

## EVOLUTION



1970



1980



1990

## REVOLUTION



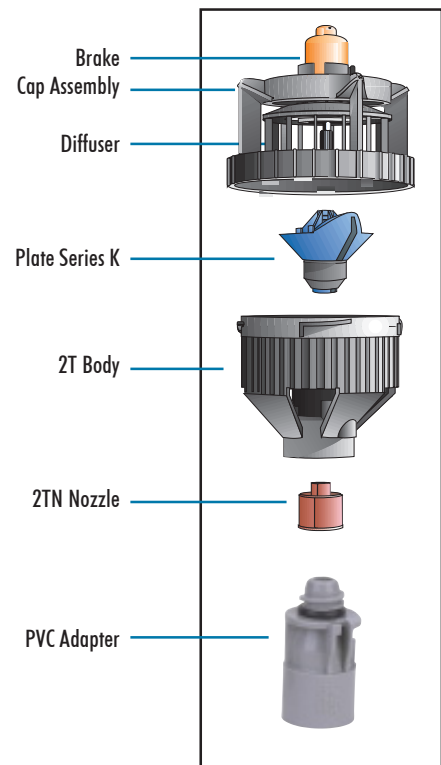
1996+

The impact sprinkler is almost the same as it was 30 years ago. The question is “will technology that is 30 years old help you today?”

The Rotator is a sprinkler that is designed and produced by Nelson Irrigation Corporation. It has the latest technology and is has been proven in many countries around the world. The sprinklers are called Rotators because they rotate slowly and smoothly.

Each Rotator model has a nozzle, a body, a plate and a brake. The water goes through the nozzle and then through a curved groove in the plate. This produces a reactionary force so the plate rotates when there is water pressure.

The brake contains silicon and is connected to the plate by a shaft. The purpose of the brake is to slow the rotation speed in order to obtain the maximum radius of throw. If the plate rotates rapidly the radius would be much less.



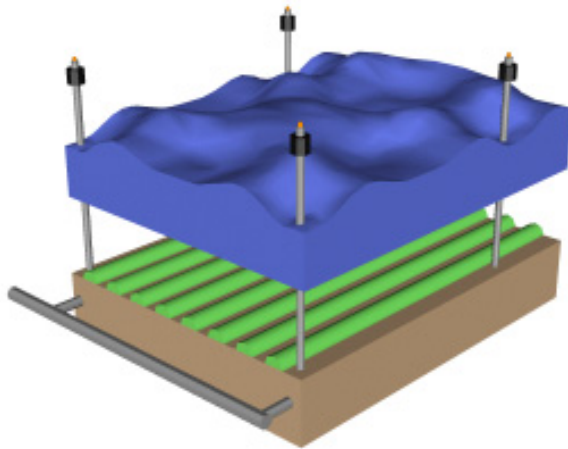
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**ADVANTAGES.** The R2000 Rotator has many advantages over an impact sprinkler.



### RELIABILITY

The Rotator has no moving parts like seals and bearings exposed to the water pressure so there is less wear especially when there is silt or sand in the water. Nelson has been making Rotators for over 10 years and some models have been used for more than 10,000 hours.

### OPERATION

The Rotator turns slowly and smoothly. There is no arm so the weeds cannot stop the rotation. There is no vibration of the sprinkler and riser. Impact sprinklers have rotation problems when there is vibration or high pressure. Vibration causes wear and also reduces the radius of throw.

The design of the Rotator is strong and compact. There are fewer breakages when the banana stems fall on the sprinklers. Impact sprinkler arms are particularly vulnerable to breakage.

### FLOW CONTROL NOZZLE

There are two nozzle options, the plastic nozzle and the Flow Control Nozzle. With the Flow Control Nozzle, the flow is the same between 30 psi and 60 psi. If there are elevation differences or slopes the pipe layout and sizes can be simpler. It is also not necessary to buy, install and maintain pressure regulators for each lateral. Often it is also not necessary to buy and maintain pressure reducing pilots on the control valves. If the pressure for a zone close to the pump is higher, the flow from the Rotators will be the same.

### ANTI THEFT

The R2000 model has three parts to help prevent theft.

- The PVC adapter is glued to the riser. It is not possible to remove it.
- There is a screw to fix the Rotator body to the PVC adapter. It is not possible to turn the body off the adapter.
- There is a lock to secure the cap assembly to the Rotator body. It is not possible to remove the cap assembly.
- There is a special tool that is used to release the screw and lock in order to service the R2000.

### NELSON PVC ADAPTER

The Nelson PVC adapter has other advantages.

- The Nelson PVC adapter is included in the price of the R2000 and it is not necessary to buy the standard PVC adapter for each riser.
- The Nelson PVC adapter is available in 1/2" 3/4" and 25mm
- It is not necessary to cut the riser to service the R2000.

### UNIFORMITY

The R2000 Rotator has a diffuser with fingers to distribute the water along the radius of throw. When the stream of water goes between the diffuser fingers it reaches the maximum radius. When the stream of water hits a diffuser finger the water is applied closer to the Rotator. This results in very good uniformity.

Each time the plate completes a rotation the diffuser is displaced 1/17<sup>th</sup> of a turn. This means that the diffuser fingers are not in the same position all the time.

The combination of the diffuser and the very good radius produce excellent uniformity. For example, a spacing of 11m x 12m has a coefficient of uniformity greater than 80%. The distribution curve is like a slope. The distribution curve from an impact sprinkler is like a valley between two hills. When a slope is overlapped, the uniformity is excellent. When the distribution curve from an impact sprinkler is overlapped, the uniformity is not so good.



Road Guard



Security Tool