GREYWATER

WATER RE-USE OPPORTUNITIES

NETAFIM®
GROW MORE WITH LESS

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.

NETAFIM WATER EFFICIENT DRIPPERLINES HAVE BEEN IRRIGATING AUSTRALIAN AND NEW ZEALAND CROPS & GARDENS FOR OVER 25 YEARS, SAVING MILLIONS OF LITRES OF WATER EVERY YEAR.

What Netafim re:SOURCE offers

The Netafim re:SOURCE Division has extensive global experience in water re-use from small domestic systems to large commercial onsite projects.

Our products and services are designed and packaged into solutions to suit any situation and environment.

Every product developed for greywater applications are designed to adhere to government regulations from both an environmental and health perspective, along with general water quality concerns.

What is Greywater?

Greywater is the wastewater produced from the hand basin, shower, bath, washing machine and laundry tub. It is not the water from the toilet, kitchen sink or dishwasher as this water is generally too high in grease and oil to be re-used successfully.

N.B. If a greywater treatment system is being used rather than a Greywater Diversion Device water from the kitchen can be used.

Greywater for irrigation

Greywater irrigation has long been practiced in areas with a limited water supply. However, proper precautions for its use have not always been in place. This has posed a problem for health officials, who believe there is no correct method for managing greywater to both balance user water needs with public safety considerations.

While the engineering of these systems is still a relatively new technology, it is one that is progressing rapidly. Greywater systems can now meet both environmental and waste management requirements, while safely utilising the nutrient content in the effluent.

The options for safely using greywater as a source for irrigation are many and diverse.

There are two types of greywater systems for the domestic market that both require local government approval and state government guidelines for installation:

- Diversion Systems are either gravity or pumped.
- Treatment systems which upgrade water quality in the process and provide more flexibility in terms of re-use applications

N.B. ***All grey water diversion systems MUST use by law a sub-surface irrigation system, such as drip irrigation.***

How Netafim Greywater Drip Systems Work

Netafim's drip dispersal system delivers a slow and precise application of greywater evenly throughout the soil. The soil creates the perfect environment for further treatment of the effluent and helps deliver essential nutrients and moisture to flora.

The dripperline is made of flexible polyethylene tubing with evenly spaced emitters. When water is pumped through the system, these emitters ensure an even, slow distribution of the effluent is discharged into the soil. The Bioline (Tiran) Dripperline has the largest dripper cross sectional passage that can operate at the lowest pressures of all dripperlines on the market.

Drip System Layout

A drip dispersal system can be installed either below the ground in turf, or in garden beds below the mulch layer. The layout consists of feeder pipes from the Greywater Device to the irrigation area. This is then connected to dripperlines which are usually run in parallel to the garden beds or turf areas.

Dripperline Recommendations

Type of system	Bioline AS (Dripnet PC dripper)	Bioline (Tiran dripper)
Gravity diversion - garden		✓
Gravity diversion - turf	not recommended	not recommended
Pumped diversion - garden		✓
Pumped diversion - turf	not recommended	not recommended
Treated system - garden	✓	
Treated system - turf	✓	

Why Drip?

- Ideal for difficult site conditions such as clay, shallow soils, steep slopes and high water tables.
- The most advanced technology available for recycling water and re-using nutrients when applied to landscape irrigation.
- Eliminates health risks associated with dispersal methods that allows wastewater to the surface or become airborne.
- Reduces run-off and ponding of greywater due to a slow application rate.
- Achieves a balanced water distribution throughout a shallow profile by directly applying the greywater to the root zone of plants.
- Ensures uniform distribution of effluent for a long system life.
- Dosing and resting cycles take full advantage of the treatment capabilities of the soil for cleaner water in the aquifer.

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GREYWATER BROUCUHRE
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