For the Answer, Rain Bird Turned to Modern Science and Technology

When designing new products, Rain Bird uses the most advanced computer software and engineering techniques available. In developing the new RD1800™, engineers conducted extensive research on the composition of reclaimed water and how it affects spray heads. They then created tests to accelerate degradation and simulate real world conditions. They compared test samples with recovered field samples to correlate the acceleration level with actual exposure duration.

In engineering the RD1800, Rain Bird optimized the design and function of components to withstand stress, maximize performance in high pressure operation and stand up to chemical degradation. Based on key findings from testing and analysis, Rain Bird engineers carefully selected new materials, creating innovative designs and water saving features.
Engineered for the World’s Most Daunting Landscapes

The results of this precision engineering can be seen in the RD1800’s impressive array of new features. Here are a few of the highlights:

- The RD1800 features a precisely engineered, exclusive Triple-Blade Wiper Seal. The top seal flushes during pop-up and wipes the stem clean during retraction, preventing external debris from entering the spray head. During operation, the primary seal combines with the stem’s surface to eliminate flow-by. The exclusive Third Blade provides another line of defense, in case the primary seal is damaged.

- The RD1800 Series is designed with reclaim water resistant materials such as EPDM and Polyester. These materials resist degradation caused by chlorine in reclaimed water, ensuring a longer life.

- The RD1800’s reinforced ratchet mechanism was designed to improve ease of use and consistency, hold its setting over time, withstand years of chlorine exposure and provide greater debris resistance.

- With each system start-up, the RD1800’s unique debris pockets hold grit in place—removing it from circulation and preventing long-term damage.

- The RD1800’s patented pressure regulator increases nozzle efficiency by up to 50% in high pressure applications.

- Exclusive Flow-Shield™ Technology provides up to 90% reduction in water loss when a nozzle is removed, preventing potentially costly and unacceptable run-off in reclaimed water installations, especially in high visibility municipal applications.

- Flow-Shield Technology also improves flushing by preventing large debris particles from being sucked into the spray body. Instead, debris migrates to the end of the lateral line, where it can be completely and permanently flushed from the system.

Comparison Testing Proves the RD1800 More Reliable

Is the new RD1800 ready for the harsh conditions of the modern landscape? Judging from comparison testing with competitive sprays, the answer is a definitive “yes.”

This comparison test shows average cycles to failure for competitive 4” spray head models including check valves and 30 psi pressure regulation. Each cycle consists of 30 seconds on at 100 psi and 30 seconds off. Tested to failure is defined as damage or non-correctable leaks. Tests conducted at Rain Bird Product Research Center in Tucson, AZ.

This comparison test also shows average cycles to failure for competitive 4” spray head models including check valves and 30 psi pressure regulation. Each cycle consists of 3 seconds on at 200 psi and 2 seconds off. Tested to failure is defined as damage or non-correctable leaks. Tests conducted at Rain Bird Product Research Center in Tucson, AZ.

Designed and built using modern technology, the Rain Bird® RD1800 is the first and only spray capable of solving today’s landscape challenges. You can learn more about this innovative product at www.rainbird.com/RD1800.