



Old Marsh Golf Club

## Landscape Solutions

***Specialized Solutions for Every Application.***

Rain Bird offers many landscape irrigation solutions that manage water responsibly while promoting the growth of healthy, stress-free plants and grass areas. From seals and filters that protect your system from debris to materials specially engineered to withstand harsh chemicals, these products are built to a standard the competition can't match.





**Customized Coverage for Landscapes—and More**

Offering a full range of sizes and options, Rain Bird® sprays, rotors and drip irrigation products provide a solution for every irrigation challenge. Whether you're watering flower beds or taking a precise new approach to tee boxes, Rain Bird has you covered.





## RD1800™ Series Spray Heads

### FEATURES

- Patented Triple-Blade Wiper Seal precisely balances flushing, flow-by and debris protection to optimize performance and durability at pop-up and retraction, clearing debris and ensuring positive stem retraction in all soil types.
- Unique debris pockets hold grit in place, removing it from circulation and preventing long-term damage.
- Parts resistant to corrosion for use in treated recycle water containing chlorine.

### RD1800 SAM PRS Series

Incorporates all RD1800 Series SAM and PRS features. Meets the needs of all spray areas, regardless of changing elevation or water pressures.

### RD1800 Flow-Shield™ Series

Provides low flow vertical water jet visible from +200' line of sight when a nozzle has been removed.

### RD1800 Non-Potable Water Series

Provides an alternative to clip-on caps and molded purple covers. Easy-to-read English "DO NOT DRINK" and Spanish "NO BEBA" warnings and international do not drink symbol.

### SPECIFICATIONS

#### Operating Range:

**Spacing:** 2.5' to 24' (0.8 m to 7.3 m)

**Pressure:** 15 to 100 psi (1.0 to 6.9 bar)

#### Dimensions:

**RD04 Series:** 4" (10.2 cm) pop-up height; 6" (15.0 cm) body height

**RD06 Series:** 6" (15.0 cm) pop-up height; 9 3/8" (23.8 cm) body height

**RD12 Series:** 12" (30.5 cm) pop-up height; 16" (40.6 cm) body height

**Inlet:** 1/2" (15/21) NPT female threaded

**SAM Capability:** Holds up to 14 feet (4.2 m) of head; 6 psi (0.3 bar)

#### Flow-By:

**SAM Models:** 0 at 15 psi (1.0 bar) or greater; 0.5 gpm (0.03 l/s; 0.1 m³/h) otherwise

**All Other Models:** 0 at 10 psi (0.7 bar) or greater; 0.5 gpm (0.03 l/s; 0.1 m³/h) otherwise

**Pressure Regulation:** SAM-PRS models regulate to an average 30 or 45 psi (2.1 or 3.1 bar) with inlet pressures of up to 100 psi (6.9 bar)

**Side Inlets:** SAM models only

**Warranty:** 5-year trade warranty

### Models

| 4"                | 6"                | 12"               |
|-------------------|-------------------|-------------------|
| RD-04             | —                 | —                 |
| RD-04-NP          | —                 | —                 |
| RD-04-S-P-30      | RD-06-S-P-30      | RD-12-S-P-30      |
| RD-04-S-P-30-NP   | RD-06-S-P-30-NP   | RD-12-S-P-30-NP   |
| RD-04-S-P-30-F    | RD-06-S-P-30-F    | RD-12-S-P-30-F    |
| RD-04-S-P-30-F-NP | RD-06-S-P-30-F-NP | RD-12-S-P-30-F-NP |
| RD-04-S-P-45-NP   | RD-06-S-P-45-NP   | RD-12-S-P-45-NP   |
| RD-04-S-P-45-F    | RD-06-S-P-45-F    | RD-12-S-P-45-F    |
| RD-04-S-P-45-F-NP | RD-06-S-P-45-F-NP | RD-12-S-P-45-F-NP |

### HOW TO SPECIFY

| RD-XX  | - | X(XX)   | - | Nozzle   |
|--|---|---|---|--|
| <b>POP-UP HEIGHT</b><br>04 = 4" (10.2 cm)<br>06 = 6" (15.0 cm)<br>12 = 12" (30.5 cm) |   | <b>OPTIONAL FEATURES</b><br>S = SAM<br>P-30 = 30 psi (2.1 bar) in-stem pressure regulation<br>P-45 = 45 psi (3.1 bar) in-stem pressure regulation<br>F = Flow-Shield™ technology<br>NP = Non-potable water use indicating cover |   | <b>COMPATIBLE NOZZLES</b><br>See Rotary Nozzle, U-Series and HE-VAN<br>Nozzle specifications for more information. |

Flow-Shield™ Technology available in P30 and P45 models only. Specify sprinkler bodies and nozzles separately.



## 1800® Series Spray Heads

### FEATURES

- Co-molded wiper seal provides unmatched resistance to grit, pressures and the environment.
- Constructed of time-proven UV-resistant plastic and corrosion-resistant stainless steel parts, ensuring long product life.
- Precision-controlled flush at pop-down clears debris from unit, assuring positive stem retraction in all soil types.
- Two-piece ratchet mechanism allows easy nozzle patter alignment and provides added durability.

### 1800 PRS Series

PRS pressure regulator built into the stem maintains a constant outlet pressure of 30 psi (2.1 bar). Eliminates misting and fogging caused by high pressure.

### 1800 SAM Series

Built-in Seal-A-Matic™ (SAM) check valve eliminates the need for under-the-head check valves. Traps water in lateral pipes in elevation changes of up to 14 ft (4.2 m).

### 1800 SAM PRS Series

Incorporates all 1800 Series SAM and PRS features. Meets the needs of all spray areas, regardless of changing elevation or water pressures.

### 1800 SAM-P45 Series

Maintains a constant outlet pressure of 45 psi (3.1 bar) at varying inlet pressures. Maintains constant pressure regardless of nozzle used.

### SPECIFICATIONS

#### Operating Range:

**Spacing:** 2.5' to 24' (0.8 m to 7.3 m)\*

**Pressure:** 15 to 70 psi (1.0 to 4.8 bar)

#### Dimensions:

**1802 Series:** 2" (5.1 cm) pop-up height; 4" (10.2 cm) body height

**1804 Series:** 4" (10.2 cm) pop-up height; 6" (15.0 cm) body height

**1806 Series:** 6" (15.0 cm) pop-up height; 9 3/8" (23.8 cm) body height

**1812 Series:** 12" (30.5 cm) pop-up height; 16" (40.6 cm) body height

**Inlet:** 1/2" (15/21) NPT female threaded

**Exposed Surface Diameter:** 2 1/4" (5.7 cm)

**SAM Capability:** Holds up to 14 feet (4.2 m) of head; 6 psi (0.3 bar)

**Flow-By:** 0 gpm at 8 psi (0.6 bar) or greater; 0.10 gpm (0.36 l/m; 0.02 m³/h) otherwise

**Pressure Regulation:** SAM-PRS models regulate to an average 30 or 45 psi (2.1 or 3.1 bar) with inlet pressures of up to 70 psi (4.8 bar)

**Side Inlets:** SAM models only

**Warranty:** 5-year trade warranty

### HOW TO SPECIFY

| 18XX                 | - | XXX                            | - | XXX                             |
|----------------------|---|--------------------------------|---|---------------------------------|
| <b>POP-UP HEIGHT</b> |   | <b>OPTIONAL FEATURE</b>        |   | <b>OPTIONAL FEATURE</b>         |
| 02 = 2" (5.1 cm)     |   | SAM = Seal-A-Matic check valve |   | PRS = Pressure regulator        |
| 04 = 4" (10.2 cm)    |   | PRS = Pressure regulator       |   | P45 = 45 psi pressure regulator |
| 06 = 6" (15.0 cm)    |   |                                |   |                                 |
| 12 = 12" (30.5 cm)   |   |                                |   |                                 |





## R-VAN Rotary Nozzles

### FEATURES

- Adjust arc and radius without tools.
- Color-coded for easy identification.
- Low precipitation rate reduces run-off and erosion.
- Maintains efficient performance at high operating pressures without misting or fogging.
- Exclusive manual flush makes it easy to clear dirt and debris in seconds.
- Compatible with all models of Rain Bird spray bodies in addition to a wide variety of risers and adapters.
- Matched precipitation rates across radius and arcs simplify the design process and enable large and small turf areas to be zoned together by mixing R-VAN, R-Series and 5000 Series Rotors with the MPR nozzle set.



### SPECIFICATIONS

#### Models:

**8' to 14' (2.4 m to 4.6 m)**

**R-VAN14:** Blue top, 45° – 270° Adjustable Arc

**R-VAN14-360:** Blue top, 360° Full-Circle

**13' to 18' (4.0 m to 5.5 m)**

**R-VAN18:** 45° to 270° Adjustable Arc

**R-VAN18-360:** 360° Full-Circle

**17' to 24' (5.2 m to 7.3 m)**

**R-VAN24:** 45° to 270° Adjustable Arc

**R-VAN24-360:** 360° Full-Circle

#### Strip Nozzles

**R-VAN-LCS:** 5' x 15' (1.5 m x 4.6 m) Left Corner Strip

**R-VAN-RCS:** 5' x 15' (1.5 m x 4.6 m) Right Corner Strip

**R-VAN-SST:** 5' x 30' (1.5 m x 9.1 m) Side Strip

**Pressure Range:** 30 to 55 psi (2.1 to 3.8 bar)

**Recommended Operating Pressure:** 45 psi (3.1 bar)\*

**Spacing:** 8' to 24' (2.4 m to 7.3 m)

**Adjustments:** Arc and radius should be adjusted while water is running

**Warranty:** 3-year trade warranty



### HOW TO SPECIFY

| R-VAN                              | – | XX(X)-XXX  |
|------------------------------------|---|--|
| <b>MODEL</b>                       |   | <b>RADIUS RANGE / ARC</b>                                    |
| R-VAN = Rotary Variable Arc Nozzle |   | 14 = 8' to 14' (2.4 m to 4.6 m)<br>45° to 270° Variable Arc  |
|                                    |   | 14-360 = 8' to 14' (2.4 m to 4.6 m)<br>360° Full-Circle      |
|                                    |   | 18 = 13' to 18' (4.0 m to 5.5 m)<br>45° to 270° Variable Arc |
|                                    |   | 18-360 = 13' to 18' (4.0 m to 5.5 m)<br>360° Full-Circle     |
|                                    |   | 24 = 17' to 24' (5.2 m to 7.3 m)<br>45° to 270° Variable Arc |
|                                    |   | 24-360 = 17' to 24' (5.2 m to 7.3 m)<br>360° Full-Circle     |
|                                    |   | LCS = 5' x 15' (1.5 m x 4.6 m)                               |
|                                    |   | RCS = 5' x 15' (1.5 m x 4.6 m)                               |
|                                    |   | SST = 5' x 30' (1.5 m x 9.1 m)                               |



### U.S. Performance Data

| R-VAN14 ADJUSTABLE ARC NOZZLES |          |      |      |      |      |      |          |      |      |      |      |      |          |      |      |      |      |      |         |      |      |      |      |      |  |  |  |
|--------------------------------|----------|------|------|------|------|------|----------|------|------|------|------|------|----------|------|------|------|------|------|---------|------|------|------|------|------|--|--|--|
|                                | 270° Arc |      |      |      |      |      | 210° Arc |      |      |      |      |      | 180° Arc |      |      |      |      |      | 90° Arc |      |      |      |      |      |  |  |  |
| Pressure (psi)                 | 30       | 35   | 40   | 45   | 50   | 55   | 30       | 35   | 40   | 45   | 50   | 55   | 30       | 35   | 40   | 45   | 50   | 55   | 30      | 35   | 40   | 45   | 50   | 55   |  |  |  |
| Radius (ft)                    | 13       | 13   | 14   | 14   | 15   | 15   | 13       | 13   | 14   | 14   | 15   | 15   | 13       | 13   | 14   | 14   | 15   | 15   | 13      | 13   | 14   | 14   | 15   | 15   |  |  |  |
| Flow (gpm)                     | 0.84     | 0.87 | 0.92 | 0.94 | 1.11 | 1.17 | 0.65     | 0.68 | 0.72 | 0.73 | 0.86 | 0.91 | 0.56     | 0.58 | 0.61 | 0.63 | 0.74 | 0.78 | 0.28    | 0.29 | 0.31 | 0.31 | 0.37 | 0.39 |  |  |  |
| ■ Precipitation (in/h)         | 0.64     | 0.66 | 0.62 | 0.60 | 0.63 | 0.67 | 0.64     | 0.66 | 0.60 | 0.62 | 0.63 | 0.67 | 0.64     | 0.66 | 0.62 | 0.60 | 0.63 | 0.67 | 0.64    | 0.66 | 0.62 | 0.60 | 0.63 | 0.67 |  |  |  |
| ▲ Precipitation (in/h)         | 0.74     | 0.76 | 0.71 | 0.70 | 0.73 | 0.77 | 0.64     | 0.66 | 0.60 | 0.62 | 0.63 | 0.67 | 0.74     | 0.76 | 0.71 | 0.70 | 0.73 | 0.77 | 0.74    | 0.76 | 0.71 | 0.70 | 0.73 | 0.77 |  |  |  |

### Metric Performance Data

| R-VAN14 ADJUSTABLE ARC NOZZLES |          |     |     |     |     |     |          |     |     |     |     |     |          |     |     |     |     |     |         |     |     |     |     |     |  |  |  |
|--------------------------------|----------|-----|-----|-----|-----|-----|----------|-----|-----|-----|-----|-----|----------|-----|-----|-----|-----|-----|---------|-----|-----|-----|-----|-----|--|--|--|
|                                | 270° Arc |     |     |     |     |     | 210° Arc |     |     |     |     |     | 180° Arc |     |     |     |     |     | 90° Arc |     |     |     |     |     |  |  |  |
| Pressure (bar)                 | 2.1      | 2.4 | 2.8 | 3.1 | 3.4 | 3.8 | 2.1      | 2.4 | 2.8 | 3.1 | 3.4 | 3.8 | 2.1      | 2.4 | 2.8 | 3.1 | 3.4 | 3.8 | 2.1     | 2.4 | 2.8 | 3.1 | 3.4 | 3.8 |  |  |  |
| Radius (m)                     | 4.0      | 4.0 | 4.3 | 4.3 | 4.6 | 4.6 | 4.0      | 4.0 | 4.3 | 4.3 | 4.6 | 4.6 | 4.0      | 4.0 | 4.3 | 4.3 | 4.6 | 4.6 | 4.0     | 4.0 | 4.3 | 4.3 | 4.6 | 4.6 |  |  |  |
| Flow (l/m)                     | 3.2      | 3.3 | 3.6 | 3.5 | 4.2 | 4.4 | 2.5      | 2.6 | 2.7 | 2.8 | 3.3 | 3.4 | 2.1      | 2.2 | 2.4 | 2.3 | 2.8 | 3.0 | 1.1     | 1.1 | 1.2 | 1.2 | 1.4 | 1.5 |  |  |  |
| ■ Precipitation (mm/h)         | 16       | 17  | 16  | 15  | 16  | 17  | 16       | 17  | 15  | 16  | 16  | 17  | 16       | 17  | 16  | 15  | 16  | 17  | 16      | 17  | 16  | 15  | 16  | 17  |  |  |  |
| ▲ Precipitation (mm/h)         | 19       | 19  | 18  | 18  | 19  | 20  | 19       | 19  | 18  | 18  | 19  | 20  | 19       | 19  | 18  | 18  | 19  | 20  | 19      | 19  | 18  | 18  | 19  | 20  |  |  |  |

### U.S. Performance Data

| R-VAN14-360 FULL-CIRCLE NOZZLES |          |      |      |      |      |      |
|---------------------------------|----------|------|------|------|------|------|
|                                 | 360° Arc |      |      |      |      |      |
| Pressure (psi)                  | 30       | 35   | 40   | 45   | 50   | 55   |
| Radius (ft)                     | 13       | 13   | 14   | 14   | 15   | 15   |
| Flow (gpm)                      | 1.1      | 1.1  | 1.2  | 1.3  | 1.4  | 1.5  |
| ■ Precipitation (in/h)          | 0.63     | 0.64 | 0.60 | 0.62 | 0.60 | 0.62 |
| ▲ Precipitation (in/h)          | 0.72     | 0.74 | 0.69 | 0.72 | 0.70 | 0.72 |

### Metric Performance Data

| R-VAN14-360 FULL-CIRCLE NOZZLES |          |     |     |     |     |     |
|---------------------------------|----------|-----|-----|-----|-----|-----|
|                                 | 360° Arc |     |     |     |     |     |
| Pressure (bar)                  | 2.1      | 2.4 | 2.8 | 3.1 | 3.4 | 3.8 |
| Radius (m)                      | 4.0      | 4.0 | 4.3 | 4.3 | 4.6 | 4.6 |
| Flow (l/m)                      | 4.2      | 4.2 | 4.6 | 4.8 | 5.3 | 5.5 |
| ■ Precipitation (mm/h)          | 16       | 16  | 15  | 16  | 15  | 16  |
| ▲ Precipitation (mm/h)          | 18       | 19  | 18  | 18  | 18  | 18  |

8' to 14' | 2.4 m to 4.6 m



R-VAN14 | 45° – 270°

R-VAN14-360 | 360°

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### U.S. Performance Data

| R-VAN18 ADJUSTABLE ARC NOZZLES |          |      |      |      |      |      |          |      |      |      |      |      |          |      |      |      |      |      |         |      |      |      |      |      |  |  |  |
|--------------------------------|----------|------|------|------|------|------|----------|------|------|------|------|------|----------|------|------|------|------|------|---------|------|------|------|------|------|--|--|--|
|                                | 270° Arc |      |      |      |      |      | 210° Arc |      |      |      |      |      | 180° Arc |      |      |      |      |      | 90° Arc |      |      |      |      |      |  |  |  |
| Pressure (psi)                 | 30       | 35   | 40   | 45   | 50   | 55   | 30       | 35   | 40   | 45   | 50   | 55   | 30       | 35   | 40   | 45   | 50   | 55   | 30      | 35   | 40   | 45   | 50   | 55   |  |  |  |
| Radius (ft)                    | 16       | 16   | 17   | 17   | 18   | 18   | 16       | 16   | 17   | 17   | 18   | 18   | 16       | 16   | 17   | 17   | 18   | 18   | 16      | 16   | 17   | 17   | 18   | 18   |  |  |  |
| Flow (gpm)                     | 1.26     | 1.35 | 1.42 | 1.51 | 1.57 | 1.62 | 0.98     | 1.05 | 1.10 | 1.17 | 1.22 | 1.26 | 0.85     | 0.91 | 0.98 | 1.01 | 1.07 | 1.09 | 0.42    | 0.47 | 0.50 | 0.50 | 0.54 | 0.58 |  |  |  |
| ■ Precipitation (in/h)         | 0.65     | 0.64 | 0.63 | 0.64 | 0.60 | 0.60 | 0.63     | 0.68 | 0.63 | 0.64 | 0.62 | 0.64 | 0.65     | 0.64 | 0.63 | 0.64 | 0.60 | 0.60 | 0.65    | 0.64 | 0.63 | 0.64 | 0.60 | 0.60 |  |  |  |
| ▲ Precipitation (in/h)         | 0.75     | 0.74 | 0.73 | 0.73 | 0.69 | 0.69 | 0.73     | 0.78 | 0.73 | 0.77 | 0.72 | 0.74 | 0.75     | 0.74 | 0.73 | 0.73 | 0.69 | 0.69 | 0.75    | 0.74 | 0.73 | 0.73 | 0.69 | 0.69 |  |  |  |

### Metric Performance Data

| R-VAN18 ADJUSTABLE ARC NOZZLES |          |      |      |      |      |      |          |      |      |      |      |      |          |      |      |      |      |      |         |      |      |      |      |      |  |  |  |
|--------------------------------|----------|------|------|------|------|------|----------|------|------|------|------|------|----------|------|------|------|------|------|---------|------|------|------|------|------|--|--|--|
|                                | 270° Arc |      |      |      |      |      | 210° Arc |      |      |      |      |      | 180° Arc |      |      |      |      |      | 90° Arc |      |      |      |      |      |  |  |  |
| Pressure (bar)                 | 2.1      | 2.4  | 2.8  | 3.1  | 3.4  | 3.8  | 2.1      | 2.4  | 2.8  | 3.1  | 3.4  | 3.8  | 2.1      | 2.4  | 2.8  | 3.1  | 3.4  | 3.8  | 2.1     | 2.4  | 2.8  | 3.1  | 3.4  | 3.8  |  |  |  |
| Radius (m)                     | 4.9      | 4.9  | 5.2  | 5.2  | 5.5  | 5.5  | 4.9      | 4.9  | 5.2  | 5.2  | 5.5  | 5.5  | 4.9      | 4.9  | 5.2  | 5.2  | 5.5  | 5.5  | 4.9     | 4.9  | 5.2  | 5.2  | 5.5  | 5.5  |  |  |  |
| Flow (l/m)                     | 4.77     | 5.11 | 5.38 | 5.72 | 5.94 | 6.13 | 3.71     | 3.97 | 4.16 | 4.43 | 4.62 | 4.77 | 3.22     | 3.44 | 3.71 | 3.82 | 4.05 | 4.13 | 1.59    | 1.78 | 1.89 | 1.89 | 2.04 | 2.20 |  |  |  |
| ■ Precipitation (mm/h)         | 17       | 16   | 16   | 16   | 15   | 15   | 16       | 17   | 16   | 16   | 16   | 16   | 17       | 16   | 16   | 16   | 15   | 15   | 17      | 16   | 16   | 16   | 15   | 15   |  |  |  |
| ▲ Precipitation (mm/h)         | 19       | 19   | 18   | 18   | 18   | 18   | 19       | 20   | 19   | 20   | 18   | 19   | 19       | 19   | 18   | 18   | 18   | 18   | 19      | 19   | 18   | 18   | 18   | 18   |  |  |  |

### U.S. Performance Data

| R-VAN18-360 FULL-CIRCLE NOZZLES |          |      |      |      |      |      |
|---------------------------------|----------|------|------|------|------|------|
|                                 | 360° Arc |      |      |      |      |      |
| Pressure (psi)                  | 30       | 35   | 40   | 45   | 50   | 55   |
| Radius (ft)                     | 16       | 16   | 17   | 17   | 18   | 18   |
| Flow (gpm)                      | 1.65     | 1.67 | 1.80 | 1.85 | 2.05 | 2.11 |
| ■ Precipitation (in/h)          | 0.62     | 0.63 | 0.60 | 0.62 | 0.61 | 0.63 |
| ▲ Precipitation (in/h)          | 0.72     | 0.73 | 0.69 | 0.71 | 0.70 | 0.72 |

### Metric Performance Data

| R-VAN18-360 FULL-CIRCLE NOZZLES |          |      |      |      |      |      |
|---------------------------------|----------|------|------|------|------|------|
|                                 | 360° Arc |      |      |      |      |      |
| Pressure (bar)                  | 2.1      | 2.4  | 2.8  | 3.1  | 3.4  | 3.8  |
| Radius (m)                      | 4.9      | 4.9  | 5.2  | 5.2  | 5.5  | 5.5  |
| Flow (l/m)                      | 6.25     | 6.32 | 6.81 | 7.00 | 7.76 | 7.99 |
| ■ Precipitation (mm/h)          | 16       | 16   | 15   | 16   | 15   | 16   |
| ▲ Precipitation (mm/h)          | 18       | 19   | 18   | 18   | 18   | 18   |

13' to 18' | 4.0 m to 5.5 m



R-VAN18 | 45° – 270°

R-VAN18-360 | 360°

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### U.S. Performance Data

| R-VAN24 ADJUSTABLE ARC NOZZLES |          |      |      |      |      |      |          |      |      |      |      |      |          |      |      |      |      |      |         |      |      |      |      |      |
|--------------------------------|----------|------|------|------|------|------|----------|------|------|------|------|------|----------|------|------|------|------|------|---------|------|------|------|------|------|
|                                | 270° Arc |      |      |      |      |      | 210° Arc |      |      |      |      |      | 180° Arc |      |      |      |      |      | 90° Arc |      |      |      |      |      |
| Pressure (psi)                 | 30       | 35   | 40   | 45   | 50   | 55   | 30       | 35   | 40   | 45   | 50   | 55   | 30       | 35   | 40   | 45   | 50   | 55   | 30      | 35   | 40   | 45   | 50   | 55   |
| Radius (ft)                    | 16       | 16   | 17   | 17   | 18   | 18   | 16       | 16   | 17   | 17   | 18   | 18   | 16       | 16   | 17   | 17   | 18   | 18   | 16      | 16   | 17   | 17   | 18   | 18   |
| Flow (gpm)                     | 1.26     | 1.35 | 1.42 | 1.51 | 1.57 | 1.62 | 0.98     | 1.05 | 1.10 | 1.17 | 1.22 | 1.26 | 0.85     | 0.91 | 0.98 | 1.01 | 1.07 | 1.09 | 0.42    | 0.47 | 0.50 | 0.50 | 0.54 | 0.58 |
| ■ Precipitation (in/h)         | 0.65     | 0.64 | 0.63 | 0.64 | 0.60 | 0.60 | 0.63     | 0.68 | 0.63 | 0.64 | 0.62 | 0.64 | 0.65     | 0.64 | 0.63 | 0.64 | 0.60 | 0.60 | 0.65    | 0.64 | 0.63 | 0.64 | 0.60 | 0.60 |
| ▲ Precipitation (in/h)         | 0.75     | 0.74 | 0.73 | 0.73 | 0.69 | 0.69 | 0.73     | 0.78 | 0.73 | 0.77 | 0.72 | 0.74 | 0.75     | 0.74 | 0.73 | 0.73 | 0.69 | 0.69 | 0.75    | 0.74 | 0.73 | 0.73 | 0.69 | 0.69 |

### Metric Performance Data

| R-VAN24 ADJUSTABLE ARC NOZZLES |          |      |      |      |      |      |          |      |      |      |      |      |          |      |      |      |      |      |         |      |      |      |      |      |
|--------------------------------|----------|------|------|------|------|------|----------|------|------|------|------|------|----------|------|------|------|------|------|---------|------|------|------|------|------|
|                                | 270° Arc |      |      |      |      |      | 210° Arc |      |      |      |      |      | 180° Arc |      |      |      |      |      | 90° Arc |      |      |      |      |      |
| Pressure (bar)                 | 2.1      | 2.4  | 2.8  | 3.1  | 3.4  | 3.8  | 2.1      | 2.4  | 2.8  | 3.1  | 3.4  | 3.8  | 2.1      | 2.4  | 2.8  | 3.1  | 3.4  | 3.8  | 2.1     | 2.4  | 2.8  | 3.1  | 3.4  | 3.8  |
| Radius (m)                     | 4.9      | 4.9  | 5.2  | 5.2  | 5.5  | 5.5  | 4.9      | 4.9  | 5.2  | 5.2  | 5.5  | 5.5  | 4.9      | 4.9  | 5.2  | 5.2  | 5.5  | 5.5  | 4.9     | 4.9  | 5.2  | 5.2  | 5.5  | 5.5  |
| Flow (l/m)                     | 4.77     | 5.11 | 5.38 | 5.72 | 5.94 | 6.13 | 3.71     | 3.97 | 4.16 | 4.43 | 4.62 | 4.77 | 3.22     | 3.44 | 3.71 | 3.82 | 4.05 | 4.13 | 1.59    | 1.78 | 1.89 | 1.89 | 2.04 | 2.20 |
| ■ Precipitation (mm/h)         | 17       | 16   | 16   | 16   | 15   | 15   | 16       | 17   | 16   | 16   | 16   | 16   | 17       | 16   | 16   | 16   | 15   | 15   | 17      | 16   | 16   | 16   | 15   | 15   |
| ▲ Precipitation (mm/h)         | 19       | 19   | 18   | 18   | 18   | 18   | 19       | 20   | 19   | 20   | 18   | 19   | 19       | 19   | 18   | 18   | 18   | 18   | 19      | 19   | 18   | 18   | 18   | 18   |

### U.S. Performance Data

| R-VAN24-360 FULL-CIRCLE NOZZLES |          |      |      |      |      |      |
|---------------------------------|----------|------|------|------|------|------|
|                                 | 360° Arc |      |      |      |      |      |
| Pressure (psi)                  | 30       | 35   | 40   | 45   | 50   | 55   |
| Radius (ft)                     | 16       | 16   | 17   | 17   | 18   | 18   |
| Flow (gpm)                      | 1.65     | 1.67 | 1.80 | 1.85 | 2.05 | 2.11 |
| ■ Precipitation (in/h)          | 0.62     | 0.63 | 0.60 | 0.62 | 0.61 | 0.63 |
| ▲ Precipitation (in/h)          | 0.72     | 0.73 | 0.69 | 0.71 | 0.70 | 0.72 |

### Metric Performance Data

| R-VAN24 360 FULL-CIRCLE NOZZLES |          |      |      |      |      |      |
|---------------------------------|----------|------|------|------|------|------|
|                                 | 360° Arc |      |      |      |      |      |
| Pressure (bar)                  | 2.1      | 2.4  | 2.8  | 3.1  | 3.4  | 3.8  |
| Radius (m)                      | 4.9      | 4.9  | 5.2  | 5.2  | 5.5  | 5.5  |
| Flow (l/m)                      | 6.25     | 6.32 | 6.81 | 7.00 | 7.76 | 7.99 |
| ■ Precipitation (mm/h)          | 16       | 16   | 15   | 16   | 15   | 16   |
| ▲ Precipitation (mm/h)          | 18       | 19   | 18   | 18   | 18   | 18   |

17' to 24' | 5.2 m to 7.3 m



R-VAN24 | 45° - 270°

R-VAN24-360 | 360°

LANDSCAPE SOLUTIONS

### U.S. Performance Data

#### R-VAN-LCS LEFT CORNER STRIP / R-VAN RCS RIGHT CORNER STRIP



5' x 15'

|                        |        |        |        |        |        |        |
|------------------------|--------|--------|--------|--------|--------|--------|
| Pressure (psi)         | 30     | 35     | 40     | 45     | 50     | 55     |
| Size (ft)              | 4 x 14 | 5 x 15 | 5 x 15 | 5 x 15 | 5 x 15 | 6 x 16 |
| Flow (gpm)             | 0.18   | 0.22   | 0.23   | 0.24   | 0.25   | 0.28   |
| — Precipitation (in/h) | 0.62   | 0.56   | 0.59   | 0.62   | 0.64   | 0.56   |
| ▲ Precipitation (in/h) | 0.62   | 0.56   | 0.59   | 0.62   | 0.64   | 0.56   |

### Metric Performance Data

#### R-VAN-LCS LEFT CORNER STRIP

1.5 m x 4.6 m

|                        |           |           |           |           |           |           |
|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Pressure (bar)         | 2.1       | 2.4       | 2.8       | 3.1       | 3.4       | 3.8       |
| Size (m)               | 1.2 x 4.3 | 1.5 x 4.6 | 1.5 x 4.6 | 1.5 x 4.6 | 1.5 x 4.6 | 1.8 x 4.9 |
| Flow (l/m)             | 0.68      | 0.83      | 0.87      | 0.91      | 0.95      | 1.06      |
| — Precipitation (mm/h) | 16        | 14        | 15        | 16        | 16        | 14        |
| ▲ Precipitation (mm/h) | 16        | 14        | 15        | 16        | 16        | 14        |

5' x 15' | 1.5 m x 4.6 m



R-VAN-LCS | Left Corner Strip

R-VAN-LCS | Left Corner Strip

### U.S. Performance Data

#### R-VAN-SST SIDE STRIP



5' x 30'

|                        |        |        |        |        |        |        |
|------------------------|--------|--------|--------|--------|--------|--------|
| Pressure (psi)         | 30     | 35     | 40     | 45     | 50     | 55     |
| Size (ft)              | 4 x 28 | 5 x 30 | 5 x 30 | 5 x 30 | 5 x 30 | 6 x 32 |
| Flow (gpm)             | 0.36   | 0.44   | 0.46   | 0.48   | 0.50   | 0.56   |
| — Precipitation (in/h) | 0.62   | 0.56   | 0.59   | 0.62   | 0.64   | 0.56   |
| ▲ Precipitation (in/h) | 0.62   | 0.56   | 0.59   | 0.62   | 0.64   | 0.56   |

### Metric Performance Data

#### R-VAN-SST SIDE STRIP

1.5 m x 9.1 m

|                        |           |           |           |           |           |           |
|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Pressure (bar)         | 2.1       | 2.4       | 2.8       | 3.1       | 3.4       | 3.8       |
| Size (m)               | 1.2 x 8.5 | 1.5 x 9.1 | 1.5 x 9.1 | 1.5 x 9.1 | 1.5 x 9.1 | 1.8 x 9.8 |
| Flow (l/m)             | 1.36      | 1.67      | 1.74      | 1.82      | 1.89      | 2.12      |
| — Precipitation (mm/h) | 16        | 14        | 15        | 16        | 16        | 14        |
| ▲ Precipitation (mm/h) | 16        | 14        | 15        | 16        | 16        | 14        |

5' x 30' | 1.5 m x 9.1 m



R-VAN-LCS | Left Corner Strip



## HE-VAN Series Nozzles

### FEATURES

- High-Efficiency Variable Arc (HE-VAN) nozzles have even coverage that allows you to shorten run times by up to 35%, while still maintaining a healthy lawn. HE-VAN has more than a 40% even-coverage improvement over existing variable arc nozzles.
- Low-trajectory spray and large water droplets prevent misting and airborne evaporation so the right amount of water is delivered to the right place. Gentle close-in watering eliminates dry spots around the spray head.
- Unique stream pattern that throws to the exact specified radius, delivering the cleanest edge of any VAN on the market today.
- Reduced zone run times help stay within tight watering windows, conserve water and save money.
- With full adjustability from 0° to 360°, you'll be able to efficiently water landscapes of all shapes while stocking fewer nozzles.
- Matched precipitation rates allow you to install Rain Bird® HE-VAN, MPR and U-Series nozzles on the same zone.

### SPECIFICATIONS

#### Models:

**HE-VAN-08:** Green top; 6' to 8' (1.8 m to 2.4 m)

**HE-VAN-10:** Blue top; 8' to 10' (2.4 m to 3.0 m)

**HE-VAN-12:** Brown top; 9' to 12' (2.7 m to 3.7 m)

**HE-VAN-15:** Black top; 12' to 15' (3.7 m to 4.6 m)

**Radius:** Adjustable, 0° to 360°

**Pressure Range:** 15 to 30 psi (1.0 to 2.1 bar)

**Recommended Operating Pressure:** 30 psi (2.1 bar)\*

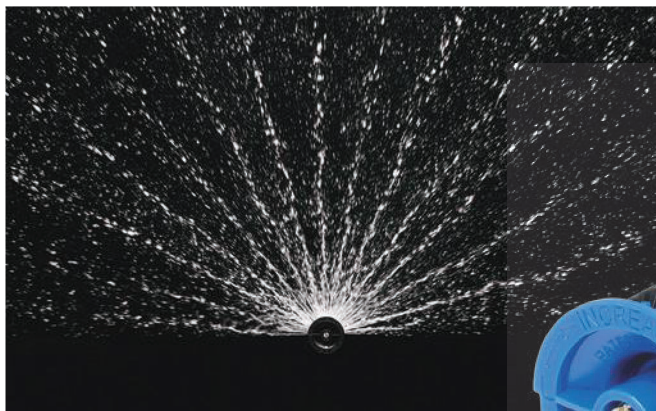
**Spacing:** 6' to 15' (1.8 m to 2.4 m)

**Adjustment:** Tactile click keeps arc setting from drifting over time





**Warranty:** 3-year trade warranty

#### HOW TO SPECIFY

| HE                          | - | VAN                | - | XX                        |
|-----------------------------|---|--------------------|---|---------------------------|
| MODEL                       |   | FEATURE            |   | RADIUS RANGE              |
| HE = High-Efficiency Nozzle |   | VAN = Variable Arc |   | 08 = 6–8 ft (1.8–2.4 m)   |
|                             |   |                    |   | 10 = 8–10 ft (2.4–3.0 m)  |
|                             |   |                    |   | 12 = 9–12 ft (2.7–3.7 m)  |
|                             |   |                    |   | 15 = 12–15 ft (3.7–4.6 m) |







### U.S. Performance Data

| 8 SERIES HE-VAN — 24° TRAJECTORY |   |      |      |      |   |      |      |      |   |      |      |      |  |      |      |      |
|----------------------------------|---|------|------|------|---|------|------|------|---|------|------|------|--|------|------|------|
|                                  | <br>360° Arc |      |      |      | <br>270° Arc |      |      |      | <br>180° Arc |      |      |      | <br>90° Arc |      |      |      |
| Pressure (psi)                   | 15  | 20   | 25   | 30   | 15  | 20   | 25   | 30   | 15  | 20   | 25   | 30   | 15   | 20   | 25   | 30   |
| Radius (ft)                      | 5   | 6    | 7    | 8    | 5   | 6    | 7    | 8    | 5   | 6    | 7    | 8    | 5  | 6    | 7    | 8    |
| Flow (gpm)                       | 0.83  | 0.96 | 1.07 | 1.17 | 0.62  | 0.72 | 0.80 | 0.88 | 0.41  | 0.48 | 0.53 | 0.59 | 0.21   | 0.24 | 0.27 | 0.29 |
| ■ Precipitation (in/h)           | 3.19  | 2.56 | 2.10 | 1.76 | 3.19  | 2.56 | 2.10 | 1.76 | 3.19  | 2.56 | 2.10 | 1.76 | 3.19   | 2.56 | 2.10 | 1.76 |
| ▲ Precipitation (in/h)           | 3.68  | 2.95 | 2.42 | 2.03 | 3.68  | 2.95 | 2.42 | 2.03 | 3.68  | 2.95 | 2.42 | 2.03 | 3.68   | 2.95 | 2.42 | 2.03 |

### Metric Performance Data

| 8 SERIES HE-VAN — 24° TRAJECTORY |          |      |      |      |          |      |      |      |          |      |      |      |         |      |      |      |
|----------------------------------|----------|------|------|------|----------|------|------|------|----------|------|------|------|---------|------|------|------|
|                                  | 360° Arc |      |      |      | 270° Arc |      |      |      | 180° Arc |      |      |      | 90° Arc |      |      |      |
| Pressure (bar)                   | 1.03     | 1.38 | 1.72 | 2.07 | 1.03     | 1.38 | 1.72 | 2.07 | 1.03     | 1.38 | 1.72 | 2.07 | 1.03    | 1.38 | 1.72 | 2.07 |
| Radius (m)                       | 1.52     | 1.83 | 2.13 | 2.44 | 1.52     | 1.83 | 2.13 | 2.44 | 1.52     | 1.83 | 2.13 | 2.44 | 1.52    | 1.83 | 2.13 | 2.44 |
| Flow (l/m)                       | 3.14     | 3.62 | 4.05 | 4.43 | 2.35     | 2.72 | 3.04 | 3.33 | 1.57     | 1.81 | 2.02 | 2.22 | 0.78    | 0.91 | 1.01 | 1.11 |
| Flow (m³/h)                      | 0.19     | 0.22 | 0.25 | 0.27 | 0.14     | 0.16 | 0.18 | 0.20 | 0.10     | 0.11 | 0.12 | 0.13 | 0.05    | 0.05 | 0.06 | 0.07 |
| ■ Precipitation (mm/h)           | 82       | 66   | 54   | 45   | 82       | 66   | 54   | 45   | 82       | 66   | 54   | 45   | 82      | 66   | 54   | 45   |
| ▲ Precipitation (mm/h)           | 95       | 76   | 62   | 52   | 95       | 76   | 62   | 52   | 95       | 76   | 62   | 52   | 95      | 76   | 62   | 52   |

### U.S. Performance Data





| 10 SERIES HE-VAN — 27° TRAJECTORY |   |      |      |      |   |      |      |      |   |      |      |      |  |      |      |      |
|-----------------------------------|---|------|------|------|---|------|------|------|---|------|------|------|--|------|------|------|
|                                   | <br>360° Arc |      |      |      | <br>270° Arc |      |      |      | <br>180° Arc |      |      |      | <br>90° Arc |      |      |      |
| Pressure (psi)                    | 15  | 20   | 25   | 30   | 15  | 20   | 25   | 30   | 15  | 20   | 25   | 30   | 15   | 20   | 25   | 30   |
| Radius (ft)                       | 7   | 8    | 9    | 10   | 7   | 8    | 9    | 10   | 7   | 8    | 9    | 10   | 7  | 8    | 9    | 10   |
| Flow (gpm)                        | 1.26  | 1.46 | 1.63 | 1.78 | 0.95  | 1.09 | 1.22 | 1.34 | 0.63  | 0.73 | 0.81 | 0.89 | 0.32   | 0.36 | 0.41 | 0.45 |
| ■ Precipitation (in/h)            | 2.48  | 2.19 | 1.94 | 1.72 | 2.48  | 2.19 | 1.94 | 1.72 | 2.48  | 2.19 | 1.94 | 1.72 | 2.48   | 2.19 | 1.94 | 1.72 |
| ▲ Precipitation (in/h)            | 2.86  | 2.53 | 2.24 | 1.98 | 2.86  | 2.53 | 2.24 | 1.98 | 2.86  | 2.53 | 2.24 | 1.98 | 2.86   | 2.53 | 2.24 | 1.98 |

### Metric Performance Data

| 10 SERIES HE-VAN — 27° TRAJECTORY |          |      |      |      |          |      |      |      |          |      |      |      |         |      |      |      |
|-----------------------------------|----------|------|------|------|----------|------|------|------|----------|------|------|------|---------|------|------|------|
|                                   | 360° Arc |      |      |      | 270° Arc |      |      |      | 180° Arc |      |      |      | 90° Arc |      |      |      |
| Pressure (bar)                    | 1.03     | 1.38 | 1.72 | 2.07 | 1.03     | 1.38 | 1.72 | 2.07 | 1.03     | 1.38 | 1.72 | 2.07 | 1.03    | 1.38 | 1.72 | 2.07 |
| Radius (m)                        | 2.13     | 2.44 | 2.74 | 3.05 | 2.13     | 2.44 | 2.74 | 3.05 | 2.13     | 2.44 | 2.74 | 3.05 | 2.13    | 2.44 | 2.74 | 3.05 |
| Flow (l/m)                        | 4.78     | 5.52 | 6.17 | 6.76 | 3.59     | 4.14 | 4.63 | 5.07 | 2.39     | 2.76 | 3.09 | 3.38 | 1.20    | 1.38 | 1.54 | 1.69 |
| Flow (m³/h)                       | 0.29     | 0.34 | 0.37 | 0.41 | 0.22     | 0.25 | 0.28 | 0.31 | 0.15     | 0.17 | 0.19 | 0.21 | 0.07    | 0.08 | 0.09 | 0.10 |
| ■ Precipitation (mm/h)            | 64       | 56   | 50   | 44   | 64       | 56   | 50   | 44   | 64       | 56   | 50   | 44   | 64      | 56   | 50   | 44   |
| ▲ Precipitation (mm/h)            | 74       | 65   | 57   | 51   | 74       | 65   | 57   | 51   | 74       | 65   | 57   | 51   | 74      | 65   | 57   | 51   |







### U.S. Performance Data

| 12 SERIES HE-VAN — 23° TRAJECTORY |  |      |      |      |  |      |      |      |  |      |      |      |   |      |      |      |
|-----------------------------------|--|------|------|------|--|------|------|------|--|------|------|------|---|------|------|------|
|                                   |  360° Arc |      |      |      |  270° Arc |      |      |      |  180° Arc |      |      |      |  90° Arc |      |      |      |
| Pressure (psi)                    | 15   | 20   | 25   | 30   | 15   | 20   | 25   | 30   | 15   | 20   | 25   | 30   | 15  | 20   | 25   | 30   |
| Radius (ft)                       | 9  | 10   | 11   | 12   | 9  | 10   | 11   | 12   | 9  | 10   | 11   | 12   | 9   | 10   | 11   | 12   |
| Flow (gpm)                        | 1.67   | 1.93 | 2.16 | 2.37 | 1.25   | 1.45 | 1.62 | 1.77 | 0.84   | 0.97 | 1.08 | 1.18 | 0.42  | 0.48 | 0.54 | 0.59 |
| ■ Precipitation (in/h)            | 1.99   | 1.86 | 1.72 | 1.58 | 1.99   | 1.86 | 1.72 | 1.58 | 1.99   | 1.86 | 1.72 | 1.58 | 1.99  | 1.86 | 1.72 | 1.58 |
| ▲ Precipitation (in/h)            | 2.30   | 2.15 | 1.99 | 1.83 | 2.30   | 2.15 | 1.99 | 1.83 | 2.30   | 2.15 | 1.99 | 1.83 | 2.30  | 2.15 | 1.99 | 1.83 |

### Metric Performance Data

| 12 SERIES HE-VAN — 23° TRAJECTORY |          |      |      |      |          |      |      |      |          |      |      |      |         |      |      |      |
|-----------------------------------|----------|------|------|------|----------|------|------|------|----------|------|------|------|---------|------|------|------|
|                                   | 360° Arc |      |      |      | 270° Arc |      |      |      | 180° Arc |      |      |      | 90° Arc |      |      |      |
| Pressure (bar)                    | 1.0      | 1.4  | 1.7  | 2.1  | 1.0      | 1.4  | 1.7  | 2.1  | 1.0      | 1.4  | 1.7  | 2.1  | 1.0     | 1.4  | 1.7  | 2.1  |
| Radius (m)                        | 2.7      | 3.0  | 3.4  | 3.7  | 2.7      | 3.0  | 3.4  | 3.7  | 2.7      | 3.0  | 3.4  | 3.7  | 2.7     | 3.0  | 3.4  | 3.7  |
| Flow (l/m)                        | 6.33     | 7.31 | 8.18 | 8.96 | 4.75     | 5.48 | 6.16 | 6.72 | 3.17     | 3.66 | 4.09 | 4.48 | 1.58    | 1.83 | 2.04 | 2.24 |
| Flow (m³/h)                       | 0.38     | 0.44 | 0.49 | 0.54 | 0.28     | 0.33 | 0.37 | 0.40 | 0.19     | 0.22 | 0.25 | 0.27 | 0.09    | 0.11 | 0.12 | 0.13 |
| ■ Precipitation (mm/h)            | 50.5     | 47.3 | 43.7 | 40.2 | 50.5     | 47.3 | 43.7 | 40.2 | 50.5     | 47.3 | 43.7 | 40.2 | 50.5    | 47.3 | 43.7 | 40.2 |
| ▲ Precipitation (mm/h)            | 58.3     | 54.6 | 50.4 | 46.4 | 58.3     | 54.6 | 50.4 | 46.4 | 58.3     | 54.6 | 50.4 | 46.4 | 58.3    | 54.6 | 50.4 | 46.4 |

### U.S. Performance Data

| 15 SERIES HE-VAN — 25° TRAJECTORY |  |      |      |      |  |      |      |      |  |      |      |      |   |      |      |      |
|-----------------------------------|--|------|------|------|--|------|------|------|--|------|------|------|---|------|------|------|
|                                   |  360° Arc |      |      |      |  270° Arc |      |      |      |  180° Arc |      |      |      |  90° Arc |      |      |      |
| Pressure (psi)                    | 15   | 20   | 25   | 30   | 15   | 20   | 25   | 30   | 15   | 20   | 25   | 30   | 15  | 20   | 25   | 30   |
| Radius (ft)                       | 11   | 12   | 14   | 15   | 11   | 12   | 14   | 15   | 11   | 12   | 14   | 15   | 11  | 12   | 14   | 15   |
| Flow (gpm)                        | 2.62   | 3.02 | 3.38 | 3.70 | 1.96   | 2.27 | 2.53 | 2.78 | 1.31   | 1.51 | 1.69 | 1.85 | 0.65  | 0.76 | 0.84 | 0.93 |
| ■ Precipitation (in/h)            | 2.08   | 2.02 | 1.66 | 1.58 | 2.08   | 2.02 | 1.66 | 1.58 | 2.08   | 2.02 | 1.66 | 1.58 | 2.08  | 2.02 | 1.66 | 1.58 |
| ▲ Precipitation (in/h)            | 2.40   | 2.33 | 1.92 | 1.83 | 2.40   | 2.33 | 1.92 | 1.83 | 2.40   | 2.33 | 1.92 | 1.83 | 2.40  | 2.33 | 1.92 | 1.83 |

### Metric Performance Data

| 15 SERIES HE-VAN — 25° TRAJECTORY |          |       |       |       |          |      |      |       |          |      |      |      |         |      |      |      |
|-----------------------------------|----------|-------|-------|-------|----------|------|------|-------|----------|------|------|------|---------|------|------|------|
|                                   | 360° Arc |       |       |       | 270° Arc |      |      |       | 180° Arc |      |      |      | 90° Arc |      |      |      |
| Pressure (bar)                    | 1.0      | 1.4   | 1.7   | 2.1   | 1.0      | 1.4  | 1.7  | 2.1   | 1.0      | 1.4  | 1.7  | 2.1  | 1.0     | 1.4  | 1.7  | 2.1  |
| Radius (m)                        | 3.4      | 3.7   | 4.3   | 4.6   | 3.4      | 3.7  | 4.3  | 4.6   | 3.4      | 3.7  | 4.3  | 4.6  | 3.4     | 3.7  | 4.3  | 4.6  |
| Flow (l/m)                        | 9.91     | 11.44 | 12.79 | 14.01 | 7.43     | 8.58 | 9.59 | 10.51 | 4.95     | 5.72 | 6.39 | 7.00 | 2.48    | 2.86 | 3.20 | 3.50 |
| Flow (m³/h)                       | 0.59     | 0.69  | 0.77  | 0.84  | 0.45     | 0.51 | 0.58 | 0.63  | 0.30     | 0.34 | 0.38 | 0.42 | 0.15    | 0.17 | 0.19 | 0.21 |
| ■ Precipitation (mm/h)            | 52.9     | 51.3  | 42.2  | 40.2  | 52.9     | 51.3 | 42.2 | 40.2  | 52.9     | 51.3 | 42.2 | 40.2 | 52.9    | 51.3 | 42.2 | 40.2 |
| ▲ Precipitation (mm/h)            | 61.1     | 59.3  | 48.7  | 46.5  | 61.1     | 59.3 | 48.7 | 46.5  | 61.1     | 59.3 | 48.7 | 46.5 | 61.1    | 59.3 | 48.7 | 46.5 |

NOTE: All HE-VAN nozzles tested on 4" (10.2 cm) pop-ups. Radius reduction over 25% of the normal throw of the nozzle is not recommended.  
■ Square and ▲ triangular spacing based on 50% diameter of throw. Performance data taken in zero wind conditions.

## U-Series Nozzles

### FEATURES

- Additional orifice for close-in watering minimizes brown spots around the spray head and eliminates gaps in coverage so the entire watering area is more uniformly covered.
- Superior coverage for efficient watering. Use up to 30% less water.
- Matched precipitation rate with Rain Bird HE-VAN and MPR nozzles.

### SPECIFICATIONS

#### Operating Range:

**Spacing:** 5' to 15' (1.7 m to 4.6 m)

**Pressure:** 15 to 30 psi (1.0 to 2.1 bar)

#### Models:

**U-8:** Green top; 5' to 8' (1.7 m to 2.4 m)

**U-10:** Blue top; 7' to 10' (2.1 m to 3.0 m)

**U-12:** Brown top; 9' to 12' (2.7 m to 3.7 m)

**U-15:** Black top; 12' to 15' (3.7 m to 4.6 m)

**Warranty:** 5-year trade warranty



U-Series nozzles offer better, more uniform water distribution. Water flowing from both orifices combines to form a continuous water stream, thereby eliminating gaps for more uniform coverage throughout the entire watering area.

### HOW TO SPECIFY

| U               | XX  | X                                   |
|-----------------|---|-------------------------------------|
| MODEL           | RADIUS RANGE  | PATTERN                             |
| U-Series Nozzle | 8 = 5' to 8' (1.7 m to 2.4 m)<br>10 = 7' to 10' (2.1 m to 3.0 m)<br>12 = 9' to 12' (2.7 m to 3.7 m)<br>15 = 11' to 15' (3.4 m to 4.6 m) | F = Full<br>H = Half<br>Q = Quarter |

### U.S. Performance Data





| U-SERIES FULL-CIRCLE PATTERN     |                |             |            |                       |      |
|----------------------------------|----------------|-------------|------------|-----------------------|------|
|                                  | Pressure (psi) | Radius (ft) | Flow (gpm) | Precipitation (in/hr) |      |
|                                  |                |             |            | ■                     | ▲    |
| <b>U-8F</b><br>(10° Trajectory)  | 15             | 5           | 0.74       | 2.85                  | 3.29 |
|                                  | 20             | 6           | 0.86       | 2.30                  | 2.66 |
|                                  | 25             | 7           | 0.96       | 1.89                  | 2.18 |
|                                  | 30             | 8           | 1.05       | 1.58                  | 1.83 |
| <b>U-10F</b><br>(12° Trajectory) | 15             | 7           | 1.16       | 2.07                  | 2.39 |
|                                  | 20             | 8           | 1.34       | 2.01                  | 2.32 |
|                                  | 25             | 9           | 1.50       | 1.62                  | 1.87 |
|                                  | 30             | 10          | 1.64       | 1.58                  | 1.83 |
| <b>U-12F</b><br>(23° Trajectory) | 15             | 9           | 1.80       | 2.14                  | 2.47 |
|                                  | 20             | 10          | 2.10       | 2.02                  | 2.34 |
|                                  | 25             | 11          | 2.40       | 1.91                  | 2.21 |
|                                  | 30             | 12          | 2.60       | 1.74                  | 2.01 |
| <b>U-15F</b><br>(23° Trajectory) | 15             | 11          | 2.60       | 2.07                  | 2.39 |
|                                  | 20             | 12          | 3.00       | 2.01                  | 2.32 |
|                                  | 25             | 14          | 3.30       | 1.62                  | 1.87 |
|                                  | 30             | 15          | 3.70       | 1.58                  | 1.83 |

### Metric Performance Data

| U-SERIES FULL-CIRCLE PATTERN |            |            |             |                       |    |
|------------------------------|------------|------------|-------------|-----------------------|----|
| Pressure (bar)               | Radius (m) | Flow (l/m) | Flow (m³/h) | Precipitation (mm/hr) |    |
|                              |            |            |             | ■                     | ▲  |
| 1.0                          | 1.7        | 2.8        | 0.16        | 72                    | 84 |
| 1.5                          | 2.1        | 3.4        | 0.20        | 58                    | 68 |
| 2.0                          | 2.4        | 3.9        | 0.23        | 48                    | 55 |
| 2.1                          | 2.4        | 4.0        | 0.24        | 40                    | 46 |
| 1.0                          | 2.1        | 4.4        | 0.226       | 52                    | 60 |
| 1.5                          | 2.6        | 5.3        | 0.30        | 47                    | 55 |
| 2.0                          | 3.0        | 6.1        | 0.34        | 41                    | 48 |
| 2.1                          | 3.1        | 6.2        | 0.37        | 40                    | 46 |
| 1.0                          | 2.7        | 6.8        | 0.40        | 55                    | 63 |
| 1.5                          | 3.2        | 8.3        | 0.48        | 47                    | 54 |
| 2.0                          | 3.6        | 9.7        | 0.59        | 46                    | 53 |
| 2.1                          | 3.7        | 9.8        | 0.60        | 44                    | 51 |
| 1.0                          | 3.4        | 9.8        | 0.60        | 52                    | 60 |
| 1.5                          | 3.9        | 11.8       | 0.72        | 47                    | 55 |
| 2.0                          | 4.5        | 13.7       | 0.84        | 41                    | 48 |
| 2.1                          | 4.6        | 14.0       | 0.84        | 40                    | 46 |







U.S. Performance Data

| U-SERIES HALF CIRCLE PATTERN   |                |             |            |                       |      |
|--|----------------|-------------|------------|-----------------------|------|
|  | Pressure (psi) | Radius (ft) | Flow (gpm) | Precipitation (in/hr) |      |
|  |                |             |            | ■                     | ▲    |
|  <b>U-8H</b><br>(10° Trajectory)  | 15             | 5           | 0.37       | 2.85                  | 3.29 |
|  | 20             | 6           | 0.42       | 2.25                  | 2.59 |
|  | 25             | 7           | 0.47       | 1.85                  | 2.13 |
|  | 30             | 8           | 0.52       | 1.58                  | 1.83 |
|  <b>U-10H</b><br>(12° Trajectory) | 15             | 7           | 0.58       | 2.07                  | 2.39 |
|  | 20             | 8           | 0.67       | 2.01                  | 2.32 |
|  | 25             | 9           | 0.75       | 1.62                  | 1.87 |
|  | 30             | 10          | 0.82       | 1.58                  | 1.83 |
|  <b>U-12H</b><br>(23° Trajectory) | 15             | 9           | 0.90       | 2.14                  | 2.47 |
|  | 20             | 10          | 1.05       | 2.02                  | 2.34 |
|  | 25             | 11          | 1.20       | 1.91                  | 2.21 |
|  | 30             | 12          | 1.30       | 1.74                  | 2.01 |
|  <b>U-15H</b><br>(23° Trajectory) | 15             | 11          | 1.30       | 2.07                  | 2.39 |
|  | 20             | 12          | 1.50       | 2.01                  | 2.32 |
|  | 25             | 14          | 1.65       | 1.62                  | 1.87 |
|  | 30             | 15          | 1.85       | 1.58                  | 1.83 |

Metric Performance Data

| U-SERIES HALF CIRCLE PATTERN |            |            |             |                       |    |
|------------------------------|------------|------------|-------------|-----------------------|----|
| Pressure (bar)               | Radius (m) | Flow (l/m) | Flow (m³/h) | Precipitation (mm/hr) |    |
|                              |            |            |             | ■                     | ▲  |
| 1.0                          | 1.7        | 1.4        | 0.08        | 72                    | 84 |
| 1.5                          | 2.1        | 1.7        | 0.10        | 57                    | 66 |
| 2.0                          | 2.4        | 1.9        | 0.12        | 47                    | 54 |
| 2.1                          | 2.4        | 2.0        | 0.12        | 40                    | 46 |
| 1.0                          | 2.1        | 2.2        | 0.13        | 52                    | 60 |
| 1.5                          | 2.6        | 2.6        | 0.15        | 47                    | 55 |
| 2.0                          | 3.0        | 3.1        | 0.17        | 41                    | 48 |
| 2.1                          | 3.1        | 3.1        | 0.19        | 40                    | 46 |
| 1.0                          | 2.7        | 3.4        | 0.20        | 55                    | 63 |
| 1.5                          | 3.2        | 4.2        | 0.24        | 47                    | 54 |
| 2.0                          | 3.6        | 4.8        | 0.30        | 46                    | 53 |
| 2.1                          | 3.7        | 4.9        | 0.30        | 44                    | 51 |
| 1.0                          | 3.4        | 4.9        | 0.30        | 52                    | 60 |
| 1.5                          | 3.9        | 5.9        | 0.36        | 47                    | 55 |
| 2.0                          | 4.5        | 6.9        | 0.42        | 41                    | 48 |
| 2.1                          | 4.6        | 7.0        | 0.42        | 40                    | 46 |

U.S. Performance Data

| U-SERIES QUARTER CIRCLE PATTERN  |                |             |            |                       |      |
|--|----------------|-------------|------------|-----------------------|------|
|  | Pressure (psi) | Radius (ft) | Flow (gpm) | Precipitation (in/hr) |      |
|  |                |             |            | ■                     | ▲    |
|  <b>U-8Q</b><br>(10° Trajectory)  | 15             | 5           | 0.18       | 2.77                  | 3.20 |
|  | 20             | 6           | 0.21       | 2.25                  | 2.59 |
|  | 25             | 7           | 0.24       | 1.89                  | 2.18 |
|  | 30             | 8           | 0.26       | 1.58                  | 1.83 |
|  <b>U-10Q</b><br>(12° Trajectory) | 15             | 7           | 0.29       | 2.07                  | 2.39 |
|  | 20             | 8           | 0.33       | 2.01                  | 2.32 |
|  | 25             | 9           | 0.37       | 1.62                  | 1.87 |
|  | 30             | 10          | 0.41       | 1.58                  | 1.83 |
|  <b>U-12Q</b><br>(23° Trajectory) | 15             | 9           | 0.45       | 2.14                  | 2.47 |
|  | 20             | 10          | 0.53       | 2.02                  | 2.34 |
|  | 25             | 11          | 0.60       | 1.91                  | 2.21 |
|  | 30             | 12          | 0.65       | 1.74                  | 2.01 |
|  <b>U-15Q</b><br>(23° Trajectory) | 15             | 11          | 0.65       | 2.07                  | 2.39 |
|  | 20             | 12          | 0.75       | 2.01                  | 2.32 |
|  | 25             | 14          | 0.82       | 1.62                  | 1.87 |
|  | 30             | 15          | 0.92       | 1.58                  | 1.83 |

Metric Performance Data

| U-SERIES QUARTER CIRCLE PATTERN |            |            |             |                       |    |
|---------------------------------|------------|------------|-------------|-----------------------|----|
| Pressure (bar)                  | Radius (m) | Flow (l/m) | Flow (m³/h) | Precipitation (mm/hr) |    |
|                                 |            |            |             | ■                     | ▲  |
| 1.0                             | 1.7        | 0.7        | 0.04        | 70                    | 81 |
| 1.5                             | 2.1        | 0.8        | 0.05        | 57                    | 66 |
| 2.0                             | 2.4        | 1.0        | 0.06        | 48                    | 55 |
| 2.1                             | 2.4        | 1.0        | 0.06        | 40                    | 46 |
| 1.0                             | 2.1        | 1.1        | 0.07        | 52                    | 60 |
| 1.5                             | 2.6        | 1.3        | 0.08        | 47                    | 55 |
| 2.0                             | 3.0        | 1.5        | 0.08        | 41                    | 48 |
| 2.1                             | 3.1        | 1.6        | 0.09        | 40                    | 46 |
| 1.0                             | 2.7        | 1.7        | 0.10        | 55                    | 63 |
| 1.5                             | 3.2        | 2.1        | 0.12        | 47                    | 54 |
| 2.0                             | 3.6        | 2.4        | 0.15        | 46                    | 53 |
| 2.1                             | 3.7        | 2.5        | 0.15        | 44                    | 51 |
| 1.0                             | 3.4        | 2.5        | 0.15        | 52                    | 60 |
| 1.5                             | 3.9        | 2.9        | 0.18        | 47                    | 55 |
| 2.0                             | 4.5        | 3.4        | 0.21        | 41                    | 48 |
| 2.1                             | 4.6        | 3.5        | 0.21        | 40                    | 46 |

## 5000 Series Rotors

### FEATURES

- Oversized wiper seal prevents leaks and protects internals from debris.
- Rain Curtain™ nozzles deliver even distribution over the entire radius including large wind resistant droplets and gentle close-in watering resulting in greener turf using less water.
- A history of proven performance and reliability tested in millions of installations.
- Self-flushing arc adjustment port that prevents buildup of debris.
- Models available in Part-Circle and reversing Full-Circle (PC) or non-reversing Full-Circle (FC).

### SPECIFICATIONS

#### Models:

**5004:** 4" (10.2 cm) pop-up height; 7 3/8" (18.73 cm) body height

**5006:** 6" (15.2 cm) pop-up height; 9 5/8" (24.5 cm) body height

**5012:** 12" (30.5 cm) pop-up height; 16 7/8" (42.9 cm) body height

**Plus:** Flow shut-off

**Shrub:** Mounted above ground on a 3/4" fixed threaded riser

**Precipitation Rate:** 0.20 to 1.50 in/hr (5 to 38 mm/h)

**Radius:** 25' to 50' (7.6 m to 15.2 m)\*

**Pressure:** 25 to 65 psi (1.7 to 4.5 bar)

**Flow Rate:** 0.76 to 9.63 gpm (3.0 to 36.6 l/m; 0.17 to 2.19 m³/h)

**Inlet:** 3/4" (20/27) NPT female threaded

**Warranty:** 5-year trade warranty

\*Radius may be reduced up to 25% with radius reduction screw.



### HOW TO SPECIFY

| 50XX             | - | X        | - | X         | - | XX                           | - | XXX                 | - | X       | - | XX                     | - | XX                   |
|------------------|---|----------|---|-----------|---|------------------------------|---|---------------------|---|---------|---|------------------------|---|----------------------|
| MODEL            |   | MODEL    |   | MODEL     |   | ROTATION                     |   | OPTION              |   | OPTION  |   | OPTION                 |   | MODEL                |
| 5004: 4" pop-up  |   | + = Plus |   | S = Shrub |   | PC = 40° - 360°<br>FC = 360° |   | SAM = Seal-A-Matic™ |   | R = PRS |   | NP = Non-Potable Cover |   | SS = Stainless Steel |
| 5006: 6" pop-up  |   |          |   |           |   |                              |   |                     |   |         |   |                        |   |                      |
| 5012: 12" pop-up |   |          |   |           |   |                              |   |                     |   |         |   |                        |   |                      |





### U.S. Performance Data

| STANDARD ANGLE RAIN CURTAIN™ NOZZLE PERFORMANCE |        |              |             |               |        |
|---|--------|--------------|-------------|---------------|--------|
| Pressure<br>psi                                 | Nozzle | Radius<br>ft | Flow<br>gpm | Precipitation |        |
|   |        |              |             | ■ in/h        | ▲ in/h |
| 25  | 1.5    | 33           | 1.12        | 0.20          | 0.23   |
|   | 2.0    | 35           | 1.50        | 0.24          | 0.27   |
|   | 2.5    | 35           | 1.81        | 0.28          | 0.33   |
|   | 3.0    | 36           | 2.26        | 0.34          | 0.39   |
|   | 4.0    | 36           | 2.91        | 0.43          | 0.49   |
|   | 5.0    | 37           | 3.72        | 0.52          | 0.60   |
|   | 6.0    | 37           | 4.25        | 0.60          | 0.69   |
|   | 8.0    | 33           | 5.90        | 1.26          | 1.50   |
| 35  | 1.5    | 34           | 1.35        | 0.22          | 0.26   |
|   | 2.0    | 36           | 1.81        | 0.27          | 0.31   |
|   | 2.5    | 37           | 2.17        | 0.31          | 0.35   |
|   | 3.0    | 38           | 2.71        | 0.36          | 0.42   |
|   | 4.0    | 40           | 3.50        | 0.42          | 0.49   |
|   | 5.0    | 41           | 4.47        | 0.51          | 0.59   |
|   | 6.0    | 43           | 5.23        | 0.54          | 0.63   |
|   | 8.0    | 41           | 7.06        | 0.94          | 1.10   |
| 45  | 1.5    | 35           | 1.54        | 0.24          | 0.28   |
|   | 2.0    | 37           | 2.07        | 0.29          | 0.34   |
|   | 2.5    | 37           | 2.51        | 0.35          | 0.41   |
|   | 3.0    | 39           | 3.09        | 0.37          | 0.43   |
|   | 4.0    | 42           | 4.01        | 0.44          | 0.51   |
|   | 5.0    | 43           | 5.09        | 0.48          | 0.56   |
|   | 6.0    | 44           | 6.01        | 0.59          | 0.69   |
|   | 8.0    | 44           | 8.03        | 0.92          | 1.06   |
| 55  | 1.5    | 35           | 1.71        | 0.27          | 0.31   |
|   | 2.0    | 37           | 2.30        | 0.32          | 0.37   |
|   | 2.5    | 37           | 2.76        | 0.39          | 0.45   |
|   | 3.0    | 40           | 3.47        | 0.42          | 0.48   |
|   | 4.0    | 42           | 4.44        | 0.48          | 0.56   |
|   | 5.0    | 45           | 5.66        | 0.54          | 0.62   |
|   | 6.0    | 50           | 6.63        | 0.51          | 0.59   |
|   | 8.0    | 47           | 8.86        | 0.80          | 0.93   |
| 65  | 1.5    | 34           | 1.86        | 0.31          | 0.36   |
|   | 2.0    | 35           | 2.52        | 0.40          | 0.46   |
|   | 2.5    | 37           | 3.01        | 0.42          | 0.49   |
|   | 3.0    | 40           | 3.78        | 0.45          | 0.53   |
|   | 4.0    | 42           | 4.83        | 0.53          | 0.61   |
|   | 5.0    | 45           | 6.16        | 0.59          | 0.68   |
|   | 6.0    | 50           | 7.22        | 0.55          | 0.64   |
|   | 8.0    | 48           | 9.63        | 0.84          | 0.97   |

Precipitation based on half-circle operation.

■ Square and ▲ triangular spacing based on 50% diameter of throw.

Performance data collected in zero wind conditions.

### Metric Performance Data

| STANDARD ANGLE RAIN CURTAIN™ NOZZLE PERFORMANCE |        |             |      |      |               |        |
|---|--------|-------------|------|------|---------------|--------|
| Pressure<br>bar                                 | Nozzle | Radius<br>m | Flow |      | Precipitation |        |
|   |        |             | l/m  | m³/h | ■ mm/h        | ▲ mm/h |
| 2.0   | 1.5    | 10.2        | 4.8  | 0.28 | 5             | 6      |
|   | 2.0    | 10.8        | 6.0  | 0.36 | 6             | 7      |
|   | 2.5    | 10.9        | 7.2  | 0.44 | 7             | 9      |
|   | 3.0    | 11.2        | 9.0  | 0.55 | 9             | 10     |
|   | 4.0    | 11.6        | 12.0 | 0.71 | 11            | 12     |
|   | 5.0    | 12.1        | 15.0 | 0.91 | 13            | 15     |
|   | 6.0    | 12.4        | 17.4 | 1.05 | 15            | 17     |
|   | 8.0    | 11.8        | 24.0 | 1.45 | 32            | 37     |
| 2.5   | 1.5    | 10.4        | 5.4  | 0.31 | 6             | 7      |
|   | 2.0    | 11.0        | 6.6  | 0.41 | 7             | 8      |
|   | 2.5    | 11.3        | 8.4  | 0.50 | 8             | 9      |
|   | 3.0    | 11.2        | 10.2 | 0.62 | 9             | 11     |
|   | 4.0    | 12.3        | 13.2 | 0.81 | 11            | 13     |
|   | 5.0    | 12.7        | 17.4 | 1.03 | 13            | 15     |
|   | 6.0    | 13.2        | 20.4 | 1.21 | 14            | 16     |
|   | 8.0    | 13.3        | 27.0 | 1.63 | 24            | 28     |
| 3.0   | 1.5    | 10.6        | 6.0  | 0.34 | 6             | 7      |
|   | 2.0    | 11.2        | 7.8  | 0.45 | 7             | 8      |
|   | 2.5    | 11.3        | 9.6  | 0.56 | 9             | 10     |
|   | 3.0    | 12.1        | 11.4 | 0.69 | 9             | 11     |
|   | 4.0    | 12.7        | 15.0 | 0.89 | 11            | 13     |
|   | 5.0    | 13.5        | 18.6 | 1.13 | 12            | 14     |
|   | 6.0    | 13.4        | 22.2 | 1.34 | 13            | 17     |
|   | 8.0    | 13.4        | 30.0 | 1.79 | 23            | 27     |
| 3.5   | 1.5    | 10.7        | 6.0  | 0.37 | 7             | 8      |
|   | 2.0    | 11.3        | 8.4  | 0.49 | 8             | 9      |
|   | 2.5    | 11.3        | 10.2 | 0.60 | 9             | 11     |
|   | 3.0    | 12.2        | 12.6 | 0.74 | 10            | 12     |
|   | 4.0    | 12.8        | 16.2 | 0.97 | 12            | 14     |
|   | 5.0    | 13.7        | 20.4 | 1.23 | 13            | 15     |
|   | 6.0    | 14.2        | 24.0 | 1.45 | 13            | 15     |
|   | 8.0    | 14.9        | 32.4 | 1.93 | 20            | 24     |
| 4.0   | 1.5    | 10.6        | 6.6  | 0.40 | 7             | 8      |
|   | 2.0    | 11.1        | 9.0  | 0.52 | 8             | 10     |
|   | 2.5    | 11.3        | 10.8 | 0.64 | 10            | 12     |
|   | 3.0    | 12.2        | 13.2 | 0.80 | 11            | 12     |
|   | 4.0    | 12.8        | 17.4 | 1.04 | 13            | 15     |
|   | 5.0    | 13.7        | 22.2 | 1.32 | 14            | 16     |
|   | 6.0    | 14.9        | 25.8 | 1.55 | 14            | 16     |
|   | 8.0    | 15.2        | 34.2 | 2.06 | 21            | 25     |
| 4.5   | 1.5    | 10.4        | 7.2  | 0.42 | 8             | 9      |
|   | 2.0    | 10.7        | 9.0  | 0.55 | 10            | 11     |
|   | 2.5    | 11.3        | 11.4 | 0.68 | 11            | 12     |
|   | 3.0    | 12.2        | 13.8 | 0.84 | 11            | 13     |
|   | 4.0    | 12.8        | 18.0 | 1.10 | 13            | 15     |
|   | 5.0    | 13.7        | 23.4 | 1.40 | 15            | 17     |
|   | 6.0    | 14.6        | 28.2 | 1.64 | 15            | 18     |
|   | 8.0    | 15.2        | 36.6 | 2.19 | 19            | 22     |

## 5000 Series MPR Nozzles

### FEATURES

- Rain Curtain™ nozzles deliver even distribution over the entire radius including large wind resistant droplets and gentle close-in watering resulting in greener turf using less water.
- Precipitation rate is automatically matched with a uniform radius that does not require stream deflection.
- Matched 0.6"/hour precipitation rates enable large and small turf areas to be zoned together by mixing rotors and Rain Bird® R-VAN or R-Series rotary nozzles.

### SPECIFICATIONS

#### Models:





**5000MPRMPK:** 5000/5000 Plus Series MPR nozzle tree multi pack. 25' (red), 30' (green) and 35' (beige) radius. Each tree contains Quarter, Third, Half and Full arcs.



#### HOW TO SPECIFY

|              |   |               |   |                     |   |                |
|--------------|---|---------------|---|---------------------|---|----------------|
| <b>5000</b>  | - | <b>MPR</b>    | - | <b>XX</b>           | - | <b>X</b>       |
| <b>MODEL</b> |   | <b>NOZZLE</b> |   | <b>RADIUS RANGE</b> |   | <b>PATTERN</b> |
| Rotors       |   | Matched       |   | 25'                 |   | Q = Quarter    |
|              |   | Precipitation |   | 30'                 |   | T = Third      |
|              |   | Rate          |   | 35'                 |   | H = Half       |
|              |   |               |   |                     |   | F = Full       |

### U.S. Performance Data





| 5000-MPR-25 (RED)      |   |      |      |      |      |   |      |      |      |      |   |      |      |      |      |   |      |      |      |      |
|------------------------|---|------|------|------|------|---|------|------|------|------|---|------|------|------|------|---|------|------|------|------|
|                        |  |      |      |      |      |  |      |      |      |      |  |      |      |      |      |  |      |      |      |      |
|                        | Quarter   |      |      |      |      | Third   |      |      |      |      | Half  |      |      |      |      | Full  |      |      |      |      |
| Pressure (psi)         | 25  | 35   | 45   | 55   | 65   | 25  | 35   | 45   | 55   | 65   | 25  | 35   | 45   | 55   | 65   | 25  | 35   | 45   | 55   | 65   |
| Radius (ft)            | 23  | 24   | 25   | 25   | 25   | 23  | 24   | 25   | 25   | 25   | 23  | 24   | 25   | 25   | 25   | 23  | 24   | 25   | 25   | 25   |
| Flow (gpm)             | 0.74  | 0.88 | 1.00 | 1.11 | 1.21 | 1.00  | 1.21 | 1.38 | 1.53 | 1.67 | 1.44  | 1.73 | 1.98 | 2.21 | 2.41 | 2.78  | 3.34 | 3.82 | 4.25 | 4.63 |
| ■ Precipitation (in/h) | 0.54  | 0.59 | 0.62 | 0.68 | 0.75 | 0.55  | 0.61 | 0.64 | 0.71 | 0.77 | 0.52  | 0.58 | 0.61 | 0.68 | 0.74 | 0.51  | 0.56 | 0.59 | 0.65 | 0.71 |
| ▲ Precipitation (in/h) | 0.62  | 0.68 | 0.71 | 0.79 | 0.86 | 0.63  | 0.70 | 0.74 | 0.82 | 0.89 | 0.61  | 0.67 | 0.70 | 0.79 | 0.86 | 0.58  | 0.64 | 0.68 | 0.76 | 0.82 |

### Metric Performance Data

| 5000-MPR-25 (RED)      |         |      |      |      |      |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------------------------|---------|------|------|------|------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|                        | Quarter |      |      |      |      | Third |      |      |      |      | Half |      |      |      |      | Full |      |      |      |      |
| Pressure (bar)         | 1.7     | 2.4  | 3.1  | 3.8  | 4.5  | 1.7   | 2.4  | 3.1  | 3.8  | 4.5  | 1.7  | 2.4  | 3.1  | 3.8  | 4.5  | 1.7  | 2.4  | 3.1  | 3.8  | 4.5  |
| Radius (m)             | 7.0     | 7.3  | 7.6  | 7.6  | 7.6  | 7.0   | 7.3  | 7.6  | 7.6  | 7.6  | 7.0  | 7.3  | 7.6  | 7.6  | 7.6  | 7.0  | 7.3  | 7.6  | 7.6  | 7.6  |
| Flow (l/m)             | 3.0     | 3.6  | 3.6  | 4.2  | 4.8  | 3.6   | 4.8  | 5.4  | 6.0  | 6.6  | 5.4  | 6.6  | 7.2  | 8.4  | 9.0  | 10.8 | 12.6 | 14.4 | 16.2 | 17.4 |
| Flow (m³/h)            | 0.17    | 0.20 | 0.23 | 0.25 | 0.27 | 0.23  | 0.27 | 0.31 | 0.35 | 0.38 | 0.33 | 0.39 | 0.45 | 0.50 | 0.55 | 0.63 | 0.76 | 0.87 | 0.97 | 1.05 |
| ■ Precipitation (mm/h) | 13.7    | 14.9 | 15.6 | 17.4 | 18.9 | 13.9  | 15.4 | 16.2 | 18.0 | 19.6 | 13.3 | 14.7 | 15.5 | 17.3 | 18.9 | 12.8 | 14.2 | 14.9 | 16.6 | 18.1 |
| ▲ Precipitation (mm/h) | 15.8    | 17.3 | 18.1 | 20.1 | 21.9 | 16.0  | 17.8 | 18.7 | 20.7 | 22.6 | 15.4 | 17.0 | 17.9 | 20.0 | 21.8 | 14.8 | 16.4 | 17.3 | 19.2 | 20.9 |






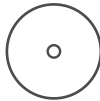
### U.S. Performance Data

| 5000-MPR-30 (GREEN)    |   |      |      |      |      |   |      |      |      |      |  |      |      |      |      |  |      |      |      |      |
|------------------------|---|------|------|------|------|---|------|------|------|------|--|------|------|------|------|--|------|------|------|------|
|                        |  Quarter |      |      |      |      |  Third |      |      |      |      |  Half |      |      |      |      |  Full |      |      |      |      |
| Pressure (psi)         | 25  | 35   | 45   | 55   | 65   | 25  | 35   | 45   | 55   | 65   | 25   | 35   | 45   | 55   | 65   | 25   | 35   | 45   | 55   | 65   |
| Radius (ft)            | 29  | 30   | 30   | 30   | 30   | 29  | 30   | 30   | 30   | 30   | 29   | 30   | 30   | 30   | 30   | 29   | 30   | 30   | 30   | 30   |
| Flow (gpm)             | 1.03  | 1.23 | 1.40 | 1.56 | 1.69 | 1.34  | 1.62 | 1.85 | 2.06 | 2.24 | 2.15   | 2.59 | 2.96 | 3.30 | 3.60 | 4.24   | 5.08 | 5.78 | 6.39 | 6.92 |
| ■ Precipitation (in/h) | 0.47  | 0.53 | 0.60 | 0.67 | 0.72 | 0.46  | 0.52 | 0.59 | 0.66 | 0.72 | 0.49   | 0.55 | 0.63 | 0.71 | 0.77 | 0.49   | 0.54 | 0.62 | 0.68 | 0.74 |
| ▲ Precipitation (in/h) | 0.54  | 0.61 | 0.69 | 0.77 | 0.83 | 0.53  | 0.60 | 0.69 | 0.76 | 0.83 | 0.57   | 0.64 | 0.73 | 0.82 | 0.89 | 0.56   | 0.63 | 0.71 | 0.79 | 0.85 |

### Metric Performance Data

| 5000-MPR-30 (GREEN)    |         |      |      |      |      |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------------------------|---------|------|------|------|------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|                        | Quarter |      |      |      |      | Third |      |      |      |      | Half |      |      |      |      | Full |      |      |      |      |
| Pressure (bar)         | 1.7     | 2.4  | 3.1  | 3.8  | 4.5  | 1.7   | 2.4  | 3.1  | 3.8  | 4.5  | 1.7  | 2.4  | 3.1  | 3.8  | 4.5  | 1.7  | 2.4  | 3.1  | 3.8  | 4.5  |
| Radius (m)             | 8.8     | 9.1  | 9.1  | 9.1  | 9.1  | 8.8   | 9.1  | 9.1  | 9.1  | 9.1  | 8.8  | 9.1  | 9.1  | 9.1  | 9.1  | 8.8  | 9.1  | 9.1  | 9.1  | 9.1  |
| Flow (l/m)             | 3.6     | 4.8  | 5.4  | 6.0  | 6.6  | 4.8   | 6.0  | 7.2  | 7.8  | 8.4  | 8.4  | 9.6  | 11.4 | 12.6 | 13.8 | 16.2 | 19.2 | 21.6 | 24.0 | 26.4 |
| Flow (m³/h)            | 0.23    | 0.28 | 0.32 | 0.35 | 0.38 | 0.30  | 0.37 | 0.42 | 0.47 | 0.51 | 0.49 | 0.59 | 0.67 | 0.75 | 0.82 | 0.96 | 1.15 | 1.31 | 1.45 | 1.57 |
| ■ Precipitation (mm/h) | 12.0    | 13.4 | 15.2 | 17.0 | 18.4 | 11.7  | 13.2 | 15.1 | 16.8 | 18.3 | 12.5 | 14.1 | 16.1 | 17.9 | 19.6 | 12.3 | 13.8 | 15.7 | 17.4 | 18.8 |
| ▲ Precipitation (mm/h) | 13.8    | 15.4 | 17.6 | 19.6 | 21.2 | 13.5  | 15.2 | 17.4 | 19.4 | 21.1 | 14.4 | 16.2 | 18.6 | 20.7 | 22.6 | 14.2 | 15.9 | 18.1 | 20.0 | 21.7 |

### U.S. Performance Data

| 5000-MPR-35 (BEIGE)    |   |      |      |      |      |   |      |      |      |      |  |      |      |      |      |  |      |      |      |      |
|------------------------|---|------|------|------|------|---|------|------|------|------|--|------|------|------|------|--|------|------|------|------|
|                        |  Quarter |      |      |      |      |  Third |      |      |      |      |  Half |      |      |      |      |  Full |      |      |      |      |
| Pressure (psi)         | 25  | 35   | 45   | 55   | 65   | 25  | 35   | 45   | 55   | 65   | 25   | 35   | 45   | 55   | 65   | 25   | 35   | 45   | 55   | 65   |
| Radius (ft)            | 32  | 34   | 35   | 35   | 35   | 32  | 34   | 35   | 35   | 35   | 32   | 34   | 35   | 35   | 35   | 32   | 34   | 35   | 35   | 35   |
| Flow (gpm)             | 1.40  | 1.67 | 1.92 | 2.13 | 2.31 | 1.77  | 2.15 | 2.46 | 2.74 | 2.99 | 2.75   | 3.33 | 3.81 | 4.23 | 4.62 | 5.36   | 6.62 | 7.58 | 8.43 | 9.18 |
| ■ Precipitation (in/h) | 0.53  | 0.56 | 0.60 | 0.67 | 0.73 | 0.50  | 0.54 | 0.58 | 0.65 | 0.70 | 0.52   | 0.55 | 0.60 | 0.66 | 0.73 | 0.50   | 0.55 | 0.60 | 0.66 | 0.72 |
| ▲ Precipitation (in/h) | 0.61  | 0.64 | 0.70 | 0.77 | 0.84 | 0.58  | 0.62 | 0.67 | 0.75 | 0.81 | 0.60   | 0.64 | 0.69 | 0.77 | 0.84 | 0.58   | 0.64 | 0.69 | 0.76 | 0.83 |

### Metric Performance Data

| 5000-MPR-35 (BEIGE)    |         |      |      |      |      |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------------------------|---------|------|------|------|------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|                        | Quarter |      |      |      |      | Third |      |      |      |      | Half |      |      |      |      | Full |      |      |      |      |
| Pressure (bar)         | 1.7     | 2.4  | 3.1  | 3.8  | 4.5  | 1.7   | 2.4  | 3.1  | 3.8  | 4.5  | 1.7  | 2.4  | 3.1  | 3.8  | 4.5  | 1.7  | 2.4  | 3.1  | 3.8  | 4.5  |
| Radius (m)             | 9.8     | 10.4 | 10.7 | 10.7 | 10.7 | 9.8   | 10.4 | 10.7 | 10.7 | 10.7 | 9.8  | 10.4 | 10.7 | 10.7 | 10.7 | 9.8  | 10.4 | 10.7 | 10.7 | 10.7 |
| Flow (l/m)             | 5.4     | 6.6  | 7.2  | 7.8  | 9.0  | 6.6   | 8.4  | 9.6  | 10.2 | 11.4 | 10.2 | 12.6 | 14.4 | 16.2 | 17.4 | 20.4 | 25.2 | 28.8 | 31.8 | 34.8 |
| Flow (m³/h)            | 0.32    | 0.38 | 0.44 | 0.48 | 0.52 | 0.40  | 0.49 | 0.56 | 0.62 | 0.68 | 0.62 | 0.76 | 0.87 | 0.96 | 1.05 | 1.22 | 1.50 | 1.72 | 1.91 | 2.09 |
| ■ Precipitation (mm/h) | 13.4    | 14.1 | 15.3 | 17.0 | 18.4 | 12.7  | 13.6 | 14.7 | 16.4 | 17.9 | 13.1 | 14.1 | 15.2 | 16.9 | 18.4 | 12.8 | 14.0 | 15.1 | 16.8 | 18.3 |
| ▲ Precipitation (mm/h) | 15.4    | 16.3 | 17.7 | 19.6 | 21.3 | 14.6  | 15.8 | 17.0 | 18.9 | 20.7 | 15.2 | 16.3 | 17.6 | 19.5 | 21.3 | 14.8 | 16.2 | 17.5 | 19.4 | 21.2 |

## Root Watering System (RWS)

### FEATURES

- Subsurface aeration and irrigation prevents tree and shrub transplant shock.
- Highest efficiency solution for tree irrigation — up to 95% emission uniformity with minimal wind, evaporation or edge control losses.
- Aesthetically designs subsurface bubbler contributes to a landscape's natural appearance.
- Locking grate at grade deters vandals.
- Helps prevent shallow root growth and hardscape damage.
- Aesthetically attractive below-grade installation.
- Self-contained and factory-assembled units for assured reliability.

### SPECIFICATIONS

#### RWS

##### Dimensions:

- Length:** 36" (91.4 cm) semi-rigid mesh tube
- Top Diameter:** 4" (10.2 cm) retaining cap with vandal-resistant locking grate

##### Bubbler Options:

- 1401:** 0.25 gpm; 0.95 l/m
- 1402:** 0.5 gpm; 1.9 l/m
- 1404:** 1.0 gpm; 3.8 l/m

##### Options:

- Check Valve:** Keep lines from draining
- Sand Sock:** For use in fine soils

#### RWS-Mini

##### Dimensions:

- Length:** 18" (45.7 cm) semi-rigid mesh tube
- Top Diameter:** 4" (10.2 cm) retaining cap with vandal-resistant locking grate

##### Bubbler Options:

- 1401:** 0.25 gpm; 0.95 l/m
- 1402:** 0.5 gpm; 1.9 l/m

##### Options:

- Check Valve:** Keep lines from draining
- Sand Sock:** For use in fine soils

#### RWS-Supplemental

##### Dimensions:

- Length:** 10" (25.4 cm) semi-rigid mesh tube
- Top Diameter:** 2" (5.1 cm) snap-on cap and base cap

##### Bubbler Options:

- PCT:** Pressure-compensating ½" FPT inlet (0.08 gpm; 0.32 l/m)
- 1401:** 0.25 gpm; 0.95 l/m

##### Options:

- Check Valve:** Keep lines from draining
- Sand Sock:** For use in fine soils

### HOW TO SPECIFY

| RWS   | - X                          | - | X                           | - | X               | - | XXXX   |
|-------|------------------------------|---|-----------------------------|---|-----------------|---|--|
| MODEL | MODEL                        |   | BUBBLER                     |   | OPTION          |   | BUBBLER MODEL  |
| RWS   | M = Mini<br>S = Supplemental |   | B = Bubbler<br>preinstalled |   | C = Check Valve |   | PCTS = 0.08 gpm (0.32 l/m)<br>1401 = 0.25 gpm (0.95 l/m)<br>1402 = 0.50 gpm (1.9 l/m)<br>1404 = 1.00 gpm (3.8 l/m) |



RWS-Sock

Designed to fit over the outside of the unit. Ideal for use in sandy soil, it will deter fine soil from infiltrating the RWS canister.



RWS integrated collar and locking grate retainer.



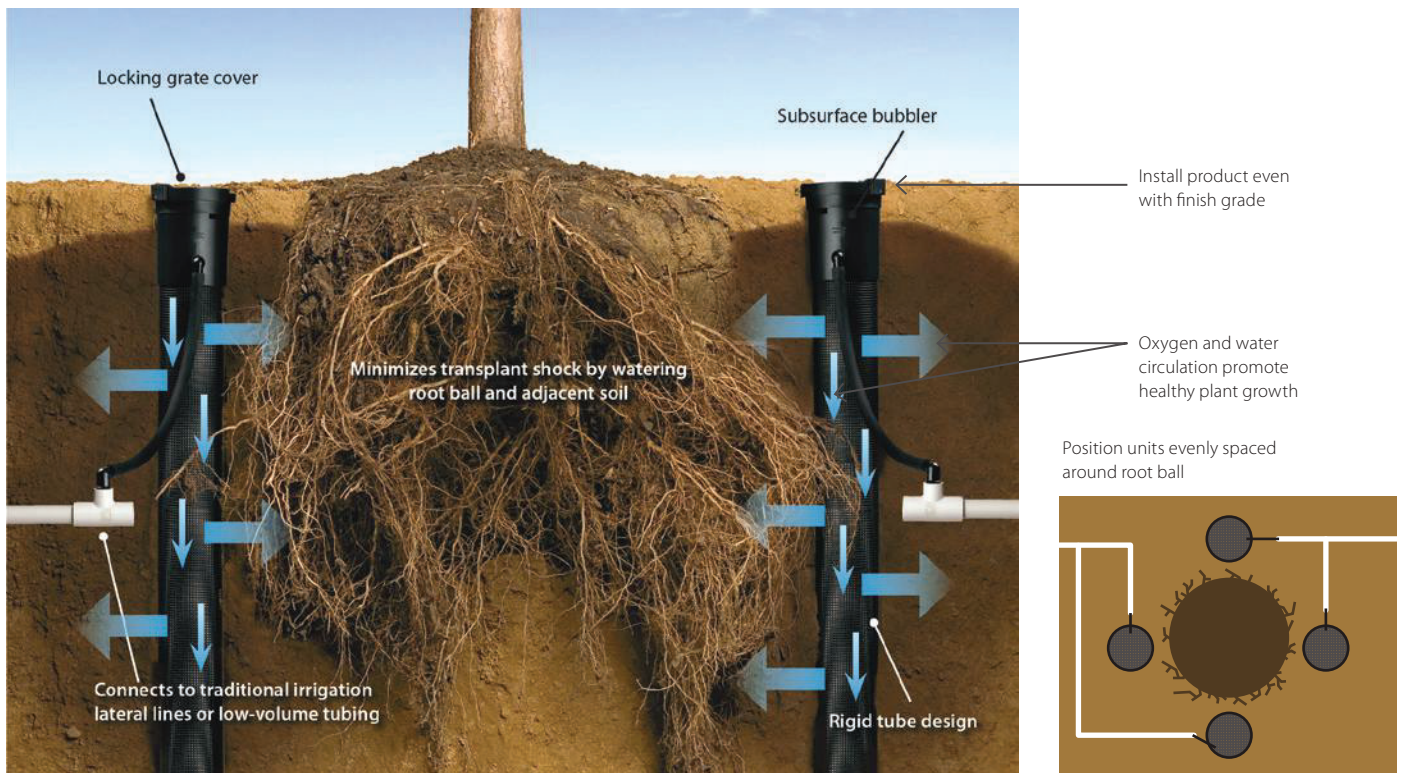
RWS Models / Specifications

| Model   | Bubbler                                      | Check Valve* | Swing Assembly        | Spiral Barb Elbow |
|---|--|--------------|-----------------------|-------------------|
| <b>Root Watering System — 36" (91.4 cm) with 4" (10.2 cm) vandal-resistant locking grate</b>      |  |              |                       |                   |
| RWS   | ¼" drip tubing or customer-provided hardware | —            | —                     | —                 |
| RWS-B-C-1401  | 0.25 gpm (0.95 l/m)                          | ✓            | ✓                     | —                 |
| RWS-B-1401  | 0.25 gpm (0.95 l/m)                          | —            | ✓                     | —                 |
| RWS-B-X-1401  | 0.25 gpm (0.95 l/m)                          | —            | ✓ (18" with no elbow) | —                 |
| RWS-B-C-1402  | 0.50 gpm (1.9 l/m)                           | ✓            | ✓                     | —                 |
| RWS-B-1402  | 0.50 gpm (1.9 l/m)                           | —            | ✓                     | —                 |
| RWS-B-C-1404  | 1.00 gpm (3.8 l/m)                           | ✓            | ✓                     | —                 |
| <b>Root Watering System-Mini — 18" (45.7 cm) with 4" (10.2 cm) vandal-resistant locking grate</b> |  |              |                       |                   |
| RWS-M   | ¼" drip tubing or customer-provided hardware | —            | —                     | —                 |
| RWS-M-B-C-1401  | 0.25 gpm (0.95 l/m)                          | ✓            | —                     | ✓                 |
| RWS-M-B-1401  | 0.25 gpm (0.95 l/m)                          | —            | —                     | ✓                 |
| RWS-M-B-C-1402  | 0.50 gpm (1.9 l/m)                           | ✓            | —                     | ✓                 |
| RWS-M-B-1402  | 0.50 gpm (1.9 l/m)                           | —            | —                     | ✓                 |
| <b>Root Watering System-Supplemental — 10" (25.4 cm) with 2" (5.1 cm) pop-on cap and base</b>     |  |              |                       |                   |
| RWS-S-B-C-PCT5  | 0.08 gpm (0.32 l/m)                          | ✓            | —                     | ✓                 |
| RWS-S-B-C-1401  | 0.25 gpm (0.95 l/m)                          | ✓            | —                     | ✓                 |
| RWS-S-B-1401  | 0.25 gpm (0.95 l/m)                          | —            | —                     | ✓                 |

Accessories

RWS-SOCK = Root Watering Sock

RWS-GRATE-P = Purple grate for RWS and RWS-Mini



## XFS-CV Dripline with Heavy-Duty Check Valve

Rain Bird® XFS-CV Dripline with an improved 4.3 psi check valve delivers 10 feet of hold-back—the highest in the industry. With pure copper chips in every emitter to protect against emitter root intrusion, XFS-CV Dripline is an all-in-one dripline suitable for any application—on-surface, sub-surface, sloped or level-grade. When used in applications where elevation changes exist, the patent-pending check valve keeps the dripline charged with water, delivering better irrigation uniformity while preventing over-watering and puddling at the low-point in the zone. A proprietary tubing material makes the XFS Sub-Surface Dripline with Copper Shield™ the most flexible tubing in the industry, and the easiest sub-surface dripline to design with and install.

Accepts Rain Bird XF Dripline Barbed Insert Fittings and other 17 mm barbed insert fittings.

### FEATURES

#### Simple

- Rain Bird's patent-pending 4.3 psi check valve technology keeps the dripline charged with water at all times, increasing uniformity of watering, and conserves water by eliminating the need to recharge the line at the beginning of each watering cycle.
- XFS-CV Sub-Surface Dripline 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. Through the use of a proprietary tubing material, the XFS-CV Dripline with heavy-duty check valve is the most flexible dripline tubing in the industry, making it the easiest dripline to design with and install.
- Rain Bird's low-profile emitter design reduces in-line pressure loss, allowing longer lateral runs, simplifying design and reducing installation time.
- Variety of standard emitter flow rates, emitter spacing and coil lengths provide design flexibility for sub-surface and on-surface areas with or without elevation changes.

#### Made with Recycled Content

- All Rain Bird XF Dripline (XFD, XFS, XFCV, XFS-CV) qualify for LEED credit 4.2 because they contain at least 20% Polyethylene post-consumer-recycled-material by cost. These come in an assortment of coil sizes, flow rates and emitter spacing.

#### Reliable

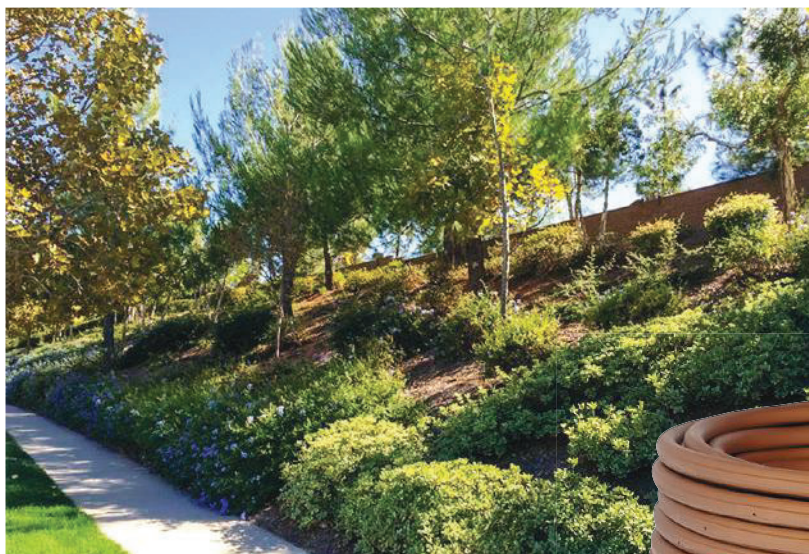
- The pressure-compensating emitter design provides a consistent flow over the entire lateral length ensuring higher uniformity for increased reliability in the pressure range of 20 to 60 psi.

#### Durable

- Dual-layered tubing (copper 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

**Opening Pressure:** 14.5 psi

**Pressure:** 20 to 60 psi (1.38 to 4.14 bar)

**Flow rates:** 0.6 and 0.9 gph (2.3 l/hr and 3.5 l/hr)

**Temperature:**

**Water:** Up to 100°F (37.8° C)

**Ambient:** Up to 125°F (51.7° C)

**Required Filtration:** 120 mesh

### SPECIFICATIONS

**Dimensions:**

**OD:** 0.634" (16mm)

**ID:** 0.536" (13.6mm);

**Thickness:** 0.049" (1.2mm)

**Spacing:** 12" or 18" (30.5 cm, 45.7 cm)

**Coil Length:** 100', 250' and 500' (30.5 m, 76.2 m and 152.4 m)

**Coil Colors:** Copper, purple, purple stripe

### HOW TO SPECIFY

|  |   |  |   |  |   |  |   |  |
|--|---|--|---|--|---|--|---|--|
| <b>XFS-CV</b>  | - | <b>X(X)</b>  | - | <b>XX</b>  | - | <b>XX</b>  | - | <b>XXX</b>   |
| <b>MODEL</b><br>Dripline with<br>Heavy-Duty<br>Check Valve |   | <b>OPTIONAL</b><br>P = Purple<br>PS = Purple<br>Stripe |   | <b>FLOW RATE</b><br>06 = 0.61 gph (2.3 l/h)<br>09 = 0.92 gph (3.5 l/h) |   | <b>EMITTER SPACING</b><br>12 = 12" (30.5 cm)<br>18 = 18" (45.7 cm) |   | <b>COIL LENGTH</b><br>100 = 100' (30.5 m)<br>250 = 250' (76.2 m)<br>500 = 500' (152.4 m) |

### Compatible Fittings

See page 90 for more information.



XF Dripline Insert Fittings

### U.S. Performance Data

|                             | MAXIMUM LATERAL LENGTH (FEET) |            |                    |            |
|-----------------------------|-------------------------------|------------|--------------------|------------|
|                             | 12" Spacing                   |            | 18" Spacing        |            |
|                             | Nominal Flow (gph)            |            | Nominal Flow (gph) |            |
| <b>Inlet Pressure (psi)</b> | <b>0.6</b>                    | <b>0.9</b> | <b>0.6</b>         | <b>0.9</b> |
| 20                          | 192                           | 136        | 254                | 215        |
| 30                          | 289                           | 205        | 402                | 337        |
| 40                          | 350                           | 248        | 498                | 416        |
| 50                          | 397                           | 281        | 573                | 477        |
| 60                          | 436                           | 309        | 637                | 529        |

### Metric Performance Data

|                             | MAXIMUM LATERAL LENGTH (METERS) |            |                    |            |
|-----------------------------|---------------------------------|------------|--------------------|------------|
|                             | 30.5 cm Spacing                 |            | 45.7 cm Spacing    |            |
|                             | Nominal Flow (l/h)              |            | Nominal Flow (l/h) |            |
| <b>Inlet Pressure (bar)</b> | <b>2.3</b>                      | <b>3.4</b> | <b>2.3</b>         | <b>3.4</b> |
| 1.4                         | 59                              | 41         | 77                 | 66         |
| 2.1                         | 88                              | 63         | 123                | 103        |
| 2.8                         | 107                             | 76         | 152                | 127        |
| 3.5                         | 121                             | 86         | 175                | 145        |
| 4.1                         | 133                             | 94         | 194                | 161        |

## QF Dripline Header

A quick and flexible replacement for site-built header, the QF Dripline Header is a patent-pending product that is the landscape industry's first pre-fabricated header for dripline installations. Using a proprietary blend of polyethylene, similar to Rain Bird's XF Series Dripline, the QF Dripline Header allows installers to simply roll out the header and attach the dripline at a guaranteed 12" or 18" spacing — eliminating the need for measuring, cutting, gluing and taping.

### FEATURES

- Header elbows rotate 360° and incorporate a protective ring — preventing damage and ensuring a proper seal.
- Rotating barb manages trenching misalignment — move left or right to accommodate the dripline without the need to retrench.
- Elbows utilize the same design as Rain Bird's popular XFF Fitting, requiring 50% less insertion force, and are compatible with the XFF Fittings Tool.

### SPECIFICATIONS

#### ¾" QF Header

##### Dimensions:

**OD:** 0.94" (23.9 mm)

**ID:** 0.82" (20.8 mm)

**Thickness:** 0.06" (1.5 mm)

**Spacing:** 12" or 18"  
(30.5 cm or 45.7 cm)

**Coil Length:** 100' (30.5 m)

**Coil Colors:** Copper or Purple

#### 1" QF Header

##### Dimensions:

**OD:** 1.20" (30.5 mm)

**ID:** 1.06" (26.9 mm)

**Thickness:** 0.07" (1.8 mm)

**Spacing:** 12" or 18"  
(30.5 cm or 45.7 cm)

**Coil Length:** 100' (30.5 m)

**Coil Colors:** Copper or Purple

### Models

| Coil        | 12" Spacing |             | 18" Spacing |             |
|-------------|-------------|-------------|-------------|-------------|
|             | ¾" Dripline | 1" Dripline | ¾" Dripline | 1" Dripline |
| 100'        | XQF7512100  | XQF1012100  | XQF7518100  | XQF1018100  |
| 100' Purple | —           | XQF101210P  | —           | XQF101810P  |

### HOW TO SPECIFY

| XQF                             | — | XX              | — | XX                     | — | XXX                        |
|---------------------------------|---|-----------------|---|------------------------|---|----------------------------|
| <b>MODEL</b>                    |   | <b>DIAMETER</b> |   | <b>EMITTER SPACING</b> |   | <b>COIL LENGTH</b>         |
| XQF = Xerigation Quick Flexible |   | 75 = ¾"         |   | 12 = 12" (30.5 cm)     |   | 100 = 100' (30.5 m)        |
|                                 |   | 10 = 1"         |   | 18 = 18" (45.7 cm)     |   | 10P = 100' (30.5 m) Purple |

### Compatible Fittings

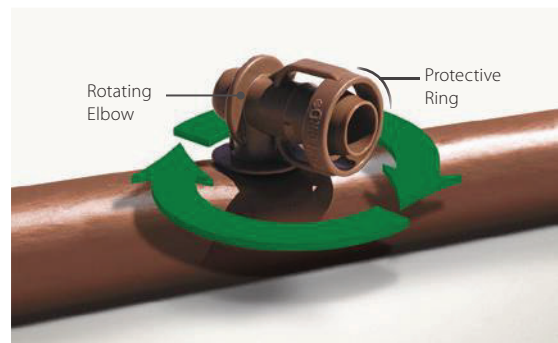
See page 90 for more information.



¾" QF Header:  
Twist Lock Fittings 800 Series



1" QF Header:  
Twist Lock Fittings 1000 Series



## XFD On-Surface Dripline

### FEATURES

- Extra flexible tubing for fast, easy installation.
- Dual-layered tubing (brown over black or purple over black) provides unmatched resistance to chemicals, UV damage and algae growth.
- Patent-pending emitter design provides for increased reliability.
- Longer lateral runs than the competition.
- Unique material offers significantly greater flexibility, allowing tighter turns with fewer elbows for easier installation.
- Choice of flow rates, spacing and coil lengths provides design flexibility for a variety of non-turfgrass applications.

### SPECIFICATIONS

#### Dimensions:

**OD:** 0.634" (16.1 mm)

**ID:** 0.536" (13.6 mm)

**Thickness:** 0.049" (1.2 mm)

**Spacing:** 12" or 18" (30.5 cm or 45.7 cm)

**Coil Lengths:** 100' (30.5 m), 250' (76.2 m), and 500' (152.4 m)

**Coil Colors:** Copper or Purple

#### Operating Range:

**Pressure:** 8.5 to 60 psi (0.58 to 4.1 bar)

**Flow Rates:** 0.6 and 0.9 gph (2.3 and 3.5 l/hr)

#### Temperature:

**Water:** Up to 100° F (37.8° C)

**Ambient:** Up to 125° F (51.7° C)

**Required Filtration:** 120 mesh

**Compatible Fittings:** XF Dripline Insert Fittings, Rain Bird Easy Fit Compression Fittings or Twist Lock Fittings (See page 90 for more information)



### HOW TO SPECIFY

| XFD                                | - | X          | - | XX   | - | XX                                       | - | XXX  |
|------------------------------------|---|------------|---|--|---|--|---|--|
| MODEL                              |   | OPTIONAL   |   | FLOW RATE  |   | EMITTER SPACING                          |   | COIL LENGTH  |
| XFD = Xerigation Flexible Dripline |   | P = Purple |   | 06 = 0.61 gph (2.3 l/h)<br>09 = 0.92 gph (3.5 l/h) |   | 12 = 12" (30.5 cm)<br>18 = 18" (45.7 cm) |   | 100 = 100' (30.5 m)<br>250 = 250' (76.2 m)<br>500 = 500' (152.4 m) |





## Twist Lock Fittings

- Simplify installation of QF Header, Dripline and Blank Distribution Tubing.
- Fittings provide an even tighter seal on tubing by using high quality barbs and twist locking nuts.
- Unique barb design reduces insertion force while maintaining a secure fit.

### SPECIFICATIONS

**Pressure:** 0 to 60 psi (0 to 4.1 bar)

### MODELS

#### 600 Series

- TLF-CUPL-0600:** ½" Coupler
- TLF-TEE-0600:** ½" Tee
- TLF-ELBW-0600:** ½" Elbow
- TLF-MPT6-0600:** ½" NPT to ½" Adapter
- TLF-MPT8-0600:** ¾" NPT to ½" Adapter

#### 800 Series

- TLF-CUPL-0800:** ¾" Coupler
- TLF-TEE-0800:** ¾" Tee
- TLF-ELBW-0800:** ¾" Elbow
- TLF-MPT8-0800:** ¾" NPT Adapter
- TLF-CAP-0800:** ¾" Cap

#### 1000 Series

- TLF-CUPL-1000:** 1" Coupler
- TLF-TEE-1000:** 1" Tee
- TLF-ELBW-1000:** 1" Elbow
- TLF-MPT1-1000:** 1" NPT Adapter



## XF Dripline Insert Fittings



- Complete line of 17 mm insert fittings to simplify installation of XF Series Dripline.
- Unique barb design reduces insertion force and still retain a secure fit.
- Non-obtrusive colored fittings to compliment natural earth tones.

### SPECIFICATIONS

**Pressure:** 0 to 50 psi (1.0 to 3.5 bar); If using 60 psi (4.1 bar), clamps will be required

### MODELS

- XFF-COUP:** 17 mm Barb x Barb Coupling
- XFF-ELBOW:** 17 mm Barb x Barb Elbow
- XFF-MA-050:** 17 mm Barb x ½" MPT Male Adapter
- XFF-TEE:** 17 mm Barb x Barb x Barb Tee
- XFF-TMA-050:** 17 mm Barb x ½" MPT x 17 mm Barb Tee Male Adapter
- XFF-MA-075:** 17 mm Barb x ¾" MPT Male Adapter
- XFF-FA-050:** Low-Profile Barb Elbow Female Adapter 17 mm x ½" FPT
- XFF-TFA-050:** Low-Profile Barb Tee Female Adapter 17 mm x ½" FPT x 17 mm
- XFD-CROSS:** Barb Cross 17 mm x 17 mm x 17 mm x 17 mm
- XFS-TFA-075:** Barb Tee Female Adapter 17 mm x ¾" FPT x 17 mm
- FITTINGS-TOOL:** XF Fitting Insertion Tool. Compatible with XFF-COUP, XFF-ELBOW, XFF-TEE and QF Dripline Header.

## Easy Fit Compression System



- Multi-diameter compression fittings work with a wide range of 16 mm to 17 mm tubing or dripline.
- 50% less force required to connect tubing and fittings versus competitive compression fittings. Adapters swivel for easy installation.
- Patented fittings and adapters are molded from UV-resistant and durable ABS materials.
- Removable flush caps can be used to flush end of line and temporarily cap off lines for later expansion.
- Not recommended with subsurface irrigation.

### SPECIFICATIONS

**Pressure:** 0 to 60 psi (0 to 4.1 bar)

**Tubing:** Accepts tubing with an OD of 0.630" (16 mm) to 0.669" (17 mm)

### MODELS

#### Easy Fit Fittings

- MDCF-COUP:** Coupling
- MDCF-EL:** Elbow
- MDCF-TEE:** Tee

#### Easy Fit Adapters

- MDCF-50MPT:** ½" Male Pipe Thread Adapter
- MDCF-75MPT:** ¾" Male Pipe Thread Adapter
- MDCF-50FPT:** ½" Female Pipe Thread Adapter
- MDCF-75FPT:** ¾" Female Pipe Thread Adapter
- MDCF-75FHT:** ¾" Female Hose Thread Adapter
- MDCF-CAP:** Black Removable Flush Cap
- MDCF-PCAP:** Purple Removable Flush Cap

**NOTE:** Easy Fit Adapters are not barbed fittings. They are to be used only with Easy Fit Compression Fittings.

## XF Series Blank Tubing

### FEATURES

- Greater flexibility is easier to install and saves time.
- Brown color matches landscape and blends with mulch.
- Compatible with XF Series Dripline (0.634" (16.1 mm) OD x 0.536" (13.6 mm) ID).
- Accepts Rain Bird® Easy Fit Compression Fittings, XF Dripline Insert Fittings and 17 mm insert fittings. Not compatible with 16 mm fittings.



### SPECIFICATIONS

#### Dimensions:

- OD:** 0.634" (16.1 mm)
- ID:** 0.536" (13.6 mm)
- Thickness:** 0.049" (1.2 mm)

#### Models:

- XFD100:** 100' coil (30 m)
- XFD250:** 250' coil (76 m)
- XFD500:** 500' coil (152 m)
- XFP500:** 500' purple coil (152 m)
- XFP500:** 500' purple stripe coil (152 m)

### U.S. Performance Data

| FRICTION LOSS CHARACTERISTICS (PSI/100 FT) |            |      |      |      |      |      |      |       |       |       |       |       |
|--|------------|------|------|------|------|------|------|-------|-------|-------|-------|-------|
|  | Flow (gpm) |      |      |      |      |      |      |       |       |       |       |       |
|  | 0.50       | 1.00 | 1.50 | 2.00 | 2.50 | 3.00 | 3.50 | 4.00  | 4.50  | 5.00  | 5.50  | 6.00  |
| Velocity (fps)                             | 0.70       | 1.40 | 2.10 | 2.80 | 3.50 | 4.20 | 4.90 | 5.60  | 6.30  | 7.00  | 7.70  | 8.40  |
| Loss (psi)                                 | 0.27       | 0.97 | 2.06 | 3.50 | 5.29 | 7.42 | 9.87 | 12.64 | 15.72 | 19.11 | 22.80 | 26.78 |

### Metric Performance Data

| FRICTION LOSS CHARACTERISTICS (BAR/100 M) |            |      |      |      |      |       |       |       |       |       |       |       |
|---|------------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
|   | Flow (l/m) |      |      |      |      |       |       |       |       |       |       |       |
|   | 1.89       | 3.79 | 5.68 | 7.57 | 9.46 | 11.36 | 13.25 | 15.14 | 17.03 | 18.93 | 20.82 | 22.71 |
| Velocity (m/s)                            | 0.21       | 0.43 | 0.64 | 0.85 | 1.07 | 1.28  | 1.49  | 1.71  | 1.92  | 2.13  | 2.35  | 2.56  |
| Loss (bar)                                | 0.06       | 0.22 | 0.46 | 0.79 | 1.20 | 1.68  | 2.23  | 2.86  | 3.56  | 4.32  | 5.16  | 6.06  |

**NOTE:** Use of tubing a flows shown in shaded area is not recommended, as velocities exceed 5 ft/sec (1.5 m/s).

## XT-700 Distribution Tubing

### FEATURES

- Thick-walled, flexible tubing resists kinks and damage caused by routine landscape maintenance activities.
- Extruded from UV-resistant polyethylene resin materials.
- Accepts Rain Bird ½" Twist Lock Fittings — 600 Series.



### SPECIFICATIONS

#### Dimensions:

- OD:** 0.70" (18 mm)
- ID:** 0.58" (15 mm)
- Thickness:** 0.06" (1.5 mm)

**Pressure:** 0 to 60 psi (0 to 4.1 bar)

#### Models:

- XT-700-100:** 100' coil (30 m)
- XT-700-500:** 500' coil (152 m)

### U.S. Performance Data

| FRICTION LOSS CHARACTERISTICS (PSI/100 FT) |            |      |      |      |      |      |      |      |       |       |       |       |
|--|------------|------|------|------|------|------|------|------|-------|-------|-------|-------|
|  | Flow (gpm) |      |      |      |      |      |      |      |       |       |       |       |
|  | 0.50       | 1.00 | 1.50 | 2.00 | 2.50 | 3.00 | 3.50 | 4.00 | 4.50  | 5.00  | 5.50  | 6.00  |
| Velocity (fps)                             | 0.61       | 1.21 | 1.82 | 2.43 | 3.03 | 3.64 | 4.24 | 4.85 | 5.46  | 6.06  | 6.67  | 7.28  |
| Loss (psi)                                 | 0.19       | 0.69 | 1.45 | 2.47 | 3.74 | 5.24 | 6.97 | 8.93 | 11.10 | 13.50 | 16.10 | 18.92 |

### Metric Performance Data

| FRICTION LOSS CHARACTERISTICS (BAR/100 M) |            |      |      |      |      |       |       |       |       |       |       |       |
|---|------------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
|   | Flow (l/m) |      |      |      |      |       |       |       |       |       |       |       |
|   | 1.89       | 3.79 | 5.68 | 7.57 | 9.50 | 11.36 | 13.25 | 15.14 | 17.03 | 18.93 | 20.82 | 22.71 |
| Velocity (m/s)                            | 0.19       | 0.37 | 0.56 | 0.74 | 0.92 | 1.11  | 1.29  | 1.48  | 1.67  | 1.85  | 2.03  | 2.22  |
| Loss (bar)                                | 0.01       | 0.05 | 0.10 | 0.17 | 0.26 | 0.36  | 0.48  | 0.62  | 0.77  | 0.93  | 1.11  | 1.31  |

**NOTE:** Use of tubing a flows shown in shaded area is not recommended, as velocities exceed 5 ft/sec (1.5 m/s).

## Xeri-Bug™ with Check Valve

### FEATURES

#### Efficient Water Usage

- With 10 feet (3 m) of hold-back power, XBCV eliminates low-point drainage and provides uniform irrigation throughout the zone.
- Strong check-valve protection helps conserve water by eliminating low-point drainage and flooding. In a standard 500-foot (152 m) line with 1/2" (13 mm) internal diameter, 20 gallons (76 L) of water is held in the line instead of draining out.
- In a zone that has a 10-foot (3 m) elevation change, only one zone is needed for the XBCV. Fewer zones allow you to save money on valves and time on installation.

#### Holds Prime in the Line

- Designed to hold prime in the line, these emitters immediately begin irrigation and reduce cycle times.
- By holding prime when the system is turned off, XBCV prevents particles from clogging the emitter — a problem when a system drains and siphons soiled water.
- Holding prime in the line reduces calcium build-up and extends the life of the emitter.

#### All-in-One Design

- With its comprehensive capabilities, the XBCV can be taken to any jobsite. It's the only emitter you need to stock, carry and install, simplifying point-source drip jobs.

#### Pressure Compensating

- A pressure-compensating design offers a consistent flow from 15 to 50 psi (1.0 to 3.5 bar).
- XBCV delivers the same amount of water from the first emitter in the line to the last.

#### Self Cleaning

- A self-flushing action cleans the emitters every time the system turns on and off, reducing maintenance and extending the life of the emitter.

#### Self-Piercing Barb

- Self-piercing models feature barbs that eliminate the need for a hole-punching tool, making installation easier.

#### Risers and Adapters

- Models with 10-32 threaded ends can quickly connect to risers or adapters.

#### Compact Design

- With a diameter less than a dime, the emitter is unobtrusive and easily hidden.

### SPECIFICATIONS

#### Operating Range

**Opening Pressure:** 15 psi (1.0 bar)

**Pressure:** 15 to 50 psi (1.0 to 3.5 bar)

**Flow Rates:** 0.5 to 2.0 gph (1.9 to 7.6 lph)

**Filtration Requirement:** 150 mesh (75 micron)

#### Models

##### Self-Piercing Barb Inlet x Barb Outlet

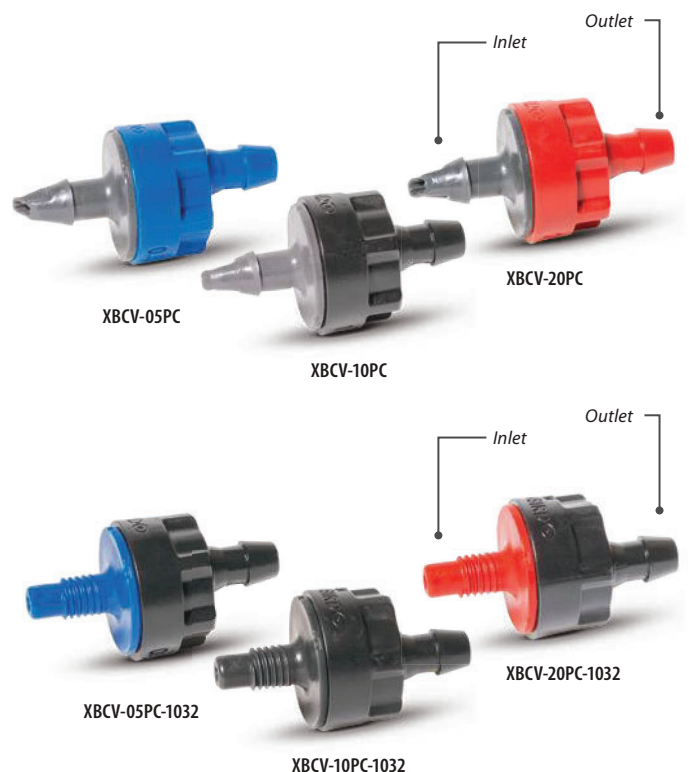
- **XBCV-05PC:** Blue, 0.5 gph (1.9 lph)
- **XBCV-10PC:** Black, 1.0 gph (3.8 lph)
- **XBCV-20PC:** Red, 2.0 gph (7.6 lph)

##### 10-32 Threaded Inlet x Barb Outlet

- **XBCV-05PC-1032:** Blue, 0.5 gph (1.9 lph)
- **XBCV-10PC-1032:** Black, 1.0 gph (3.8 lph)
- **XBCV-20PC-1032:** Red, 2.0 gph (7.6 lph)

### HOW TO SPECIFY

| XBCV - XX   |                         | PC                    | XXXX           |
|-------------|-------------------------|-----------------------|----------------|
| MODEL       | FLOW                    | PRESSURE COMPENSATING | OPTIONAL       |
| Xeri-Bug    | 05 = 0.5 gph (1.89 l/h) |                       | 1032 = 10-32   |
| Check Valve | 10 = 1.0 gph (3.79 l/h) |                       | Threaded Inlet |
|             | 20 = 2.0 gph (7.57 l/h) |                       |                |



1032-threaded models are specifically designed to be used with PolyFlex Risers, 1032 thread adapters (1032-A), or 1800 Xeri-Bubbler Adapter (XBA-1800)



### U.S. Performance Data

| Model   | Color | Nominal Flow (gph) |
|---|-------|--------------------|
| <b>SELF-PIERCING BARB INLET x BARB OUTLET</b> |       |                    |
| XBCV-05PC                                     | Blue  | 0.5                |
| XBCV-10PC                                     | Black | 1.0                |
| XBCV-20PC                                     | Red   | 2.0                |
| <b>10-32 THREADED INLET x BARB OUTLET</b>     |       |                    |
| XBCV-05PC-1032                                | Blue  | 0.5                |
| XBCV-10PC-1032                                | Black | 1.0                |
| XBCV-20PC-1032                                | Red   | 2.0                |

150 mesh filtration required on all models.

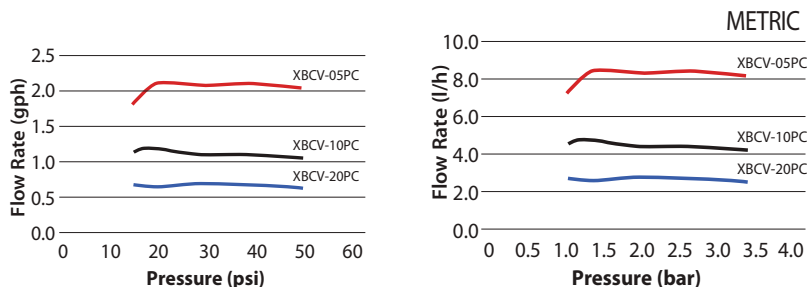
### Metric Performance Data

| Model   | Color | Nominal Flow (l/h) |
|---|-------|--------------------|
| <b>SELF-PIERCING BARB INLET x BARB OUTLET</b> |       |                    |
| XBCV-05PC                                     | Blue  | 1.89               |
| XBCV-10PC                                     | Black | 3.79               |
| XBCV-20PC                                     | Red   | 7.57               |
| <b>10-32 THREADED INLET x BARB OUTLET</b>     |       |                    |
| XBCV-05PC-1032                                | Blue  | 1.89               |
| XBCV-10PC-1032                                | Black | 3.79               |
| XBCV-20PC-1032                                | Red   | 7.57               |

75 micron filtration required on all models.



**Pressure Compensating:** Xeri-Bug™ Emitters with Check Valve maintain a consistent flow rate from 15 to 50 psi (1.0 to 3.5 bar)

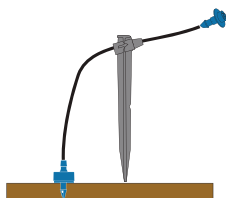


### Installation Options



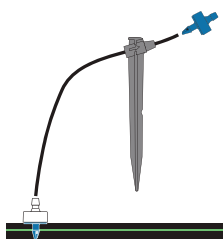
**Option 1\***

Using a Xeriman Tool, insert an emitter directly into ½" or ¾" drip tubing or between dripline emitters as needed.



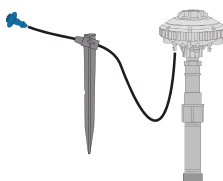
**Option 2\***

For more precise water placement, use ¼" distribution tubing, a ¼" tubing stake and a bug cap.



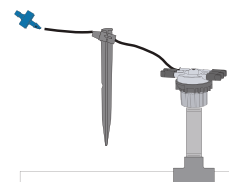
**Option 3**

For precise water placement, a barbed connector can be punched into distribution tubing. The emitter is then placed at the end of the ¼" distribution tubing. NOTE: should the emitter become dislodged, unregulated flow will occur.



**Option 4\***

The Xeri-Bird 8 provides a centralized location for up to eight emitters. A mix of Xeri-Bug and/or PC emitters can be used to provide the flow rates needed for different plant materials. Tentacles of ¼" distribution tubing, ¼" tubing stakes and bug caps allow for precise water placement.



**Option 5**

The 6-Outlet Manifold provides a centralized water distribution connection for up to six emission devices. Connect the ¼" distribution tubing to one of the outlets. Use a ¼" tubing stake to ensure precise water placement. The emitter is placed on the end of the ¼" distribution tubing to regulate the water flow. NOTE: should the emitter become dislodged, unregulated flow will occur.

\* Preferred installation options, which provide flow regulation at the source.

## Xeri-Bubblers™

### FEATURES

- Ideal for shrub plantings, trees, containers and flower beds.
- Adjust flow and radius by turning outer cap.
- Stream Bubbler (SXB) has wetting patterns of either half-circle, 5 stream or half-circle, 8 stream.
- Umbrella Bubbler (UXB) has a full-circle, umbrella wetting pattern.

### SPECIFICATIONS

**Pressure:** 15 to 30 psi (1.0 to 2.1 bar)

#### Flow:

**SXB Series:** 0 to 13 gph (0 to 49.21 l/h) at 30 psi (2.1 bar); 0 to 8.5 gph (0 to 30 l/h) at 15 psi (1 bar)

**UXB Series:** 0 to 35 gph (0 to 132.48 l/h) at 30 psi (2.1 bar); 0 to 26 gph (0 to 98 l/h) at 15 psi (1 bar)

#### Models:

**SXB-180:** Half-circle, 5 streams, 10-32 thread

**SXB-180-025:** Half-circle, 5 streams, ¼" barb

**SXB-180-SPYK:** Half-circle, 5 streams, 5" spike; includes barb x barb coupler

**SXB-360:** Full-circle, 8 streams, 10-32 thread

**SXB-360-025:** Full-circle, 8 streams, ¼" barb

**SXB-360-SPYK:** Full-circle, 8 streams, 5" spike; includes barb x barb coupler

**UXB-360:** Full-circle, umbrella, 10-32 thread

**UXB-360-025:** Full-circle, umbrella, ¼" barb

**UXB-360-SPYK:** Full-circle, umbrella, 5" spike; includes barb x barb coupler



### HOW TO SPECIFY

| XXX                   | - | XXX               | - | XXX(X)          |
|-----------------------|---|-------------------|---|-----------------|
| MODEL                 |   | PATTERN           |   | CONNECTION      |
| SXB: Stream Bubbler   |   | 180 = Half-Circle |   | 025 = ¼" Barb   |
| UXB: Umbrella Bubbler |   | 360 = Full-Circle |   | SPYK = 5" Spike |

## Xeri-Bug™ Emitters

### FEATURES

- Point-source low-flow emitters Ideal for watering the root zones of shrub plantings, trees and container plants.
- Flow rates of 0.5, 1.0 and 2.0 gph (1.89, 3.79 and 7.57 l/h).
- Outlet barb securely retains ¼" distribution tubing.

### SPECIFICATIONS

#### Operating Range:

**Flow:** 0.5 to 2.0 gph (1.89 to 7.57 l/h)

**Pressure:** 15 to 50 psi (1.0 to 3.5 bar)

**Required Filtration:** 150 to 200 mesh (75 to 100 micron)

#### Barb Inlet x Barb Outlet Models:

**XB-05PC:** Blue, 0.5 gph (1.89 l/h)

**XB-10PC:** Black, 1.0 gph (3.79 l/h)

**XB-20PC:** Red, 2.0 gph (7.57 l/h)

#### 10-32 Thread Inlet x Barb Outlet Models:

**XB-05PC-1032:** Blue, 0.5 gph (1.89 l/h)

**XB-10PC-1032:** Black, 1.0 gph (3.79 l/h)

**XB-20PC-1032:** Red, 2.0 gph (7.57 l/h)

#### ½" FPT Inlet x Barb Outlet Models:

**XBT-10:** Black, 1.0 gph (3.79 l/h)

**XBT-20:** Red, 2.0 gph (7.57 l/h)



### HOW TO SPECIFY

| XB            | - | T                | - | XX                      | - | PC                         | - | XXXX                        |
|---------------|---|------------------|---|-------------------------|---|----------------------------|---|-----------------------------|
| MODEL         |   | OPTIONAL         |   | FLOW                    |   | FEATURE                    |   | OPTIONAL                    |
| XB = Xeri-Bug |   | T = ½" FPT Inlet |   | 05 = 0.5 gph (1.89 l/h) |   | PC = Pressure Compensating |   | 1032 = 10-32 Threaded Inlet |
|               |   |                  |   | 10 = 1.0 gph (3.79 l/h) |   |                            |   |                             |
|               |   |                  |   | 20 = 2.0 gph (7.57 l/h) |   |                            |   |                             |

## 1.5" Inline Commercial Control Zone Kit

### FEATURES

- **High Flow Range:** Allows for larger drip zone coverage with one control zone kit, saving labor cost, material cost and installation hassle.
- **Low Friction Loss:** Allows usage in zones with lower head pressure.
- **Fully Assembled:** Saves installation labor cost by ensuring all key components are included and that the direction of flow in individual components is assembled properly.
- **Inline Configuration:** Fewer connection points, which fits two kits instead of just one in a jumbo valve box. Also provides more access for maintenance and components.

### OPERATING RANGE

**Flow Range:** 15 to 62 gpm (56.8 l/min to 234.69 l/min)

**Inlet Pressure:** 15 to 115 psi (1.03 to 7.9 bar)

**Regulated Pressure:** 40 psi (2.8 bar)

**Filtration:** 120 mesh (130 micron)

**Water Temperature:** 33° F up to 110° F (0.5° C to 43° C)

**Ambient Temperature:** 33° F up to 125° F (0.5° C to 52° C)

### SPECIFICATIONS

#### Dimensions

**XCZ-150-LCS:** 20 3/4" L x 5 3/4" W x 9 1/2" H

**XCZ-150-LCDR:** 23 1/2" L x 5 3/4" W x 9 1/2" H

#### Filtration

**XCZ-150-LCS:** 1 1/2" (3.81 cm) Stainless Steel Screen Filter, 120 Mesh (130 Micron);

**Surface Area:** 42 in<sup>2</sup> (270 cm<sup>2</sup>)

**XCZ-150-LCDR:** 1 1/2" (3.81 cm) Disc Filter, 120 Mesh (130 Micron);

**Surface Area:** 48 in<sup>2</sup> (310 cm<sup>2</sup>)

#### Valve Type

**XCZ-150-LCS:** 1.5" PEB

**XCZ-150-LCDR:** 1.5" PESB-R

**Power:** 24 VAC 50/60 Hz (cycles/sec) solenoid

**Inrush Current:** 0.41A (9.84 VA) at 50/60Hz;

**Holding Current:** 0.14A (3.43VA) at 50/60Hz

**Coil Resistance:** 30-39 Ohms

**Two-wire compatible with ESP-LXD Decoders**

#### Models

**XCZ-150-LCS**

**XCZ-150-LCDR**

#### Replacement Filters

**Disc:** LGFC120MD

**Screen:** LGFC120MS

### U.S. Performance Data

| PRESSURE LOSS CHARACTERISTICS |             |              |
|-------------------------------|-------------|--------------|
| Flow Rate (gpm)               | XCZ-150-LCS | XCZ-150-LCDR |
| 15                            | 1.9         | 2.3          |
| 20                            | 2.4         | 3.4          |
| 25                            | 4.1         | 4.9          |
| 30                            | 5.3         | 5.3          |
| 40                            | 7.4         | 8.0          |
| 50                            | 13.6        | 14.4         |
| 60                            | 20.7        | 20.7         |

### Metric Performance Data

| PRESSURE LOSS CHARACTERISTICS |             |              |
|-------------------------------|-------------|--------------|
| Flow Rate (l/h)               | XCZ-150-LCS | XCZ-150-LCDR |
| 56.8                          | 0.13        | 0.16         |
| 75.7                          | 0.17        | 0.23         |
| 94.7                          | 0.28        | 0.34         |
| 113.6                         | 0.37        | 0.37         |
| 151.4                         | 0.51        | 0.55         |
| 189.3                         | 0.94        | 0.99         |
| 227.1                         | 1.43        | 1.43         |



XCZ-150-LCS



XCZ-150-LCDR



## Large-Capacity Filters

### FEATURES

- Provides extra large filtration capacity for residential, commercial and municipal applications.
- Durable filters can be easily removed for cleaning. Disc filters can decompress for easy cleaning.
- Auxiliary connection with a threaded cap can be drilled to allow draining or depressurization.

### OPERATING RANGE

#### 1" Model:

**Maximum Flow:** Up to 26 gpm (6 m<sup>3</sup>/hr)

**Disc Filtering Surface:** 28 in<sup>2</sup> (180 cm<sup>2</sup>)

#### 1.5" Model:

**Maximum Flow:** Up to 62 gpm (14 m<sup>3</sup>/hr)

**Disc Filtering Surface:** 48 in<sup>2</sup> (310 cm<sup>2</sup>)

**Screen Filtering Surface:** 42 in<sup>2</sup> (270 cm<sup>2</sup>)

#### 2" Model:

**Maximum Flow:** Up to 110 gpm (25 m<sup>3</sup>/hr)

**Disc Filtering Surface:** 81 in<sup>2</sup> (525 cm<sup>2</sup>)

**Screen Filtering Surface:** 75 in<sup>2</sup> (485 cm<sup>2</sup>)

**Maximum Pressure:** 116 psi (8 bar)

**Maximum Temperature:** 140° F (60° C)

### MODELS

**LCRBY100D:** 1" Large-Capacity Disc Filter

**LCRBY150S:** 1.5" Large-Capacity Screen Filter

**LCRBY150D:** 1.5" Large-Capacity Disc Filter

**LCRBY200S:** 2" Large-Capacity Screen Filter

**LCRBY200D:** 2" Large-Capacity Disc Filter

#### Replacement Filters:

**LGFC120MS:** 1.5" – 2" Screen Filter

**LGFC120MD:** 1.5" – 2" Disc Filter

### SPECIFICATIONS

#### Inlet/Outlet Size:

**1" Models:** 1" NPT

**1.5" Models:** 1.5" NPT

**2" Models:** 2" NPT

### FILTRATION

**Stainless Steel Screen Filter:** 120 mesh (130 micron)\*

**Plastic Filter Discs:** 120 mesh (130 micron)

\*Screen not available in 1" model.

**NOTE:** Filter should be installed downstream of valve.



### Disc Filter Pressure Loss Characteristics

| Flow Rate |        | 1" Filter |      | 1.5" Filter |      | 2" Filter |      |
|-----------|--------|-----------|------|-------------|------|-----------|------|
| gpm       | l/m    | psi       | bar  | psi         | bar  | psi       | bar  |
| 5         | 18.93  | 0.60      | 0.04 | 0.08        | 0.01 | 0.10      | 0.01 |
| 11        | 41.67  | 1.16      | 0.08 | 0.18        | 0.01 | 0.10      | 0.01 |
| 22        | 83.33  | 2.61      | 0.18 | 0.40        | 0.03 | 0.10      | 0.01 |
| 33        | 125.00 | 4.35      | 0.30 | 0.73        | 0.05 | 0.24      | 0.02 |
| 44        | 166.67 | —         | —    | 1.05        | 0.07 | 0.40      | 0.03 |
| 55        | 208.33 | —         | —    | 1.50        | 0.10 | 0.60      | 0.04 |
| 66        | 250.00 | —         | —    | 2.18        | 0.15 | 0.82      | 0.06 |
| 77        | 291.67 | —         | —    | 3.10        | 0.21 | 1.10      | 0.08 |
| 88        | 333.33 | —         | —    | 3.95        | 0.27 | 1.60      | 0.11 |
| 99        | 375.00 | —         | —    | —           | —    | 2.03      | 0.14 |
| 110       | 416.67 | —         | —    | —           | —    | 2.47      | 0.17 |



#### Plastic Filter Discs:

These filters are made up of over a hundred grooved discs that allow water to pass while trapping debris. Less maintenance required due to large surface area.

### Screen Filter Pressure Loss Characteristics

| Flow Rate |        | 1" Filter |      | 1.5" Filter |      | 2" Filter |      |
|-----------|--------|-----------|------|-------------|------|-----------|------|
| gpm       | l/m    | psi       | bar  | psi         | bar  | psi       | bar  |
| 5         | 18.93  | 0.80      | 0.06 | 0.00        | 0.00 | 0.00      | 0.00 |
| 11        | 41.67  | 1.74      | 0.12 | 0.00        | 0.00 | 0.00      | 0.00 |
| 22        | 83.33  | 2.90      | 0.20 | 0.50        | 0.03 | 0.20      | 0.01 |
| 33        | 125.00 | 4.06      | 0.28 | 0.95        | 0.07 | 0.25      | 0.02 |
| 44        | 166.67 | —         | —    | 1.45        | 0.10 | 0.44      | 0.03 |
| 55        | 208.33 | —         | —    | 1.89        | 0.13 | 0.60      | 0.04 |
| 66        | 250.00 | —         | —    | 2.32        | 0.16 | 0.87      | 0.06 |
| 77        | 291.67 | —         | —    | 2.76        | 0.19 | 1.16      | 0.08 |
| 88        | 333.33 | —         | —    | 3.19        | 0.22 | 1.45      | 0.10 |
| 99        | 375.00 | —         | —    | —           | —    | 1.89      | 0.13 |
| 110       | 416.67 | —         | —    | —           | —    | 2.32      | 0.16 |



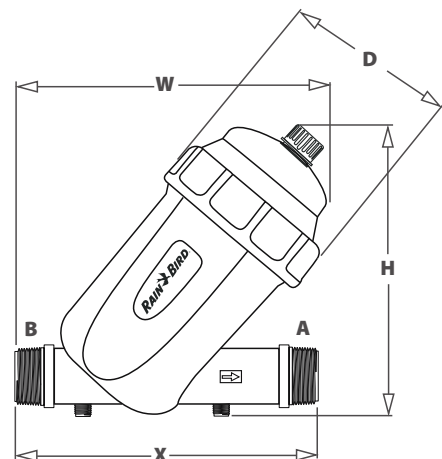
#### Screen Filter:

The 120 mesh screen filters are easy to clean and provide reliable filtration.

**NOTE:** Filter should be installed downstream of the valve to prevent the filter from being under constant pressure.

### Filter Housing Dimensions

| Model        | A, B     | H               | W                | X                | D               |
|--------------|----------|-----------------|------------------|------------------|-----------------|
| 1" (2.5 cm)  | 1" NPT   | 6.81" (17.3 cm) | 7.48" (19.0 cm)  | 6.22" (15.8 cm)  | 3.27" (8.3 cm)  |
| 1.5" (3.8cm) | 1.5" NPT | 9.53" (24.2 cm) | 10.25" (26.0 cm) | 9.92" (25.2 cm)  | 5.67" (14.4 cm) |
| 2" (5.1 cm)  | 2" NPT   | 9.76 (24.8 cm)  | 10.63" (27.0 cm) | 10.51" (26.7 cm) | 5.67" (14.4 cm) |



## ESP-9V Battery-Operated Controller

### FEATURES

#### Controller Features

- Waterproof case ensures long life, even when installed in a valve box.
- Common programming features are easily accessed on one screen, making programming quick and easy.
- Operates for approximately one full year using one 9-volt alkaline battery, or two years with two 9-volt alkaline batteries.
- Large LCD display with easy to navigate user interface.
- Sensor input with bypass override.
- Mast valve/pump-start circuit (multi-zone units only).
- Non-volatile (100-year) program memory.
- IP68 certified for protection against dust and water intrusion.
- Plastic controller case has outstanding resistance to weather, yellowing and aging.

#### Scheduling Features

- Dedicated manual watering button for easy operation.
- Automatic zone-stacking ensures that only one valve irrigates at the same time. ESP-9V will automatically irrigate the lower number zone first if zones are scheduled to water at the same time.
- Contractor Rapid Programming™ automatically copies the start times and watering days from zone 1 to all remaining zones at initial setup.
- Run times, start times, and watering days are customizable by zone.
- 6 start times per zone.
- 4 watering day options per zone: Custom days of the week, Cyclic, and ODD or EVEN calendar days.
- Delay watering (1 to 9 days).

### VALVE COMPATIBILITY

- Rain Bird K80920, Hunter 458200, Irritrol DCL, Toro DCLS-P

### MODELS

**ESP9V1:** 1-Zone ESP-9V Controller

**ESP9V2:** 2-Zone ESP-9V Controller

**ESP9V4:** 4-Zone ESP-9V Controller

**ESP9V6:** 6-Zone ESP-9V Controller

**ESP9V1SOL:** 1-Zone + 9V Solenoid

**ESP9VDVKIT:** 1-Zone + 1" DV Valve (SLIP)

**9VMOUNT:** Wall-mount kit

### SPECIFICATIONS

#### Dimensions:

**Width:** 5.35" (13.59 cm)

**Height:** 4.04" (10.26 cm)

**Depth:** 2.42" (6.15 cm)

**Weight:** 2.0 lbs (907 g)

#### LCD Screen Dimensions:

**Width:** 2.25" (5.72 cm)

**Height:** 1.25" (3.18 cm)

#### Optional Wall Mount Dimensions:

**Width:** 4.25" (10.76 cm)

**Height:** 6.93" (17.60 cm)

**Depth:** 1.97" (4.99 cm)

**Weight:** 3.6 oz (107 g)

### CERTIFICATIONS

- cULus, FCC, IC, CE, RCM, IP68, RoHS, WEEE



Optional Wall Mount





## TBOS-BT Battery-Operated Controller



### FEATURES

#### Controller Features

- Operates for approximately one full year using one 9-volt alkaline battery.
- Completely potted to obtain IP68 conformity.
- Independent station operation allows sequential start times (with stacking in case of overlap) restriction compliance.
- Master valve output (on TBOS-II 2, 4, and 6 Control Modules).
- No loss of irrigation program after a battery replacement.
- Backward-compatible with the TBOS-II Field Transmitter.

#### Rain Bird App Features

- Create, review and transmit irrigation programs.
- Capability to set zones or programs to manually irrigate.
- Basic programming includes 3 independent programs A,B and C, each with 8 start times per day.
- Stations can be assigned to several programs with different watering run times.
- Run time is from 1 minute to 12 hours in 1-minute increments.
- Five watering day cycle modes (Custom, even, odd, odd-31, cyclical) selectable by program for maximum flexibility and watering.
- Program and global Monthly Seasonal Adjust; 0% to 300% (1% increments).
- Built-in ID with naming capability. The control module and stations can be individually named.
- Optional passcode.
- Delay watering from 1 to 14 days.
- Permanently turn the controller off to prevent irrigation.
- Battery indicator reports the status of the control module's battery.
- Capability to clear the control module's irrigation program.

### VALVE COMPATIBILITY

- Rain Bird TBOS Potted Latching Solenoid (K80920)
  - DV, DVF, ASF, PGA, PEB, PESB, GB, EFB-CP, BPE and BPES series
- Hunter 458200, Irritrol DCL, Toro DCLS-P

### MODELS

- TBOS-BT1:** 1 Station
- TBOS-BT2:** 2 Station
- TBOS-BT4:** 4 Station
- TBOS-BT6:** 6 Station

### SPECIFICATIONS

#### Dimensions:

- Width:** 3.8" (9.5 cm)
- Height:** 5.1" (13.0 cm)
- Depth:** 2.0" (5.3 cm)
- Weight:** 17.6 oz (500 g)

**Rain Bird App (TBOS-BT):** Available for Android and IOS devices

### ACCESSORIES

- TBOS Potted Latching Solenoid
- RSD Series Rain Sensors
- The TBOS solenoid adapters will adapt the potted latching solenoid for use in retrofit applications with selected Irritrol® (Hardie/Richdel) and Buckner® valves or Champion® and Superior® valve actuators

### CERTIFICATIONS

- cULus, CE, RoHS, WEEE, FCC

