



Landscape Drip Application Guide

A Practical Guide for Designing
and Installing Drip Irrigation Systems



The Efficiency of Drip, Engineered by Rain Bird®

Rain Bird's Low Volume Irrigation System is the most efficient way to water landscapes.

Over the last ten years, Rain Bird has been a leader in innovation advances that customers value. Earlier unique and exclusive products, included the Xeri-Pop™, the first efficient low volume spray with a spray head that retracts out of sight, PR Series Pressure Regulating Filter that combined the regulator and filter into one component reducing the potential for leaks.

Today, Rain Bird continues the tradition of innovation with the XPCN Series Nozzle and the XF Series. With the broadest product line, Rain Bird's Low Volume Irrigation Systems can be designed to meet any site requirement providing unmatched quality, efficient water use, and ease of installation.

■ BENEFITS OF A RAIN BIRD LOW VOLUME IRRIGATION SYSTEM

- Design flexibility (even for narrow areas).
- Elimination of overspray and runoff.
- High water efficiency and less energy requirement.
- Water is delivered at or near the plant root zone. Less weeds.
- Plants stay healthier and live longer.

It is Rain Bird's long-standing commitment to engineering and quality excellence that sets our drip irrigation products apart.

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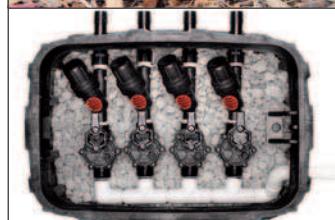
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Featured Rain Bird® Drip Products



XF Dripline

Extra Flexible inline pressure compensated emitter tubing for fast and easy installation. Longer laterals than competition with fewer fittings and stakes. Very easy to uncoil without kinks and loops.



Control Zone Kits

Control Zone Kits provide in a preassembled and compact device, all of the components necessary to control flow pressure and filtration for a low volume irrigation zone. This compact kit allows you to fit more control zone kits in a single valve box.



Low Flow Valve

The only valve in the industry made especially for drip irrigation systems, making this the only valve that can effectively handle particles at low flow rates (54.4 to 1,136 l/h). Allows the filter to be safely placed downstream of the valve since these valves handle all sizes of particles.



Microspray Xeripop

The Xeri-Pop™ micro-spray makes it easy to integrate a durable micro-spray into a low-volume irrigation design. Xeri-Pops can be installed and located in nearly any location and they are ideal for small, odd-shaped flower beds. Perfect solution to vandal-prone areas.



XPCN Series Nozzle

Pressure compensation and square spray pattern offer increased efficiency and control, reducing overspray, property damage and liability. Unique edge to edge capability reduces the number of nozzles needed, which decreases cost and dramatically reduces installation time. One nozzle throws 0.8 m or 1.2 m, and can be used on a variety of spray heads and risers.



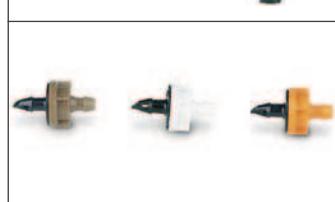
RWS

Subsurface deep root watering and aeration ensures tree health and promotes accelerated growth. Subterranean watering encourages roots to remain below the surface, tree roots are less prone to damage.



1800™ Retrofit Kit

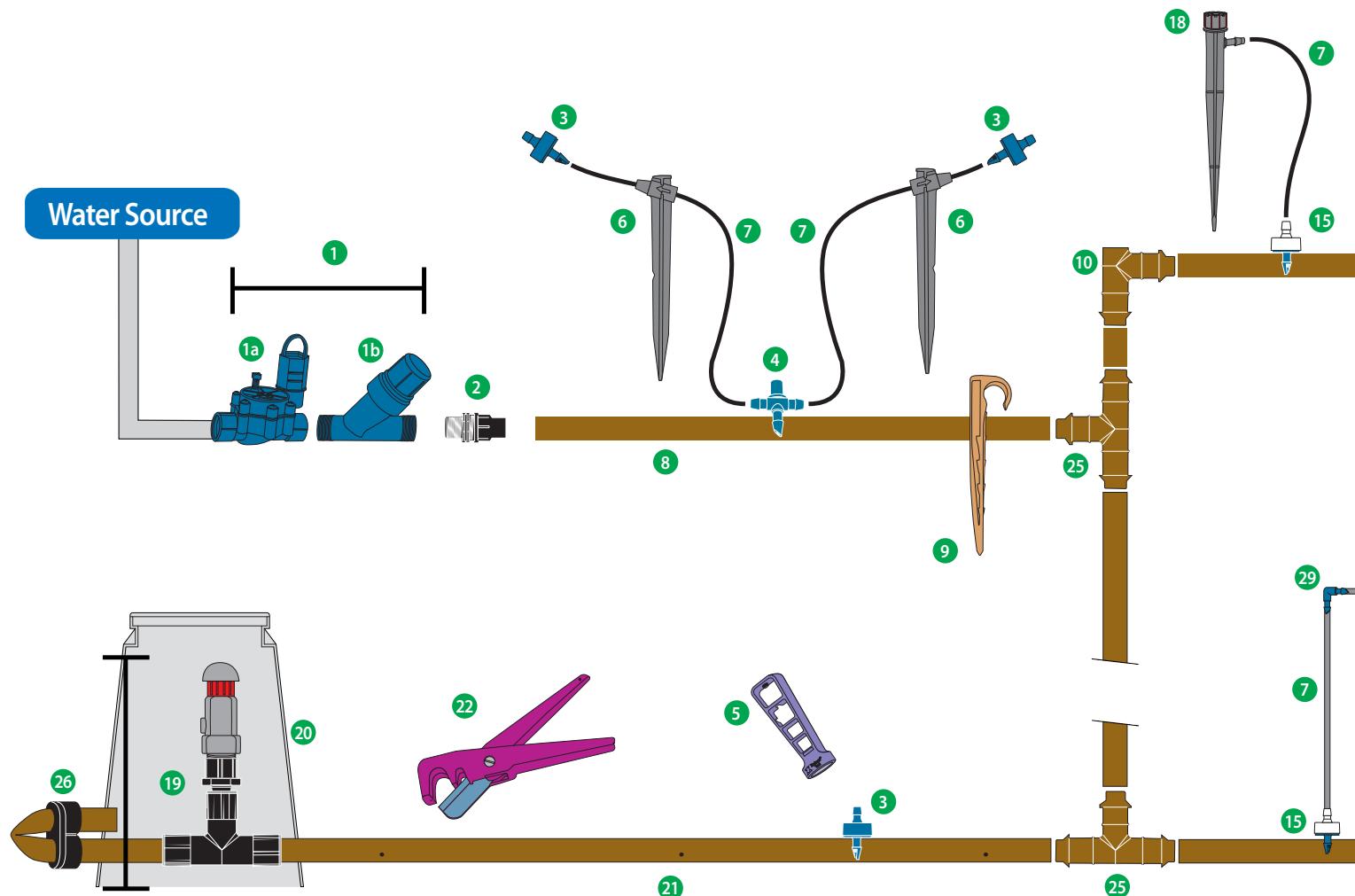
Internal assembly drops into any Rain Bird 1800 series spray head body to easily retrofit existing system to Low Volume application products.



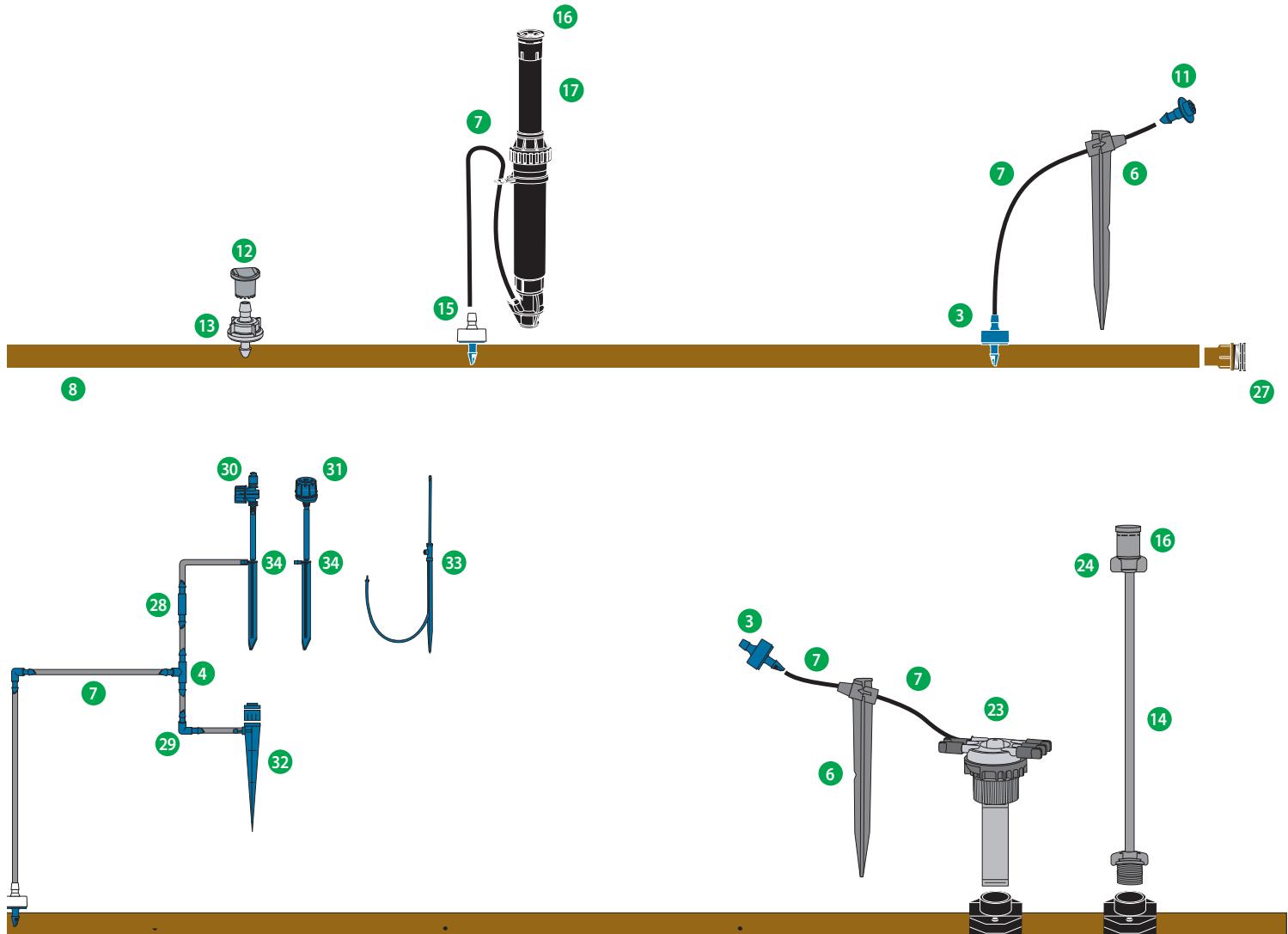
Pressure Compensating Modules

For watering larger shrubs and trees.

The only medium flow emitters with self piercing barbs, making them the easiest to install.



1. Control Zone Kit	5. Xeriman Tool	11. Diffuser Bug Cap
1a. Low Flow Valve	6. TS-025 6 mm Tubing Stake	12. PC Emitter Diffuser Cap
1b. Pressure Regulating Filter	7. 4-6 mm Distribution Tubing	13. PC Module
2. Lock Fitting 16mm Quick Union Coupling	8. XF Blank Tubing	14. PolyFlex Riser Assembly
3. Xeri-Bug Emitter	9. Tie-Down Stake	15. Self-Piercing Barb Connector for 16mm tubing
4. BF3 T 4-6 mm	10. XFD Elbow	16. XPCN Series Nozzle



- 17. Xeri-Pop
- 18. SXB Series SPYK Micro Sprinkler On Spike
- 19. Air Relief Valve Kit
- 20. Valve Box
- 21. XF Dripline
- 22. T135SS Tubing Cutter

- 23. 6 Outlet Manifold
- 24. XPCN Series Nozzle Adapter
- 25. XFD Tee
- 26. 700CF-22 Tubing End Closure
- 27. Lock Type BF-Plug
- 28. BF1 Barb Connector for 4-6 mm tubing

- 29. BF2 Barb-Barb Elbow for 4-6 mm tubing
- 30. XS- Series
- 31. SXB Series
- 32. XS Series-SPYK Micro Sprinkler On Spike
- 33. Jet Spike
- 34. PFR/RS Riser / Stake Assembly

* NOTE: Not all products listed in the Product Guide section are in the diagram above

RAIN BIRD XB PC SERIES

Pressure Compensating Self-Piercing Emitters.

- Color code to identify the flow rate.
- This pressure compensating emitter provides flow uniformity on uneven terrain.
- The only emitter with self-piercing barbs, making them the easiest to install using the Xeriman™ tool.



XB-05-PC
(1.9 l/h)



XB-10-PC
(3.8 l/h)



XB-20-PC
(7.6 l/h)

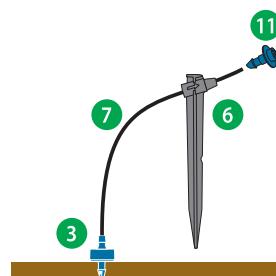
Installation Option 1

Using a Xeriman Tool, insert an emitter directly into 16 mm drip tubing or between dripline emitters as needed.



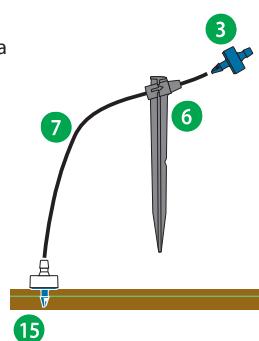
Installation Option 2

For more precise water placement, use 4-6 mm distribution tubing, a 6 mm tubing stake, and a bug cap.



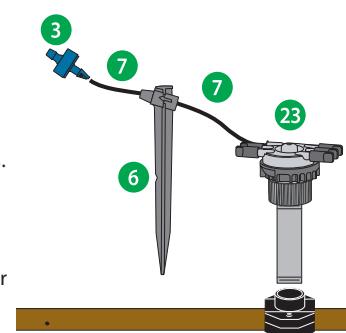
Installation Option 3

For precise water placement, a barbed connector can be punched into distribution tubing. The emitter is then placed at the end of the 4-6 mm distribution tubing. NOTE: should the emitter become dislodged, unregulated flow will occur.



Installation Option 4

The 6 Outlet Manifold provides a centralized water distribution connection for up to six emission devices. Connect the 4-6 mm distribution tubing to one of the outlets. Use a 6 mm tubing stake to ensure precise water placement. The emitter is placed on the end of the 4-6 mm distribution tubing to regulate the water flow. NOTE: should the emitter become dislodged, unregulated flow will occur.



EMT-6X

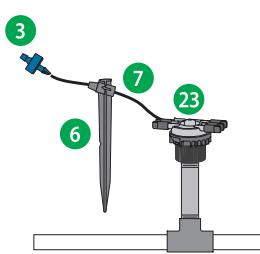
6 Outlet Manifold

- $\frac{1}{2}$ "(15/21) inlet threads onto $\frac{1}{2}$ " riser and provides a manifold with six free-flowing $\frac{1}{4}$ " barb outlets.



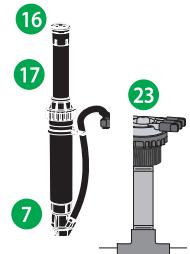
Installation Option 1

The 6 Outlet Manifold provides a centralized water distribution connection for up to six emission devices. Connect 4-6 mm distribution tubing to one of the outlets. Use a 6 mm tubing stake to ensure precise water placement. The emitter is placed on the end of the 4-6 mm distribution tubing to regulate the water flow.



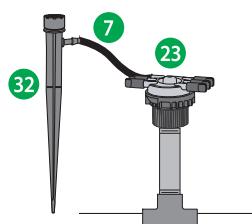
Installation Option 2

To incorporate spray heads into your drip system, connect the Xeri-Pop Micro-Spray to a multi-outlet manifold (EMT-6X) via 4-6 mm distribution tubing.



Installation Option 3

To incorporate Micro-Sprinklers or Micro-Sprays into your drip system, connect the needed product to a multi-outlet manifold (EMT-6X) via 4-6 mm distribution tubing.



TIP: Be conscious of your run times and application rates. Mixing products connected to the EMT-6X can lead to over or under watering.

PC-12, PC-18 AND PC-24 SERIES

Pressure-Compensating Modules

- Point-source medium-flow emitters for watering larger shrubs and trees and for precisely regulating water flow to Xeri-Bubblers and Xeri-Sprays.
- With the XB PC drippers they are the only emitters with self-piercing barbs, making them the easiest to install using the Xeriman™ tool.
- Most compact and unobtrusive emitters.



PC-12
(45 l/h)



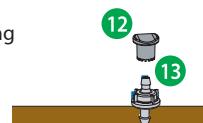
PC-18
(68 l/h)



PC-24
(91 l/h)

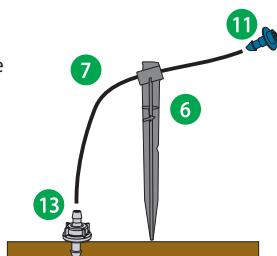
Installation Option 1

Using a Xeriman Tool, insert the PC Module directly into 16 mm drip tubing or between dripline emitters as needed. Use a PC Diffuser Cap to eliminate squirting.



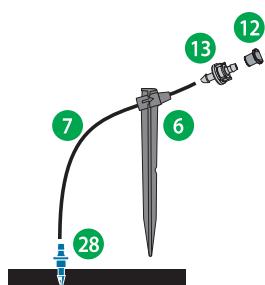
Installation Option 2

For more precise water placement, use 4-6 mm distribution tubing, a 6 mm tubing stake, and a bug cap.



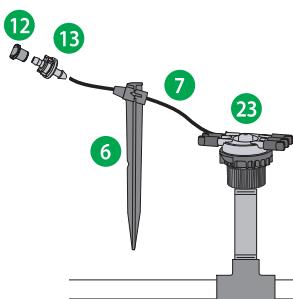
Installation Option 3

For precise water placement, a barbed connector can be punched into 16 mm drip tubing. The PC Module with a PC Diffuser Cap is then placed at the end of the 4-6 mm distribution tubing. NOTE: should the emitter become dislodged, unregulated flow will occur.



Installation Option 4

The 6 Outlet Manifold provides a centralized water distribution connection for up to six emission devices. Connect 4-6 mm distribution tubing to one of the outlets. Use a 6 mm tubing stake to ensure precise water placement. The PC Module with a PC Diffuser Cap is placed on the end of the 4-6 mm distribution tubing to regulate the water flow. NOTE: should the emitter become dislodged, unregulated flow will occur.



PC DIFFUSER

PC Diffuser eliminates squirting water when using a PC Module.

Installation Option 1

Use a PC Diffuser Cap to eliminate squirting water when using a PC Module staked at the end of 4-6 mm distribution tubing or on a PolyFlex Riser.



DBC-025

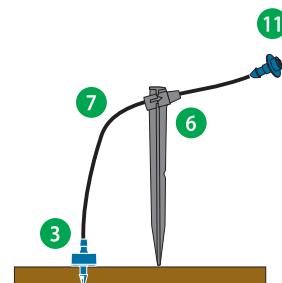
Diffuser Bug Cap

- Diffuser for 4-6 mm tubing to minimize soil erosion at emission point. It also prevents insects and other debris from clogging 4-6mm distribution tubing.



Installation Option 1

Use a Diffuser Bug Cap at the end of 4-6 mm distribution tubing to prevent clogging caused by bugs and other debris.



XB-10-6

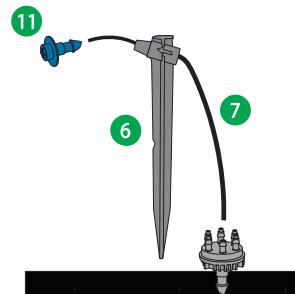
Multi-Outlet

- Pressure compensating emitters provide precise and water-conserving irrigation to promote the healthy growth of ornamental plants, shrubs and trees.



Installation Option 1

The Multi-Outlet Xeri-Bug provides centralized water distribution for up to six plants. All six outlets have the same flow rate. Connect the 4-6 mm distribution tubing to one of the outlets. Use a 6 mm tubing stake to ensure precise water placement. Insert a bug cap at the end of the tubing.



XERI-POP™

Micro Spray

- The Xeri-Pop™ micro-spray makes it easy to integrate a durable micro-spray into a low-volume irrigation design. The Xeri-Pop is also ideal for applications that require flexibility and ease of installation.
- Xeri-pops can be installed and located in nearly any location and are ideal for small odd-shaped planting beds.
- Perfect solution for vandal-prone areas.



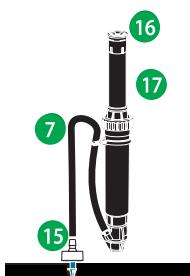
XP-400X
(4 inch pop-up)



XP-600X
(6 inch pop-up)

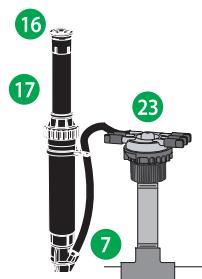
Installation Option 1

The Xeri-Pop Micro-Spray allows you to incorporate spray heads into your drip system. Connect the Xeri-Pop Micro-Spray to 16 mm drip tubing via 4-6 mm distribution tubing and a barb connector.



Installation Option 2

Connect the Xeri-Pop Micro-Spray to a multi-outlet manifold (EMT-6X) via 4-6 mm distribution tubing.



TIP: XPCN Series, 5 and 8 Series MPR, Series Plastic Bubblers can be installed on a Xeri-Pop Micro-Spray.

XPCN SERIES

Xeri-Pressure compensating Nozzles

- The most precise and efficient low volume spray solution for irrigation of small areas with dense plantings.
- Pressure compensation and square spray pattern offer increased efficiency and control, reducing overspray property damage and liability.
- Unique edge to edge capability reduces the number of nozzles needed, which decreases cost and dramatically reduce installation time.
- Simplify design and installation with the flexibility of applications (one nozzle throws 0.8 or 1.2m) and can be used on a variety of spray heads and risers.



XPCN QTR
(Purple) Quarter Pattern



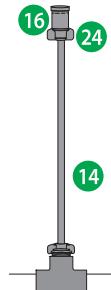
XPCN HLF
(Brown) Half Pattern



XPCN FUL
(Red) Full Pattern

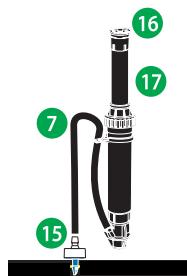
Installation Option 1

The XPCN can be connected to PE or PVC via a PolyFlex Riser via the XPCN ADP adapter. The XPCN ADP24 is the XPCN ADP adapter preassembled to a 24" polyflex riser.



Installation Option 2

The XPCN can be installed on a Xeri-Pop Spray Head. The Xeri-Pop can be connected to PE or PVC. The Xeri-Pop can also be connected to 16 mm drip or drip line tubing via 4-6 mm tubing and a barb connector. NOTE: Use one of these configurations in each watering zone to provide a pop-up run indicator for your drip system.



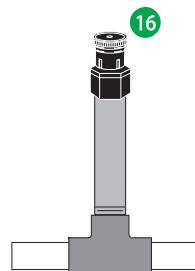
Installation Option 3

The XPCN can be installed on a Rain Bird 1800 Series Spray Head.



Installation Option 4

The XPCN can be attached to a schedule 80 PVC or PE riser using a PA-8S Plastic Shrub Adapter.



TIP: With a simple turn of the nozzle to the next preset stop the XPCN Series Nozzle adjusts from 0,8 m to 1,2 m throw.



SXB-360-SPYK

Adjustable Flow Micro-Sprinkler on Spike

- Emission device with adjustable flow and radius. Ideal for shrub plantings, trees, containers and flower beds.



SXB-360-SPYK

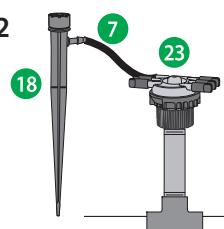
Installation Option 1

The Xeri-Bubbler Spike combines a bubbler with a 6 mm tubing stake for precise water placement. Simply connect the Xeri-Bubbler Spike to 16 mm drip tubing via a barb connector. NOTE: The Xeri-Bubbler Spike comes with its own barb connector.



Installation Option 2

Connect up to six Xeri-Bubbler Spikes via 4-6 mm distribution tubing to a multi-outlet manifold (EMT-6X).



SXB-180, SXB-360 SERIES

Threaded and Barbed Micro-Sprinklers with Distinct Streams and Adjustable Flow

- Micro-Sprinklers available in 180° and 360° patterns. Adjustable flow and radius are controlled by turning outer cap. Ideal for mass shrub plantings, trees containers and flower beds.



SXB-180
Half Circle Stream Bubbler



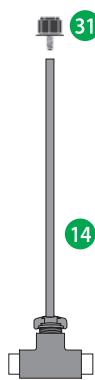
SXB-360
Full Circle Stream Bubbler



SXB-360-025
Full Circle Stream Bubbler

Installation Option 1

Use a threaded Micro-Sprinkler with a PolyFlex Riser for point-source applications in high foot traffic areas. (A pedestrian walking through a flower bed could pull up a staked Micro-Sprinkler or otherwise cause misalignment of the 4-6 mm distribution tubing. If they stepped on a PolyFlex Riser, the Micro-Sprinkler would stay in place.)



Installation Option 2

Use a threaded Micro-Sprinkler with a Riser and Stake combination. This combination PFR/RS is easy to install and saves time and money.



XS-360TS-SPYK

Adjustable Flow Micro-spray on Spike

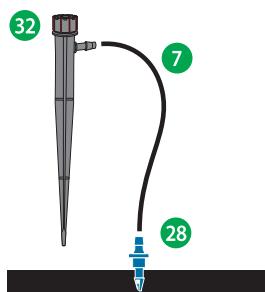
- True micro-spray with full circle fan spray pattern. Ideal for ground cover, mass plantings, annual flower beds, and containers.



XS-360TS-SPYK

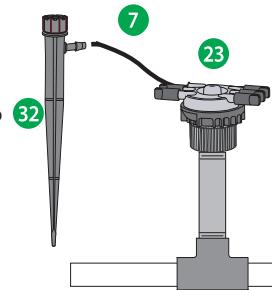
Installation Option 1

The Xeri-Spray 360° True Spray Spike combines a spray head with a 6 mm tubing stake for precise water placement. Simply connect the Xeri-Spray 360° True Spray Spike to 16 mm drip tubing via a barb connector. NOTE: The Xeri-Spray 360° True Spray Spike comes with its own barb connector.



Installation Option 2

Connect up to six Xeri-Spray 360° True Spray Spikes via 4-6 mm distribution tubing to a multi-outlet manifold (EMT-6X).



XS-90, XS-180, XS-360 SERIES

Adjustable Flow Sprays

- These sprays have a uniform emission pattern to provide excellent distribution. Adjustable flow/radius by turning integral ball valve. Ideal for ground cover and annual flower beds.



XS-090
Quarter Circle Spray



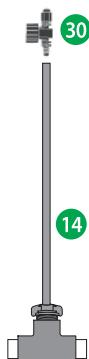
XS-180
Half Circle Spray



XS-360
Full Circle Spray

Installation Option 1

Use a 10-32 threaded spray with a PolyFlex Riser for point-source applications. Threaded emission devices on PolyFlex Risers are great for high foot traffic areas.



Installation Option 2

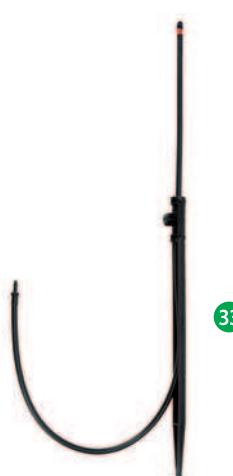
Use a threaded spray with a riser and stake combination. PFR/RS it is easier and faster.



JET SPYKE 310-90, 310-180, 310-360

Adjustable flow Spray on Spike

- This adjustable spray comes ready to install. Just punch it on the pipe. Ideal for flowers beds, ground cover and potted plants.



CONTROL ZONE

1 ESP MODULAR



- 230 V Controller.
- Modular from 4 and easily expand to 13 stations with the addition of 3-3/4" modules.
- 3 Programs. Up to 4 start ups per day per program.

2 RDS BEX



- Rain Sensor. Automatic rain shutoff prevents overwatering due to excessive precipitation.
- Works with all 24 VAC Controllers.
- Multiple rainfall settings from 32 to 20 mm.

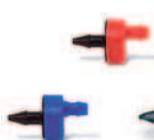
3 XCZ-100-PRF / XCZ-075-PRF



- $\frac{1}{2}$ " and 1" Control Zone Start Up Kit.
- The 3/4" include the LF valve which is unique in the market that can handle flows from 45 l/h. Provide right pressure (2 or 2.8 bars) and filtration (75 micron).
- Compact. More control kits in a valve box.

EMITTERS

4 XB PC



- Pressure compensating Self Piercing Emitters.
- Compatible with Xeriman™ Tool.
- Ideal for hedges, trees, shrubbery and potted plants.
- Out barb accepts $\frac{1}{4}$ " tubing.
- Pressure: 1.0-3.5 bar.
- Flow: 1.3-7.2 l/h.

5 PC-12, PC-18, PC-24



- Pressure Compensating Mock disc.
- Emitter with self piercing barb. Compatible with Xeriman™ Tool.
- Point-source medium flow emitters for watering shrubs and trees.
- Pressure: 0.7-3.5 bar.
- Flow: 37.8-90.0 l/h.



CONVERSION from SPRAYS to LOW VOLUME

6 RETROKIT AND XERI CAPS



- Kit to convert a spray zone to a low volume irrigation zone.
- Provides 2.1 bar pressure regulation and 75 micron screen filtration.
- Can be installed above or below grade.
- Flow: 0-50 l/h.
- Radius: 0-2 m.

OUTLET MANIFOLD

7 EMT-6X



- Six $\frac{1}{2}$ " outlet manifold for use with:
 - XB PC, PC modules,
 - Xeri Pop and bubblers,
 - $\frac{1}{2}$ " inlet thread,
 - Pressure: 1-3.5 bar.





DRILINE

9 C 12



- The most Flexible, kink resistant Pressure Compensated Inline Emitter.
- Pressure: 0.59-4.14 bar.
- Flow Rate: 2.3 l/h.
- Available in 33, 40, 50cm emitter spacing.

- Saw Teeth and last curve design to make stronger the insertion of the stake.
- Special end tip to stick the stake easily.
- Clip system to catch the pipe.

10 XFD Series

- Brown acetal Insert Fittings for XF Dripline.
- Two high barbs to ensure reliability without clamps.



MICRO SPRINKLERS and MICRO SPRAYS

11 XPCN Series



- Xeri-Pressure Compensating Nozzles (1.4-3.5 bar).
- For small areas with dense plantings.
- Unique spray pattern.
- Edge to edge capability.
- One nozzle throws up to 1.8 m or 1.2 m, 22.7, 45.4, and 90 degrees.
- Many installation options: polyflex, Spray head body, Xeri-Pop, PVC, or PE riser.

12 JET SPIKE



- Adjustable Flow Spray on Spike ready to install.
- Ideal for flower beds, ground cover, and potted plants.
- 1/2" pre mounted flexible PVC connection.
- Pressure: 0.5-2.5 bar.
- Flow: 0-130 l/h.
- Radius: 0-4.2 m.

13 XS-360TS-SPYK Adjustable Flow



- Micro-Spray on Spike ready to install.
- Ideal for mass plantings, ground cover, annual flower beds, and containers.
- Adjust flow radius by turning outer cap.
- Pressure: 1-2 bar.

14 XERIPOP



- The only pop-up spray to integrate a durable micro spray.
- Ideal for small odd-shaped planting beds.
- Can easily connect to 1/2", 3/4" Misting Male Inlet or to 1/2" Self Piercing Barb Connector.
- Flexibility of 1/2" tubing to locate a relocated as planting conditions dictate.

DRIP SYSTEM for TREES and SHRUBS

15 RWS



- Root watering system.
- Subsurface aeration and irrigation for trees and shrubs.
- Highest efficiency. Up to 94% distribution uniformity.

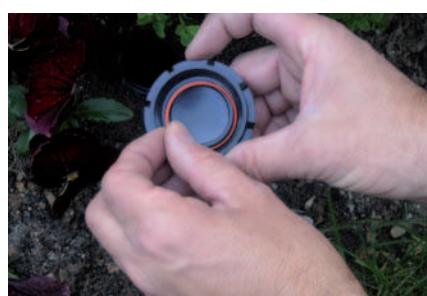
1800™ RETROFIT KIT

For 1800™ Spray Heads

- Permits convenient conversion from a 1800 spray installation to a low volume irrigation system. Retrokit provides 2.0 bars pressure and 75 micron screen filter. If retrofit flow is less than 680 l/h, replace the electric valve with a Rain Bird Low Flow Valve. Use 1800 Xericaps for capping off any unused spray head.



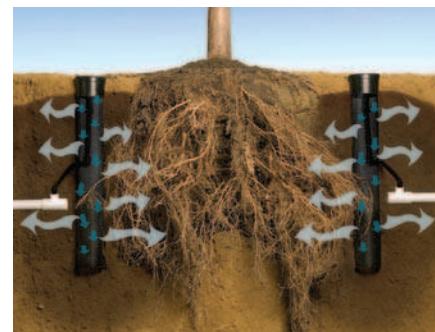
RETROFIT KIT



RWS SERIES

Root Watering System

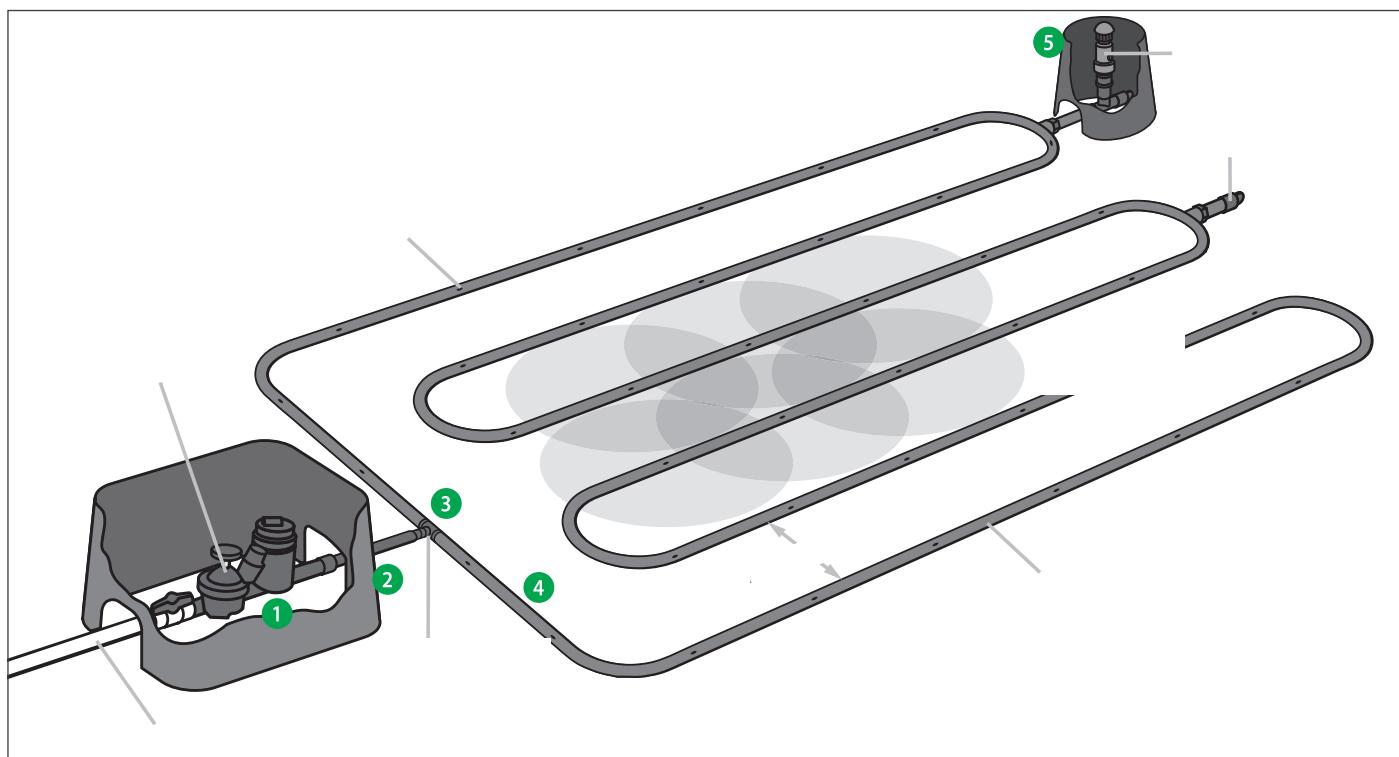
- RWS allows water and air to penetrate deeper into the soil profile. RWS encourages deeper rooting and so ensures tree and shrubs health, accelerated growth, more drought tolerant plants and better anchor.
- Prevent tree and shrubs transplant stress.



XF SERIES DRIPLINE

The most Flexible, kink resistant pressure Compensating inline emitter. Ideal for irrigating areas where traditional drip tubing is difficult to install.

- 25% more flexible than any other dripline in the market for fast easy installation, without kinking, allowing tighter turns with fewer elbows and stakes.
- Longer lateral runs than competitors so fewer components needed.



1. Control Zone Start Up Kits provide all the components necessary to control flow, pressure and filtration for a low volume irrigation zone. Most compact in the industry with the fewest parts for easy installation and maintenance.



2. XF Blank Tubing. Blank tubing to attach emitters, tubing or dripline.



3. XF Barb Fittings. Designed to ensure reliability of the pipe fitting even under hard working conditions.



4. XF Dripline. Inline compensated emitter tubing. XF Dripline is the easiest and fastest to work with.



5. Air Vacuum Relief Valve. To prevent vacuum suction of dirty water mainly in sub-surface installation. The valve allows air to escape the pipeline, thus preventing water hammer or blockage.



NARROW PLANTING BED NEXT TO A STRUCTURE

Combination Applications

Solution

XF Series Dripline Grid with Xeri-Bug Emitters

Advantages

- Up to 60% water savings due to zero wind loss
- XF Series Dripline is easy to install for labor savings
- No overspray damage to structures, fences or windows



Installation

XFD-23-33	XF Series Dripline 2.3 l/h @ 33 cm Spacing
XCZ-075-PRF	3/4" Control Zone Start-Up Kit
BF-XX Lock Series	Lock Type Fittings
OR	
XFD Series	XF Dripline 17mm Insert Fittings
C12	Tie Down Stake
XB XX*	Xeri-Bug Pressure Compensating Drip Emitters (1.33 to 7.20 l/h)
XQ Series	4-6 mm Distribution Tubing
TS-025	6 mm Tubing Stake
DCB-025	Diffuser Bug Cap

* Select appropriate emitter flow rate



XFD



XM TOOL



XB XX

TO DO LIST :

- Assemble Control Zone Kit and connect to water source.
- Cut lengths of XF Series Dripline to build grid in planting area.
- Connect lengths of XF Series Dripline to Lock Type Fittings (or XF Dripline fittings) to create grid.
- Connection to Control Kit.
- Stake XF Series Dripline grid in place.
- Punch self-piercing barb inlet of Xeri-Bug Emitters into XF Series Dripline, connect 4-6 mm tubing to barb outlet and run 4-6 mm tubing to larger plant.
- Stake tubing in place and attach Diffuser Bug Cap on the end.
- Flush system until clean water flows.
- Install planting material.

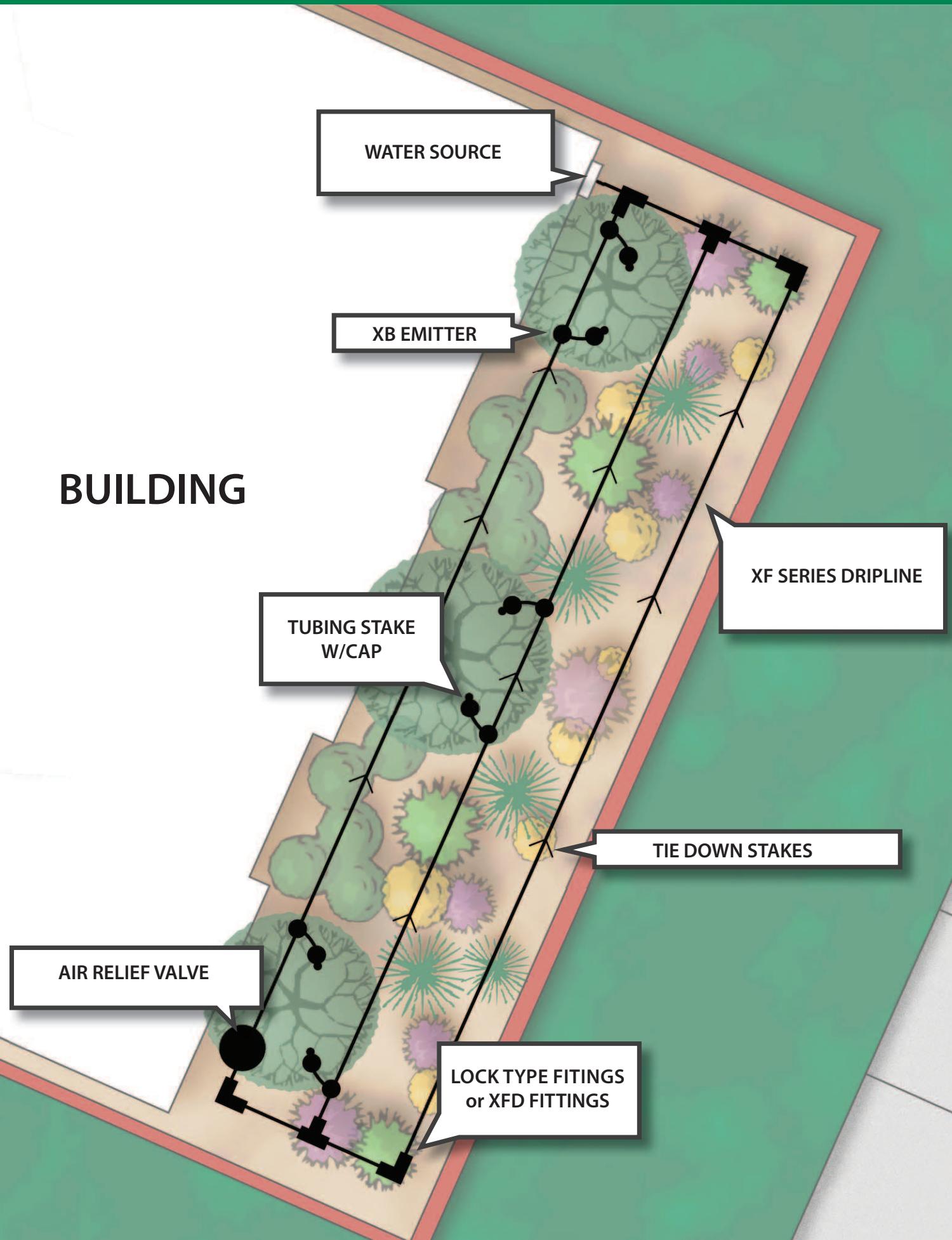
TIME: (approx.)

1 hr
10 min/15 meters
20 min/15 meters
5 min
5 min/3 meters
8 min/Emitter
3 min/Stake
2 min

INSTALLATION AND MAINTENANCE TIPS :

- Supplemental Xeri-Bug Emitters are placed next to larger plants with higher water requirements.
- Flush the zone upon installation and 2-4 times per year.
- Install Xeri-Bug Emitters with the Xeriman Tool (XM Tool) for 50% faster installation.
- Leave XF Series Dripline coil in the sun while preparing for installation.

BUILDING



PARKWAY AND WALKWAYS

Dense Applications

Solution

Xeri-Pops & XPCN Series Nozzles on a Poly Tubing Lateral

Advantages

- Precise square wetting pattern reduces overspray, overwatering, and runoff
- Up to 65% water savings due to efficient control of water placement with pressure compensation
- Adjustable radius in one unit makes design and installation simple
- Highest distribution uniformity in the industry for short radius nozzles



Installation

XCZ 075-PRF	3/4" Control Zone Start-Up Kit
XP-XXX	Desired Xeri-Pop Pop-up Height
XPCN-XXX*	XPCN Series Nozzles
XQ Series	4-6 mm Distribution Tubing
SPB-025	Self Piercing Barb Connector for 16 mm tubing

* Half, full, or quarter nozzles as needed for planting bed



XPCN NOZZLES

TO-DO LIST:

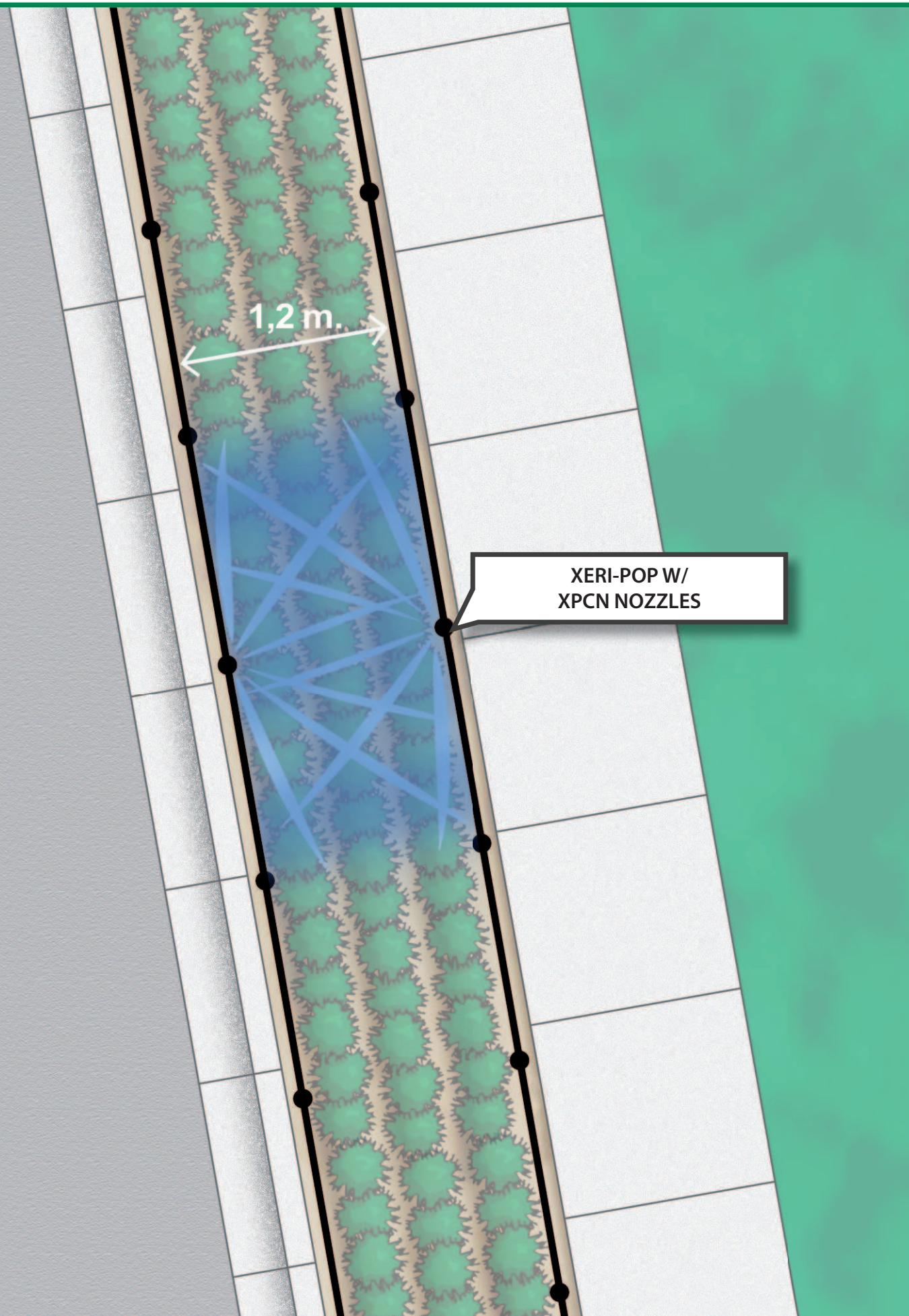
- Trench beds (5-15 cm. deep), cut and lay out Xeri Black Stripe Poly Tubing.
- Punch Self Piercing Barb Connector into Tubing laterals.
- Attach 4-6 mm tubing to outlet barb and run 4-6 mm tubing to edge of bed.
- Connect 4-6 mm tubing to inlet barb on Xeri-Pop. Dig small hole (10 cm. wide x pop up depth) for Xeri-Pop.
- Determine desired watering pattern and pick appropriate XPCN Series Nozzle.
- Grasp orange pull ring on top of Xeri-Pop and pull stem up exposing thread area for nozzle. Drop 30-mesh screen into stem and thread nozzle onto stem.
- Drop Xeri-Pop into hole so the cap is at grade. Fill in dirt around Xeri-Pop so the body is supported in the soil and exit port for nozzle is in the correct position.
- Flush lines until clean water flows and install planting material.

TIME: (approx.)
30 min/15 meters
10 min/6 meters
15 min/ Xeri-Pop
5 min/Nozzle
3 min/Nozzle
10 min/ Xeri-Pop
2 min

INSTALLATION AND MAINTENANCE TIPS :

- For seasonal replanting, lift Xeri-Pops out of ground and lay aside.
- Do not disconnect the 4-6 mm tubing.
- After replanting, reinstall the Xeri-Pops in the planting area.
- Operate Xeri-Pops at 2.8 bar for optimal performance.

TIP: With a simple turn of the nozzle to the next preset stop, the XPCN Series Nozzle adjusts from a 0.8 to a 1.2 meter throw. All nozzles in the same zone must be adjusted to the same throw.



SLOPES

Dense or Combination Applications

Solution

XF Series Dripline Grid with Xeri-Bug Emitters

Advantages

- Up to 60% water savings due to zero wind loss
- Low maintenance results in labor savings
- No runoff = reduced liability in high traffic areas
- XF Dripline is easy to install, resulting in labor saving



Installation

XFD-23-33	XF Series Dripline 2.3 l/h @ 33cm spacing
XCZ-100-PRF	1" Control Zone Start-Up Kit
AR Valve Kit	Air Relief Valve Kit
BF-XX Lock Series	Lock Type Fittings
OR	
XFD Series	XF Dripline 17mm Insert Fittings
XB XX*	Xeri-Bug Pressure Compensating Drip Emitters (1.33 to 7.20 l/h)
XQ Series	4-6 mm Distribution Tubing
TS-025	6 mm Tubing Stake
C12	Tie Down Stake
XM Tool	Xeriman Installation Tool
DCB-025	Diffuser Bug Cap



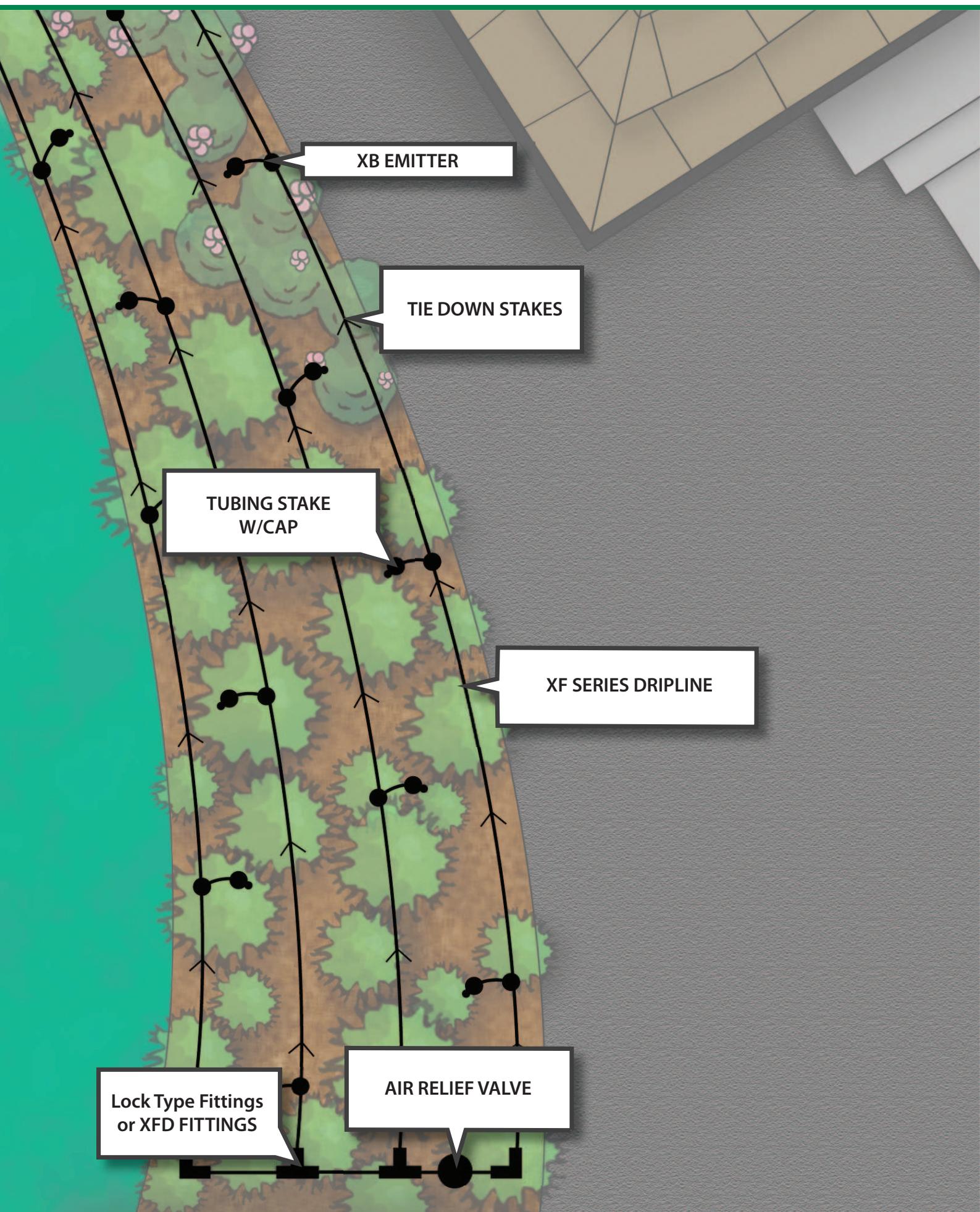
* Select appropriate emitter flow rate

TO DO LIST :

- Assemble Control Zone Kit and connect to water source. | TIME: (approx.)
- Connection to Control Kit. | 1 hr
- Cut lengths of XF Series Dripline to assemble grid in planting area. | 5 min
- Connect lengths of XF Series Dripline to Lock Type Fittings (or use XF Dripline fittings) to create grid. Add Air Relief Valve Kit to the zone. | 10 min/15 meters
- Insert Xeri-Bug Emitters into XF Series Dripline to provide supplemental watering for larger plants. | 25 min/15 meters
- Stake XF Series Dripline grid in place and flush until clean water flows. | 3 min/Emitter
- Install planting material. | 5 min/3 meters

INSTALLATION AND MAINTENANCE TIPS :

- Supplemental Xeri-Bug Emitters are placed next to larger plants with higher water requirements.
- Flush the zone upon installation and 2-4 times per year.
- Install AR Valve Kit at high point in the system.
- Leave XF Series Dripline coil in the sun while preparing for installation.
- Use the Xeriman Tool to install the emitters into XF Series Dripline.



FLOWER BED

Combination Applications

XF Series Dripline Grid with Xeri-Bug Emitters

- Up to 60% water savings due to zero wind loss
- Low maintenance results in labor savings
- No runoff = reduced liability in high traffic areas
- XF Dripline is easy to install, resulting in labor savings



Installation

XFD-23-33	XF Series Dripline 2.3 l/h @ 33 cm spacing
XCZ-075-PRF	3/4" Control Zone Start-Up Kit
BF-XX Lock Series	Lock Type Fittings.
XFD Series	XF Dripline 17 mm Insert Fittings
C12	Tie Down Stake
XB XX*	Xeri-Bug Pressure Compensating Drip Emitters (1.33 to 7.20 l/h)
XQ Series	4-6 mm Distribution Tubing
TS-025	6 mm Tubing Stake
DCB-025	Diffuser Bug Cap



XFD



XM TOOL



XB XX

* Select appropriate emitter flow rate

TO DO LIST :

- Assemble Control Zone Kit and connect to water source.
- Cut lengths of XF Series Dripline to build grid in planting area.
- Connect lengths of XF Series Dripline to Lock Type Fittings (or used XF Dripline Fittings) to create grid.
- Connection to Control Zone Kit
- Stake XF Series Dripline grid in place.
- Punch self-piercing barb inlet of Xeri-Bug Emitters into XF Series Dripline, connect 4-6 mm tubing to barb outlet and run 4-6 mm tubing to larger plant.
- Stake tubing in place and attach Diffuser Bug Cap on the end.
- Flush system until clean water flows.
- Install planting material.

TIME: (approx.)

1 hr
10 min/15 meters
20 min/15 meters
5 min
5 min/3 meters
8 min/Emitter
3 min/Stake
2 min

INSTALLATION AND MAINTENANCE TIPS :

- Supplemental Xeri-Bug Emitters are placed next to larger plants with higher water requirements.
- Flush the zone upon installation and 2-4 times per year.
- Install Xeri-Bug Emitters with the Xeriman Tool (XM Tool) for 50% faster installation.
- Leave XF Series Dripline coil in the sun while preparing for installation.

