

INSTALLATION, MAINTENANCE & USER GUIDE

Installation, Maintenance and User Guide for Aqua Burst® Full Circle Impact Sprinklers

Operation of the Spoon-Driven Sprinkler

- ◆ Pressurized water passes through the bearing and sprinkler body, exiting through the nozzle onto the sloping vane. The water is then directed through the arm window into the curve of the spoon, creating a reactionary force.
- ◆ The reactionary force of the pressurized water leaving the spoon forces the arm out of the stream and away from the nozzle.
- ◆ The tension of the arm spring then pulls the arm back into its original position. During this process the impact is increased by the angle of the leading edge of the sloping vane causing the sprinkler to move a small degree of travel so that the rotation of the sprinkler is relatively slow and uniform (one-half to three minutes per revolution, depending on the model, pressure and nozzle size).

Common Causes of Impact Sprinkler Failure

1 - Foreign objects in water causing nozzle to become plugged

Remove and clean nozzle, then reinstall. Brass nozzles plugged with soft materials may be removed by inserting a wire to dislodge plug as long as care is used not to scratch the internal bore of the nozzle.

2 - Oils or Pipe Dope

Most Aqua Burst® sprinklers come with **pre-applied XC-33 thread sealant** and require no other sealant during installation. All Aqua Burst® impact sprinklers are water-lubricated. Never use additional lubricants such as oil, grease, anti-seize or pipe dope on bearing assembly or arm. Doing so will damage sprinkler and will *void warranty*. **Teflon tape, properly installed, is the only other recommended thread sealant.**

3 - Improper Pressure

Always operate sprinkler within its recommended normal pressure range. Operation of sprinkler outside of its intended performance range may cause premature wear or crop damage and will *void warranty*. (See Aqua Burst® nozzle performance charts for working pressure ranges).

4 - Worn and Improper Nozzle Sizes

Aqua Burst® Impact Sprinklers are only guaranteed to function optimally with recommended nozzle sizes and types for each individual model. Only use recommended nozzle sizes and types for each model. Using improper size and type may cause excessive wear or sprinkler failure, inaccurate water distribution and/or crop damage and will *void warranty*. (See Aqua Burst® nozzle performance charts for proper nozzle selection).

5 - Crushed Bearing Sleeve

Avoid over-tightening sprinkler into riser or fitting during installation. Most Aqua Burst® sprinklers come with **pre-applied XC-33 thread sealant**. Over-tightening can cause the outer bearing sleeve to crush into the inner bearing spindle causing the bearing to bind and fail to rotate. In addition, over-tightening makes removal and replacement difficult and may require professional assistance.

6 - Avoid Incompatible Fittings

Avoid fittings that can come into contact with sprinkler bearing spindle. Some fittings have a shoulder that can interfere with the bearing spindle and cause the sprinkler to seize and fail.

7 - Over-tightening

Avoid over-tightening nozzle and sprinkler bearing nut during installation. An over-tightened nozzle will be very difficult to remove and replace. Never use a wrench or sprinkler wrench that can crush the bearing while installing or removing the sprinkler. Most Aqua Burst® sprinklers come with **pre-applied XC-33 thread sealant** and do not require sprinkler to be over-tightened during installation.