



2013 Europe Irrigation Association  
Award Silver medal

**XFS DRIPLINE FOR  
SUB-SURFACE  
APPLICATIONS**



**XFS**  
SUB-SURFACE

Rain Bird's XFS Sub-surface Dripline with Copper Shield™ Technology is the first sub-surface dripline to effectively protect the emitter from root intrusion without the use of Trifluralin. Copper Shield™ Technology is the environmentally-responsible alternative to chemical inhibitors, meaning that XFS can also be used for certified organic growing.

XFS can be used on turf grass or shrub and groundcover areas. It's also perfect for small, narrow and tight planting areas, as well as areas with tight curves or many switchbacks. It accepts Rain Bird Easy Fit Compression Fittings, XF Dripline Barbed Insert Fittings and other 17 mm barbed insert fittings.



**WATER EFFICIENT**

Expands use of sub-surface irrigation which can be 90% efficient, resulting in up to 70% water savings.

**RELIABLE**

Grit tolerant emitter resists clogging by use of an extra-wide flow path combined with a self-flushing action.

**INNOVATIVE**

Ground-breaking solution to root intrusion with patent-pending Copper Shield™ Technology.

**ORGANIC**

Environmentally responsible solution to root intrusion without the use of harsh chemicals.



### Applications

Rain Bird® XFS Dripline with Copper Shield™ Technology for subsurface drip irrigation is the latest innovation in the Rain Bird Xerigation® Family. Rain Bird's patent-pending Copper Shield™ protects the emitter from root intrusion, creating a long-lasting, low-maintenance, subsurface drip irrigation system for use under turf grass or shrub and groundcover areas. XFS Dripline with Copper Shield™ is perfect for small, narrow and tight planting areas, as well as areas with tight curves or turf of any size. It accepts XF Dripline Barbed Insert Fittings and other 17 mm barbed insert fittings.

### Features

#### Simple

- Rain Bird's patent pending Copper Shield™ Technology protects the emitter from root intrusion without requiring EPA-approved handling procedures, unlike some manufacturers who use harsh chemicals or treated filters to protect the emitter from root intrusion.
- Through the use of a proprietary tubing material, XFS Dripline with Copper Shield™ is the most flexible dripline tubing in the industry, making it the easiest subsurface dripline to design with and install.
- It accepts XF Dripline Barbed Insert Fittings and other 17 mm barbed insert fittings.
- Rain Bird's low-profile flat emitter design reduces in-line pressure loss, allowing longer lateral runs, simplifying design and reducing installation time.
- Variety of emitter flow rates, emitter spacing and coil lengths provides design flexibility for either sub-surface turf grass or sub-surface shrub and groundcover applications.

#### Reliable

- XFS with Copper Shield™ emitters are protected from root intrusion by Rain Bird's patent-pending Copper Shield™ Technology, resulting in a system that does not require maintenance or replacement of chemicals to prevent root intrusion.
- The pressure-compensating emitter design provides consistent flow over the entire lateral length, ensuring higher uniformity, for increased reliability in the pressure range of 0.58 to 4.14 bar.

#### Durable

- Dual-layered tubing (copper color over black) provides unmatched resistance to chemicals, algae growth and UV damage.
- Grit Tolerant: Rain Bird's proprietary emitter design resists clogging by use of an extra-wide flow path combined with a self-flushing action.

#### Operating Range

- Pressure: .58 to 4.14 bar
- Flow rates: 2.3 l/hr
- Temperature:
  - Water: Up to 37.8° C
  - Ambient: Up to 51.7° C
- Required Filtration: 120 microns

#### Specifications

- OD: 16mm
- ID: 13.61mm
- Thickness: 1.25mm

**XFS DRIPLINE**  
WITH COPPER SHIELD™  
TECHNOLOGY

- Available in 100m
- Coil Color: Copper or purple

#### Models

- XFS-23-33-100
- XFS-23-50-100
- XFSV-23-33-100



TABLE 7: LATERAL RUN LENGTHS

Inlet Pressure Bar	Maximum Lateral Length (Meters)	
	33 cm Spacing	50 cm Spacing
1	79	100
1.7	104	129
2.4	121	152
3.1	126	162
3.8	147	169

\* When using 17mm insert fittings with design pressure over 3.5 bar, it is recommended that stainless steel clamps be installed on each fitting.