

the original  
**BIG GUN®**  
 SPRINKLER

# ARENA DUST CONTROL



## Why choose a Nelson Big Gun®

- The **Big Gun®** name is synonymous with the best quality available.
- **Heavy-duty construction** ensures long wear life & reliability.
- **Greatest range of options.** Full & part-circle sprinklers available in a variety of trajectory, nozzle & coating options.
- **Valve combinations available** for maximum system efficiency.
- **Easy to operate, maintain and repair** with readily available parts and documentation.

## Advantages for Arena Applications

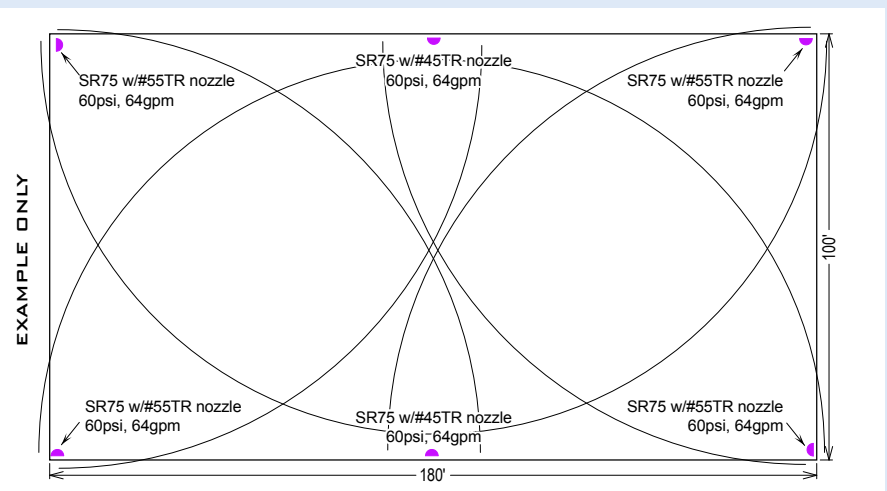
- High degree of portability/flexibility.
- Sprinklers on the perimeter create less obstacles.
- Optional Quick-Coupling Valve provides:
  - extremely low friction loss
  - super smooth opening & closing
  - ability to easily remove sprinkler after irrigation and cover valve box.



SR100  
 BIG GUN®

## OPEN ARENAS

In an open arena, a sprinkler for quick and effective dust control is a must. Nelson Irrigation Corporation has designed the Big Gun Sprinkler for just this type of application. In fact, Big Gun Sprinklers have been settling dust in feedlots, arenas and mines for over 30 years. Please review the following for more information on how to apply Nelson Big Gun Sprinklers in your Dust Control project.



## CONSIDERATIONS:

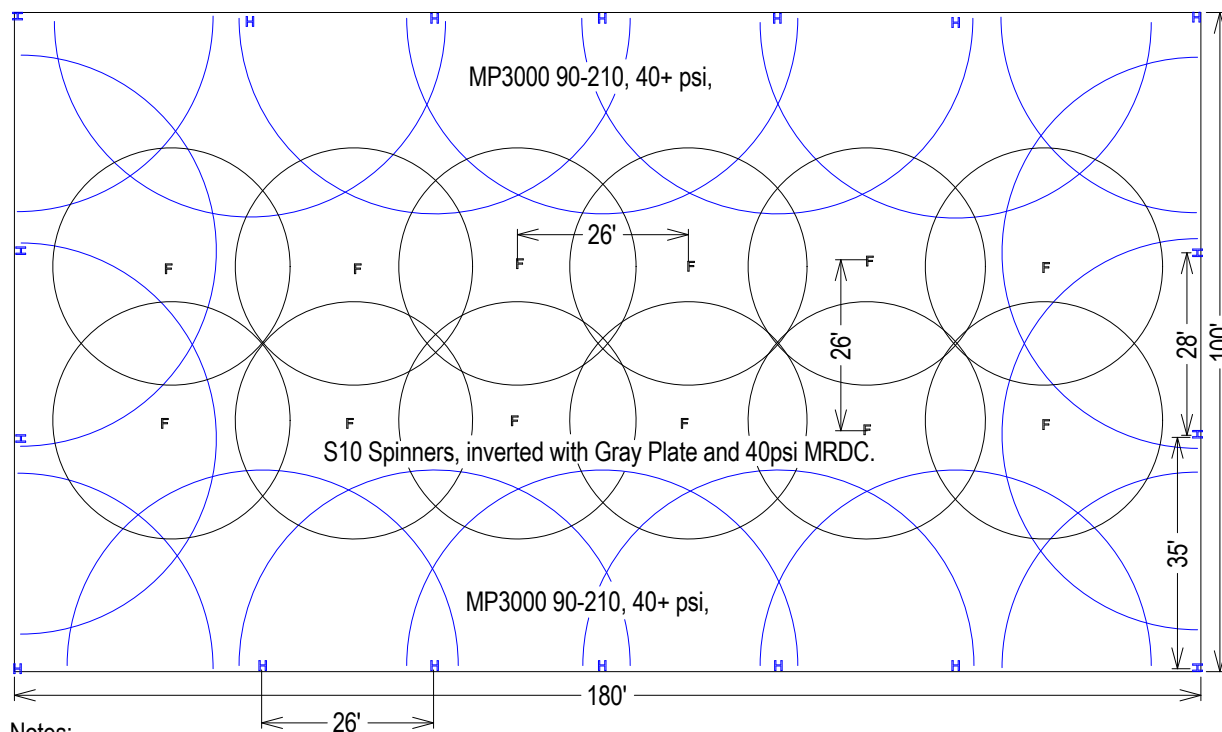
- Thrust and vibration generated during the operation of a Big Gun Sprinkler requires a solid sprinkler mount.
- Since many Big Gun installations in arenas have the sprinkler mounted above the fence, care should be taken to ensure the stability of the sprinkler riser and safety of arena users and animals. A Big Gun mounted on the cart of a Hard-Hose Traveler may be an option.
- Stream Height of Big Gun Sprinklers should be considered when placing sprinklers near overhead obstacles.
- Providing adequate pressure and flow for Big Gun systems is very important.
- Big Guns mounted on the Nelson 2" Quick Coupling Valve can be moved manually from location to location, or for permanent installations mount them on Nelson 800 Series valves.

# DUST CONTROL *for Indoor Arenas*



For a Dust Control System with maximum flexibility in a covered or indoor arena, use S10 Spinners in the center of the arena and MP Rotators around the perimeter. By using this type of system, the zone sizes can be designed to fit your water supply and you can have the option to run the perimeter and center zones separately. The use of more small heads in an environment like this will help in keeping water out of overhead obstructions, and easily fit the shape of the arena while giving you the opportunity to match water application rates to reduce wet spots.

EXAMPLE ONLY



Notes:  
 Separate zones for center and perimeter areas.  
 Center area suspended from sufficient supports  
 and pipes in rafters or roof.

This sample design is based on a common area size.  
 Adjust your design to fit as needed.

This system layout could consist of 3 zones.  
 Two zones of Spinners, 22gpm each zone.  
 One zone of MP3000 along the perimeter, 29gpm.  
 Your system flow rates, piping layout and  
 head spacing may be different.

H MP Rotaor, MP3000 90-210 in body, mounted along railing.  
 F S10 Spinner with Gray plate, #18 nozzle,  
 suspended with MRDC at 40psi.

Nelson Irrigation Corporation  
 Sample Arena Dust Suppression  
 Sample MP3000/S10 Design

Designer:  
 Date: 05 December 2006  
 Scale: 1" = 20'  
 File: Arena Dust Suppression

## CONSIDERATIONS:

- Mini-Regulators with Drain Check in the center zone, and putting the MP Rotators in bodies with pressure regulators and drain checks should be considered for system where high pressure or head drainage would be objectionable.
- Systems with Drain Checks are susceptible to freeze damage. Facility for draining may be needed in areas where freezing can occur.
- Overhead inverted sprinklers should be placed on drop tubes to keep water from any structure that may be damaged. Using the FT4 Feedtube assembly and the #9987 clip holding the stake to a cross wire for stabilization is recommended. Other options including poly, steel or PVC drops may also be considered depending on the specific site.

**WARRANTY AND DISCLAIMER:** Nelson Big Gun® Sprinklers are warranted for one year from date of original sale to be free of defective materials and workmanship when used within the working specifications for which the products were designed and under normal use and service. The manufacturer assumes no responsibility for installation, removal or unauthorized repair of defective parts. The manufacturer's liability under this warranty is limited solely to replacement or repair of defective parts and the manufacturer will not be liable for any crop or other consequential damages resulting from defects or breach of warranty. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSES AND OF ALL OTHER OBLIGATIONS OR LIABILITIES OF MANUFACTURER. No agent, employee or representative of the manufacturer has authority to waive, alter or add to the provisions of this warranty, nor to make any representations or warranty not contained herein.

This product may be covered by one or more of the following U.S. Patent Nos. 3,744,720, 3,559,887 and other U.S. Patents pending or corresponding issued or pending foreign patents.



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