

Regular maintenance | Specialist maintenance
Vehicles on the surface | Recommendations



Maintenance Manual
Artificial football pitches
Desso Sports Systems

Desso
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engineered to move you

Table of Contents

■ 1 Regular maintenance; carried out by user/owner	p 4
Remove weeds	
Remove moss, soil, leaves and pine needles	
Remove canteen waste	
Brush or drag mat	
Keep infill loose	
Monitor lines and seams	
Monitor penalty spot and goal area	
■ 2 Specialist maintenance; carried out by trained maintenance engineers	p 6
Check infill, seams, lines and accessories	
Treatment with specialist Desso-approved maintenance machine	
Maintenance of pitch surroundings	
■ 3 Vehicles on the surface	p 7
■ 4 Recommendations	p 8
Check drainage	
Vegetation on the pitch	
Holding water	
Snow	



An artificial football pitch needs to be maintained correctly on a regular basis so that it retains the optimum playing characteristics. Such maintenance will also help the pitch last longer. This manual gives information on the most important aspects of maintenance, based on years of Desso Sports Systems' experience.

Maintaining a pitch is a co-operation between the owner/user and specialist maintenance engineers approved by Desso Sports Systems and can be divided into:

- Regular maintenance, carried out by user/owner
- Specialist maintenance, carried out by specialist maintenance engineers

I Regular maintenance

carried out by user/owner

- Remove weeds
- Remove moss, soil, leaves and pine needles
- Remove canteen waste
- Brush or drag mat
- Keep infill loose
- Monitor lines and seams
- Monitor penalty spot and goal area

Remove weeds

Weeds can establish themselves, especially along the sides of the artificial grass. They are best removed by hand, taking care to pull out the roots as well and making sure that the sub-base is not damaged in the process. Weather permitting (sunny and dry weather for at least three days), weeds can also be removed with a biodegradable herbicide.

Remove moss, soil, leaves and pine needles

In autumn, leaves and needles from trees and bushes

will fall on the pitch. If not removed promptly they will work themselves into the artificial grass pitch. This may affect the permeability, as will moss and soiling of the carpet pile.

It is therefore important to remove such debris as soon as possible. This can be done with a synthetic lawn rake, a sweeper or a blower. A blower gives the best result: blow leaves and needles to one side of the pitch, where they can be collected with a lawn rake and removed. Take care not to point the nozzle too 'deep'.

When using machines with engines make sure they do not leak oil as it is very difficult to remove oil from artificial grass. Moreover leaking oil can damage the back of the turf, which can cause the fibres to come loose.

Remove canteen waste

Special care must be taken with 'canteen waste' like glasses, tins, mugs and cigarettes, or fireworks, chewing gum etc... Chewing gum can be best removed by use of a freezing spray.

The majority of soiling of artificial grass is caused by the

players themselves.

To prevent this it is desirable that players wipe their feet thoroughly before entering the pitch area. This can be done in several ways, for instance:

- a dirt sluice with grids
 - a walk-on - walk-off mat
 - brushes
 - box with shingle combined with a walk-on-walk-off mat.
- Special signs near the gates will draw the players' attention to these regulations.

Brush or drag mat

To keep the amount and the distribution of the artificial grass infill in optimum condition, regular brushing (starting from once a week) with a triangle/rectangular brush and/ or rubber drag mat needs to take place. Brushing or drag matting should be done on a regular basis.

Desso Sports Systems recommends drawing the brushing route on a ground plan. The surface should be brushed in alternating directions. It is not recommended to turn sharply or to stop abruptly. This work



debris on the pitch



leaf-blower



info boarding at the site of the pitch



rubber drag mat



can be carried out in either dry or damp conditions. If a tractor is used, ensure that the wheel pressure is less than 0,75 kg/cm².

Keep infill loose and topped-up

In order to keep the rubber infill loose on top of the sand, brush the pitch every four weeks using a machine such as the KB1000 (Desso maintenance machine), pulled behind a tractor in the same way as a drag mat. This work can also be carried out in either dry or damp conditions. If using a tractor, check the tyre pressure (it MUST be less than 0,75 kg/cm²). The level of the infill should also be monitored and topped-up if necessary to prevent damage to the fibres of the carpet.

Monitor lines and seams

If lines, seams etc. come loose they should be repaired as soon as possible. A loose seam of about 0.5 metre may quickly become several metres unless quick action is taken.

Monitor penalty spot and goal area

Extra attention should be paid to the penalty spot and the goal area: they may require early replacement. Topping up infill is required to prevent damage.

2 Specialist maintenance

carried out by trained maintenance engineers

- Check infill, seams, lines and accessories
- Treatment with specialist Desso-approved maintenance machine
- Maintenance of pitch surroundings

Check infill, seams, lines and accessories

Firstly, the amount of infill is checked, and then a systematic inspection across the width of the pitch is carried out. All seams and tufted-in lines are checked for stability. In addition, accessories like goals, dugouts, flagpoles etc. are checked. If they require repair, or replacement then the necessary arrangements are made. Separate arrangements are made for major repairs. All fences are checked and repaired if necessary.

Treatment with specialist Desso-approved maintenance machine

After inspection, the pitch is treated with a specialist Desso-approved maintenance machine (currently only available in Western Europe).

The treatment consists of

- removing all loose debris with a brush/cleaning unit (paper, leaves, twigs, micro grindings)
- de-compacting the field intensively
- airing the sand

After removing all loose debris, the pitch is ready for the next treatment, which consists of de-compacting it intensively lengthways and also widthways if necessary. This treatment has the following advantages: It allows the structure of the sand/rubber to remain loose, which makes the pitch more pleasant to play on it. The sand is "aired" so moss and weeds get less chance to grow and existing moss is partially or completely removed. Permeability remains optimal which helps prevent soiling of the top layer.

Technical play characteristics such as shock absorption, torsion and energy restitution are restored to optimum.

Maintenance of pitch surroundings

Any pavements adjacent to the pitch are swept clean. On leaving, the walk-on - walk-off mat is checked and put in place, i.e. in front of the gate.

3 Vehicles on the surface

No vehicles with narrow wheels or tyres should run over the surface. All vehicles should be light so as to not form grooves in the surface or compact the sub-base formation. When carrying out maintenance with a vehicle, the grounds person should slow down when manoeuvring and turn in a wide circle to ensure that the wheels/tyres do not dig in. It is suggested that all turning circles are not less than 6 metres and no more than 10 metres in diameter. Type pressure MUST be less than 0,75 kg/cm².



KB1000 Decompacting Machine



lines



maintenance machine



brushing machine



4 Recommendations

- Check drainage
- Vegetation on the pitch
- Holding water
- Snow

Check drainage

Manhole / Collecting pits and drainage pipes must be cleared out on a regular basis (once every 2 years). It is recommended that a specialist maintenance company is employed to do this.

Vegetation on the pitch

Moss/weed killing should take place two or three times a year to ensure that vegetation does not accumulate on the pitch. Pesticides can be used for this, but please check the product with Desso Sports Systems beforehand to confirm its suitability for use on our artificial grass.

Holding water

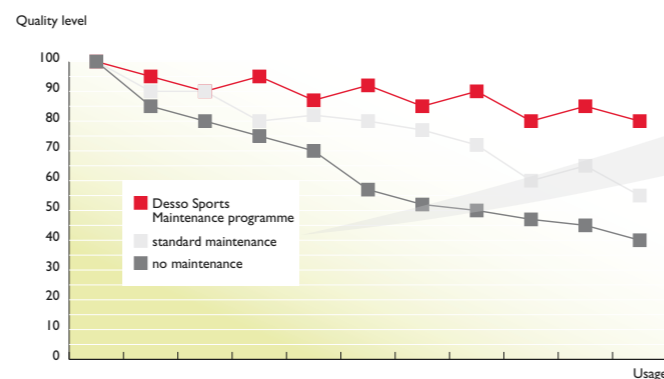
If for any reason the pitch retains water, expert advice should be obtained. Improper maintenance can cause the pitch to suffer from problems with water permeability. If this occurs, it is advisable to contact a specialist at Desso Sports Systems to help solve the problem.

Snow

The removal of snow from the pitch surface is best undertaken with the use of a snow-blower, rather than brushing or snow-ploughing. A blowing "Fraise" will clear the pitch without exerting any pressure. Removal of snow by mechanical action may damage the fibres; pushing snow off the surface will put stress on the seams of the pitch.



snowy pitch



Effects of maintenance on sand-rubber pitch
Indicative graph, based on real life pitch monitoring results

Maintenance Schedule – weekly maintenance


Activities	day 1	day 2	day 3	day 4	day 5	day 6	day 7
Brushing	✓						
Removing debris	✓				✓		
Weed killing	✓				✓		
De-compacting and topping up infill	✓				✓		
Inspecting lines & seams	✓				✓		
Inspecting penalty spot & goal areas	✓	✓	✓	✓	✓	✓	✓

Maintenance Schedule – monthly maintenance

Mois	Weed killing on the pitch	Weed killing in pitch surroundings
January	Min 1 x a month	Min 1 x a month
February	Min 1 x a month	Min 1 x a month
March	Min 1 x a month	Min 1 x a month
April	Min 2 x a month	Min 2 x a month
May	Min 2 x a month	Min 2 x a month
June	Min 1 x a month	Min 1 x a month
July	Min 1 x a month	Min 1 x a month
August	Min 1 x a month	Min 1 x a month
September	Min 2 x a month	Min 2 x a month
October	Min 1 x a month	Min 1 x a month
November	Min 1 x a month	Min 1 x a month
December	Min 1 x a month	Min 1 x a month



Maintenance logbook

Date: _____ www.dessosports.com | info@dessosports.com 

Activities	Equipment used	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Brushing								
Removing debris								
Weed killing								
De-compacting and topping up infill								
Inspecting lines & seams								
Inspecting penalty spot & goal areas								

Notes: _____

Fill in regularly (weekly)
your maintenance logbook



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