

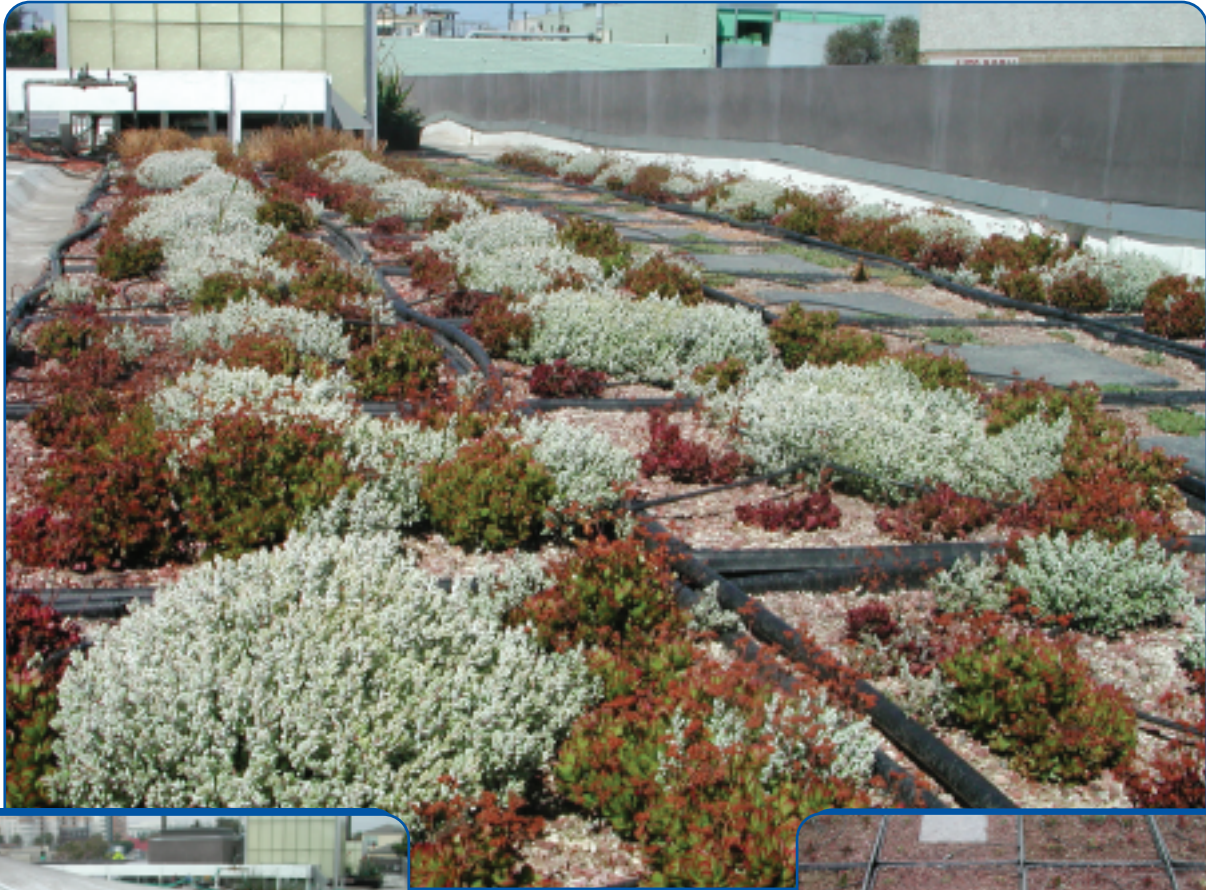
# **DRAMM** IRRIGATION SYSTEMS *for*

## Green Roof Designs



# DRAMM IRRIGATION SYSTEM DESIGN

Dramm Irrigation System design and installation for Green Roof Designs™



The Dramm Pressure Compensated Irrigation System is designed for even watering of containerized plants. Each irrigation ring is supplied from a pressure compensated emitter, which emits a constant flow of water (8 liters or 2 gallons per hour) over a 15 to 60 PSI range of pressures. By compensating for pressure and flow at the ring, manifolds can be designed for ease of installation, appearance, and effective use of materials.

DRAMM CANADA  
906 HWY 20 W RR#4  
Fenwick, ONT LOS 1C0  
Canada

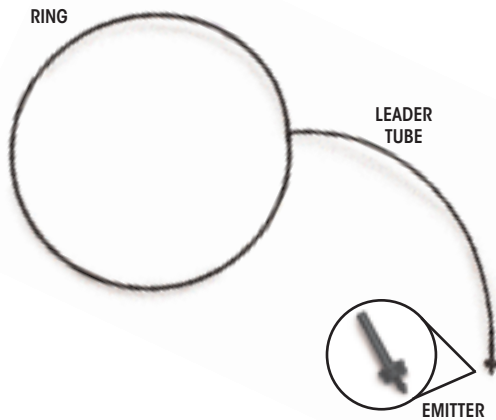
[www.dramm.com](http://www.dramm.com) • [adamm@dramm.com](mailto:adamm@dramm.com)  
905.892.5644 • Fax: 905.892.3328

DRAMM  
2000 North 18th Street  
Manitowoc, WI 54221-1960  
United States

[www.dramm.com](http://www.dramm.com)  
920.684.0227 • Fax: 920.684.4499

# COMPONENTS

## Ring Assembly



The ring is the base unit of the Irrigation System. Two rings with compensated 8L/HR or 4 L/HR emitters are used per extensive container. The leader tube which is the tube between the ring and the emitter is available in different lengths. (A different length leader would need to be specified at time of quotation and ordering)

## Manifold Components



The manifold System consists of 16mm Polyethylene tubing and various Easyloc™ style fittings which allow for flexibility in manifold design.



POLYETHYLENE  
MANIFOLD TUBING

## Quick Punch



The Quick Punch Tool is constructed from lightweight plastic. Easy-to-use punch for punching holes into manifold tubing. Place tubing into cut-out & firmly press handle together. The Quick Punch will pierce the poly tubing in one leak-free operation.

## MANIFOLD DESIGN

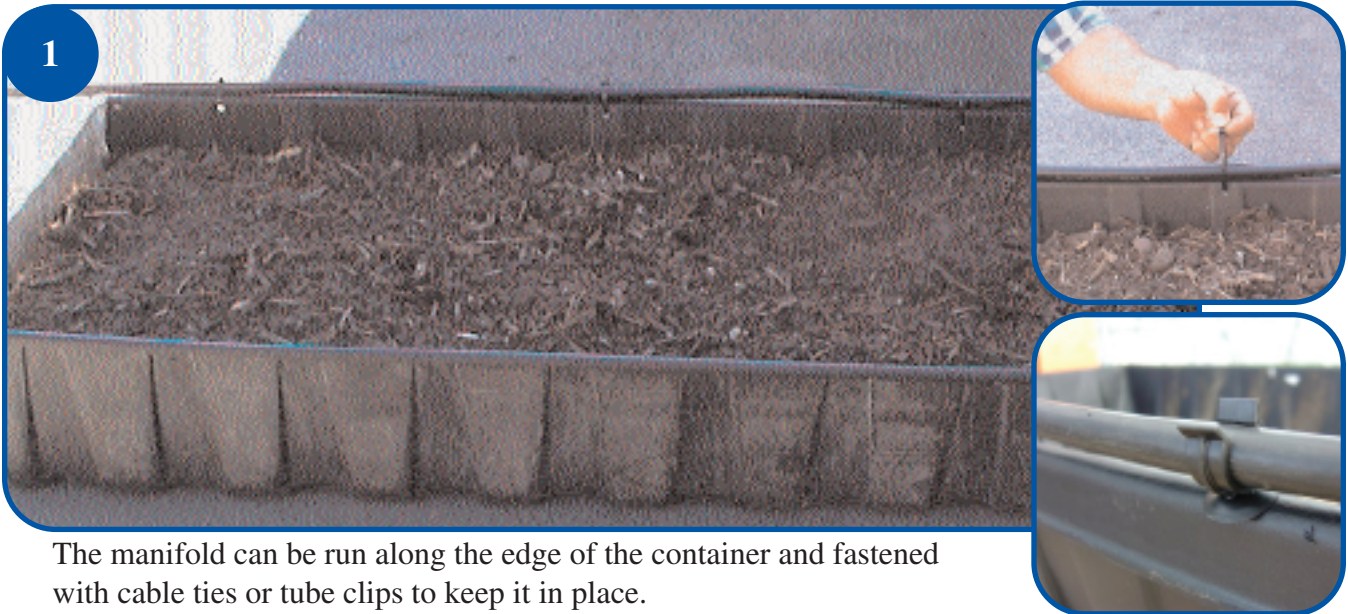
Each 16mm manifold can supply up to 124 - 8L/HR rings (62 extensive containers). The water supply for each manifold should not exceed 5 GPM and water pressure not to exceed 60PSI at the head. If water pressure does exceed 60PSI a regulator is required. Roof systems containing more than 62 extensive containers (124 rings) will require more than one manifold to maintain equal water volume throughout the system.

## SYSTEM INSTALLATION

The following pages show the steps of system installation. The installation is simple and is done during installation of the Roof containers.

### MANIFOLD INSTALLATION

1



The manifold can be run along the edge of the container and fastened with cable ties or tube clips to keep it in place.

2



On a roof top system we will be dealing with a slope for waste water run-off. The rings should be placed down stream from the position of the emitter which is punched into the manifold. Lay out the rings in the container before punching the hole in the manifold for the emitter.

## MANIFOLD INSTALLATION

3



Using the Hand Punch tool, punch a hole in the manifold for the emitter. (Pre-punched tubing is also available)

4



Push the emitter into the manifold. To remove emitter, **CUT OFF THE BARB** and re-insert new emitter into existing hole. **DO NOT PULL OUT DEFECTIVE EMITTER FROM POLYPIPE.**

5



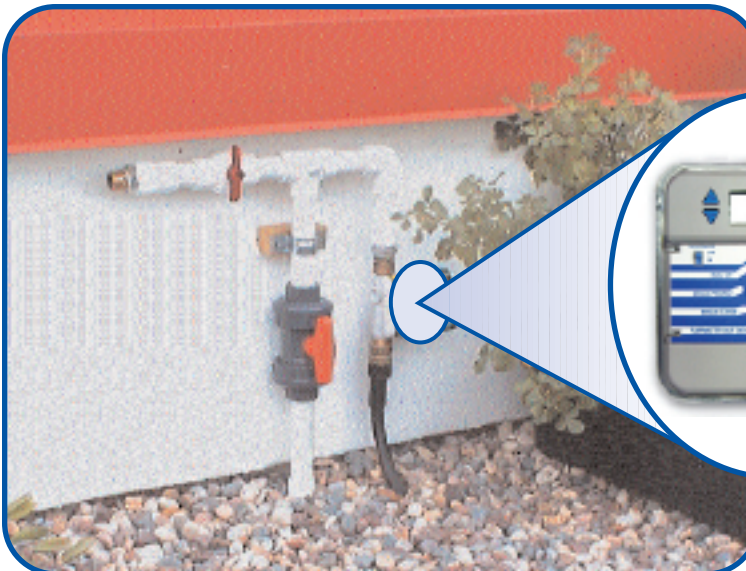
Flush the manifold of debris before closing the end. Then use the 16mm figure 8 clip to close the end of manifold runs (Fig A). At seasons close, the ends may be opened and the system drained.

## CAMOUFLAGING THE IRRIGATION SYSTEM

A variety of strategies can be used to hide the irrigation system. The manifold can be run as part of the container bead, or it can be hidden between the containers and routed to the surface where needed.



## DRAMM SYSTEM CONTROLS



The irrigation system can be controlled by any means, from a manual valve to computer controls.

## COMPONENT SPECS

### ITTSL16



**MODEL #** ITTSL16

**DESCRIPTION** 16mm EASYLOC™ TEE-  
Used for T-branches in manifold layout- 50/bag



### ITESL16



**MODEL #** ITESL16

**DESCRIPTION** 16mm EASYLOC™ ELBOW-  
Used for 90° corners in manifold layout- 50/bag



### ITF075SL16



**MODEL #** ITF075SL16

**DESCRIPTION** 3/4" mpt x16mm EASYLOC FITTING  
Used to connect manifold to valve  
or other supply connections-  
50/bag

### 600-AP8



**MODEL #** 600-AP8

**DESCRIPTION** 16mm FIGURE 8 CLOSURE  
Used to close end of manifolds-  
100/bag



**ITVO75SL16**

**MODEL #** ITVO75SL16

**DESCRIPTION** EASYLOC™ VALVE  
3/4" MPT x 16mm  
Easyloc™ valve, ideal for flushing  
out line as a substitute for 600AP8

**PCR14-8**

**MODEL #** PCR14-8 (8 L/HR or 4L/HR)  
PCR14-4 (8 L/HR or 4L/HR)

**DESCRIPTION** 14" RING WITH  
8" or 4" LEADER & 8 or 4L/HR  
EMITTER  
Supplies water to plants in  
extensive containers Other leader  
lengths must be specified when  
ordering

**PE16- \_ \_ \_ \_**

**MODEL #** PE16500- 500 Feet of Tubing  
PE161000- 1000 Feet of Tubing  
PE161000PP24- 1000 Feet of  
tubing /w 24" o/c prepunched  
holes

**DESCRIPTION** 16mm POLYETHYLENE  
MANIFOLD TUBING  
Supplies water to extensive  
containers

**PUNCH**

**MODEL #** PUNCH

**DESCRIPTION** QUICK PUNCH  
Used to pierce manifold tubing





**ALFS75150-S**

**MODEL #** ALFS75150-S

**DESCRIPTION** FILTER  
3/4" Cartridge Filter, 100 micron,  
18 gpm

**SVB075-M**

**MODEL #** SVB075-M

**DESCRIPTION** 3/4" PRO-SERIES SOLENOID VALVE  
24v AC with manual override  
switch and flow control  
Available in 1", 1.5", & 2" sizes

**GVB075**

**MODEL #** GVB075

**DESCRIPTION** 3/4" PRO-SERIES AUTOVALVE™  
Solenoid valve complete with  
Programmable controller 12v DC  
Up to 3 start times per day

9 volt battery operated, unit has  
internal back-up battery to keep  
program safe

**D530-008**

**MODEL #** D530-008

**DESCRIPTION** SWIVEL COUPLING  
3/4" FHT X 3/4" FPT PVC swivel  
transfer coupling



### RPIC-03



**MODEL #** RPIC-03

**DESCRIPTION** RAINPRO IRRIGATION CONTROLLER  
3 station Outdoor Irrigation Control  
120v  
Expandable to 7, 11, 15 Stations  
3 Independent Programs  
Odd/Even Day of Week, Calendar  
Options

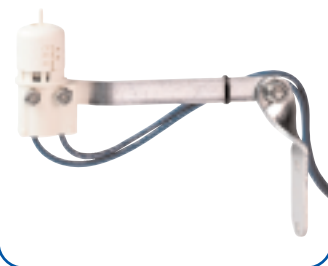
### RPIC-M4



**MODEL #** RPIC-M4

**DESCRIPTION** CONTROLLER MODULE  
4 Valve Expansion Module  
Just Plug into Control Board  
Works with RPIC-03

### RPRS



**MODEL #** RPRS

**DESCRIPTION** RAIN SENSOR  
works with RPIC-03  
Reduces the Use of Water in  
Wet Weather Conditions

**TTC16**

**MODEL #** TTC16

**DESCRIPTION** 16mm Tube Clip  
Used for Fastening Polyethylene  
Tubing to the Module

**T12-007**

**MODEL #** T12-007

**DESCRIPTION** IN-LINE SPRING CHECK VALVE  
3/4" PVC Threaded

**PRV-075-P-B**

**MODEL #** PRV075-P-B

**DESCRIPTION** 3/4" DIRECT ACTING PRESSURE  
REGULATOR  
3/4" Female Pipe Thread  
Pressure Adjustment Range 12-35 PSI  
Max. Inlet Pressure 125 PSI

**400PL**

**MODEL #** 400PL

**DESCRIPTION** 400 WATER BREAKER  
Fast, Full Flow Watering. Gentle  
Flow Won't Damage Plants.  
Made in USA

124-G



**MODEL #** 124-G

**DESCRIPTION** HANDI-REACH™ HANDLES  
24" Handle Eliminates Stretching  
& Stooping Associated with Hand  
Watering. Made in USA from  
Extruded Aluminum & Brass

17003



**MODEL #** 17003

**DESCRIPTION** PREMIUM RUBBER HOSE  
50ft Rubber Hose. 5/8"  
Diameter for Full Flow. Kink-  
Resistant, with Crush-Proof  
Couplings. Made in USA

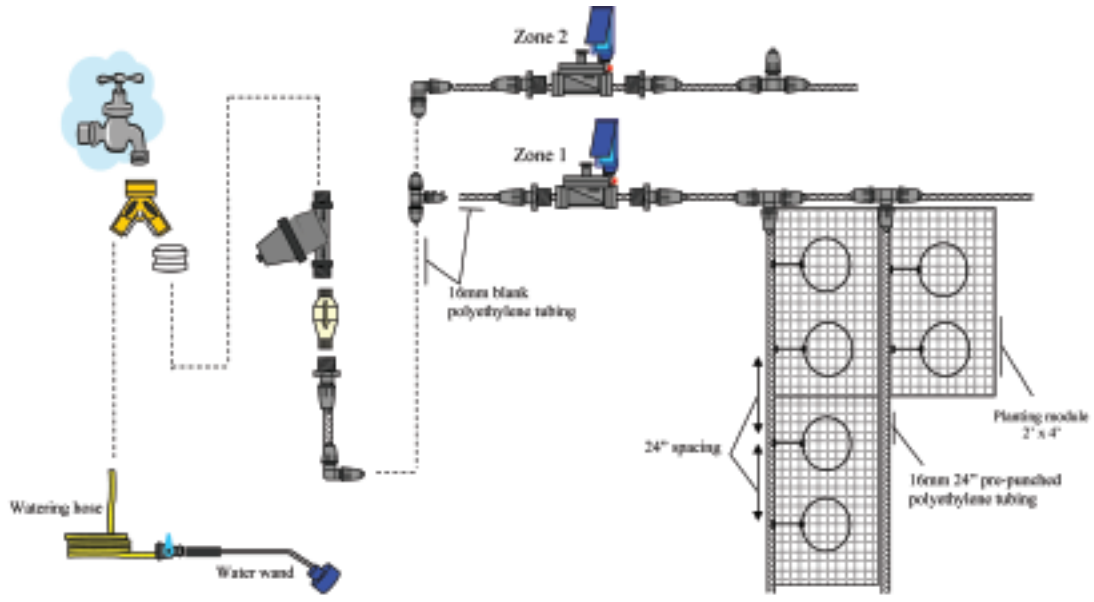
13351



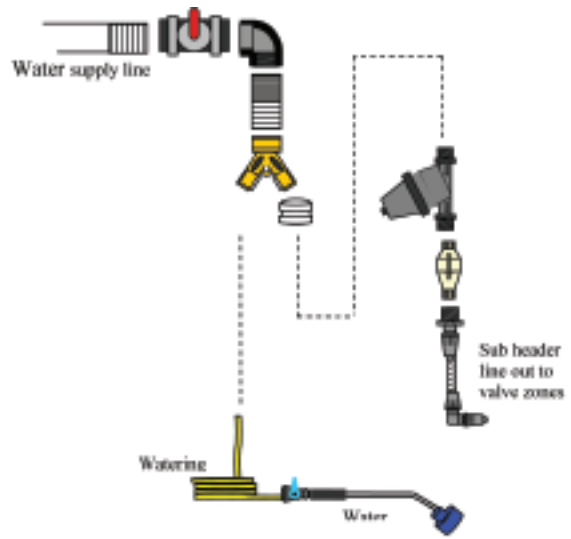
**MODEL #** 13351

**DESCRIPTION** BRASS TWIN SHUT-OFF VALVE  
Water 2 Places at One Time  
Durable Brass

# MANIFOLD SUPPLY FOR GREEN ROOF SYSTEMS



<b>Manifold Supply system for Green roof irrigation system Option A</b>		<b>Revision</b>	Draxton Corporation 2000 North 18 <sup>th</sup> Street P.O. Box 1960 Muskegon, MI 49421-1960 930-684-227 Fax: 930-684-499 <b>Canadian Office</b> Fenwick, Ontario 905-892-5444 Fax: 905-892-3328
©Copyright Protected By The Draxton Corporation 2008	02-01-08 AD	A	



<b>Manifold Supply system for Green roof irrigation system Option B</b>		<b>Revision</b>	Draxton Corporation 2000 North 18 <sup>th</sup> Street P.O. Box 1960 Muskegon, MI 49421-1960 930-684-227 Fax: 930-684-499 <b>Canadian Office</b> Fenwick, Ontario 905-892-5444 Fax: 905-892-3328
©Copyright Protected By The Draxton Corporation 2008	02-01-08 AD	A	