



# Q&A

## Don't be a block head about blocking your heads

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### Have Questions?

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**I** am designing a high school soccer field and would like to know if you have any recommendations for the irrigation layout?

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**Y**ou bet, I definitely have an opinion on field irrigation layout. Most of the time the irrigation design company is given a block of land or soccer field and they are asked to design a system which provides the most efficient coverage of water with the least amount of cost. Let me offer a few suggestions that your client may not have considered, but will certainly improve their ability to manage the grass.

Solicit specific irrigation needs from the owner and offer suggestions if they have none. The most obvious need that is often overlooked is site specific irrigation within the field. In the turf business we are programmed to make uniform applications, and what would be more uniform than applying an equal amount of water over the entire field with a distribution uniformity greater than 85 percent?

There's one problem with this scenario: Most intensely trafficked sports fields are anything but uniform. The high traffic areas of the field will need special management to keep repairing the worn areas. Additional management will include

cultivation, topdressing, soil amendments, seeding and sodding.

The irrigation design should be flexible enough to water the intense traffic areas separately from the rest of the field, especially when you are trying to get seed or sod established in the worn areas of the field. Most fields have a block irrigation system with 3 to 5 heads on a valve. The heads are often blocked without regard for the wear pattern that will develop on the field. Watering to meet the needs of the grass will result in excessive water and muddy conditions on exposed soil areas where less water is needed. Adequate grass that is frequently irrigated from this same block can lead to over irrigation and an increase in problems associated with disease and shallow rooting.

Heads used for sports turf have a very small amount of surface exposure to reduce potential contact with athletes. Consequently there are no valve-in-head systems for sports turf. A system from Toro, Hunter, Rainbird and the rest, there's a product that would set you apart from your competition: A valve-in-head for athletic fields that will provide single head water control—where you want it, when you want it.

Here are some irrigation design considerations that give the sports turf manager an edge on supplying water just where they want it.

#### General tips

\* The small additional cost of more pipe and a few extra valves or heads will be money well spent to develop a

more flexible system.

\* Consider fast rotor heads that can syringe or supply small amounts of water when frequently watering new seed or sod.

\* Place heads close enough to the field so that portable bleachers don't cover heads and disrupt spray pattern.

\* Provide a direct line of site between field and controller.

#### Soccer

\* Block heads separately to water goalie boxes.

\* Consider the diamond wear pattern created by soccer when blocking the remaining heads on the field.

#### Football

\* No heads in the center of the field because that's where they rut it out.

\* Zone a block system to match traffic patterns, i.e. special zones for field center and bench areas.

Head spacing and water delivery rate should not be compromised. Instead, try to match the irrigation blocks according to areas of the field that will have similar watering requirements. The irrigation controller and timer can then be used to determine how often and how much water each block receives. Some of the design companies that I have worked with readily adopt this approach of placing the heads with the grounds manager in mind, while still maintaining uniform coverage of the entire field. Others have a little trouble thinking outside of the box, or should I say "outside of the conventional block."

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