



## POSA Synthetic Turf Highlight: Proper Maintenance Equipment

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The sports turf industry has seen a large increase in the number of synthetic turf fields over the last decade. Unlike the first and second generations of synthetic turf, third generation playing fields have longer fibers and are filled with rubber, sand, or a mixture of both to reduce the hardness of the playing surface. One of the characteristics that turf manufacturers boasted about this new turf was that it was maintenance free. Now after seeing many fields that are 6-8 years old that have not been maintained, these same manufacturers are admitting that there needs to be a degree of maintenance done to prolong the life of the field and keep them aesthetically pleasing. The most disappointing thing to the sports turf manager is that many manufacturers also suggest that only they or one of their installers can properly maintain the carpet. But the bottom line is that we vacuum our carpet at home, so why can't we clean and groom our carpet at work?

**T**o better understand the maintenance required of today's synthetic fields, one must understand the basic construction of the synthetic playing surface. It consists of fibers or carpet, the infill (sand or rubber), backing material, a choker stone layer, open grade and soil. It may sound complicated, but in essence the fields are not all that different from your typical household carpet.

In order to select the proper maintenance machine for your field you must remember three basic components of field preservation:

- Keep the surface free of debris.
- Keep the fibers in an upright position.
- Keep the infill free of compaction.

### **A Debris-Free Surface**

To keep the surface free of debris, obviously it must be removed. Organic mate-

**SYNTHETIC TURF**  
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rial such as leaves should not be allowed to remain on the surface for any length of time. They can start to decompose and move into the infill system, which can impede field drainage. Some companies may

instruct the owner to use a brush or backpack blower to remove the material from the surface. This may work for larger items, but when small debris such as sunflower seeds are a problem, a blower just moves the pollutant from one spot to another. To properly remove debris, it is recommended to use a mechanical sweeper or vacuum to collect and remove the material. The amount of maintenance needed varies from location to location, but clearly a maintenance machine must be well maintained and the instructions must be followed carefully so as to not cause any damage to the playing surface.

**TIP: Make a maintenance schedule and log all activity.**

### Upright Fibers

Regular grooming is a must to keep the carpet fibers in an upright position. If an artificial playing surface is not groomed regularly with a proper drag brush, the surface will become slick and the fibers will wear prematurely. If the fibers are allowed to lay over and remain bent too long, they may be difficult to stand upright again so they need regular attention. A drag brush can easily be found that can be used behind any power unit, including small tractors, utility vehicles, golf carts or even small mowers. Dragging will improve footing, redistribute infill, reduce static electricity, and improve the look of the playing surface.

**TIP: Pick a drag brush that is designed specifically for synthetic playing surfaces.**

### Zero Compaction

Just like natural turf, all types of infill become compacted over time. Through research, we know that GMAX ratings or surface hardness (measured with a Clegg drop hammer) over 200 pose greater risks for athletes. To reduce compaction levels, it is imperative to use a drag brush with spring tines to loosen the infill mix. Infill mixes that use sand, or a sand/rubber mix, tend to see higher GMAX levels due to their design. They use sand not only as a weighted base, but to make the infill stiffer for a faster and harder playing surface.

**TIP: Always put a rope through the spring tines in case one comes loose or breaks.**



Courtesy of ORFA (top & bottom)

### Maintenance Budget

When planning your purchases, make sure to include the price of these three machines for proper maintenance. The maintenance of a playing surface is a program that will not only provide a better looking and safer playing surface, but it is also an investment to ensure a longer life for your synthetic playing surface.

Although many turf manufacturers still stand by the “no maintenance” needed mantra, it is likely that most educated buyers have seen past that fallacy when budgeting for new synthetic sports fields. When looking to purchase a synthetic field remember to ask these key questions before making your decision:

- Can I do my own maintenance?
- Is there a recommended maintenance program?
- Is there a recommended or approved list of maintenance equipment?



As stated previously, many turf manufacturers will suggest that only they or their installers can maintain a synthetic field. Many have an approved list of machines that can be used on their fields that you can buy only from them which limits your choices and increases your costs. Some companies have clauses that restrict users by hours of use, maintenance schedules and other items such as improper footwear. When gym class, band practice and actual game time is added up, it not only voids the warranty, but shortens the life of a playing field. All this must be considered when budgeting for a new synthetic sports field.

**TIP: Look closely at manufacturer warranties before making a buying decision.**



Courtesy of OPA