START CONNECTORS & PUNCH TOOLS	 LDPE & DRIPPERLINE FITTINGS	 LINE INDICATOR FLAG	 STAKES	 DNL VALVES
 ON-LINE DRIPPERS	 SPRAY STAKES	 COOLNET™ FOGGERS	 INDEXING VALVE	 DRIPPERLINE DISPENSER
 LANDLINE TECHLINE AS UNIBIOLINE & UNITECHLINE			 LDPE POLY PIPE	

UP & RUNNING IN 5 EASY STEPS



MAKE SURE YOU HAVE ALL THE PARTS BEFORE YOU START



STEP 1 SET UP THE FEED LINE

- ⇨ Connect the Filter and Netafim Pressure-Reducing Valve to the water supply;
- ⇨ Run the Low Density Poly Pipe towards the area to be irrigated;
- ⇨ Plug ends of Poly Pipe with end plugs leaving the furthest point of the system unplugged.

STEP 2 CONNECT THE DRIPPERLINES

- ⇨ Use the Hole Punch to create dripperline connection points within the poly pipe at 30cm intervals;

- ⇨ Insert one end of the Start Connectors into the Techline AS Dripperline and then the other end into the holes punched into the Poly Pipe;
- ⇨ Secure the Dripperlines to the Start Connectors using Ratchet Clamps.

STEP 3 LAY THE DRIPPERLINES

- ⇨ Lay the dripperlines in a grid shape over the garden area, approximately 30cm apart
- ⇨ Stake the dripperlines at 3m intervals using the Pipe Stakes;
- ⇨ Connect the dripperlines into a collection line of Poly

Pipe at the far end of the grid.

STEP 4 CONNECT THE DRIPPERLINES

- ⇨ Connect the Automatic Flush Valve to the furthest end of the collection line, at the lowest point within the dripper system;
- ⇨ Manually flush the drip system thoroughly before starting irrigation.

STEP 5 SET THE RUNNING TIME – AND YOU ARE GOOD TO GO!

FOR MORE TECHNICAL INFORMATION ON SCHEDULING OR DESIGN GO TO WWW.NETAFIM.COM.AU/5STEPGUIDE FOR A TECHLINE AS DESIGN GUIDE OR THE NETAFIM SCHEDULING CALCULATOR.



**NETAFIM'S
EXTENSIVE
EXPERIENCE**

IRRIGATING SOME
OF THE WORLD'S
HARSHEST REGIONS
HAS FACILITATED THE
DEVELOPMENT OF
HIGHLY ADVANCED
IRRIGATION
PRODUCTS TO
**OPTIMISE EVERY
DROP OF WATER**
USED IN IRRIGATION.

NETAFIM'S
**WATER EFFICIENT
DRIPPERLINES** HAVE
BEEN IRRIGATING
AUSTRALIA AND NEW
ZEALAND'S CROPS
AND GARDENS FOR
OVER 20 YEARS,
**SAVING MILLIONS
OF LITRES OF WATER
EVERY YEAR.**



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