

# Sprinklers and Nozzles

## Spray Head

Pop-Up spray heads offer a broad selection of pop up heights and nozzle combinations for watering shrubs, small lawns and irregularly shaped planting areas. Precision spray heads and nozzles customize your watering system to cover virtually any configuration lawn or garden - not the sidewalk or driveway!

To accommodate the needs of narrow planting areas and other niche irrigating situations, conventional spray heads offer a variety of specialty nozzles. Specialty models include center and end stripped, corner and side stripped, short radius, and multi-stream.

## High Efficiency Nozzles

The high efficiency nozzle is a truly remarkable innovation with a low precipitation rate, highly uniform distribution, and increased radius range, all in a nozzle which fits on a spray head. Additional water saving advantages include better wind resistance, less misting and virtually no run off.

These nozzles maintain precipitation rates as the radius is changes and can operate at low pressure and offer up to 30% water savings when conventional sprays are replaced with high efficiency nozzles.

Threads onto nearly all spray heads and shrub adapters (male or female)

[RainBird – Rotary Nozzle](#), [Hunter - MP Rotator Nozzles](#), [Toro – Precision Rotating Nozzle](#)

## Stream Rotor

With the ability to deliver even water distribution over larger areas, the stream rotor offers great durability a variety of interchangeable nozzles to match precipitation rates when using all the same type rotor for a particular landscape area.

When used in the right application, the stream rotor allows fewer heads in larger areas to perform more efficiently at a more economical price than your conventional spray head.

## Impact:

The impact sprinkler's long spray radius and uniform water distribution re-creates the effect of natural rainfall. The head is driven in a circular motion by the force of the outgoing water, and at least one arm extends from the head.

The uninterrupted flow path of impact heads makes them less vulnerable to damage and clogging by dirt and sand in the water. Thus, they are suitable for systems fed by well water. One defining feature of impact heads is they almost always have male pipe threads, as opposed to the female threads found on virtually all other sprinkler types.



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## Bubblers:

Bubblers are an above ground water emitter that thread onto a 1/2" riser.

Bubblers are typically used to flood tree wells, shrub beds and flower areas where overhead spraying is not desired.

- Multi Stream Bubbler - Usually come in 1/4, 1/2, and full arc.
- Adjustable Flood Bubbler – Allows for variable flow & can be shut off.
- Pressure Compensating - Keeps the output of water constant regardless of pressure.

**Hunter PCN Bubbler Nozzle** – Fits on a male threaded Pop-Up sprinkler body.

Available in .25, .50, 1.0, and 2.0 GPM (gallons per minute)



## Precipitation Rates:

Maintain the same type of irrigation device for each zone. Each type of sprinkler such as rotary head, spray head, drip emitters, and bubblers applies water at a different rate, so if they are mixed on the same zone it is almost impossible to get even coverage throughout the zone.

**Example:** A full-circle head should apply twice as much water as a half-circle of the same radius.  
Use a 3 GPM nozzle on a full circle and a 1.5 GPM nozzle on a half circle.

## Check Valves:

The drain check valve keeps lines from draining when the system is shut off. This saves water, reduces liability, and increases system life. Sprinklers can be bought with a check valve already built in.

## Filters:

Check your sprinkler filters and keep them clean. Plugged nozzles can have a big impact on water distribution and uniformity as can debris in a rotor type head that prevents it from rotating. It may be necessary to install a filter on the water source to prevent contaminants from entering the irrigation system.

## Operating Pressure:

High pressure causes misting at the nozzle and much of this fine mist is carried off by the wind and lost. Pressure regulating valves and sprinklers can be added to eliminate this problem. Regulating pressure at the nozzle creates a steady efficient spray thus reducing water waste. Many sprinkler manufactures sell pressure compensating devices built into the sprinkler body to reduce the pressure to 30 or 40 PSI at the nozzle.

## Sprinkler Heads (Maintenance)

Sprinkler heads can be a huge source of water waste yet an easy way to cut usage. Adjusting sprinkler heads (nozzles) to avoid over spray on sideways and buildings can save multiple gallons per day or more. Keep vegetation cleared from around heads to minimize interference with the spray pattern.

Replace broken and missing sprinkler heads. A missing sprinkler can lose more than 12 gallons per minute.

You can have a well designed and installed irrigation system, but  
If it's not maintained and repaired properly it won't save water.