

LANDSCAPE DRIP

Drip is one of the most efficient methods of irrigation. With innovative products like DL2000™ subsurface dripline with ROOTGUARD®, Toro's line of landscape drip products takes watering efficiency to the next level.



TORO®



LANDSCAPE DRIP

Pages 48-71

DL2000™ Series Subsurface Dripline	50-53
17mm Drip In® Brown surface Dripline	54-57
Tri-Loc™ Fittings	58
Drip Fittings & Accessories	59
Blue Stripe® Poly Hose	60-61
Soakerline™ Classic Dripline	62
Pressure Regulating Multi-Outlet Manifold	63
NGE® Emitters	64-65
Turbo SC™ Plus Emitter	66
E-2™ Classic Emitter	67
Varis™ & Varistake™ Adjustable Emitters	68
Pressure Regulators	68
Plastic Y Filters	69
Drip Zone Valve Kits	70-71

Toro® offers DL2000™ with ROOTGUARD® for residential, commercial and sports turf applications. DL2000 with ROOTGUARD is the most technologically advanced subsurface irrigation system available, delivering optimal water application directly to the root zone while impeding roots from clogging the emitters. DL2000 with ROOTGUARD is suited to the irrigation of lawns and gardens, shrub areas, median strips, sports fields, vandal prone areas and more.



TORO®

Distinctive red stripe on tubing signifies DL2000 with ROOTGUARD

DL2000™ SERIES SUBSURFACE DRIPLINE

FEATURES & BENEFITS

U.S. Government-Approved ROOTGUARD® Protection

The pre-emergent, ROOTGUARD® material creates a “force field” effect around the emitter outlet, diverting root growth and assuring long term reliability.

At Grade Or Buried Options

Can be installed at grade or buried 4” – 8” underground, delivering irrigation directly to the plant’s root zone.

Environmentally Friendly

Irrigation takes place at or below grade so there is minimal water loss due to mist, evaporation, run-off or wind. Fertigation needs are reduced because water is applied only at the root zone.

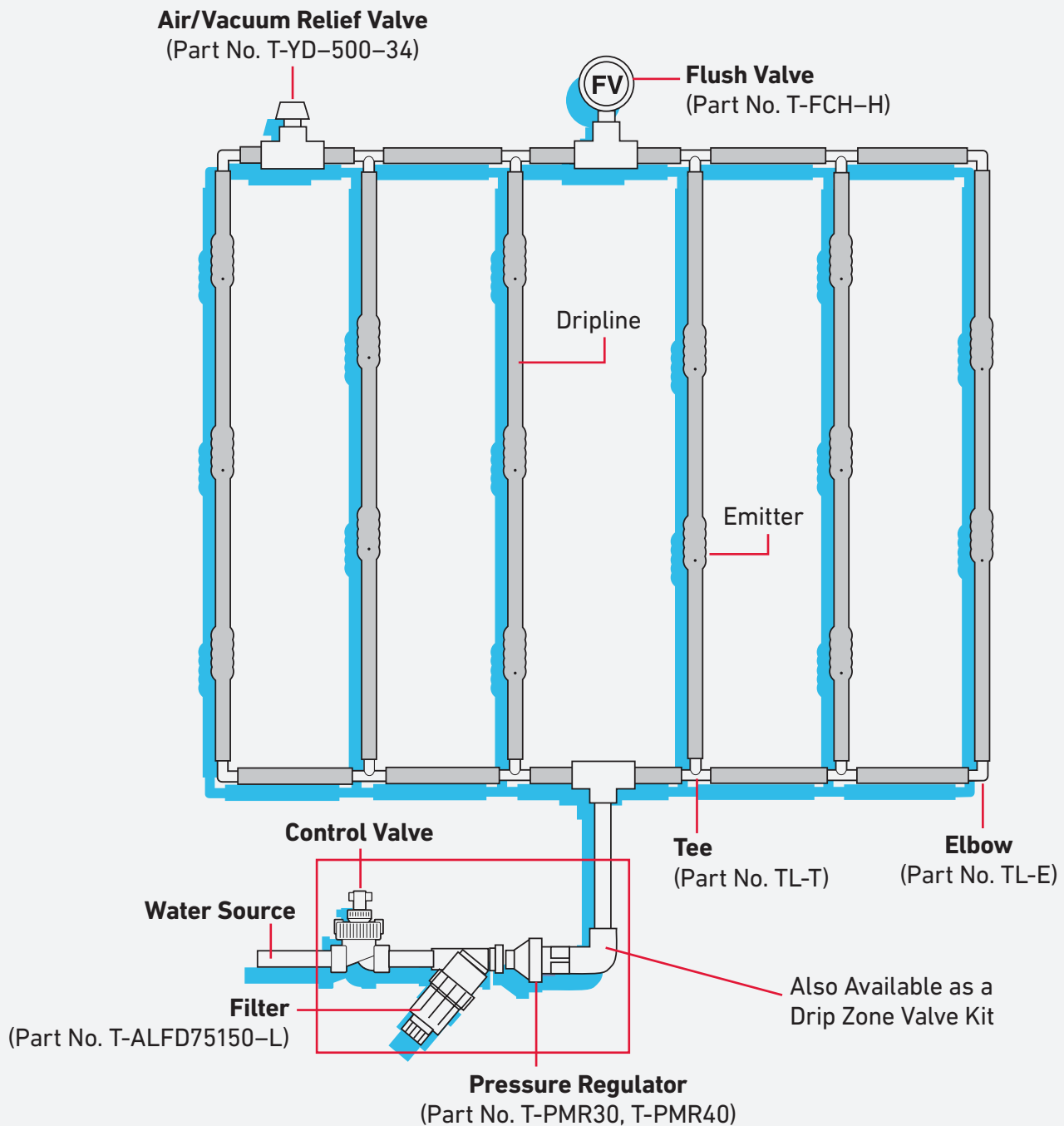
Safety and Liability

When DL2000 is installed below ground, the landscape surface is free from irrigation equipment that may disrupt activities or cause injury. Sub-surface performance also avoids slippery walkways and roadways as well as wet walls, fences and windows.



Effluent
Options
Available

HOW IT WORKS



Other fittings available:

- Coupling (Part No. TL-C)
- Adapter (Part No. TL-M50)
- Compression Adapter (Part No. T-CA-710)

SPECIFICATIONS

Operational

- Design flexibility for narrow, odd-shaped landscape areas
- Precise watering puts water where it's needed; avoids water marks on expensive hardscapes, glass or signage
- Distinctive red stripe on tubing signifies DL2000 with ROOTGUARD®

Warranty

- Against Root Intrusion: Seven years
- Hose: Five years pro-rated
- Emitters: Two years

DL2000 MODEL LIST

Model	Description
5/8" DL2000 PC DRIPLINE WITH ROOTGUARD	
RGP-212-01	0.5 gph, 12" emitter spacing, 100 ft. coil
RGP-412-01	1.0 gph, 12" emitter spacing, 100 ft. coil
RGP-218-01	0.5 gph, 18" emitter spacing, 100 ft. coil
RGP-418-01	1.0 gph, 18" emitter spacing, 100 ft. coil
RGP-212-05	0.5 gph, 12" emitter spacing, 500 ft. coil
RGP-412-05	1.0 gph, 12" emitter spacing, 500 ft. coil
RGP-218-05	0.5 gph, 18" emitter spacing, 500 ft. coil
RGP-418-05	1.0 gph, 18" emitter spacing, 500 ft. coil
RGP-212-10	0.5 gph, 12" emitter spacing, 1000 ft. coil
RGP-412-10	1.0 gph, 12" emitter spacing, 1000 ft. coil
RGP-218-10	0.5 gph, 18" emitter spacing, 1000 ft. coil
RGP-418-10	1.0 gph, 18" emitter spacing, 1000 ft. coil
5/8" DL2000 PC PURPLE DRIPLINE WITH ROOTGUARD	
RGP-212-05-E	0.5 gph, 12" emitter spacing, 500 ft. coil
RGP-412-05-E	1.0 gph, 12" emitter spacing, 500 ft. coil
RGP-218-05-E	0.5 gph, 18" emitter spacing, 500 ft. coil
RGP-418-05-E	1.0 gph, 18" emitter spacing, 500 ft. coil

PRECIPITATION RATE FOR EVENLY SPACED LATERALS AND EMITTERS

Precipitation Rate for Drip Laterals (inches/hour)							
Emitter Flow (gph)	Emitter Spacing (in.)	Spacing Between Drip Laterals					
		6 in.	12 in.	18 in.	24 in.	30 in.	36 in.
0.53	12	1.7	0.85	0.57	0.43	0.34	0.28
0.53	18	1.13	0.57	0.38	0.28	0.23	0.19
1.00	12	3.27	1.64	1.09	0.82	0.65	0.55
1.00	18	2.18	1.09	0.73	0.55	0.44	0.36
Precipitation Rate Formula:							
Precipitation Rate (in./hr.) = $\frac{231.1 \times \text{Emitter Flow (gph)}}{\text{Lateral Spacing (in.)} \times \text{Emitter Spacing (in.)}}$							

Note: This formula applies to evenly spaced drip irrigation laterals and emitters.

DL2000 PERFORMANCE TABLE

Flow Rate	.53/1.00 gph
Inside Diameter	0.620"
Outside Diameter	0.710"
Wall	0.045"
Operating pressure (P)	15–60 psi
Minimum filtration requirement	120 Mesh

5/8" OD			INLET PRESSURE VS. MAXIMUM LENGTH OF RUN IN FEET			
Part No.	Flow Rate (gph)	Emitter Spacing	15 psi	25 psi	30 psi	40 psi
RGP-212	.53	12"	250'	360'	400'	460'
RGP-218	.53	18"	350'	515'	565'	650'
RGP-412	1.0	12"	160'	240'	260'	300'
RGP-418	1.0	18"	240'	340'	375'	430'

Specifying Information—DL2000

RGP X-XX-XX-E			
Emitter Flow X	Emitter Spacing XX	Coil Length XX	Optional E
2—.53 gph 4—1.0 gph	12—12" 18—18"	01—100' 05—500' 10—1000'	E—Purple Tubing for Non-potable Water

Example: A 500' coil of Pressure-compensating Dripline with ROOTGUARD, 12" emitter spacing and 0.5 gph, would be specified as: **RGP-212-05**

Note: Specify/use Tri-Loc™ Fittings or .710 Compression Fittings.

With higher water costs in our future, it makes more sense than ever to use inline tubing in suitable landscape applications. Drip In[®] PC is both an effective and economical choice for at-grade installations and now comes in an industry-standard 17mm size.



TORO[®]

17MM DRIP IN® BROWN SURFACE DRIPLINE

FEATURES & BENEFITS

New 17MM Size

Works with most standard-size barb fittings, making it compatible with most other dripline and hose for easy retrofits and expansions.

Fully Pressure-compensating from 15 – 60 psi

The pressure-compensating design makes it ideal for slopes, high wind areas and areas with limited water supply or low pressure.



High Uniformity

Proven, dependable pressure-compensating Drip In emitters deliver uniform, precise emitter discharge rates with exceptionally low variability.

Keeps Water Off Hardscapes

Preventing unsightly water stains.



Effluent
Options
Available



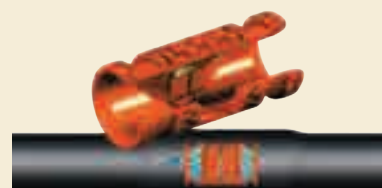
New Laser Etching

Easy-to-identify product information right on the tubing, and holds up better over time in the field compared to inkjet printing.



Highly Clog Resistant

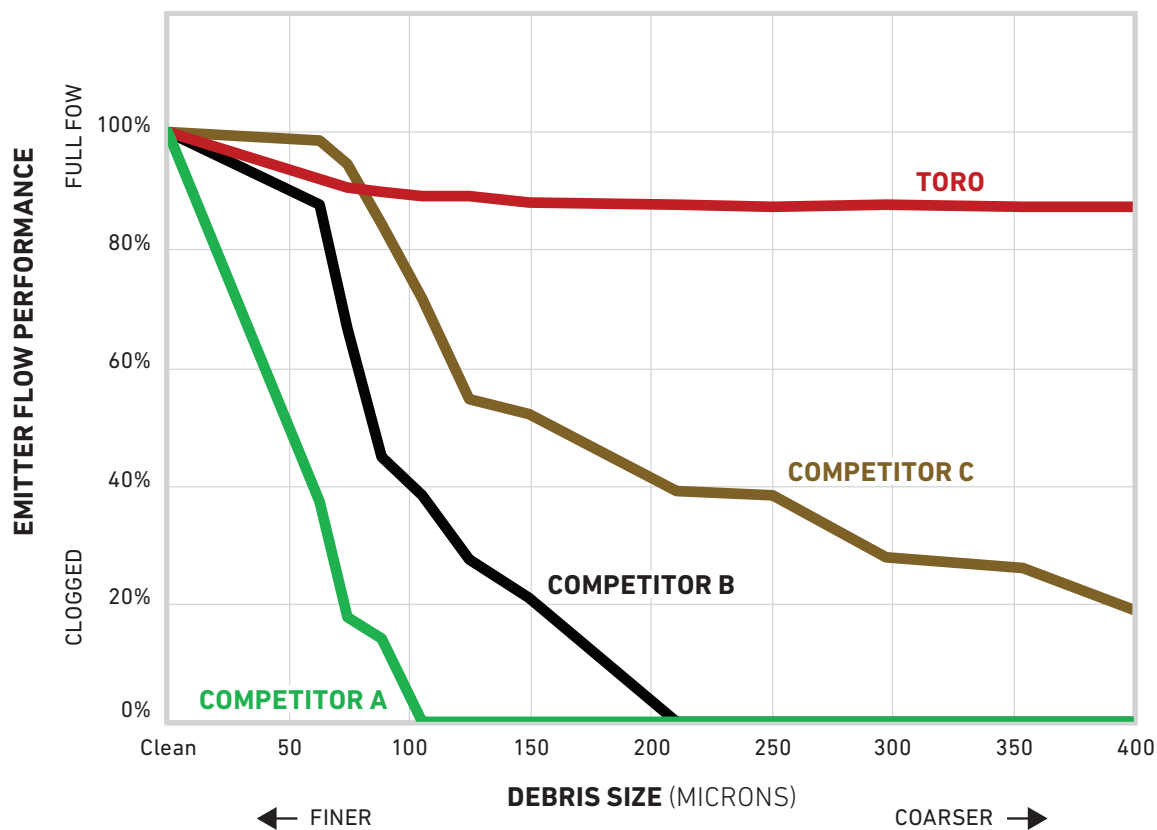
Unique, raised internal filtration design deflects debris upward and away from the emitter's inlet. Because the inlet is also raised, sediment won't collect at the inlet while the system is off.



Dual Opposed Outlets

In above ground installations, dual opposing ports in every emitter assure that at least one outlet provides air relief, which prevents back-siphonage of contamination into the emitter.

PRODUCT HIGHLIGHT



All Toro® landscape dripline uses a large double-outlet cylindrical emitter, which is much more tolerant of debris compared to the other market leaders, most of whom use a compact single-outlet emitter. While filtration is always recommended for any drip irrigation installation, filters only protect the incoming water from the valve connection. In the event of a damaged line at any point from the filter on down, or any other possible point of entry into the system for debris, Toro outperforms the competition and consistently keeps on flowing.

**Test data collected in Toro's standardized 24-hour "grit test", used for qualifying all Toro low-flow Landscape and Agriculture products in an internal test lab.*

LENGTH OF RUN CHART

INLET PRESSURE (PSI)	EMITTER FLOW RATE (GPH)			
	0.58	0.58	0.92	0.92
	EMITTER SPACING (INCHES)			
	12 in.	18 in.	12 in.	18 in.
15	169	236	125	175
20	230	323	171	239
25	270	379	200	282
30	301	424	222	314
35	327	460	242	341
40	349	492	258	364
45	369	521	273	386
50	387	547	286	405
55	404	570	299	422
60	420	593	310	439

DRIP IN PC MODEL LIST

Model	Description
17MM BROWN PC DRIPLINE – 0.56" ID X 0.66" OD X 0.05" WALL	
PCB-212-010	0.58 gph, 12" emitter spacing, 100' coil
PCB-412-010	0.92 gph, 12" emitter spacing, 100' coil
PCB-218-010	0.58 gph, 18" emitter spacing, 100' coil
PCB-418-010	0.92 gph, 18" emitter spacing, 100' coil
PCB-212-025	0.58 gph, 12" emitter spacing, 250' coil
PCB-412-025	0.92 gph, 12" emitter spacing, 250' coil
PCB-218-025	0.58 gph, 18" emitter spacing, 250' coil
PCB-418-025	0.92 gph, 18" emitter spacing, 250' coil
PCB-212-050	0.58 gph, 12" emitter spacing, 500' coil
PCB-412-050	0.92 gph, 12" emitter spacing, 500' coil
PCB-218-050	0.58 gph, 18" emitter spacing, 500' coil
PCB-418-050	0.92 gph, 18" emitter spacing, 500' coil
17MM PURPLE PC DRIPLINE (EFFLUENT)	
PCB-212-025-E	0.58 gph, 12" emitter spacing, 250' coil, effluent
PCB-412-025-E	0.92 gph, 12" emitter spacing, 250' coil, effluent
PCB-218-025-E	0.58 gph, 18" emitter spacing, 250' coil, effluent
PCB-418-025-E	0.92 gph, 18" emitter spacing, 250' coil, effluent



Use with T-EHW1554-010 or T-EHW1554-050 Blue Stripe tubing for 17mm, and all new i560 Series barbed fittings or Tri-Loc Series fittings!

NEW FITTING MODELS FOR 17MM DRIPLINE AND TUBING

Model	Description
i560-C	Coupling
i560-E	Elbow
i560-T	Tee
i560-M50	½" MPT Adapter
i560-M75	¾" MPT Adapter
i560-X	Cross
i560-T-M50	½" MPT Adapter


Specifying Information – Drip In PC

PCB-XXX-XXX-X				
Tubing Type	Emitter Flow	Emitter Spacing	Coil Length	Optional
PCB	X	XX	XXX	X
PCB	2 – 0.58 gph 4 – 0.92 gph	12 – 12" 18 – 18"	100 – 100' 250 – 250' 500 – 500'	E - Effluent
Example: A 250' coil of pressure-compensating Drip In brown dripline with 12" emitter spacing and 0.58 gph emitter flow would be specified as PCB-212-025				

TRI-LOC™ FITTINGS

FEATURES & BENEFITS

- Fits 16, 17 & 18mm OD Hose and Dripline
- 1 Fitting – 3 Tubing Sizes – Save Time!
- Superior Retention Strength
- Ergonomic Collars Reduce Fatigue
- Easy To Reuse–Save Money!

 <p>TL-C Tri-Loc Coupling</p>	 <p>TL-E Tri-Loc Elbow</p>	 <p>TL-T Tri-Loc Tee</p>	 <p>TL-M50 Tri-Loc 1/2" MPT Adapter</p>
 <p>TL-M75 Tri-Loc 3/4" MPT Adapter</p>	 <p>TL-FH75 Tri-Loc 3/4" FHT Adapter</p>	 <p>TL-T-F50 Tri-Loc 1/2" FPT Tee</p>	 <p>TL-T-M50 Tri-Loc 1/2" MPT Tee</p>
 <p>TL-T-S50 Tri-Loc 1/2" Slip Tee</p>	 <p>TL-CAP Tri-Loc MHT Cap</p>	 <p>TL-BV Tri-Loc Ball Valve Coupling</p>	 <p>TL-C-HDR 20mm OD x 20mm OD Coupling</p>
 <p>TL-M75-HDR 20mm OD Hose x 3/4" MPT Adapter</p>	 <p>TL-CAP-HDR 20mm OD Hose x MHT Cap</p>	 <p>TL-T-HDR Tri-Loc reducing header tee connects 16, 17 and 18mm OD dripline and drip hose to Toro® T-EHD2057 hose with .805 ID. TL-T-HDR fitting also works with hose ID of .790 - .845" (20 – 21.5mm)</p>	

DRIP FITTINGS AND ACCESSORIES

Insert Barb Fittings

- Made from rigid Acetal material
- Double barb for stronger retention
- Fits 18mm OD (5/8" ID) DL2000 and Drip In

NEW!



Specifying Information—
Insert Fittings for Drip In & DL2000 Dripline

Model	Description
1620-C	Insert Coupling
1620-E	Insert Elbow
1620-T	Insert Tee
1620-M50	1/2" MPT Adapter



T-YD-500-34



T-FCH-H-FIPT



T-FPG02



T-FCH-H-FHT



T-FJQ16



T-IPS1500



T-SS6-50



T-DL-MP9



T-FCC0400



T-FTT0400



T-FEE0400



T-FCV-BB



T-CA-710



T-CEFCH-H



T-FMP16



T-FMP08



T-IPS0104

Specifying Information Accessories

Model	Description
T-YD-500-34	Air Vent—1/2" MIPT Air Release & Vacuum Relief Valve
T-FCH-H-FIPT	Flush Valve—3/4" FPT (Pipe Thread), 0.8 gpm, 2 psi Sealing Pressure
T-FCH-H-FHT	Flush Valve—3/4" FHT (Hose Thread), 0.8 gpm, 2 psi Sealing Pressure
T-DL-MP9	DL2000 Pop-up Operation Indicator
T-FJQ16	5/8" Figure-eight End Clamp
T-SS6-50	3/4" Steel Soil Staple to Hold Tubing in Place
T-IPS1500	5/8" Plastic Stake to Hold Tubing in Place
T-FPG02	Double-sided Goof Plug
T-CA-710	OD Compression Adapter 1/2" Spigot
T-CEFCH-H	OD Compression Adapter with Flush Valve, 0.8 gpm, 2 psi Sealing
T-FMP16	Stainless Steel Insertion Tool for 1/4" Barbed Fittings and Emitters

Specifying Information—Microline 1/4" Fittings

Model	Description
T-FTT0400	Tee (Barb x Barb)
T-FEE0400	Elbow (Barb x Barb)
T-FCC0400	Coupling (Barb x Barb)
T-FCV-BB	Microflow Valve (Barb x Barb)
T-FMP08	Hose Punch for 1/4" barbed fittings and emitter
T-IPS0104	1/4" plastic locator stake to hold tubing in place

Specifying Information—0.710 OD Compression Fittings

Model	Description
T-CA-710	OD Compression Adapter 1/2" Spigot
T-CEFCH-H	OD Compression Adapter with Flush Valve, 0.8 gpm, 2 psi Sealing

BLUE STRIPE® POLYETHYLENE HOSE

Central to any point-source drip installation, is the water delivery system. It needs to be reliable, trouble-free and cost effective. Providing the solution for over 30 years, Toro® Blue Stripe® hose leads the industry as the most requested hose on the market.

FEATURES & BENEFITS

Manufactured From Premium Grade Linear Low Density Polyethylene

For dependable long-lasting operation.

Minimum 2% Carbon Black Added

To provide optimum protection against ultraviolet (UV) deterioration.

Available With Blue, White Or Lavender Stripe

For easy on-site identification of drip zones or applications during installation and operation.

Wide Range Of Choices

Available in a wide range of diameters, wall thicknesses, coil lengths and working pressures.



*Effluent
Options
Available*



BLUE STRIPE® MICRO-DISTRIBUTION HOSE**ID CONTROLLED HOSE**

Part Number	Hose Size	Nominal Hose Size			Coil Length	Coil Ship Weight	Pressure Rating
	ID Inch	ID Inch	OD Inch	Wall Inch	Ft.	Lbs.	psi
Blue Stripe Round Hose - Coil Stretch Wrapped							
T-EHW0437-100	1/4"	0.170	0.250	0.040	1,000	9.64	161
Blue Stripe Round Hose - Coil Banded							
T-EHD0437-010	1/4"	0.170	0.250	0.040	100	1.1	161

BLUE STRIPE® POLYETHYLENE HOSE**ID CONTROLLED HOSE**

Part Number	Hose Size	Nominal Hose Size			Coil Length	Coil Ship Weight	Pressure Rating
	ID Inch	ID Inch	OD Inch	Wall Inch	Ft.	Min. Lbs.	psi
Blue Stripe® Round Hose – Coil Stretch Wrapped							
T-EHW1645-010	5/8"	0.615	0.705	0.045	100	4.0	61
T-EHW1645-050	5/8"	0.615	0.705	0.045	500	19.8	61
Blue Stripe® Round Hose - Coil Banded							
T-EHD1554-050A (palletized)	-	0.570	0.680	0.055	500	21.5	77
PX T-EHD1645-050A (palletized)	5/8"	0.615	0.705	0.045	500	18.9	61
PX T-EHD2057-050A (palletized)	3/4"	0.805	0.920	0.057	500	31.2	59
T-EHD2667-066A (palletized)	1"	1.060	1.195	0.067	660	63.3	53

Note: For the two designated part numbers above, replace "D" with "P" in the part number to specify Purple Hose for reclaimed water.

For the same two designated part numbers above, replace "D" with "X" in the part number to specify White Stripe Hose.

Note: For information about the effects of temperature on polyethylene drip hose/tubing, please see bottom of page 193.

BLUE STRIPE® POLYETHYLENE HOSE MODEL LIST

Model	Description
MICRO-DISTRIBUTION HOSE - COIL STRETCH WRAPPED	
T-EHW0437-100	LLDPE, 1/4", ID: 0.170", OD: 0.250", Wall: 0.040", 1,000' coil
MICRO-DISTRIBUTION HOSE - COIL BANDED	
T-EHD0437-010	LLDPE, 1/4", ID: 0.170", OD: 0.250", Wall: 0.040", 100' coil
INSIDE DIAMETER (ID) CONTROLLED - COIL STRETCH WRAPPED	
T-EHW1645-010	5/8", ID: 0.615", OD: 0.705", Wall: 0.045", 100' coil
T-EHW1645-050	5/8", ID: 0.615", OD: 0.705", Wall: 0.045", 500' coil
INSIDE DIAMETER (ID) CONTROLLED - COIL BANDED	
T-EHD1554-050A	ID: 0.570", OD: 0.680", Wall: 0.055", 500' coil (palletized)
T-EHD1645-050A	5/8", ID: 0.615", OD: 0.705", Wall: 0.045", 500' coil (palletized)
T-EHD2057-050A	3/4", ID: 0.805", OD: 0.920", Wall: 0.057", 500' coil (palletized)
T-EHD2667-066A	1", ID: 1.060", OD: 1.195", Wall: 0.067", 660' coil

Model	Description
LAVENDER STRIPE ROUND HOSE	
INSIDE DIAMETER (ID) CONTROLLED - COIL BANDED	
T-EHP1645-050A	5/8", ID: 0.615", OD: 0.705", Wall: 0.045", 500' coil (palletized)
T-EHP2057-050A	3/4", ID: 0.805", OD: 0.920", Wall: 0.057", 500' coil (palletized)
WHITE STRIPE™ ROUND HOSE	
INSIDE DIAMETER (ID) CONTROLLED - COIL BANDED	
T-EHX1645-050A	5/8", ID: 0.615", OD: 0.705", Wall: 0.045", 500' coil (palletized)
T-EHX2057-050A	3/4", ID: 0.805", OD: 0.920", Wall: 0.057", 500' coil (palletized)

Specifying Information—Blue Stripe® Polyethylene Hose

T-EH-X-XX-XX-XXX-A				
Model	Stripe Color/Packaging	Tubing Size (ID)	Wall Thickness	Optional
T-EH	X	XX	XX	A
T-EH - Blue Stripe Hose	D - Blue Stripe/Coil Banded W - Blue Stripe/Stretch Wrapped P - Lavender Stripe/Coil Banded X - White Stripe/Coil Banded	04 - 4mm (.17") 15 - 15mm (.57") 16 - 16mm (.62") 20 - 20mm (.81") 26 - 26mm (1.06")	37 - .037" 45 - .045" 54 - .054" 57 - .057" 67 - .067"	A- Palletized

SOAKERLINE™ 1/4" CLASSIC DRIPLINE



FEATURES & BENEFITS

Flexible and Sturdy Design

Soakerline 1/4" dripline has a flexible and sturdy design making it ideal for young trees, shrubs, planter boxes and small landscape applications.

Built-in Emitters

Allow for ease of installation.

Brown Color

To blend into landscape areas.

SOAKERLINE PERFORMANCE TABLE

Inside Diameter	0.170"
Outside Diameter	0.250"
Wall	0.040"
Operating Pressure	15–60 psi
Minimum Filtration Requirement	140 Mesh
Nominal Flow Rate (Q)	0.53 GPH

NOTE: For information about the effects of temperature on polyethylene drip hose/tubing, please see bottom of page 193.

LENGTH OF RUN CHART

Part Number	Tubing Size	Flow Rate	Emitter Spacing	Inlet Pressure	Maximum Length of Run
T-SDB252-6-100	1/4"	.53 gph	6"	15 psi	19'
T-SDB252-12-100	1/4"	.53 gph	12"	15 psi	33'

PRESSURE REGULATING MULTI-OUTLET DRIP MANIFOLD



The T-PR25-9 can be installed on any 1/2" riser or fitting and easily converts traditional spray systems to drip, micro spray, or micro stream bubblers.

FEATURES & BENEFITS

- Built-in 25 psi pressure regulator delivers consistent, reliable, low-volume irrigation.
- Barbed outlets (9) accept 1/4" micro-tube & emitters, micro-bubblers or micro-sprays – ideal for mixed planting areas.
- Small shut-off caps provided with unit seal unused outlets.
- When system is off, cover unthreads for access to screen without disturbing 1/4" micro-tube connected to outlets.



Specifying Information—Pressure Regulating Drip Manifold

Model	Description
T-PR25-9	Pressure Regulating 9-outlet Drip Manifold

SPECIFICATIONS

Operational

- 1/2" FPT Inlet
- Operating Pressure: 20 – 100 psi
- Manifold Outlet Pressure: 21 – 28 psi
- Manifold Flow Range: 1 – 210 gph
- Individual Outlet Flow Range: 1 – 20 gph
- Barbed outlets accept 1/4" tubing: ID: .170 - .188

Warranty

- One year



NGE® EMITTERS



Designed for demanding drip irrigation installations, the Toro® New Generation Emitter (NGE) has what it takes to keep your system flowing.

FEATURES & BENEFITS

Uniform Flow Rates

Make the NGE ideal for use in difficult topographical conditions.

Unique Emitter Design And Pressure Compensating Diaphragm

Allows the emitter to self-flush during operation and shut-down to facilitate cleaning. This ensures the emitter is free of debris at start-up and during the emitter operation.

Stops the emitter from draining below 2-3 psi preventing complete drainage of the system. This reduces the time required to refill the system at start-up improving the overall operation.

Allows the emitter to close inhibiting back siphoning and preventing the emitter from being contaminated with debris

Low Coefficient Of Variation (CV)

As tested by Toro and independent labs, the NGE is one of the best performing pressure-compensating emitters available.



1.0 gph



2.0 gph

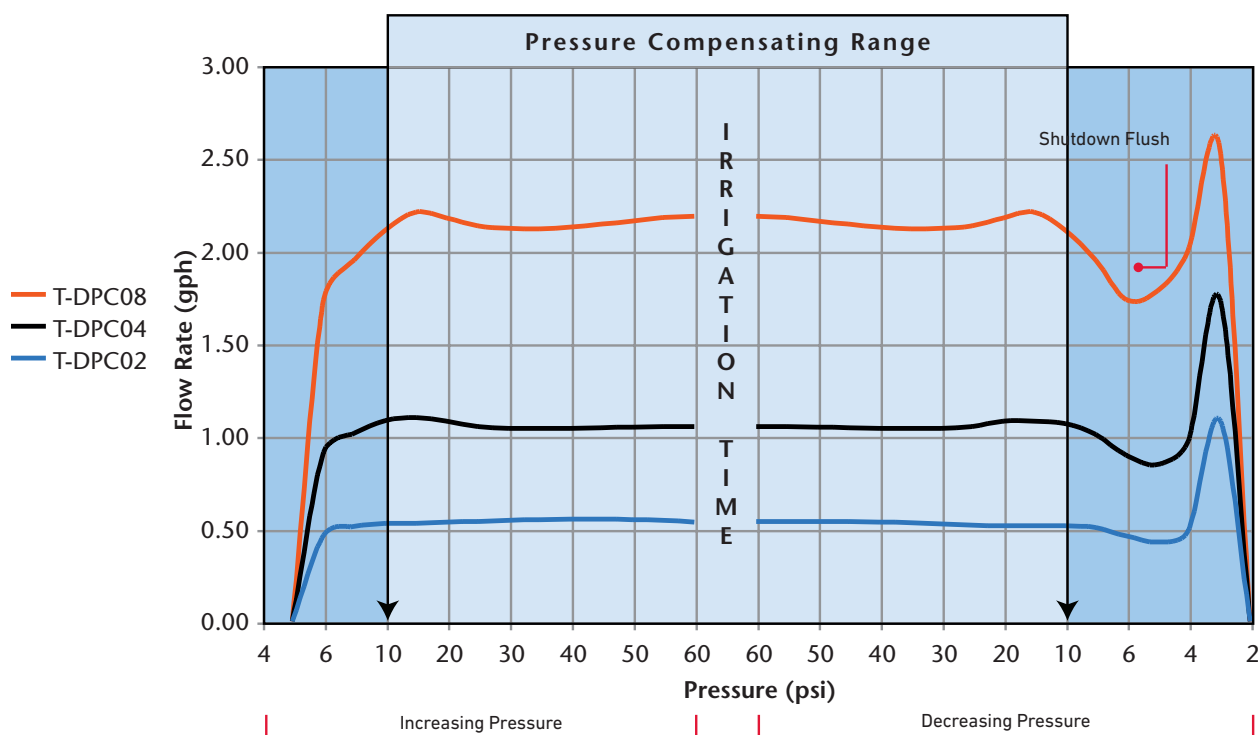


0.5 gph



Male Adapter
Option for use with
1/4" exit tubing





NGE PERFORMANCE TABLE

	T-DPC02	T-DPC04	T-DPC08
Nominal Flow Rate (Q) gph	0.5 gph	1.0 gph	2.0 gph
Recom. Pressure Range (P) psi	8–60 psi		
Emitter Exponent (x)	0.000	0.000	0.002
Coefficient of Variation (Cv)	3%		
Min. Filtration Requirement	140 Mesh (105 Micron)		
Optional Outlet	-MA (Male Adapter) -DC (Snap-on Dust Cap)		
Color (Cap)	Blue	Black	Red

SPECIFICATIONS

Operational

- Recommended operating pressure: 8–60 psi
- Average Flow Rates:
 - T-DPC02 – 0.5 gph
 - T-DPC04 – 1 gph
 - T-DPC08 – 2 gph
- Color-coded snap-on dust cap (0.5 gph Blue; 1 gph Black; 2 gph Red) deters dust and insects from entering the emitter
- Barbed inlet allows emitters to be installed directly onto hose or used with 1/4" tubings

Warranty

- Two years

NGE FLOW RATES

Pressure	DPC02	DPC04	DPC08
psi	gph	gph	gph
6	0.46	0.91	1.73
8	0.51	1.01	1.95
10	0.53	1.08	2.11
15	0.53	1.10	2.21
20	0.53	1.08	2.17
25	0.54	1.05	2.13
30*	0.54	1.04	2.12
35	0.55	1.04	2.12
40	0.55	1.04	2.12
45	0.55	1.04	2.14
50	0.55	1.05	2.16
55	0.54	1.05	2.18
60	0.54	1.05	2.18

*Recommended operating pressure

Specifying Information—NGE® Emitters

Model	Description
T-DPC02-MA T-DPC04-MA T-DPC08-MA	NGE SF (Self-flushing) Pressure-compensating Turbulent Flow Emitter with Male Adapter 0.5 gph NGE Self-flushing Pressure-compensating Emitter with Male Adapter (black) 1.0 gph NGE Self-flushing Pressure-compensating Emitter with Male Adapter (black) 2.0 gph NGE Self-flushing Pressure-compensating Emitter with Male Adapter (black)
T-DPC02-DC-BLUE T-DPC04-DC T-DPC08-DC-RED	NGE SF (Self-flushing) Pressure-compensating Turbulent Flow Emitter with Dust Cap 0.5 gph NGE Self-flushing Pressure-compensating Emitter with Dust Cap (blue) 1.0 gph NGE Self-flushing Pressure-compensating Emitter with Dust Cap (black) 2.0 gph NGE Self-flushing Pressure-compensating Emitter with Dust Cap (red)

TURBO-SC™ PLUS PRESSURE-COMPENSATING EMITTER



From the company that has pioneered so many drip irrigation innovations, the Toro® Turbo SC Plus has an industry track record for proven performance and affordability. Known as the DPJ emitter, Turbo SC Plus offers the two features liked by so many users. Pressure-compensation for system uniformity and “take-apart” for simple on site inspection.

FEATURES & BENEFITS

Take-Apart Feature

Permits fast, easy on-site inspection and cleaning.

Large Self-Flushing, Turbulent Flow Path

For higher resistance to plugging where water conditions may be a problem.

Male Adapter with Bug Shield

Deters the entry of insects, but also can be used with ¼” exit tubing for precision water placement.



SPECIFICATIONS

Operational

- Proven PC (pressure-compensating) emitter design
- Barbed inlet allows emitters to be installed directly onto hose or used with ¼” tubing
- High quality diaphragm for improved pressure compensation and uniformity over a wide range of pressure
- New half inch FPT version comes standard with check valve screen with 12” hold back

Warranty

- One year



0.5 gph



1.0 gph



2.0 gph

FLOW RATE

psi	T-DPJ02	T-DPJ04	T-DPJ08
5	0.42	0.73	1.41
10	0.44	0.97	1.80
15	0.47	0.96	2.00
20	0.49	0.97	2.12
25	0.50	1.00	2.15
*30	0.51	1.01	2.15
35	0.51	1.01	2.11
40	0.50	1.00	2.04
45	0.49	0.98	1.95
50	0.47	0.95	1.84
55	0.45	0.91	

**Recommended operating pressure. Values listed in gallons per hour.*

Specifying Information—Turbo-SC Plus

Model	Description
T-DPJ02-3	0.5 gph PC Emitter
T-DPJ04-3	1.0 gph PC Emitter
T-DPJ08-3	2.0 gph PC Emitter
T-DPJ02-F50	0.5 gph PC Emitter with ½” FPT Inlet and Check Screen
T-DPJ04-F50	1.0 gph PC Emitter with ½” FPT Inlet and Check Screen
T-DPJ08-F50	2.0 gph PC Emitter with ½” FPT Inlet and Check Screen

TURBO-SC PERFORMANCE TABLE

		T-DPJ02-A	T-DPJ04-A	T-DPJ08-A
Nominal Flow Rate (Q)	gph	0.5 gph	1.0 gph	2.0 gph
Recom. Pressure Range (P)	psi	10–50 psi		
Emitter Exponent (x)		0.02	–0.04	0.01
Min. Filtration Requirement		140 Mesh (105 Micron)		
Color (Base)		Blue	Black	Red



E-2™ CLASSIC TAKE APART EMITTER



First introduced in 1972, the E-2 emitter has a history of being easy to use, and providing consistent and reliable performance. While there have been some improvements over the years, this emitter offering still provides accurate performance at a cost-effective price.

FEATURES & BENEFITS

Fast Single Barb Installation

Install directly onto hose.

Large Open Flow Path

For resistance to plugging.

Take-Apart Feature

Allows fast simple field inspection.



SPECIFICATIONS

Operational

- Flow Rates:
 - T-DBK04-100 – 1.0 gph
 - T-DBK08-RED-100 – 2.0 gph
 - T-DBK16-MB-100 – 4.0 gph
- Proven Classic hydraulic design
- Economic emitter for trouble-free applications
- Barbed inlet allows emitters to be installed directly onto hose or used with 1/4" leader tubing (T-EHD0437)
- Exit barb may be used with 1/4" exit tubing for precision water placement

Warranty

- One year

E-2 EMITTER FLOW RATE

psi	T-DBK04	T-DBK08	T-DBK16
5	0.58	1.03	2.09
10	0.88	1.53	3.08
15	1.12	1.93	3.87
20	1.33	2.27	4.55
25	1.52	2.58	5.15
30	1.70	2.87	5.71
35	1.87	3.13	6.23
40	2.03	3.38	6.71
45	2.17	3.62	7.17
50	2.32	3.84	7.61

*Recommended operating pressure. Values listed in gallons per hour.

Specifying Information–E-2 Classic Emitter

Model	Description
T-DBK04-100	1.06 gph E-2 Emitter (Black)
T-DBK08-RED-100	2.11 gph E-2 Emitter (Red)
T-DBK16-MB-100	4.23 gph E-2 Emitter (Maroon)

		T-DBK04	T-DBK08	T-DBK16
Nominal Flow Rate (Q)	gph @ 15 psi	1.06 gph	2.11 gph	4.23 gph
Flow Coefficient (K)	U.S. Units	0.22	0.41	0.85
Operating Pressure Range (P)	psi	0–50 psi		
Flow Exponent (X)		0.60	0.57	0.56
Coefficient of Variation (Cv)		≤ 5%	≤ 6%	≤ 6.5%
Minimum Filtration Requirement		140 Mesh (105 Micron)		

VARIS™ AND VARISTAKE™ ADJUSTABLE EMITTERS



FEATURES & BENEFITS

Available as Stake Assembly or as Barbed Emitter

Varistake connects to 1/4" micro-tube (T-EHD0437) for precise placement at plant. Varis emitter installs directly onto drip lateral.

Adjustable Flow Rate

Allows for ease of installation even to the smallest of areas.

Easy To Maintain

Green top unthreads completely to permit easy inspection and cleaning.

Specifying Information—Varis and Varistake Emitters

Model	Description
T-DAK05	Varis Adjustable Emitter with 1/4" Barbed Inlet
T-DAK15	Varistake Adjustable Emitter with 4 3/4" Stake and 1/4" Barbed Inlet

VARIS AND VARISTAKE ADJUSTABLE EMMITERS MODEL LIST

Diameter of Throw (maximum opening at 30 clicks):		
psi	AT 1" HEIGHT	AT 2.5" HEIGHT
20	6"	8"
30	13 1/2"	15 1/2"
40	21"	27"
Varis and Varistake Flows:		
psi	FLOW RANGE	
10	0-7 gph	
20	0-10 gph	
30	0-11 gph	
40	0-14 gph	

PRESSURE REGULATORS



Specifying Information—Pressure Regulators

Model	Description
T-PMR30	1", 30 psi, 0.1-35 gpm pressure regulator
T-PMR40	1", 40 psi, 0.1-35 gpm pressure regulator

PLASTIC Y-FILTERS

Filtration for your drip system doesn't have to be difficult. Since low volume systems require filtration for effective and efficient watering, Toro® F-Series filters are designed to perform.

FEATURES & BENEFITS

1/2" Male Thread Outlet

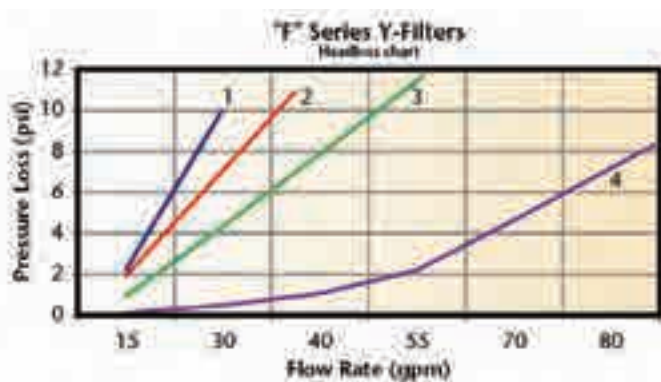
With cap for quick flush cleaning.

Easy Element Access

For trouble free maintenance.

Constructed Of Highest Quality Plastics

For durability and corrosion resistance.



SPECIFICATIONS

Operational

- Recommended pressure range: 5 – 120 psi
- Flow Rate: 5 – 80 gpm
- 3/4" and 1" screen filters are available in small- and large-size bodies
- Body and cap constructed of nylon
- Locking ring constructed of glass reinforced nylon
- O-ring constructed of Buna-N

Dimensions

- L: 11 1/2" H x 9" W x 9" D
- S: 8" H x 5 1/2" W x 5 1/2" D

Warranty

- One year

Specifying Information—Plastic Y-Filters (Disc)

Model	Size	Maximum Flow	Element	Mesh	Body	Head Loss Curve
T-ALFD75150-L	3/4"	25 gpm	Disc	150	Large	2
T-ALFD10150-L	1"	35 gpm	Disc	150	Large	3
T-ALFD15150-L	1 1/2"	80 gpm	Disc	150	Large	4

Specifying Information—Plastic Y-Filters (Screen)

Model	Size	Maximum Flow	Element	Mesh	Body	Head Loss Curve
T-ALFS75150-S	3/4"	18 gpm	Screen	150	Small	1
T-ALFS75150-L	3/4"	25 gpm	Screen	150	Large	2
T-ALFS10150-S	1"	25 gpm	Screen	150	Small	2
T-ALFS10150-L	1"	35 gpm	Screen	150	Large	3
T-ALFS15150-L	1 1/2"	80 gpm	Screen	150	Large	4

Specifying Information—Replacement Screen/Disc Filter Elements

Model	Size	Element	Mesh	Body
T-AMP-0004-4F	3/4", 1" and 1 1/2"	Disc	150	Large Body Size Filters
T-AMP0004-1S	3/4" and 1"	Screen	150	Small Body Size Filters
T-AMP0004-2F	3/4", 1" and 1 1/2"	Screen	150	Large Body Size Filters

DRIP ZONE VALVE KITS



Pre-packaged and ready for installation – Toro® Drip Zone Valve Kits provide everything you need for drip zone automation. No need to specify or purchase separate parts.

FEATURES & BENEFITS

Everything You Need is in the Kit

- Toro Y-Filter – protects against contamination.
- Control Valve – controls the flow of water
- Pressure Regulator – reduces system pressure to levels suitable for drip irrigation

Specially Designed For Low-volume Drip Applications

- These kits are a simple, one-stop package
- Less valve kits also available

Reliable Valve Options

- TPV Series, 1" Inline
- EZ-Flo® Plus, 1" AVB and 1" Inline
- Irritrol® 700 UltraFlow® Valve, 1" Inline



TPV Series Drip Zone Kit

<i>Specifications</i>	TORO EZ-FLO PLUS	TORO EZ-FLO PLUS AVB*	TORO TPV	IRRITROL® 700 ULTRAFLOW IN-LINE
Part Number	DZK-EZF	DZK-EZF-AS	DZK-TPV	DZK-700
Description	Drip Zone Valve Kit, 1" EZ-Flo	Drip Zone Valve Kit, 1" EZ-Flo Plus, AVB	Drip Zone Valve Kit, 1" TPV	Drip Zone Valve Kit, 1" 700 UltraFlow, In-line
Connection Size	1"	1"	1"	1"
Control Valve Solenoid	24 Vac, Inrush: 0.4 amps, 11.5 VA, Holding 0.20 amps, 5.75 VA			
Minimum Flow Rate	0.25 gpm	0.25 gpm	0.25 gpm	0.10 gpm
Maximum Flow Rate	25 gpm	25 gpm	25 gpm	30 gpm
Maximum Pressure	120 psi	120 psi	120 psi	120 psi
Y-Filter Degree of Filtration	150 mesh/ 100 microns	150 mesh/ 100 microns	150 mesh/ 100 microns	150 mesh/ 100 microns
Regulator-Preset Pressure	30 psi	30 psi	30 psi	40 psi
Thread Connection-Upstream	Female NPT	Female NPT	Female NPT	Female NPT
Thread Connection-Downstream	Female NPT	Female NPT	Female NPT	Female NPT
Length without fitting	14"	N/A	15"	14.75"
Length with fitting	16.5"	N/A	17.5"	17.25"
Width	3"	3"	3"	3"

*Note: Consult your local plumbing code for backflow prevention requirements.
AVB = Atmospheric Vacuum Breaker (Anti-siphon Valve).

DRIP ZONE VALVE KITS MODEL LIST

Model	Description
DZK-EZF-AS	1" EZ-Flo Plus Valve, AVB, Filter, Regulator & Fittings
DZK-EZF	1" EZ-Flo Plus, Filter, Regulator & Fittings
DZK-TPV	1" TPV, Filter, Regulator & Fittings
DZK-700	1" 700 UltraFlow Inline Valve, Filter, Regulator & Fittings
DZK-X	Drip Zone Kit Less Valve with Filter, Regulator & Fittings

Specifying Information—Drip Zone Valve Kits

DZK-XXX-XX		
<i>Kit</i>	<i>Valve Type</i>	
DZK	XXXXXX	
DZK—Drip Zone Kit	EZF-AS—1" EZ-Flo Plus AVB EZF—1" EZ-Flo Plus TPV—1" TPV	700—1" In-line X—1" No Valve
Example: A Drip Zone Kit with a 700 Series UltraFlow, 1" commercial valve would be specified as: DZK-700		